Central Basin
Municipal Water District

2010 Urban Water Management Plan

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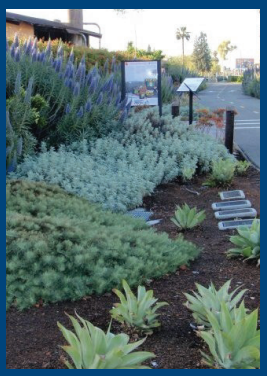

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Municipal Water District

Central Basin Municipal Water District

2010 Urban Water Management Plan

Prepared by:
Central Basin Municipal Water District
6252 Telegraph Road
Commerce, CA 90040-2512

A Message from the Board

Since the District's formation in 1952, Central Basin Municipal Water District has remained steadfast in its commitment to ensure a safe and reliable water supply for the region. Through the years, the District has grown and transformed, seeking innovative and viable solutions to meet the changing needs of its communities. All of us at Central Basin continue to expand our efforts to meet the growing water demand while preserving our limited and precious water resource. Through our water recycling, conservation, education and groundwater quality protection programs, Central Basin has evolved from a potable water wholesaler to a leader safeguarding the region's water supply.

We are proud to submit this 2010 Urban Water Management Plan to the California Department of Water Resources. The Plan reports all current and projected water supplies and demands within Central Basin's service area, demonstrates water reliability for the next 25 years, and provides a comprehensive overview of Central Basin's various programs as well as our assistance to cities and agencies to meet their 20 percent by 2020 targets.

DIRECTORS

Division I – Edward C. Vasquez

Bell Gardens, Downey, Montebello, Pico Rivera, West Whittier/ Los Nietos, and unincorporated areas of Los Angeles County

Division II – Robert Apodaca

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Division III – Art Chacon

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Lynwood, South Gate, Florence-Graham, Willowbrook, Compton and Carson

Division V – Phillip D. Hawkins

Artesia, Bellflower, Cerritos, Hawaiian Gardens, Lakewood, Paramount and Signal Hill

MISSION STATEMENT

"To exercise the powers given to the District under its establishing act, utilizing them to the benefit of parties within the District and beyond. To acquire, sell and conserve imported and other water that meets all required standards and to furnish it to our customers in a planned, timely and cost effective manner that anticipates future needs. The District serves as the official representative for its public at the Metropolitan Water District of Southern California. It also provides leadership, support, advice and communication on water issues to the people and agencies within and outside its boundaries, as appropriate."

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Executive Summary

Executive Summary

This section is a summary of the components of this Plan

A BRIEF HISTORY

The legislative requirement to prepare an Urban Water Management Plan (UWMP) every five years provides Central Basin Municipal Water District (Central Basin) with an opportunity to affirm and support its primary purpose - to ensure the long term water supply reliability of its region. Although the District's overall mission has not changed in more than five decades, techniques for meeting its objective are continuously evolving.

The history of Central Basin is representative of how water resource management has evolved in Southern California during the past half a century. Ensuring that residents and businesses in Southern California have a safe and reliable supply of water requires the cooperation of local water purveyors as well as regional wholesalers.

When native groundwater supplies in the growing southeastern part of Los Angeles County became critically over-drafted in the 1940s, ground water producers supported the formation of a regional agency, Central Basin, in 1952 that would join the Metropolitan Water District of Southern California (MWD) two years later. MWD had been created in 1928 by 11 cities (13 in 1933 and now 26 member agencies) for the purpose of constructing a 240-mile aqueduct from the Colorado River. The era of "imported water" and mega-projects that began at the turn of the last century with construction of the Los Angeles Aqueduct from the Owens Valley by the City of Los Angeles, and continued with the extension of the State Water Project into Southern California in the 1970s, was well underway. Central Basin joined this era by providing a new source of water to protect the Central Groundwater Basin from further degradation and providing imported water for the cities and agencies of the region.

Imported water was the fuel that drove the economic engine of Southern California for decades. Through the 1960s, 70s and 80s, imported water provided by Central Basin offered the reliability enjoyed by groundwater producers and non-producers alike. During this time, not only did the population within Central Basin's service area grow by 136% from about 593,000 in 1950 to more than 1.4 million people by 1990, but the area also became a significant industrial center for all of Southern California.

The last ten years of water resources management in the state have been quite eventful. The Central Basin area saw some of its highest groundwater production and imported water demand in its history. Yet, just a few years later, overall demand has been reduced significantly.

The reliability of the state's imported water supplies from the State Water Project (and the federally owned Central Valley Project (CVP)) were seriously called in question in 2007 when Federal Judge Oliver Wanger ruled in favor of several environmental groups under the Endangered Species Act and invalidated the operating agreements for the State Water Project (SWP). These operating agreements are called Biological Opinions. The judge said more water needed to stay in the Sacramento-San Joaquin Bay-Delta to protect the Delta Smelt and Chinook Salmon whose numbers were in serious decline. Between the SWP and CVP contractors, water lost to the ocean totaled about 1 million acre feet (MAF) in 2008 alone. All estimates of future reliability of those facilities were thrown out as were the Biological Opinions.

About the same time, the state began a four year drought that tested the limits of water planning. Regionally, costs for imported replenishment water increased because the standard replenishment program was interrupted by the MWD. Mandatory rationing of imported water was introduced in 2009 and lasted almost two full years before the state saw some of the biggest snowpack numbers in its history in the Sierra Nevada and in the Colorado River Basin. Even now recovery of the state's major reservoirs, groundwater storage facilities and the reservoirs on the Colorado River are under way.

A DIFFERENT APPROACH TO WATER MANAGEMENT

The paradigm of ensuring reliability while continuing to provide unlimited supplies of imported water began to change with the drought of 1987-1992. Even before the near-reality of mandatory water rationing in the spring of 1992, plans had begun to enhance conservation practices and to consider the development of locally-produced sources of water that, through the long-term, would significantly reduce Southern California's reliance on supply systems subject to hydrology and environmental pressures. Central Basin was at the forefront of this change in its approach to water management. By 1990, funding mechanisms were in place and designs were being drawn up for a regional recycled water distribution system that would directly offset potable imported water for non-potable uses such as irrigation and industrial applications. Central Basin would also become renowned for its highly successful conservation and education programs which when combined with recycled water, have helped conserve more than 13 billion gallons of potable water during the past decade.

By 1996, local programs were accounted for within MWD's Southern California Integrated Resources Plan (IRP), which established a rolling 20-year road map for diversified supply investments in recycled water, brackish groundwater treatment, surface and groundwater storage, water transfers and exchanges, conservation practices and accessibility to imported water. The IRP was subsequently updated in 2003 and again in 2010.

Central Basin's aggressive pursuit of the resource development targets within the IRP is changing the face of water supply in the region from mostly groundwater to a more diverse set of supply options.

In the future, Central Basin's plans for a groundwater storage program in the Central Groundwater Basin could further expand supply options for the cities and agencies and ultimately make the region more reliable than it has even been.

WATER DEMAND

Total water use, or demand, includes retail demand from the cities and agencies for groundwater (from the Central Groundwater Basin and San Gabriel "Main" Basin), imported water, and the direct use of recycled water. Retail demand is defined as all municipal (residential, firefighting, parks, etc.) and industrial uses, and represents the population's total direct water consumption. Replenishment includes recycled water and imported water deliveries to the Rio Hondo and San Gabriel River Spreading Grounds in the Montebello Forebay. Table ES-1 summarizes the current and projected retail and replenishment demands.

IMPACTS OF CONSERVATION AND EDUCATION: REDUCED DEMAND

Although not a traditional "wet" water supply like imported water or recycled water, water use efficiency, including conservation and education, is considered part of Central Basin's water supply portfolio because it results in less retail need, or demand, for wet supplies than would otherwise be the case. Perhaps the most descriptive picture of the impact of conservation and education on retail demand is conveyed by Figure ES-1. Retail water use within Central Basin's service area is little changed 15 years ago despite the addition of more than 200,000 people.

On a per capita basis, over the last 6 years, residents are continuing to use less water, as shown in Figure ES-2. This figure shows that the conservation ethic in the Central Basin area continues to have an impact on water demand in the region.

Table ES-1
Central Basin's Current and Projected Water Demand
(Acre-Feet)

District Water Demands	2010[1]	2015	2020	2025	2030	2035
Retail Municipal & Industrial Use[1]						
Groundwater[2]	174,318	182,600	184,100	184,600	184,600	184,600
Imported Water	43,147	51,025	52,685	54,670	56,555	58,340
Recycled Water[3]	6,632	6,700	11,000	16,000	16,000	16,000
Total Retail Demand	**224,097**	**240,325**	**247,785**	**255,270**	**257,155**	**258,940**
Replenishment Use						
Imported Water	20,295	21,000	21,000	21,000	21,000	21,000
Total Replenishment Demand	**20,295**	**21,000**	**21,000**	**21,000**	**21,000**	**21,000**
Total Central Basin Service Area Demand	**244,393**	**261,325**	**268,785**	**276,270**	**278,155**	**279,940**

[1] 2010 demands are based on actual deliveries for FY 2009-10.
[2] Includes groundwater production from the Central Groundwater Basin and Main San Gabriel Basin.
[3] Includes Recycled Water sales from Central Basin's RW Program and the City of Cerritos' RW System.

Figure ES-1
Central Basin's Current and Projected Water Demand
(Acre-Feet)

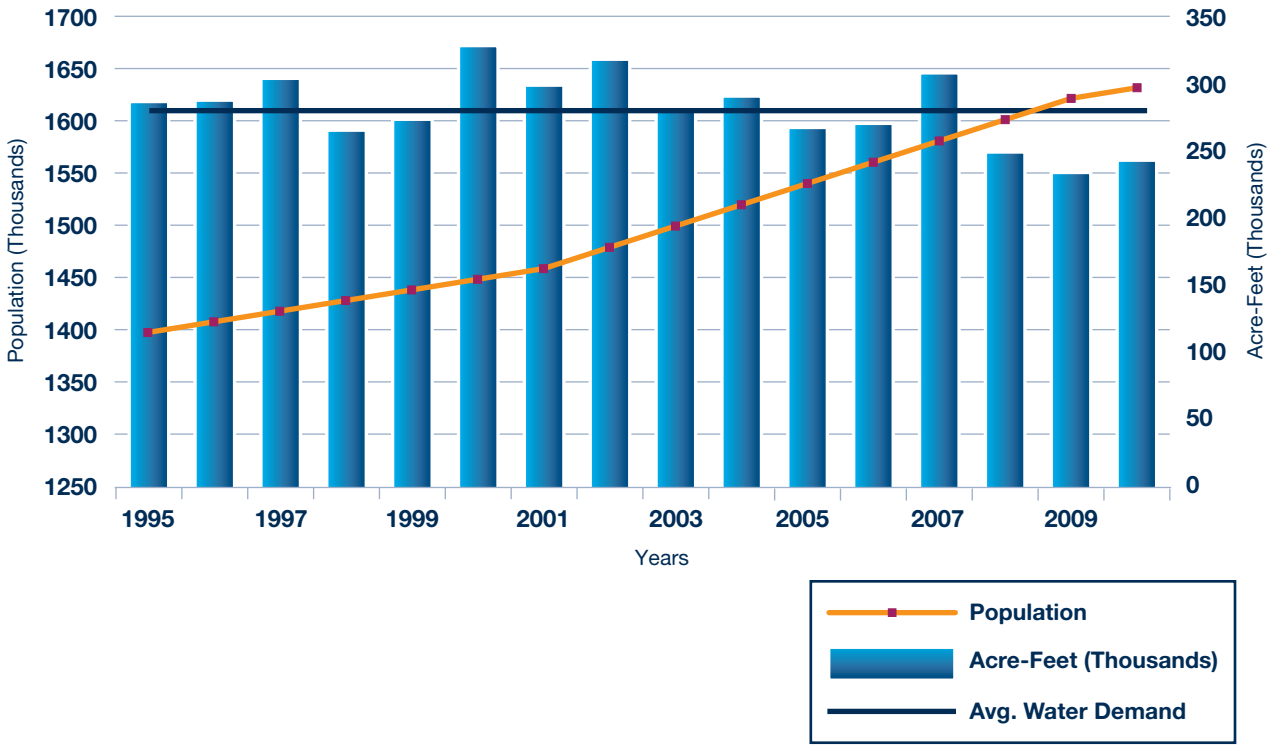
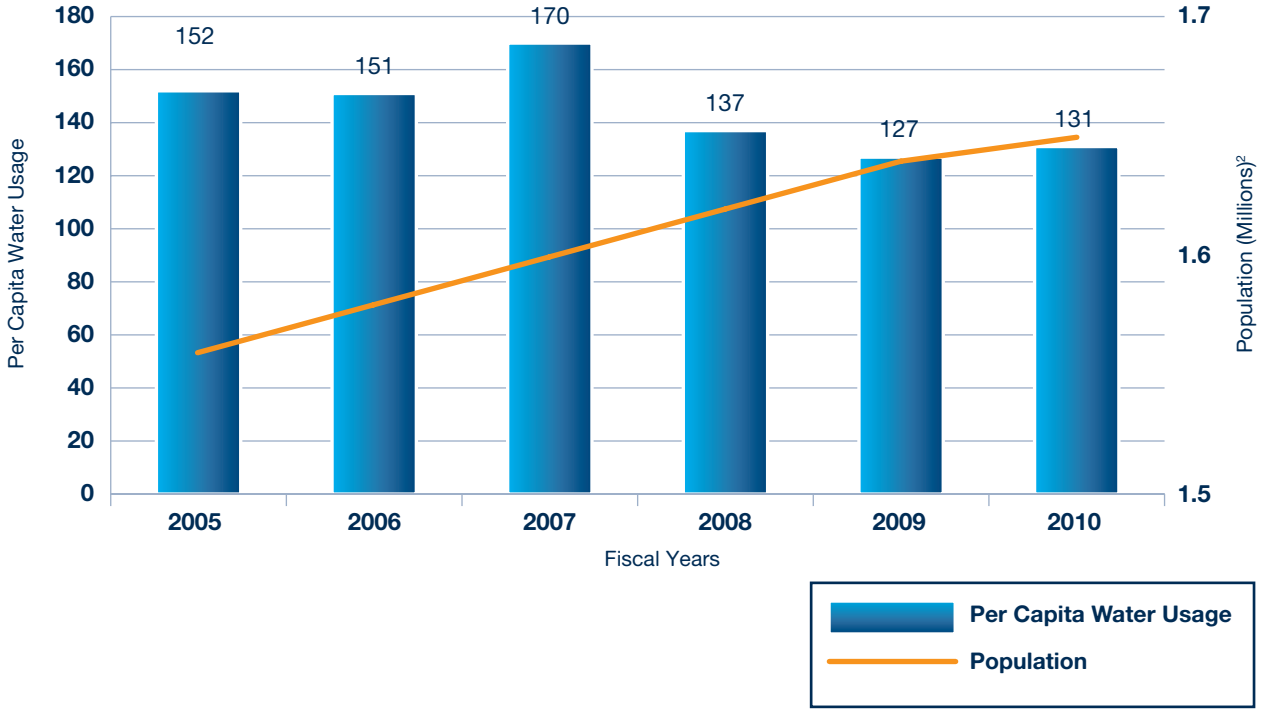


Figure ES-2
Per Capita Water Use 2005-2010
(Acre-Feet)



WATER SUPPLY

Historically, Central Basin relied on approximately 85,000 Acre-Feet per Year (AFY) of imported water from the State Water Project (SWP) and the Colorado River through MWD to meet the region's retail demands and replenishment demands. However, imported water sales figures has fallen over the last several years due to economic conditions, conservation, mandatory rationing, and the implementation of tiered rate structures by retail agencies. As shown in Figure ES-3, when measured against the other supply sources within Central Basin, the most significant source of water for customer agencies is groundwater (about 58 percent of all potential sources). Imported water supplements this resource (about 21 percent) for direct deliveries and assists to mitigate the over-pumping of the groundwater basin. Recycled water is added to the supply mix of the area (about 15 percent) for both direct use and replenishment demands. Finally, past and present conservation efforts help keep overall demands lower than they would otherwise be (about 6 percent).

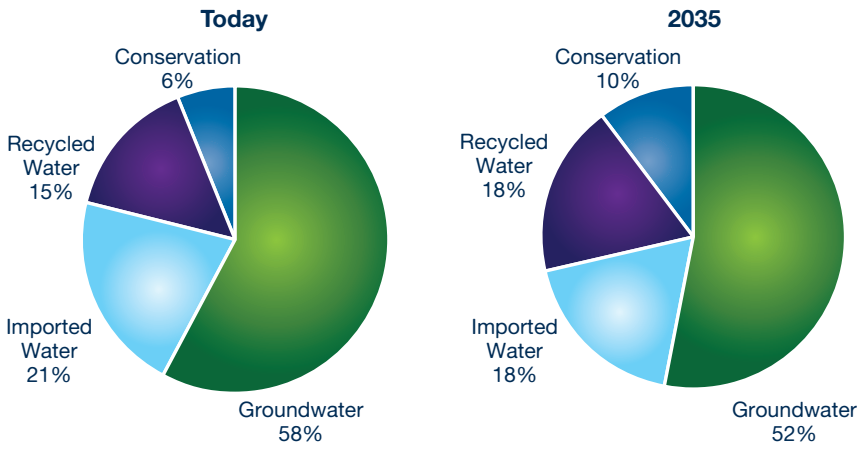
Table ES-2 provides current (2010) and projected (2035) supplies within Central Basin's service area, with imported and recycled water being provided by Central Basin.

PLANNING FOR INCREASED DIVERSIFICATION

Given the critical importance of water to the region's growth, economic health and quality of life, the desirable quantity and mix of supply must be planned well in advance of the actual need. Implementing water projects and changing behavior and attitudes regarding water usage are lengthy and complex endeavors. While the UWMP Act requires a 20-year planning horizon for water reliability, Central Basin has used a 25-year planning horizon to ensure a minimum 20-year planning period each year until the next 5-year update of Central Basin's 2010 UWMP.

Although implementation of supply targets is challenging, Central Basin's approach is straightforward: continue to reduce the risk of future shortage by distributing the responsibility for supply among several, well-balanced options. Central Basin's projected supply portfolio for 2035, as compared to the current mix, is shown in Figure ES-3.

Figure ES-3
Current & Projected Water Supplies in the Central Basin Service Area



Central Basin's diversification plan includes expansion of its recycled water system, consistent conservation efforts and groundwater storage opportunities. Central Basin's future dependence on imported water will continue to decrease with the expansion of these alternative resources. During the next 25 years, conservation is expected to have a significant dampening effect on retail water demand.

Central Basin's ambitious 2035 target for conservation will be directed by a Conservation Master Plan (completed in 2006 and currently being updated) that will identify the programs, strategies and actions that will guide policy development and commitment of resources in the future.

Central Basin will also complete an update of its 2008 Recycled Water Master Plan. This effort will provide the basis for expansion of the recycled water distribution system (Phase I of the Southeast Water Reliability Project). The project will increase flow and pressure in many areas not adequately served today, reach a large new customer base in several cities within the service area and enable new partnerships with neighboring agencies that wish to extend Central Basin's system into their service areas.

Table ES-2
Current and Projected Water Supplies
(Acre-Feet)

District Water Demands	2010 (Actual)	2035 (Projected)
Groundwater[1]	174,318	205,360
Imported Water[2]	63,442	72,360
Recycled Water[3]	46,632	73,000
Conservation	17,063	39,592
Total[4]	**301,450**	**390,912**

[1] Based upon the total allowable pumping allocation (APA) for each customer agency within Central Basin's service area including WQPP and the average annual amount pumped from Main San Gabriel Basin into Central Basin.
[2] Based upon Tier I limitations for deliveries consistent with Central Basin's purchase order.
[3] Includes the available supply of recycled water for both Central Basin and Cerritos systems as well as replenishment.
[4] Total supplies include projected groundwater, imported and recycled water.

WATER SUPPLY RELIABILITY

During consecutive dry years, Southern California has historically seen demands increase by as much as 20% while supplies have decreased. Events over the last few years have had a detrimental effect on imported water supply reliability. Most cities and agencies throughout the state were forced to mandate conservation and restrict water use in some cases in order to maintain an adequate supply. In 2009, MWD imposed mandatory reductions to each member agency through their new Water Supply Allocation Plan (WSAP) which reduced deliveries throughout the MWD service area by about 10 percent region-wide with severe penalties for agencies that exceed their allocations. Working with our local cities and agencies, Central Basin designed a plan that replicated these mandatory reductions at the local level and succeeded in preventing any penalties from being imposed. The mandatory reductions from MWD were suspended in April 2011 with the abundant precipitation throughout the state in the winter of 2010-11. Cities and agencies large and small have come to recognize the importance of locally developed supplies as well as water storage and transfers to create greater supply reliability and develop a hedge against potential interruptions.

MWD's 2010 UWMP provides the reliability of supply in all hydrologic conditions through the year 2035. In fact, the plan shows a surplus of supply in nearly all conditions. MWD planning initiatives to ensure water supply reliability include the IRP, the Water Surplus and Drought Management (WSDM) Plan, as well as the previously mentioned WSAP. These initiatives provide a framework for MWD and its member agencies to manage their water resources to meet growing demands.

Through its investments into supply diversification, support of the region's IRP and the collaborative efforts with MWD, Central Basin projections show that supplies will adequately meet service area demands in normal, single-dry and multiple dry-year scenarios.

Regionally, alternative water supplies are being explored, studied and in some cases, implemented to enhance the area's water supply reliability. In addition to recycled water, alternative water supply projects include conjunctive use (groundwater storage) and water transfers and exchanges.

WATER CONSERVATION

Since the drought of the early 1990s, Central Basin has been implementing aggressive water conservation programs to help limit water demand in its service area. Central Basin has included a strong emphasis on education and the distribution of rebate incentives and plumbing retrofit hardware. The results of these programs, in conjunction with passive conservation measures such as modifications to the plumbing and building codes, have resulted in significant reductions in water use. By current estimates, conservation (also referred to demand management programs) saves more than 5.5 billion gallons of imported water every year. This represents the average annual water use of more than 34,000 single family homes.

Historically, Central Basin water conservation programs follow the recommended 14 Best Management Practices (BMPs) according to the California Urban Water Conservation Council. However, in 2006, Central Basin was one of the first agencies in the state to adopt a Conservation Master Plan (CMP) to lay out a road map to help guide the implementation of conservation programs for the next five years. The CMP goal is to expand long-term water savings efforts and to develop and introduce new regional tailored conservation programs for the local communities. Currently, staff is working on an update of the 2006 CMP which will assess the conservation potential and incorporate local stakeholder input into a group of actions and strategies for achieving long-term targets for conservation including the 20x2020 (20 percent reduction by the year 2020) water savings targets.

RECYCLED WATER

Recycled water is one of the cornerstones of Central Basin's efforts to augment local supplies and reduce dependence on imported water. Since the initial planning and construction of Central Basin's water recycling system in the early 1990s, Central Basin has become a leader in producing and marketing recycled water. This supply of water assists in meeting the demand for non-potable applications such as landscape irrigation and commercial and industrial processes. With over 200 site connections and more on the way, Central Basin is projected to deliver about 16,000 AF of direct deliveries by 2025.

In addition to Central Basin, other agencies distribute or utilize recycled water within the District's service area. These agencies include the City of Cerritos and the Water Replenishment District (WRD). The City of Cerritos' water recycling program provides about 1,500 AF to parks and schools and other city landscaping through the city, including several sites in the City of Lakewood. WRD purchases about 40,000 AF to 50,000 AF of recycled water annually from the County Sanitation Districts of Los Angeles County (CSDLAC) to help replenish the Central Groundwater Basin. Central Basin purchases recycled water from both the Los Coyotes and San Jose Creek Water Reclamation Plants (WRPs) for distribution within its service area. The WRPs together produce approximately 98 MGD of tertiary-treated effluent. Central Basin and Cerritos together utilize about 6,500 AF annually for direct deliveries.

Table ES-3
Projected Recycled Water Used within Central Basin MWD Service Area
(Acre-Feet)

	2010[1]	2015	2020	2025	2030	2035
Central Basin MWD						
Century/Rio Hondo Projects	4,317	6,700	11,000	16,000	16,000	16,000
Total	**4,317**	**6,700**	**11,000**	**16,000**	**16,000**	**16,000**
Other Programs within Central Basin						
City of Cerritos	1,871	1,500	1,500	1,500	1,500	1,500
City of Lakewood	444	400	400	400	400	400
WRD (Replenishment Spreading)[2]	55,731	44,600	44,600	44,600	44,600	44,600
Total	**58,046**	**46,500**	**46,500**	**46,500**	**46,500**	**46,500**
Central Basin's Service Area Total	**62,363**	**58,600**	**57,500**	**62,500**	**62,500**	**62,500**

[1] 2010 recycled water usage is based on FY 2009-10 actual.
[2] Data from WRD's 2011 Engineering Survey and Report. Based on a 10-year average of purchases.

Central Basin's recycling program includes the E. Thornton Ibbetson Century Recycled Water Project (Ibbetson Century Project) and the Esteban E. Torres Rio Hondo Recycled Water Project (Torres Rio Hondo Project). Both projects deliver recycled water for landscape irrigation and industrial uses.

The Ibbetson Century Project began delivering recycled water in 1992 and now delivers tertiary-treated recycled water from the Los Coyotes WRP, serving 11 cities. In 1994, the recycled water system extension, the Torres Rio Hondo Project, reached into the northern portion of Central Basin's service area. The Torres Project delivers tertiary-treated recycled water from San Jose Creek WRP and serves eight cities. In 2010, Central Basin began Phase I construction of the Southeast Water Reliability Project (SWRP) to loop the entire system from Pico Rivera to Vernon. In early 2011, Central Basin completed the first leg of SWRP from Pico Rivera to Montebello. Phase II will start construction pending customer demand.

Central Basin anticipates recycled water use sales to increase in the future as more customers switch from potable water to recycled water due to the reliability of the supply and the economic incentives associated with the conversion. Table ES-3 summarizes the current and projected demands for recycled water within Central Basin.

Central Basin is in the process of updating its 2008 Water Recycling Master Plan. This plan will provide a better look at future potential sites and help secure the most cost effective alignments for future expansions of the system.

WATER QUALITY

Water quality regulations are an important factor in Central Basin's water management activities. Imported water quality is the responsibility of MWD to comply with State and Federal drinking water regulations. Purveyors that Central Basin sells imported water to are responsible for ensuring compliance in their individual distribution systems and at the customer tap. MWD maintains a rigorous water quality monitoring program and is also proactive in protecting its water quality interests in the SWP and the Colorado River through active participation. Imported water meets or exceeds all drinking water standards set by the California Department of Public Health.

Challenges to water quality include potential contamination from adjacent basins, the Basin's susceptibility to seawater intrusion and the migration of shallow contamination into deeper aquifers.

Water quality concerns for the basin is the presence of perchlorate, manganese, volatile organic compounds such as trichloroethylene (TCE) and perchloroethylene (PCE), and arsenic. In the case of VOC's, migration of these compounds from the San Gabriel "Main" Basin through the Whittier Narrows into the Central Groundwater Basin is a considerable problem. This contaminate migration is successfully managed by Central Basin through the operation of extraction and treatment facilities called the Water Quality Protection Program (WQPP). The WQPP not only protects the basin from this mitigation but also recovers potable water for distribution to two local cities. The other problem contaminates are usually dealt with by the groundwater pumpers through a wellhead treatment process or by simply shutting down the well.

Recycled water meets Title 22 standards through tertiary treatment. Central Basin relies on the County Sanitation Districts of Los Angeles County to meet all applicable state and federal water quality regulations for recycled water it purchases and distributes through its recycled water distribution system.

WATER RATES AND CHARGES

MWD's 2002 rate structure changes were passed through to Central Basin's customer agencies in a manner that preserved the water management benefits while minimizing financial impacts. With the purchase order and tiered supply rate elements, Central Basin has successfully implemented a conservation-based structure that encourages agencies to stay within their annual water budget and uses revenue from agencies that exceed their water budget to fund service-area wide conservation studies and programs. Central Basin also assesses a capacity charge at the retail level designed to recover the cost of MWD's capacity charge. In addition to the pass-through elements of MWD's rate structure, Central Basin's rates include a volumetric administrative surcharge and a fixed infrastructure surcharge and water meter service charge.

Since 1992, Central Basin has encouraged the maximum use of recycled water through the economic incentive of its rates and charges. Central Basin recycled water commodity rates cover the operation, maintenance, labor and power costs associated with the delivery of recycled water. These rates are set up in a declining two-tier structure and are maintained at a significant reduction to imported water so they may further encourage the use of recycled water.

CONCLUSION

The Central Basin service area saw population growth of about 18 percent over the last 20 years. But over the same period, water demand has remained remarkably consistent. This says that the Central Basin service area is becoming more efficient with its water supplies year after year. This is due to Central Basin's investments in recycled water development, water conservation programs, school education, and public information campaigns. Looking to the future, Central Basin will continue to invest in these critical areas. Once the groundwater storage program is more clearly defined and if approved, it should help to provide the region with dry year water supplies that will make it almost immune to future water supply shortages and interruptions within the state. Therefore, based on these past, current and anticipated actions, Central Basin will be able to meet all future water demands for the next 25 years in an efficient and cost effective manner.

Introduction

Section 1

Introduction
Section 1

This section is an introduction to Central Basin and its relationship to MWD

1.1 PURPOSE AND UWMP SUMMARY

An Urban Water Management Plan (UWMP or Plan) prepared by a water purveyor is to ensure the appropriate level of reliability of water service sufficient to meet the needs of its various categories of customers during normal, single dry or multiple dry years. The California Urban Water Management Planning Act[1] of 1983 (Act), as amended, requires urban water suppliers to develop an UWMP every five years in the years ending in zero and five.

The legislature declared that waters of the state are a limited and renewable resource subject to ever increasing demands, that the conservation and efficient use of urban water supplies are of statewide concern, that successful implementation of plans is best accomplished at the local level, that conservation and efficient use of water shall be actively pursued to protect both the people of the state and their water resources, that conservation and efficient use of urban water supplies shall be a guiding criterion in public decisions and that urban water suppliers shall be required to develop water management plans to achieve conservation and efficient use.

Central Basin Municipal Water District's (Central Basin) 2010 UWMP has been prepared in compliance with the requirements of the Act, and includes data and/or discussion of the following topics:

- Water Wholesale Service Area
- Water Demands
- Water Sources and Supplies
- Water Reliability Planning
- Water Quality Information
- Water Demand Management Measures
- Water Shortage Contingency Plan
- Water Recycling
- 20 percent x 2020 Compliance Assistance

1.2 URBAN WATER MANAGEMENT PLAN UPDATE PREPARATION

Central Basin's 2010 UWMP revises the 2005 UWMP prepared by Central Basin and incorporates changes enacted by legislation over the last five years, including SB 1087 (2005), AB 1376 (2007), AB 1420 (2007), SBX3 27 (2009), and AB 1465 (2010), The UWMP also incorporates water use efficiency efforts Central Basin has implemented pursuant to the Memorandum of Understanding Regarding Urban Water Conservation in California[2] (MOU). Central Basin was one of the first agencies to become signatory to the MOU in September 1991.

The sections in this UWMP correspond to the outline of the Act, specifically Article 2, Contents of Plans, Sections 10621, 10631, 10632 and 10633 and 10644. The sequence used for the required information, however, differs slightly in order to present information in a manner reflecting the unique characteristics of Central Basin. The Department of Water Resources' UWMP Checklist form has been completed, which identifies the location of Act requirements in this Plan and is included as Appendix A.

1.2.1 PLAN ADOPTION

The 2010 UWMP was adopted by a resolution of Central Basin's Board of Directors in June 2011 following a public hearing. The UWMP was submitted to the California Department of Water Resources Following Board approval. Copies of the Notice of Public Hearing and the Resolution of UWMP Adoption are included in Appendix B. Copies of the UWMP were made available to retail water agencies and cities following Board approval.

FOOTNOTES

1 California Water Code, Division 6, Part 2.6; §10610, et. seq. Established by Assembly Bill 797 (1983).
2 The Memorandum of Understanding Regarding Urban Water Conservation in California (MOU) was adopted in September 1991 by a large number of water suppliers, public advocacy organizations and other interested groups. It created the California Urban Water Conservation Council and established 16 Best Management Practices (BMPs) for urban water conservation, recently refined to 14 BMPs. The District became signatory to the MOU in September 1991

1.2.2 AGENCY COORDINATION

In November 2009, the Governor signed off on a legislative package of bills that altered how water is managed in the state. The landmark legislative package required all retail water agencies in the state to reduce their water demand by 20 percent by the year 2020. Retail water agencies were mandated to develop plans for meeting that conservation goal and include those plans as part of their 2010 UWMP's. (To read more about the 20 x2020 Plan, see "Gateway IRWMP" on page 2-5.) To allow time to complete those plans, retail water agencies were provided six additional months beyond December 31, 2010 when those UWMP's would be due. Although wholesale water agencies were not included in the statewide mandate, in September 2010 the state did allow wholesale water agencies the additional six months to complete their UWMP's under SB 1478. Subsequently, Central Basin modified and extended its schedule for completing its UWMP to June 30, 2011.

A notice of adoption of Central Basin's 2010 UWMP was prepared and sent to the Metropolitan Water District of Southern California (MWD), the County of Los Angeles and all of Central Basin's various cities and customer agencies at least 60 days before the formal adoption date. The notice of adoption is included in Appendix C.

Central Basin's 2010 UWMP was completed by District staff in coordination with its customer water agencies and MWD. Table 1-1 provides an overview of the coordination and the participation of local and regional cities and agencies. Central Basin staff submitted this plan in draft form to the cities and retail agencies during the winter of 2011 for review and comment. Since most of the cities and agencies need to prepare their own UWMP's, Central Basin staff provided historical water use and conservation data that they were able to use in their own plans.

Central Basin is a wholesaler water agency and purchases its potable supplies from MWD and its recycled water from the County Sanitation Districts of Los Angeles County to sell within its service area and beyond. This UWMP details the specifics as they relate to the Central Basin service area and will refer to MWD throughout the document. MWD held several UWMP information meetings for stakeholders and the public throughout its service area during 2009 and 2010.

The 2010 UWMP is intended to serve as a general, flexible and open-ended document that periodically can be updated to reflect changes in the region's water supply trends as well as conservation and water use efficiency policies. This UWMP, along with Central Basin's other planning documents, will be used by Central Basin staff to guide the service area's water use and management efforts through the year 2015, when the UWMP is required to be updated again.

1.3 CENTRAL BASIN MUNICIPAL WATER DISTRICT

1.3.1 BACKGROUND

Central Basin Municipal Water District was established by a vote of the people in 1952 to protect the Central Groundwater Basin from over pumping. Central Basin's founders realized they would have to curtail the over pumping of the ground water basin by providing the region with imported water. Therefore, Central Basin joined MWD in 1954 to purchase, on a wholesale level, potable water imported from the Colorado River then sell it to the local municipalities, investor-owned and mutual water companies and water districts. As a water supplier, MWD provides the Southern California region with a reliable supply of imported water. Central Basin remains one of the largest member agencies of MWD's wholesalers with a population of about 1.6 million to 2 million.

Today, Central Basin wholesales potable water to 26 cities, mutual water companies, investor-owned utilities, water districts and private water companies in the region. In addition, Central Basin supplies recycled water to the region for municipal, commercial and industrial use. Central Basin supplies imported and recycled water to its customer agencies to help protect the Central Groundwater Basin and develop a more balanced portfolio of water supplies.

Central Basin is governed by a five member Board of Directors elected from within the service area. Each Director serves a four-year term once elected. The Board of Directors guides the mission and policy of Central Basin. In addition, Central Basin's Board of Directors appoints two representatives to serve on the 38-member MWD Board of Directors. Central Basin's representation on the MWD Board is critical to shaping a regional voice on water issues.

1.3.2 CENTRAL BASIN'S SERVICE AREA

Central Basin's service area covers approximately 227 square miles and includes 24 cities and several unincorporated areas in southeast Los Angeles County. Central Basin maintains an official population of approximately 1.65 million people according to the Southern California Area Governments (SCAG), but due to the undercounting of the area's immigrant population, the number is closer to 2 million. Central Basin is broken up into 5 distinct political divisions with the residents of each division voting for a representative to the Board of Directors. The cities and their associated divisions include:

Division 1:
Bell Gardens, Downey, Montebello, Pico Rivera, West Whittier/Los Nietos, and unincorporated areas of Los Angeles County.

Division 2:
La Habra Heights, La Mirada, Norwalk, Santa Fe Springs, Whittier and South Whittier.

Division 3:
Bell, Commerce, Cudahy, Huntington Park, Maywood, Walnut Park, Monterey Park, Vernon and unincorporated areas of East Los Angeles.

Division 4:
Lynwood, South Gate, Florence-Graham, Willowbrook, Compton and Carson.

Division 5:
Artesia, Bellflower, Cerritos, Hawaiian Gardens, Lakewood, Paramount and Signal Hill.

1.3.3 RELATIONSHIP TO METROPOLITAN WATER DISTRICT

Central Basin is one of 26 member agencies of MWD. MWD was formed in 1928 with just 13 member agencies to build and operate the Colorado River Aqueduct (CRA). The first deliveries of CRA water began in 1941. Central Basin joined MWD in 1954 as a wholesale water district to sell imported water to the local retail water agencies. The first CRA water deliveries to the Central Basin area began a few months later.

Representation on the MWD Board of Directors

The MWD maintains a Board of Directors of 38 representatives, each of which are appointed by the governing bodies of the 26 member agencies.

Over the last 56 years that Central Basin has been a member agency, MWD's administrative code concerning representation on the Board of Directors has only changed slightly. Essentially, the same rules apply today as they did in 1929 when MWD was formed. All member agencies receive one directorship. Member agencies receive an additional directorship for each 5 percent of that member agency's assessed valuation of the total MWD service area. Since Central Basin currently is valued at about 5.3 percent of the total MWD service area, Central Basin receives two directorships on the MWD Board. This system disproportionately impacts member agencies such as Central Basin, which represents an economically diverse service area, with 47 percent of the communities served qualifying as economically disadvantaged. Although this approach may have made sense in 1929, today it is an antiquated formula for determining representation because it does not adequately take into account population increases, but relies exclusively on property values. Therefore, representation on the MWD Board of Directors is an area of concern for Central Basin and will remain so until a more equitable process is in place.

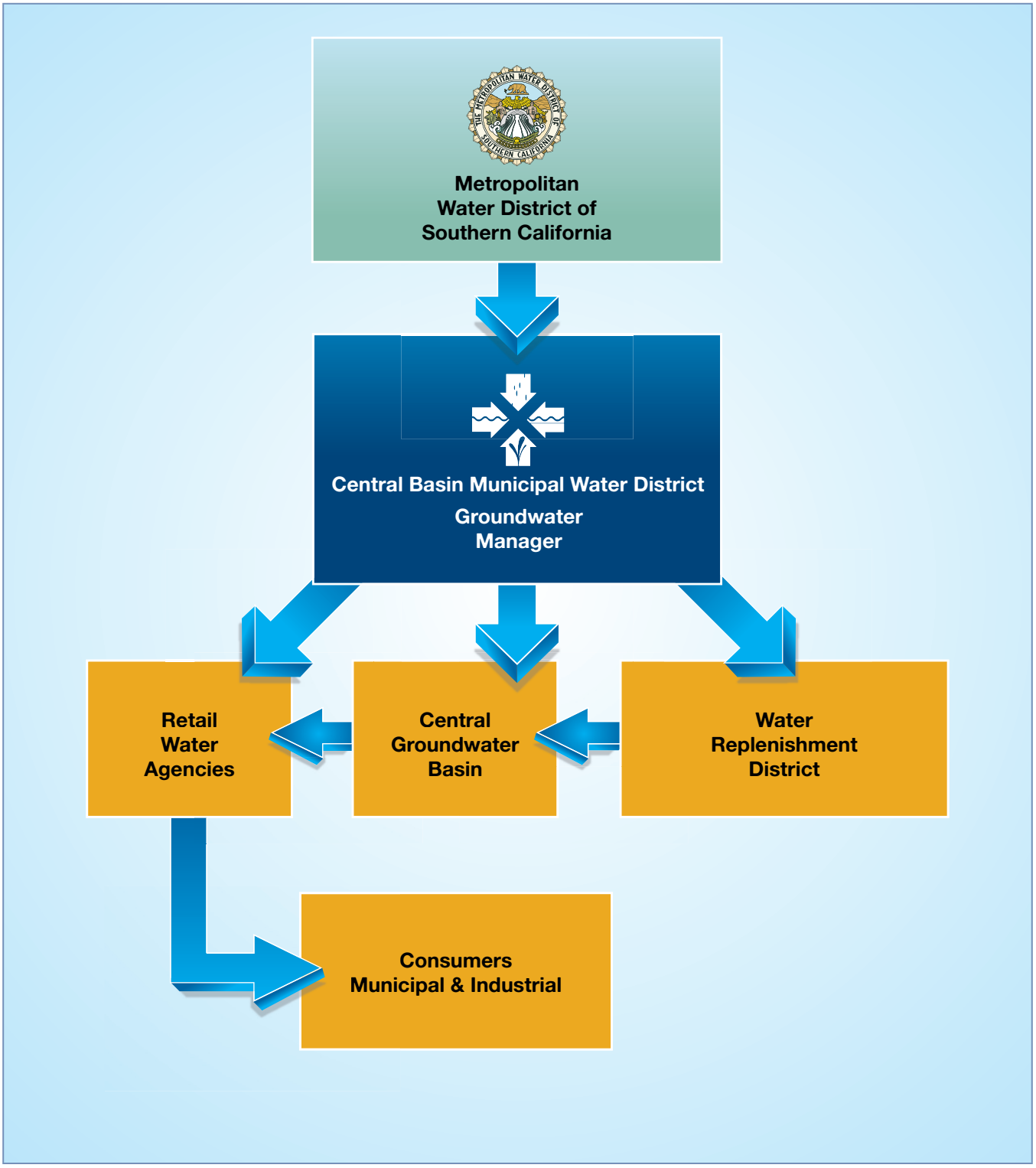
Supply Chain

Central Basin plays an important role in managing the imported supplies for the region. Through various programs and projects, Central Basin strives to ensure that its residents have a safe and reliable supply of water. Figure 1-1 shows the water supply chain which illustrates the relationship between Central Basin MWD and its customer cities and agencies.

Table 1-1
Central Basin Public and Agency Coordination

Coordinating Agencies	Sent a 60-Day Notice of Plan Preparation	Sent a Copy of Draft Plan	Commented on Draft Plan	Attended Public Hearing
Cities				
Artesia	✓	✓		
Bell	✓	✓		
Bellflower	✓	✓		
Carson	✓	✓		
Cudahy	✓	✓		
Hawaiian Gardens	✓	✓		
La Habra Heights	✓	✓		
La Mirada	✓	✓		
Maywood	✓	✓		
Retail Water Agencies				
Bellflower-Somerset Mutual Water Co.	✓	✓		
California Water Service Co.	✓	✓	✓	
City of Bell Gardens	✓	✓		
City of Cerritos	✓	✓		
City of Commerce	✓	✓		
City of Downey	✓	✓		✓
City of Huntington Park	✓	✓		
City of Lakewood	✓	✓		
City of Lynwood	✓	✓		
City of Montebello	✓	✓		
City of Norwalk	✓	✓		
City of Paramount	✓	✓		
City of Pico Rivera	✓	✓		
City of Santa Fe Springs	✓	✓		
City of Signal Hill	✓	✓		
City of South Gate	✓	✓		
City of Vernon	✓	✓		
City of Whittier	✓	✓		
Golden State Water Co.	✓	✓		✓
La Habra Heights CWD	✓	✓		
Maywood Mutual Water Co. #1	✓	✓		
Maywood Mutual Water Co. #2	✓	✓		
Maywood Mutual Water Co. #3	✓	✓		
Montebello Land & Water Co.	✓	✓		
Orchard Dale Water District	✓	✓		
Park Water Co.	✓	✓		✓
Pico Water District	✓	✓	✓	
Rancho Los Amigos - LAC	✓	✓		
San Gabriel Valley Water Co.	✓	✓		
South Montebello Irrigation District	✓	✓		
Suburban Water Systems	✓	✓		
Walnut Park Mutual Water Co.	✓	✓		
Regional Agencies				
County Sanitation Districts of LAC	✓	✓	✓	
Water Replenishment District	✓	✓	✓	✓
LAC Department of Regional Planning	✓	✓		
Metropolitan Water District	✓	✓		

Figure 1-1
Imported Water Supply Chain



Water Demand

Section 2

Water Demand
Section 2

This section describes current and future water demand trends within Central Basin's service area

2.1 OVERVIEW

In FY 2009-10, the total water demand for the 1.65 million people living within Central Basin's service area was approximately 257,492 acre-feet (AF) with an annual imported water replenishment demand of about 21,000 AF. One acre-foot equals 326,000 gallons and serves the annual water needs of two family homes. In 1990, Central Basin's population was 1.4 million and the service area's water demand was 248,570 AF (not including replenishment). In the last 20 years, Central Basin's retail water demand has grown 3.4 percent while service area population has grown 20 percent. The reason for this low growth in demand has been largely due to conservation and public education programs, and to the development of recycled water programs.

Projections show that Central Basin's water usage is expected to increase roughly 3.5 percent over the next five years, but over the next 25 years, Central Basin expects service area demands for imported water to flatten out. This should result in a decrease in per capita water use as shown in Table 2-5. This is due to the expanded role of recycled water as a management tool.

This section will explore in greater detail Central Basin's population trends and historical and current water demands as well as offer some insight into expected future water demands for the next 25 years.

2.2 CLIMATE CHARACTERISTICS

Central Basin's service area lies in the heart of Southern California's coastal plain. The climate is Mediterranean, characterized by typically warm, dry summers and wet, cool winters with an average precipitation level of approximately 15.4 inches per year[1]. The combination of mild climate and low rainfall makes the area a popular residential destination, creating a challenge for water agencies in meeting increasing water demands with sometimes limited water supplies as described below.

Areas with low precipitation, such as Southern California, are typically vulnerable to droughts. Historically, Southern California has experienced a pattern of severe dry periods (Droughts of 1977-78 and 1987-92), with one of worst occurring from 2005 through 2009. During those four years, the 2006-07 year was considered the driest year with only 3.21 inches of rain recorded in downtown Los Angeles. Any time low rainfall occurs, the region becomes more reliant upon other sources of water such as groundwater and imported water. Reducing our reliance on imported water is something Central Basin has actively pursued for the last 20 years to ensure future water reliability.

Table 2-1 illustrates the climate characteristics for the Los Angeles region, taken at both the Long Beach Station and the Montebello Station, using data accumulated between 1979 and 2005 (26 years) including standard monthly average ETo[2] (Long Beach Station), the average rainfall (Montebello Station) and the average temperature (Montebello Station). In comparison to other regions in California with an abundant supply of precipitation each year, the low rainfall in this region invariably challenges Central Basin to provide sufficient, reliable, quality water to meet the area's water needs.

FOOTNOTES

1 According to the Western Region Climate Center

2 Evapotranspiration is the water lost to the atmosphere by two processes-evaporation and transpiration. Evaporation is the loss from open bodies of water, such as lakes and reservoirs, wetlands, bare soil and snow cover; transpiration is the loss from living-plant surfaces

Table 2-1
Climate Characteristics - Los Angeles Region
Zone 4 - South Coast Inland Plain

	Jan	Feb	Mar	Apr	May	June
Standard Monthly Average Eto[1]	1.86	2.24	3.41	4.50	5.27	5.70
Average Rainfall (inches)[2]	3.56	3.91	3.06	0.90	0.23	0.07
Average Temperature (Fahrenheit)[2]	69.4	71.1	72.8	77.8	79.4	83.7

	July	Aug	Sept	Oct	Nov	Dec	Annual
Standard Monthly Average Eto	5.89	5.58	4.50	3.41	2.40	1.86	46.62
Average Rainfall (inches)	0.02	0.02	0.20	0.30	1.23	1.88	15.38
Average Temperature (Fahrenheit)	88.6	89.7	87.9	82.6	75.4	70.9	79.1

FOOTNOTES

[1] Data taken from the California Irrigation Management Information System (CIMIS) at the Long Beach Station for the Southeast Los Angeles Region for Calendar Year 2009: http://www.cimis.water.ca.gov/cimis/welcome.jsp
[2] Data taken from the Western Regional Climate Center's web site at the Montebello Station for the period Jan 1979 through Dec 2005: http://www.wrcc.dri.edu/cgi-bin/cliMAIN.pl?camont

2.3 DEMOGRAPHICS

Central Basin's service area encompasses 227 squares miles in southeast Los Angeles County and includes 24 cities. There are 26 retail water agencies that include cities, water agencies, publicly-owned mutual water companies and other publicly regulated utilities. This service area includes some of the most densely populated areas in Los Angeles County. According to the Southern California Area Governments (SCAG) 2008 Regional Transportation Plan and the Metropolitan Water District (MWD) demographics data, Central Basin has grown from 1.4 million people in 1990 to 1.65 million people today.

Based on SCAG and MWD demographic projections, population is expected to increase an average of 2 percent every five years for the next 25 years, or one-half of one percent annually. This is much slower growth than was anticipated in Central Basin's 2005 Urban Water Management Plan. By 2035, Central Basin's population is expected to grow by about 155,000 people. Table 2-2 displays the demographic projections for the next 25 years.

Table 2-2 also displays Central Basin's total households, which are expected to increase by 10 percent (or 43,900) by 2035. As it relates to water demand, more households will increase the demand on water supplies. As for employment, Central Basin is expected to see a 6.9 percent increase by 2035. As urban employment grows, so does the demand on water supplies.

2.4 HISTORICAL AND CURRENT WATER DEMANDS

The key factors that affect water demand are growth in population, increases in land use development, industrial growth and hydrology. However, since the end of the 1987-92 drought, retail water demand in Central Basin's service area has remained fairly consistent. As illustrated in Figure 2-1, the Central Basin region has not seen significant increases in water demand during the past 15 years despite population growth at an average rate of 10,350 persons per year and continued in-fill development in the service area. Central Basin's service area total water use in FY 2009-10 was 288,450 AF (including recycled water deliveries). Total retail demand was 228,155 AF.

Total water use within Central Basin's service area includes retail demand and groundwater replenishment deliveries. Total retail demand is defined as all municipal (i.e. residential, firefighting, parks, etc.) and industrial uses, and represents the population's total direct water consumption including recycled water, but not replenishment. Groundwater replenishment activities include deliveries to the San Gabriel River and Rio Hondo Spreading Grounds (in Pico Rivera) which are not directly delivered to the public but enable continued groundwater production to help satisfy retail demand. In May 2007, MWD curtailed deliveries of discounted imported replenishment water due to drought conditions. In FY 2009-10, due to falling groundwater levels Central Basin began delivering higher cost imported water for replenishment purposes.

Figure 2-1 displays Central Basin's total retail water demand from FY 1995 to 2010. As previously discussed, retail demand has remained fairly consistent since 1995 following several years of increasing demands after the drought. However, in 2007 when MWD curtailed replenishment deliveries, total demand fell sharply. Economic conditions and mandatory water use restrictions pushed water demand down even further in 2009 and 2010. The average total retail demand for the past 15 years is about 255,600 AFY.

Table 2-2

Demographic Projections for Central Basin's Service Area[1] in the Central Basin Service Area

Year	2010	2015	2020	2025	2030	2035
Population	**1,654,866**	**1,689,064**	**1,720,700**	**1,751,519**	**1,781,368**	**1,809,737**
Single-family	301,186	307,330	312,886	316,725	320,367	322,932
Multi-family	126,269	131,390	136,352	140,535	144,721	148,425
Total Household	**427,455**	**438,720**	**449,238**	**457,260**	**465,088**	**471,357**
Persons per Household	3.87	3.84	3.83	3.83	3.83	3.84
Employment	553,727	563,417	569,641	591,700	584,740	592,147

[1] Information provided by MWD Demographic Data, October 2009 which is based on SCAG 2008 Transportation Plan.
Note: All units are rounded to the nearest hundred; totals may not sum exactly due to rounding.

Over the last two years, Central Basin's total water use has averaged significantly lower at about 241,600 AFY, which is about 5.5 percent lower than the 15 year average. Table 2-3 provides projected imported water sales (including replenishment activities) to the cities and agencies within the Central Basin service area in comparison to FY 2005-06, which can be considered an average demand year.

Central Basin's service area is using the same amount of water as it did 10 years ago, despite the addition of 148,560 people. This indicates that water conservation and education has significantly affected the manner in which Central Basin's residents are using water today. We can further verify this by reviewing Central Basin's water usage per person in "Per Capita Water Usage" in Figure 2-2.

2.4.1 PER CAPITA WATER USAGE

In February 2008, the California legislature introduced a seven part comprehensive plan for improving the Sacramento-San Joaquin Delta. As part of that effort, several state agencies were directed to develop a plan to reduce per capita water use statewide by 20 percent by the year 2020. Legislation titled the "Water Conservation Act of 2009" (SB X7-7) enacted the 20 x 2020 concept. As part of the 20 x 2020 plan, all retail water agencies in the state are required to detail how they plan to achieve the mandatory reductions though their Urban Water Management Plans (UWMP). The provision allowed retail water agencies an extended deadline of June 30, 2011 to submit their UWMP.

Statewide Target

According to the State of California[3], the state's total urban water usage in 2005 is equivalent to 192 gallons per capita per day (gpcd). However, this number can be misleading because it represents different hydrological regions across the state that have urbanized populations and highly variable climatic conditions that influence water use.

FOOTNOTES

3 20x2020 Water Conservation Plan – February 2010, pg. 2-27

Table 2-3

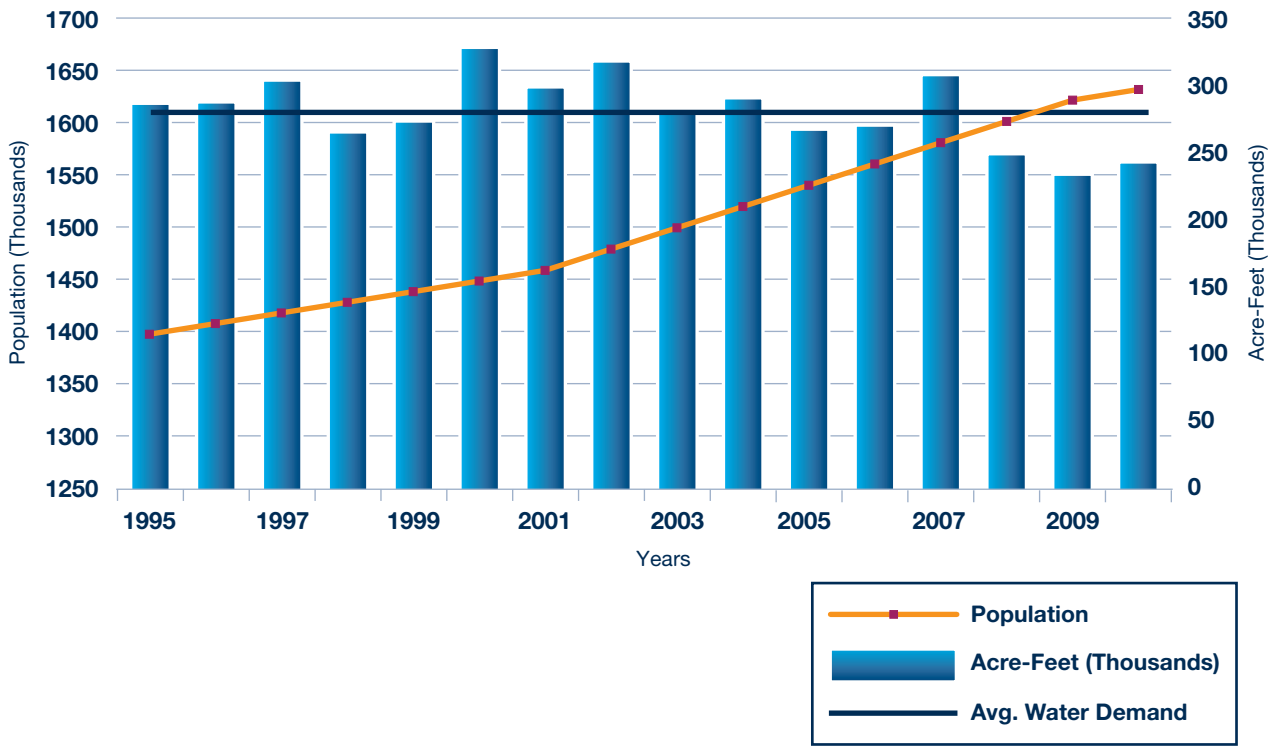
Historical & Projected Imported Water Sales to Central Basin Service Area Retail Agencies[1]

	FY 2005-06	FY 2009-10	2015	2020	2025	2030	2035
Agencies Purchasing Imported Water							
Bellflower-Somerset Mutual Water Company	2,105	1,800	2,100	2,150	2,200	2,300	2,350
California Water Service - East Los Angeles/Commerce	14,428	12,171	9,700	10,150	10,600	11,000	11,500
City of Bell Gardens	1,111	493	1,000	1,100	1,100	1,150	1,200
City of Cerritos	625	290	1,000	1,000	1,050	1,100	1,150
City of Downey	0	0	0	0	0	0	0
City of Huntington Park	1,793	1,346	1,600	1,700	1,700	1,750	1,800
City of Lakewood	0	0	0	0	0	0	0
City of Lynwood	1,653	267	850	900	925	950	975
City of Montebello	1,137	1,112	1,300	1,300	1,350	1,400	1,450
City of Norwalk	920	841	100	100	100	100	100
City of Paramount	2,428	2,518	3,100	3,200	3,300	3,400	3,500
City of Santa Fe Springs	2,602	3,683	3,900	4,000	4,100	4,200	4,300
City of Signal Hill	426	135	100	100	100	100	100
City of South Gate	0	0	0	0	0	0	0
City of Vernon	2,785	1,099	1,900	1,950	2,000	2,100	2,150
County of Los Angeles - Rancho Los Amigos	358	308	25	25	25	25	25
Golden State Water Company	10,787	6,944	10,800	11,100	11,400	11,800	12,100
La Habra Heights Water District	114	79	250	260	270	280	290
Maywood Mutual Water Co. No. 1	140	40	100	100	100	100	100
Maywood Mutual Water Co. No. 2	285	26	100	100	100	100	100
Maywood Mutual Water Co. No. 3	0	0	0	0	0	0	0
Orchard Dale Water District	1,216	754	1,100	1,100	1,150	1,200	1,200
Park Water Company	12,098	8,905	11,000	11,300	12,000	12,400	12,800
San Gabriel Valley Water Co	881	0	0	0	0	0	0
Suburban Water Systems	1,992	335	1,000	1,050	1,100	1,100	1,150
Walnut Park Mutual Water Co.	507	0	0	0	0	0	0
Total Imported Water Demand	**60,391**	**43,142**	**51,025**	**52,685**	**54,670**	**56,555**	**58,340**
Water Replenishment District (Replenishment)[2]	**25,418**	**20,295**	**21,000**	**21,000**	**21,000**	**21,000**	**21,000**
Total including Replenishment	**85,809**	**63,437**	**72,025**	**73,685**	**75,670**	**77,555**	**79,340**

[1]*Projected imported water sales are not necessarily reflective of the local agency's UWMP. The above projections are based on estimated increases of about 3 percent over each five-year period.*

[2]*Imported replenishment water sales in FY 2009-10 were actually Tier I untreated. Projected demand for replenishment purposes are based upon WRD's projected annual estimate. The demand can be met through Tier I sales or through Long Term Seasonal Storage sales, when available.*

Figure 2-1
Central Basin's Historical Total Retail Water Demand vs. Population



Using that number as the baseline, the state must reduce per capita water demand to 173 gpcd by 2015 as the interim target and 154 gpcd by 2020 to meet the final statewide target.

Regional Target

In the South Coast hydrological region (which incorporates the Central Basin service area as well as all of the MWD service area), the total urban water usage in 2005 was 180 gpcd. Based on the criteria for establishing a target number, the baseline for the South Coast Region is 171 gpcd (which is 95 percent of established target reductions). With this baseline in mind, the South Coast region's interim target for 2015 is 154 gpcd and the final target for 2020 is 137 gpcd.

Central Basin Service Area

Within the Central Basin service area, the gpcd changes annually due to influences of drought or precipitation and water supply. For example, in May 2007, MWD eliminated imported water replenishment deliveries (also known as Seasonal Storage) due to drought conditions. Compared to previous years, that action had the impact of lowering Central Basin's gpcd significantly in the years that followed. In 2010, due to falling groundwater levels, Central Basin, worked with the Water Replenishment District of Southern California (WRD) to deliver 20,295 AF of higher-cost imported water from MWD for replenishment purposes.

Spreading Demands

Overall, during the last five years, water usage has generally become more efficient, decreasing in 2010 to about 131 gpcd. Figure 2-2 illustrates the retail water usage per capita for the last six fiscal years compared to the population in Central Basin's service area.

Gateway IRWMP

In February 2011, the Gateway Integrated Regional Water Management (Gateway IRWM) group formed a "regional alliance" developed a regional plan to meet the interim and 2020

targets as indicated in SB X7-7 for all retail water agencies in the Gateway IRWM (which includes all of the Central Basin service area). Although Central Basin itself is under no requirements to meet specific gpcd targets, Central Basin has agreed to include the 20x2020 plan in its 2010 UWMP. Since many local agencies will be appending Central Basin's 2010 UWMP to their own UWMP, this approach will achieve adoption compliance. The Gateway Regional Alliance 20 x 2020 Plan is included as Appendix D.

2.4.2 REPLENISHMENT DEMANDS

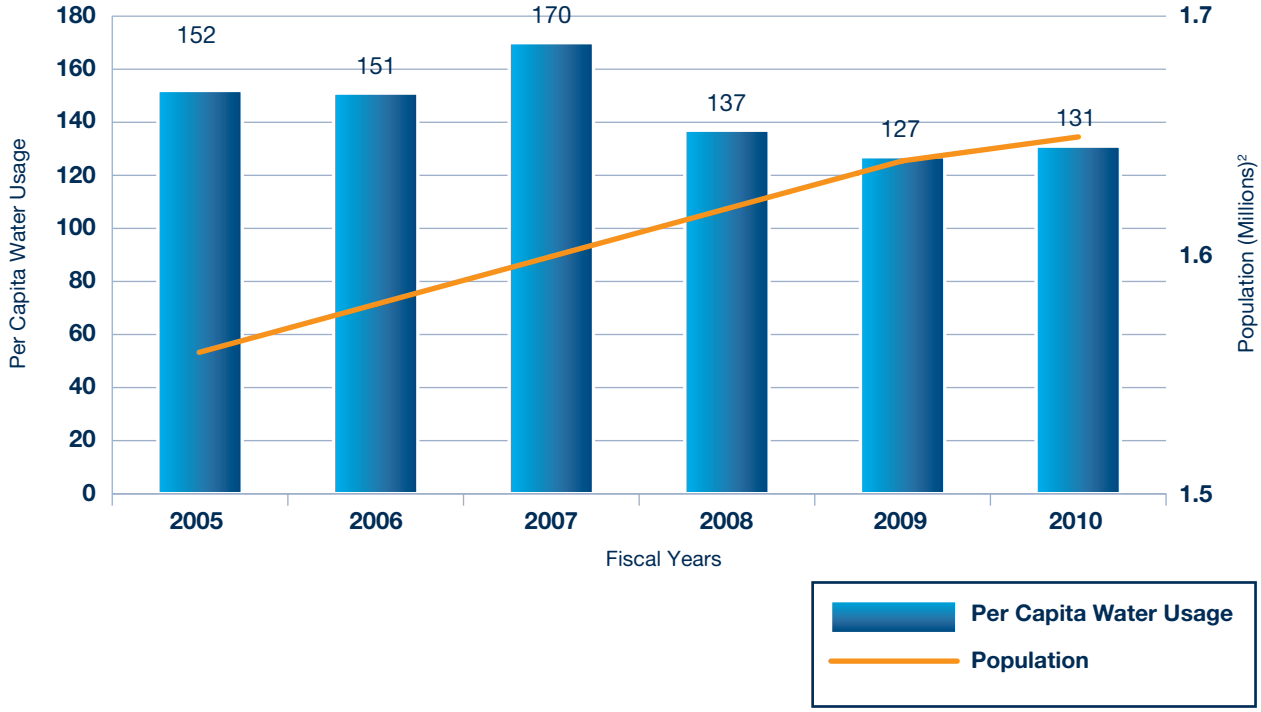
Replenishment water is defined as water that is used to refill or protect the groundwater basin. The Water Replenishment District of Southern California (WRD) is the entity responsible for purchasing imported and recycled water for replenishing the Central Groundwater Basin.

As groundwater is extracted annually beyond the natural level of replenishment, WRD purchases supplemental water to refill the basin and replenish the amount that is extracted above the basin yield. This replenishment water is a combination of allowable deliveries of recycled water and the purchases of untreated imported water from Central Basin. Storm water is also used for replenishment, but the diversion of storm water into the Rio Hondo and San Gabriel River Spreading Grounds (Spreading Grounds) is managed by the Los Angeles County Department of Public Works (LACDPW).

As the imported water wholesaler, Central Basin provides untreated water to WRD to be conserved at the Spreading Grounds in the Montebello Forebay, located in Pico Rivera and Montebello. Demands at the Spreading Grounds have varied year to year. Imported spreading purchases can range from about 46,000 AF to 0 AF in any given year. While there is always some annual variability in demand due to storm activity and drought conditions, typically WRD needs about 21,000 AF of imported water annually to help replenish the Central Groundwater Basin.

Figure 2-2

Historical Per Capita Retail Water Usage[1] in the Central Basin Service Area



[1] Retail water usage includes groundwater, imported water, seasonal spreading, WQPP, and Main Basin deliveries.
[2] Information based on MWD Demographic Data, 2009.

In May of 2007, the MWD Board of Directors made the decision to discontinue replenishment deliveries to all member agencies, including Central Basin, due to drought conditions. Almost immediately, groundwater levels began to fall. In December 2009, monitoring wells in the Montebello Forebay were shown to be at the lowest recorded level in 30 years. Central Basin, working in cooperation with WRD and the City of Long Beach, arranged to purchase more than 25,000 AF of higher cost imported water for replenishment of the basin. While monitoring well levels have improved significantly since then, the dangers of not purchasing adequate replenishment supplies for groundwater basins, even at higher costs, remain apparent.

Rio Hondo Spreading Grounds

Future replenishment demands are always difficult to project because of the variation in operational changes and replenishment needs. However, based on typical hydrological conditions, WRD will need about 21,000 AF of imported water annually to blend with recycled water and storm water just to maintain current groundwater levels. To actually fill the Central Groundwater Basin will require much higher levels of replenishment from all three sources.

In coming years, two new projects are projected to increase the amount of storm water at the San Gabriel River and Rio Hondo Spreading Grounds within the Central Basin. The LACDPW has constructed a 78" conduit with a pump station along Mines Avenue in Pico Rivera that will allow for the movement of water between the two spreading grounds. When one spreading ground fills with storm water, the water can be moved to the other spreading ground allowing it to percolate into the groundwater basin instead of being lost to the Pacific Ocean, thus conserving the water supply. A second project is the Whittier Narrows Conservation Pool project which proposes to raise the level of the Whittier Narrows Dam to increase storm water capture. If completed, the project will save about 10,000 AF for recharge in the spreading grounds and will help lessen the need for imported water for replenishment.

Table 2-4

Central Basin Service Area Current & Future Water Demands

	2010	2015	2020	2025	2030	2035
Retail Municipal and Industrial Demand						
Groundwater[1]	174,318	182,600	184,100	184,600	184,600	184,600
Imported Water[2]	63,443	72,025	73,685	75,670	77,555	79,340
Recycled Water[3]	6,632	6,700	11,000	16,000	16,000	16,000
Total	**244,393**	**261,325**	**268,785**	**276,270**	**278,155**	**279,940**

1 Includes both Central Groundwater Basin, San Gabriel Valley "Main" Basin, and WQPP deliveries.
2 Includes direct deliveries and replenishment deliveries.
3 Direct deliveries from Central Basin's system.

2.4.3 RETAIL IMPORTED WATER DEMAND BY CUSTOMER AGENCY

As mentioned above, Central Basin, as a wholesaler, has not seen significant increases in water demand for the past 10 years. However, local retail agencies have experienced significant changes in their overall water demand since 2005.

For comparative purposes, Table 2-3 illustrates the changes in each retail agencies' imported water demands during FY 2005-06 and FY 2009-10. Although some agencies have seen some dramatic shifts in imported water demand during the past five years, the overall demand saw a 28 percent decrease. The significant changes among cities and agencies can be attributed to the national and local economy, mandatory rationing, years of conservation, and the implementation of tired rates by many retail water agencies over the last three to four years. Central Basin expects imported water demand to begin to increase back to a more normalized level by 2015.

2.5 PROJECTED WATER DEMANDS

One of the objectives of this UWMP is to provide insight into Central Basin's expected water demand for the next 25 years. The predictability of water usage is an important element in planning future water supplies. The methodology used in demand forecasting is a combination of historical water use analysis, population growth and commercial and residential development. Central Basin, with the assistance of MWD's forecasting model known as MWD-MAIN (Municipal and Industrial Needs) Water Use Forecasting System, is able to develop well formulated water demand projections.

The MWD-MAIN forecasting model determines expected urban water usage for the next 25 years. To project water demands, this model incorporates census data, industrial growth, employment and regional development from regional planning agencies, such as SCAG (Southern California Association of Governments). It also features demands in sectors such as single family, multifamily, industrial, commercial and institutional usage for the region. MWD also takes into account current and future water management efforts, such as water conservation Best Management Practices (BMPs) and education programs.

Table 2-4 illustrates the current and projected retail water demands until the year 2035 for Central Basin under normal demand conditions.

Retail imported water demand in Central Basin is expected to grow approximately 0.3 percent over each five year period through 2035. Groundwater will remain consistent, due to the limited amount of extractable pumping rights within the basin, while recycled water and conserved water will meet the rise in demand during the next 25 years.

2.5.1 PROJECTED PER CAPITA

As discussed previously, water demand is determined by the water usage divided by the population. The future "per capita" use shows that water demand will remain relatively flat as compared to the population increases that are expected over the next 25 years.

Table 2-5 shows a gradual decrease in per capita usage at a time when water has become a scarce commodity and population is projected to increase. Essentially, water use within the Central Basin service area will become more efficient.

Table 2-5
Water Supply Efficiency in the Central Basin Service Area

Year	Estimated Population1 (Millions)	Retail Water Usage2 (AF)	Per Capita (GPCD)
2015	1.689	259,125	137
2020	1.720	262,000	136
2025	1.751	265,000	135
2030	1.781	267,000	134
2035	1.809	269,000	133
		Average	**135**

1] Information provided by MWD Demographic Data, October 2009 which is based on SCAG 2008 Transportation Plan. [2] Retail Water Usage includes recycled water but does not include replenishment sales.

Water Supply

Section 3

Water Supply
Section 3

This section discusses the current and future water supply within Central Basin's service area

3.1 OVERVIEW

It is Central Basin's mission to ensure a safe, adequate and reliable supply of water for the region it serves. However, with increasingly limited and costly water supplies, the task of meeting this mission has become a challenge for Central Basin.

Sixty years ago, retail water agencies in the Central Basin relied completely on groundwater. Today, they rely on a more diverse mix of water resources with 58 percent groundwater, 21 percent imported, 15 percent recycled water (only M&I) and 6 percent conservation efforts. (Note that conservation is an estimate of the amount of water that would have been needed had conservation programs not been implemented). It has been projected that by 2035, the resource mix will depend less upon imported water, with greater reliance upon recycled water development and conservation programs. Central Basin has already begun diversifying water resources to ensure a reliable supply of water for its service area.

This section provides an overview of the current and future water supplies needed to meet the expected demands of Central Basin including: a review of the current and projected water supply mix, a description of each water source Central Basin's service agencies currently rely on and expected future supplies that Central Basin is planning and/or developing to meet its service area future demands.

3.2 CENTRAL BASIN'S WATER SUPPLY PORTFOLIO

Since its formation in 1952, Central Basin has fulfilled its responsibility of providing its customer agencies with supplemental supplies to ensure reliability. Today, diversification is the key to an ample future supply of water throughout its service area. As illustrated in Figure 3-1, Central Basin's supply portfolio has changed over the last 10 years.

Similar to creating a balanced investment portfolio in order to reduce risk, Central Basin plans to further diversify its water resource mix during the next 25 years with the expansion of the recycled water system, increased conservation efforts along with groundwater storage opportunities. Central Basin's dependence on imported sources will continue to decrease with the expansion of these alternative sources. Figure 3-1 and Table 3-1 show the current and projected water supply portfolio which Central Basin uses to meet regional demand.

Figure 3-1
Historical, Current & Projected Water Supplies in the Central Basin Service Area

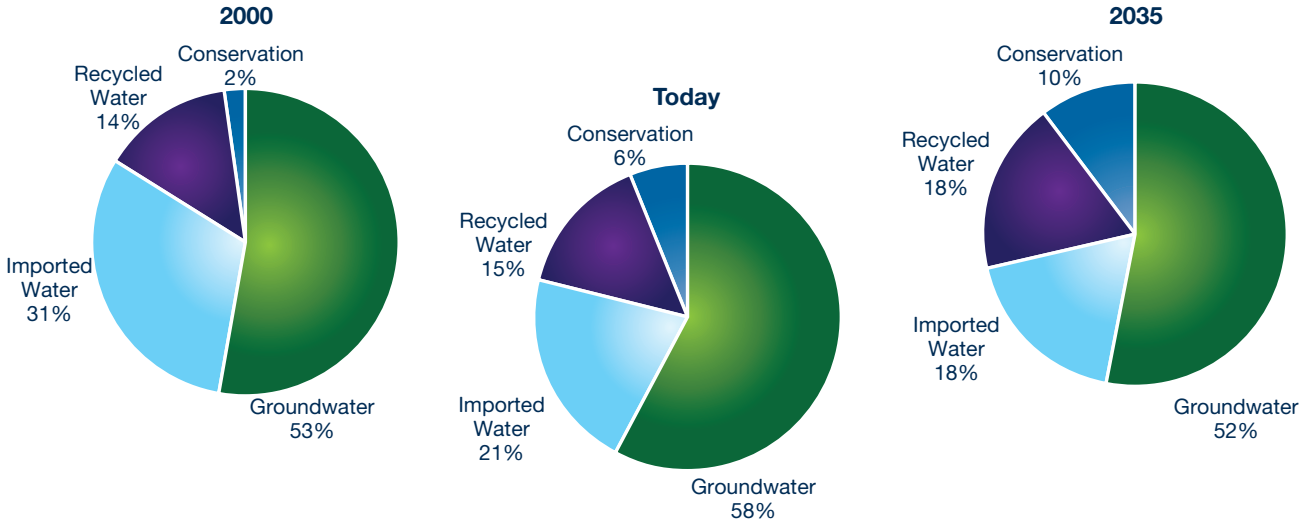


Table 3-1
Current & Projected Maximum Potential Water Supplies in Central Basin
(Acre-Feet)

Supply Source	2010 (Actual)	2015	2020	2025	2030	2035
Groundwater[1]	174,318	194,400	194,400	194,400	194,400	194,400
Imported Water[2]	63,443	72,360	72,360	72,360	72,360	72,360
Recycled Water[3]	6,632	23,000	23,000	23,000	23,000	23,000
Total Supply	**244,393**	**289,760**	**289,760**	**289,760**	**289,760**	**289,760**

Note: Imported supply covers only retail water demand; does not include replenishment deliveries such as spreading

[1] Based upon the total allowable pumping allocation (APA) for each customer agency within Central Basin's service area plus the average amount produced and imported from Main San Gabriel Basin, according to the 2009 DWR Central Basin Watermaster Report.
[2] Central Basin's annual Tier I supply from MWD based on ten-year purchase order annual allocation.
[3] Available supply from CSDLAC per contract.

3.3 CENTRAL BASIN'S WATER SOURCE

3.3.1 IMPORTED WATER SUPPLY

Central Basin currently relies on approximately 63,000 acre-feet per year (AFY) of imported water from the Colorado River and the California State Water Project (SWP) to meet its retail and replenishment demands. The Metropolitan Water District of Southern California (MWD) imports water from the Colorado River and the State Water Project. That water is then made available to Central Basin and other water agencies throughout Southern California.

Colorado River

MWD was established to develop or import a water supply from the Colorado River by constructing .and operating the Colorado River Aqueduct (CRA), which can deliver roughly 1.2 million acre-feet (MAF) per year. Under its contract with the federal government, MWD has a basic entitlement of 550,000 AF per year of Colorado River water, plus a priority for an additional 662,000 AF per year. MWD can obtain additional water under this priority when the U.S. Secretary of the Interior determines that one or both of the following conditions exists:

- Surplus water is available; and/or
- Colorado River Water is apportioned to but unused by Arizona and/or Nevada.

MWD and the State of California have acknowledged that they could obtain less water from the Colorado River in the future than they have in the past, but the lack of clearly quantified water rights has hindered efforts to promote water management projects. The U.S. Secretary of Interior asserted that California's users of Colorado River water have to limit their use to a total of 4.4 MAF per year, plus any available surplus water.

The resulting plan, known as "California's Colorado River Water Use Plan" or the "California 4.4 Plan," characterizes how California could develop a combination of programs to limit its annual use of Colorado River water to 4.4 MAF per year plus any available surplus water. The Quantification Settlement Agreement (QSA) among the California agencies was a critical component of the California 4.4 Plan until February 2010, when the Sacramento County Superior Court nullified major portions of the agreement. The court ruled that the state's commitment to be responsible for all mitigation and restoration costs for the Salton Sea beyond $163 million from local agencies, was unconditional and therefore a violation of the state's debt limitation, as specified in the California Constitution. MWD and other agencies have filed an appeal that will stay the ruling for a short time. If the ruling is upheld, MWD and its member agencies will likely see higher costs. In addition, the impact of the ruling on CRA supplies cannot be quantified.

The amount of runoff in the Colorado River Basin has been impacted over the last 10 years by an 8-year drought that caused storage levels at Lake Powell and Lake Mead, the two major reservoirs on the Colorado River, to drop to about 50 percent of capacity. In FY 2009-10, the Colorado River Basin saw slightly above average precipitation for the first time in 10 years. The FY 2010-11 snowpack was the biggest ever recorded, so water levels in both lakes are expected to rise substantially.

To reduce the uncertainty of Colorado River supplies, MWD has been activity pursuing water conservation and storage agreements with irrigation districts and other agencies along the Colorado River to secure water sources beyond their basic apportionment. In FY 2009-10, MWD received a nearly full CRA of 1.1 MAF despite having an annual allocation of only 550,000 AF.

State Water Project

California's State Water Project (SWP), MWD's second main source of imported water, is the nation's largest state-built water and power development and conveyance system. It's facilities include pumping and power plants, reservoirs, lakes, storage tanks, canals, tunnels and pipelines that capture, store and convey water from the Lake Oroville watershed on the Feather River in Northern California to 29 water agencies or contractors throughout the state. Facilities located within Central and Southern California are planned, designed, constructed and now operated and maintained by the California Department of Water Resources (DWR). These facilities provide supplemental water supplies for about 23 million Californians and about 800,000 acres of irrigated farmland, mostly in the state's Central Valley region.

The original State Water Contract called for an ultimate delivery capacity of 4.2 MAF, with MWD holding a contract for about 1.9 MAF. More than two-thirds of California's imported drinking water, including all of the water supplied by the SWP, passes through the San Francisco-San Joaquin Bay-Delta (Bay-Delta). For decades, the Bay-Delta system has experienced water quality and supply reliability challenges along with conflicts due to variable hydrology and environmental standards that limit pumping operations.

Until very recently, as a contractor to the SWP, MWD enjoyed annual deliveries of about 1.4 MAF. Even with annual fluctuations in hydrology, the SWP was considered to be a highly reliable source of water for the Bay Area, the Central Valley, and Southern California.

In 2004, the U.S. Fish and Wildlife Service and the National Marine Fisheries Service issued Biological Opinions that govern the operation of the SWP as well as the Federal Central Valley Project (CVP) which also takes water from the Bay-Delta. Litigation was filed by environmental groups under the Endangered Species Act claiming that the Biological Opinions did not adequately protect Delta Smelt and the spring-run Chinook salmon. In May 2007, Federal District Judge Oliver Wanger agreed with the litigants and invalidated the Biological Opinions. Judge Wanger also issued an Interim Remedial Order which required the SWP and the CVP to be operated under specified criteria that severely constrained deliveries of water from the Bay-Delta.

In 2008, MWD estimated that it lost 250,000 AF water with the combined loss for all SWP contractors being about 1 MAF.

Operational constraints will likely continue well into the future until a long-term solution for the Bay-Delta is implemented. MWD, along with state and federal resource agencies, and various environmental and water use agencies are currently engaged in formulating the Bay-Delta Conservation Plan (BDCP). The purpose of BDCP is to help reduce conflicts by developing a set of water flow and habitat restoration projects that contribute to the recovery of endangered species in the Bay-Delta and securing long-term operating permits for the SWP.

Types of Imported Supplies

Depending on the ultimate use, Central Basin has delivered Non-Interruptible Water (treated full-service), Seasonal Treated Replenishment Water and Seasonal Untreated Replenishment Water. MWD offers a variety of imported water supplies to its member agencies.

Non-Interruptible Water is the treated firm supply that is available all year round. Central Basin delivers a five-year average of 60,800 AFY of non-interruptible water annually. It is used as the main supplemental supply for cities and water agencies.

Seasonal Storage Long Term, also known as “In-Lieu” water, is delivered to customer agencies that are eligible to offset groundwater production with imported water. This program incentivizes customer agencies to take surplus imported water which indirectly replenishes the local groundwater basin. This surplus water is purchased at a discount rate in exchange for leaving groundwater in the basin for no less than a year so that it can be used subsequently during dry years.

Seasonal Spreading, better known as replenishment water, is delivered to the San Gabriel River and Rio Hondo Spreading Grounds in the Montebello Forebay. Replenishment water does not require treatment and is generally provided during the seasonal months (October through April), which allows for it to be purchased at a discounted rate. The Water Replenishment District (WRD) purchases imported replenishment water from Central Basin for the purpose of replenishing the Central Groundwater Basin. The amount varies from year to year depending on the replenishment needs of the Groundwater Basin, but typically, the long term average is 21,000 AFY.

In May 2007, due to drought and falling storage levels, MWD curtailed deliveries of both replenishment water and in-lieu water. This curtailment caused severe impacts to groundwater basins throughout Southern California. In late 2009, after three years of below average rainfall and two years of curtailment of imported water, Central Groundwater Basin levels fell to their lowest level in 30 years. The winter of 2009-10 provided significant storm water flows to the Central Groundwater Basin which provided limited recovery. At the same time, Central Basin and the City of Long Beach agreed to sell about 25,000 AF of Tier I imported water to WRD for replenishment. The winter storms of late 2010-2011 as well as sales of higher cost Tier I water have significantly improved the groundwater levels in the Central Groundwater Basin. In April 2011 the MWD Board of Directors lifted the ban on discounted replenishment and implemented the short terms of 225,000 AF to the member agencies.

3.3.2 GROUNDWATER SUPPLY

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 drafted over beginning in the late 1940s and throughout the 1950s.

Today, the average retail customer agency in Central Basin relies on groundwater production for about 58 percent of its water supply. However, there are still several agencies in Central Basin's service area that rely exclusively on groundwater to meet all current water needs.

The Central Groundwater Basin (Basin) covers an area of about 270 square miles in the Los Angeles Coastal Plain in southeast Los Angeles County. The Basin is bounded on the northeast and the east by the Elysian, Repetto, Merced, and Puente Hills. The southeast boundary is along Coyote Creek, which is used to separate the Basin from the Orange County Groundwater Basin. The southwest boundary is the Newport-Inglewood fault system and uplift which separates it from the West Coast Groundwater Basin.

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 to artificially recharge the Basin. The Central Groundwater Basin Judgment is included as Appendix E.

Water Replenishment District

The groundwater producers (pumpers) in the area, which are members of the Central Basin Water Association, shepherded the creation of the Water Replenishment District of Southern California (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" (now called the Water Replenishment District of Southern California or "WRD"). 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.

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. Table 3-2 shows the adjudicated pumping rights in the Central Groundwater Basin.

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.

Table 3-2
Adjudicated Pumping Rights in Central Groundwater Basin
(Acre-Feet)

Central Basin Retailer Cities & Agencies	Adjudicated Rights (AF)
Bellflower-Somerset Mutual Water Company	4,313
California Water Service - East Los Angeles	11,774
California Water Service Company - Commerce	5,081
City of Bell Gardens	1,914
City of Cerritos	4,680
City of Downey	16,554
City of Huntington Park	3,853
City of Lakewood	9,432
City of Lynwood	5,337
City of Montebello	387
City of Norwalk	1,773
City of Paramount	5,883
City of Santa Fe Springs	4,036
City of Signal Hill	2,022
City of South Gate	11,183
City of Vernon	8,039
County of Los Angeles - Rancho Los Amigos	490
Golden State Water Company	16,439
La Habra Heights Water District	2,596
Maywood Mutual Water Co. No. 1	741
Maywood Mutual Water Co. No. 2	912
Maywood Mutual Water Co. No. 3	1,407
Orchard Dale Water District	1,407
Park Water Company	2
San Gabriel Valley Water Company	2,565
Suburban Water Systems	3,721
Walnut Park Mutual Water Company	996
Sub-Total	**127,237**
Groundwater Only Retail Water Agencies	17,920
Agencies Outside of Central Basin Service Area	55,531
Non-Retail Water Agencies	16,679
Total	**217,367**

Source: Central Basin Watermaster Report, FY 2008-09

The total amount of water extracted from the Main Basin and utilized within the Central Basin service area over the last five years averages to approximately 31,500 AFY. Table 3-3 displays the water retailers and the amount produced from the Main Basin and from the Central Groundwater Basin for the last five fiscal 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 Table 3-4. The economic costs to pump groundwater versus the purchases of imported water will continue to pressure water retailers to maximize their groundwater rights.

Groundwater Recharge

For the past 73 years, the Central Groundwater Basin has been artificially replenished through the San Gabriel River and Rio Hondo Spreading Grounds (spreading grounds), which were constructed by the Los Angeles County Flood Control District (LACFCD) and are owned and operated by the Los Angeles County Department of Public Works (LACDPW). The WRD purchases imported water (replenishment or Tier I untreated) from Central Basin Municipal Water District and recycled water from the County Sanitation Districts of Los Angeles County (CSDLAC) and asks LACDPW to spread that water in the spreading grounds where it percolates into the Montebello Forebay of the Central Groundwater Basin. Table 3-5 shows the demand projections for imported and recycled water in the Central Basin service area.

Table 3-3
Historical Amount of Groundwater Pumped from the Central Groundwater Basin & Main San Gabriel Basin (Acre-Feet)

	2005	2006	2007	2008	2009
Main Basin Retail Agencies					
California Domestic Water Co.	8,327	8,928	8,513	8,466	8,235
San Gabriel Valley Water Co.	3,387	2,310	3,537	4,221	2,240
Suburban Water Systems	11,857	13,708	12,502	12,395	11,527
City of Whittier	7,773	7,953	7,144	8,034	6,527
Sub-Total	**31,344**	**32,899**	**31,696**	**33,116**	**28,530**
Central Groundwater Basin	149,443	153,297	156,985	146,336	145,788
Total	**180,787**	**186,196**	**187,985**	**181,336**	**174,318**

Source: Central Basin Watermaster Annual Reports & Main Basin Watermaster Reports and agency reports

Table 3-4
Projected Amount of Groundwater Pumped from the Central Groundwater Basin & Main San Gabriel Basin (Acre-Feet)

	2015	2020	2025	2030	2035
Basin Name					
Central Groundwater Basin[1]	146,500	148,000	148,500	148,500	148,500
Main San Gabriel Basin[2]	32,600	32,600	32,600	32,600	32,600
Total	**179,100**	**180,600**	**180,600**	**180,600**	**180,600**

[1] Central Basin service area groundwater production including WQPP.
[2] Amount of water production from Main Basin which is utilized in Central Basin's service area.

Table 3-5
Demand Projections for Imported & Recycled Water in the Central Basin Service Area

	2015	2020	2025	2030	2035
Central Basin MWD					
Imported Water[1]	51,025	52,685	54,670	56,555	58,340
Recycled Water[2]	58,600	62,900	67,900	67,900	67,900
Replenishment Water[3]	21,000	21,000	21,000	21,000	21,000
Total	**130,625**	**136,585**	**143,570**	**145,455**	**147,240**

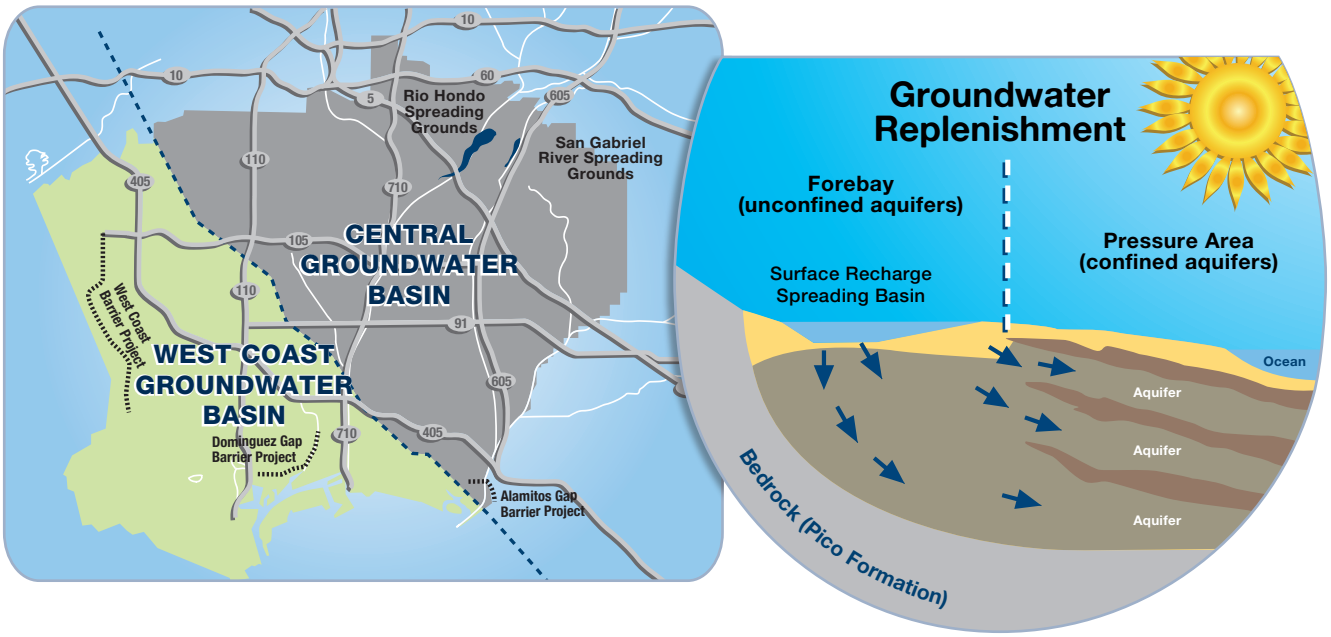
1. Municipal & Industrial Demands
2. Central Basin deliveries, Cerritos/Lakewood deliveries & groundwater replenishment estimates
3. Projected annual demand for imported replenishment water.

By statute, WRD assesses a groundwater production fee, a "Replenishment Assessment," to pumpers in the Central Groundwater Basin. The assessment provides funds for WRD to purchase imported water and recycled water, which is spread to replace pumped groundwater. The available supply of replenishment water to physically recharge the basins can be classified as follows:

- **Local water**
Consists of storm flows from the San Gabriel River, Rio Hondo River and other waterways within the San Gabriel Valley and flow obligations under the San Gabriel River Judgment between the Upper Area (San Gabriel Valley) and the Lower Area (Central Basin).

- **Recycled water**
Consists of recycled water purchased from CSDLAC for delivery at the spreading grounds.

- **Imported water**
Consists of untreated imported water purchased from Central Basin for delivery at the spreading grounds.



WRD also encourages in-lieu replenishment of the Central Groundwater Basin. Under the In-Lieu program, pumpers are encouraged through a financial incentive to purchase surplus imported water from Central Basin "in-lieu" of pumping groundwater. However, the incentive program is dependent on the availability of discount replenishment water from MWD.

Table 3-6 summarizes the historical amounts of imported water purchased by WRD to replenish the Central Groundwater Basin at the spreading grounds and to provide for injection into the Alamitos Gap Seawater Barrier.

3.3.3 RECYCLED WATER SUPPLY

Recycled water is one of the cornerstones of Central Basin's efforts to augment local supplies and reduce dependence on imported water. Since the planning and construction of Central Basin's recycling water system in the early 1990s, Central Basin has become a leader in delivering and marketing recycled water. Recycled water assists in meeting the demand for non-potable applications such as landscape irrigation, commercial and industrial processes, and seawater barriers. Recycled water is a resource that is reliable and environmentally beneficial to the region. It is only limited by the infrastructure needed for delivery. Through its over 215 site connections, Central Basin has delivered an average of 4,800 AFY over the last five years.

In addition, the City of Cerritos has its own recycled water system that currently treats and supplies nearly 2,000 AF per year of recycled water within the City's boundaries and to its neighbor, the City of Lakewood.

Recycled water deliveries within Central Basin are projected to reach 11,000 AF by year 2020. For a detailed description of Central Basin's water recycling program please refer to Chapter 8.

Colorado River Aqueduct in California

Table 3-6
Historical Imported Water Replenishment Deliveries
(Acre-Feet)

Fiscal Year	Spreading Water	Barrier Water[1]	Total
1995	21,837	5,269	**27,106**
1996	18,012	5,739	**23,751**
1997	22,738	5,336	**28,074**
1998	952	5,330	**6,282**
1999	0	6,169	**6,169**
2000	45,037	5,398	**50,435**
2001	23,451	6,062	**29,513**
2002	42,875	3,479	**46,354**
2003	22,366	0	**22,366**
2004	27,520	0	**27,520**
2005	25,296	0	**25,296**
2006	33,229	0	**33,229**
2007	46,310	0	**46,310**
2008	0	0	**0**
2009	0	0	**0**
2010	25,295	0	**20,295**

Source: Central Basin water use database, 2010
[1] Alamitos Barrier supplies transferred to the City of Long Beach in 2003.

3.4 ALTERNATIVE WATER SUPPLY PROJECTS

3.4.1 CONJUNCTIVE USE GROUNDWATER STORAGE

Since the early days of groundwater basin adjudication, it has been recognized that a groundwater storage program, utilizing available surface water supplies, would offer tremendous advantages for all groundwater pumpers in the Central Basin region. Storing water for later use is the key to ensure reliability for any city or agency.

Conjunctive Use Storage can be defined as the coordinated management of surface and groundwater supplies to increase the yield of both supplies and enhance water supply reliability in an economic and environmentally responsible manner.

The benefits of a Conjunctive Use Storage program include:

- Operational flexibility for groundwater production;
- Increased yield of the basin;
- More efficient use of surplus surface water during wet years;
- Financial benefits to groundwater users;
- Better distribution of water resources; and
- Increased measure of reliability.

Several years ago, WRD, with encouragement from the California Department of Water Resources, began a process that led to the agency essentially defining itself as the public entity responsible for management of a conjunctive use program for the Central Groundwater Basin. Even though that responsibility was not part of their statutory authority, WRD proceeded to define a groundwater storage program in which their Board of Directors would be the ultimate management authority. Financial

support for the mediation was provided by the Replenishment Assessment (RA). While the California Department of Water Resources (DWR) selected the mediator, supported the process and embraced the result, the DWR did not pay for it. Although there was agreement with this approach to create a storage program by several cities and agencies, others disagreed. After the court was petitioned by WRD with a change to the Central Basin Judgment to accommodate their proposed storage program, Central Basin filed a petition challenging, among other issues, that WRD's management authority for storage did not exist. In the summer of 2010, the court agreed with Central Basin. In November 2010, the WRD Board of Directors adopted a "Declaration of a Water Emergency." Central Basin and several cities challenged this Action because they felt the intent of the declaration was to subvert the Superior Court's decision to establish a storage program. In the meantime, the groundwater table continued to fall until December when winter storms provided substantial amounts of storm water for replenishment. As a result the WRD Board voted to limit the duration of the Declaration to the remainder of the fiscal year. Subsequently, the court issued a Stay of the Declaration which WRD argued with. Since its inception in 1959 to its Declaration of a Water Emergency, WRD has not substantially improved the condition of the Central Groundwater Basin through its replenishment plan. What WRD has done is to simply manage an overdraft situation into what WRD termed a water emegency in 2010.

Central Basin envisions the development of a Conjunctive Use Storage Program as part of a larger Water Management Program that will bring groundwater levels up to appropriate levels, which will improve the condition of the basin. This is part of Central Basin's core responsibilities to ensure a reliable supply of water for its service area and to protect the Central Groundwater Basin. When done in a publicly responsible manner, groundwater storage can be viewed as an additional source in diversifying our water resource supply portfolio which can also help to substantially eliminate the overdraft in the basin. In 2011, Central Basin began its environmental review process (California Environmental Quality Act or CEQA) to develop a groundwater storage program with the general public invited to provide input. Over the next year, that program will be defined through a series of transparent public meetings. Central Basin expects to roll out its Groundwater Storage Plan in early 2012.

In August 2010, the Cities of Cerritos, Downey and Signal Hill, filed a lawsuit against the WRD alleging that they had illegally imposed their RA in violation of Proposition 218 which was approved by the voters in November 1996. Proposition 218 is called "Right to Vote on Taxes Act." That Act requires local agencies to get voter approval before any local property tax can go into effect. Although WRD argued that the RA was not a property tax, the Superior Court ruled that the RA was an illegal property tax and as such, was vacated by the Court. This means that the WRD did not follow all requirements of Proposition 218 to impose the RA, and that the RA as improperly created can be vacated as an illegal tax. In addition, the court noted that the projects and programs unrelated to replenishment should not be funded with the RA because the RA can only be used for replenishment purposes. WRD will likely appeal this ruling, but as the region heads into FY 2011-12, there will almost certainly be significant impacts in the way replenishment water is managed.

Diversion dam on the North Fork Mokelumne River, just downstream from Tiger Creek Dam

Water transfers and exchanges are management tools to address increased water needs in areas of limited supply. Although transfers & exchanges do not generate a new supply of water, they help distribute water from where it is abundant to where it is limited.

MWD, in recent years, has played an active role statewide in securing water transfers and exchanges as part of their IRP goals in both the Colorado River Basin and along the State Water Project. As a member agency of MWD, Central Basin is the beneficiary of such transfers and exchanges.

3.4.2 DESALINATED WATER

The Central Basin service area is a land locked agency without direct access to the ocean. Therefore, construction of an ocean desalination facility is highly unlikely. Regionally speaking, the area does have active seawater barrier operations to prevent seawater intrusion. However, seawater barriers are not within the Central Basin service area either, so any trapped brackish water is not part of Central Basin's potential resources.

That being said, ocean desalination may provide some agencies with the potential for future resources. However, due to the high energy costs for developing desalination and the lack of accessibility, Central Basin will not be investing in ocean desalination in the near future.

Water Reliability

Section 4

Water Reliability
Section 4

This section discusses Central Basin's plan of maintaining a reliable source of water

4.1 OVERVIEW

Among the future challenges of continued urbanization in Southern California is water reliability. In other words, can Southern California water supply agencies meet the necessary water demands of the region during times of drought or during periods when imported water deliveries are not available in historic quantities? Over the last five years, Southern California water agencies have been hit hard with imported water curtailments from the Sacramento-San Joaquin Bay-Delta and by the imposition of an allocation plan to reduce imported water deliveries to member agencies of Metropolitan Water District (MWD).

This section will discuss how the regional supplier, MWD, in partnership with its member agencies such as Central Basin, plans on ensuring future reliability through water management measures, long-term planning and investment in local resources, Central Basin's projections for meeting its service area's future demands during single and multiple dry-year conditions and, finally, a review of Central Basin Water Shortage Contingency Plan in the event MWD limits deliveries. After submission of the 2010 UWMP to the CA Department of Water Resources, this Water Reliability Section (with Appendix F) was sent to all retail cities and agencies in the Central Basin Service are and to the County of Los Angeles as required by the UWMP Act.

4.2 STATE WATER SUPPLY RELIABILITY

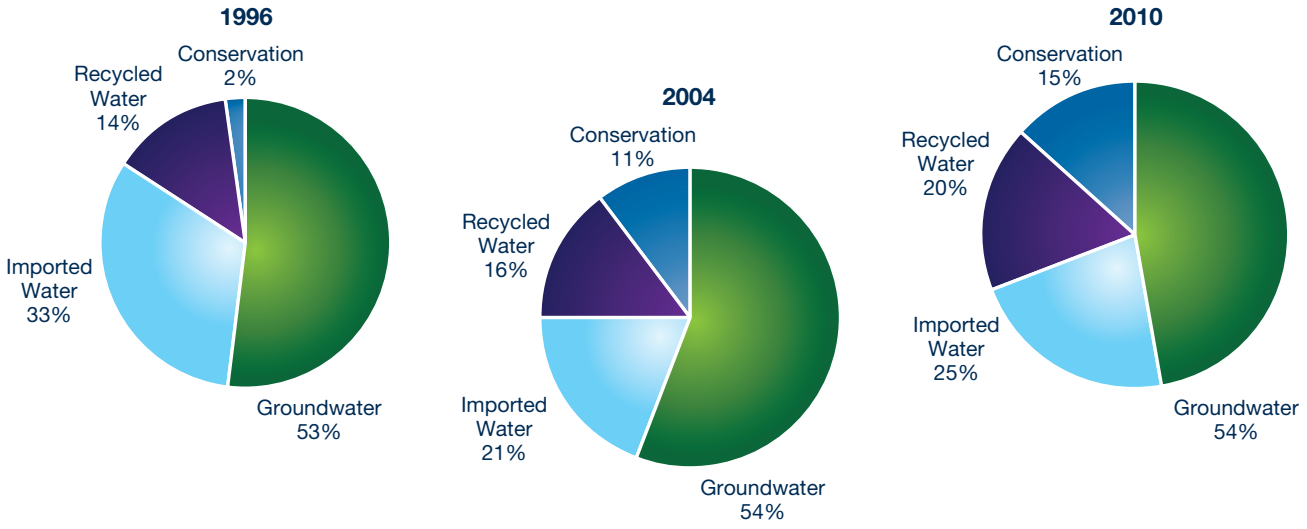
Beginning in 2003, the California Department of Water Resources (DWR) developed a State Water Project (SWP) Reliability Report. The report is meant to provide those SWP contractors with essential information on the reliability to deliver water. The 2009 version of this report was completed in September 2010. The summary report is included in Appendix F. In essence, due the restrictions placed on the SWP by the federal courts, reliability has decreased in the last two years. The 2007 report shows current Table A deliveries averaging 63 percent of the maximum contract amount while the 2009 report shows a reduction to 60 percent. For future conditions of reliability, the 2007 report shows a range of 66 to 69 percent while the 2009 report shows a reduction to 60 percent.

4.3 MWD WATER SUPPLY RELIABILITY

Having experienced the droughts of 1977-78 and 1987-92, MWD has undertaken a number of planning initiatives to ensure water supply reliability. Included among them are the Integrated Resources Plan (IRP), the Water Surplus and Drought Management Plan (WSDM Plan), the Water Supply Allocation Plan (WSAP), and Local Resource Project (LRP) investments. Together, these initiatives have provided the policy framework for MWD and its member agencies to manage their water resources in such a way as to meet the needs of a growing population even under recurrences of the worst historic hydrologic conditions locally and in the key watersheds that supply Southern California. Below is a brief description of each water management initiative MWD has undertaken to ensure continued reliability over the next 20 years.

Lake Mead & Hoover Dam on the Nevada and Arizona border, 2011

Figure 4-1
IRP Pie Charts



4.3.1 MWD INTEGRATED RESOURCE PLAN

To meet the challenges of an increasing population and supply shortages on the State Water Project and the Colorado River Aqueduct (CRA) as well as growing state and federal regulatory requirements, MWD's Board of Directors called for the development of an IRP in 1996. The IRP's objective was to determine the appropriate combination of water resources to provide 100 percent reliability for full service demands over the next 20 years. With the support of its member agencies, MWD developed a preferred supply mix that includes conservation, local supplies (recycled, brackish, desalination), SWP supplies, CRA supplies, groundwater banking and water transfers that could meet projected water demands under severe shortage conditions. The IRP identifies supply targets for each supply option and has become the blueprint for guiding investment and policy decisions for MWD.

By design, the IRP is also subject to revision when conditions and opportunities change through time. In 2003, MWD completed its first update to the IRP, which included revised projected demands and an updated resource supply mix. MWD had three clear objectives for the IRP update: (1) to review the goals and achievements of the 1996 IRP, (2) to identify changed conditions for water resource development and (3) to update the resource targets through 2025.

Among the most significant findings from the updated IRP was the increased participation of local agencies in developing local supplies such as recycled water and brackish groundwater desalination as well as promoting savings from conservation. The result revealed a greater source of local supply reliability than anticipated among MWD's member agencies. However, it also identified the limitations expected on the Colorado River and the need for local infrastructure improvements to provide the flexibility to manage supply risks and increased costs. For example, the continuing drop in water levels in Lake Mead due to drought and over subscription of the Colorado River could have significant impacts on power supply to MWD within the next few years. At the time, Lake Mead was just less than 1,087 feet in elevation, its lowest point in 54 years. If the Lake had dropped below 1,050 feet, hydroelectric power production would be severely reduced forcing MWD to buy power on the spot market which would cause a drastic rise in water costs to member agencies and ultimately, to consumers. Lake Mead has since recovered but in the future it is unlikely that production managers will allow the water level to drop below 1,050 feet. Over the long term, the Colorado River is not producing a sustainable amount of water for the needs of California, Arizona, and Nevada, which will have huge impacts to MWD as well as the entire American Southwest.

The SWP, MWD's other source of water supply, remains in severe hardship with the collapse of various fish species within the Sacramento-San Joaquin River Delta and federal judicial mandates to reduce water deliveries.

Overall, the 2003 IRP Update revealed a need to decrease the region's reliance on CRA and SWP supplies compared to the 1996 IRP, while continuing to provide 100 percent reliability through the year 2025. The IRP did not anticipate the changed conditions and following legal decisions in regard to the Bay-Delta and the impact those conditions would have on the operations of the SWP and the federal Central Valley Project.

2010 IRP Update

In their 2010 IRP, MWD laid out their strategy for being reliable by 2030. Much of the update centers on navigating through the uncertainty and vulnerability of present day water resource management. Those uncertainties include climate change, energy use, and Sacramento-San Joaquin River Delta (Bay-Delta) issues like endangered species protection and conveyance. The strategy determined through the 2010 IRP process can be summarized in three components:

Component 1
Core Resources Strategy

MWD will meet its future demands through its traditional core resources which include the SWP and the CRA, and through increased conservation and local supply development. This strategy includes the following steps:

- Assess the current level of supply development and projected retail demands
- Quantify the existing supply gap
- Indentify additional supply development needs within the preferred resource mix to fill the supply gap
- Establish a more diversified role in augmenting local resource development

Component 2
Supply Buffer Implementation

MWD will work with the member agencies to implement a supply buffer through compliance with California mandated requirements in the 20X2020 legislation and through adaptive actions to meet any remaining portion of the 10 percent buffer. This portion of the strategy will be implemented using the following steps:

- Establish a supply buffer at 10 percent of total retail demand of the MWD service area
- Implement a regional consistency approach to meet the 20X2020 targets
- Implement adaptive actions to develop any remaining portion of the supply buffer

Component 3
Foundational Actions

MWD will proactively implement "low-regret" foundational actions that are necessary to bring additional resources online if needed. "Low-regret" actions are those actions that are relatively low-cost with high degree of readiness-to-proceed. In response to a trigger event, the approach will determine an appropriate supply/project mix to meet specific needs within the region. This portion of the strategy can be implemented using the following steps:

- Implement low-regret foundational actions
- Monitor key vulnerabilities and bring resource options if conditions dictate
- Use a comprehensive approach

4.3.2 MWD WATER SURPLUS AND DROUGHT MANAGEMENT PLAN

In order for MWD to be 100 percent reliable in meeting all non-discounted non-interruptible demands in the region, MWD adopted the Water Surplus and Demand Management (WSDM) Plan in 1999. The WSDM Plan provides the policy guidance and prioritization to manage the region's water supplies to achieve the reliability goals of the IRP. The goals are achieved by integrating the operating activities of surplus and shortage supplies through a series of stages and principles. Figure 4-2 shows a schematic of the WSDM plan and the management actions that take place at MWD.

Those principles include water management actions that will apply regardless of the current state of regional water supplies. For example, when a surplus water supply situation exists, 5 different stages are utilized. The stages include filling reservoirs and existing storage accounts. When a supply shortage exists, a seven stage plan is activated to describe management activities during shortages, severe shortages, and extreme shortages. The management activities include securing more imported water by promoting efficient water usage, increasing public awareness and seeking additional water transfers and banking opportunities. Should supplies become limited to the point where imported water demands cannot be met, MWD will allocate water through the Water Supply Allocation Plan (WSAP).

4.3.3 MWD WATER SUPPLY ALLOCATION PLAN

The Water Supply Allocation Plan (WSAP) was adopted by the MWD Board of Directors in April 2008 as statewide water supplies continued to decrease. The WSAP plan is a 10 stage approach to mandatory reductions that start from a 5 percent allocation (Stage 1) for each member agency up to a 50 percent allocation (Stage 10).

Strictly speaking, the WSAP is less of a true allocation plan and more of a financial plan. In other words, any member agency could continue to get imported water over and above their allocation, provided they paid the penalty rate. In effect, this approach rewarded those member agencies with better financial resources and penalized those member agencies that did not have the financial resources. On that basis, Central Basin filed a lawsuit against MWD maintaining that the WSAP did not treat all member agencies fairly. Ultimately, as the MWD staff was getting closer to requesting their Board of Directors to activate the WSAP, MWD relented and offered Central Basin a modification to the WSAP to allow more imported water based on the number of lifeline customers in their service area should the member agency exceed their allocation. This compromise was acceptable to Central Basin and the lawsuit was dropped. Shortly afterward, in April 2009, as California entered its third drought year, the MWD Board of Directors activated the WSAP, effective July 1, 2009, at the stage 2 or 10 percent mandatory reduction level.

The results of the WSAP implementation showed that none of the 26 member agencies exceeded their allocation in FY 2009-10, including Central Basin. According to DWR, these agencies were assisted by nature, which provided a slightly above normal precipitation level (110 percent) statewide. The snowpack in the northern Sierra Nevada Mountains proved to be excellent in FY 2009-10, reaching 122 percent of normal, which in turn, helped reservoirs to capture more water. For FY 2010-11, the MWD Board of Directors voted to continue the WSAP at the same Stage 2 level. However, due to significant water supply improvement in the winter of 2010-2011, the MWD Board lifted the WSAP in April 2011.

4.3.4 MWD LOCAL RESOURCE PROJECTS

A key element within MWD's IRP objectives to ensure regional reliability is to further enhance local resources. The Local Resource Projects (LRP) program incentivizes member agencies to construct projects that produce water for regional agencies, which in turn help reduce their dependence on MWD. MWD provides a subsidy of up to $250 per AF of water produced or conserved by the local project. This approach helps reduce operational and programmatic costs for the member agencies while creating a more diversified regional resource mix. MWD provides funding for numerous local resource projects including recycled water, conservation, groundwater recovery, surface water storage and even ocean water desalination to help meet future demands. As described in their 2010 Progress Report to the California Legislature, MWD has provided about $220 million in LRP incentives to member agencies for recycled water programs, $89 million for groundwater recovery programs, and $50 million for conservation programs through their Conservation Credits Program.

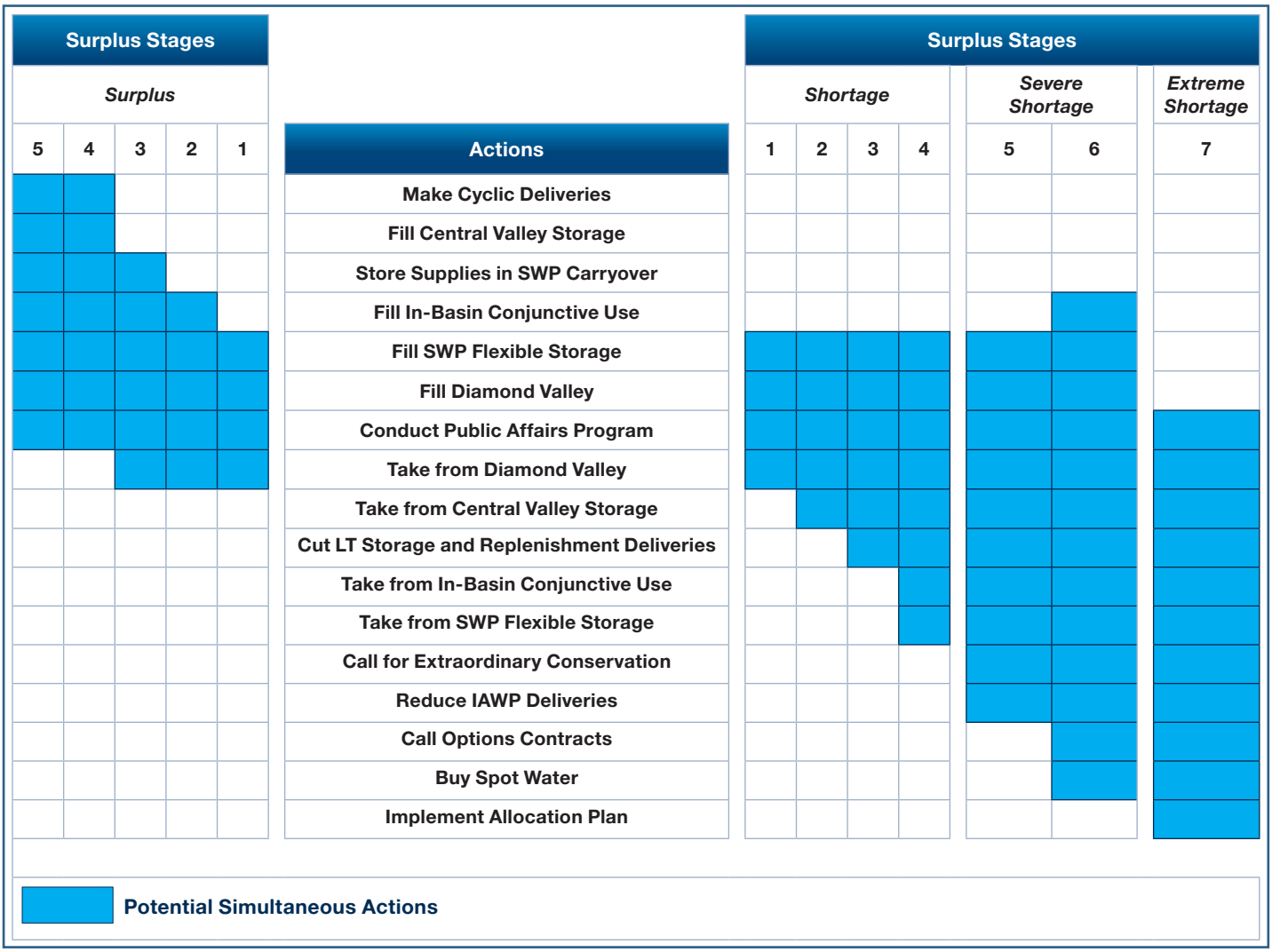
Central Basin has long been involved with MWD in the LRP program for recycled water development. Since 1991, MWD has provided Central Basin with about $15 million for recycled water development, $3.5 million for conservation programs, and $5.3 million for groundwater recovery projects such as WQPP.

MWD Facility Improvements

One of MWD's most significant investments is Diamond Valley Lake (DVL), which was completed in 1999 and filled by 2002, and its companion project, the Inland Feeder. Built in the saddle of two mountains, DVL, Southern California's largest reservoir, is an important link in the regional water supply system. The lake, located in southwestern Riverside County, nearly doubled Southern California's surface storage capacity and provides additional water supplies for drought, peak summer and emergency needs. DVL holds 800,000 AF, or 260 billion gallons of water. By comparison, Lake Havasu on the Colorado River holds just 648,000 acre-feet, or 201 billion gallons. When at capacity, DVL holds enough water to meet the region's emergency and drought needs for six months and is an important component in MWD's plan to provide a reliable supply of water to the 18 million people of Southern California.

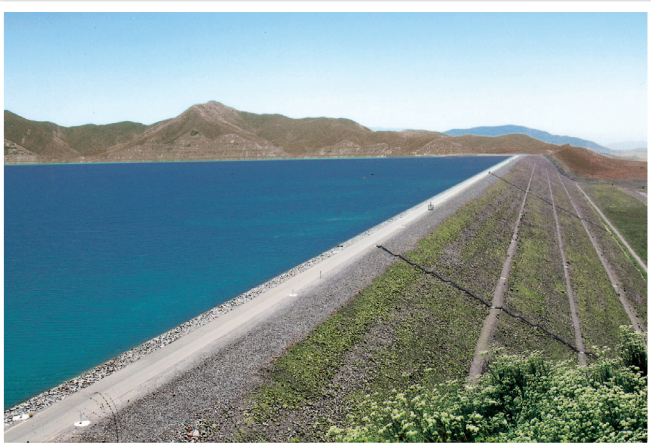
Figure 4-2

Metropolitan Water District's Water Supply & Demand Management Plan



Inland Feeder Project

The Inland Feeder Project was completed in October 2009. It is a 44-mile conveyance system that connects the State Water Project (SWP) to DVL and the Colorado River Aqueduct (CRA). Specifically, the project carries water from Devil Canyon in San Bernardino, under the San Bernardino Mountains, and into Riverside County at DVL. The purpose of the $1.2 billion 12-foot diameter pipeline is to deliver SWP water to DVL for surface storage when that water is available. Before the project was completed, only CRA water was available for storage. This system is designed to increase Southern California's water supply reliability in the face of future weather pattern uncertainties, while minimizing the impact on the Sacramento-San Joaquin Delta (Bay Delta) environment in northern California. The project also will improve the quality of the water coming from DVL because there will be more uniform blending of better quality water from SWP with CRA supplies, which has a higher mineral content. The Inland Feeder Project began deliveries to DVL in late 2009 at about 600 acre-feet per day but has a delivery capacity of almost 2,000 acre-feet per day.



Diamond Valley Lake

4.4 CENTRAL BASIN'S WATER SUPPLY RELIABILITY

Along with MWD's reliability initiatives, Central Basin has also taken important steps during the past decade to reduce its service area's vulnerability to extended drought or other potential threats. Central Basin's investments in recycled water to replace imported water for non-potable uses and the implementation of conservation devices and education have resulted in more self-reliance within the region.

Based on Central Basin's current water supply portfolio, as illustrated in Table 4-1, Central Basin provides an adequate supply for a single dry-water year and multiple dry-water year scenarios. The "Normal Water Year" used in this plan is based on the average rainfall year - FY 2009-10. According to the National Weather Service, the recorded rainfall in FY 2009-10 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 2006-07. The recorded rainfall in that year 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 most recent multiple dry-year period - FY 2006-07 (3.21 inches), FY 2007-08 (13.53 inches), and FY 2008-09 (9.08 inches).

Groundwater is shown as a constant in all scenarios due to the Basin's adjudication, which limits the total amount that each customer within Central Basin's service area is able to extract. Recycled water, which includes both Central Basin and the City of Cerritos systems, is limited only by system constraints and not by availability since recycled water is not subject to hydrologic variation. Actual estimated delivery numbers are used in all the scenarios, but as Central Basin's system is expanded over the next several years, so will the capacity to deliver recycled water. Actual Imported water deliveries are used in all scenarios because this supply is now subject to decreased deliveries through MWD's Water Supply Allocation Plan (WSAP) which can be modified from a 5 percent cut of historical deliveries up to a 50 percent cut which will fluctuate under different hydrological scenarios. Future reliability of imported supplies will be based upon a Bay-Delta fix that will include both ecological and operational changes.

The supply reliability scenarios described in this section focus exclusively on municipal and industrial usage within Central Basin's service area. It does not include replenishment water.

Looking forward, Central Basin will continue to evaluate opportunities to increase its water supply portfolio within its service area. Opportunities include

California Aqueduct carrying water to Los Angeles

the expanded use of recycled water and additional conservation programs as well as groundwater storage through conjunctive use programs.

4.4.1 NORMAL-YEAR RELIABILITY COMPARISON

As discussed in Section 2 - Water Demand, Central Basin's normal demands are projected to increase modestly during the next 25 years. Increases in recycled water use during the 25-year planning period will offset the need for additional imported water.

4.4.2 SINGLE DRY-YEAR RELIABILITY COMPARISON

Central Basin's projected single dry-year water supply is expected to require additional imported supplies from MWD. According to historic demands, the total water demands in a single dry-year are projected to be 2.1 percent greater than normal year projections. Much of the increased demand will be covered through the further development of recycled water in the Central Basin system. Table 4-3 compares single dry-year supply and demand projections for the Central Basin service area. For imported supplies, MWD should be able to provide sufficient supplies to all member agencies from their various storage options, so the WSAP would probably not be activated in a single dry-year scenario.

Table 4-1
Central Basin Municipal Water District Retail Supply Reliability
(Acre-Feet)

Supplies	Normal Water Year	Single Dry-Water Year	Multiple Dry-Water Years		
	FY 2009-10	FY 2006-07	FY 2006-07	FY 2007-08	FY 2008-09
Groundwater[1]	194,400	194,400	194,400	194,400	194,400
Imported Water	67,143	68,000	68,000	59,000	52,750
Recycled Water[2]	6,630	7,960	7,960	7,700	7,000
Total Supply	**268,173**	**270,360**	**270,360**	**261,100**	**254,150**

Note: Supply Reliability covers only retail water demand; does not include replenishment deliveries.

[1] Based upon the total allowable pumping allocation (APA) for each customer agency within Central Basin's service area, plus groundwater only retailers and non-retail water agencies and average annual production from Main San Gabriel Basin according to FY 2008-09 Central Basin Watermaster Report and FY 2008-09 Main Basin Watermaster Report.
[2] Includes actual deliveries of recycled water for both the Central Basin system and the City of Cerritos.

Table 4-2
Projected Normal Water Year Supply And Demand
(Acre-Feet)

Supplies	2015	2020	2025	2030	2035
Groundwater[1]	194,400	194,400	194,400	194,400	194,400
Imported Water[2]	72,360	72,360	72,360	72,360	72,360
Recycled Water[3]	12,900	17,900	17,900	17,900	17,900
Total Supply	**279,660**	**284,660**	**284,660**	**284,660**	**284,660**
Total Demand[4]	**245,825**	**253,285**	**260,470**	**262,355**	**264,040**
Surplus/(Shortage)	**33,835**	**31,375**	**24,190**	**22,305**	**20,620**

Note: Supply Reliability covers only retail water demand; does not include replenishment deliveries.

[1] Based upon the total allowable pumping allocation (APA) for each customer agency within Central Basin's service area (refer to Table 3-2) including WQPP and the average annual amount imported from the Main San Gabriel Basin.
[2] Based upon Tier I limitations for deliveries consistent with Central Basin's purchase order.
[3] Includes the available supply of recycled water for both Central Basin and Cerritos systems.
[4] Total Demand includes projected groundwater, imported and recycled M&I demands.

Table 4-3
Projected Single Dry-Year Supply And Demand
(Acre-Feet)

Supplies	2015	2020	2025	2030	2035
Groundwater[1]	194,400	194,400	194,400	194,400	194,400
Imported Water[2]	72,360	72,360	72,360	72,360	72,360
Recycled Water[3]	12,900	17,900	17,900	17,900	17,900
Total Supply	**279,660**	**284,660**	**284,660**	**284,660**	**284,660**
Total Demand[4]	**250,987**	**258,604**	**265,940**	**267,864**	**269,585**
Surplus/(Shortage)	**28,673**	**26,056**	**18,720**	**16,796**	**15,075**

Note: Supply Reliability covers only retail water demand; does not include replenishment deliveries.

Los Angeles Aqueduct Cascades near Sylmar

4.4.3 MULTIPLE DRY-YEAR RELIABILITY COMPARISON

Under multiple dry-year water scenarios, MWD will have likely activated their WSAP. Since the severity of the allocation will vary according to hydrological conditions, Central Basin will assume a level 2 or 10 percent reduction scenario in the third year of a multiple dry-year period throughout MWD's service area. Therefore, Central Basin is projected to meet demands by continuing to expand recycled water development and further implement conservation programs. Tables 4-4 through 4-8 illustrate the projected water supplies and demands within multiple dry-year reliability comparisons for the next 25 years.

Table 4-4
Projected Water Supply and Demand during Multiple Dry-Year 2013-2015
(Acre-Feet)

Supplies	2013	2014	2015
Groundwater[1]	194,400	194,400	194,400
Imported Water	72,360	72,360	69,711
Recycled Water[2]	6,600	8,000	12,900
Total Supply	**273,360**	**274,760**	**277,011**
Total Demand[3]	**245,825**	**250,987**	**259,125**
Surplus/(Shortage)	**27,535**	**23,773**	**17,886**

Table 4-5
Projected Water Supply and Demand during Multiple Dry-Year 2018-2020
(Acre-Feet)

Supplies	2018	2019	2020
Groundwater[1]	194,400	194,400	194,400
Imported Water	72,360	72,360	69,711
Recycled Water[2]	14,000	16,000	17,900
Total Supply	**280,760**	**282,760**	**282,011**
Total Demand[3]	**254,795**	**256,702**	**258,604**
Surplus/(Shortage)	**25,965**	**26,058**	**23,407**

Table 4-6
Projected Water Supply and Demand during Multiple Dry-Year 2023-2025
(Acre-Feet)

Supplies	2023	2024	2025
Groundwater[1]	194,400	194,400	194,400
Imported Water	72,360	72,360	69,711
Recycled Water[2]	17,900	17,900	17,900
Total Supply	**284,660**	**284,660**	**282,011**
Total Demand[3]	**262,272**	**264,106**	**265,940**
Surplus/(Shortage)	**22,388**	**20,554**	**16,071**

Table 4-7
Projected Water Supply and Demand during Multiple Dry-Year 2028-2030
(Acre-Feet)

Supplies	2028	2029	2030
Groundwater[1]	194,400	194,400	194,400
Imported Water	72,360	72,360	69,711
Recycled Water[2]	17,900	17,900	17,900
Total Supply	**284,660**	**284,660**	**282,011**
Total Demand[3]	**266,902**	**267,383**	**267,864**
Surplus/(Shortage)	**17,758**	**17,277**	**14,147**

Table 4-8
Projected Water Supply and Demand during Multiple Dry-Year 2033-2035
(Acre-Feet)

Supplies	2033	2034	2035
Groundwater[1]	194,400	194,400	194,400
Imported Water	72,360	72,360	69,711
Recycled Water[2]	17,900	17,900	17,900
Total Supply	**284,660**	**284,660**	**282,011**
Total Demand[3]	**268,725**	**269,155**	**269,585**
Surplus/(Shortage)	**15,935**	**15,505**	**12,426**

Note: Supply Reliability covers only retail water demand; does not include replenishment deliveries.

[1] Based upon the total allowable pumping allocation (APA) for each customer agency within Central Basin's service area plus the average amount produced and imported from Main San Gabriel Basin
[2] Includes the available supply of recycled water based on system limitations for both Central Basin and the City of Cerritos.
[3] Total demand refers to total retail demand from groundwater, imported and recycled M&I.

4.5 WATER SHORTAGE CONTINGENCY PLAN

The State requires that each urban water supplier should provide a water shortage contingency analysis within its urban water management plan. Below is a brief description of Central Basin's plan for a water shortage according to the state's water code requirements.

4.5.1 MINIMUM SUPPLY

Currently, Central Basin's water supplies are groundwater, imported water and recycled water. As it relates to the estimated minimum supply available during a severe drought, Central Basin's groundwater supplies, as stated in Section 3, are not affected by hydrology because the Central Groundwater Basin is adjudicated. The available supply for each groundwater producer (Allowable Production Allocation), set by the Judgment, remains the same regardless of Central Basin's service area's rainfall. The same relates to recycled water, where the supply is not affected by hydrology but rather through system capacity. The benefit of recycled water is that it is drought-proof and the supply of recycled water remains available regardless of the rainfall. Due to projects such as Phase I of Southeast Water Reliability Project (SWRP), expansion of the recycled water supply will continue to increase. Imported water, on the other hand, is the only supply affected by hydrology. MWD's WSAP came in effect on July 1, 2009, but the WSAP was lifted in April 2011 due to the drastically improved water supply conditions from the winter of 2010-2011.

Central Basin will be limited to a calendar year Tier I imported water supply of 72,360 AF, although a new prolonged drought would likely increase the mandatory reduction to a higher level and thus decrease available imported supplies. The estimated minimum supplies during the next three years for Central Basin are shown in Table 4-9.

It is the policy of the Central Basin Board of Directors to pass through all financial actions imposed on Central Basin by MWD, but in this case, a policy to pass through an allocation plan did not exist. Therefore, in June 2009, the Central Basin Board of Directors adopted the "Imported Water Supply Allocation Policy" which included a plan to allocate water to the cities and agencies (Appendix G). That policy remains in effect as Central Basin's Water Shortage Contingency Plan if and when MWD activates their WSAP or if local conditions require its implementation. As a wholesale agency, Central Basin has no authority for mandatory prohibitions against local cities and agencies. However, all cities and agencies are encouraged to implement prohibitions when conditions call for them.

Table 4-9
Three-year Estimated Minimum Water Supply (Acre-Feet)

Supplies	2011	2012	2013
Groundwater[1]	194,400	194,400	194,400
Imported Water	72,360	72,360	72,360
Recycled Water[2]	5,200	5,500	5,900
Total Supply	**271,960**	**272,260**	**272,660**
Total Demand[3]	**245,150**	**248,500**	**251,900**
Surplus/(Shortage)	**26,810**	**23,760**	**20,760**

Note: Supply reliability covers only retail water demand; does not include replenishment deliveries.

[1] Based upon the total allowable pumping allocation (APA) for each customer agency within Central Basin's service area plus the average amount produced and imported from Main San Gabriel Basin, according to the FY 2008-09 Central Basin Watermaster Report and FY 2008-09 Main Basin Watermaster report.
[2] Includes the available supply of recycled water system for both Central Basin and the City of Cerritos.
[3] Total Demand includes projected groundwater within Central Basin's service area, imported and recycled M&I demands

4.5.2 CATASTROPHIC SUPPLY INTERRUPTION

In the event imported water supplies are interrupted from a catastrophic event, Central Basin, through coordination with MWD, can respond at both a regional and a local level.

In the event that an emergency such as an earthquake, system failure or regional power outage, etc., affected the entire Southern California region, MWD would take the lead and activate its Emergency Operation Center (EOC). The EOC coordinates MWD's and Central Basin's responses to the emergency and concentrates efforts to ensure the system can begin distributing potable water in a timely manner.

If circumstances render the Southern California's aqueducts to be out of service, MWD's Diamond Valley Lake is expected to provide emergency storage supplies for its entire service area's firm demand for up to six months. With few exceptions, MWD can deliver this emergency supply throughout its service area via gravity flow, thereby eliminating dependence on power sources that could also be disrupted. Furthermore, should additional supplies be needed, MWD also has surface reservoirs and groundwater conjunctive use storage accounts that can be draw upon to meet additional demands. The WSDM plan guides MWD's management of available supplies and resources during an emergency to minimize the impacts of a catastrophic event

4.6 INCONSISTENCY OF SUPPLIES

Overall, Central Basin has very consistent water supplies. Every source, however, has some factor that limits its availability. Table 4-3 provides a thumbnail view of the various factors regarding each of the water supply sources.

California Aqueduct in Central Valley

Table 4-10
Factors Resulting in Inconsistency of Supply
(Acre-Feet)

Water Supply Sources	Limitation Quantification	Legal	Environmental	Water Quality	Climatic	System Constraints
Imported Water						
State Water Project	2,000,000	✓	✓		✓	✓
Colorado River	1,200,000	✓	✓		✓	✓
Sub-Total[1]	60,750					
Groundwater						
Central GW Basin	150,400	✓		✓		
Main Basin	31,500	✓				
Sub-Total[2]	181,900					
Recycled Water						
Central Basin System	4,670	✓				✓
Cerritos System	2,333	✓				✓
Sub-Total[3]	7,003					
Total	249,653					

1 Based on 5-year average demand. This is a blended supply to Central Basin so the exact volume from each source is unknown.
2 These volumes are a 5-year annual average from FY 2005-06 to FY 2009-10
3 These volumes are a 5-year annual average from FY 2005-06 to FY 2009-10

Water Quality

Section 5

Water Quality
Section 5

This section discusses the Water Quality within Central Basin's service area

5.1 OVERVIEW

Water quality regulations are an important factor in Central Basin's water management activities. Metropolitan Water District of Southern California (MWD) is responsible for complying with state and federal drinking water regulations for imported water sold in Central Basin. Cities and water agencies to which Central Basin sells imported water are responsible for ensuring compliance in their individual distribution systems up to the customer's water meter.

For groundwater quality, Central Basin assisted purveyors in its service area to meet drinking water standards through its Cooperative Basin-Wide Title 22 Groundwater Quality Monitoring Program. Title 22 is in reference to the California Code of Regulations section pertaining to both domestic drinking water and recycled water standards. Central Basin offered this program to water agencies for wellhead and reservoir sample collection, water quality testing and reporting services, but transferred the program to the Water Replenishment District (WRD) in 2007. Results of the program are compiled and published in an annual report issued by the WRD.

For imported water quality, Central Basin has developed an imported water quality notification system with those cities and agencies that have access to imported water deliveries. The purpose is to notify cities and agencies through regular emails about the current status of important water quality information as it relates to Total Dissolved Solids (TDS), Total Trihalomethanes (THM's), Coliforms, Bromate, Fluoride, Ammonia/Nitrates, etc. More importantly, it allows cities and agencies to be notified when a significant water quality issue needs to be communicated immediately.

Except for a few instances of groundwater contamination problems, the Central Groundwater Basin has remarkably good water quality. There are still a few contamination problems in isolated areas of the Central Groundwater Basin. These include:

- Perchlorate
- Manganese
- Volatile Organic Compounds (VOC's)
- Arsenic

5.2 QUALITY OF EXISTING WATER SUPPLIES

Providing a safe drinking water supply to Central Basin's customers is a task of paramount importance. All prudent actions are taken to ensure that water delivered throughout the service area meets or exceeds drinking water standards set by the state's primary water quality regulatory agency, the California Department of Public Health (CDPH).

As the regional wholesale agency in Southern California, MWD is proactive in its water quality efforts, protecting its water quality interests in the State Water Project and the Colorado River through active participation in processes that would provide for the highest water quality from both sources.

This section will focus on the sources of water in the Central Basin area and the water quality issues and challenges for each.

5.2.1 IMPORTED WATER

Central Basin's imported water comes from the State Water Project and Colorado River via MWD pipelines and aqueducts. MWD tests its water for microbial, organic, inorganic and radioactive contaminants as well as pesticides and herbicides. Protection of MWD's water system is a top priority. To date, MWD has not indentified any water quality risk that cannot be mitigated.

In coordination with its 26 member agencies, MWD added new security measures in 2001 and continues to upgrade and refine procedures. Changes have included an increase in the number of water quality tests conducted each year (more than 300,000) as well as contingency plans that coordinate with the Homeland Security Office's multicolored tiered risk alert system. MWD also has one of the most advanced laboratories in the country where water quality staff performs tests, collects data, reviews results, prepares reports and researches other treatment technologies. Although not required, MWD monitors and samples elements that are not regulated but have captured scientific and/or public interest.

MWD has a strong record of identifying those water quality issues that are most concerning and have identified necessary water management strategies to minimize the impact on water supplies. Part of its strategy is to support and be involved in programs that address water quality concerns related to both the SWP and Colorado River supplies. Some of the programs and activities include:

- Delta Improvement Package – MWD in conjunction with California Department of Water Resources (DWR) and U.S. Geologic Survey completed modeling efforts of the Delta to determine if levee modifications at Franks Tract would reduce ocean salinity concentrations in water exported from the Delta. Currently, tidal flows trap high saline water in the tract. By constructing gates across the levee breach, saline and bromide levels can be reduced by 27 percent at the State Water Project intake in the South Delta.

- Source Water Protection – In December 2006, MWD completed a "Watershed Sanitary Survey" on its Colorado River operations. In June 2007, MWD conducted the same survey on their State Water Project operations. These surveys are required to be completed every five years. Once completed, they are submitted to CDPH to examine possible sources of drinking water contamination and identify mitigation measures that could be taken to protect the water supply at the source.

Water from the Colorado River is considered to be most vulnerable to contamination by recreation, urban/storm water runoff, increasing urbanization in the watershed, wastewater and past industrial practices. Water supplies from State Water Project are most vulnerable to urban/storm water runoff, wildlife, agriculture, recreation and wastewater contamination.

Overall, salinity remains the greatest water quality threat to the CRA and SWP. In 1999, the MWD Board of Directors adopted a Salinity Management Policy which set a goal of achieving salinity concentrations of 500 milligrams per liter or parts per million (ppm). Typically, Colorado River Water supplies have concentrations of about 630 ppm while State Water Project supplies have concentrations of about 250 ppm. To achieve the 500 ppm target, MWD blends the waters together in their surface reservoirs or at their treatment plants to significantly reduce salinity in seven out of ten years. In other years, when State Water Project water is not available in sufficient quantities, higher concentrations of salinity could be a problem for the member agencies and/or the local retail agencies. Further blending with groundwater supplies will probably be necessary.

Disinfection Byproducts

MWD receives imported water from two sources; the Sacramento-San Joaquin River Bay-Delta via the State Water Project (SWP) and the Colorado River via the Colorado River Aqueduct (CRA). These waters are treated with chlorine and/or ozone at one of their 5 treatment plants before being placed into their main distribution system. Unlike CRA water, SWP water is generally heavy with total organic carbon (TOC) and bromide. When these constituents are mixed with chlorine or ozone, disinfection byproducts (DBP) can and do occur. The most prevalent DBP is Total Trihalomethane or TTHM. TTHM's have generally been associated with reproductive and developmental effects in humans. Therefore, MWD consistently samples for TTHM's at all treatment plant locations. In 2002, the U.S. Environmental Protection Agency (EPA) introduced a new regulation called "Stage 1 Disinfectants and Disinfection Byproducts Rule." TTHM's are on the list and have a Maximum Contaminant Level of 80 ppb.

Pharmaceuticals and Personal Care Products

Pharmaceuticals and Personal Care Products (PPCP) are considered an emerging contaminate throughout the nation's watersheds. PPCP's have become a growing concern to the water industry specifically because studies show their compounds can be found in wastewater, surface water, and even in finished drinking water throughout the country. To date, there is no evidence that PPCP's are harmful to humans in low concentrations. That being said, there are no regulatory requirements for PPCP's mainly because there is no standardized analytical method to test for these compounds.

MWD has established a monitoring program to look for these compounds in treatment plant effluent and source waters within the Colorado River and State Water Project watersheds. There has been PPCP's detected in these waters at low levels which is consistent with reports from other utilities throughout the country. MWD remains involved in various studies to determine how to further develop analytical methods to test for PPCP's and mitigate their entry into local waters.

5.2.2 GROUNDWATER

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 MWD 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 in isolated areas that are still a concern.

Perchlorate

Perchlorate was used as component of rocket fuel. As such, wherever there was a defense industry complex, perchlorate can usually be found. Perchlorate is a health concern because of its effects on the thyroid. Perchlorate interferes with the thyroid's ability to produce hormones required for normal growth and development. People most affected are infants and small children and pregnant woman. In 1999, the CDPH recommended that drinking water wells be tested for the rocket fuel component, perchlorate. CDPH required all water purveyors in the state to monitor for perchlorate under the Unregulated Contaminant Monitoring Rule. The results showed that perchlorate was a serious problem in drinking water wells throughout the state, but only in certain areas. The CDPH then established a primary drinking water standard for perchlorate with a Maximum Contaminate Level (MCL) of 6 micrograms per liter or parts per billion starting October 18, 2007. (There is no federal drinking water standard).

In the Central Basin, perchlorate has been detected in nine separate wells. Once detected, the wells were shut down and are no longer used. This is because perchlorate is not easily removed with standard wellhead treatment technologies, so much more expensive treatment technologies such as ion exchange must be employed.

The San Gabriel Valley Groundwater Basin was an important home of the defense industry in the 1950's and 1960's. Because of the amount of experimentation with rockets and rocket fuels, perchlorate is one of the most abundant contaminants that seeped into the groundwater. In response, the Central Basin Board of Directors supported a plan to clean up the contaminated groundwater before it migrated into the Central Groundwater Basin. The "San Gabriel Basin Restoration Fund" was established through an act of Congress and the San Gabriel Valley Water Quality Authority was created. Eleven firms agreed to pay $200 million to construct various treatment facilities and other water quality projects throughout the San Gabriel Valley to remove contaminants and restore the groundwater basin. That effort by the Water Quality Authority continues to this day.

Manganese

Manganese is a required nutrient that exists in natural environments. Humans need about 1 to 10 milligrams per day for normal dietary requirements. However, elevated levels can have serious impacts, particularly on children. For example, neurologic damage (mental and emotional disturbances, as well as difficulty in moving) has been reported to be permanent among miners exposed to high levels of airborne manganese for long periods of time. Lower chronic exposures in the workplace resulted in a decrease in various motor skills, balance and coordination, as well as increased memory loss, anxiety, and sleeplessness. In 2003, the CDPH established Manganese as a secondary contaminant with an MCL of .5 micrograms per liter or parts per billion. Included in this secondary standard is an aesthetics MCL of .05 parts per billion. This MCL is related to discoloration, but not health concerns. Still, any public water system affected by manganese must notify their customers that manganese is present at either level. Notification through the annual Consumer Confidence Report (CCR) is acceptable to the CDPH.

Central Basin's service area has traces of manganese throughout the region, but it is generally in low quantities and is managed through blending. However, manganese is most apparent in the area of Maywood where Central Basin is providing technical assistance to the local water agencies to reduce manganese below the MCL. Central Basin will continue to offer assistance as needed until manganese is no longer a contamination problem or an aesthetic problem for the residents of Maywood.

Volatile Organic Compounds

Volatile Organic Compounds (VOC's) such as perchloroethylene (PCE) was used as the primary chemical by dry cleaners for decades and trichloroethylene (TCE) was used as an industrial cleaning and degreasing solvent. Both of these organic compounds were generally used in quantities sufficient to contaminate the groundwater and both of them are considered carcinogenic even at low concentrations. So their cleaning becomes very important to the region. Although the Central Groundwater Basin is not a strong source of VOC's, the San Gabriel Valley "Main" Basin is.

In the Main Basin, VOC's have remained a persistent problem. There are a number of granulated activated carbon (GAC) wellhead treatment programs underway in the San Gabriel Valley. However, about fifteen years ago, the U.S. Environmental Protection Agency (EPA) and Central Basin noted the movement of VOC's from Main Basin into the Central Groundwater Basin through the Whittier Narrows area. Central Basin took action and in 2001, began construction of the Water Quality Protection Program (WQPP) to intercept and treat the VOC plume before it could arrive at local wells. For more information, please see 5.5 Water Quality Protection Project.

Recently, a contaminated groundwater spill site was identified by the U.S. Environmental Protection Agency (EPA). The Omega Chemical Corporation operated between 1976 and 1991 in an area of Whittier near Whittier Boulevard. Drums of waste solvents and other chemicals from various industrial activities were processed at this facility. As a result of the operations, spills and leaks of various chemicals occurred. The soil and groundwater beneath the Omega property became contaminated with high concentrations of PCE and TCE as well as Freon's 11 and 113 and other contaminants. Contaminated groundwater now extends about 4 miles down gradient of the Whittier property into Santa Fe Springs and Norwalk. In January 1999, the Omega site was placed on the EPA's National Priorities List, which is also known as Superfund List. EPA is now engaged in reviewing and selecting a methodology for cleaning up the contamination plume. The selected methodology will likely be something similar to the existing WQPP program operated by Central Basin for the contamination coming out of the Main Basin. Central Basin will continue to work with EPA and the retail agencies in the area to further develop this methodology in the near future.

Arsenic

Arsenic is a naturally occurring element that exists in the earth's rock formation and in the seas. Arsenic is odorless and tasteless, but it is toxic to humans, particularly in high concentrations or in low concentrations over a prolonged period. Because it is naturally occurring arsenic is most commonly found in groundwater supplies. Arsenic is considered a carcinogen, but symptoms of arsenic poisoning are thickening and discoloration of the skin, stomach pain, nausea, vomiting, diarrhea, numbness in hands and feet, partial paralysis, and blindness. The California Department of Public Health officially adopted the federal MCL for arsenic of 10 µg/L or parts per billion (ppb) effective November 28, 2008. Since that time, arsenic was found above the MCL in 10 production wells between 2006 and 2009, so although it is not a serious problem, it remains a contaminant of concern in the Central Basin area.

Water Replenishment District Water Quality Programs

As the groundwater replenishment agency for the Central Groundwater Basin, the Water Replenishment District (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.

5.2.3 RECYCLED WATER

Tertiary recycled water that meets Title 22 standards can be used for a wide variety of industrial and irrigation purposes where high-quality, non-potable water is needed. Recycled water is not consumed directly by humans but rather is delivered in an entirely separate distribution system which is not allowed to come in contact with drinking water systems.

In Central Basin's service area, recycled water is produced by the County Sanitation Districts of Los Angeles County (CSDLAC) at their treatment plants. Recycled water produced by the CSDLAC Treatment plants meets all applicable state water quality regulations. Central Basin purchases recycled water from CSDLAC's San Jose Creek Water Reclamation Plant and Los Coyotes Water Reclamation Plant (WRP). These two plants together produce approximately 93 MGD of tertiary-treated effluent. Recycled water from CSDLAC's reclamation plants not reused is discharged to the ocean directly through major flood control channels.

San Jose Creek Water Reclamation Plant Discharge

5.3 EFFECTS ON WATER MANAGEMENT STRATEGIES

Poor water quality makes a water source unreliable, affects overall supply and increases the cost of serving water to the public. A water source that fails drinking water regulations must be taken out of service. The source can be restored through treatment or other management strategies. Imported water deliveries are of high importance to the Central Basin service area. While many cities and agencies are heavily reliant upon imported water as part of their resource mix, many depend upon imported water to blend down certain water quality contaminants to meet water quality standards.

Groundwater can become impaired through leaching of contaminants into an aquifer, or by excessive concentrations of naturally-occurring constituents that impact quality, such as arsenic. Surface water sources become contaminated from human activities in the watershed or deliberate contamination.

Replenishment

Replenishment of the Central Groundwater Basin is accomplished through the acquisition of three sources of water by the Water Replenishment District. Replenishment water is delivered to the Rio Hondo & San Gabriel River Spreading Grounds and allowed to percolate into the Central Groundwater Basin. The three sources are:

- Recycled Water – Purchased by WRD from the CSDLAC and spread in the Rio Hondo & San Gabriel River Spreading Grounds by the Los Angeles County Department of Public Works (LACDPW) at a limit of 33 percent for all sources.
- Storm Water – Storm flows are captured from the San Gabriel River and directed into the spreading grounds by LACDPW at the capacity of the spreading grounds, and
- Imported Water – Purchased by WRD from Central Basin and delivered to the spreading grounds by LACDPW.

Due to drought, discounted imported water for replenishment was interrupted in May 2007 and only recently reinstated. This situation, combined with a lack of storm water due to drought, had the effect limiting replenishment to recycled water and some storm water. Although WRD has been replenishing the Groundwater Basin with recycled water for about 50 years, in 2008, the Los Angeles Regional Water Quality Control Board (LARWQCB) upgraded WRD's permit to allow unlimited replenishment with recycled water provided WRD adheres to a blend of no more than 30 percent with other sources over a running 60 month period.

5.4 EFFECTS ON RECYCLED WATER SUPPLY RELIABILITY

The quality of recycled water is regularly monitored by the CSDLAC for process control, regulatory compliance and customer development. The results of these tests are reported monthly and annually to the LARWQCB which provides the permits to CSDLAC. Through special sampling and testing, customers can have the confidence of knowing that they are receiving the quality of recycled water needed for their particular uses.

5.5 WATER QUALITY PROTECTION PROJECT

In the early 1980s, the San Gabriel Valley aquifer, also referred to as "Main Basin", was discovered to have contaminants including trichloroethylene (TCE) and perchloroethylene (PCE) in the water supply. Based on the contamination level, the U.S. Environmental Protection Agency (EPA) declared the area a "Superfund site". The contamination plume moved south into the Whittier Narrows area toward the Central Groundwater Basin over the next 20 years and threatened local groundwater supplies. The EPA developed a new groundwater treatment facility called the "Whittier Narrows Operable Unit" (WNOU) to deal with the contamination, but it was soon discovered that the plume had already moved passed the new facility. In 2000, Central Basin developed a containment plan known as the Water Quality Protection Project (WQPP). Central Basin received $10 million in Federal funding for the implementation of the WQPP with the dual objective of cleaning up the existing plume and preventing the further migration of contaminants into the Central Groundwater Basin. Congressional funding legislation was enacted in December 2000.

By taking necessary steps to ensure removal of the contaminants, the WQPP prevented the contamination from reaching the San Gabriel River and Rio Hondo Spreading Grounds. The cleanup of the aquifer at no cost to Central Basin, produces a safe and reliable of potable water supply to participating groundwater producers without effecting water rates and minimizes the impact of rising energy costs.

The $10 million project consists of two extraction wells with a collector pipeline and a treatment facility. The extraction wells pump out the contaminated groundwater with a combined rate of approximately 2,000 gallons per minute and convey it via the collector pipeline to the central treatment facility for purification.

To ensure service while saving costs, Central Basin entered into an agreement with the City of Whittier to locate the treatment facility at the City of Whittier's main water facility yard in Pico Rivera. Whittier then utilizes its own booster pumps to send the water to the City of Pico Rivera and Santa Fe Springs for use in their distribution systems. The WQPP is operated by the City of Whittier for Central Basin.

Water Quality Protection Program (WQPP)

Operations began in December 2004 with WQPP delivering over 4,600 AF to the Cities of Whittier, Pico Rivera, and Santa Fe Springs. Since then, extraction and deliveries have leveled off to about 3,500 AFY, mainly due to Whittier's decision to stop taking WQPP water in July 2008. The $10 million funding was used not only for the construction of the above facilities, but also for operating costs. Unfortunately, due to higher construction costs than was anticipated; the funding allocated to the WQPP nearly ran out in 2007. Central Basin considered shutting down the WQPP in 2007, but agencies in the Whittier Narrows area were still concerned about the plume and recommended that Central Basin continue to operate the WQPP. So Central Basin engineered a Memorandum of Understanding with the three principle cities, Pico Rivera, Santa Fe Springs and Whittier to pay a higher price per acre-foot to keep the facility operating until new federal funding could be authorized.

In late 2009, with the support and assistance of Congress member Grace Napolitano, Central Basin secured $11.2 million in funding to operate the WQPP for approximately 10 more years. Central Basin is working to secure the first installment of that grant.

Water Conservation

Section 6

Water Conservation
Section 6

This section discusses Central Basin's Water Conservation Programs

6.1 OVERVIEW

In the last two decades, the Central Basin Municipal Water District (Central Basin) has continued to achieve extraordinary success through its water conservation efforts. Beginning 2006, conservation efforts were heightened with the adoption of Central Basin's 5-year Water Conservation Master Plan (CMP). The CMP, evaluated current and future water savings potential in the Central Basin service area and outlined a cost-effective conservation strategy for the Central Basin service area.

Since 2006, Central Basin has also received more than $4 million in grant funding from local, state and federal government agencies to develop and launch innovative water conservation programs. As a result of these efforts, Central Basin now has a diverse program portfolio in place—which includes a bilingual outreach campaign titled "*Shut Your Tap!*"—that will assist the greater Los Angeles County region in meeting the State of California's aggressive 20x2020 water conservation goal.

In 2009, a landmark water emergency was declared in California. As communities across the state recognized the need for greater water conservation, at the local level, funding for conservation programs was drastically reduced by the Metropolitan Water District (MWD). In order to support conservation efforts within the local communities during this critical time, Central Basin embarked on strengthening its existing partnerships and forging new ones with water retailers, purveyors and cities throughout its service area. This effort largely began with the introduction of the *Shut Your Tap!* Campaign.

The *Shut Your Tap!* Campaign (and its Spanish-language counterpart ¡Cierre Su Llave!) emphasizes community partnerships and grassroots outreach to promote water conservation within Central Basin's 24-city service area. Since its launch in April 2009, it has proven to be a highly successful outreach tool to raise awareness about the need to conserve, while working to encourage simple yet lasting behavioral changes in the way people use water every day. To date, a total of 24 cities in the Central Basin service area have officially joined the campaign. In addition, in 2009 the Los Angeles County Board of Supervisors declared May 19th to be the official "*Shut Your Tap!* Day" in Los Angeles County.

A core underpinning of the campaign is partnerships, as it is the local partnerships that create synergy and ultimately conservation actions within the community. Through the campaign, local agencies and community members work together to achieve results that are many times greater than what could be achieved separately. Central Basin's service area is fortunate to be home to some of the most diverse demographics in the world, and it is through collaborative efforts such as these that we are able to bring the message of water conservation to the communities we serve.

Through the campaign, and other programs introduced under the CMP, Central Basin has partnered with numerous government and public agencies to bring important services and programs to the local communities.

6.2 CENTRAL BASIN'S PAST AND CURRENT WATER CONSERVATION EFFORTS

Today, Central Basin's conservation programs are made up of a wide array of cost-effective programs that are offered free to participants:

Distribution Programs
High-Efficiency Toilets
Water Brooms
Weather Based Irrigation Controllers
Showerheads
Aerators

Direct Installation Programs
WaterFree Urinals
California Friendly Demonstration Gardens
Large Landscape Irrigation Programs
Weather Based Irrigation Controllers
High-Efficiency Toilets

Public Education and Outreach
Shut Your Tap! Conservation Campaign
Bilingual Speakers Bureau
Multicultural Outreach
School Education Programs
California Friendly Garden Workshops

Rebate Programs
Synthetic Turf
High-Efficiency Clothes Washers
Weather Based Irrigation Controllers
ULF Toilets

Shut Your Tap! Roundtable

6.2.1 METROPOLITAN WATER DISTRICT'S CONSERVATION GOAL

Metropolitan Water District (MWD) is responsible for providing a safe and reliable water supply to its 26 member agencies and the 19 million residents who live and work throughout its 5,200-square-mile service area in Southern California.

In response to the continuing drought conditions here in California, and the state's 20X2020 plan, MWD calculated their projected water savings based on their current conservation plan and determined that, when compared to the state's plan, there was a 575,000 acre feet shortfall.

MWD is taking action to close the gap and has developed the framework for a long term conservation plan. Framework details include, but are not limited to: education, outreach, water use ordinances, market transformation and behavioral change. Central Basin, along with other MWD Member Agencies, will partner with MWD to implement the new plan to reduce water consumption per capita by 20 percent by the year 2020.

6.3 CALIFORNIA URBAN WATER CONSERVATION COUNCIL

The California Urban Water Conservation Council (CUWCC) is a membership organization dedicated to maximizing urban water conservation throughout California by supporting and integrating innovative technologies and practices, encouraging effective public policy, advancing research, training and public education, and building on collaborative approaches and partnerships.

The CUWCC utilizes Best Management Practices (BMP) to benchmark an agency's conservation efforts. Central Basin was one of the first agencies to become a signatory to the CUWCC's Memorandum of Understanding, and as water wholesaler, has successfully complied with the BMPs every filing year since becoming a member. The most recent CUWCC Bi-Annual Report is attached as Appendix H.

6.3 1 BEST MANAGEMENT PRACTICES (BMPs)

The CUWCC's BMPs are a list of recommended conservation measures that have been proven to provide reliable savings to a given urban area. There are currently a total of 14 BMPs, making up a combination of established BMPs, some exclusively for wholesalers, some exclusively for retailers, and some a combination of the two. As a wholesaler, Central Basin is required to report on the following BMPs:

BMP# 3	System Water Audits, Leak Detection and Repair
BMP# 7	Public Information Programs
BMP# 8	School Education Programs
BMP# 10	Wholesale Agency Assistance Programs
BMP#12	Conservation Coordinator

6.4 CENTRAL BASIN BMP COMPLIANCE

6.4.1 BMP #1 – Water Survey Programs for Single-Family and Multi-Family Residential Customers

Because Central Basin is a water wholesaler and does not have direct access to single or multifamily customer account data, Central Basin can only provide support to the water retailers.

6.4.2 BMP #2 – Residential Plumbing Retrofit

High-Efficiency Toilet (HET) programs are a key element in the conservation successes Central Basin has experienced over the years. Central Basin's HET programs have been implemented through various partnerships and grant programs, and have been made available throughout the service area. Thousands of free HETs have been distributed to eligible customers over the last few years.

Central Basin partners with local agencies to install Smart Irrigation Controllers in city parks

Central Basin anticipates other opportunities for additional water savings through HET programs in the coming years. The Central Basin service area is home to many disabled or disadvantaged residents, and the free distribution of much-needed conservation devices continues to be in demand. Given the current economic down-turn, Central Basin is focusing its attention on securing additional sources of funding to make such programs possible.

6.4.3 BMP #3 – System Water Audits, Leak Detection and Repair

This BMP is geared to water retailers. However, Central Basin has provided leak detection and repair support in the past.

6.4.4 BMP #4 – Metering with Commodity Rates for all New Connections and Retrofit of Existing Connections

As a wholesaler, Central Basin does not sell directly to the end-user and does not have metering with which to administer commodity rates.

6.4.5 BMP #5 – Large Landscape Conservation Programs and Incentives

In addition to the MWD region-wide "SoCal Water$mart" and "Save-A-Buck" rebate programs, which offer rebates for certain qualifying conservation devices to customers throughout the MWD service area, Central Basin also has various large landscape conservation programs including:

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

6.4.6 BMP #6 – High-Efficiency Washing Machine Rebate Programs

Central Basin continues to implement region-wide rebate programs through MWDs Save-A-Buck and SoCal Water$mart rebate programs. Central Basin adds additional funding to qualifying Washing Machine devices and receives supplementary funding from participating retail agencies.

6.4.7 BMP #7 – Public Information Programs

Central Basin's public information efforts consist of a variety of programs and practices that are used to educate the public about water conservation. Conservation literature is provided to the public at various one-day programs and at community events.

Central Basin also provides the community with a Speakers Bureau in which or through which Directors and staff work with local civic organizations and service clubs to provide information on a variety of programs and projects that promote conservation. Additionally, Central Basin provides education through a website, an interactive Blog, and various publication materials.

Interactive Water Cooler Blog on Central Basin's website

Website and Social Media

Central Basin has effectively bolstered its community outreach and public education programs by integrating social marketing strategies with existing outreach programs. Central Basin uses social media to disseminate information through websites such as Twitter, Facebook and YouTube. Central Basin has realized many campaign successes of increased community involvement, which is reflective in the upward curve of its website traffic.

By utilizing technology, Central Basin has connected with residents and businesses in a new and exciting way to promote the benefits and importance of water conservation. From Central Basin's Watercooler Blog—the "First Official Water Blog in California"—to Facebook and Twitter, the District's social media strategy is tailored to meet the needs of the local community.

6.4.8 BMP #8 – School Education Programs

Collaborative classroom visitation programs are a key element in Central Basin's student outreach efforts. The following is a brief description of the free water education programs offered by Central Basin:

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

6.4.9 BMP #9 – Conservation Programs for Commercial, Industrial and Institutional Facilities Accounts

Central Basin participates in MWD's region-wide commercial "Save A Buck" rebate program, which provides water conservation devices to be utilized in commercial, industrial and institutional facilities and settings. The devices include but are not limited to High-Efficiency Toilets, Ultra Low and Zero Water Urinals, Weather-based Irrigation Controllers, Nozzles, Water Brooms and various industrial process devices.

In addition, Central Basin distributed conservation Water Brooms to all 31 Los Angeles County Fire Stations within the District's service area. In addition, 49 brooms were distributed to local municipalities,

and 30 brooms to schools. Water Brooms provide an estimated 150 gallons of water savings with each cleaning.

In addition, Central Basin has implemented Commercial, Industrial and Institutional direct installation programs for HETs and Low and Zero water use Urinal Direct Installs through grant programs and local water retail agency partnerships. The District has also partnered with local agencies to install Smart Irrigation Controllers in City parks, street medians and City facilities.

6.4.10 BMP #10 – Wholesale Agency Assistance Programs

As a part of Central Basin's "Shut Your Tap!" Conservation Campaign, the District hosts a bi-monthly 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.

6.4.11 BMP #11 - Conservation Pricing

Although the Conservation Pricing BMP refers to the rate structures of a retail water agency to encourage customers to use less water, Central Basin, as a wholesale water agency, employs a similar model for its customers by incentivizing the large scale sale of imported water. Central Basin employs a two-tier rate structure in which cities and agencies are invited to enter into 5-year "purchase agreements." The agreements provide Central Basin with a longer term guarantee of water sales while providing the city or agency access to a discounted imported water rate.

6.4.12 BMP #12 – Conservation Coordinator

As the regional wholesaler, Central Basin employs one full-time Conservation Coordinator who works throughout the District's service area to promote water conservation. The coordinator also works with cities and water agencies to foster consumer behavioral change and implement various conservation programs that result in significant reduction in overall retail water use.

6.4.13 BMP #13 – Water Waste Prohibition

In response to the State of California's 20X2020 campaign announcement, MWD developed a model "Mandatory Water Use Efficiency Ordinance", and appealed to all MWD Member Agencies to work within their respective service areas to urge cities to adopt the MWD model ordinance.

Strategic outreach and a broad collaborative effort were needed to introduce the Water Use Efficiency (WUE) ordinance to the 24 cities within Central Basin's service area. As a first step, Central Basin created a WUE Ordinance Task Force, comprised of members from surrounding cities and retail agencies, to reach out to the District's 24 cities and unincorporated communities. In addition, each city was provided with a Water-Use Efficiency Ordinance Tool Kit, compliments of Central Basin.

6.4.14 BMP #14 – Residential Ultra Low Flow Toilet (ULFT) Replacement Programs

Although BMP #14 is listed under the CUWCC standards as Ultra Low Flow Toilets (ULFT), technology standards have replaced the 1.6 gpf ULFT with High-Efficiency 1.28 gpf Toilets (HET). Today, the District only uses HETs and continues to report the activity under BMP #14.

HET Distribution Events

HETs have been a key element in the conservation success Central Basin has experienced over the years. Free HET Distribution events have provided thousands of free toilets to local

residents throughout Central Basin's service area. The District's HET programs have been initiated through various partnerships and grant programs, and have been made available throughout Central Basin's service area.

High Efficiency Toilet Distribution in 2010

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.

HELP Flyer for free gardening workshop

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.

Water-free urinals

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 Reclamation 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.

Water Wanderings participants

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.

Students after a Think Earth! It's Magic show holding Water Squad Investigation workbooks

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*.

Anna Resnick from the City of Cerritos is the winner of the 2011 "Water Is Life Poster Contest"

"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.

Students at the Roundhouse Marine Studies Lab and Aquarium

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.

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

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.

6.6 CENTRAL BASIN'S WATER USE EFFICIENCY MASTER PLAN

In 2006, Central Basin adopted a five-year Conservation Master Plan (CMP) to expand long-term water saving efforts and introduce new regionally tailored programs.

The CMP will be ending in 2011 and an updated CMP, is in the process of being developed. A number of factors, including new state and federal legislation, funding limitations from partnering agencies, and new state standards have changed the dynamics of conservation throughout the last few years. The new Master Plan will reflect those changes and continue to serve as a supportive water conservation guide for Central Basin.

Fireman using a water efficient waterbroom provided by Central Basin

Water Rates & Charges

Section 7

Water Rates & Charges
Section 7

This section discusses Central Basin's Water Rates & Charges

7.1 OVERVIEW

The residential water bill in Southern California is most likely the least expensive of a typical household's major utility bills. In fact, tap water can be purchased for much less than a penny per gallon– remarkable considering investments by water utilities into regulatory compliance, water use efficiency, infrastructure and other reliability programs. This paradox applies to Central Basin's service area as well, although residential water bills vary from retail water agency to retail water agency depending primarily on the mix of source water purchased and/or produced.

Retail agencies that exclusively provide groundwater to their customers, tend to have water rates that are lower than those that serve a mix of groundwater and imported water. Imported water purchased from Central Basin and provided by MWD carries not only the cost of acquiring importing, purifying (treating) and distributing the commodity throughout the region but also a long-term action plan for ensuring adequate supplies to meet growing demands through conservation, education and new locally produced supplies.

7.2 MWD RATE STRUCTURE

In 2002, the MWD Board of Directors adopted a rate structure to support its strategic planning vision as a regional provider of services, encourage the development of local supplies such as recycled water and conservation, and ensure a reliable supply of imported water. To achieve these objectives, MWD called for voluntary purchase orders from its member agencies, unbundled its water rates, established a two-tiered supply rate system and added a capacity charge. Together, these rate structure components provide a better opportunity for MWD and its member agencies to manage their water supplies and proactively plan for future demands.

7.2.1 PURCHASE ORDERS

The Purchase Order is an agreement between MWD and a member agency, whereby the member agency agrees to purchase a minimum amount (60 percent of their highest year's delivery of non-interruptible water times 10) of non-interruptible water during a 10-year period - "Purchase Commitment." The economic incentive for a Purchase Commitment is that it entitles the member agency to purchase annually a set amount of non-interruptible water (Tier 1 Annual Maximum) at the lower Tier 1 rate, which is 90 percent of its highest year's delivery of non-interruptible water.

In the case of Central Basin, a 10-Year Purchase Agreement was signed in 2002 (with an effective date of January 1, 2003) which has a base allocation of 80,400 AF. The purchase order is included in Appendix I. As shown below in Table 7-1, Central Basin's Tier 1 Annual Maximum is 90 percent of the base allocation, which is 72,360 AF. There is a purchase commitment of 482,400 AF by the end of 2012. Through December 2010, Central Basin purchased 487,220 AF, which satisfies its purchase commitment to MWD. A new purchase order will be developed over the next 18 months and will be effective January 2013.

Table 7-1
Central Basin Purchase Order Terms

Initial Base Allocation	Tier 1 Annual Maximum (90 percent of Base)	Purchase Commitment (60 percent of Base x 10)
80,400 AF	72,360 AF	482,400 AF

7.2.2 UNBUNDLED RATES AND TIER 1 & 2

In order to clearly justify the different components of the costs of water on a per acre foot basis, MWD unbundled its full service water rate. Among the components MWD established are:

Supply Rate Tier 1 – Reflects the average supply cost of water from the Colorado River and State Water Project.

Supply Rate Tier 2 – Reflects the MWD costs associated with developing new supplies, which are assessed when an agency exceeds its Tier 1 limit of firm deliveries.

System Access Rate – Recovers a portion of the costs associated with the conveyance and distribution system, including capital and operating and maintenance costs.

Water Stewardship Rate – Recovers MWD's cost of providing incentives to member agencies for conservation, water recycling, groundwater recovery and other water management programs approved by the MWD Board.

System Power Rate – Recovers MWD's electricity- related costs, such as the pumping of water through the conveyance and distribution system.

Treatment Surcharge – Recovers the treatment cost and is assessed only for treated water deliveries, whether firm or non-firm.

Recycled water use at Grant Rea Park in Montebello

Table 7-2
Metropolitan Water District Unbundled Water Rate Components Adopted for 2011

Category of Water	$/AF
Supply Rate Tier 1	$155
Supply Rate Tier 2	$280
System Access Rate	$204
Water Stewardship Rate	$41
System Power Rate	$127
Treatment Surcharge	$217
Total Tier 1 Treated Rate	**$744**
Total Tier 2 Treated Rate	**$869**

The unbundled MWD water rates for calendar year (CY) 2011 are displayed in Table 7-2. Central Basin's complete rate schedule is included in Appendix J.

7.2.3 REPLENISHMENT SERVICE

Although a majority of the MWD water sold is full service at the Tier 1 rate, there is imported water sold at a discounted rate, better known as Replenishment Service Water. This type of water is used for groundwater storage and/or replenishment. There are two main types of replenishment water – treated and untreated. Because the replenishment water can be interrupted at anytime, MWD has provided a discount to the rates. However, the rates are not tied to the unbundled rate structure illustrated above. The rates are established by MWD to provide the best incentive to replenish the groundwater basins. Replenishment Service rates for 2011 are shown in Table 7-3.

Table 7-3
Metropolitan Water District Replenishment Service Rate Adopted for 2011

Category of Water	$/AF
Replenishment Water Rate Untreated	$409
Treated Replenishment Water Rate	$601

7.2.4 MWD CAPACITY CHARGE

MWD's rate structure also established a charge labeled "Capacity Charge." The charge was developed to recover the costs of providing distribution capacity use during peak summer demands. Additionally, the charge is to encourage member agencies to reduce peak day demands during the summer months (May 1 through September 30) and shift usages to the winter months (October 1 through April 30), which will result in a more efficient utilization of MWD's existing infrastructure and defers capacity expansion costs.

The Capacity Charge is assessed by multiplying Central Basin's maximum usage by the rate. The maximum usage is determined by a member agency's highest daily average usage (per cfs) for the past three summer periods, as shown in Table 7-2, below, for Central Basin's maximum usage for CY 2011 – 125.9 cfs.

Table 7-4
Metropolitan Water District Unbundled
Water Rate Components Adopted for 2011

	Peak Flow 2007	Peak Flow 2008	Peak Flow 2009	3-Year Max
Central Basin	125.9 cfs	102.7 cfs	94.7 cfs	125.9 cfs

7.2.5 READINESS-TO-SERVE CHARGE

The Readiness-to-Serve Charge (RTS) recovers a portion of MWD's debt service costs associated with regional infrastructure improvements. The RTS charge is a fixed charge assessed to each member agency regardless of the amount of imported water delivered in the current year. It is determined by the member agencies' firm imported deliveries for the past 10 years. All member agencies of MWD have the right to choose how that designated amount is collected. Central Basin elected to have MWD collect the majority of the RTS obligation through a "Standby Charge" assessed on all parcels within its service area. The remainder is collected as a surcharge on Central Basin's commodity rates. The surcharge is discussed in section 7.3.3.

7.2.6 MWD STANDBY CHARGE

In 1992, the State Legislature authorized MWD to levy a standby charge that recognized that there are economic benefits to lands that have access to a water supply, whether or not such lands are using it. A fraction of the value of the benefit accruing to all landowners in MWD's service territory can therefore be recovered through the imposition of a standby charge. MWD assessed this charge only within the service area of the member agencies that requested such a parcel charge to help fund a member agency's RTS obligation as discussed in section 7.2.5. Within Central Basin, the MWD Standby Charge is currently $10.44 per parcel.

7.3 CENTRAL BASIN'S IMPORTED WATER RATES

As MWD adopted a new rate structure so did Central Basin. In 2003, Central Basin passed through MWD's Purchase Order by offering customer agencies voluntary purchase agreements and assessing MWD's new Capacity Charge. Central Basin also revised the administrative surcharge to be applied uniformly to all classes of imported water sold. It has been, and continues to be the policy of Central Basin to pass through imported water rate increases from MWD to all cities and agencies in the Central Basin service area. Described below are elements of the rate structure that Central Basin applies to the delivery of imported water.

7.3.1 PURCHASE AGREEMENTS

In order to meet the Purchase Order Commitment with MWD, Central Basin established its own purchase contract policy with its customer agencies. Central Basin's Imported Water Purchase Agreements mimic the MWD version in terms of an Annual Tier 1 Maximum and Total Purchase Commitment but offer more flexibility to the customer. Central Basin

requires only a five-year commitment, as opposed to a 10-year term. Furthermore, retail agencies have the option to adjust their Tier 1 and Purchase Commitment amounts annually if certain conditions are favorable and can also reduce their commitment amounts by offsetting imported water demand with recycled water purchased from Central Basin. For purchases above the Tier 1 limit, or in the absence of a Purchase Agreement, the customer agency pays the Tier 2 rate.

Out of the 26 cities, water agencies and private water companies that have an imported water connection, five do not currently have a purchase agreement with Central Basin.

7.3.2 ADMINISTRATIVE SURCHARGE

One of the main revenue sources for Central Basin is the Administrative Surcharge applied to all imported water sold. In 2003, Central Basin revised the Administrative Surcharge to be uniformly applied to all imported water regardless of the type delivered. Revenue from the surcharge recovers Central Basin's administrative costs including planning, outreach and education, and conservation efforts. As of July 1, 2011, Central Basin's Administrative Surcharge is $70/AF.

7.3.3 INFRASTRUCTURE SURCHARGE

For FY 2010-11, Central Basin Introduced a new "infrastructure surcharge" of $20 per AF for all water sold, including recycled water. The purpose of charge is to help cover the cost of expanded recycled water infrastructure to support regional reliability goals. When sufficient expansion of the recycled water system is reached, this charge will be eliminated.

7.3.4 READINESS-TO-SERVE SURCHARGE

As described above, MWD levies Central Basin with a RTS charge to recover a portion of its debt service costs, which is covered mostly by the MWD Standby Charge. However, the remaining balance is collected on the commodity rate. This RTS surcharge is added to Central Basin's commodity rates for only non-interruptible water.

7.3.5 WATER SERVICE CHARGE

Water utility revenue structures benefit from a mix of fixed and variable sources. Central Basin's Water Service Charge recovers a portion of the agency's fixed administrative costs but is a relatively small portion of its overall revenue from water rates.

7.3.6 CENTRAL BASIN'S CAPACITY CHARGE

This charge, as described in Section 7.2.5, is intended to encourage customers to reduce peak day demands during the summer months, which will result in more efficient utilization of MWD's existing infrastructure. Central Basin has passed through this MWD charge to its customer agencies by applying MWD's methodology. Each customer's Capacity Charge is determined from their highest daily average usage (per cfs) for the past three completed summer periods of May 1 through September 30. However, because MWD assesses Central Basin on the coincident daily peak of all the connections and aggregate of all its customers' daily peak as the non-coincident peak, Central Basin is able to keep the Capacity Charge rate lower than the MWD rate to its customers.

Recycled Water Customer Robertson's Ready Mix in Paramount

7.4 RECYCLED WATER RATES

Central Basin's recycled water program is comprised of two distribution systems: the E. Thornton Ibbetson Century Water Recycling Project and the Esteban Torres Rio Hondo Water Recycling Project with more than 67 miles of pipeline and three pump stations. Since 1992, Central Basin has encouraged the maximum use of recycled water to industries, cities and landscape irrigation sites through the

economic incentive of its rates and charges. Central Basin's recycled water rate schedule is shown in Appendix J.

7.4.1 RECYCLED WATER RATES

Central Basin commodity rates cover the operation and maintenance and labor and power costs associated with the delivery of recycled water. The rates are set up in a two-tiered, declining block rate structure so they may further encourage the use of recycled water. Furthermore, the rates are wholesaled at a significant reduction to imported rates to promote the usage of recycled water.

The "outside of the Central Basin service area" rate is assessed to customers outside of Central Basin's service boundaries which pay an additional $20/AF in each tier. This additional charge is applied to make up for the recycled water Standby Charge which is not levied on their parcels.

7.4.2 RECYCLED WATER STANDBY CHARGE

In addition to the MWD Standby Charge, there is a recycled water standby charge that is levied by Central Basin to each parcel within its service area. A $10 per parcel charge is administered by Central Basin to provide a source of non-potable water completely independent of drought-sensitive supplies. The revenue collected from this charge is used to pay the debt service obligations on Central Basin's water recycling facilities. Each year the Board holds a public hearing where they adopt Central Basin's Engineer's Report and Resolution to assess this charge. The stand-by charge generates about $3.1 million annually which is applied exclusively to retire Central Basin's debt obligation for construction of the recycled water system.

Salt Lake Park in Huntington Park

7.5 FUTURE WATER RATE PROJECTIONS

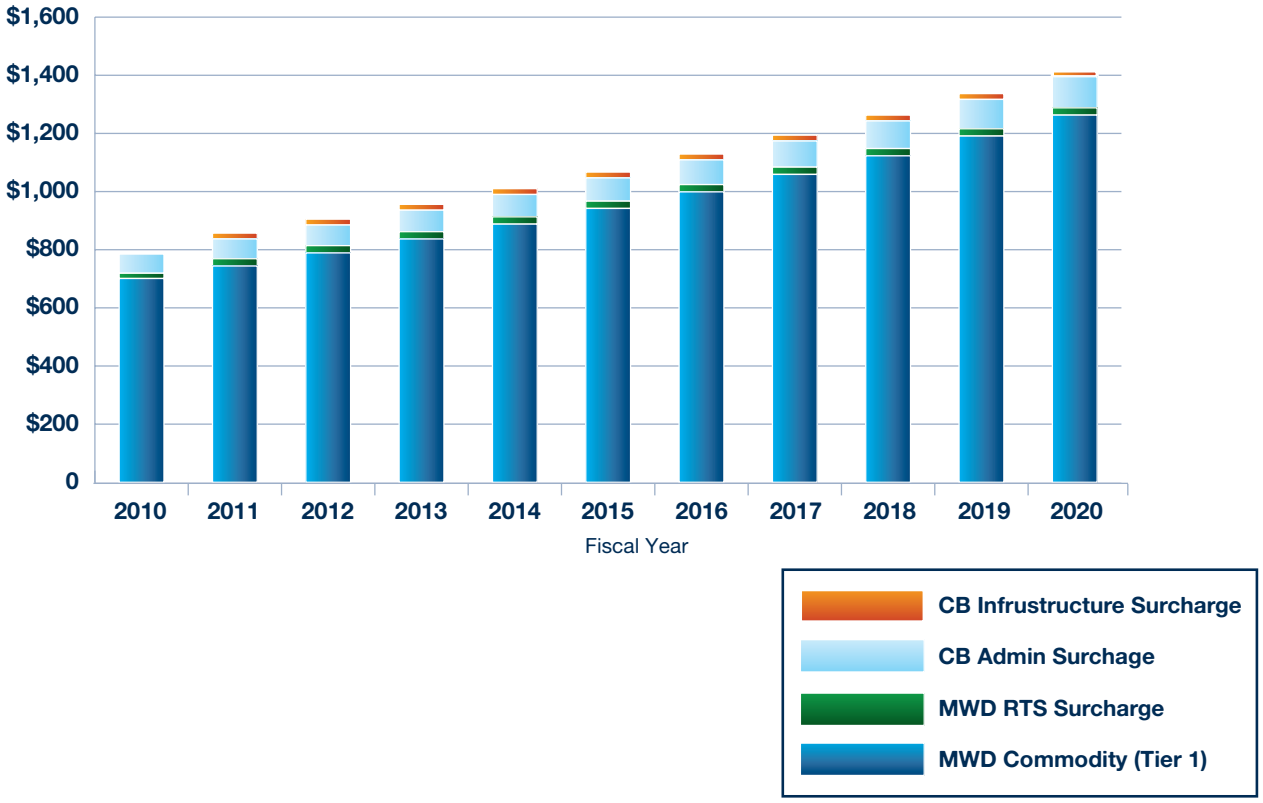
As the demand for water increases in Southern California so does the cost to administer, treat and distribute imported and recycled water. However, Central Basin has worked diligently to ensure that stable and predictable rates are managed for the future. Below are discussions of imported and recycled water rate trends during the next 10 years.

7.5.1 IMPORTED WATER RATE PROJECTIONS

In 2004, the MWD Board adopted its first "Long Range Finance Plan." This plan was developed to forecast future costs and revenues necessary to support its operations and capital investments and provide some level of rate certainty to the member agencies and sub-agencies throughout Southern California. Unfortunately, events of the last several years (drought, federal water restrictions from the Delta, national economic distress, etc.) have caused imported water rates to increase much faster than predicted. MWD is now pursuing an update of the Long Range Finance Plan that is expected to provide some measure of predictability in an increasingly unpredictable world. Over the last ten years, the MWD Tier I treated rate has increased an average of 6 percent annually. For the next 10 years, we can assume an annual increase of 6 percent through the year 2020.

Central Basin's Administrative Surcharge is projected to increase at an annual average rate of 4 percent through 2015, and then 6 percent annually through 2020. This increase is an estimate that will be reviewed and modified annually based on the budget's revenue requirements. Figure 7-1 displays Central Basin's imported water rate projections for the next 10 years.

Figure 7-1
Central Basin Imported Water Rates
10 Year Projections

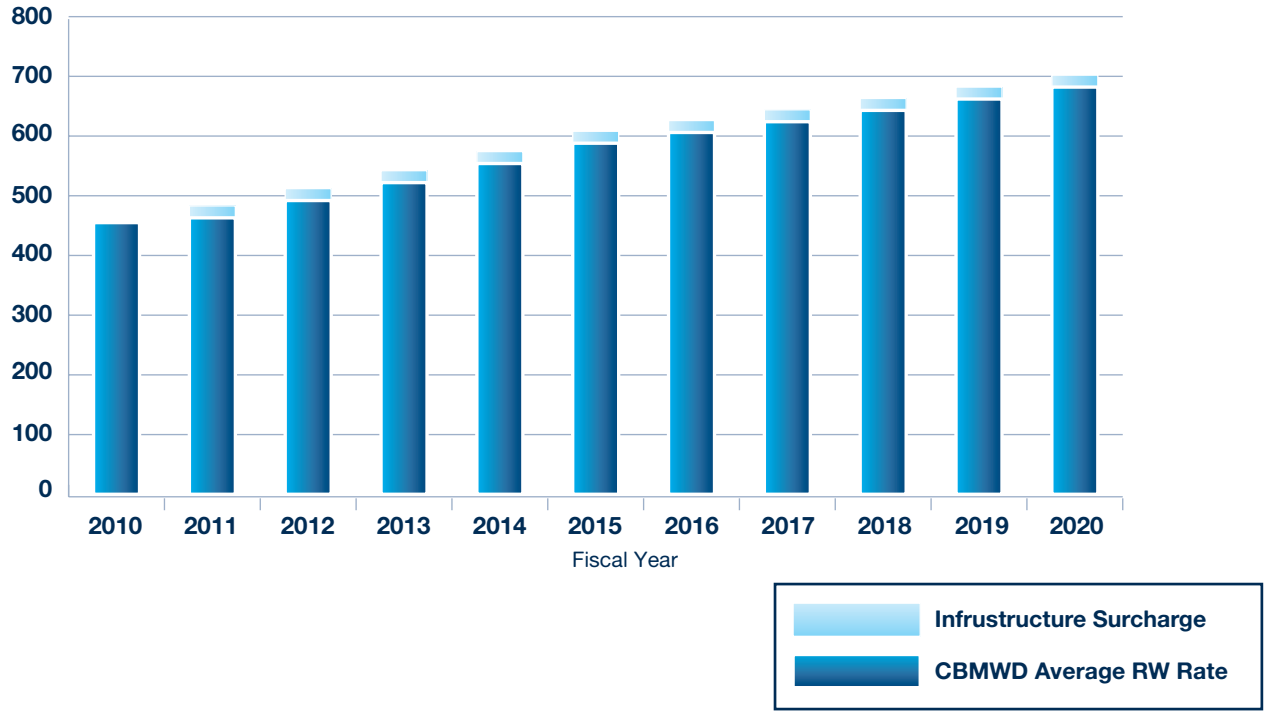


7.5.2 RECYCLED WATER RATE PROJECTIONS

Similar to imported water, recycled water rates are broken up into a two-tier system reflecting a declining block rate to encourage its use. The first Tier is all agency recycled water sales up to 50 AF per month. After 50 AF, the rate drops by about 9 percent. Overall, recycled water rates are expected to increase because of higher treatment, maintenance and power costs. However, Central Basin believes in setting the rate of recycled water at a competitive level to help offset imported water. In order to achieve this economic incentive, recycled water rates have been projected by Central Basin to increase at a slightly lower level than imported water. Recycled water rate increases are projected to be 6 percent annually through 2015 leveling off to 3 percent through 2020. As mentioned previously, Central Basin introduced a new infrastructure surcharge in FY 2010-11 for all water sold. The charge will help offset the costs for expanded infrastructure to support regional reliability. As shown in Figure 7-2, Central Basin's average recycled water rate will be at a competitive level versus imported water rates during the next 10 years. The average is the difference between the first tier and second tier.

Reclaimed water sign on a road median in South Gate

Figure 7-2
Central Basin Average Recycled Water Rates / AF
10 Year Projection



Water Recycling

Section 8

Water Recycling
Section 8

This section discusses Water Recycling Efforts within Central Basin's service area

8.1 OVERVIEW

Recycled water is a cornerstone of Central Basin's efforts to augment local supplies and reduce dependence on imported water. Since planning and constructing its recycled water systems in the early 1990s, Central Basin has become an industry leader in water re-use. Recycled water is economically feasible and is used for non-potable applications such as landscape irrigation, commercial and industrial processes such as cooling, and indirect potable use through groundwater replenishment.

In FY 2006-07, recycled water demand within Central Basin's service area peaked at 5,311 AF. This amount represented about 2 percent of the Central Basin service area total water demand of 280,500 AF. However, recycled water demand is projected to reach 16,000 AF by 2025, which should represent about 6 percent of expected total water demand, which effectively triples recycled water usage in the Central Basin service area. Table 8-1 shows the projected use of recycled water over the next 25 years.

This section provides an overview of the District's water recycling system and water treatment and distribution. In addition, this section includes a discussion of the District's past, current and projected sales as well as the District's system expansion projects and Master Plan. The section concludes with a brief description of the Cerritos and Lakewood recycled water programs within Central Basin service area and WRD's use of recycled water as a groundwater replenishment supply within the region.

8.2 RECYCLED WATER SOURCES AND TREATMENT

8.2.1 CENTRAL BASIN'S SOURCE WATER

The source of Central Basin's recycled water is the County Sanitation Districts of Los Angeles County (CSDLAC). CSDLAC operates six water reclamation plants in the Los Angeles Basin. These combined systems produce approximately 457 million gallons per day (MGD) of effluent of which approximately one-third is available for municipal and industrial use. Central Basin purchases a portion of this recycled water from two water reclamation plants, Los Coyotes and San Jose Creek. Both of these plants provide approximately 93 MGD of tertiary-treated (Title-22) water for distribution. Below is a detailed description of the two water reclamation plants.

San Jose Creek Water Reclamation Plant

The San Jose Creek WRP is located in the City of Whittier and has a treatment capacity of about 100 MGD of wastewater. Approximately 71 MGD of recycled water is produced for use at locations throughout the region. These locations include groundwater recharge at the San Gabriel River and Rio Hondo Spreading Grounds as well as irrigation of parks, schools and greenbelts and commercial-industrial uses. The San Jose Creek WRP was built in the early 1970s as part of the region's Joint Outfall System and serves a largely residential population of approximately one million people. This Joint Outfall System uses six water reclamation plants and the Joint Water Pollution Control Plant in Carson to serve a major portion of metropolitan Los Angeles County.

San Jose Creek Water Reclamation Plant

The goal of the CSDLAC is to beneficially use as much of the recycled water from its water reclamation plants as possible. Approximately 22 MGD of the recycled water from San Jose Creek WRP is sent to percolation basins for groundwater recharge. In 1992, the San Jose

Creek WRP was connected to the E. Thornton Ibbetson Century and Esteban Torres Rio Hondo Water Recycling projects which supply the water recycling needs of more than a dozen cities combined from the Central Basin water recycling distribution system. The high quality San Jose Creek WRP final effluent meets the National Pollution Discharge Elimination System (NPDES) requirements for water quality.

Los Coyotes Water Reclamation Plant

The Los Coyotes WRP is located in Cerritos and has a treatment capacity of 37 MGD of wastewater. About 22 MGD of recycled water is produced and used at sites throughout the region. Sites include irrigation of schools, golf courses, parks, nurseries and greenbelts and industrial use at local companies for carpet dying and concrete mixing. The Los Coyotes WRP serves a population of approximately 370,000 people.

Los Coyotes Water Reclamation Plant

More than 200 sites in the Central Basin service area are now utilizing recycled water. The irrigation of parks, golf courses, schools, nurseries, freeway and street medians, and slopes and other greenbelt areas. In addition, various industries, such as the Shaw-Tuftex Carpet Mill will use recycled water for carpet and textile dyeing, metal finishing, concrete mixing and cooling tower supply. Other industrial uses include concrete mixing (Robertson's Ready-Mix in Paramount and Santa Fe Springs), sand mold manufacturing process (Pacific Alloy Castings in South Gate), cooling plant operations at co-gen facilities (Metropolitan State Hospital in Norwalk) and power plant cooling (Malburg Power Plant in Vernon).

8.2.2 Recycled Water Quality

CSDLAC operates 10 laboratories including the San Jose Creek Water Quality Lab and Treatment Plant Laboratories. The laboratories have greatly increased the capability to control plant water quality and quality assurances and offer laboratory services to monitor the quality of effluent before it reaches recycled water users. More than 300,000 water quality tests on over 20,000 samples are performed annually at their facilities.

Although recycled water is not used as a drinking water supply, it still has to meet water quality standards. The standards come from the California Code of Regulations under Title 22 and Title 17. Title 22 establishes the requirements for recycled water treatment, quality and allowable uses. Title 17 establishes the requirements for backflow protection of the potable water supply.

One of the major concerns for the use of recycled water is the level of TDS (Total Dissolved Solids) in the product water coming out of the treatment plant, also referred to as effluent. The higher the TDS levels, the more damaging the recycled water is for landscape irrigation, so it is important to keep the levels as low as possible. The limit for TDS at San Jose Creek and Los Coyotes is 800 and 1,000 mg/l, respectively. Typically, San Jose Creek TDS effluent levels are just over 600 mg/l while Los Coyotes TDS effluent levels are a bit higher at 800 mg/l.

Effluent gage at a Water Reclamation Plant

Table 8-1
Projected Future Use of Recycled Water in CBMWD Service Area
(Acre-Feet)

Type of Use	2015	2020	2025	2030	2035
Irrigation	5,300	6,500	11,200	11,200	11,200
Commercial	150	250	300	300	300
Industrial	1,250	4,250	4,500	4,500	4,500
Total Projected Use of Recycled Water	**6,700**	**11,000**	**16,000**	**16,000**	**16,000**

Table 8-2
Projected Wastewater Collected and Treated[1] by CSDLAC
(Acre-Feet)

	2015	2020	2025	2030	2035
Wastewater Collected & Treated[2]	110,000	135,000	145,000	154,000	154,000
Recycled Water Delivered[3]	21,300	24,600	25,000	26,000	27,000

[1] *Data supplied by the County Sanitation Districts of Los Angeles County.*
[2] *From both the Los Coyotes WRP and the San Jose Creek WRP*
[3] *Includes recycled water for Central Basin, Cerritos, and Lakewood, but does not include recycled water for groundwater recharge*

One of the major components of TDS is chloride. The Regional Water Quality Control Board (RWQCB) established a limit for chloride levels through Resolution No. 97-02 in 2002. The resolution was adopted to provide a measure of drought relief for those treatment plants with higher chloride levels in their tributary waters. Requirements include monitoring data and assessment reports on chloride by Publicly Owned Treatment Waterworks (POTW's) on an annual basis. In 2008, chloride levels in the final effluent of San Jose Creek WRP were just over 100 mg/l (or 100 parts per million), while Los Coyotes were just under 200 mg/l, which is significantly below the limit of 250 mg/l.

All of the effluent water from the treatment plants in 2008 was adequately chlorinated to comply with the total coliform limit and all effluent recycled water discharged to the San Gabriel River from both treatment facilities was properly disinfected and dechlorinated.

8.2.3 TREATMENT PROCESS

Recycled water undergoes a rigorous, multi-stage treatment process to clarify it to high quality standards. The level of treatment necessary is approved by the California Department of Public Health (CDPH). CDPH requires recycled water to meet California Code of Regulations Title 22 standards (Title 22). Title 22 standards address specific treatment requirements for recycled water and lists approved uses. Approximately 2,000 tests are performed monthly to ensure water quality meets or exceed all State requirements.

The recycled water that is produced at the San Jose Creek and the Los Coyotes WRPs undergoes tertiary treatment and denitrification. Tertiary recycled water begins with secondary treated water that undergoes coagulation, filtration and disinfection. Tertiary treated water can be used for a wide variety of industrial and irrigation purposes where high-quality, non-potable water is needed. Section 5 (Water Quality) explains in more detail the wastewater treatment facilities that provide Central Basin with recycled water.

Table 8-2 illustrates the projected amount of wastewater collected and treated as well as the amount of recycled water expected to be delivered by these two treatment plants to Central Basin's distribution system. Table 8-3 shows the projected disposal of Title 22 water not used in recycled water programs.

The amount of wastewater collected and treated by these two reclamation plants is expected to remain relatively consistent during the next 25 years, despite population increases. According to CSDLAC analysis, population increases are not projected to be significant enough to make it economically feasible to expand these CSDLAC facilities. Indeed, since 1999, CSDLAC effluent has been trending down annually due to conservation efforts and because of negative economic conditions, despite population increases. Based on CSDLAC's "FY 2008-09 Annual Report on Recycled Water", the San Jose Creek WRP is treating wastewater at about 29 percent below the plant capacity. The Los Coyotes WRP is treating wastewater at about 27 percent below its capacity. At this time, effluent production is at 1980 levels.

8.3 CENTRAL BASIN'S RECYCLED WATER SYSTEM

8.3.1 EXISTING SYSTEM

Central Basin's recycling system is comprised of two separate projects: E. Thornton Ibbetson Century Water Recycling Project (Ibbetson Century Project) and the Esteban E. Torres Rio Hondo Water Recycling Project (Torres Project). Both projects deliver recycled water for landscape irrigation and industrial uses throughout the Central Basin service area.

The whole recycled water system is comprised of about 67 miles of pipeline with diameters ranging from 4" to 48" trunk pipelines, two pump stations, three booster pump stations, and service laterals.

The Ibbetson Century Project began delivering recycled water in 1992. The project currently delivers tertiary-treated recycled water from the CSDLAC's Los Coyotes WRP and serves the cities of Bellflower, Bell Gardens, Compton, Cudahy, Downey, Lakewood, Lynwood, Norwalk, Paramount, Santa Fe Springs and South Gate.

In 1994, the Ibbetson Century Project was extended into the northern portion of Central Basin's service area. The extension, known as the Torres Project, delivers tertiary-treated recycled water from CSDLAC's San Jose Creek WRP and serves the cities of Bell, Bell Gardens, Commerce, Huntington Park, Montebello, Pico Rivera, Santa Fe Springs and Whittier. In FY 2010-11, Central Basin added 7 miles of pipeline under SWRP (Southeast Water Reliability Project).

In FY 2009-2010, Central Basin's recycled water system delivered 4,316 AFY to more than 200 sites. It is anticipated, during the next 10 years that Central Basin will triple its sales with new connections across the northern portion of the service area.

Every year Central Basin connects new customers to recycled water and further reduces demands on potable water.

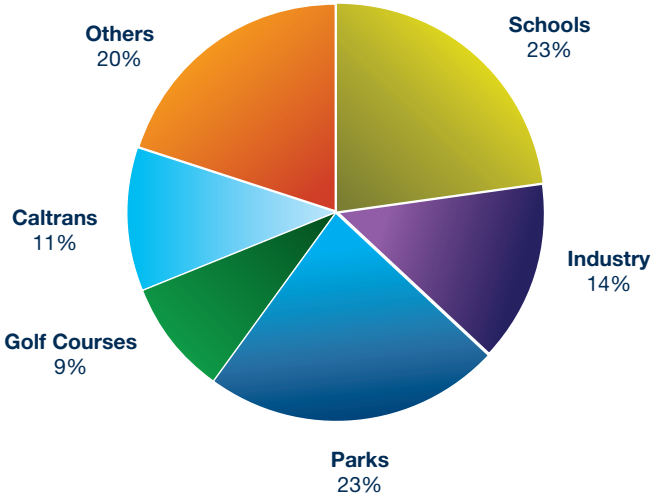
Table 8-3
Projected Disposal of Wastewater (Non-Recycled) AF Year

Method of Disposal	2015	2020	2025	2030	2035
San Gabriel River	77,850	79,600	78,350	82,100	82,100
Total	**72,850**	**79,850**	**78,350**	**82,100**	**82,100**

Table 8-4
Types of Recycled Water Customers

Customer Type	
• Landscape Irrigation	• Textile
• Golf Courses	• Median
• Co-Generation (Cooling Tower)	• Plant Nurseries
• Cemeteries	• Parks
• Concrete Mixing	• School Irrigation
• Cal-Trans (Irrigation)	• Others

Figure 8-1
Central Basin Recycled Water Use
for FY 2009-10 by Type of Site



8.3.3 HISTORIC AND CURRENT SALES

For the past 10 years, Central Basin has seen its recycled water sales gradually increase each year to peak in FY 2006-07 at just over 5,300 AF. Since landscape irrigation constitutes about three-fourths of Central Basin's current recycled water use, water sales are highly impacted by rainfall in the region. For example, 2007 had one of the warmest spring, summer, and fall seasons in many years. That year proceeded two more years of similar drought conditions. In 2008 and 2009, economic conditions resulted in lowering recycled water usage even further. This is apparent in Figure 8-2, which shows Central Basin's recycled water sales for the last 10 years.

The amount of recycled water supplied by Central Basin during the last 10 years has totaled more than 41,100 AF, replacing enough potable water to supply the needs of approximately 82,000 families for more than a year. Central Basin anticipates recycled water sales to increase in the future as more customers switch from potable water to recycled water due to the reliability of the supply and the economic incentives associated with converting from potable water to recycled water.

Table 8-5, on page 8-7, displays a detailed breakdown of annual sales by showing each retail customer agency's yearly purchases from Central Basin for fiscal years 2001 to 2010.

Actual sales for FY 2009-10 were below the peak year of FY 2006-07 when Central Basin sold over 5,300 AF. An above average rainfall year for Southern California combined with a sluggish economy to reduce recycled water sales for past last two years. Still, Central Basin anticipates large increases in sales during the next 5 - 10 years due to completion of a significant recycled water project to expand the system along with the completion of several important connections to new customers.

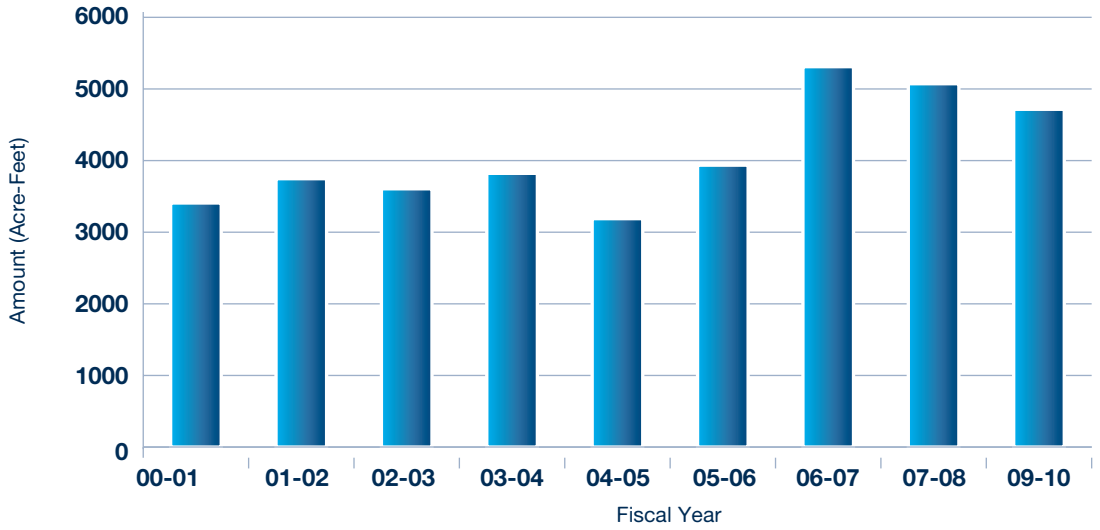
8.3.4 SYSTEM EXPANSIONS AND PROJECTED SALES

In 2008, Central Basin developed a Recycled Water Program Master Plan (Master Plan) to help identify all of the potential customers that could benefit from recycled water. In addition, the Master Plan would provide the best system expansion routes to benefit the entire system from which the following system expansion projects were devised:

Southeast Water Reliability Project

In early 2010, Central Basin began construction of the Southeast Water Reliability Project (SWRP). When completed, SWRP will consist of about 15 miles of recycled water transmission pipeline extending from the City of Pico Rivera to the City of Vernon. SWRP will loop Central Basin recycled water transmission system by connecting the existing Rio Hondo and Century system pipelines across the northern

Figure 8-2
Historical Recycled Water Sales by Retail Customer Agency of Central Basin
FY 2001 - 2010



portion of the service area. This "loop" will increase available flow and pressure in many areas of the entire distribution system that are currently not adequately served. Also SWRP itself will provide recycled water to new customers in the Cities of Pico Rivera, Montebello, Vernon, and Los Angeles, and the unincorporated county area of East Los Angeles, Upper San Gabriel Valley Municipal Water District and the San Gabriel Valley Water Company.

SWRP is broken out into two phases - Phase I, which was completed in April 2011, consists of 7 miles of 30-inch mainline from Pico Rivera to Montebello. Phase II will probably be built at some point in the near future, depending on customer demand. When the entire project is completed, SWRP is expected to increase recycled water deliveries to approximately 11,000 AFY within the first few years and ultimately to about 16,000 AFY in 2025. The SWRP project is shown in Figure 8-2 in relation to the existing recycled water system.

Pico Rivera Recycled Water Project

As part of SWRP, Central Basin is expanding recycled water service in the central area of the City of Pico Rivera. The Pico Rivera Recycled Water Project was constructed on Mines Avenue in conjunction with the Los Angeles County Department of Public Works (LACDPW) and the City of Pico Rivera. While LACDPW constructed an unrelated 78" conduit pipeline project in Mines Avenue, the three agencies agreed to split the costs of a separate 8-inch recycled water pipeline on Mines Avenue that can meet the irrigation demands at several publically owned sites in the immediate area, as well as the irrigation demands of the San Gabriel River and the Rio Hondo Spreading Grounds. A connecting pipeline was built by Central Basin to the existing recycled water facilities in the unincorporated county area of Whittier. The Pico Rivera Recycled Water Project is shown on Figure 8-2.

Because the 2008 Master Plan may not accurately reflect recent changes in the industrial base of the areas to be served by the SWRP project, a Master Plan update will be completed in 2012. The Master Plan update will allow Central Basin to refine the list of potential sites and staff to forecast more accurately future recycled water sales.

Table 8-5
Historical Recycled Water Sales by Retail Customer Agency of Central Basin
FY 2001 to 2010
(Acre-Feet)

Central Basin	FY 00-01	FY 01-02	FY 02-03	FY 03-04	FY 04-05	FY 05-06	FY 06-07	FY 07-08	FY 08-09	FY 09-10	Total
Bellflower Municipal	21	22	17	20	16	14	18	19	13	10	170
Bellflower-Somerset Mutual	131	159	118	125	108	103	119	123	122	104	1,199
City of Cudahy	9	8	7	7	6	6	7	7	7	6	68
City of Downey	642	733	664	686	617	609	861	742	753	742	7,048
City of Huntington Park	49	60	48	64	49	45	59	60	54	51	539
City of Lynwood	69	66	70	67	46	32	25	19	5	2	399
City of Norwalk	100	120	109	111	92	75	113	121	100	94	1,035
City of Paramount	429	453	431	443	360	372	451	395	339	354	4,027
City of Pico Rivera	-	-	35	39	28	36	37	28	28	17	251
City of Santa Fe Springs	858	893	815	774	630	959	794	838	647	562	7,771
City of South Gate	164	191	162	177	213	153	176	210	127	113	1,685
City of Vernon	-	-	-	-	-	578	855	759	831	752	3,775
City of Whittier	78	77	82	98	66	61	116	108	87	70	843
Golden State Water Company	358	418	506	610	523	477	549	565	566	495	5,069
Park Water Company	428	469	471	489	341	307	416	355	319	271	3,867
San Gabriel Valley Water Co	72	77	65	76	48	56	74	65	59	52	646
Upper San Gabriel Valley MWD	-	-	7	35	45	52	642	661	659	621	2,722
Total	**3,408**	**3,747**	**3,606**	**3,822**	**3,189**	**3,936**	**5,311**	**5,073**	**4,716**	**4,317**	**41,126**

System Storage

Storage capability within Central Basin's recycled water distribution system has been anticipated since the inception of the system. The system's peak demand occurs between a relatively narrow time period of 10:00 PM through 6:00 AM, but conversely, that is when CSDLAC recycled water effluent is at its lowest availability. The further expansion and demands on the recycled water system will only exacerbate the problem. The best way to offset this discrepancy between flow and demand is to build storage. Central Basin has proposed to construct a 3 million gallon recycled water storage tank using one of two options. Option one is to build the storage tank in the hills of Montebello. Option two is to construct a tank at the site of the Rio Hondo Pump Station in Pico Rivera. Option one is the preferred option because by placing the tank at a higher elevation, the recycled water system can be served by gravity flow without additional pumps.

Potential New Connections

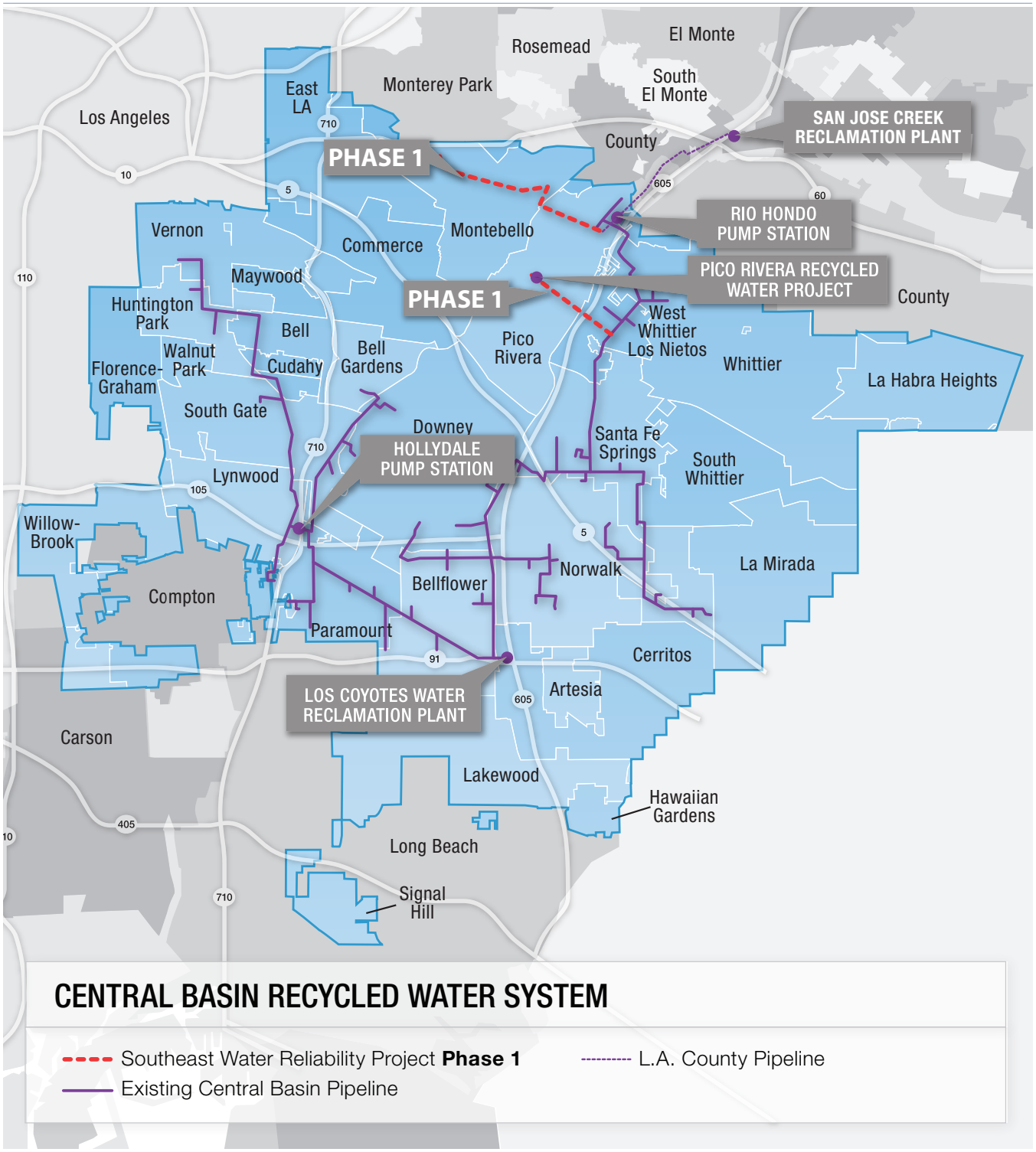
These potential new connections will be planned either concurrently or subsequently to the SWRP, since they are dependent on the hydraulic benefits of the larger project. Other potential capital projects planned for the next five years include:

- In partnership with Suburban Water Systems, a La Mirada Lateral to serve the La Mirada Civic Center as well as the High School, Golf Course, and Park. Potential use is 1,200 AF per Year (AFY).
- A Santa Fe Springs Lateral to serve the Air Products cooling towers. Estimated use is 225 AFY.
- A Norwalk Lateral to serve the Norwalk City Hall. Estimated use is 17 AFY.

Projected Recycled Water Sales

According to the Master Plan, Central Basin's recycled water system is projected to increase from its current sales of about 5,000 AF to 16,000 AF by 2025.

Figure 8-3
CBMWD Recycled Water Distribution System with SWRP Phase I



8.3.5 POTENTIAL RECYCLED WATER USE

The potential of recycled water use will increase among cities, water agencies and businesses/ industries through the years. The increased cost of imported and groundwater will enhance the beneficial usages of recycled water. Central Basin will continue to pursue new cost-effective projects both within its service area and in partnership with willing neighboring agencies. Efforts are currently focused on maximizing the potential of the original regional system, for which Central Basin receives an incentive payment from MWD for every acre-foot delivered up to 10,500 AFY through 2017. Although current projections discussed above show Central Basin exceeding that amount by 2020, it is preparing for the long-term financial viability of the water recycling system.

Although there is great potential to increase recycled water use in Central Basin, there are challenges and limitations in connecting customers. Among them are proximity to recycled water pipelines, capacity and pressure to serve, and retrofit cost-feasibility. These factors play a significant role in meeting the potential growth of recycled water. The ability to connect new customers dictates when and how much recycled water will be sold in the future.

SWRP pipeline beneath Beverly Blvd Bridge in Montebello

In 2008, the Master Plan identified and prioritized areas within Central Basin's service area where recycled water has the potential to expand. In this study, a database was established to locate and identify future customers. The approach considered pipeline routing, hydraulic analysis and economic interests to predict the growth of recycled water in Central Basin's service area.

Although the Master Plan is currently being updated and could influence Central Basin's near-term and long-term projections depending primarily on the potential changes to industrial water, the principle goal of maximizing the potential usage of recycled water throughout the service area will not change.

Partnerships with neighboring agencies have already resulted in projects that expand the Central Basin system and sales beyond the service area limits.

Water recycling use at South Gate Park

8.3.6 ENCOURAGING RECYCLED WATER USE

Central Basin's marketing efforts have been successful in changing the perception of recycled water from merely a conservation tool with minimal application to a business enhancement tool that lowers operating costs while increasing the reliability of the water supply. Central Basin markets recycled water as a resource that:

- Is less expensive than potable water;
- Is more reliable than imported water in a drought and
- Is consistent with statewide goals for water supply and ecosystem improvement on both the SWP and Colorado River systems.

The target customer is expanding from traditional irrigation users such as golf courses and parks to unconventional commercial and industrial users.

In addition to Central Basin wholesaling recycled water at a rate lower than potable water, Central Basin provides other financial incentives as well to encourage recycled water use. Some potential recycled water customers do not have the financial capability to pay

for the onsite plumbing retrofits necessary to accept recycled water. Therefore, Central Basin will advance the funds necessary for retrofit expenses. The funds are reimbursed on monthly basis through direct billings from Central Basin. The on-site plumbing retrofit costs are amortized through a period of time, up to 10 years at Central Basin's cost of funds. Once the loan is repaid, the customer will enjoy the full benefit of potable water savings.

Optimizing Recycling Water Use

Central Basin's plan for optimizing the use of recycled water will be carried out through Central Basin's Recycled Water Master Plan update. The Master Plan is Central Basin's guiding document for identifying and prioritizing potential customers. The 2008 Master Plan is currently being updated to capture changes in the industrial and commercial base within the service area, particularly in the northern portion to be served by SWRP.

8.3.7 FUNDING

Capital costs for projects planned over the next five years have been budgeted to an annual average of approximately $8,500,000[1]. The costs will be covered by the following sources identified here and other sources as they become available:

- MWD Local Resources Program Incentive. To qualify, proposed recycled water projects by member agencies must cost more than projected MWD treated non-interruptible water rates and reduce potable water needs. Since founding MWD with other municipal water utilities in 1928, Central Basin has remained affiliated as a member agency and is therefore considered for the rebates for up to $250/AF offered under the program.

- Grant Funding. Central Basin continuously applies for Federal and State grant funding for recycled water projects as they become available. In 2005, Central Basin was awarded a $3.5 million grant for the Southeast Water Reliability Project through the Greater Los Angeles Integrated Regional Water Management Plan. In addition, in 2009, Central Basin was awarded a $5.6 million dollar grant from the American Reinvestment and Recovery Act (ARRA).

8.4 RECYCLED WATER PROJECTS WITHIN CBMWD SERVICE AREA

8.4.1 CITY OF CERRITOS WATER RECYCLING PROGRAM

The City of Cerritos has had its own water recycling system since 1988 and recently celebrated the project's 20th anniversary. This 22-mile system has saved Cerritos about $6 million in water costs with an initial investment of about $9 million. Even though the Cerritos system is not interconnected with Central Basin's system, Cerritos is an important partner because Central Basin's system shares the Cerritos Pump Station for a portion of its recycled water supply from CSDLAC's Los Coyotes Water Reclamation Plant. The Cerritos system serves about 2,000 acre-feet each year (about 400 acre-feet of that supply goes to Lakewood) at approximately 80 sites within the two cities. In looking at Cerritos' overall water demand, recycled water makes up about 13 percent of their total water supply portfolio making it one of the most successful recycled water systems in the country.

8.4.2 CITY OF LAKEWOOD WATER RECYCLING PROGRAM

The City of Lakewood purchases about 400 AFY of recycled water from the City of Cerritos to help offset an equal demand of potable water.

Pump station near the WQPP

FOOTNOTES:

1 Approximation is an average based on fiscal year capital project projections during a five year period (FY: 2010-11 to 2014-15).

Table 8-6
Total Projected Recycled Water Use in Central Basin's Service Area
(Acre-Feet)

	Actual[1]	2015	2020	2025	2030	2035
Central Basin						
Century/Rio Hondo Projects	4,317	6,700	11,000	16,000	16,000	16,000
Total	**4,317**	**6,700**	**11,000**	**16,000**	**16,000**	**16,000**
Other Programs within Central Basin						
City of Cerritos	1,871	1,500	1,500	1,500	1,500	1,500
City of Lakewood[2]	444	400	400	400	400	400
WRD (Replenishment)[3]	55,731	44,600	44,600	44,600	44,600	44,600
Total	**41,900**	**51,900**	**51,900**	**51,900**	**51,900**	**51,900**
Central Basin's Service Area Total	**46,600**	**58,600**	**62,900**	**67,900**	**67,900**	**67,900**

1 Based on FY 2009-10
2 City of Lakewood receives its recycled water from the Cerritos Recycled Water Distribution System.
3 Data from WRD's 2009 Engineering Survey and Report

Table 8-7
Total Projected Recycled Water Use in Central Basin's Service Area
(Acre-Feet)

Type of Use	2010 Actual Use[1]	2005 Projection for 2010[2]
Irrigation	3,123	7,000
Commercial	59	0
Industrial	1,135	3,500
Total	**4,317**	**10,500**

1 Based on FY 2009-10 actual recycled water sales
2 From Central Basin's 2005 UWMP

8.4.3 WATER REPLENISHMENT DISTRICT - RECYCLED WATER OPERATIONS

For almost 50 years, the Water Replenishment District (WRD) has been purchasing recycled water from the CSDLAC to be melded with imported and storm water within the recharge basins of the Los Angeles County Department of Public Works (LACDPW). The WRD has an agreement to recharge the ground water basin with recycled water. LACDPW owns and operates the recharge facilities, while WRD purchases the recycled water from the CSDLAC. Under the conditions of a regulation permit from the Los Angeles Regional Water Quality Control Board, the WRD is limited to spreading 35 percent recycled water over a five year period based on the total inflow of all waters (storm water, imported water, and recycled water) entering the Montebello Forebay. For planning purposes, the amount is estimated to grow to 50,000 AF per year.

8.5 TOTAL RECYCLED WATER USE IN CENTRAL BASIN

Within Central Basin's service area there are three key water recycling programs that help offset potable water usage and provide groundwater replenishment. Among the three are the Central Basin Recycled Water System, the City of Cerritos Recycled Water Program, and WRD use of recycled water for replenishment. As illustrated in Table 8-7, together these programs delivered over 46,000 AF of recycled water in the region in 2008-09 which is about 22 percent of all water used in the Central Basin area.

Recycled water customer Robertson's Ready Mix in Paramount

Appendix A
Review for Completeness Form

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

No.	UWMP requirement [a]	Calif. Water Code reference	Additional clarification	UWMP location
CONTINGENCY [b]				
35	Provide an urban water shortage contingency analysis that specifies stages of action, including up to a 50-percent water supply reduction, and an outline of specific water supply conditions at each stage	10632(a)		Section 4.3.3 on page 4-4 and section 4-5 on page 4-10
36	Provide an estimate of the minimum water supply available during each of the next three water years based on the driest three-year historic sequence for the agency's water supply.	10632(b)		Section 4.4 on page 4-6. Table 4.9 on page 4-10
37	Identify actions to be undertaken by the urban water supplier to prepare for, and implement during, a catastrophic interruption of water supplies including, but not limited to, a regional power outage, an earthquake, or other disaster.	10632(c)		Sections 4.5.1 and 4.5.2 on page 4-10
38	Identify additional, mandatory prohibitions against specific water use practices during water shortages, including, but not limited to, prohibiting the use of potable water for street cleaning.	10632(d)		Section 4.5.1 on page 4-10
39	Specify consumption reduction methods in the most restrictive stages. Each urban water supplier may use any type of consumption reduction methods in its water shortage contingency analysis that would reduce water use, are appropriate for its area, and have the ability to achieve a water use reduction consistent with up to a 50 percent reduction in water supply.	10632(e)		Appendix G
40	Indicated penalties or charges for excessive use, where applicable.	10632(f)		Appendix G
41	Provide an analysis of the impacts of each of the actions and conditions described in subdivisions (a) to (f), inclusive, on the revenues and expenditures of the urban water supplier, and proposed measures to overcome those impacts, such as the development of reserves and rate adjustments.	10632(g)		Section 7.3 on page 7-3
42	Provide a draft water shortage contingency resolution or ordinance.	10632(h)		Appendix G
43	Indicate a mechanism for determining actual reductions in water use pursuant to the urban water shortage contingency analysis.	10632(i)		Appendix G
DMMs				
26	Describe how each water demand management measures is being implemented or scheduled for implementation. Use the list provided.	10631(f)(1)	Discuss each DMM, even if it is not currently or planned for implementation. Provide any appropriate schedules.	See item 32

No.	UWMP requirement [a]	Calif. Water Code reference	Additional clarification	UWMP location
27	Describe the methods the supplier uses to evaluate the effectiveness of DMMs implemented or described in the UWMP.	10631(f)(3)		See item 32
28	Provide an estimate, if available, of existing conservation savings on water use within the supplier's service area, and the effect of the savings on the ability to further reduce demand.	10631(f)(4)		See Item 32
29	Evaluate each water demand management measure that is not currently being implemented or scheduled for implementation. The evaluation should include economic and non-economic factors, cost-benefit analysis, available funding, and the water suppliers' legal authority to implement the work.	10631(g)	See 10631(g) for additional wording.	See Item 32
32	Include the annual reports submitted to meet the Section 6.2 requirements, if a member of the CUWCC and signer of the December 10, 2008 MOU.	10631(j)	Signers of the MOU that submit the biannual reports are deemed compliant with Items 28 and 29.	Appendix H
EXTERNAL COORDINATION AND OUTREACH				
4	Coordinate the preparation of its plan with other appropriate agencies in the area, including other water suppliers that share a common source, water management agencies, and relevant public agencies, to the extent practicable.	10620(d)(2)		Table 1-1 on page 1-4
6	Notify, at least 60 days prior to the public hearing on the plan required by Section 10642, any city or county within which the supplier provides water that the urban water supplier will be reviewing the plan and considering amendments or changes to the plan. Any city or county receiving the notice may be consulted and provide comments.	10621(b)		Section 1.2.2 on page 1-2 Appendix
7	Provide supporting documentation that the UWMP or any amendments to, or changes in, have been adopted as described in Section 10640 et seq.	10621(c)		Section 1.2.1 on page 1-1
54	Provide supporting documentation that the urban water management plan has been or will be provided to any city or county within which it provides water, no later than 60 days after the submission of this urban water management plan.	10635(b)		Section 1.2.1 on page 1-1
55	Provide supporting documentation that the water supplier has encouraged active involvement of diverse social, cultural, and economic elements of the population within the service area prior to and during the preparation of the plan.	10642		Section 1.2.2 on page 1-2
56	Provide supporting documentation that the urban water supplier made the plan available for public inspection and held a public hearing about the	10642		

No.	UWMP requirement [a]	Calif. Water Code reference	Additional clarification	UWMP location
	plan. For public agencies, the hearing notice is to be provided pursuant to Section 6066 of the Government Code. The water supplier is to provide the time and place of the hearing to any city or county within which the supplier provides water. Privately-owned water suppliers shall provide an equivalent notice within its service area.			Appendix C
57	Provide supporting documentation that the plan has been adopted as prepared or modified.	10642		Appendix B
58	Provide supporting documentation as to how the water supplier plans to implement its plan.	10643		Section 1.2 on page 1-1
59	Provide supporting documentation that, in addition to submittal to DWR, the urban water supplier has submitted this UWMP to the California State Library and any city or county within which the supplier provides water supplies a copy of its plan no later than 30 days after adoption. This also includes amendments or changes.	10644(a)		Section 1.2.1 on page 1-1
60	Provide supporting documentation that, not later than 30 days after filing a copy of its plan with the department, the urban water supplier has or will make the plan available for public review during normal business hours	10645		Appendix C
RECYCLED WATER				
44	Provide information on recycled water and its potential for use as a water source in the service area of the urban water supplier. Coordinate with local water, wastewater, groundwater, and planning agencies that operate within the supplier's service area.	10633		Section 8.1 on page 8-1 and Table 8.7 on page 8-7
45	Describe the wastewater collection and treatment systems in the supplier's service area, including a quantification of the amount of wastewater collected and treated and the methods of wastewater disposal.	10633(a)		Section 8.2.3 on page 8-3 and Table 8-2 on page 8-3
46	Describe the quantity of treated wastewater that meets recycled water standards, is being discharged, and is otherwise available for use in a recycled water project.	10633(b)		Table 8.2 on page 8-3
47	Describe the recycled water currently being used in the supplier's service area, including, but not limited to, the type, place, and quantity of use.	10633(c)		Table 8-7 on page 8-11
48	Describe and quantify the potential uses of recycled water, including, but not limited to, agricultural irrigation, landscape irrigation, wildlife habitat enhancement, wetlands, industrial reuse, groundwater recharge, indirect potable reuse, and other appropriate uses, and a determination with regard to the technical and economic feasibility of serving those uses.	10633(d)		Section 8.3.5 on page 8-8

No.	UWMP requirement [a]	Calif. Water Code reference	Additional clarification	UWMP location
49	The projected use of recycled water within the supplier's service area at the end of 5, 10, 15, and 20 years, and a description of the actual use of recycled water in comparison to uses previously projected.	10633(e)		Table 8-7 and Table 8-8 on page 8-11
50	Describe the actions, including financial incentives, which may be taken to encourage the use of recycled water, and the projected results of these actions in terms of acre-feet of recycled water used per year.	10633(f)		Section 8.3.6 on page 8-8
51	Provide a plan for optimizing the use of recycled water in the supplier's service area, including actions to facilitate the installation of dual distribution systems, to promote recirculating uses, to facilitate the increased use of treated wastewater that meets recycled water standards, and to overcome any obstacles to achieving that increased use.	10633(g)		Section 8.3.6 on page 8-8
RELIABILITY				
22	Describe the reliability of the water supply and vulnerability to seasonal or climatic shortage and provide data for (A) an average water year, (B) a single dry water year, and (C) multiple dry water years.	10631(c)(1)		Table 4-1 on page 4-7
23	For any water source that may not be available at a consistent level of use - given specific legal, environmental, water quality, or climatic factors - describe plans to supplement or replace that source with alternative sources or water demand management measures, to the extent practicable.	10631(c)(2)		Table 4-3 on page 4-11
53	Assess the water supply reliability during normal, dry, and multiple dry water years by comparing the total water supply sources available to the water supplier with the total projected water use over the next 20 years, in five-year increments, for a normal water year, a single dry water year, and multiple dry water years. Base the assessment on the information compiled under Section 10631, including available data from state, regional, or local agency population projections within the service area of the urban water supplier.	10635(a)		Table 4-2 and Table 4-3 on page 4-8. Tables 4-4 through 4-8 on page 4-9
SERVICE AREA				
8	Describe the water supplier service area.	10631(a)		Section 1.3.2 on page 1-3
9	Describe the climate and other demographic factors of the service area of the supplier	10631(a)		Section 2.2 on page 2-1
10	Indicate the current population of the service area	10631(a)	Provide the most recent population data possible. Use the method described in	Section 2.3 on page 2-2

No.	UWMP requirement [a]	Calif. Water Code reference	Additional clarification	UWMP location
			"Baseline Daily Per Capita Water Use". See Section M.	
11	Provide population projections for 2015, 2020, 2025, and 2030, based on data from State, regional, or local service area population projections.	10631(a)	2035 and 2040 can also be provided to support consistency with Water Supply Assessments and Written Verification of Water Supply documents.	Table 2-2 on page 2-3
12	Describe other demographic factors affecting the supplier's water management planning.	10631(a)		Section 2.4 on page 2-2
WATER CONSERVATION				
1	Provide baseline daily per capita water use, urban water use target, interim urban water use target, and compliance daily per capita water use, along with the bases for determining those estimates, including references to supporting data.	10608.20(e)		Section 2.4.1 on page 2-3 and Appendix D
`	Include an assessment of present and proposed future measures, programs, and policies to help achieve the water use reductions.	10608.36		Appendix D
3	Report progress in meeting urban water use targets using the standardized form.	10608.40		Appendix D
WATER DEMANDS				
25	Quantify past, current, and projected water use, identifying the uses among water use sectors, for the following: (A) single-family residential, (B) multifamily, (C) commercial, (D) industrial, (E) institutional and governmental, (F) landscape, (G) sales to other agencies, (H) saline water intrusion barriers, groundwater recharge, conjunctive use, and (I) agriculture.	10631(e)(1)	Consider 'past' to be 2005, present to be 2010, and projected to be 2015, 2020, 2025, and 2030. Provide numbers for each category for each of these years.	Table 2-3 on page 2-3
34	Include projected water use for single-family and multifamily residential housing needed for lower income households, as identified in the housing element of any city, county, or city and county in the service area of the supplier.	10631.1(a)		Section 2.1 on page 2-3
WATER SUPPLY				
5	Describe water management tools and options to maximize resources and minimize the need to import water from other regions.	10620(f)		Section 2.1 on page 2-1
13	Identify and quantify the existing and planned sources of water available for 2015, 2020, 2025, and 2030.	10631(b)	The 'existing' water sources should be for the same year as the "current population" in line	Table 2-4 on page 2-7

No.	UWMP requirement [a]	Calif. Water Code reference	Additional clarification	UWMP location
			10. 2035 and 2040 can also be provided.	
14	Indicate whether groundwater is an existing or planned source of water available to the supplier. If yes, then complete 15 through 21 of the UWMP Checklist. If no, then indicate "not applicable" in lines 15 through 21 under the UWMP location column.	10631(b)	Source classifications are: surface water, groundwater, recycled water, storm water, desalinated sea water, desalinated brackish groundwater, and other.	
15	Indicate whether a groundwater management plan been adopted by the water supplier or if there is any other specific authorization for groundwater management. Include a copy of the plan or authorization.	10631(b)(1)		Appendix E Section 3.3.2 on pages 3-4 & 3-5
16	Describe the groundwater basin.	10631(b)(2)		Section 3.3.2 on page 3-4
17	Indicate whether the groundwater basin is adjudicated? Include a copy of the court order or decree.	10631(b)(2)		Appendix E
18	Describe the amount of groundwater the urban water supplier has the legal right to pump under the order or decree. If the basin is not adjudicated, indicate "not applicable" in the UWMP location column.	10631(b)(2)		Table 3-2 on page 3-6
19	For groundwater basins that are not adjudicated, provide information as to whether DWR has identified the basin or basins as overdrafted or has projected that the basin will become overdrafted if present management conditions continue, in the most current official departmental bulletin that characterizes the condition of the groundwater basin, and a detailed description of the efforts being undertaken by the urban water supplier to eliminate the long-term overdraft condition. If the basin is adjudicated, indicate "not applicable" in the UWMP location column.	10631(b)(2)		Not Applicable
20	Provide a detailed description and analysis of the location, amount, and sufficiency of groundwater pumped by the urban water supplier for the past five years	10631(b)(3)		Table 3-3 on page 3-7
21	Provide a detailed description and analysis of the amount and location of groundwater that is projected to be pumped.	10631(b)(4)	Provide projections for 2015, 2020, 2025, and 2030.	Table 3-4 on page 3-8
24	Describe the opportunities for exchanges or transfers of water on a short-term or long-term basis.	10631(d)		Section 3.4.2 on page 3-11
30	Include a detailed description of all water supply projects and programs that may be undertaken by the water supplier to address water supply reliability in average, single-dry, and multiple-dry years, excluding demand management programs addressed in (f)(1). Include specific projects,	10631(h)		Section 3.4.1 on page 3-9

Appendix B
Notice of Public Hearing and Resolution

RESOLUTION NO. 6-11-791

A RESOLUTION OF THE BOARD OF DIRECTORS OF CENTRAL BASIN MUNICIPAL WATER DISTRICT APPROVING THE 2010 URBAN WATER MANAGEMENT PLAN

BE IT RESOLVED, by the Central Basin Municipal Water District Board of Directors that the Board of Directors hereby adopt and sign a Resolution approving the 2010 Urban Water Management Plan, and

BE IT RESOLVED, that the Central Basin Municipal Water District hereby agrees and further authorizes that the aforementioned document complies with all applicable requirements set forth in the California Urban Water Management Planning Act of 1983, as amended, and

BE IT FURTHER RESOLVED, that the President of the Board of Directors of the Central Basin Municipal Water District is hereby authorized to sign the 2010 Urban Water Management Plan, as attached.

PASSED, APPROVED, AND ADOPTED on the 27th day of June 2011.

President

ATTEST:

Secretary

(SEAL)

Y:\centralbasinboard\cbresos\cb791

LONG BEACH
PRESS-TELEGRAM

300 Oceangate
Long Beach, CA 90844

PROOF OF PUBLICATION
(2015.5 C.C.P.)

STATE OF CALIFORNIA

County of Los Angeles

I am a citizen of the United States, and a resident of the county aforesaid; I am over the age of eighteen years, and not a party to or interested in the above-entitled matter. I am the principal clerk of the printer of the Long Beach Press-Telegram, a newspaper of general circulation printed and published daily in the City of Long Beach, County of Los Angeles, and which newspaper has been adjudged a newspaper of general circulation by the Superior Court of the County of Los Angeles, State of California, on the date of March 21, 1934, Case Number 370512. The notice, of which the annexed is a true printed copy, has been published in each regular and entire issue of said newspaper and not in any supplement thereof on the following dates, to wit.

June 6, 13, 2011

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

I declare under penalty of perjury that the foregoing is true and correct.

Executed at Long Beach, LA Co. California
this 13 day of June, 2011

signature

Proof of Publication of

NOTICE OF PUBLIC HEARING
CENTRAL BASIN MUNICIPAL WATER DISTRICT
2010 URBAN WATER MANAGEMENT PLAN

PLEASE NOTE that the Board of Directors of the Central Basin Municipal Water District will conduct a public hearing on June 27, 2011 at 10:00 a.m., at the District's address shown below, to consider adoption of the 2010 Urban Water Management Plan.

PLEASE TAKE FURTHER NOTICE interested parties are invited to attend the hearing to present written or oral comments. The Board will review all public comments before considering adoption of the proposed 2010 Urban Water Management Plan.

Central Basin Municipal Water District
6252 Telegraph Rd.
Commerce, CA 90040
323.201.5500

Art Aguilar
General Manager
Central Basin Municipal Water District

Pub. June 6, 13, 2011(2t)PT(27361/195057)

CL-07-2066 Legal Affadavit

WHITTIER DAILY NEWS

affiliated with
SGV Newspaper Group
7612 Greenleaf Avenue
Whittier, CA 90602

PROOF OF PUBLICATION
(2015.5 C.C.P.)

STATE OF CALIFORNIA

County of Los Angeles

I am a citizen of the United States, and a resident of the county aforesaid; I am over the age of eighteen years, and not a party to or interested in the above-entitled matter. I am the principal clerk of the printer of WHITTIER DAILY-NEWS, a newspaper of general circulation which has been adjudicated as a newspaper of general circulation by the Superior Court of the County of Los Angeles, State of California, on the date of October 10, 1960, Case Number 369393. The notice, of which the annexed is a true printed copy, has been published in each regular and entire issue of said newspaper and not in any supplement thereof on the following dates, to wit:

6/6,13/11

I declare under penalty of perjury that the foregoing is true and correct.

Executed at West Covina, LA Co. California
this 13 day of JUNE, 20 11

signature

Proof of Publication of

NOTICE OF PUBLIC HEARING
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6252 Telegraph Rd.
Commerce, CA 90040
323.201.5500

Art Aguilar
General Manager
Central Basin Municipal Water District

Publish: June 6, 13, 2011 **Whittier Daily News** **Ad #125305**

This space for filing stamp only

ALHAMBRA POST ADVOCATE

1730 W OLYMPIC BLVD STE 500, LOS ANGELES, CA 90015
Telephone (323) 556-5720 / Fax (323) 556-5705

GAIL SKERSICK
CENTRAL BASIN MUNICIPAL WATER
6252 TELEGRAPH RD
COMMERCE, CA - 90040

EWA#: 2113753

NOTICE OF PUBLIC HEARING
CENTRAL BASIN MUNICIPAL WATER DISTRICT
2010 URBAN WATER MANAGEMENT PLAN

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Central Basin Municipal Water District
6252 Telegraph Rd.
Commerce, CA 90040
323.201.5500

Art Aguilar
General Manager
Central Basin Municipal Water District

6/9, 6/16/11
EWA-2113753#
ALHAMBRA POST ADVOCATE

PROOF OF PUBLICATION

(2015.5 C.C.P.)

State of California)
County of LOS ANGELES) ss

Notice Type: HRG - NOTICE OF HEARING

Ad Description: 2010 URBAN WATE[illegible]NAGEMENT PLAN

I am a citizen of the United States and a resident of the State of California; I am over the age of eighteen years, and not a party to or interested in the above entitled matter. I am the principal clerk of the printer and publisher of the ALHAMBRA POST ADVOCATE, a newspaper published in the English language in the city of ALHAMBRA, county of LOS ANGELES, and adjudged a newspaper of general circulation as defined by the laws of the State of California by the Superior Court of the County of LOS ANGELES, State of California, under date 07/31/1952, Case No. 601553. That the notice, of which the annexed is a printed copy, has been published in each regular and entire issue of said newspaper and not in any supplement thereof on the following dates, to-wit:

06/09/2011, 06/16/2011

Executed on: 06/16/2011
At Los Angeles, California

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

Signature

A00000223067 9

This space for filing stamp only

DOWNEY HERALD AMERICAN

1730 W OLYMPIC BLVD STE 500, LOS ANGELES, CA 90015
Telephone (323) 556-5720 / Fax (323) 556-5705

GAIL SKERSICK
CENTRAL BASIN MUNICIPAL WATER
6252 TELEGRAPH RD
COMMERCE, CA - 90040

PROOF OF PUBLICATION

(2015.5 C.C.P.)

State of California)
County of LOS ANGELES) ss

Notice Type: HRG - NOTICE OF HEARING

Ad Description: 2010 URBAN WATER MANAGEMENT PLAN

I am a citizen of the United States and a resident of the State of California; I am over the age of eighteen years, and not a party to or interested in the above entitled matter. I am the principal clerk of the printer and publisher of the DOWNEY HERALD AMERICAN, a newspaper published in the English language in the city of DOWNEY, county of LOS ANGELES, and adjudged a newspaper of general circulation as defined by the laws of the State of California by the Superior Court of the County of LOS ANGELES, State of California, under date 08/01/1975, Case No. C952576. That the notice, of which the annexed is a printed copy, has been published in each regular and entire issue of said newspaper and not in any supplement thereof on the following dates, to-wit:

06/09/2011, 06/16/2011

Executed on: 06/16/2011
At Los Angeles, California

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

Signature

HEA#: 2113750

NOTICE OF PUBLIC HEARING
CENTRAL BASIN MUNICIPAL WATER DISTRICT
2010 URBAN WATER MANAGEMENT PLAN

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Central Basin Municipal Water District
6252 Telegraph Rd.
Commerce, CA 90040
323.201.5500

Art Aguilar
General Manager
Central Basin Municipal Water District

6/9, 6/16/11
HEA-2113750#
DOWNEY HERALD AMERICAN

* A 0 0 0 0 0 2 2 3 0 6 8 5 *

SOUTH GATE PRESS

This space for filing stamp only

1730 W OLYMPIC BLVD STE 500, LOS ANGELES, CA 90015
Telephone (323) 556-5720 / Fax (323) 556-5705

GAIL SKERSICK
CENTRAL BASIN MUNICIPAL WATER
6252 TELEGRAPH RD
COMMERCE, CA - 90040

PRE#: 2113642

NOTICE OF PUBLIC HEARING
CENTRAL BASIN MUNICIPAL WATER DISTRICT
2010 URBAN WATER MANAGEMENT PLAN

PLEASE NOTE that the Board of Directors of the Central Basin Municipal Water District will conduct a public hearing on June 27, 2011 at 10:00 a.m., at the District's address shown below, to consider adoption of the 2010 Urban Water Management Plan.

PLEASE TAKE FURTHER NOTICE interested parties are invited to attend the hearing to present written or oral comments. The Board will review all public comments before considering adoption of the proposed 2010 Urban Water Management Plan.

Central Basin Municipal Water District
6252 Telegraph Rd.
Commerce, CA 90040
323.201.5500

Art Aguilar
General Manager
Central Basin Municipal Water District

6/9, 6/16/11
PRE-2113642#
SOUTH GATE PRESS

PROOF OF PUBLICATION

(2015.5 C.C.P.)

State of California)
County of LOS ANGELES) ss

Notice Type: HRG - NOTICE OF HEARING

Ad Description: 2010 URBAN WATER MANAGEMENT PLAN

I am a citizen of the United States and a resident of the State of California; I am over the age of eighteen years, and not a party to or interested in the above entitled matter. I am the principal clerk of the printer and publisher of the SOUTH GATE PRESS, a newspaper published in the English language in the city of SOUTH GATE, county of LOS ANGELES, and adjudged a newspaper of general circulation as defined by the laws of the State of California by the Superior Court of the County of LOS ANGELES, State of California, under date 04/19/1929, Case No. 273415. That the notice, of which the annexed is a printed copy, has been published in each regular and entire issue of said newspaper and not in any supplement thereof on the following dates, to-wit:

06/09/2011, 06/16/2011

Executed on: 06/16/2011
At Los Angeles, California

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

Signature

* A 0 0 0 0 0 2 2 3 0 7 2 8 *

Appendix C
Notice of Adoption

CENTRAL BASIN MUNICIPAL WATER DISTRICT

6252 Telegraph Road
Commerce, CA 90040-1225
Phone: (323) 201-5500 - Fax: (323) 201-5554

DATE: April 19, 2011

TO: Distribution

FROM: Art Aguilar, General Manager AJA

SUBJECT: **Central Basin Municipal Water District's 2010 Urban Water Management Plan**

Central Basin Municipal Water District (Central Basin) is now in the process of preparing its 2010 Urban Water Management Plan (2010 UWMP) consistent with the requirements of the statewide Urban Water Management Planning Act of 1983. Central Basin last completed an UWMP in 2005, so this process represents an update of that plan.

Central Basin completed a draft of the 2010 UWMP which was made available in late March 2010. A copy of that plan was sent out to representatives of all cities and agencies in the Central Basin service area with an invitation to provide comments prior to April 30. Concurrently, the draft plan was posted on the Central Basin website (at http://www.centralbasin.org/press_releases/Draft-2010-Urban-Water-Management-Plan.pdf) for any member of the public that would like to review and provide comments.

Finally, Central Basin is planning to complete the adoption process by holding a public hearing at its June 27 Board of Directors meeting at 10:00 A.M. With all final public comments provided at that time, the staff recommendation will be to adopt the 2010 UWMP and send it to the California Department of Water Resources as required by law.

Any comments on the draft 2010 UWMP should be sent to:

David Hill
Water Resources Manager
Central Basin Municipal Water District
6252 Telegraph Road
Commerce, CA 90040
(323) 201-5501
daveh@centralbasin.org

Appendix D
Regional Alliance 20 x 2020 Plan

Appendices

Gateway Regional Water Conservation Alliance Report

Los Angeles Gateway Region Integrated Regional Water Management Authority

June 2011

Gateway Regional Water Conservation Alliance Report

Los Angeles Gateway Region Integrated Regional Water Management Authority

June 2011

1 Introduction

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

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

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

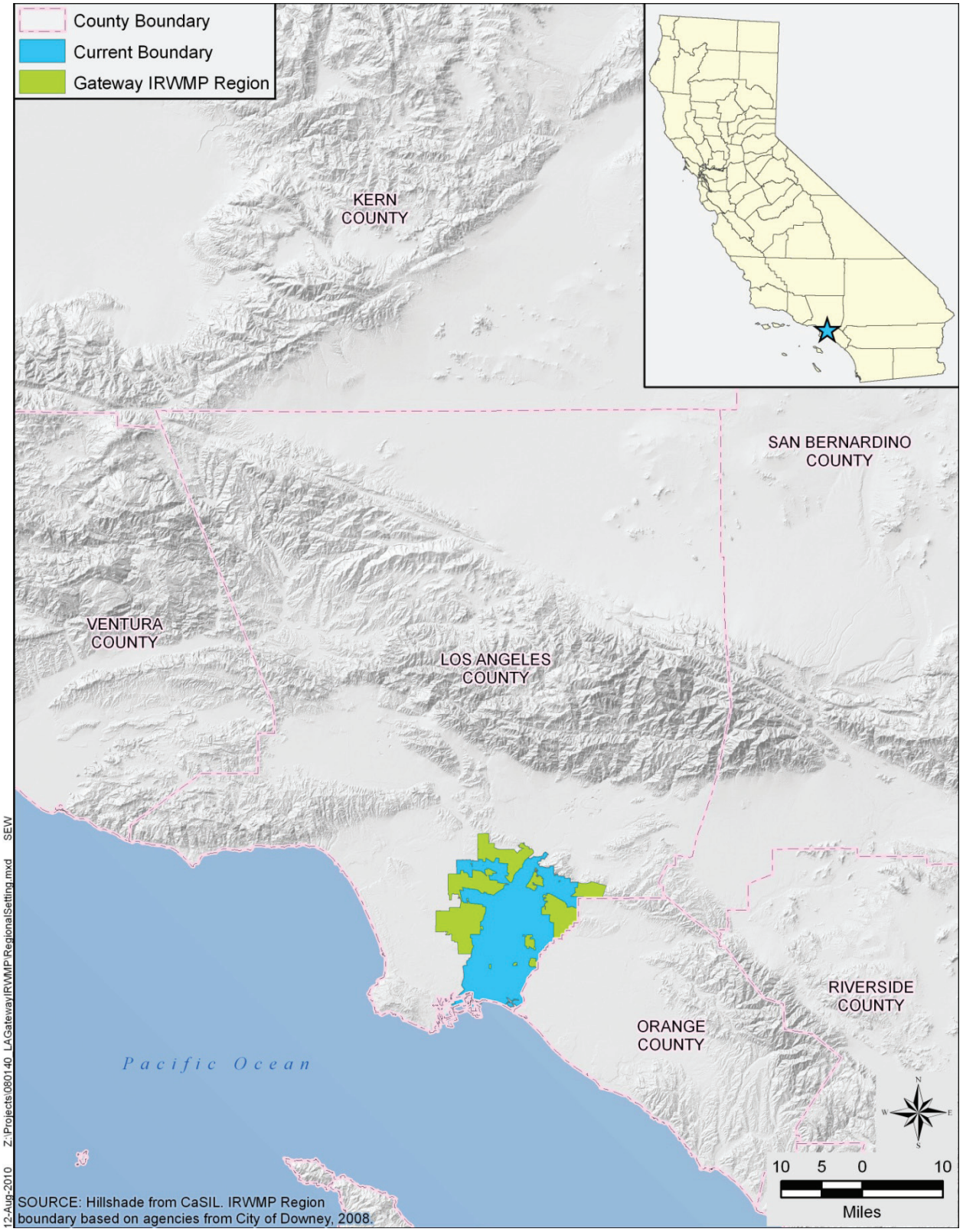
According to Sections 10608.20(a)(1) and 10608.28 of the California Water Code, urban retail water suppliers may plan, comply, and report the above information on a regional basis, an individual basis, or both.

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

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

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

Figure 1. Gateway Authority Location



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

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

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

2 Outreach and Participation

2.1 Regional Alliance

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

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

Of the 24 urban water suppliers that were contacted, 15 agencies have agreed to participate and will form the Gateway Regional Alliance.

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

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

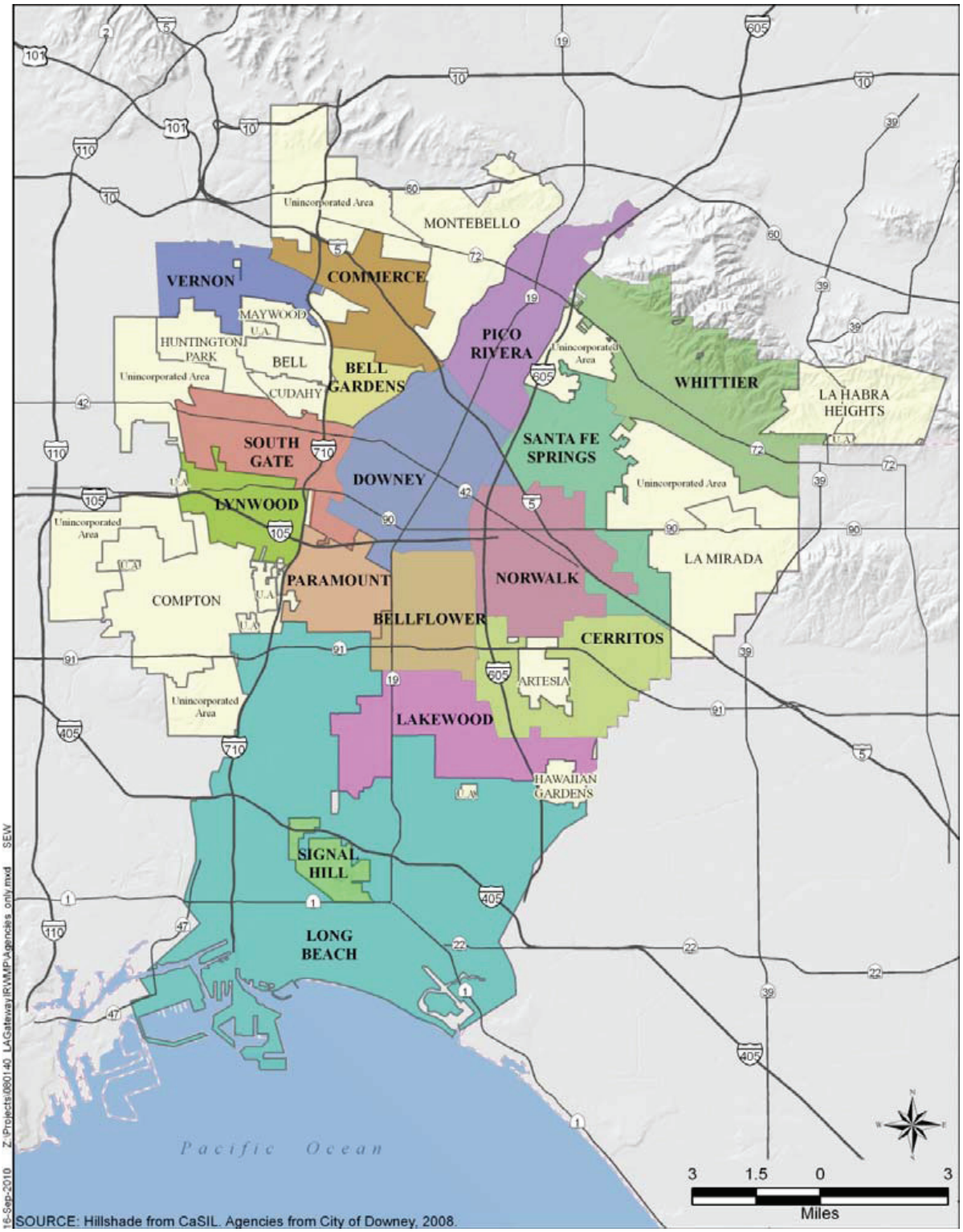
City of Cerritos	Doing own calculations
California Water Service Company	Doing own calculations
City of Commerce	UWMP not required
Golden State Water Company	Doing own calculations
City of Huntington Park	Doing own calculations
La Habra Heights County Water District	UWMP not required
Montebello Land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

2.2 Public Hearing

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

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

Figure 2. Gateway IRWMP Area Map



3 Calculations

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

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

Table A-1. Historical Amounts of Total Water Use in the Water Replenishment District

(In Acre-feet)

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

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

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

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

- **Method 1:** Eighty percent of the water supplier's baseline per capita water use.
- **Method 2:** Per capita daily water use estimated using the sum of performance standards applied to indoor residential use, landscaped area water use, and CII uses.
- **Method 3:** Ninety-five percent of the applicable state hydrologic region target.
- **Method 4:** Calculated savings of metering currently unmetered water connections and achieving water conservation measures in three water use sectors.

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

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

4 Results

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

Table 1. Regional Target Calculation

Methodology 9 - Option 1: Population Weighted Average								
City/Agency	2010 Population	2010 5-yr Baseline GPCD	2010 10-yr Baseline GPCD	Baseline Weighted Use GPCD	2020 Target GPCD	Method	2020 Target Weighted Use (Gal)	2015 Interim Target
Bell Gardens	4,950	198	200	0.9	160	1	0.7	
BSMWC	46,000	99	106	4.4	94	3	3.9	
Downey	110,452	114	113	11.3	108	3	10.8	
Lakewood	59,660	106	106	5.7	101	3	5.4	
Long Beach	462,257	112	120	50.1	106	3	44.4	
Lynwood	73,212	64	67	4.4	67	1	4.4	
Norwalk	18,361	115	118	2.0	110	3	1.8	
Paramount	57,805	98	101	5.3	93	3	4.9	
Pico Rivera *	62,942	102	102	5.8	97	3	5.5	
Santa Fe Springs	17,438	328	350	5.5	280	1	4.4	
Signal Hill	11,465	153	161	1.7	142	3	1.5	
South Gate	94,746	73	79	6.7	79	1	6.7	
Vernon	90	83005	81643	6.6	65314	1	5.3	
Whittier	87,128	69	71	5.6	71	1	5.6	
Regional Totals	1,106,506			116.1			105.4	110.7
* City of Pico Rivera and Pico Water District were combined.								

5 Regional Alliance Formation

5.1 Alliance Process

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

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

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

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

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

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

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

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

5.2 Interaction with Urban Water Management Plans

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

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

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

6 Conclusion

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

Gateway Regional Alliance Summary Values

Regional 2010 Population	1,106,506
Regional 10-Yr Baseline GPCD (Ending December 31, 2010)	116.1
Regional 2015 Interim Target GPCD	110.7
Regional 2020 Target GPCD	105.4

7 References

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

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

Appendix A

Los Angeles Gateway Region

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

Christopher Cash
Board Chair
Paramount

Adriana Figueroa
Vice-Chair
Norwalk

Desi Alvarez
Secretary-Treasurer
Downey

Kevin Wattier
Chair Emeritus
Long Beach Water Department

———

John Oropeza
Bell Gardens

Deborah Chankin
Bellflower

Art Aguilar
Central Basin
Municipal Water District

Vince Brar
Cerritos

Gina Nila
Commerce

Jim Glancy
Lakewood

Mark Christoffels
Long Beach

G. Daniel Ojeda
Lynwood

Al Cablay
Pico Rivera

Don Jensen
Santa Fe Springs

Charlie Honeycutt
Signal Hill

William DeWitt
South Gate

Joseph Serrano
Southeast Water Coalition

Kevin Wilson
Vernon

David Pelser
Whittier

Annette Hubbell
Executive Officer

Steve Dorsey
General Counsel
Richards Watson Gershon

March 11, 2011

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

Dear :

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

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

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

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

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

Sincerely,

Annette Hubbell
Executive Officer
Gateway Authority

enc: Gateway Authority Fact Sheet

Appendix B

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

City/Agency	2010 Population	2010 Baseline GPCD	Baseline Weighted Use (Gal)	2020 Target GPCD	2020 Target Weighted Use* (Gal)	2015 Interim Target
Bell Gardens	4,950	200	0.9	160	0.7	
BSMWC	46,000	106	4.4	85	3.5	
Downey	110,452	113	11.3	91	9.0	
Lakewood	59,660	106	5.7	85	4.6	
Long Beach	462,257	120	50.1	96	40.1	
Lynwood	73,212	67	4.4	67	4.4	
Norwalk	18,361	118	2.0	94	1.6	
Paramount	57,805	101	5.3	81	4.2	
Pico Rivera	62,942	102	5.8	82	4.7	
Santa Fe Springs	17,438	350	5.5	280	4.4	
Signal Hill	11,465	161	1.7	129	1.3	
South Gate	94,746	79	6.7	79	6.7	
Vernon	90	81643	6.6	65314	5.3	
Whittier	87,128	71	5.6	71	5.6	
Total	1,106,506		116.1		96.3	106.2

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

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

(1) Base Year	(2) Service Area Population	(3) Gross Water Use (Gal/Day)	(4) Daily Per Capita Water Use (3)/(2)
1996			
1997			
1998			
1999			
2000			
2001	1,072,490	127,474,060	119
2002	1,076,992	130,526,285	121
2003	1,080,253	127,036,675	118
2004	1,084,537	130,078,724	120
2005	1,113,658	128,559,614	115
2006	1,103,857	130,615,689	118
2007	1,113,672	131,998,981	119
2008	1,112,783	123,514,260	111
2009	1,109,281	115,175,931	104
2010	1,106,506	108,524,992	98
		Total of Column (4)	1143
		Baseline Daily Per Capita Water Use	114

(1) Base Year	(2) Service Area Population	(3) Gross Water Use (Gal/Day)	(4) Daily Per Capita Water Use (3)/(2)
2006	1,103,857	130,615,689	118
2007	1,113,672	131,998,981	119
2008	1,112,783	123,514,260	111
2009	1,109,281	115,175,931	104
2010	1,106,506	108,524,992	98
		Total of Column (4)	550
		5-Year Base Daily Per Capita Water Use	110

Gateway Regional Alliance, 2020 Urban Water Use Target GPCD (Method 1)	91
Gateway Regional Alliance, 2015 Interim Urban Water Use Target GPCD (Average of Baseline and 2020 Target)	103

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

(1) Base Year	(2) Service Area Population	(3) Gross Water Use (Gal/Day)	(4) Daily Per Capita Water Use (3)/(2)
1996			
1997			
1998			
1999			
2000			
2001	1,072,490	127,474,060	119
2002	1,076,992	130,526,285	121
2003	1,080,253	127,036,675	118
2004	1,084,537	130,078,724	120
2005	1,113,658	128,559,614	115
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2008	1,112,783	123,514,260	111
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2010	1,106,506	108,524,992	98
		Total of Column (4)	1143
		Baseline Daily Per Capita Water Use	114

(1) Base Year	(2) Service Area Population	(3) Gross Water Use (Gal/Day)	(4) Daily Per Capita Water Use (3)/(2)
2006	1,103,857	130,615,689	118
2007	1,113,672	131,998,981	119
2008	1,112,783	123,514,260	111
2009	1,109,281	115,175,931	104
2010	1,106,506	108,524,992	98
		Total of Column (4)	550
		5-Year Base Daily Per Capita Water Use	110

Gateway Regional Alliance, 2020 Urban Water Use Target GPCD (Method 3)	104
Gateway Regional Alliance, 2015 Interim Urban Water Use Target GPCD (Average of Baseline and 2020 Target)	109

Appendix C

Appendix C contains signed letters of agreement and board or city council resolutions, if required for the Gateway Regional Alliance members in the order listed.

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

Letter Agreement

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

For

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

Recitals

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

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

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

Section 1. Regional Alliance Formation and Target Calculation

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

Section 2. Regional Alliance Review

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

Section 3. Regional Alliance Reporting

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

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

Section 4. Regional Water Supply Planning

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

Section 5. Regional Alliance Dissolution

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

Section 6. Miscellaneous

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

Section 7. Letter Agreement Authorization

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

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

Signature	Date	Signature	Date
Print Name	City of Whittier	Print Name	Pico Water District

Roberto Olvera 7-11-11

Signature Date

Roberto Olvera BSMWC -

Print Name Bellflower-Somerset Mutual Water Company

Letter Agreement

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

For

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

Recitals

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

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

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

Section 1. Regional Alliance Formation and Target Calculation

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

Section 2. Regional Alliance Review

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

Section 3. Regional Alliance Reporting

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

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

Section 4. Regional Water Supply Planning

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

Section 5. Regional Alliance Dissolution

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

Section 6. Miscellaneous

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

Section 7. Letter Agreement Authorization

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

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

City of BELL GARDENS
7100 Garfield Avenue • Bell Gardens, CA 90201 • 562-806-7700 • www.bellgardens.org

STATE OF CALIFORNIA)
COUNTY OF LOS ANGELES) SS
CITY OF BELL GARDENS)

CERTIFICATION OF RESOLUTION
CITY COUNCIL

I, Rosalia A. Conde, CMC, City Clerk of the City of Bell Gardens, California, do hereby certify that this is a true and correct copy of the original **City Council Resolution No. 2011-22**, authorizing and approving a Letter of Agreement between the City of Bell Gardens and the cities of Downey, Huntington Park, Lakewood, Long Beach, Lynwood, Norwalk, Paramount, Pico Rivera, Santa Fe Springs, Signal Hill, South Gate, Vernon, Whittier, and Pico Water District for establishing a regional alliance to comply with SB X7-7, the Water Conservation Act of 2009.

WITNESS MY HAND AND THE SEAL OF THE CITY OF BELL GARDENS, on this 14th day of June, 2011.

(seal)

Rosalia A. Conde, CMC
City Clerk

RESOLUTION NO. 2011-22

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

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

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

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

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

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

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

PASSED, APPROVED AND ADOPTED this 13th day of June, 2011.

CITY OF BELL GARDENS

for

Jennifer Rodriguez, Mayor

APPROVED AS TO FORM:

Arnold M. Alvarez-Glasman
City Attorney

ATTEST:

Rosalia A. Conde, CMC
City Clerk

I, ROSALIA A. CONDE, CMC, City Clerk of the City of Bell Gardens, hereby CERTIFY that **City Council Resolution No. 2011-22** was adopted by the Bell Gardens City Council at a regular meeting of the City Council held on **Monday**, **June 13, 2011** and was approved and passed by the following vote:

AYES: Council Members Aceituno, Crespo, Flores, Mayor Pro-Tem Infanzon
NOES: None
ABSTAIN: None
ABSENT: Mayor Rodriguez

Rosalia A. Conde, CMC
City Clerk

EXHIBIT A

Letter Agreement

Between and Among the Cities of Cerritos, Downey, Huntington Park, Lakewood, Long Beach, Lynwood, Norwalk, Paramount, Pico Rivera, Santa Fe Springs, Signal Hill, South Gate, Vernon, Whittier, and Pico Water District
For
Establishing a Regional Alliance to Comply with SB X7-7, the Water Conservation Act of 2009

Recitals

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

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

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

Section 1. Regional Alliance Formation and Target Calculation

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

Section 2. Regional Alliance Review

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

Section 3. Regional Alliance Reporting

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- Baseline Gross Water Use and Service Area Population,

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

Section 4. Regional Water Supply Planning

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

Section 5. Regional Alliance Dissolution

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

Section 6. Miscellaneous

This Letter Agreement shall be between and among those Parties that have executed this Letter Agreement by July 1, 2011. If all Parties have not executed this Letter Agreement by said date, the Parties who have executed this Letter Agreement by July 1, 2011, agree that the Regional Target will be recalculated among participating Parties as set forth in the DWR Methodologies.

Section 7. Letter Agreement Authorization

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

Signature Date	Signature Date
Print Name City of Cerritos	5/25/11 GERALD M. CATON, City of Downey

APPROVED AS TO FORM:

YVETTE M. ABICH GARCIA, City Attorney

LEFT BLANK INTENTIONALLY

	Signature Date
	Print Name City of Huntington Park

RESOLUTION NO. 11-7268

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

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

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

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

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

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

SECTION 1. The City Council of the City of Downey hereby authorizes and approves a letter agreement between and among the cities of Cerritos, Downey, Huntington Park, Lakewood, Long Beach, Lynwood, Norwalk, Paramount, Pico Rivera, Santa Fe Springs, Signal Hill, South Gate, Vernon, Whittier, and Pico Water District for establishing a regional alliance to comply with SB X7-7, the Water Conservation Act of 2009;

SECTION 2. The City Manager is hereby authorized and directed to take all actions to effectuate this agreement for and on behalf of the City of Downey, including execution, if necessary, in substantially similar form to the agreement attached hereto as Exhibit "A," subject to minor modifications by the City Manager or City Attorney;

APPROVED AND ADOPTED this 24th day of May, 2011.

LUIS H. MARQUEZ
LUIS H. MARQUEZ, Mayor

ATTEST:

JOYCE E. DOYLE
JOYCE E. DOYLE, Interim City Clerk

I HEREBY CERTIFY that the foregoing Resolution was adopted by the City Council of the City of Downey at a regular meeting held on the 24th day of May, 2011, by the following vote, to wit:

AYES:	Council Members:	Brossmer, Gafin, Guerra, Vasquez, Mayor Marquez
NOES:	Council Member:	None
ABSENT:	Council Member:	None
ABSTAIN:	Council Member:	None

JOYCE E. DOYLE
JOYCE E. DOYLE, Interim City Clerk

The foregoing instrument is a full, true and correct copy of the original on file in this office.

ATTEST: JUNE 2, 2011

City Clerk of the City of Downey

Letter Agreement

Between and Among the Cities of Downey, Huntington Park, Lakewood, Long Beach, Lynwood, Norwalk, Paramount, Pico Rivera, Santa Fe Springs, Signal Hill, South Gate, Vernon, Whittier, and Pico Water District For Establishing a Regional Alliance to Comply with SB X7-7, the Water Conservation Act of 2009

Recitals

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

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

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

Section 1. Regional Alliance Formation and Target Calculation

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

Section 2. Regional Alliance Review

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

Section 3. Regional Alliance Reporting

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

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

Section 4. Regional Water Supply Planning

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

Section 5. Regional Alliance Dissolution

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

Section 6. Miscellaneous

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

Section 7. Letter Agreement Authorization

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

Signature Date	Signature Date
Print Name City of Downey	Print Name City of Huntington Park
Signature Date 5/24/11	Signature Date
L.H. Van Nostran, Mayor Print Name City of Lakewood	Print Name City of Long Beach
Signature Date	Signature Date
Print Name City of Lynwood	Print Name City of Norwalk
Signature Date	Signature Date
Print Name City of Paramount	Print Name City of Pico Rivera
Signature Date	Signature Date
Print Name City of Santa Fe Springs	Print Name City of Signal Hill
Signature Date	Signature Date
Print Name City of South Gate	Print Name City of Vernon
Signature Date	Signature Date
Print Name City of Whittier	Print Name Pico Water District

RESOLUTION NO. 2011-24

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

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

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

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

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

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

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

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

Mayor

ATTEST:

City Clerk

Letter Agreement

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

For

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

Recitals

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

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

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

Section 1. Regional Alliance Formation and Target Calculation

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

Section 2. Regional Alliance Review

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

Section 3. Regional Alliance Reporting

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

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

Section 4. Regional Water Supply Planning

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

Section 5. Regional Alliance Dissolution

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

Section 6. Miscellaneous

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

Section 7. Letter Agreement Authorization

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

_____

Signature Date

_____

Print Name City of Downey

LEFT BLANK INTENTIONALLY

_____

Signature Date

_____

Print Name City of Huntington Park

Signature Date

Print Name City of Lakewood

Signature Date

Print Name City of Lynwood

Signature Date

Print Name City of Paramount

Signature Date

Print Name City of Santa Fe Springs

Signature Date

Print Name City of South Gate

Signature Date

Print Name City of Whittier

Kevin L Wattier 6/23/11

Signature Date

Kevin L. Wattier

Print Name City of Long Beach

Signature Date

Print Name City of Norwalk

Signature Date

Print Name City of Pico Rivera

Signature Date

Print Name City of Signal Hill

Signature Date

Print Name City of Vernon

Signature Date

Print Name Pico Water District

Long Beach Water Department
The Standard in Water Conservation & Environmental Stewardship

Board of Water Commissioners

KEVIN L. WATTIER, General Manager

June 23, 2011 Board Meeting

Subject:

Adopt Resolution WD-1287 authorizing the General Manager to execute a Letter Agreement for establishing a regional alliance to comply with SBx7-7, the Water Conservation Act of 2009.

Executive Summary:

California Senate Bill x7-7, the Water Conservation Act, was signed into law in 2009, setting a goal for the state's per capita urban water use to decline by 20 percent from a specified baseline by the year 2020. The legislation allows urban retail water suppliers to plan, comply and report the required information on a regional basis, an individual basis, or both. Through its recently adopted 2010 Urban Water Management Plan, Long Beach Water Department expressed its intent to plan, comply and report on an individual basis. Execution of the letter agreement referenced in Resolution WD-1287 would also allow Long Beach Water Department to plan, comply and report on a regional basis.

In order to comply as a member of a region, the urban retail water agency must, among other things, execute a letter agreement with other members of that regional alliance. The letter agreement enumerates membership of the regional alliance and the region's per capita targets; the letter agreement commitments signatories to review the targets at a future date, to meet certain reporting requirements, to discuss regional water supply planning, to rules governing the dissolution of the region and to other miscellaneous factors.

Board Options/Fiscal Impacts

Option #1: Adopt Resolution WD-1287 authorizing the General Manager to execute a Letter Agreement for establishing a regional alliance to comply with SBx7-7, the Water Conservation Act of 2009.

Fiscal Impact: None.

Option #2: Do not authorize a Letter Agreement.

Fiscal Impact: None.

Staff Recommendation

Option #1.

6-9-2011

Matthew P. Lyons — Date
Director of Conservation & Planning

Kevin L Wattier 6/9/11

Kevin L. Wattier — Date
General Manager

APPROVED 6/23/2011
BOARD OF WATER COMMISSIONERS

Attachment

OFFICE OF THE CITY ATTORNEY
ROBERT E. SHANNON, City Attorney
333 West Ocean Boulevard, 11th Floor
Long Beach, CA 90802-4664

RESOLUTION NO. WD-1287

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

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

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

WHEREAS, pursuant to Article XIV of the Long Beach City Charter the Board of Water Commissioners of the City of Long Beach has full and complete jurisdiction over all water works necessary and incidental to the use, sale and distribution of water owned and controlled by the City of Long Beach; and

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

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

NOW, THEREFORE, the Board of Water Commissioners of the City of Long Beach resolves and declares as follows:

Section 1. The Board hereby authorizes the General Manager to execute a letter agreement between and among the cities of Downey, Huntington Park, Lakewood, Long Beach, Lynwood, Norwalk, Paramount, Pico Rivera, Santa Fe Springs, Signal Hill, South Gate, Vernon, Whittier, and Pico Water District for establishing a regional alliance to comply with SB X7-7, the Water Conservation Act of 2009.

Section 2. The General Manager is hereby authorized and directed to take all actions to effectuate this agreement for and on behalf of the Long Beach Water Department so that the City of Long Beach, acting by and through the City of Long Beach Board of Water Commissioners, will be in compliance with the Water Conservation Act of 2009.

Section 3. This Resolution shall take effect immediately upon its adoption by the Board of Water Commissioners and the Secretary of the Board shall certify the vote adopting this Resolution.

I hereby certify that this resolution was adopted by the Board of Water Commissioners of the City of Long Beach at its meeting on June 23, 2011, by the following vote:

Ayes: Commissioners: TOWNSEND; ALLEN; BLANCO; DALLMAN

Noes: Commissioners: NONE

Absent: Commissioners: CLARKE

CERTIFIED AS A TRUE AND CORRECT COPY
SECRETARY TO THE BOARD OF WATER COMMISSIONERS
CITY OF LONG BEACH, CALIFORNIA
BY: [signature]
DATE: 6/23/2011

Secretary
Board of Water Commissioners

OFFICE OF THE CITY ATTORNEY
ROBERT E. SHANNON, City Attorney
333 West Ocean Boulevard, 11th Floor
Long Beach, CA 90802-4664

Exhibit "A"

Letter Agreement

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

For

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

Recitals

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

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

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

Section 1. Regional Alliance Formation and Target Calculation

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

Section 2. Regional Alliance Review

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

RESOLUTION NO. 2011.102

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

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

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

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

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

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF LYNWOOD DOES HEREBY FIND, PROCLAIM, ORDER, AND RESOLVE AS FOLLOWS:

Section 1. The City Council of the City of Lynwood does hereby authorize and approve a letter agreement between and among the cities of Downey, Huntington Park, Lakewood, Long Beach, Lynwood, Norwalk, Paramount, Pico Rivera, Santa Fe Springs, Signal Hill, South Gate, Vernon, Whittier, and Pico Water District for establishing a regional alliance to comply with SB X7-7, the Water Conservation Act of 2009.

Section 2. The City Manager is hereby authorized and directed to take all actions to effectuate this agreement for and on behalf of the City of Lynwood, including execution, if necessary, in substantially similar form to the agreement attached hereto as Exhibit "A," subject to minor modifications by the City Manager or approved as to form by the City Attorney.

Section 3. That this Resolution shall take effect immediately upon its adoption.

Section 4. The City Clerk shall certify as to the adoption of this Resolution.

PASSED, APPROVED and ADOPTED this 17th day of May, 2011.

Aide Castro, Mayor

ATTEST:

Maria Quinonez, City Clerk

Roger L. Haley, City Manager

APPROVED AS TO FORM:

Fred Galante, City Attorney

APPROVED AS TO CONTENT:

G. Daniel Ojeda, P.E., Director of Public Works / City Engineer

STATE OF CALIFORNIA)
) **SS.**
COUNTY OF LOS ANGELES)

I, the undersigned, City Clerk of the City of Lynwood, do hereby certify that the foregoing Resolution was passed and adopted by the City Council of the City of Lynwood at a regular meeting held on the **17th** day of **May, 2011**.

AYES: **COUNCIL MEMBERS FLORES, RODRIGUEZ, SANTILLAN, MORTON AND CASTRO**

NOES: **NONE**

ABSENT: **NONE**

ABSTAIN: **NONE**

Maria Quinonez, City Clerk

STATE OF CALIFORNIA)
) **SS.**
COUNTY OF LOS ANGELES)

I, the undersigned City Clerk of the City of Lynwood, and the Clerk of the City Council of said City, do hereby certify that the above foregoing is a full, true and correct copy of Resolution No. **2011.102** on file in my office and that said Resolution was adopted on the date and by the vote therein stated. Dated this **17th** day of **May, 2011**.

Maria Quinonez, City Clerk

Exhibit "A"

Section 3. Regional Alliance Reporting

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

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

Section 4. Regional Water Supply Planning

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

Section 5. Regional Alliance Dissolution

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

Section 6. Miscellaneous

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

Section 7. Letter Agreement Authorization

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

Signature	Date	Signature	Date
Print Name	City of Downey	Print Name	City of Huntington Park
Signature	Date	Signature	Date
Print Name	City of Lakewood	Print Name	City of Long Beach

Exhibit "A"

Signature	Date: 6.13.11	Signature	Date
Print Name: Roger L. Haley	City of Lynwood	Print Name	City of Norwalk
Signature	Date	Signature	Date
Print Name	City of Paramount	Print Name	City of Pico Rivera
Signature	Date	Signature	Date
Print Name	City of Santa Fe Springs	Print Name	City of Signal Hill
Signature	Date	Signature	Date
Print Name	City of South Gate	Print Name	City of Vernon
Signature	Date	Signature	Date
Print Name	City of Whittier	Print Name	Pico Water District

City Clerk's Office

Transmittal Memo

To: Adriana Figueroa, Administrative Services Manager

From: Theresa Devoy, City Clerk

By: Carmen Martinez, OAII

Date: May 18, 2011

Re: Letter of Agreement – Establish a Regional Alliance to Comply with SB X7-7, the Water Conservation Act of 2009

Attached is one original of the letter agreement referenced above signed by City Manager Ernie Garcia, for transmittal to the Gateway Authority. Approval of the agreement is authorized by Resolution No. 11-30, which was adopted by the Norwalk City Council at its regular meeting held May 17, 2011. It is my understanding that once all participating Cities signatures are gathered, the City will receive a complete set for Central Records. I have retained one original.

RESOLUTION NO. 11-30

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

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

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

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

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

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

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

APPROVED AND ADOPTED this 17th day of May 2011.

Michael Mendez

MICHAEL MENDEZ
MAYOR

ATTEST:

I, **Theresa Devoy**, City Clerk of the City of Norwalk, California **DO HEREBY CERTIFY** that the foregoing Resolution, being **Resolution No. 11-30** has been duly signed by the Mayor and attested by the City Clerk, all at a regular meeting of the Norwalk City Council, held May 17, 2011, and that the same was approved and adopted by the following vote to wit:

AYES:	**Councilmembers Rodarte and Shryock, Vice Mayor Kelley, and Mayor Mendez**
NOES:	**None**
ABSENT:	**Councilmember Vernola**

Theresa Devoy

THERESA DEVOY
CITY CLERK

EXHIBIT A

Letter of Agreement

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

For

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

Recitals

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

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

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

Section 1. Regional Alliance Formation and Target Calculation

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

Section 2. Regional Alliance Review

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

Section 3. Regional Alliance Reporting

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

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

Section 4. Regional Water Supply Planning

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

Section 5. Regional Alliance Dissolution

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

Section 6. Miscellaneous

This Letter Agreement shall be between and among those Parties that have executed this Letter Agreement by June 30, 2011. If all Parties have not executed this Letter Agreement by said date, the Parties who have executed this Letter Agreement by June 30, 2011, agree that the Regional Target will be recalculated among participating Parties as set forth in the DWR Methodologies.

Section 7. Letter Agreement Authorization

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

Signature	Date	Signature	Date
Print Name	City of Cerritos	Print Name	City of Downey

EXHIBIT A

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Signature Date

Print Name City of Huntington Park

Signature Date

Print Name City of Lakewood

Signature Date

Print Name City of Long Beach

Signature Date

Print Name City of Lynwood

Ernie V. Garcia 5/18/11

Signature Date

Ernie V. Garcia, City Manager

Print Name City of Norwalk

Signature Date

Print Name City of Paramount

Signature Date

Print Name City of Pico Rivera

Signature Date

Print Name City of Santa Fe Springs

Signature Date

Print Name City of Signal Hill

Signature Date

Print Name City of South Gate

Signature Date

Print Name City of Vernon

Letter Agreement

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

For

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

Recitals

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

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

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

Section 1. Regional Alliance Formation and Target Calculation

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

Section 2. Regional Alliance Review

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

Section 3. Regional Alliance Reporting

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

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

Section 4. Regional Water Supply Planning

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

Section 5. Regional Alliance Dissolution

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

Section 6. Miscellaneous

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

Section 7. Letter Agreement Authorization

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

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

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

CITY OF PARAMOUNT
LOS ANGELES COUNTY, CALIFORNIA

RESOLUTION NO. 11:012

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

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

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

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

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

NOW, THEREFORE, IT IS HEREBY RESOLVED BY THE CITY COUNCIL OF THE CITY OF PARAMOUNT, CALIFORNIA, AS FOLLOWS:

Section 1. That it does hereby authorize and approve a letter agreement between and among the cities of Downey, Huntington Park, Lakewood, Long Beach, Lynwood, Norwalk, Paramount, Pico Rivera, Santa Fe Springs, Signal Hill, South Gate, Vernon, Whittier, and Pico Water District for establishing a regional alliance to comply with SB X7-7, the Water Conservation Act of 2009.

Section 2. That the City Manager is hereby authorized and directed to take all actions to effectuate this agreement for and on behalf of the City of Paramount, including execution, if necessary, in substantially similar form to the agreement attached hereto as Exhibit "A," subject to minor modifications by the City Manager or City Attorney.

APPROVED and ADOPTED this 3rd day of May, 2011.

Daryl Hofmeyer, Mayor

ATTEST:

Lana Chikami, City Clerk

H:\Public Works\CHRIS\REPORTS\CC\20x2020 reso.docx

Exhibit A

Letter Agreement

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

For

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

Recitals

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

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

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

Section 1. Regional Alliance Formation and Target Calculation

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

Section 2. Regional Alliance Review

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

Section 3. Regional Alliance Reporting

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

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

Section 4. Regional Water Supply Planning

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

Section 5. Regional Alliance Dissolution

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

Section 6. Miscellaneous

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

Section 7. Letter Agreement Authorization

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

Signature Date	Signature Date
Print Name City of Downey	Print Name City of Huntington Park
Signature Date	Signature Date
Print Name City of Lakewood	Print Name City of Long Beach
Signature Date	Signature Date
Print Name City of Lynwood	Print Name City of Norwalk
Signature Date	Signature Date
Print Name City of Paramount	Print Name City of Pico Rivera
Signature Date	Signature Date
Print Name City of Santa Fe Springs	Print Name City of Signal Hill

Signature Date	Signature Date
Print Name City of South Gate	Print Name City of Vernon
Signature Date	Signature Date
Print Name City of Whittier	Print Name Pico Water District

STATE OF CALIFORNIA)
COUNTY OF LOS ANGELES) ss.
CITY OF PARAMOUNT)

I, Lana Chikami, City Clerk of the City of Paramount, California, DO HEREBY CERTIFY that the foregoing **RESOLUTION NO. 11:012** was duly approved and adopted by the City Council of the City of Paramount at their meeting held on **May 3, 2011,** and said resolution has been signed by the Mayor and attested by the City Clerk, and that the same was approved and adopted by the following vote, to wit:

AYES:	COUNCILMEMBERS:	Daniels, Hansen, Martinez Vice Mayor Lemons, Mayor Hofmeyer
NOES:	COUNCILMEMBERS:	None
ABSENT:	COUNCILMEMBERS:	None
ABSTAIN:	COUNCILMEMBERS:	None

Dated: May 4, 2011

Lana Chikami, City Clerk

(SEAL)

NO. 11-14
Letter Agreement

Between and Among the Cities of Cerritos, Downey, Huntington Park, Lakewood, Long Beach, Lynwood, Norwalk, Paramount, Pico Rivera, Santa Fe Springs, Signal Hill, South Gate, Vernon, Whittier, and Pico Water District
For
Establishing a Regional Alliance to Comply with SB X7-7, the Water Conservation Act of 2009

Recitals

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

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

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

Section 1. Regional Alliance Formation and Target Calculation

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

Section 2. Regional Alliance Review

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

Section 3. Regional Alliance Reporting

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

- Baseline Gross Water Use and Service Area Population,
- 2015 and 2020 Water Use Targets (Individual and Regional),

- Compliance Year Gross Water Use and Service Area Population, and
- Adjustments to Gross Water Use in Compliance Year

Section 4. Regional Water Supply Planning

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

Section 5. Regional Alliance Dissolution

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

Section 6. Miscellaneous

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

Section 7. Letter Agreement Authorization

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

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

Signature Date	Signature Date
Print Name City of Lynwood	Print Name City of Norwalk
Signature Date	Signature Date
Print Name City of Paramount	Print Name City of Pico Rivera
Signature Date	Signature Date
Print Name City of Santa Fe Springs	Print Name City of Signal Hill
Signature Date	Signature Date
Print Name City of South Gate	Print Name City of Vernon
Signature Date	Signature Date
Print Name City of Whittier	Print Name Pico Water District

WATER AUTHORITY | AGENDA REPORT

To: President and Commissioners

From: Executive Director

Meeting Date: May 24, 2011

Subject: LETTER OF AGREEMENT TO JOIN THE REGIONAL ALLIANCE TO COMPLY WITH SB X7-7, WATER CONSERVATION ACT OF 2009

Recommendation:

Adopt a Resolution authorizing the approval of a Letter of Agreement authorizing the Pico Rivera Water Authority to enter into a Regional Alliance with various Los Angeles Gateway Region Integrated Regional Water Management Authority member cities to comply with SB X7-7, the Water Conservation Act of 2009.

Fiscal Impact:

None.

Background:

Senate Bill X7-7, the Water Conservation Act was signed into law in 2009. The Water Conservation Act has established a goal of reducing per capita water use by 20 percent by the year 2020 for urban water retailers. The Act identifies methodologies, water use targets, and reporting requirements that apply to urban water retailers.

Urban water retailers may plan, comply, and report on a regional basis, an individual basis, or both. The Los Angeles Gateway Region Integrated Regional Water Management Joint Powers Authority (Gateway IRWM) voted to form a regional coalition with member cities.

Potential member cities include Downey, Huntington Park, Lakewood, Long Beach, Lynwood, Norwalk, Paramount, Santa Fe Springs, Signal Hill, South Gate, Vernon, Whittier, and Pico Water District.

The Pico Rivera Water Authority will benefit by joining the regional alliance. If the regional alliance meets the target water reduction, then all water retailers within the alliance will be deemed compliant. If the regional alliance fails to meet the target, only water retailers that meet their individual target will be deemed compliant.

Preliminary studies have already been initiated. The study has identified the per capita water use baseline, calculated the 10-year and 15-year baseline, and determined the 2020 target water use goals. Each city will be responsible for determining the methods by which to meet the 2020 target water use. The City's Urban Water Management Plan, which will be presented to the City Council for adoption in July 2011, will identify the method by which to reduce water use citywide.

There is also a cost benefit associated with joining the regional alliance. The Gateway IRWM has approved the preparation of a $45,200 study necessary to demonstrate compliance with the Water Conservation Act. It will be funded by the Gateway IRWM and regional alliance member cities will not be required to pay.

Ronald Bates

RRB:AC:MPC:lg

Enc.

1) Resolution
2) Letter of Agreement

RESOLUTION NO. 11-25

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

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

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

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

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

WHEREAS, the Water Authority will benefit from joining the regional alliance. All regional alliance member will be deemed compliant if the alliance successfully achieves water conservation goals. If the regional alliance fails to meet the target, individual alliance members that meet individual targets will be deemed compliant:

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

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

SECTION 1. The Water Authority Secretary shall certify to the adoption of this Resolution which shall be effective upon its adoption.

APPROVED AND ADOPTED this 24th day of May, 2011.

David W. Armenta, President

ATTEST:

Daryl A. Betancur, CMC
Authority Secretary

APPROVED AS TO FORM:

Arnold M. Alvarez-Glasman
Authority General Counsel

AYES: Contreras Rapisarda, Salcido, Archuleta
NOES: None
ABSENT: Camacho, Armenta
ABSTAIN: None

Letter Agreement

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

For

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

Recitals

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

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

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

Section 1. Regional Alliance Formation and Target Calculation

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

Section 2. Regional Alliance Review

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

Section 3. Regional Alliance Reporting

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

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

Section 4. Regional Water Supply Planning

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

Section 5. Regional Alliance Dissolution

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

Section 6. Miscellaneous

This Letter Agreement shall be between and among those Parties that have executed this Letter Agreement by June 28, 2011. If all Parties have not executed this Letter Agreement by said date, the Parties who have executed this Letter Agreement by June 28, 2011, agree that the Regional Target will be recalculated among participating Parties as set forth in the DWR Methodologies.

Section 7. Letter Agreement Authorization

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

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

		Print Name	City of Huntington Park
Signature	Date	Signature	Date
Print Name	City of Lakewood	Print Name	City of Long Beach
Signature	Date	Signature	Date
Print Name	City of Lynwood	Print Name	City of Norwalk
Signature	Date	Signature	Date
Print Name	City of Paramount	Print Name	City of Pico Rivera
Signature	Date	Signature	Date
Print Name	City of Santa Fe Springs	Print Name	City of Signal Hill
Signature	Date	Signature	Date
Print Name	City of South Gate	Print Name	City of Vernon

			6-28-11
Signature	Date	Signature	Date
Print Name	City of Whittier	Mark Grajeda	Pico Water District

RESOLUTION NO. 158-R

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

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

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

WHEREAS, Pico Water District (the "District") desires to participate in a regional alliance for the purposes of compliance with the Water Conservation Act of 2009;

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

NOW, THEREFORE, BE IT RESOLVED, that the Board of Directors of Pico Water District hereby authorizes and approves a letter agreement in the form attached hereto as Exhibit "A" between and among the cities of Downey, Huntington Park, Lakewood, Long Beach, Lynwood, Norwalk, Paramount, Pico Rivera, Santa Fe Springs, Signal Hill, South Gate, Vernon and Whittier and Pico Water District for establishing a regional alliance to comply with SB X7-7, the Water Conservation Act of 2009.

PASSED AND ADOPTED at a regular meeting of the Board of Directors of Pico Water District held on June 15, 2011.

Adrian L. Diaz, President

ATTEST:

Mark J. Grajeda, Secretary

(Seal)

Letter of Agreement

Between and Among the Cities of Downey, Huntington Park, Lakewood, Long Beach, Lynwood, Norwalk, Paramount, Pico Rivera, Santa Fe Springs, Signal Hill, South Gate, Vernon, Whittier, and Pico Water District For Establishing a Regional Alliance to Comply with SB X7-7, the Water Conservation Act of 2009

Recitals

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

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

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

Section 1. Regional Alliance Formation and Target Calculation

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

Section 2. Regional Alliance Review

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

Section 3. Regional Alliance Reporting

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

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

Section 4. Regional Water Supply Planning

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

Section 5. Regional Alliance Dissolution

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

Section 6. Miscellaneous

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

Section 7. Agreement Authorization

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

Signature Date	Signature Date
Print Name City of Downey	Print Name City of Huntington Park
Signature Date	Signature Date
Print Name City of Lakewood	Print Name City of Long Beach
Signature Date	Signature Date
Print Name City of Lynwood	Print Name City of Norwalk
Signature Date	Signature Date
Print Name City of Paramount	Print Name City of Pico Rivera
6.30.11 Signature Date	Signature Date
Thaddeus McCormack Print Name City of Santa Fe Springs	Print Name City of Signal Hill
Signature Date	Signature Date
Print Name City of South Gate	Print Name City of Vernon
Signature Date	Signature Date
Print Name City of Whittier	Print Name Pico Water District

EXHIBIT "A"

City of Santa Fe Springs
11710 Telegraph Road • CA • 90670-3679 • (562) 868-0511 • Fax (562) 868-7112 • www.santafesprings.org

State of California)
County of Los Angeles)ss
City of Santa Fe Springs)

I, Anita Jimenez, Deputy City Clerk of the City of Santa Fe Springs, do hereby certify that the attached is a true and exact copy of Resolution No. 9330, which was adopted by the City Council of the City of Santa Fe Springs on June 23, 2011.

Anita Jimenez
Deputy City Clerk

June 27, 2011
Date

(Seal)

RESOLUTION NO. 9330

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

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

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

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

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

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

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

APPROVED and ADOPTED this 23rd day of June, 2011.

MAYOR

ATTEST:

CITY CLERK

EXHIBIT "A"

Letter Agreement

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

For

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

Recitals

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

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

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

Section 1. Regional Alliance Formation and Target Calculation

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

Section 2. Regional Alliance Review

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

Section 3. Regional Alliance Reporting

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

CERTIFIED COPY

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

Section 4. Regional Water Supply Planning

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

Section 5. Regional Alliance Dissolution

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

Section 6. Miscellaneous

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

Section 7. Letter Agreement Authorization

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

Signature Date	Signature Date
Print Name City of Downey	Print Name City of Huntington Park
Signature Date	Signature Date
Print Name City of Lakewood	Print Name City of Long Beach
Signature Date	Signature Date

CERTIFIED COPY

Print Name — City of Lynwood	Print Name — City of Norwalk
Signature — Date	Signature — Date
Print Name — City of Paramount	Print Name — City of Pico Rivera
Signature — Date	Signature — Date: June 8, 2011
Print Name — City of Santa Fe Springs	Print Name — City of Signal Hill: Kenneth C. Farfsing
Signature — Date	Signature — Date
Print Name — City of South Gate	Print Name — City of Vernon
Signature — Date	Signature — Date
Print Name — City of Whittier	Print Name — Pico Water District

CERTIFIED COPY

RESOLUTION NO. 2011-06-5895

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

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

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

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

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

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

CERTIFIED COPY

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

PASSED, APPROVED, AND ADOPTED at a regular meeting of the City Council of the City of Signal Hill this 7th day of June, 2011.

LARRY FORESTER
MAYOR

ATTEST:

KATHLEEN L. PACHECO
CITY CLERK

I do hereby certify that the foregoing is a full, true and correct copy of the following original document on file with the City of Signal Hill: Resolution No. 2011-06-5895

By: RB

Date: 6-8-11

OFFICE OF CITY CLERK
CITY OF SIGNAL HILL

STATE OF CALIFORNIA)
COUNTY OF LOS ANGELES)ss.
CITY OF SIGNAL HILL)

I, KATHLEEN L. PACHECO, City Clerk for the City of Signal Hill, California, do hereby certify that Resolution No. 2011-06-5895 was adopted at a regular meeting of the City Council held on the 7th day of June, 2011 by the following vote:

AYES: MAYOR LARRY FORESTER, VICE MAYOR TINA L. HANSEN, COUNCIL MEMBERS MICHAEL J. NOLL, ELLEN WARD, EDWARD H.J. WILSON

NOES: NONE

ABSENT: NONE

ABSTAIN: NONE

KATHLEEN L. PACHECO
CITY CLERK

CERTIFIED COPY

Letter Agreement

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

For

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

Recitals

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

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

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

Section 1. Regional Alliance Formation and Target Calculation

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

Section 2. Regional Alliance Review

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

Section 3. Regional Alliance Reporting

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

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

Section 4. Regional Water Supply Planning

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

Section 5. Regional Alliance Dissolution

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

Section 6. Miscellaneous

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

Section 7. Letter Agreement Authorization

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

Signature Date	Signature Date
Print Name City of Downey	Print Name City of Huntington Park
Signature Date	Signature Date
Print Name City of Lakewood	Print Name City of Long Beach

Signature Date	Signature Date
Print Name City of Lynwood	Print Name City of Norwalk
Signature Date	Signature Date
Print Name City of Paramount	Print Name City of Pico Rivera
Signature Date	Signature Date
Print Name City of Santa Fe Springs	Print Name City of Signal Hill
Signature Date	Signature Date
Maria Davila 06/06/2011 Print Name City of South Gate	Print Name City of Vernon
Signature Date	Signature Date
Print Name City of Whittier	Print Name Pico Water District

City of South Gate

8650 CALIFORNIA AVENUE • SOUTH GATE, CA 90280 • (323) 563-9510
FAX: (323) 563-5411

CARMEN AVALOS
CITY CLERK

STATE OF CALIFORNIA)

COUNTY OF LOS ANGELES) SS

CITY OF SOUTH GATE)

I, Carmen Avalos, City Clerk of the City of South Gate, California, hereby certify that the attached document is a true and correct copy of Resolution No. 7431 – Authorizing and approving an agreement between and among the cities of Downey, Huntington Park, Lakewood, Long Beach, Lynwood, Norwalk, Paramount, Pico Rivera, Santa Fe Springs, Signal Hill, South Gate, Vernon, Whittier, and Pico Water District for establishing a Regional Alliance to comply with Senate Bill X7-7, the Water Conservation Act of 2009.

The original is on file in the Office of the City Clerk, located at 8650 California Avenue, South Gate, California 90280.

IN WITNESS WHEREOF, I hereunto set my hand and affix my official seal this 6th day of June, 2011.

Carmen Avalos, City Clerk
City of South Gate, California

RESOLUTION NO. 7431

CITY OF SOUTH GATE
LOS ANGELES COUNTY, CALIFORNIA

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

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

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

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

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

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF SOUTH GATE DOES HEREBY RESOLVE AS FOLLOWS:

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

SECTION 2. The agreement as presented consists of the following:

A. Authorize and approve an agreement between and among the cities of Downey, Huntington Park, Lakewood, Long Beach, Lynwood, Norwalk, Paramount, Pico Rivera, Santa Fe Springs, Signal Hill, South Gate, Vernon, Whittier, and Pico Water District for establishing a regional alliance to comply with SB X7-7, the Water Conservation Act of 2009.

B. The Mayor is hereby authorized and directed to take all actions to effectuate this agreement for and on behalf of the City of South Gate, including execution, if necessary, in substantially similar form to the agreement attached hereto as Exhibit "A".

SECTION 3. The City Clerk shall certify to the adoption of this Resolution which shall be effective upon its adoption.

PASSED, APPROVED, and **ADOPTED** this 24th day of May 2011.

Maria Davila, Mayor

ATTEST:

Carmen Avalos, City Clerk
(SEAL)

APPROVED AS TO FORM:

Raul. F. Salinas, City Attorney

EXHIBIT A

Agreement

Between and Among the Cities of Downey, Huntington Park, Lakewood, Long Beach, Lynwood, Norwalk, Paramount, Pico Rivera, Santa Fe Springs, Signal Hill, South Gate, Vernon, Whittier, and Pico Water District (collectively "Parties")
For
Establishing a Regional Alliance to Comply with SB X7-7, the Water Conservation Act of 2009

Recitals

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

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

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

Section 1. Regional Alliance Formation and Target Calculation

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

Section 2. Regional Alliance Review

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

Section 3. Regional Alliance Reporting

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

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

Section 4. Regional Water Supply Planning

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

Section 5. Regional Alliance Dissolution

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

Section 6. Miscellaneous

This Agreement shall be between and among those Parties that have executed this Agreement by May 24, 2011. If all Parties have not executed this Letter Agreement by said date, the Parties who have executed this Agreement by May 24, 2011, agree that the Regional Target will be recalculated among participating Parties as set forth in the DWR Methodologies.

Section 7. Agreement Authorization

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

Signature	Date	Signature	Date
Print Name	City of Downey	Print Name	City of Huntington Park
Signature	Date	Signature	Date
Print Name	City of Lakewood	Print Name	City of Long Beach

RESOLUTION CERTIFICATION PAGE

STATE OF CALIFORNIA)

COUNTY OF LOS ANGELES) SS

CITY OF SOUTH GATE)

I, Carmen Avalos, City Clerk of the City of South Gate, California, hereby certify that the whole number of Members of the City Council of said City is five; that Resolution No. 7431 was adopted by the City Council at their Regular Meeting held on May 24, 2011, by the following vote:

Ayes:	Council Members:	Davila, De Witt, Hurtado, Gonzalez and Morales
Noes:	Council Members:	None
Absent:	Council Members:	None
Abstain:	Council Members:	None

Witness my hand and the seal of said City on June 6, 2011.

Carmen Avalos, City Clerk
City of South Gate, California

Letter Agreement

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

For

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

Recitals

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

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

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

Section 1. Regional Alliance Formation and Target Calculation

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

Section 2. Regional Alliance Review

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

Section 3. Regional Alliance Reporting

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

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

Section 4. Regional Water Supply Planning

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

Section 5. Regional Alliance Dissolution

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

Section 6. Miscellaneous

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

Section 7. Letter Agreement Authorization

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

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

Signature Date

Print Name City of Lakewood

Signature Date

Print Name City of Lynwood

Signature Date

Print Name City of Paramount

Signature Date

Print Name City of Santa Fe Springs

Signature Date

Print Name City of South Gate

Signature Date

Signature Date

Print Name City of Long Beach

Signature Date

Print Name City of Norwalk

Signature Date

Print Name City of Pico Rivera

Signature Date

Print Name City of Signal Hill

SEE ATTACHED SIGNATURE PAGE

Signature Date

Print Name City of Vernon

Signature Date

CITY OF VERNON

By: _____

Name: _____

Title: Mayor / Mayor Pro-Tem

Date: _____

ATTEST:

_____

Willard G. Yamaguchi, City Clerk

APPROVED AS TO FORM:

_____

Willard G. Yamaguchi, Interim City Attorney

City of Vernon

OFFICE OF THE CITY CLERK
4305 Santa Fe Avenue, Vernon, California 90058
Telephone (323) 583-8811

June 23, 2011

Los Angeles Gateway Region Integrated
Regional Water Management
Attn: Grace J. Kast, Executive Officer
16401 Paramount Blvd.
Paramount, CA 90723

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

Dear Ms. Kast:

Transmitted herewith is an executed original of the above-referenced letter agreement approved by City Council on June 21, 2011, through Resolution No. 2011-98.

If you have any questions regarding this matter, please call Mr. Samuel Kevin Wilson, at (323) 583-8811 ext. 245.

Very truly yours,

WILLARD G. YAMAGUCHI
City Clerk/Interim City Attorney

WGY:dj

Enclosure

c: S. Kevin Wilson
Resolution No. 2011-98
Agreement No. 11-074

Letter Agreement

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

For

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

Recitals

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

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

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

Section 1. Regional Alliance Formation and Target Calculation

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

Section 2. Regional Alliance Review

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

Section 3. Regional Alliance Reporting

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

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

Section 4. Regional Water Supply Planning

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

Section 5. Regional Alliance Dissolution

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

Section 6. Miscellaneous

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

Section 7. Letter Agreement Authorization

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

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

Signature Date

Print Name City of Lakewood

Signature Date

Print Name City of Lynwood

Signature Date

Print Name City of Paramount

Signature Date

Print Name City of Santa Fe Springs

Signature Date

Print Name City of South Gate

Signature Date

Signature Date

Print Name City of Long Beach

Signature Date

Print Name City of Norwalk

Signature Date

Print Name City of Pico Rivera

Signature Date

Print Name City of Signal Hill

SEE ATTACHED SIGNATURE PAGE

Signature Date

Print Name City of Vernon

Signature Date

CITY OF VERNON

By: Hilario Gonzales

Name: Hilario Gonzales

Title: Mayor / ~~Mayor~~ Pro-Tem

Date: 6/22/11

ATTEST:

Willard G. Yamaguchi, City Clerk

APPROVED AS TO FORM:

Willard G. Yamaguchi, Interim City Attorney

RESOLUTION NO. 2011-98

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF VERNON APPROVING AND AUTHORIZING THE EXECUTION OF A LETTER AGREEMENT BETWEEN THE GATEWAY JPA MEMBER CITIES FOR ESTABLISHING A REGIONAL ALLIANCE TO COMPLY WITH SB X7-7, THE WATER CONSERVATION ACT OF 2009

WHEREAS, the City of Vernon ("City") is a municipal corporation and a chartered city of the State of California organized and existing under its Charter and the Constitution of the State of California; and

WHEREAS, pursuant to California Government Code Section 6500 et seq., the City is authorized to enter into an agreement with one or more other public agencies to jointly exercise any power common to the contracting parties; and

WHEREAS, Senate Bill X7-7 ("SB X7-7"), the Water Conservation Act signed into law in 2009 sets a goal for urban water suppliers to reduce per capita water use by twenty percent (20%) by the year 2020; and

WHEREAS, the Cities of Vernon, Downey, Huntington Park, Lakewood, Long Beach, Lynwood, Norwalk, Paramount, Pico Rivera, Santa Fe Springs, Signal Hill, South Gate, Whittier and Pico Water District (collectively, the "Cities") desire to enter into a letter agreement to establish a Regional Alliance to comply with the Water Conservation Act of 2009; and

WHEREAS, by memo dated June 1, 2011, the Director of Community Services & Water recommends the City approve and execute a letter agreement to participate in a regional alliance for the purposes of compliance with the Water Conservation Act of 2009; and

WHEREAS, the City Council of the City of Vernon does not by this resolution relinquish any of its duly constituted powers to regulate and govern its own territory.

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF VERNON AS FOLLOWS:

SECTION 1: The City Council of the City of Vernon hereby finds and determines that the recitals contained hereinabove are true and correct.

SECTION 2: The City Council of the City of Vernon hereby approves the Letter Agreement, in substantially the same form as the copy which is attached hereto as Exhibit A and authorizes the City Administrator, or his designee, to make minor modifications to the Agreement if requested.

SECTION 3: The City Council of the City of Vernon hereby authorizes the Mayor or Mayor Pro-Tem to execute said Agreement for, and on behalf of, the City of Vernon and the City Clerk, or Deputy City Clerk, is hereby authorized to attest thereto.

SECTION 4: The City Council of the City of Vernon hereby authorizes the City Administrator, or his designee, to take whatever actions are deemed necessary or desirable for the purpose of implementing and carrying out the purposes of this Resolution and the transactions herein approved or authorized.

SECTION 5: The City Council of the City of Vernon herby directs the City Clerk, or the City Clerk's designee, to send one executed Agreement to:

Los Angeles Gateway Region Integrated
Regional Water Management
Attention: Grace J. Kast, Executive Officer
16401 Paramount Blvd.
Paramount, CA 90723

SECTION 6: The City Clerk of the City of Vernon shall certify to the passage, approval and adoption of this resolution, and the City Clerk of the City of Vernon shall cause this resolution and the City Clerk's certification to be entered in the File of Resolutions of the Council of this City.

APPROVED AND ADOPTED this 21st day of June, 2011.

Name: Hilario Gonzales

Title: Mayor / ~~Mayor Pro-Tem~~

ATTEST:

Willard G. Yamaguchi, City Clerk

STATE OF CALIFORNIA)
) ss
COUNTY OF LOS ANGELES)

I, Willard G. Yamaguchi, City Clerk of the City of Vernon, do hereby certify that the foregoing Resolution, being Resolution No. 2011-98, was duly passed, approved and adopted by the City Council of the City of Vernon at a regular meeting of the City Council duly held on Tuesday, June 21, 2011, and thereafter was duly signed by the Mayor or Mayor Pro-Tem of the City of Vernon.

Executed this 23 day of June, 2011, at Vernon, California.

Willard G. Yamaguchi, City Clerk

(SEAL)

EXHIBIT A

Agreement

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

For

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

Recitals

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

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

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

Section 1. Regional Alliance Formation and Target Calculation

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

Section 2. Regional Alliance Review

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

Section 3. Regional Alliance Reporting

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

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

Section 4. Regional Water Supply Planning

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

Section 5. Regional Alliance Dissolution

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

Section 6. Miscellaneous

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

Section 7. Letter Agreement Authorization

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

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

Signature Date	Signature Date
Print Name City of Lakewood	Print Name City of Long Beach
Signature Date	Signature Date
Print Name City of Lynwood	Print Name City of Norwalk
Signature Date	Signature Date
Print Name City of Paramount	Print Name City of Pico Rivera
Signature Date	Signature Date
Print Name City of Santa Fe Springs	Print Name City of Signal Hill
Signature Date	Signature Date
Print Name City of South Gate	Print Name City of Vernon
FOR S.W.H. 8-23-11 Signature Date STEPHEN W. HELVEY	Signature Date
Print Name City of Whittier	Print Name Pico Water District

Public Works

RESOLUTION NO. 8404

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF WHITTIER, CALIFORNIA, AUTHORIZING THE CITY MANAGER TO EXECUTE AN AGREEMENT ESTABLISHING A REGIONAL ALLIANCE TO COMPLY WITH CALIFORNIA SENATE BILL X7-7, THE WATER CONSERVATION ACT OF 2009 – 20% BY 2020

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

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

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

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

THE CITY COUNCIL OF THE CITY OF WHITTIER, CALIFORNIA, DOES RESOLVE AS FOLLOWS:

SECTION 1. Authorizes and approves an agreement between and among the cities of Downey, Huntington Park, Lakewood, Long Beach, Lynwood, Norwalk, Paramount, Pico Rivera, Santa Fe Springs, Signal Hill, South Gate, Vernon, Whittier, and Pico Water District for establishing a regional alliance to comply with SB X7-7, the Water Conservation Act of 2009.

SECTION 2. The City Manager or his designee is hereby authorized and directed to take all actions to effectuate this agreement for and on behalf of the City of Whittier, including execution, in substantially similar form to the agreement attached hereto subject to minor modifications by the City Manager or City Attorney.

SECTION 3. The City Clerk-Treasurer shall certify to the passage and adoption hereof.

APPROVED AND ADOPTED this 9th day of August 2011.

CATHY WARNER, Mayor

ATTEST:

KATHRYN A. MARSHALL
City Clerk-Treasurer

Appendix E
Central Groundwater Basin Judgment

LAGERLOF, SENECAL, DRESCHER & SWIFT
301 North Lake Avenue, 10th Floor
Pasadena, California 91101
(818) 793-9400 or (213) 385-4345

SUPERIOR COURT OF THE STATE OF CALIFORNIA

FOR THE COUNTY OF LOS ANGELES

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

1. Determination of Rights of Parties.

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

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

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

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

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

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

2. Parties Enjoined as Regards Quantities of Extractions.

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

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

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

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

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

[2]Parties and Rights as originally adjudicated

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Name	Total Water Right	Allowed Pumping Allocation
Louis Guglielmana (see listing under name of Central Manufacturing District, Inc.)		
George V. Gutierrez and Mrs. Socorro Gutierrez (see listing under name of Associated Southern Investment Company)		
Salvatore Gutierrez (see listing under name of Southern California Edison Company)		
H. J. S. Mutual Water Co.	63	50
H R M Land company (Harron, Rickard & McCone Company of Southern California and Calavar Corporation, tenants)	3	3
Gerrit Haagsma and Mary Haagsma	10	8
Ed Haakma and Sjana Haakma (Del Amo Dairy, tenant; Ed Haakma and Pete Vander Kooi, being partners of said Del Amo Dairy)	28	22
Verney Haas and Adelyne Haas	4	4
William H. Hadley and Grace Hadley	4	4
Henry C. Haflinger and Emily Haflinger	10	8
Clarence Theodore Halburg	3	3
Fred Hambarian	2	2
Henry Hamstra and Nelly Hamstra	33	26
Raymond Hansen and Mary Hansen	12	10
Earl Haringa; Evert Veenendaal and Gertrude Veenendaal	22	18
Antoine Harismendy and Claire Harismendy	0	0
Harron, Rickard & McCone Company of Southern California (see listing under name of H R M Land Company)		
Jack D. Hastings	0	0
Kameko Hatanaka	9	7

Name	Total Water Right	Allowed Pumping Allocation
Kazuo Hatanaka (Minoru Yoshijima, tenant)	10	8
Masakazu Hatanaka, Isao Hatanaka, and Kenichi Hatanaka	5	4
Mrs. Motoye Hatanaka	0	0
Hathaway Company, Richard F. Hathaway, Julian I. Hathaway, and J. Elwood Hathaway (Greene-Howard Petroleum Corporation, tenant utilizing less than 1 acre foot per year)	70	56
Clarence E. Heller; Alfred Heller; Elizabeth Heller; Clarence E. Heller; Elinor R. Heller, as co-executors of the Estate of Edward H. Heller, deceased (see listing under name of Florence Hellman Ehrman)		
I. W. Hellman, Jr.; Frederick J. Hellman; Marco F. Hellman (see listing under name of Florence Hellman Ehrman)		
Ralph Hicks	0	0
Alfred V. Highstreet and Evada V. Highstreet	10	8
John Highstreet and Eileen M. Highstreet	9	7
Bob Hilarides and Maaike Hilarides (Frank Hilarides, tenant)	51	41
John Hilarides and Maria Hilarides	26	21
Hajime Hirashima (see listing under name of Masaru Uyeda)		
Willis G. Hix	1	1
Henry H. Hoffman and Apolonia Hoffman	12	10
Dick Hofstra	0	0
Andrew V. Hohn and Mary G. Hohn	1	1
Kyle R. Holmes and Grace Ellen Holmes	20	16
Home Water Company	35	28

Name	Total Water Right	Allowed Pumping Allocation
Manuel L. Homen	17	14
Mrs. Paul Y. Homer (see listing under name of Mrs. Paul Y. Homer (King).)		
Cornelis Hoogland and Alice Hoogland	15	12
Art Hop, Jr.	0	0
Art Hop, Sr. and Johanna Hop (G. A. Van Beek, tenant)	5	4
Andrew Hop, Jr. and Muriel Hop	33	26
Theodore R. Houseman and Leona M. Houseman	14	11
Humphries Investments Incorporated (see listing under name of Copp Equipment Company, Inc.)		
Albert Huyg and Marie Huyg	22	18
Hygenic Dairy Farms, Inc.	0	0
Pete W. Idsinga and Annie Idsinga	13	10
Miss Alice M. Imbert	1	1
Industrial Asphalt of California, Inc.	116	93
Inglewood Park Cemetery Association	285	228
International Carbonic, Inc. (see listing under name of P. T. Beeghly)		
Jugora Ishii and Mumeno Ishii (Ishii Brothers, tenant)	10	8
Robert J. Jamison and Betty Jamison	7	6
Jenkins Realty Mutual Water Co. (Clyde H. Jenkins, Minnie R. Jenkins, Mary Wilcox, Ruby F. Marchbank, Robert B. Marchbank, John W. England, and Consuello England, shareholders	10	8
John-Wade Co.	1	1
Henry S. Jones and Madelynne Jones	1	1

Name	Total Water Right	Allowed Pumping Allocation
U. Stewart Jones and Dorothy E. Jones (Tony Fernandes, tenant)	1	1
Harold Jongsma and Mary N. Jongsma	65	52
W. P. Jordan (see listing under name of Henry Van Ruiten)		
Dave Jorritsma and Elizabeth Jorritsma	27	22
Christine Joseph (see listing under name of Helen Wolfsberger)		
Junior Water Co., Inc.	737	590
Kal Kan Foods, Inc.	120	96
Kalico, Inc.	4	4
Hagop Kalustian (11 acre feet of total water right attributable to well located at 6629 South Street, Lakewood and reported to plaintiff under Producer No. 3925. 2 acre feet of total water right attributable to portion of property not sold to State of California formerly served by well located at 10755 Artesia Blvd., Artesia, the production of which well was reported to plaintiff under Producer No. 4030)	13	10
Fritz Kampen and Clare Kampen	14	11
William Kamstra and Bertha Kamstra	35	28
Henry Kampen (see listing under name of Anthony Escobar)		
L. Kauffman Company, Inc. (see listing under name of Lorraine K. Meyberg)		
Chige Kawaguchi and Masao Kawaguchi (Jun Fukushima, tenant)	4	4
King Kelley Marmalade Co. (see listing under name of Roberta M. Magnusson)		
Mrs. Paul Y. Homer (King)	17	14
Jacob R. Kimm and Bonnie Kimm	36	29

Name	Total Water Right	Allowed Pumping Allocation
Mrs. Oraan Kinne (Nicholaas J. Moons, tenant)	11	9
Morris P. Kirk & Son, Inc.	77	62
Jake Knevelbaard and Anna Knevelbaard	50	40
Willie Knevelbaard and Joreen Knevelbaard	1	1
Simon Knorringa	12	10
John Koetsier, Jr.	0	0
Myron D. Kolstad (see listing under name of Frank Bouma)		
Yoshio Kono and Barbara Kono (see listing under name of George Mimaki)		
Louis Koolhaas	13	10
Simon Koolhaas and Sophie Grace Koolhaas	9	7
Pete Koopmans (see listing under name of Jack Gonsalves)		
Nick P. Koot (see listing under name of Mary Myrndahl)		
Kotake, Inc. (Masao Kotake, Seigo Kotake, William Kotake, dba Kotake Bros., tenants)	83	66
Masao Kotake	0	0
Walter G. Kruse and Mrs. Walter G. Kruse, aka Vera M. Kruse	11	9
Laguna-Maywood Mutual Water Company No. 1	1,604	1,283
La Habra Heights Mutual Water Company	3,044	2,435
La Hacienda Water Company	46	37
Lakewood Pipe Co., a partnership composed of Robert G. Foreman, Frank W. Tybus and June E. Tybus (Lakewood Pipe Service Co., tenant)	12	10

Name	Total Water Right	Allowed Pumping Allocation
P. Basil Lambros (see listing under name of Nicholas C. Conteas)		
La Mirada Drive-in Theater (see listing under name of Cowlitz Amusements, Inc.)		
La Mirada Water Company	0	0
Calvin E. Langston and Edith Langston	1	1
S. M. Lanting and Alice Lanting	15	12
Henry Lautenbach and Nellie H. Lautenbach	16	13
Norman Lautrup, as Executor of the Estate of Nels Lautrup, deceased; and Minnie Margaret Lautrup	30	24
Frank C. Leal and Lois L. Leal (D. V. Dairy, tenant)	15	12
Eugene O. LeChasseur and Lillian P. LeChasseur (R. A. LeChasseur, tenant)	2	2
Lee Deane Products, Inc.	0	0
Harley Lee (see listing under name of Delbert G. Black)		
Le Fiell Manufacturing Company	0	0
Armand Lescoulie (see listing under name of Southern California Edison Company)		
Liberty Vegetable Oil Company	14	11
Little Lake Cemetery District	17	14
Little Lake School District	0	0
Loma Floral Company (see listing under name of George Mimaki)		
Melvin L. Long and Stella M. Long	2	2
Nick J. Loogman (see listing under name of William Smoorenburg)		
Frank Lorenz (see listing under name of Ralph Oosten)		

Name	Total Water Right	Allowed Pumping Allocation
Los Angeles County Waterworks District No. 1 (Base Water Right 22)	113	90
Los Angeles County Waterworks District No. 10	842	674
Los Angeles County Waterworks District No. 16	412	330
Los Angeles Paper Box and Board Mills	321	257
Los Angeles Union Stockyards Company	0	0
Los Nietos Tract 6192 Water Co.	49	39
Alden Lourenco (see listing under name of A. C. Pinheiro)		
Lowell Joint School District	0	0
Joe Lucas (see listings under names of Mary A. Ferreira and Jack Gonsalves)		
Luer Packing Co. (see listing under name of Sam Perricone)		
Jake J. Luetto (Orange County Nursery, Inc., tenant)	13	10
Lunday-Thagard Oil Co.	265	212
Joe Luond (Frieda Roethlisberger, tenant as to portion of rights)	7	6
John Luscher and Frieda Luscher	13	10
Paul H. Lussman, Jr. and Ann Lussman, Siegfried Binggeli and Trina L. Binggeli (Paul's Dairy, tenant)	8	6
Lynwood Gardens Mutual Water Company	205	164
Lynwood Park Mutual Water Company	278	222
Jerome D. Mack and Joyce Mack (see listing under name of D. S. Moss)		
Roberta M. Magnusson (King Kelly Marmalade Co., tenant)	15	12
Anthony Mancebo	0	0

Name	Total Water Right	Allowed Pumping Allocation
Robert B. Marchbank and Ruby F. Marchbank (see listing under name of Jenkins Realty Mutual Water Co.)		
Harold Marcroft and Marjorie Marcroft (Noble G. Daniels, tenant)	7	6
Floyd G. Marcusson (see listing under name of Sykes Realty Co.)		
Walter Marlowe and Edna Marlowe	1	1
Marshburn, Inc. (see listing under name of Mel, Inc.)		
The Martin Bros. Container & Timber Products Corp.	7	6
Mary Martin	35	28
Antonio Mathias and Mary Mathias	16	13
Mausoleum Park, Inc. and Sun Holding Corporation	4	4
Maywood Mutual Water Company No. 1	926	741
Maywood Mutual Water company No. 2	1,007	806
Maywood Mutual Water Company No. 3	1,407	1,126
Mel, Inc. (Marshburn, Inc., tenant)	67	54
G. Mellano	12	10
Wilbur Mellema and Mary Mellema (see listing under name of Elmo D. Murphy)		
Wilbur Mellema (see listing under name of Morris Weiss)		
Memorial Parks, Inc.	42	34
Lyman B. Merrick and Gladys L. Merrick	17	24
Metropolitan State Hospital of the State of California Department of Mental Hygiene (see listing under name of State of California)		
F. N. Metzger	0	0

Name	Total Water Right	Allowed Pumping Allocation
Lorraine K. Meyberg (L. Kauffman Company, Inc., tenant)	81	65
Midland Park Water trust	71	57
Midway Gardens Mutual Association	59	47
Harry C. Miersma and Dorothy L. Miersma	12	10
Henry Miersma and Susan M. Miersma	7	6
Willis L. Miller	0	0
George Mimaki, Mitsuko Mimaki, Yoshio Kono and Barbara Kono (Loma Floral Company, tenant)	2	2
Ray Mitchell (see listing under name of Corporation of the Presiding Bishop of the Church of Jesus Christ of Latter Day Saints; and also listing under name of Frank Ruggieri)		
Fumiko Mitsuuchi, aka Mary Mitsuuchi (Z. Van Spanje, tenant as to one acre foot)	14	11
Yoneichi Miyasaki	0	0
Glenn Miyoshi, Yosaku Miyoshi, Masayo Miyoshi, Haruo Miyoshi, and Masaru Miyoshi, dba Miyoshi Bros.	10	8
Jean Mocho and Michel Plaa	11	9
Modern Imperial Company	71	57
Montebello Land and Water Company	1,990	1,592
Monterey Acres Mutual Water Company	128	102
Nicholaas J. Moons (see listing under name of Mrs. Oraan Kinne)		
Alexander Moore and Betty L. Moore	16	13
Neal Moore	0	0
Alyce Mooschekian	0	0
Reuben Mooschekian	15	12

Name	Total Water Right	Allowed Pumping Allocation
William R. Morris (see also listing under name of Associated Southern Investment Company)	1	1
D. S. Moss, Lillian Moss, Jerome D. Mack, and Joyce Mack	5	4
Mountain View Dairies, Inc.	68	54
Kiyoshi Murakawa and Shizuko Murakawa	0	0
Daisaku Murata, Fui Murata, Hatsuye Murata, Kenji Murata, Setsuko Murata, and Takeo Murata	15	12
Kenji Murata (see listing under name of Southern California Edison Company)		
Elmo D. Murphy and Evelene B. Murphy (Morris Weiss, Bessie Weiss, Wilbur Mellema, and Mary Mellema, tenants)	23	18
Murphy Ranch Mutual water company	576	461
Etta Murr	3	3
R. B. Murray and Gladys J. Murray	0	0
Tony G. Mussachia and Anna M. Mussachia	10	8
Mary Myrndahl (Nick P. Koot, tenant)	11	9
Sam Nakamura and Tokiko Nakamura	2	2
Leo Nauta (see listing under name of John Osinga)		
Pete Nauta (see listing under name of Jacob Vandenberg)		
Fred C. Nelles School for Boys of the State of California Department of the Youth Authority (see listing under name of State of California)		
Otelia Nelson and Robert Nelson (Shelter Superior Dairy, tenant)	14	11
Simon S. Niekerk and Rose Niekerk (Niekerk Hay Company, tenant)	3	3

Name	Total Water Right	Allowed Pumping Allocation
Norris-Thermador Corporation	172	138
North Gate Gardens Water Co.	60	48
Norwalk-La Mirada City School District	360	288
Norwalk Mobile Lodge (see listing under name of Elizabeth Flesch)		
Mabel E. Nottingham (Leslie Nottingham, tenant)	25	20
William Offinga & Son, including Sidney Offinga (see listing under name of Henry Boer)		
Olive Lawn Memorial Park, Inc.	14	11
John Oord	0	0
Marinus Oosten and Anthonia Oosten	16	13
Ralph Oosten and Caroline Oosten (Frank Lorenz, tenant as to 13 acre feet of water right and 10 acre feet of allowed pumping allocation)	51	41
Orange County Nursery, Inc. (see also: listing under name of Ruth E. Dever; listing under name of Jake J. Luetto; and listing under name of Mary Ravera)	16	13
Orchard Dale County Water District (Base Water Right - 1,382)	1,384	1,107
Orchard Park Water Club, Inc.	50	40
Oriental Foods, Inc.	34	27
Orla Company (John D. Westra, tenant)	7	6
Viva Ormonde (see listing under name of Hank Van Dam)		
Pablo Oropeza and Aurelia G. Oropeza (Pablo Oropeza, Jr., tenant) (see also listing under name of Tarr and McComb Oil Company, Ltd.)		
John Osinga (Leo Nauta, tenant)	6	5

Name	Total Water Right	Allowed Pumping Allocation
Manuel B. Ourique (see listing under name of John Borges)		
Owl Constructors	20	16
Pacific Electric Railway Company (Gerrit Van Leeuwen of 15405 Shoemaker Road, Norwalk, tenant as to 11 acre feet of right and 9 acre feet of allowed pumping allocation)	15	12
Packers Mutual Water Company	43	34
Edward G. Paddison and Grace M. Paddison	17	14
Paramount Farms (see listing under name of Harry N. Goedhart)		
Paramount County Water District	2,967	2,374
Paramount Unified School District	58	46
Park Water Company	24,592	19,674
W. J. Parsonson	0	0
Rudolph Pasma and Frances C. Pasma	10	8
Paul's Dairy (see listing under name of Paul H. Lussman, Jr.)		
Mrs. La Verne Payton	1	1
Peerless Land & Water Co., Inc.	1,232	986
J. C. Pereira, Jr. and Ezaura Pereira	34	27
Sam Perricone and Louis Romoff (Luer Packing Co., tenant)	107	86
Peterson Manufacturing Co., Inc.	73	58
Phelps Dodge Copper Products Corporation	390	312
Pico County Water District	3,741	2.993
Piedmont Heights Water Club	7	6
Lucille C. Pimental (Richard Pimental and Pimental Dairy, tenants)	16	13

Name	Total Water Right	Allowed Pumping Allocation
Joe Pine (see listing under name of A. C. Pinheiro)		
A. C. Pinheiro and Mary M. Pinheiro (Alden Lourenco, tenant as to 9 acre feet of water right and 7 acre feet of allowed pumping right; and Joe Pine, tenant as to 13 acre feet of water right and 10 acre feet of allowed pumping right)	128	102
Fred Pinto and Mary Pinto	5	4
Frank Pires (see listing under name of Frank Simas)		
Tony C. Pires and Laura C. Pires	31	25
Michel Plaa (see listing under name of Jean Mocho)		
Donald R. Plunkett	53	42
Pomering Tract Water Association	32	26
Clarence Pool	24	19
Garret Porte and Cecelia Porte	35	28
Veronica Postma	16	13
C. H. Powell	1	1
Powerine Oil Company	784	627
John Preem	0	0
Ralph Pylman and Ida Pylman	13	10
Quality Meat Packing Company	38	30
Ralphs Grocery Company	0	0
Arthur D. Ramsey and James A. Ramsey	5	4
Rancho Santa Gertrudes Mutual Water System	48	38
Mary Ravera (Orange County Nursery, Inc., tenant	39	31

Name	Total Water Right	Allowed Pumping Allocation
Zelma Ravera	2	2
Rawlins Investment Corporation (Rockview Milk Farms, Inc., tenant)	66	53
Hal Rees	0	0
Reeves Tract Water Company	36	29
Clarence Reinalda	0	0
Reliance Dairy Farms	122	98
Research Building Corporation (Dr. Russell B. Clark, tenant)	11	9
Richfield Oil Corporation	71	57
Richland Farm Water Company	216	173
George Rietkerk and Cornelia Rietkerk	7	6
Rio Hondo Country Club (see listing under name of James L. Stamps)		
Erasmo Rios (see listing under name of Esther Salcido)		
Jesus Rios (see listing under name of Esther Salcido)		
Frank J. Rocha, Jr. and Elsie M. Rocha	13	10
Rockview Milk Farms, Inc. (see listing under name of Rawlins Investment Corporation)		
John Rodrigues, Emily S. Rodrigues, and John Rodrigues, Jr. (see also below)	5	4
John Rodrigues and John Rodrigues Jr.	1	1
Frieda Roethlisberger (see listing under name of Joe Luond)		
Patricia L. Davis Rogers, aka Patricia L. Davis	2	2
The Roman Catholic Archbishop of Los Angeles, a corporation sole	426	341

Name	Total Water Right	Allowed Pumping Allocation
Gladys Marie Romberg (see listing under name of Bernard William Bootsma)		
Alois M. Rombout	0	0
Louis Romoff (see listing under name of Sam Perricone)		
Elvira C. Rosales	3	3
Frank J. Ross	2	2
Ernest D. Roth and Eva Roth (see listing under name of Elizabeth Flesch)		
Ed Roukema	0	0
Herbert N. Royden	31	25
Ruchti Brothers	31	25
Frank Ruggieri and Vada Ruggieri (see additional listing below)	1	1
Frank Ruggieri and Vada Ruggieri; David Seldeen and Fay Seldeen (Ray Mitchell, tenant)	23	18
Thomas S. Ryan and Dorothy J. Ryan	19	15
Sam Rypkema and Tena Rypkema	8	6
St. John Bosco School	53	42
James H. Saito and Yoshino Saito	2	2
Esther Salcido and Jesus Rios (Erasmo Rios, tenant)	3	3
San Gabriel Valley Water Company	6,828	5,462
Joe Santana and Palmira Santana	10	8
Sasaki Bros. Ranch, Inc.	32	26
Sativa L. A. County Water District	592	474
Ben Schilder, Jr. and Anna Schilder	28	22
Carl Schmid and Olga Schmid	18	14

Name	Total Water Right	Allowed Pumping Allocation
Mrs. A. Schuur	0	0
John Schuurman and Isabel Schuurman (James Sieperda, tenant)	15	12
David Seldeen and Fay Seldeen (see listing under name of Frank Ruggieri)		
Maurice I. Sessler	8	6
Chris Shaffer and Celia I. Shaffer	8	6
Shayman & Wharram, a partnership, consisting of John W. Shayman and Francis O. Wharram	2	2
Shell Oil Company (see listing under name of Margaret F. Slusher)		
Shelter Superior Dairy (see listing under name of Otelia Nelson)		
Tadao Shiba and Harume Shiba, Susumu Shiba, and Mitsuko Shiba	7	6
Yahiko Shiozaki and Kiyoko Shiozaki; Ken Shiozaki and Grace Shiozaki	6	5
Shore-Plotkin Enterprises, Inc. (Shore-Calnevar, Inc., tenant)	0	0
J. E. Siemon	15	12
James Sieperda (see listing under name of John Schuurman)		
Sierra Restaurant Corporation	0	0
Frank Simas and Mabel Simas (Frank Pires, tenant)	11	9
Bennett E. Simmons and Alice Lorraine Simmons, George K. Simmons and Doris June Simmons (Bell Trailer City, tenant)	41	33
Margaret F. Slusher (Shell Oil Company, tenant)	7	6
Lester W. Smith and Donald E. Smith (Lester W. Smith Dairy, tenant)	20	16

Name	Total Water Right	Allowed Pumping Allocation
Wirt Smith	14	11
William Smoorenburg and Nick J. Loogman (Smoorenburg & Loogman, a partnership of William Smoorenburg and Nick J. Loogman, operating well facility)	21	17
Leo Snozzi and Sylvia Snozzi	52	42
Socony Mobil Oil Company, Inc.	172	138
Somerset Mutual Water Company	2,744	2,195
South Montebello Irrigation District	1,238	990
Southern California Edison Company (Vernon Bacon; Chikami Bros. Farming, consisting of Jack Chikami and Shigeru Chikami; Louis F. De Martini; Armand Lescoulie; C. D. Webster; Kenji Murata; Glenn F. Spiller and Jean H. Spiller; George Yamamoto and Alice Yamamoto, conducting business as Fumi Garden Farms, Inc.; and Salvatore Gutierrez, tenants and licenses)	816	653
Southern California Water Company	18,937	15,150
Southern Service Company, Ltd.	81	65
Henrietta Southfield	4	4
John Southfield	0	0
Southwest Water Company	2,895	2,316
Manuel M. Souza, Sr.; Manuel M. Souza, Jr.; Frank M. Souza and Louie J. Souza (see listing under name of Jack Gonsalves)		
Nelson Souza and Mary Souza	12	10
Glenn F. Spiller and Jean H. Spiller (see also listing under name of Southern California Edison company)	24	19
Farah Sprague	3	3

Name	Total Water Right	Allowed Pumping Allocation
Herman F. Staat and Charlotte H. Staat	2	2
James L. Stamps, as to an undivided 80% interest; Addie L. Enfield, as to an undivided 20% interest (Rio Hondo Country Club, tenant)	443	354
Standard Oil Company of California	118	94
J. F. Standley and Myrtle M. Standley	1	1
Star Dust Lands, Inc.	85	68
State of California (included herein are water rights of Fred C. Nelles School for Boys of the State of California Department of the Youth Authority; Metropolitan State Hospital of the State of California Department of Mental Hygiene; and District VII, Division of Highways of the State of California Department of Public Works)	757	606
Stauffer Chemical Company	181	145
John Steele and Clara D. Steele	4	4
Steve Stefani, Jr.	0	0
Steve Stefani, Sr., and Dora Stefani (Henry Baar and Fred Fekkes, tenants)	38	30
Andrew Stellingwerf	0	0
Henry Stellingwerf and Jeanette Stellingwerf	14	11
Henry Sterk and Betty S. Sterk	114	91
V. C. Stiefel	3	3
Sophia J. Stockmal and John F. Stockmal	3	3
William Thomas Stover and Gertrude D. Stover	3	3
Louis Struikman and Alice Struikman (Louis Struikman and Pete Struikman dba Louis Struikman and Son, tenants as to 43 acre feet of water right and 34 acre feet of allowed pumping allocation; and Sidney		

Name	Total Water Right	Allowed Pumping Allocation
Van Dyke, tenant as to 10 acre feet of water right and 8 acre feet of allowed pumping allocation) (see also below)	53	42
Louis Struikman and Peter Struikman	3	3
Cornelius Struikmans and Ida Struikmans	9	7
Henry Struikmans and Nellie Struikmans	13	10
Henry Struikmans, Jr.	0	0
Suburban Mutual Water Co.	0	0
Suburban Water Systems	3,666	2,933
Kazuo Sumida	2	2
Sun Coast Development Company	0	0
Sun Holding Corporation (see listing under name of Mausoleum Park, Inc.)		
Sunnyside Mausoleum Company	60	48
Sunset Cemetery Association	26	21
E. A. Sutton and Ramona Sutton	39	31
Swift & Company	2,047	1,638
Roy Sybrandy and Anne Sybrandy	29	23
Sykes Realty Co., Floyd G. Marcusson and Albert C. Sykes	2	2
Andy Sytsma and Dorothy Sytsma (Albert Sytsma and Robert Sytsma, doing business as Sytsma Bros., tenants)	20	16
Tarr and McComb Oil Company, Ltd. (Pablo Oropeza, tenant)	86	69
Roy Tashima and Shigeo Tashima	1	1
Fay G. Tawzer and Lawrence R. Tawzer (see listing under name of Fern Ethyl Gordon)		
Dorothy Taylor	0	0
Quentin D. Taylor	0	0

Name	Total Water Right	Allowed Pumping Allocation
Carl Teixeira and Evelyn Teixeira	11	9
George S. Teixeira and Laura L. Teixeira	17	14
Harm Te Velde and Zwaantina Te Velde	253	202
Theo Hamm Brewing Co.	150	120
Thirty-Three Forty-Five East Forty-Fifth Street, Inc.	17	14
O. T. Thompson and Drusilla Thompson	20	16
Tract Number One Hundred and Eighty Water Company	1,526	1,221
Tract 349 Mutual Water Company	529	423
Fred Troost and Annie Troost	53	42
Frank W. Tybus and June E. Tybus (see listing under name of Lakewood Pipe Co.)		
Uehling Water Company, Inc.	846	677
Union Development Co., Inc.	12	10
Union Oil Company of California (see listing under name of Florence Hellman Ehrman)		
Union Pacific Railroad Company	656	525
Union Packing Company	100	80
United California Bank (see listing under name of Huntley L. Gordon)		
United Dairymen's Association	1	1
United States Gypsum Company	1,581	1,265
United States Rubber Company	820	656
United States Steel Corporation	176	141
Masaru Uyeda, Hajime Hirashima, and Tadashi Uyeda	12	10
G. A. Van Beek (see listing under name of Art Hop, Sr.)		

Name	Total Water Right	Allowed Pumping Allocation
Bas Van Dam (see listing under name of Gertrude Van Dam)		
Carrie Agnes Van Dam (see listing under name of Bernard William Bootsma)		
Cornelius A. Van Dam and Florence Van Dam	24	19
Dick Van Dam, Jr.	0	0
Gerrit Van Dam and Grace Van Dam (William De Kriek, tenant)	13	10
Gertrude Van Dam (Bas Van Dam, tenant as to 29 acre feet of water right and 23 acre feet of allowed pumping right; and Henry Van Dam, tenant as to 19 acre feet of water right and 15 acre feet of allowed pumping right)	48	38
Hank Van Dam and Jessie Van Dam (Viva Ormonde, tenant)	22	18
Henry Van Dam (see listing under name of Gertrude Van Dam)		
Jacob Vandenberg and Anna Vandenberg (Pete Nauta, tenant)	8	6
August Vandenburg, Ben W. Vandenburg, and Andrew W. Vandenburg (Jan Bokma, tenant)	6	5
John Van Den Raadt	4	4
M. Vander Dussen and Aletta C. Vander Dussen	12	10
Sybrand Vander Dussen and Johanna Vander Dussen	23	18
Helen Goedhart Van Eik (see listing under name of Harry N. Goedhart)		
Cornelius Vander Eyk, aka Case Vander Eyk, and Nelly Vander Eyk, aka Nellie Vander Eyk	7	6
George Van Der Ham and Alice Van Der Ham	10	8

Name	Total Water Right	Allowed Pumping Allocation
Huibert Vander Ham and Henrietta Vander Ham	33	26
Joe Vanderham and Cornelia Vanderham	13	10
John Vanderham and Nell M. Vanderham	20	16
Charlie Vander Kooi and Lena Mae Vander Kooi (see also listing under name of Michel Bordato)	13	10
Pete Vander Kooi (see listing under name of Ed Haakma)		
Bert Vander Laan and Stella Vander Laan	10	8
Matt Vander Sys and Johanna Vander Sys	13	10
Bill Vander Vegt and Henny Vander Vegt	18	14
George Vander Vegt and Houjke Vander Vegt	12	10
Harry J. Vander Wall and Marian E. Vander Wall	12	10
Bert Vande Vegte and Lillian Vande Vegte	1	1
Anthony Van Diest	0	0
Jennie Van Diest, as to undivided 1/3 interest; Ernest Van Diest and Rena Van Diest, as to undivided 1/3 interest; and Cornelius Van Diest and Anna Van Diest, as to undivided 1/3 interest. (Van Diest Dairy, tenant)	20	16
Katrena Van Diest and/or Margaret Van Diest	92	74
Henry W. Van Dyk (see listing under name of Henrietta Veenendaal)		
Wiechert Van Dyk and Jennie Van Dyk	13	10
Corty Van Dyke (see listing under name of Charles E. Adams)		
Sidney Van Dyke (see listing under name of Louis Struickman)		

Name	Total Water Right	Allowed Pumping Allocation
William Van Foeken	0	0
Jake Van Haaster and Gerarda Van Haaster	0	0
Arie C. Van Leeuwen (see listing under name of Sam Bouman)		
Gerrit Van Leeuwen of 15405 Shoemaker Road, Norwalk (see listing under name of Pacific Electric Railway Company)		
Henry Van Leeuwen and Caroline P. Van Leeuwen; Gerrit Van Leeuwen of 5948 Lorelei Street, Bellflower, and Ellen Van Leeuwen	1	1
Jake Van Leeuwen, Jr. and Cornelia J. Van Leeuwen (James C. Boogerd and Jake Van Leeuwen, Jr. dba Van Leeuwen & Boogerd, tenants)	9	7
Anthony R. Van Loon (see listing under name of Henry Van Ruiten)		
John Van Nierop and Lily E. Van Nierop	0	0
Henry Van Ruiten and Mary A. Van Ruiten, as to undivided 1/2 interest; and Jake Van Ruiten and Jacoba Van Ruiten, as to undivided 1/2 interest (W. P. Jordan, Anthony R. Van Loon, and Jules Wesselink, tenants)	88	70
Pete Van Ruiten and Mary Van Ruiten (for purposes of clarification, this Mary Van Ruiten is also known as Mrs. Pete Van Ruiten and is not the same individual as sued herein as Mary A. Van Ruiten, who is also known as Mrs. Henry G. Van Ruiten)	38	30
Z. Van Spanje (see listing under name of Fumiko Mitsuuchi)		
Evert Veenendaal and Gertrude Veenendaal (see listing under name of Earl Haringa)		
Henrietta Veenendaal (Henry W. Van Dyk, tenant)	10	8

Name	Total Water Right	Allowed Pumping Allocation
Henry Veenendaal and Henrietta Veenendaal	8	6
Joe H. Veenendaal and Margie Veenendaal	34	27
John Veenendaal	0	0
Vehicle Maintenance & Painting Corporation (see listing under name of Nicholas C. Conteas)		
Salvador Velasco	16	13
Mike Veldhuis	0	0
Albert Veldhuizen and Helen Veldhuizen	23	18
Jack Verbree	0	0
Mrs. Klaasje Verburg (Leon Verburg to extent of interest under contract to purchase)	12	10
John C. Verhoeven and Sadie Verhoeven	25	20
Joseph C. Vierra and Caroline Vierra (Joseph C. Vierra and William J. Vierra, doing business as Vierra & Vierra, tenants)	13	10
Sieger Vierstra and Nellie G. Vierstra (Jacob J. Bosma, tenant)	12	10
Virginia Country Club of Long Beach	340	272
Roy Visbeek	0	0
Louis Visser	9	7
Vista Hill Psychiatric Foundation	39	31
Louie Von Ah	0	0
Walnut Irrigation District	154	123
Walnut Park Mutual Water Co.	1,245	996
C. D. Webster (see also listing under name of Southern California Edison Company)	1	1

Name	Total Water Right	Allowed Pumping Allocation
Morris Weiss and Bessie Weiss (Wilbur Mellema, tenant) (also see listings under names of Elmo D. Murphy and Emma Engler)	20	16
Wells Fargo Bank as Executor of Estate of Edward H. Heller, Deceased, and as Executor of Estate of Lloyd W. Dinkelspiel, Deceased, and as Trustee under Trust created by the Will of Florence H. Dinkelspiel, Deceased (see listing under name of Florence Hellman Ehrman)		
Jules Wesselink (see listing under name of Henry Van Ruiten)		
West Gateway Mutual Water Co.	105	84
Henry Westra and Hilda Westra	40	32
John D. Westra (see listing under name of Orla Company)		
Francis O. Wharram (see listing under name of Shayman & Wharram)		
Whittier Union High School District	125	100
Arend Z. Wier	14	11
H. Wiersema, aka Harm Wiersema and Pearl Wiersema	16	13
William Wiersma and Elbra Wiersma	7	6
Richard Wigboly (see listing under name of Central Manufacturing District, Inc.)		
Mary Wilcox (see listing under name of Jenkins Realty Mutual Water Co.)		
Ralph P. Williams and Mary Williams	14	11
Wilshire Oil Company of California	1,795	1,436
Melvin L. Wilson and Marie Wilson	1	1
D. P. Winslow and Dorothy C. Winslow (Berton Elson, tenant)	15	12

Name	Total Water Right	Allowed Pumping Allocation
Helene K. Winters	1	1
Fred E. Wiseman and Grayce Anna Wiseman	2	2
Helen Wolfsberger and Christine Joseph	2	2
Volney Womack	0	0
Cho Shee Woo (Hong Woo and Ngorn Seung Woo, as agents of property for Cho Shee Woo)	20	16
Gerrit Wybenga and Rena Wybenga	10	8
George Yamamoto and Alice Yamamoto, also known as Fumi Yamamoto (Fumi Garden Farms, Inc., tenant) (see also listing under name of Southern California Edison Company)	17	14
Paul N. Yokota and Miyo Yokota	4	4
Minoru Yoshijima (see listing under name of Kazuo Hatanaka)		
Frank Yoshioka	0	0
Maxine Young	3	3
Mrs. A. Zandvliet also known as Anna A. Zandvliet	8	6
Arnold Zeilstra and Nellie Zeilstra	6	5
George Zivelonghi and Antonio Zivelonghi	121	97
Dick Zuidervaart and Janna Zuidervaart (Artesia Milling Company, tenant)	1	1
Andy Zylstra	0	0
Zylstra Bros. a partnership consisting of Lammert Zylstra and William Zylstra (see listing under name of John H. Coito)		
John Zylstra and Leonard J. Zylstra, doing business as The Zylstra Dairy	22	18
Leonard Zylstra (not the same person as Leonard J. Zylstra	0	0

4. Transition in Administrative Year - Application. "Year" and "Administrative Year" as used throughout this judgment shall mean the water year; provided that with the first fiscal year (July 1 - June 30) commencing at least four months after the "Amended Judgment" became final, and thereafter, said words shall mean the fiscal year. Since this will provide a transitional Administrative year of nine months, October 1 - June 30, ("short year" hereafter), notwithstanding the finding and determinations in the annual Watermaster report for the then last preceding water year, the Allowed Pumping Allocations of the parties and the quantity which Defendant City of Los Angeles is annually permitted to extract from Central Basin for said short year shall be based on three-quarters of the otherwise allowable quantity. During said short year, because of hardships that might otherwise result, any overextractions by a party shall be deemed pursuant to paragraph 2, Subpart B of Part III of this judgment (p. 61), and it shall be deemed that the Watermaster has made the determination of unreasonable hardship to which reference is therein made.

II. APPOINTMENT OF WATERMASTER; WATERMASTER ADMINISTRATION PROVISIONS. Department of Water Resources of the State of California is hereby appointed Watermaster, for an indefinite term, but subject to removal by the Court, to administer this judgment and shall have the following powers, duties and responsibilities:

1. Duties, Powers and Responsibilities of Watermaster. In order to assist the Court in the administration and enforcement of the provisions of this judgment and to keep the Court

fully advised in the premises, the Watermaster shall have the following duties, powers and responsibilities in addition to those before or hereafter provided in this judgment:

(a) Watermaster May Require Reports, Information and Records. To require of parties the furnishing of such reports, information and records as may be reasonably necessary to determine compliance or lack of compliance by any party with the provisions of this judgment.

(b) Requirement of Measuring Devices. To require all parties or any reasonable classification of parties owning or operating any facilities for the extraction of ground water from Central Basin to install and maintain at all times in good working order at such party's own expense, appropriate measuring devices at such times and as often as may be reasonable under the circumstances and to calibrate or test such devices.

(c) Inspections by Watermaster. To make inspections of ground water production facilities and measuring devices at such times and as often as may be reasonable under the circumstances and to calibrate or test such devices.

(d) Annual Report. The Watermaster shall prepare, file with the Court and mail to each of the parties on or before the 15th day of the fourth month following the end of the preceding Administrative year, an annual report for such year, the scope of which shall include but not be limited to the following:

1. Ground Water Extractions
2. Exchange Pool Operation
3. Use of Imported Water

4. Violations of Judgment and Corrective Action Taken

5. Change of Ownership of Total Water Rights

6. Watermaster Administration Costs

7. Recommendations, if any.

(e) Annual Budget and Appeal Procedure in Relation Thereto. The Watermaster shall annually prepare a tentative budget for each Administrative year stating the anticipated expense for administering the provisions of this judgment. The Watermaster shall mail a copy of said tentative budget to each of the parties hereto at least 60 days before the beginning of each Administrative year. For the first Administrative year of operation under this judgment, if the Watermaster is unable to meet the above time requirement, the Watermaster shall mail said copies as soon as possible. If any party hereto has any objection to said tentative budget, it shall present the same in writing to the Watermaster within 15 days after the date of mailing of said tentative budget by the Watermaster. If no objections are received within said period, the tentative budget shall become the final budget. If objections are received, the Watermaster shall, within 10 days thereafter, consider such objections, prepare a final budget and mail a copy thereof to each party hereto, together with a statement of the amount assessed to each party. Any party may apply to the Court within 15 days after the mailing of such final budget for a revision thereof based on specific objections thereto. The parties hereto shall make the payments otherwise required of them to the Watermaster even though such a request for revision has been filed with the Court. Upon any revision by the Court the

Watermaster shall either remit to the parties their prorata portions of any reduction in the budget, or credit their accounts with respect to their budget assessments for the next ensuing Administrative year, as the Court shall direct.

The amount to be assessed to each party shall be determined as follows: If that portion of the final budget to be assessed to the parties is equal to or less than $20.00 per party then the cost shall be equally apportioned among the parties. If that portion of the final budget to be assessed to parties is greater than $20.00 per party then each party shall be assessed a minimum of $20.00. The amount of revenue expected to be received through the foregoing minimum assessments shall be deducted from that portion of the final budget to be assessed to the parties and the balance shall be assessed to the parties having Allowed Pumping Allocations, such balance being divided among them proportionately in accordance with their respective Allowed Pumping Allocations.

Payment of the assessment provided for herein, subject to adjustment by the Court as provided, shall be made by each such party prior to beginning of the Administrative year to which the assessment relates, or within 40 days after the mailing of the tentative budget, whichever is later. If such payment by any party is not made on or before said date, the Watermaster shall add a penalty of 5% thereof to such party's statement. Payment required of any party hereunder may be enforced by execution issued out of the Court, or as may be provided by order hereinafter made by the Court, or by other proceedings by the Watermaster or by any party hereto on the Watermaster's behalf.

Any money unexpended at the end of any Administrative year shall be applied to the budget of the next succeeding Administrative year.

Notwithstanding the above, no part of the budget of the Watermaster shall be assessed to the Plaintiff District or to any party who has not extracted water from Central Basin for a period of two successive Administrative years prior to the Administrative year in which the tentative budget should be mailed by the Watermaster under the provisions of this subparagraph (e).

(f) Rules. The Watermaster may adopt and amend from time to time such rules as may be reasonably necessary to carry out its duties, powers and responsibilities under the provisions of this judgment. The rules shall be effective on such date after the mailing thereof to the parties as is specified by the Watermaster, but not sooner than 30 days after such mailing.

2. Use of Facilities and Data Collected by Other Governmental Agencies. The Watermaster is directed not to duplicate the collection of data relative to conditions of the Central Basin which is then being collected by one or more governmental agencies, but where necessary the Watermaster may collect supplemental data. Where it appears more economical to do so, the Watermaster is directed to use such facilities of other governmental agencies as are available to it under either no cost or cost agreements with respect to the receipt of reports, billings to parties, mailings to parties, and similar matters.

3. Appeal from Watermaster Decisions Other Than With Respect to Budget. Any party interested therein who has objection to any rule, determination, order or finding made by the Watermaster, may make objection thereto in writing delivered to the Watermaster within 30 days after the date the Watermaster mails written notice of the making of such rule, determination, order or finding, and within 30 days after such delivery the Watermaster shall consider said objection and shall amend or affirm his rule, determination, order or finding and shall give notice thereof to all parties. Any such party may file with the Court within 30 days from the date of said notice any objection to such rule, determination, order or finding of the Watermaster and bring the same on for hearing before the Court at such time as the Court may direct, after first having served said objection upon all other parties. The Court may affirm, modify, amend or overrule any such rule, determination, order or finding of the Watermaster. The provisions of this paragraph shall not apply to budgetary matters, as to which the appellate procedure has heretofore been set forth. Any objection under this paragraph shall not stay the rule, determination, order or finding of the Watermaster. However, the Court, by ex parte order, may provide for a stay thereof on application of any interested party on or after the date that any such party delivers to the Watermaster any written objection.

4. Effect of Non-Compliance by Watermaster With Time Provisions. Failure of the Watermaster to perform any duty, power or responsibility set forth in this judgment within the time limitation herein set forth shall not deprive the

Watermaster of authority to subsequently discharge such duty, power or responsibility, except to the extent that any such failure by the Watermaster may have rendered some otherwise required act by a party impossible.

III. PROVISIONS FOR PHYSICAL SOLUTION TO MEET THE WATER REQUIREMENTS IN CENTRAL BASIN. In order to provide flexibility to the injunction set forth in Part I of the judgment, and to assist in a physical solution to meet water requirements in Central Basin, the injunction so set forth is subject to the following provisions.

A. Carryover of Portion of Allowed Pumping Allocation.

(1) Each party adjudged to have a Total Water Right or water rights and who, during a particular Administrative year, does not extract from Central Basin a total quantity equal to such party's Allowed Pumping Allocation for the particular Administrative year, less any allocated subscriptions by such party to the Exchange Pool, or plus any allocated requests by such party for purchase of Exchange Pool water, is permitted to carry over (the "One Year Carryover") from such Administrative year the right to extract from Central Basin in the next succeeding Administrative year so much of said total quantity as it did not extract in the particular Administrative year, not to exceed 20% of such party's Allowed Pumping Allocation, or 20 acre feet, whichever of said 20% or 20 acre feet is the larger.

(2) Following the declaration of a Declared Water Emergency and until the Declared Water Emergency ends either

by expiration or by resolution of the Board of Directors of the Central and West Basin Water Replenishment District, each party adjudged to have a Total Water Right or water rights and who, during a particular Administrative year, does not extract from Central Basin a total quantity equal to such party's Allowed Pumping Allocation for the particular Administrative year, less any allocated subscriptions by such party to the Exchange Pool, or plus any allocated requests by such party for purchase of Exchange Pool water, is permitted to carry over (the "Drought Carryover") from such Administrative year the right to extract from Central Basin so much of said total quantity as it did not extract during the period of the Declared Water Emergency, to the extent such quantity exceeds the One Year Carryover, not to exceed an additional 35% of such party's Allowed Pumping Allocation, or additional 35 acre feet, whichever of said 35% or 35 acre feet is the larger. Carryover amounts shall first be allocated to the One Year Carryover and any remaining carryover amount for that year shall be allocated to the Drought Carryover.

(3) No further amounts shall be added to the Drought Carryover following the end of the Declared Water Emergency, provided however that in the event another Declared Water Emergency is declared, additional Drought Carryover may be added, to the extent such additional Drought Carryover would not cause the total Drought Carryover to exceed the limits set forth above.

(4) The Drought Carryover shall be supplemental to and shall not affect any previous drought carryover acquired by a party pursuant to previous order of the court.

B. When Over-extractions May be Permitted.

1. Underestimation of Requirements for Water. Any party hereto having an Allowed Pumping Allocation and not in violation of any provision of this judgment may extract in an Administrative year an additional quantity of water not to exceed: (a) 20% of such party's Allowed Pumping Allocation or 20 acre feet, whichever is greater, and (b) any amount in addition thereto which may be approved in advance by the Watermaster.

2. Reductions in Allowed Pumping Allocations in Succeeding Years to Compensate for Permissible Overextractions. Any such party's Allowed Pumping Allocation for the following Administrative year shall be reduced by the amount over-extracted pursuant to paragraph 1 above, provided that if the Watermaster determines that such reduction in the party's Allowed Pumping Allocation in one Administrative year will impose upon such a party an unreasonable hardship, the said reduction in said party's Allowed Pumping Allocation shall be prorated over a period of five (5) Administrative years succeeding that in which the excessive extractions by the party occurred. Application for such relief to the Watermaster must be made not later than the 40th day after the end of the Administrative year in which such excessive pumping occurred. Watermaster shall grant such relief if such over-extraction, or any portion thereof, occurred during a period of Declared Water Emergency.

3. Reductions in Allowed Pumping Allocations for the Next Succeeding Administrative Year to Compensate for Overpumping. Whenever a party over-extracts in excess of 20% of such party's Allowed Pumping Allocation, or 20 acre feet, whichever is greater, and such excess has not been approved in advance by the Watermaster, then such party's Allowed Pumping Allocation for the following Administrative year shall be reduced by an amount equivalent to its total over-extractions in the particular Administrative year in which it occurred.

4. Reports of Certain Over-extractions to the Court. Whenever a party over-extracts in excess of 20% of such party's Allowed Pumping Allocation, or 20 acre feet, whichever is greater, without having obtained prior approval of the Watermaster, such shall constitute a violation of the judgment and the Watermaster shall make a written report to the Court for such action as the Court may deem necessary. Such party shall be subject to such injunctive and other processes and action as the Court might otherwise take with regard to any other violation of such judgment.

5. Effect of Over-extractions on Rights. Any party who over-extracts from Central Basin in any Administrative year shall not acquire any additional rights by reason of such over-extractions; nor, shall any required reductions in extractions during any subsequent years reduce the Total Water Right or water rights of any party to the extent said over-extractions are in compliance with paragraph 1 above.

6. Pumping Under Agreement With Plaintiff During Periods of Emergency. Plaintiff overlies Central Basin and

engages in activities of replenishing the ground waters thereof. Plaintiff by resolution has appropriated for use during emergencies the quantity of 17,000 acre feet of imported and reclaimed water replenished by it into Central Basin, and pursuant to such resolution Plaintiff reserves the right to use or cause the use of such quantity during such emergency periods.

(a) Notwithstanding any other provision of this judgment, parties who are water purveyors (including successors in interest) are authorized to enter into agreements with Plaintiff under which such water purveyors may exceed their respective Allowed Pumping Allocations for the particular administrative year when the following conditions are met:

(1) Plaintiff is in receipt of a resolution of the Board of Directors of the Metropolitan Water District of Southern California ("MWD") that there is an actual or immediately threatened temporary shortage of MWD's imported water supply compared to MWD's needs, or a temporary inability to deliver MWD's imported water supply throughout its area, which will be alleviated by overpumping from Central Basin.

(2) The Board of Directors of both Plaintiff and Central Basin Municipal Water District by resolutions concur in the resolution of MWD's Board of Directors, and the Board of Directors of Plaintiff finds in its resolution that the average minimum elevation of water surface among those wells in the Montebello Forebay of the Central Basin designated as Los Angeles County Flood Control District Wells Nos. 1601T, 1564P, 1615P,

and 1626L, is at least 43.7 feet above sea level. This computation shall be based upon the most recent "static readings" taken, which shall have been taken not more than four weeks prior. Should any of the wells designated above become destroyed or otherwise be in a condition so that readings cannot be made, or the owner prevent their use for such readings the Board of Directors of the Plaintiff may, upon appropriate engineering recommendation substitute such other well or wells as it may deem appropriate.

(3) In said resolution, Plaintiff's Board of Directors sets a public hearing, and notice of the time, place and date thereof (which may be continued from time to time without further notice) is given by First Class Mail to the current designees of the parties, filed and served in accordance with Part V, paragraph 3 of this Judgment. Said notice shall be mailed at least five (5) days before the scheduled hearing date.

(4) At said public hearing, parties (including successors in interest) are given full opportunity to be heard, and at the conclusion thereof the Board of Directors of Plaintiff by resolution decides to proceed with agreements under this Part III-B.

(5) For purposes of this Part III-B, "water purveyors" mean those parties (and successors in interest) which sell water to the public whether regulated public utilities, mutual water companies or public entities, which have a connection or connections for the taking

of imported water of MWD, or access to imported water of MWD through a connection, and which normally supply part of their customer's needs with such imported water.

(b) All such agreements shall be subject to the following requirements, and such others as Plaintiff's Board of Directors shall require:

(1) They shall be of uniform content except as to quantity involved, and any special provisions considered necessary or desirable with respect to local hydrological conditions or good hydrologic practice.

(2) They shall be offered to all water purveyors, excepting those which Plaintiff's Board of Directors determine should not over pump because such over pumping would occur in undesirable proximity to a sea water barrier project designed to forestall sea water intrusion, or within or in undesirable proximity to an area within Central Basin wherein groundwater levels are at an elevation where over pumping is under all the circumstances then undesirable.

(3) The maximum terms for the agreements shall be four months, which agreements shall commence on the same date and end on the same date (and which may be executed at any time within the four month period), unless an extension thereof is authorized by the Court, under Part IV of this judgment.

(4) They shall contain provisions that the water purveyor executing the agreement pay to the Plaintiff a

price in addition to the applicable replenishment assessment determined on the following formula. The normal price per acre-foot of Central Basin Municipal Water District's (CBMWD) treated domestic and municipal water, as "normal" price of such category of water is defined in Part C, paragraph 10 (price to be paid for Exchange Pool Water) as of the beginning of the contract term less the deductions set forth in said paragraph 10 for the administrative year in which the contract term commences. The agreement shall provide for adjustments in the first of said components for any proportional period of the contract term during which the CBMWD said normal price is changed, and if the agreement straddles two administrative years, the said deductions shall be adjusted for any proportionate period of the contract term in which the amount thereof or of either subcomponent changes for purposes of said paragraph 10. Any price for a partial acre-foot shall be computed prorata. Payments shall be due and payable on the principle that over extractions under the agreement are of the last water pumped in the fiscal year, and shall be payable as the agreement shall provide.

(5) They shall contain provisions that:

(a) All of such agreements (but not less than all) shall be subject to termination by Plaintiff if, in the Judgment of Plaintiff's Board of Directors, the conditions or threatened conditions upon which they

were based have abated to the extent over extractions are no longer considered necessary; and (b) that any individual agreement or agreements may be terminated if the Plaintiff's Board of Directors finds that adverse hydrologic circumstances have developed as a result of over extractions by any water purveyor or purveyors which have executed said agreements, or for any other reason that Plaintiff's Board of Directors finds good and sufficient.

(c) Other matters applicable to such agreements and over pumping thereunder are as follows, without need for express provisions in the agreements;

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

(2) The total quantity of permitted over pumping under all said agreements during said four months shall not exceed Seventeen thousand (17,000) acre feet, but the individual water purveyor shall not be responsible or affected by any violation of this requirement. That total is additional to over extractions otherwise permitted under this Judgment.

(3) Only one four month period may be utilized by Plaintiff in entering into such agreements, as to any one emergency or continuation thereof declared by MWD's Board of Directors under paragraph 6(a).

(4) Plaintiff may utilize the ex parte provisions of Part IV of this Judgment in lieu of the authority

contained herein (which ex parte provisions are not limited as to time, nature of relief, or terms of any agreements), but neither Plaintiff nor any other party shall utilize both as to any one such emergency or continuation thereof.

(5) If any party claims it is being damaged or threatened with damage by the over extractions by any party to such an agreement, the first party or the Watermaster may seek appropriate action of the Court for termination of any such agreement upon notice of hearing to the party complaining, to the party to said agreement, to the plaintiff, and to any parties who have filed a request for special notice. Any termination shall not affect the obligation of the party to make payments under the agreement for over extractions which did occur thereunder.

(6) Plaintiff shall maintain separate accounting of the proceeds from payments made pursuant to agreements entered into under this part. Said fund shall be utilized solely for purposes of replenishment in replacement of waters in Central Basin and West Basin. Plaintiff shall as soon as practicable cause replenishment in Central Basin by the amounts to be overproduced pursuant to this Paragraph 6 commencing at Page 63, whether through spreading, injection, or in lieu agreements.

(7) Over extractions pursuant to the agreements shall not be subject to the "make up" provisions of the

Judgment as amended, provided that if any party fails to make payments as required by the agreement, Plaintiff may require such "make up" under Paragraph 3, Subpart B, Part III of the Judgment (Page 62).

(8) Water Purveyor under any such agreement may, and is encouraged to enter into appropriate arrangements with customers who have water rights in Central Basin under or pursuant to this Judgment whereby the Water Purveyor will be assisted in meeting the objectives of the agreement.

(9) Nothing in this Paragraph 6 limits the exercise of the reserved jurisdiction of the court except as provided in subparagraph (c) (4) above.

7. Exemption for Extractors of Contaminated Groundwater. Any party herein may petition the Replenishment District for a Non-consumptive Water Use Permit as part of a project to remedy or ameliorate groundwater contamination. If the petition is granted as set forth in this part, the petitioner may extract the groundwater as permitted hereinafter, without the production counting against the petitioner's production rights.

(a) If the Board of the Replenishment District determines by Resolution that there is a problem of groundwater contamination that a proposed program will remedy or ameliorate, an operator may make extractions of groundwater to remedy or ameliorate that problem without the production counting against the petitioner's production rights if the water is not applied to beneficial surface use, its extractions are made in compliance with all the terms and conditions of the Board Resolution, and

the Board has determined in the Resolution either of the following:

(1) The groundwater to be extracted is unusable and cannot be economically treated or blended for use with other water.

(2) The proposed program involves extraction of usable water in the same quantity as will be returned to the underground without degradation of quality.

(b) The Resolution may provide those terms and conditions the Board deems appropriate, including, but not limited to, restrictions on the quantity of the extractions to be so exempted, limitations on time, periodic reviews, requirement of submission of test results from a Board-approved laboratory, and any other relevant terms or conditions.

(c) Upon written notice to the operator involved, the Board may rescind or modify its Resolution. The rescission or modification of the Resolution shall apply to groundwater extractions occurring more than ten days after the rescission or modification. Notice of rescission or modification shall be either mailed first class mail, postage prepaid, at least two weeks prior to the meeting of the Board at which the rescission or modification will be made to the address of record of the operator or personally delivered two weeks prior to the meeting.

(d) The Board's decision to grant, deny, modify or revoke a permit or to interrupt or stop a permitted project may be appealed to this court within thirty days of the notice thereof to the applicant and upon thirty days notice to the designees of all parties herein.

(e) The Replenishment District shall monitor and periodically inspect the project for compliance with the terms and conditions for any permit issued pursuant to these provisions.

(f) No party shall recover costs from any other party herein ~~on~~ in connection with ~~determinators~~ determinations made with respect to this part.

C. Exchange Pool Provisions.

(1) Definitions.

For purposes of these Exchange Pool provisions, the following words and terms have the following meanings:

(a) "Exchange Pool" is the arrangement hereinafter set forth whereby certain of the parties, ("Exchangees") may, notwithstanding the other provisions of the judgment, extract additional water from Central Basin to meet their needs, and certain other of the parties ("Exchangors"), reduce their extractions below their Allowed Pumping Allocations in order to permit such additional extractions by others.

(b) "Exchangor" is one who offers, voluntarily or otherwise, pursuant to subsequent provisions, to reduce its extractions below its Allowed Pumping Allocation in order to permit such additional extractions by others.

(c) "Exchangee" is one who requests permission to extract additional water from Central Basin.

(d) "Undue hardship" means unusual and severe economic or operational hardship, other than that arising (i) by reason of any differential in quality that might exist between water extracted from Central Basin and water available for importation

or (ii) by reason of any difference in cost to a party in subscribing to the Exchange Pool and reducing its extractions of water from Central Basin in an equivalent amount as opposed to extracting any such quantity itself.

2. Parties Who May Purchase Water Through the Exchange Pool. Any party not having existing facilities for the taking of imported water as of the beginning of any Administrative year, and any party having such facilities as of the beginning of any Administrative year who is unable, without undue hardship, to obtain, take, and put to beneficial use, through its distribution system or systems existing as of the beginning of the particular Administrative year, imported water in a quantity which, when added to its Allowed Pumping Allocation for that particular Administrative year, will meet its estimated needs for that particular Administrative year, may purchase water from the Exchange Pool, subject to the limitations contained in this Subpart C of this Part III (Subpart "C" hereinafter).

3. Procedure for Purchasing Exchange Pool Water. Not later than the 40th day following the commencement of each Administrative year, each such party desiring to purchase water from the Exchange Pool shall file with the Watermaster a request to so purchase, setting forth the amount of water in acre feet that such party estimates that it will require during the then current Administrative year in excess of the total of:

(a) Its Allowed Pumping Allocation for that particular Administrative year; and

(b) The imported water, if any, which it estimates it will be able, without undue hardship, to obtain, take and put to

beneficial use, through its distribution system or systems existing as of the beginning of that particular Administrative year.

Any party who as of the beginning of any Administrative year has existing facilities for the taking of imported water and who makes a request to purchase from the Exchange Pool must provide with such request substantiating data and other proof which, together with any further data and other proof requested by the Watermaster, establishes that such party is unable without undue hardship, to obtain, take and put to beneficial use through its said distribution system or systems a sufficient quantity of imported water which, when added to its said Allowed Pumping Allocation for the particular Administrative year, will meet its estimated needs. As to any such party, the Watermaster shall make a determination whether the party has so established such inability, which determination shall be subject to review by the court under the procedure set forth in Part II of this judgment. Any party making a request to purchase from the Exchange Pool shall either furnish such substantiating data and other proof, or a statement that such party had no existing facilities for the taking of imported water as of the beginning of that Administrative year, and in either event a statement of the basis for the quantity requested to be purchased.

4. Subscriptions to Exchange Pool.

(a) Required Subscription. Each party having existing facilities for the taking of imported water as of the beginning of any Administrative year hereby subscribed to the Exchange Pool for purposes of meeting Category (a) requests thereon, as more

particularly defined in paragraph 5 of this Subpart C, twenty percent (20%) of its Allowed Pumping Allocation, or the quantity of imported water which it is able, without undue hardship, to obtain, take and put to beneficial use through its distribution system or systems existing as of the beginning of the particular Administrative year in addition to such party's own estimated needs for imported water during that water year, whichever is the lesser. A party's subscription under this subparagraph (a) and subparagraph (b) of this paragraph 4 is sometimes hereinafter referred to as a 'required subscription'.

(b) Report to Watermaster by Parties with Connections and Unable to Subscribe 20%. Any party having existing facilities for the taking of imported water and estimating that it will be unable, without undue hardship, in that Administrative year to obtain, take and put to beneficial use through its distribution system or systems existing as of the beginning of that Administrative year, sufficient imported water to further reduce its extractions from the Central Basin by twenty percent (20%) of its Allowed Pumping Allocation for purposes of providing water to the Exchange Pool must furnish not later than the 40th day following the commencement of such Administrative year substantiating data and other proof which, together with any further data and other proof requested by the Watermaster, establishes said inability or such party shall be deemed to have subscribed twenty percent (20%) of its Allowed Pumping Allocation for the purpose of providing water to the Exchange Pool. As to any such party so contending such inability, the Watermaster shall make a determination whether the party has so established such

inability, which determination shall be subject to review by the Court under the procedure set forth in Part II of this judgment.

(c) Voluntary Subscriptions. Any party, whether or not having facilities for the taking of imported water, who desires to subscribe to the Exchange Pool a quantity or further quantity of its Allowed Pumping Allocation, may so notify the Watermaster in writing of the quantity of such offer on or prior to the 40th day following the commencement of the particular Administrative year. Such subscriptions are referred to hereinafter as "voluntary subscriptions." Any Exchangor who desires that any part of its otherwise required subscription not needed to fill Category (a) requests shall be available for Category (b) requests may so notify the Watermaster in writing on or prior to said 40th day. If all of that Exchangor's otherwise required subscription is not needed in order to fill Category (a) requests, the remainder of such required subscription not so used, or such part thereof as such Exchangor may designate, shall be deemed to be a voluntary subscription.

5. Limitations on Purchases of Exchange Pool Water and Allocation of Requests to Purchase Exchange Pool Water Among Exchangors.

(a) Categories of Requests. Two categories of Exchange Pool requests are established as follows:

(1) Category (a) requests. The quantity requested by each Exchangee, whether or not that Exchangee has an Allowed Pumping Allocation, which quantity is not in excess of 150% of its Allowed Pumping Allocation, if any, or 100 acre feet, whichever is greater. Requests or portions thereof within the

above criteria are sometimes hereinafter referred to as "Category (a) requests."

(2) Category (b) requests. The quantity requested by each Exchangee having an Allowed Pumping Allocation to the extent the request is in excess of 150% of that Allowed Pumping Allocation or 100 acre feet, whichever is greater, and the quantity requested by each Exchangee having no Allowed Pumping Allocation to the extent the request is in excess of 100 acre feet. Portions of requests within the above criteria are sometimes hereinafter referred to as "Category (b) requests."

(b) Filling of Category (a) Requests. All Exchange Pool subscriptions, required and voluntary, shall be available to fill Category (a) requests. Category (a) requests shall be filled first from voluntary subscriptions, and if voluntary subscriptions should be insufficient to fill all Category (a) requests required subscriptions shall be then utilized to fill Category (a) requests. All Category (a) requests shall be first filled before any Category (b) requests are filled.

(c) Filling of Category (b) Requests. To the extent that voluntary subscriptions have not been utilized in filling Category (a) requests, Category (b) requests shall be filled only out of any remaining voluntary subscriptions. Required subscriptions will then be utilized for the filling of any remaining Category (b) requests.

(d) Allocation of Requests to Subscriptions When Available Subscriptions Exceed Requests. In the event the quantity of subscriptions available for any category of requests exceeds those requests in that category, or exceeds the remainder

of those requests in that category, such requests shall be filled out of such subscriptions proportionately in relation to the quantity of each subscription.

(e) Allocation of Subscriptions to Category (b) Requests in the Event of Shortage of Subscriptions. In the event available subscriptions are insufficient to meet Category (b) requests, available subscriptions shall be allocated to each request in the proportion that the particular request bears to the total requests of the particular category.

6. Additional Voluntary Subscriptions. If subscriptions available to meet the requests of Exchangees are insufficient to meet all requests, additional voluntary subscriptions may be solicited and received from parties by the Watermaster. Such additional subscriptions shall be allocated first to Category (a) requests to the extent unfilled, and next to Category (b) requests to the extent unfilled. All allocations are to be otherwise in the same manner as earlier provided in paragraph 5 (a) through 5 (e) inclusive.

7. Effect if Category (a) Requests Exceed Available Subscriptions, Both Required and Voluntary. In the event that the quantity of subscriptions available to fill Category (a) requests is less than the total quantity of such requests, the Exchangees may, nonetheless, extract the full amount of their Category (a) requests otherwise approved by the Watermaster as if sufficient subscriptions were available. The amounts received by the Watermaster on account of that portion of the approved requests in excess of the total quantities available from Exchangors shall either be paid by the Watermaster to Central &

West Basin Water Replenishment District in trust for the purpose of purchasing imported water and spreading the same in Central Basin for replenishment thereof, or credited to an account of said Plaintiff District on the books of the Watermaster, at the option of said Plaintiff District. Thereafter said Plaintiff District may, at any time, withdraw said funds or any part thereof so credited in trust for the aforesaid purpose, or may by the 40th day of any Administrative year notify the Watermaster that it desires all or any portion of said funds to be expended by the Watermaster for the purchase of water available from subscriptions by Exchangors in the event the total quantity of such subscriptions exceeds the total quantity of approved requests by parties to purchase Exchange Pool water. To the extent that there is such an excess of available subscriptions over requests and to the extent that the existing credit in favor of Plaintiff District is sufficient to purchase such excess quantity at the price established for Exchange Pool purchases during that Administrative year, the account of the Plaintiff District shall be debited and the money shall be paid to the Exchangors in the same manner as if another party had made such purchase as an Exchangee. The Plaintiff District shall not extract any such Exchange Pool water so purchased.

8. Additional Pumping by Exchangees Pursuant to Exchange Pool Provisions. An Exchangee may extract from Central Basin in addition to its Allowed Pumping Allocation for a particular Administrative year that quantity of water which it has requested to purchase from the Exchange Pool during that Administrative year and which has been allocated to it pursuant

to the provisions of paragraphs 5, 6 and 7. The first pumping by an Exchangee in any Administrative year shall be deemed to be pumping of the party's allocation of Exchange Pool water.

9. Reduction in Pumping by Exchangors. Each Exchangor shall in each Administrative year reduce its extractions of water from Central Basin below its Allowed Pumping Allocation for the particular year in a quantity equal to the quantity of Exchange Pool requests allocated to it pursuant to the provisions of paragraphs 4, 5, 6 and 7 of this Subpart C.

10. Price to be Paid for Exchange Pool Water. The price to be paid by Exchangees and to be paid to Exchangors per acre foot for required and voluntary subscriptions of Exchangors utilized to fill requests on the Exchange Pool by Exchangees shall be the dollar amount computed as follows by the Watermaster for each Administrative year. The "normal" price as of the beginning of the Administrative year charged by Central Basin Municipal Water District (CBMWD) for treated MWD (Metropolitan Water District of Southern California) water used for domestic and municipal purposes shall be determined, and if on that date there are any changes scheduled during that Administrative year in CBMWD's "normal" price for such category of water, the weighted daily "normal" CBMWD price shall be determined and used in lieu of the beginning such price; and there shall be deducted from such beginning or weighted price, as the case may be, the "incremental cost of pumping water in Central Basin" at the beginning of the Administrative year and any then current rate or rates, of assessments levied on the pumping of ground water in Central Basin by Plaintiff District and any other governmental

agency. The "normal" price charged by CBMWD shall be the highest price of CBMWD for normal service excluding any surcharge or higher rate for emergency deliveries or otherwise failing to comply with CBMWD rates and regulations relating to earlier deliveries. The "incremental cost of pumping water in Central Basin" as of the beginning of the Administrative year shall be deemed to be the Southern California Edison Company Schedule No. PA-1 rate per kilowatt-hour, including all adjustments and all uniform authorized additions to the basic rate, multiplied by 560 kilowatt-hours per acre-foot, rounded to the nearest dollar (which number of kilowatt-hours has been determined to represent the average energy consumption to pump an acre-foot of water in Central Basin). In applying said PA-1 rate the charge per kilowatt-hour under the schedule shall be employed and if there are any rate blocks then the last rate block shall be employed. Should a change occur in Edison schedule designations, the Watermaster shall employ that applicable to motors used for pumping water by municipal utilities.

11. Carry-over of Exchange Pool Purchases by Exchangees. An Exchangee who does not extract from Central Basin in a particular Administrative year a quantity of water equal to the total of (a) its Allowed Pumping Allocation for that particular Administrative year, reduced by any authorized amount of carry-over into the next succeeding Administrative year pursuant to the provisions of Subpart A of Part III of this judgment, and (b) the quantity that it purchased from the Exchange Pool for that particular Administrative year, may carry over into the next succeeding Administrative year the right to

extract from Central Basin a quantity equal to the difference between said total and the quantity actually extracted in that Administrative year, but not exceeding the quantity purchased from the Exchange Pool for that Administrative year. Any such carry-over shall be in addition to that provided in said Subpart A of Part III.

If the 'Basinwide Average Exchange Pool Price' in the next succeeding Administrative year exceeds the 'Exchange Pool Price' in the previous Administrative year any such Exchangee exercising such carry-over rights hereinabove provided shall pay to the Watermaster, forthwith upon the determination of the 'Exchange Pool Price' in said succeeding Administrative year, and as a condition to such carry-over rights, an additional amount determined by multiplying the number of acre feet of carry-over by the difference in 'Exchange Pool Price' as between the two Administrative years. Such additional payment shall be miscellaneous income to the Watermaster which shall be applied by him against that share of the Watermaster's budget to be paid by the parties to this Agreement for the second Administrative year succeeding that in which the Exchange Pool water was so purchased.

12. Notification by Watermaster to Exchangors and Exchangees of Exchange Pool Requests and Allocations Thereof and Price of Exchange Pool Water. Not later than the 65th day after the commencement of each Administrative year, the Watermaster shall determine and notify all Exchangors and Exchangees of the total of the allocated requests for Exchange Pool water and shall provide a schedule divided into categories of requests showing

the quantity allocated to each Exchangee and a schedule of the allocation of the total Exchange Pool requirements among the Exchangors. Such notification shall also advise Exchangors and Exchangees of the prices to be paid to Exchangors for subscriptions utilized and the Exchange Pool Price for that Administrative year as determined by the Watermaster. The determinations of the Watermaster in this regard shall be subject to review by the Court in accordance with the procedure set forth in Part II of this judgment.

13. Payment by Exchangees. Each Exchangee shall, on or prior to last day of the third month of each Administrative year, pay to the Watermaster one-quarter of said price per acre-foot multiplied by the number of acre feet of such party's approved request and shall, on or before the last day of each of the next succeeding three months, pay a like sum to the Watermaster. Such amounts must be paid by each Exchangee regardless of whether or not it in fact extracts or uses any of the water it has requested to purchase from the Exchange Pool.

14. Payments to Exchangors. As soon as possible after receipt of moneys from Exchangees, the Watermaster shall remit to the Exchangors their prorata portions of the amount so received in accordance with the provisions of paragraph 10 above.

15. Delinquent Payments. Any amounts not paid on or prior to any due date above shall carry interest at the rate of 1% per month or any part of a month. Any amounts required to be so paid may be enforced by the equitable powers of the Court, including, but not limited to, the injunctive process of the Court. In addition thereto, the Watermaster, as Trustee for the

Exchangors, may enforce such payment by any appropriate legal action, and shall be entitled to recover as additional damages reasonable attorneys' fees incurred in connection therewith. If any Exchangee shall fail to make any payments required of it on or before 30 days after the last payment is due, including any accrued interest, said party shall thenceforward not be entitled to purchase water from the Exchange Pool in any succeeding Administrative year except upon order of the Court, upon such conditions as the Court may impose.

IV. CONTINUING JURISDICTION OF THE COURT.

The Court hereby reserves continuing jurisdiction and upon application of any interested party, or upon its own motion, may review and redetermine the following matters and any matters incident thereto:

(a) Its determination of the permissible level of extractions from Central Basin in relation to achieving a balanced basin and an economic utilization of Central Basin for ground water storage, taking into account any then anticipated artificial replenishment of Central Basin by governmental agencies for the purpose of alleviating what would otherwise be annual overdrafts upon Central Basin and all other relevant factors.

(b) Whether in accordance with applicable law any party has lost all or any portion of his rights to extract ground water from Central Basin and, if so, to ratably adjust the Allowed Pumping Allocations of the other parties and ratably thereto any remaining Allowed Pumping Allocation of such party.

(c) To remove any Watermaster appointed from time to time and appoint a new Watermaster; and to review and revise the duties, powers and responsibilities of the Watermaster and to make such other and further provisions and orders of the Court that may be necessary or desirable for the adequate administration and enforcement of the judgment.

(d) To revise the price to be paid by Exchangees and to Exchangors for Exchange Pool purchases and subscriptions.

(e) In case of emergency or necessity, to permit extractions from Central Basin for such periods as the Court may determine: (i) ratably in excess of the Allowed Pumping Allocations of the parties; or (ii) on a non-ratable basis by certain parties if either compensation or other equitable adjustment for the benefit of the other parties is provided. Such overextractions may be permitted not only for emergency and necessity arising within Central Basin area, but to assist the remainder of the areas within The Metropolitan Water District of Southern California in the event of temporary shortage or threatened temporary shortage of its imported water supply, or temporary inability to deliver the same throughout its area, but only if the court is reasonably satisfied that no party will be irreparably damaged thereby. Increased energy cost for pumping shall not be deemed irreparable damage. Provided, however, that the provisions of this subparagraph will apply only if the temporary shortage, threatened temporary shortage, or temporary inability to deliver was either not reasonably avoidable by the Metropolitan Water District, or if reasonably avoidable, good reason existed for not taking the steps necessary to avoid it.

(f) To review actions of the Watermaster.

(g) To assist the remainder of the areas within The Metropolitan Water District of Southern California within the parameter set forth in subparagraph (e) above.

(h) To provide for such other matters as are not contemplated by the judgment and which might occur in the future, and which if not provided for would defeat any or all of the purposes of this judgment to assure a balanced Central Basin subject to the requirements of Central Basin Area for water required for its needs, growth and development.

The exercise of such continuing jurisdiction shall be after 30 days notice to the parties, with the exception of the exercise of such continuing jurisdiction in relation to subparagraphs (e) and (g) above, which may be ex parte, in which event the matter shall be forthwith reviewed either upon the Court's own motion or the motion of any party upon which 30 days notice shall be so given. Within ten (10) days of obtaining any ex parte order, the party so obtaining the same shall mail notice thereof to the other parties. If any other party desires Court review thereof, the party obtaining the ex parte order shall bear the reasonable expenses of mailing notice of the proceedings, or may in lieu thereof undertake the mailing. Any contrary or modified decision upon such review shall not prejudice any party who relied on said ex parte order.

V. GENERAL PROVISIONS.

1. Judgment Constitutes Inter Se Adjudication. This judgment constitutes an inter se adjudication of the respective rights of all parties, except as may be otherwise specifically

indicated in the listing of the rights of the parties at pages 12 through 52 of this judgment, or in Appendix "2" hereof.

2. Assignment, Transfer, Etc., of Rights. Subject to the other provision of this judgment, and any rules and regulations of the Watermaster requiring reports relative thereto, nothing herein contained shall be deemed to prevent any party hereto from assigning, transferring, licensing or leasing all or any portion of such water rights as it may have with the same force and effect as would otherwise be permissible under applicable rules of law as exist from time to time.

3. Service Upon and Delivery to Parties of Various Papers. Service of the judgment on those parties who have executed that certain Stipulation and Agreement for Judgment or who have filed a notice of election to be bound by the Exchange Pool provisions shall be made by first class mail, postage prepaid, addressed to the designee and at the address designated for that purpose in the executed and filed Counterpart of the Stipulation and Agreement for Judgment or in the executed and filed "Notice of Election to be Bound by Exchange Pool Provisions", as the case may be, or in any substitute designation filed with the Court.

Each party who has not heretofore made such a designation shall, within 30 days after the judgment shall have been served upon that party, file with the Court, with proof of service of a copy upon the Watermaster, a written designation of the person to whom and the address at which all future notices, determinations, requests, demands, objections, reports and other

papers and processes to be served upon that party or delivered to that party are to be so served or delivered.

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

Delivery to or service upon any party by the Watermaster, by any other party, or by the Court, or any item required to be served upon or delivered to a party under or pursuant to the judgment may be by deposit in the mail, first class, postage prepaid, addressed to the designee and at the address in the latest designation filed by that party.

4. Judgment Does Not Affect Rights, Powers, Etc., of Plaintiff District. Nothing herein constitutes a determination or adjudication which shall foreclose Plaintiff District from exercising such rights, powers, privileges and prerogatives as it may now have or may hereafter have by reason of provisions of law.

5. Continuation of Order Under Interim Agreement. The order of Court made pursuant to the "Stipulation and Interim Agreement and Petition for Order" shall remain in effect through the water year in which this judgment shall become final (subject to the reserved jurisdiction of the Court).

6. Effect of: Extractions by Exchangees; Reductions in Extractions. With regard to Exchange Pool purchases, the first extractions by each Exchangee shall be deemed the extractions of the quantities of water which that party is

entitled to extract pursuant to his allocation from the Exchange Pool for that Administrative year. Each Exchangee shall be deemed to have pumped his Exchange Pool request so allocated for and on behalf of each Exchangor in proportion to each Exchangor's subscription to the Exchange Pool which is utilized to meet Exchange Pool requests. No Exchangor shall ever be deemed to have relinquished or lost any of its rights determined in this judgment by reason of allocated subscriptions to the Exchange Pool. Each Exchangee shall be responsible as between Exchangors and that Exchangee, for any tax or assessment upon the production of ground water levied for replenishment purposes by the Central and West Basin Water Replenishment District or by any other governmental agency with respect to water extracted by such Exchangee by reason of Exchange Pool allocations and purchases. No Exchangor or Exchangee shall acquire any additional rights, with respect to any party to this action, to extract waters from Central Basin pursuant to Water Code Section 1005.1 by reason of the obligations pursuant to and the operation of the Exchange Pool.

7. Judgment Binding on Successors, Etc. This judgment and all provisions thereof are applicable to and binding upon not only the parties to this action, but as well to their respective heirs, executors, administrators, successors, assigns, lessees, licensees and to the agents, employees and attorneys in fact of any such persons.

8. Costs. No party shall recover its costs herein as against any other party.

9. Intervention of Successors in Interest and New Parties. Any person who is not a party (including but not limited to successors or parties who are bound by this judgment) and who proposes to produce water from the basin or exercise water rights of a predecessor may seek to become a party to this Judgment through a Stipulation in Intervention entered into with the Plaintiff. Plaintiff may execute said Stipulation on behalf of the other parties herein, but such Stipulation shall not preclude a party from opposing such intervention at the time of the court hearing thereon. Said Stipulation for Intervention must thereupon be filed with the Court, which will consider an order confirming said intervention following thirty (30) days notice to the parties. Thereafter, if approved by the Court, such intervenor shall be a party bound by this Judgment and entitled to the rights and privileges accorded under the physical solution herein.

10. Effect of this Amended Judgment on Orders Filed Herein. This Second Amended Judgment shall not abrogate such rights of additional carry-over of unused water rights as may otherwise exist pursuant to orders herein filed June 2, 1977 and September 29, 1977.

THE CLERK WILL ENTER THIS SECOND AMENDED JUDGMENT FORTHWITH.

DATED: May 6, 1991

/s/ Florence T. Pickard
Judge of the Superior Court

Appendix F
State Water Project Reliability Report

California Department of Water Resources
Bay-Delta Office
September 27, 2010

Summary:

Final State Water Project Delivery Reliability Report, 2009

The *State Water Project Delivery Reliability Report 2009* updates DWR's estimate of the current (2009) and future (2029) water delivery reliability of the SWP. The report is produced every two years as part of a settlement agreement signed in 2003.

The report shows that future SWP deliveries will be impacted by two significant factors. The first is significant restrictions on SWP and Central Valley Project (CVP) Delta pumping required by the biological opinions issued by the U.S. Fish and Wildlife Service (December 2008) and National Marine Fisheries Service (June 2009). The second is climate change, which is altering the hydrologic conditions in the State.

This report represents the state of water affairs if no actions for improvement are taken. It shows continued erosion of SWP water delivery reliability under the current method of moving water through the Delta. The updated analysis shows that the primary component of the annual SWP deliveries (referred to as Table A deliveries) will be less under current and future conditions, when compared to the preceding report (*State Water Project Delivery Reliability Report 2007)*.

The report discusses areas of significant uncertainty to SWP delivery reliability:

- restrictions on SWP and CVP operations due to State and federal biological opinions to protect endangered fish such as delta smelt and spring-run salmon;
- climate change and sea level rise; and
- the vulnerability of Delta levees to failure due to floods and earthquakes.

As in previous reports, estimates of SWP deliveries are based upon operation simulations with DWR's CalSim II model using an extended record of runoff patterns. These patterns have been adjusted to reflect the levels of development in the source areas and, for future conditions, possible impact due to climate change and accompanying sea level rise. Potential deliveries under current conditions are estimated at the 2009 level and assume current methods of conveying water across the Delta and the current operational rules contained in the federal biological opinions. Potential deliveries under future conditions are estimated at the 2029 level and are also based on the assumptions that no changes will be made in either the way water is conveyed across the Delta or in the operational rules. The analysis of future conditions incorporates a climate change scenario from DWR's 2009 report, *Using Future Climate Projections to Support Water Resources Decision Making in California,* which represents the median effects of the 12 scenarios contained in the report.

The 2009 report shows greater reductions in water deliveries on average when compared to the 2007 report. The 2007 report incorporates the interim operation rules established by Judge Wanger in the federal court in 2007. It shows very significant reductions in SWP deliveries when compared to the 2005 report, which assumes operation rules that were less restrictive. The 2007 report shows current SWP annual Table A deliveries averaging 63% (2595 taf) of the maximum contract amount of 4,133 thousand acre-feet (taf) per year. The 2009 report shows a corresponding value of 60% (2485 taf). The 2007 report projects an annual average of 66% to 69% (2725-2850 taf) for the future condition, whereas the updated report has 60%.

Although the averages of the updated estimates are less than were estimated in the 2007 report, the annual deliveries during drier conditions are projected to be somewhat higher than estimated in the 2007 report. This is due to the updated analysis incorporating the ability of SWP contractors to save water allocated in one year for delivery in the subsequent year and because water stored upstream cannot be delivered in some years due to export restrictions and is, therefore, available in drier times. This phenomenon is illustrated in the tables and curves below.

Under current conditions, annual SWP Table A deliveries from the Delta average 60% of the maximum annual amount of 4,133 taf per year. Over the 82-year simulation period, annual SWP Table A deliveries range from 7% to 81% of the maximum amount. Over multiple-year dry periods, average annual Table A deliveries vary from 34% to 36% of the maximum Table A amount, while average annual deliveries over multiple-year wet periods range from 67 to 71% of the maximum Table A amount. Under current conditions, annual SWP Article 21 deliveries, a secondary component of annual deliveries, average 85 taf and range from 2 taf to 850 taf over the 82-year simulation period.

Under future conditions, annual SWP Table A deliveries from the Delta also average 60% of the maximum Table A amount. Over the 82-year simulation period, annual SWP Table A deliveries range from 11% to 97% of the maximum amount. Over multiple-year dry periods, average annual Table A deliveries vary from 32% to 38% of the maximum Table A amount, while average annual deliveries over multiple-year wet periods range from 72 to 93% of the maximum Table A amount. Under future conditions, annual SWP Article 21 deliveries average 60 taf, ranging from 1 taf to 540 taf over the 82-year simulation period.

The *State Water Project Delivery Reliability Report, 2009* is available for public review at, http://baydeltaoffice.water.ca.gov. The report is an update to the *State Water Project Delivery Reliability Report, 2007* issued as final in 2008.

Table 1. Highlighted SWP Table A delivery percent exceedence values under Current Conditions

Exceedence	Annual SWP Table A Delivery (taf)		Change in delivery compared to 2007 report (taf)
	2007 SWP Delivery Reliability Report, Study 2007	Updated Studies (2009)	
25%	3218	2920	-298
50%	2976	2675	-301
75%	2168	2397	+229

Table 1 compares the probability estimates for current conditions from the 2007 report and the 2009 report. The comparison is also shown in Figure 1. The 2009 report estimates that for any given year in the future,

- There is a 25% chance that SWP deliveries will be at or above 2,920 taf.
- There is an equal chance (50%) that SWP deliveries will be above or below 2,675 taf. (Illustrated by the dotted lines.)
- There is 75% chance that SWP deliveries will be above 2,397 taf. Another way to state this is that there is a 25% chance that deliveries will be below this value.

Figure 1 SWP Table A delivery probability under Current Conditions

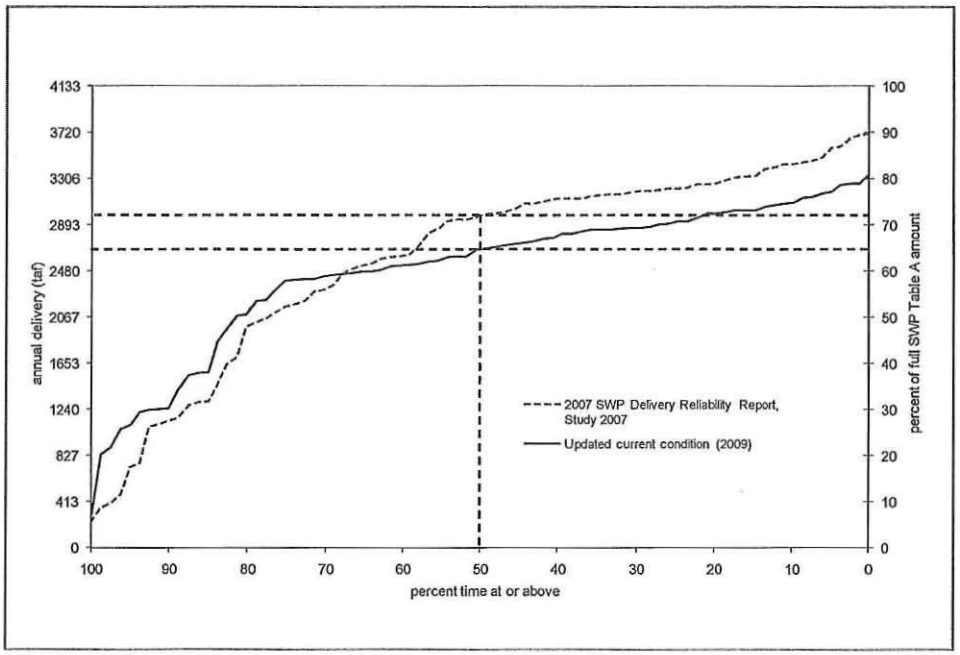


Figure 1 is a plot of all the annual estimates of SWP deliveries in ascending order, with the smallest value on the left and largest on the right.

Table 2 Highlighted SWP Table A delivery percent exceedence values under Future Conditions

Exceedence	Annual SWP Table A Delivery (taf)		Change in delivery in updated studies compared to 2007 report (taf)
	2007 SWP Delivery Reliability Report, Study 2027[1]	Updated Studies (2029)	
25%	3687 – 3815	2915	-772 to -900
50%	2967 – 3205	2596	-371 to -609
75%	1860 – 2077	2137	+60 to +277

1/ Range in value reflects four modified scenarios of climate change.

Table 2 compares the probability estimates for future conditions from the 2007 report and the 2009 report. The 2009 report estimates that for any given year in the future,

- There is 1 chance in 4 (25% chance) that SWP deliveries will be at or above 2,915 taf.
- There is an equal chance (50% chance) that SWP deliveries will be above or below 2,596 taf. (Illustrated by the dotted lines in Figure 2.)
- There is 75% chance that SWP deliveries will be above 2,137 taf. Another way to state this is that there is a 25% chance that deliveries will be below this range.

Figure 2 SWP Delta Table A delivery probability under Future Conditions

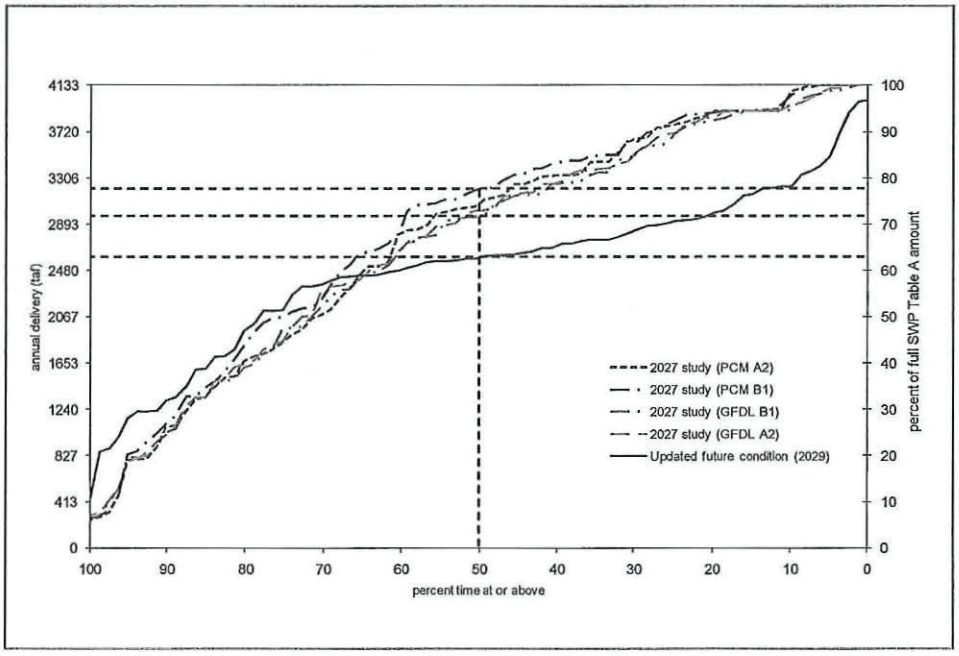


Figure 2 is the corresponding plot of all the annual delivery estimates for the future condition.

Appendix G
Imported Water Supply Allocation Policy

Central Basin Municipal Water District
Imported Water Supply Allocation Policy

Introduction

In April 2008, the Metropolitan Water District (MWD) Board of Directors approved a region-wide Water Supply Allocation Plan (WASP) that could be imposed on all member agencies and the retail cities and agencies they serve due to serious statewide and/or regional water shortages.

Background

Central Basin Municipal Water District (Central Basin) has established this policy for its customer cities and agencies to pass through any additional fees, charges, or penalties resulting from MWD enforcing the WASP on Central Basin. This policy will ensure that cities and agencies that exceed their allocation are individually responsible and charged should Central Basin go beyond its baseline allocation as imposed by MWD. The following describes the policies that Central Basin will implement regarding the allocation plan:

Allocation Plan Aspects

- In 2009, Central Basin implemented am imported water supply allocation plan (attached to this policy statement) consistent with MWD's WASP at the stage level imposed on Central Basin by the MWD Board of Directors. Changes by MWD to Central Basin's allocation will be communicated by Central Basin to its cities and agencies through written notice.

- This allocation plan will continue to be imposed upon all 27 cities and agencies with access to imported water deliveries in the Central Basin service area each fiscal year (FY) starting July 1, unless the MWD Board of Directors lifts or revises these allocation restrictions.

- The Central Basin service area will be limited to the amount of imported water listed in the allocation stage as imposed by the MWD Board of Directors.

- Cities and agencies with standing Imported Water Purchase Agreements with Central Basin will have access to imported water deliveries. Cities and agencies without standing Imported Water Purchase Agreements will be limited to zero imported water deliveries except for the County of Los Angeles – Los Amigos Golf Course and the Water Replenishment District of Southern California (WRD). The County of Los Angeles will continue to pay the higher Tier II rate for all imported water deliveries while WRD will be able to receive Tier I deliveries for replenishment purposes. (This is needed due to MWD curtailing all replenishment deliveries since May 2007).

- The provisions in this Imported Water Supply Allocation Policy are not intended to supersede the provisions contained in the FY 2008-2012 Imported Water Purchase Agreements executed with cities and agencies in late 2007 and implemented on January 1, 2008.

- If the Cities of Lakewood, Downey, South Gate, or the San Gabriel Valley Water Company take imported water deliveries for any reason other than an emergency situation (e.g., loss of a production well due to mechanical or contamination issues), they will be billed at the prevailing Tier I rate plus the Tier II rate.

Cities and agencies will be required to individually meet the supply reductions listed in the attachment. Central Basin staff will provide monthly reports (via email) to all cities and agencies using the attached proposed reductions. These monthly reports are being offered as a tool in order to help cities and agencies in tracking their water usage.

Water Rate & Billing Aspects

- All cities and agencies with standing purchase agreements and supply allocations (as presented in the attachment) will be billed at the appropriate prevailing Tier I and Tier 2 rates for all imported water deliveries.

- If the Central Basin service area exceeds the allocation restrictions imposed by MWD Board of Directors at the end of the allocation year, Central Basin will invoice those cities and agencies that exceeded their individual restricted supply allocation. Each city and agency that participates will be encouraged to meet their individual supply allocation listed in the attachment. The monthly report provided by Central Basin staff will provide current year-to-date usage, historical year-to-date usage and projected end-of-year usage for each of the cities and agencies.

- Should Central Basin exceed their MWD allocation restriction, each city or agency that exceeded their restricted supply allocation will be required to pay prevailing penalty rates for the portion of water that exceeded their individual restricted supply allocation as listed in the attachment. The penalty will be assessed according to the prorated share of Central Basin's penalty amount from MWD. The MWD penalty fee schedule associated with exceeding the allocation amounts will be used to determine the penalty rates.

- Should Central Basin as a whole not exceed the allocation restriction imposed by MWD, cities and agencies will not be assessed penalty charges should they exceed their individual restricted supply allocation as presented in the attachment.

Attachment

Appendix H
CUWCC Bi-Annual Report

The fields in red are required.

Agency name: Central Basin MWD

Reporting unit name (District name): Central Basin MWD

Reporting unit number: 39

Primary contact:

First name: Art

Last name: Aguilar

Email: arta@centralbasin.org

You must enter the reporting unit number that we have on record for your agency. Click here to open a table to obtain this number.

Base Year Data

Link to FAQs

Reporting Unit Base Year

What is your reporting period? Fiscal

Base Year 2008

BMP 1.3 Metering

Number of unmetered accounts in Base Year

BMP 3.1 & BMP 3.2 & BMP 3.3 Residential Programs

Number of Single Family Customers in Base Year

Number of Multi Family Units in Base Year

BMP 3.4 WaterSense Specification (WSS) Toilets

Number of Single Family Housing Units constructed prior to 1992

Number of Multi Family Units prior to 1992

Average number of toilets per single family household

Average number of toilets per multi family household

Five year average resale rate of single family households

Five-year average resale rate of multi family households

Average number of persons per single family household

Average number of persons per multi family household

BMP 4.0 & BMP 5.0 CII & Landscape

Total water use (in Acre Feet) by CII accounts

Number of accounts with dedicated irrigation meters

Number of CII accounts without meters or with Mixed Use Meters

Number of CII accounts

Comments:

Central Basin MWD is a wholesaler and has no residential or CII accounts.

The fields in red are required.

Agency name: Central Basin MWD

Division name (Reporting unit): Central Basin MWD

Reporting unit number: 39

Primary contact:

First name: Art

Last name: Aguilar

Email: arta@centralbasin.org

CUWCC

WATER SOURCES

2010

Service Area Population: 1,655,200

Potable Water

Own Supply Source Name	AF/YEAR	Water Supply Type	Water Supply Description
		Other	
		Other	
		Other	
		Other	
		Other	
		Other	
		Other	
		Other	
		Other	
		Other	
		Other	

Imported Supply Source Name	AF/YEAR	Water Supply Type	Water Supply Description
Metropolitan Water District	43,147.00	Surface	Treated Tier I
Metropolitan Water District	20,295.00	Surface	Untreated Tier I
		Other	
		Other	
		Other	
		Other	
		Other	
		Other	
		Other	
		Other	
		Other	

Exported Water Name	AF/YEAR	Where Exported?

The fields in red are required.

Agency name: Central Basin MWD

Division name (Reporting unit): Central Basin MWD

Reporting unit number: 39

Primary contact:

First name: Art

Last name: Aguilar

Email: arta@centralbasin.org

CUWCC

WATER SOURCES

2009

Service Area Population: 1,647,040

Potable Water

Own Supply Source Name	AF/YEAR	Water Supply Type	Water Supply Description
		Other	
		Other	
		Other	
		Other	
		Other	
		Other	
		Other	
		Other	
		Other	
		Other	
		Other	

Imported Supply Source Name	AF/YEAR	Water Supply Type	Water Supply Description
Metropolitan Water District	52,751.24	Surface	Tier I
		Other	
		Other	
		Other	
		Other	
		Other	
		Other	
		Other	
		Other	
		Other	
		Other	

Exported Water Name	AF/YEAR	Where Exported?

The fields in red are required.

Agency name: Central Basin MWD

Division name (Reporting unit): Central Basin MWD

Reporting unit number: 39

Primary contact:

First name: Art

Last name: Aguilar

Email: arta@centralbasin.org

CUWCC

WATER SOURCES

2010

Service Area Population: 1,655,200

Non- Potable Water

Own Supply Source Name	AF/YEAR	Water Supply Type	Water Supply Description
		Select a water type.	
		Select a water type.	
		Select a water type.	
		Select a water type.	
		Select a water type.	
		Select a water type.	
		Select a water type.	
		Select a water type.	
		Select a water type.	
		Select a water type.	
		Select a water type.	

Imported Supply Source Name	AF/YEAR	Water Supply Type	Water Supply Description
Los Angeles County Sanitation Distri	4,317.00	Surface	Treated Recycled - Title 22
		Select a water type.	
		Select a water type.	
		Select a water type.	
		Select a water type.	
		Select a water type.	
		Select a water type.	
		Select a water type.	
		Select a water type.	
		Select a water type.	
		Select a water type.	

Exported Water Name	AF/YEAR	Where Exported?

The fields in red are required.

Agency name: Central Basin MWD

Division name (Reporting unit): Central Basin MWD

Reporting unit number: 39

Primary contact:

First name: Art

Last name: Aguilar

Email: arta@centralbasin.org

CUWCC

2009

Service Area Population: 1,647,040

Non- Potable Water

If you select Other for type, enter

Own Supply Source Name	AF/YEAR	Water Supply Type	Water Supply Description
		Select a water type.	
		Select a water type.	
		Select a water type.	
		Select a water type.	
		Select a water type.	
		Select a water type.	
		Select a water type.	
		Select a water type.	
		Select a water type.	
		Select a water type.	
		Select a water type.	

Imported Supply Source Name	AF/YEAR	Water Supply Type	Water Supply Description
Los Angeles County Sanitation Distri	4,716.00	Recycled Non Potable	Title 22 Treated Recycled
		Select a water type.	
		Select a water type.	
		Select a water type.	
		Select a water type.	
		Select a water type.	
		Select a water type.	
		Select a water type.	
		Select a water type.	
		Select a water type.	
		Select a water type.	

Exported Water Name	AF/YEAR	Where Exported? such as groundwater recharge, retail,

The fields in red are required.

Agency name: Central Basin MWD

Reporting unit name (District name): Central Basin MWD

Reporting unit number: 39

Primary contact:

First name: Art

Last name: Aguilar

Email: arta@centralbasin.org

You must enter the reporting unit number that we have on record for your agency. Click here to open a table to obtain this number.

CUWCC

Link to FAQs

2010

BMP 1.1 Operations Practices

See the complete MOU: View MOU

See the coverage requirements for this BMP:

Comments:

Conservation Coordinator

Conservation Coordinator (•) Yes ( ) No

Contact Information

First Name	Sally
Last Name	Flowers
Title	Conservation Coordinator
Phone	323-201-5514
Email	sallyf@centralbasin.org

Note that the contact information may be the same as the primary contact information at the top of the page. If this is your case, excuse the inconvenience but please enter the information again.

Water Waste Prevention

Water Agency shall do one or more of the following:

a. Enact and enforce an ordinance or establish terms of service that prohibit water waste
b. Enact and enforce an ordinance or establish terms of service for water efficient design in new development
c. Support legislation or regulations that prohibit water waste
d. Enact an ordinance or establish terms of service to facilitate implementation of water shortage response measures
e. Support local ordinances that prohibit water waste
f. Support local ordinances that establish permits requirements for water efficient design in new

To document this BMP, provide the following:

a. A description of, or electronic link to, any ordinances or terms of service
b. A description of, or electronic link to, any ordinances or requirements adopted by local jurisdictions or regulatory agencies with the water agency's service area.
c. A description of any water agency efforts to cooperate with other entities in the adoption or enforcement of local requirement
d. description of agency support positions with respect to adoption of legislation or regulations

You can show your documentation by providing files, links (web addresses), and/or entering a description.

File name(s): Email files to natalie@cuwcc.org

Web address(s) URL: comma-separated list

http://www.centralbasin.org/shutYourTapCongratulations.html, http://www.centralbasin.org/ccSampleOrdi

Enter a description:

In 2010, the Central Basin MWD Water Ordinance Task Force assisted ten cities in successfully adopting water prevention ordinances.

Central Basin MWD Task Force:

The fields in red are required.

Agency name: Central Basin MWD

Reporting unit name (District name): Central Basin MWD

Reporting unit number: 39

Primary contact:

First name: Art

Last name: Aguilar

Email: arta@centralbasin.org

You must enter the reporting unit number that we have on record for your agency. Click here to open a table to obtain this number.

CUWCC

Link to FAQs

2009

BMP 1.1 Operations Practices

Comments:

See the complete MOU: View MOU

See the coverage requirements for this BMP:

Conservation Coordinator

Conservation Coordinator (•) Yes ( ) No

Contact Information

First Name	Sally
Last Name	Flowers
Title	Conservation Coordinator
Phone	323-201-5514
Email	sallyf@centralbasin.org

Note that the contact information may be the same as the primary contact information at the top of the page. If this is your case, excuse the inconvenience but please enter the information again.

Water Waste Prevention

Water Agency shall do one or more of the following:

a. Enact and enforce an ordinance or establish terms of service that prohibit water waste
b. Enact and enforce an ordinance or establish terms of service for water efficient design in new development
c. Support legislation or regulations that prohibit water waste
d. Enact an ordinance or establish terms of service to facilitate implementation of water shortage response measures
e. Support local ordinances that prohibit water waste
f. Support local ordinances that establish permits requirements for water efficient design in new

To document this BMP, provide the following:

a. A description of, or electronic link to, any ordinances or terms of service
b. A description of, or electronic link to, any ordinances or requirements adopted by local jurisdictions or regulatory agencies with the water agency's service area.
c. A description of any water agency efforts to cooperate with other entities in the adoption or enforcement of local requirement
d. description of agency support positions with respect to adoption of legislation or regulations

You can show your documentation by providing files, links (web addresses), and/or entering a description.

File name(s): Email files to natalie@cuwcc.org

Web address(s) URL: comma-separated list

http://www.centralbasin.org/shutYourTapCongratulations.html, http://www.centralbasin.org/ccSampleOrdi

Enter a description:

In 2009, Central Basin formed a Water Ordinance Task Force to provide assistance to municipalities in adopting and implementing water conservation ordinances in their communities. In addition to District staff, the committee is comprised of 11 members from cities and water agencies in the District's service area. Social media is used to congratulate each city as they adopt their ordinance, which in turn, works

The fields in red are required.

Agency name: Central Basin MWD

Reporting unit name (District name): Central Basin MWD

Reporting unit number: 39

Primary contact:

First name: Art

Last name: Aguilar

Email: arta@centralbasin.org

You must enter the reporting unit number that we have on record for your agency. Click here to open a table to obtain this number.

CUWCC

Link to FAQs

View MOU

2010 BMP 1.2 Water Loss Control

AWWA Water Audit

Agency to complete a Water Audit & Balance Using The AWWA Software ○ Yes ⊙ No

Email to natalie@cuwcc.org - Worksheets (AWWA Water Audit). Enter the name of the file below:

Water Audit Validity Score from AWWA spreadsheet

Agency Completed Training In The AWWA Water Audit Method ○ Yes ○ No

Agency Completed Training In The Component Analysis Process ○ Yes ○ No

Completed/Updated the Component Analysis (at least every 4 years)? ○ Yes ○ No

Component Analysis Completed/Updated Date

Water Loss Performance

Agency Repaired All Reported Leaks & Breaks To The Extent Cost Effective ○ Yes ○ No

Recording Keeping Requirements:

Date/Time Leak Reported	Leak Location
Type of Leaking Pipe Segment or Fitting	Leak Running Time From Report to Repair
Leak Volume Estimate	Cost of Repair

Agency Located and Repaired Unreported Leaks to the Extent Cost Effective ○ Yes ○ No

Type of Program Activities Used to Detect Unreported Leaks

Annual Summary Information

Complete the following table with annual summary information (required for reporting years 2-5 only)

Total Leaks Repaired	Economic Value Of Real Loss	Economic Value Of Apparent Loss	Miles Of System Surveyed For Leaks	Pressure Reduction Undertaken for loss reduction	Cost Of Interventions	Water Saved (AF/Year)

Comments:

Central Basin is a water wholesaler and has no potable water infrastructure system to check for water-loss.

The fields in red are required.

Agency name: Central Basin MWD

Reporting unit name (District name): Central Basin MWD

Reporting unit number: 39

Primary contact:

First name: Art

Last name: Aguilar

Email: arta@centralbasin.org

You must enter the reporting unit number that we have on record for your agency. Click here to open a table to obtain this number.

Link to FAQs

View MOU

2009 BMP 1.2 Water Loss Control

Did your agency complete a pre-screening system audit in 2009? Yes ○ No ●

If yes, answer the following:

Determine metered sales in AF:

Definition: other accountable uses not included in metered sales, such as unbilled water use, fire suppression, etc. → Determine system verifiable uses AF:

Determine total supply into the system in AF:

Does your agency keep necessary data on file to verify the answers above? Yes ○ No ○

Did your agency complete a full-scale system water audit during 2009? Yes ○ No ○

Does your agency maintain in-house records of audit results or the completed AWWA worksheet for the completed audit which could be forwarded to CUWCC? Yes ○ No ○

Did your agency operate a system leak detection program? Yes ○ No ○

Comments:

Central Basin is a water wholesaler and has no potable water infrastructure system to check for water-loss.

The fields in red are required.

Agency name: Central Basin MWD

Reporting unit name (District name): Central Basin MWD

Reporting unit number: 39

Primary contact:

First name: Art

Last name: Aguilar

Email: arta@centralbasin.org

You must enter the reporting unit number that we have on record for your agency. Click here to open a table to obtain this number.

BMP 1.3 Metering with Commodity 2010

Link to FAQs

See the complete MOU: View MOU

See the coverage requirements for this BMP:

Implementation

Does your agency have any unmetered service connections? ○ Yes ◉ No

If YES, has your agency completed a meter retrofit plan? ○ Yes ○ No

Enter the number of previously unmetered accounts fitted with meters during reporting year:

Are all new service connections being metered? ○ Yes ○ No

Are all new service connections being billed volumetrically? ○ Yes ○ No

Has your agency completed and submitted electronically to the Council a written plan, policy or program to test, repair and replace meters? ○ Yes ○ No

Please Fill Out The Following Matrix

Account Type	# Metered Accounts	# Metered Accounts Read	# Metered Accounts Billed by Volume	Billing Frequency Per Year	# of estimated bills/yr
Other				Other	
Other				Other	
Other				Other	
Other				Other	
Other				Other	
Other				Other	
Other				Other	
Other				Other	
Other				Other	
Other				Other	

Number of CII Accounts with Mixed-use Meters

Number of CII Accounts with Mixed-use Meters Retrofitted with Dedicated Irrigation Meters during Reporting Period

Feasibility Study

Has your agency conducted a feasibility study to assess the merits of a program to provide incentives to switch mixed-use accounts to dedicated landscape meters? ○ Yes ○ No

If YES, please fill in the following information:

A. When was the Feasiblity Study conducted

B. Describe, upload or provide an electronic link to the Feasibility Study Upload File

File name(s): Email files to natalie@cuwcc.org

Web address(s) URL: comma-separated list

Comments:

Central Basin Municipal Water District is categorized as a wholesaler and does not o

The fields in red are required.

Agency name: Central Basin MWD

Reporting unit name (District name): Central Basin MWD

Reporting unit number: 39

Primary contact:

First name: Sally

Last name: Flowers

Email: arta@centralbasin.org

You must enter the reporting unit number that we have on record for your agency. Click here to open a table to obtain this number.

BMP 1.3 Metering with Commodity

Link to FAQs

See the complete MOU: View MOU

See the coverage requirements for this BMP:

Implementation

Does your agency have any unmetered service connections? ○ Yes ◉ No

If YES, has your agency completed a meter retrofit plan? ○ Yes ○ No

Enter the number of previously unmetered accounts fitted with meters during reporting year:

Are all new service connections being metered? ○ Yes ○ No

Are all new service connections being billed volumetrically? ○ Yes ○ No

Has your agency completed and submitted electronically to the Council a written plan, policy or program to test, repair and replace meters? ○ Yes ○ No

Please Fill Out The Following Matrix

Account Type	# Metered Accounts	# Metered Accounts Read	# Metered Accounts Billed by Volume	Billing Frequency Per Year	# of estimated bills/yr
Other				Other	
Other				Other	
Other				Other	
Other				Other	
Other				Other	
Other				Other	
Other				Other	
Other				Other	
Other				Other	
Other				Other	

Number of CII Accounts with Mixed-use Meters

Number of CII Accounts with Mixed-use Meters Retrofitted with Dedicated Irrigation Meters during Reporting Period

Feasibility Study

Has your agency conducted a feasibility study to assess the merits of a program to provide incentives to switch mixed-use accounts to dedicated landscape meters? ○ Yes ○ No

If YES, please fill in the following information:

A. When was the Feasiblity Study conducted

B. Email or provide a link to the feasibility study (or description of):

File name(s): Email files to natalie@cuwcc.org Enter the file name here e.g. WaterWastePreventionOrdinan

Web address(s) URL: comma-separated list Enter the URL to your documentation.

General Comments about BMP 1.3:

Central Basin Municipal Water District is categorized as a wholesaler and does not ov

The fields in red are required.

Agency name: Central Basin MWD

Reporting unit name (District name): Central Basin MWD

Reporting unit number: 39

Primary contact:

First name: Art

Last name: Aguilar

Email: arta@centralbasin.org

Click here to open a table that displays your agency name reporting unit name and reporting unit number. Please ensure that you enter the correct information.

CUWCC

Link to FAQs

2010

BMP 2.1 Public Outreach

View MOU

Is your agency performing Public Outreach for your Retailers?

Are there one or more retail agencies that count on your agency to help them comply with this BMP? (•) Yes ( ) No

Enter the name(s) of the retail agency (comma delimited)

Bellflower-Somerset Mutual Water Company
Downey, City of
Golden State Water Company
Huntington Park, City of

Is your agency performing public outreach?

Report a minimum of 4 water conservation related contacts your agency had with the public during the year.

Public Information Programs List

Did at least one contact take place during each quarter of the reporting year? ✓

Number of Public Contacts	Public Information Programs
100	General water conservation information
8,000	General water conservation information
4,000	General water conservation information
5,000	General water conservation information
	Select a public contact

Contact with the Media

Are there one or more retail agencies that count on your agency to help them comply with this BMP? (•) Yes ( ) No

Enter the name(s) of the retail agency (comma delimited)

Bellflower-Somerset Mutual Water Company
Downey, City of
Golden State Water Company
Huntington Park, City of

OR Wholesale Agency (Contacts with the Media)

Did at least one contact take place during each quarter of the reporting year? ✓

Media Contacts List

Number of Media Contacts	Did at least one contact take place during each quarter of the reporting year?	Media Contact Types
17		Articles or stories resulting from outreach
17		News releases
17		Newspaper contacts
1		Radio contacts
1		Editorial board visits
24		Television contacts

Is a Wholesale Agency Performing Website Updates?

Did one or more retail agencies rely on your agency's responsibility for meeting the requirements of and for CUWCC reporting of this BMP? ⊙Yes ○No

Enter the name(s) of the retail agency (comma delimited)

Bellflower-Somerset Mutual Water Company
Downey, City of
Golden State Water Company
Huntington Park, City of
Park Water Company
Suburban Water Systems
Vernon, City of

Is Your Agency Performing Website Updates?

Enter your agency's URL (website address): www.centralbasin.org

Describe a minimum of four water conservation related updates to your agency's website that took place during the year:

Water Conservation Device - Rebate updates
Calif. Friendly Garden Workshop information
Water Conservation tips and resources
Updates on Water Conservation Ordinance Information
Social Media

Did at least one Website Update take place during each quarter of the reporting year? ⊙Yes ○No

Public Outreach Annual Budget

Enter budget for public outreach programs. You may enter total budget in a single line or brake the budget into discrete categories by entering many rows. Please indicate if personnel costs are included in the entry.

Category	Amount		Personnel Costs Included? If yes, check the box.	Comments	
Communications	$1,204,900		✓		
Public Education	$173,500				
Govt. Relations	$475,500				
Conservation	$197,720				
Media/Website	$105,450				
Project Events	$15,000				

Comments:

In June 2009, Central Basin launched a social media program to increase the number of contacts with agencies and constituents.

The fields in red are required.

Agency name: Central Basin MWD

Reporting unit name (District name): Central Basin MWD

Reporting unit number: 39

Primary contact:

First name: Art

Last name: Aguilar

Email: arta@centralbasin.org

Click here to open a table that displays your agency name reporting unit name and reporting unit number. Please ensure that you enter the correct information.

CUWCC

Link to FAQs

2009

BMP 2.1 Public Outreach

View MOU

Is your agency performing Public Outreach for your Retailers?

Are there one or more retail agencies that count on your agency to help them comply with this BMP? (•) Yes ( ) No

Enter the name(s) of the retail agency (comma delimited)

Bellflower-Somerset Mutual Water Company
Downey, City of
Golden State Water Company
Huntington Park, City of

Is your agency performing public outreach?

Report a minimum of 4 water conservation related contacts your agency had with the public during the year.

Public Information Programs List

Did at least one contact take place during each quarter of the reporting year? ✓

Number of Public Contacts	Public Information Programs
325	General water conservation information
8,000	General water conservation information
4,000	General water conservation information
5,000	General water conservation information
	Select a public contact

Contact with the Media

Are there one or more retail agencies that count on your agency to help them comply with this BMP? (•) Yes ( ) No

Enter the name(s) of the retail agency (comma delimited)

Bellflower-Somerset Mutual Water Company
Downey, City of
Golden State Water Company
Huntington Park, City of

OR Wholesale Agency (Contacts with the Media)

Did at least one contact take place during each quarter of the reporting year? ✓

Media Contacts List

Number of Media Contacts	Did at least one contact take place during each quarter of the reporting year?	Media Contact Types
17		News releases
17		Newspaper contacts
17		Articles or stories resulting from outreach
1		Radio contacts
1		Editorial board visits
24		Television contacts

Is a Wholesale Agency Performing Website Updates?

Did one or more retail agencies rely on your agency's responsibility for meeting the requirements of and for CUWCC reporting of this BMP? ⊙Yes ○No

Enter the name(s) of the retail agency (comma delimited)

Bellflower-Somerset Mutual Water Company
Downey, City of
Golden State Water Company
Huntington Park, City of
Park Water Company
Suburban Water Systems
Vernon, City of

Is Your Agency Performing Website Updates?

Enter your agency's URL (website address): www.centralbasin.org

Describe a minimum of four water conservation related updates to your agency's website that took place during the year:

Water Conservation Device - Rebate updates
Calif. Friendly Garden Workshop information
Water Conservation tips and resources
Updates on Water Conservation Ordinance Information

Did at least one Website Update take place during each quarter of the reporting year? ⊙Yes ○No

Public Outreach Annual Budget

Enter budget for public outreach programs. You may enter total budget in a single line or brake the budget into discrete categories by entering many rows. Please indicate if personnel costs are included in the entry.

Category	Amount		Personnel Costs Included? If yes, check the box.	Comments	
Communications	$1,527,104		✓		
Public Education	$228,000				
Govt. Relations	$469,949				
Conservation	$268,600				
Media/Website	$261,050				
Project Events	$66,500				

Comments:

The fields in red are required.

Agency name: Central Basin MWD

Reporting unit name (District name): Central Basin MWD

Reporting unit number: 39

Primary contact:

First name: Art

Last name: Aguilar

Email: arta@centralbasin.org

Click here to open a table that displays your agency name reporting unit name and reporting unit number. Please ensure that you enter the correct information.

CUWCC

Link to FAQs

2010

BMP 2.2 School Education Programs, Retail Agencies

View MOU

School Programs

Is a wholesale agency implementing school programs which can be counted to help your agency comply with this BMP? ⊙Yes ○No

Enter Wholesaler Names, separated by commas: Central Basin Municipal Water District

☑ Materials meet state education framework requirements?

Description of Materials: Yes, all materials are correlated and/or aligned to California Content Standards.

☑ Materials distributed to K-6 Students?

Description of materials distributed to K-6 Students: Activity Books, Teacher Guides with student pages

Number of students reached: 19,099

☑ Materials distributed to 7-12 Students?

Description of materials distributed to 7-12 Students: Student Workbooks and Teacher Guides

Number of Distribution: 3,920

Annual budget for school education program: $190,855.00

Description of all other water supplier education 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-filed day of water awareness.

On early Friday mornings 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 the District. At these sites, students are introduced to the concepts of water recycling and

School Program Activities

Classroom presentations:

Number of presentations: 981 Number of attendees: 36795

Large group assemblies:

Number of presentations: 96 Number of attendees: 11819

Children's water festivals or other events:

Number of presentations: 0 Number of attendees: 0

Cooperative efforts with existing science/water education programs (various workshops, science fair awards or judging) and follow-up:

Number of presentations: 0 Number of attendees: 0

Other methods of disseminating information (i.e. themed age-appropriate classroom loaner kits):

Description: N/A

Number distributed: 0

Staffing children's booths at events & festivals:

Number of booths: 0 | Number of attendees: 0

Water conservation contests such as poster and photo:

Description: Participated in MWD's Water Is Life Poster Contest

Number distributed: 5260

Offer monetary awards/funding or scholarships to students:

Number Offered: 0 | Total Funding: 0

Teacher training workshops:

Number of presentations: 0 | Number of attendees: 0

Fund and/or staff student field trips to treatment facilities, recycling facilities, water conservation gardens, etc.:

Number of tours or field trips: 79 | Number of participants: 4060

College internships in water conservation offered:

Number of internships: 0 | Total funding: 0

Career fairs/workshops:

Number of presentations: 0 | Number of attendees: 0

Additional program(s) supported by agency but not mentioned above:

Description:

Number of events (if applicable): | Number of participants:

Total reporting period budget expenditures for school education programs (include all agency costs):

Comments

The fields in red are required.

Agency name: Central Basin MWD

Reporting unit name (District name): Central Basin MWD

Reporting unit number: 39

Primary contact:

First name: Art

Last name: Aguilar

Email: arta@centralbasin.org

Click here to open a table that displays your agency name reporting unit name and reporting unit number. Please ensure that you enter the correct information.

CUWCC

Link to FAQs

2009

BMP 2.2 School Education Programs, Retail Agencies

View MOU

School Programs

Is a wholesale agency implementing school programs which can be counted to help your agency comply with this BMP? ⊙Yes ○No

Enter retailer names, separated by commas: Central Basin Municipal Water District

☑ Materials meet state education framework requirements?

Description of Materials: Yes, all materials are corelated and/or aligned to California Content Standards.

☑ Materials distributed to K-6 Students?

Description of materials distributed to K-6 Students: Activity Books, Teacher Guides with student pages

Number of students reached: 16,520

☑ Materials distributed to 7-12 Students?

Description of materials distributed to 7-12 Students: Student Workbooks and Teacher Guides

Number of Distribution: 4,165

Annual budget for school education program: $215,885.00

Description of all other water supplier education 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.

On early Friday mornings 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 the District. At these sites, students are introduced to the concepts of water recycling and

School Program Activities

Classroom presentations:

Number of presentations: 1070 Number of attendees: 37800

Large group assemblies:

Number of presentations: 113 Number of attendees: 18503

Children's water festivals or other events:

Number of presentations: 0 Number of attendees: 0

Cooperative efforts with existing science/water education programs (various workshops, science fair awards or judging) and follow-up:

Number of presentations: 0 Number of attendees: 0

Other methods of disseminating information (i.e. themed age-appropriate classroom loaner kits):

Description: N/A

Number distributed: 0

Staffing children's booths at events & festivals:

Number of booths: 0 | Number of attendees: 0

Water conservation contests such as poster and photo:

Description: Participated in MWD's Water Is Life Poster Contest

Number distributed: 5260

Offer monetary awards/funding or scholarships to students:

Number Offered: 5 | Total Funding: $25,000

Teacher training workshops:

Number of presentations: 0 | Number of attendees: 0

Fund and/or staff student field trips to treatment facilities, recycling facilities, water conservation gardens, etc.:

Number of tours or field trips: 75 | Number of participants: 3920

College internships in water conservation offered:

Number of internships: 0 | Total funding: 0

Career fairs/workshops:

Number of presentations: 0 | Number of attendees: 0

Additional program(s) supported by agency but not mentioned above:

Description: A partnership "Livingwise" educational program was used by 416 sixth grade students and their families to encourage the installation of efficiency measures in haomes and build knowledge of environmental issues.

Number of events (if applicable): 1 | Number of participants: 416

Total reporting period budget expenditures for school education programs (include all agency costs): 5,000

Comments

Appendix I

Central Basin's Purchase Order with MWD

PURCHASE ORDER FOR IMPORTED WATER SUPPLY TO BE PROVIDED BY THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

PURCHASER: Central Basin Municipal Water District	TERM 10 years
INITIAL BASE DEMAND: 80,400.0 acre-feet	EFFECTIVE DATE: January 1, 2003
INITIAL TIER 1 ANNUAL MAXIMUM: 72,360.0 acre-feet	
PURCHASE ORDER COMMITMENT: 482,400.0 acre-feet	

Definitions of capitalized terms used in this Purchase Order are provided in Attachment 1. Terms used in this Purchase Order and not defined in Attachment 1 are defined in Metropolitan's Administrative Code.

COMMITMENT TO PURCHASE.

In consideration of Purchaser's commitment to purchase System Water pursuant to this Purchase Order, Metropolitan agrees to sell such System Water to Purchaser at the Tier 1 Supply Rate each year in an amount up to the Tier 1 Annual Maximum. System Water sold to Purchaser (excluding deliveries of System Water made under the Interim Agricultural Water Program and Long-term Seasonal Storage Service) in an amount greater than the Tier 1 Annual Maximum shall be sold to the Purchaser at the Tier 2 Supply Rate. In connection with the receipt of System Water, the Purchaser also agrees to pay all other applicable rates and charges, as established by Metropolitan from time to time in accordance with Section 4304 of the Administrative Code. The rates and charges applicable to System Water as of the Effective Date are shown in Attachment 2.

Purchaser agrees to purchase System Water from Metropolitan during the Term in an amount (excluding deliveries of System Water, made under the Interim Agricultural Water Program and Long-term Seasonal Storage Service) not less than the Purchase Order Commitment.

Purchaser recognizes and agrees that Metropolitan has relied and will, during the term of this Purchase Order, rely on this commitment by Purchaser in setting its rates and charges, planning and providing its capital facilities and developing its water supply, management and reliability programs. If Purchaser's applicable System Water purchases during the Term are less than the Purchase Order Commitment, Purchaser agrees to pay Metropolitan an amount equal to the difference between the Purchase Order Commitment and Purchaser's applicable System Water purchases during the Term times the average of the Tier 1 Supply Rate in effect during the Term. The Purchaser agrees to pay such amount to Metropolitan within the next regular billing cycle following the reconciliation of all certifications for special programs that the Purchaser may participate in (e.g. Interim Agricultural Water Program, Long-term Seasonal Storage Service). The Purchaser may elect to pay such amount in twelve equal monthly payments over the course of the next twelve months beginning with the first regular billing cycle

following the reconciliation of all outstanding certifications for special programs. If the Purchaser elects to pay such amount over the course of the next twelve months following the regular billing cycle any outstanding balance shall bear interest at Metropolitan's then current investment portfolio average yield. All other amounts payable under this Purchase Order shall be billed and paid in accordance with the Administrative Code.

The Purchaser further recognizes that this Purchase Order is entered into for the direct benefit of the holders and owners of Metropolitan's Bonds issued from time to time under the Act and the Bond Resolutions, and the income and revenues derived from this Purchase Order will be pledged for the purposes set forth in the Bond Resolutions, including the payment of principal of and interest on such Bonds.

RENEWAL:

Prior to but not later than December 31, 2010, the Purchaser may provide a non-binding written notice to Metropolitan of the Purchaser's determination to extend this Purchase Order. Upon the receipt of such notice, the Board of Directors of Metropolitan (the "Board") shall determine whether Metropolitan will continue to provide System Water to member agencies by Purchase Order. If the Board so determines, the Purchaser and Metropolitan shall amend this Purchase Order to include an extended term and/or to include such other terms and conditions as may be mutually agreed by the parties. If the Purchaser elects not to renew this Purchase Order it will terminate upon the expiration of the Term.

WATER SERVICE:

Conditions of water service by Metropolitan to the Purchaser, including but not limited to (i) delivery points, (ii) water delivery schedules, and (iii) water quality, will be determined in accordance with Chapter 5 (Section 4500 through 4514, inclusive, as applicable) of Metropolitan's Administrative Code.

In accordance with its Administrative Code, Metropolitan shall use its reasonable best efforts to supply System Water in the quantities requested by the Purchaser, but is not obligated to dedicate any portion of System capacity for the conveyance, distribution, storage or treatment of System Water for the benefit of the Purchaser or any other member agency. Metropolitan shall use its reasonable best efforts to deliver the Base Demand when needed by the Purchaser during the Term; provided however, there shall be no default under this Purchase Order if Metropolitan fails to deliver water to the Purchaser in accordance with any such schedule of deliveries during the Term.

By execution of this Purchase Order, the Purchaser recognizes and agrees that it acquires no interest in or to any portion of the System or any other Metropolitan facilities, or any right to receive water delivered through the System, excepting the right to purchase up to Purchaser's Tier 1 Annual Maximum at the Tier 1 Supply Rate provided that System Water is available. This Purchase Order governs pricing of the System Water delivered to the Purchaser pursuant to this Purchase Order and does not confer any entitlement to receive System Water.

System Water provided to the Purchaser under the terms of this Purchase Order shall be subject to reduction in accordance with the shortage allocation provisions of the Water Surplus and Drought Management Plan (the "WSDM Plan") or other such policies and principles governing the allocation of System Water as adopted by the Board.

In the event that Metropolitan's Board determines to reduce, interrupt or suspend deliveries of System Water (excluding deliveries of System Water made under the Interim Agricultural Water Program and Long-term Seasonal Storage Service) any outstanding balance of the Purchase Order Commitment at the end of the Term shall be reduced by the reduction in System Water made available to the Purchaser under this Purchase Order.

MISCELLANEOUS:

This Purchase Order will be interpreted, governed and enforced in accordance with the laws of the State of California.

This Purchase Order will apply to and bind the successors and assigns of the Purchaser and Metropolitan.

No assignment or transfer of the rights of the Purchaser under this Purchase Order will be valid and effective against Metropolitan or the Purchaser without the prior written consent of Metropolitan and the Purchaser.

If at any time during the Term, by reason of error in computation or other causes, there is an overpayment or underpayment to Metropolitan by the Purchaser of the charges provided for under this Purchase Order, which overpayment or underpayment is not accounted for and corrected in the annual re-determination or reconciliation of said charges, the amount of such overpayment or underpayment shall be credited or debited, as the case may be, to the Purchaser. .Metropolitan will notify the Purchaser in writing regarding the amount of such credit or debit, as the case may be. In no case will credits or debits for charges provided for under this Purchase Order be administered beyond the limit for billing adjustments as specified in Metropolitan's Administrative Code.

IN WITNESS WHEREOF, this Purchase Order is executed by the duly authorized officers of the Metropolitan Water District of Southern California and [Purchaser], to be effective January 1, 2003.

THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

By: Ronald R. Gastelum
Ronald R. Gastelum
Chief Executive Officer

CENTRAL BASIN MUNICIPAL WATER DISTRICT

By: Daniel J. Miller

[Title] General Manager

APPROVED AS TO FORM AND CONTENT:

General Counsel

By: Jeff Kightlinger

General Counsel

By:

Appendix J
Central Basin's Rate Schedule

Central Basin Municipal Water District

FY 2010-2011 Water Rates and Charges

Rates Effective July 1 to December 31, 2010

	MWD Commodity	MWD RTS	CBMWD Surcharge	Total
Non-Interruptible- Treated *(Tier 1)*	$701/AF	$18/AF	$86/AF	**$805/AF**
Non-Interruptible- Treated *(Tier 2)*	$811/AF	$18/AF	$86/AF	**$915/AF**
Non-Interruptible- Untreated *(Tier 1)*	$484/AF	$18/AF	$86/AF	**$588/AF**
Non-Interruptible- Untreated *(Tier 2)*	$594/AF	$18/AF	$86/AF	**$698/AF**
Seasonal Spreading	$366/AF	-	$86/AF	**$452/AF**
Seasonal Storage Long Term	$558/AF	-	$86/AF	**$644/AF**

Rates Effective January 1, 2011

	MWD Commodity	MWD RTS	CBMWD Surcharge	Total
Non-Interruptible- Treated *(Tier 1)*	$744/AF	$25/AF	$86/AF	**$855/AF**
Non-Interruptible- Treated *(Tier 2)*	$869/AF	$25/AF	$86/AF	**$980/AF**
Non-Interruptible- Untreated *(Tier 1)*	$527/AF	$25/AF	$86/AF	**$638/AF**
Non-Interruptible- Untreated *(Tier 2)*	$652/AF	$25/AF	$86/AF	**$763/AF**
Seasonal Spreading	$409/AF	-	$86/AF	**$495/AF**
Seasonal Storage Long Term	$601/AF	-	$86/AF	**$687/AF**

MWD Non-Interruptible Treated Commodity Rate

	Effective Dates	
	July 1-Dec 31, 2010	**January 1, 2011**
Supply Rate Tier 1	$170	$155
Supply Rate Tier 2	$280	$280
System Access Rate	$154	$204
Water Stewardship Rate	$41	$41
Treatment Rate	$217	$217
Power Rate	$119	$127
Total Tier 1	**$701**	**$744**
Total Tier 2	**$811**	**$869**

Capacity Charge

Designated Amount[1]

Effective July 1, 2010 to Dec. 31, 2010	*Effective January 1, 2011*
$5,700/cfs	**$5,700/cfs**

(1) Designated amount is an Agency's highest peak (per cfs) from the past three summer periods (May 1-Sept. 30)

Monthly Water Service Charge

Effective July 1, 2010

CBMWD Water Service Charge

$69/cfs [2]

(2) Per cfs as determined by agency's meter capacity

Central Basin Municipal Water District

FY 2010-2011 Water Rates and Charges

CBMWD Recycled Water Rates

Effective July 1, 2010 through June 30, 2011

Volume (AF/Month)	CBMWD Service Area	Malburg Generating Station	Outside of CBMWD Service Area
0-25	**$506/AF**	**$357/AF**	**$526/AF**
25-50	**$506/AF**	**$332/AF**	**$526/AF**
50-100	**$460/AF**	**$308/AF**	**$480/AF**
100+	**$460/AF**	**$283/AF**	**$480/AF**

For treated and untreated water obtained from other sources, price per AF includes all water acquisition charges, treatment charges (if needed), and wheeling charges plus an administrative surcharge equal to the District's administrative surcharge or 10% of total costs, whichever is greater.

Glossary

GLOSSARY OF ABBREVIATIONS AND TERMS

AGENCIES

AWWARF	American Water Works Association Research Foundation
CalWater	California Water Service Company
CDPS	California Department of Public Health
Central Basin	Central Basin Municipal Water District
CPUC	California Public Utilities Commission
CSDLAC	County Sanitation Districts of Los Angeles County
CUWCC	California Urban Water Conservation Council
District	Central Basin Municipal Water District
DWR	California Department of Water Resources
Edison	Southern California Edison
EPA	United States Environmental Protection Agency
LACDPW	Los Angeles County Department of Public Works
LACFCD	Los Angeles County Flood Control District
MWD	Metropolitan Water District of Southern California
RWQCB	Regional Water Quality Control Board
SCAG	Southern California Association of Governments
USBR	United States Bureau of Reclamation
West Basin	West Basin Municipal Water District
WRD	Water Replenishment District of Southern California

FACILITIES AND LOCATIONS

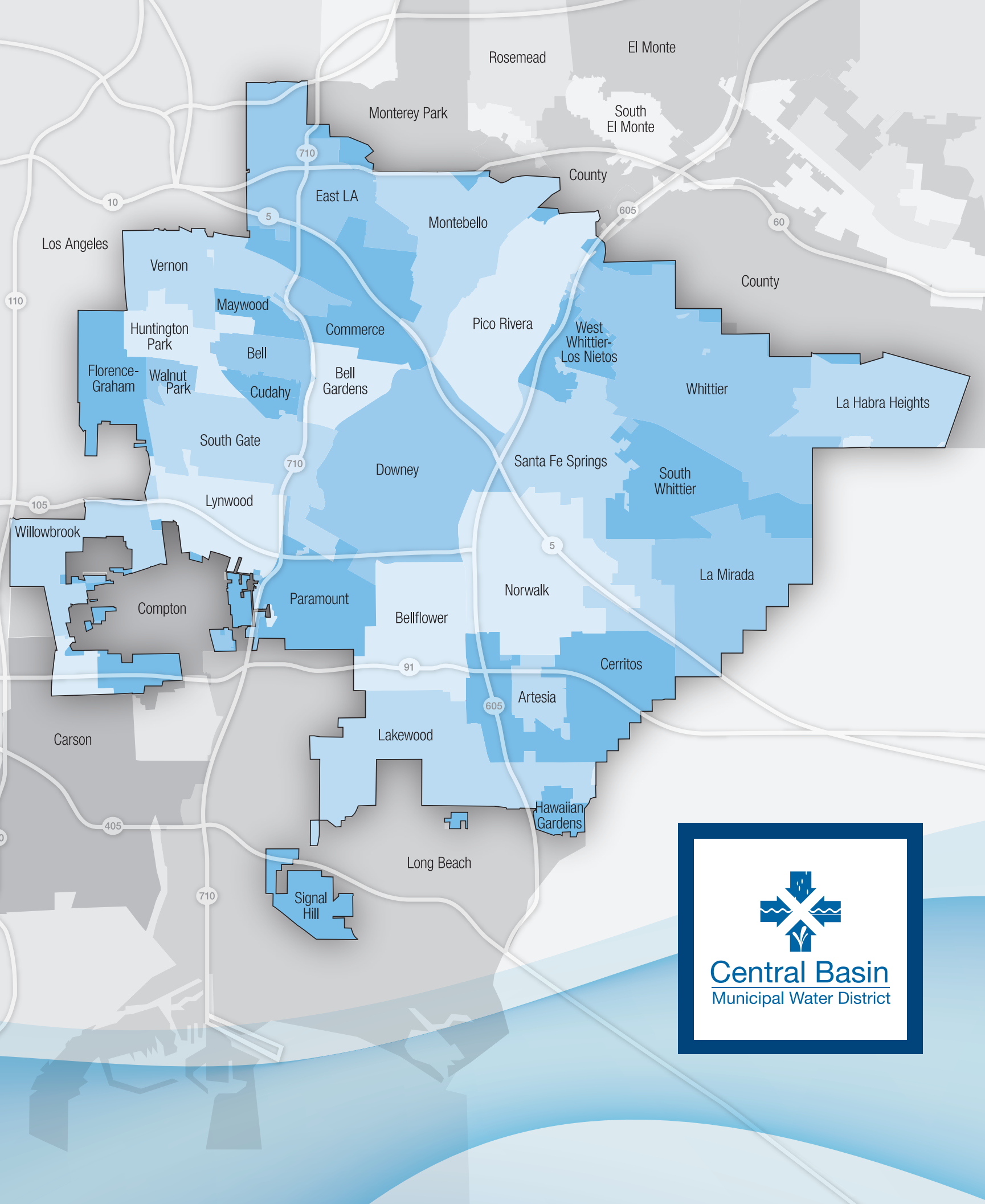
Barrier	Alamitos Barrier
Basin	Central Groundwater Basin
Bay-Delta	Sacramento-San Joaquin Bay Delta
CRA	Colorado River Aqueduct
CVP	Central Valley Project
Ibbetson Century Project	E. Thornton Ibbetson Century Water Recycling Project
Spreading Grounds	Rio Hondo and San Gabriel River Spreading Grounds
SWP	State Water Project
SWRP	Southeast Water Reliability Project
Torres Project	Esteban E. Torres Rio Hondo Water Recycling Project
WCGB	West Coast Groundwater Basin
WQPP	Water Quality Protection Project
WRP	Water Reclamation Plants

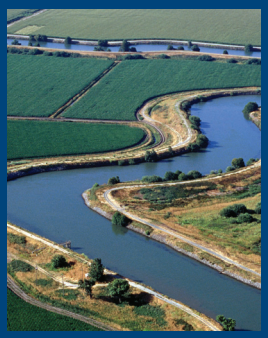
MEASUREMENTS

AFY	Acre-Feet Per Year
CFS	Cubic Feet Per Second
GPCD	Gallons Per Capita Per Day
GPM	Gallons Per Minute
MAF	Million Acre-Feet
MGD	Million Gallons Per Day
WF	Water Factor

MISCELLANEOUS

ACT	California Urban Water Management Planning Act of 1983
BMPs	Best Management Practices
CII	Commercial, Industrial and Institutional
CMP	Conservation Master Plan
HECW	High-Efficiency Clothes Washer Program
HET	High-Efficiency Toilets
IRP	Integrated Resources Plan
Master Plan	Recycled Water Master Plan
MOU	Memorandum of Understanding Regarding Urban Water Conservation in California
MWD-MAIN	Metropolitan Water District's Municipal and Industrial Needs
NPDES	National Pollutant Discharge Elimination System
QSA	Quantification Settlement Agreement
RTS	Readiness-to-Serve Charge
SDWP	Safe Drinking Water Program
Title 22	California Code of Regulations Title 22 standards
ULFT	Ultra-Low-Flush Toilet
UWMP	Urban Water Management Plan
VOCs	Volatile Organic Compounds
WBIC	Weather-Based Irrigation Controller
WQPP	Water Quality Protection Project
WSDM	Water Surplus and Drought Management Plan


Rosemead
El Monte
Monterey Park
South El Monte
County
East LA
Montebello
Los Angeles
Vernon
County
Maywood
Huntington Park
Commerce
Pico Rivera
West Whittier-Los Nietos
Bell
Florence-Graham
Walnut Park
Bell Gardens
Cudahy
Whittier
La Habra Heights
South Gate
Downey
Santa Fe Springs
South Whittier
Lynwood
Willowbrook
La Mirada
Norwalk
Compton
Paramount
Bellflower
Cerritos
Artesia
Carson
Lakewood
Hawaiian Gardens
Long Beach
Signal Hill
710
10
5
605
60
110
105
91
405
Central Basin
Municipal Water District



2010
Urban Water Management Plan

Prepared By: Central Basin Municipal Water District 6252 Telegraph Road Commerce, CA 90040-2512
www.centralbasin.org