From: Luis Rodriguez <lrodriguez@pico-rivera.org>
Sent: Monday, January 11, 2021 10:14 AM
To: Alisha James <james@scag.ca.gov>
Cc: Regional Housing <Housing@scag.ca.gov>; Ma'Ayn Johnson <johnson@scag.ca.gov>; Carmona, Steve <scarmona@pico-rivera.org>; Michael L. Garcia <mgarcia@pico-rivera.org>; Julia Gonzalez <juliagonzalez@pico-rivera.org>; Monica Heredia <mheredia@pico-rivera.org>; Omid Vaziri <ovaziri@pico-rivera.org>; Chen, Nick <[redacted]>; Galmiche, Ines <[redacted]>
Subject: Pico Rivera RNNA Appeal Continuance

Greetings Ms. James,

Thank you for the call this morning to inform us that our appeal has been continued to January 22nd, and that a new notice will be sent out this week. Per our discussion based on the discussions during the appeal hearing this past Friday, attached is the 2015 Urban Water Management Plan supporting our water infrastructure statements during the hearing, and as stated in our appeal. If possible, we will still request a letter from the City's water provider to provide a letter backing our assessment of growth per water allocation and infrastructure, and see if we can submit before the continued hearing.

With respect to the previously submitted Army Corp of Engineer's Environmental Impact Statement for the Whittier Narrow's Dam, the Army Corp submitted the report right around the time SCAG was collecting data from the Cities in the during the April deadline of 2019, and may not had vetted the document in time, but nonetheless, the document exists. It's difficult for me to assess the timeliness of the SCAG document gathering at the time, as I myself was hired with the City in March of last year 2020, and my predecessor was long gone.

Let me know if you have any other questions or if I can be of further assistance.

Have a great day,

Luis Rodriguez Jr. | *Principal Planner*
Community & Economic Development Department | City of Pico Rivera
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FINAL

City of Pico Rivera
Pico Rivera Water Authority
2015 Urban Water Management Plan

Adopted June 28, 2016

Prepared for:

City of Pico Rivera
6615 Passons Boulevard
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Prepared by:

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Abbreviations

Act	Urban Water Management Planning Act
AF	Acre-Feet
AFY	Acre-Feet per Year
APA	Allowed Pumping Allocation
BMP	Best Management Practice
CBMWD	Central Basin Municipal Water District
CDPH	California Department of Public Health
CII	Commercial/Industrial/Institutional
CIMIS	California Irrigation Management Information System
City	City of Pico Rivera
CUWCC	California Urban Water Conservation Council
District	Pico Water District
DMM	Demand Management Measures
DWP	Los Angeles Department of Water and Power
DWR	California Department of Water Resources
ETo	evapotranspiration
FY	Fiscal Year
GIS	Geographical Information System
GPCD	gallons per capita per day
gpd	gallons per day
HCF	hundred cubic feet
HEW	High-Efficiency Washer
LACDPW	Los Angeles County Department of Public Works
LACSD	Los Angeles County Sanitation Districts
MCL	Maximum Contaminant Level
Metropolitan or MWD	Metropolitan Water District of Southern California
mg/L	milligrams per liter
mgd	million gallons per day
PRWA	Pico Rivera Water Authority
PWD	Pico Water District
PWRP	Pomona Water Reclamation Plant
RWQCB	Regional Water Quality Control Board
SB	Senate Bill
SDLAC	Sanitation Districts of Los Angeles County
SJCWRP	San Jose Creek Water Reclamation Plant
SWP	State Water Project
ULFT	Ultra Low Flow Toilet
UMWP	Urban Water Management Plan
WNWRP	Whittier Narrows Water Reclamation Plant
WRD	Los Angeles Gateway Regional Alliance, Water Replenishment District of Southern California
WSCP	Water Shortage Contingency Plan

1.0 Introduction, Overview and Plan Preparation

Since 1984, California's Urban Water Management Planning Act (Act) has required each urban water supplier in the state to prepare an urban water management plan (UWMP). The requirement applies to each urban water supplier that provides water for municipal purposes either directly or indirectly to more than 3,000 customers or supplies more than 3,000 acre-feet (AF) of water annually. These agencies must update their UWMP at least once every five years on or before December 31, in years ending in five and zero. The deadline for submittal of the 2015 UWMP for retail water purveyors is July 1, 2016. Section 10608 (Sustainable Water Use and Demand Reduction) in addition to sections 10610 through 10657 of the California Water Code detail the information that must be included in these plans. In accordance with the Act, the Pico Rivera Water Authority (PRWA) is required to update and adopt its plan for submittal to the California Department of Water Resources (DWR) by July 1, 2016. **Appendix A contains the text of the Act**.

The PRWA utilized DWR's "2015 Urban Water Management Plans Guidebook for Urban Water Suppliers" and Sustainable Water Use and Demand Reduction (California Water Code 10608 et seq.) formerly known as Senate Bill 7-7 (SBX 7-7). California Water Code (CWC) 10608 was passed in November 2009 with the goal of reducing California's urban per capita water use by 20 percent by December 31, 2020 with an incremental goal of reducing per capita water use by 10 percent by December 31, 2015. This UWMP includes projections of PRWA's future demands and supplies, based on estimates of future growth in the PRWA service area. It also discusses the steps PRWA has taken to promote water conservation and ensure water is being used wisely. The strategies outlined in this report are intended to allow PRWA to continue to provide a safe and reliable water supply to its customers.

PRWA maintains its records of water use on a fiscal year (FY) that runs from July 1 through June 30. For example, FY 2015 runs from July 1, 2015 through June 30, 2016. In this document, projections of water demand over the course of a year are reported for fiscal years. For estimates that are based on an instantaneous value and not a year-long accumulation (for example, the service area population), values are assumed to be valid on January 1 of the corresponding year.

1.1 Changes to the California Urban Water Management Planning Act

Minor amendments were made to the Act since preparation of the PRWA's 2010 UWMP, these changes include the following:

- **Demand Management – Measures Water Code Section 10631(f)(1)(2):** Requires water suppliers to provide narratives describing their water demand management measures, as provided. Requires retail water suppliers to address the nature and extent of each water demand management measure implemented over the past 5 years and describe the water demand management measures that the supplier plans to implement to achieve its water use targets.
- **Submittal Date – Water Code Section 10621(d):** Requires each urban water supplier to submit its 2015 plan to the Department of Water Resources by July 1, 2016.
- **Electronic Submittal – Water Code Section 10644(a)(2):** Requires the plan, or amendments to the plan, to be submitted electronically to the department.

- **Standardized Forms – Water Code Section 10644 (a) (2):** Requires the plan, or amendments to the plan, to include any standardized forms, tables, or displays specified by the Department of Water Resources.
- **Water Loss – Water Code Section 10631(e)(1)(J) and (e)(3)(A)(B):** Requires a plan to quantify and report on distribution system water loss.
- **Estimate Future Water Savings – Water Code Section 10631 (e)(4):** Provides for water use projections to display and account for the water savings estimated to result from adopted codes, standards, ordinances, or transportation and land use plans, when that information is available and applicable to an urban water supplier.
- **Voluntary Reporting of Energy Intensity – Water Code Section 10631.2 (a)(b):** Provides for an urban water supplier to include certain energy related information, including, but not limited to, an estimate of the amount of energy used to extract or divert water supplies.
- **Defining Water Features – Water Code Section 10632:** Requires urban water suppliers to analyze and define water features that are artificially supplied with water, including ponds, lakes, waterfalls, and fountains, separately from swimming pools and spas.

According to Water Code Section 10610.2(2), "[t]he 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." **Appendix A contains the text of the Act.**

1.2 Senate Bills 610 and 221: California Water Code Section 10910(g)(3) and Government Code Section 66473.7(b)(2))

Water Code Sections 10910 through 10914 and Government Code Sections 65867.5, 66455.3, and 66473.7 are the commonly referred to as Senate Bills (SB) 610 and 221. These bills amended state law to improve the link between water supply planning and land use decisions made by cities and counties. SB 610 requires that the water purveyor of the public water system prepare a water supply assessment (WSA) to be included in the environmental documentation of certain large proposed projects. SB 221 requires a written verification (Water Supply Verification) from the water purveyor that sufficient water supplies are available for certain large residential subdivisions prior to approval of a tentative map. PRWA's UWMP provides information that will be used in future WSA's and WSV's prepared to meet the requirements of State law.

1.3 Sustainable Water Use and Demand Reduction, Senate Bill 7 of the Seventh Extraordinary Session of 2009

The State Legislature passed Senate Bill 7 as part of the Seventh Extraordinary Session on November 10, 2009, which became effective February 3, 2010. This law, known as the Sustainable Water Use and Demand Reduction was the water conservation component to the Delta legislation package, and seeks to achieve a 20 percent statewide reduction in urban per capita water use in California by December 31, 2020. Specifically, SBX 7-7 from this Extraordinary Session requires each urban retail water supplier to develop urban water use targets to help meet the 20 percent reduction goal by 2020 (20x2020), and an interim water reduction target by 2015.

The SBX 7-7 target setting process includes the following: (1) baseline daily per capita water use; (2) urban water use target; (3) interim water use target; (4) compliance daily per capita water use, including technical bases and supporting data for those determinations. In order for an agency to

meet its 2020 water use target, each agency can increase its use of recycled water to offset potable water use and also step up its water conservation measures. The required water use targets for 2020 and an interim target for 2015 are determined using one of four "Target" methods – each method has numerous methodologies. The 2020 urban water use target may be updated in a supplier's 2015 UWMP. **Appendix A also contains the text of Sustainable Water Use and Demand Reduction.**

Four methods are stipulated for calculating the water use target. Three of the methods are listed in Water Code Section 10608.20(a)(1). The fourth method was developed by DWR. The four methods are:

- Method 1 – Eighty percent of the water supplier's baseline per capita potable water use.
- Method 2 – Per capita daily water use estimated using the sum of performance standards applied to indoor residential use; landscape area water use, and commercial, industrial, and institutional uses.
- Method 3 – Ninety-five percent of the applicable state hydrologic region target as stated in the state's 20x2020 Water Conservation Plan.
- Method 4 – Provisional Target Method 4 (January 2011).

In 2015, urban retail water suppliers will be required to report interim compliance followed by actual compliance in 2020. Interim compliance is halfway between the baseline water use and 2020 target. Baseline, target, and compliance-year water use estimates are required to be reported in gallons per capita per day (GPCD). For consistent application of the Act, DWR produced Methodologies for Calculating Baseline and Compliance Urban Water Per Capita Use. PRWA's baseline and target 2020 demands are presented in Section 4.0.

Failure to meet adopted targets will result in the ineligibility of a water supplier to receive grants or loans administered by the State unless one (1) of two (2) exceptions is met. Exception one (1) states a water supplier may be eligible if they have submitted a schedule, financing plan, and budget to DWR for approval to achieve the per capita water use reductions. Exception two (2) states a water supplier may be eligible if an entire water service area qualifies as a disadvantaged community.

1.4 Resource Maximization

Water management tools have been used by PRWA to maximize water resources. To help maximize water resources, PRWA has developed and implemented various policies and plans, which are referenced throughout this UWMP. The various components of the 2015 UWMP include evaluation and descriptions of the various sources of water supply, efficient water uses, water service efficiency, demand management measures, implementation strategy, and schedule. Information in this UWMP was developed from various sources, including the Los Angeles Gateway Regional Alliance, Water Replenishment District of Southern California (WRD) and the Central Basin Municipal Water District (CBMWD).

2.0 System Description

This section of the report provides an overview of PRWA's service area, climate, and water supply facilities.

2.1 Appropriate Level of Planning

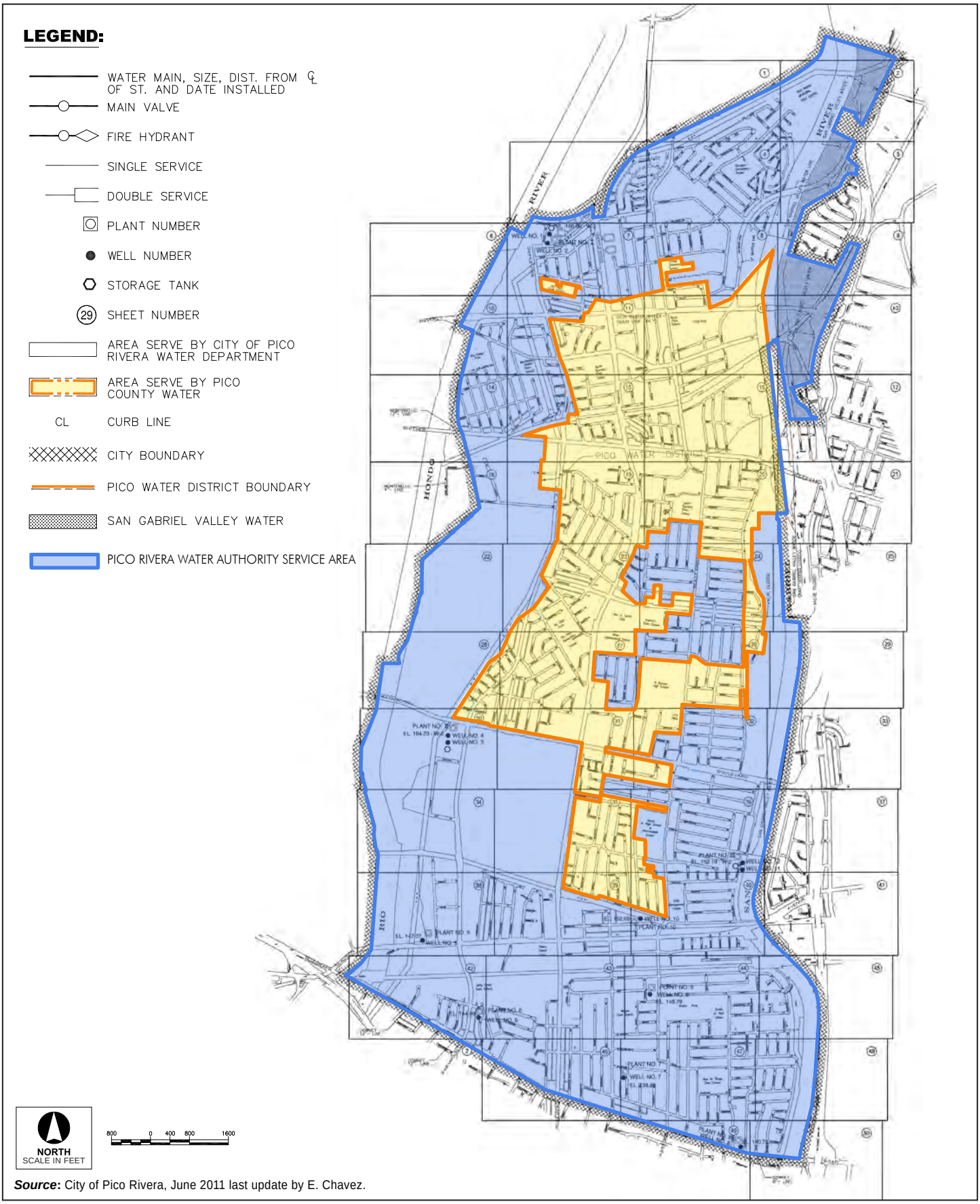
The results of the 2010 US Census reported Pico Rivera's population at 62,942 persons. Current estimates show an expected increase of an additional 7,628 people by 2035. Current estimates from the US Census Bureau show the City's population is currently 64,218 persons, an increase of 1,276 persons or 2 percent since 2010. In 2010, the population within PRWA service area was reported to be 39,863. By using DWR's population tool to estimate the population within its service area, PRWA's current population is estimated to be 39,453, which is less than its 2010 population. For consistency purposes this 2015 UWMP assumes the same 2 percent increase has occurred within PRWA's services area. Under this calculated growth scenario, PRWA's service area population was calculated to be 40,667 persons in 2015. All of PRWA's potable demands are currently met with local groundwater provided through CBMWD.

2.2 Service Area Description

The City of Pico Rivera (City) is located approximately eleven (11) miles southeast of downtown Los Angeles, on the eastern edge of the Los Angeles Basin, and on the southern edge of the San Gabriel Valley. The towns of Pico and Rivera, from which the City of Pico Rivera originated, were incorporated as one municipality and as a general law city on January 29, 1958. The City boundary is depicted on Figure 1.

The City is one of twenty-four (24) cities in southeast Los Angeles County and is included in CBMWD's 227-mile service area. Historically, the City's primary source of potable water supply has been groundwater extracted from the Central Basin groundwater aquifer. With naturally occurring recharge, enhanced by recharging efforts, groundwater supplies have generally been sufficient to meet water demands. Recycled water is used on the City's golf course and at the Pico Rivera sports arena.

The Pico Rivera Water Authority (PRWA) is one of two (2) independent water purveyors that provide water service to the residents of the City. All of the PRWA's customers live in the City of Pico Rivera. PRWA was formed as successor to the City's former Water Department in May 1999 to finance water system improvements. PRWA currently provides drinking water to approximately 70 percent of the City's incorporated area and includes roughly 9,400 water customers (municipal and industrial connections). Each purveyor maintains an independent water distribution system and operates several water supply wells used to extract the local groundwater from the Central Basin aquifer. Currently there are is one inter-connections between the two agencies. Figure 1 illustrates the service area for each water purveyor. The other supplier is the Pico Water District (PWD) - formed in 1926 as a County Water District under the State Water Act of 1913. PWD serves approximately 30 percent of the City's incorporated area and has prepared its own 2015 UWMP. As such, this report addresses only the PRWA service area, demands, and supplies.



***Source*:** City of Pico Rivera, June 2011 last update by E. Chavez.

Figure 1

PRWA Water Service Area

ATKINS

As the City does not have the ability to take imported water directly into its system, imported water is used for groundwater recharge through a replenishment assessment on each acre foot of groundwater extracted from the Central Basin. The City also purchases a small amount of recycled water from CBMWD and Upper San Gabriel Valley Water District for irrigation uses (Pico Rivera golf course and Sports Arena). CBMWD is a member agency of the Metropolitan Water District of Southern California (Metropolitan) and is responsible for providing imported and recycled water supply within its service area. CBMWD receives imported potable water from the aqueduct systems owned and operated by Metropolitan.

2.3 Climate Data

The source of PRWA's groundwater supply is influenced by climate. Climatic conditions within the service area are characteristically Mediterranean, with mild, dry summers and cool winters. Most of the region's rainfall occurs between December and March. Average annual rainfall for the period 1981 – 2011 is approximately 14.8 inches per year.

Historic climate data were obtained from the Western Regional Climate Center for Station 045790 (Montebello). This station was selected because its annual temperature variation is representative of most of PRWA's service area. Evapotranspiration data were obtained from the California Irrigation Management Information System (CIMIS) for Zone 6 (Upland Central Coast and Los Angeles Basin). Climate and evapotranspiration data are summarized in Table 1.

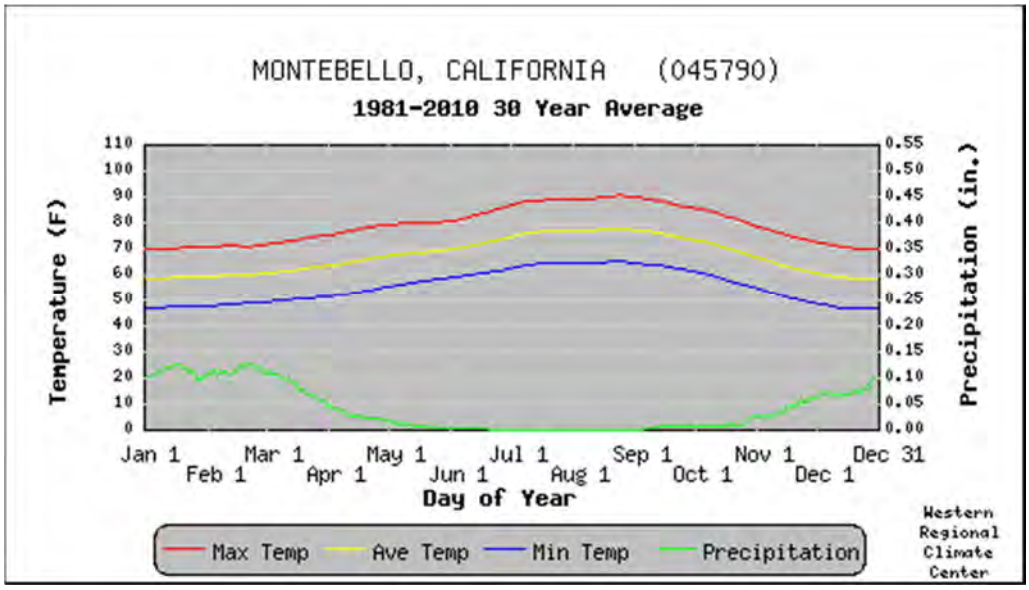
Table 1 Climate Data

Month	Monthly Average Evapotranspiration (inches)	Average Rainfall (inches)	Average Temperature (Fahrenheit)
January	1.86	3.69	58.6
February	2.24	3.56	60.0
March	3.41	2.82	61.7
April	4.80	0.78	65.4
May	5.58	0.19	68.3
June	6.30	0.06	72.3
July	6.51	0.01	76.4
August	6.20	0.02	77.5
September	4.80	0.17	75.8
October	3.72	0.28	70.5
November	2.40	1.26	63.4
December	1.86	1.94	59.0
Annual	49.7	14.78	67.4

Source: CIMIS for Zone 6 (Upland Central Coast And Los Angeles Basin) and Western Regional Climate Center for Station 045790 (Montebello).

The typical annual distribution for temperature and precipitation are shown in Figure 2.

Figure 2 Average Temperature and Precipitation



2.4 PRWA Water System Overview

PRWA's water service area encircles PWD's service area and also overlies the Central Basin within the San Gabriel River watershed. As shown above on Figure 1, PRWA's service area encompasses approximately 10 square-miles and includes approximately 9,400 customer connections, and 98 miles of water distribution system.

Since 2006, the PRWA has augmented its water supply with treated water originating from CBMWD's Water Quality Protection Project (WQPP) wells. The WQPP is a federally-funded project developed to protect the Central Basin from the migration of a contaminant plume containing volatile organic compounds (VOCs) from the San Gabriel Valley into the Central Basin's local ground water supply. The contaminated water is treated to meet drinking water standards at a treatment facility located on the City of Whittier's treatment facility site. The treated water is sold and distributed via the potable water distribution systems to the cities of Pico Rivera, Santa Fe Springs, and Whittier for residential, commercial, and industrial uses. PRWA has an emergency interconnection with the City of Whittier and the San Gabriel Valley Water Company.

The Central Basin contains millions of acre feet of storage and is the principal source of water for the overlying cities and water districts, including the PRWA. The Central Basin groundwater comprises a number of sources: 1) natural recharge from precipitation and runoff from regional/local watersheds; 2) artificial recharge supplied through purchased imported water; and 3) treated effluent from regional wastewater treatment facilities. As stated above, the WRD manages the ongoing artificial recharge activities within the Central Basin groundwater area. Ongoing negotiations amongst the Central Basin groundwater users may eventually allow each Central Basin member agency to extract up to 20 percent over its APA, provided the over-extraction can made up the following year. Currently, if an agency exceeds its APA and does not possess carryover quantities from under pumping in previous years, it must lease unused APA from other overlying entities. It is generally understood that several thousand acre feet of APA are reportedly available for lease or purchases each year.

The PRWA's water distribution system includes a total of twelve (12) wells, some of which are no longer active. In conjunction with the wells, the supply system includes three (3) booster pump stations and three (3) reservoirs with a combined storage of approximately one million gallons. In early 2009, Well Nos. 5, 7, 9, and 10 were all inactive and/or inoperable and not currently being used due to various forms of contamination including excessive bacteria, iron and sand detected in the water supply.

PRWA operates its water system under the authority of Water Supply Permit No. 04-070PA-000, issued by DPH on February 2, 2000, which was an amendment to Water Supply Permit No. 77-014. Permit-approved sources for domestic water supply of the system include groundwater from and treatment at Wells 1, 2, 3, 4, 11, and 12. Groundwater production averaged 4,857 AFY over the last five years and is expected to be approximately 4,400 AFY for water year 2016.

Currently, customers use potable water for landscape irrigation. CBMWD's Rio Hondo water reclamations program supplies a local golf course with 60 AFY, which has a projected demand of up to 200 AFY.

2.5 Service Area Population

PRWA's residents are employed in a variety of professions ranging from professional and administrative to laborer and warehouse positions. The median age of City residents is 30.6 years, and the median family income is estimated at about $45,422 per year. The average residence has 3.8 persons per-dwelling unit. PRWA's service area is built-out, with land use being 41 percent facilities, 36 percent residential, 14 percent manufacturing, 4 percent commercial, and 3 percent public parks. The projected growth is based on anticipated densification within the existing residential areas. The City's Population is served by PRWA and the District. The estimated service area population is shown in Table 2.

Table 2 Population – Current and Projected

	2015	2020	2025	2030	2035
PRWA Service Area	40,934	41,936	42,963	42,963	44,014
City of Pico Rivera	64,482	66,061	67,677	69,334	70,570
Compound Annual Growth Rate	0.40%	0.40%	0.40%	0.40%	0.40%

Notes: Derived by Atkins for 2015 UWMP Update based on 2010 US Census population counts within the City of Pico Rivera that reflects changes in population (a Citywide decline in between 2000 and 2010) due to a downturn in economic conditions

3.0 System Water Use

Water use and production records, combined with projections of population, employment, and urban development, provide the basis for estimating future water demands. This section presents information regarding regional demographics, customer based unit water use, total historical water use, and projections of future PRWA water demands.

3.1 Water Use by Type for Past, Current and Future Deliveries

PRWA maintains records of its water consumption and its number of customers by customer type. PRWA distributes retail water supply directly to its customers, which include residential (single- and multi-family), commercial, and landscape irrigation users. FY 2015 data are summarized in Table 3. No water sales are made by PRWA to other water agencies, and additional water uses are identified and quantified in Table 3.

Table 3 Water Deliveries — Actual, 2015

Water Use Sectors	2015 Metered	
	# of accounts	Volume (AF)
Single-family residential	8,959	3,611
Multi-family residential		
Commercial / Institutional/Governmental	432	945
Total	9,391	4,561

Source: DWR Water Report for PRWA

For historical context, commencing in 2009, a 3-year water supply shortage coinciding with the great economic recession of the late 2000's; as required PRWA to impose mandatory conservation. In 2010 mandatory conservation continued and the economic recession became more severe. This resulted in FY 2010 water use decreasing by 16 percent from FY 2005 levels. Some relief came in 2011-2012 when water supplies in Northern California improved; however, statewide drought conditions prevailed during 2013 and 2014 with the severe drought conditions through most of 2015. Governor Brown issued Executive Order B-29-15 to initiate further water conservation measures, as a result City and agencies through the State responded with increased reductions and water savings. PRWA distributed 4,561 AFY in FY 2015, a reduction 500 AFY since 2014 and anticipates total deliveries of 4,300 AFY by the end of FY16 (June 30, 2016) PRWA's projected water consumption is shown in Table 4.

Table 4 Water Deliveries — Projected 2020, 2025, 2030, and 2035 (AF)

Water Use Sectors	2020	2025	2030	2035
Single-family residential	3,463	3,461	3,545	3,632
Multi-family residential	269	269	275	282
Commercial / Institutional/Governmental	974	973	997	1,021
Landscape (Recycled Water)	200	200	200	200
Other	6	6	6	6
Total	4,912	4,909	5,023	5,141

Note: A one-percent increase per five years was applied to both the number of accounts and the total deliveries.

Over 90 percent of PRWA's customers are residential (single-family and multiple-family). The City is built-out and as projected in the approved General Plan, the relative composition of PRWA's customers is expected to remain consistent. Customer sectors, such as commercial, governmental, and institutional, are expected to grow at the same rate to support the residential development.

The City completed a comprehensive update of its General Plan in fall 2014 with implementation of the land use policies and proposed changes in the General Plan; the City of Pico Rivera anticipates some land use changes due to infill development projects within the city limits. Future growth within PRWA's service area is likely to be impacted by these infill projects, as such the estimated growth in number of customers is shown in Table 5 and projected over the twenty-five (25) year planning horizon.

Table 5 Customer Growth — Projected 2020, 2025, 2030, and 2035

Water Use Sectors	2020	2025	2030	2035
Single-family residential	8,987	9,077	9,168	9,259
Multi-family residential	41	41	42	42
Commercial / Institutional/Governmental	410	414	418	423
Landscape	39	39	40	40
Other	113	114	116	117
Total	9,590	9,686	9,783	9,881

Note: A one-percent increase per five years was applied to both the number of accounts and the total deliveries

3.2 Low-Income Water Demand Projections

The requirements of an UWMP call for projections of water demands for low-income customers. PRWA reviewed the Housing Element from the City Pico Rivera General Plan, which forecasts projections out to 2035. It is estimated that up to 808 low income units remain to be constructed within the City limits; of this a percentage could be built within the PRWA's service area. This 2015 UWMP assumed up to 500 units (62 percent of 808 units) would be constructed over the next 20 to 25-years – for planning purposes, it is assumed that construction of these dwelling units would be spread equally over the 25-year planning horizon. With these assumptions, this UWMP estimated approximately 12 units per year would be built or 61 units every five years.[1] Demands for the projected low-income housing projects were estimated using the PRWA's planning demand criteria in their 2009 WSMP at 3.5 persons per dwelling unit and approximately 530 gallons per day per residential dwelling unit (or 265,000 gpd). Projected water demands were then distributed equally throughout 2015 and 2030. These demands as shown in Table 6 have been assumed as part of the general growth within PRWA and have been included in the PRWA's residential potable water demand projections.

1 Consistent with Housing Element - 47 new units were constructed between 2006 and 2010.

Table 6 Low-income Projected Water Demands (AF)

Low Income Water Demands	2020	2025	2030	2035
Residential[(1)]	59	59	59	59
Total	59	59	59	59

(1) Assumes multiple family units would be constructed as redevelopment occurs over 20 years. Source: Estimated as percentage of City of Pico Rivera Population – information taken from Pico Rivera 2010 General Plan Update, SCAG or RHNA numbers

3.3 Service Area Sales and System Losses

As shown in Table 7, PRWA does not sell any water to other agencies.

Table 7 Sales to Other Water Agencies (AF)

Water Distributed	2020	2025	2030	2035
None	0	0	0	0

System losses are the total difference between the total PRWA delivered water and the total amount pumped from groundwater wells. Generally, system losses are associated with leaks, pipeline breaks, illegal connections, and unmetered fires. Average unmetered (non-revenue) water since 2011 has ranged from about 4 to 10 percent, which is consistent with industry standards of approximately 10 percent. System losses were included in Table 8 so they have been included as a line item in Table 9. Based on historic data for PRWA, system losses for future years were estimated to be 5 percent of total water use. However, PRWA is currently considering implementing a water loss, leak detection and water audit program to assess its distribution. Upon completion of the comprehensive investigation, PRWA will have more accurate understanding of its distribution metering system and potential losses within its system. By 2020, PRWA should be able to report accurate water system losses.

Table 8 Additional Water Uses and Estimated Losses (AF)

Water Use	2020	2025	2030	2035
Recycled water	200	200	200	200
System losses	246	245	251	257
Total	446	445	451	457

Table 9 Total Water Use (AF)

Water Use	2020	2025	2030	2035
Total water deliveries	4,912	4,909	5,023	5,141
Sales to other water agencies	0	0	0	0
Additional water uses and losses	246	245	251	257
Total	5,158	5,154	5,274	5,398

3.4 Wholesale Water

PRWA does not receive water from a wholesale supplier, so no projections were provided to a wholesale agency and this is reflected in Table 10.

Table 10 PRWA Demand Projections Provided To Wholesale Supplier (AF)

Wholesale Sources	2015	2020	2025	2030	2035
None	0	0	0	0	0

PRWA does not plan to participate or receive water from any planned wholesale agency water supply projects.

Table 11 Wholesale Supplies — Existing and Planned Sources of Water (AF)

Wholesale Sources	2020	2025	2030	2035
None	0	0	0	0

4.0 Baselines and Targets

This 2015 UWMP includes the detailed description of how an urban water supplier calculates its baseline and targets, following the technical methods and methodologies described in DWR's Methodologies for Calculating Baseline and Compliance Urban Per Capita Water Use For the Consistent Implementation of the Water Conservation Bill of 2009. Background information and the approach used to develop baselines and targets are also to be included. A description of each of these elements follows:

- **Baseline daily per capita water use —** how much water is used within an urban water supplier's distribution system area on a per capita basis. It is determined using water use and population estimates from a defined range of years.
- **Urban water use target —** how much water is planned to be delivered in 2020 to each resident within an urban water supplier's distribution system area, taking into account water conservation practices that currently are and plan to be implemented.
- **Interim urban water use target —** the planned daily per capita water use in 2015, a value halfway between the baseline daily per capita water use and the urban water use target.

Following requirements provided in the DWR Methodologies for Calculating Baseline and Compliance Urban Water Per Capita Use document, the PRWA has calculated baseline per capita water use, an urban use target for 2020, and an interim water use target for 2015. Reporting compliance daily per capita water use in this 2015 UWMP cycle compares the interim target to actual water use in 2015.

Two baseline periods are to be determined during the calculation of the base daily per capita water use. The legislation provides some flexibility in what actual periods of time are used to establish these baselines. This accounts for short-term water demand variations resulting from weather influences, as well as acknowledging the advances of water suppliers that have already begun using recycled water to reduce potable demands. The two baseline periods are:

- **10 to 15-year base period —** This is a 10-year or 15-year continuous period used to calculate baseline per capita water use;
- **5-year base period —** This is a continuous 5-year period used to determine whether the 2020 per capita water use target meets the legislation's minimum water use reduction requirements of at least a 5 percent reduction per capita water use.

A 10-year period from 2003 to 2012 provides a baseline of 117 GPCD, and a 5-year average of 116 GPCD as shown in Tables 12 and 13. As instructed in the Guidebook to confirm the 2020 daily water use target meets the minimum threshold, 95 percent of the 5-year average is 110 GPCD.

Table 12 Results 20x2020 Baseline Calculations

20x2020 Requirement	GPCD
Baseline GPCD water use	
10-year average (baseline period 2003 - 2012)	117
5-year average (period 2006 - 2010)	116
95 percent of 5-year average	110

Source: Derived by Atkins with PRWA Water Use and estimated population data

Table 13 Gallons per Capita per Day Summary (SB X7-7 Table 6)

Gallons per Capita per Day Summary	
10-15 Year Baseline GPCD	117
5 Year Baseline GPCD	116
2015 Compliance Year GPCD	103

Table 14 2015 Compliance Year GPCD

Population	Annual Gross Water Use (AFY)	GPCD
39,453	4,561	103

Methods 1 and 3 have been evaluated for PRWA. The analysis of the four methods is described below:

- Method 1 requires setting the 2020 water use target to 80 percent of baseline per capita water use target as provided in the State's 20x2020 Water Conservation Plan. Using the methodology in the Guidebook, Table 15 shows the interim 2015 GPCD target and the 2020 GPCD target. The PRWA's 2015 target was 113 GPCD and the 2020 GPCD target at 80 percent of baseline is 101 GPCD.
  - Using the Method 1 found in DWR's Guidebook (2015) and SB X7-7 tables provided by DWR, PRWA's 10 year baseline is 117 GPCD with target at 80 percent of baseline is 94 GPCD as shown in Table 16 below.
  - Method 3 sets its target as 95 percent of the state hydrologic region target. The PRWA is within the South Coast Hydrologic Unit, whose 2020 target is 149 GPCD. Ninety-five percent of the region's 2020 target is 142 GPCD. As such, Method 3 sets a 2020 water use target of 142 GPCD. Based on Method 3 PRWA's confirmed 2020 target is 111 GPCD.

Table 15 20x2020 Water Conservation Target Method 1

2020 Daily Water Use Target (Method 1)	
2015 Interim Daily Water Use Target	113
2020 Daily Water Use Target (80% of baseline)	101

Source: Derived by Atkins with PRWA, Water Historical Water Use Data adapted by Atkins, May 2011.

Table 16 Target Method 1 20% Reduction of GPCD (SB X7-7 Table 7-A)

SB X7-7 Table 7-A: Target Method 1	
10-15 Year Baseline GPCD	117
2020 Target GPCD	94

Source: DWR SB X7-7 Table 7-A: Target Method 1 (March 2016)

In order to confirm that PRWA's 20x2020 urban water use target meets the minimum water savings, it compares the 5-year baseline daily per capita water use value to the 20x2020 daily per capita urban water use target. If necessary, adjustments are made to ensure conformance. To accomplish this comparison, the Guidebook uses the following steps, first, determine if the 5-year base daily per capita water use value is less than or equal to 100 GPCD. If not, a second step is necessary. This step requires, calculating 95 percent of the 5-year average base daily per capita water use and then comparing the results to the 2020 daily per capita target. No adjustment is required since the 10-year baseline target is less than 95 percent of the 5-year baseline.

The PRWA's recent per capita water use has been declining to the point where current water use is slightly above the 2015 target for Method 1. In 2010, water use within the PRWA service area was 107 GPCD; due to severe drought and local water use restrictions within PRWA's service area, PRWA observed an average 100 GPCD. This recent decline in per capita water use is largely due to Californians positively responding to Executive Order B-29-15 during California's severe drought in 2015 and water use restrictions. Table 17, Table 18, and Table 19 present the results of the baseline and target methodology calculations, in accordance with the Act.

Pursuant to SBx7-7, baseline per capita water use is 117 GPCD using a 10-year average beginning in Fiscal Year 2003 and ending on December 31, 2012 and 116 GPCD using a 5-year average beginning in Fiscal Year 2006 and ending on December 31, 2010.

Table 17 Base Period Ranges

Base	Parameter	Value	Units
10- to 15-year base period	2008 total water deliveries	5,094	AFY
	2008 total volume of delivered recycled water	60	AFY
	2008 recycled water as a percent of total deliveries	1.18%	percent
	Number of years in base period1	10	years
	Year beginning base period range	2003	
	Year ending base period range2	2012	
5-year base period	Number of years in base period	5	years
	Year beginning base period range	2006	
	Year ending base period range3	2010	

Source: PRWA Water Use and DWR SB X7-7 tables (March 2016)
[1]If the 2008 recycled water percent is less than 10 percent, then the first base period is a continuous 10-year period.
[2]The ending year must be between December 31, 2004 and December 31, 2010.
[3]The ending year must be between December 31, 2007 and December 31, 2010.

Table 18 Base Daily per Capita Water Use — 10-year Range

Base period year		Distribution System Population	Daily system gross water use (AFY)	Annual daily per capita water use (GPCD)
Sequence Year	Calendar Year			
Year 1	2003	40,742	5,381	118
Year 2	2004	40,629	5,603	123
Year 3	2005	40,531	5,729	126
Year 4	2006	40,437	5,465	121
Year 5	2007	40,311	5,699	126
Year 6	2008	40,221	5,094	113
Year 7	2009	40,118	5,191	116
Year 8	2010	40,206	4,805	107
Year 9	2011	40,210	5,054	112
Year 10	2012	41,216	4,961	107
Base Daily Per Capita Water Use				**117**

Source: PRWA Water Use and DWR Population Tool data (March 2016)
Note 1: If the 2008 recycled water percent is less than 10 percent, then the first base period is a continuous 10-year period.
Note 2: The ending year must be between December 31, 2004 and December 31, 2010.
Note 3: The ending year must be between December 31, 2007 and December 31, 2010.

Table 19 Base Daily per Capita Water Use — 5-year Range

Base period year		Distribution System Population	Daily system gross water use (AFY)	Annual daily per capita water use (GPCD)
Sequence Year	Calendar Year			
Year 1	2006	40,437	5,465	121
Year 2	2007	40,311	5,699	126
Year 3	2008	40,221	5,094	113
Year 4	2009	40,118	5,191	116
Year 5	2010	40,206	4,805	107
Base Daily Per Capita Water Use				**116**

Source: PRWA Water Use and DWR Population Tool data (March 2016)

4.1 Water Use Reduction (compliance with Water Conservation Bill of 2009)

Pursuant to Water Code Section 10608.26 retail water suppliers are to develop an implementation plan for compliance with the Water Conservation Bill of 2009. The plan should provide a general description of how the supplier intends to reduce per capita water use to meet its urban water use target. In developing the implementation plan, suppliers should avoid placing a disproportionate burden on any customer sector. The plan should also discuss any potential economic impacts that may result from the water use reduction program.

Water conservation programs have been developed and conducted on the premise that water conservation increases the water supply by reducing the demand on available supply, which is vital to the optimal operation of the PRWA's water system. As a member agency of the CBMWD, the PRWA also participates in many water conservation programs designed and conducted as a shared-cost participation program among the member agencies.

Pursuant to Water Code Section 10608.26, PRWA will continue to implement its current programs to reduce water demand throughout its service area and ultimately meet or surpass its GPCD targets in 2020. Section 9.0 lists a number of the PRWA's on-going water conservation programs – these programs in combination with the initiatives and future programs described herein will provide means for the PRWA to comply with the Water Conservation Bill of 2009 and reach its GPCD targets.

4.2 Water Use Reduction – the approach to achieving 20x2020

The PRWA fully expects to meet its GPCD targets in 2015 and 2020 primarily because of its efforts to reduce unaccounted-for water losses to approximately 5 percent, promote maintain efficient water use and conservation savings at residences, and if feasible, increasing use of recycled water to offset existing irrigation demands. Furthermore, the PRWA is currently exploring development of a formal water conservation plan that would formalize the PRWA's water use reduction plan.

In addition, the PRWA customers are responding to the increasing cost of water by reducing their demand. Since 2008 its customers have continued to lower their demand, mainly, in response to rate increases that were required to cover the increased cost to obtain, convey, distribute potable water and then also pay replenishment costs within the Central Basin.

The PRWA anticipates that new development projects would incorporate green building performance standards or would seek Leadership in Energy and Environmental Design (LEED) certifications to lower water consumption. Incorporation of CALGREEN[2] (Title 24, Part 11, Division 4.3 – Water Efficiency and Conservation) standards in residential homes would reduce indoor per capita consumption within the PRWA service area and further contribute to a lower PRWA-wide GPCD. The City of Pico Rivera's landscape water conservation Ordinance 1061 will result in more efficiently designed and irrigated landscapes (See **Appendix F**). City of Pico Rivera Ordinance No. 1061 is briefly described below:

The purpose of this Water Efficient Landscape Ordinance is:

a) That this Ordinance be at least as effective in conserving water as the model ordinance adopted pursuant to Government Code § 65595;

b) To assure beneficial, efficient, and responsible use of water resources for all users within the City of Pico Rivera;

c) To retain the land's natural hydrological role and promote the infiltration of surface water into the groundwater;

d) To acknowledge that landscape water use accounts for more than 60% of all domestic water use in the City;

e) To recognize that landscapes enhance the aesthetic appearance of developments and communities;

2 2010 California Building Standards Code – Title 24 Part 11; (Effective January 2011); Section 4.303.1 20% Water savings. Requires a 20% reduction of indoor water use. Provides a prescriptive and performance method. Statewide mandatory construction code; statutorily enforced by local enforcing agencies; does not require outside inspection, review or certification by any entity other than the enforcing agencies.

f) To encourage the appropriate design, installation, maintenance, and management of landscapes so that water demand can be decreased, runoff can be retained, and flooding can be reduced without a decline in the quality or quantity of landscapes;

g) To preserve existing natural vegetation and the incorporation of native plants, plant communities, and ecosystems into landscape design, where possible;

h) To promote and encourage the use of low water use plants;

i) To minimize the use of cool season turf;

j) To promote the conservation of potable water by maximizing the use of recycled water and other water conserving technology for appropriate applications;

k) To promote public education about water conservation and efficient water management;

l) To reduce or eliminate water waste.

The PRWA may also offer incentives when feasible. This may include the following: a rebate toward the replacement of existing turfgrass with waterwise landscape materials.

4.2.1 Ongoing Water Conservation Programs and Communication Efforts:

As presented in Section 8.0, the PRWA will continue its outreach efforts to educate its customers regarding water smart landscapes through its website, articles within its quarterly newsletter, regular bill inserts, and it presence at outreach events throughout the community.

5.0 System Supplies

PRWA distributes water to its end users. Water from PRWA is distributed via pipelines and pump stations, and is used by PRWA customers to meet their water demands. This section describes the groundwater sources, quantities, supply constraints, and the water quality of the water supply sources. In addition, this section discusses desalination and water supply reliability.

5.1 Surface Water

PRWA relies entirely on groundwater, and therefore does not currently utilize surface water. PRWA is a member agency of CBMWD and a member is entitled to purchase imported water from Metropolitan through CBMWD. However, PRWA remains without any direct connection CBMWD, as the nearest feeder is about two miles west of PRWA, and there are no current plans to construct a connection to the Metropolitan/CBMWD system. If this is reconsidered in the future, the PRWA may assess feasibility of this surface water connection and other options that would make this connection viable.

5.2 Groundwater

Within the region, there are two primary groundwater basins: the Central Basin and the West Coast Basin. The PRWA receives all its groundwater from the Central Basin. Twenty-nine (29) public and private water agencies are supplied by the Central Basin, for which DWR is the Watermaster. The Central Basin is a large alluvial groundwater basin which lies beneath the southeastern portion of the Los Angeles Coastal Plain. The Central Basin is enclosed on the north by Merced Hills, Whittier Narrows, and Puente Hills, on the east by Orange County, and on the southwest by the Newport Inglewood Uplift. A more detailed description of the Basin is included in **Appendix C**.

As stated previously, the PRWA obtains its potable water supply from the underlying Central Basin groundwater basin that is recharged by local streamflow, imported water, and recycled water. A summary of the water supply sources provided and managed by varying agencies and available to the PRWA are summarized below.

5.2.1 Central Basin Groundwater Basin

The Central Basin contains millions of acre feet of storage and is the principal source of water for the overlying cities and water districts, including the PRWA. The Central Basin groundwater comprises a number of sources: 1) natural recharge from precipitation and runoff from regional/local watersheds; 2) artificial recharge supplied through purchased imported water; and 3) treated effluent from regional wastewater treatment facilities. As stated above, the WRD manages the ongoing artificial recharge activities within the Central Basin groundwater area. Central Basin groundwater users have the ability to extract up to 20 percent above their APA, provided the over-extraction can made up the following year. In addition, WRD allows Central Basin users to carryover up to 20 percent of their APA into the next year. In other words, the carryover supply is only available in the following year and cannot be added to previous carryover supplies. Currently, if an agency exceeds its APA and does not possess carryover quantities from under pumping in previous years, it must lease unused APA from other overlying entities. It is generally understood that several thousand acre feet of APA are reportedly available for lease purchases each year.

5.2.1.1 Description

Groundwater has for many years been the primary supply of water within Central Basin's service area. In fact, it was the sole source of water supply until the Central Groundwater Basin was overdrafted beginning in the late 1940s and throughout the 1950s. Today, the average retail customer agency in Central Basin relies on groundwater production for about 61 percent of its water supply. Although, there still remain many agencies in Central Basin's service area that rely exclusively on groundwater to meet all current water needs.

Ultimately, the continuous and extensive overpumping of the Basin caused critically low groundwater levels. This overpumping of the Basin resulted in a legal judgment, or adjudication, that limited the allowable extraction that could occur in any given year and assigned water rights to basin pumpers. The adjudicated water rights were greater than the Basin's yield. In essence, the Basin was operating with an annual overdraft. In order to address the overdraft, a strategy was required to purchase imported and recycled water sources. The Central Groundwater Basin Judgment is included as **Appendix D** of the Central Basin 2015 UWMP.

5.2.1.2 Water Replenishment District of Southern California

The groundwater producers (pumpers) in the area, which are members of the Central Basin Water Association, facilitated the creation of the WRD. The purpose of the WRD is to act as a financial mechanism that purchases imported and recycled water to replenish the Central Groundwater Basin. In 1959, the State Legislature enacted the Water Replenishment Act, enabling the water associations to secure voter approval for the formation of the “Central and West Basin Water Replenishment District.” The WRD has the statutory responsibility to acquire sufficient revenues through an assessment on each acre-foot of water pumped from the groundwater basin to purchase water from other sources to replenish the groundwater supplies within its boundaries for the beneficial use of the approximately 3.5 million residents and water users who rely upon those groundwater resources to satisfy all or a portion of their water needs.

5.2.1.3 Groundwater Rights

Although the water rights have been bought, sold, exchanged or transferred through the years, the total amount of allowable extraction rights within the entire groundwater basin has remained virtually the same. The adjudicated pumping rights from the Central Groundwater Basin are 217,367 AFY. However, not all holders of these rights are within the Central Basin service area. Those rights holders within Central Basin's service area total 161,836 AF. Some of the groundwater rights holders are nurseries, businesses, schools, cemeteries and private entities that make up about 7 percent (16,679 AF) of the total water rights. Of the remainder, 127,237 AF is the water pumped by Central Basins service area cities and water agencies and 55,531 AF is pumped by cities and agencies not affiliated with Central Basin Municipal Water District. The adjudicated pumping rights in the Central Groundwater Basin are presented in the CBMWD 2015 UWMP.

5.2.1.4 Main Basin

Although most of the groundwater supply is extracted from the Central Basin, there are a number of water retailers that retain groundwater rights within the Main San Gabriel Basin (Main Basin) that are extracted and utilized within their Central Basin service area. Main Basin underlies most of the San Gabriel Valley, north of the Central Groundwater Basin. It is bounded by the San Gabriel Mountains to the north, the San Jose Hills to the east, the Puente Hills to the south and by the Raymond Fault and a series of other hills to the west. The total amount of water extracted

from the Main Basin and sold within the Central Basin service area to all retailers was 30,344 AFY. Table 2-4 of the CBMWD 2015 UWMP displays the water 2015 years.

The total amount of groundwater produced in the Central Basin and the Main Basin has remained fairly consistent over the last five years. This is due mainly to the fact that both basins are adjudicated, so groundwater extractions in any given year are limited. The total amount of groundwater projected to be extracted during the next 25 years will also be fairly consistent as shown in the CBMWD's UWMP (Table 3-2). The economic costs to pump groundwater versus the purchases of imported water will continue to pressure water retailers to maximize their groundwater rights.

5.2.1.5 Groundwater Recharge

The WRD reports annually on its replenishment operations and groundwater management activities. The following information was excerpted from WRD's March 2015 (Update May 2015) Engineering Survey and Report (ESR).

> The Central and West Coast Basins have an annual overdraft because more groundwater is pumped out than is replaced naturally. The CBMWD purchases supplemental water (artificial replenishment water) each year to help offset this overdraft through managed aquifer recharge. The purchased water enters the groundwater basins at the Montebello Forebay spreading grounds, at the seawater barrier injection wells, and through WRD's In-Lieu Program. The purpose of this Chapter is to determine the quantities of water needed for purchase in the ensuing year and to determine the availability and cost of that water. The WRD currently has available to it recycled and imported water sources for use as artificial replenishment water. These two sources are described below:
>
> ***Recycled Water****: Recycled water is wastewater from the sewer systems that is reclaimed through extensive treatment at water reclamation plants ("WRP"s). The water is treated to high quality standards so that it can be reused safely, and offsets the need to use more expensive and sometimes less available imported water. Some agencies and businesses use recycled water for non-potable purposes, such as for irrigation of parks, golf courses, and street medians, or for industrial purposes (known as "purple-pipe projects"). WRD has successfully used recycled water for groundwater recharge since 1962. In semi-arid areas such as Southern California where groundwater and imported water are in short supply, recycled water has proven to be a safe and reliable additional resource to supplement the water supply. Recycled water is used at the spreading grounds and the seawater barrier wells. Although recycled water is high quality, relatively low cost, and a reliable supply all year long, the District is limited by regulatory agencies in the amount it can use for replenishment. Therefore, imported water is also used for recharge.*
>
> ***Imported Water****: Raw river water from northern California (State Water Project) and the Colorado River is imported into Southern California by the Metropolitan Water District of Southern California ("MWD") and the City of Los Angeles Department of Water and Power (DWP). MWD sells this water as raw or treated to their member agencies for multiple uses, including potable water and groundwater recharge. WRD uses raw (untreated) imported water at the spreading grounds and uses treated potable water for injection at the seawater barrier wells and the In-Lieu program. Because of treatment and transportation costs, imported*

water is the most expensive type for groundwater replenishment. Prior to October 2011, MWD offered seasonally available discounted water that could be purchased for replenishment. In turn for the discount, it was considered by MWD to be interruptible and they could stop deliveries at any time. But due to a lack of surplus supplies caused by drought and other factors, MWD has eliminated offering this type of discounted interruptible water. Instead, replenishment agencies such as WRD must now purchase what is known as "Tier 1" or "Tier 2" water from MWD member agencies for spreading and In-Lieu. This water is at a higher price and relies on available allocation from the member agency, but supposed to be firm delivery water (not interruptible); although during extreme droughts MWD can reduce or halt sales to replenishment agencies, as it did in 2014/2015. The seawater barrier injection water has been Tier 1 treated water for decades and has to date not been interrupted by MWD.

Recommended Quantities of Replenishment Water. With information presented in the preceding chapters regarding the basins' pumping demands and the overall condition of the groundwater basins, WRD can estimate its projected need for replenishment water in the ensuing year.

Spreading

Groundwater recharge through surface spreading occurs in the Montebello Forebay Spreading Grounds adjacent to the Rio Hondo and the San Gabriel River, within the unlined portion of the San Gabriel River, and behind the Whittier Narrows Dam in the Whittier Narrows Reservoir. Owned and operated by the Los Angeles County Department of Public Works ("LACDPW"), they were originally constructed in 1938 for flood control and conservation of local storm water, but have been used since the 1950s to replenish the basins with imported water and since 1962 with recycled water.

Since recycled water is a high quality, less expensive, and available year-round source of replenishment water, the District maximizes its use within established regulatory limits. These limits are discussed below under "Expected Availability of Replenishment Water." The District has historically targeted 50,000 AFY of recycled water for spreading to meet regulatory limits. However, with the recent modifications to the District's permit to allow 45% recycled water over a running 10- year average (see below under Expected Availability of Replenishment Water), the District can now target 55,000 AFY of recycled water as long as sufficient dilution water is available from stormwater and imported water.

Additional replenishment water is needed beyond the 55,000 AFY of recycled water and will have to come from imported water. In 2003, the WRD Board adopted the long term average of 27,600 AFY of imported water to purchase for spreading. This value was based on long-term (30 year) averages of the overall water budget of the basins using the USGS computer model. The 2003 ESR discusses the derivation of this value in more detail.

Since that time, the District has invested in cooperative projects with the LACDPW to capture more storm water and to lessen the need for imported water as part of WRD's Water Independence Now program, or WIN. Improvements to the Whittier Narrows Conservation Pool are expected to conserve an additional 3,000 AFY of storm water on average. Two new rubber dams were built in the San Gabriel River near Valley Boulevard and are expected to conserve an additional 3,600 AFY on average. And with the revisions to the recycled water permit discussed in the

previous paragraph, 5,000 additional AF of recycled water can be planned thus lowering imported water by 5,000 AFY.

Therefore, the new Long Term Average for imported spreading demands is 16,000 AFY, which is the targeted amount for the ensuing year.

Injection

To determine the amount of barrier water estimated for the ensuing year, WRD under an Agreement with LACDPW gets annual estimates from the expected demand at the barriers. WRD reviews these estimates; reviews recent 5-year averages of actual injection amounts, and makes adjustments as necessary. For the ensuing year, WRD estimates the West Coast Basin Barrier Project will require 19,000 AF, of which the majority (14,300 AF) will be recycled water from WBMWD's Edward C.

Little Water Recycling Facility and the remaining 14,300 AF will be imported water. For the Dominguez Gap Barrier Project, a total of 8,000 AF is expected to be needed, of which 5,600 AF will be recycled water from the City of Los Angeles' Terminal Island Treatment Plant (maximum amount currently allowed by permit) and 2,400 of imported water. For the Alamitos Barrier Project, a total of 5,300 AF will be required by WRD (does not include barrier water purchased by Orange County Water District for their side of the barrier), which includes 4,800 AF of recycled water from the expanded Leo J. Vander Lans Water Treatment Facility plant and 500 AF of imported water. The total barrier demand for WRD in the ensuing year is estimated at 32,300 AF, including 7,600 AF imported water (24%) and 24,700 AF of recycled water (76%)

In-Lieu Replenishment Water

The basic premise of WRD's In-Lieu Program is to offset the pumping in the basin to lower the annual overdraft and reduce the artificial replenishment needs. It helps provide an alternate means of replenishing the groundwater supply by encouraging basin pumpers to purchase imported water when available instead of pumping groundwater. This can help raise water levels in areas that are otherwise more difficult to address. MWD has ceased providing seasonally discounted water for the In-Lieu program since 2011, so WRD's program has been put on hold with the exception of a few localized projects with the City of Long Beach. For the previous year, WRD had an In-Lieu Program with Long Beach for 4,371 AF, which helped keep groundwater in the CBWCB. For the ensuing year, WRD is not budgeting for the In-Lieu program, although may consider new programs if opportunities arise.

Expected Availability of Replenishment Water. The availability of water supplies for the ensuing water year has been taken into account when determining how funds should be raised. If a particular resource is expected to be unavailable during a given year, money can still be raised to fund the purchase of that quantity of water in a succeeding year.

Recycled Water

Recycled water is reliable all year round but its use for recharge is capped by regulatory limits. The current limits for recycled water spreading in the Montebello Forebay are established by the Los Angeles Regional Water Quality Control Board ("RWQCB") and are detailed in Order No. 91-100 adopted on September 9, 1991 with amendments on April 2, 2009 under Order No. R4-2009-0048 and June 4,

2013 (letter approval from RWQCB Executive Officer). On April 10, 2014, under Order No. R4-2009-0048-A-01, the RWQCB approved a request by WRD to increase the allowable percentage of recycled water to be recharged at the Montebello Forebay spreading grounds from 35% to 45% over a 10-year running average as a drought relief measure. This major action will allow continued use of historic amounts of recycled water for longer periods of time should the dry conditions continue, and might allow for additional recycled water for recharge should normal to wet hydrologic conditions return. This will allow WRD to continue to maximize use of recycled water for groundwater recharge as part of its Water Independence Now, or WIN, initiative.

The Sanitation Districts of Los Angeles County ("SDLAC") provides the recycled water to WRD for spreading by LACDPW. This water comes from the Whittier Narrows Water Reclamation Plant ("WNWRP"), San Jose Creek Water Reclamation Plant ("SJCWRP"), and Pomona Water Reclamation Plant ("PWRP"). For planning purposes, the District assumes purchasing 55,000 AFY of recycled water in the ensuing year, although this amount can vary based on percentage limits and availability of the recycled water and the spreading grounds.

Recycled water for injection into the seawater barrier wells comes from different agencies depending on the specific barrier. At the WCBBP, the water is provided by WBMWD's Edward C. Little Water Recycling Facility. Per regulatory limits, this resource can provide up to 100% recycled water to the Barrier under their Phase V construction activities, although the volumes produced from the plant have not reached 100%, partially due to the barrier requiring more water than the plant can produce and partially due to the continued ramping up of deliveries from the Phase V plant and conditions imposed by the barrier's owner/operator, the LACDPW.

Recycled water for the DGBP is typically available from the City of Los Angeles' Terminal Island Treatment Plant (Harbor Recycled Water Project). The plant is permitted to provide the barrier with a maximum of 5 million gallons per day (mgd), averaged daily (equivalent to 5,600 AFY if running at 5 mgd for the full year), or 50% of the total barrier supply over a 5-year averaging period, calculated by a running monthly average over the preceding 60 months, whichever is less. For the ensuing year, it is estimated that of the 8,000 AF demand next year, 5,600 AF will be recycled water and 2,400 AF will be imported water. Efforts are underway to expand the plant's treatment capabilities and increase the recycled percentage amount to 100% to eliminate the need for imported water.

Recycled water for the ABP is available from WRD's Leo J. Vander Lans Water Treatment Facility. This treatment plant was permitted to provide up to 100% of the barrier with recycled water in 2014 and is expected to run at this rate starting in early 2015. For the ensuing year, of the 5,300 AF estimated to be injected at the barrier on the WRD-side of the barrier (not including the Orange County side), an estimate of 4,800 AF will be recycled water and 500 AF will be imported water to make up any plant shut downs for maintenance or other issues.

Imported Water

Since October 2011, MWD terminated its discounted replenishment water program which the District utilized since 1959, and has not yet offered a new replenishment program. Replenishment agencies must rely on the more expensive Tier 1 water if it is available from MWD-member agencies, or pay the even higher priced Tier 2

water if Tier 1 water is unavailable. Over the past few years, WRD has budgeted for Tier 1 water for the spreading grounds and the In-Lieu program.

For the imported water used for injection at the seawater barrier wells, the District had paid the treated Tier 1 rate for decades to ensure availability. Because of the increasing price of Tier 1 water, the District is looking at ways to reduce costs. Methods such as reduction of pumping near the barriers, increased recycled water to offset imported water, or banking water at lower seasonal rates are being explored or implemented. At the ABP, the City of Long Beach and WRD have entered into an agreement to bank seasonal treated water and Tier 1 water through inland injection wells and then extract the water for injection at the barriers when needed, thus saving considerable costs on barrier water. In 2009/2010, the 2,000 AF of Tier 1 water banked in 2008/2009 was utilized. The seasonal water banked in 2004/2005 through 2006/2007 has 2,160 AF remaining and can be called at any time that serves the District most effectively.

Projected Cost of Replenishment Water

WRD has estimated it will need 103,300 AF of replenishment water in the ensuing year. Using currently available information and estimates for the cost of replenishment water to WRD from the various water suppliers, this water will cost WRD approximately $42,125,595. Costs may change over the next few months as the other agencies adopt their budgets, and any changes will be incorporated into an updated ESR.

5.2.2 Central Basin Municipal Water District

Table 3-1 of CBMWD's 2015 UWMP presents its total wholesale supplies that CBWMD distributes 30,344 AF to retail agencies [including PRWA]; 18,500 AF to WRD for groundwater recharge; 165,509 in wholesale production; and the balance approximately 54,600 AF for municipal, industrial, agricultural and groundwater recharge at Montebello Forebay. Table 3-2 of CBMWD 2015 shows the actual sources and volume of water and projected sources and volume of water that Central Basin provides to its retail agencies. CBMWD's project supply from all sources is projected to be approximately 308, 000 in 2020. Of this quantity 71,770 AF is received from MWD, 182,300 AF is pumped from groundwater sources, recycled water and Montebello Forebay recharge water makes up approximately 54,000AF.

5.2.3 PRWA Well Supply System

PRWA's water distribution system includes a total of twelve (12) wells, some of which are no longer active, which draw potable water directly from the Central Basin. In conjunction with the wells, the supply system includes three (3) booster pump stations and three (3) reservoirs with a combined storage of approximately 1 million gallons. PRWA's wells are generally located along the outer City boundary. The well pumps are operated to maintain a constant system pressure of 62 to 65 psi.

In early 2009, Well Nos. 5 and 7 were inactive and/or inoperable and not currently being used to supply the water to the distribution system due to various forms of contamination including excessive bacteria, iron and sand detected in the in the water supply. Specifically, Well Nos. 5 and 7 were inactive due to various forms of contamination including excessive quantities of bacteria and iron respectively. Table 20 provides a summary of PRWA's wells, including location, date drilled, well depth, production of each well and whether the well is currently operational.

Table 20 PRWA Well Summary

Well #	Address	Date Drilled	Depth (Ft)	Production		Operational
				AFY	gpm	
1	8739 Gallatin Road	1950	304	2,495	1,547	Yes
2		1956	400	2,900	1,798	Yes
3	8316 Washington Blvd.	1955	586	3,100	1,922	Yes
4		1960	600	2,600	1,612	Yes
5	8305 Slauson Avenue	1970	630	1,800	1,116	Inactive from 2008-April 2009 due to Excessive Bacteria
6	8231 Elmont Avenue	1950	492	718	445	Yes, standby
7	8523 Ceylon Avenue	1948	302	1,000	620	Inactive due to Excessive Iron
8	9623 Telegraph Road	1968	627	600	372	Yes, standby
9	9403 Myron Road	1954	514	900	558	Inactive due to Excessive Sand
10	9249 Bermudez	1934	464	1,500	930	Inactive since 1980
11	9732 Lundahl Drive	1952	520	2,800	1,736	Yes
12		1948	468	2,400	1,488	Yes

Source: PRWA 2009 Water System Master Plan

Well No. 5 is located along Rio Hondo Spreading Grounds. In the last several years, the spreading bed has been deepened by excavation with the base lowered by approximately ten (10) feet in elevation. This has reduced the thickness of the soil between the spreading bed and the aquifer which serves to filter the surface water as it penetrates the soil to replenish the aquifer. In April 2009, Well No. 5 passed its bacteria tests and was placed back in to service after being out of service for over one year.

Historically, groundwater supplies have been sufficient to meet the PRWA's water demands. In the last several years, PRWA has supplemented its groundwater production with WQPP water purchased from CBMWD.

Table 21 summarizes the PRWA's groundwater pumping from the Central Basin over the last five (5) years. As shown in the table, production has decreased to about 5,000 AFY. Demand in PRWA's service area has not increased in over five years, in fact as shown in the table below, annual demand decreased dramatically between 2014 and 2015. Annual demand for FY 2016 (ending June 30, 2016) is projected to be approximately 4,400 AF.

Table 21 Groundwater — Volume Pumped (AF)

Basin Name(s)	Metered or Unmetered	2011	2012	2013	2014	2015
Central Water Basin	Metered	4,806	5,054	4,893	5,031	4,561
Groundwater as a percent of total water supply		100.0%	100.0%	100.0%	100.0%	100.0%

Source: City of Pico Rivera 10-Year Total Water Use data

Table 22 shows the projected supplies within PRWA's service area. The Central Basin is expected to be reliable in all years and over the 25 year planning horizon. Groundwater supplies are expected to remain constant and stable due to the adjudication of the Central Basin – if the PRWA can continue to access recycled water from CBMWD, then in most years, use of additional recycled water would reduce the groundwater pumping pressure within the basin.

Table 22 Groundwater — Volume Projected to be Pumped (AF)

Basin Name(s)	2015	2020	2025	2030	2035
Central Water Basin (facilities and consumptive only)	4,561	5,457	5,590	5,727	5,867
Percent of total water supply	100.0%	100.0%	100.0%	100.0%	100.0%

Since PRWA's annual pumping allocation from CBMWD is limited to 5,579 AFY, PRWA is projected to require a modest quantity of water from other supply sources to meet future demands. The only legal constraints to groundwater supply are the APA, as provided under the adjudication of the Central Basin. As stated above, the WRD manages the ongoing artificial recharge activities within the Central Basin groundwater area. Central Basin groundwater users have the ability to extract up to 20 percent above their APA provided the over-extraction can made up the following year. In addition, WRD allows Central Basin users to carryover up to 20 percent of their APA into the next year. In other words, the carryover supply is only available in the following year and cannot be added to previous carryover supplies. Currently, if an agency exceeds its APA and does not possess carryover quantities from under pumping in previous years, it must lease unused APA from other overlying entities. It is generally understood that several thousand acre feet of APA are reportedly available for lease purchases each year. The WRD also allows for increased pumping under specific (dry year) conditions as discussed in its ESR. Historically when additional supplies beyond the base allotment of 5,579 AFY are required to meet demand, the PRWA has been able to lease groundwater water rights from other Central Basin groundwater users that have surplus supplies available.

5.3 Transfer or Exchange Opportunities

Currently, the PRWA does not transfer and/or exchange any water supply to or from other entities and this report does not anticipate that transfers or exchanges will occur in the future. In the future, within the Gateway Authority IRWMP there could be opportunities created that would allow transfer or exchanges within interested parties. The PRWA will need to monitor the progress on these opportunities in the coming years.

Table 23 Transfer and Exchange Opportunities (AF)

Transfer Agency	Transfer or exchange	Short term or long term	Proposed Volume
None	0	0	0

5.4 Desalination

Desalinated water is not currently perceived to be a viable option for PRWA, and neither brackish nor impaired groundwater is pumped.

5.5 Recycled Supply

CBMWD operates a large regional recycled water system. PRWA currently received recycled water from CBMWD. In order to continually optimize the use of recycled water to offset demands on the potable water system, PRWA coordinated as needed with local agencies responsible for water supply and wastewater collection and distribution. Table 24 lists these agencies and their responsibilities.

Table 24 Participating Agencies

Agency Type	Agency Name	Plan Development Role
Local water wholesaler	Central Basin Municipal Water District	Provided recycled water supply and demand information
Wastewater agency	Los Angeles County Sanitation Districts (2,18)	Provided recycled water supply and demand information
Other	Public Constituencies	Provided recycled water supply and demand information

5.5.1 Wastewater Collection & Treatment

The estimated sewer service population is approximately the same as the number of water customers. Within PRWA's service area, the City is responsible for wastewater collection and conveyance to the Los Angeles County Sanitation District (LACSD) San Jose Creek Water Reclamation Plant (WRP), located in unincorporated Los Angeles County, next to the City of Whittier. LACSD also treats wastewater from several other municipalities. LACSD discharges treated effluent into the ocean, and provides recycled water for use in groundwater recharge and irrigation of parks, schools, and greenbelts.

PRWA does not maintain any records of sewage, so the volumes in Table 25 are calculated assuming 55 percent of residential water and 80 percent of commercial water used is returned to the sewer system.

Table 25 Recycled Water — Wastewater Collection and Treatment (AF)

Type of Wastewater	2005	2010	2015	2020	2025	2030	2035
Wastewater collected & treated in service area	3,460	2,813	2,841	2,870	2,899	2,928	2,957
Volume that meets recycled water standard	3,460	2,813	2,841	2,870	2,899	2,928	2,957

Note: Estimated wastewater flow based on 55 percent of residential and 80 percent of commercial potable water demands.

Within PRWA's service area, discharge of treated wastewater is regulated by the Regional Water Quality Control Board (RWQCB). In general, the majority of the wastewater generated and treated during the summer months is used for alternative beneficial uses such as wetland habitat and restoration and irrigation for golf courses. The use of the recycled water helps supply part of the water demand of other agencies during the peak summer months.

Wastewater collected by LACSD and sent to the San Jose Creek WRP as shown in Table 26, including discharges of PRWA wastewater, is treated to a blend of advanced primary, secondary levels, and tertiary treatment. Of the 82,600 AFY of wastewater the plant processes,

approximately 34,800 are reused at 17 different sites, one of which is the Pico Rivera Municipal Golf Course.

Table 26 Recycled Water — Non-recycled Wastewater Disposal (AF)

Method of Disposal	Treatment Level	2010	2015	2020	2025	2030
Los Angeles County Sanitation District	Secondary/advanced primary/tertiary	47,800	47,800	47,800	47,800	47,800

Source: http://www.lacsd.org/info/water_reuse/refy0405/default.asp

5.5.2 Recycled Water Uses

In an effort to conserve potable water the Rio Hondo water reclamation program is being completed. Currently, only one PRWA customer, the Pico Rivera Municipal Golf Course, is using recycled water for landscape irrigation. The golf course recycled water use is expected to increase to 100 AFY in 2015 and then to 200 AFY in 2020. PRWA's 2015 recycled water use compared to the 2010 UWMP projection is summarized in Table 27.

Table 27 Recycled Water — 2010 UWMP Use Projection Compared to 2015 Actual (AF)

Use type	2010 actual use	2015 actual use	2015 Projection for 2020
Landscape irrigation	78	100	200

5.5.3 Potential Uses of Recycled Water

Potential recycled water users are locations where recycled water could replace potable water use. These potential users are typically landscape irrigation systems, or possibly some types of industrial or commercial water users.

CBMWD currently provides recycled water to the Pico Rivera Golf Course which is located within the PRWA service area. It is recommended that PRWA continue discussions with CBMWD regarding future opportunities, as CBMWD plans to expand recycled water across the north end of the City to complete a recycled water loop through the City of Commerce. Potential recycled water customers within the northern portion of PWRA would include Streamland Park and Rio Hondo Park. In addition, Pico Park could be served recycled water through an extension into the PWD service area along Beverly Boulevard.

The identified potential uses for recycled water are shown in Table 28. Future customers, such as Streamland Park or Rio Hondo Park have not been included as a feasible potential customer at this time.

Table 28 Recycled Water — Potential Future Use (AF)

User Type	Description	Feasibility	2015	2020	2025	2030
Landscape irrigation	Pico Rivera Municipal Golf Course	Current customer	100	200	200	200
Total			100	200	200	200

5.5.4 Proposed Actions to Encourage Use of Recycled Water

One of the primary means of promoting recycled water is the fact that it is mandated by law when available at a reasonable price and is of acceptable quality. There is the potential for additional incentives such as pricing discounts, financing of retrofitting costs, and assistance with any technical, regulatory, or institutional issues that might arise.

Table 29 Recycled Water — Methods to Encourage Recycled Water Use (AF)

Actions	Projected Results					
	2010	2015	2020	2025	2030	2035
Financial incentives	NA	TBD	TBD	TBD	TBD	TBD

Note: TBD = updated in future updates of the PRWA's UWMPs.

5.6 Planned Water Supply Projects and Programs

PRWA has not identified any future water supply projects that are considered viable at this point. However, CBWMD as the local wholesaler is considering a number of recycled water projects to deliver additional recycled water supplies to disadvantaged communities like the City of Pico Rivera. These projects include:

- Pico Rivera Mines Avenue Recycled Water Expansion Project - This project will connect the identified sites including City of Pico Rivera with a portion of an estimate 275 AFY of recycled water.
- Pico Rivera North Recycled Water Expansion Project - This project will meet approximately 150 AFY of recycled water demands
- Pico Rivera South Recycled Water Expansion Project - This project will meet approximately 200 AFY of recycled water demands.

As mentioned above, one possible option for the PRWA to consider is connecting to surface water supplies from Metropolitan via CBMWD if use of surface water is advantageous in under certain hydrologic conditions.

Table 30 Future Water Supply Projects (AF)

Project name	Projected start date	Projected completion date	Potential project constraints	Normal-year supply	Single-dry year supply	Multiple-dry year first year supply	Multiple-dry year second year supply	Multiple-dry year third year supply
Not Planned	Not necessary	~	~	~	~	~	~	~

PRWA's total current and planned supplies are shown in Table 31. The purchased water will meet PRWA's current and planned future water demands.

Table 31 Water Supplies — Current and Projected (AF)

Water purchased from:	Wholesaler supplied volume (yes/no)	2015	2020	2025	2030	2035
Central Basin Municipal Water District	Yes	0	0	0	0	0
Supplier-produced groundwater	No	5,579	5,579	5,579	5,579	5,579
Transfers		0	0	0	0	0
Recycled Water (some potential)		100	200	200	200	200
Other (additional groundwater through one-time lease)		0	0	0	0	0
Total		5,679	5,779	5,779	5,779	5,779

6.0 Water Supply Reliability

6.1 Reliability of Supply

The Act states that every urban water supplier shall include, as part of its plan, an assessment of the reliability of its water supplies. The water supply and demand assessment must compare the total projected water use with the expected water supply over the next 25 years in 5-year increments. This reliability assessment is required for normal, single dry-year and multiple dry water years.

PRWA uses deep groundwater exclusively, and has 100 percent reliability regardless of droughts. During short-term periods of water supply reductions, PRWA would implement its water shortage contingency plan, which is presented in **Appendix D**.

The tables presented in this Section show projected demand and supply during normal years, dry years, and multiple dry years. The projected supply in these tables is equal to the projected demand. If PRWA's future demands are slightly more or less than currently projected, it is anticipated that the supply portfolio maintained by PRWA will be flexible enough to continue to meet the demands.

For the purposes of estimating demands, base water years are defined in Table 32. The "Normal Water Year" used in this plan is based on the average rainfall year FY 2009 - 2010. According to the National Weather Service, the recorded rainfall in FY 2009 - 2010 was 16.36 inches at the Los Angeles Civic Center. One of the closest years to the historical average of 15.38 inches. The "Single Dry Year" is based on the lowest rainfall year FY 2006 - 2007. The recorded rainfall in FY 2006 - 2007 was only 3.21 inches, the lowest recorded year in Los Angeles history. The three "Multiple Dry Water Years" used below were based upon the multiple dry-year period FY 1990 – 1992.[3]

Table 32 Basis of Water Year Data

Water Year Type	Base Year(s)
Normal Water Year	2009-2010
Single-Dry Year	2006-2007
Multiple-Dry Years	1990-1992

Note: Consistent with Central Basin MWD, 2015 UWMP Table 3-3.

Recycled water demands are to be met with recycled water from CBMWD. During dry periods, many conservation measures are focused on reducing outdoor water use, which does not contribute to wastewater flow. In addition, because both of these plants are scalping plants, the recycled water output is limited by the treatment capacity and not by the supply of raw wastewater. Therefore, PRWA's recycled supply is not expected to be subject to reduction during dry periods.

3 Central Basin MWD, 2015 UWMP, page 3-22.

Water supply reliability based on an average water year is summarized in Table 33.

Table 33 Supply Reliability — Historic Conditions (AF)

Average / Normal Water Year	Single Dry Water Year	Multiple Dry Water Years			
		Year 1	Year 2	Year 3	Year 4
Groundwater	5,579	5,579	5,579	5,579	5,579
Percent of Average/Normal Year:	100%	100%	100%	100%	100%

Table 34 Factors Resulting in Inconsistency of Supply

Water supply sources	Specific source name, if any	Limitation quantification	Legal & Environmental	Water quality	Climatic	Additional information
Central Basin (groundwater)	Central Basin	APA	APA	See Section 4	N/A	
Leased water rights (groundwater)	Central Basin	Lease Agreements	Lease Agreements with Other Central Basin water suppliers	See Section 4	N/A	N/A
Recycled Water	0	0	None	None	None	N/A

Table 35 Supply Reliability — Current Water Sources (AF)

Water supply sources	Average / Normal Water Year Supply	Multiple Dry Water Year Supply		
		Year 2016	Year 2017	Year 2018
Central Basin (groundwater)	5,579	5,579	5,579	5,579
Leased water rights (groundwater)	Up to 200	Up to 200	Up to 200	Up to 200
Recycled Water	200	200	200	200
Supply totals	**5,779**	**5,779**	**5,779**	**5,779**
Percent of normal year:	100%	100%	100%	100%

6.2 Projected Normal Water Year Supply and Demand

PRWA's potable water supply is expected to continue to be supplied by groundwater from the Central Basin. Recycled water will provide additional supply.

In 2010, PRWA's demand was 5,191 acre-feet. Over the last five years demand has decreased by approximately 500 AFY in 2015. The water supply and demand assessment must compares the total projected water use with the expected water supply over the next 20 years in 5-year increments. This reliability assessment is required for normal, single dry-year and multiple dry water years. The Central Basin groundwater is expected to be reliable in all years and over the 25 year planning horizon. Groundwater supplies are expected to remain constant and stable due to the adjudication of the Central Basin. Furthermore, groundwater is assumed to be drought-resistant and can be relied on under all hydrologic conditions.

The projected supply and demand under normal, single and multiple dry years conditions are shown in tables 26, 37 and 38. As shown in Table 36 the results of the comparison show a projected surplus in all years beginning in 2020 and extending to 2035. It's important to note that this long-term projection may not hold true if increasing densification within PRWA's service area increases demand above 5,779 AFY. However, this does not account for water use efficiencies through active and passive conservation measures that could reduce annual demand below the demand projections shown in Table 36.

Table 36 Supply and Demand Comparison — Normal Year (AF)

Water supply sources	2020	2025	2030	2035
Groundwater	5,579	5,579	5,579	5,579
Recycled Water	200	200	200	200
Supply totals	5,779	5,779	5,779	5,779
Demand totals	5,365	5,364	5,388	5,412
Difference	**414**	**415**	**391**	**367**

Note: Application of GPCD used to determine projected demand over 25-year planning horizon.

6.3 Projected Single-Dry-Year Supply and Demand Comparison

Changes in weather can lead to changes in water use. During dry years, water demands can be expected to increase. PRWA has elected to use normal year demands to estimate its dry-year demands. PRWA's recycled water supply was assumed to be "drought-proof" and not subject to reduction during dry periods. As shown in Table 37 the results of the comparison show a projected surplus in each single dry year beginning in 2020 and extending to 2035. It's important to note that this long-term projection may not hold true if increasing densification within PRWA's service area increases demand above 5,779 AFY. However, these projections do not account for water use efficiencies through active and passive conservation measures that could reduce annual demand below the demand projections shown in Table 37.

Table 37 Supply and Demand Comparison — Single Dry Year (AF)

	2020	2025	2030	2035
Groundwater	5,579	5,579	5,579	5,579
Recycled Water	200	200	200	200
Supply totals	5,779	5,779	5,779	5,779
Demand totals	4,591	4,703	4,818	4,936
Difference	1,188	1,076	961	843

Note: Application of GPCD used to determine projected demand over 25-year planning horizon.

6.4 Projected Multiple-Dry-Year Supply and Demand Comparison

The Act requires water agencies to project demands and supplies during multiple dry years. Projections were prepared for five time frames: five-year periods ending in 2020, 2025, and 2035. Normal-year demands for intermediate years were interpolated between the demand values in Table 36. Dry-year demands were assumed to be the same as normal demands. PRWA's recycled water supply was assumed to be "drought-proof" and not subject to reduction during dry periods.

As shown in Table 38, the results of the comparison show a projected surplus in all multiple dry years beginning in 2020 and extending to 2035. It's important to note that this long-term projection may not hold true if increasing densification within PRWA's service area increases demand above 5,779 AFY. However, these projections do not account for water use efficiencies through active and passive conservation measures that could reduce annual demand below the demand projections shown in Table 38.

The estimated supply and demand for five dry years ending in 2035 are summarized in Table 38.

Table 38 Supply and Demand Comparison — Multiple Dry Year Events (AF)

		2020	2025	2030	2035
Multiple-dry year first year supply	Supply totals	5,779	5,779	5,779	5,779
	Demand totals	4,591	4,703	4,818	4,936
	Difference	**1,188**	**1,076**	**961**	**843**
Multiple-dry year second year supply	Supply totals	5,779	5,779	5,779	5,779
	Demand totals	4,591	4,703	4,818	4,936
	Difference	**1,188**	**1,076**	**961**	**843**
Multiple-dry year third year supply	Supply totals	5,779	5,779	5,779	5,779
	Demand totals	4,591	4,703	4,818	4,936
	Difference	**1,188**	**1,076**	**961**	**843**

Note: Application of GPCD used to determine projected demand over 25-year planning horizon.

7.0 Water Shortage Contingency Plan and Drought Management

This section describes PRWA's water shortage planning efforts. Water shortages may result from weather variations and catastrophes such as pipeline failures, supply contamination, and earthquakes. During periods of drought, PRWA will utilize its Water Shortage Contingency Plan (WSCP), as adopted in 1992.

City Ordinance No. 826 stipulates the use of a four-stage rationing plan to be used in case of water shortage. The rationing plan utilizes both voluntary and mandatory water rationing depending on the severity of the water shortage.

It is highly unlikely that PRWA's ability to pump groundwater would be impeded by natural disasters for more than several days as studies indicate that groundwater wells would probably be back in operation within five days of a severe earthquake.

PRWA storage reservoirs hold treated potable water capable of providing all PRWA customers with 45 GPCD for 12 hours, in case of emergency. Therefore, if well site production was stopped due to electrical failure or transmission line malfunctions, these reservoirs would be the key water supply sources to the PRWA service area.

7.1 Stages of Action

The Act requires that urban water agencies conduct a water shortage contingency analysis as part of their 2010 UWMP. In 1992, PRWA adopted its WSCP in response to California Assembly Bill Number 11. The WSCP is intended to conservatively manage PRWA water resources to provide water to its customers on an equitable and business-sound basis, in the event of a curtailment of deliveries of up to 50 percent. Table 39 shows the water supply stages and conditions for PRWA.

Table 39 Water Shortage Contingency — Rationing Stages to Address Water Supply Shortages

Stage No.	Water Use Restrictions	Water Supply Reduction Goal	Percent of Supply Shortage
1 - Water Supply Warning	Voluntary	15% reduction	Up to 15%
2 - Water Shortage Alert	Voluntary and/or Mandatory	25% reduction	15-25%
3 - Water Shortage Crisis	Mandatory	35% reduction	25-35%
4 - Water Shortage Emergency	Mandatory	Up to 50% reduction	35-50%

7.2 Estimate of Minimum Supply for Next Three Years

The Act requires an estimate of the minimum supply available during the next three years (2011 – 2014). It is suggested that the estimate be based on the driest three-year historic sequence for the water supply (as shown in Table 39 and consistent with CBMWD's multiple dry year scenario FY 2006-2009). PRWA's supply of potable water comes from their groundwater wells. Central Basin is expected to provide sufficient water to its member agencies even during dry years. Table

40 shows the estimated minimum supply the PRWA could expect to have in the event of as supply reduction in the Central Basin.

PRWA's recycled supply is currently provided by CBMWD. During a drought event, reduced water consumption could lead to reduced raw wastewater flows. However, much of the reduction in water use is expected to come through a reduction in outdoor use, which should not impact wastewater flows. The supply of recycled water is considered to remain constant during multiple dry years.

Table 40 Water Shortage Contingency

Water supply sources	Normal Water Year Supply 2016	Minimum Supply for Next Three Years		
		Year 2016	Year 2017	Year 2018
Central Basin (groundwater)	5,579	5,579	5,579	5,579
Recycled Water (via CBWMD)	200	200	200	200
Percent of normal year	100%	100%	100%	100%

Note: Contract agreements determine quantities of leased extractions.

7.3 Catastrophic Supply Interruption Plan

Catastrophic events such as earthquakes or regional power outages can impact water supply. PRWA developed its Emergency Response Plan (ERP) (included in **Appendix E**) to meet emergencies within its service area and has updated the plan as necessary. The ERP provides information on PRWA operations, assigns responsibilities, and establishes general policies and procedures associated with operations during natural disasters, technological incidents, and nuclear defense emergencies.

PRWA has storage reservoirs to provide water during an interruption to supply. These reservoirs hold treated potable water capable of providing all PRWA customers with 45 GPCD for 12 hours. PRWA has also established minor emergency interconnections with the City of Whittier and the San Gabriel Valley Water Company for use during short-term outages. These minor interconnections are intended for emergencies. During an extended outage or drought, these neighboring agencies may not have sufficient supply at these minor interconnections to share significant amounts with PRWA.

Table 41 summaries various possible catastrophes and a summary of the actions that would be taken in response.

Table 41 Preparation Actions for a Catastrophe

Possible Catastrophe	Summary of Actions
Fire	For motors and switchgear (including well facilities, pumps, or control centers), staff are not allowed to enter the site. Staff will notify the fire authority and be available to assist as necessary. For fires in the motor or switchgear, where possible, the main electrical breaker should be turned off.
Earthquake	Staff will take appropriate defensive measures until the earthquake has passed. After an earthquake, pumps, wells, control cabinets, reservoirs, and pipelines will be inspected for damage. Preparation will be initialized for the isolation of the reservoir water supply and prepared for emergency distribution.

Table 41 Preparation Actions for a Catastrophe

Possible Catastrophe	Summary of Actions
Flooding	Sandbagging will be used, where feasible, to protect PRWA facilities. Motors or electrical switchgears that could come in contact with floodwaters will be turned off, and the main breakers will be deactivated. After a flood, well and distribution system samples will be taken to ensure water quality has not been compromised. If contamination is present, immediate action will be taken, including additional chlorination, flushing, activation of interconnections, public notification, and/or boil water orders.
Sabotage of Water Supplies	If there is evidence of tampering, such as an open or damaged reservoir hatch, apparent tampering with wells or pumps, suspicious containers left on site, or water having a strange odor or color, the following steps must be taken: • Isolate the affected system • Immediately notify your supervisor and management • Isolate the area and notify local law enforcement officials • Collect water samples for analysis. • Notify the Health Department. • Notify the public, as appropriate • Flush and chlorinate, as appropriate The system will be returned to service only after testing has deemed it safe.
System Contamination	For contamination within the distribution system, reservoir, or wells, the procedures in the Emergency Chlorination Plan will be followed.
Disruption of Supply	In the event of supply due to issues such as well failure, commercial power failure, and pipeline failure, emergency generators will be activated. If the problem involves the operation of a well, a well/pump repair company will be contacted for assistance.
Civil Disorder	In the event of civil disorder, PRWA facilities will remain locked and, as practical, staffed by PRWA staff. Additional private security guards will be hired as required.
Disruption of Distribution Pumping	For disruptions in distribution pumping, such as a fire at a well site, staff will first contact his or her superintendent to inform the superintendent of the situation. After calling for assistance, the site will be shut down, and an alternate well will be activated, after which the chlorine residual will be checked.
Main Breaks	Repairs of main breaks will be immediately initiated and repaired by PRWA staff, unless the General Manager or the field superintendent deems that assistance is necessary. A PRWA representative will monitor the repair activity to insure that all repair work is in accordance with AWWA and PRWA standards.
Damaged or Sheered Fire Hydrant	Damaged/sheered hydrants shall be isolated by closing the hydrant lateral valve, and repairs will be made thereafter. If repairs cannot be made, the area will be delineated and secured, and a bag will be placed over the hydrant to prevent usage. Staff will immediately notify the local fire authority of the hydrant's location, and that it is out of service.
Commercial Power Outages	Staff will contact the Southern California Edison (SCE) to determine the anticipated outage duration. Two diesel-powered generators are permanently installed at two well sites to provide power for distribution pumping, and two other well sites are equipped with a natural gas engines that are designed to run in the case of a power outage. Currently, the City is in the design phase to add backup generators for use at other City well sites. Once power has been restored, time will be allowed to let the SCE system stabilize, and then the generator and natural gas engine will be stopped.
Building Evacuation	For a building evacuation, staff shall follow the posted evacuation route to the assigned staging area. The evacuation commander will sound the evacuation alarm and oversee the evacuation. If it is safe to do so, gas and electrical service to the building will be shut off.
Bomb Threats	All bomb threats are taken seriously. For an occupied building, the building must be evacuated until the threat is alleviated. PRWA management, local police, and local fire authorities must be immediately notified of the threat. PRWA employees are not allowed to try to disable a suspected bomb or suspicious device, and the area will be secured, allowing access only to authorized personnel.

Table 41 Preparation Actions for a Catastrophe

Possible Catastrophe	Summary of Actions
Emergency Water Disbursement	If it is impossible to distribute water through the normal distribution system, emergency water distribution is possible from the reservoir. PRWA staff will create a distribution center to supply water requests from reservoir taps.
Emergency Notification	For emergency events requiring public notification, PRWA will follow the directions ascribed by the state health department. As necessary, electronic media, radio and television, and print media (in both English and Spanish) will be utilized. Two vehicles with loudspeakers will also be available to notify residents of the emergency and any special circumstances such as water conservation requests. This should be accomplished within 2.5 hours.

7.4 Prohibitions, Penalties and Consumption Reduction Methods

PRWA has established a water shortage management plan that becomes effective during different stages of water shortage. Mandatory prohibitions on water usage during water shortages apply to all PRWA customers. The mandatory prohibitions are shown in Table 42.

Table 42 Water Shortage Contingency — Mandatory Prohibitions

Prohibitions	Stage When Prohibition Becomes Mandatory
Installed landscape must be native to Pico Rivera climate.	I
No loss of water from user's property when irrigating landscape.	I
Irrigation during morning and evening hours to avoid evaporation loss.	I
All leaks must be repaired.	I
Use of a broom or other non-water means to clean hardscape.	I
Use of reclaimed water where and when available.	I
Potable water used to irrigate grass, lawns, ground cover, shrubbery, vegetation, and trees shall not result in runoff of more than five minutes.	II
Potable water shall not be used to wash sidewalks, walkways, driveways, parking lots, open ground, or other hard-surfaced areas, except where necessary for public health or safety.	II
Potable water shall not be allowed to escape from breaks within the customer's plumbing system for more than twenty-four hours after the customer is notified or discovers the break.	II
Washing cars, boats, trailers, aircraft, or other vehicles by hose shall not be done without a shutoff nozzle and bucket, except to wash such vehicles at commercial or fleet vehicle washing facilities using water recycling equipment.	II
No restaurant, hotel, café, cafeteria, or other public place where food is sold, served, or offered for sale, shall serve drinking water to any customer unless expressly requested.	III
Cleaning, filling, or maintaining decorative fountains, lakes, or ponds with potable water is prohibited.	III
Where non-potable or recycled water is sufficient, potable water may not be used for construction, compaction, dust control, street or parking lot sweeping, or building washdown.	III
City Manager must issue prior approval for the use of potable water for sewer system maintenance or fire protection training.	III

In addition to the prohibitions above, PRWA has identified a number of methods to reduce water consumption during a drought. Public information notices will be used to inform and persuade customers to reduce water demand levels. These methods are summarized in Table 43.

Table 43 Water Shortage Contingency — Consumption Reduction Methods

Consumption Reduction Method	Stage When Method Takes Effect	Projected Reduction
Voluntary best efforts in general water use - Reduce general use by 10% - Water-efficient landscaping is encouraged - No runoff from irrigation - Cease irrigation between 11 a.m. and 4 p.m.	1	10%
Voluntary and mandatory restriction in general water use (same as Stage I restrictions plus): - Reduce general use by 20% - Cease irrigation between 6 a.m. and 6 p.m., except with hand-held hose or using reclaimed water - Irrigation only 3 times per week	2	20%
Mandatory restrictions (same as Stage II restrictions plus): - Reduce general use by 35% - Commercial car washing using recycled water only - No golf course water unless reclaimed water is used - Irrigation only 2 times per week.	3	35%
Mandatory restrictions(same as Stage III restrictions plus): - Reduce general use by 50% - Water rationing by customer class - Irrigation only 1 time per week	4	50%

The PRWA may impose surcharges or other penalties for noncompliance with the requirements or prohibitions in accordance with Section 39 of its Code of Ordinance. PRWA's current rate structure consists of a fixed monthly rate (based on meter size) plus a consumption charge based on actual water delivered. Each PRWA customer has an allotment based on seasonal patterns and each customer shall be notified of their classification and allotment by mail before the water shortage emergency takes effect. New customers and connections will be notified at the commencement of service. For all PRWA customers, an excess use penalty per HCF of water will be applied for water used beyond the applicable allocation. After one written warning, PRWA may install a flow-restricting device on the service line of any customer observed by PRWA staff to be using water for any non-essential or unauthorized use.

These penalties are summarized in Table 44.

Table 44 Water Shortage Contingency — Penalties and Charges

Penalty	Situation when Penalty May Take Effect
Excess use charge assessed	3
Installation of flow restrictor	4

7.5 Revenue Impacts of Reduced Sales During Shortages

Anticipated shortfalls in projected revenue due to water supply shortages would need to be covered through increased water rates and/or an advance from funds set aside by PRWA. PRWA receives 93 percent of its normal annual revenues from monthly charges. Surplus revenues are used to fund the water system capital improvements. Anticipated shortfalls in projected revenue due to water supply shortages are covered through an emergency fund, which is maintained at 75 percent of normal PRWA annual revenue. However, a rate increase could still be needed during a prolonged water shortage. Recommended percent increases during Stages 1 through 4 are 15, 25, 50, and 100 percent, with the maintenance of a fifteen (15) percent increase over pre-shortage rates to recover lost revenues. The impacts of such a reduction on the PRWA's revenue are shown in Table 45.

Measures to overcome expenditure impacts and estimated dollar savings are provided in Table 46.

Table 45 Actions and Conditions that Impact Revenues

Measure	Summary of Effects
Emergency Fund	PRWA has an emergency fund to be used in times of drought and emergencies to offset the loss of revenue. PRWA could also advance funds from its General Fund for the loss of essential revenue.
Rate adjustment	In 2013 and again in 2014, PWRA adopted a new water rate case to increase operating revenues to fund continuing escalating operational and water costs and to fund capital improvement projects. In periods of a prolonged water shortage a short-term rate increase could still be needed to recover lost revenues. Recommended percent increases during Stages 1 through 4 are 15, 25, 50, and 100 percent, with the maintenance of a fifteen (15) percent increase over pre-shortage rates.

Table 46 Actions and Conditions that Impact Expenditures

Measure	Summary of Effects
Curb all discretionary spending	Discretionary spending is not considered to be a significant budget item.
Defer Capital Improvement Program	Certain non-essential projects (including scheduled facility replacement and refurbishments) could be delayed without having an adverse effect.

7.6 Mechanism to Determine Reductions in Water Use

Mechanisms to determine reductions in water use include daily production and distribution record reviews and water meter auditing. PRWA's mechanisms for monitoring water use are summarized in Table 47.

Table 47 Water Use Monitoring Mechanisms

Mechanisms for determining actual reductions	Type and quality of data expected
Daily production and distribution records	Daily production and distribution records would be monitored, enabling PRWA staff to determine if reduction goals are being met. Customers would be alerted to actual water use (increase/decrease).
Water meter auditing	Monitoring of excessive water use with frequent meter readings of high-volume users.

8.0 Water Quality Impacts on Reliability

PRWA is committed to providing high-quality water to its customers. PRWA's supply is not considered subject to reduction due to poor water quality.

The quality of PRWA's water deliveries is regulated by the California Department of Health Services (DHS), which requires regular collection and testing of water samples and tests to ensure that the quality meets state and national regulatory standards and does not exceed MCLs. Through its approved laboratory contracts, PRWA performs water quality testing, which has consistently yielded results within the acceptable regulatory limits. Overall, PRWA's water is of high quality.

The quality of PRWA's groundwater supply over the next 25 years is expected to continue to exceed DHS standards. Groundwater will continue to be treated to meet drinking water standards, and no impacts to groundwater supplies due to water quality deficiencies are foreseen to occur in the next 25 years. Table 48 summarizes the current and project water supply changes due to water quality.

Table 48 Water Quality — Current and Projected Water Supply Impacts

Water source	Description of condition	2020	2025	2030	2035
Groundwater	None	0	0	0	0
Recycled Water	None	0	0	0	0

Groundwater in the Central Basin is continually monitored because of its susceptibility to seawater intrusion, potential contamination from adjacent basins and migration of shallow contamination into deeper aquifers. The Alamitos Barrier, located in the southwest portion of Central Basin's service area, provides a buffer between the groundwater basin and seawater intrusion. The available supply of replenishment water to physically recharge the Basin includes local and imported water. The local water that recharges the groundwater basin comes from storm flows from the San Gabriel Valley and flow obligations under the San Gabriel River Judgment with the Upper Area of the Central Basin. This water is defined as "Make-Up Water." Imported Water is purchased from Metropolitan to be used for surface spreading at the Montebello Forebay and for seawater barrier injection at the Alamitos Barrier. Recycled water is purchased from the County Sanitation Districts of Los Angeles County (CSDlAC) for spreading and injection. As mentioned in the overview, the Central Groundwater Basin has very good water quality overall. However, there are several contaminants (Perchlorate, Manganese, and the Volatile Organic Compounds [PCE and TCE]) in isolated areas that are still a concern.[4]

As the groundwater replenishment agency for the Central Groundwater Basin, the WRD has programs to monitor groundwater levels and quality. WRD's Regional Groundwater Monitoring Program consists of a network of about 200 WRD and USGS installed monitoring wells at 45 locations throughout the Central Basin region. Monitoring well data is supplemented with information from production wells to capture the most accurate information available. WRD staff provides the in-house capability to collect, analyze and report groundwater data. This information is stored in a GIS database and provides the basis to better understand the characteristics of the Central Groundwater Basin. WRD makes this information available through an annual Regional Groundwater Monitoring Report which documents groundwater production, groundwater levels, and groundwater quality conditions throughout the Central Basin.

4 Central Basin MWD, 2010 UWMP, page 5-2.

9.0 Demand Management Measures

Water conservation is a critical part of the PRWA's 2015 UWMP and its long-term strategy for meeting the water needs of its customers. The PRWA implements some water conservation demand management measures (DMMs).

The unpredictable water supply and ever-increasing demand on California's complex water resource system resulted in a coordinated effort by the DWR, water utilities, environmental organizations, and other interested groups to develop a list of urban DMMs for conserving water. The California Urban Water Conservation Council (CUWCC) was created to assist in increasing water conservation through partnerships among urban water agencies, public interest organizations, and private entities. This consensus-building effort resulted in a Memorandum of Understanding, as amended September 16, 1999, which formalizes an agreement to implement DMMs and provide a cooperative effort to reduce the consumption of California's water resources.

The goals of the PRWA's water conservation program are to:

- demonstrate continued commitment to the DMMs or if applicable, Best Management Practices (BMPs)[5]
- ensure a reliable water supply

The PRWA is not a signatory to the Memorandum of Understanding (MOU) Regarding Urban Water Conservation in California, which created the CUWCC in 1991. While PRWA is not a signatory to the MOU, PRWA has voluntarily implemented (to the best of its ability due to limited staff and resources) the fourteen water conservation DMMs.

The CUWCC grouped the previous BMPs into five categories:

- Two categories are Foundational BMPs: 1) Operations and 2) Education because they are considered to be essential water conservation activities by any utility and are ongoing practices with no time limits.
- Three categories of Programmatic BMPs are organized into 1) Residential: 2) Commercial, Industrial, and Institutional (CII), and 3) Landscape categories.

Agencies can comply with the Programmatic BMPs through one of three compliance options: 1) traditional approach to BMP compliance; 2) the Flex Track Compliance Option; or, 3) the gallons per capita per day (GPCD) Compliance approach (this approach provides a reporting mechanism)

Water utilities throughout California are implementing water conservation programs and providing services to their customers to promote water use efficiencies and water savings.

9.1 Foundational BMPs

- Utility Operations Programs - According to the CUWCC, this practice consists of several key actions that utilities shall take to better enable conservation program implementation, to supplement conservation incentives with regulations where appropriate, and to assist one another through the wholesaler-retailer relationship.

5 MOU Signatories only.

- Education Programs - California water agencies have played a major role in stressing the need for their customers to conserve water through both public information and school education programs. The specifics of how these programs are to be implemented are detailed below.
    - Public Information Programs present opportunities to use public information programs as an effective tool to inform customers about the need for water conservation and ways they can conserve, and to influence customer behavior to conserve.
    - School Education Programs have been implemented to reach the youngest water users at an early age and enforce the need to engage in water conservation as a life-long behavior.

9.2 Programmatic BMPs

According to the CUWCC, as stated above each signatory has the option of implementing and complying with each of the Programmatic BMPs through one of three (3) approaches: 1) the traditional approach to BMP Compliance; 2) the Flex Track alternative included in each Programmatic BMP or the GPCD Compliance Option. Table 49 presents the CUWCC's Foundational and Programmatic BMPs and DMMs.

- **Residential –** Residential water users throughout California depend on a reliable and safe supply of water for their homes. This BMP defines the best and most proven water conservation methods and measures those residents, working in conjunction with water agencies, can implement. By implementing these methods and measures homeowners, multi-family property owners, and tenants will increase water use efficiency and improve regional or local reliability.
- **Commercial, Industrial, and Institutional (CII) –** CII water demands make up a large percentage of total demand for California. CII water use varies dramatically between business sectors as well as within a given water agency's territory as is the case with the PRWA. The goal of this BMP is to implement comprehensive yet flexible BMPs, allowing the PRWA to tailor the implementation of each practice to fit local needs, opportunities and businesses in its service area. The end result is a practice that is successful and will produce the greatest amount of cost-effective water savings.
- **Landscape –** Outdoor irrigation accounts for a large portion of urban water use. Irrigation water use varies dramatically depending on water pricing and availability, plant choice, geographic locations, seasonal conditions, and the level of commitment to sound water efficiency practices. The goal of this BMP is that irrigators, with assistance from MOU signatories, will achieve a higher level of water use efficiency consistent with the actual irrigation needs of the plant materials. Achieving this goal would ultimately reduce overall demands for water, especially during the peak summer months when temperatures are high and irrigation is essential for plant life.

The PRWA has limited resources including staffing and currently lacks the necessary funding to completely support each of the DMMs completely. However, similar to many water utilities throughout California, the PRWA, to the best of its abilities is committed to implementing water conservation programs and providing services to its customers to promote water use efficiencies and water savings. The results of local water use efficiencies have been demonstrated in compliance year 2015 when PRWA's annual demand was recorded as 4,561 AF.

Table 49 Demand Management Measures

Demand Mgt Measures/Best Management Practices for Urban Water Conservation in California						
DMMs/CUWCC BMPs by Type, Organization and Compliance Measure						
Type	**Category**	**BMP**	**Description**	**DMM**		**Compliance Schedule**
Foundation	Operations Practices	1.1.1	Conservation Coordinator	**L**	Water Conservation Coordinator	Within 36 months
		1.1.2	Water Waste Prevention	**M**	Water Waste Prevention	Within 36 months
		1.1.3	Wholesale Agency Assistance Programs	**J**	Wholesale Agency Programs	Within 36 months
		1.2	Water Loss Control (System Water Audits, Leak Detection and Repair)	**C**	System Water Audits, Leak Detection and Repair	Within 18 months
		1.3	Metering with Commodity rates for all New Connections and Retrofit of Existing Connections	**D**	Metering with Commodity rates for all New Connections and Retrofit of Existing Connections	Within 36 months
		1.4	Retail Conservation Pricing	**K**	Conservation Pricing	Within 36 months
	Education Programs	2.1	Public Information Programs	**G**	Public Information Programs	Within 36 months
		2.2	School Education Programs	**H**	School Education Programs	Within 36 months
Programmatic	Residential	3.1	Residential Assistance Program	**A**	Water Survey Programs for Single-Family and Multi-Family Residential Customers(1)	Within 36 months
			(Plumbing Retrofit)	**B**	Residential Plumbing Retrofit	Within 36 months
		3.2	Landscape Water Survey	**A**	Water Survey Programs for Single-Family and Multi-Family Residential Customers[1]	Within 36 months
		3.3	High-Efficiency Washing Machine Rebate - Financial Assistance Programs	**F**	High-Efficiency Washing Machine Rebate Programs	Within 36 months
		3.4	WaterSense Specification (WSS) Toilets	**N**	Residential ultra-low flush toilet replacement programs	Within 36 months
	CII	4	Commercial, Industrial, Institutional (CII)	**I**	Conservation Programs for Commercial, Industrial, Institutional (CII)	Within 36 months
	Landscape	5	Landscape	**E**	Large Landscape conservation programs and incentives	Within 36 months

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

Source: Adapted from Department of Water Resources Guidebook to Assist Urban Water Suppliers to Prepare a 2010 UWMP, February 2011.

9.3 Demand Management Measures

9.3.1 DMM A – Water Survey Programs for Single-Family Residential and Multi-Family Residential Customers

PRWA encourages the use of residential water use surveys, which look at all the water-using devices inside the home, such as toilets, faucets, and showerheads. Upon request, a PRWA employee checks for leaks and tests the flow indoors and outdoors. Once the survey is completed, recommendations are provided for retrofitting certain water use devices, and educational materials are supplied to the resident. Support for this is provided by CBMWD, with funding for residential survey devices from Metropolitan.

9.3.2 DMM B – Residential Plumbing Retrofit

PRWA encourages its customers to use ultra-low flush (ULF) toilets, and PRWA coordinates its efforts with the CBMWD to distribute waterless urinals to various schools within the El Rancho Unified School PRWA and some commercial customers.

PRWA also participated in CBMWD's program to distribute low-flow showerheads and aerators. This program is administered by the CBMWD and the West Basin Municipal Water District with financial assistance from Metropolitan. Low-flow showerhead programs have been and will continue to be promoted.

9.3.3 DMM C – System Water Audits, Leak Detection, and Repair

PRWA is considering implementing a true water audit and leak detection and repair program. This program has the potential identify and reduce unaccounted water losses of approximately 5 - 10 percent per year. Due to PRWA being located in an active earthquake zone, the system water audit and leak detection and meter calibration programs have been permanently integrated into the utility operations, which enable continuous monitoring of all mains, laterals, and meters. Additionally, in order to ensure that all valves and meters are working properly, PRWA services both its largest and most compound customer meters annually. PRWA also replaces its meters as needed, exercises the valves throughout the year, and flushes the water mains throughout the year.

9.3.4 DMM D – Metering with Commodity Rates for all New Connections and Retrofit of Existing Connections

PRWA's service area is fully metered, and meters are required for all new connections. All of PRWA's water connections are billed a fixed service charge plus commodity usage.

9.3.5 DMM E – Large Landscape Conservation Programs and Incentives

The City of Pico Rivera has adopted a Water Efficient Landscape Ordinance, which requires water-efficient landscaping and is applied to City-wide industrial, commercial, and residential projects. In addition, with the completion of CBMWD's Rio Hondo water reclamation program, recycled water is used by the Pico Rivera Municipal Golf Course.

9.3.6 DMM F – High-Efficiency Washing Machine Rebate Programs

PRWA incorporates information about high-efficiency appliances, including washing machines, into its public information programs. At present there are several residential and commercial toilet

and washer rebates offered by CBMWD, and PRWA will continue to monitor and promote the availability of these and other rebate programs to its customers.

9.3.7 DMM G – Public Information Program

PRWA coordinates its efforts with CBMWD and energy utilities to educate the public on water conservation. Council members regularly promote water conservation at public functions, community groups, and schools, and PRWA is expanding its public information program to include bill inserts and brochures.

9.3.8 DMM H – School Education Programs

PRWA and its Board members work in coordination with the El Rancho School District to educate students about the importance of water conservation, and grade-appropriate materials are distributed. See **Appendix G** for a list of CBMWD school education programs.

9.3.9 DMM I – Conservation Programs for Commercial, Industrial, and Institutional (CII) Accounts

PRWA does not currently have any conservation programs for commercial, industrial, and institutional accounts. However, PRWA can take advantage of programs offered by CBMWD and Metropolitan that offer rebates to business, schools, and other facilities for items such as commercial clothes washers, waterbrooms, cooling tower conductivity controllers, pre-rinse spray nozzles, x-ray machine recirculating devices, and commercial toilets and urinals. In addition, PRWA is considering passing a resolution to require the future construction projects to use water conservation methods for plumbing fixtures, including ULFTs, low-flow showerheads, and waterless urinals.

9.3.10 DMM J – Wholesale Agency Assistance Program

Coordination with CBMWD for regional water conservation programs. Most recently, CBMWD As a part of Central Basin's "Shut Your Tap!" Conservation Campaign. CBMWD hosts a bimonthly event called the "Shut Your Tap! Roundtable". The Roundtable provides a forum for cities, water agencies, and interested parties to share ideas and information on conservation trends and issues. The setting provides a great forum for interaction and networking among water stakeholders. In an effort to provide Central Basin cities with support for their marketing, outreach, and enforcement of local mandatory water conservation ordinances, a "Water Use Efficiency Ordinance Tool Kit" was developed and provided to each city. The Tool Kit included a cover letter, sample ordinances, a sample staff report template, sample violation notices, and ordinance enforcement collateral. To add to the advertising opportunities of our campaign partners, a Conservation Messaging Tool Kit was also provided to cities and water retail agencies. Each kit includes water conservation tip sheets, door hangers, bill inserts, local cable TV announcements, countertop tent cards, and sample newsletter articles.

CBMWD has a host of grant programs that are specifically established to promote water conservation. See **Appendix G** for list of this programs that could provide the funding and the materials needed to improve the PRWA’s water conservation programs.

Furthermore, the CBMWD has five-year Conservation Master Plan to expand long-term water saving efforts and introduce new regionally tailored programs. The PRWA will track its involvement with these future programs and can engage on a case-by-case basis according to the PRWA’s current operations, funding and staff resources.

9.3.11 DMM K – Conservation Pricing

PRWA has implemented a tiered water rate structure which was designed to discourage excessive water use. All users pay a minimum monthly service charge plus a three-tiered commodity rate that increases with increased water consumption.

9.3.12 DMM L – Water Conservation Coordinator [Water Use Efficiency Practitioner]

Currently, the PRWA does not have a designated conservation coordinator; however, over the next two years the PRWA expects to develop a comprehensive water conservation program to address to this issue. Because staff resources have been reduced, the PRWA has one City staff member to advocate for its conservation programs.

9.3.13 DMM M – Water Waste Prohibitions

Prohibitions against wasteful use of water are followed, as set forth in the California Constitution. PRWA has also adopted Resolution 3945 and codified in Title 13.70.040 (included in **Appendix F**), which establishes prohibitions regarding the wasteful use of water. Some of these include:

1) Limits on Water Hours and Duration.
2) No Excessive Water Flow or Runoff.
3) No Washing Down Hard or Paved Surfaces.
4) Obligation to Fix Leaks, Breaks or Malfunctions.
5) Limits on Washing Vehicles
6) Drinking Water Served Upon Request Only.
7) Commercial Lodging Establishments Must Provide Option to Not Launder Linen Daily.
8) No Installation of Nonrecirculating Commercial Car Wash and Laundry Systems.
9) Restaurants Required to Use Water Conserving Dish Wash Spray Valves.

9.3.14 DMM N – Residential ULFT Replacement Program

PRWA has previously participated with CBMWD in its ULFT replacement program, which supplied ULFTs free of charge to PRWA customers. CBMWD continues to partner with local water purveyors like PRWA, offering both a $50 rebate for the purchase and installation of ULFTs and a $70 rebate for the purchase and installation of dual-flush toilets, and PRWA is committed to participating again in this program.

9.4 Determination of Implementation

Currently, the PRWA has not completely implemented all of the necessary DMMs. During development of this 2010 UWMP the PRWA has specifically identified the DMMs that are lacking complete implementation and has initiated a process to develop a comprehensive water conservation program over the next 18 months. The following DMMs that are lacking 100 percent compliance; however, all DMMs including those listed below will be encapsulated in the PRWA's in a comprehensive water conservation program.

DMM E – Large Landscape Conservation Programs and Incentives

DMM G – Public Information Program

DMM H – School Education Programs

DMM I – Conservation Programs for Commercial, Industrial, and Institutional (CII) Accounts

DMM L – Conservation Coordinator [Water Use Efficiency Practitioner]

DMM N – Residential ULFT Replacement Program

10.0 Agency Coordination and Public Participation

PRWA coordinated the preparation of this UWMP with the appropriate agencies. PRWA is a member of the CBMWD, a water wholesaler. In accordance with the Act, PRWA provided a 60-day notice to CBMWD, San Gabriel Valley Water Company, County Sanitation Districts of Los Angeles and PWD that it is updating and amending its UWMP.

Also, in accordance with the Act, PRWA notified the land use jurisdictions (City of Pico Rivera) within its service area that it was preparing an update of its UWMP. Copies of the draft 2015 UWMP were made available for public inspection at the PRWA office, located at 6615 Passons Boulevard, Pico Rivera, California. The adopted 2015 UWMP will be available for public review for 30-days, beginning in early July and ending in early August 2016. Public review will include circulation notices to the above listed agencies. As required, the adopted 2015 UWMP will also be sent to the State Library for official filing.

PRWA encouraged community and public interest involvement in the UWMP update through public hearings and inspection of the draft 2015 UWMP. A Public Hearing regarding the 2015 UWMP was held on June 28, 2016, as recorded no formal comments were received. **A copy of the published Notice of Public Hearing is included in Appendix B.** The hearing provided an opportunity for all residents and employees in PRWA's service area to learn and ask questions about their water supply in addition to PRWA's plans for providing a reliable, safe, high-quality water supply. These coordination efforts are summarized in Table 50.

Table 50 Coordination with Appropriate Agencies

Coordinating Agencies	Participated in developing the plan	Commented on the draft	Attended public meetings	Was contacted for assistance	Was sent a copy of the draft plan	Was noticed of intention to adopt	Not involved / No information
Central Basin Municipal Water District (CBMWD)					X	X	
Pico Water District (PWD)					X	X	
Citizens of Pico Rivera	X		X			X	
San Gabriel Valley Water Company						X	
County Sanitation Districts of Los Angeles						X	

10.1 Adoption of the UWMP

This PRWA 2015 UWMP was adopted by the City of Pico Rivera City Council on June 28, 2016. **A copy of the formal resolution is included in Appendix B of this Final PRWA 2015 UWMP**. Upon adoption the PRWA/City will implement its adopted UWMP pursuant to Water Code Section 10643 in accordance with the information set forth in this UWMP.

Appendix A
Text of Urban Water Management Planning Act

Appendix B
Adoption Resolution and Related Notification Documentation

Appendix C
Groundwater Bulletin 118, Central Basin 4-11.04 Description

Appendix D
Water Shortage Contingency Plan

Appendix E
Emergency Response Plan

Appendix F
PRWA Resolution 3945; Ordinance 1061

Appendix G
CBMWD School Education Current and Future Programs

Appendix H
2015 UWMP Checklist
DWR Standardized Tables for 2015 UWMP as required for electronic submittal

Appendix I
Gateway Regional Water Conservation Alliance Report

Appendix A
Text of Urban Water Management Planning Act

California Water Code Division 6, Part 2.6.

Chapter 1. General Declaration and Policy §10610-10610.4
Chapter 2. Definitions §10611-10617
Chapter 3. Urban Water Management Plans
Article 1. General Provisions §10620-10621
Article 2. Contents of Plans §10630-10634
Article 2.5. Water Service Reliability §10635
Article 3. Adoption And Implementation of Plans §10640-10645
Chapter 4. Miscellaneous Provisions §10650-10656

Chapter 1. General Declaration and Policy

SECTION 10610-10610.4

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

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

(1) The waters of the state are a limited and renewable resource subject to ever-increasing demands.

(2) The conservation and efficient use of urban water supplies are of statewide concern; however, the planning for that use and the implementation of those plans can best be accomplished at the local level.

(3) A long-term, reliable supply of water is essential to protect the productivity of California's businesses and economic climate.

(4) As part of its long-range planning activities, every urban water supplier should make every effort to ensure the appropriate level of reliability in its water service sufficient to meet the needs of its various categories of customers during normal, dry, and multiple dry water years.

(5) Public health issues have been raised over a number of contaminants that have been identified in certain local and imported water supplies.

(6) Implementing effective water management strategies, including groundwater storage projects and recycled water projects, may require specific water quality and salinity targets for meeting groundwater basins water quality objectives and promoting beneficial use of recycled water.

(7) Water quality regulations are becoming an increasingly important factor in water agencies' selection of raw water sources, treatment alternatives, and modifications to existing treatment facilities.

(8) Changes in drinking water quality standards may also impact the usefulness of water supplies and may ultimately impact supply reliability.

(9) The quality of source supplies can have a significant impact on water management strategies and supply reliability.

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

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

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

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

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

Chapter 2. Definitions

SECTION 10611-10617

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

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

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

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

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

10615. "Plan" means an urban water management plan prepared pursuant to this part. A plan shall describe and evaluate sources of supply, reasonable and practical efficient uses,

reclamation and demand management activities. The components of the plan may vary according to an individual community or area's characteristics and its capabilities to efficiently use and conserve water. The plan shall address measures for residential, commercial, governmental, and industrial water demand management as set forth in Article 2 (commencing with Section 10630) of Chapter 3. In addition, a strategy and time schedule for implementation shall be included in the plan.

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

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

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

Chapter 3. Urban Water Management Plans

Article 1. General Provisions

SECTION 10620-10621

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

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

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

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

(2) Each urban water supplier shall coordinate the preparation of its plan with other appropriate agencies in the area, including other water suppliers that

share a common source, water management agencies, and relevant public agencies, to the extent practicable.

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

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

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

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

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

(d) Each urban water supplier shall update and submit its 2015 plan to the department by July 1, 2016.

Article 2. Contents of Plan

SECTION 10630-10634

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

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

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

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

water available to the supplier, all of the following information shall be included in the plan:

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

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

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

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

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

(A) An average water year.

(B) A single-dry water year.

(C) Multiple-dry water years.

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

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

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

(A) Single-family residential.

(B) Multifamily.

(C) Commercial.

(D) Industrial.

(E) Institutional and governmental.

(F) Landscape.

(G) Sales to other agencies.

(H) Saline water intrusion barriers, groundwater recharge, or conjunctive use, or any combination thereof.

(I) Agricultural.

(J) Distribution system water loss.

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

(3) (A) For the 2015 urban water management plan update, the distribution system water loss shall be quantified for the most recent 12-month period available. For all subsequent updates, the distribution system water loss shall be quantified for each of the five years preceding the plan update.

(B) The distribution system water loss quantification shall be reported in accordance with a worksheet approved or developed by the department through a public process. The water loss quantification worksheet shall be based on the water system balance methodology developed by the American Water Works Association.

(4) (A) If available and applicable to an urban water supplier, water use projections may display and account for the water savings estimated to result from adopted codes, standards, ordinances, or transportation and land use plans identified by the urban water supplier, as applicable to the service area.

(B) To the extent that an urban water supplier reports the information described in subparagraph (A), an urban water supplier shall do both of the following:

(i) Provide citations of the various codes, standards, ordinances, or transportation and land use plans utilized in making the projections.

(ii) Indicate the extent that the water use projections consider savings from codes, standards, ordinances, or transportation and land use plans. Water use projections that do not account for these water savings shall be noted of that fact.

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

(1) (A) For an urban retail water supplier, as defined in Section 10608.12, a narrative description that addresses the nature and extent of each water demand management measure implemented over the past five years. The narrative shall describe the water demand management measures that the supplier plans to implement to achieve its water use targets pursuant to Section 10608.20.

(B) The narrative pursuant to this paragraph shall include descriptions of the following water demand management measures:

(i) Water waste prevention ordinances.

(ii) Metering.

(iii) Conservation pricing.

(iv) Public education and outreach.

(v) Programs to assess and manage distribution system real loss.

(vi) Water conservation program coordination and staffing support.

(vii) Other demand management measures that have a significant impact on water use as measured in gallons per capita per day, including innovative measures, if implemented.

(2) For an urban wholesale water supplier, as defined in Section 10608.12, a narrative description of the items in clauses (ii), (iv), (vi), and (vii) of subparagraph (B) of paragraph (1), and a narrative description of its distribution system asset management and wholesale supplier assistance programs.

(g) 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 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.

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

(i) For purposes of this part, urban water suppliers that are members of the California Urban Water Conservation Council shall be deemed in compliance with the requirements of subdivision (f) by complying with all the provisions of the "Memorandum of Understanding Regarding Urban Water Conservation in California," dated December 10, 2008, as it may be amended, and by submitting the annual reports required by Section 6.2 of that memorandum.

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

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

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

10631.2. (a) In addition to the requirements of Section 10631, an urban water management plan may, but is not required to, include any of the following information:

(1) An estimate of the amount of energy used to extract or divert water supplies.

(2) An estimate of the amount of energy used to convey water supplies to the water treatment plants or distribution systems.

(3) An estimate of the amount of energy used to treat water supplies.

(4) An estimate of the amount of energy used to distribute water supplies through its distribution systems.

(5) An estimate of the amount of energy used for treated water supplies in comparison to the amount used for nontreated water supplies.

(6) An estimate of the amount of energy used to place water into or withdraw from storage.

(7) Any other energy-related information the urban water supplier deems appropriate.

(b) The department shall include in its guidance for the preparation of urban water management plans a methodology for the voluntary calculation or estimation of the energy intensity of urban water systems. The department may consider studies and calculations conducted by the Public Utilities Commission in developing the methodology.

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

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

(3) Notwithstanding paragraph (1), the department shall determine that an urban water supplier is eligible for a water management grant or loan even though the supplier is not implementing all of the water demand management measures described in Section 10631, if the urban water supplier has

submitted to the department for approval a schedule, financing plan, and budget, to be included in the grant or loan agreement, for implementation of the water demand management measures. The supplier may request grant or loan funds to implement the water demand management measures to the extent the request is consistent with the eligibility requirements applicable to the water management funds.

(4) (A) Notwithstanding paragraph (1), the department shall determine that an urban water supplier is eligible for a water management grant or loan even though the supplier is not implementing all of the water demand management measures described in Section 10631, if an urban water supplier submits to the department for approval documentation demonstrating that a water demand management measure is not locally cost effective. If the department determines that the documentation submitted by the urban water supplier fails to demonstrate that a water demand management measure is not locally cost effective, the department shall notify the urban water supplier and the agency administering the grant or loan program within 120 days that the documentation does not satisfy the requirements for an exemption, and include in that notification a detailed statement to support the determination.

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

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

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

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

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

(i) Compliance on an individual basis.

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

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

(3) The department shall not deny eligibility to an urban water supplier in compliance with the requirements of this section that is participating in a multiagency water project, or an integrated regional water management plan, developed pursuant to Section 75026 of the Public Resources Code, solely on the basis that one or more of the agencies participating in the project or plan is not implementing all of the water demand management measures described in Section 10631.

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

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

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

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

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

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

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

(2) An estimate of the minimum water supply available during each of the next three water years based on the driest three-year historic sequence for the agency's water supply.

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

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

(5) Consumption reduction methods in the most restrictive stages. Each urban water supplier may use any type of consumption reduction methods in its water shortage contingency analysis that would reduce water use, are

appropriate for its area, and have the ability to achieve a water use reduction consistent with up to a 50 percent reduction in water supply.

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

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

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

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

(b) Commencing with the urban water management plan update due July 1, 2016, for purposes of developing the water shortage contingency analysis pursuant to subdivision (a), the urban water supplier shall analyze and define water features that are artificially supplied with water, including ponds, lakes, waterfalls, and fountains, separately from swimming pools and spas, as defined in subdivision (a) of Section 115921 of the Health and Safety Code.

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

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

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

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

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

(e) The projected use of recycled water within the supplier's service area at the end of 5, 10, 15, and 20 years, and a description of the actual use of recycled water in comparison to uses previously projected pursuant to this subdivision.

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

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

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

Article 2.5. Water Service Reliability

SECTION 10635

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

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

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

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

Article 3. Adoption and Implementation of Plans

SECTION 10640-10645

10640. Every urban water supplier required to prepare a plan pursuant to this part shall prepare its plan pursuant to Article 2 (commencing with Section 10630). The supplier shall likewise periodically review the plan as required by Section 10621, and any amendments or changes required as a result of that review shall be adopted pursuant to this article.

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

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

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

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

10644. (a) (1) 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.

(2) The plan, or amendments to the plan, submitted to the department pursuant to paragraph (1) shall be submitted electronically and shall include any standardized forms, tables, or displays specified by the department.

(b) (1) Notwithstanding Section 10231.5 of the Government Code, the department shall prepare and submit to the Legislature, on or before December 31, in the years ending in six and one, a report summarizing the status of the plans adopted pursuant to this part.

The report prepared by the department shall identify the exemplary elements of the individual plans. The department shall provide a copy of the report to each urban water supplier that has submitted its plan to the department. The department shall also prepare reports and provide data for any legislative hearings designed to consider the effectiveness of plans submitted pursuant to this part.

(2) A report to be submitted pursuant to paragraph (1) shall be submitted in compliance with Section 9795 of the Government Code.

(c) (1) For the purpose of identifying the exemplary elements of the individual plans, the department shall identify in the report water demand management measures adopted and implemented by specific urban water suppliers, and identified pursuant to Section 10631, that achieve water savings significantly above the levels established by the department to meet the requirements of Section 10631.5.

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

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

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

Chapter 4. Miscellaneous Provisions

SECTION 10650-10656

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

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

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

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

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

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

10654. An urban water supplier may recover in its rates the costs incurred in preparing its plan and implementing the reasonable water conservation measures included in the plan. Any best water management practice that is included in the plan that is identified in the "Memorandum of Understanding Regarding Urban Water Conservation in California" is deemed to be reasonable for the purposes of this section.

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

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

(commencing with Section 79000), or receive drought assistance from the state until the urban water management plan is submitted pursuant to this article.

California Water Code Division 6, Part 2.55.

Chapter 1. General Declarations and Policy

SECTION 10608-10608.8

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

SECTION 10608.12

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

SECTION 10608.16-10608.44

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 paragraph (1) 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 due in 2010 pursuant to Part 2.6 (commencing with Section 10610) 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) (1) An urban retail water supplier is 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 the 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.

(2) An urban wholesale water supplier whose urban water management plan prepared pursuant to Part 2.6 (commencing with Section 10610) was due and not submitted in 2010 is granted an extension to July 1, 2011, to permit coordination between an urban wholesale water supplier and urban retail water suppliers.

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 conservation of that military installation under federal Executive Order 13514.

(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.(a) The department shall review the 2015 urban water management plans and report to the Legislature by July 1, 2017, 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 to achieve the 20-percent reduction and to reflect updated efficiency information and technology changes.

(b) A report to be submitted pursuant to subdivision (a) shall be submitted in compliance with Section 9795 of the Government Code.

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 at facilities it operates to support urban retail water suppliers in meeting the target identified in Section 10608.16.

Chapter 4 Agricultural Water Suppliers

SECTION 10608.48

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

Section 10608.50

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

SECTION 10608.52

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

Section 10608.56-10608.60

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

SECTION 10608.64

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.

Change Number	Topic	CWC Section	Legislative Bill	Summary	Guidebook Section
1	Demand Management Measures	10631 (f)(1) and (2)	AB 2067, 2014	Requires water suppliers to provide narratives describing their water demand management measures, as provided. Requires retail water suppliers to address the nature and extent of each water demand management measure implemented over the past 5 years and describe the water demand management measures that the supplier plans to implement to achieve its water use targets.	Chapter 9
2	Submittal Date	10621 (d)	AB 2067, 2014	Requires each urban water supplier to submit its 2015 plan to the Department of Water Resources by July 1, 2016.	Chapter 10
3	Electronic Submittal	10644 (a) (2)	SB 1420, 2014	Requires the plan, or amendments to the plan, to be submitted electronically to the department.	Chapter 10
4	Standardized Forms	10644 (a) (2)	SB 1420, 2014	Requires the plan, or amendments to the plan, to include any standardized forms, tables, or displays specified by the department.	CH 1, Section 1.4
5	Water Loss	10631 (e) (1) (J) and (e) (3) (A) and (B)	SB 1420, 2014	Requires a plan to quantify and report on distribution system water loss.	Appendix L
6	Estimating Future Water Savings	10631 (e) (4)	SB 1420, 2014	Provides for water use projections to display and account for the water savings estimated to result from adopted codes, standards, ordinances, or transportation and land use plans, when that information is available and applicable to an urban water supplier.	Appendix K
7	Voluntary Reporting of Energy Intensity	10631.2 (a) and (b)	SB 1036, 2014	Provides for an urban water supplier to include certain energy-related information, including, but not limited to, an estimate of the amount of energy used to extract or divert water supplies.	Appendix O
8	Defining Water Features	10632	AB 2409, 2010	Requires urban water suppliers to analyze and define water features that are artificially supplied with water, including ponds, lakes, waterfalls, and fountains, separately from swimming pools and spas.	CH 8, Section 8.2.4

1. Demand Management Measures (AB 2067, 2014)

10631(f) Provide a description of the supplier's water demand management measures. This description shall include all of the following:
~~(1) A description of each water demand management measure that is currently being implemented, or scheduled for implementation, including the steps necessary to implement any proposed measures, including, but not limited to, all of the following:~~

~~(A) Water survey programs for single-family residential and multifamily residential customers.~~
~~(B) Residential plumbing retrofit.~~
~~(C) System water audits, leak detection, and repair.~~
~~(D) Metering with commodity rates for all new connections and retrofit of existing connections.~~
~~(E) Large landscape conservation programs and incentives.~~
~~(F) High-efficiency washing machine rebate programs.~~
~~(G) Public information programs.~~
~~(H) School education programs.~~
~~(I) Conservation programs for commercial, industrial, and institutional accounts.~~
~~(J) Wholesale agency programs.~~
~~(K) Conservation pricing.~~
~~(L) Water conservation coordinator.~~
~~(M) Water waste prohibition.~~
~~(N) Residential ultra-low-flush 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.~~
(1) (A) For an urban retail water supplier, as defined in Section 10608.12, a narrative description that addresses the nature and extent of each water demand management measure implemented over the past five years. The narrative shall describe the water demand management measures that the

supplier plans to implement to achieve its water use targets pursuant to Section 10608.20.

(B) The narrative pursuant to this paragraph shall include descriptions of the following water demand management measures:

(i) Water waste prevention ordinances.
(ii) Metering.
(iii) Conservation pricing.
(iv) Public education and outreach.
(v) Programs to assess and manage distribution system real loss.
(vi) Water conservation program coordination and staffing support.

(vii) Other demand management measures that have a significant impact on water use as measured in gallons per capita per day, including innovative measures, if implemented.

(2) For an urban wholesale water supplier, as defined in Section 10608.12, a narrative description of the items in clauses (ii), (iv), (vi), and (vii) of subparagraph (B) of paragraph (1), and a narrative description of its distribution system asset management and wholesale supplier assistance programs.

~~(h)~~

(g) 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~~ *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),~~ *programs* 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)~~

(h) 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)~~

(i) For purposes of this part, urban water suppliers that are members of the California Urban Water Conservation Council shall be deemed in compliance with the requirements of ~~subdivisions~~ *subdivision* (f) ~~and (g)~~ by complying with all the provisions of the "Memorandum of Understanding Regarding Urban Water Conservation in California," dated December 10, 2008, as it may be amended, and by submitting the annual reports required by Section 6.2 of that memorandum.

~~(k) Urban~~

2. Submittal Date (AB 2067, 2014)

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 *, except as provided in subdivision (d).*

(d) Each urban water supplier shall update and submit its 2015 plan to the department by July 1, 2016.

3. Electronic Submittal (SB 1420, 2014)

10644. (a)*(2) The plan, or amendments to the plan, submitted to the department pursuant to paragraph (1) shall be submitted electronically…*

4. Standardized Forms (SB 1420, 2014)

10644. (a)*(2) The plan, or amendments to the plan, submitted to the department pursuant to paragraph (1) … shall include any standardized forms, tables, or displays specified by the department.*

5. Water Loss (SB 1420, 2014)

(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.
(J) Distribution system water loss.
(2) The water use projections shall be in the same five-year increments described in subdivision (a).
(3) (A) For the 2015 urban water management plan update, the distribution system water loss shall be quantified for the most recent 12-month period available. For all subsequent updates, the distribution system water loss shall be quantified for each of the five years preceding the plan update.
(B) The distribution system water loss quantification shall be reported in accordance with a worksheet approved or developed by the department through a public process. The water loss quantification worksheet shall be based on the water system balance methodology developed by the American Water Works Association.

6. Voluntary Reporting of Passive Savings (SB 1420, 2014)

10631 (4) (A) If available and applicable to an urban water supplier, water use projections may display and account for the water savings estimated to result from adopted codes, standards, ordinances, or transportation and land use plans identified by the urban water supplier, as applicable to the service area.
(B) To the extent that an urban water supplier reports the information described in subparagraph (A), an urban water supplier shall do both of the following:
(i) Provide citations of the various codes, standards, ordinances, or transportation and land use plans utilized in making the projections.

(ii) Indicate the extent that the water use projections consider savings from codes, standards, ordinances, or transportation and land use plans. Water use projections that do not account for these water savings shall be noted of that fact.

7. Voluntary Reporting of Energy Intensity (SB 1036, 2014)

10631.2. (a) In addition to the requirements of Section 10631, an urban water management plan may, but is not required to, include any of the following information:

(1) An estimate of the amount of energy used to extract or divert water supplies.

(2) An estimate of the amount of energy used to convey water supplies to the water treatment plants or distribution systems.

(3) An estimate of the amount of energy used to treat water supplies.

(4) An estimate of the amount of energy used to distribute water supplies through its distribution systems.

(5) An estimate of the amount of energy used for treated water supplies in comparison to the amount used for nontreated water supplies.

(6) An estimate of the amount of energy used to place water into or withdraw from storage.

(7) Any other energy-related information the urban water supplier deems appropriate.

(b) The department shall include in its guidance for the preparation of urban water management plans a methodology for the voluntary calculation or estimation of the energy intensity of urban water systems. The department may consider studies and calculations conducted by the Public Utilities Commission in developing the methodology.

8. Defining Water Features (AB 2409, 2010)

10632 (b) Commencing with the urban water management plan update due December 31, 2015, for purposes of developing the water shortage contingency analysis pursuant to subdivision (a), the urban water supplier shall analyze and define water features that are artificially supplied with water, including ponds, lakes, waterfalls, and fountains, separately from swimming pools and spas, as defined in subdivision (a) of Section 115921 of the Health and Safety Code.

Appendix B
Adoption Resolution and Related Notification Documentation

WATER AUTHORITY | AGENDA REPORT

To: President and Commissioners

From: Executive Director

Meeting Date: June 28, 2016

Subject: PUBLIC HEARING - 2015 URBAN WATER MANAGEMENT PLAN

Recommendation:

1) Receive and file the 2015 Urban Water Management Plan;

2) Conduct a public hearing for the adoption of the 2015 Urban Water Management Plan in compliance with Senate Bill X7-7, the Water Conservation Act of 2009; and

3) Following the conclusion of the public hearing, approve a Resolution adopting the 2015 Urban Water Management Plan.

Fiscal Impact:

By adopting the 2015 Urban Water Management Plan, the Pico Rivera Water Authority will be eligible for water loans, grants, or drought assistance funds administered by the State Department of Water Resources (DWR). There is no immediate impact to the Water Authority budget by taking the recommended action.

Discussion:

In 1985, Assembly Bill 797 required all publicly and privately owned water suppliers that either have 3,000 or more customers or provide over 3,000 acre-feet of water to prepare an Urban Water Management Plan (UWMP), with subsequent updates in five-year cycles. The UWMP is a planning document that evaluates water demand and supply over a 25-year period within the service area of the water agency.

Previous UWMPs were adopted in 2005 and 2010. The 2015 update is now due. For the 2015 cycle, the completed plan was required to be adopted in 2016 instead of 2015 because of the State's adoption of the Water Conservation Act of 2009 (Senate Bill X7-7). This bill introduced a statewide water initiative to reduce water consumption by 20 percent by the year 2020 (known as the 20x2020 Plan) and water retailers are now required to include this requirement in their UWMPs.

The UWMP needs to be adopted and submitted to the State Department of Water Resources by July 1, 2016. Urban Suppliers that do not meet the schedule do not qualify to receive DWR-administered state grants and loans until a plan is adopted. Additionally, and as required by the California Water Code, a copy of the adopted plan will be submitted to the California State Library and the Secretary's Office of the Pico Rivera Water Authority.

Public Noticing

Prior to adopting the UWMP, the State requires notification to interested water retailers of the Public Hearing for consideration of adoption of the UWMP.

On April 25, 2016, the notices were sent to Central Basin Municipal Water District, Pico Water District, San Gabriel Valley Water Company, and the Los Angeles County Sanitation District. In addition, the Public Hearing was posted at City Hall. On June 6, 2016, the Public Hearing was advertised in the Whittier Daily News.

Urban Water Management Plan Findings

Water demand and water supply was evaluated up to the year 2035. Primary consideration was given to population growth, existing and future land uses, private development, low income development, historic conditions, supply reliability, and the PRWA's annual adjudicated water rights of 5,579 acre-feet (this is the maximum amount of water that the PRWA can legally pump on an annual basis).

The UWMP projects that by 2035 the PRWA will be expected to provide a total of 5,412 acre-feet of water to 44,014 customers. The PRWA will be capable of servicing customers without issue until the year 2035 given its current annual pumping allocation of 5,579 acre-feet per year (AFY). In the event that the annual demand exceeds pumping rights, additional water supply can be obtained by purchasing or leasing water rights.

Water consumption in the PRWA is projected to meet the 20x2020 requirement without issue. Based on the individual 2015 Actual water use for each of the member agencies, the "Regional Alliance 2015 Actual water use" is 102 gallons per capita per day (GPCD). The 2015 Actual water use of 102 GPCD is less than the "Regional Alliance 2015 Interim Target" of 120 GPCD. Therefore, the Gateway Regional Alliance achieved its Targeted Reduction for 2015 and is in compliance with the 2015 Interim Target.

Water conservation measures were identified in the plan. The more significant measures include the Landscape Water Efficiency Ordinance which requires planting to be drought tolerant; utilization of recycled water whenever feasible; participating in water conservation programs offered by the Central Basins Municipal Water Districts, such as High Efficiency Washing Machine Rebate Programs, and public education and outreach.

PRWA Regional Water Alliance Membership

The PRWA has an alternative means to comply with the 20x2020 requirement. The Water Conservation Act of 2009 permits urban water retailers to comply with the 20x2020 requirement on a regional basis or on an individual basis. The PRWA is a member of the Regional Water Alliance that was formed in 2011 by member agencies of the Los Angeles Gateway Region Integrated Regional Water Management Joint Powers Authority (Gateway Authority).

As such, the PRWA may comply with the 20x2020 requirement individually or through the Regional Water Alliance. Given that the City already complies with the PRWA's UWMP targets, the water use targets set through the Regional Water Alliance will not play a significant role in compliance.

René Bobadilla

RB:JE:GG:lg

Enc. 1) Resolution and Exhibit "A" (2015 UWMP)
2) Notices of Public Hearing

1700

RESOLUTION NO. 16-20

A RESOLUTION OF THE PICO RIVERA WATER AUTHORITY OF THE CITY OF PICO RIVERA, CALIFORNIA, ADOPTING THE WATER AUTHORITY'S 2015 URBAN WATER MANAGEMENT PLAN TO COMPLY WITH SENATE BILL X7-7, THE WATER CONSERVATION ACT OF 2009

WHEREAS, the Urban Water Management Planning Act (California Water Code Division 6, Part 2.6, Sections 10610 through 10656) requires that all urban water suppliers 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, must prepare and submit an Urban Water Management Plan at least every five years; and

WHEREAS, Senate Bill X7-7, also known as the Water Conservation Act of 2009, extended the deadline for adoption of the 2015 Urban Water Management Plan from December 31, 2015 to July 1, 2016 to allow urban retail water suppliers additional time to comply with the requirements of Senate Bill X7-7 and incorporate the adopted per capita water use targets required by Senate Bill X7-7 into the 2015 Urban Water Management Plan; and

WHEREAS, the Pico Rivera Water Authority ("Water Authority") has prepared its 2015 Urban Water Management Plan as a coordinated plan to ensure the availability and reliability of the Water Authority's water supplies through the year 2035; and

WHEREAS, consistent with Section 6066 of the Government Code, said plan was made available for public review, and notice of the Public Hearing was posted on April 25, 2016 at the Pico Rivera City Hall and published on June 8, 2016 in *The Whittier Daily News*; and

WHEREAS, the Water Authority held a Public Hearing on the City's 2015 Urban Water Management Plan on June 28, 2016; and

WHEREAS, no later than 30 days after submittal of the adopted plan to the State of California Department of Water Resources, a copy will be provided to the California State Library and the Secretary's Office of the Pico Rivera Water Authority as required by the California Water Code;

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF PICO RIVERA DOES HEREBY RESOLVE AS FOLLOWS:

SECTION 1. The above recitals are all true and correct.

SECTION 2. The Water Authority of the Pico Rivera Water Authority hereby adopts the Water Authority's 2015 Urban Water Management Plan attached hereon as Exhibit A as promulgated by the State of California Department of Water Resources as the Urban Water Management Plan for the Pico Rivera Water Authority in accordance with Section 10642 of the California Water Code.

SECTION 3. The Director of Public Works/City Engineer is hereby directed to make a copy of the Water Authority's adopted 2015 Urban Water Management Plan available for public review at the Authority Secretary's office no later than 30 days after submittal to the California Department of Water Resources in accordance with Section 10645 of the California Water Code.

SECTION 4. The Director of Public Works/City Engineer is hereby directed to provide an adopted copy of the 2015 Urban Water Management Plan to other agencies as required by law.

SECTION 5. The Authority Secretary shall certify to the adoption of the Resolution which shall be effective upon its adoption.

APPROVED AND ADOPTED this 28th day of June, 2016.

David W. Armenta, President

ATTEST:

Anna M. Jerome
Authority Secretary

APPROVED AS TO FORM:

Arnold M. Alvarez-Glasman
Authority General Counsel

AYES: Archuleta, Camacho, Salcido, Tercero, Armenta
NOES: None
ABSENT: None
ABSTAIN: None

Legal Notice

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Legal Notice | **Legal Notice**

NOTICE OF PUBLIC HEARING
TO CONSIDER THE GRANTING
OF A VARIANCE AND
THE ADOPTION OF A
COMPLIANCE DATE

CASE NO. **6056-1**

NOTICE IS HEREBY GIVEN that the South Coast Air Quality Management District Hearing Board will hold a public hearing at 9:00 a.m. on **TUESDAY, JULY 12, 2016** in the Hearing Board Room, District Headquarters, 21865 Copley Drive, Diamond Bar, California, to consider the granting of a regular variance from **Rule 1124** of the South Coast Air Quality Management District Rules and Regulations and the adoption of a final compliance date for an **Autoclave** at **AERO-TECH SERVICES, INC, 8354 SECURA WAY, SANTA FE SPRINGS, CALIFORNIA 90670**. Rule 1124 controls emissions of volatile organic compounds (VOC) from aerospace assembly and component coating operations. The exact nature and extent of these estimated excess emissions, as well as other potential pollutants, are to be determined by the Hearing Board.
A copy of the petition is available for inspection at the office of the Clerk of the Board, 21865 Copley Drive, Diamond Bar, California.

Interested persons may attend and submit oral or written statements at the hearing. Bring eight (8) copies of any exhibits you wish to present at the hearing.

Interested persons wishing to attend the hearing should notify the Clerk of the Board, (909) 396-2500, in order to be notified of any changes regarding the scheduling of the hearing.

This notice and related documents are available in alternative formats to assist persons with disabilities. Further, disability-related accommodations, including aids or services, are available to individuals who want to attend or participate in the hearing. Please direct any requests to the Clerk of the Board as soon as possible at 909-396-2500 (for TTY, 909-396-3560), or by e-mail at clerkofboard@aqmd.gov .

DATED: June 7, 2016

SOUTH COAST AIR QUALITY
MANAGEMENT DISTRICT
HEARING BOARD
BY: A. REBECA FLEMING
Deputy Clerk Transcriber
6/7/16
CNS-2889511#
WHITTIER DAILY NEWS
Ad#810494

Legal Notice | **Legal Notice** | **Legal Notice**

CITY OF PICO RIVERA
PICO RIVERA WATER AUTHORITY
NOTICE OF PUBLIC HEARING FOR
URBAN WATER MANAGEMENT PLAN 2015

NOTICE IS HEREBY GIVEN that a public hearing will be held before the City of Pico Rivera Water Authority to consider the adoption of and accept public comments on its draft 2015 Urban Water Management Plan, which was prepared by Atkins Consultants for the City of Pico Rivera Water Authority describing and specifying the proposed urban water use target. This Urban Water Management Plan was developed in compliance with the State of California's Urban Water Management Planning Act, which is codified under the California Water Code Section 10610 et seq.

The information for the public hearing is as follows:

WHEN: June 28, 2016 - 6:00 p.m.
WHERE: City Hall Council Chambers
6615 Passons Boulevard
Pico Rivera, CA 90660

MAIL: PO Box 1016 **TELEPHONE:** (562) 801- 4389

PERSONS INTERESTED IN THIS MATTER are invited to attend this hearing to express their opinion on the above matter. Written comments may also be submitted to the City of Pico Rivera City Clerks' Office from the date of this notice until June 28, 2016 at 5:00 p.m. Copies of all relevant material are available for inspection upon request in the Office of the City Clerk in the City of Pico Rivera at 6615 Passons Boulevard, Pico Rivera, California.

If a challenge is made by any party in court from actions arising out of the public meeting and the public hearing, you may be limited to raising only those issues you or someone else raised at the public hearing described in this notice, or in written correspondence delivered to the City of Pico Rivera City Clerk at, or prior to, the public hearing.

Anna Jerome
City Clerk
Hrg date: Tuesday, June 28, 2016 at 6:00 p.m.
****

In compliance with the Americans with Disabilities Act of 1990, the City of Pico Rivera is committed to providing reasonable accommodations for a person with a disability. Please contact Anna Jerome at (562) 801-4389 if special program accommodations are necessary and/or if program information is needed in an alternative format. Special requests must be made in a reasonable amount of time in order that accommodations can be arranged.
Pub: June 7, 14, 21, 2016 Whittier Daily News
Ad#810475

MONDAY'S PUZZLE AND BRIDGE

THE Daily Commuter Puzzle by Jacqueline E. Mathews

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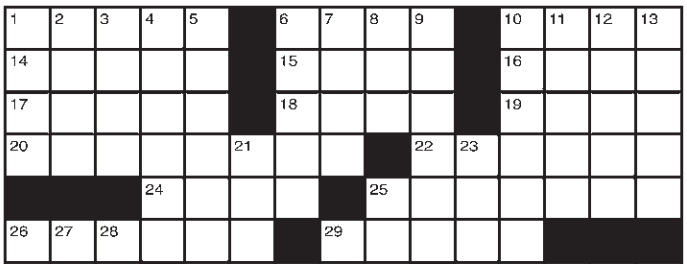

City of Pico Rivera
PUBLIC WORKS DEPARTMENT
6615 Passons Boulevard · Pico Rivera, California 90660
(562) 801-4421
Web: www.pico-rivera.org · e-mail: lgaray@pico-rivera.org

James Enriquez, P.E.
Director/City Engineer

April 25, 2016

Dan Arrighi, Water Resources Manager
San Gabriel Valley Water Company
11142 Garvey Avenue
El Monte, CA 91733

Subject: NOTICE OF INTENTION TO ADOPT 2015 URBAN WATER MANAGEMENT PLAN

Dear Mr. Arrighi:

The Pico Rivera Water Authority is in the process of reviewing and revising its 2010 Urban Water Management Plan. We are informing you of this revision because the San Gabriel Valley Water Company serves water within The City of Pico Rivera boundaries.

The revised 2010 Urban Water Management Plan is required to be adopted by July 1, 2016, and to be submitted to the Department of Water Resources by August 1, 2016. The City will be holding a public hearing on this matter at the June 28, 2016 Pico Rivera Water Authority board meeting. Persons interested are invited to attend this hearing to express their opinion on the above matter. Written comments must be submitted to the office of the Deputy Director of Public Works before or at the Public Hearing. Drafts are available for public review in the Office of the City Clerk at 6615 Passons Boulevard, Pico Rivera, CA 90660.

If a challenge is made by any party in court from actions arising out of the public meeting and the public hearing, person/persons may be limited to raising those issues at the public hearing described in this notice, or in written correspondence delivered to the Pico Rivera Water Authority Secretary at or prior to the public hearing.

We welcome your participation in the revision of the Urban Water Management Plan. Please contact Gabriel Gomez at (562) 801-4221 if you would like to participate in the urban water management planning process or if there is another individual within your jurisdiction who should be our primary point of contact.

If you need additional information regarding this matter, please contact Mr. Gabriel Gomez. Thank you for your consideration in this matter.

Best regards,

James Enriquez, P.E.
Director of Public Works/City Engineer

JE:GG:ll

City of Pico Rivera
PUBLIC WORKS DEPARTMENT
6615 Passons Boulevard · Pico Rivera, California 90660
(562) 801-4421
Web: www.pico-rivera.org · e-mail: lgaray@pico-rivera.org

James Enriquez, P.E.
Director/City Engineer

April 25, 2016

Mark J. Grajeda, General Manager
Pico Water Distrist
P.O. Box 758
Pico Rivera, CA 90660-0768

Subject: NOTICE OF INTENTION TO ADOPT 2015 URBAN WATER MANAGEMENT PLAN

Dear Mr. Grajeda:

The Pico Rivera Water Authority is in the process of reviewing and revising its 2010 Urban Water Management Plan. We are informing you of this revision because the Pico Water District serves water within The City of Pico Rivera boundaries.

The revised 2015 Urban Water Management Plan is required to be adopted by July 1, 2016, and to be submitted to the Department of Water Resources by August 1, 2016. The City will be holding a public hearing on this matter at the June 28, 2016 Pico Rivera Water Authority board meeting. Persons interested are invited to attend this hearing to express their opinion on the above matter. Written comments must be submitted to the office of the Deputy Director of Public Works before or at the Public Hearing. Drafts are available for public review in the Office of the City Clerk at 6615 Passons Boulevard, Pico Rivera, CA 90660.

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Best regards,

James Enriquez, P.E.
Director of Public Works/City Engineer

JE:GG:ll

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6615 Passons Boulevard · Pico Rivera, California 90660
(562) 801-4421
Web: www.pico-rivera.org · e-mail: lgaray@pico-rivera.org

James Enriquez, P.E.
Director/City Engineer

April 25, 2016

Grace Hyde, Chief Engineer
County Sanitation Districts of Los Angeles
P.O. Box 4998
Whittier, CA 90607-4998

Subject: NOTICE OF INTENTION TO ADOPT 2015 URBAN WATER MANAGEMENT PLAN

Dear Ms. Hyde:

The Pico Rivera Water Authority is in the process of reviewing and revising its 2010 Urban Water Management Plan. We are informing you of this revision because the County Sanitation Districts of Los Angeles serves water within The City of Pico Rivera boundaries.

The revised 2015 Urban Water Management Plan is required to be adopted by July 1, 2016, and to be submitted to the Department of Water Resources by August 1, 2016. The City will be holding a public hearing on this matter at the June 28, 2016 Pico Rivera Water Authority board meeting. Persons interested are invited to attend this hearing to express their opinion on the above matter. Written comments must be submitted to the office of the Deputy Director of Public Works before or at the Public Hearing. Drafts are available for public review in the Office of the City Clerk at 6615 Passons Boulevard, Pico Rivera, CA 90660.

If a challenge is made by any party in court from actions arising out of the public meeting and the public hearing, person/persons may be limited to raising those issues at the public hearing described in this notice, or in written correspondence delivered to the Pico Rivera Water Authority Secretary at or prior to the public hearing.

We welcome your participation in the revision of the Urban Water Management Plan. Please contact Gabriel Gomez at (562) 801-4221 if you would like to participate in the urban water management planning process or if there is another individual within your jurisdiction who should be our primary point of contact.

If you need additional information regarding this matter, please contact Mr. Gabriel Gomez. Thank you for your consideration in this matter.

Best regards,

James Enriquez, P.E.
Director of Public Works/City Engineer

JE:GG:ll

City of Pico Rivera
PUBLIC WORKS DEPARTMENT
6615 Passons Boulevard · Pico Rivera, California 90660
(562) 801-4421
Web: www.pico-rivera.org · e-mail: lgaray@pico-rivera.org

James Enriquez, P.E.
Director/City Engineer

April 25, 2016

Kevin Hunt, General Manager
Central Basin Municipal Water District
6252 Telegraph Road
Commerce, CA 90040

Subject: NOTICE OF INTENTION TO ADOPT 2015 URBAN WATER MANAGEMENT PLAN

Dear Mr. Hunt:

The Pico Rivera Water Authority is in the process of reviewing and revising its 2010 Urban Water Management Plan. We are informing you of this revision because the Central Basin Municipal Water District serves water within The City of Pico Rivera boundaries.

The revised 2015 Urban Water Management Plan is required to be adopted by July 1, 2016, and to be submitted to the Department of Water Resources by August 1, 2016. The City will be holding a public hearing on this matter at the June 28, 2016 Pico Rivera Water Authority board meeting. Persons interested are invited to attend this hearing to express their opinion on the above matter. Written comments must be submitted to the office of the Deputy Director of Public Works before or at the Public Hearing. Drafts are available for public review in the Office of the City Clerk at 6615 Passons Boulevard, Pico Rivera, CA 90660.

If a challenge is made by any party in court from actions arising out of the public meeting and the public hearing, person/persons may be limited to raising those issues at the public hearing described in this notice, or in written correspondence delivered to the Pico Rivera Water Authority Secretary at or prior to the public hearing.

We welcome your participation in the revision of the Urban Water Management Plan. Please contact Gabriel Gomez at (562) 801-4221 if you would like to participate in the urban water management planning process or if there is another individual within your jurisdiction who should be our primary point of contact.

If you need additional information regarding this matter, please contact Mr. Gabriel Gomez. Thank you for your consideration in this matter.

Best regards,

James Enriquez, P.E.
Director of Public Works/City Engineer

JE:GG:ll

Appendix C
Groundwater Bulletin 118, Central Basin 4-11.04 Description

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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California Department of Water Resources (DWR). 1961. Planned Utilization of the Ground Water Basins of the Coastal Plain of Los Angeles County. Bulletin No. 104.

____, Southern District. 1999. Watermaster Service in the Central Basin, Los Angeles County, July 1, 1998 – June 30, 1999.

California State Water Resources Board (SWRB). 1952. Central Basin Investigation. Bulletin No. 8.

Additional References

United States Geological Survey (USGS). 2000. *Analysis of the Geohydrology and Water-management Issues of the Central and West Basins, Los Angeles County, California.* Internet Web Site: http://water.wr.usgs.gov/projects00/ca512.html.

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

____. 2000. *Engineering Survey and Report.*

Errata

Changes made to the basin description will be noted here.

Appendix D
Water Shortage Contingency Plan

CITY COUNCIL | AGENDA REPORT

To: Mayor and City Council

From: City Manager

Meeting Date: June 9, 2009

Subject: WATER CONSERVATION AND WATER SUPPLY SHORTAGE PROGRAM AND REGULATIONS ORDINANCE – REPEAL OF ORDINANCE NO. 826 AND ADOPTION OF NEW ORDINANCE INCORPORATING CALIFORNIA WATER CODE SECTION 315

Recommendation:

Adopt Ordinance repealing Chapter 13.70 of Division IV of Title 16 of the Pico Rivera Municipal Code and adding Chapter 13.70, Water Conservation and Water Supply Shortage Program and Regulations.

Background:

By June 30, 2009, all member agencies of the Central Basin Municipal Water District (CBMWD) are expected to have adopted updated Water Conservation Ordinances. This proposed Ordinance has been prepared using CBMWD's model Water Conservation ordinance and meets this expected goal.

Article X, Section 2 of the California Constitution declares that the general welfare requires that water resources be put to beneficial use and a reliable minimum of potable water is essential to the public health, safety and welfare of the people and economy of the Southern California region.

A comprehensive water management program includes active water conservation measures, not only in times of drought, but at all times, and is essential to ensuring a reliable minimum supply of water is available to meet current and future water supply needs. The updated Water Conservation Ordinance is an important component of the City's Water Management Program.

Discussion:

At its meeting of May 26, 2009, the City Council introduced an Ordinance repealing Chapter 13.70 of Division IV of Title 16 of the Pico Rivera Municipal Code and adding Chapter 13.70, Water Conservation and Water Supply Shortage Program and Regulations.

The month of May was designated National Water Awareness Month and in support of that effort, CBMWD launched their Shut Your Tap! campaign. Their program recently proclaimed Tuesday, May 19th as Shut Your Tap! Day throughout Los Angeles County. To date, 26 cities in Los Angeles County have joined that campaign pledging to work with the District to help their residents conserve.

As a result of the water supply conditions prevailing in any or all of the City and the general welfare requires that the water resources available to the City be put to the maximum beneficial use to the extent to which they are capable. Furthermore, that the unreasonable method of use of water be discouraged and that the conservation of such water be practiced with a view to the reasonable and beneficial use thereof in the interest of the people and for the public welfare. The purpose of this Water Conservation Program is to minimize the effect of a shortage of water supplies on City customers during a water shortage emergency.

The following stipulations are recommended for consideration:

The City Council may implement the applicable provisions of this conservation plan and upon its determination that such implementation is necessary to protect the public welfare and safety.

The City Council shall hold a public hearing for the purpose of determining whether a water shortage exists in the City and which measures provided by this ordinance should be implemented. Notice of the time and place of the public hearing shall be published not less than ten (10) days before the hearing in a newspaper of general circulation within the City.

The City Council shall issue its determination of shortage and corrective measures by resolution published in a daily newspaper of general circulation within the affected area. Conservation surcharges assessed shall become effective no sooner than the first full billing period commencing on or after the date of such publication.

Staff is recommending adoption of the proposed Ordinance.

Charles P. Fuentes

CPF:ARC:lg

Enc.

1) Ordinance
2) Registration form, LA County Water Summit
3) LA County Water Summit Program Highlights

CENTRAL BASIN

SHUT YOUR TAP! WATER ORDINANCE TASK FORCE

MUNICIPAL WATER ORDINANCE PROGRESS TRACKING

5/13/2009

MUNICIPALITY	1ST READING & INTRODUCTION	2ND READING & ADOPTION	COMMITTEE ASSIGNMENT (Suggestions)	CITY CONTACT NAME	CITY CONTACT TITLE	CITY REP CONTACT INFO
Artesia	April 13, 2009	May 11,2009	Sally (Central Basin)			
Bell			Christina (Huntington Park)			
Bell Gardens			Albert (Golden State Water)			
Bellflower			Tammie (Park Water Company)			
Carson			Tana (Compton)			
Cerritos			Adriana (Norwalk)			
Commerce	April 21, 2009	May 5, 2009	Sally (Central Basin)			
Compton			Tana (Compton)			
Cudahy			Christina (Huntington Park)			
Downey			Sally (Central Basin)			
Hawaiian Gardens			Albert (Golden State Water)			
Huntington Park			Christina (Huntington Park)			
La Habra Heights			Adrian (Pico Rivera)			
La Mirada			Daylyn (Suburban Water)			
Lakewood			Josh (Signal Hill)			
Lynwood			Tammie (Park Water Company)			
Maywood			Sally (Central Basin)			
Montebello			Darleen (San Gabriel Water Company)			
Norwalk	May 19, 2009	June 2, 2009	Adriana (Norwalk)			
Paramount			Josh (Signal Hill)			
Pico Rivera	May 26, 2009	June 23, 2009	Adrian (Pico Rivera)			
Santa Fe Springs			Tammie (Park Water Company)			
Signal Hill	May 5, 2009	May 19, 2009	Josh (Signal Hill)			
South Gate			Scott (Vernon)			
Vernon			Scott (Vernon)			
Whittier			Darleen (San Gabriel Water Company)			

Enclosure 1

Public Works

ORDINANCE NO. 1056

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF PICO RIVERA, CALIFORNIA, REPEALING CHAPTER 13.70, ENTITLED, "PROHIBITIONS ON WASTEFUL USE OF WATER" AND ADDING CHAPTER 13.70 ESTABLISHING A WATER CONSERVATION AND WATER SUPPLY SHORTAGE PROGRAM AND REGULATIONS TO THE PICO RIVERA MUNICIPAL CODE

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 a 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 authorizes water suppliers to adopt and enforce a comprehensive water conservation program to reduce water consumption and conserve supplies; and

WHEREAS, the adoption and enforcement of a 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 effects of drought and shortage within the City. Such program is essential to ensure a reliable and sustainable minimum supply of water for the public health, safety and welfare.

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF PICO RIVERA DOES HEREBY ORDAIN AS FOLLOWS:

SECTION 1. Chapter 13.70 is hereby established to the Pico Rivera Municipal Code to read as follows:

Section 13.70. Water Conservation and Water Supply Shortage Program.

13.70.010. Purpose

a. The purpose of this Chapter is to establish a water conservation and supply shortage program that will reduce water consumption within the City of Pico Rivera 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 Chapter establishes permanent water conservation standards intended to alter behavior related to water use efficiency for non-shortage conditions and further establishes three levels 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 emergency conditions and decreasing supplies.

Section 13.70.020. Definitions.

The following words and phases whenever used in this chapter shall have the meaning defined in this section:

a. "City" means the City of Pico Rivera.

b. "Person" means any natural person or persons, corporation, public or private entity, governmental agency or institution, or any other use of water provided by the City.

c. "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.

d. "Large Landscape Areas" means a lawn, landscape or other vegetated area, or combination thereof, equal to more than one (1) acre of irrigable land.

e. "Single Pass Cooling Systems" means equipment where water is circulated only once to cool equipment before being disposed.

f. "Potable Water" means water which is suitable for drinking.

g. "Recycled Water" means the reclamation and reuse of non-potable water for beneficial use.

h. "Billing Unit" means the unit of water used to apply water rates for the purposes of calculating water charges for a person's water usage.

Section. 13.70.030. Application

a. The provisions of this Chapter apply to any person in the use of any potable water provided by the City.

b. The provisions of this Chapter do not apply to uses of water necessary to protect public health and safety or for essential government services, such as police, fire or other similar emergency services.

c. The provisions of this Chapter 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.

d. This Chapter 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.

Section 13.70.040. Permanent Water Conservation Requirements – Prohibition Against Waste.

The following water conservation requirements are effective at all times and shall be permanent. Violations of this section shall be considered waste and an unreasonable use of water.

a. **Limits on Water Hours.** Watering or irrigating of lawn, landscape or other vegetated area with potable water is prohibited between the hours of 10:00 a.m. and 4:00 p.m. Pacific Standard Time on any day, except by use of a hand-held bucket or similar container, a hand-held hose equipped with a positive self-closing water shut-off nozzle or device, or for very short periods of time for the express purpose of adjusting or repairing an irrigation system.

b. **Limit on Watering Duration**. Watering or irrigating of lawn, landscape or other vegetated area with potable water using a landscape irrigation system or a watering device that is not continuously attended to is limited to no more than fifteen (15) minutes of water per day per station. This subsection does not apply to landscape irrigation systems that exclusively use very low-flow drip type irrigation systems when no emitter produces more than two (2) gallons of water per hour and weather based controllers or stream rotor sprinklers that meet a seventy percent (70%) efficiency standard.

c. **No Excessive Water Flow or Runoff.** Watering or irrigating of any lawn, landscape or other vegetated area in a manner that causes or allows excessive water flow or runoff onto an adjoining sidewalk, driveway, street, alley, gutter or ditch is prohibited.

d. **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 then only by use of a hand-held bucket or similar container, a hand-held hose equipped with a positive self-closing water shut-off device or a low-volume, high pressure cleaning machine equipped to recycle any water used.

e. **Obligation to Fix Leaks, Breaks or Malfunctions.** Excessive use, loss or escape of water through breaks, leaks or other malfunctions in the water user's plumbing or distribution system for any period of time after such escape of water should have reasonably been discovered and corrected, and in no event more than fourteen (14) days of receiving notice from the City, is prohibited.

f. **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-circulated water is prohibited after April 1, 2010.

g. **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. This subsection does not apply to any commercial car washing facility.

h. **Drinking Water Served Upon Request Only.** Eating or drinking establishments, including but not limited to a restaurant, hotel, café, cafeteria, bar, club or other public place where food or drinks are sold, served or offered for sale, are prohibited from providing drinking water to any person unless expressly requested.

i. **Commercial Lodging Establishments Must Provide Option to Not Launder Linen Daily.** Hotels, motels and other commercial lodging establishments must provide customers the option of not having towels and linen laundered daily. Commercial lodging establishments shall prominently display notice of this option in each bathroom using clear and easily understood language.

j. **No Installation of Single Pass Cooling Systems.** Installation of single pass cooling systems is prohibited in buildings requesting new water service.

k. **No Installation of Non-re-circulating Commercial Car Wash and Laundry Systems.** Installation of non-re-circulating water systems is prohibited in new commercial conveyor car wash and new commercial laundry systems.

l. **Restaurants Required to Use Water Conserving Dish Wash Spray Valves.** Food preparation establishments, such as restaurants or cafes, are prohibited from using non-water conserving dish wash spray valves.

Section 13.70.050. Level 1 Water Supply Shortage.

a. A Level 1 Water Supply Shortage exists when the City determines, in its sole discretion, that due to drought or other water supply reductions, a water shortage exists and a consumer demand reduction is necessary to ensure sufficient supplies will be available to meet anticipated demands. Upon the declaration by the City of a Level 1 Water Supply Shortage condition, the City will implement the mandatory Level 1 conservation measures identified in this section. The type of event that may prompt the City to declare a Level 1 Water Supply Shortage may include, among other factors, a finding that its wholesale water provider calls for extraordinary water conservation.

b. **Additional Water Conservation Measures.** In addition to the prohibited uses of water identified in Section 13.70.040, the following water conservation requirements apply during a declared Level 1 Water Supply Shortage:

1. **Limits on Watering Days.** Watering or irrigating of lawn, landscape or other vegetated area with potable water is limited to three (3) days per week on a schedule established and posted by the City. During the months of November through March, watering or irrigating of lawn, landscape or other vegetated area with potable water is limited to no more than one (1) day per week on a schedule established and posted by the City. This provision does not apply to landscape irrigation zones that exclusively use very low flow drip type irrigation systems when no emitter produces more than two (2) gallons of water per hour. This provision also does not apply to watering or irrigating by use of hand-held bucket or similar container, a hand-held hose equipped with a positive self-closing water shut-off nozzle or device, or for very short periods of time 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 or distribution system must be repaired within seventy-two (72) hours of notification by the City unless other arrangements are made with the City.

3. **Other Prohibited Uses.** The City may implement other prohibited water uses as determined by the City, after notice to customers.

Section 13.70.060. Level 2 Water Supply Shortage.

a. A Level 2 Water Supply Shortage exists when the City determines, in its sole discretion, that due to drought or other supply reductions, a water supply shortage exists and a consumer demand reduction is necessary to ensure sufficient supplies will be available to meet anticipated demands. Upon the declaration by the City of a Level 2 Water Supply Shortage condition, the City will implement the mandatory Level 2 conservation measures identified in this section.

b. **Additional Conservation Measures.** In addition to the prohibited uses of water identified in Sections 13.70.040 and 13.70.050, the following additional water conservation requirements apply during a declared Level 2 Water Supply Shortage:

1. **Watering Days.** Watering or irrigating of lawn, landscape or other vegetated area with potable water is limited to two days per week on a schedule established and posted by the City. During the months of November through March, watering or irrigating of lawn, landscape or other vegetated area with potable water is limited to no more than one day per week on a schedule established and posted by the City. This provision does not apply to landscape irrigation zones that exclusively use very low flow drip type irrigation systems when no emitter produces more than two (2) gallons of water per hour. This provision also does not apply to watering or irrigating by use of hand-held bucket or similar container, a hand-held hose equipped with a positive self-closing water shut-off nozzle or device, or for very short periods of time 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 or distribution system must be repaired within forty-eight (48) hours of notification by the City unless other arrangements are made with the City.

3. **Limits on Filling Ornamental Lakes or Ponds.** Filling or re-filling ornamental lakes or ponds is prohibited, except to the extent needed to sustain aquatic life, provided that such animals are of significant value and have been actively managed within the water feature prior to the declaration of a supply shortage level under this ordinance.

4. **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, a hand-held hose equipped with a positive self-closing water shut-off nozzle or device, by high pressure/low volume wash systems, or at a commercial car washing facility that utilizes a re-circulating water system to capture or reuse water.

5. **Limits on Filling Residential Swimming Pools & Spas.** Re-filling of more than one foot and initial filling of residential swimming pools or outdoor spas with potable water is prohibited.

6. **Other Prohibited Uses.** The City may implement other prohibited water uses as determined by the City, after notice to customers.

d. In addition to the above procedures during a Level 2 Water Supply Shortage, the City may adopt the following procedures:

1. **Water Allocations / Water Budget.** The City will establish a water allocation for property served by the City using a method that does not penalize persons for the implementation of conservation methods of the installation of water saving devices. The City must provide notice of the allocation by including it in the regular billing statement for the fee or charge or by any other mailing to the address to which the City customarily mails the billing statement for fees or charges for on-going water service.

   Following the effective date of the water allocation as established by the City, any person that uses water in excess of the allocation will be subject to a citation in accordance with Section 13.70.210. Any monetary penalty for excess water usage may be imposed for violation of this ordinance.

2. **Water Supply Shortage Rates.** During a Level 2 Water Supply Shortage condition, the City may increase water rates by an amount necessary, as determined by the City. The increase in water rates may vary from categories of customers.

3. **Mandatory Percentage Use Reductions.** During a Level 2 Water Supply Shortage condition, all customers will be required to reduce water consumption by a percentage determined by the City.

Section 13.70.070. Level 3 Water Supply Shortage – Emergency Condition.

a. A Level 3 Water Supply Shortage condition is also referred to as an "Emergency" condition. A Level 3 condition exists when the City declares a water shortage emergency and notifies its residents and businesses that a significant reduction in consumer demand is necessary to ensure sufficient supplies will be available to meet anticipated demands. Upon the declaration of a Level 3 Water Supply Shortage Emergency condition, the City will implement the mandatory Level 3 conservation measures identified in this section.

b. A Level 3 Water Supply Shortage Emergency exists when the City declares a water shortage emergency condition pursuant to California Water Code section 350 and notifies its residents and businesses that more than a thirty percent (30%) consumer demand reduction is required to ensure sufficient supplies for human consumption, sanitation and fire protection. The City must declare a Water Supply Shortage Emergency in the manner and on the grounds provided in California Water Code Section 350.

c. **Additional Conservation Measures.** In addition to the prohibited uses of water identified in Sections 13.70.040, 13.70.050, and 13.70.060 the following water conservation requirements apply during a declared Level 3 Water Supply Shortage Emergency:

1. **No Watering or Irrigating.** Watering or irrigating of lawn, landscape or other vegetated area with potable water is prohibited. This restriction shall not apply to the following categories of use unless the City has determined that recycled water is available and may be lawfully applied to the use:

   i. Maintenance of vegetation, including trees and shrubs, that are watered using a hand-held bucket or similar container, hand-held hose equipped with a positive self-closing water shut-off nozzle or device, or a very low-flow drip type irrigation system when no emitter produces more than two (2) gallons of water per hour subject to the hour restrictions in Section 13.70.040;

   ii. Maintenance of existing landscape necessary for fire protection;

   iii. Maintenance of existing landscape for soil erosion control;

   iv. Maintenance of plant materials identified to be rare or essential to the well being of rare animals;

   v. Maintenance of landscape within active public parks and playing fields, day care center, school grounds, cemeteries, and golf course greens, provided that such irrigation does not exceed two (2) days per week.

vi. Public works projects and 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 or distribution system must be repaired within twenty-four (24) hours of notification by the City unless other arrangements are made with the City.

3. **No New Potable Water Service.** Upon declaration of a Level 3 Water Supply Shortage Emergency condition, no new potable water service may be provided, no new temporary meters or permanent meters may be provided, and no statements of immediate ability to serve or provide potable water service (such as, will serve letters, certificates, or letters of availability) may be issued, except under the following circumstances:

1. A valid, unexpired building permit has been issued for the project; or

2. The project is necessary to protect the public's health, safety and welfare;

3. The applicant provides substantial evidence of an enforceable commitment that water demands for the project will be offset prior to the provision of a new water meter(s) to the satisfaction of the City.

This provision does not preclude the resetting or turn-on of meters to provide continuation of water service of the restoration of service that has been interrupted for a period of one year or less.

4. **Discontinue Service:** The City, in its sole discretion, may discontinue service to consumers who willfully violate provisions of this section.

5. **Other Prohibited Uses:** The City may implement other prohibited water uses as determined by the City, after notice to customers.

13.70.080. Procedures for Determination and Notification of Water Supply Shortage.

a. **Declaration and Notification of Level 1 & 2 Water Supply Shortage.** The existence of Level 1 and Level 2 Water Supply Shortage conditions may be declared by resolution of the City adopted at a regular or special public meeting held in accordance with State law. The mandatory conservation requirements applicable to Level 1 or Level 2 conditions shall take effect on the tenth day after the date the shortage level is declared. Within five (5) days following the declaration of the shortage level, the City shall publish a copy of the resolution in a newspaper used for publication of official notices. If the City establishes a water allocation, it shall provide notice of the allocation by including it in the regular billing statement or by any other mailing to the address to which the City customarily mails the billing statement for fees or charges for ongoing 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. **Declaration and Notification of Level 3 Water Supply Shortage:** The existence of a Level 3 Water Supply Shortage Emergency condition may be declared in accordance with the procedures specified in Water Code Sections 351 and 352. The mandatory conservation requirements applicable to the Level 3 conditions shall take effect on the tenth (10) day after the date the shortage level is declared. Within five (5) days following the declaration of the shortage level, the City shall publish a copy of the Resolution in a newspaper used for the publication of official notices. If the City establishes a water allocation, it shall provide notice of the allocation by including it in the regular billing statement or by any other mailing to the address to which the City customarily mails the billing statement for fees or charges for ongoing 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.

13.70.090. Commercial Car Wash Systems.

Effective on January 1, 2011, all commercial conveyor car wash systems are required to have installed an operational re-circulating water system, or must have secured a waiver of this requirement from the City.

13.70.100. Large Landscape Areas – Rain Sensors.

Large landscape areas, such as parks, cemeteries, golf courses, school grounds and playing fields that use landscape irrigation systems to water or irrigate, must use landscape irrigation systems with rain sensors that automatically shut off such systems during periods of rain or irrigation timers, which automatically use information such as evapotranspiration sensors to set an efficient water use schedule.

13.70.110. Construction Purposes. Recycled or non-potable water must be used for construction purposes when available.

13.70.120. No New Annexations.

Upon the declaration of a Level 2 Water Supply Shortage condition, the City will suspend consideration of annexations to its service area. This subsection does not apply to boundary corrections and annexations that will not result in any increased use of water.

13.70.130. Limits on Building Permits.

Upon the declaration of a Level 3 Water Supply Shortage condition, the City will limit or withhold the issuance of building permits which require new or expanded water service, except to protect the public health, safety and welfare, or in cases which meet the City's adopted conservation offset requirements.

13.70.140. Water Recycling Required if Alternative Available.

The use of potable water, other than recycled water, is prohibited for specified uses after the City has provided to the customer an analysis showing that recycled water is a cost-effective alternative to potable water for such uses and the customer has had a reasonable time, as determined by the City Manager, to make the conversion to recycled water.

13.70.150. Water Recycling – New Service.

Prior to the connection of any new water service, an evaluation must be done by the City to determine whether recycled water exists to supply all or some of the water needed and recycled water must be utilized to the extent feasible.

13.70.160. Water Recycling Plan.

a. The City Manager must prepare a water recycling master plan that contains recommendations to increase the amount of recycled water used and shall report to the City Council annually on progress towards implementing such recommendations.

b. Upon request of the City Manager, City Departments must prepare and submit quarterly reports on their water conservation efforts. The reports will be consolidated by the City Manager and reported to the City Council at a minimum of once a year.

c. The City may, by written request, require all commercial, residential and industrial customer using twenty-five thousand (25,000) or more billing units per year to submit a water conservation plan and to submit quarterly progress reports on such plan. The conservation plan must include recommendations for increased water savings, including increased water recycling based on feasibility, and the reports must include progress to date on implementation of such recommendations.

13.70.170. Water Conserving Plumbing Standards.

a. On or after January 1, 2010, no structure shall be sold or transferred unless all existing plumbing fixtures in the structure are retrofitted exclusively with water-conserving plumbing fixtures.

b. On or after January 1, 2010, upon the establishment of new water service or a change in water service from one person to another non-family member, all existing plumbing fixtures are required to be retrofitted exclusively with water-conserving plumbing fixtures.

13.70.180. Procedural Requirements.

The Director of Public Works shall periodically review the provisions of this Part and recommend necessary updates to the City Attorney. The review of the provisions and preparation of resulting recommendations, if any shall be performed, at a minimum, every two (2) years following the first review, which shall be completed by December 31, 2010.

13.70.190. Reporting Mechanism – Hotline.

The City must establish a method for residents to report violations of this Chapter.

13.70.200. 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 to 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 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 City.

2. **Supporting Documentation:** The application shall be accompanied by photographs, maps, drawings, and other information provided in the application, 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:

   i. That the waiver does not constitute a grant of special privilege inconsistent with the limitations upon other residents and businesses;

   ii. 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 residents and businesses generally.

   iii. 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

   iv. 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, recurrent or general in nature.

4. **Approval Authority:** The City Manager or Water Authority Board 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 City:** An applicant may appeal a decision or condition of the City Manager or Water Authority Board on a waiver application to the City Council within ten (10) days of the decision upon written request for a hearing. The request shall state the grounds for appeal. At a public meeting, the City Council shall act as the approval authority and review the appeal *de novo* by following the regular waiver procedure. The decision of the City Council is final.

13.70.210. Penalties and Violations.

a. **Misdemeanor.**

Any violation of this ordinance may be prosecuted as a misdemeanor subject to a fine not exceeding five hundred dollars ($500.00).

b. **Civil Penalties.**

Any violation of this Chapter may be subject to a civil penalty. Civil penalties for failure to comply with any provisions of the Ordinance shall be as follows:

1. **First Violation:** The City shall issue a written warning 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).

3. **Third Violation:** A third violation within the preceding twelve (12) calendar months is punishable by a fine not to exceed five hundred ($500).

c. **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 service up to one and one-half inch size and comparatively sized restrictors for larger services after written notice of intent to install a flow restrictor for a minimum of forty-eight (48) hours.

d. **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.

e. **Cost of Flow Restrictor and Disconnecting Service.**

A person or entity that violates this ordinance is responsible for payment of the City's 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. The 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 remedies as nonpayment of basic water rates.

f. **Separate Offenses:** Each day that a violation of this ordinance occurs is a separate offense.

g. **Notice and Hearing:**

1. The City shall issue a Notice of Violation by mail or personal delivery at lest 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 Clerk 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. Upon receiving a written notice of appeal, a hearing on the matter shall be held within thirty (30) days the notice was received by the City before a hearing officer appointed by the City Manager. Upon hearing all of the evidence presented by the City and the appellant, the hearing officer shall prepare a written decision within thirty (30) days of the hearing.

3. 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 and extent of the violations and the current declared water level condition.

SECTION 2. Chapter 13.70 of the Pico Rivera Municipal Code entitled "Prohibitions on Wasteful Use of Water" is hereby repealed in its entirety and replaced with Chapter 13.70 "Establishing a water conservation and water supply shortage program and regulations."

SECTION 3. Chapter 13.80 of the Pico Rivera Municipal Code entitled "Moratorium on Service Commitments and New Connections" is hereby repealed in its entirety.

SECTION 4. The City Council hereby declares that it would have passed this ordinance sentence by sentence, paragraph by paragraph, and section by section, and does hereby declare that the provisions of this ordinance are severable and, if for any reason any sentence, paragraph, or section of this ordinance shall be held invalid, such decision will not affect the validity of the remaining parts of this ordinance.

SECTION 5. The City Clerk shall certify to the adoption of this Ordinance. The City Council hereby finds and determines that there are no newspapers of general circulation both published and circulated within the City and, in compliance with Section 36933 of the Government Code directs the City Clerk to cause said Ordinance, within fifteen (15) days after its passage, to be posted in at least five (5) public places within the City. This Ordinance shall take effect thirty (30) days after its adoption.

ADOPTED AND APPROVED this 9th day of June, 2009.

Gracie Gallegos, Mayor

ATTEST:

Daryl A. Betancur, City Clerk

APPROVED AS TO FORM:

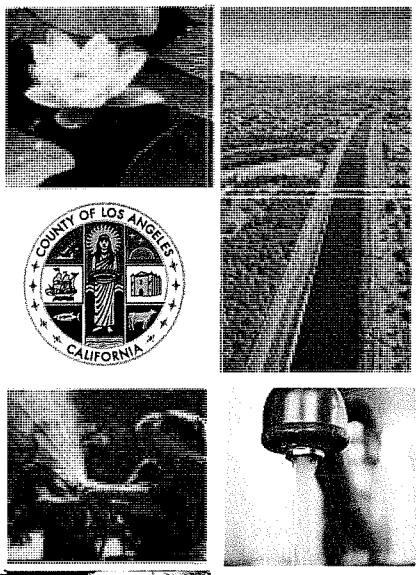
Arnold M. Alvarez-Glasman, City Attorney

AYES: Archuleta, Beilke, Salcido, Gallegos
NOES: None
ABSENT: Armenta
ABSTAIN: None

ENCLOSURE 2

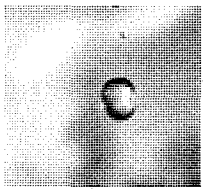
SOUTHERN CALIFORNIA WATER COMMITTEE

LOS ANGELES COUNTY WATER SUMMIT

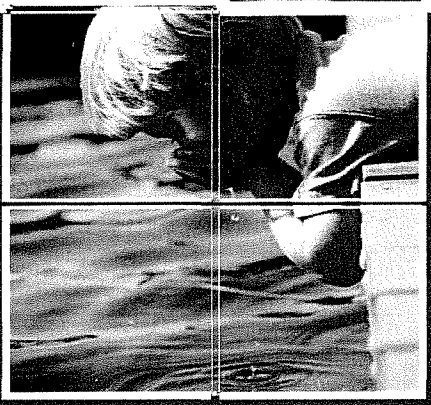


Wednesday, June 3, 2009
Hosted by Supervisor Don Knabe
8:00 a.m. - 1:30 p.m.
Queen Mary, Long Beach

Continental breakfast, lunch, parking and program included for $40.00.



SPONSORED BY: Los Angeles Area Chamber of Commerce, Long Beach Chamber of Commerce, County of Los Angeles Department of Public Works, Metropolitan Water District of Southern California, Castaic Lake Water Agency, Central Basin Municipal Water District, County Sanitation Districts of Los Angeles County, MWH, Water Replenishment District of Southern California, West Basin Municipal Water District, and Building Industry Association of Southern California.



REGISTRATION FORM

SOUTHERN CALIFORNIA WATER COMMITTEE
10184 SIXTH STREET - SUITE C, RANCHO CUCAMONGA, CA 91730
Tel. (909) 980-4700 Fax. (909) 980-2628

NAME: _____ TITLE: _____

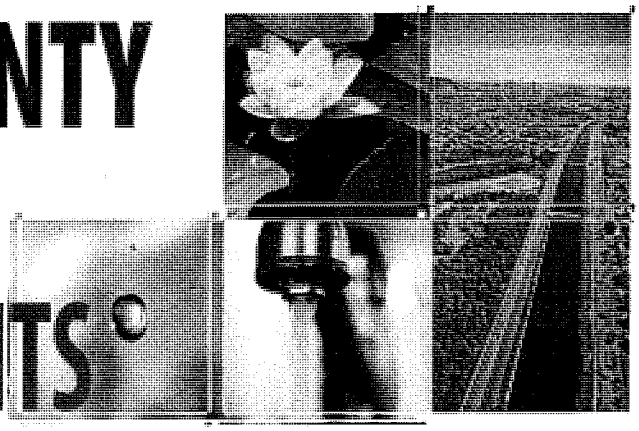
ORGANIZATION: _____

ADDRESS: _____ CITY/STATE/ZIP: _____

TEL: _____ FAX: _____ EMAIL: _____

Seating is limited to the first 200 people. NO REFUNDS. Make checks payable to Southern California Water Committee.

LOS ANGELES COUNTY WATER SUMMIT PROGRAM HIGHLIGHTS



Los Angeles County Water Today

The headlines have been ominous: California is facing the worst water crisis in its history. The state is running out of water! Where does Los Angeles get its water supply? Did you know that most of our water supplies come from outside our area? Do you understand the diversity and challenges facing these water supplies?

California Water in Crisis

The Governor proclaimed a statewide drought and ordered immediate actions to address the dire situation. A growing population, environmental demands, and the influence of climate changes have impacted these water supplies. As a result, communities throughout the region are being forced to mandate water conservation or rationing. Federal Court actions are reducing water deliveries to Southern California. Do you understand what all this means to you?

The California Bay Delta

Learn why the Bay Delta is critical to our businesses and communities. Hear why the Delta is in crisis and one natural disaster away from collapse. Learn about the Governor's Delta Vision Process and its strategic recommedations. Hear a panel of policy issues of proposed actions and recommendations for long-term sustainability of this valuable ecosystem.

Business Opportunities and Local Supply Challenges

Hear from the Los Angeles Area Chamber of Commerce, about the challenges in developing local water supplies and the importance of implementing solutions. What action plans can our communities, businesses and local elected officials undertake to energize policymakers to insure we have adequate water supplies for the future and the stability of our economy.

Appendix E
Emergency Response Plan

Pico Rivera Water Authority
Emergency Action Plan

Introduction

This plan has been developed to assist the Pico Rivera Water Authority employees in coping with emergency conditions that may arise. The goal of this plan is to provide a working document that provides general instruction on responding to emergencies. The objectives of this plan are:

- Ensure the safety of City employees, their families, and property.
- Provide general direction to each employee responding to an emergency.
- Determines basic assignments and reporting locations for each employee.
- Establish a basic strategy designed to keep Pico Rivera Water Authority facilities operational and provide the highest possible service to its customers.
- Create an internal communication protocol to provide necessary information during the emergency.
- Ensure compliance with Cal-OSHA, California Code of Regulations, Title 8 §3220, Emergency Action Plans.

Guide Structure

This Emergency Response Guide is divided into three major sections, which are interrelated with each other, to offer a concise organized response by City personnel to emergency situations as they occur. Although it is impossible to foresee every emergency that might arise, this guide utilized by well-trained City staff should allow the City to return to normal operations as rapidly as possible when abnormal conditions arise. The Emergency Action Plan discusses the nature and categories of emergencies offering general response guidelines. The Fire Prevention and Fire Emergency Plan offers guidance for the prevention of fires, and, in conjunction with the Emergency Action Plan, provides instruction should a fire start. The Emergency Chlorination Plan outlines the City's response to water quality issues.

The Emergency Action Plan

The Emergency Action Plan is the backbone of the City's emergency response effort. It has been designed to provide a general operational framework from which the City can respond, both personally and corporately, to emergencies. Each employee should become familiar with the Cities Emergency Response Guide. This guide includes basic emergency instruction via the

Emergency Action Plan, Fire Prevention Plan, and Emergency Chlorination Plan. Periodic training is conducted to test the Cities emergency plans and their procedures.

The Emergency Response Guide is not intended to offer specific instructions on making repairs to damaged facilities. Cities employees are already well trained to handle the repair and maintenance of the Cities facilities. Instead, it is intended to offer both general and specific instructions on invoking emergency procedures, allowing the organized repair of City facilities, even under adverse conditions. Additionally, the plan outlines the responsibilities and roles each employee will assume during an emergency.

Brief Overview of Normal Pico Rivera Water Authority Operation

The City of Pico Rivera lies between the Rio Hondo and the San Gabriel Rivers at the foot of the Whittier Narrows Dam. It occupies an area of nearly 8.4 square miles (366,000 acres). The City was incorporated in 1958. There is little open space remaining in the City; thus, any growth will be incremental.

The Pico Rivera Water Authority delivers potable water supplies to its 9,100 customers through its pressurized distribution system. The PRWA's potable water treatment and distribution system is comprised of: 10 chlorination facilities; three small reservoirs with combined storage of 1 million gallons; 90 miles of mains; 875 fire hydrants; and, 11 booster pumps with a capacity of 12,500 gallons per minute (GPM). Average daily demand is approximately 5.0 million gallons. The first three are wells numbers 2,4, and 12 which are controlled by variable frequency drives and are each capable of producing approximately 2300 gallons per minute. Wells number 1,3 and 11 fill reservoirs and have the capacity of approximately 2800 gallons per minute each and are constant speed. Well number 5 is capable of pumping 1500 gallons per minute. Wells number 6,7 and 8 and 3 booster pump stations have a capacity to also maintain system pressure. Average system pressure is 78psi, 72 and the remaining booster pumps are for complete redundancy. The PRWA is interconnected with the City of Whittier and the San Gabriel Valley Water Company, from which it may draw emergency needs.

Precautionary chlorination is provided through the injection of chlorine gas into the common well discharge header. Contact time is provided in the reservoir and secondary chlorination is applied prior to the water entering the distribution piping prior to the first domestic connection. The Cities has two fixed natural gas engines to power wells 2, and 12, to continue pumping water in the event of a commercial power failure.. The Cities also has a portable generator equipped to specifically power the main office facilities in the case of a power outage.

Emergency Operations

During emergency conditions, the Park and Recreation office doubles as the Emergency Operations Center (EOC), located at 6767 Passons Blvd. All operations will be directed from this location. The EOC shall be under the direction of the City Manager, Chuck Fuentes, who shall direct the activities of the Cities staff. Additional contractual staff (i.e. engineering, construction) shall be obtained on an as needed basis.

What is an Emergency?

The dictionary defines an emergency as: "a sudden, urgent, unexpected occurrence requiring immediate action." Using this definition it can be seen that emergencies can and do happen almost on a daily basis. These are handled in the normal daily course of events and are not the subject of this emergency response plan. This does not lessen their importance, but this type of emergency would not normally invoke a full emergency response. Less frequent but considerably more devastating emergencies are always possibilities. Emergencies created by natural events such as earthquakes, tidal waves, flooding, drought, fire, wind, etc., can be extremely devastating and have far reaching effects. In an effort to categorize emergencies, and the required level of response, the following classifications have been developed:

Level I Emergency: A level I emergency can normally be handled by a single person or a small field crew. A typical level I emergency is a line break, severed fire hydrant, customer emergency turn off, pump; valve, well, reservoir or other alarm condition. Most level 1 emergency only effect a small area, but some such as a commercial power failure may affect several facilities. Level I emergencies are normally handled at the Cities level with management being informed through the normal channels. Generally the EOC is not activated for a level I emergency.

Level II Emergency: Level II emergencies may involve multiple crews or even outside resources. Level II emergencies are major emergencies that might involve other agencies, yet are generally within the Cities service area. Examples of a level II emergency are major line breaks, requiring an outside contractor, an area wide power outage that lasts for an extended period of time, etc. Local police, Cal-Trans, the county or other water agencies might be involved in a level II emergency. Depending upon the severity of the emergency, the full EOC, or at least an abbreviated version, may need to be set up to handle coordination and information exchange.

Level III Emergency: Level III emergencies are severe catastrophic events such as high magnitude earthquakes, floods, major fires, etc. that do extensive damage to facilities. A level III emergency will require the response of all personnel who can report to duty. Level III emergencies would be beyond the capability of the City to control, requiring extensive outside assistance. In a level III incident the major damage could be outside the Cities service area, but require the Pico Water District assistance. In the event of a level III emergency the EOC should be immediately set up.

Any emergency can escalate or de-escalate requiring the City to respond accordingly. Simple level I incidents can escalate to level II requiring additional response while the more severe level III can de-escalate to level II or level I as conditions are returned to normal. For example should a major local earthquake occur, Cities resources would probably become rapidly depleted, requiring the City's response to escalate accordingly? As the situation is brought under control, with the restoration of the production and distribution systems, the Cities response would de-escalate to a normal operation. Level II and III incidents may involve local, county, or state public safety officials (police and/or fire) requiring City forces to coordinate their efforts with the local officials.

Response to an emergency

The most important response to any emergency is to **STAY CALM** and rely on your training and good common sense. It would be impossible to create a complete set of guidelines detailing complete instructions on how to handle every type of emergency that might occur. In lieu of that, the following are guidelines to assist you in responding to an emergency.

If you are at work when an emergency occurs:

- Level I Emergency - These types of emergencies are common and might be the result of an alarm condition or a customer complaint. Rely on your training and good common sense to resolve these emergencies. Should the situation escalate, or you feel additional assistance is required, immediately contact your supervisor for assistance. Do not try to remedy a situation that you are either unprepared for or you do not have adequate resources to control. Report all emergencies and their resolution to your supervisor.
- Level II Emergency - Should a level I emergency escalate to level II, or if when responding to an emergency it turns out to be of level II proportions, immediately notify your supervisor for assistance and direction.
- Level III Emergency - Report to your supervisor or to the Cities EOC for additional instructions.

If you are NOT at work when an emergency occurs:

- Level I and II Emergencies - Normally the "on-call" person would be the first responder to after hour's emergencies. The person responding should notify their supervisor if assistance is needed and assemble a crew to correct the emergency. AllCities employees are subject to call out as needed.
- Level III Emergency - Since Level III emergencies are catastrophic in nature the following guidelines are given:
    - Insure the safety of your family.
    - Call your supervisor for instructions. If you cannot reach your supervisor,
    - Call the Cities office for instructions. If you cannot contact the office,
    - Report directly to work. You should report to the Cities main office.
    - Do not wait for someone to contact you. In a catastrophe, time is of the essence.
    - Providing the City's office is safe to enter, try to assess the damage to the system. Use the TV (local Channel 3), Cities radio, telephone, or whatever is functioning to assist you.

If there is immediate danger, or if there has been an injury requiring medical attention, call 911 to report the incident if phones are available and working. If the two-way radio is the only communications available, report the emergency to the City's Public Work Department for first aid if necessary.

Chain of Command

During emergency situations, the chain of command remains as it does during normal operations. The City Manager is responsible for the operation of the City with City employees being subordinate to the City Manager. Should the City Manager be absent, the Assistant City Manager shall acquire the duties. All field operations are managed through the City Of Pico Rivera Public Works Department's Water Division and lead by the Director of Public Works. A Senior Supervisor oversees the water division operating staff at the city corporate yard facility.

All pertinent decisions, communications and coordinating efforts must have the approval of the City Manager or his designate. The City Manager will assess the situation and determine what actions are necessary to return the Cities to normal operation.

Emergency Operations Center

During times of emergency, requiring the setup of an Emergency Operations Center (EOC), the Pico Rivera Water Authority will utilize its office facilities for this function. The will be the operations center. From this location the EOC Director (City Manager or his designate) will direct the activities of the Cities staff and outside support personnel. Commercial radio and television is available as a source of media information. Additional information may be available via the Cities Internet connection. System maps and other pertinent information are available in the file room and would be moved to the boardroom on an as needed basis. Security would be handled from the receptionist area utilizing the existing front security gate. Communications with the field crew(s) would be via the existing Nextel wireless telephone/radio system.

General Response Guidelines

The following are general response guidelines to emergency conditions that may occur. Emergencies can occur at any time, from minor level I emergencies to level III catastrophes. Remember that the key to success in dealing with any emergency is to STAY CALM and use a common sense approach.

These basic guidelines are intended to give basic assistance to an employee in dealing with an emergency. It is impossible to predict the nature, and to what extent, any emergency might involve. The following guidelines are intended to offer general assistance for some of the more probable emergencies an employee might encounter.

Fire (for additional information refer the Cities Emergency Operation Plan)

Buildings - If a small fire, such as a trash can fire, breaks out within a building and a fire extinguisher is available, and you are trained in its use, you may attempt to extinguish the fire. If the building structure is involved, you should evacuate the building, sounding an alarm if others are present, and summon the fire authority.

If you are in the office and a fire breaks out, activate the fire alarm. If the fire is small, such as a trashcan or computer fire and a fire extinguisher is near and you are trained in the use of fire extinguishers, you may attempt to extinguish the fire. If the fire involves the building structure, sound an alarm and evacuate the building, proceed to the designated staging area and notify the fire authority. Do not attempt to extinguish the fire. It is important that all

personnel in the building evacuate to the staging area to help account for all known persons that were in the building.

If you are caught in a building that is on fire observe the following:

- Stay close to the floor. The temperature will be cooler there and this is where you will find fresh air. Smoke tends to kill more people than flames.
- Never open any doors without checking to see if they are hot. A hot door indicates flames on the other side.
- If your clothing catches on fire, drop to the ground and roll.
- If a companion's clothing catches on fire, push them to the floor and make them roll. If a blanket, coat or other piece of heavy clothing is available, use it to smother the flames.

Motors or Switchgear - If you approach a well facility, pump, or control cabinet that appears to be on fire, DO NOT enter the site. Notify the fire authority and be available to assist as necessary. If the fire has spread to involve the structure, DO NOT try to extinguish the fire yourself. If a fire erupts in a motor or the switchgear, if possible, immediately turn off the main electrical breaker. If the fire is small, not involving the building structure and a fire extinguisher is near and you are trained in the use of fire extinguishers, you may attempt to extinguish the fire. DO NOT try to restart any electrical component that has been subjected to a fire.

Vehicles - If you encounter a vehicle fire while driving, pull the vehicle to the side of the road and exit as soon as it is safely possible. Summon assistance in whatever way is available without endangering your life. If the fire is in the engine compartment and the hood can be safely opened, you may use the vehicles fire extinguisher to extinguish the fire. Be careful of the battery. When overheated, batteries will explode.

Above all else, in the event of a fire, stay calm and DO NOT take unnecessary chances.

Earthquake

If you are in a building when an earthquake strikes you should DUCK, COVER, HOLD.

- DUCK - or drop to the floor.
- COVER - Take cover under a sturdy table or desk away from windows or other objects that might fall. If that is not possible, seek cover against an interior wall.
- HOLD - If you have taken cover under an object, HOLD on to it and be prepared to move with it. Stay in that position until the shaking stops and it is safe to move.

Some additional tips to remember in dealing with an earthquake:

- DO NOT try to exit a building during an earthquake. Wait until the shaking stops and then exit as rapidly as safely possible.
- Always try to move along an interior wall if possible.

- When outdoors, move to a clear area away from trees, buildings, signs, power lines, or other objects that might fall.
- If you are on the sidewalk near a building when an earthquake strikes, move into a doorway to protect yourself from falling plaster, bricks, glass or other debris.
- If you are in a store or other public building move away from windows, display cases or shelves with objects that might fall.
- When driving, pull over to the side of the road. Avoid overpasses and power lines. Stay in your vehicle until the shaking stops.

After an earthquake City facilities need to be inspected for their serviceability.

- Pumps and Wells - Carefully inspect the exterior of the well site for its stability before entering the site. If the building does not appear stable, do not enter it. Once inside inspect the alignment of the piping, motors and pumps. Do not try to run a pump or well if the associated piping or the pump and motor appear to be mis-aligned. Control cabinets should be standing in their normal position with all conduits intact. Do not try to run a pump or well using a control cabinet that is in any way damaged or has exposed electrical components. Do not touch any exposed wiring. Assume that all electrical wiring is HOT.
- Reservoir - On the tank look for piping separations, and buckling of the walls. Check to see if the tank is still centered on its base ring. Look for leaks.
- Pipelines - Look for wet spots or water bubbling up along known distribution lines. Investigate no water of low water pressure customer complaints for indications of broken pipelines.

Flooding

Unusually heavy rains, or the over spilling of the Los Angeles and San Gabriel River, have the potential of creating a flood situation. To the extent possible, sandbagging can be utilized to protect Cities facilities. Motors or electrical switchgear that is in danger of coming in contact with floodwaters should be turned off and the main breakers deactivated. Never try to run any electrical appliance that is in contact with water unless the appliance (such as a submersible pump) is designed to operate in a wet environment, nor should any motor or switchgear that has been submerged be operated before it has been thoroughly inspected by a qualified electrician.

Water quality can be affected by flooding. Well and distribution system samples must be taken. Should contamination be indicated, immediate action must be taken. This can include, but not be limited to, additional chlorination, flushing, activation of interconnections, public notification or boil water orders.

Sabotage of Water Supplies

As the population of the area increases and political and other changes take place in our society, there unfortunately becomes an increased potential for the Cities water storage and supply system to become the target of sabotage. This can be a simple prank, someone using a

reservoir for recreational purposes, to a deliberate attempt to contaminate the potable water system. Should there be evidence of tampering; an open or damaged reservoir hatch; apparent tampering with wells or pumps, suspicious containers left on site; water having strange odor or color; the following steps must be taken:

- Isolate the affected system.
- Immediately notify your supervisor and management.
- Isolate the area and notify local law enforcement officials.
- Collect water samples for analysis.
- Notify the Health Department.
- Public Notification as appropriate.
- Flush and chlorinate as appropriate.
- Return the system to service only after testing has deemed it safe.

For additional instruction refer to the Cities Emergency Chlorination Plan included in this booklet.

System Contamination

Should contamination occur within the distribution system, reservoir or wells, follow the procedures contained in the Cities Emergency Chlorination Plan. Likewise the Emergency Chlorination Plan should be consulted should there be a malfunction with the chlorination system.

Disruption of Supply

In the event of a disruption of the normal supply due to well failure, commercial power failure, pipeline failure, etc., activate the emergency generators. Should the problem involve the operation of a well notify one of the Well/ Pump repair companies for assistance.

Civil Disorder

Civil Disorders could cause an emergency status. Complete cooperation and coordination with local peace keeping authorities is essential. To prevent sabotage or vandalism of City facilities, they should remain locked and, as is safe and practical, staffed by City staff. Should additional security be required, private security guards would be hired.

Disruption of Distribution Pumping

Should there be a disruption in distribution pumping, such as a fire in one of the well sites, shut it down and activate one of the alternate wells, and check your chlorine residual after starting the well. **Do not attempt to handle the situation without first calling for assistance. Contact your superintendent and inform him of the situation.**

Main Breaks

Should a main break be evidenced by water coming up out of the ground, loss of pressure in the service area, etc., repairs should be initiated immediately; Cities forces will make the necessary repairs unless City Manager and or the field superintendent deems that assistance

will be necessary. These repairs are normally done under pressure utilizing the appropriate repair clamp. Repairs are made under pressure to minimize the possibility of back siphoning and contamination of the distribution system. Although in some cases when the water leaking out of the main is too excessive, an isolation of the area may be required by closing the closest line valves to the leak. If assistance is required City Manager Will notifying the Cities licensed pipeline contractor for the emergency pipeline repair. A Cities representative should monitor the repair activity to insure all repair work is in accordance with AWWA and Cities standards.

Fire Hydrants

Should a fire hydrant become damaged or sheered, isolate the hydrant by closing the hydrant lateral valve. If possible initiate repairs there after. If repairs for some reason can't be made then the area should be delineated and secured, if the hydrant still stands then a bag should be placed over the hydrant to prevent usage.

The local fire authority must be notified immediately of the hydrant's location and that it is out of service.

Commercial Power Outages

Commercial power outages will occur from time to time. These may be scheduled, due to maintenance or rolling blackouts, or unscheduled because of equipment damage or failure. At the time of a commercial power outage, contact the Southern California Edison Cities (SCE) for a determination as to the anticipated duration of the outage. The Cities has three portable diesel powered generator that can provide sufficient power for distribution pumping. The units must be manually started as per manufactures instructions and load must be manually transferred from commercial to standby power. Do not tamper with the normal generator connections as it can force motors to run in reverse or back feed the SCE system causing severe injury or death. Do not try to apply a load greater than that for which the generator is rated. Do not try to refuel the generator while it is running. Shut the unit down, refuel, and then return the generator to service. When commercial power is restored, allow time for the SCE system to stabilize before transferring load and stopping the generator. Once the load has been transferred, allow the generator to go through its cool down cycle before final shut down.

Building Evacuation

Should a Cities building evacuation be required, follow the posted evacuation route to the assigned staging area. Select an evacuation route that is farthest away from the emergency i.e. fire. Remain calm and move quickly, without running, to the nearest safe evacuation exit. The evacuation commander (individual assigned evacuation duties at the site or the most senior individual on site in their absence) is responsible to sound the evacuation alarm and oversee the evacuation. Providing it can be done safely, assigned individuals are to shut off the gas and electrical service to the building. Once assembled in the staging area, the Evacuation Commander, is to determine if all the known occupants have been safely evacuated. During an earthquake, do not evacuate the building until the earthquake has stopped. Do not reenter a building until it has been deemed safe.

Bomb Threats

Regardless of how they are received, bomb threats must be taken seriously. If the threat is to an occupied building, the building must be evacuated until the threat is alleviated. Cities management, local police and fire authorities must be immediately notified of the threat. If you are the person receiving the threat, try to remain clam and note as much information about the person making the threat as possible. This information can be valuable to authorities trying to apprehend the individual making bomb or other threats. At no time is a Cities employee to try to disable a suspected bomb or other suspicious device. The area should be secured allowing access only to authorized personnel.

Emergency Water Disbursement

In the event it becomes impossible to distribute water through the normal distribution system, emergency water distribution is possible from the reservoir. The compound is ideal because of its security fences and gated entrances. Additional security may be required for crowd control while Cities forces fill allocation requests from reservoir taps. This approach would provide a safer environment and better control for Cities staff than utilizing trailers or other means of trying to satisfy water demands in the community at large.

Emergency Notification

Should an emergency event occur requiring public notification, the Cities will follow the directions ascribed by the state health department. As necessary, electronic media, radio and television, as well as print media (both English and Spanish) will be utilized as required under Title 22 of the California Code of Regulations, sections 64463.1 – 64467. Additionally, two vehicles equipped with loudspeakers could be utilized to notify the residents of the emergency and any special circumstances such as water conservation requests. Because of the size of the service area this should be accomplished in 3 to 4 hours.

FREQUENTLY ASKED QUESTIONS

How will I know if I'm supposed to report to work? - If you are called, then you are to report. If you are not called, use your best judgment. During extreme emergencies it might be impossible for someone from the Cities to call you because of disruptions in the telephone system. Should there be a major event, such as a large scale earthquake, and your family and property are safe, you should make an effort to report to work or in some way make contact with the District.

How do I get through the roadblocks? - Roadblocks are a real potential. There are some things you can do to assist getting through. Always have your ID card handy. Politely inform the officer you are responding to an emergency. If possible, use a marked Cities vehicle. The EOC Director (City Manager or his designate) will try to notify the Los Angeles County Sheriff to allow employees into the service area.

If I'm at work and a major event occurs, will I be able to look after my family? - Yes. The well being of the Cities employees and their families takes a top priority in the Cities efforts in dealing with an emergency. How this is to be accomplished will depend upon conditions surrounding the event.

How will I communicate during an emergency? - Reliable communications is essential to combating the effects of an emergency. If there were a major event, such as a large earthquake, communications would be based upon what worked. The Cities has telephone, Nextel cellular phones, fax and Internet, commercial radio and television available for communications. Depending upon the severity of the event, you would use whatever communications, or mixture of communications, that still function, to communicate.

How long will the emergency last? - There is no way to tell how long an emergency will last. Generally emergency conditions will be in effect until the Cities operation has returned to a normal state.

How long will I be required to work? - That depends upon the severity of the emergency, the number people who respond, and the need for your particular expertise and abilities.

What type of work will I be required to do? - During an emergency the Cities will be required to make the best of what it has. This means there is a good possibility you may be asked to perform a function you are not accustomed to.

Will we get any help? - That depends upon the severity of the emergency and how wide spread it is. For catastrophic emergencies, the general rule of thumb is to not expect any outside help for the first twenty-four (24) to forty-eight (48) hours after the initial event. During that time the Cities will have to survive the best it can on what it has available.

What do I say if asked a question by the Media? - Refer all questions to the EOC Director. The same is true for questions you might be asked from the general public. Do not make comments on your own. During an emergency, accurate information is essential. It is important that all questions about the emergency be handled by a central source.

Emergency Contacts

Pico Rivera Water Authority Contacts

Adrian L. Diaz

Office	562-801-4462
Cellular #1	562-755-0176
Fax	562-699-3585
Home	562-692-7370
E-Mail	adiaz@pico-rivera.org

Angel Quintero – Water Quality Specialist

Office	562-692-4282
Cellular # 1 562-755-0954	
Fax	562-699-3585
Home	562-906-5312

E-mail aquintero@pico-rivera.org

Chris Alaniz – Utility Maintenance III

Office	562-801-4462
Cellular	562-755-0768
Fax	562-699-3585
Home	562-864-6428

24-Hour Water Standby phone 562-244-0685

SEE 2006 WATER STANDBYS CALENDAR
SEE EMERGENCY TELEPHONE NUMBERS BOOKLET

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Pipeline Contractor

A.R. Sarmiento, Inc.

Tony Sarmiento

Office	562-941-1165
Cellular	562-318-7001
Fax	562-941-1902

Valverde Construction, Inc.

Ahron Valverde	
Office	562-906-1826
Cellular	562-244-4705
Fax	562-906-1918

Emergency Chlorination

Matt-Chlor Inc.

James Woodward	
Mark Woodward	
Office	626-443-5034
Fax	626-443-2226

Well Service

General Pump District

Mike Bodart ext. 222	
Office	949-599-9606
Fax	949-599-6238

Layne

Dean Garcia 562-691-0903	
Office	714-870-5360
Cellular	562-755-5813
Fax	562-690-9192

Water Well Supply

Dale Epperly	
Office	562-864-3229
Fax	

Laboratory

Weck Lab- Industry

Office	626-336-2139
Fax	626-336-2634

Electrical Repairs

M&S Electric

Manuel Saenz	
Office	562-699-7697
Cellular	562-533-6964

Generator Repairs

Ashley Electric Service

Larry Lindsey	
Office	323-773-4303
Home	909-677-0118
Pager	323-707-6209

Southern California Edison	800-655-4555

California Department of Health Services – Hollywood District

David Chang	213-580-3171
Office	213-580-5723
Fax	213-580-5711

Police Department

Emergency	911
Office	562-949-2421

Fire

Emergency	911
Office	562-942-1015

Location of Emergency Equipment

Type of Equipment	Location
General	
Fire extinguishers	Office, Warehouse and Wells
First Aid Kit(s)	Warehouse and service vehicles
Respirators	Warehouse and office and wells
Spare Cell Phones	Office
Emergency Survival Kits	
Water Quality Items	
Chlorine Test Kits	Three colorimeter kits
Water Sample Kits	City Yard (Refrigerator)
Repair Equipment	
Utility truck	**City Yard**
Barricades	City Yard
Repair Clamps	City Yard
Air Compressor	City Yard
Back hoe	City Yard

Training

Type of Training	*Frequency*	*Topics Covered*
Fire Extinguisher Training	Annually	Review types of extinguishers and general fire extinguisher use.
Generator Training	Annually	Review generator-operating procedures and power failure scenarios.
Chlorination Training	Annually	Review CL2 safety, and emergency chlorination procedures.

Reference: California Code of Regulation, Title 8 Sections 3220.

Pico Rivera Water Authority
Fire Prevention and Fire Emergency Plan

General

A Fire Prevention and Fire Emergency Plan is part of the Cities Emergency Response Plan. Its intent is to alert employees to potential fire hazards, abate those hazards, and provide an emergency plan in the event of a fire.

Typical Fire Hazards

Typical fire hazards consist of, but are not limited to the following:

- Combustible materials: These are any type of materials which when ignited will burn. Included would be paper products, plastics, packing material, wood, certain chemicals, petroleum products, (gasoline, diesel fuel, paint thinners, cleaning solvents etc.).
- Electrical appliances: Any electrical appliance such as coffee makers, computers, radios, office equipment, and pumps motors, switch gear, etc., is capable of being a fire hazard. This occurs when the equipment is mis-used, poorly maintained, used in an environment where it was not intended (using an appliance intended only for indoor use out of doors), or used to provide a function for which it was not intended, etc. Over-loading receptacles, bypassing fuses or circuit breakers, using frayed or damaged electrical cords or wiring, all contribute to creating an electrical fire hazard.
- Gas appliances and items that produce sparks during their operation: Gas appliances, such as heaters, gasoline fueled equipment, cutting or welding torches, that are improperly used or maintained can create a fire hazard. This is also true of tools such as grinders or saws that produce sparks.

Fire Prevention

Being aware of what constitutes a fire hazard and acting accordingly is an important aspect to a good fire prevention program. The following suggestions should be adhered to as part of the Cities fire prevention program.

- Good housekeeping: Good housekeeping is essential to fire prevention. Clutter or accumulations of combustible material should not be allowed to accumulate, especially near an ignition source. Combustible materials must not be stored in closets or other places where there is a viable source of ignition. Example: storing combustible materials in the same closet with the furnace or water heater having a pilot light. Likewise, flammable liquids or chemicals must not be stored near an ignition source.

- Refueling of equipment: Refueling vehicles or equipment must be done with the engine off and in the appropriate location away from any source of ignition. Smoking is never permitted when refueling vehicles or equipment.
- Using electrical appliances: Never use any electrical device that is defective or has defective wiring, cords, connections, or switches. Only use the appliance for its intended purpose. Never overload an outlet, circumvent fuses or circuit breakers, and insure the appliances' grounding needs are properly adhered to.

Inspections and Maintenance

Inspections and proper maintenance are a part of the Cities fire prevention program. Inspections are likewise a part of the Cities overall safety program. Inspections are accomplished on a regular basis but need to be augmented by brief safety checks each time a tool, appliance, or piece of equipment is to be used. Any time a tool, appliance or piece of equipment appears to be damaged, does not work properly, or appears to be unsafe, DO NOT USE IT until it can be properly repaired or replaced. Do not use electrical equipment with frayed wiring, cords or plugs with the grounding or other prongs removed or altered.

Fire Control

None of the Cities facilities are equipped with internal automatic sprinkler systems. AllCities facilities and vehicles are equipped with fire extinguishers. These portable fire extinguishers are dry chemical, or CO2, depending upon their location. All the fire extinguishers are checked monthly and serviced annually. Fire extinguisher locations must not be obstructed. Fire extinguishers must be in plain sight with easy access and clearly marked as appropriate. Fire extinguishers are for use on small non-structural fires such as wastebasket fires or small appliance fires. They are to be used only by persons who have been trained in their usage. To effectively use a fire extinguisher, do the following:

- Remove the fire extinguisher from its mounting point.
- Grasping the fire extinguisher with one hand on its handle and the other on the bottom, rotate the extinguisher, top to bottom, a couple times. This is of particular importance with dry chemical extinguishers as it loosens up the chemical allowing it to be expelled with the propellant.
- Holding the extinguisher with one hand in the upright position, remove the ring pin with the other hand.
- Keeping a safe distance from the fire, point the nozzle of the extinguisher at the base of the fire.
- Squeeze the trigger, using short bursts while moving the extinguishers blast across the fire.
- Continue using an arching motion and short bursts aimed at the base of the fire until the fire is out or the fire extinguisher is empty.

If the fire involved an electrical appliance, tool or equipment, do not try to re-start or run the device until it can be thoroughly inspected and repaired by a qualified electrician.

Fire Alarm Systems

The City's facilities do not have any type of fire sensing or alarming equipment. Should a fire be discovered, the person discovering the fire should yell "FIRE" to alert any other building occupants and take the appropriate action. If the fire is small, such as a trash can fire, and a fire extinguisher is available, and you are trained in its proper operation, you may extinguish the fire. For larger fires, or fires that involve the building structure or fires that could not be successfully extinguished, call the local fire authority.

Anytime the fire alarm is sounded, the occupants of the affected facility must immediately engage in an orderly evacuation. Occupied Cities facilities have evacuation routes posted. The evacuation route posters include staging areas and the locations of fire extinguishers. The fire authority should be called for any fires that are larger than those that can be easily extinguished with a portable fire extinguisher. Fire alarms are serious and activation as a prank will result in the appropriate disciplinary action.

Employee Fire Prevention Safe Work Practices

Every employee must comply with safe work practices to minimize fire hazards and insure a safe response in the event of a fire. The following guidelines are designed to encourage safe work practices:

- Handle flammable or combustible liquids very carefully. Gasoline, paint thinners, diesel fuel, etc. should only be stored in small amounts (five gallons or less) in approved marked containers and away from any source of ignition.
- When refueling vehicles or other engine power equipment, never leave the engine running.
- Never smoke when refueling vehicles or engine driven equipment.
- Should a spill of a flammable liquid occur, immediately clean it up and properly dispose of the clean-up materials.
- Oily rags, or rags with other combustible liquids on them, must only be stored in the proper fire safe containers.
- Never store materials where they may block access to a fire extinguisher, fire sprinklers, or fire alarm.
- Never store combustible materials, including flammable liquids, near an ignition source.
- Do not block fire exits with stored materials. Always keep exits free and clear.
- Avoid overloading electrical receptacles and keep use of extension cords to a minimum.

- Do not use defective electrical equipment. This includes equipment with frayed wiring, defective plugs, bad switches, or that is improperly grounded.
- Never circumvent any electrical safety device such as a fuse or circuit breaker.
- Know how to use a fire extinguisher and its limitations. Do not try to fight a fire that is to big for the rating of the fire extinguisher being used. Do not use a fire extinguisher if you are not trained in its usage.
- Know where the fire alarms are, how to activate them, and what they sound like when activated.
- When working in a building, know where the exits and evacuation routes are.

Areas Subject to Periodic Inspection

The following areas will be periodically inspected for fire hazard. The following areas are scheduled monthly for inspected are:

Cities Office
Storage Facilities
Motor Control Centers (MCC)
Wells and associated areas
Pumps and associated areas
Chlorination equipment
All Fire Extinguishers

Reference: California Code of Regulation, Title 8 Sections 3221.

Pico Rivera Water Authority
Emergency Chlorination Plan

Name: Pico Rivera Water Authority

Address: 9633 Beverly Road

Pico Rivera CA 90660

System Supervisor: Adrian Diaz (Distribution Grade 3, Treatment Grade 2)

Water Quality Specialist: Angel Quintero (Distribution Grade 2, Treatment Grade 2)

System Operators: Chris Alaniz, Utility Maintenance III (Distribution Grade 3, Treatment Grade 2)

Dave Valdepena, Utility Maintenance III (Distribution Grade 2 Treatment 2)

Phone Number:	562-755-0176 or 562-244-0685
System Type:	Community Water System
Population Served:	Approximately 35,000
Source Water:	The Pico Rivera Water Authority primary source is 10 groundwater wells drawing from common aquifers.
Treatment Provided:	Precautionary chlorination (gas chlorine) is provided at each of the wells when the system is utilizing its groundwater source.

System Overview

The City of Pico Rivera lies between the Rio Hondo and the San Gabriel Rivers at the foot of the Whittier Narrows Dam. It occupies an area of nearly 8.4 square miles (366,000 acres). The City was incorporated in 1958. There is little open space remaining in the City; thus, any growth will be incremental.

The Pico Rivera Water Authority delivers potable water supplies to its 9,100 customers through its pressurized distribution system. The PRWA's potable water treatment and distribution system is comprised of: 10 chlorination facilities; three small reservoirs with combined storage of 1 million gallons; 90 miles of mains; 875 fire hydrants; and, 11 booster pumps with a capacity of 12,500 gallons per minute (GPM). Average daily demand is approximately 5.0 million gallons. The first three are wells numbers 2,4, and 12 which are controlled by variable frequency drives and are each capable of producing approximately 2300 gallons per minute. Wells number 1,3 and 11 fill reservoirs and have the capacity of approximately 2800 gallons per minute each and are constant speed. Well number 5 is capable of pumping 1500 gallons per minute. Wells number 6,7 and 8 and 3 booster pump stations have a capacity to also maintain system pressure. Average system pressure is 78psi-72psi and the remaining booster pumps are for complete redundancy. The PRWA is interconnected with the City of Whittier and the San Gabriel Valley Water Company, from which it may draw emergency needs.

Precautionary chlorination is provided through the injection of chlorine gas into the common well discharge header. Contact time is provided in the reservoir and secondary chlorination is applied prior to the water entering the distribution piping prior to the first domestic connection. The Cities has two fixed natural gas engines to power wells 2, and 12, to continue pumping water in the event of a commercial power failure. The Cities also has a portable generator equipped to specifically power the main office facilities in the case of a power outage.

Normal Operation

Potable water for the Pico Rivera Water Authority is provided by groundwater wells. Operation of the wells is controlled by system pressure directly related to system demand. As the system water pressure drops, indicated by pressure transducers for each well, which is connected to PLC and then the well is controlled by the SCADA system either starting or stopping the well to attain the desired pressure. Once the desired system pressure is attained the well production is stopped. Each well has sufficient capacity to provide the system's daily needs. The wells alternate their duty cycles on a weekly basis.

Distribution system pressure is maintained at approximately 78 to 72 psi by any three City wells or two wells and two boosters, pump from any one of the three reservoirs. Pump activation is via pressure sensors monitoring the distribution system.

Reservoir levels and distribution system pressure are monitored 24hrs/day via SCADA and recorded on a daily basis by the individual checking the wells for that day.

System Disinfection

Chlorine levels are monitored daily. Chlorinators are used to inject gas chlorine to an injection point on the distribution line prior to the water entering the distribution system. The rortometer is manually adjusted to provide a .50 mg/L dosage. This dosage has proven to provide an average residual of .25 mg/L to the farthest point in the distribution system. Daily chorine residuals are taken at each of the Districts well sites at a designated sample tap prior to the distribution system. Additionally, chlorine is monitored when water samples are taken throughout the distribution system. Records are maintained at the Cities office. There are no known water quality issues that can affect the chlorination process.

Emergency chlorination connections are provided at the reservoir, the discharge of the wells. Matt-Chlor Inc. provides emergency chlorination equipment on an as needed basis.

Monitoring

Chlorine sampling is accomplished daily with bacteria sampling being done weekly throughout the distribution system. Table 1 indicates the maximum chlorine levels allowed during normal system operation. Disinfectant residual levels for chlorine or chloramines shall not exceed those listed in Table 1 unless, under the direction of the Department of Health Services (DHS), higher levels of disinfectant are necessary to protect the public health or address a specific contamination issue. Table 2 indicates the sampling sites and their respective location to the source of supply. Figure 3 graphically shows the locations of the various distribution system-sampling points and sources of supply.

TABLE 1

Maximum Residual Disinfectant Levels

Chlorine	1.0 mg/L
Chloramines	0.0 mg/L

TABLE 2 *Monitoring Sites for Groundwater*		
SITE NUMBER	**SITE ADDRESS**	**LOCATION**
1	8739 Gallatin Road Plant # 1	North part of the system
2		
3	8316 Washington Blvd Plant # 2	Middle of the system
4		
5	8305 Slauson Ave	Southwest part of system
6	8231 Elmont Ave	South part of the system
7	8523 Ceylon Ave	South of the system
8	9623 Telegraph Rd	South part of the system
11	9732 Lundahl Ave Plant # 3	Southeast part of the system
12		

Samples are tested by Clinical Laboratories of City of Riverside for E.coli, fecal coli and coliform. The lab will immediately notify (within 24 hours) the Cities and the DHS of any positive samples. If a routine sample is total coliform-positive, a repeat sample must be taken within 24 hours of notification. The repeat samples shall be taken within the same 24-hour period and shall consist of at least three samples for every total coliform-positive routine sample. When collecting repeat samples, at least one sample must be from the same sampling tap that produced the original total coliform-positive sample. At least one sample shall be taken within five service connections upstream and downstream of the point of the original positive sample unless there is no upstream or downstream service connection. If a repeat sample returns total coliform-positive, the DHS is to be immediately notified.

Chlorination Equipment

Gas chlorine provides primary chlorination. These units are capable of producing 50 pounds per day, should additional chlorine be required, the chlorinators can be upgraded to a 100 pound per day chlorinator concentration of gas chlorine. Injection is at each of the groundwater wells discharge. Piping changes to the inlet/outlet piping have been made to enhance the contact time. Lighting and ventilation are provided at each injection site. Matt-Chlor Inc. provides chlorine system maintenance.

System Maintenance

Matt-Chlor Inc. provides maintenance of the chlorine system including calibration of the chlorine test equipment.

An annual flushing program is utilized to flush the distribution system. All fire hydrants and isolation valves are exercised and tested at this time.

Main breaks on the older shallower lines are repaired under pressure utilizing repair clamps to minimize the possibility of back siphoning and contamination of the distribution system.

Record Keeping

Sampling reports and test results shall be retained for at least five years at the City Yard office. Additionally, the laboratory shall submit copies of all required bacteriological monitoring results directly to the DHS.

Emergency Contamination Procedures

If repeat samples are total coliform-positive, City's Water Authority and the DHS must be immediately notified and the effected system must be flushed, disinfected and resample until the contamination is alleviated. The City Manager in conjunction with one or both of the City's' certified operators, under the direction of the DHS, will determine the need for and the oversight of all emergency events. The Director of Public Works and Senior Supervisor will have the responsibility to insure that proper procedures are followed protecting the Pico Rivera Water Authority system and its customers.

Well Contamination: Should sampling reveal possible contamination of one or more of our wells do the following:

- Samples of the reservoir and the distribution system should be taken to insure the contamination has not entered the system.
- Notify the Senior Supervisor. He shall be responsible, under the direction of the DHS, for determining the need for and the oversight of all emergency events. It shall be his responsibility to insure that proper procedures are followed protecting the Pico Rivera Water Authority system and its customers.
- Notify Water Well Supply for assistance in flushing and decontaminating the well(s).
- Return the system to normal operation only after it has been deemed safe to do so.

Reservoir Contamination: Should sampling reveal possible contamination of our reservoir, do the following:

- Samples of the distribution system should be taken to insure the contamination has not entered the system.
- Samples of the well(s) should be taken to determine if the contamination source is within the well(s).
- Notify the Senior Supervisor. He shall be responsible, under the direction of the DOHS, for determining the need for and the oversight of all emergency events. It

shall be his responsibility to insure that proper procedures are followed protecting the Pico Rivera Water Authority system and its customers.

- If deemed necessary, notify Matt-Chlor Inc. for assistance in flushing and chlorinating the reservoir(s).
- Return the system to normal operation only after it has been deemed safe to do so.

Distribution System Contamination: Should sampling reveal possible contamination of our reservoir, do the following:

- Samples of the wells and the reservoir should be taken to determine the source of the contamination.
- Utilizing fire hydrants flush the effected area and resample.
- Notify the Senior Supervisor. He shall be responsible, under the direction of the DHS, for determining the need for and the oversight of all emergency events. It shall be his responsibility to insure that proper procedures are followed protecting the Pico Rivera Water Authority system and its customers.
- Notify Matt-Chlor Inc. if portable or spot chlorination of the distribution system is required.
- Return the system to normal operation only after it has been deemed safe to do so.

Should emergency or portable chlorination equipment be needed, or spot chlorination be required in the distribution system, contact Matt-Chlor Inc. Chlorine injection points are provided at each well discharge piping, each reservoir and on the discharge piping of the distribution pumps. Likewise, should a failure occur in the chlorination system, contact Matt-Chlor Inc. for service.

Public Notification

Should a contamination event occur requiring public notification as directed by DHS, theCities will follow the dictates of Title 22, Sections 64463.1 – 664467 to the satisfaction of the DHS inspector. The following will be enacted based upon the direction of the DHS inspector:

- Electronic media notification via local radio and television as soon as possible but in no case more than 24 hours after being directed to do so by the DOHS.
- Print media via local daily newspapers of a Water Quality Failure given at least once within 14 days of the incident.
- If required, flyers containing information about the Water Quality Failure would be handed out door-to-door and posted in public places.
- Additionally, two vehicles equipped with loudspeakers could be utilized to notify the residents of the Water Quality Failure.
- In severe contamination cases, boil water notices would be handed out door-to-door, posted in public places and local media notified.

Chlorine Gas Safety and First Aid

Safety

Do Not Attempt to repair a leak with out proper equipment and supervision

1. For leaks, contain the material, close the doors to the chlorine room and call the fire department
2. Fumes from leaks can be very irritating and or deadly.
3. Gas chlorine is very corrosive and can cause severe chemical burns.
4. Wear proper clothing such as classA fully encapsulated suit equipped with an SCBA.
5. Segregate from acids, reducing agents, and combustibles.

First Aid

1. Eyes - Flush with water for at least 15 minutes.
2. Skin - Remove soaked clothes. Wash with plenty water for at least 15 minutes.
3. Inhalation - Remove to fresh air. Seek medical help immediately.
4. Ingestion - If conscious, drink large amounts of water. Do not induce vomiting. Seek prompt medical attention.
5. Refer to the Material Safety Data Sheets (MSDS) for further information.

Appendix F
PRWA Resolution 3945; Ordinance 1061

RESOLUTION NO. 3945

A RESOLUTION ADOPTING THE WATER SHORTAGE CONTINGENCY PLAN

WHEREAS, the California Legislature enacted Assembly Bill 11X during the 1991 Extraordinary Session of the California Legislature (an act to amend California Water Code Sections 10620, 10621, 10631, and 10652, and to add Section 10656 to the California Water Code, relating to water); and

WHEREAS, AB11X mandates that every urban water supplier providing municipal water directly or indirectly to more than 3,000 customers or supplying more than 3,000 acre-feet of water annually to develop a Water Shortage Contingency Plan; and

WHEREAS, AB11X mandates that said Plan be filed with the California Department of Water Resources by January 31, 1992; and

WHEREAS, the City of Pico Rivera is an urban supplier of water providing water to more than 3,000 customers, and has therefore, prepared and circulated for public review a Draft Water Shortage Contingency Plan, in compliance with the requirements of AB11X, and a properly noticed public hearing regarding said Draft Plan was held by the City Council on December 21, 1992 and a Final Water Shortage Contingency Plan prepared;

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF PICO RIVERA DOES RESOLVE AS FOLLOWS:

1. The Water Shortage Contingency Plan attached hereto as Exhibit "A" and incorporated by reference as fully set forth herein is hereby adopted and ordered filed with the City Clerk;

2. The City Manager is hereby authorized and directed to file this Plan with the California Department of Water Resources;

3. The City Manager is hereby authorized at his discretion to declare that a Water Shortage Emergency and at such time implement this Water Shortage Contingency Plan;

4. The City Manager shall recommend to the City Council regarding additional procedures, rules, and regulations to carry out effective and equitable allocation of water resources during a water shortage.

APPROVED AND ADOPTED this 21st day of December **1992.**

John G. Chavez, Mayor

ATEST:

Christine Schaefer, City Clerk

APPROVED AS TO FORM:

Samuel Siegel, City Attorney

AYES: Gardner, Mercado, Natividad, Proo, Chavez
NOES: None
ABSENT: None
ABSTAIN: None

CITY COUNCIL **AGENDA REPORT**

To: Mayor and City Council

From: City Manager

Meeting Date: February 9, 2010

Subject: WATER EFFICIENT LANDSCAPE ORDINANCE (2nd Reading)

Recommendation:

Adopt on Second Reading, a proposed Ordinance adding Chapter 13.90, of the Pico Rivera Municipal Code relative to the Water Efficient Landscape Ordinance.

Background:

AB 1881 amended the Landscape Act (the "Act") and mandated that all public water agencies update their local Landscape Ordinances by January 1, 2010 to be minimally compliant with the California Department of Water Resource's ("DWR") Model Ordinance. The proposed Municipal Code amendment in Chapter 13.90 applies to all new construction and rehabilitated landscapes that are public agency or developer installed projects with a total landscape area of greater than 2,500 square feet; new homeowner-installed residential projects with a landscape area of greater than 5,000 square feet; and includes certain existing and special landscaped areas.

For properties and projects that are subject to this Chapter, a licensed landscape architect must submit a "Landscape Documentation Package." The applicant shall submit to the City a Certificate of Completion prior to the City issuing a Certificate of Occupancy stating the landscaping has been completed pursuant to the approved Landscaped Documentation Package.

Landscape Documentation Package

This mandated process includes the following:

- Landscape Concept Plan (design statement, irrigation notes).
- Conceptual Plant Palette identifying proposed hydrozones.
- Irrigation Plan
- Planting and Soils Plan
- Water Management Plan

Landscape Design and Plan Requirements

The Ordinance recommends the use of certain native plants and trees that are selected be appropriate for the climatic, environmental, and soil conditions of the property, while also encouraging the minimal use of turf in landscaping. Where turf is called out, its use will be taken into account when determining the total amount of water to be used, AKA "Maximum Allowed Water Allowance". The Maximum Applied Water Allowance is based upon the total amount of water that will be used for landscaping and takes into account both the natural evapotranspiration rate and land area.

In addition, the proposed Ordinance requires that decorative water systems (i.e., fountains) must be recirculating and that if available, recycled-reclaimed water be used for water fixtures (excluding pools and spas).

Proposed Ordinance is at Least as Effective as the Model Ordinance

This proposed Ordinance meets the AB 1881 mandate that it be as effective as the Model Ordinance in requiring water efficient landscaping for all new projects. The proposed Ordinance was developed using ordinances from several local jurisdictions that have already adopted their own ordinances in compliance with AB 1881, which include agencies in the Chino Valley Basin and Orange County. It is projected that other agencies in the Central Basin Municipal Water District will also follow this process in adopting their ordinances.

The proposed Ordinance contains all of the provisions that are required in AB 1881 and it requires the same reports (i.e. a Soils Management Report, Irrigation Plan, and Water Management Plan, referred to as the Landscape Documentation Package) as recommended in the Model Ordinance.

Charles P. Fuentes

CPF:ARC:AD:lg

Enc.

1) Water Efficient Landscape Ordinance
2) Landscape Documentation Package worksheet

ORDINANCE NO. 1061

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF PICO RIVERA, CALIFORNIA, ADOPTING CHAPTER 90 OF TITLE 13 OF THE PICO RIVERA MUNICIPAL CODE ENTITLED "WATER EFFICIENT LANDSCAPE ORDINANCE"

WHEREAS, Article X, Section 2 of the California Constitution declares that waters of the State are to be put to beneficial use, that waste, unreasonable use, or unreasonable method of use of water be prevented and that waste be conserved for the public welfare;

WHEREAS, the waters of the State and those from which the City of Pico Rivera (the "City") receives its water supply are of limited supply and are subject to ever increasing demands;

WHEREAS, the continuation of the City's economic prosperity is dependent on the availability of adequate supplies of water for future uses;

WHEREAS, it is the policy of the City to promote the conservation and efficient use of water and to prevent the waste of this valuable resource;

WHEREAS, landscapes are essential to the quality of life in California and the City by providing areas for active and passive recreation and as an enhancement to the environment by claiming air and water, preventing erosion, offering fire protection, and replacing ecosystems lost to development;

WHEREAS, landscape design, installation, maintenance and management can and should be water efficient;

WHEREAS, pursuant to Government Code § 65594(c), the City is required to adopt a water efficient landscape ordinance that is at least as effective in conserving water as the State's Model Ordinance;

WHEREAS, the Ordinance includes provisions for water conservation and the appropriate use and groupings of plants that are well adapted to particular sites and to particular climatic, soil, and topographic conditions;

WHEREAS, the Ordinance will promote alternative landscape and irrigation methods and strategies for water conservation by encouraging use of native landscaping and responsible water management practices;

WHEREAS, the Ordinance provides for onsite soil assessment and soil management plans that include drainage and grading to promote healthy plant growth and to prevent excessive erosion and runoff, and the use of mulches in shrub areas, garden beds, and landscaped areas where appropriate;

WHEREAS, the Ordinance provides for landscape maintenance practices that foster long-term landscape water conservation;

WHEREAS, the Ordinance includes provisions to establish a maximum amount of water to be applied through the irrigation system;

WHEREAS, the Ordinance encourages the capture and retention of stormwater to improve water use efficiency or water quality;

WHEREAS, the Ordinance includes provisions for the use of automatic irrigation systems and irrigation schedules based upon climatic conditions, specific terrains and soil types, and other environmental conditions;

WHEREAS, the Ordinance promotes the use of recycled water;

WHEREAS, this Ordinance is at least as effective in conserving water as the model ordinance adopted pursuant to Government Code § 65595;

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF PICO RIVERA DOES HEREBY ORDAIN AS FOLLOWS:

SECTION 1. Chapter 13.90 is hereby established to the Pico Rivera Municipal Code to read as follows:

13.90.010. Purpose and Intent.

The purpose of this Water Efficient Landscape Ordinance is:

a. That this Ordinance be at least as effective in conserving water as the model ordinance adopted pursuant to Government Code § 65595;
b. To assure beneficial, efficient, and responsible use of water resources for all users within the City of Pico Rivera;
c. To retain the land's natural hydrological role and promote the infiltration of surface water into the groundwater;
d. To acknowledge that landscape water use accounts for more than 60% of all domestic water use in the City;
e. To recognize that landscapes enhance the aesthetic appearance of developments and communities;
f. To encourage the appropriate design, installation, maintenance, and management of landscapes so that water demand can be decreased, runoff can be retained, and flooding can be reduced without a decline in the quality or quantity of landscapes;
g. To preserve existing natural vegetation and the incorporation of native plants, plant communities, and ecosystems into landscape design, where possible;
h. To promote and encourage the use of low water use plants;
i. To minimize the use of cool season turf;
j. To promote the conservation of potable water by maximizing the use of recycled water and other water conserving technology for appropriate applications;

k. To promote public education about water conservation and efficient water management;
l. To reduce or eliminate water waste.

13.90.020. Definitions.

a. "Administrator" means the Department or person at the City who has the authority to approve a permit, plan check, and design review for a project.
b. "Amendments" means any material added to a soil to improve its physical properties, such as water retention, permeability, water infiltration, and drainage.
c. "Anti-drain check valve" means a valve located under a sprinkler head to hold water in the system to prevent drainage from the lower elevation sprinkler heads when the system is off.
d. "Applicant" means the individual or entity submitting a Landscape Documentation Package required under this Chapter or State law, to request a permit, plan check, or design review from the City. A project applicant may be the property owner or his/her designee.
e. "Application rate" means the depth of water applied to a given area, measured in inches per minute, or inches per hour, or gallons per hour.
f. "Applied water" means the portion of water supplied by the irrigation system to the landscape.
g. "Automatic rain shut-off feature" means a system of which a component automatically suspends the irrigation system event when it rains.
h. "Backflow prevention device" means a safety device used to prevent pollution or contamination of the potable water supply due to the reverse flow of water from the irrigation system.
i. "Botanical gardens and arboretums" means a garden in which a variety of plants is grown for scientific and educational purposes.
j. "Certified landscape irrigation auditor" means a person certified to perform landscape irrigation audits by an accredited educational institution or professional trade organization.
k. "Control valve" means a device used to control the flow of water in the irrigation system. It may also mean all of the sprinklers or emitters in a line controlled by the valve.
l. "Controller" means an automatic timing device used to remotely control valves or heads to set an irrigation schedule. A weather-based controller is a controller that uses evapotranspiration or weather data. A self-adjusting irrigation controller is a controller that uses sensor data (i.e., soil moisture sensor).
m. "Developer" means a landowner or owner's agent responsible for the development of land. It does not include homeowners or landlords of single-family homes.
n. "Discretionary permit" means any permit requiring a decision making body to exercise judgment prior to its approval, conditional approval, or disapproval.
o. "Ecological restoration project" means a project where the site is intentionally altered to establish a defined, indigenous, and/or historic ecosystem.
p. "Estimated Applied Water Use ("EAWU")" means the portion of the Estimated Total Water Use that is derived from applied water. The Landscape Documentation Package shall contain the formula and calculation. The Estimated Water Use shall not exceed the Maximum Applied Water Allowance.

q. "Estimated total water use" ("ETWU") means the total water used for the landscape.

r. "ET Adjustment Factor" or "ETAF" is equal to the plant factor divided by the irrigation efficiency factor for a landscape project. The ETAF is calculated in the context of local reference evapotranspiration, using site-specific plant factors and irrigation efficiency factors that influence the amount of water that needs to be applied to the specific landscaped area. A combined plant mix with a site-wide average plant factor of 0.5 (indicating a moderate water need) and average irrigation efficiency of 0.71 produces an ET adjustment factor of (0.7) = (0.5/0.71), which is the standard of water use efficiency generally required by this Chapter except that the ETAF for a special landscape area shall not exceed 1.0.

s. "Hardscape" means any durable material or feature installed in or around a landscaped area, such as pavements or walls. Pools and other water features are considered part of the landscaped area and not considered hardscapes for purposes of this Chapter.

t. "High water use plants" means turfs, annuals, container plantings, and other plants recognized in the Water Classification of Landscape Species document as available from the State of California as it currently exists or may be amended in the future.

u. "Hydrozone" means a section or zone of the landscaped area having plants with similar water needs that are served by a valve or set of valves with the same schedule. A hydrozone may be irrigated or non-irrigated.

v. "Infiltration rate" means the rate of water entry into the soil expressed as a depth of water per unit of time (i.e., inches per hour).

w. "Invasive species" means non-indigenous species that adversely affect the habitats they invade economically, environmentally, or ecologically.

x. "Irrigation audit" means an in-depth evaluation of the performance of an irrigation system conducted by a Certified Landscape Irrigation Auditor. An irrigation audit includes, but is not limited to: inspection, system tune-up, system test with distribution uniformity or emission uniformity, reporting overspray or runoff that causes overland flow, and preparation of an irrigation schedule.

y. "Irrigation efficiency" means the measurement of the amount of water beneficially used divided by the amount of amount applied. Irrigation efficiency is derived from measurements and estimates of irrigation system characteristics and management practices. The minimum irrigation efficiency for purposes of this Chapter is 0.71.

z. "Irrigation system" means the network of piping, valves, and irrigation heads.

aa. "Landscape architect" means a person licensed to practice landscape architecture in this State pursuant to Chapter 3.5 (commencing with Section 5615) of Division 3 of the Business and Professions Code.

bb. "Landscape concept plan" means the portion of a landscape documentation package that includes a design statement, irrigation notes, planting notes, the plant palette, and conforms with the requirements of this Chapter.

cc. "Landscape construction drawings" means the portion of a landscape documentation package that includes the irrigation plan, plant and soils plan, water management plan, and conforms with the requirements of this Chapter.

dd. "Landscape documentation package" or "documentation package" means the complete packet of documents required under this Chapter to be submitted to the City. Documentation packages include the landscape concept plan and landscape construction drawings.

ee. "Local water purveyor" means any entity, including a public agency, city, county or private water company that provides retail water service.

ff. "Low head drainage" means drainage from a sprinkler that is caused by water flowing down an irrigation system from a higher level of elevation.

gg. "Low water use plants" means Mediterranean region and native trees, shrubs and groundcovers and other plants recognized as low-water-use by the Water Classification of Landscape Species document as available from the State of California as it currently exists or may be amended in the future.

hh. "Maximum Applied Water Allowance" or "MAWA" means the upper limit of annual applied water for the established landscaped area. It is based upon the area's reference evapotranspiration, the ET Adjustment Factor, and the size of the landscaped area. The Estimated Applied Water Use shall not exceed the Maximum Applied Water Allowance.

ii. "Moderate water use plants" means ornamental trees, shrubs ground covers, perennials, and other plants recognized as moderate-water-use by the Water Classification of Landscape Species document as available from the State of California as it currently exists or may be amended in the future.

jj. "Mulch" means any organic material such leaves, bark, or inorganic material such as pebbles, stones, gravel, decorative sand or decomposed granite left loose and applied to the soil surface to reduce evaporation.

kk. "Operating pressure" means the pressure at which an irrigation system of sprinklers is designed by the manufacturer to operate, usually indicated at the base of a sprinkler.

ll. "Overspray" means the water that is delivered beyond the landscaped areas by the irrigation system onto pavements, walks, structures, or other non-landscaped areas.

mm. "Planting plan" means a plan submitted with the construction drawings indicating a list and quantity of plants.

nn. "Potable water" means water meant for human consumption that is treated to legal standards for human consumption.

oo. "Pressure regulator" means a device used in sprinkler systems for radius and high-pressure control.

pp. "Project net landscape area," "landscaped area," or "landscape project area" means all of the planting areas, turf areas, and water features in a landscape design plan subject to the Maximum Applied Water Allowance calculation. The landscape area does not include footprints of buildings or structures, sidewalks, driveways, parking lots, decks, patios, gravel or stone walks, other previous or non-pervious hardscapes, and other non-irrigated areas designated for non-development.

qq. "Rain sensor" means a system component that detects rainfall and automatically overrides the irrigation system during rain events.

rr. "Recycled water" means water which, as a result of treatment of waste, is suitable for a direct beneficial use or a controlled use that would not otherwise occur and is therefore considered a valuable resource. Recycled water shall not be intended for human consumption.

ss. "Rehabilitated landscapes" means any re-landscaping project that requires a permit, plan check, or design review and meets the requirements of this Chapter.

tt. "Runoff" means water that is not absorbed by the soil or landscape to which it is applied and flows from the area.

uu. "SMART irrigation controller" means weather-based or soil moisture-based irrigation controller that monitors and uses information about the environmental conditions at a specific location and landscape to automatically adjust watering schedules.

vv. "Soil Management Plan" means a plan submitted with the construction drawings indicating results from soil tests and recommended soil amendments.

ww. "Soil test" means a test done by a soil test lab that indicates at minimum soil texture, water holding capacity, pH, and clay.

xx. "Soil type" means the classification of soil based on the percentage of its composition of sand, silt, and clay.

yy. "Special landscape area" means an area of the landscape dedicated to edible plants, areas irrigated with recycled water, and areas dedicated to active play such as parks, sports fields, golf courses, where turf provides a playing surface.

zz. "Sprinkler head" means a device that delivers water through a nozzle.

aaa. "Static water pressure" means the pipeline or municipal water supply pressure when water is not flowing.

bbb. "Submeter" means a separate meter that is located on the private side of the water system and is plumbed to measure all water that flows only through the irrigation system intended for landscaping. The meter is to be used to monitor irrigation water use for landscaping.

ccc. "Turf" means a surface layer of earth containing mowed grass or grass-like sedge with its roots, a groundcover surface of moved grass or grass-like sedge. Annual bluegrass, Kentucky bluegrass, Perennial ryegrass, Red fescue, and Tail fescue are common cool-season turf. Bermuda grass, Kikuyu grass, Seashore Paspalum, St. Augustine grass, Zoysia grass, Carex pansa, and Buffalo grass are common warm-season turf.

ddd. "Water Efficient Landscape Worksheet" means a worksheet that calculates a site's water budget.

eee. "Water feature" means any water applied to the landscape for non-irrigation, decorative purposes. Fountains, streams, ponds, lakes, and swimming pools are considered water features.

fff. "Water Management Plan" means a plan submitted with the construction drawings as part of the Landscape Documentation Package.

ggg. "Water schedules" means a schedule of irrigation times throughout a given year.

hhh. "Water-conserving Landscape Design" means a landscape design developed to conserve water.

13.90.030. Applicability

a. All planting, irrigation, and landscape-related improvements required by this Chapter shall apply to the following landscape projects:

1. New construction and rehabilitated landscapes for public agency projects and private development projects with a total project net landscape area equal to or greater than 2,500 square feet requiring a building or landscape permit, plan check, or design review. A landscape area includes pools and other water features but excludes hardscape areas.

2. New construction and rehabilitated landscapes which are developer-installed residential projects with a total project net landscape area equal to or greater than 2,500 square feet requiring a building or landscape permit, plan check, or design review. A landscape area includes pools and other water features but excludes hardscape areas.

3. New construction which are homeowner-installed residential projects with a total project net landscape area equal to or greater than 5,000 square feet requiring a building or landscape permit, plan check, or design review. A landscape area includes pools and other water features but excludes hardscape areas.

4. Existing landscapes that are one acre or more are limited to preparing a water efficient landscape worksheet pursuant to the specifications for existing landscapes in the Landscape Documentation Package.

5. Recognizing the special landscape management needs of cemeteries, new and rehabilitated cemeteries shall prepare a water efficient landscape worksheet, landscape and irrigation maintenance schedule, and irrigation audit, survey and water use analysis. Existing cemeteries are limited to preparing a water efficient landscape worksheet according to the specifications for existing landscapes in the Landscape Documentation Package.

6. Special Landscaped Areas, such areas dedicated to edible plants, irrigated with recycled water, or dedicated to active play, shall prepare a water efficient landscape worksheet and Landscape Documentation Package according to the specifications for Special Landscaped Areas.

b. This Chapter does not apply to:

1. Registered local, state or federal historical sites;

2. Ecological restoration projects that do not require a permanent irrigation system;

3. Mined-land reclamation projects that do not require a permanent irrigation system; or

4. Botanical gardens and arboretums open to the public.

13.90.040. Landscape Design Criteria.

A Landscape Documentation Package prepared by a licensed landscape architect shall include the following landscape design criteria:

a. Plant Selection and Grouping.

1. Any plant may be used in the landscape, providing the EAWU does not exceed the MAWA and that the plants must meet the specifications set forth in this subsection.
2. Plants which have similar water needs shall be grouped together in distinct hydrozones.
    i. Low and moderate water use plants can be mixed but the entire hydrozone will be classified as moderate water use for MAWA calculations.
    ii. High water use plants shall not be mixed with low or moderate water use plants.
3. Plants shall be selected appropriately based upon their adaptability to the climate, geologic, and topographical conditions of the site. Protection and preservation of existing native species and natural areas is encouraged. The planting of appropriate trees is encouraged.
4. The minimal use of turf.
    i. Turf areas shall be used wisely in response to functional needs and shall not exceed the MAWA.
    ii. Where turf is installed, the use of warm season turf is strongly encouraged.
    iii. Turf is not allowed on slopes greater than twenty-five percent where the toe of the slope is adjacent to an impermeable hardscape and where twenty-five percent means one foot of vertical elevation change for every four feet of horizontal length.
5. Fire prevention needs shall be addressed in areas that are fire prone. Design should be consistent with regulations from the Fire Department.
6. Invasive species of plants as listed by the California Invasive Plant Council should be avoided especially near parks, buffers, greenbelts, water bodies, and open spaces because of their potential to cause harm to sensitive areas.
7. Encourage the appropriate use of mulch within developed landscapes to retain moisture.
    i. Stabilizing mulching products shall be used on slopes greater than 3:1.
    ii. A minimum layer of two inches (2") of mulch shall be applied on all exposed soil surfaces of planting areas except in turf areas, creeping groundcovers or areas where mulch is not advisable. The plans shall identify the type of mulch and application depth.

b. Water Features.

1. Recirculating water systems shall be used for decorative water features.
2. Where available, recycled water shall be used as the source for water fixtures (excluding swimming pools and spas).
3. The surface area of a water feature will be included in the MAWA calculation with the evaporation rate.

13.90.050. Irrigation Requirements.

a. All irrigation systems shall be designed to prevent runoff, over-spray, low head drainage and other similar conditions. Soil types and infiltration rates shall be considered when

designing irrigation systems. Irrigation systems shall be designed, constructed, managed, and maintained to achieve as high an overall efficiency as possible.

b. Dedicated and separate landscape water meters shall be installed for all projects greater than 5,000 square feet, except for single-family residences. Dedicated landscape water meters are highly recommended on landscape areas less than 5,000 square feet to facilitate water management.

c. All irrigation systems shall include:
    1. A SMART irrigation controller, or other equivalent technology which automatically adjusts the frequency and/or duration of irrigation events in response to changing weather conditions, shall be required. The planting areas shall be grouped and irrigated in relation to hydrozones based on similarity of water requirements.
    2. Anti-drain check valves shall be installed to prevent low-head drainage in sprinkler heads.
    3. A pressure regulator when the static pressure exceeds the maximum recommended operating pressure of the irrigation system.
    4. A rain sensor with an automatic rain shut-off feature shall be required.
    5. A backflow prevention device.
    6. Connection to reclaimed water system if subject property is located within 150 feet of a public reclaimed water distribution system, and subject to appropriate health standards.
    7. Installation that conforms to the current Uniform Plumbing Code.
    8. Irrigation shall comply with the City's water conservation regulations in Chapter 13.70 of this Code.

13.90.060. Soil and Grading Requirements.

a. Soil testing shall be performed after mass grading if applicable, prior to landscape installation to ensure the selection of appropriate plant material that is suitable for the site, and reported in a soil management plan. The soil management plan shall include:
    1. Determination of soil texture, indicating the available water holding capacity.
    2. An approximate soil infiltration rate measure or derived from soil texture/infiltration rate tables. A range of infiltration rates shall be noted where appropriate.
    3. Measure of pH and total soluble salts.
    4. Recommended amendments.

b. Grading on-site shall be designed to minimize unnecessary soil compaction, erosion and water waste. Grading plans must satisfy all other applicable laws related to grading and be submitted as part of the landscape documentation package.

c. Where slopes exceed ten percent, a grading plan drawn at the same scale as the planting plan that accurately and clearly identifies finished grades, drainage patterns, pad elevations, spot elevations, and stormwater retention improvements.

Section 13.90.070. Submittal Requirements.

Applicants subject to the requirements of this Chapter shall submit a complete Landscape Documentation Package to the Administrator. The Package may be submitted in two parts: A Landscape Concept Plan, which is submitted with an application for a zoning approval or similar approval and Landscape Construction Drawings, submitted with the plan check or building permit application. All applications and plans shall conform to the design criteria, irrigation, soils and grading requirements, recycled water requirements and water budget requirements set forth in this Chapter.

a. The Landscape Concept Plan shall include:
    1. Design statement, irrigation notes, planting notes, and a conceptual plant palette identification of proposed hydrozones.
    2. MAWA circulation for the landscape project area (including water features).
    3. ETWU calculation for the landscape project area.
    4. Hydrozone information.

b. The Landscape Construction Drawings shall include:
    1. Compliance with the design standards and specifications contained in this Chapter.
    2. Compliance with the Landscape Concept Plan. If the construction drawings differ from the Landscape Concept Plan, the Applicant may be required to submit a revised Landscape Concept Plan.
    3. An Irrigation Plan. The Irrigation Plan shall be a separate document from the planting plan. The Irrigation Plan shall be prepared pursuant to the requirements in this Chapter and include pressure calculations and the location, installation details, and specifications of control valves, irrigation heads, piping, irrigation controllers, and power supply.
    4. A Planting Plan & Soils Plan which shall include, but not be limited to:
        i. A description of any existing plant material to be retained or removed.
        ii. A plan showing the planting areas and hydrozones, plant spacing, plant location, and size, natural features, water features and all paved areas.
        iii. A legend listing the common and botanical plant names and total quantities by container size and species.
        iv. A description of the seed mixes with application rates and relevant germination specifications.
        v. Soil management plan, including the soil test results and recommendations.
        vi. The grading plan shall be submitted for reference.
    5. A Water Management Plan which shall include, but not be limited to:
        i. An introduction and statement of site conditions as described in this Section or in the Landscape Concept Plan.
        ii. An introduction and statement of site conditions as described in this Section or a Landscape Concept Plan.
        iii. Identification of the party or parties responsible for implementation of the Water Management Plan.

iv. The anticipated water requirements in inches per year, and water budget for the various hydrozones identified in the Landscape Concept Plan to include calculations demonstrating an overall water budget that requires no more irrigation than the 0.7 of the ET adjustment factor.
v. A description of the water delivery systems, including the type of irrigation system to be used; water conservation methods to be applied; and precipitation rates for each hydrozone.
vi. Season irrigation water schedules or procedures for programming of proposed SMART controllers.
vii. A maintenance plan for the ongoing operation and maintenance of the irrigation system.
viii. All applications for model homes shall include the nature of public information documents and signage that will be placed at model homes describing water conservation principles used in the landscaping for the model home.

c. An applicant submitting a Landscape Documentation Project shall include with the documentation package any fees established by the City to cover the City's cost to review an submitted documents.

Section 13.90.080. Compliance and Enforcement.

The Community and Economic Development Department shall have the duty and authority to administer the provisions of this Chapter until such time the Certificate of Completion is completed. The Public Works Department shall work with the Community and Economic Development Department to ensure compliance with other provisions in this Code and with State law regarding the conservation of water. The Public Works Department shall also have the duty and authority to administer the provisions of this Chapter for any property that has had its Certificate of Completion certified.

a. A project must proceed with the following review and approval process:

1. Prior to the issuance of a building permit, a complete Landscape Documentation Package prepared by an independent licensed landscape architect shall be submitted to the Administrator for review and approval. The licensed landscape architect shall ensure that all components of the package adhere to the requirements of this Chapter. Any documentation packages submitted without the signature of a licensed landscape architect shall not be accepted for review.

2. Prior to issuance of a Certificate of Occupancy or final inspection for a project subject to this Chapter, a Certificate of Completion shall be submitted to the Administrator certifying that the landscaping has been completed in accordance with the approved Planting and Irrigation Plans for the project. The Certificate of Completion shall be signed by a licensed landscape architect and shall indicate the following:
   i. The landscaping has been installed in conformance with the approved Planting and Irrigation Plans;

ii. The SMART irrigation controller has been set according to the irrigation schedule;
iii. The irrigation system has been adjusted to maximize irrigation efficiency and eliminate over-spray and run-off; and
iv. A copy of the irrigation schedule has been given to the property owner.

3. Upon receipt of a Certificate of Completion, the City shall either approve or deny the Certificate of Completion. If the Certificate of Completion is denied, the City shall not be obligated to issue an occupancy permit and will provide information to the project applicant regarding necessary corrections, appeal, or other assistance.

4. Upon notice of the Applicant, the Administrator shall have the right to enter the project site to conduct inspections for the purpose of enforcing this Chapter, before, during, and immediately after installation of the landscaping.

5. A copy of the completed Landscape Documentation Package shall be given to the Planning Division and Public Works Department. If the property is found to be in excess of their established MAWA, the property shall be subject to an irrigation audit.

b. Irrigation of all landscaped areas shall be conducted in a manner conforming to the rules and requirements, and shall be subject to penalties and incentives for water conservation and water waste prevention as determined and implemented by the local water purveyor or as mutually agreed by local water purveyor and the City. The City Public Works Department may require mandatory irrigation audits at the property owners' expense to demonstrate that the landscaping conforms to the MAWA.

c. An irrigation audit shall proceed as follows:

1. The applicant shall submit an irrigation audit to the City upon the Public Works Department's request pursuant to this Chapter.
2. In the event that the applicant does not submit an irrigation audit to the City within sixty days after the Public Works Department has requested an irrigation audit be submitted, the Public Works Department may conduct an irrigation audit and charge the property owner any and all fees associated with the irrigation audit.

d. In addition to any other remedies provided for in the Code, any violation of this Chapter and failure to comply with the terms of the Landscape Documentation Package and Certificate of Completion submitted to the City pursuant to this Code may be enforced by a civil action brought by the City.

1. In any such action, the City may seek, and the Court may grant, as appropriate, any or all of the following remedies:

i. A temporary and/or permanent injunction;

ii. An assessment of the violator for the costs of any investigation which led to the establishment of the violation and for the reasonable costs of preparing and bringing legal action under this Chapter;
iii. Any other costs incurred in enforcing the provisions of this Chapter;
iv. Any other action the City deems appropriate to protect the general welfare and the City's water supplies, and to reduce water consumption in accordance with this Chapter and with the declares policies and law of the State.

2. Assessments under this Section shall be paid to the City to be used exclusively for costs associated with implementing or enforcing this Chapter.

e. In addition to any other remedies provided for in this Chapter, any violation of this Chapter shall constitute a misdemeanor and be punishable by a fine of not more than five hundred dollars or a term in County jail not to exceed six months. A violation may also be an infraction punishable by a fine not to exceed two hundred fifty dollars. Any person shall be deemed guilty of a separate offense for each and every day during any portion of which any violation of this Chapter is committed, continued, or permitted by such person.

Section 13.90.090. Landscape and Irrigation Maintenance.

Landscape and irrigation improvements required by this ordinance shall be continually maintained in optimal conditions at all times. Maintenance shall include but not be limited to:

1. Fertilizing;
2. Irrigation head adjustments, repairs and replacements, per original approval;
3. Maintaining adequate water pressure;
4. Pruning and weeding all landscaping within the property;
5. Removing all dead plant material;
6. Replacing all dead plant material, per original approval;
7. Replenishing mulch;
8. Resetting, repairing or replacing the SMART automatic controller, per original approval;
9. Valve adjustments , repairs and replacements, per original approval.

Section 13.90.100. Recycled Water.

a. The installation of recycled water irrigation systems (i.e. dual distribution systems) shall be required to allow for the current and future use of recycled water, unless a written exemption by the City's Public Works Department has been granted stating that recycled water will not be available in the foreseeable future.

b. Irrigation systems shall make use of recycled water unless a written exemption has been granted by the Public Works Department stating that recycled water meeting all public health codes and standards is not available and will not be available in the foreseeable future or where the physical constraints or functional difficulties would make the use of recycled water irrigation systems impracticable.

c. The Public Works Department may grant an exemption from the use of recycled water if the use of recycled water would not meet all relevant public health codes and standards, if the use of recycled water would not be available in the foreseeable future through the local water purveyor, or where the physical constraints or functional difficulties would make the use of recycled water systems impracticable.

d. The recycled water irrigation systems shall be designed in accordance with all local agency and State Codes.

Section 13.90.110. Stormwater Management.

a. Stormwater management combines practices to minimize runoff and water waste to recharge groundwater, and to improve water quality. Implementing stormwater best management practices into the landscape, irrigation, and grading design plans to minimize runoff, and increase retention and infiltration are highly recommended onsite.

b. Project applicants shall refer to the City or Regional Water Quality Control Board for information addressing stormwater ordinances and stormwater management plans.

Section 13.90.120. Existing Landscapes.

a. Irrigation of all landscaped areas shall be conducted in a manner conforming to the rules and requirements and shall be subject to penalties and incentives for water conservation and water waste prevention, as determined and implemented by the local water purveyor and as may be mutually agreed by the City.

The City and/or the regional or local water purveyor may administer programs such as irrigation water use analyses, irrigation surveys and/or irrigation audits, tiered water rate structures, water budgeting by parcel, or other approaches to achieve landscape water use efficiency community-wide to a level equivalent to or less than would be achieved by applying a MAWA calculated with an ETAF of 0.8 to all landscaped areas in the City over one acre in size.

b. The architectural guidelines of a common interest development, including apartments, condominiums, planned developments, and stock cooperatives, shall not prohibit or include conditions that have the effect of prohibiting the use of low-water use plants as a group.

Section 13.90.130. Recovery of Costs.

a. The City Manager or his or her designee shall serve an invoice for costs upon the person or responsible person who is subject to a notice of a violation, a cease and desist order, or an administrative compliance order. An invoice for costs shall be immediately due and payable to the City. If any person or responsible person fails to either pay the invoice for costs or appeal successfully the invoice for costs in accordance to the provisions in this Chapter, then the City may institute collection proceedings. The invoice for costs may include reasonable attorneys' fees.

The City shall impose any other penalties or regulatory fees, as fixed from time to time by resolution of the City Council, for a violation or enforcement of this Chapter.

b. In addition to the costs which may be recovered pursuant to the Code, an in order to recover the costs of the water efficient landscape regulatory program set forth in this Chapter, the City Council may from time to time, fix and impose by resolution fees and charges. The fees and charges may include, but are not limited to, fees and charges for:

1. Any visits of any enforcement officer, or any other City staff or authorized representative of the City for time incurred for inspections of the property;
2. Any monitoring, inspection, and surveillance procedures pertaining to enforcement of this Chapter;
3. Any audits conducted by the City pursuant to this Chapter;
4. Enforcing compliance with any term or provision of this Chapter;
5. Any other necessary and appropriate fees and charges to recover the cost of providing the City's water efficient landscape regulatory program.

Section 13.90.140. Appeals.

a. The applicant or any affected person may appeal the final decision of staff regarding any approvals required under this Chapter by filing a written notice of appeal to the City Council within ten business days after the date of the final decision in writing.

b. An appeal, established by the City, shall be required for each appeal under this Section. No appeal shall be placed on the agenda of any meeting of the City Council until such fee has been paid.

SECTION 2. The City Council hereby declares that it would have passed this ordinance sentence by sentence, paragraph by paragraph, and section by section, and does hereby declare that the provisions of this ordinance are severable and, if for any reason any sentence, paragraph, or section of this ordinance shall be held invalid, such decision will not affect the validity of the remaining parts of this ordinance.

SECTION 3. The City Council hereby determines that this Ordinance is exempt from review under the California Environmental Quality Act ("CEQA ") (California Public Resources Code Section 21000 et seq.), because pursuant to State CEQA Regulation 15307 (14 Cal. Code Regs., § 15307), this Ordinance is covered by the CEQA Categorical Exemption for actions taken to assure the maintenance, restoration, enhancement, or protection of a natural resource where the regulatory process involves procedures for protection of the environment. The adoption of this Ordinance will result in the enhancement and protection of water resources in the City, and will not result in cumulative adverse environment impacts. It is therefore exempt from the provisions of CEQA. The City Council hereby directs the City Manager or designee to prepare and file a Notice of Exemption as soon as possible following adoption of this Ordinance.

SECTION 4. The City Clerk shall certify to the adoption of this Ordinance. The City Council hereby finds and determines that there are no newspapers of general circulation both published and circulated within the City and, in compliance with Section 36933 of the

Government Code directs the City Clerk to cause said Ordinance, within fifteen (15) days after its passage, to be posted in at least five (5) public places within the City. This Ordinance shall take effect thirty (30) days after its adoption.

ADOPTED AND APPROVED this 9th, day of February, 2010.

Gregory Salcido, Mayor

ATTEST:

Daryl A. Betancur, City Clerk

APPROVED AS TO FORM:

Arnold M. Alvarez-Glasman, City Attorney

AYES:	Archuleta, Armenta, Camacho, Salcido
NOES:	None
ABSENT:	None
ABSTAIN:	None

WATER EFFICIENT LANDSCAPE WORKSHEET

Please complete the entire worksheet as it is part of the Landscape Documentation Package that is required to be submitted pursuant to Chapter 13.90 of the Pico Rivera Municipal Code.

SECTION A. PROJECT INFORMATION

Date: _____

Project Name: _____

Project Applicant: _____

Project Address and Location:

Street Address	Parcel Number
City	Tract or Lot Number(s)
State	Zip Code

Please use the checklist below to indicate the completion of the Landscape Documentation Package.

SECTION B. PROJECT INFORMATION AND CHECKLIST

Landscape Documentation Package

- ☐ Water Efficient Landscape Worksheet
- ☐ Soil Management Plan
- ☐ Landscape Design Plan
- ☐ Irrigation Design Plan
- ☐ Planting and Soils Plan
- ☐ Grading Design Plan

Please fill in the information to describe the landscape project, where applicable:

Total Project Area: _____

Total Irrigated Landscape Area: _____

Turf Area: _____

Non-Turf Area: _____

Recreational Areas: _____

Areas permanently and solely dedicated to edible plants: _____

Total Non-Irrigated Landscape Area: _____

Total Special Landscape Area: _____

Water Supply Type:

- ☐ Potable Water
- ☐ Recycled Water
- ☐ Graywater
- ☐ Groundwater or Well Water
- ☐ Mixed Use
- ☐ Other _____

Project Type: Please check only one

- ☐ Public or community facility
- ☐ Commercial
- ☐ Industrial
- ☐ Institutional (i.e., school)
- ☐ Other_____
- ☐ Single Family Residence
- ☐ Multi-Family Residential
- ☐ Mixed Use

Project Contacts – The project applicant and other individuals may receive inquiries or notifications of all proceedings regarding the Water Efficient Landscape Worksheet from the City. Please provide the name, address, email address, and telephone, etc. of each person to receive such inquiries and notifications.

1. Project Applicant

Name	Telephone and Fax Number	
Title	Email address	
Company	Street Address	
City	State	Zip Code

2. Property Owner

Name	Telephone and Fax Number	
Title	Email address	
Company	Street Address	
City	State	Zip Code

3. Licensed Landscape Architect

Name	Telephone and Fax Number	
Title	Email address	
Company	Street Address	
City	State	Zip Code

4. Certified Irrigation Designer

Name	Telephone and Fax Number	
Title	Email address	
License #	Business License #	
Company	Street Address	
City	State	Zip Code

5. Landscape Installation Contractor

Name	Telephone and Fax Number	
Title	Email address	
State License #	Business License #	
Company	Street Address	
City	State	Zip Code

6. Landscape Maintenance Contractor

Name	Telephone and Fax Number	
Title	Email address	
State License #	Business License #	
Company	Street Address	
City	State	Zip Code

7. Local retail water purveyor

Name of contact at water purveyor	Telephone No.	
Title	Fax No.	
Name of Company or Water Purveyor	Street Address	
City	State	Zip Code

SECTION C. WATER USE EFFICIENCY STATEMENT

Provide a narrative summary of the water use efficiency practices applied to the landscape project and answer all of the following questions (attach additional sheets if necessary):

Narrative Statement: _____

(1) Did you review Chapter 13.90 of the Pico Rivera Municipal Code to learn about the criteria and specifications for landscape design plans? _____

(2) Did you coordinate with the City or local water purveyor on the landscape plan? _____

_____

(3) Which criteria and specifications did you apply to the landscape design plan? _____

_____

_____

_____

_____

_____

(4) Did you review Chapter 13.90 to learn about the criteria and specifications for the irrigation design plan? _____

(5) Did you coordinate with the City or local water purveyor on the irrigation design plan? __

_____

_____

_____

(6) Which criteria and specifications did you apply to your irrigation design plan? _____

_____

_____

_____

_____

_____

_____

(7) Did you ask for assistance from the City or local water purveyor to calculate a project water budget? _____

_____

_____

(8) Did you receive any water efficient landscape publications from the City or local water purveyor, and if so, which ones? _____

_____

_____

_____

(9) How did you assure the overall quality of the irrigation system? _____

_____

_____

_____

_____

_____

_____

(10) How will you manage the irrigation system for optimum operation and performance? ____

_____

_____

_____

_____

_____

(11) How will you manage the irrigation system to respond to the changing requirements for water in the landscape? _____

_____

_____

_____

_____

_____

(12) Did you apply any stormwater best management practices to the design, and if so, which ones? _____

_____

_____

_____

(13) If recycled water was available, did you design and install a dual distribution system? ___

SECTION D. MAXIMUM APPLIED WATER ALLOWANCE

(1) MAWA = (ETo)(0.62)[0.7 x LA) + (0.3 x SLA)

Where:

MAWA =	Maximum Applied Water Allowance (gallons per year)
ETo =	Reference Evapotranspiration
0.7 =	ET Adjustment Factor (ETAF)
LA =	Landscaped Area includes Special Landscape Area (square feet)
0.62 =	Conversion factor (to gallons per square feet)
SLA =	Portion of the landscape area identified as Special Landscape Area
0.3 =	Additional ET Adjustment Factor for Special Landscape Area

(2) Example MAWA calculation: A hypothetical landscape project in Pico Rivera, CA with an irrigated area of 50,000 square feet without any Special Landscape Area (SLA = 0, no edible plants or recreational areas or use of recycled water). To calculate MAWA, the annual (ETo) value for Pico Rivera is 39.7.

To convert from gallons per year to hundred-cubic-feet per year: 100 cubic feet = 748 gallons.

(3) Show calculations:

MAWA for Total Landscape Area: _____ gallons

SECTION E. ESTIMATED WATER USE FOR HYDROZONES AND ESTIMATED TOTAL WATER USE

Estimated Total Water Use

Estimated Total Water Use shall be calculated using the equation below. Estimate Total Water Use shall not exceed MAWA.

ETWU = (Eto)(0.62)((PF x HA)/(IE) + SA)

ETWU =	Estimated total water use per year (gallons)
ETo =	Reference Evapotranspiration (inches)
PF =	Plant Factor[1]
HA =	Hydrozone Area (high, medium, and low water use areas) (square feet)
SLA =	Special Landscape Area (square feet)
0.62 =	Conversion Factor
IE =	Irrigation Efficiency (minimum 0.71)

Attach calculations for each hydrozone.

Estimated Total Water Use: _____

SECTION F. HYDROZONE INFORMATION

Section F(i). Hydrozone Map

(1) Attach a hydrozone map to the Water Efficient Landscape Worksheet. Hydrozones shall be designed by number, letter or other designation. Designate the areas irrigated by each valve, and assign a number to each valve. Use this valve number in the Hydrozone Table. This map can also assist with inspections of the irrigation system and programming the controller.

---

[1] The plant factor shall be from the Water Use Classification of Landscape Species (WUCOLS) published by the University of California Cooperative Extension, the Department of Water Resources and the Bureau of Reclamation 2000, which are as follows:

i. Low water use plants = 0 to 0.3
ii. Moderate water use plants = 0.4 to 0.6
iii. High water use plants = 0.7 to 1.0

Section F(ii). Hydrozone Table

(2) Hydrozone Table

Controller #	Valve Circuit	Plant Types[2]	Irrigation Method**[3]	Area (square feet)	% Landscape Area

[2] Plant type may include: cool season turf, warm season turf, high water use plants, moderate water use plants, or low water use plants.

[3] Irrigation method may include spray, rotor, bubbler, or drip.

Section F(iii). Hydrozone Calculation Summary.

Hydrozone	Total Square Feet	% of Total Landscape Area

SIGNATURES

I further acknowledge and agree under penalty of perjury under the laws of the State of California that the information contained in this Water Efficient Landscape Worksheet is true and correct.

_____ _____

Project Applicant (Owner or Authorized Agent) Date

_____ _____

Licensed Landscape Architect Date

Appendix G
CBMWD School Education Current and Future Programs

made available throughout Central Basin's service area.

HET Direct Installation Programs
Since 2005, Central Basin has completed more than 5,000 High-Efficiency Toilet (HET) direct installations in single family, multifamily, and commercial, industrial and institutional (CII) facilities throughout Central Basin's service area.

Local HET Partnership Programs
Central Basin receives requests to participate in various local partnerships to provide disadvantaged residents with HETs. Central Basin's service area is home to many disadvantaged residents, and the need for free, water-conserving toilets remains high. Given the current economic down-turn, the conservation coordinator is focusing attention on securing additional sources of funding to make HET programs possible.

6.4. 15 ADDITIONAL CONSERVATION PROGRAMS

CONSERVATION PARTNERSHIPS

Central Basin continues to take advantage of opportunities to achieve additional water savings through new and creative partnerships with local cities, schools, government agencies and non-profit organizations. One such partnership with the Los Angeles County Conservation Corps brought free, educational gardening workshops to local residents. The workshops, which are offered in English and Spanish, provide information on California native plants and gardening tips for residents, business owners, and local landscapers. In another example, ongoing partnerships with Southern California Edison and the Gas Company have made it possible to provide educational conservation programs to sixth grade students throughout the service area.

These partnerships have proven to be diverse in nature and valuable in strengthening the conservation efforts within Central Basin's service area, particularly within the more disadvantaged areas.

Water Wasting Prohibition City Ordinances
Following the call for increased conservation efforts under the state's 20X2020 Plan, the District formed a *Shut Your Tap!* Water Conservation Ordinance Task Force to advocate the adoption of mandatory water conservation ordinances in each city in the District's service area. As a result of the efforts of the Task Force's efforts, 18 cities now have mandatory conservation ordinances in place.

6.4. 16 GRANT PROGRAMS

Central Basin has been successful in receiving grant funding for conservation programs at the federal, state, and local levels through agencies such as the United States Department of Energy (DOE), the Department of Water Resources (DWR), and MWD. The following list provides a brief summary of the individual water conservation grants that have been implemented since 2005:

MWD Grant (Innovative Conservation Program Grant) - 200 HET Direct Install
Central Basin has successfully completed a MWD Innovative Conservation Grant Program, installing 200 HETs in multi-family homes and commercial facilities. The total budget for this grant was $43,800.

MWD Grant (Innovative Conservation Program Grant) – Bell Gardens: California Friendly City – A Model for Inner City Transformation
In 2006, Central Basin was awarded $102,250 to transform the City of Bell Gardens into the first California Friendly City in the State of California through the installation of water saving devices and systems throughout the City's public facilities. These included high-efficiency toilets, urinals, synthetic turf at the public soccer field, water-brooms, native plants and a weather-based irrigation system.

MWD (Enhanced Conservation Program Grant) – Landscape High Efficiency Living Program (HELP)
In 2008, Central Basin was awarded a MWD Enhanced Conservation Program Grant in the amount of $90,000 to provide HELP Landscape Workshops to local residents to teach the benefits of utilizing an MP Rotator irrigation device and planting low water-use plants. The use of MP Rotators alone can save 4.16 to 16.8 gallons of water per minute.

DWR Grant (Prop 50) – High Efficiency Living Program (HELP) 10,000 HET Direct Install
In 2007, Central Basin was awarded a DWR grant in the amount of $1,563,900. The grant program provides funding to market, purchase and install 10,000 HETs in multi-family residential units throughout the service area. The water savings for this program will reach 242 acre-feet annually for 25 years.

DWR Grant (Prop 50) - Conservation Outreach Targeting Multicultural Communities
In 2007, Central Basin was awarded a DWR grant program in the amount of $100,000 to provide cities and water retailers with conservation outreach training and tools. The funding provides for website design, research services and bill-stuffer templates to be used by the District's water retailers. The purpose of the program is to promote water conservation within the multicultural and multilingual communities prevalent in the service area.

DWR Grant (Prop 50) – Urban City Makeover Program
Through the DWR Prop 50 Urban City Makeover Program, grant funding in the amount of $113,746 will provide nine disadvantaged cities with a number of

water-saving resources. These include: high-efficiency toilets (HETs), Waterfree urinals, native plants, weather-based irrigation controllers and water brooms. The participating cities are: Bell Gardens, Commerce, Cudahy, Hawaiian Gardens, Huntington Park, Lynwood, Maywood, Paramount, and South Gate.

DWR Grant (Prop 50) – Helping Our People and Environment (HOPE) 3,000 HET Direct Install

Since 2009, Central Basin has administered the "Helping Our People and Environment" (HOPE) grant program on behalf of the City of Maywood. This Prop 50 grant program provides funding to install 3,000 High-Efficiency Toilets (HETs) in residences throughout the city of Maywood.

DWR Grant (Prop 50) – Zero Water Consumption Urinal Retrofit Program – 2,600 Urinal Retrofit Program

In 2003, Central Basin secured a DWR grant entitled Zero Water Consumption Urinal Retrofit Program in the amount of $780,000. The program provided no-cost installations of 2,600 water-free urinals to qualified commercial, industrial, and institutional buildings located within the Central Basin service area.

DWR Grant (Prop 50) – Commercial Landscape Wireless Valve End Use Management Research Project

The Commercial Landscape Wireless Valve End Use Management Research Project awarded to Central Basin by DWR in the amount of $302,052, involves the implementation of wireless valve evapotranspiration (ET) controllers in non-residential sites. The research goal is to enhance water management and water efficiency at the local, regional, and statewide levels.

DWR Grant (Prop 50) – Large Landscape Water Conservation, Runoff Reduction and Educational Program

The Large Landscape Water Conservation, Runoff Reduction and Educational Program provides $900,000 in funding for the implementation of a water management program using weather-based irrigation controllers and wireless technologies to significantly reduce the amount of runoff from large landscapes, street medians, and residential properties.

Included in the grant funding are five large community demonstration gardens. Central Basin will partner with local public agencies such as cities and school Districts to create Demonstration Gardens that enrich the environmental awareness of the community and promote the benefits of water efficient gardens.

U.S. D.O.E. (Energy Efficiency Conservation Block) Water and Energy Emergency End Use Demand Management Measures Grant

The Water and Energy Emergency End Use Demand Management Measures Grant in the amount of $2,000,000 was awarded to Central Basin under the United States Department of Energy Recovery Act - Energy Efficiency and Conservation Block Grant Program. Under this program, funding will be provided to purchase and install a series of wireless (ET) controllers in residential and commercial settings that utilize radio commands for periodic pressure and management adjustments. A second element of the grant addresses water and energy demand management in recycled pipelines.

6.5 CURRENT AND FUTURE EDUCATION PROGRAMS

6.5. 1 CURRENT PROGRAMS

Water Squad Investigations (Grades 4 – 12)

Launched in September 2006, Water Squad Investigations is a collaborative environmental education program that joins Central Basin, the Los Angeles County Sanitation Districts and LA County's Whittier Narrows Center to provide students with a fun-filled day of water awareness. By the end of June 2010, over 5,000 primary through secondary school students will have participated in the program. Table 6-1 shows the number of students who have participated in Central basin education programs since 2005.

Each Friday morning throughout the school year, participating students are driven from their school to the San Jose Creek Water Recycling Plant (SJCWRP), and later, to the Whittier Narrows Nature Center in a charter bus provided by Central Basin. At these sites, students are introduced to the concepts of water recycling and conservation through multimedia presentations, fun activity book exercises and guided tours of the facilities.

By the day's end, students gain a solid understanding of how water recycling can help conserve valuable drinking water and about the simple but effective ways they can conserve at home.

From September 2005 through June 2010, 5,835 students have participated in Water Squad Investigations.

Water Wanderings (Grades 4 – 5)

Water Wanderings is a collaborative classroom visitation program between Central Basin and the S.E.A. Lab in Redondo Beach, a program of the Los Angeles Conservation Corps. This collaborative hands-on classroom program takes fourth and fifth graders on a 2 ½-hour journey through California's water.

Each class that participates will have the opportunity to visit three action-packed stations where they will experience a multimedia game called California Water Jeopardy, a food chain/food web activity and touch live marine animals and plants on board the "traveling tidepool," a van outfitted with touch tanks.

Water Wanderings is correlated to many of the fourth through fifth grade State standards for social science and science. By participating in this free program, students learn to appreciate California's water as a scarce, valuable resource.

From September 2005 through June 2010, 26,670 students have participated in Water Wanderings.

Think Watershed (Grades 4 – 6)
Think Watershed educates students about the San Gabriel River Watershed's impact on our coastal waters and inspires them to become stewards of the environment. Students participate in hands-on activities to see how human behavior affects the quality of air, water, and habitat, as well as plant, animal, and human life.

Components of Think Watershed include:

Floating Lab Boat Trip – On a 3-hour cruise through the Long Beach Harbor, with a morning or an afternoon departure, students will participate in: a plankton lab, ocean bottom sediment study, water visibility testing, water chemistry interactions, and wildlife observation.

Curriculum – Aligned to the California Content Standards, a Think Watershed Teacher's Guide is distributed to all participating classroom teachers. The guide includes: pre-trip activities, cruise plan and preparation guidelines, and post-trip activities such as website data reporting and service learning projects.

Bus Transportation – Free transportation from the students' school to the Long Beach Harbor is provided to schools that qualify.

From September 2008 through June 2010, over 5,000 students have participated in Think Watershed.

Think Earth! It's Magic (Grades K – 5)
What does a magician have to do with water conservation? On the surface, it wouldn't seem like much, but *Think Earth! It's Magic* is a collaborative program between Central Basin and the Think Earth Environmental Education Foundation that uses an award-winning curriculum and magic shows to teach elementary school students about their environment.

As the magician makes water disappear, he teaches the importance of water conservation. As he makes a rabbit disappear, he explains the effects of toxic waste on the environment. The magician's show follows the curriculum of the Think Earth Environmental Education Foundation and correlates to the California State Content Standards in the areas of Language Arts, Science, Social Science, and Mathematics. The Think Earth Environmental Education Foundation is a non-profit organization dedicated to developing and maintaining a sustainable environment through education.

Each year, elementary schools throughout Central Basin's service area enhance their Think Earth curriculum with this exciting magic show. It is an opportunity to reinforce the classroom lessons and remind students about the importance of implementing environmentally sound practices around their homes and schools.
From September 2005 through June 2010, 37,800 students have participated in Think Earth! It's Magic.

Think Water! It's Magic (After School Program for Grades K – 5)
Think Water! It's Magic is a **FREE** environmental education program for students in extended daycare/after school programs. This innovative program features an energetic *Think Water! It's Magic* assembly by eco-magician Paul Cash that students will remember for many years.

The *Think Water! It's Magic* shows are approximately 45-minutes in duration. While performing magic tricks and illusions, eco-magician Paul Cash engages students in a fun way and teach them about the limited water availability on Earth, the water cycle, water quality, and water recycling. Most importantly, Mr. Cash also teaches students about the amount of water used during everyday tasks and how they can conserve water by just making some simple behavioral changes.

This exciting environmental education assembly program is offered **FREE** to all Central Basin elementary schools (K-5) that have an extended daycare/after school program.

From September 2008 through June 2010, over 6,000 students have participated in Think Water! It's Magic.

"Water Is Life" Poster Contest (Grades 4 – 8)
As part of an annual recognition of Water Awareness Month, the "Water Is Life" Poster Contest is a collaborative arts program between Central Basin and the MWD. Celebrated every May, Water Awareness Month encourages wise water use, conservation, recycling, and water education. Students in grades 4 – 8, are encouraged to depict on posters various water uses and/or wise water use at home or school, in industry or business, in the environment, in agriculture, or in recreation. Central Basin then selects a grand-prize winner who is awarded a fully-loaded laptop computer and receives a special recognition at Central Basin's headquarters. The grand-prize winner's poster is then submitted to MWD to be included in calendars, and featured on water bottles, screen savers, mouse pads, etc.

From September 2005 through June 2010, over 80,000 students have had an opportunity to participate in the "Water Is Life" Poster Contest.

Waterlogged (Grades 9 – 12)

Waterlogged is a collaborative high school visitation program between Central Basin and the Roundhouse Marine Studies Lab and Aquarium, an oceanographic teaching station. Through specimen dissections, examples of current aquatic/marine science research, and practical hands-on activities, students will learn more about the scientific method, habitats and inhabitants of the Pacific Ocean, and the overall effect of unintended human impacts on the aquatic/marine environment.

Waterlogged offers five exciting classroom visitation topics, which are each aligned to the California State Science Content Standards.

This exciting aquatic/marine science education program is offered FREE to all Central Basin Waterlogged High Schools.

From September 2007 through June 2010, 15,925 students have participated in Waterlogged.

Sewer Science (Grades 9-12)
Sewer Science is an award-winning, hands-on laboratory program that teaches high school students in Central Basin's service area about wastewater treatment.

During a week-long lab course, students create fake wastewater and employ physical, biological and chemical treatment methods and procedures to test its quality. The lab is facilitated by biologists and chemists from the County Sanitation Districts of Los Angeles County, allowing students the opportunity to learn first-hand from experienced science professionals.

From September 2005 through June 2010, 8,875 students have participated in Sewer Science.

6.5. 2 FUTURE PROGRAMS

Conservation Connection: Water & Energy in Southern California
(Grades 5 – 8)

We turn the tap and water flows out. We turn on a lamp and light fills the room. We depend on water and energy. We need the water and energy to live in Southern California and elsewhere in the world too. But where do we get the water and energy that we use? Will we always have enough to meet our needs?

Conservation Connection answers those questions, showing the connections between California, our water and energy supply, and us. But providing information is only part of Conservation Connection. The goal of the curriculum is to get students actively involved – in their homes and at school – in conserving water and energy. Within the program, students have the opportunity to survey their family's water and energy use and survey water and energy use at their school.

After gathering data, analyzing their findings and reviewing recommendations, students make, implement, and monitor plans to decrease water and energy use. By participating in this action-based curriculum, students will learn to look critically at important environmental issues and take responsibility for finding solutions.

Water for the City: Southern California's Urban Water Cycle (Grades 4 – 8)
Water for the City: Southern California's Urban Water Cycle is a partnership between Central Basin, Los Angeles County Sanitation District, Water Replenishment District, MWD, Los Angeles County Office of Education, and the Center for Global Environmental Education at Hamline University. This interactive, multi-media water education curriculum has lessons for upper elementary through middle school students, as well as a teacher's guide. Lessons and animation elements will cover the following topics: Watershed Awareness, Where Southern California gets its water from, Surface and Ground Water, Water Storage and Delivery, A Raindrop's Journey, Water Recycling, Water Conservation, Water Planning, Dams and Reservoirs, Point and Non-Point Pollution, and an interactive Urban Water Cycle game that will address water supply and management issues.

Table 6-1
School Education Program
(Number of Participating Students)

Grade Level	FY 05-06	FY 06-07	FY 07-08	FY 08-09	FY 09-10	Total
K - 3rd	3,360	3,100	6,460	8,828	6,140	27,888
4th - 6th	6,040	9,520	11,163	14,499	13,825	55,047
7th - 8th	500	0	105	105	0	710
9th - 12th	905	1,925	4,900	9,265	8,015	25,010
Total	10,805	14,545	22,628	32,697	27,980	108,655

Appendix H
2015 UWMP Checklist
PRWA 2015 UWMP Standard Tables electronic submittal
DWR Standardized Tables for 2015 UWMP

Checklist Arranged by Water Code Section

CWC Section	UWMP Requirement	Subject	Guidebook Location	UWMP Location *(Optional Column for Agency Use)*
10608.20(b)	Retail suppliers shall adopt a 2020 water use target using one of four methods.	Baselines and Targets	Section 5.7 and App E	
10608.20(e)	Retail suppliers shall 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.	Baselines and Targets	Chapter 5 and App E	
10608.22	Retail suppliers' per capita daily water use reduction shall be no less than 5 percent of base daily per capita water use of the 5 year baseline. This does not apply if the suppliers base GPCD is at or below 100.	Baselines and Targets	Section 5.7.2	
10608.24(a)	Retail suppliers shall meet their interim target by December 31, 2015.	Baselines and Targets	Section 5.8 and App E	
10608.24(d)(2)	If the retail supplier adjusts its compliance GPCD using weather normalization, economic adjustment, or extraordinary events, it shall provide the basis for, and data supporting the adjustment.	Baselines and Targets	Section 5.8.2	
10608.26(a)	Retail suppliers shall conduct a public hearing to discuss adoption, implementation, and economic impact of water use targets.	Plan Adoption, Submittal, and Implementation	Section 10.3	
10608.36	Wholesale suppliers shall include an assessment of present and proposed future measures, programs, and policies to help their retail water suppliers achieve targeted water use reductions.	Baselines and Targets	Section 5.1	
10608.40	Retail suppliers shall report on their progress in meeting their water use targets. The data shall be reported using a standardized form.	Baselines and Targets	Section 5.8 and App E	
10620(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.	Plan Preparation	Section 2.1	
10620(d)(2)	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.	Plan Preparation	Section 2.5.2	

10620(f)	Describe water management tools and options to maximize resources and minimize the need to import water from other regions.	Water Supply Reliability Assessment	Section 7.4	
10621(b)	Notify, at least 60 days prior to the public hearing, 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.	Plan Adoption, Submittal, and Implementation	Section 10.2.1	
10621(d)	Each urban water supplier shall update and submit its 2015 plan to the department by July 1, 2016.	Plan Adoption, Submittal, and Implementation	Sections 10.3.1 and 10.4	
10631(a)	Describe the water supplier service area.	System Description	Section 3.1	
10631(a)	Describe the climate of the service area of the supplier.	System Description	Section 3.3	
10631(a)	Indicate the current population of the service area.	System Description and Baselines and Targets	Sections 3.4 and 5.4	
10631(a)	Provide population projections for 2020, 2025, 2030, and 2035.	System Description	Section 3.4	
10631(a)	Describe other demographic factors affecting the supplier's water management planning.	System Description	Section 3.4	
10631(b)	Identify and quantify the existing and planned sources of water available for 2015, 2020, 2025, 2030, and 2035.	System Supplies	Chapter 6	
10631(b)	Indicate whether groundwater is an existing or planned source of water available to the supplier.	System Supplies	Section 6.2	
10631(b)(1)	Indicate whether a groundwater management plan has 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.	System Supplies	Section 6.2.2	
10631(b)(2)	Describe the groundwater basin.	System Supplies	Section 6.2.1	
10631(b)(2)	Indicate if the basin has been adjudicated and include a copy of the court order or decree and a description of the amount of water the supplier has the legal right to pump.	System Supplies	Section 6.2.2	
10631(b)(2)	For unadjudicated basins, indicate whether or not the department has identified the basin as overdrafted, or projected to become overdrafted. Describe efforts by the supplier to eliminate the long-term overdraft condition.	System Supplies	Section 6.2.3	
10631(b)(3)	Provide a detailed description and analysis of the location, amount, and sufficiency of	System Supplies	Section 6.2.4	

	groundwater pumped by the urban water supplier for the past five years			
10631(b)(4)	Provide a detailed description and analysis of the amount and location of groundwater that is projected to be pumped.	System Supplies	Sections 6.2 and 6.9	
10631(c)(1)	Describe the reliability of the water supply and vulnerability to seasonal or climatic shortage.	Water Supply Reliability Assessment	Section 7.1	
10631(c)(1)	Provide data for an average water year, a single dry water year, and multiple dry water years	Water Supply Reliability Assessment	Section 7.2	
10631(c)(2)	For any water source that may not be available at a consistent level of use, describe plans to supplement or replace that source.	Water Supply Reliability Assessment	Section 7.1	
10631(d)	Describe the opportunities for exchanges or transfers of water on a short-term or long-term basis.	System Supplies	Section 6.7	
10631(e)(1)	Quantify past, current, and projected water use, identifying the uses among water use sectors.	System Water Use	Section 4.2	
10631(e)(3)(A)	Report the distribution system water loss for the most recent 12-month period available.	System Water Use	Section 4.3	
10631(f)(1)	Retail suppliers shall provide a description of the nature and extent of each demand management measure implemented over the past five years. The description will address specific measures listed in code.	Demand Management Measures	Sections 9.2 and 9.3	
10631(f)(2)	Wholesale suppliers shall describe specific demand management measures listed in code, their distribution system asset management program, and supplier assistance program.	Demand Management Measures	Sections 9.1 and 9.3	
10631(g)	Describe the expected future 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.	System Supplies	Section 6.8	
10631(h)	Describe desalinated water project opportunities for long-term supply.	System Supplies	Section 6.6	
10631(i)	CUWCC members may submit their 2013-2014 CUWCC BMP annual reports in lieu of, or in addition to, describing the DMM implementation in their UWMPs. This option is only allowable if the supplier has been found to be in full compliance with the CUWCC MOU.	Demand Management Measures	Section 9.5	
10631(j)	Retail suppliers will include documentation that they have provided their wholesale supplier(s) – if any - with water use	System Supplies	Section 2.5.1	

	projections from that source.			
10631(j)	Wholesale suppliers will include documentation that they have provided their urban water suppliers with identification and quantification of the existing and planned sources of water available from the wholesale to the urban supplier during various water year types.	System Supplies	Section 2.5.1	
10631.1(a)	Include projected water use needed for lower income housing projected in the service area of the supplier.	System Water Use	Section 4.5	
10632(a) and 10632(a)(1)	Provide an urban water shortage contingency analysis that specifies stages of action and an outline of specific water supply conditions at each stage.	Water Shortage Contingency Planning	Section 8.1	
10632(a)(2)	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.	Water Shortage Contingency Planning	Section 8.9	
10632(a)(3)	Identify actions to be undertaken by the urban water supplier in case of a catastrophic interruption of water supplies.	Water Shortage Contingency Planning	Section 8.8	
10632(a)(4)	Identify mandatory prohibitions against specific water use practices during water shortages.	Water Shortage Contingency Planning	Section 8.2	
10632(a)(5)	Specify consumption reduction methods in the most restrictive stages.	Water Shortage Contingency Planning	Section 8.4	
10632(a)(6)	Indicated penalties or charges for excessive use, where applicable.	Water Shortage Contingency Planning	Section 8.3	
10632(a)(7)	Provide an analysis of the impacts of each of the actions and conditions in the water shortage contingency analysis on the revenues and expenditures of the urban water supplier, and proposed measures to overcome those impacts.	Water Shortage Contingency Planning	Section 8.6	
10632(a)(8)	Provide a draft water shortage contingency resolution or ordinance.	Water Shortage Contingency Planning	Section 8.7	
10632(a)(9)	Indicate a mechanism for determining actual reductions in water use pursuant to the water shortage contingency analysis.	Water Shortage Contingency Planning	Section 8.5	
10633	For wastewater and recycled water, coordinate with local water, wastewater, groundwater, and planning agencies that operate within the supplier's service area.	System Supplies (Recycled Water)	Section 6.5.1	
10633(a)	Describe the wastewater collection and treatment systems in the supplier's service area. Include quantification of the amount of	System Supplies (Recycled Water)	Section 6.5.2	

	wastewater collected and treated and the methods of wastewater disposal.			
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.	System Supplies (Recycled Water)	Section 6.5.2.2	
10633(c)	Describe the recycled water currently being used in the supplier's service area.	System Supplies (Recycled Water)	Section 6.5.3 and 6.5.4	
10633(d)	Describe and quantify the potential uses of recycled water and provide a determination of the technical and economic feasibility of those uses.	System Supplies (Recycled Water)	Section 6.5.4	
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.	System Supplies (Recycled Water)	Section 6.5.4	
10633(f)	Describe the actions 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.	System Supplies (Recycled Water)	Section 6.5.5	
10633(g)	Provide a plan for optimizing the use of recycled water in the supplier's service area.	System Supplies (Recycled Water)	Section 6.5.5	
10634	Provide information on the quality of existing sources of water available to the supplier and the manner in which water quality affects water management strategies and supply reliability	Water Supply Reliability Assessment	Section 7.1	
10635(a)	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.	Water Supply Reliability Assessment	Section 7.3	
10635(b)	Provide supporting documentation that Water Shortage Contingency 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 the plan to DWR.	Plan Adoption, Submittal, and Implementation	Section 10.4.4	
10642	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.	Plan Preparation	Section 2.5.2	
10642	Provide supporting documentation that the urban water supplier made the plan available for public inspection, published notice of the public hearing, and held a public hearing	Plan Adoption, Submittal, and Implementation	Sections 10.2.2, 10.3, and 10.5	

	about the plan.			
10642	The water supplier is to provide the time and place of the hearing to any city or county within which the supplier provides water.	Plan Adoption, Submittal, and Implementation	Sections 10.2.1	
10642	Provide supporting documentation that the plan has been adopted as prepared or modified.	Plan Adoption, Submittal, and Implementation	Section 10.3.1	
10644(a)	Provide supporting documentation that the urban water supplier has submitted this UWMP to the California State Library.	Plan Adoption, Submittal, and Implementation	Section 10.4.3	
10644(a)(1)	Provide supporting documentation that the urban water supplier has submitted this UWMP to any city or county within which the supplier provides water no later than 30 days after adoption.	Plan Adoption, Submittal, and Implementation	Section 10.4.4	
10644(a)(2)	The plan, or amendments to the plan, submitted to the department shall be submitted electronically.	Plan Adoption, Submittal, and Implementation	Sections 10.4.1 and 10.4.2	
10645	Provide supporting documentation that, not later than 30 days after filing a copy of its plan with the department, the supplier has or will make the plan available for public review during normal business hours.	Plan Adoption, Submittal, and Implementation	Section 10.5	

Checklist Arranged by Subject

CWC Section	UWMP Requirement	Subject	Guidebook Location	UWMP Location *(Optional Column for Agency Use)*
10620(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.	Plan Preparation	Section 2.1	
10620(d)(2)	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.	Plan Preparation	Section 2.5.2	
10642	Provide supporting documentation that the water supplier has encouraged active	Plan Preparation	Section 2.5.2	

	involvement of diverse social, cultural, and economic elements of the population within the service area prior to and during the preparation of the plan.			
10631(a)	Describe the water supplier service area.	System Description	Section 3.1	
10631(a)	Describe the climate of the service area of the supplier.	System Description	Section 3.3	
10631(a)	Provide population projections for 2020, 2025, 2030, and 2035.	System Description	Section 3.4	
10631(a)	Describe other demographic factors affecting the supplier's water management planning.	System Description	Section 3.4	
10631(a)	Indicate the current population of the service area.	System Description and Baselines and Targets	Sections 3.4 and 5.4	
10631(e)(1)	Quantify past, current, and projected water use, identifying the uses among water use sectors.	System Water Use	Section 4.2	
10631(e)(3)(A)	Report the distribution system water loss for the most recent 12-month period available.	System Water Use	Section 4.3	
10631.1(a)	Include projected water use needed for lower income housing projected in the service area of the supplier.	System Water Use	Section 4.5	
10608.20(b)	Retail suppliers shall adopt a 2020 water use target using one of four methods.	Baselines and Targets	Section 5.7 and App E	
10608.20(e)	Retail suppliers shall 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.	Baselines and Targets	Chapter 5 and App E	
10608.22	Retail suppliers' per capita daily water use reduction shall be no less than 5 percent of base daily per capita water use of the 5 year baseline. This does not apply if the suppliers base GPCD is at or below 100.	Baselines and Targets	Section 5.7.2	
10608.24(a)	Retail suppliers shall meet their interim target by December 31, 2015.	Baselines and Targets	Section 5.8 and App E	
10608.24(d)(2)	If the retail supplier adjusts its compliance GPCD using weather normalization, economic adjustment, or extraordinary events, it shall provide the basis for, and data supporting the adjustment.	Baselines and Targets	Section 5.8.2	
10608.36	Wholesale suppliers shall include an assessment of present and proposed future measures, programs, and policies to help their retail water suppliers achieve targeted	Baselines and Targets	Section 5.1	

	water use reductions.			
10608.40	Retail suppliers shall report on their progress in meeting their water use targets. The data shall be reported using a standardized form.	Baselines and Targets	Section 5.8 and App E	
10631(b)	Identify and quantify the existing and planned sources of water available for 2015, 2020, 2025, 2030, and 2035.	System Supplies	Chapter 6	
10631(b)	Indicate whether groundwater is an existing or planned source of water available to the supplier.	System Supplies	Section 6.2	
10631(b)(1)	Indicate whether a groundwater management plan has 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.	System Supplies	Section 6.2.2	
10631(b)(2)	Describe the groundwater basin.	System Supplies	Section 6.2.1	
10631(b)(2)	Indicate if the basin has been adjudicated and include a copy of the court order or decree and a description of the amount of water the supplier has the legal right to pump.	System Supplies	Section 6.2.2	
10631(b)(2)	For unadjudicated basins, indicate whether or not the department has identified the basin as overdrafted, or projected to become overdrafted. Describe efforts by the supplier to eliminate the long-term overdraft condition.	System Supplies	Section 6.2.3	
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	System Supplies	Section 6.2.4	
10631(b)(4)	Provide a detailed description and analysis of the amount and location of groundwater that is projected to be pumped.	System Supplies	Sections 6.2 and 6.9	
10631(d)	Describe the opportunities for exchanges or transfers of water on a short-term or long-term basis.	System Supplies	Section 6.7	
10631(g)	Describe the expected future 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.	System Supplies	Section 6.8	
10631(h)	Describe desalinated water project opportunities for long-term supply.	System Supplies	Section 6.6	
10631(j)	Retail suppliers will include documentation that they have provided their wholesale supplier(s) – if any - with water use projections from that source.	System Supplies	Section 2.5.1	
10631(j)	Wholesale suppliers will include	System Supplies	Section 2.5.1	

	documentation that they have provided their urban water suppliers with identification and quantification of the existing and planned sources of water available from the wholesale to the urban supplier during various water year types.			
10633	For wastewater and recycled water, coordinate with local water, wastewater, groundwater, and planning agencies that operate within the supplier's service area.	System Supplies (Recycled Water)	Section 6.5.1	
10633(a)	Describe the wastewater collection and treatment systems in the supplier's service area. Include quantification of the amount of wastewater collected and treated and the methods of wastewater disposal.	System Supplies (Recycled Water)	Section 6.5.2	
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.	System Supplies (Recycled Water)	Section 6.5.2.2	
10633(c)	Describe the recycled water currently being used in the supplier's service area.	System Supplies (Recycled Water)	Section 6.5.3 and 6.5.4	
10633(d)	Describe and quantify the potential uses of recycled water and provide a determination of the technical and economic feasibility of those uses.	System Supplies (Recycled Water)	Section 6.5.4	
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.	System Supplies (Recycled Water)	Section 6.5.4	
10633(f)	Describe the actions 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.	System Supplies (Recycled Water)	Section 6.5.5	
10633(g)	Provide a plan for optimizing the use of recycled water in the supplier's service area.	System Supplies (Recycled Water)	Section 6.5.5	
10620(f)	Describe water management tools and options to maximize resources and minimize the need to import water from other regions.	Water Supply Reliability Assessment	Section 7.4	
10631(c)(1)	Describe the reliability of the water supply and vulnerability to seasonal or climatic shortage.	Water Supply Reliability Assessment	Section 7.1	
10631(c)(1)	Provide data for an average water year, a single dry water year, and multiple dry water years	Water Supply Reliability Assessment	Section 7.2	
10631(c)(2)	For any water source that may not be available at a consistent level of use, describe plans to supplement or replace that	Water Supply Reliability Assessment	Section 7.1	

	source.			
10634	Provide information on the quality of existing sources of water available to the supplier and the manner in which water quality affects water management strategies and supply reliability	Water Supply Reliability Assessment	Section 7.1	
10635(a)	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.	Water Supply Reliability Assessment	Section 7.3	
10632(a) and 10632(a)(1)	Provide an urban water shortage contingency analysis that specifies stages of action and an outline of specific water supply conditions at each stage.	Water Shortage Contingency Planning	Section 8.1	
10632(a)(2)	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.	Water Shortage Contingency Planning	Section 8.9	
10632(a)(3)	Identify actions to be undertaken by the urban water supplier in case of a catastrophic interruption of water supplies.	Water Shortage Contingency Planning	Section 8.8	
10632(a)(4)	Identify mandatory prohibitions against specific water use practices during water shortages.	Water Shortage Contingency Planning	Section 8.2	
10632(a)(5)	Specify consumption reduction methods in the most restrictive stages.	Water Shortage Contingency Planning	Section 8.4	
10632(a)(6)	Indicated penalties or charges for excessive use, where applicable.	Water Shortage Contingency Planning	Section 8.3	
10632(a)(7)	Provide an analysis of the impacts of each of the actions and conditions in the water shortage contingency analysis on the revenues and expenditures of the urban water supplier, and proposed measures to overcome those impacts.	Water Shortage Contingency Planning	Section 8.6	
10632(a)(8)	Provide a draft water shortage contingency resolution or ordinance.	Water Shortage Contingency Planning	Section 8.7	
10632(a)(9)	Indicate a mechanism for determining actual reductions in water use pursuant to the water shortage contingency analysis.	Water Shortage Contingency Planning	Section 8.5	
10631(f)(1)	Retail suppliers shall provide a description of the nature and extent of each demand management measure implemented over the past five years. The description will address specific measures listed in code.	Demand Management Measures	Sections 9.2 and 9.3	
10631(f)(2)	Wholesale suppliers shall describe specific demand management measures listed in	Demand Management	Sections 9.1 and 9.3	

	code, their distribution system asset management program, and supplier assistance program.	Measures		
10631(i)	CUWCC members may submit their 2013-2014 CUWCC BMP annual reports in lieu of, or in addition to, describing the DMM implementation in their UWMPs. This option is only allowable if the supplier has been found to be in full compliance with the CUWCC MOU.	Demand Management Measures	Section 9.5	
10608.26(a)	Retail suppliers shall conduct a public hearing to discuss adoption, implementation, and economic impact of water use targets.	Plan Adoption, Submittal, and Implementation	Section 10.3	
10621(b)	Notify, at least 60 days prior to the public hearing, 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.	Plan Adoption, Submittal, and Implementation	Section 10.2.1	
10621(d)	Each urban water supplier shall update and submit its 2015 plan to the department by July 1, 2016.	Plan Adoption, Submittal, and Implementation	Sections 10.3.1 and 10.4	
10635(b)	Provide supporting documentation that Water Shortage Contingency 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 the plan to DWR.	Plan Adoption, Submittal, and Implementation	Section 10.4.4	
10642	Provide supporting documentation that the urban water supplier made the plan available for public inspection, published notice of the public hearing, and held a public hearing about the plan.	Plan Adoption, Submittal, and Implementation	Sections 10.2.2, 10.3, and 10.5	
10642	The water supplier is to provide the time and place of the hearing to any city or county within which the supplier provides water.	Plan Adoption, Submittal, and Implementation	Sections 10.2.1	
10642	Provide supporting documentation that the plan has been adopted as prepared or modified.	Plan Adoption, Submittal, and Implementation	Section 10.3.1	
10644(a)	Provide supporting documentation that the urban water supplier has submitted this UWMP to the California State Library.	Plan Adoption, Submittal, and Implementation	Section 10.4.3	
10644(a)(1)	Provide supporting documentation that the urban water supplier has submitted this UWMP to any city or county within which the supplier provides water no later than 30 days after adoption.	Plan Adoption, Submittal, and Implementation	Section 10.4.4	
10644(a)(2)	The plan, or amendments to the plan, submitted to the department shall be submitted electronically.	Plan Adoption, Submittal, and Implementation	Sections 10.4.1 and 10.4.2	

10645	Provide supporting documentation that, not later than 30 days after filing a copy of its plan with the department, the supplier has or will make the plan available for public review during normal business hours.	Plan Adoption, Submittal, and Implementation	Section 10.5	

NOTES FOR REGIONAL URBAN WATER MANAGEMENT PLANS (RUWMPs)

RUWMPs will report data for each agency in the RUWMP, requiring duplicates of the standardized tables. The supplier will copy the needed tables and notate each of the copies with the name of the agency, or some other designation, identifying the table with the corresponding agency.

WUEdata upload tool for RUWMPs

RUWMPs will submit data to the WUEdata upload tool on an individual agency basis.

If the RUWMP contains a Regional Alliance, the Regional Alliance information will be uploaded separately from the individual agency information.

Table 2-1 Retail Only: Public Water Systems			
Public Water System Number	Public Water System Name	Number of Municipal Connections 2015	Volume of Water Supplied 2015
04-070PA-000	City of Pico Rivera	9,391	4,561
	TOTAL	9,391	4,561
NOTES:			

Table 2-2: Plan Identification			
Select Only One	**Type of Plan**		**Name of RUWMP or Regional Alliance** *if applicable* *drop down list*
☑	**Individual UWMP**		
	☐	Water Supplier is also a member of a RUWMP	
	☑	Water Supplier is also a member of a Regional Alliance	Gateway Regional Alliance
☐	**Regional Urban Water Management Plan (RUWMP)**		
NOTES:			

Table 2-3: Agency Identification	
Type of Agency (select one or both)	
☐	Agency is a wholesaler
☑	Agency is a retailer
Fiscal or Calendar Year (select one)	
☐	UWMP Tables Are in Calendar Years
☑	UWMP Tables Are in Fiscal Years
If Using Fiscal Years Provide Month and Date that the Fiscal Year Begins (mm/dd)	
7/1	
Units of Measure Used in UWMP (select from Drop down)	
Unit	AF
NOTES:	

Table 2-4 Retail: Water Supplier Information Exchange
The retail supplier has informed the following wholesale supplier(s) of projected water use in accordance with CWC 10631.
Wholesale Water Supplier Name *(Add additional rows as needed)*
Central Basin Municipal Water District (CBMWD)
NOTES:

Table 3-1 Retail: Population - Current and Projected						
Population Served	2015	2020	2025	2030	2035	2040*(opt)*
	39,863	40,934	41,936	42,963	44,014	
NOTES:						

Table 4-1 Retail: Demands for Potable and Raw Water - Actual			
Use Type *(Add additional rows as needed)*	2015 Actual		
Drop down list *May select each use multiple times* *These are the only Use Types that will be recognized by the WUEdata online submittal tool*	Additional Description *(as needed)*	Level of Treatment When Delivered *Drop down list*	Volume
Single Family	PRWA combines service to residential (SF and MF)	Drinking Water	3,319
Multi-Family	PRWA combines service to residential (SF and MF)	Drinking Water	269
Commercial	PRWA combines service to CII	Drinking Water	973
Landscape		Drinking Water	0
Other		Drinking Water	0
		TOTAL	4,561
NOTES:			

Table 4-2 Retail: Demands for Potable and Raw Water - Projected

Use Type *(Add additional rows as needed)* ***Drop down list*** *May select each use multiple times* *These are the only Use Types that will be recognized by the WUEdata online submittal tool*	Additional Description *(as needed)*	Projected Water Use *Report To the Extent that Records are Available*				
		2020	2025	2030	2035	2040-opt
Single Family		3,922	3,922	3,916	3,909	
Multi-Family		269	269	275	282	
Commercial	PRWA combines service to CII	974	973	997	1,021	
TOTAL		5,165	5,164	5,188	5,212	0

NOTES:

Table 4-3 Retail: Total Water Demands						
	2015	2020	2025	2030	2035	2040 *(opt)*
Potable and Raw Water *From Tables 4-1 and 4-2*	4,561	5,165	5,164	5,188	5,212	0
Recycled Water Demand* *From Table 6-4*	100	200	200	200	200	0
TOTAL WATER DEMAND	4,661	5,365	5,364	5,388	5,412	0
**Recycled water demand fields will be blank until Table 6-4 is complete.*						
NOTES:						

Table 4-4 Retail: 12 Month Water Loss Audit Reporting	
Reporting Period Start Date (mm/yyyy)	Volume of Water Loss*
07/2014	20
** Taken from the field "Water Losses" (a combination of apparent losses and real losses) from the AWWA worksheet.*	
NOTES:	

Table 4-5 Retail Only: Inclusion in Water Use Projections	
Are Future Water Savings Included in Projections? (Refer to Appendix K of UWMP Guidebook) *Drop down list (y/n)*	No
If "Yes" to above, state the section or page number, in the cell to the right, where citations of the codes ordinances, etc… utilized in demand projections are found.	
Are Lower Income Residential Demands Included In Projections? *Drop down list (y/n)*	Yes
NOTES:	

Table 5-1 Baselines and Targets Summary
Retail Agency or Regional Alliance Only

Baseline Period	Start Year	End Year	Average Baseline GPCD*	2015 Interim Target *	Confirmed 2020 Target*
10-15 year	*2003*	*2012*	*117*	*114*	*111*
5 Year	*2006*	*2010*	*116*		

*All values are in Gallons per Capita per Day (GPCD)

NOTES:

Table 5-2: 2015 Compliance

Retail Agency or Regional Alliance Only

Actual 2015 GPCD*	2015 Interim Target GPCD*	Optional Adjustments to 2015 GPCD Enter "0" if no adjustment is made *From Methodology 8*					2015 GPCD* *(Adjusted if applicable)*	Did Supplier Achieve Targeted Reduction for 2015? Y/N
		Extraordinary Events*	Economic Adjustment*	Weather Normalization*	TOTAL Adjustments*	Adjusted 2015 GPCD*		
100	113				0	100	100	Yes

**All values are in Gallons per Capita per Day (GPCD)*

NOTES:

Table 6-1 Retail: Groundwater Volume Pumped						
☐	Supplier does not pump groundwater. The supplier will not complete the table below.					
Groundwater Type ***Drop Down List*** *May use each category multiple times*	Location or Basin Name	2011	2012	2013	2014	2015
Add additional rows as needed						
Alluvial Basin	Central Basin	4805	5035	4853	5031	4561
	TOTAL	4,805	5,035	4,853	5,031	4,561
NOTES:						

Table 6-2 Retail: Wastewater Collected Within Service Area in 2015						
☐	There is no wastewater collection system. The supplier will not complete the table below.					
	Percentage of 2015 service area covered by wastewater collection system *(optional)*					
	Percentage of 2015 service area population covered by wastewater collection system *(optional)*					
Wastewater Collection			**Recipient of Collected Wastewater**			
Name of Wastewater Collection Agency	Wastewater Volume Metered or Estimated? *Drop Down List*	Volume of Wastewater Collected from UWMP Service Area 2015	Name of Wastewater Treatment Agency Receiving Collected Wastewater	Treatment Plant Name	Is WWTP Located Within UWMP Area? *Drop Down List*	Is WWTP Operation Contracted to a Third Party? *(optional)* *Drop Down List*
Add additional rows as needed						
City of Pico Rivera	Estimated	2,830	Los Angeles County Sanitation District	San Jose Creek Water Reclamation Plant	No	No
Total Wastewater Collected from Service Area in 2015:		2,830				
NOTES:						

Table 6-3 Retail: Wastewater Treatment and Discharge Within Service Area in 2015

☑	No wastewater is treated or disposed of within the UWMP service area. The supplier will not complete the table below.

Wastewater Treatment Plant Name	Discharge Location Name or Identifier	Discharge Location Description	Wastewater Discharge ID Number *(optional)*	Method of Disposal *Drop down list*	Does This Plant Treat Wastewater Generated Outside the Service Area?	Treatment Level *Drop down list*	2015 volumes			
							Wastewater Treated	Discharged Treated Wastewater	Recycled Within Service Area	Recycled Outside of Service Area
Add additional rows as needed										
						Total	0	0	0	0

NOTES:

Table 6-4 Retail: Current and Projected Recycled Water Direct Beneficial Uses Within Service Area

☐	Recycled water is not used and is not planned for use within the service area of the supplier. The supplier will not complete the table below.

Name of Agency Producing (Treating) the Recycled Water:	
Name of Agency Operating the Recycled Water Distribution System:	
Supplemental Water Added in 2015	
Source of 2015 Supplemental Water	

Beneficial Use Type	General Description of 2015 Uses	Level of Treatment *Drop down list*	2015	2020	2025	2030	2035	2040 (opt)
Agricultural irrigation								
Landscape irrigation (excludes golf courses)								
Golf course irrigation	Pico Rivera Municipal Golf Course	Advanced	100	200	200	200	200	
Commercial use								
Industrial use								
Geothermal and other energy production								
Seawater intrusion barrier								
Recreational impoundment								
Wetlands or wildlife habitat								
Groundwater recharge (IPR)*								
Surface water augmentation (IPR)*								
Direct potable reuse								
Other *(Provide General Description)*								
		Total:	100	200	200	200	200	0

**IPR - Indirect Potable Reuse*

NOTES:

Table 6-5 Retail: 2010 UWMP Recycled Water Use Projection Compared to 2015 Actual			
☐	Recycled water was not used in 2010 nor projected for use in 2015. The supplier will not complete the table below.		
Use Type		**2010 Projection for 2015**	**2015 Actual Use**
Agricultural irrigation			
Landscape irrigation (excludes golf courses)			
Golf course irrigation		100	100
Commercial use			
Industrial use			
Geothermal and other energy production			
Seawater intrusion barrier			
Recreational impoundment			
Wetlands or wildlife habitat			
Groundwater recharge (IPR)			
Surface water augmentation (IPR)			
Direct potable reuse			
Other	*Type of Use*		
Total		100	100
NOTES:			

Table 6-6 Retail: Methods to Expand Future Recycled Water Use			
☐	Supplier does not plan to expand recycled water use in the future. Supplier will not complete the table below but will provide narrative explanation.		
	Provide page location of narrative in UWMP		
Name of Action	Description	Planned Implementation Year	Expected Increase in Recycled Water Use
Add additional rows as needed			
Streamland Park	Landscape Irrigation	2020	70
Pico Park	Landscape Irrigation	2020	70
		Total	140
NOTES:			

Table 6-7 Retail: Expected Future Water Supply Projects or Programs						
☑	No expected future water supply projects or programs that provide a quantifiable increase to the agency's water supply. Supplier will not complete the table below.					
☐	Some or all of the supplier's future water supply projects or programs are not compatible with this table and are described in a narrative format.					
	Provide page location of narrative in the UWMP					
Name of Future Projects or Programs	Joint Project with other agencies?		Description (if needed)	Planned Implementation Year	Planned for Use in Year Type *Drop Down List*	Expected Increase in Water Supply to Agency *This may be a range*
	Drop Down List (y/n)	*If Yes, Agency Name*				
Add additional rows as needed						
NOTES:						

Table 6-8 Retail: Water Supplies — Actual				
Water Supply	Additional Detail on Water Supply	2015		
Drop down list *May use each category multiple times. These are the only water supply categories that will be recognized by the WUEdata online submittal tool*		Actual Volume	Water Quality *Drop Down List*	Total Right or Safe Yield *(optional)*
Add additional rows as needed				
Purchased or Imported Water	Allocation from CBMWD	4,561	Raw Water	
	Total	4,561		0
NOTES:				

Table 6-9 Retail: Water Supplies — Projected

Water Supply	Additional Detail on Water Supply	Projected Water Supply *Report To the Extent Practicable*									
Drop down list *May use each category multiple times. These are the only water supply categories that will be recognized by the WUEdata online submittal tool*		**2020**		**2025**		**2030**		**2035**		**2040** *(opt)*	
		Reasonably Available Volume	Total Right or Safe Yield *(optional)*	Reasonably Available Volume	Total Right or Safe Yield *(optional)*	Reasonably Available Volume	Total Right or Safe Yield *(optional)*	Reasonably Available Volume	Total Right or Safe Yield *(optional)*	Reasonably Available Volume	Total Right or Safe Yield *(optional)*
Add additional rows as needed											
Purchased or Imported Water	APA from CBWMD	5,579	5,579	5,579	5,579	5,579	5,579	5,579	5,579		
Recycled Water		200		200		200		200			
	Total	5,779	5,579	5,779	5,579	5,779	5,579	5,779	5,579	0	0

NOTES:

Table 7-1 Retail: Basis of Water Year Data

Year Type	Base Year *If not using a calendar year, type in the last year of the fiscal, water year, or range of years, for example, water year 1999-2000, use 2000*	Available Supplies if Year Type Repeats	
		☐ Quantification of available supplies is not compatible with this table and is provided elsewhere in the UWMP. Location _____	
		☑ Quantification of available supplies is provided in this table as either volume only, percent only, or both.	
		Volume Available	**% of Average Supply**
Average Year	2010	5779	100%
Single-Dry Year	2006	5779	100%
Multiple-Dry Years 1st Year	1990	5779	100%
Multiple-Dry Years 2nd Year	1991	5779	100%
Multiple-Dry Years 3rd Year	1992	5779	100%
Multiple-Dry Years 4th Year *Optional*			
Multiple-Dry Years 5th Year *Optional*			
Multiple-Dry Years 6th Year *Optional*			

Agency may use multiple versions of Table 7-1 if different water sources have different base years and the supplier chooses to report the base years for each water source separately. If an agency uses multiple versions of Table 7-1, in the "Note" section of each table, state that multiple versions of Table 7-1 are being used and identify the particular water source that is being reported in each table.

NOTES:

Table 7-2 Retail: Normal Year Supply and Demand Comparison (AF)				
	2020	2025	2030	2035
Supply totals	5,779	5,779	5,779	5,779
Demand totals	5,365	5,364	5,388	5,412
Difference	414	415	391	367
NOTES:				

Table 7-3 Retail: Single Dry Year Supply and Demand Comparison					
	2020	2025	2030	2035	2040 (Opt)
Supply totals	5,779	5,779	5,779	5,779	
Demand totals	4,591	4,703	4,818	4,936	
Difference	1,188	1,076	961	843	0
NOTES:					

Table 7-4 Retail: Multiple Dry Years Supply and Demand Comparison						
		2020	2025	2030	2035	2040 (Opt)
First year	Supply totals	5,779	5,779	5,779	5,779	
	Demand totals	4,591	4,703	4,818	4,936	
	Difference	1,188	1,076	961	843	0
Second year	Supply totals	5,779	5,779	5,779	5,779	
	Demand totals	4,591	4,703	4,818	4,936	
	Difference	1,188	1,076	961	843	0
Third year	Supply totals	5,779	5,779	5,779	5,779	
	Demand totals	4,591	4,703	4,818	4,936	
	Difference	1,188	1,076	961	843	0
Fourth year *(optional)*	Supply totals					
	Demand totals					
	Difference	0	0	0	0	0
Fifth year *(optional)*	Supply totals					
	Demand totals					
	Difference	0	0	0	0	0
Sixth year *(optional)*	Supply totals					
	Demand totals					
	Difference	0	0	0	0	0
NOTES:						

Table 8-1 Retail
Stages of Water Shortage Contingency Plan

Stage	Complete Both	
	Percent Supply Reduction[1] *Numerical value as a percent*	Water Supply Condition (*Narrative description*)
Add additional rows as needed		
1	15%	Water Supply Warning
2	25%	Water Shortage Alert
3	35%	Water Shortage Crisis
4	50%	Water Shortage Emergency

[1] *One stage in the Water Shortage Contingency Plan must address a water shortage of 50%.*

NOTES:

Table 8-2 Retail Only: Restrictions and Prohibitions on End Uses			
Stage	Restrictions and Prohibitions on End Users ***Drop down list*** *These are the only categories that will be accepted by the WUEdata online submittal tool*	Additional Explanation or Reference *(optional)*	Penalty, Charge, or Other Enforcement? *Drop Down List*
Add additional rows as needed			
1	Landscape - Restrict or prohibit runoff from landscape irrigation		
1	Landscape - Limit landscape irrigation to specific times	Irrigation during morning and evening hours to avoid evaporation loss.	
1	Other - Customers must repair leaks, breaks, and malfunctions in a timely manner		
1	Landscape - Limit landscape irrigation to specific days		
1	Other	Use Reclaimed water when and where available	
	Other	Native landscape materials only	
2	Other - Prohibit use of potable water for washing hard surfaces		
2	Landscape - Restrict or prohibit runoff from landscape irrigation		
2	Other - Customers must repair leaks, breaks, and malfunctions in a timely manner	Potable water shall not be allowed to escape from breaks within the customer's plumbing system for more than twenty-four hours after the customer is notified or discovers the break.	
2	Other	Washing cars, boats, trailers, aircraft, or other vehicles by hose shall not be done without a shutoff nozzle and bucket, except to wash such vehicles at commercial or fleet vehicle washing facilities using water recycling equipment.	
3	CII - Restaurants may only serve water upon request		
3	Water Features - Restrict water use for decorative water features, such as fountains		
3	Other - Prohibit use of potable water for construction and dust control		
3	Other	City Manager must issue prior approval for the use of potable water for sewer system maintenance or fire protection training.	
NOTES:			

Table 8-3 Retail Only: Stages of Water Shortage Contingency Plan - Consumption Reduction Methods		
Stage	Consumption Reduction Methods by Water Supplier ***Drop down list*** *These are the only categories that will be accepted by the WUEdata online submittal tool*	Additional Explanation or Reference *(optional)*
Add additional rows as needed		
1	Other	Voluntary best efforts in general water use
		- Reduce general use by 10%
		- Water-efficient landscaping is encouraged
		- No runoff from irrigation
		- Cease irrigation between 11 a.m. and 4 p.m.
2	Other	Voluntary and mandatory restriction in general water use (same as Stage I restrictions plus):
		- Reduce general use by 20%
		- Cease irrigation between 6 a.m. and 6 p.m., except with hand-held hose or using reclaimed water
		- Irrigation only 3 times per week
3	Other	Mandatory restrictions
		(same as Stage II restrictions plus):
		- Reduce general use by 35%
		- Commercial car washing using recycled water only
		- No golf course water unless reclaimed water is used
		- Irrigation only 2 times per week.
4	Other	Mandatory restrictions(same as Stage III restrictions plus):
		- Reduce general use by 50%
		- Water rationing by customer class
		- Irrigation only 1 time per week
NOTES:		

Table 8-4 Retail: Minimum Supply Next Three Years			
	2016	2017	2018
Available Water Supply	5,779	5,779	5,779
NOTES:			

Table 10-1 Retail: Notification to Cities and Counties		
City Name	60 Day Notice	Notice of Public Hearing
Add additional rows as needed		
Pico Rivera	☑	☑
	☐	☐
	☐	☐
County Name *Drop Down List*	60 Day Notice	Notice of Public Hearing
Add additional rows as needed		
Los Angeles County	☑	☑
	☐	☐

UWMP Standardized Data Tables

Tables in this appendix are not active spreadsheets. Excel versions of all tables are posted on the DWR 2015 UWMP Webpage
http://www.water.ca.gov/urbanwatermanagement/uwmp2015.cfm

Table 2-1 Retail Only: Public Water Systems			
Public Water System Number	Public Water System Name	Number of Municipal Connections 2015	Volume of Water Supplied 2015
	TOTAL	0	0
NOTES:			

Table 2-2: Plan Identification (Select One)		
☐	Individual UWMP	
☐	Regional UWMP (RUWMP) *(checking this triggers the next line to appear)*	
	Select One:	
	☐	RUWMP includes a Regional Alliance
	☐	RUWMP does not include a Regional Alliance
	NOTES:	

Table 2-3: Agency Identification	
Type of Agency (select one or both)	
☐	Agency is a wholesaler
☐	Agency is a retailer
Fiscal or Calendar Year (select one)	
☐	UWMP Tables Are in Calendar Years
☐	UWMP Tables Are in Fiscal Years
If Using Fiscal Years Provide Month and Day that the Fiscal Year Begins (dd/mm)	
dd/mm	
Units of Measure Used in UWMP (select from Drop down)	
Unit	
NOTES:	

Table 2-4 Retail: Water Supplier Information Exchange
The retail supplier has informed the following wholesale supplier(s) of projected water use in accordance with CWC 10631.
Wholesale Water Supplier Name *(Add additional rows as needed)*
NOTES:

Table 2-4 Wholesale: Water Supplier Information Exchange (select one)	
☐	Supplier has informed more than 10 other water suppliers of water supplies available in accordance with CWC 10631. Completion of the table below is optional. If not completed include a list of the water suppliers that were informed.
	Provide page number for location of the list.
☐	Supplier has informed 10 or fewer other water suppliers of water supplies available in accordance with CWC 10631. **Complete the table below.**
Water Supplier Name *(Add additional rows as needed)*	
NOTES:	

Table 3-1 Retail: Population - Current and Projected						
Population Served	2015	2020	2025	2030	2035	2040*(opt)*
NOTES:						

Table 3-1 Wholesale: Population - Current and Projected						
Population Served	2015	2020	2025	2030	2035	2040*(opt)*
NOTES:						

Table 4-1 Retail: Demands for Potable and Raw Water - Actual			
Use Type *(Add additional rows as needed)*	2015 Actual		
Use Drop down list *May select each use multiple times* *These are the only Use Types that will be recognized by the WUEdata online submittal tool*	Additional Description *(as needed)*	Level of Treatment When Delivered *Drop down list*	Volume
		TOTAL	0
NOTES:			

Table 4-1 Wholesale: Demands for Potable and Raw Water - Actual			
Use Type *(Add additional rows as needed)*	2015 Actual		
Use Drop down list *May select each use multiple times* *These are the only use types that will be recognized by the WUE data online submittal tool*	Additional Description *(as needed)*	Level of Treatment When Delivered *Drop down list*	Volume
		TOTAL	0
NOTES:			

Table 4-2 Retail: Demands for Potable and Raw Water - Projected						
Use Type *(Add additional rows as needed)*	Additional Description *(as needed)*	Projected Water Use *Report To the Extent that Records are Available*				
Use Drop down list *May select each use multiple times These are the only Use Types that will be recognized by the WUEdata online submittal tool*		2020	2025	2030	2035	2040-opt
TOTAL		0	0	0	0	0
NOTES:						

Table 4-2 Wholesale: Demands for Potable and Raw Water - Projected						
Use Type *(Add additional rows as needed)*	Additional Description *(as needed)*	Projected Water Use *Report To the Extent that Records are Available*				
Drop down list *May select each use multiple times These are the only Use Types that will be recognized by the WUEdata online submittal tool.*		2020	2025	2030	2035	2040 *(opt)*
TOTAL		0	0	0	0	0
NOTES:						

Table 4-3 Retail: Total Water Demands						
	2015	2020	2025	2030	2035	2040 *(opt)*
Potable and Raw Water *From Tables 4-1 and 4-2*	0	0	0	0	0	0
Recycled Water Demand *From Table 6-4*	0	0	0	0	0	0
TOTAL WATER DEMAND	0	0	0	0	0	0
NOTES:						

Table 4-3 Wholesale: Total Water Demands						
	2015	2020	2025	2030	2035	2040*(opt)*
Potable and Raw Water *From Tables 4-1 and 4-2*	0	0	0	0	0	0
Recycled Water Demand *From Table 6-4*	0	0	0	0	0	0
TOTAL WATER DEMAND	0	0	0	0	0	0
NOTES:						

Table 4-4 Retail: 12 Month Water Loss Audit Reporting	
Reporting Period Start Date (mm/yyyy)	Volume of Water Loss
NOTES:	

Table 4-4 Wholesale: 12 Month Water Loss Audit Reporting	
Reporting Period Start Date (mm/yyyy)	Volume of Water Loss
NOTES:	

Table 4-5 Retail Only: Inclusion in Water Use Projections	
Are Future Water Savings Included in Projections? (Refer to Appendix K of UWMP Guidebook) *Drop down list (y/n)*	
If "Yes" to above, state the section or page number, in the cell to the right, where citations of the codes, ordinances, etc... utilized in demand projections are found.	
Are Lower Income Residential Demands Included In Projections? *Drop down list (y/n)*	
NOTES:	

Table 5-1 Baselines and Targets Summary *Retail Agency or Regional Alliance Only*					
Baseline Period	Start Year	End Year	Average Baseline GPCD*	2015 Interim Target *	Confirmed 2020 Target*
10-15 year	*From SB X7-7 Table 1*	*From SB X7-7 Table 1*	*From SB X7-7 Table 5*	*From SB X7-7 Table 8*	*SB X7-7 Table 7-F*
5 Year	*From SB X7-7 Table 1*	*From SB X7-7 Table 1*	*From SB X7-7 Table 5*		
*All values are in Gallons per Capita per Day (GPCD)					
NOTES:					

Table 5-2: 2015 Compliance *Retail Agency or Regional Alliance Only**								
Actual 2015 GPCD	2015 Interim Target GPCD	**Optional Adjustments to 2015 GPCD** Enter "0" for adjustments not used *From Methodology 8*					2015 GPCD *(Adjusted if applicable)*	Did Supplier Achieve Targeted Reduction for 2015? Y/N
		Extraordinary Events	Economic Adjustment	Weather Normalization	TOTAL Adjustments	Adjusted 2015 GPCD		
					0	0	0	No
All values are in Gallons per Capita per Day (GPCD)								
NOTES:								

Table 6-1 Retail: Groundwater Volume Pumped						
☐	Supplier does not pump groundwater. The supplier will not complete the table below.					
Groundwater Type ***Drop Down List*** *May use each category multiple times*	Location or Basin Name	2011	2012	2013	2014	2015
Add additional rows as needed						
TOTAL		0	0	0	0	0
NOTES:						

Table 6-1 Wholesale: Groundwater Volume Pumped						
☐	Supplier does not pump groundwater. The supplier will not complete the table below.					
Groundwater Type *Drop Down List May use each category multiple times*	Location or Basin Name	2011	2012	2013	2014	2015
	TOTAL	0	0	0	0	0
NOTES:						

Table 6-2 Retail: Wastewater Collected Within Service Area in 2015						
☐	There is no wastewater collection system. The supplier will not complete the table below.					
	Percentage of 2015 service area covered by wastewater collection system *(optional)*					
	Percentage of 2015 service area population covered by wastewater collection system *(optional)*					
Wastewater Collection			**Recipient of Collected Wastewater**			
Name of Wastewater Collection Agency	Wastewater Volume Metered or Estimated? *Drop Down List*	Volume of Wastewater Collected from UWMP Service Area 2015	Name of Wastewater Treatment Agency Receiving Collected Wastewater	Treatment Plant Name	Is WWTP Located Within UWMP Area? *Drop Down List*	Is WWTP Operation Contracted to a Third Party? *(optional)* *Drop Down List*
Add additional rows as needed						
Total Wastewater Collected from Service Area in 2015:		0				
NOTES:						

Table 6-3 Retail: Wastewater Treatment and Discharge Within Service Area in 2015

☐ No wastewater is treated or disposed of within the UWMP service area.
The supplier will not complete the table below.

Wastewater Treatment Plant Name	Discharge Location Name or Identifier	Discharge Location Description	Wastewater Discharge ID Number *(optional)*	Method of Disposal *Drop down list*	Does This Plant Treat Wastewater Generated Outside the Service Area?	Treatment Level *Drop down list*	2015 volumes			
							Wastewater Treated	Discharged Treated Wastewater	Recycled Within Service Area	Recycled Outside of Service Area
Add additional rows as needed										
						Total	0	0	0	0

NOTES:

Table 6-3 Wholesale: Wastewater Treatment and Discharge Within Service Area in 2015

☐ Wholesale supplier neither distributes nor provides supplemental treatment to recycled water.
The supplier will not complete the table below.

Wastewater Treatment Plant Name	Discharge Location Name or Identifier	Discharge Location Description	Wastewater Discharge ID Number *(optional)*	Method of Disposal *Drop down list*	Does This Plant Treat Wastewater Generated Outside the Service Area?	Treatment Level *Drop down list*	2015 volumes			
							Wastewater Treated	Discharged Treated Wastewater	Recycled Within Service Area	Recycled Outside of Service Area
Add additional rows as needed										
						Total	0	0	0	0

NOTES:

Table 6-4 Retail: Current and Projected Recycled Water Direct Beneficial Uses Within Service Area

☐	Recycled water is not used and is not planned for use within the service area of the supplier. The supplier will not complete the table below.

Name of Agency Producing (Treating) the Recycled Water:	
Name of Agency Operating the Recycled Water Distribution System:	
Supplemental Water Added in 2015	
Source of 2015 Supplemental Water	

Beneficial Use Type	General Description of 2015 Uses	Level of Treatment *Drop down list*	2015	2020	2025	2030	2035	2040 (opt)
Agricultural irrigation								
Landscape irrigation (excludes golf courses)								
Golf course irrigation								
Commercial use								
Industrial use								
Geothermal and other energy production								
Seawater intrusion barrier								
Recreational impoundment								
Wetlands or wildlife habitat								
Groundwater recharge (IPR)								
Surface water augmentation (IPR)								
Direct potable reuse								
Other Type of Use								
		Total:	0	0	0	0	0	0

IPR - Indirect Potable Reuse

NOTES:

Table 6-4 Wholesale: Current and Projected Retailers Provided Recycled Water Within Service Area							
☐	Recycled water is not directly treated or distributed by the supplier. The supplier will not complete the table below.						
Name of Receiving Supplier or Direct Use by Wholesaler	Level of Treatment *Drop down list*	2015	2020	2025	2030	2035	2040 *(opt)*
Add additional rows as needed							
Total		0	0	0	0	0	0
NOTES:							

Table 6-5 Retail: 2010 UWMP Recycled Water Use Projection Compared to 2015 Actual			
☐	Recycled water was not used in 2010 nor projected for use in 2015. The supplier will not complete the table below.		
Use Type		**2010 Projection for 2015**	**2015 Actual Use**
Agricultural irrigation			
Landscape irrigation (excludes golf courses)			
Golf course irrigation			
Commercial use			
Industrial use			
Geothermal and other energy production			
Seawater intrusion barrier			
Recreational impoundment			
Wetlands or wildlife habitat			
Groundwater recharge (IPR)			
Surface water augmentation (IPR)			
Direct potable reuse			
Other	*Type of Use*		
Total		0	0
NOTES:			

Table 6-5 Wholesale: 2010 UWMP Recycled Water Use Projection Compared to 2015 Actual		
☐	Recycled water was not used or distributed by the supplier in 2010, nor projected for use or distribution in 2015. The wholesale supplier will not complete the table below.	
Name of Receiving Supplier or Direct Use by Wholesaler	2010 Projection for 2015	2015 actual use
Add additional rows as needed		
Total	0	0
NOTES:		

Table 6-6 Retail: Methods to Expand Future Recycled Water Use			
☐	Supplier does not plan to expand recycled water use in the future. Supplier will not complete the table below but will provide narrative explanation.		
	Provide page location of narrative in UWMP		
Name of Action	Description	Planned Implementation Year	Expected Increase in Recycled Water Use
Add additional rows as needed			
		Total	0
NOTES:			

Table 6-7 Retail: Expected Future Water Supply Projects or Programs						
☐	No expected future water supply projects or programs that provide a quantifiable increase to the agency's water supply. Supplier will not complete the table below.					
☐	Some or all of the supplier's future water supply projects or programs are not compatible with this table and are described in a narrative format.					
	Provide page location of narrative in the UWMP					
Name of Future Projects or Programs	Joint Project with other agencies?		Description (if needed)	Planned Implementation Year	Planned for Use in Year Type	Expected Increase in Water Supply to Agency
	Drop Down List (y/n)	*If Yes, Agency Name*			*Drop Down List*	*This may be a range*
Add additional rows as needed						
NOTES:						

Table 6-7 Wholesale: Expected Future Water Supply Projects or Programs						
☐	No expected future water supply projects or programs that provide a quantifiable increase to the agency's water supply. Supplier will not complete the table below.					
☐	Some or all of the supplier's future water supply projects or programs are not compatible with this table and are described in a narrative format.					
	Provide page location of narrative in the UWMP					
Name of Future Projects or Programs	Joint Project with other agencies?		Description *(if needed)*	Planned Implementation Year	Planned for Use in Year Type	Expected Increase in Water Supply to Agency
	Drop Down Menu	*If Yes, Agency Name*			*Drop Down list*	
Add additional rows as needed						
NOTES:						

Table 6-8 Retail: Water Supplies — Actual				
Water Supply		2015		
Drop down list *May use each category multiple times. These are the only water supply categories that will be recognized by the WUEdata online submittal tool*	Additional Detail on Water Supply	Actual Volume	Water Quality *Drop Down List*	Total Right or Safe Yield *(optional)*
Add additional rows as needed				
	Total	0		0
NOTES:				

Table 6-8 Wholesale: Water Supplies — Actual				
Water Supply		**2015**		
Drop down list *May use each category multiple times.These are the only water supply categories that will be recognized by the WUEdata online submittal tool*	Additional Detail on Water Supply	Actual Volume	Water Quality *Drop Down List*	Total Right or Safe Yield *(optional)*
Add additional rows as needed				
	Total	0		0
NOTES:				

Table 6-9 Retail: Water Supplies — Projected

Water Supply	Additional Detail on Water Supply	Projected Water Supply *Report To the Extent Practicable*									
		2020		**2025**		**2030**		**2035**		**2040** *(opt)*	
Drop down list *May use each category multiple times. These are the only water supply categories that will be recognized by the WUEdata online submittal tool*		Reasonably Available Volume	Total Right or Safe Yield *(optional)*	Reasonably Available Volume	Total Right or Safe Yield *(optional)*	Reasonably Available Volume	Total Right or Safe Yield *(optional)*	Reasonably Available Volume	Total Right or Safe Yield *(optional)*	Reasonably Available Volume	Total Right or Safe Yield *(optional)*
Add additional rows as needed											
Total		0	0	0	0	0	0	0	0	0	0
NOTES:											

Table 6-9 Wholesale: Water Supplies — Projected

Water Supply	Additional Detail on Water Supply	Projected Water Supply *Report To the Extent Practicable*									
		2020		**2025**		**2030**		**2035**		**2040** *(opt)*	
Drop down list *May use each category multiple times. These are the only water supply categories that will be recognized by the WUEdata online submittal tool*		Reasonably Available Volume	Total Right or Safe Yield *(optional)*	Reasonably Available Volume	Total Right or Safe Yield *(optional)*	Reasonably Available Volume	Total Right or Safe Yield *(optional)*	Reasonably Available Volume	Total Right or Safe Yield *(optional)*	Reasonably Available Volume	Total Right or Safe Yield *(optional)*
Add additional rows as needed											
Total		0	0	0	0	0	0	0	0	0	0
NOTES:											

Table 7-1 Retail: Basis of Water Year Data

Year Type	Base Year	Available Supplies if Year Type Repeats		
		☐	Quantification of available supplies is not compatible with this table and is provided elsewhere in the UWMP. Location _____	
		☐	Quantification of available supplies is provided in this table as either volume only, percent only, or both.	
			Volume Available	**% of Average Supply**
Average Year				100%
Single-Dry Year				
Multiple-Dry Years 1st Year				
Multiple-Dry Years 2nd Year				
Multiple-Dry Years 3rd Year				
Multiple-Dry Years 4th Year *Optional*				
Multiple-Dry Years 5th Year *Optional*				
Multiple-Dry Years 6th Year *Optional*				

Agency may use multiple versions of Table 7-1 if different water sources have different base years and the supplier chooses to report the base years for each water source separately. If an agency uses multiple versions of Table 7-1, in the "Note" section of each table, state that multiple versions of Table 7-1 are being used and identify the particular water source that is being reported in each table.

NOTES:

Table 7-1 Wholesale: Basis of Water Year Data

Year Type	Base Year	Available Supplies if Year Type Repeats		
		☐	Quantification of available supplies is not compatible with this table and is provided elsewhere in the UWMP. Location _____	
		☐	Quantification of available supplies is provided in this table as either volume only, percent only, or both.	
			Volume Available	**% of Average Supply**
Average Year				100%
Single-Dry Year				
Multiple-Dry Years 1st Year				
Multiple-Dry Years 2nd Year				
Multiple-Dry Years 3rd Year				
Multiple-Dry Years 4th Year *Optional*				
Multiple-Dry Years 5th Year *Optional*				
Multiple-Dry Years 6th Year *Optional*				

Agency may use multiple versions of Table 7-1 if different water sources have different base years and the supplier chooses to report the base years for each water source separately. If an agency uses multiple versions of Table 7-1, in the "Note" section of each table, state that multiple versions of Table 7-1 are being used and identify the particular water source that is being reported in each table.

NOTES:

Table 7-2 Retail: Normal Year Supply and Demand Comparison					
	2020	2025	2030	2035	2040 *(Opt)*
Supply totals *(autofill from Table 6-9)*	0	0	0	0	0
Demand totals *(autofill from Table 4-3)*	0	0	0	0	0
Difference	0	0	0	0	0
NOTES:					

Table 7-2 Wholesale: Normal Year Supply and Demand Comparison					
	2020	2025	2030	2035	2040 *(Opt)*
Supply totals *(autofill from Table 6-9)*	0	0	0	0	0
Demand totals *(autofill fm Table 4-3)*	0	0	0	0	0
Difference	0	0	0	0	0
NOTES:					

Table 7-3 Retail: Single Dry Year Supply and Demand Comparison					
	2020	2025	2030	2035	2040 (Opt)
Supply totals					
Demand totals					
Difference	0	0	0	0	0
NOTES:					

Table 7-3 Wholesale: Single Dry Year Supply and Demand Comparison					
	2020	2025	2030	2035	2040 (Opt)
Supply totals					
Demand totals					
Difference	0	0	0	0	0
NOTES:					

Table 7-4 Retail: Multiple Dry Years Supply and Demand Comparison						
		2020	2025	2030	2035	2040 (Opt)
First year	Supply totals					
	Demand totals					
	Difference	0	0	0	0	0
Second year	Supply totals					
	Demand totals					
	Difference	0	0	0	0	0
Third year	Supply totals					
	Demand totals					
	Difference	0	0	0	0	0
Fourth year *(optional)*	Supply totals					
	Demand totals					
	Difference	0	0	0	0	0
Fifth year *(optional)*	Supply totals					
	Demand totals					
	Difference	0	0	0	0	0
Sixth year *(optional)*	Supply totals					
	Demand totals					
	Difference	0	0	0	0	0
NOTES:						

Table 7-4 Wholesale: Multiple Dry Years Supply and Demand Comparison						
		2020	2025	2030	2035	2040 (Opt)
First year	Supply totals					
	Demand totals					
	Difference	0	0	0	0	0
Second year	Supply totals					
	Demand totals					
	Difference	0	0	0	0	0
Third year	Supply totals					
	Demand totals					
	Difference	0	0	0	0	0
Fourth year *(optional)*	Supply totals					
	Demand totals					
	Difference	0	0	0	0	0
Fifth year *(optional)*	Supply totals					
	Demand totals					
	Difference	0	0	0	0	0
Sixth year *(optional)*	Supply totals					
	Demand totals					
	Difference	0	0	0	0	0
NOTES:						

Table 8-1 Retail **Stages of Water Shortage Contingency Plan**		
Stage	Complete Both	
	Percent Supply Reduction[1] *Numerical value as a percent*	Water Supply Condition (*Narrative description)*
Add additional rows as needed		
[1] *One stage in the Water Shortage Contingency Plan must address a water shortage of 50%.*		
NOTES:		

Table 8-1 Wholesale **Stages of Water Shortage Contingency Plan**		
Stage	Complete Both	
	Supply Reduction[1]	Water Supply Condition (*Narrative description)*
Add additional rows as needed		
[1] *One stage in the Water Shortage Contingency Plan must address a water shortage of 50%.*		
NOTES:		

Table 8-2 Retail Only: Restrictions and Prohibitions on End Uses			
Stage	Restrictions and Prohibitions on End Users ***Drop down list*** *These are the only categories that will be accepted by the WUEdata online submittal tool*	Additional Explanation or Reference *(optional)*	Penalty, Charge, or Other Enforcement? *Drop Down List*
Add additional rows as needed			
NOTES:			

Table 8-3 Retail Only: **Stages of Water Shortage Contingency Plan - Consumption Reduction Methods**		
Stage	Consumption Reduction Methods by Water Supplier ***Drop down list*** *These are the only categories that will be accepted by the WUEdata online submittal tool*	Additional Explanation or Reference *(optional)*
Add additional rows as needed		
NOTES:		

Table 8-4 Retail: Minimum Supply Next Three Years			
	2016	2017	2018
Available Water Supply			
NOTES:			

Table 8-4 Wholesale: Minimum Supply Next Three Years			
	2016	2017	2018
Available Water Supply			
NOTES:			

Table 10-1 Retail: Notification to Cities and Counties		
City Name	60 Day Notice	Notice of Public Hearing
Add additional rows as needed		
	☐	☐
	☐	☐
	☐	☐
County Name *Drop Down List*	60 Day Notice	Notice of Public Hearing
Add additional rows as needed		
	☐	☐
	☐	☐
	☐	☐
NOTES:		

Table 10-1 Wholesale: Notification to Cities and Counties (select one)		
☐	Supplier has notified more than 10 cities or counties in accordance with CWC 10621 (b) and 10642. **Completion of the table below is not required. Provide a separate list of the cities and counties that were notified.**	
	Provide the page or location of this list in the UWMP.	
☐	Supplier has notified 10 or fewer cities or counties. **Complete the table below.**	
City Name	60 Day Notice	Notice of Public Hearing
Add additional rows as needed		
	☐	☐
	☐	☐
	☐	☐
County Name *Drop Down List*	60 Day Notice	Notice of Public Hearing
Add additional rows as needed		
	☐	☐
	☐	☐
	☐	☐
NOTES:		

SB X7-7 Verification Form

Tables in this appendix are not active spreadsheets. Excel versions of all tables are posted on the DWR 2015 UWMP Webpage

http://www.water.ca.gov/urbanwatermanagement/uwmp2015.cfm

SB X7-7 Table 0: Units of Measure Used in UWMP* *(select one from the drop down list)*
**The unit of measure must be consistent with Table 2-3*
NOTES:

SB X7-7 Table-1: Baseline Period Ranges			
Baseline	**Parameter**	**Value**	**Units**
10- to 15-year baseline period	2008 total water deliveries		0
	2008 total volume of delivered recycled water		0
	2008 recycled water as a percent of total deliveries		Percent
	Number of years in baseline period[1]		Years
	Year beginning baseline period range		
	Year ending baseline period range[2]		
5-year baseline period	Number of years in baseline period		Years
	Year beginning baseline period range		
	Year ending baseline period range[3]		
[1] If the 2008 recycled water percent is less than 10 percent, then the first baseline period is a continuous 10-year period. If the amount of recycled water delivered in 2008 is 10 percent or greater, the first baseline period is a continuous 10- to 15-year period.			
[2] The ending year must be between December 31, 2004 and December 31, 2010.			
[3] The ending year must be between December 31, 2007 and December 31, 2010.			
NOTES:			

SB X7-7 Table 2: Method for Population Estimates	
Method Used to Determine Population (may check more than one)	
☐	**1. Department of Finance** (DOF) DOF Table E-8 (1990 - 2000) and (2000-2010) and DOF Table E-5 (2011 - 2015) when available
☐	**2. Persons-per-Connection Method**
☐	**3. DWR Population Tool**
☐	**4. Other** DWR recommends pre-review
NOTES:	

SB X7-7 Table 3: Service Area Population		
Year		**Population**
10 to 15 Year Baseline Population		
Year 1	0	
Year 2		
Year 3		
Year 4		
Year 5		
Year 6		
Year 7		
Year 8		
Year 9		
Year 10		
Year 11		
Year 12		
Year 13		
Year 14		
Year 15		
5 Year Baseline Population		
Year 1	0	
Year 2		
Year 3		
Year 4		
Year 5		
2015 Compliance Year Population		
2015		
NOTES:		

SB X7-7 Table 4: Annual Gross Water Use *								
			Deductions					
	Baseline Year *Fm SB X7-7 Table 3*	**Volume Into Distribution System** *Fm SB X7-7 Table(s) 4-A*	Exported Water	Change in Dist. System Storage (+/-)	Indirect Recycled Water *Fm SB X7-7 Table 4-B*	Water Delivered for Agricultural Use	Process Water *Fm SB X7-7 Table(s) 4-D*	**Annual Gross Water Use**
10 to 15 Year Baseline - Gross Water Use								
Year 1	0	0			0		0	0
Year 2	0	0			0		0	0
Year 3	0	0			0		0	0
Year 4	0	0			0		0	0
Year 5	0	0			0		0	0
Year 6	0	0			0		0	0
Year 7	0	0			0		0	0
Year 8	0	0			0		0	0
Year 9	0	0			0		0	0
Year 10	0	0			0		0	0
Year 11	0	0			0		0	0
Year 12	0	0			0		0	0
Year 13	0	0			0		0	0
Year 14	0	0			0		0	0
Year 15	0	0			0		0	0
10 - 15 year baseline average gross water use								**0**
5 Year Baseline - Gross Water Use								
Year 1	0	0			0		0	0
Year 2	0	0			0		0	0
Year 3	0	0			0		0	0
Year 4	0	0			0		0	0
Year 5	0	0			0		0	0
5 year baseline average gross water use								**0**
2015 Compliance Year - Gross Water Use								
2015		0			0		0	0
* NOTE that the units of measure must remain consistent throughout the UWMP, as reported in Table 2-3								
NOTES:								

SB X7-7 Table 4-A: Volume Entering the Distribution System(s)
Complete one table for each source.

Name of Source	Source 1			
This water source is:				
☐	The supplier's own water source			
☐	A purchased or imported source			
Baseline Year *Fm SB X7-7 Table 3*		Volume Entering Distribution System	Meter Error Adjustment * *Optional (+/-)*	Corrected Volume Entering Distribution System
10 to 15 Year Baseline - Water into Distribution System				
Year 1	0			0
Year 2	0			0
Year 3	0			0
Year 4	0			0
Year 5	0			0
Year 6	0			0
Year 7	0			0
Year 8	0			0
Year 9	0			0
Year 10	0			0
Year 11	0			0
Year 12	0			0
Year 13	0			0
Year 14	0			0
Year 15	0			0
5 Year Baseline - Water into Distribution System				
Year 1	0			0
Year 2	0			0
Year 3	0			0
Year 4	0			0
Year 5	0			0
2015 Compliance Year - Water into Distribution System				
2015				0

** Meter Error Adjustment - See guidance in Methodology 1, Step 3 of Methodologies Document*

NOTES:

SB X7-7 Table 4-B: Indirect Recycled Water Use Deduction *(For use only by agencies that are deducting indirect recycled water)*

		Surface Reservoir Augmentation					Groundwater Recharge			
Baseline Year *Fm SB X7-7 Table 3*		Volume Discharged from Reservoir for Distribution System Delivery	Percent Recycled Water	Recycled Water Delivered to Treatment Plant	Transmission/ Treatment Loss	Recycled Volume Entering Distribution System from Surface Reservoir Augmentation	Recycled Water Pumped by Utility*	Transmission/ Treatment Losses	Recycled Volume Entering Distribution System from Groundwater Recharge	**Total Deductible Volume of Indirect Recycled Water Entering the Distribution System**
10-15 Year Baseline - Indirect Recycled Water Use										
Year 1	0			0		0			0	0
Year 2	0			0		0			0	0
Year 3	0			0		0			0	0
Year 4	0			0		0			0	0
Year 5	0			0		0			0	0
Year 6	0			0		0			0	0
Year 7	0			0		0			0	0
Year 8	0			0		0			0	0
Year 9	0			0		0			0	0
Year 10	0			0		0			0	0
Year 11	0			0		0			0	0
Year 12	0			0		0			0	0
Year 13	0			0		0			0	0
Year 14	0			0		0			0	0
Year 15	0			0		0			0	0
5 Year Baseline - Indirect Recycled Water Use										
Year 1	0			0		0			0	0
Year 2	0			0		0			0	0
Year 3	0			0		0			0	0
Year 4	0			0		0			0	0
Year 5	0			0		0			0	0
2015 Compliance - Indirect Recycled Water Use										
2015				0		0			0	0

**Suppliers will provide supplemental sheets to document the calculation for their input into "Recycled Water Pumped by Utility". The volume reported in this cell must be less than total groundwater pumped - See Methodology 1, Step 8, section 2.c.*

NOTES:

SB X7-7 Table 4-C: Process Water Deduction Eligibility *(For use only by agencies that are deducting process water) Choose Only One*	
☐	**Criteria 1**- Industrial water use is equal to or greater than 12% of gross water use. Complete SB X7-7 Table 4-C.1
☐	**Criteria 2** - Industrial water use is equal to or greater than 15 GPCD. Complete SB X7-7 Table 4-C.2
☐	**Criteria 3** - Non-industrial use is equal to or less than 120 GPCD. Complete SB X7-7 Table 4-C.3
☐	**Criteria 4** - Disadvantaged Community. Complete SB x7-7 Table 4-C.4
NOTES:	

SB X7-7 Table 4-C.1: Process Water Deduction Eligibility

Criteria 1

Industrial water use is equal to or greater than 12% of gross water use

Baseline Year *Fm SB X7-7 Table 3*		Gross Water Use Without Process Water Deduction	Industrial Water Use	Percent Industrial Water	**Eligible for Exclusion Y/N**
10 to 15 Year Baseline - Process Water Deduction Eligibility					
Year 1	0	0			NO
Year 2	0	0			NO
Year 3	0	0			NO
Year 4	0	0			NO
Year 5	0	0			NO
Year 6	0	0			NO
Year 7	0	0			NO
Year 8	0	0			NO
Year 9	0	0			NO
Year 10	0	0			NO
Year 11	0	0			NO
Year 12	0	0			NO
Year 13	0	0			NO
Year 14	0	0			NO
Year 15	0	0			NO
5 Year Baseline - Process Water Deduction Eligibility					
Year 1	0	0			NO
Year 2	0	0			NO
Year 3	0	0			NO
Year 4	0	0			NO
Year 5	0	0			NO
2015 Compliance Year - Process Water Deduction Eligiblity					
2015		0			NO
NOTES:					

SB X7-7 Table 4-C.2: Process Water Deduction Eligibility					
Criteria 2 Industrial water use is equal to or greater than 15 GPCD					
Baseline Year *Fm SB X7-7 Table 3*		Industrial Water Use	Population	Industrial GPCD	**Eligible for Exclusion Y/N**
10 to 15 Year Baseline - Process Water Deduction Eligibility					
Year 1	0		0		NO
Year 2	0		0		NO
Year 3	0		0		NO
Year 4	0		0		NO
Year 5	0		0		NO
Year 6	0		0		NO
Year 7	0		0		NO
Year 8	0		0		NO
Year 9	0		0		NO
Year 10	0		0		NO
Year 11	0		0		NO
Year 12	0		0		NO
Year 13	0		0		NO
Year 14	0		0		NO
Year 15	0		0		NO
5 Year Baseline - Process Water Deduction Eligibility					
Year 1	0		0		NO
Year 2	0		0		NO
Year 3	0		0		NO
Year 4	0		0		NO
Year 5	0		0		NO
2015 Compliance Year - Process Water Deduction Eligibility					
2015			0		NO
NOTES:					

SB X7-7 Table 4-C.3: Process Water Deduction Eligibility							
Criteria 3 Non-industrial use is equal to or less than 120 GPCD							
Baseline Year *Fm SB X7-7 Table 3*		Gross Water Use Without Process Water Deduction *Fm SB X7-7 Table 4*	Industrial Water Use	Non-industrial Water Use	Population *Fm SB X7-7 Table 3*	Non-Industrial GPCD	**Eligible for Exclusion Y/N**
10 to 15 Year Baseline - Process Water Deduction Eligibility							
Year 1	0	0		0	0		NO
Year 2	0	0		0	0		NO
Year 3	0	0		0	0		NO
Year 4	0	0		0	0		NO
Year 5	0	0		0	0		NO
Year 6	0	0		0	0		NO
Year 7	0	0		0	0		NO
Year 8	0	0		0	0		NO
Year 9	0	0		0	0		NO
Year 10	0	0		0	0		NO
Year 11	0	0		0	0		NO
Year 12	0	0		0	0		NO
Year 13	0	0		0	0		NO
Year 14	0	0		0	0		NO
Year 15	0	0		0	0		NO
5 Year Baseline - Process Water Deduction Eligibility							
Year 1	0	0		0	0		NO
Year 2	0	0		0	0		NO
Year 3	0	0		0	0		NO
Year 4	0	0		0	0		NO
Year 5	0	0		0	0		NO
2015 Compliance Year - Process Water Deduction Eligiblity							
2015		0		0	0		NO
NOTES:							

SB X7-7 Table 4-C.4: Process Water Deduction Eligibility				
Criteria 4 Disadvantaged Community *Use IRWM DAC Mapping tool* http://www.water.ca.gov/irwm/grants/resources_dac.cfm				
California Median Household Income		Service Area Median Household Income	Percentage of Statewide Average	**Eligible for Exclusion? Y/N**
2015 Compliance Year - Process Water Deduction Eligibility				
2010	$53,046		0%	YES
A "Disadvantaged Community" is a community with a median household income less than 80 percent of the statewide average.				
NOTES:				

SB X7-7 Table 4-D: Process Water Deduction - Volume *Complete a separate table for each industrial customer with a process water exclusion*						
Name of Industrial Customer		*Industrial Customer 1*				
Baseline Year *Fm SB X7-7 Table 3*		Industrial Customer's Total Water Use	Total Volume Supplied by Water Agency	% of Water Supplied by Water Agency	Customer's Total Process Water Use	Volume of Process Water Eligible for Exclusion for this Customer
10 to 15 Year Baseline - Process Water Deduction						
Year 1	0					0
Year 2	0					0
Year 3	0					0
Year 4	0					0
Year 5	0					0
Year 6	0					0
Year 7	0					0
Year 8	0					0
Year 9	0					0
Year 10	0					0
Year 11	0					0
Year 12	0					0
Year 13	0					0
Year 14	0					0
Year 15	0					0
5 Year Baseline - Process Water Deduction						
Year 1	0					0
Year 2	0					0
Year 3	0					0
Year 4	0					0
Year 5	0					0
2015 Compliance Year - Process Water Deduction						
2015						0
NOTES:						

SB X7-7 Table 5: Gallons Per Capita Per Day (GPCD)				
Baseline Year *Fm SB X7-7 Table 3*		Service Area Population *Fm SB X7-7 Table 3*	Annual Gross Water Use *Fm SB X7-7 Table 4*	Daily Per Capita Water Use (GPCD)
10 to 15 Year Baseline GPCD				
Year 1	0	0	0	
Year 2	0	0	0	
Year 3	0	0	0	
Year 4	0	0	0	
Year 5	0	0	0	
Year 6	0	0	0	
Year 7	0	0	0	
Year 8	0	0	0	
Year 9	0	0	0	
Year 10	0	0	0	
Year 11	0	0	0	
Year 12	0	0	0	
Year 13	0	0	0	
Year 14	0	0	0	
Year 15	0	0	0	
10-15 Year Average Baseline GPCD				
5 Year Baseline GPCD				
Baseline Year *Fm SB X7-7 Table 3*		Service Area Population *Fm SB X7-7 Table 3*	Gross Water Use *Fm SB X7-7 Table 4*	Daily Per Capita Water Use
Year 1	0	0	0	
Year 2	0	0	0	
Year 3	0	0	0	
Year 4	0	0	0	
Year 5	0	0	0	
5 Year Average Baseline GPCD				
2015 Compliance Year GPCD				
2015		0	0	
NOTES:				

SB X7-7 Table 6: Gallons per Capita per Day *Summary From Table SB X7-7 Table 5*	
10-15 Year Baseline GPCD	
5 Year Baseline GPCD	
2015 Compliance Year GPCD	
NOTES:	

SB X7-7 Table 7: 2020 Target Method *Select Only One*		
Target Method		Supporting Documentation
☐	Method 1	SB X7-7 Table 7A
☐	Method 2	SB X7-7 Tables 7B, 7C, and 7D *Contact DWR for these tables*
☐	Method 3	SB X7-7 Table 7-E
☐	Method 4	Method 4 Calculator
NOTES:		

SB X7-7 Table 7-A: Target Method 1 20% Reduction	
10-15 Year Baseline GPCD	2020 Target GPCD
	#VALUE!
NOTES:	

SB X7-7 Table 7-B: Target Method 2 Target Landscape Water Use
Tables for Target Method 2 (SB X7-7 Tables 7-B, 7-C, and 7-D) are not included in the SB X7-7 Verification Form, but are still required for water suppliers using Target Method 2. These water suppliers should contact Gwen Huff at (916) 651-9672 or gwen.huff@water.ca.gov

SB X7-7 Table 7-C: Target Method 2 Target CII Water Use
Tables for Target Method 2 (SB X7-7 Tables 7-B, 7-C, and 7-D) are not included in the SB X7-7 Verification Form, but are still required for water suppliers using Target Method 2. These water suppliers should contact Gwen Huff at (916) 651-9672 or gwen.huff@water.ca.gov

SB X7-7 Table 7-D: Target Method 2 Summary
Tables for Target Method 2 (SB X7-7 Tables 7-B, 7-C, and 7-D) are not included in the SB X7-7 Verification Form, but are still required for water suppliers using Target Method 2. These water suppliers should contact Gwen Huff at (916) 651-9672 or gwen.huff@water.ca.gov

SB X7-7 Table 7-E: Target Method 3

Agency May Select More Than One as Applicable	Percentage of Service Area in This Hydrological Region	Hydrologic Region	"2020 Plan" Regional Targets	Method 3 Regional Targets (95%)
☐		North Coast	137	130
☐		North Lahontan	173	164
☐		Sacramento River	176	167
☐		San Francisco Bay	131	124
☐		San Joaquin River	174	165
☐		Central Coast	123	117
☐		Tulare Lake	188	179
☐		South Lahontan	170	162
☐		South Coast	149	142
☐		Colorado River	211	200
Target *(If more than one region is selected, this value is calculated.)*				**0**
NOTES:				

SB X7-7 Table 7-F: Confirm Minimum Reduction for 2020 Target			
5 Year Baseline GPCD *From SB X7-7 Table 5*	Maximum 2020 Target*	Calculated 2020 Target *Fm Appropriate Target Table*	Confirmed 2020 Target
			0
** Maximum 2020 Target is 95% of the 5 Year Baseline GPCD*			
NOTES:			

SB X7-7 Table 8: 2015 Interim Target GPCD		
Confirmed 2020 Target *Fm SB X7-7 Table 7-F*	10-15 year Baseline GPCD *Fm SB X7-7 Table 5*	2015 Interim Target GPCD
0		0
NOTES:		

SB X7-7 Table 9: 2015 Compliance								
Actual 2015 GPCD	2015 Interim Target GPCD	Optional Adjustments *(in GPCD)*					2015 GPCD *(Adjusted if applicable)*	Did Supplier Achieve Targeted Reduction for 2015?
		Extraordinary Events	Weather Normalization	Economic Adjustment	TOTAL Adjustments	Adjusted 2015 GPCD		
	0	*From Methodology 8 (Optional)*	*From Methodology 8 (Optional)*	*From Methodology 8 (Optional)*	0	#VALUE!	#VALUE!	#VALUE!
NOTES:								

Regional Alliance Tables

Regional Alliance (RA) Submittal to DWR
RAs will submit all tables to WUEdata as an attachment only (in Excel format). **The data from the RA tables will not be entered into the WUEdata tables.**

Regional Alliance Options	
The *Methodologies for Calculating Baseline and Compliance Urban per Capita Water Use,* Methodology 9, provides the required methodology for an RA to calculate baselines, targets, and compliance GPCD. **There are three approaches for an RA to address the requirements of SB X7-7:**	
Option 1	Individual agencies calculate their own baseline and target GPCDs. RA calculates the weighted average of each participating agencies' baseline and target GPCDs.
Option 2	Individual agencies calculate their own population and gross water use. RA sums all individual information to obtain regional population and gross water use. RA calculates regional baseline GPCD. RA chooses target method and calculates regional target.
Option 3	RA calculates either regional gross water use, or population, or both, directly for the entire regional alliance area. RA calculates regional baseline GPCD. RA chooses target method and calculates regional target.

Regional Alliance Option 1 (RA1)

SB X7-7 RA1 - Weighted Baseline				
Participating Member Agency Name	**10-15 year Baseline GPCD***	**Average Population During 10-15 Year Baseline Period**	**(Baseline GPCD) X (Population)**	**Regional Alliance Weighted Average 10-15 Year Baseline GPCD**
			-	
			-	
			-	
			-	
			-	
Regional Alliance Total	-	-	-	**#DIV/0!**

**All participating agencies must submit individual SB X7-7 Tables, as applicable, showing the individual agency's calculations. These tables are: SB X7-7 Tables 0 through 6 , Table 7, any required supporting tables (as stated in SB X7-7 Table 7), and SB X7-7 Table 9, as applicable.These individual agency tables will be submitted with the individual or Regional Urban Water Management Plan.*

NOTES

SB X7-7 RA1 - Weighted 2020 Target				
Participating Member Agency Name	**2020 Target GPCD***	**2015 Population**	**(Target) X (Population)**	**Regional Alliance Weighted Average 2020 Target**
			-	
			-	
			-	
			-	
			-	
Regional Alliance Total	-	-	-	**#DIV/0!**

**All participating agencies must submit individual SB X7-7 Tables, as applicable, showing the individual agency's calculations. These tables are: SB X7-7 Tables 0 through 6 , Table 7, any required supporting tables (as stated in SB X7-7 Table 7), and SB X7-7 Table 9, as applicable.These individual agency tables will be submitted with the individual or Regional Urban Water Management Plan.*

NOTES

SB X7-7 RA1 - 2015 Target		
Weighted Average 10-15 year Baseline GPCD	Weighted Average 2020 Target	Regional Alliance 2015 Interim Target
#DIV/0!	#DIV/0!	#DIV/0!
NOTES		

SB X7-7 RA1 - 2015 GPCD (Actual)				
Participating Member Agency Name	**2015 Actual GPCD[1]**	**2015 Population**	**(2015 GPCD) X (2015 Population)**	**Regional Alliance 2015 GPCD (Actual)**
			-	
			-	
			-	
			-	
Regional Alliance Totals	-	-	-	#DIV/0!
[*] *All participating agencies must submit individual SB X7-7 Tables, as applicable, showing the individual agency's calculations. These tables are: SB X7-7 Tables 0 through 6 , Table 7, any required supporting tables (as stated in SB X7-7 Table 7), and SB X7-7 Table 9, as applicable.These individual agency tables will be submitted with the individual or Regional Urban Water Management Plan.*				
NOTES				

SB X7-7 RA1 - Compliance Verification				
2015 GPCD (Actual)	2015 Interim Target GPCD	Economic Adjustment[1] *Enter "0" if no adjustment*	Adjusted 2015 GPCD *(if economic adjustment used)*	Did Alliance Achieve Targeted Reduction for 2015?
#DIV/0!	#DIV/0!	0	#DIV/0!	#DIV/0!
[1] *Adjustments for economic growth can be applied to either the individual supplier's data or to the aggregate regional alliance data (but not both), depending upon availability of suitable data and methods.*				
NOTES				

Regional Alliance Option 2 (RA 2)

SB X7-7 RA2 Table 0: Units of Measure[1] *(select one from the drop down list)*
NOTES:
[1] *Only one Unit of Measure may be used for Regional Alliance calculations. If participating agencies provide volumes in different units of the measure, the Regional Alliance will convert all volumes into one unit of measure.*

SB X7-7 RA2 Table-1: Baseline Period Ranges for Regional Alliance			
Baseline	**Parameter**	**Value**	**Units**
10- to 15-year baseline period	2008 total water deliveries		0
	2008 total volume of delivered recycled water		0
	2008 recycled water as a percent of total deliveries		Percent
	Number of years in baseline period[1]		Years
	Year beginning baseline period range		
	Year ending baseline period range[2]		
5-year baseline period	Number of years in baseline period		Years
	Year beginning baseline period range		
	Year ending baseline period range[3]		
[1] *If the 2008 recycled water percent is less than 10 percent, then the first baseline period is a continuous 10-year period. If the amount of recycled water delivered in 2008 is 10 percent or greater, the first baseline period is a continuous 10- to 15-year period.*			
[2] *The ending year must be between December 31, 2004 and December 31, 2010.*			
[3] *The ending year must be between December 31, 2007 and December 31, 2010.*			
NOTES:			

SB X7-7 RA2 Table 5: Gallons Per Capita Per Day (GPCD) for Regional Alliance				
Baseline Years		Regional Service Area Population*	Regional Annual Gross Water Use* *(in Units selected in Table 0)*	Daily Per Capita Water Use (GPCD)
10 to 15 Year Baseline GPCD				
Year 1	0			
Year 2				
Year 3				
Year 4				
Year 5				
Year 6				
Year 7				
Year 8				
Year 9				
Year 10				
Year 11				
Year 12				
Year 13				
Year 14				
Year 15				
10-15 Year Average Baseline GPCD				**#DIV/0!**
5 Year Baseline GPCD				
Baseline Years		Regional Service Area Population*	Regional Gross Water Use* *(in Units selected in Table 0)*	Daily Per Capita Water Use
Year 1	0			
Year 2				
Year 3				
Year 4				
Year 5				
5 Year Average Baseline GPCD				**#DIV/0!**
2015 Compliance Year GPCD				
2015				

**All participating agencies must submit population and gross water tables, SB X7-7 Tables 0 through 6, as applicable, showing the individual agency's calculations. These individual agency tables will be submitted with the individual or Regional Urban Water Management Plan.*

NOTES:

SB X7-7 RA2 Table 6: Gallons per Capita per Day for Regional Alliance *Summary From Table SB X7-7 Table 5*	
10-15 Year Baseline GPCD	#DIV/0!
5 Year Baseline GPCD	#DIV/0!
2015 Compliance Year GPCD	
NOTES:	

SB X7-7 RA2 Table 7: 2020 Target Method for Regional Alliance *Select Only One*		
Target Method		Supporting Documentation
☐	Method 1	SB X7-7 RA2 Table 7A
☐	Method 2	SB X7-7 RA2 Tables 7B, 7C, and 7D *Contact DWR for these tables*
☐	Method 3	SB X7-7 RA2 Table 7-E
☐	Method 4	Method 4 Calculator
NOTES:		

SB X7-7 RA2 Table 7-A: Target Method 1 for Regional Alliance 20% Reduction	
10-15 Year Baseline GPCD	2020 Target GPCD
#DIV/0!	#DIV/0!
NOTES:	

SB X7-7 RA2 Table 7-B, 7-C, and 7-D: Target Method 2 for a Regional Alliance Target Landscape Water Use
Tables for Target Method 2 (SB X7-7 RA Tables 7-B, 7-C, and 7-D) are posted separately on the UWMP webpage http://www.water.ca.gov/urbanwatermanagement/uwmp2015.cfm

SB X7-7 RA2 Table 7-E: Target Method 3 for Regional Alliance

Alliance May Select More Than One as Applicable	Percentage of Service Area in This Hydrological Region	Hydrologic Region	"2020 Plan" Regional Targets	Method 3 Regional Targets (95%)
☐		North Coast	137	130
☐		North Lahontan	173	164
☐		Sacramento River	176	167
☐		San Francisco Bay	131	124
☐		San Joaquin River	174	165
☐		Central Coast	123	117
☐		Tulare Lake	188	179
☐		South Lahontan	170	162
☐		South Coast	149	142
☐		Colorado River	211	200
2020 Target *(If more than one region is selected, this value is calculated.)*				**0**
NOTES:				

SB X7-7 RA2 Table 7-F: Confirm Minimum Reduction for 2020 Target for Regional Alliance			
5 Year Baseline GPCD *From SB X7-7 Table 5*	Maximum 2020 Target*	Calculated 2020 Target *From Method Selected in Table 7*	Confirmed 2020 Target
#DIV/0!			0
** Maximum 2020 Target is 95% of the 5 Year Baseline GPCD*			
NOTES:			

SB X7-7 RA2 Table 8: 2015 Interim Target GPCD for Regional Alliance		
Confirmed 2020 Target *Fm SB X7-7 Table 7-F*	10-15 year Baseline GPCD *Fm SB X7-7 Table 5*	2015 Interim Target GPCD
0	#DIV/0!	#DIV/0!
NOTES:		

SB X7-7 RA2 Table 9: 2015 Compliance for Regional Alliance						
Actual 2015 GPCD	2015 Interim Target GPCD	OPTIONAL Economic Adjustment*	TOTAL Adjustments	Adjusted 2015 GPCD	2015 GPCD *(Adjusted if applicable)*	Did Alliance Achieve Targeted Reduction for 2015?
	#DIV/0!	*From Methodology 8 (Optional)*	0	#VALUE!	#VALUE!	#VALUE!
**Adjustments for extraordinary economic growth can be applied either to the individual suppliers' data or to the aggregate regional allliance data (but not both) depending upon availability of suitable data and methods. (Weather normalization, extraordinary events and changes in distibution area should be made for each individual water supplier, if applicable.)*						
NOTES:						

Regional Alliance Option 3 (RA3)

SB X7-7 RA3 Table 0: Units of Measure Used by Regional Alliance *(select one from the drop down list)*
NOTES:

SB X7-7 RA3 Table-1: Baseline Period Ranges for Regional Alliance			
Baseline	**Parameter**	**Value**	**Units**
10- to 15-year baseline period	2008 total water deliveries		0
	2008 total volume of delivered recycled water		0
	2008 recycled water as a percent of total deliveries		Percent
	Number of years in baseline period[1]		Years
	Year beginning baseline period range		
	Year ending baseline period range[2]		
5-year baseline period	Number of years in baseline period		Years
	Year beginning baseline period range		
	Year ending baseline period range[3]		
[1] If the 2008 recycled water percent is less than 10 percent, then the first baseline period is a continuous 10-year period. If the amount of recycled water delivered in 2008 is 10 percent or greater, the first baseline period is a continuous 10- to 15-year period.			
[2] The ending year must be between December 31, 2004 and December 31, 2010.			
[3] The ending year must be between December 31, 2007 and December 31, 2010.			
NOTES:			

SB X7-7 RA3 Table 2: Method for Population Estimates for Regional Alliance	
☐	**Regional Alliance is aggregating population supplied from each participating agency.** This table is required for each participating agency. *
☐	**Regional Alliance is calculating regional population directly for the entire regional alliance area.** This table will be completed by the Alliance.
Method Used to Determine Population *(may select more than one)*	
☐	**1. Department of Finance** (DOF) DOF Table E-8 (1990 - 2000) and (2000-2010) and DOF Table E-5 (2011 - 2015) when available
☐	**2. Persons-per-Connection Method**
☐	**3. DWR Population Tool**
☐	**4. Other** DWR recommends pre-review
**If the Regional Alliance does not calculate regional population or regional gross water directly, each participating agency must submit population and gross water tables, SB X7-7 Tables 0 through 6, as applicable, to show each agency's calculations. These individual agency tables will be submitted with the individual or Regional Urban Water Management Plan.*	
NOTES:	

SB X7-7 RA3 Table 3: Service Area Population for Regional Alliance	
☐	**Regional Alliance is aggregating population supplied from each participating agency.** This table is required for each participating agency* and for the Alliance.
☐	**Regional Alliance is calculating regional population directly for the entire regional alliance area.** This table will be completed by the Alliance.

Year		Population
10 to 15 Year Baseline Population		
Year 1	1984	
Year 2	1985	
Year 3	1986	
Year 4	1987	
Year 5	1988	
Year 6	1989	
Year 7	1990	
Year 8	1991	
Year 9	1992	
Year 10	1993	
Year 11	*1994*	
Year 12	*1995*	
Year 13	*1996*	
Year 14	*1997*	
Year 15	*1998*	
5 Year Baseline Population		
Year 1	*1994*	
Year 2	*1995*	
Year 3	*1996*	
Year 4	*1997*	
Year 5	*1998*	
2015 Compliance Year Population		
2015		

**If the Regional Alliance does not calculate regional population or regional gross water directly, each participating agency must submit population and gross water tables, SB X7-7 Tables 0 through 6, as applicable, to show each agency's calculations. These individual agency tables will be submitted with the individual or Regional Urban Water Management Plan.*

SB X7-7 RA3 Table 4: Annual Gross Water Use for Regional Alliance*

☐ **Regional Alliance is aggregating gross water uses, as reported by each participating agency.**
SB X7-7 Tables 4 and 4-A are required for each participating agency.[2]
SB X7-7 Tables 4-B, 4-C, and 4-D are required for agencies that are using the deductions corresponding to those tables.[2]
The Alliance will provide a table that aggregates all agencies' gross water use.

☐ **Regional Alliance is calculating regional gross water use directly for the entire Regional Alliance area.**
The Alliance will complete SB X7-7 Tables 4 and 4-A.
SB X7-7 Tables 4-B, 4-C, and 4-D are required if the Alliance is using the deductions corresponding to those tables.

Baseline Year *Fm SB X7-7 Table 3*		**Volume Into Distribution System**[1] *From SB X7-7 Table(s) 4-A*	**Deductions**					**Annual Gross Water Use**[2]
			Exported Water	Change in Dist. System Storage (+/-)	Indirect Recycled Water *From SB X7-7 Table 4-B*	Water Delivered for Agricultural Use	Process Water *From SB X7-7 Table(s) 4-D*	
10 to 15 Year Baseline - Gross Water Use								
Year 1	1984							-
Year 2	1985							-
Year 3	1986							-
Year 4	1987							-
Year 5	1988							-
Year 6	1989							-
Year 7	1990							-
Year 8	1991							-
Year 9	1992							-
Year 10	1993							-
Year 11	1994							-
Year 12	1995							-
Year 13	1996							-
Year 14	1997							-
Year 15	1998							-
10 - 15 year baseline average gross water use								#DIV/0!
5 Year Baseline - Gross Water Use								
Year 1	1994							-
Year 2	1995							-
Year 3	1996							-
Year 4	1997							-
Year 5	1998							-
5 year baseline average gross water use								#DIV/0!
2015 Compliance Year - Gross Water Use								
2015								-

[1] *NOTE that the units of measure must remain consistent throughout the Regional Alliance reporting and shall reflect the unit of measure selected by the Alliance in Table 0.*

[2] *If the Regional Alliance does not calculate regional population or regional gross water directly, each participating agency must submit population and gross water tables, SB X7-7 Tables 0 through 6, as applicable, to show each agency's calculations. These individual agency tables will be submitted with the individual or Regional Urban Water Management Plan.*

SB X7-7 RA3 Table 4-A: Volume Entering the Distribution System(s) for Regional Alliance
Complete one table for each source.

☐	**Regional Alliance is aggregating gross water volumes that have been supplied from each participating agency.** This table (and any needed duplicates) is required for each participating agency. [1] The Alliance will provide a table that aggregates all agencies' gross water use.
☐	**Regional Alliance is calculating regional gross water use directly for the entire Regional Alliance area.** This table (and any needed duplicates) will be completed by the Alliance.

Name of Source	Source 1
This water source is:	
☐	The supplier's own water source
☐	A purchased or imported source

Baseline Year *Fm SB X7-7 Table 3*		Volume Entering Distribution System	Meter Error Adjustment [2] *Optional (+/-)*	Corrected Volume Entering Distribution System
10 to 15 Year Baseline - Water into Distribution System				
Year 1	1984			-
Year 2	1985			-
Year 3	1986			-
Year 4	1987			-
Year 5	1988			-
Year 6	1989			-
Year 7	1990			-
Year 8	1991			-
Year 9	1992			-
Year 10	1993			-
Year 11	1994			-
Year 12	1995			-
Year 13	1996			-
Year 14	1997			-
Year 15	1998			-
5 Year Baseline - Water into Distribution System				
Year 1	1994			-
Year 2	1995			-
Year 3	1996			-
Year 4	1997			-
Year 5	1998			-
2015 Compliance Year - Water into Distribution System				
2015				-

[1] *If the Regional Alliance does not calculate regional population or regional gross water directly, each participating agency must submit population and gross water tables, SB X7-7 Tables 0 through 6, as applicable, to show each agency's calculations. These individual agency tables will be submitted with the individual or Regional Urban Water Management Plan.*

[2] *Meter Error Adjustment - See guidance in Methodology 1, Step 3 of Methodologies Document*

SB X7-7 RA3 Table 4-B: Indirect Recycled Water Use Deduction for Regional Alliance
(For use only by agencies that are deducting indirect recycled water)

☐ **Regional Alliance is aggregating gross water volumes that have been supplied from each participating agency.**[1]
This table is required for each participating agency that is deducting indirect recycled water.
The Alliance will provide a table that aggregates all deductions of indirect recycled water within the Regional Alliance.

☐ **Regional Alliance is calculating regional gross water use directly for the entire Regional Alliance area.**
This table will be completed by the Alliance if deducting indirect recycled water.

Baseline Year *Fm SB X7-7 Table 3*		Surface Reservoir Augmentation					Groundwater Recharge			**Total Deductible Volume of Indirect Recycled Water Entering the Distribution System**
		Volume Discharged from Reservoir for Distribution System Delivery	Percent Recycled Water	Recycled Water Delivered to Treatment Plant	Transmission/ Treatment Loss	Recycled Volume Entering Distribution System from Surface Reservoir Augmentation	Recycled Water Pumped by Utility[2]	Transmission/ Treatment Losses	Recycled Volume Entering Distribution System from Groundwater Recharge	
10-15 Year Baseline - Indirect Recycled Water Use										
Year 1	1984			-		-			-	-
Year 2	1985			-		-			-	-
Year 3	1986			-		-			-	-
Year 4	1987			-		-			-	-
Year 5	1988			-		-			-	-
Year 6	1989			-		-			-	-
Year 7	1990			-		-			-	-
Year 8	1991			-		-			-	-
Year 9	1992			-		-			-	-
Year 10	1993			-		-			-	-
Year 11	1994			-		-			-	-
Year 12	1995			-		-			-	-
Year 13	1996			-		-			-	-
Year 14	1997			-		-			-	-
Year 15	1998			-		-			-	-
5 Year Baseline - Indirect Recycled Water Use										
Year 1	1994			-		-			-	-
Year 2	1995			-		-			-	-
Year 3	1996			-		-			-	-
Year 4	1997			-		-			-	-
Year 5	1998			-		-			-	-
2015 Compliance - Indirect Recycled Water Use										
2015				-		-			-	-

[1] *If the Regional Alliance does not calculate regional population or regional gross water directly, each participating agency must submit population and gross water tables, SB X7-7 Tables 0 through 6, as applicable, to show each agency's calculations. These individual agency tables will be submitted with the individual or Regional Urban Water Management Plan.*

[2] *Suppliers will provide supplemental sheets to document the calculation for their input into "Recycled Water Pumped by Utility". The volume reported in this cell must be less than total groundwater pumped - See Methodology 1, Step 8, section 2.c.*

SB X7-7 RA3 Table 4-C: Process Water Deduction Eligibility for Regional Alliance *(For use only by agencies that are deducting process water) Choose Only One*	
☐	**Regional Alliance is aggregating gross water volumes that have been supplied from each participating agency.** This table is required for each participating agency that is deducting process water.*
☐	**Regional Alliance is calculating regional gross water use directly for the entire Regional Alliance area.** This table will be completed by the Alliance if deducting process water.
Select the criteria that establishes process water deduction eligibility.	
☐	**Criteria 1**- Industrial water use is equal to or greater than 12% of gross water use. *Complete SB X7-7 Table 4-C.1*
☐	**Criteria 2** - Industrial water use is equal to or greater than 15 GPCD. *Complete SB X7-7 Table 4-C.2*
☐	**Criteria 3** - Non-industrial use is equal to or less than 120 GPCD. *Complete SB X7-7 Table 4-C.3*
☐	**Criteria 4** - Disadvantaged Community. *Complete SB X7-7 Table 4-C.4*
* *If the Regional Alliance does not calculate regional population or regional gross water directly, each participating agency must submit population and gross water tables, SB X7-7 Tables 0 through 6, as applicable, to show each agency's calculations. These individual agency tables will be submitted with the individual or Regional Urban Water Management Plan.*	

SB X7-7 RA3 Table 4-C.1: Process Water Deduction Eligibility for Regional Alliance

Criteria 1

Industrial water use is equal to or greater than 12% of gross water use

☐	**Regional Alliance is aggregating gross water volumes that have been supplied from each participating agency.** This table is required for each participating agency that is deducting process water and is eligible to do so under Criteria 1.*
☐	**Regional Alliance is calculating regional gross water use directly for the entire Regional Alliance area.** This table will be completed by the Alliance if deducting process water and eligible to do so under Criteria 1.

Baseline Year *Fm SB X7-7 Table 3*		Gross Water Use Without Process Water Deduction	Industrial Water Use	Percent Industrial Water	**Eligible for Exclusion Y/N**
10 to 15 Year Baseline - Process Water Deduction Eligibility					
Year 1	1984				NO
Year 2	1985				NO
Year 3	1986				NO
Year 4	1987				NO
Year 5	1988				NO
Year 6	1989				NO
Year 7	1990				NO
Year 8	1991				NO
Year 9	1992				NO
Year 10	1993				NO
Year 11	1994				NO
Year 12	1995				NO
Year 13	1996				NO
Year 14	1997				NO
Year 15	1998				NO
5 Year Baseline - Process Water Deduction Eligibility					
Year 1	1994				NO
Year 2	1995				NO
Year 3	1996				NO
Year 4	1997				NO
Year 5	1998				NO
2015 Compliance Year - Process Water Deduction Eligiblity					
2015					NO

** If the Regional Alliance does not calculate regional population or regional gross water directly, each participating agency must submit population and gross water tables, SB X7-7 Tables 0 through 6, as applicable, to show each agency's calculations. These individual agency tables will be submitted with the individual or Regional Urban Water Management Plan.*

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SB X7-7 RA3 Table 4-C.2: Process Water Deduction Eligibility for Regional Alliance

Criteria 2
Industrial water use is equal to or greater than 15 GPCD

☐	**Regional Alliance is aggregating gross water volumes that have been supplied from each participating agency.** This table is required for each participating agency that is deducting process water and is eligible to do so under Criteria 2. *
☐	**Regional Alliance is calculating regional gross water use directly for the entire Regional Alliance area.** This table will be completed by the Alliance if deducting process water and eligible to do so under Criteria 2.

Baseline Year *Fm SB X7-7 Table 3*		Industrial Water Use	Population	Industrial GPCD	**Eligible for Exclusion Y/N**
10 to 15 Year Baseline - Process Water Deduction Eligibility					
Year 1	1984				NO
Year 2	1985				NO
Year 3	1986				NO
Year 4	1987				NO
Year 5	1988				NO
Year 6	1989				NO
Year 7	1990				NO
Year 8	1991				NO
Year 9	1992				NO
Year 10	1993				NO
Year 11	1994				NO
Year 12	1995				NO
Year 13	1996				NO
Year 14	1997				NO
Year 15	1998				NO
5 Year Baseline - Process Water Deduction Eligibility					
Year 1	1994				NO
Year 2	1995				NO
Year 3	1996				NO
Year 4	1997				NO
Year 5	1998				NO
2015 Compliance Year - Process Water Deduction Eligibility					
2015					NO

** If the Regional Alliance does not calculate regional population or regional gross water directly, each participating agency must submit population and gross water tables, SB X7-7 Tables 0 through 6, as applicable, to show each agency's calculations. These individual agency tables will be submitted with the individual or Regional Urban Water Management Plan.*

SB X7-7 RA3 Table 4-C.3: Process Water Deduction Eligibility for Regional Alliance

Criteria 3
Non-industrial use is equal to or less than 120 GPCD

☐	**Regional Alliance is aggregating gross water volumes that have been supplied from each participating agency.** This table is required for each participating agency that is deducting process water and is eligible to do so under Criteria 3. *
☐	**Regional Alliance is calculating regional gross water use directly for the entire Regional Alliance area.** This table will be completed by the Alliance if deducting process water and eligible to do so under Criteria 3.

Baseline Year *Fm SB X7-7 Table 3*		Gross Water Use Without Process Water Deduction *Fm SB X7-7 Table 4*	Industrial Water Use	Non-industrial Water Use	Population *Fm SB X7-7 Table 3*	Non-Industrial GPCD	**Eligible for Exclusion Y/N**
10 to 15 Year Baseline - Process Water Deduction Eligibility							
Year 1	1984						NO
Year 2	1985						NO
Year 3	1986						NO
Year 4	1987						NO
Year 5	1988						NO
Year 6	1989						NO
Year 7	1990						NO
Year 8	1991						NO
Year 9	1992						NO
Year 10	1993						NO
Year 11	1994						NO
Year 12	1995						NO
Year 13	1996						NO
Year 14	1997						NO
Year 15	1998						NO
5 Year Baseline - Process Water Deduction Eligibility							
Year 1	1994						NO
Year 2	1995						NO
Year 3	1996						NO
Year 4	1997						NO
Year 5	1998						NO
2015 Compliance Year - Process Water Deduction Eligiblity							
2015							NO

** If the Regional Alliance does not calculate regional population or regional gross water directly, each participating agency must submit population and gross water tables, SB X7-7 Tables 0 through 6, as applicable, to show each agency's calculations. These individual agency tables will be submitted with the individual or Regional Urban Water Management Plan.*

SB X7-7 RA3 Table 4-C.4: Process Water Deduction Eligibility for Regional Alliance

Criteria 4

Disadvantaged Community[1]

Use IRWM DAC Mapping tool

http://www.water.ca.gov/irwm/grants/resources_dac.cfm

☐	**Regional Alliance is aggregating gross water volumes that have been supplied from each participating agency.** This table is required for each participating agency that is deducting process water and is eligible to do so under Criteria 4.[2]
☐	**Regional Alliance is calculating regional gross water use directly for the entire Regional Alliance area.** This table will be completed by the Alliance if deducting process water and eligible to do so under Criteria 4.

California Median Household Income		Service Area Median Household Income	Percentage of Statewide Average	**Eligible for Exclusion? Y/N**
2015 Compliance Year - Process Water Deduction Eligibility				
2010	$53,046		0%	YES

[1] *A "Disadvantaged Community" is a community with a median household income less than 80 percent of the statewide average.*

[2] *If the Regional Alliance does not calculate regional population or regional gross water directly, each participating agency must submit population and gross water tables, SB X7-7 Tables 0 through 6, as applicable, to show each agency's calculations. These individual agency tables will be submitted with the individual or Regional Urban Water Management Plan.*

SB X7-7 RA3 Table 4-D: Process Water Deduction for Regional Alliance - Volume

Complete a separate table for each industrial customer with a process water exclusion

☐ **Regional Alliance is aggregating gross water volumes that have been supplied from each participating agency.**
This table (and any needed duplicates) is required for each participating agency that is deducting process water.*
The Alliance will provide a table that aggregates all deductions of process water within the Regional Alliance.

☐ **Regional Alliance is calculating regional gross water use directly for the entire Regional Alliance area.**
This table (and any needed duplicates) will be completed by the Alliance.

Name of Industrial Customer		*Industrial Customer 1*				
Baseline Year *Fm SB X7-7 Table 3*		Industrial Customer's Total Water Use	Total Volume Supplied by Water Agency	% of Water Supplied by Water Agency	Customer's Total Process Water Use	Volume of Process Water Eligible for Exclusion for this Customer
10 to 15 Year Baseline - Process Water Deduction						
Year 1	1984					-
Year 2	1985					-
Year 3	1986					-
Year 4	1987					-
Year 5	1988					-
Year 6	1989					-
Year 7	1990					-
Year 8	1991					-
Year 9	1992					-
Year 10	1993					-
Year 11	1994					-
Year 12	1995					-
Year 13	1996					-
Year 14	1997					-
Year 15	1998					-
5 Year Baseline - Process Water Deduction						
Year 1	1994					-
Year 2	1995					-
Year 3	1996					-
Year 4	1997					-
Year 5	1998					-
2015 Compliance Year - Process Water Deduction						
2015						-

**If the Regional Alliance does not calculate regional population or regional gross water directly, each participating agency must submit population and gross water tables, SB X7-7 Tables 0 through 6, as applicable, to show each agency's calculations. These individual agency tables will be submitted with the individual or Regional Urban Water Management Plan.*

SB X7-7 RA3 Table 5: Gallons Per Capita Per Day (GPCD) for Regional Alliance*				
Baseline Year *Fm SB X7-7 Table 3*		Service Area Population *Fm SB X7-7 Table 3*	Annual Gross Water Use *Fm SB X7-7 Table 4*	Daily Per Capita Water Use (GPCD)
10 to 15 Year Baseline GPCD				
Year 1	2000			
Year 2	1985			
Year 3	1986			
Year 4	1987			
Year 5	1988			
Year 6	1989			
Year 7	1990			
Year 8	1991			
Year 9	1992			
Year 10	1993			
Year 11	1994			
Year 12	1995			
Year 13	1996			
Year 14	1997			
Year 15	1998			
10-15 Year Average Baseline GPCD				**#DIV/0!**
5 Year Baseline GPCD				
Baseline Year *Fm SB X7-7 Table 3*		Service Area Population *Fm SB X7-7 Table 3*	Gross Water Use *Fm SB X7-7 Table 4*	Daily Per Capita Water Use
Year 1	1994			
Year 2	1995			
Year 3	1996			
Year 4	1997			
Year 5	1998			
5 Year Average Baseline GPCD				**#DIV/0!**
2015 Compliance Year GPCD				
2015				

**If the Regional Alliance does not calculate regional population or regional gross water directly, each participating agency must submit population and gross water tables, SB X7-7 Tables 0 through 6, as applicable, to show each agency's calculations. These individual agency tables will be submitted with the individual or Regional Urban Water Management Plan.*

SB X7-7 RA3 Table 6: Gallons per Capita per Day for Regional Alliance *Summary From Table SB X7-7 Table 5*	
10-15 Year Baseline GPCD	#DIV/0!
5 Year Baseline GPCD	#DIV/0!
2015 Compliance Year GPCD	
NOTES:	

SB X7-7 RA3 Table 7: 2020 Target Method for Regional Alliance *Select Only One*		
Target Method		Supporting Documentation
☐	Method 1	SB X7-7 Table 7A
☐	Method 2	SB X7-7 Tables 7B, 7C, and 7D
☐	Method 3	SB X7-7 Table 7-E
☐	Method 4	Method 4 Calculator
NOTES:		

SB X7-7 RA3 Table 7-A: Target Method 1 for Regional Alliance 20% Reduction	
10-15 Year Baseline GPCD	2020 Target GPCD
#DIV/0!	#DIV/0!
NOTES:	

SB X7-7 RA3 Table 7-B, 7-C, and 7-D: Target Method 2 for Regional Alliance Target Landscape Water Use
Tables for Target Method 2 (SB X7-7 RA Tables 7-B, 7-C, and 7-D) are posted separately on the UWMP webpage http://www.water.ca.gov/urbanwatermanagement/uwmp2015.cfm

SB X7-7 RA3 Table 7-E: Target Method 3 for Regional Alliance

Agency May Select More Than One as Applicable	Percentage of Service Area in This Hydrological Region	Hydrologic Region	"2020 Plan" Regional Targets	Method 3 Regional Targets (95%)
☐		North Coast	137	130
☐		North Lahontan	173	164
☐		Sacramento River	176	167
☐		San Francisco Bay	131	124
☐		San Joaquin River	174	165
☐		Central Coast	123	117
☐		Tulare Lake	188	179
☐		South Lahontan	170	162
☐		South Coast	149	142
☐		Colorado River	211	200
Target *(If more than one region is selected, this value is calculated.)*				**0**

SB X7-7 RA3 Table 7-F: Confirm Minimum Reduction for 2020 Target for Regional Alliance

5 Year Baseline GPCD *From SB X7-7 Table 5*	Maximum 2020 Target*	Calculated 2020 Target *As selected in SB X7-7 Table 7*	Confirmed 2020 Target
#DIV/0!			0
** Maximum 2020 Target is 95% of the 5 Year Baseline GPCD*			

SB X7-7 RA3 Table 8: 2015 Interim Target GPCD for Regional Alliance		
Confirmed 2020 Target *Fm SB X7-7 Table 7-F*	10-15 year Baseline GPCD *Fm SB X7-7 Table 5*	2015 Interim Target GPCD
0	#DIV/0!	#DIV/0!
NOTES:		

SB X7-7 RA3 Table 9: 2015 Compliance for Regional Alliance						
Actual 2015 GPCD	2015 Interim Target GPCD	OPTIONAL Economic Adjustment*	TOTAL Adjustments	Adjusted 2015 GPCD	2015 GPCD *(Adjusted if applicable)*	Did Supplier Achieve Targeted Reduction for 2015?
	#DIV/0!	*From Methodology 8 (Optional)*	0	#VALUE!	#VALUE!	#VALUE!
**Adjustments for extraordinary economic growth can be applied either to the individual suppliers' data or to the aggregate regional allliance data (but not both) depending upon availability of suitable data and methods. (Weather normalization, extraordinary events and changes in distibution area should be made for each individual water supplier, if applicable.)*						
NOTES:						

Target Method 2 Tables

Water Suppliers using Target Method 2 shall complete the Landscape Parcels Table, SB X7-7 Tables 7B, 7C, and 7D, as found in this worksheet.
These tables will be submitted to DWR as an Excel attachment in the WUEdata tool. The data from these tables will not be entered into WUE data tables.
If the water supplier's service area spans more than one ETo Zone, the supplier will: 1. use multiple versions of the Landscape Parcel Table for each ETo zone that they serve. 2. Use multiple versions of SB X7-7 Table 7B for each ETo zone that they serve. 3. Add additional rows to Table 7D

LANDSCAPE PARCELS			
A narrative describing the method for estimating landscape area must be provided. These estimations must be made in accordance with Methodology 6 Section "Measure Landscape Area". **Provide location of narrative in cell to the right.**			
Enter ETo[1,2] for Service Area (inches/year)			
Pre-2010 Landscape (ETAF .8)			
Category by Parcel Size in Sq Ft	# of Parcels	Estimated % Landscape Area *fm sampling*	Landscape Area (In Acres)
0 - 4,000 sqft			
4,000 - 8,000 sqft			
8,000 - 12,000 sqft			
12,000 - 16,000 sqft			
16,000 - 20,000 sqft			
20,000 - 24,000 sqft			
Greater than 24,000 sqft			
TOTAL Pre 2010 Landscapes	-		-
Post-2010 Landscape (ETAF .7)			
Category by Parcel Size in Sq Ft	# of Parcels	Estimated % Landscape Area *fm sampling*	Landscape Area (In Acres)
0 - 4,000 sqft			
4,000 - 8,000 sqft			
8,000 - 12,000 sqft			
12,000 - 16,000 sqft			
16,000 - 20,000 sqft			
20,000 - 24,000 sqft			
Greater than 24,000 sqft			
TOTAL Post 2010 Landscapes	-		-
Special Landscape Area (SLA) (ETAF 1.0)			
Category by Parcel Size in Sq Ft	# of Parcels	Estimated % Landscape Area *fm sampling*	Landscape Area (In Acres)
0 - 4,000 sqft			
4,000 - 8,000 sqft			
8,000 - 12,000 sqft			
12,000 - 16,000 sqft			
16,000 - 20,000 sqft			
20,000 - 24,000 sqft			
Greater than 24,000 sqft			
TOTAL SLA Landscapes	-		-
TOTAL LANDSCAPE AREA (In Acres)			-

[1] If the water supplier's service area spans more than one ETo Zone, the supplier will use multiple versions of the Landscape Parcel Table and SB X7-7 Table 7B for each ETo zone that they serve.

[2] Methods for estimating historical ETo (reference evapotranspiration) are described in the Methodologies document, Methodology 6, in the section "Estimate Reference Evapotranspiration".

SB X7-7 Table 7-B: Target Method 2 Target Landscape Water Use		
Select Unit of Measure from drop down		
ETo[1] for Service Area (inches/year) *from Landscape Parcels Table*		0.0
Landscape Parcels *(from Landscape Parcels Table)*	**Acres**	**Water Use**
Acres of landscape installed pre-2010[2] *(ETAF 0.8)*[3]	0	-
Acres of landscape installed post-2010[2] *(ETAF 0.7)*[3]	0	-
Acres of Special Landscape Area[2] *(ETAF 1.0)*[3]	0	-
Target Landscape Water Use for 2015 in	**0.00**	**0**

[1] *If the water supplier's service area spans more than one ETo Zone, the supplier will use multiple versions of the Landscape Parcel Table and SB X7-7 Table 7B for each ETo zone that they serve.*

[2] *The number of acres is taken from the Landscape Parcels Table.*

[3] *ETAF - Evapotranspiration Adjustment Factor. Refer to the Model Water Efficient Landscape Ordinance.*

NOTES

SB X7-7 Table 7-C: Target Method 2
Target CII Water Use

Baseline Year *Fm SB X7-7 Table 3*	CII Water Use*	Process Water Exclusion (Optional) *Fm SB X7-7 Table(s) 4-D*	CII Water Use Minus Process Water Exclusion	Population *Fm SB X7-7 Table 3*	CII GPCD
	Select Unit of Measure from drop down Must be same as Table 7B				
			0		
			0		
			0		
			0		
			0		
			0		
			0		
			0		
			0		
			0		
			0		
			0		
			0		
			0		
			0		
Average Annual 10 to 15 Year Baseline CII Water Use (GPCD)					#DIV/0!
10% Reduction					
2020 Target CII Water Use					

**CII water use for each year of the baseline period must be provided.*

NOTES

SB X7-7 Table 7-D: Target Method 2 Summary		
Enter 2020 Population	**2020 Population**	
Sector	**Volume**	**GPCD**
	0.00	
Target Indoor Residential Water Use		55
Target Landscape Water Use* *From SB X7-7 Table 7-B*	-	
Target CII Water Use *From SB X7-7 Table 7-C*		
2020 Target	**0**	**55**
**Additional rows may be added for Target Landscape Water Use if the service area spans more than one Eto Zone.*		
NOTES:		

Appendix I
Gateway Regional Water Conservation Alliance Report

FINAL

Los Angeles Gateway Region Integrated Regional Water Management Joint Powers Authority

SUMMARY OF "BASELINE AND COMPLIANCE URBAN PER CAPITA WATER USE" DETERMINATION

June 2016

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BASELINE AND COMPLIANCE URBAN PER CAPITA WATER USE

California Water Code Section 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.*

California Water Code Section 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.*

Introduction

According to California Water Code Sections 10608.20(a)(1) and 10608.28, urban retail water suppliers may plan, comply, and report on a regional basis, an individual basis or both. The California Department of Water Resources' (DWR) guidebook titled, "Methodologies for Calculating Baseline and Compliance Urban per Capita Water Use" includes "Methodology 9" which prescribes three options by which the regional alliance

compliance may be calculated. Each group of water suppliers agreeing among themselves to plan, comply, and report as a region is referred to in Methodology 9 as a "regional alliance."

Calculation of Regional Targets

Water suppliers in a regional alliance have three options to calculate the regional targets.

Option 1

This option preserves maximum flexibility at the water supplier level. Each retail water supplier in a regional alliance first calculates its individual target. The individual targets from each retail water supplier is then multiplied by each retail water supplier's population. The total is divided by the total population in the alliance to obtain the regional target. For the 2010 urban water management plans, retail water suppliers used their estimated population data to generate the regional targets. However, for compliance in 2015 and 2020, the population weighting of the individual targets must be based upon the compliance-year population data. Because 2010 U.S. Census data was not available until 2012, retail water suppliers were required to recalculate its individual population, baseline and targets in 2015. A modification in any individual target or a change in membership in a regional alliance will require a recalculation of the entire regional target.

Option 2

The second option for an alliance to calculate a regional target is to sum up the individual retail water supplier's gross water use and service area populations to develop regional gross water use and population. The alliance would then calculate regional base daily per capita use and choose one target method to calculate a regional target. This option requires all the members to use the same baseline period.

Option 3

A third option is to calculate regional gross water use or population directly for the entire regional alliance area. Regional base daily per capita use and a regional water use target would then be derived. Like Option 2, members of alliances using this option must use the same baseline period and the same target method. The regional target may not exceed 95 percent of the region's 5-year Base Daily Per Capita Water Use.

Results

The Gateway Regional Alliance has chosen Option 1 to estimate its Regional Target. The following tabulation summarizes the steps used with Option 1 and to calculate the Regional Target. As shown in the tabulation below, the "Regional Alliance Weighted Average 10-15 Year Baseline" is 128 GPCD. The "Regional Alliance Weighted Average 2020 Target" is 111 GPCD. The "Regional Alliance 2015 Interim Target" is based on the mid-point between the Weighted Average 10-15 Year Baseline (129 GPCD) and the Weighted Average 2020 Target (115 GPCD). The Regional Alliance 2015 Interim Target is 120 GPCD ((128 + 111) / 2).

Based on each of the member agencies' individual 2015 Actual water use, the "Regional Alliance 2015 Actual water use" is 102 GPCD. The 2015 Actual water use of 102 GPCD is less than the "Regional Alliance 2015 Interim Target" of 120 GPCD. Therefore, the Gateway Regional Alliance achieved its Targeted Reduction for 2015 and is in compliance with the 2015 Interim Target.

SB X7-7 RA1 - Weighted Baseline				
Participating Member Agency Name	10-15 year Baseline GPCD*	Average Population During 10-15 Year Baseline Period	(Baseline GPCD) X (Population)	Regional Alliance Weighted Average 10-15 Year Baseline GPCD
City of Downey	144	108,998	15,695,712	
City of Lakewood	107	58,241	6,231,787	
City of Long Beach	134	457,727	61,335,418	
City of Lynwood	100	63,227	6,322,700	
City of Norwalk	107	16,372	1,751,804	
City of Paramount	118	55,137	6,506,166	
City of Pico Rivera	121	40,513	4,902,073	
Pico Water District	150	22,598	3,389,700	
City of Santa Fe Springs	101	14,876	1,502,476	
City of Signal Hill	188	10,621	1,996,748	
City of South Gate	102	87,841	8,959,782	
City of Whittier	155	53,155	8,239,025	
Regional Alliance Total	1,527	989,306	126,833,391	**128**

**All participating agencies must submit individual SB X7-7 Tables, as applicable, showing the individual agency's calculations. These tables are: SB X7-7 Tables 0 through 6 , Table 7, any required supporting tables (as stated in SB X7-7 Table 7), and SB X7-7 Table 9, as applicable.These individual agency tables will be submitted with the individual or Regional Urban Water Management Plan.*

NOTES: The City of Bell Gardens, City of Bellflower, and City of Vernon were removed from the 2015 Regional Alliance calculations. The City of Bell Gardens and City of Bellflower are not required to prepare an UWMP. The City of Vernon has a population of 100 and is exclusively industrial. The City of Vernon may not be required to prepare an UWMP.

SB X7-7 RA1 - Weighted 2020 Target				
Participating Member Agency Name	**2020 Target GPCD***	**2015 Population**	**(Target) X (Population)**	**Regional Alliance Weighted Average 2020 Target**
City of Downey	137	112,354	15,392,482	
City of Lakewood	99	59,331	5,873,769	
City of Long Beach	107	481,784	51,550,888	
City of Lynwood	85	62,919	5,348,115	
City of Norwalk	110	18,361	2,019,710	
City of Paramount	114	55,302	6,304,428	
City of Pico Rivera	117	39,453	4,616,001	
Pico Water District	142	22,799	3,237,458	
City of Santa Fe Springs	100	14,644	1,464,400	
City of Signal Hill	151	11,500	1,736,500	
City of South Gate	100	79,983	7,998,300	
City of Whittier	134	56,200	7,530,800	
Regional Alliance Total	1,396	1,014,630	113,072,851	**111**

**All participating agencies must submit individual SB X7-7 Tables, as applicable, showing the individual agency's calculations. These tables are: SB X7-7 Tables 0 through 6 , Table 7, any required supporting tables (as stated in SB X7-7 Table 7), and SB X7-7 Table 9, as applicable.These individual agency tables will be submitted with the individual or Regional Urban Water Management Plan.*

NOTES: The City of Bell Gardens, City of Bellflower, and City of Vernon were removed from the 2015 Regional Alliance calculations. The City of Bell Gardens and City of Bellflower are not required to prepare an UWMP. The City of Vernon has a population of 100 and is exclusively industrial. The City of Vernon may not be required to prepare an UWMP.

SB X7-7 RA1 - 2015 Target		
Weighted Average 10-15 year Baseline GPCD	Weighted Average 2020 Target	Regional Alliance 2015 Interim Target
128	111	120
NOTES		

SB X7-7 RA1 - 2015 GPCD (Actual)				
Participating Member Agency Name	**2015 Actual GPCD[1]**	**2015 Population**	**(2015 GPCD) X (2015 Population)**	**Regional Alliance 2015 GPCD (Actual)**
City of Downey	119	112,354	13,370,112	
City of Lakewood	82	59,331	4,865,142	
City of Long Beach	102	481,784	49,141,968	
City of Lynwood	80	62,919	5,033,520	
City of Norwalk	111	18,361	2,038,071	
City of Paramount	103	55,302	5,696,106	
City of Pico Rivera	103	39,453	4,063,659	
Pico Water District	108	22,799	2,462,292	
City of Santa Fe Springs	83	14,644	1,215,452	
City of Signal Hill	143	11,500	1,644,500	
City of South Gate	81	79,983	6,478,623	
City of Whittier	131	56,200	7,362,200	
Regional Alliance Totals	1,246	1,014,630	103,371,645	102

[*] *All participating agencies must submit individual SB X7-7 Tables, as applicable, showing the individual agency's calculations. These tables are: SB X7-7 Tables 0 through 6 , Table 7, any required supporting tables (as stated in SB X7-7 Table 7), and SB X7-7 Table 9, as applicable.These individual agency tables will be submitted with the individual or Regional Urban Water Management Plan.*

NOTES: The City of Bell Gardens, City of Bellflower, and City of Vernon were removed from the 2015 Regional Alliance calculations. The City of Bell Gardens and City of Bellflower are not required to prepare an UWMP. The City of Vernon has a population of 100 and is exclusively industrial. The City of Vernon may not be required to prepare an UWMP.

SB X7-7 RA1 - Compliance Verification				
2015 GPCD (Actual)	2015 Interim Target GPCD	Economic Adjustment[1] *Enter "0" if no adjustment*	Adjusted 2015 GPCD *(if economic adjustment used)*	Did Alliance Achieve Targeted Reduction for 2015?
102	120	0	102	YES

[1] *Adjustments for economic growth can be applied to either the individual supplier's data or to the aggregate regional alliance data (but not both), depending upon availability of suitable data and methods.*

NOTES