Twenty-Sixth Annual Status Report on Recycled Water Use

Fiscal Year 2014-15

SANITATION DISTRICTS OF LOS ANGELES COUNTY

Twenty-Sixth
ANNUAL STATUS REPORT

ON

RECYCLED WATER USE

Fiscal Year 2014-15

Sanitation Districts of Los Angeles County
1955 Workman Mill Road
Whittier, CA 90601

Printed on Recycled Paper

DOC NO. 3392791

PREFACE

In addition to its mission of collecting, treating, and managing municipal wastewater, the Sanitation Districts of Los Angeles County (Sanitation Districts) have adopted the goal of maximizing the beneficial reuse of the highly treated effluents produced by its water reclamation plants. The Sanitation Districts work with a number of local, regional, and state agencies and other entities in an effort to continue developing recycled water as a "local" water supply to supplement the area's limited groundwater and imported water supplies.

In response to many requests for information regarding various aspects of the Sanitation Districts' water reuse program, this fiscal year report has been prepared for distribution to interested parties. This report is the twenty-sixth of its kind and includes: historic recycled water use activities, descriptions of plant operations, diagrams of the various recycled water distribution systems, lists of the users and the quantities they used, tables of recycled water quality, and plans for expanding the use of recycled water, among other subjects.

This report is divided into five chapters. Chapter 1 is an overview of the Sanitation Districts' water reuse program. Chapters 2, 3, and 4 detail the water reuse activities at each of the Sanitation Districts' ten water reclamation plants, which are grouped in three geographic areas: Los Angeles Basin, Santa Clarita Valley, and Antelope Valley, respectively. Chapter 5 details the various proposed water recycling projects in the Sanitation Districts' service areas that are currently under development or in the planning phase.

In order to improve the flow and readability of this report, the narrative descriptions of the more complicated distribution system facilities (Long Beach Water Department, City of Cerritos, City of Lakewood, Central Basin Municipal Water District's Century and Rio Hondo systems, Walnut Valley Water District, Puente Hills/Rose Hills system, Upper San Gabriel Valley Municipal Water District's Whittier Narrows Recreation Area Extension, and the Sanitation Districts' Eastern Agricultural Site in Lancaster) have been moved to their own individual appendices at the end of this report. The same has been done for the chronology of Sanitation Districts' reuse activities and all of the individual effluent quality tables.

A "Facts-at-a-Glance" summary page containing a brief list of data regarding the Sanitation Districts' water recycling program for the fiscal year appears before Chapter 1.

If you would like additional copies of this report (paper or electronic), or would like to comment on its contents, please contact Earle Hartling, Water Recycling Coordinator at (562) 908-4288, extension 2806, or by email at *ehartling@lacsd.org*. Further information regarding the Sanitation Districts and its water recycling activities can be found at the Sanitation Districts' website at *http://www.lacsd.org/waterreuse/*.

Cover Photo: Four artificial islands were constructed in 1965 in Long Beach Harbor by the THUMS consortium (Texaco, Humble, Union, Mobil and Shell) to extract subsurface oil. To prevent land subsidence, water is injected into the well-field to replace the extracted oil. Since June 1995, recycled water from the Long Beach WRP has been used in lieu of potable water. This "oil-zone repressurization" project, now operated by Occidental Petroleum, is consistently one of the top ten non-recharge recycled water users in the Sanitation Districts' service area.

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

APPENDICES

FY 14-15 FACTS-AT-A-GLANCE

SANITATION DISTRICTS

Total Effluent Produced (including JWPCP): 407.02 MGD (456,091 AFY), 2.9% decrease

Total Recycled Water Produced (at WRPs): 143.89 MGD (161,238 AFY), 57.4% of capacity, 35.4% of the total effluent produced, 7.6% decrease

Total Recycled Water Used: 79.41 MGD (88,985 AFY), 55.2% of recycled water produced, 13.1% decrease, 791 sites (34 new sites added, 4 construction projects completed and removed)

Groundwater replenishment (4) -	42.24 MGD (47,334 AFY)	53.2% of total reuse	17.0% decrease
Landscape irrigation (734) -	17.08 MGD (19,133 AFY)	21.5% of total reuse	9.0% decrease
Agriculture (11) -	11.75 MGD (13,161 AFY)	14.8% of total reuse	14.7% decrease
Industrial (41) -	3.21 MGD (3,596 AFY)	4.0% of total reuse	12.0% decrease
Environmental (1) -	5.14 MGD (5,760 AFY)	6.5% of total reuse	19.9% increase

Total Reuse Since Inception (1962): 2,888,041 AF (940.7 billion gallons)

Transmission lines: 1,390,500 linear feet (263 miles)

Acreage Served: 16,434 acres (direct non-potable use)

Jurisdictions Served: 33 (32 cities plus unincorporated Los Angeles County)

Recycled Water Purveyors: 34

Recycled Water Contracts: 24

Chemical Savings[1]: $235,706

Greenhouse Gas Reduction[2]: 200,216 tons of carbon dioxide

Capacity of Future Planned Reuse Projects: 96,615 AFY (86.22 MGD)

JOINT OUTFALL SYSTEM

Total Effluent Produced: 366.26 MGD (410,416 AFY), 2.9% decrease
Total Recycled Water Produced: 103.06 MGD (115,479 AFY), 28.1% of the total produced, 9.6% decrease
Total Recycled Water Used: 62.40 MGD (69,924 AFY), 60.6% of recycled water produced, 15.2% decrease

SANTA CLARITA

Total Recycled Water Used: 0.387 MGD (434 AFY), 2.1% of recycled water produced, 33.1% increase

ANTELOPE VALLEY

Total Wastewater Treated: 24.28 MGD, 7.4% increase
Total Recycled Water Produced: 21.87 MGD (24,507 AFY), 1.2% decrease
Total Recycled Water Used: 16.05 MGD (17,985 AFY), 73.4% of recycled water produced, 9.4% decrease

1 Recycled water delivered to the various distribution systems does not require dosing with either sulfur dioxide or sodium bisulfate for dechlorination or with defoamant.

2 The use of locally produced recycled water eliminates the need to pump State Project water into the Los Angeles Basin at a net energy cost of approximately 3,000 kWh/AF with the attendant CO_2 production.

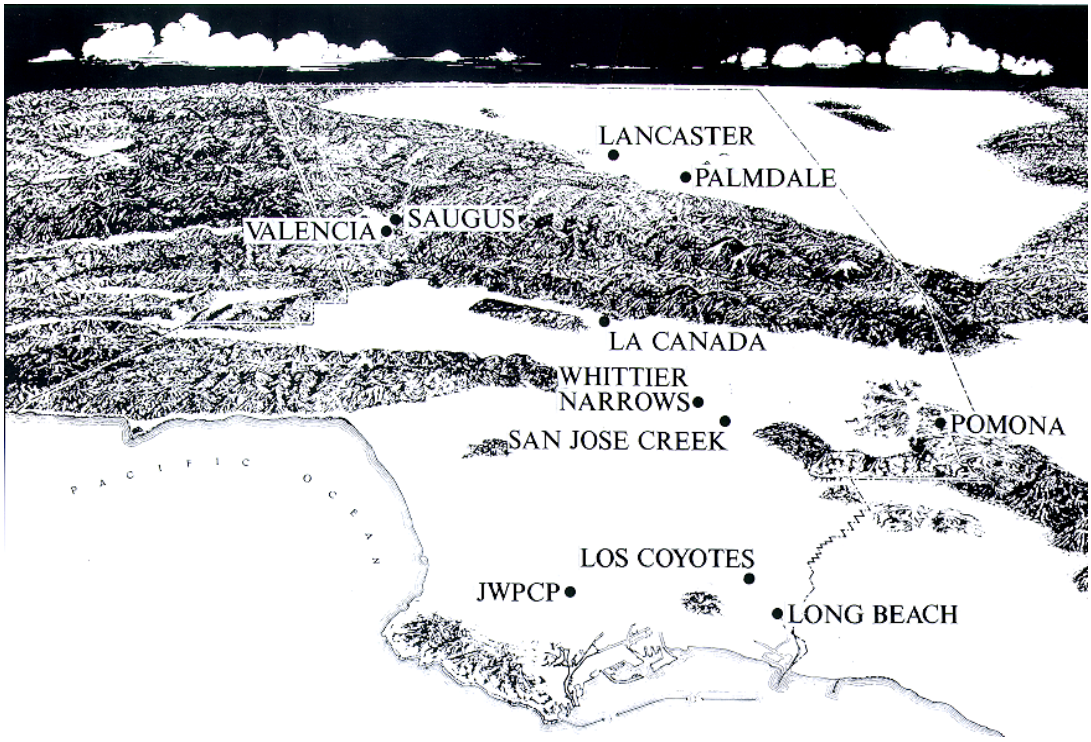
1. OVERVIEW

1.1 WATER RECLAMATION ACTIVITIES

The Sanitation Districts of Los Angeles County (Sanitation Districts) operate 11 wastewater treatment facilities (Figure 1), 10 of which are classified as water reclamation plants (WRPs). These 11 facilities serve approximately 5.5 million people in 78 cities and unincorporated areas within Los Angeles County. Effluent quality from the WRPs ranges from disinfected secondary to filtered, disinfected tertiary. During Fiscal Year 2014-15 (FY 14-15), Sanitation Districts' facilities produced an average of 407.02 million gallons per day (MGD), or 456,091 acre-feet per year (AFY) of effluent, which is a decrease of 2.9% from the preceding fiscal year and a 24.1% decrease from the historic peak of FY 89-90. Following this peak, total average effluent flow had decreased by 11% in FY 91-92 as a result of widespread water conservation in response to a drought-induced, statewide water crisis, as well as an economic recession.

After the drought ended in 1992, overall effluent flows increased, due in part to population growth, a healthier economy, and the easing of conservation measures in response to improved statewide water supplies. Total effluent flow peaked again in 1998 due to the extremely heavy El Niño generated rainfall. Since 1999, total flow production has continued decreasing despite population growth in the Sanitation Districts' service area. The on-going decline in effluent production (21.3% since FY 04-05) is attributable to a downturn in local economic activity combined with increasing water conservation efforts (e.g., low flow toilets, waterless urinals, water efficient washing machines, etc.) in response to a multi-year statewide drought beginning in 2006 that has only grown in scale in recent years. Effluent production at Sanitation Districts' facilities is currently at levels last seen in the late 1960s.

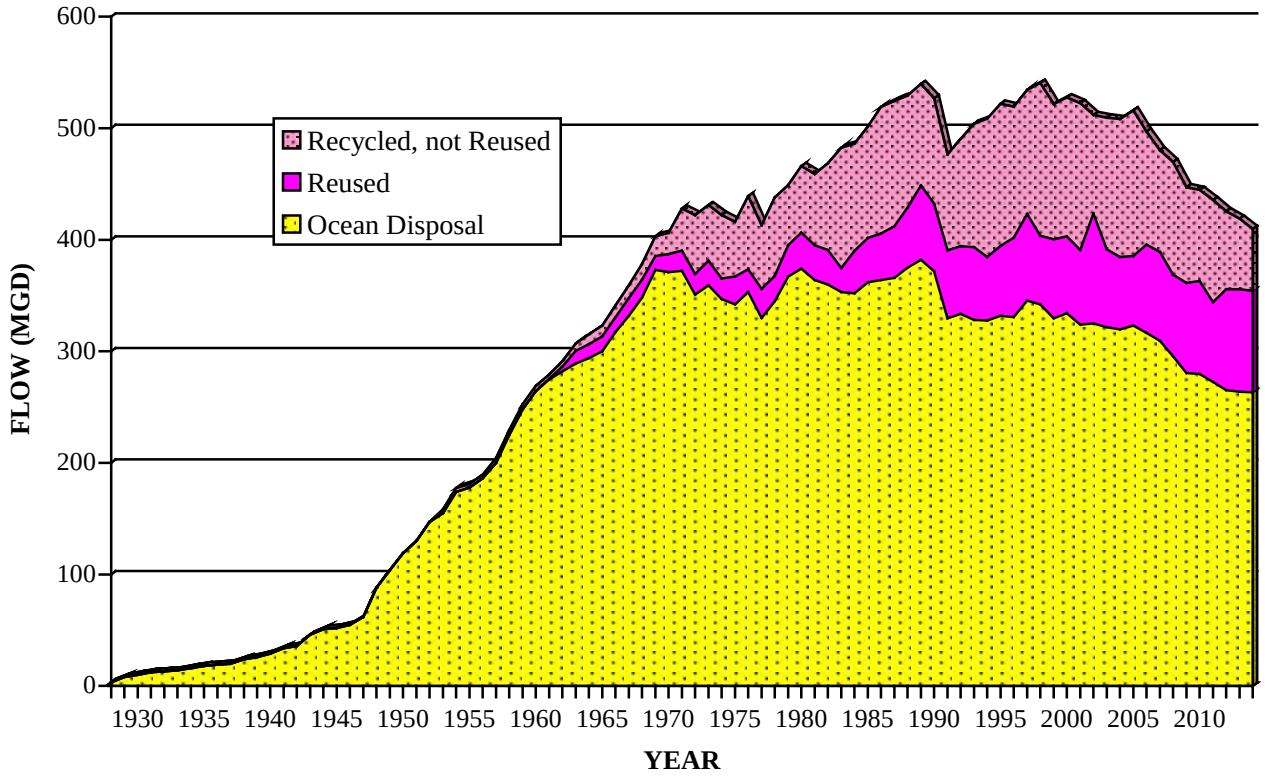
FIGURE 1
LOCATION OF SANITATION DISTRICTS' WASTEWATER TREATMENT FACILITIES



Nominal capacity at the ten Sanitation Districts' WRPs is 250.8 MGD (281,040 AFY) as of the end of FY 14-15. However, of the total effluent produced, only 143.89 MGD (161,238 AFY) consisted of recycled water available for reuse from these 10 facilities (57.4% of capacity). This amount is 35.4% of the total amount of effluent produced at the 11 wastewater treatment facilities and a decrease of 7.6% from the preceding fiscal year. The remaining 263.13 MGD (294,854 AFY) was effluent discharged to the ocean from the Sanitation Districts' Joint Water Pollution Control Plant (JWPCP) in the City of Carson, roughly the same as the preceding fiscal year.

For the past half century, the Sanitation Districts have diverted high quality wastewater flows away from direct ocean disposal to the upstream WRPs in order to provide recycled water supplies for eventual reuse, as illustrated in Figure 2 (data through the end of calendar year 2014). Discharge to the ocean (lower band on graph) has steadily decreased since the WRPs in the Los Angeles Basin (i.e., the Joint Outfall System, or JOS) were built in the early 1970s, with additional needed treatment capacity being added to the WRPs (the combined upper two bands on the graph). Significant drops in effluent production occurred in 1977 and 1991 in response to serious droughts. A similar drop in effluent production has been occurring since 2006 when the current water crisis in the State became apparent and conservation actions began to be implemented, including a drought emergency declaration by the Governor and mandatory water reductions instituted by the State Water Resources Control Board (SWRCB). The majority of these decreases occurred at the JWPCP, while the upstream WRPs were able to maintain a relatively high level of production, which contributed to recycled water's reputation as being "drought-resistant." The center band represents the recycled water produced by the WRPs that is actually being put to beneficial use, while the upper band represents the remaining recycled water that is currently being discharged to rivers, but has the potential to be beneficially reused.

FIGURE 2
SANITATION DISTRICTS' FLOW DIVERSION TO RECYCLING
1928-2014



Of the total amount of recycled water produced, 79.41 MGD (88,985 AFY) was actively reused for a variety of applications including urban landscape irrigation, agricultural irrigation, recreational impoundments, industrial process water, wildlife habitat maintenance, and groundwater replenishment. The amount beneficially reused was 55.2% of the recycled water produced, a 13.1% decrease from the preceding fiscal year. The amount reused is substantially lower than the two previous years in which reuse exceeded 100,000 AFY due to several factors: 1) the Whittier Narrows WRP was completely shut down from April – June 2015 for electrical system work, 2) the use of recycled water for seawater intrusion barrier injection was lower due to construction of the expanded advanced treatment plant at the Long Beach WRP, and 3) the weather this year was somewhat milder than previous years with more local rainfall than the previous two years (8.5 vs. 5.5 inches), thereby reducing the need for irrigation water.

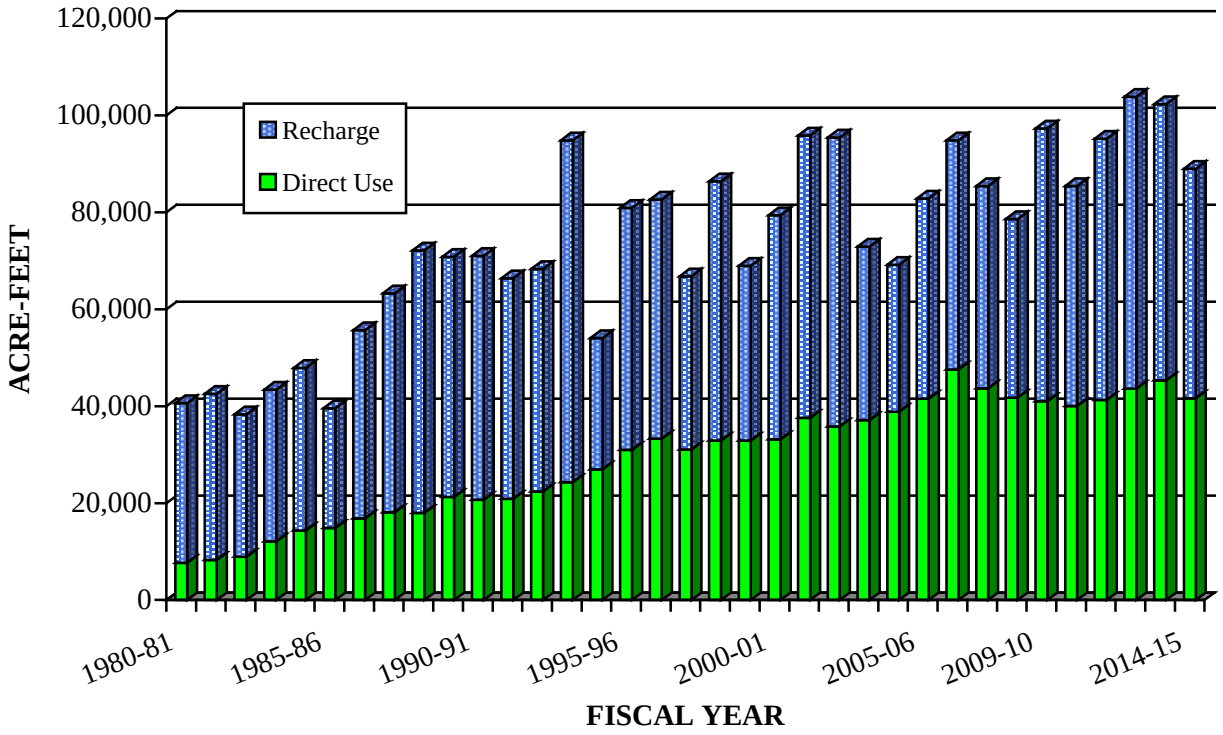
The amount of recycled water produced and reused at each of the WRPs and the percent change from the preceding fiscal year is summarized in Table 1. During FY 14-15, 14 new landscape irrigation sites, one irrigation site via truck hauling, and sixteen temporary construction sites began receiving Sanitation Districts' recycled water.

TABLE 1
RECYCLED WATER PRODUCED AND REUSED AT WATER RECLAMATION PLANTS
FISCAL YEAR 2014-15

Water Reclamation Plant	Nominal Treatment Capacity (AFY)	Quantity Recycled (AFY)	Percent Change from FY 13-14 (+/-)	Quantity Reused (AFY)	Percent Change from FY 13-14 (+/-)	Percent of Recycled Water Used
La Cañada	225	83	-6.7	83	-6.7	100
Long Beach	28,015	16,350	-10.7	5,170	-16.5	31.6
Los Coyotes	42,020	23,227	-6.4	6,645	-11.0	28.6
Pomona	16,810	7,277	-12.3	7,219	-11.9	99.2
San Jose Creek	112,055	62,003	-6.9	44,235	-13.1	71.3
Whittier Narrows	16,810	6,623	-31.3	6,573	-30.4	99.2
Valencia	24,205	15,178	-4.9	434	+33.1	2.9
Saugus	7,285	5,990	+0.8	0	0	0
Lancaster	20,170	15,200	-0.4	11,101	0	73.0
Palmdale	13,445	9,307	-2.3	7,525	-11.2	80.9
TOTAL	281,040	161,238	-7.6	88,985	-13.1	55.2

The amount of recycled water used for replenishment of the underground water supply can vary greatly from year to year, depending on the amount and timing of rainfall runoff, maintenance activities in the spreading grounds, and other factors, as illustrated by the upper bar in Figure 3. The long-term trend of recycled water usage is best represented by the increase in direct, non-potable reuse for landscape and agricultural irrigation, industrial process supply, and environmental enhancement, as illustrated by the lower bar on Figure 3.

FIGURE 3
DIRECT NON-POTABLE REUSE VS. GROUNDWATER RECHARGE
1980-81 TO 2014-15



1.2 WATER RECYCLING PROJECTS

In 1970, prior to the drought of 1976-77, there were six reuse customers using 21 MGD on 940 acres (consisting of both irrigable acres and recharge basins). By the end of the subject fiscal year, there were a total of 791 reuse sites on approximately 16,434 acres, served by approximately 1.4 million linear feet (263 miles) of transmission pipelines in 32 cities. This usage includes two cities employing water trucks to haul recycled water to various greenbelt areas and private water trucks hauling recycled water to short-term construction sites, mainly in the Antelope Valley. Table 2 summarizes the approximate length of distribution system pipelines (where applicable), the amount of recycled water used by each of the water recycling projects (detailed in later sections), the percent change from the preceding fiscal year, and the number of new reuse sites added to that recycling project over the past fiscal year. Figure 4 shows the increase in the number of reuse sites receiving recycled water from the Sanitation Districts from 1970 to mid-2015.

Cities with Sites Using Sanitation Districts' Recycled Water

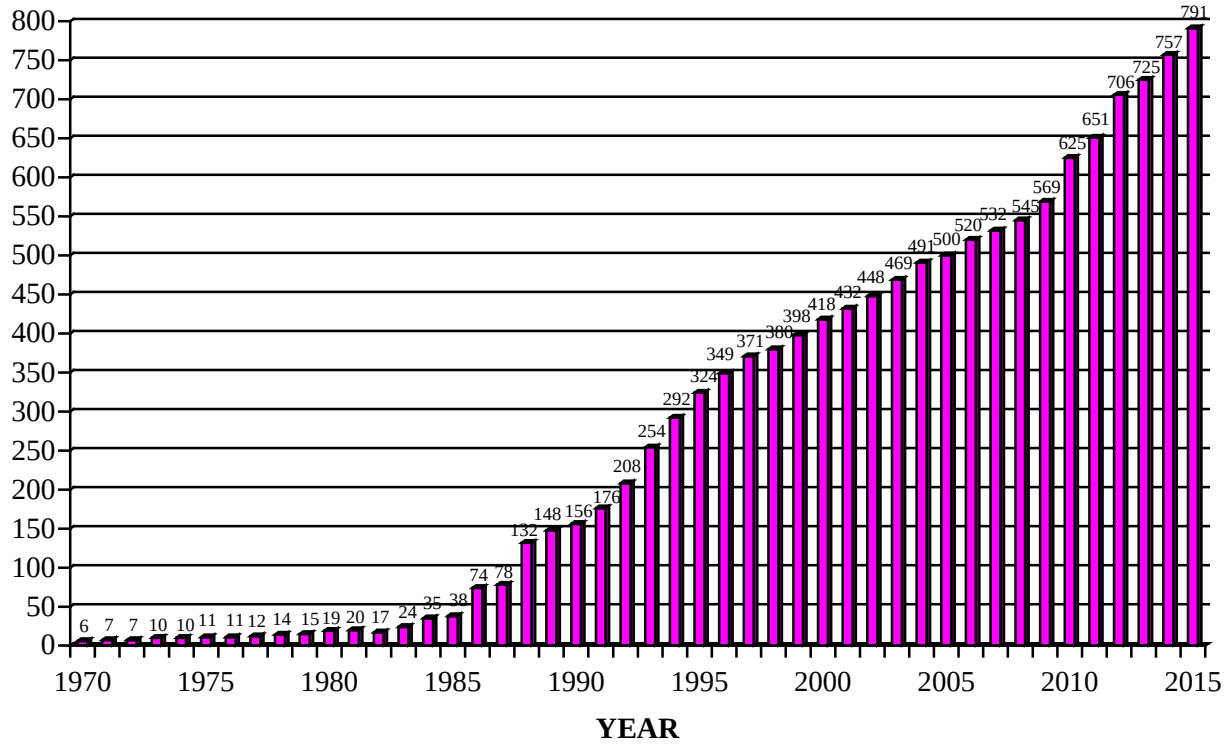
Bellflower	Montebello
Bell Gardens	Norwalk
Cerritos	Palmdale
Compton	Paramount
Cudahy	Pico Rivera
Cypress	Pomona
Diamond Bar	Rowland Heights
Downey	Santa Clarita
El Monte	Santa Fe Springs
Huntington Park	Signal Hill
Industry	South El Monte
La Cañada	South Gate
Lakewood	Vernon
Lancaster	Walnut
Long Beach	West Covina
Lynwood	Whittier

Note: Recycled water is also used in portions of Unincorporated Los Angeles

TABLE 2
RECYCLED WATER USED BY WATER RECYCLING PROJECT
FISCAL YEAR 2014-15

Project Name	Pipeline Length (linear feet)	Recycled Water Used (AFY)	Percent Change from FY 13-14 (+/-)	No. of New Reuse Sites
La Cañada-Flintridge Country Club		83	-6.7	
Long Beach Water Department	179,680	4,667	-11.9	1
Alamitos Seawater Barrier		503	-43.9	
City of Bellflower	1,900	50	-6.0	
City of Cerritos	142,600	1,898	-11.3	
City of Lakewood	28,300	527	-9.3	
City of Cypress		0.1	--	1
Central Basin MWD (Century)	107,160	4,169	-11.0	4
Pomona Water Department	37,000	1,595	-14.9	1
Spadra Landfill		339	-24.9	
Walnut Valley Water District	174,200	1,592	+7.9	2
Water Replenishment District		46,831	-16.6	
City of Industry	44,350	1,076	-0.4	
Rowland Water District	85,540	744	-15.5	1
California Country Club		446	-16.3	
Jose Munoz Nursery		10	0	
Central Basin MWD (Rio Hondo)	290,400	442	+22.1	4
Puente Hills/Rose Hills	8,900	2,458	+1.1	
USGVMWD Phase I Extension (SJC)	11,020	654	-17.2	
USGVMWD Phase II-B Extension (SJC)	71,360	817	+15.4	2
USGVMWD Phase II-A Extension (WN)	18,900	1,023	-41.8	
Castaic Lake Water Agency	16,490	434	+33.1	3
Piute Pond		5,760	+19.9	
Apollo Community Regional Park	23,800	263	+26.4	
Eastern Agricultural Site	96,600	4,928	-18.6	
City of Lancaster	29,800	150	+368.8	15
Palmdale Agricultural Site	13,200	7,458	-11.2	
City of Palmdale	9,300	68	-13.9	
TOTALS	1,390,500	88,985	-13.1	34

FIGURE 4
INCREASE IN NUMBER OF REUSE SITES
1970-2015



During FY 14-15, 41.793 MGD (46,831 AFY) from the San Jose Creek, Whittier Narrows, and Pomona WRPs was used for groundwater replenishment. All three plants are included in the recharge permit for this project. From the commissioning of the Whittier Narrows WRP in August 1962 through the end of FY 14-15, a total of approximately 1,904,924 acre-feet (AF) of recycled water from these three plants have been used to recharge the Central Basin aquifer.

More recycled water is typically used for groundwater recharge via surface spreading than for all other applications combined because of its cost-effectiveness. The San Jose Creek, Whittier Narrows, and Pomona WRPs discharge to rivers or creeks (i.e., flood control channels) that can convey the water by gravity to existing off-stream recharge basins. These basins and the unlined portions of the rivers and creeks permit large volumes of recycled water to percolate by gravity into the aquifer. Recycled water used in this way requires no additional capital investment in transmission infrastructure and there are essentially no operation and maintenance (O&M) costs or energy consumption for pumping related to this activity.

There was another source of replenishment water during FY 14-15, as the Alamitos Seawater Intrusion Barrier received 0.449 MGD (503 AFY) of recycled water that originated from the Long Beach WRP and was treated to an advanced level (see details in Section 2.2.2). Even though the purpose of this facility is to prevent seawater from moving inland and contaminating the groundwater aquifer, most of the injected water (roughly 80%) moves inland and becomes part of the region's drinking water supply.

During FY 14-15, the total of 42.242 MGD (47,334 AFY) that went to groundwater replenishment was a 17.0% decrease from the preceding fiscal year due, in part, to the shut-down of the Whittier Narrows WRP for several months for construction. This decrease was also partially the result of the interruption of barrier injection water beginning in April 2014 for expansion of the advanced treatment plant. Of the total amount of

water reused during FY 14-15, 53.2% was used for groundwater replenishment, which is the fifth time in the past ten years that this reuse application has made up more than half of total reuse. In past years, concerns over the potential for a fish kill of a colony of non-native *Tilapia* fish living in the lined portion of the San Gabriel River necessitated the continued discharge of effluent from the San Jose Creek WRP to that point, thus preventing its diversion directly into the San Gabriel Coastal Spreading Grounds from the San Jose Creek Outfall line. However, modifications were made at the spreading ground diversion gate that allowed it to be partially closed. In March 2009, a partial closure of the gate was initiated, with the degree of closure being increased incrementally over the following months to a point where the majority of flow in the Outfall was being diverted for recharge. Now, after winter rains have washed the *Tilapia* far enough downstream, the gate is normally fully closed allowing for complete capture of all recycled water remaining in the Outfall.

The remainder of the recycled water usage was divided between four broad categories of direct usage:

- A total of 734 of the individual reuse sites used recycled water for some form of landscape irrigation, with approximately 17.075 MGD (19,133 AFY), or 21.5% of the total water reused going toward this particular application. These sites include 119 parks, 121 schools, 248 commercial and office buildings (e.g., offices, warehouses, retail, car dealerships, hotels, restaurants, etc.), 127 roadway greenbelts, 31 public facilities (e.g., police station, post office, libraries, landfills, etc.), 24 golf courses, 21 nurseries, 20 residential developments, 11 churches, and seven cemeteries.

- Agricultural usage at 11 reuse sites accounted for approximately 11.745 MGD (13,161 AFY), or 14.8% of the total reused.

- Forty-one industrial applications of recycled water (which include carpet dyeing, oil field injection, power plant cooling towers, metal finishing, street sweeping, sewer flushing, and construction applications such as dust control and concrete mixing) totaled 3.209 MGD (3,596 AFY), or 4.0% of the total reused.

- Approximately, 5.140 MGD (5,760 AFY), or 6.5% of the total reused, went to environmental enhancement of a wildlife habitat (Piute Ponds) in the Mojave Desert.

TOP TEN – LARGEST DIRECT REUSE SITES OF 2014-15*

1. **Antelope Valley Farms** **6,769 AFY**
   Palmdale WRP *(agricultural irrigation of alfalfa)*
2. **Eastern Agricultural Site** **4,928 AFY**
   Lancaster WRP *(agricultural irrigation of alfalfa)*
3. **Rose Hills Memorial Park** **1,264 AFY**
   San Jose Creek WRP *(landscape irrigation)*
4. **Puente Hills Landfill** **1,194 AFY**
   San Jose Creek WRP *(irrigation & dust control)*
5. **Industry Hills Recreation Area** **1,076 AFY**
   San Jose Creek WRP *(landscape irrigation)*
6. **Malburg Generation Station** **813 AFY**
   Los Coyotes WRP *(cooling towers)*
7. **Bonelli County Regional Park** **799 AFY**
   Pomona WRP *(landscape irrigation)*
8. **THUMS** **795 AFY**
   Long Beach WRP *(oil zone repressurization)*
9. **Cal Poly, Pomona** **765 AFY**
   Pomona WRP *(landscape/agricultural irrigation)*
10. **PERG Facility** **603 AFY**
    San Jose Creek WRP *(cooling towers)*

** excluding discharge-based reuse applications of groundwater recharge by spreading and Piute Ponds*

Table 3 lists the number of sites in each category of use, along with total acreage and average daily usage. Figure 5 shows the distribution of reuse flows among these various applications.

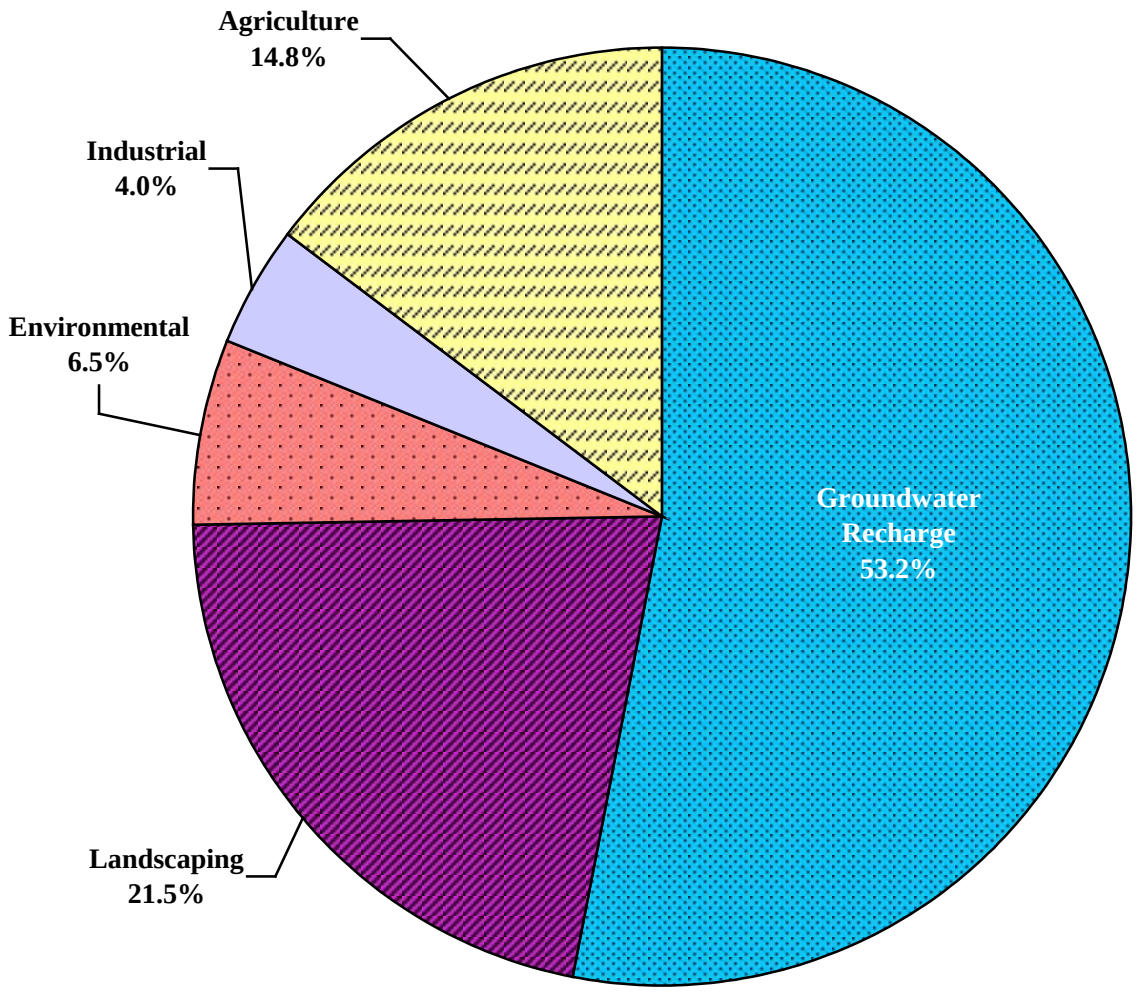
TABLE 3
CATEGORIES OF RECYCLED WATER USAGE
FISCAL YEAR 2014-15

Reuse Application	No. of Sites	Area Applied (acres)	Usage (MGD)
Parks	119	3,637.7	4.707
Golf Courses	24	2,765.8	4.793
Schools	121	1,338.8	2.081
Roadway Greenbelts	127	690.2	0.998
Public Facilities[1]	32	499.2	1.355
Commercial Buildings[2]	251	542.9	1.190
Nurseries	21	118.9	0.164
Cemeteries	7	701.4	1.440
Residential Developments	21	171.8	0.290
Churches	11	10.6	0.056
Industrial[3]	41	377.5	3.209
Agriculture[4]	11	4,533.0	11.745
Environmental Enhancement	1	400	5.140
SUBTOTAL	787	15,787.8	37.168
Groundwater Recharge	4	646	42.242
TOTAL	791	16,433.8	79.410

NOTES:

1. "Public Facilities" includes police stations, libraries, post offices, city halls, government offices, landfills, etc.
2. "Commercial Buildings" includes offices, warehouses, retail, car dealerships, hotels, restaurants, etc.
3. Industrial processes receiving recycled water include carpet dyeing, concrete mixing, cooling towers, metal finishing, oil field injection, toilet flushing, and construction applications such as soil compaction and dust control.
4. California Polytechnic University, Pomona, while technically a school, uses most of its recycled water for agricultural purposes and is thus included in this category.

FIGURE 5
DISTRIBUTION OF RECYCLED WATER USAGE
FISCAL YEAR 2014-15



1.3 ECONOMIC AND ENVIRONMENTAL IMPACTS

At the end of FY 14-15, the Sanitation Districts had 24 contracts (two pending initial deliveries) for the sale and/or delivery of recycled water produced at its facilities. Actual O&M and energy costs incurred by the Sanitation Districts while operating the pump stations on behalf of the purchasers of recycled water are also fully recovered through these contracts. Since the recycled water delivered to the various distribution systems was not dosed with either sulfur dioxide or sodium bisulfate for dechlorination or with defoamant, an estimated $235,645 in chemical savings was realized at the five Sanitation Districts' tertiary WRPs located in the JOS and at the Valencia WRP in the Sanitation Districts' Santa Clarita Valley Joint Sewerage System (SCVJSS).

Table 4 compares selected potable water rates and recycled water rates (in effect as of the end of FY 14-15), illustrating the savings realized by the end users. Table 5 lists all of the current recycled water purveyors.

TABLE 4
POTABLE VS. RECYCLED WATER RATES
FISCAL YEAR 2014-15

Purveyor	Potable Water ($/AF)	Recycled Water ($/AF)	Discount (%)
Long Beach Water Department	1,149.11	574.56 – 804.55	30 – 50
City of Cerritos	675.18	326.70	52
City of Lakewood	1,524.60	696.96	54
Central Basin MWD	1,029.00 – 1,171.00	318.00 – 556.00	46 – 73
Pomona Water Department	796.47	557.53	30
Walnut Valley Water District	1,285.02	679.54	47
Rowland Water District	1,263.24	723.10	57
San Gabriel Valley Water Co.	1,172.03	220.00 – 996.22	15 – 81
Suburban Water Systems	1,214.05 – 1,303.21	1,031.94 – 1,107.73	15
Valencia Water Company	660.81	555.08	16

To put things into perspective, the 88,985 AF of recycled water beneficially used in FY 14-15 is equivalent to the water supply for a population of 444,925, roughly the size of the City of Mesa, AZ, the 38th largest city in the U.S.[3] The use of locally produced recycled water reduces the need to pump State Project water over the Tehachapi Mountains at a net energy cost of roughly 3,000 kilowatt-hours (kWh) per acre-foot.[4] Thus, approximately 267 million kWh of electricity were conserved in FY 14-15, which is equivalent to the annual output of a 30.5-megawatt power plant consuming 144,665 barrels of oil. At $0.15/kWh (based on Southern California Edison residential billing rate), this equates to an annual savings of almost $40 million in electricity. At $59.57/barrel,[5] this equates to an annual savings of approximately $8.6 million in oil.

The conservation of fossil fuels and energy also resulted in significant reductions in potential air pollutants. During FY 14-15, 153.5 tons of nitrogen oxide, 26.7 tons of carbon monoxide, 16.0 tons of sulfur oxides, 5.3 tons of particulates, and 1.3 tons of reactive organic gases were kept out of the atmosphere.[6] Perhaps more important, the use of local recycled water avoided the production of approximately 200,220 tons of carbon dioxide, a greenhouse gas that contributes to global warming.[7]

Table 6 summarizes the water, energy, chemicals, and air pollutant savings realized by the use of local recycled water sources.

3 http://www.census.gov/2010census/popmap/.
4 "Refining Estimates of Water-Related Energy Use in California," California Energy Commission, December 2006.
5 June 30, 2014, spot price for "West Texas Intermediate crude oil".
6 Estimates based upon emission factors from "Power Plant Fuel Use and Emissions," South Coast Air Quality Management District, May 1986.
7 Estimate based upon data from "Compilation of Air Pollutant Emission Factors, Vol. 1: Stationary Point and Area Sources," USEPA, January 1995.

TABLE 5
RECYCLED WATER PURVEYORS

City of Long Beach
1800 East Wardlow Road
Long Beach, CA 90807-4994
(562) 570-2300

City of Cerritos
Bloomfield at 183rd Street
Cerritos, CA 90701
(562) 860-0311

City of Lakewood
5050 North Clark Avenue
Lakewood, CA 90714
(562) 866-9771

City of Bellflower
16600 Civic Center Drive
Bellflower, CA 90706
(562) 804-1424

City of Industry
P.O. Box 3366
Industry, CA 91744
(626) 333-2211

City of Pomona
505 South Garey Avenue
Pomona, CA 91766
(909) 620-2253

City of Cudahy
5220 Santa Ana Street
Cudahy, CA 90201
(323) 773-5143

Walnut Valley Water District
271 South Brea Canyon Road
Walnut, CA 91789
(909) 595-1268

City of Pico Rivera
6615 Passons Boulevard
Pico Rivera, CA 90660-1016
(562) 801-4462

City of Vernon
4305 Santa Fe Avenue
Vernon, CA 90058
(323) 583-8811

City of Lancaster
615 West Avenue H
Lancaster, CA 93534
(661) 945-6863

City of Paramount
16400 Colorado Avenue
Paramount, CA 90723
(562) 220-2020

City of Santa Fe Springs
11710 Telegraph Road
Santa Fe Springs, CA 90670
(562) 868-0511

City of Downey
9252 Stewart & Gray Road
Downey, CA 90242
(562) 904-7202

City of Whittier
13250 East Penn Street
Whittier, CA 90602
(562) 945-8215

City of South Gate
4244 Santa Ana Street
South Gate, CA 90280
(323) 563-5795

City of Lynwood
11330 Bullis Road
Lynwood, CA 90262
(562) 603-0220

City of Norwalk
12700 Norwalk Boulevard
Norwalk, CA 90650
(562) 929-2677

Rowland Water District
3021 S. Fullerton Road
Rowland Heights, CA 91748
(562) 697-1726

Castaic Lake Water Agency
27234 Bouquet Canyon Road
Santa Clarita, CA 91350
(661) 297-1600

Suburban Water Systems
2235 E. Garvey Ave N
West Covina, CA, 91791
(626) 261-2218

City of Palmdale
38250 N. Sierra Hwy
Palmdale, CA 93550
(661) 267-5310

Central Basin Municipal Water District
6252 Telegraph Road
Commerce, CA 90040-2512
(323) 201-5555

Park Water Company
9750 Washburn Road
Downey, CA 90241
(562) 923-0711

Bellflower Municipal Water Systems
16913 Lakewood Blvd.
Bellflower, CA 90706
(562) 531-1500

Bellflower-Somerset Mutual Water Co.
10016 Flower Street
Bellflower, CA 90706
(562) 866-9980

Golden State Water Company
11469 Rosecrans Avenue
Norwalk, CA 90650
(562) 907-9200

San Gabriel Valley Water Company
11142 Garvey Avenue
El Monte, CA 91733
(626) 448-6183

City of Huntington Park
6900 Bissell Street
Huntington Park, CA 90255
(323) 584-6323

Upper San Gabriel Valley MWD
11310 East Valley Boulevard
El Monte, CA 91731
(626) 423-2297

Valencia Water Company
24631 Avenue Rockefeller
Valencia, CA 91355
(661) 294-0828

Golden State Water Company
110 E. Live Oak Avenue
Arcadia, CA 91006
(626) 446-1372

Los Angeles Co. Waterworks No. 40
900 S. Fremont Avenue
Alhambra, CA 91803
(626) 458-5100

TABLE 6
WATER, ENERGY, CHEMICAL, AND AIR POLLUTANT SAVINGS FROM RECYCLED WATER USAGE - FISCAL YEAR 2014-15

Category	Units	Savings
Water Supply	acre-feet	88,985
Water Supply	No. of People	444,925
Energy	kilowatt-hours	266,955,000
Energy	megawatts	30.5
Energy	barrels of oil	144,664
Electricity	dollars	40,043,250
Petroleum	dollars	8,617,634
WRP chemicals	dollars	235,706
Nitrogen oxide	tons	153.5
Carbon monoxide	tons	26.7
Sulfur oxides	tons	16.0
Particulates	tons	5.3
Reactive organic gases	tons	1.3
Carbon dioxide	tons	200,216

1.4 SUMMARY

Of the 407.02 MGD of treated effluent produced by the Sanitation Districts, 143.89 MGD (35.4%) was treated to a suitable level for reuse, with 79.41 MGD (19.5%) actually reused at 791 individual sites in 32 cities for numerous diverse applications (with more than half used for groundwater replenishment). This level of reuse represented more than half of the recycled water available. Effluent production, even from the WRPs, continued to decrease due to increased conservation and reduced commercial/industrial activity. The 10 largest direct reuse sites (1.3% of all sites, excluding recharge and environmental) used 21.4% of the recycled water delivered during the fiscal year. Thirty-four new reuse sites were added during FY 14-15; however, the amount of recycled water used decreased by 13.7% from the preceding fiscal year, due in part to the shutdown of the Whittier Narrows WRP and the Leo Vander Lans Advanced Treatment Plant for a portion of the year and for the mild weather and increased rainfall during the year. The use of 88,985 AF of locally produced recycled water essentially resulted in the conservation of the water supply needs of almost half a million people, and in significant reductions in treatment plant chemical usage, water rates for end users, energy consumption, and air pollution.

Since the official beginning of the Sanitation Districts' water recycling program with the start-up of the Whittier Narrows WRP in August 1962, approximately 2,888,041 AF (940.7 billion gallons) of recycled water produced by Sanitation Districts' facilities have been beneficially used. This use of recycled water has avoided the release of approximately 6.5 million tons of carbon dioxide and 6,585 tons of other air pollutants into the atmosphere.

All of the currently active reuse sites, along with their acreage, start-up dates, applications, and quantities of recycled water used for FY 14-15 are presented chronologically in Table 7. A chronology of significant events in the Sanitation Districts' reuse programs is presented at the end of this report in Appendix A. Final effluent quality for each of the Sanitation Districts' tertiary WRPs is presented in Appendix B.

TABLE 7
SUMMARY OF FISCAL YEAR 14-15 RECYCLED WATER USAGE
(PAGE 1 OF 15)

Reuse Site (City)	Start-up Date	Acreage	Type of Use	Usage (MGD)	Usage (AFY)
Water Replenishment District (WNWRP)	Aug 62	--	R	4.953	5,550
La Cañada-Flintridge Country Club (La Cañada)	Oct 62	105	L,P	0.074	83
Apollo Lakes Community Regional Park (Lancaster)	Jun 69	56	L,P	0.235	263
Water Replenishment District (SJCWRP)	Jun 71	--	R	35.543	37,587
Cal Poly, Pomona-Kellogg (Pomona)	Dec 73	500	AG,L,O,P,AF	0.683	765
Lanterman Hospital (Pomona)	Dec 73	100	AG	0	0
South Campus Drive Parkway (Pomona)	Dec 73	8	L	0.011	12
Route 57 and 10 Freeways (Pomona)	May 75	18	L	0	0
Bonelli Regional County Park (San Dimas)	Apr 77	789	L	0.713	799
California Country Club (Industry)	Jun 78	120	L,P	0.398	446
Ironwood 9 Golf Course (Cerritos)	Nov 78	25	L,P	0.101	113
Caruthers Park (Bellflower)	Nov 78	5	L	0.045	50
El Dorado Park West (Long Beach)	Aug 80	135	L	0.149	167
El Dorado Golf Course (Long Beach)	Aug 80	150	L	0.268	300
El Dorado Park East (Long Beach)	Jan 84	300	L	0.472	529
Suzanne Park (Walnut)	Oct 80	12	L	0.015	17
Route 71 and 10 Freeways (Pomona)	Apr 81	12	L	0.001	1
Piute Ponds (Lancaster)	May 81	400	E	4.398	5,760
Recreation Park (Long Beach)	Oct 82	26	L	0.049	55
Recreation Golf Course (Long Beach)	Oct 82	149	L	0.261	293
Whaley Park (Long Beach)	Jun 83	9	L	0.024	27
Industry Hills Recreation Area (Industry)	Aug 83	600	L,P	0.960	1,076
Nature Center (Long Beach)	Jan 84	60	L	0.048	54
605 Freeway at Wardlow (Long Beach)	Feb 84	50	L	0.014	16
Heartwell Park (Long Beach)	Feb 84	120	L	0.192	215
Skylinks Golf Course (Long Beach)	Apr 84	155	L,P	0.256	287
Douglas Park (Long Beach)	Apr 84	3	L	0.006	7
405 Freeway at Atherton (Long Beach)	May 84	5	L	0.003	3
DeMille Junior High School (Long Beach)	Jun 84	5	AF,L	0.026	29
Heartwell Golf Park (Long Beach)	Jun 84	30	L	0.072	80
Spadra Landfill landscape (Walnut)	Jul 84	53	L	0.221	247
Spadra Landfill dust control (Walnut)	Jul 84	--	I	0.0002	0.2
Veterans Memorial Stadium (Long Beach)	Jan 85	6	AF	0.024	27
Harrington Farms Pistachio Orchard (Palmdale)	Apr 85	23	AG	0.027	31
Recreation Park Bowling Green (Long Beach)	Aug 85	3	L	0.007	8
California State University, Long Beach	Dec 85	52	AF,L	0.156	175
Long Beach City College (Long Beach)	Feb 86	15	AF,L	0.066	74
Recreation 9-Hole Golf Course (Long Beach)	Mar 86	37	L	0.088	98
Blair Field (Long Beach)	Apr 86	5	AF	0.013	15
Woodlands Park (Long Beach)	Apr 86	7	L	0.011	13
Colorado Lagoon Park (Long Beach)	Apr 86	4	L	0.0003	0.4
Marina Vista Park (Long Beach)	Apr 86	30	L	0.033	37
Suzanne Middle School (Walnut)	May 86	4	AF,L	0.012	14
Walnut High School (Walnut)	May 86	15	AF,L	0.019	21
Vejar School (Walnut)	May 86	3	AF,L	0.012	13
Morris School (Walnut)	May 86	9	AF,L	0.008	9
Snow Creek Park (Walnut)	May 86	7	L	0.009	11
Snow Creek Landscape Maintenance Dist. (Walnut)	May 86	13.5	L	0.037	42
Lemon Creek Park (Walnut)	May 86	5	L	0.007	8
Friendship Park (West Covina)	May 86	6	L	0.006	7
Hollingworth School (West Covina)	May 86	3	AF,L	0.008	9
Lanesboro Park (West Covina)	May 86	2	L	0.006	7
Rincon Middle School (West Covina)	May 86	3	AF,L	0.016	18
Route 57 and 60 Freeways (Rowland Heights)	May 86	19.7	L	0.016	18

NOTES: AF = Athletic field irrigation, AG = Agricultural irrigation, E = Environmental enhancement, I = Industrial, L = Landscape irrigation, O = Ornamental plant irrigation, P = Impoundment, R = Groundwater replenishment.

TABLE 7
SUMMARY OF FISCAL YEAR 14-15 RECYCLED WATER USAGE
(PAGE 2 OF 15)

Reuse Site (City)	Start-up Date	Acreage	Type of Use	Usage (MGD)	Usage (AFY)
Rowland Heights Reg. Co. Park (Rowland Heights)	May 86	11	L	0.016	18
Rowland High School (Rowland Heights)	May 86	9	AF,L	0.023	26
Killian Elementary School (Rowland Heights)	May 86	3	AF,L	0.006	6
Walnut Elementary School (Walnut)	May 86	4	AF,L	0.009	10
WUSD Administrative Service Center (Walnut)	May 86	4	L	0.003	3
Walnut Ranch Park (Walnut)	Jun 86	26	L	0.017	19
Amar Road greenbelt (Walnut)	Jun 86	16	L	0.146	164
Diamond Bar Golf Course (Diamond Bar)	Jul 86	174	L,P	0.169	189
Walnut Ridge Landscape Maintenance Dist. (Walnut)	Mar 87	25.5	L	0.028	31
Morningside Park (Walnut)	Mar 87	4	L	0.006	7
Gateway Corporate Center (Diamond Bar)	Jun 87	45	L	0.051	57
Library/Civic Center (Cerritos)	Dec 87	4	L	0.018	20
Olympic Natatorium (Cerritos)	Dec 87	6	L	0.020	22
Whitney Learning Center (Cerritos)	Dec 87	10	AF,L	0.023	26
Gonsalves Elementary School (Cerritos)	Dec 87	5	AF,L	0.010	12
Wittman Elementary School (Cerritos)	Dec 87	5	AF,L	0.011	12
Gahr High School (Cerritos)	Dec 87	28	AF,L	0.055	62
Area Development Project No. 2 (Cerritos)	Jan 88	11.5	L,P	0.063	71
Medians/Parkways (Cerritos)	Jan 88	42.8	L	0.122	136
605 Freeway (Cerritos)	Jan 88	58.6	L	0.086	97
91 Freeway (Cerritos)	Jan 88	70	L	0.027	31
Frontier Park (Cerritos)	Jan 88	2.5	L	0.012	14
Carmenita Junior High School (Cerritos)	Jan 88	5	AF,L	0.018	20
Cerritos Elementary School (Cerritos)	Jan 88	6	AF,L	0.012	13
Stowers Elementary School (Cerritos)	Jan 88	6	AF,L	0.021	23
Kennedy Elementary School (Cerritos)	Jan 88	7	AF,L	0.015	17
City Park East (Cerritos)	Jan 88	18	L	0.048	53
Satellite Park (Cerritos)	Jan 88	2	L	0.004	4
Leal Elementary School (Cerritos)	Jan 88	6	AF,L	0.009	10
Cerritos High School (Cerritos)	Jan 88	20	AF,L	0.042	47
Elliott Elementary School (Cerritos)	Jan 88	7	AF,L	0.014	15
Carmenita Park (Cerritos)	Jan 88	4.5	L	0.017	19
Juarez Elementary School (Cerritos)	Jan 88	7	AF,L	0.022	24
ABC Adult School & Office (Cerritos)	Jan 88	3	L	0.014	16
Tracy Education Center (Cerritos)	Jan 88	6	AF,L	0.003	4
Liberty Park (Cerritos)	Jan 88	20	L	0.033	37
Gridley Park (Cerritos)	Jan 88	9	L	0.024	27
Jacob Park (Cerritos)	Jan 88	4.5	L	0.011	13
Heritage Park (Cerritos)	Feb 88	12	L	0.037	41
Bragg Elementary School (Cerritos)	Feb 88	7	AF,L	0.015	16
Haskell Junior High School (Cerritos)	Feb 88	18	AF,L	0.037	41
Pat Nixon Elementary School (Cerritos)	Feb 88	5	AF,L	0.011	12
Cabrillo Lane Elementary School (Cerritos)	Feb 88	9	AF,L	0.010	11
Sunshine Park (Cerritos)	Feb 88	3.5	L	0.012	14
Friendship Park (Cerritos)	Feb 88	4	L	0.011	12
Bettencourt Park (Cerritos)	Feb 88	2	L	0.008	9
Brookhaven Park (Cerritos)	Feb 88	2	L	0.009	10
Saddleback Park (Cerritos)	Feb 88	2	L	0.006	6
Westgate Park (Cerritos)	Feb 88	4	L	0.009	11
Rainbow Park (Cerritos)	Mar 88	2.5	L	0.004	5
Bellflower Christian School (Cerritos)	Mar 88	31.4	AF,L	0.044	50
Cerritos Community College (Cerritos)	Mar 88	55	AF,L	0.097	109
Cerritos Regional County Park (Cerritos)	Apr 88	59	L	0.151	169
Artesia Cemetery District (Cerritos)	Apr 88	10.9	L	0.026	30

NOTES: AF = Athletic field irrigation, AG = Agricultural irrigation, E = Environmental enhancement, I = Industrial, L = Landscape irrigation, O = Ornamental plant irrigation, P = Impoundment, R = Groundwater replenishment.

TABLE 7
SUMMARY OF FISCAL YEAR 14-15 RECYCLED WATER USAGE
(PAGE 3 OF 15)

Reuse Site (City)	Start-up Date	Acreage	Type of Use	Usage (MGD)	Usage (AFY)
Rosewood Park (Cerritos)	Apr 88	2.7	L	0.014	15
20659 E. Valley Blvd. (Walnut)	May 88	7	O	0	0
Lakewood 1st Presbyterian Church (Long Beach)	Sep 88	1	L	0.0001	0.1
Westhoff Elementary School (Walnut)	Sep 88	8	AF,L	0.006	7
Tree Farm (Palmdale)	Feb 89	28	O	0	0
Virginia Country Club (Long Beach)	Mar 89	135	L,P	0.167	187
Lakewood Golf Course (Long Beach)	Mar 89	128	L,P	0.388	434
Scherer Park (Long Beach)	Mar 89	24	L	0.030	33
Sports Complex (Cerritos)	Mar 89	25	AF,L	0.058	65
Sunnyside Memorial Park (Long Beach)	Apr 89	35	L	0.080	89
All Soul's Cemetery (Long Beach)	Apr 89	40	L	0.118	133
Cherry Avenue Park (Long Beach)	May 89	10	L	0.015	17
River (Rynerson) Park (Lakewood)	Aug 89	40	L	0.079	89
Monte Verde Park (Lakewood)	Aug 89	4	L	0.049	54
Mae Boyer Park (Lakewood)	Aug 89	8	L	0.046	51
Jose Del Valle Park (Lakewood)	Aug 89	12	L	0.030	34
Jose San Martin Park (Lakewood)	Aug 89	9.3	L	0.025	28
City Water Yard (Lakewood)	Aug 89	1	L	0.008	9
Woodruff Avenue greenbelt (Lakewood)	Aug 89	4.1	L	0.024	27
South Street greenbelt (Lakewood)	Aug 89	3.3	L	0.015	17
Mayfair Park (Lakewood)	Dec 89	18	L	0.041	46
Shoemaker On/Off Ramp - 91 Freeway (Cerritos)	Dec 89	4.6	L	0.013	14
Temple Avenue greenbelt (Walnut)	Jan 90	1	L	0.0003	0.3
Transpacific Development Co. (Cerritos)	Feb 90	6.9	L	0.012	14
Automated Data Processing (Cerritos)	Feb 90	0.7	L	0.005	6
Walnut Tech Business Center (Walnut)	Apr 90	1	L	0.002	2
Sheraton Hotel (Cerritos)	Mar 90	0.6	L	0.004	4
Cerritos Pontiac/GMC Truck (Cerritos)	May 90	0.5	L	0.001	1
Moothart Chrysler (Cerritos)	May 90	0.4	L	0.006	7
St. Joseph Parish School (Lakewood)	Aug 90	3.5	AF,L	0.010	11
Foster Elementary School (Lakewood)	Sep 90	6	AF,L	0.020	23
Windjammer Off-Ramp - 91 Freeway (Cerritos)	Sep 90	0.8	L	0.0004	0.5
Browning Oldsmobile (Cerritos)	Sep 90	0.1	L	0.002	2
Civic Center Way and City Hall (Lakewood)	Nov 90	2.8	L	0.010	12
Los Coyotes Diagonal (Long Beach)	Mar 91	1	L	0.005	5
City Water Truck (Cerritos)	May 91	--	L	0	0
Private Haulers (Cerritos)	May 91	--	I	0	0
Parkside Condominiums (Cerritos)	May 91	1.8	L	0.005	6
Mayfair High School (Lakewood)	May 91	36.5	AF,L	0.048	54
Wilson High School (Long Beach)	Jun 91	5	AF,L	0.026	29
Concordia Church (Cerritos)	Jun 91	4	L	0.005	6
Church of the Nazarene (Cerritos)	Aug 91	1	L	0.004	5
B&B Stables (Cerritos)	Aug 91	18	I	0.005	5
Lemon Avenue greenbelt (Walnut)	Sep 91	4.3	L	0.007	7
Lindstrom Elementary School (Lakewood)	Sep 91	12	AF,L	0.016	18
Lakewood High School (Lakewood)	Sep 91	25	AF,L	0.034	38
Shadow Park Homeowner's Association (Cerritos)	Nov 91	6	L	0.018	20
South Coast AQMD Headquarters (Diamond Bar)	Nov 91	2	L	0.007	8
Long Beach Water Department office (Long Beach)	Jan 92	2	L	0.0002	0.3
Reservoir Park (Signal Hill)	Feb 92	2	L	0.008	9
Burroughs Elementary School (Signal Hill)	Feb 92	4	AF,L	0.004	4
Andy's Nursery (Bellflower)	Feb 92	9	O	0.041	46
Lake Center Park (Santa Fe Springs)	Mar 92	8	L	0.024	27
Lake Center School (Santa Fe Springs)	Mar 92	8	AF,L	0.020	23

NOTES: AF = Athletic field irrigation, AG = Agricultural irrigation, E = Environmental enhancement, I = Industrial, L = Landscape irrigation, O = Ornamental plant irrigation, P = Impoundment, R = Groundwater replenishment.

TABLE 7
SUMMARY OF FISCAL YEAR 14-15 RECYCLED WATER USAGE
(PAGE 4 OF 15)

Reuse Site (City)	Start-up Date	Acreage	Type of Use	Usage (MGD)	Usage (AFY)
Clarkman Walkway (Santa Fe Springs)	Mar 92	0.1	L	0.00002	0.02
Towne Center Walkway (Santa Fe Springs)	Apr 92	0.1	L	0.001	1
Lakeview Child Care (Santa Fe Springs)	May 92	0.2	L	0.001	1
Orr & Day Road medians (Santa Fe Springs)	May 92	0.1	L	0.00001	0.01
Hughes Middle School (Long Beach)	Apr 92	3	AF,L	0.014	16
405 Freeway at Walnut (Long Beach)	Apr 92	9	L	0.009	10
Area Development Project No. 6 (Cerritos)	Apr 92	9	L	0.050	57
Somerset Park (Long Beach)	May 92	3	L	0.002	2
Longfellow Elementary School (Long Beach)	May 92	1	AF,L	0.00002	0.03
Granada Park Homeowners Association (Cerritos)	May 92	3.8	L	0.009	10
Walnut Valley Water Dist. reservoir (Diamond Bar)	May 92	1	L	0.003	4
Florence Avenue medians (Santa Fe Springs)	Jun 92	3	L	0.006	7
Gauldin Elementary School (Downey)	Jun 92	8.4	AF,L	0.011	12
Rio San Gabriel School (Downey)	Jun 92	14.8	AF,L	0.022	25
Bellflower High School (Bellflower)	Jul 92	28.4	AF,L	0.073	82
Ernie Pyle Elementary School (Bellflower)	Aug 92	4.9	AF,L	0.014	16
Telegraph Road medians (Santa Fe Springs)	Aug 92	0.5	L	0.005	6
Lakeview Park (Santa Fe Springs)	Aug 92	6.7	L	0.017	19
Clark Estate (Santa Fe Springs)	Aug 92	4.3	L	0.006	7
Towne Center Green (Santa Fe Springs)	Aug 92	2.3	L	0.006	7
Pioneer Road medians (Santa Fe Springs)	Sep 92	0.4	L	0.029	33
Police Station (Santa Fe Springs)	Sep 92	0.2	L	0.002	2
Aquatic Center (Santa Fe Springs)	Sep 92	0.5	L	0.003	4
Lewis School (Downey)	Nov 92	4.6	AF,L	0.007	8
Wilderness Park (Downey)	Nov 92	24	L	0.083	93
First Chinese Baptist Church (Walnut)	Dec 92	0.3	L	0.002	2
605 Freeway at Foster (Bellflower)	Jan 93	14	L	0.001	1
Promenade Walkway (Santa Fe Springs)	Jan 93	0.3	L	0.003	3
Rio San Gabriel Park (Downey)	Jan 93	6.4	L	0.037	41
East Middle School (Downey)	Jan 93	26	AF,L	0.014	16
Zinn Park (Bellflower)	Jan 93	1.7	L	0.007	8
Cerritos Post Office (Cerritos)	Feb 93	0.7	L	0.006	6
605/105 Interchange (Bellflower)	Feb 93	22	L	0.00003	0.03
Hollywood Sports Center (Bellflower)	Feb 93	22.5	L	0.003	4
Santa Fe Springs High School (Santa Fe Springs)	Feb 93	14.5	AF,L	0.031	35
605/5 Freeway at Florence (Santa Fe Springs)	Feb 93	17	L	0.001	1
Center for the Performing Arts (Cerritos)	Mar 93	1	L	0.003	3
Old Downey Cemetery (Downey)	Apr 93	7.5	L	0.033	37
Thompson Park (Bellflower)	Apr 93	15	L	0.025	28
My Hoa Farm (Lakewood)	May 93	5	AG	0.013	14
105 Freeway at Bellflower (Downey)	May 93	17.9	L	0	0
Palms Park (Lakewood)	May 93	20	L	0.015	16
Crawford Park (Downey)	Jul 93	2.1	L	0.009	10
Humedo Nursery (Downey)	Aug 93	11	O	0.006	6
105 Freeway at Lakewood (Downey)	Sep 93	25	L	0.001	1
Shaw Industries Carpet Mill (Santa Fe Springs)	Sep 93	--	I	0.181	203
Palms Elementary School (Lakewood)	Sep 93	3.5	AF,L	0.015	16
Artesia High School (Lakewood)	Sep 93	20.9	AF,L	0.030	34
West Middle School (Downey)	Oct 93	19.5	AF,L	0.022	25
Circle Park (South Gate)	Oct 93	4	L	0.012	13
Burger King restaurant (Diamond Bar)	Oct 93	0.2	L	0.0001	0.1
Majestic Mgmt., 19850 E. Business Parkway (Walnut)	Nov 93	0.8	L	0.003	3
General Electric, 19705 E. Business Parkway (Walnut)	Nov 93	1.6	L	0.006	6
Hollydale Park (South Gate)	Nov 93	46	L	0.114	128

NOTES: AF = Athletic field irrigation, AG = Agricultural irrigation, E = Environmental enhancement, I = Industrial, L = Landscape irrigation, O = Ornamental plant irrigation, P = Impoundment, R = Groundwater replenishment.

TABLE 7
SUMMARY OF FISCAL YEAR 14-15 RECYCLED WATER USAGE
(PAGE 5 OF 15)

Reuse Site (City)	Start-up Date	Acreage	Type of Use	Usage (MGD)	Usage (AFY)
Delta Dental (Cerritos)	Nov 93	1.8	L	0.004	4
Cal Poly LandLab (Pomona)	Nov 93	2.5	AG,L	0.020	23
Rodeo Ridge Estates (Walnut)	Dec 93	6.3	L	0.003	3
Robertson's Ready-Mix (Santa Fe Springs)	Dec 93	--	I	0.004	5
710/105 Interchange (Paramount)	Dec 93	18.5	L	0	0
Downey/Contreras greenbelt (Paramount)	Dec 93	0.1	L	0.001	1
Compton Golf Course (Paramount)	Dec 93	13	L	0.031	34
Alondra Junior High School (Paramount)	Dec 93	14	AF,L	0.007	8
Mokler Elementary School (Paramount)	Dec 93	10	AF,L	0.008	9
Los Cerritos Elementary School (Paramount)	Dec 93	8	AF,L	0.010	11
Wirtz Elementary School (Paramount)	Dec 93	9	AF,L	0.009	10
Keppel Elementary School (Paramount)	Dec 93	4	AF,L	0.005	5
Billy Lee Nursery (Paramount)	Dec 93	2.5	O	0.007	8
Golden Springs Drive medians (Diamond Bar)	Jan 94	1.3	L	0.005	6
105 Freeway at Wright (Lynwood)	Jan 94	19.6	L	0	0
710 Freeway at M.L. King (Lynwood)	Jan 94	15.5	L	0.0001	0.1
710 Freeway at Rosecrans (Compton)	Jan 94	24.2	L	0	0
Independence Park (Downey)	Feb 94	10.4	L	0.014	16
Paramount Park (Paramount)	Feb 94	9	L	0.022	25
Paramount High School (Paramount)	Feb 94	19	AF,L	0.029	32
Southern California Edison nursery (Cerritos)	Mar 94	3.5	O	0.005	6
Walnut Hills Village Shopping Center (Walnut)	Mar 94	2.4	L	0.005	6
Rosecrans/Paramount medians (Paramount)	Mar 94	0.2	L	0.002	2
Somerset medians (Paramount)	Apr 94	0.9	L	0.005	5
Rio Hondo Golf Course (Downey)	Apr 94	92.4	L	0.238	267
Zimmerman Park (Norwalk)	Apr 94	9.5	L	0.017	19
Vista Verde Park (Norwalk)	Apr 94	6.5	L	0.017	19
Gerdes Park (Norwalk)	Apr 94	8.6	L	0.020	23
Clearwater Junior High School (Paramount)	Apr 94	4	AF,L	0.023	26
Vestar Development (Cerritos)	Jun 94	9.6	L	0.028	31
Steam Engine Park (Paramount)	Jun 94	0.6	L	0.002	2
5 Freeway at Shoemaker/Firestone (Norwalk)	Jul 94	0.8	L	0	0
Spane Park (Paramount)	Jul 94	5	L	0.010	12
Orange/Cortland Parkway (Paramount)	Jul 94	1.3	L	0.002	2
Carpenter School (Downey)	Aug 94	7.4	AF,L	0.010	11
Brookside Equestrian Center (Walnut)	Aug 94	13.6	L	0.009	10
Field, S/W corner Norwalk/Telegraph (S.F. Springs)	Aug 94	5.2	L	0.013	14
Washington Elementary School (Whittier)	Sep 94	5	AF,L	0.007	8
605 Freeway at Beverly (Whittier)	Sep 94	30	L	0.018	20
John Anson Ford Park (Bell Gardens)	Sep 94	45	L	0.042	47
Ramona Park (Norwalk)	Oct 94	4.8	L	0.011	13
Alondra median (Paramount)	Oct 94	0.6	L	0.009	11
Imperial/Wright Road medians (Lynwood)	Oct 94	0.2	L	0.0001	0.1
Walnut Valley Water District Office (Walnut)	Oct 94	0.2	L	0.001	1
Cattelus Development (Walnut)	Oct 94	18.9	L	0.010	11
Circuit City, 501 Cheryl Lane (Walnut)	Oct 94	1	L	0.005	6
Dreyer's Grand Ice Cream, 351 Cheryl Lane (Walnut)	Oct 94	0.6	L	0.004	4
Sorenson Elementary School (Whittier)	Oct 94	4	AF,L	0.005	6
Palm Park West (Whittier)	Nov 94	5	L	0.008	9
Metrolink Station (Industry)	Nov 94	0.6	L	0.002	2
Little Lake Park (Santa Fe Springs)	Dec 94	18	L	0.043	48
Sundance Condominiums (Cerritos)	Jan 95	9	L	0.038	43
Del Paso High School (Walnut)	Jan 95	3	AF,L	0.003	4
Sea Shield Marine Products, 20832 Currier Rd (Walnut)	Jan 95	0.1	L	0.0002	0.2

NOTES: AF = Athletic field irrigation, AG = Agricultural irrigation, E = Environmental enhancement, I = Industrial, L = Landscape irrigation, O = Ornamental plant irrigation, P = Impoundment, R = Groundwater replenishment.

TABLE 7
SUMMARY OF FISCAL YEAR 14-15 RECYCLED WATER USAGE
(PAGE 6 OF 15)

Reuse Site (City)	Start-up Date	Acreage	Type of Use	Usage (MGD)	Usage (AFY)
John Anson Ford Golf Course (Bell Gardens)	Feb 95	13.6	L	0	0
Unical Aviation Inc., Currier/Lemon (Walnut)	Apr 95	1.1	L	0.007	8
Sysco Food Service, 20701 Currier Road (Walnut)	Apr 95	2.3	L	0.008	9
Thermaltake Inc., 20420 E. Bus. Parkway (Walnut)	Apr 95	0.8	L	0.005	5
Equus Computer Systems, 20480 E. Bus. Pkwy (Walnut)	Apr 95	0.9	L	0.004	4
Dura Freight Lines, 515-525 S. Lemon (Walnut)	Apr 95	0.5	L	0.001	1
S/W-S/E Corner Lemon/Business Parkway (Walnut)	Apr 95	0.2	L	0.004	5
Dura Freight Lines, 20275 Business Parkway (Walnut)	Apr 95	1.3	L	0.003	3
Coaster Co. of America, 20300 Bus. Parkway (Walnut)	Apr 95	0.7	L	0.002	2
Dura Freight Lines, 20405 Bus. Parkway (Walnut)	Apr 95	1	L	0.002	2
Dura Freight Lines, 20595 E. Bus. Parkway (Walnut)	Apr 95	0.8	L	0.003	4
Dura Freight Lines, 20435-45 Bus. Parkway (Walnut)	Apr 95	0.7	L	0.002	2
Orange Grove School (Whittier)	Apr 95	6.6	AF,L	0.011	12
South Middle School (Downey)	May 95	15.8	AF,L	0.020	22
Nuffer Elementary School (Norwalk)	Jun 95	10.4	AF,L	0.013	15
Lampton Middle School (Norwalk)	Jun 95	9.5	AF,L	0.001	1
THUMS (Long Beach)	Jun 95	8	I	0.710	795
820 Fairway Drive medians (Industry)	Jun 95	0.1	L	0.001	1
Spencer N Enterprises, Inc., 435 S. Lemon (Walnut)	Jun 95	0.5	L	0.001	1
General Electric, 19805 E Business Parkway (Walnut)	Jun 95	1.1	L	0.004	5
ACME Furniture, 20002 E. Business Parkway (Walnut)	Jun 95	4	L	0.006	7
General Electric, 20005 E. Business Parkway (Walnut)	Jun 95	6.7	L	0.009	10
Hargitt Middle School (Norwalk)	Jul 95	9.5	AF,L	0.024	27
Norwalk Adult School (Norwalk)	Jul 95	17.2	AF,L	0.001	1
John Glenn High School (Norwalk)	Jul 95	38.8	AF,L	0.023	26
Ramona Elementary School (Norwalk)	Jul 95	6.8	AF,L	0.002	3
New River Elementary School (Norwalk)	Jul 95	10.3	AF,L	0.006	7
Morrison Elementary School (Norwalk)	Sep 95	7.7	AF,L	0.006	7
Katherine Edwards Middle School (Whittier)	Sep 95	19	AF,L	0.023	26
Longfellow Elementary School (Whittier)	Sep 95	4.5	AF,L	0.007	8
Walter Dexter Middle School (Whittier)	Sep 95	15.5	AF,L	0.010	11
D.D. Johnston Elementary School (Norwalk)	Sep 95	8.9	AF,L	0.012	13
Corvallis Middle School (Norwalk)	Sep 95	16.9	AF,L	0.008	9
Norwalk High School (Norwalk)	Sep 95	35.1	AF,L	0.034	38
Heritage Park (Santa Fe Springs)	Oct 95	9.2	L	0.012	13
Belloso Farm Nursery (Paramount)	Oct 95	2.5	O	0	0
Robertson's Ready-Mix (Paramount)	Nov 95	--	I	0.012	14
Cerritos Nursery (Cerritos)	Dec 95	3	O	0.002	3
Spadra Gas-to-Energy Plant (Walnut)	Dec 95	--	I	0.061	68
Founders Memorial Park (Whittier)	Jan 96	4	L	0.013	15
Los Nietos Park (Santa Fe Springs)	Jan 96	11.2	L	0.020	22
Bell Gardens Soccer Field (Bell Gardens)	Feb 96	2.6	AF	0.006	7
Jersey Ave. School/city athl. fields (Santa Fe Springs)	Mar 96	8	AF	0.007	8
Salt Lake Municipal Park (Huntington Park)	Apr 96	20.9	L	0.062	70
Sorenson Park (Whittier)	May 96	10.7	L	0.017	19
Sorenson Library (Whittier)	May 96	0.4	L	0	0
Encore Maintenance-Warmington Homes (Cerritos)	May 96	1.1	L	0.004	4
Bellflower Blvd. medians (Bellflower)	Jul 96	0.3	L	0.002	3
Alta Produce (Paramount)	Aug 96	4	AG	0.001	1
Artesia Off-Ramp - 91 Freeway (Cerritos)	Aug 96	3.3	L	0.009	10
Ping Ting Hsu, 20732 Currier Road (Walnut)	Aug 96	0.1	L	0.0002	0.3
Belloso Farm Nursery (South Gate)	Sep 96	2.5	O	0	0
Temple Park (Downey)	Oct 96	1	L	0.001	2
Woodruff Avenue medians (Bellflower)	Oct 96	0.8	L	0.004	5

NOTES: AF = Athletic field irrigation, AG = Agricultural irrigation, E = Environmental enhancement, I = Industrial, L = Landscape irrigation, O = Ornamental plant irrigation, P = Impoundment, R = Groundwater replenishment.

TABLE 7
SUMMARY OF FISCAL YEAR 14-15 RECYCLED WATER USAGE
(PAGE 7 OF 15)

Reuse Site (City)	Start-up Date	Acreage	Type of Use	Usage (MGD)	Usage (AFY)
Santa Fe Distributing LLC, 20822 Currier Rd. (Walnut)	Oct 96	0.1	L	0.001	1
Tung Hsin Trading Group, 19700 Bus. Pkwy. (Walnut)	Nov 96	0.4	L	0.004	5
Joe Rodgers Park (Long Beach)	Nov 96	3	L	0.011	12
Ham Park (Lynwood)	Dec 96	10	L	0.093	104
Jauregui Nursery (Paramount)	Dec 96	2	O	0.002	3
Heritage Corporate Center (Santa Fe Springs)	Jan 97	29.9	L	0.026	29
Belloso Farm Nursery (Bellflower)	Jan 97	8	O	0	0
Foster Road medians (Norwalk)	Jan 97	0.3	L	0.002	2
Rowland Heights Christian Church (Rowland Heights)	Feb 97	0.5	L	0.0004	0.4
Rosecrans Avenue medians (Paramount)	Mar 97	0.2	L	0.005	5
Texaco/Somerset medians (Paramount)	Mar 97	0.2	L	0.001	1
McLane Mowers (Paramount)	Mar 97	0.6	L	0	0
ABC Nursery (Paramount)	Mar 97	16	O	0	0
L.A. County Vector Control Bldg. (Santa Fe Springs)	Mar 97	3.8	L	0.004	4
Greenstone Warehouse (Santa Fe Springs)	Apr 97	0.4	L	0.001	1
Catellus Dvlpmnt, 510 Cheryl/455 Brea Cnyn. (Walnut)	Jul 97	1.8	L	0.010	11
Jauregui Nursery (Long Beach)	Jul 97	5	O	0.034	38
McNab Avenue medians (Bellflower)	Jul 97	0.1	L	0.0005	1
Foster Road/Premier Ave. medians (Downey)	Aug 97	0.1	L	0.0005	0.5
Palm Growers Nursery (Downey)	Oct 97	7.3	O	0	0
Alondra Blvd medians @ SGR (Bellflower)	Oct 97	0.1	L	0.0004	0.5
Puente Hills Landfill irrigation (Industry)	Nov 97	320	L	0.952	1,067
Puente Hills Landfill dust control (Industry)	Nov 97	130	I	0.040	45
Puente Hills Gas-to-Energy Facility (Industry)	Nov 97	--	I	0.538	603
Midway International (Cerritos)	Feb 98	0.3	L	0.001	1
Countryside Suites (Diamond Bar)	Mar 98	1.4	L	0.002	3
Lugo Park (Cudahy)	Apr 98	7	L	0.006	7
Rose Hills Memorial Park – upper area (Whittier)	Jun 98	298	L	0.590	661
El Dorado Lakes Condominiums (Long Beach)	Aug 98	11	L	0.031	35
Bloomfield Associates, 17871 Park Plaza Dr. (Cerritos)	Sep 98	0.5	L	0.001	2
Maruichi American building (Santa Fe Springs)	Oct 98	0.4	L	0.001	1
Diamond Crest Homeowners Assn. (Diamond Bar)	Oct 98	14	L	0.021	24
Norm Ashley Park (Walnut)	Nov 98	0.2	L	0.001	1
Play Hut, 368 Cheryl Lane (Walnut)	Nov 98	0.8	L	0.002	3
Waterfall Estates (Rowland Heights)	Dec 98	1.2	L	0.004	5
WalMart (Long Beach)	Dec 98	3	L	0.001	1
Norwalk Golf Course (Norwalk)	Jan 99	8	L	0.009	10
Vestar Development (Long Beach)	Feb 99	8	L	0.035	39
Soco-Lynch Corp. building (Santa Fe Springs)	Feb 99	1	L	0.001	1
183rd Street On-Ramp - 91 Freeway (Cerritos)	Feb 99	0.6	L	0.0003	0.3
MC&C building (Santa Fe Springs)	Mar 99	0.7	L	0.009	10
Lakewood Blvd. medians (Paramount)	Mar 99	0.2	L	0.001	1
Progress Park (Paramount)	Mar 99	6.2	L	0.013	15
Garfield Avenue medians (Paramount)	Apr 99	0.1	L	0.003	3
Calvary Chapel (Diamond Bar)	Apr 99	1	L	0.016	18
B&B Pallet Co. (South Gate)	May 99	--	I	0	0
Anfield Apparel Group Inc., 20851 Currier Rd (Walnut)	Jun 99	0.2	L	0.001	2
Garcia's Nursery (Bellflower)	Jun 99	6	O	0	0
Campus Group Inc., 319 Cheryl Road (Walnut)	Jul 99	0.1	L	0	0
Wind River Homeowners Assn. (Rowland Heights)	Jul 99	12.6	L	0.031	35
AT&T building, 12900 Park Plaza Drive (Cerritos)	Aug 99	0.9	L	0.010	12
Orange Avenue medians (Paramount)	Aug 99	0.1	L	0.003	3
Metropolitan State Hospital (Norwalk)	Sep 99	80	L	0	0
Moffit School (Norwalk)	Sep 99	1.6	AF,L	0.009	10

NOTES: AF = Athletic field irrigation, AG = Agricultural irrigation, E = Environmental enhancement, I = Industrial, L = Landscape irrigation, O = Ornamental plant irrigation, P = Impoundment, R = Groundwater replenishment.

TABLE 7
SUMMARY OF FISCAL YEAR 14-15 RECYCLED WATER USAGE
(PAGE 8 OF 15)

Reuse Site (City)	Start-up Date	Acreage	Type of Use	Usage (MGD)	Usage (AFY)
L.A. Fitness Inter., 20801 Golden Springs (Industry)	Sep 99	1.2	L	0.003	4
Comtop Enterprises, 268 Benton Court (Industry)	Sep 99	0.3	L	0.001	1
Gemini Foods Corp., 251 Benton Court (Industry)	Sep 99	0.6	L	0.0004	0.5
Tri-Net Technology, 21709 Ferraro Parkway (Industry)	Sep 99	0.3	L	0.002	2
Hupa International, 21717 Ferraro Parkway (Industry)	Oct 99	0.3	L	0.001	2
Nu-Health Products, 20875-85-95 Currier Rd. (Walnut)	Oct 99	0.1	L	0	0
Rio Hondo Channel (Downey)	Nov 99	0.8	L	0.001	1
Simms Park (Bellflower)	Dec 99	12.5	L	0.020	22
Lemon Avenue medians (Industry)	Dec 99	0.1	L	0.0004	0.5
Prudential Insurance Co., 21558 Ferraro (Walnut)	Jan 00	3.5	L	0.007	8
Foster Road Greenbelt (Norwalk)	Mar 00	3.3	L	0.009	10
McDonald's Restaurant (Diamond Bar)	Mar 00	0.1	L	0.001	1
San Luis Street @ flood channel (Paramount)	Apr 00	3	L	0.001	1
J&L Footwear, 250 Benton Court (Industry)	Jul 00	0.6	L	0.003	4
Jefferson School (Paramount)	Jul 00	0.5	AF,L	0.002	3
Columbus High School (Downey)	Aug 00	25	AF,L	0.024	27
Triangle Park (South Gate)	Nov 00	0.4	L	0.003	3
Markwins Inter. Corp., 22067 Ferraro (Industry)	Nov 00	1.9	L	0.003	4
Lee Wang LLC, 21901 Ferraro Parkway (Industry)	Nov 00	2	L	0.007	8
Sun Yin USA, 280 Maclin Court (Industry)	Nov 00	0.8	L	0.001	1
SL Investment Group LLC, 218 Maclin Ct. (Industry)	Nov 00	1.5	L	0.002	2
Morrow Meadows, 231 Benton Court (Industry)	Apr 01	0.9	L	0.002	2
Golden Springs Business Park (Santa Fe Springs)	Apr 01	31.4	L	0.132	148
The Cross Schools of Education (Walnut)	May 01	0.6	AF,L	0.001	1
Bellflower Storage (Bellflower)	Jun 01	3	L	0.002	2
Railroad Beautification (Paramount)	Jul 01	0.5	L	0.001	1
Rio Hondo Channel (Bell Gardens)	Jul 01	0.3	L	0.003	3
Bank of the West (Rowland Heights)	Sep 01	0.1	L	0.0001	0.1
Gym/Teen Center (Walnut)	Sep 01	0.6	L	0.002	2
CDM building (Santa Fe Springs)	Oct 01	0.1	L	0.002	2
Laskey-Weil building, 13101 Moore Street (Cerritos)	Oct 01	0.4	L	0.002	3
Willow Street medians (Long Beach)	Dec 01	2.4	L	0.002	3
Yellow Box Corp., 19835 Walnut Drive (Walnut)	Dec 01	0.3	L	0	0
Harvard Estates (Rowland Heights)	Dec 01	2	L	0.004	4
L.A. County Recorder's Office (Norwalk)	Jan 02	2.7	L	0.006	7
Tays Cool Fuel (Paramount) (145)	Feb 02	0.2	L	0.002	2
Walnut Nazarene Church (Walnut)	Feb 02	0.8	L	0.0002	0.2
Antelope Valley Farms (Palmdale)	Mar 02	2,034	AG	6.041	6,769
L.A. River landscaping (South Gate)	Mar 02	2.5	L	0.001	1
Majestic Mgmt., 168-188 Brea Canyon Road (Walnut)	Apr 02	0.6	L	0.002	2
Synnex, 108-118 Brea Canyon Road (Walnut)	Apr 02	0.7	L	0.002	3
Port Logistics, 108-288 Mayo Drive (Walnut)	Apr 02	0.1	L	0.001	1
Holiday Inn Express (Walnut)	May 02	0.4	L	0.004	4
Lemon Avenue Investments (Walnut)	Jun 02	0.6	L	0.003	3
Magnolia at Snow Creek (Walnut)	Jul 02	5.4	L	0.016	17
Lakewood-Adoree medians (Downey)	Jul 02	3.9	L	0.032	36
River Ridge Golf Course (Pico Rivera)	Jul 02	21.3	L	0.049	55
Long Beach Water Dept. Impoundment (Long Beach)	Jul 02	--	I	0.001	2
Everbright Management, 1163 Fairway Dr. (Industry)	Sep 02	0.6	L	0.003	3
Everbright Management, 1169 Fairway Dr. (Industry)	Sep 02	0.2	L	0.001	1
Kelly Paper, 288 Brea Canyon Road (Walnut)	Sep 02	1.2	L	0.0003	0.3
V-Tec Automotive, 19677 Valley Blvd. (Walnut)	Sep 02	0.1	L	0.0002	0.2
Grand and Valley landscaping (Walnut)	Sep 02	0.1	L	0.006	7
Extra Space Storage (Walnut)	Oct 02	0.8	L	0.002	2

NOTES: AF = Athletic field irrigation, AG = Agricultural irrigation, E = Environmental enhancement, I = Industrial, L = Landscape irrigation, O = Ornamental plant irrigation, P = Impoundment, R = Groundwater replenishment.

TABLE 7
SUMMARY OF FISCAL YEAR 14-15 RECYCLED WATER USAGE
(PAGE 9 OF 15)

Reuse Site (City)	Start-up Date	Acreage	Type of Use	Usage (MGD)	Usage (AFY)
Latter Days Saints Church (Walnut)	Oct 02	0.9	L	0.003	4
Nogales and Killian landscaping (Rowland Heights)	Oct 02	0.1	L	0.001	1
A&R West Family LLC, 20855 Golden Sprgs (D. Bar)	Nov 02	0.2	L	0.001	1
Chancellor Village Senior Housing (Cerritos)	Nov 02	0.9	L	0.002	2
Simon Trucking (Santa Fe Springs)	Nov 02	0.9	L	0.001	1
Foster/Coldbrook medians (Bellflower)	Nov 02	0.1	L	0.0001	0.1
L.A. County Library (Norwalk)	Nov 02	0.9	L	0.003	4
Metro State/Wheelabrator (Norwalk)	Jan 03	--	I	0.165	184
Alamitos Seawater Intrusion Barrier (Long Beach)	Feb 03	--	R	0.449	503
Boeing (Long Beach)	Mar 03	52	L	0.027	30
Brea Canyon Rd./Old Ranch Road medians (Industry)	May 03	0.1	L	0.0003	0.3
CLT Computers, Inc., 20153 Paseo del Prado (Walnut)	May 03	0.6	L	0.002	2
Rio Hondo College (Whittier)	Jun 03	85	AF,L	0.017	19
Mill Elementary School (Whittier)	Jun 03	15	AF,L	0.008	9
Del Amo Blvd. greenbelt (Lakewood)	Jul 03	0.3	L	0.001	2
Imperial Equestrian (South Gate)	Jul 03	1.5	L	0.004	5
Norwalk Walkway/Parking (Santa Fe Springs)	Jul 03	1	L	0.002	3
Tournament Players Club at Valencia (Santa Clarita)	Aug 03	120	L	0.344	386
26840-27236 The Old Road medians (Santa Clarita)	Aug 03	5.8	L	0.032	35
CU Transport, Inc., 19885 Harrison Ave. (Industry)	Aug 03	0.2	L	0.001	1
Broadway.com, 19715 Harrison Ave. (Industry)	Aug 03	0.5	L	0.002	3
Bayharbor-Harrison Assn., 19901 Harrison (Industry)	Aug 03	0.8	L	0.004	4
J Pack International, 19789 Harrison Ave. (Industry)	Aug 03	0.5	L	0.001	1
Golden Applexx Co. Inc., 19805 Harrison (Industry)	Aug 03	0.2	L	0.001	1
Soo Hoo Customes Broker, 19865 Harrison (Industry)	Aug 03	0.3	L	0.001	2
Shinetec Group, Inc., 19835 Harrison Ave. (Industry)	Aug 03	0.4	L	0.002	2
Majestic Realty, Grand Ave./Village Staples (Walnut)	Aug 03	1.6	L	0.006	7
Orange Grove Services, Lemon/La Puente (Walnut)	Sep 03	0.4	L	0.002	3
Max Property LLC, 21401 Ferraro Pkwy. (Industry)	Sep 03	0.7	L	0.003	3
NP 21301 Ferraro Parkway, 21301 Ferraro (Industry)	Sep 03	0.8	L	0.003	3
568 TriNet Court (Walnut)	Oct 03	0.3	L	0.0003	0.3
Steve Horn Way/Bellflower medians (Downey)	Nov 03	0.3	L	0.006	7
Walnut City Hall (Walnut)	Dec 03	0.6	L	0.001	1
Walnut Senior Center (Walnut)	Dec 03	0.5	L	0.001	1
East Lion Corporation, 318 Brea Canyon Road (Walnut)	Dec 03	2.6	L	0.008	9
Young Hoon Cho, 1709 Nogales St. (Rowland Heights)	Mar 04	0.1	L	0.0003	0.3
Shell Station, 21103 Golden Springs Dr. (Diamond Bar)	Mar 04	0.1	L	0.0003	0.3
Ferraro/Grand East ramp (Industry)	Apr 04	3.8	L	0.008	9
Hing Wa Lee Plaza, 1569 Fairway Drive (Walnut)	May 04	0.1	L	0.0005	1
Tucker Elementary School (Long Beach)	May 04	3	AF, L	0.006	6
Dream Wireless Inc., 20625 Lycoming St. (Walnut)	Jun 04	0.3	L	0.002	2
APL Logistics, 408 Brea Canyon Rd. (Walnut)	Jun 04	2.1	L	0.006	7
Alamitos Hill Reservoir landscaping (Long Beach)	Jul 04	8.6	L	0.004	4
Adnoff Family Trust, 20801 Currier Rd. (Walnut)	Jul 04	0.1	L	0.001	1
Crystal Cal No. 1 LLC, 2889 Valley Blvd. (Walnut)	Aug 04	0.1	L	0.0003	0.4
Pro Growers Nursery (Norwalk)	Sep 04	11.3	O	0.046	52
Kaiser Administration building (Downey)	Oct 04	2.5	L	0.002	2
Downey Studios (Downey)	Oct 04	1	L	0	0
Community Day School (Walnut)	Nov 04	0.1	AF,L	0.0002	0.2
Majestic Mgmt., 21438 Baker Parkway (Walnut)	Jan 05	0.1	L	0.0004	0.4
Gateway Pointe (Whittier)	Jan 05	8	L	0.020	23
Puente Hills Materials Recovery Facility (Industry)	Feb 05	2.4	L	0.074	83
Sy Develop. condos, 20118-20138 Colima (Walnut)	Jun 05	0.1	L	0.0001	0.1
Dills Park (Paramount)	Jul 05	12.5	L	0.023	26

NOTES: AF = Athletic field irrigation, AG = Agricultural irrigation, E = Environmental enhancement, I = Industrial, L = Landscape irrigation, O = Ornamental plant irrigation, P = Impoundment, R = Groundwater replenishment.

TABLE 7
SUMMARY OF FISCAL YEAR 14-15 RECYCLED WATER USAGE
(PAGE 10 OF 15)

Reuse Site (City)	Start-up Date	Acreage	Type of Use	Usage (MGD)	Usage (AFY)
N/E corner Cheryl Lane/Baker Parkway (Industry)	Aug 05	3.3	L	0.017	19
Jakk's Pacific, Inc. 21733-21749 Baker (Industry)	Aug 05	1.2	L	0.004	5
20813 Valley Blvd. medians (Walnut)	Sep 05	0.4	L	0.001	1
20265 Valley Blvd. medians (Walnut)	Sep 05	0.4	L	0.001	1
19849 Valley Blvd. medians (Walnut)	Sep 05	0.4	L	0.002	2
Kohl's Center (Walnut)	Sep 05	2	L	0.009	11
Hollydale Elementary (South Gate)	Sep 05	3	AF,L	0.001	1
Malburg Generation Station (Vernon)	Oct 05	--	I	0.725	813
Phoenix Private Schools (Rowland Heights)	Dec 05	0.1	AF,L	0	0
The Home Depot, 21535-21651 Baker (Industry)	Jan 06	2.8	L	0.009	10
Golden State Foods, 21415-21489 Baker (Industry)	Jan 06	2.3	L	0.007	8
Stuart and Gray medians (Downey)	Dec 05	0.4	L	0.004	5
Woodruff and Maple medians (Bellflower)	Mar 06	0.1	L	0.0001	0.1
Haitao Group LLC, 350 Cheryl Lane (Walnut)	Apr 06	0.7	L	0.006	7
Jose Munoz Nursery (Industry)	Apr 06	5	O	0.009	10
Sculpture Garden (Santa Fe Springs)	May 06	0.6	L	0	0
Fairway median@ Brea Canyon (Walnut)	Jun 06	0.3	L	0.001	1
Grand Avenue Crossing (Industry)	Jul 06	18.5	L	0.011	13
22002 Valley Blvd. (Industry)	Jul 06	1.6	L	0.004	5
Foster Road medians (Santa Fe Springs)	Jul 06	1	L	0.011	12
Rose Hills Memorial Park – lower area (Whittier)	Aug 06	275	L	0.538	603
Southland Schools, 1920 Brea Canyon Cutoff (Walnut)	Aug 06	2.2	L	0.006	7
Target Store T-2179, 747 Grand Ave. (Walnut)	Sep 06	3.9	L	0.006	7
Whittier Narrows Recreation Area (South El Monte)	Sep 06	568	L	0.492	552
Leg Avenue, 19601 E. Walnut Drive (Walnut)	Oct 06	0.5	L	0.005	6
LandRover (Cerritos)	Dec. 06	0.3	L	0.005	6
Harold M. Pitman Co., 21908-21958 Baker (Industry)	Jan 07	0.8	L	0.003	3
Eastern Agricultural Site (Lancaster)	Dec 06	696	AG	4.398	4,928
Williams-Sonoma, 21508-21662 Baker (Industry)	Apr 07	4.8	L	0.015	17
FedEx Ground, 200 Old Ranch Road (Walnut)	May 07	28	L	0.009	10
Currier Road Devel. Inc., 20819 Currier Rd. (Walnut)	May 07	0.3	L	0.002	2
Bluff Park (Long Beach)	Jul 07	25.8	L	0.015	17
Stearns Park (Long Beach)	Jul 07	21	L	0.031	35
Bixby Park (Long Beach)	Jul 07	12.5	L	0.012	13
South El Monte High School (South El Monte)	Aug 07	16.1	AF, L	0.045	50
Williams-Sonoma, 21700 Baker Parkway (Industry)	Aug 07	2	L	0.005	6
Douglas Park development (Long Beach)	Nov 07	2.1	L	0.059	66
21350 Valley Blvd. (Industry)	Feb 08	0.4	L	0.001	1
Grand Avenue Venture, 21508 Ferraro Pkwy. (Walnut)	Apr 08	3.5	L	0.004	4
Space Learning Center (Downey)	Apr 08	10.5	L	0	0
Surgical Center, Carmenita & 166th (Cerritos)	May 08	0.1	L	0.0004	0.4
UPS Parking Structure, 13150 Moore Street (Cerritos)	May 08	0.5	L	0.001	2
Grand Avenue/Baker Parkway medians (Industry)	May 08	6.7	L	0.019	21
Majestic Management, 21530-21590 Baker (Industry)	May 08	2	L	0.009	10
Cornerstone Commerce Center (Downey)	Jun 08	0.8	L	0.005	5
Gomez Upholstery, 19935 Valley Blvd. (Walnut)	Jul 08	2	L	0	0
Wendy Zheng, 1335-1337 Otterbein (Rowland Heights)	Jul 08	0.1	L	0.0002	0.2
Apex Capital Investment, 20657 Golden Sprgs (D. Bar)	Aug 08	0.4	L	0.001	1
Chili's Restaurant, Golden Springs Dr. (Diamond Bar)	Sep 08	0.01	L	0.001	1
AIC Advanced Industrial, 21808 Garcia Lane (Industry)	Sep 08	0.5	L	0.002	2
T&C Footwear, 21858 Garcia Lane (Industry)	Sep 08	0.4	L	0.002	2
JL Concepts Inc., 21912 Garcia Lane (Industry)	Sep 08	0.3	L	0.001	1
Majestic Management, 21760-21788 Garcia (Industry)	Sep 08	0.4	L	0.002	2
CFT Development, Golden Springs Dr. (Diamond Bar)	Oct 08	0.01	L	0.0003	0.4

NOTES: AF = Athletic field irrigation, AG = Agricultural irrigation, E = Environmental enhancement, I = Industrial, L = Landscape irrigation, O = Ornamental plant irrigation, P = Impoundment, R = Groundwater replenishment.

TABLE 7
SUMMARY OF FISCAL YEAR 14-15 RECYCLED WATER USAGE
(PAGE 11 OF 15)

Reuse Site (City)	Start-up Date	Acreage	Type of Use	Usage (MGD)	Usage (AFY)
Mora Drive medians (Santa Fe Springs)	Oct 08	0.1	L	0.006	7
Jenny Hsieh, 20125 Valley Blvd. (Walnut)	Nov 08	0.03	L	0.0002	0.3
UPS Main Building, 13233 Moore Street (Cerritos)	Nov 08	4.4	L	0.012	14
Fountain Walk Housing, 18310 Carmenita (Cerritos)	Nov 08	0.1	L	0.0001	0.1
Public Works Dept. sewer flushing (Lancaster)	Jan 09	--	I	0.001	1
Public Works Dept. street sweeping (Lancaster)	Feb 09	--	I	0.0003	0.3
ASCIP Building, 16550 Bloomfield Ave. (Cerritos)	Feb 09	0.1	L	0.0003	0.4
Tincher Elementary School (Long Beach)	Feb 09	1.5	AF, L	0.003	4
Firestone Blvd. medians (Downey)	Feb 09	0.1	L	0.001	1
Citibank, 8764 Firestone Blvd. (Downey)	Feb 09	0.1	L	0.001	1
Brea Canyon Road/Currier Road median (Walnut)	Feb 09	2	L	0.007	8
Cardinal Capital Partners, Currier/Lemon (Walnut)	Mar 09	2.5	L	0	0
Family Property Holdings, 20888 Amar Road (Walnut)	May 09	0.04	L	0.0003	0.3
KW Global Inc., 293 Brea Canyon Drive (Walnut)	May 09	0.3	L	0.001	1
Steve Horn Pkwy. medians @ Kaiser (Downey)	May 09	1.4	L	0.050	56
Walgreens/Big Lots, 9018 Firestone (Downey)	May 09	0.4	L	0.002	3
Lancaster University Center (Lancaster)	May 09	2	L	0.002	2
12800 Center Court (Cerritos)	Jul 09	0.4	L	0.002	2
Pacific Alloy Casting (South Gate)	Jul 09	--	I	0.014	16
Sunshine Park (L.A. County)	Jul 09 (May 86)	4	L	0.010	11
Rowland Elementary School (Rowland Heights)	Jul 09 (May 86)	3	AF,L	0.007	8
Southland Schools (Rowland Heights)	Jul 09 (May 86)	4	AF,L	0.003	4
Farjardo Park (Rowland Heights)	Jul 09 (May 86)	4	L	0.007	8
Nogales High School (L.A. County)	Jul 09 (Jun 86)	11	AF,L	0.024	27
Queen of Heaven Cemetery (Rowland Hts.)	Jul 09 (Jun 86)	35	L	0.055	61
Schabarum Regional County Park (L.A. Co.)	Jul 09 (Sep 86)	233	L	0.073	82
Pepperbrook Park (Hacienda Heights)	Jul 09	4.4	L	0.005	6
Countrywood Park (Hacienda Heights)	Jul 09	5.4	L	0.008	9
Rowland Heights Golf Center (Rowland Heights)	Jul 09	8	L	0.011	12
Medians at 755 Nogales (Industry)	Jul 09	0.1	L	0.001	1
Nogales Med. Plaza, 4115-½ Nogales (West Covina)	Jul 09	0.1	L	0.006	7
Medians at 2654-½ Valley Blvd. (West Covina)	Jul 09	0.2	L	0.0002	0.3
Tsai Lien Liao, 4111 Nogales (West Covina)	Jul 09	0.5	L	0.001	1
GMP Products, 788 Phillips (Industry)	Jul 09	0.1	L	0.001	1
JJ Plaza, 18253 Colima Road (Rowland Heights)	Jul 09	0.1	L	0.0003	0.4
New World RTCI-LP, 18958 Daisetta (Rowland Hts.)	Jul 09	0.1	L	0.0001	0.1
Battery Technology, 16651 Johnson Dr. (Industry)	Jul 09	0.1	L	0.0002	0.3
Super Max Corp., 16685 Johnson Dr. (Industry)	Jul 09	0.1	L	0.0004	0.4
Ancillary Provider 16664 Johnson Dr. (Industry)	Jul 09	0.1	L	0.001	1
Ancillary Provider 16666 Johnson Dr. (Industry)	Jul 09	0.2	L	0.001	1
Vonnic Inc., 16610 Gale Ave. (Industry)	Jul 09	0.2	L	0.001	1
Blue Pacific, 1354 Marion Ct. (Industry)	Jul 09	0.2	L	0.002	2
Romano's Macaroni Grill, 17603 Colima (Row. Hts.)	Jul 09	0.1	L	0.002	2
Acosta Growers, 16412 Wedgeworth (Industry)	Jul 09	5	O	0	0
Wedgeworth Elementary School (Hacienda Hts.)	Aug 09	2.5	AF,L	0.005	5
Wilson High School (Hacienda Heights)	Aug 09	18.3	AF,L	0.026	30
Clemson Distribution Inc., 20722 Currier Rd. (Walnut)	Sep 09	0.1	L	0.0004	0.5
Ybarra Elementary School (Rowland Heights)	Sep 09	5.6	AF,L	0.007	7
Bixby Elementary School (Hacienda Heights)	Sep 09	6.1	AF,L	0.012	13
Jade Fashion, 1350 Bixby Dr. (Industry)	Sep 09	0.1	L	0.001	1
Sunshine Growers, 16411 Wedgeworth (Industry)	Sep 09	4	O	0.007	8
Robertson's Ready-Mix (Pomona)	Oct 09	--	I	0.012	14
MTA Bike Trail (Bellflower)	Nov 09	0.1	L	0.007	7
Whittier Narrows Golf Course (South El Monte)	Dec 09	260	L	0.275	308

NOTES: AF = Athletic field irrigation, AG = Agricultural irrigation, E = Environmental enhancement, I = Industrial, L = Landscape irrigation, O = Ornamental plant irrigation, P = Impoundment, R = Groundwater replenishment.

TABLE 7
SUMMARY OF FISCAL YEAR 14-15 RECYCLED WATER USAGE
(PAGE 12 OF 15)

Reuse Site (City)	Start-up Date	Acreage	Type of Use	Usage (MGD)	Usage (AFY)
Seibon International, 1215 Bixby Dr. (Industry)	Dec 09	0.1	L	0.001	2
Laido International, 16710-12 Johnson (Industry)	Dec 09	0.1	L	0.0004	0.5
Bolt Products, 16725 Johnson Dr. (Industry)	Dec 09	0.1	L	0.001	1
Ily Enterprise, 783 Phillips (Industry)	Jan 10	0.1	L	0.002	2
Superior Profiles, 1325 Bixby Dr. (Industry)	Jan 10	0.2	L	0.001	1
60 Freeway, Countrywood & Fullerton (Industry)	Jan 10	5	L	0.003	4
Camacho Strawberries (Industry)	Jan 10	3	O	0	0
Harmoni International Spice, 881 Azusa (Industry)	Jan 10	0.1	L	0.002	2
East Group Prop., 855 Anaheim-Puente (Industry)	Mar 10	0.6	L	0.003	3
So. Cal. Air Condition, 16950 Chestnut (Industry)	Mar 10	2	L	0.002	2
USACD, 16900 Chestnut (Industry)	Mar 10	0.3	L	0.001	1
Azusa Ave. medians (Industry)	Mar 10	0.2	L	0.0005	0.5
Acosta Growers, 17101 Chestnut (Industry)	Mar 10	2.4	O	0	0
Paramount Blvd. medians (Paramount)	Mar 10		L	0.005	6
L.A. Co. ISD building, 16610 Chestnut (Industry)	Apr 10	0.5	L	0.001	2
Azusa Property Co., 885 Azusa Ave. (Industry)	Apr 10	0.2	L	0.001	1
Golden West Footwear, 16750 Chestnut (Industry)	Apr 10	0.3	L	0.001	1
Teledyne Instruments, 16830 Chestnut (Industry)	Apr 10	0.4	L	0.003	3
Medians, 18927 Daisetta St. (Rowland Heights)	Apr 10	0.2	L	0.0002	0.2
Colima Road medians (L.A. County)	Apr 10	0.1	L	0.0004	0.4
Medians, 1442 Fullerton Road (Industry)	Apr 10	0.3	L	0.0001	0.1
Teledyne Picco, 16800 Chestnut (Industry)	May 10	0.4	L	0.001	1
Melody Tsai Nursery, 18002 Colima (Rowland Hts.)	May 10	1.3	O	0.001	1
East Group Prop., 16700 Chestnut (Industry)	Jun 10	0.6	L	0.002	2
Deyce USA, 883 Azusa Ave. (Industry)	Jun 10	0.1	L	0.001	1
New Age Kaleidoscope, 7 Colima Road (Industry)	Jun 10	0.6	L	0.004	5
Min Maw Intl. Inc., 18350 San Jose Ave. (Industry)	Jun 10	0.7	L	0.003	3
Hot Topic, 18305 San Jose Ave. (Industry)	Jul 10	0.6	L	0.004	4
FedEx, 1081 Fullerton Road (Industry)	Jul 10	0.6	L	0.002	2
Long Beach DPW sewer flushing (Long Beach)	Aug 10	--	I	0.003	3
Long Beach DPW street sweeping (Long Beach)	Aug 10	--	I	0.001	1
Los Amigos Golf Course (L.A. County)	Aug 10	110	L	0.200	225
AV Greek Festival dust control (Lancaster)	Sep 10	--	I	0.00001	0.01
A Professional Law Corp, 19803 Valley Blvd. (Walnut)	Sep 10	0.1	L	0.0005	1
Port Logistics Group, 18215 Rowland St. (Industry)	Sep 10	0.6	L	0.003	3
New Age Kaleidoscope, 5 Stoner Creek (Industry)	Oct 10	1.4	L	0.008	9
Perrin Manufacturing, 1020 Bixby Dr. (Industry)	Oct 10	0.1	L	0.001	1
Centro Watt Operating, 17518A Colima (Industry)	Oct 10	0.4	L	0.002	2
Centro Watt Operating, 17414 Colima (Industry)	Oct 10	0.5	L	0.002	2
717 Nogales LLC, 717 Nogales St. (Industry)	Oct 10	0.5	L	0.002	2
The Old Road/Magic Mtn. Pkwy medians (Sta. Clarita)	Nov 10	2.8	L	0.009	10
Walgreens, 18308 Colima Road (Industry)	Dec 10	0.1	L	0.001	1
RWD Office, 3021 S. Fullerton Road (Industry)	Dec 10	0.3	L	0.002	2
Bell Memorial Church, 1747 Nogales (Rowland Hts.)	Dec 10	0.3	L	0.001	1
Chugh Firm, 15925 Carmenita Road (Cerritos)	Jan 11	0.2	L	0.003	3
Chevron, 17255 Bloomfield Ave. (Cerritos)	Mar 11	0.1	L	0.001	1
Atlantic Ave. medians (South Gate)	Mar 11	16.3	L	0.005	5
Pathfinder Park (Rowland Heights)	May 11	29	L	0.027	30
USGVMWD site, 401 Nogales St. (Industry)	May 11	0.5	L	0	0
Quest Nutrition, 18551 Arenth Ave. (Industry)	May 11	0.7	L	0.003	3
717 Nogales LLC, 18961 Arenth Ave. (Industry)	May 11	0.5	L	0.003	3
Kimco Realty, 17100 Colima Road (Industry)	May 11	3	L	0.006	7
Acme Trading Group, 18895 Arenth Ave. (Industry)	May 11	0.9	L	0.005	5
Winit America, 18501 Arenth Ave. (Industry)	May 11	0.6	L	0.003	4

NOTES: AF = Athletic field irrigation, AG = Agricultural irrigation, E = Environmental enhancement, I = Industrial, L = Landscape irrigation, O = Ornamental plant irrigation, P = Impoundment, R = Groundwater replenishment.

TABLE 7
SUMMARY OF FISCAL YEAR 14-15 RECYCLED WATER USAGE
(PAGE 13 OF 15)

Reuse Site (City)	Start-up Date	Acreage	Type of Use	Usage (MGD)	Usage (AFY)
BMS Motorsports, Inc., 18701 Arenth (Industry)	May 11	0.4	L	0.002	2
YHS Trading, 755 Epperson Dr. (Industry)	Jul 11	0.1	L	0.001	1
TriVantage LLC, 745 Epperson Dr. (Industry)	Jul 11	0.1	L	0.002	2
Siegfried & Parsifal Inc., 18689 Arenth (Industry)	Aug 11	0.4	L	0.002	2
HT Window Fashions, 770 Epperson (Industry)	Aug 11	0.1	L	0.001	2
HT Development, 780 Epperson Dr. (Industry)	Aug 11	0.1	L	0.004	4
HD Technology, 738 Epperson Dr. (Industry)	Aug 11	0.2	L	0.001	1
Walnut Creek Energy Park, 911 Bixby (Industry)	Aug 11	--	I	0.179	200
Sanchez Elementary/Temple Middle (Rosemead)	Aug 11	12.8	AF, L	0.004	4
Loma Elementary School (South El Monte)	Aug 11	1.9	AF, L	0.003	3
Jess Gonzales Sports Park (Rosemead)	Oct 11	4	L	0.009	10
Southern California Edison offices (Rosemead)	Oct 11	53	L	0.039	44
Eldridge Rice Elementary School (Rosemead)	Oct 11	8.3	AF, L	0.011	12
Guardian Life Insurance, 710 Epperson (Industry)	Sep 11	0.2	L	0.003	3
Valor Communication, 18071 Arenth (Industry)	Sep 11	0.1	L	0.004	4
Rubbercraft, 3701 Conant St. (Long Beach)	Sep 11	0.9	L	0.004	4
Millikin High School (Long Beach)	Oct 11	12	AF, L	0.034	38
K-1 Printing, 17989 Arenth Ave. (Industry)	Oct 11	0.2	L	0.0004	0.5
K-1 Printing, 17979 Arenth Ave. (Industry)	Oct 11	0.2	L	0.001	1
Private Label PC Inc., 748 Epperson (Industry)	Nov 11	0.2	L	0.001	1
Penske Truck Leasing, 18305 Arenth (Industry)	Nov 11	0.6	L	0.002	2
Schurr High School (Montebello)	Nov 11	11	AF,L	0.023	26
Commercial Cooling, 17855 Arenth (Industry)	Dec 11	0.4	L	0.001	1
Forever Link, 18738 San Jose Ave. (Industry)	Dec 11	0.4	L	0.002	3
Majestic Realty, 179 S. Grand Ave. (Walnut)	Dec 11	2.5	L	0.005	5
Garvey Ave. medians (Rosemead)	Dec 11	0.1	L	0.0004	0.5
Walnut Grove Ave. medians (Rosemead)	Dec 11	0.1	L	0.001	2
Rush St. medians (South El Monte)	Dec 11	0.1	L	0.001	1
Sunshine Nursery, 8448 Dorothy St. (Rosemead)	Dec 11	4.6	L	0.003	3
WalMart, 1827 Walnut Grove Ave. (Rosemead)	Dec 11	17.7	L	0.008	9
Panda Restaurant, 1683 Walnut Grove (Rosemead)	Dec 11	8.9	L	0.010	11
Willard Elementary School (Rosemead)	Jan 12	6	AF, L	0.002	3
Beverly Blvd. medians (Pico Rivera)	Jan 12	1	L	0.002	2
Rio Hondo Park (Pico Rivera)	Jan 12	8	L	0.034	38
Brook Furniture, 18960 San Jose Ave. (Industry)	Jan 12	0.4	L	0	0
University of the West, 1409 Walnut Grove (Rosemead)	Feb 12	0.4	L	0.004	4
LD Products, 3700 Cover Street (Long Beach)	Feb 12	0.7	L	0.002	2
LD Products, 3700 Cover Street (Long Beach)	Feb 12	--	I	0.001	1
Hot Topic, 18385 San Jose Ave. (Industry)	Feb 12	0.8	L	0.004	4
Twin Tiger Footwear, 18901 Railroad St. (Industry)	Feb 12	0.4	L	0	0
CWCI Insulation, 18825 Railroad St. (Industry)	Feb 12	0.2	L	0.0003	0.3
Ko Amex, 18965 San Jose Ave. (Industry)	Feb 12	0.5	L	0.001	1
Ferguson Fire, 18825 San Jose Ave. (Industry)	Feb 12	0.3	L	0.002	2
MA Labs Inc., 18755 San Jose Ave. (Industry)	Feb 12	0.4	L	0.001	1
Majestic Management, 18691 San Jose Ave. (Industry)	Mar 12	0.3	L	0.002	3
Majestic Management, 18601 San Jose Ave. (Industry)	Mar 12	0.6	L	0.004	4
Hot Topic, 18501 San Jose Ave. (Industry)	Mar 12	0.6	L	0.007	7
Extra Express, 18591 San Jose Ave. (Industry)	Mar 12	0.6	L	0.003	4
Shoe Magnate Inc., 18560 San Jose Ave. (Industry)	Mar 12	0.4	L	0.001	1
Pinky Footware Shoes, 18600 San Jose Ave. (Industry)	Mar 12	0.8	L	0.002	2
Zapopan Park (Rosemead)	Apr 12	7	L	0.006	6
Garvey Blvd. medians (Rosemead)	Apr 12	0.2	L	0.0005	1
WVWD Parker Canyon Reservoir (Walnut)	May 12	3.5	L	0.005	5
La Merced Elementary School (Montebello)	Jun 12	10	AF,L	0.017	19

NOTES: AF = Athletic field irrigation, AG = Agricultural irrigation, E = Environmental enhancement, I = Industrial, L = Landscape irrigation, O = Ornamental plant irrigation, P = Impoundment, R = Groundwater replenishment.

TABLE 7
SUMMARY OF FISCAL YEAR 14-15 RECYCLED WATER USAGE
(PAGE 14 OF 15)

Reuse Site (City)	Start-up Date	Acreage	Type of Use	Usage (MGD)	Usage (AFY)
Montebello Gardens Elementary (Pico Rivera)	Jun 12	1	AF,L	0.011	12
Home Depot, 2320 Azusa Ave. (West Covina)	Jul 12	0.2	L	0.002	2
The Heights Shopping Center (West Covina)	Jul 12	12.5	L	0.026	29
Nogales Ave. medians (West Covina)	Jul 12	0.6	L	0.002	2
Azusa Ave. medians (West Covina)	Jul 12	3.1	L	0.009	10
Amar Road medians (West Covina)	Jul 12	2.1	L	0.004	4
BKK Landfill (West Covina)	Jul 12	220	L	0.079	88
South Hills Country Club (West Covina)	Aug 12	100	L	0.261	293
Medians, 2357 Fullerton Road (L.A. County)	Aug 12	0.4	L	0.001	1
McDonalds, 2623 Valley Blvd. (Industry)	Sep 12	0.2	L	0.001	1
Whitewave Foods, 18275 Arenth Ave. (Industry)	Oct 12	2.6	L	0.008	9
Big League Dreams (West Covina)	Oct 12	21	AF,L	0.060	67
CIMIS Weather Station (Palmdale)	Oct 12	1	L	0.005	6
McAdam Park (Palmdale)	Oct 12	15	L	0.060	68
Tree Barriers (Palmdale)	Jan 13	4	AG	0.009	11
Rowland Hts. Korean Church, 1717 Otterbein (Walnut)	Jan 13	0.3	L	0.001	1
Pearl of the East, 18888 Labin Ct. (Industry)	Feb 13	0.5	L	0.003	4
Beverly Blvd. medians (Pico Rivera)	Feb 13	1.5	L	0.003	3
Walnut Creek Energy Park, 911 Bixby (Industry)	Apr 13	0.3	L	0.002	2
J.M. Farming (Whittier)	Apr 13	107	AG	0	0
Bloomfield Plaza, 12560 Artesia Blvd. (Cerritos)	May 13	0.1	L	0.001	1
Atherton St. medians (Long Beach)	Jun 13	0.5	L	0.003	3
St. Lorenzo Church, 747 Meadow Pass Rd. (Walnut)	Aug 13	0.3	L	0.023	26
Cortez Elementary School (West Covina)	Aug 13	6.2	AF,L	0.018	20
Cameron Elementary School (West Covina)	Aug 13	3.9	AF,L	0.013	15
Vine Elementary School (West Covina)	Aug 13	3.8	AF,L	0.013	15
Lemon Valley LLC, 20373 Valley Blvd. (Walnut)	Sep 13	0.1	L	0.0005	1
Foothill Transit, 500 Brea Canyon Road (Walnut)	Sep 13	0.2	L	0.002	2
Air Products & Chemicals (Santa Fe Springs)	Nov 13	--	I	0.251	282
Countrywood Park I, (Rowland Heights)	Nov 13	17	L	0.011	12
Countrywood Park II, (Rowland Heights)	Nov 13	15	L	0.010	11
Shadow Oak Paseo A (West Covina)	Jan 14	8.1	L	0.019	21
Shadow Oak Paseo B (West Covina)	Jan 14	6.9	L	0.013	15
Shadow Oak Paseo C (West Covina)	Jan 14	1.6	L	0.004	4
Shadow Oak Paseo D (West Covina)	Jan 14	1.8	L	0.007	8
Shadow Oak Paseo F (West Covina)	Jan 14	1.5	L	0.002	2
Shadow Oak Paseo G (West Covina)	Jan 14	8.1	L	0.008	9
Hollencrest Middle School (West Covina)	Jan 14	10.8	AF,L	0.025	28
Merced Elementary School (West Covina)	Jan 14	7.6	AF,L	0.020	22
West Covina High School (West Covina)	Jan 14	9.7	AF,L	0.041	46
Woodgrove Park (West Covina)	Feb 14	10	L	0.021	23
Rimgrove Park (West Covina)	Jun 14	7.1	L	0.018	21
Shadow Park Center (West Covina)	Jun 14	9.6	L	0.011	12
Will Rogers Mini-park (Long Beach)	Feb 14	1.7	L	0.003	4
Stanford Middle School (Long Beach)	Feb 14	13.3	AF, L	0.021	23
Lowell Elem./Rogers Middle Schools (Long Beach)	Feb 14	5.3	AF, L	0.010	11
Hacienda Heights Little League (Hacienda Heights)	Mar 14	4	AF	0.006	7
Sukut Construction (Walnut)	Mar 14	--	I	0.100	112
Firestone medians (South Gate)	Mar 14		L	0.004	4
Lancaster City Park (Lancaster)	Mar 14	36	L	0.080	89
Smith Park (Pico Rivera)	Apr 14	16	L	0.029	33
Pico Rivera Public Library (Pico Rivera)	Apr 14	0.6	L	0.003	4
Walmart, 4651 Firestone Blvd. (South Gate)	Apr 14		L	0.002	3
CVS Pharmacy, 4621 Firestone (South Gate)	Apr 14		L	0.004	5

NOTES: AF = Athletic field irrigation, AG = Agricultural irrigation, E = Environmental enhancement, I = Industrial, L = Landscape irrigation, O = Ornamental plant irrigation, P = Impoundment, R = Groundwater replenishment.

TABLE 7
SUMMARY OF FISCAL YEAR 14-15 RECYCLED WATER USAGE
(PAGE 15 OF 15)

Reuse Site (City)	Start-up Date	Acreage	Type of Use	Usage (MGD)	Usage (AFY)
Cortez Park (West Covina)	Jul 14	14	L	0.041	46
Cameron Park (West Covina)	Jul 14	4.2	L	0.012	14
Firestone Plaza 2, 4833 Firestone (South Gate)	Jul 14	1.7	L	0.002	3
West Antelope Solar Project construction (Lancaster)	Jul 14	--	I	0.044	50
Grant Rea Park (Montebello)	Aug 14	22.7	L	0.023	25
Pheasant Ridge Apartments (Rowland Heights)	Sep 14	25	L	0.015	17
Tierra Bonita construction (Lancaster)	Oct 14	--	I	0.00002	0.03
C.A. Rasmussen, Inc. (Grand Crossing at Baker)	Nov 14	-	I	0.071	79
Avenue J street & sidewalk construction (Lancaster)	Dec 14	--	I	0.00002	0.02
South Pointe Middle School (Walnut)	Jan 15	7	AF,L	0.007	8
OMP Mounty Vernon, LLC (Pomona)	Jan 15		L	0.004	4
High Desert Solar Complex Project (Lancaster)	Jan 15	--	I	0.000002	0.002
BYD Energy Road irrigation (Lancaster)	Jan 15	0.1	L	0.0001	0.1
Barren Ridge Renewable Transmission const. (Lanc.)	Feb 15	--	I	0.004	4
Lancaster 43130 10th St. W dust control (Lancaster)	Feb 15	--	I	0.0001	0.1
West Antelope Solar Park (Lancaster)	Feb 15	--	L	0.00001	0.01
Poppy Festival dust control (Lancaster)	Apr 15	--	I	0.0002	0.2
First Assembly of God Church construction (Lancaster)	May 15	--	I	0.0004	0.5
Public Works Dept. road maintenance (Lancaster)	May 15	--	I	0.0002	0.2
Sierra Solar Greenworks construction (Lancaster)	May 15	--	I	0.002	3
AT&T cable trench construction (Lancaster)	May 15	--	I	0.0001	0.01
McDonalds, Lakewood and Gallatin (Downey)	Jun 15	0.1	L	0.0001	0.1
City Ventures Condos, Gallatin/Florence (Downey)	Jun15	0.5	L	0.002	2
City Water Yard, 9252 Stewart & Gray (Downey)	Jun 15	0.1	L	0.00001	0.01
Emerson Parkside Academy (Long Beach)	Jun 15	2	AF,L	0.0001	0.1
Entrada, 27640 Media Center Drive (Santa Clarita)	Jun 15	1.4	L	0.0004	0.4
Entrada, 27780 Entertainment Drive (Santa Clarita)	Jun 15	0.7	L	0.001	1
Entrada, 27780 Entertainment Drive (Santa Clarita)	Jun 15	0.7	L	0.001	1
Cypress City Hall (Cypress)	Jun 15	5	L	0.00005	0.1
Endeavor Middle School construction (Lancaster)	Jun 15	--	I	0.00005	0.1
El Pollo Loco 42839 10th St. W. construct. (Lancaster)	Jun 15	--	I	0.00003	0.03
Storm Drain construction Ave I & 20th St. E (Lancaster)	Jun 15	--	I	0.00001	0.01

NOTES: AF = Athletic field irrigation, AG = Agricultural irrigation, E = Environmental enhancement, I = Industrial, L = Landscape irrigation, O = Ornamental plant irrigation, P = Impoundment, R = Groundwater replenishment.

2. LOS ANGELES BASIN

The treatment plants operated by the Sanitation Districts in the Los Angeles Basin area are the Joint Water Pollution Control Plant (JWPCP), with ocean disposal, and six water reclamation plants (WRPs): La Cañada, Long Beach, Los Coyotes, Pomona, San Jose Creek, and Whittier Narrows. These facilities and the associated trunk sewers comprise the Joint Outfall System (JOS), together producing 366.26 MGD (410,416 AFY) of effluent in FY 14-15, a decrease of 2.9% from the preceding fiscal year. This decrease was due to the on-going effects of water conservation in response to drought conditions beginning in 2006 and to the lingering effects of the recent nationwide economic recession. This level of flow is roughly equivalent to that last seen in 1968. Of the total amount of effluent produced, 103.06 MGD (115,479 AFY), or 28.1%, was recycled water available for reuse, a decrease of 9.6% in total flow over the preceding fiscal year, due in large part to the shutdown of the Whittier Narrows WRP for reconstructive work from April through June 2015. Recycled water usage decreased substantially due to milder weather and rainfall that was higher than the previous two years that obviated the need for landscape irrigation. During FY 14-15, 62.40 MGD (69,924 AFY) was actively reused, a 15.2% decrease from the preceding fiscal year, This quantity was 60.6% of the recycled water available and 17.0% of the total effluent produced in the JOS.

2.1 LA CAÑADA WRP

This treatment facility, completed in 1962 and expanded in 1971, is the smallest one operated by the Sanitation Districts and is located on the site of the La Cañada-Flintridge Country Club (Figure 6), at 533 Meadowview Drive, La Cañada, CA 91011. In February 1996, an outfall trunk sewer (for waste activated sludge disposal and excess storm flows) was completed that connected this plant with the main sewer system in the Los Angeles Basin, officially making this plant a JOS facility. The plant, which produces disinfected secondary (activated sludge) effluent, has a capacity of 0.2 MGD; however, it only treated an average of 0.074 MGD (83 AFY) of wastewater generated by the 425 homes surrounding the country club in FY 14-15 (0.02% of the effluent produced in the JOS). This flow rate was a 6.7% decrease from the preceding fiscal year. The operation and maintenance (O&M) cost in FY 14-15 to produce this water was approximately $4,158/AF.

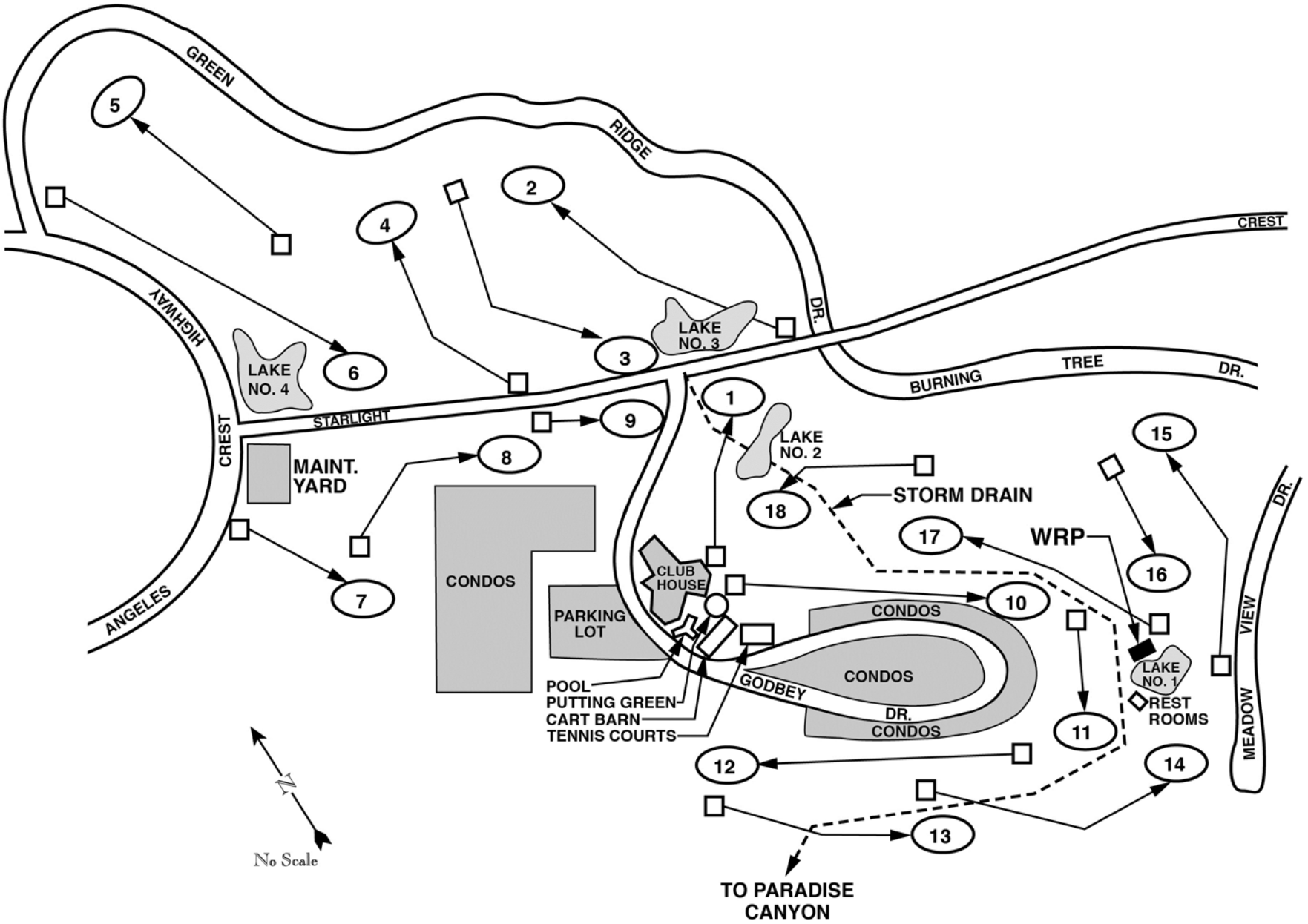
LA CAÑADA WRP FACTS	
Plant capacity:	0.2 MGD
Water produced and reused:	0.074 MGD 83 AFY 6.7% FY decrease
FY14-15 O&M:	$4,158/AF
No. of reuse sites:	1 105 acres

Use of recycled water from this facility is permitted under California Regional Water Quality Control Board, Los Angeles Region (LARWQCB) Order No. 00-099. All of the disinfected secondary effluent from the plant is conveyed to four lakes on the 105-acre golf course. Lake water (augmented by potable water during the summer) is used for landscape irrigation of the golf course. The developers of the country club and neighboring homes financed the construction of the treatment plant, which was later sold to the Sanitation Districts for $77,268. The operators of the country club are required to use all of the recycled water produced at this facility for irrigation.

2.2 LONG BEACH WRP

This treatment facility, located at 7400 East Willow Street, Long Beach, CA 90815, was completed in 1973 and was expanded in 1984 to its current design capacity of 25 MGD. However, it produced only 14.59 MGD

FIGURE 6
LA CAÑADA-FLINTRIDGE COUNTRY CLUB



LONG BEACH WRP FACTS	
Plant capacity:	25 MGD
Water produced:	14.59 MGD 16,350 AFY 10.7% FY decrease
FY14-15 O&M:	$391/AF
Water reused:	4.613 MGD 5,170 AFY 16.5% FY decrease 31.6% of production
Delivery systems:	2 179,680 ft. of pipe
No. of reuse sites:	67 1,966 acres

(16,350 AFY) of coagulated, filtered, disinfected tertiary recycled water in FY 14-15 (4.0% of the effluent produced in the JOS), which was a 10.7% decrease from the preceding fiscal year, at an O&M cost of approximately $391/AF.

Recycled water quality for FY 14-15 is presented in Table B-1 of Appendix B. An average of 4.613 MGD (5,170 AFY), or 31.6% of the recycled water produced at this plant was delivered for reuse during FY 14-15. This represents a 16.5% decrease from the preceding fiscal year. Use of recycled water from this facility during this fiscal year was permitted under LARWQCB Order Nos. 87-47 and 97-072 (for direct, non-potable reuse), R4-2009-0049 (for non-irrigation uses), and R4-2005-0061 (for seawater intrusion barrier injection).

2.2.1 Long Beach Water Department

Beginning in 1980, the City of Long Beach Water Department (LBWD) embarked on a multi-phase program to distribute recycled water throughout the city, mainly for landscape irrigation (Figure 7). (Note: All recycled water produced at this plant goes to LBWD in exchange for the land on which the Sanitation Districts built the Long Beach WRP.) Recycled water service for use in repressurization of the oil-bearing strata, initially constructed in 1971, was restored to the THUMS project on Island White in June 1995. A narrative description of the layout of LBWD's recycled water distribution system is contained in Appendix C. Table 8 lists the users of the LBWD system as of the end of FY 14-15.

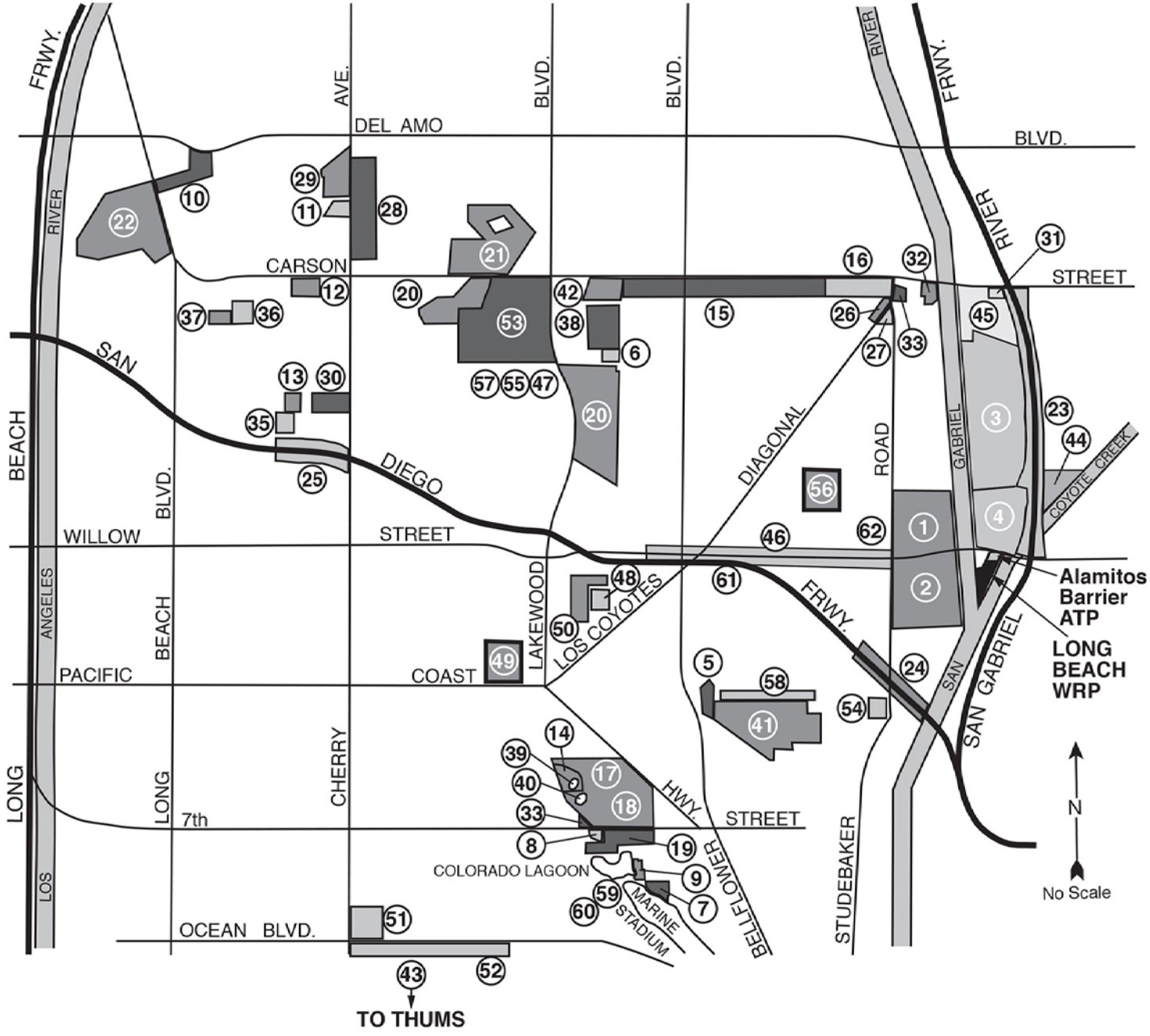
In FY 14-15, one new site was added to the LBWD distribution system: Emerson Parkside Academy was connected in June 2015. During FY 14-15, LBWD served 4.165 MGD (4,667 AFY), or 28.5% of the recycled water produced at this plant, through approximately 179,680 feet of pipeline (6- to 24-inches in diameter) to 66 direct, non-potable reuse sites encompassing 1,966 acres (additional recycled water was delivered by LBWD to the Alamitos Seawater Intrusion Barrier project, see Section 2.2.2, below). This was an 11.9% decrease from the preceding fiscal year.

LBWD sells the recycled water at a rate of $804.55/AF for peak demand (nighttime) usage or $574.56/AF for off-peak demand (daytime) usage, or between 50-70% of the potable water rate of $1,149.11/AF.

2.2.2 Alamitos Seawater Intrusion Barrier

Due to over-drafting of the Central Basin aquifer, which underlies and supplies water to the Metropolitan Los Angeles area, the groundwater level in that basin dropped below sea level by the 1950s. This condition allowed salt water to move inland into the aquifer at various points along the coastline leading to contamination of the groundwater supplies. In response, the Los Angeles County Department of Public Works (LACDPW) constructed engineered, freshwater injection barriers in front of the advancing seawater at three locations in Los Angeles County in an effort to stem the landward movement of seawater. One of these barrier projects, the Alamitos Seawater Intrusion Barrier (Alamitos Barrier), is two miles south of the Long Beach WRP, straddling the San Gabriel River and the Los Angeles/Orange County line and creating a pressure ridge in five aquifers across the Alamitos Gap. Historically, between 4,000 and 7,000 AFY of non-interruptible imported water jointly purchased from the Metropolitan Water District of Southern California (MWD) by the WRD and the

FIGURE 7
LONG BEACH WATER DEPARTMENT REUSE SITES



1 El Dorado Park West
2 El Dorado Golf Course
3 El Dorado Park East
4 Nature Center
5 Whaley Park
6 Douglas Park
7 Marina Vista Park
8 Woodlands Park
9 Colorado Lagoon Park
10 Scherer Park
11 Cherry Ave. Park
12 Somerset Park
13 Reservoir Park
14 Joe Rodgers Park
15 Heartwell Park
16 Heartwell Golf Course
17 Recreation Park
18 Recreation Golf Course
19 Recreation 9-Hole Golf Course
20 Skylinks Golf Course
21 Lakewood Golf Course
22 Virginia Country Course
23 Cal Trans - 605 Frwy.
@ Warlow, Pioneer, Spring
24 Cal Trans - 405 Frwy. @ Atherton
25 Cal Trans - 405 Frwy.@ Walnut
26 Los Coyotes Diagonal greenbelt
27 Lakewood 1st Presbyterian Church
28 All Souls Cemetery
29 Sunnyside Memorial Park
30 Long Beach Water Dept. Office
31 WalMart
32 Sunrise Growers Nursery
33 DeMille Junior High School
34 Wilson High School
35 Burroughs Elementary School
36 Hughes Middle School
37 Longfellow Elementary School
38 Veteran's Memorial Stadium
39 Recreation Park Bowling Green
40 Blair Field
41 Cal State University, Long Beach
42 Long Beach City College
43 THUMS
44 El Dorado Lakes Condominiums
45 Vestar Development (Towne Centre)
46 Willow Street medians
47 Boeing
48 Tucker Elementary School
49 Alamitos Hill Reservoir
50 Stearns Park
51 Bixby Park
52 Bluff Park
53 Douglas Park Development
54 Tincher Elementary School
55 Rubbercraft (3701 Conant St.)
56 Millikan High School
57. LD Products (3700 Cover St.)
58. Atherton medians
59. Will Rogers mini park
60. Lowell Elem./Rogers Middle Schools
61. Stanford Middle School
62. Emerson Parkside Academy

TABLE 8
SUMMARY OF FISCAL YEAR 14-15 RECYCLED WATER USAGE
LONG BEACH WATER DEPARTMENT
(PAGE 1 OF 2)

Reuse Site (City)	Start-up Date	Acreage	Type of Use	Usage (MGD)	Usage (AFY)
El Dorado Park West	Aug 80	135	L	0.149	167
El Dorado Golf Course	Aug 80	150	L	0.268	300
Recreation Park	Oct 82	26	L	0.049	55
Recreation Golf Course	Oct 82	149	L	0.261	293
Whaley Park	Jun 83	9	L	0.024	27
El Dorado Park East	Jan 84	300	L	0.472	529
Nature Center	Jan 84	60	L	0.048	54
605 Freeway at Wardlow	Feb 84	50	L	0.014	16
Heartwell Park	Feb 84	120	L	0.192	215
Skylinks Golf Course	Apr 84	155	L,P	0.256	287
Douglas Park	Apr 84	3	L	0.006	7
405 Freeway at Atherton	May 84	5	L	0.003	3
DeMille Junior High School	Jun 84	5	AF,L	0.026	29
Heartwell Golf Park	Jun 84	30	L	0.072	80
Veterans Memorial Stadium	Jan 85	6	AF	0.024	27
Recreation Park Bowling Green	Aug 85	3	L	0.007	8
California State University, Long Beach	Dec 85	52	AF,L	0.156	175
Long Beach City College	Feb 86	15	AF,L	0.066	74
Recreation 9-Hole Golf Course	Mar 86	37	L	0.088	98
Blair Field	Apr 86	5	AF	0.013	15
Woodlands Park	Apr 86	7	L	0.011	13
Colorado Lagoon Park	Apr 86	4	L	0.0003	0.4
Marina Vista Park	Apr 86	30	L	0.033	37
Lakewood 1st Presbyterian Church	Sep 88	1	L	0.0001	0.1
Virginia Country Club	Mar 89	135	L,P	0.167	187
Lakewood Golf Course	Mar 89	128	L,P	0.388	434
Scherer Park	Mar 89	24	L	0.030	33
Sunnyside Memorial Park	Apr 89	35	L	0.080	89
All Soul's Cemetery	Apr 89	40	L	0.118	133
Cherry Avenue Park	May 89	10	L	0.015	17
Los Coyotes Diagonal	Mar 91	1	L	0.005	5
Wilson High School	Jun 91	5	AF,L	0.026	29
Long Beach Water Department office	Jan 92	2	L	0.0002	0.3
Reservoir Park (Signal Hill)	Feb 92	2	L	0.008	9
Burroughs Elementary School (Signal Hill)	Feb 92	4	AF,L	0.004	4
Hughes Middle School	Apr 92	3	AF,L	0.014	16
405 Freeway at Walnut	Apr 92	9	L	0.009	10
Somerset Park	May 92	3	L	0.002	2
Longfellow Elementary School	May 92	1	AF,L	0.00002	0.03
THUMS	Jun 95	8	I	0.710	795
Joe Rodgers Park	Nov 96	3	L	0.011	12
Jauregui Nursery	Jul 97	5	O	0.034	38
El Dorado Lakes Condominiums	Aug 98	11	L	0.031	35
WalMart	Dec 98	3	L	0.001	1
Vestar Development	Feb 99	8	L	0.035	39
Willow Street medians	Dec 01	2.4	L	0.002	3
Long Beach Water Department Impoundment	Jul 02	--	I	0.001	2
Alamitos Seawater Intrusion Barrier (WRD)	Feb 03	--	R	0.449	503
Boeing	Mar 03	52	L	0.027	30
Tucker Elementary School	May 04	3	AF, L	0.006	6
Alamitos Hill Reservoir landscaping	Jul 04	8.6	L	0.004	4
Bluff Park	Jul 07	25.8	L	0.015	17

NOTES: AF = Athletic field irrigation, AG = Agricultural irrigation, E = Environmental enhancement, I = Industrial, L = Landscape irrigation, O = Ornamental plant irrigation, P = Impoundment, R = Groundwater replenishment.

TABLE 8
SUMMARY OF FISCAL YEAR 14-15 RECYCLED WATER USAGE
LONG BEACH WATER DEPARTMENT
(PAGE 2 OF 2)

Reuse Site (City)	Start-up Date	Acreage	Type of Use	Usage (MGD)	Usage (AFY)
Stearns Park	Jul 07	21	L	0.031	35
Bixby Park	Jul 07	12.5	L	0.012	13
Douglas Park residential/commercial development	Nov 07	2.1	L	0.059	66
Tincher Elementary School	Feb 09	1.5	AF, L	0.003	4
Long Beach Public Works sewer flushing	Aug 10	--	I	0.003	3
Long Beach Public Works street sweeping	Aug 10	--	I	0.001	1
Rubbercraft, 3701 Conant Street	Sep 11	0.9	L	0.004	4
Millikin High School	Oct 11	12	AF, L	0.034	38
LD Products, 3700 Cover Street	Feb 12	0.7	L	0.002	2
LD Products, 3700 Cover Street	Feb 12	--	I	0.001	1
Atherton St. medians	Jun 13	0.5	L	0.003	3
Will Rogers Mini-park	Feb 14	1.7	L	0.003	4
Stanford Middle School	Feb 14	13.3	AF, L	0.021	23
Lowell Elementary/Rogers Middle Schools	Feb 14	5.3	AF, L	0.010	11
Emerson Parkside Academy	Jun 15	2	AF,L	0.0001	0.1
TOTALS		**1,966.2**		**4.613**	**5,170**

NOTES: AF = Athletic field irrigation, AG = Agricultural irrigation, E = Environmental enhancement, I = Industrial, L = Landscape irrigation, O = Ornamental plant irrigation, P = Impoundment, R = Groundwater replenishment.

Orange County Water District (OCWD) was injected into the Alamitos Barrier. In 1993, additional injection wells were constructed, increasing the freshwater injection capacity at the Alamitos Barrier to 7,500 AFY.

Originally conceived in the late 1980s, the Leo J. Vander Lans Advanced Water Treatment Facility (LVLAWTF) treats tertiary effluent from the Long Beach WRP with microfiltration and reverse osmosis (MF/RO), followed by application of ultraviolet light (UV) for the destruction of NDMA. The advanced treated product water is then blended with MWD supplies for injection into the seawater intrusion barrier. This project uses the existing 27-inch MWD supply line to the Alamitos Barrier. Construction of the treatment processes on four acres of land directly north of the Long Beach WRP began in late 2001 and was completed in early 2003. After equipment testing and permit adoption by the LARWQCB, actual recycled water deliveries for injection began in October 2005. The approximate $15 million cost for the LVLAWTF was funded in part by MWD's Local Resource Program and the federal government.

On January 18, 2013, ground was broken to expand the LVLAWTF to its ultimate capacity of 8,800 AFY. Because of downstream sewer capacity issues, WRD had to design the expansion to reduce their waste streams treating and recovering backwash from the microfiltration and operating a third-pass of their RO processes to further concentrate brine reject water. Construction of this project was completed at the end of 2014 with full start-up of the expanded facilities beginning in spring 2015. As of now, enough recycled water is expected to be available from the Long Beach WRP; however, increased use by LBWD may require that tertiary effluent from the Los Coyotes WRP be obtained. The July 1, 2013, contract between the Sanitation Districts and WRD includes 10,000 AFY of recycled water from the Los Coyotes WRP for this project, if necessary.

During FY 14-15, the LVLAWTF produced 0.449 MGD (503 AFY) of advanced treated recycled water that was injected into the Alamitos Barrier, or 3.1% of the effluent produced at the Long Beach WRP. This was a 43.9% decrease in the amount of recycled water used for this application from the preceding fiscal year, resulting from a complete shutdown of the LVLAWTF during construction to increase the facility's production capacity to 100% of the Barrier's water demand.

2.3 LOS COYOTES WRP

This treatment facility, located at 16515 Piuma Avenue, Cerritos, CA 90703, was completed in 1970 and was expanded in 1975 to its current design capacity of 37.5 MGD. This plant produced an average of 20.73 MGD (23,227 AFY) of coagulated, filtered, disinfected tertiary recycled water during FY 14-15 (5.7% of the effluent produced in the JOS), which was a decrease of 6.4% from the preceding fiscal year, at an O&M cost of approximately $355/AF. Effluent water quality for FY 14-15 is presented in Table B-2 of Appendix B.

Through three contracts, an average of 5.930 MGD (6,645 AFY), or 28.6% of the recycled water produced at this plant was delivered during FY 14-15 for use in the cities of Bellflower, Bell Gardens, Cerritos, Compton, Cypress, Downey, Lakewood, Lynwood, Norwalk, Paramount, Santa Fe Springs, South Gate, and Vernon. This represents a 10.9% decrease in reuse flows from the preceding fiscal year. Use of recycled water from this facility is permitted under LARWQCB Order Nos. 87-51 and 97-072.

LOS COYOTES WRP FACTS

Plant capacity:	37.5 MGD
Water produced:	20.73 MGD 23,227 AFY 6.4% FY decrease
FY14-15 O&M:	$355/AF
Water reused:	5.930 MGD 6,645 AFY 10.9% FY decrease 28.6% of production
Delivery systems:	4 279,960 ft. of pipe
No. of reuse sites:	278 2,471.8 acres

2.3.1 CITY OF BELLFLOWER

Recycled water deliveries to a single, 5-acre site (Ruth B. Caruthers Park) in this city began in November 1978. During FY 14-15, an average of 0.045 MGD (50 AFY), or about 0.2% of the recycled water produced at this plant, was used at this site for landscape irrigation. This was a 6.0% decrease from the preceding fiscal year. A 30 HP pump at the end of the plant's effluent forebay supplies recycled water to the park through 1,900 feet of 4-inch pipe that crosses the San Gabriel River along a footbridge.

2.3.2 CITY OF CERRITOS

Initial deliveries to this city also began in November 1978 and consisted of landscape irrigation and ornamental lake supply at the 25-acre Ironwood Nine Golf Course next to the Los Coyotes WRP. Recycled water was supplied to this site by means of a 50 HP pump at the plant's effluent forebay (next to the City of Bellflower pump) and 75 feet of 6-inch pipe. This system was abandoned in May 1988 when the City of Cerritos completed its citywide distribution system, including 142,600 feet of pipeline (Figure 8). A narrative description of the layout of the City of Cerritos' recycled water distribution system is contained in Appendix D. Table 9 lists all of the users of recycled water on the City of Cerritos distribution system as of the end of FY 14-15.

No new users of recycled water were added to the City of Cerritos distribution system during FY 14-15. During FY 14-15, the City of Cerritos used 1.694 MGD (1,898 AFY), or 8.2% of the recycled water produced at the Los Coyotes WRP, for landscape irrigation and impoundments on 755.7 acres at 86 individual sites. This was a decrease of 11.3% from the preceding fiscal year. No city or private water trucks hauled recycled water during this fiscal year. In FY 14-15, the City of Cerritos charged its recycled water customers $326.70/AF, or 48% of the potable water rate of $675.18/AF.

2.3.3 CITY OF LAKEWOOD

In August 1989, the City of Lakewood connected to two of the stub-outs provided in the City of Cerritos recycled water distribution system to supply their own distribution system. Initially, this system consisted of 28,300 feet of pipelines that served eight sites. Nine other sites have been connected since then. All of the users of recycled water from the City of Lakewood distribution system, as of the end of FY 14-15, are shown on Figure 9 and listed in Table 10. A narrative description of the layout of the City of Lakewood's recycled water distribution system is contained in Appendix E.

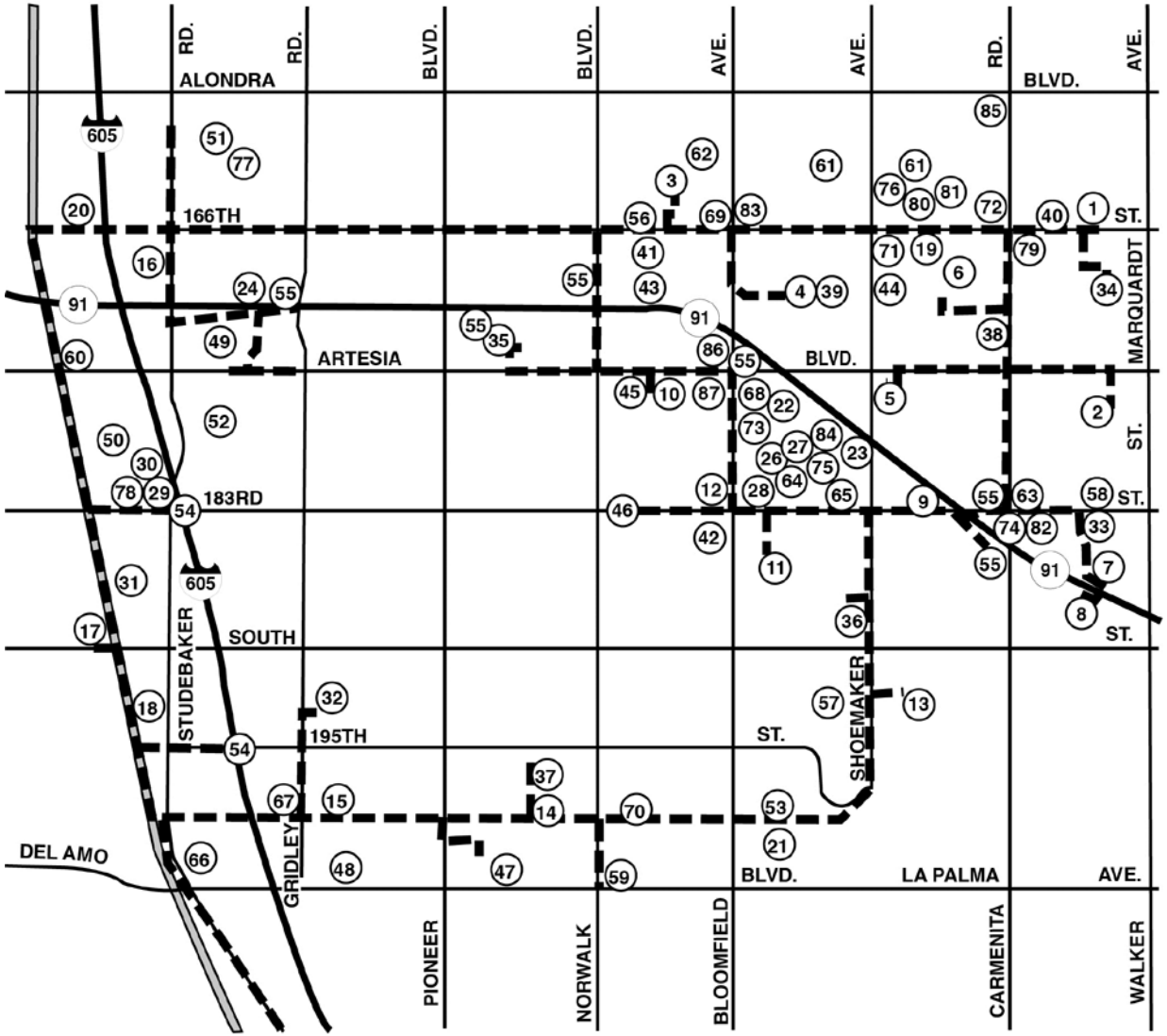
During FY 14-15, the City of Lakewood used 0.470 MGD (527 AFY), or 2.3% of recycled water produced at the Los Coyotes WRP, for irrigation of landscaping, athletic fields, and vegetables on approximately 191 acres at 17 individual sites. This was a decrease of 9.3% from the preceding fiscal year. No new reuse sites were added to City's recycled water distribution system in FY 14-15.

The City of Lakewood was charged $566.28/AF by the City of Cerritos during FY 14-15. The City of Lakewood, in turn, retailed the recycled water to its customers for $696.96/AF, or 46% of its potable rate of $1,524.60/AF. However, it is the City's policy to reimburse its recycled water customers for their capital expenditures to convert their on-site facilities to accept recycled water.

2.3.4 CITY OF CYPRESS

In June 2015, the City of Cypress began taking recycled water from a wharf head hydrant located on the eastern end of the City of Cerritos' distribution system. Recycled water was hauled by water truck for irrigation around Cypress City Hall. During FY 14-15, <0.0001 MGD (0.1 AFY) was used for this purpose.

FIGURE 8
CITY OF CERRITOS RECYCLED WATER DISTRIBUTION SYSTEM



1. Carmentia Park
2. Friendship Park
3. Satellite Park
4. Frontier Park
5. Saddleback Park
6. City Park West
7. Rainbow Park
8. Bettencourt Park
9. Brookhaven Park
10. Rosewood Park
11. Heritage Park
12. Library/Civic Center
13. Sunshine Park
14. Jacob Park
15. Gridley Park
16. Reservoir Hill Park
17. Westgate Park
18. Liberty Park
19. Olympic Natatorium
20. Ironwood 9 Golf Course
21. Sports Complex
22. ADP No. 2
23. Shoemaker on/off ramp
24. Windjammer off-ramp
25. Medians/Parkways
26. Transpacific Devel. Co.
27. Sheraton Hotel
28. Automated Data Proc.
29. Cerritos Pontiac/GMC
30. Moothart Chrysler
31. Browning Olsmobile
32. Bragg Elementary
33. Cerritos Elementary
34. Gonsalves Elementary
35. Juarez Elementary
36. Leal Elementary
37. Pat Nixon Elementary
38. Stowers Elementary
39. Whittman Elementary
40. Carmenita Junior High
41. ABC Adult School/Office
42. Cerritos High School
43. Tracy Education Center
44. Whitney Learning Center
45. Kennedy Elementary
46. Elliott Elementary
47. Cabrillo Lane Elementary
48. Haskell Junior High
49. Gahr High School
50. Bellflower Christian School
51. Cerritos Community College
52. Artesia Cemetery Dist.
53. Cerritos Reg. Co. Park
54. CalTrans 605 Freeway
55. CalTrans 91 Freeway
56. Parkside Condominiums
57. Shadow Park HOA
58. Concordia Church
59. Church of Nazarene
60. B&B Stables
61. ADP No. 6
62. Granada Park HOA
63. Cerritos Post Office
64. Performing Arts Center
65. Delta Dental
66. Orange County Nursery
67. SCE Nursery
68. Vestar Development
69. Sundance Condos
70. Cerritos Nursery
71. Warmington Homes
72. Midway International
73. Bloomfield Associates
74. 183rd St. on-ramp
75. AT&T Headquarters
76. Laskey-Weil
77. Chancellor Village
78. Land Rover
79. Surgical Center
80. UPS parking structure
81. UPS main building
82. Fountain Walk Senior Housing
83. ASCIP Building
84. 12800 Center Court
85. Chugh Firm
86. Chevron
87. Bloomfield Plaza

N

No Scale

(1) REUSE SITES

TRANSMISSION LINE

TABLE 9
SUMMARY OF FISCAL YEAR 14-15 RECYCLED WATER USAGE
CITY OF CERRITOS
(PAGE 1 OF 2)

Reuse Site	Start-up Date	Acreage	Type of Use	Usage (MGD)	Usage (AFY)
Ironwood 9 Golf Course	Nov 78	25	L,P	0.101	113
Library/Civic Center	Dec 87	4	L	0.018	20
Olympic Natatorium	Dec 87	6	L	0.020	22
Whitney Learning Center	Dec 87	10	AF,L	0.023	26
Gonsalves Elementary School	Dec 87	5	AF,L	0.010	12
Wittman Elementary School	Dec 87	5	AF,L	0.011	12
Gahr High School	Dec 87	28	AF,L	0.055	62
Area Development Project No. 2	Jan 88	11.5	L,P	0.063	71
Medians/Parkways	Jan 88	42.8	L	0.122	136
605 Freeway	Jan 88	58.6	L	0.086	97
91 Freeway	Jan 88	70	L	0.027	31
Frontier Park	Jan 88	2.5	L	0.012	14
Carmenita Junior High School	Jan 88	5	AF,L	0.018	20
Cerritos Elementary School	Jan 88	6	AF,L	0.012	13
Stowers Elementary School	Jan 88	6	AF,L	0.021	23
Kennedy Elementary School	Jan 88	7	AF,L	0.015	17
City Park East	Jan 88	18	L	0.048	53
Satellite Park	Jan 88	2	L	0.004	4
Leal Elementary School	Jan 88	6	AF,L	0.009	10
Cerritos High School	Jan 88	20	AF,L	0.042	47
Elliott Elementary School	Jan 88	7	AF,L	0.014	15
Carmenita Park	Jan 88	4.5	L	0.017	19
Juarez Elementary School	Jan 88	7	AF,L	0.022	24
ABC Adult School & Office	Jan 88	3	L	0.014	16
Tracy Education Center	Jan 88	6	AF,L	0.003	4
Liberty Park	Jan 88	20	L	0.033	37
Gridley Park	Jan 88	9	L	0.024	27
Jacob Park	Jan 88	4.5	L	0.011	13
Heritage Park	Feb 88	12	L	0.037	41
Bragg Elementary School	Feb 88	7	AF,L	0.015	16
Haskell Junior High School	Feb 88	18	AF,L	0.037	41
Pat Nixon Elementary School	Feb 88	5	AF,L	0.011	12
Cabrillo Lane Elementary School	Feb 88	9	AF,L	0.010	11
Sunshine Park	Feb 88	3.5	L	0.012	14
Friendship Park	Feb 88	4	L	0.011	12
Bettencourt Park	Feb 88	2	L	0.008	9
Brookhaven Park	Feb 88	2	L	0.009	10
Saddleback Park	Feb 88	2	L	0.006	6
Westgate Park	Feb 88	4	L	0.009	11
Rainbow Park	Mar 88	2.5	L	0.004	5
Bellflower Christian School	Mar 88	31.4	AF,L	0.044	50
Cerritos Community College	Mar 88	55	AF,L	0.097	109
Cerritos Regional County Park	Apr 88	59	L	0.151	169
Artesia Cemetery District	Apr 88	10.9	L	0.026	30
Rosewood Park	Apr 88	2.7	L	0.014	15
Sports Complex	Mar 89	25	AF,L	0.058	65
Shoemaker On/Off Ramp - 91 Freeway	Dec 89	4.6	L	0.013	14
Transpacific Development Co.	Feb 90	6.9	L	0.012	14
Automated Data Processing	Feb 90	0.7	L	0.005	6
Sheraton Hotel	Mar 90	0.6	L	0.004	4
Cerritos Pontiac/GMC Truck	May 90	0.5	L	0.001	1
Moothart Chrysler	May 90	0.4	L	0.006	7
Windjammer Off-Ramp - 91 Freeway	Sep 90	0.8	L	0.0004	0.5

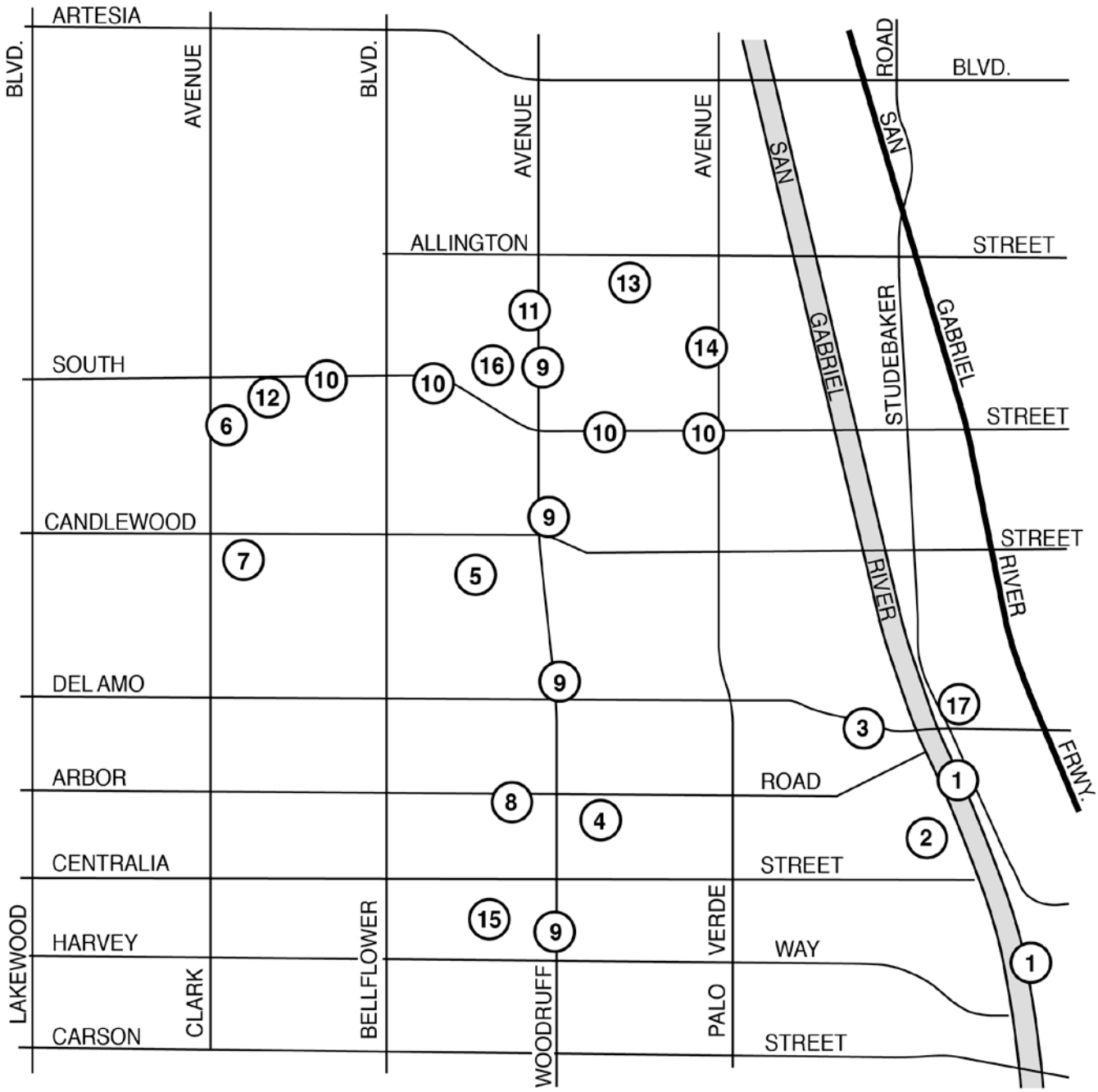
NOTES: AF = Athletic field irrigation, AG = Agricultural irrigation, E = Environmental enhancement, I = Industrial, L = Landscape irrigation, O = Ornamental plant irrigation, P = Impoundment, R = Groundwater replenishment.

TABLE 9
SUMMARY OF FISCAL YEAR 14-15 RECYCLED WATER USAGE
CITY OF CERRITOS
(PAGE 2 OF 2)

Reuse Site (City)	Start-up Date	Acreage	Type of Use	Usage (MGD)	Usage (AFY)
Browning Oldsmobile	Sep 90	0.1	L	0.002	2
City Water Truck	May 91	--	L	0	0
Private Haulers	May 91	--	I	0	0
Parkside Condominiums	May 91	1.8	L	0.005	6
Concordia Church	Jun 91	4	L	0.005	6
Church of the Nazarene	Aug 91	1	L	0.004	5
B&B Stables	Aug 91	18	I	0.005	5
Shadow Park Homeowner's Association	Nov 91	6	L	0.018	20
Area Development Project No. 6	Apr 92	9	L	0.050	57
Granada Park Homeowners Association	May 92	3.8	L	0.009	10
Cerritos Post Office	Feb 93	0.7	L	0.006	6
Center for the Performing Arts	Mar 93	1	L	0.003	3
Delta Dental	Nov 93	1.8	L	0.004	4
Southern California Edison nursery	Mar 94	3.5	O	0.005	6
Vestar Development	Jun 94	9.6	L	0.028	31
Sundance Condominiums	Jan 95	9	L	0.038	43
Cerritos Nursery	Dec 95	3	O	0.002	3
Encore Maintenance-Warmington Homes	May 96	1.1	L	0.004	4
Artesia Off-Ramp - 91 Freeway	Aug 96	3.3	L	0.009	10
Midway International	Feb 98	0.3	L	0.001	1
Bloomfield Associates, 17871 Park Plaza Drive	Sep 98	0.5	L	0.001	2
183rd Street On-Ramp - 91 Freeway	Feb 99	0.6	L	0.0003	0.3
AT&T building, 12900 Park Plaza Drive	Aug 99	0.9	L	0.010	12
Laskey-Weil building, 13101 Moore Street	Oct 01	0.4	L	0.002	3
Chancellor Village Senior Housing	Nov 02	0.9	L	0.002	2
LandRover	Dec. 06	0.3	L	0.005	6
Surgical Center, Carmenita & 166th	May 08	0.1	L	0.0004	0.4
UPS Parking Structure, 13150 Moore Street	May 08	0.5	L	0.001	2
UPS Main Building, 13233 Moore Street	Nov 08	4.4	L	0.012	14
Fountain Walk Senior Housing, 18310 Carmenita	Nov 08	0.1	L	0.0001	0.1
ASCIP Building, 16550 Bloomfield Ave.	Feb 09	0.1	L	0.0003	0.4
12800 Center Court	Jul 09	0.4	L	0.002	2
Chugh Firm, 15925 Carmenita Road	Jan 11	0.2	L	0.003	3
Chevron, 17255 Bloomfield Ave.	Mar 11	0.1	L	0.001	1
Bloomfield Plaza, 12560 Artesia Blvd.	May 13	0.1	L	0.001	1
TOTALS		**755.6**		**1.694**	**1,898**

NOTES: AF = Athletic field irrigation, AG = Agricultural irrigation, E = Environmental enhancement, I = Industrial, L = Landscape irrigation, O = Ornamental plant irrigation, P = Impoundment, R = Groundwater replenishment.

FIGURE 9
CITY OF LAKEWOOD REUSE SITES



1. RIVER (RYNERSON) PARK
2. MONTE VERDE PARK
3. MAE BOYER PARK
4. JOSE DEL VALLE PARK
5. JOSE SAN MARTIN PARK
6. MAYFAIR PARK
7. CIVIC CENTER WAY & CITY HALL
8. CITY WATER YARD
9. WOODRUFF AVENUE GREENBELT
10. SOUTH STREET GREENBELT
11. ST. JOSEPH'S PARISH SCHOOL
12. FOSTER ELEMENTARY SCHOOL
13. MAYFAIR HIGH SCHOOL
14. LINDSTROM ELEMENTARY SCHOOL
15. LAKEWOOD HIGH SCHOOL
16. MY HOA FARM
17. DEL AMO BLVD. MEDIANS

N

No Scale

TABLE 10
SUMMARY OF FISCAL YEAR 14-15 RECYCLED WATER USAGE
CITY OF LAKEWOOD

Reuse Site (City)	Start-up Date	Acreage	Type of Use	Usage (MGD)	Usage (AFY)
River (Rynerson) Park	Aug 89	40	L	0.079	89
Monte Verde Park	Aug 89	4	L	0.049	54
Mae Boyer Park	Aug 89	8	L	0.046	51
Jose Del Valle Park	Aug 89	12	L	0.030	34
Jose San Martin Park	Aug 89	9.3	L	0.025	28
City Water Yard	Aug 89	1	L	0.008	9
Woodruff Avenue greenbelt	Aug 89	4.1	L	0.024	27
South Street greenbelt	Aug 89	3.3	L	0.015	17
Mayfair Park	Dec 89	18	L	0.041	46
St. Joseph Parish School	Aug 90	3.5	AF,L	0.010	11
Foster Elementary School	Sep 90	6	AF,L	0.020	23
Civic Center Way and City Hall	Nov 90	2.8	L	0.010	12
Mayfair High School	May 91	36.5	AF,L	0.048	54
Lindstrom Elementary School	Sep 91	12	AF,L	0.016	18
Lakewood High School	Sep 91	25	AF,L	0.034	38
My Hoa Farm	May 93	5	AG	0.013	14
Del Amo Blvd. greenbelt	Jul 03	0.3	L	0.001	2
TOTALS		**190.8**		**0.470**	**527**

NOTES: AF = Athletic field irrigation, AG = Agricultural irrigation, E = Environmental enhancement, I = Industrial, L = Landscape irrigation, O = Ornamental plant irrigation, P = Impoundment, R = Groundwater replenishment.

2.3.5 Central Basin Municipal Water District (Century System)

Central Basin Municipal Water District (CBMWD), a regional wholesale water purveyor and member agency of MWD, is the lead agency in developing the regional Century recycled water distribution system that serves the cities of Bellflower, Bell Gardens, Compton, Downey, Lakewood, Lynwood, Norwalk, Paramount, Santa Fe Springs, South Gate, and Vernon. The $15 million project initially consisted of 26 miles of pipeline connected to one of the 24-inch distribution lines coming from the City of Cerritos pump station, and now has 189,800 feet of pipeline. The backbone of the distribution system is a 30-inch pipeline paralleling the San Gabriel River. Construction of the initial system was completed in 1992, with the delivery of recycled water for applications such as landscape irrigation of parks, schools, and freeway slopes, nursery stock irrigation, and various industrial applications. To ensure reliable and efficient delivery of recycled water to the City of Vernon's Malburg Electrical Generation Station, along with existing and future customers, CBMWD worked with the City of South Gate to construct a booster pump at Hollydale Park in November 2004. The Hollydale Pump Station has improved the overall water pressure and supply reliability for CBMWD's recycled water customers in various local cities, including the cities of South Gate, Lynwood, Huntington Park, and Vernon.

This system was also connected in 1994 to the completed portions of the Rio Hondo recycled water distribution system, as detailed in Section 2.5.6 below. Both the Century and Rio Hondo distribution systems can be partially supplied with recycled water from either the Los Coyotes or San Jose Creek WRPs individually or in combination and there is no way to differentiate which reuse sites receive which recycled water. Most of the recycled water delivered through the Century distribution system actually originated at the San Jose Creek WRP. However, for the sake of consistency, recycled water usage along the Century facilities is reported in the water reuse reports as coming from the Los Coyotes WRP, and along the Rio Hondo facilities as coming from the San Jose Creek WRP. Figure 10 shows all of the pipelines for both distribution systems, as well as all of the current recycled water use sites. A narrative description of the layout of the Century recycled water distribution system is contained in Appendix F. Table 11 lists all of the recycled water use sites connected to the Century distribution system through FY 14-15.

CBMWD has constructed the delivery facilities right up to the end users; however, the local retail water purveyors are the entities actually supplying the recycled water. Over the past few years, three of the retail purveyors, the cities of Downey, Santa Fe Springs, and Lynwood, constructed an additional 20,800 feet of pipelines connecting to the CBMWD distribution system. During FY 14-15, four new sites were added to the Century recycled water distribution system. The landscaping around Firestone Plaza 2 (4833 Firestone Blvd.) in South Gate was connected in August 2014, while the landscaping at the City Ventures Condo Complex (Gallatin/Florence), the City Water Yard (9252 Stewart & Gray Road), and a McDonald's restaurant (Lakewood/Gallatin) in the City of Downey were connected in June 2015.

During FY 14-15, CBMWD delivered 3.721 MGD (4,169 AFY) of recycled water, or 17.9% of recycled water produced at the Los Coyotes WRP, through 11 retail water purveyors to 180 individual sites for landscape and athletic field irrigation on approximately 1,531 acres and for industrial process water. This was a decrease of 11.0% from the preceding fiscal year.

In FY 14-15, CBMWD sold the recycled water on a wholesale basis to its retail water purveyor customers on a monthly use, tiered rate schedule of $556 for the first 50 AF and $507 for anything above 50 AF. This price is between 49% and 54% of the rate of $1,029/AF it charges for Tier 1 non-interruptible potable water supplied by MWD, and between 43% and 47% of the rate of $1,171/AF it charges for Tier 2 supplies. Recycled water delivered outside of CBMWD's service area was subject to a $21-23/AF surcharge for each of the two tiers. Recycled water deliveries to the Malburg power plant in Vernon received an industrial use rate of $402 for the first 25 AF, $374 for the next 25 AF, $346 for the next 50 AF, and $318 for anything above 100 AF. Once they receive recycled water from CBMWD, the retail purveyors then set their own rates for the recycled water delivered to individual customers.

FIGURE 10
CENTRAL BASIN MUNICIPAL WATER DISTRICT
RECYCLED WATER DISTRICT SYSTEM

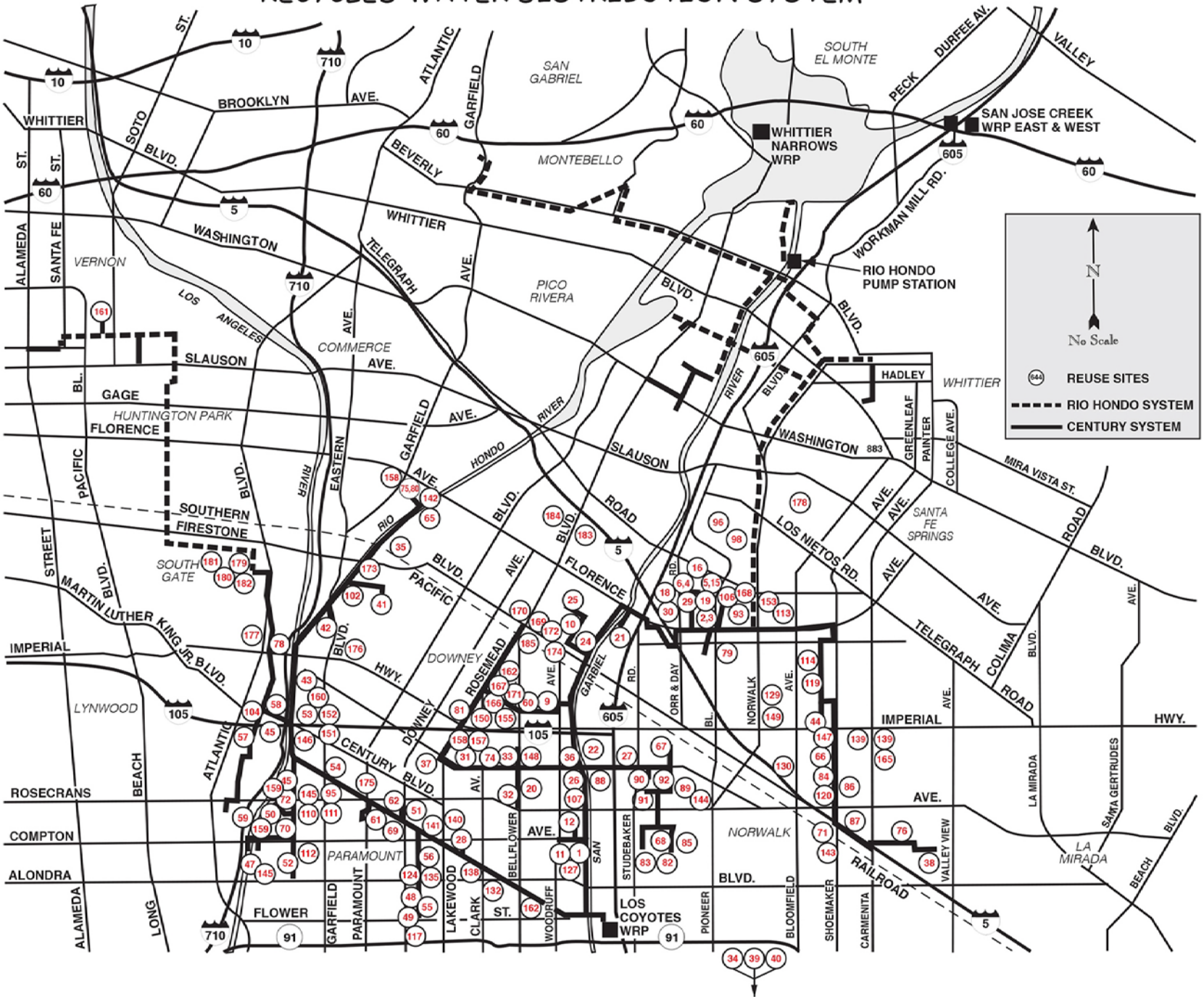


TABLE 11
SUMMARY OF FISCAL YEAR 14-15 RECYCLED WATER USAGE
CENTURY DISTRIBUTION SYSTEM
(PAGE 1 OF 4)

Reuse Site (City) (Map No.)	Start-up Date	Acreage	Type of Use	Usage (MGD)	Usage (AFY)
Andy's Nursery (Bellflower) (1)	Feb 92	9	O	0.041	46
Lake Center Park (Santa Fe Springs) (2)	Mar 92	8	L	0.024	27
Lake Center School (Santa Fe Springs) (3)	Mar 92	8	AF,L	0.020	23
Clarkman Walkway (Santa Fe Springs) (4)	Mar 92	0.1	L	0.00002	0.02
Towne Center Walkway (Santa Fe Springs) (5)	Apr 92	0.1	L	0.001	1
Lakeview Child Care (Santa Fe Springs) (6)	May 92	0.2	L	0.001	1
Orr & Day Road medians (Santa Fe Springs) (7)	May 92	0.1	L	0.00001	0.01
Florence Avenue medians (Santa Fe Springs) (8)	Jun 92	3	L	0.006	7
Gauldin Elementary School (Downey) (9)	Jun 92	8.4	AF,L	0.011	12
Rio San Gabriel School (Downey) (10)	Jun 92	14.8	AF,L	0.022	25
Bellflower High School (Bellflower) (11)	Jul 92	28.4	AF,L	0.073	82
Ernie Pyle Elementary School (Bellflower) (12)	Aug 92	4.9	AF,L	0.014	16
Telegraph Road medians (Santa Fe Springs) (13)	Aug 92	0.5	L	0.005	6
Lakeview Park (Santa Fe Springs) (14)	Aug 92	6.7	L	0.017	19
Clark Estate (Santa Fe Springs) (15)	Aug 92	4.3	L	0.006	7
Towne Center Green (Santa Fe Springs) (16)	Aug 92	2.3	L	0.006	7
Pioneer Road medians (Santa Fe Springs) (17)	Sep 92	0.4	L	0.029	33
Police Station (Santa Fe Springs) (18)	Sep 92	0.2	L	0.002	2
Aquatic Center (Santa Fe Springs) (19)	Sep 92	0.5	L	0.003	4
Lewis School (Downey) (20)	Nov 92	4.6	AF,L	0.007	8
Wilderness Park (Downey) (21)	Nov 92	24	L	0.083	93
605 Freeway at Foster (Bellflower) (22)	Jan 93	14	L	0.001	1
Promenade Walkway (Santa Fe Springs) (23)	Jan 93	0.3	L	0.003	3
Rio San Gabriel Park (Downey) (24)	Jan 93	6.4	L	0.037	41
East Middle School (Downey) (25)	Jan 93	26	AF,L	0.014	16
Zinn Park (Bellflower) (26)	Jan 93	1.7	L	0.007	8
605/105 Interchange (Bellflower) (27)	Feb 93	22	L	0.00003	0.03
Hollywood Sports Center (Bellflower) (28)	Feb 93	22.5	L	0.003	4
Santa Fe Springs High School (Santa Fe Springs) (29)	Feb 93	14.5	AF,L	0.031	35
605/5 Freeway at Florence (Santa Fe Springs) (30)	Feb 93	17	L	0.001	1
Old Downey Cemetery (Downey) (31)	Apr 93	7.5	L	0.033	37
Thompson Park (Bellflower) (32)	Apr 93	15	L	0.025	28
105 Freeway at Bellflower (Downey) (33)	May 93	17.9	L	0	0
Palms Park (Lakewood) (34)	May 93	20	L	0.015	16
Crawford Park (Downey) (35)	Jul 93	2.1	L	0.009	10
Humedo Nursery (Downey) (36)	Aug 93	11	O	0.006	6
105 Freeway at Lakewood (Downey) (37)	Sep 93	25	L	0.001	1
Shaw Industries Carpet Mill (Santa Fe Springs) (38)	Sep 93	--	I	0.181	203
Palms Elementary School (Lakewood) (39)	Sep 93	3.5	AF,L	0.015	16
Artesia High School (Lakewood) (40)	Sep 93	20.9	AF,L	0.030	34
West Middle School (Downey) (41)	Oct 93	19.5	AF,L	0.022	25
Circle Park (South Gate) (42)	Oct 93	4	L	0.012	13
Hollydale Park (South Gate) (43)	Nov 93	46	L	0.114	128
Robertson's Ready-Mix (Santa Fe Springs) (44)	Dec 93	--	I	0.004	5
710/105 Interchange (Paramount) (45)	Dec 93	18.5	L	0	0
Downey/Contreras greenbelt (Paramount) (46)	Dec 93	0.1	L	0.001	1
Compton Golf Course (Paramount) (47)	Dec 93	13	L	0.031	34
Alondra Junior High School (Paramount) (48)	Dec 93	14	AF,L	0.007	8
Mokler Elementary School (Paramount) (49)	Dec 93	10	AF,L	0.008	9
Los Cerritos Elementary School (Paramount) (50)	Dec 93	8	AF,L	0.010	11
Wirtz Elementary School (Paramount) (51)	Dec 93	9	AF,L	0.009	10
Keppel Elementary School (Paramount) (52)	Dec 93	4	AF,L	0.005	5
Billy Lee Nursery (Paramount) (56)	Dec 93	2.5	O	0.007	8

NOTES: AF = Athletic field irrigation, AG = Agricultural irrigation, E = Environmental enhancement, I = Industrial, L = Landscape irrigation, O = Ornamental plant irrigation, P = Impoundment, R = Groundwater replenishment.

TABLE 11
SUMMARY OF FISCAL YEAR 14-15 RECYCLED WATER USAGE
CENTURY DISTRIBUTION SYSTEM
(PAGE 2 OF 4)

Reuse Site (City)	Start-up Date	Acreage	Type of Use	Usage (MGD)	Usage (AFY)
105 Freeway at Wright (Lynwood) (57)	Jan 94	19.6	L	0	0
710 Freeway at M.L. King (Lynwood) (58)	Jan 94	15.5	L	0.0001	0.1
710 Freeway at Rosecrans (Compton) (59)	Jan 94	24.2	L	0	0
Independence Park (Downey) (60)	Feb 94	10.4	L	0.014	16
Paramount Park (Paramount) (61)	Feb 94	9	L	0.022	25
Paramount High School (Paramount) (62)	Feb 94	19	AF,L	0.029	32
Rosecrans/Paramount medians (Paramount) (63)	Mar 94	0.2	L	0.002	2
Somerset medians (Paramount) (64)	Apr 94	0.9	L	0.005	5
Rio Hondo Golf Course (Downey) (65)	Apr 94	92.4	L	0.238	267
Zimmerman Park (Norwalk) (66)	Apr 94	9.5	L	0.017	19
Vista Verde Park (Norwalk) (67)	Apr 94	6.5	L	0.017	19
Gerdes Park (Norwalk) (68)	Apr 94	8.6	L	0.020	23
Clearwater Junior High School (Paramount) (69)	Apr 94	4	AF,L	0.023	26
Steam Engine Park (Paramount) (70)	Jun 94	0.6	L	0.002	2
5 Freeway at Shoemaker/Firestone (Norwalk) (71)	Jul 94	0.8	L	0	0
Spane Park (Paramount) (72)	Jul 94	5	L	0.010	12
Orange/Cortland Parkway (Paramount) (73)	Jul 94	1.3	L	0.002	2
Carpenter School (Downey) (74)	Aug 94	7.4	AF,L	0.010	11
John Anson Ford Park (Bell Gardens) (75)	Sep 94	45	L	0.042	47
Ramona Park (Norwalk) (76)	Oct 94	4.8	L	0.011	13
Alondra median (Paramount) (77)	Oct 94	0.6	L	0.009	11
Imperial/Wright Road medians (Lynwood) (78)	Oct 94	0.2	L	0.0001	0.1
Little Lake Park (Santa Fe Springs) (79)	Dec 94	18	L	0.043	48
John Anson Ford Golf Course (Bell Gardens) (80)	Feb 95	13.6	L	0	0
South Middle School (Downey) (81)	May 95	15.8	AF,L	0.020	22
Nuffer Elementary School (Norwalk) (82)	Jun 95	10.4	AF,L	0.013	15
Lampton Middle School (Norwalk) (83)	Jun 95	9.5	AF,L	0.001	1
Hargitt Middle School (Norwalk) (84)	Jul 95	9.5	AF,L	0.024	27
Norwalk Adult School (Norwalk) (85)	Jul 95	17.2	AF,L	0.001	1
John Glenn High School (Norwalk) (86)	Jul 95	38.8	AF,L	0.023	26
Ramona Elementary School (Norwalk) (87)	Jul 95	6.8	AF,L	0.002	3
New River Elementary School (Norwalk) (88)	Jul 95	10.3	AF,L	0.006	7
Morrison Elementary School (Norwalk) (89)	Sep 95	7.7	AF,L	0.006	7
D.D. Johnston Elementary School (Norwalk) (90)	Sep 95	8.9	AF,L	0.012	13
Corvallis Middle School (Norwalk) (91)	Sep 95	16.9	AF,L	0.008	9
Norwalk High School (Norwalk) (92)	Sep 95	35.1	AF,L	0.034	38
Heritage Park (Santa Fe Springs) (93)	Oct 95	9.2	L	0.012	13
Belloso Farm Nursery (Paramount) (94)	Oct 95	2.5	O	0	0
Robertson's Ready-Mix (Paramount) (95)	Nov 95	--	I	0.012	14
Los Nietos Park (Santa Fe Springs) (96)	Jan 96	11.2	L	0.020	22
Bell Gardens Soccer Field (Bell Gardens) (97)	Feb 96	2.6	AF	0.006	7
Jersey Ave. School/city athl. fields (S.F. Springs) (98)	Mar 96	8	AF	0.007	8
Bellflower Blvd. medians (Bellflower) (99)	Jul 96	0.3	L	0.002	3
Alta Produce (Paramount) (100)	Aug 96	4	AG	0.001	1
Belloso Farm Nursery (South Gate) (101)	Sep 96	2.5	O	0	0
Temple Park (Downey) (102)	Oct 96	1	L	0.001	2
Woodruff Avenue medians (Bellflower) (103)	Oct 96	0.8	L	0.004	5
Ham Park (Lynwood) (104)	Dec 96	10	L	0.093	104
Jauregui Nursery (Paramount) (105)	Dec 96	2	O	0.002	3
Heritage Corporate Center (Santa Fe Springs) (106)	Jan 97	29.9	L	0.026	29
Belloso Farm Nursery (Bellflower) (107)	Jan 97	8	O	0	0
Foster Road medians (Norwalk) (108)	Jan 97	0.3	L	0.002	2
Rosecrans Avenue medians (Paramount) (109)	Mar 97	0.2	L	0.005	5

NOTES: AF = Athletic field irrigation, AG = Agricultural irrigation, E = Environmental enhancement, I = Industrial, L = Landscape irrigation, O = Ornamental plant irrigation, P = Impoundment, R = Groundwater replenishment.

TABLE 11
SUMMARY OF FISCAL YEAR 14-15 RECYCLED WATER USAGE
CENTURY DISTRIBUTION SYSTEM
(PAGE 3 OF 4)

Reuse Site (City)	Start-up Date	Acreage	Type of Use	Usage (MGD)	Usage (AFY)
Texaco/Somerset medians (Paramount) (110)	Mar 97	0.2	L	0.001	1
McLane Mowers (Paramount) (111)	Mar 97	0.6	L	0	0
ABC Nursery (Paramount) (112)	Mar 97	16	O	0	0
L.A. County Vector Control Bldg. (S.F. Springs) (113)	Mar 97	3.8	L	0.004	4
Greenstone Warehouse (Santa Fe Springs) (114)	Apr 97	0.4	L	0.001	1
McNab Avenue medians (Bellflower) (115)	Jul 97	0.1	L	0.0005	1
Foster Road/Premier Ave. medians (Downey) (116)	Aug 97	0.1	L	0.0005	0.5
Palm Growers Nursery (Downey) (117)	Oct 97	7.3	O	0	0
Alondra Blvd medians @ SGR (Bellflower) (118)	Oct 97	0.1	L	0.0004	0.5
Maruichi American building (Santa Fe Springs) (119)	Oct 98	0.4	L	0.001	1
Norwalk Golf Course (Norwalk) (120)	Jan 99	8	L	0.009	10
Soco-Lynch Corp. building (Santa Fe Springs) (121)	Feb 99	1	L	0.001	1
MC&C building (Santa Fe Springs) (122)	Mar 99	0.7	L	0.009	10
Lakewood Blvd. medians (Paramount) (123)	Mar 99	0.2	L	0.001	1
Progress Park (Paramount) (124)	Mar 99	6.2	L	0.013	15
Garfield Avenue medians (Paramount) (125)	Apr 99	0.1	L	0.003	3
B&B Pallet Co. (South Gate) (126)	May 99	--	I	0	0
Garcia's Nursery (Bellflower) (127)	Jun 99	6	O	0	0
Orange Avenue medians (Paramount) (128)	Aug 99	0.1	L	0.003	3
Metropolitan State Hospital (Norwalk) (129)	Sep 99	80	L	0	0
Moffit School (Norwalk) (130)	Sep 99	1.6	AF,L	0.009	10
Rio Hondo Channel (Downey) (131)	Nov 99	0.8	L	0.001	1
Simms Park (Bellflower) (132)	Dec 99	12.5	L	0.020	22
Foster Road Greenbelt (Norwalk) (133)	Mar 00	3.3	L	0.009	10
San Luis Street @ flood channel (Paramount) (134)	Apr 00	3	L	0.001	1
Jefferson School (Paramount) (135)	Jul 00	0.5	AF,L	0.002	3
Columbus High School (Downey) (136)	Aug 00	25	AF,L	0.024	27
Triangle Park (South Gate) (137)	Nov 00	0.4	L	0.003	3
Golden Springs Business Park (Santa Fe Springs) (139)	Apr 01	31.4	L	0.132	148
Bellflower Storage (Bellflower) (140)	Jun 01	3	L	0.002	2
Railroad Beautification (Paramount) (141)	Jul 01	0.5	L	0.001	1
Rio Hondo Channel (Bell Gardens) (142)	Jul 01	0.3	L	0.003	3
CDM building (Santa Fe Springs) (143)	Oct 01	0.1	L	0.002	2
L.A. County Recorder's Office (Norwalk) (144)	Jan 02	2.7	L	0.006	7
Tays Cool Fuel (Paramount) (145)	Feb 02	0.2	L	0.002	2
L.A. River landscaping (South Gate) (146)	Mar 02	2.5	L	0.001	1
Lakewood-Adoree medians (Downey) (150)	Jul 02	3.9	L	0.032	36
Simon Trucking (Santa Fe Springs) (147)	Nov 02	0.9	L	0.001	1
Foster/Coldbrook medians (Bellflower) (148)	Nov 02	0.1	L	0.0001	0.1
L.A. County Library (Norwalk) (149)	Nov 02	0.9	L	0.003	4
Metro State/Wheelabrator (Norwalk) (129)	Jan 03	--	I	0.165	184
Imperial Equestrian (South Gate) (152)	Jul 03	1.5	L	0.004	5
Norwalk Walkway/Parking (Santa Fe Springs) (153)	Jul 03	1	L	0.002	3
Steve Horn Way/Bellflower medians (Downey) (155)	Nov 03	0.3	L	0.006	7
Pro Growers Nursery (Norwalk) (156)	Sep 04	11.3	O	0.046	52
Kaiser Administration building (Downey) (157)	Oct 04	2.5	L	0.002	2
Downey Studios (Downey) (158)	Oct 04	1	L	0	0
Dills Park (Paramount) (159)	Jul 05	12.5	L	0.023	26
Hollydale Elementary (South Gate) (160)	Sep 05	3	AF,L	0.001	1
Malburg Generation Station (Vernon) (161)	Oct 05	--	I	0.725	813
Stuart and Gray medians (Downey) (162)	Dec 05	0.4	L	0.004	5
Woodruff and Maple medians (Bellflower) (163)	Mar 06	0.1	L	0.0001	0.1

NOTES: AF = Athletic field irrigation, AG = Agricultural irrigation, E = Environmental enhancement, I = Industrial, L = Landscape irrigation, O = Ornamental plant irrigation, P = Impoundment, R = Groundwater replenishment.

TABLE 11
SUMMARY OF FISCAL YEAR 14-15 RECYCLED WATER USAGE
CENTURY DISTRIBUTION SYSTEM
(PAGE 4 OF 4)

Reuse Site (City)	Start-up Date	Acreage	Type of Use	Usage (MGD)	Usage (AFY)
Sculpture Garden (Santa Fe Springs) (164)	May 06	0.6	L	0	0
Foster Road medians (Santa Fe Springs) (165)	Jul 06	1	L	0.011	12
Space Learning Center (Downey) (166)	Apr 08	10.5	L	0	0
Cornerstone Commerce Center (Downey) (167)	Jun 08	0.8	L	0.005	5
Mora Drive medians (Santa Fe Springs) (168)	Oct 08	0.1	L	0.006	7
Firestone Blvd. medians (Downey) (169)	Feb 09	0.1	L	0.001	1
Citibank, 8764 Firestone Blvd. (Downey) (170)	Feb 09	0.1	L	0.001	1
Steve Horn Pkwy. medians @ Kaiser (Downey) (171)	May 09	1.4	L	0.050	56
Walgreens/Big Lots, 9018 Firestone (Downey) (172)	May 09	0.4	L	0.002	3
Pacific Alloy Casting (South Gate) (173)	Jul 09	--	I	0.014	16
MTA Bike Trail (Bellflower) (174)	Nov 09	0.1	L	0.007	7
Paramount Blvd. medians (Paramount) (175)	Mar 10		L	0.005	6
Los Amigos Golf Course (L.A. County) (176)	Aug 10	110	L	0.200	225
Atlantic Ave. medians (South Gate) (177)	Mar 11	16.3	L	0.005	5
Air Products & Chemicals (Santa Fe Springs) (178)	Nov 13	--	I	0.251	282
Firestone medians (South Gate) (179)	Mar 14		L	0.004	4
Walmart, 4651 Firestone Blvd. (South Gate) (180)	Apr 14		L	0.002	3
CVS Pharmacy, 4621 Firestone (South Gate) (181)	Apr 14		L	0.004	5
Firestone Plaza 2, 4833 Firestone (South Gate) (182)	Jul 14	1.7	L	0.002	3
McDonalds, Lakewood and Gallatin (Downey) (183)	Jun 15	0.1	L	0.0001	0.1
City Ventures Condos, Gallatin/Flor. (Downey) (184)	Jun15	0.5	L	0.002	2
City Water Yard, 9252 Stewart & Gray (Downey) (185)	Jun 15	0.1	L	0.00001	0.01
TOTALS		**1,530.9**		**3.721**	**4,169**

NOTES: AF = Athletic field irrigation, AG = Agricultural irrigation, E = Environmental enhancement, I = Industrial, L = Landscape irrigation, O = Ornamental plant irrigation, P = Impoundment, R = Groundwater replenishment.

2.4 POMONA WRP

POMONA WRP FACTS	
Plant capacity:	15 MGD
Water produced:	6.49 MGD 7,277 AFY 12.3% FY decrease
FY14-15 O&M:	$553/AF
Water reused: (including recharge)	6.442 MGD 7,219 AFY 11.9% FY decrease 99.2% of production
Delivery systems:	2 211,200 ft. of pipe
No. of reuse sites:	202 2,198.0 acres

Several treatment plants serving the east San Gabriel Valley were constructed and operated by other agencies as early as 1927. The current Pomona WRP, located at 295 Humane Way, Pomona, CA 91766, was completed in 1966 and most recently expanded in 1991, allowing the plant to treat up to 15 MGD. In FY 14-15, the plant produced 6.49 MGD (7,277 AFY) of coagulated, filtered, disinfected tertiary recycled water (1.8% of the effluent produced in the JOS), which was a 12.3% decrease from the preceding fiscal year, at a FY 14-15 O&M cost of approximately $553/AF. Recycled water quality for FY 14-15 is presented in Table B-3 of Appendix B.

Two agencies, the Pomona Water Department (PWD) and the Walnut Valley Water District (WVWD), along with the Sanitation Districts' Spadra site, together used 3.145 MGD (3,525 AFY) or 48.4% of the plant's total production. This was a 7.2% decrease from the preceding fiscal year. A third purveyor, Rowland Water District (RWD), took over operation of the portion of the WVWD recycled water distribution system that ran through its service area and has connected to the City of Industry system which gets its recycled water from the San Jose Creek WRP (Section 2.5.3).

The remaining recycled water is discharged to the south fork of San Jose Creek, which is tributary to the unlined portion of the San Gabriel River. Therefore, nearly 100% of the recycled water produced at this plant is reused, since most of the river discharge percolates into the underlying groundwater. In FY 14-15, 3.297 MGD (3,694 AFY) was recharged into the groundwater and, for the second year in a row, none of the recycled water delivered was bypassed around the spreading grounds and lost to the ocean during storm episodes. Also, beginning in July 2013, recycled water delivered for recharge is being purchased by the WRD. Use of recycled water from this facility is permitted by the LARWQCB under Order Nos. 81-34 and 97-072 for direct, non-potable applications and Order No. 91-100 for groundwater replenishment.

2.4.1 POMONA WATER DEPARTMENT

Documented use of recycled water in the Pomona area goes as far back as 1904 when effluents treated to various levels were used on the many farms and ranches in the area. The PWD began using recycled water from the Sanitation Districts' current treatment facility in December 1973 when agricultural irrigation at California State Polytechnic University, Pomona (Cal Poly) and its occasional satellite farming operation at Lanterman State Hospital, and landscape irrigation along South Campus Drive Parkway were connected to a recycled water distribution system.

The distribution system consists of a 490 HP, 9,000 gpm pump station that feeds two, 21-inch pipelines. One 21-inch line runs east along Pomona Boulevard and Vernon Avenue. The other 21-inch line runs north along Ridgeway Street to a T-section at South Campus Drive and the 71 Freeway. From this point, an 18-inch line continues north along Ridgeway, then east along Murchison Avenue for a short distance before it terminates at a 4.5 million gallon storage reservoir in Bonelli Park. At the T-section, a 16-inch line runs west along South Campus Drive, serving the parkway, Cal Poly, and the 57 and 71 Freeways. Lanterman Hospital had been

served by a 21-inch unreinforced concrete gravity line from the Pomona WRP that currently serves the former Landfill site and the WVWD pump station (discussed in Sections 2.4.2 and 2.4.3, below).

During FY 14-15, the PWD delivered 1.423 MGD (1,594 AFY), or 21.9% of the recycled water from the Pomona WRP though 37,000 feet of pipeline, to seven retail customers on 1,427 acres as shown on Figure 11. This was a 14.9% decrease from the preceding fiscal year. Table 12 lists the users of the PWD system as of the end of FY 14-15. No new users were added during this fiscal year.

During FY 14-15, the PWD sold the recycled water to its customers from its pressure system at a rate of $557.53/AF. This is 70% of its potable water rate of $796.47/AF.

2.4.2 Spadra Landfill Site

The Sanitation Districts' Spadra Landfill began receiving recycled water from the Pomona WRP in July 1984 from the 21-inch unreinforced concrete gravity line from the plant. (Note: Most of this gravity line has been replaced with a 24-inch cement-lined and coated steel pipe.) A pressure-sustaining valve on the line at the landfill site provides enough static head in the pipeline for the pumps of the landfill to operate. Cal Poly's LandLab project began receiving recycled water from the landfill site in November 1993, while the Spadra Gas-to-Energy (SGE) Facility began using recycled water in its cooling towers in December 1995. These sites are shown on Figure 11 and are also listed in Table 12 along with the users of the PWD system.

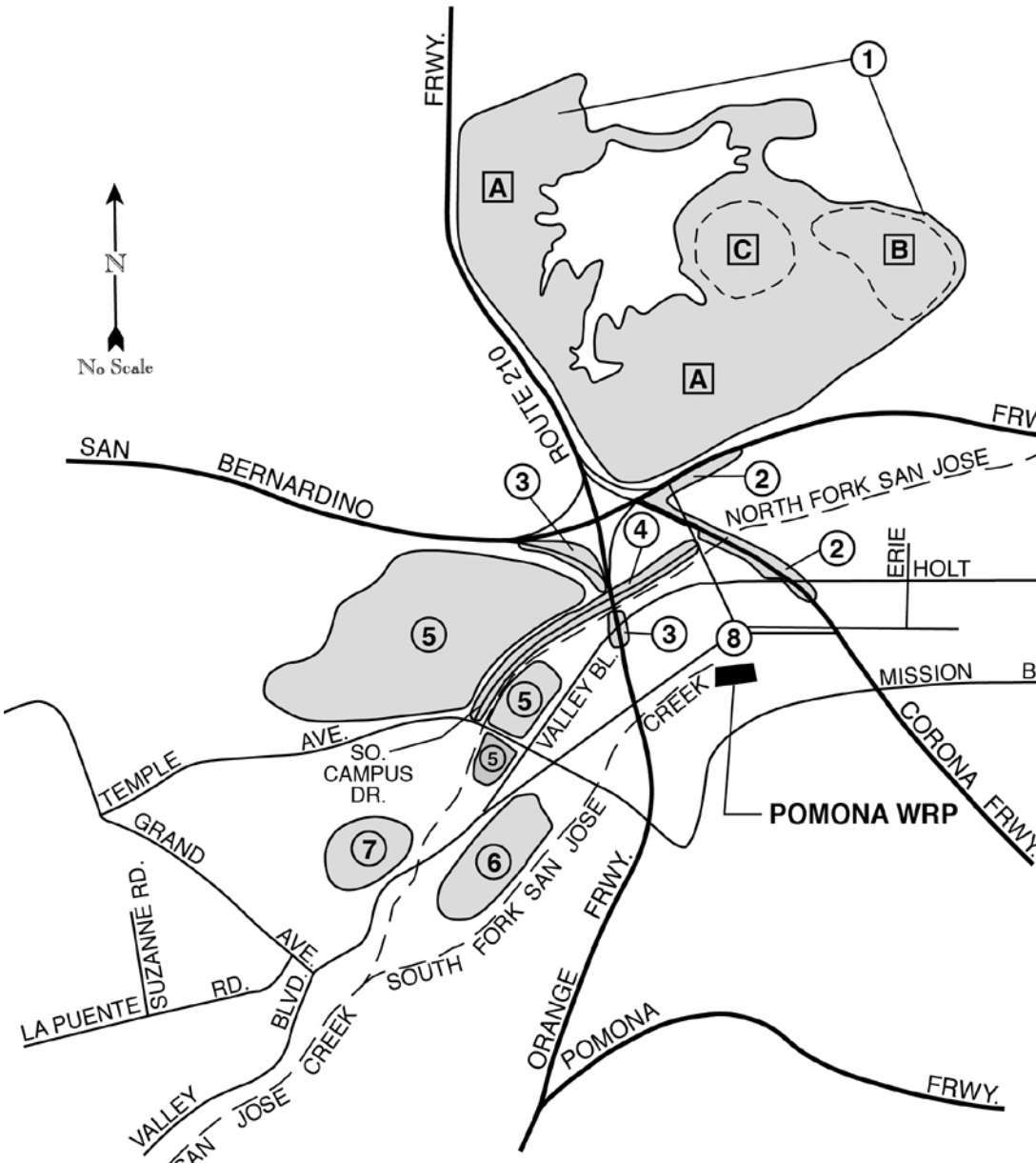
During FY 14-15, 0.302 MGD (339 AFY), or 4.7% of the recycled water from the Pomona WRP, was used on approximately 56 acres at the former Spadra Landfill site, the SGE Facility, and Cal Poly's LandLab. This was a 24.9% decrease from the preceding fiscal year.

2.4.3 Walnut Valley Water District

In March 1986, WVWD completed the initial construction of its recycled water distribution system. This system consists of a 3,500 gpm pump station and an 8,000 gallon wet well at the end of the (now) 24-inch steel gravity line from the Pomona WRP, approximately 166,320 feet of pipeline, and a 2 million gallon reservoir. A second, 2 million gallon reservoir was constructed in mid-1992 to provide more storage for the nighttime peak demands. The distribution system is supplemented during the peak summer demand periods with non-potable water from a well located next to the recycled water line on Fairway Avenue and with imported water from MWD at the pump station. Initially, 26 individual sites were served following completion of the distribution system. In January 2003, the RWD assumed operation of the 29,280 feet of the WVWD recycled water system pipeline serving seven reuse sites in RWD's service area which was connected to the City of Industry main recycled transmission line in July 2009 (see Section 2.5.3 below). Figure 12 and Table 13 present the users of the WVWD system as of the end of FY 14-15. A narrative description of the layout of the WVWD recycled water distribution system is contained in Appendix G.

Two new sites were added to the WVWD distribution system in FY 14-15. In November 2014, CA Rasmussen began using recycled water for local construction.. In January 2015, the athletic fields at South Pointe Middle School were connected. During FY 14-15, WVWD delivered 1.420 MGD (1,592 AFY), or 21.9% of the recycled water produced at the Pomona WRP, an increase of 7.9% over the preceding fiscal year. WVWD received its recycled water directly from the Sanitation Districts and retailed it to its 191 customers (which irrigate approximately 722.4 acres) at 53% of its potable water rate of $1,285.02/AF, or $679.54/AF.

FIGURE 11
POMONA WATER DEPARTMENT AND SPADRA LANDFILL REUSE SITES



1 FRANK G. BONELLI REGIONAL COUNTY PARK
  A BONELLI PARK
  B MOUNTAIN MEADOWS GOLF COURSE
  C EAST SHORE R. V. PARK
2 CALTRANS 71 FREEWAY
3 CALTRANS 57 FREEWAY
4 SOUTH CAMPUS DRIVE PARKWAY
5 CALIFORNIA STATE POLYTECHNIC UNIVERSITY, POMONA - KELLOGG CAMPUS
6 CALIFORNIA STATE POLYTECHNIC UNIVERSITY, POMONA - LANTERMAN STATE HOSPITAL
7 SPADRA LANDFILL
8 ROBERTSON'S READY MIX

TABLE 12
SUMMARY OF FISCAL YEAR 14-15 RECYCLED WATER USAGE
POMONA WATER DEPARTMENT & SANITATION DISTRICTS' SPADRA SITE

Reuse Site (City)	Start-up Date	Acreage	Type of Use	Usage (MGD)	Usage (AFY)
Cal Poly, Pomona-Kellogg	Dec 73	500	AG,L,O,P,AF	0.683	765
Lanterman Hospital	Dec 73	100	AG	0	0
South Campus Drive Parkway	Dec 73	8	L	0.011	12
Route 57 and 10 Freeways	May 75	18	L	0	0
Bonelli Regional County Park	Apr 77	789	L	0.713	799
Route 71 and 10 Freeways	Apr 81	12	L	0.001	1
Spadra Landfill landscape	Jul 84	53	L	0.221	247
Spadra Landfill dust control	Jul 84	--	I	0.0002	0.2
Cal Poly LandLab	Nov 93	2.5	AG,L	0.020	23
Spadra Gas-to-Energy Plant	Dec 95	--	I	0.061	68
Robertson's Ready-Mix	Oct 09	--	I	0.012	14
OMP Mounty Vernon, LLC	Jan 15		L	0.004	4
TOTALS		**1,482.5**		**1.725**	**1,933**

NOTES: AF = Athletic field irrigation, AG = Agricultural irrigation, E = Environmental enhancement, I = Industrial, L = Landscape irrigation, O = Ornamental plant irrigation, P = Impoundment, R = Groundwater replenishment.

FIGURE 12
WALNUT VALLEY WATER DISTRICT RECYCLED WATER DISTRIBUTION SYSTEM

1. Walnut Ranch LMD
2. Snow Creek Park & LMD
3. Suzanne Park
4. Suzanne Middle School
5. Walnut High School
6. Vejar Elementary School
7. Morris Elementary School
8. Lemon Creek Park
9. Friendship Park
10. Hollingsworth Elem. School
11. Lanesboro Park
12. Nogales High School
13. Rincon Middle School
14. Sunshine Park
15. Schabarum Park
16. Queen of Heaven Cemetery
17. Rowland Elementary School
18. Farjardo Elementary School
19. CalTrans
20. Rowland Heights County Park
21. Rowland High School
22. Killian Elementary School
23. Walnut Elementary School
24. WVUSD Admin. Service Center
25. Diamond Bar Golf Course
26. Gateway Corporate Center (multiple)
27. Walnut Ridge LMD & Morningside Park
28. Sunshine Growers Nursery
29. Temple Avenue Medians
30. Valley Business Center
31. Lemon Avenue Medians
32. Fajardo Park
33. Walnut Ranch Park
34. Westhoff Elementary School
35. Grand Crossing (multiple)
36. SCAQMD Headquarters
37. Recycled Water Reservoirs
38. First Chinese Baptist Church
39. Valley Blvd. Medians
40. Rodeo Ridge Estates
41. Brookside Equestrian Center
42. Grand Avenue Medians
43. Burger King Restaurant
44. Business Parkway Center (multiple)
45. Catellus Commerce Center (multiple)
46. WVWD Offices
47. Dreyers Grand Ice Cream
48. Walnut Hills Village Shopping Center
49. Golden Springs Dr. Medians
50. West Golden Springs Dr. Medians
51. Calvary Chapel Church
52. Rowland Heights Comm. Church
53. Fairway Medians
54. Sysco
55. Del Paso High School
56. Circuit City
57. Metrolink Station
58. Countryside Suites
59. Diamond Crest HOA
60. Norm Ashley Park
61. Waterfall Estates
62. Koll Plantation (multiple)
63. McDonalds Restaurant
64. Prudential Insurance
65. Cross School of Education
66. Bank of the West
67. Gym/Teen Center
68. Harvard Estates
69. Wind River HOA
70. Walnut Nazarene Church
71. Holiday Inn Express
72. Lemon Avenue Investments
73. Everbright Management
74. V-Tec Automotive
75. ExtraSpace Storage
76. Latter-Day Saints Church
78. Magnolia Homes
79. Signal-Walnut Partnership
80. Brea Cyn./Old Ranch Rd. Med.
81. CLT Computers
82. Tri Net Court
83. Walnut City Hall
84. Walnut Senior Center
85. Community Day Sch./Kandyland
86. Sentous Valley LLC
87. Southcoast Cabinets
88. Shell Station
89. Hing Wa Lee Plaza
90. Sy Development Condos
91. Industry East Land LLC
92. Valley Blvd. Medians
93. Kohl's Center
94. Target
95. Christian Chapel of Walnut Valley
96. Home Depot
97. FedEx
98. Grand Avenue Venture
99. Currier Road Development
100. Chili's Restaurant
101. Brea Cyn/Currier median
102. Ybarra Elementary School
103. Bell Memorial Church
104. Parker Canyon Reservoir
105. Lemon Valley LLC
106. St. Lorenzo Church
107. Foothill Transit
108. CA Rasmussen
109. South Pointe Middle School

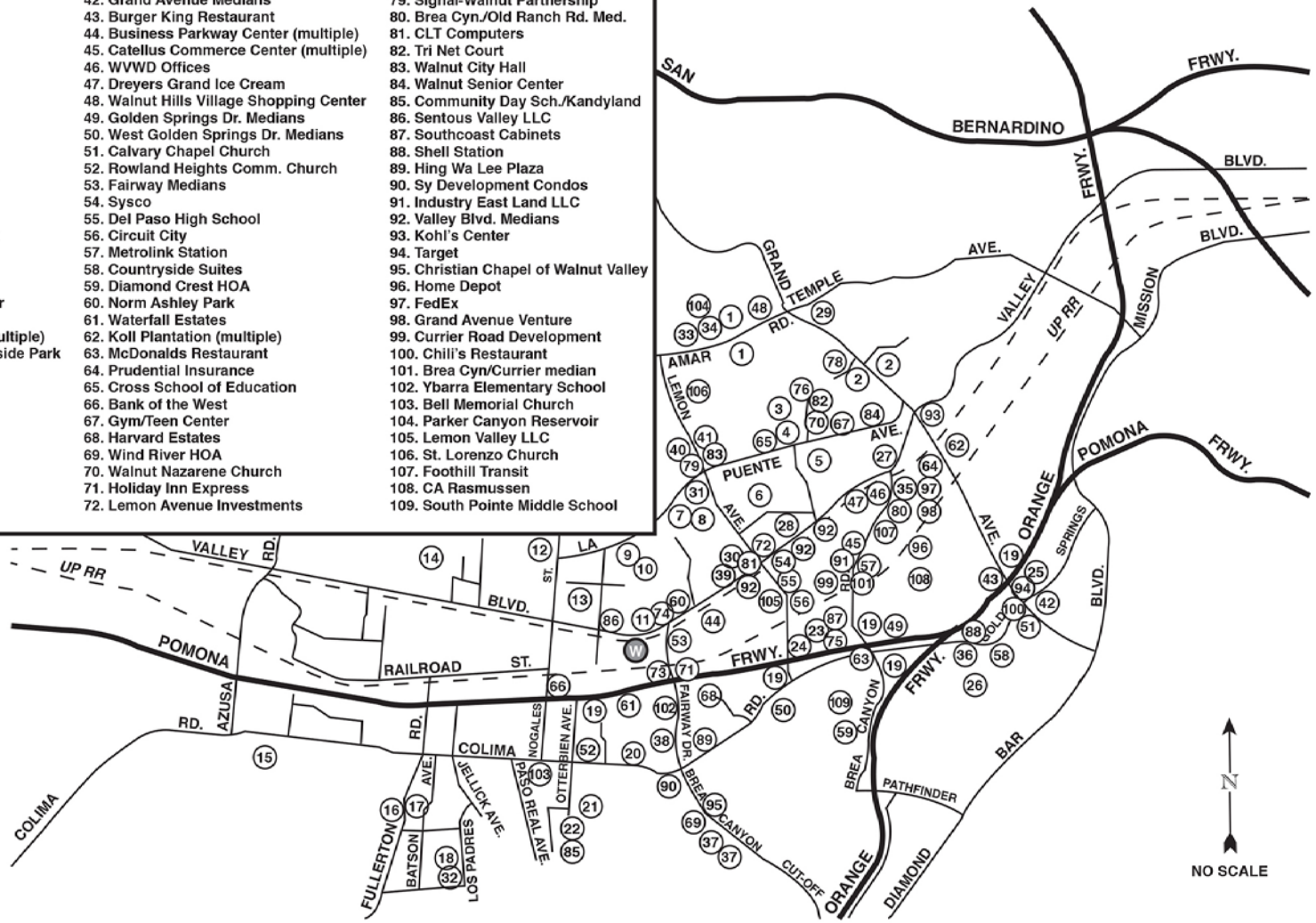


TABLE 13
SUMMARY OF FISCAL YEAR 14-15 RECYCLED WATER USAGE
WALNUT VALLEY WATER DISTRICT
(PAGE 1 OF 4)

Reuse Site (City)	Start-up Date	Acreage	Type of Use	Usage (MGD)	Usage (AFY)
Suzanne Park (Walnut)	Oct 80	12	L	0.015	17
Suzanne Middle School (Walnut)	May 86	4	AF,L	0.012	14
Walnut High School (Walnut)	May 86	15	AF,L	0.019	21
Vejar School (Walnut)	May 86	3	AF,L	0.012	13
Morris School (Walnut)	May 86	9	AF,L	0.008	9
Snow Creek Park (Walnut)	May 86	7	L	0.009	11
Snow Creek Landscape Maintenance Dist. (Walnut)	May 86	13.5	L	0.037	42
Lemon Creek Park (Walnut)	May 86	5	L	0.007	8
Friendship Park (West Covina)	May 86	6	L	0.006	7
Hollingworth School (West Covina)	May 86	3	AF,L	0.008	9
Lanesboro Park (West Covina)	May 86	2	L	0.006	7
Rincon Middle School (West Covina)	May 86	3	AF,L	0.016	18
Route 57 and 60 Freeways (Rowland Heights)	May 86	19.7	L	0.016	18
Rowland Heights Reg. Co. Park (Rowland Heights)	May 86	11	L	0.016	18
Rowland High School (Rowland Heights)	May 86	9	AF,L	0.023	26
Killian Elementary School (Rowland Heights)	May 86	3	AF,L	0.006	6
Walnut Elementary School (Walnut)	May 86	4	AF,L	0.009	10
WUSD Administrative Service Center (Walnut)	May 86	4	L	0.003	3
Walnut Ranch Park (Walnut)	Jun 86	26	L	0.017	19
Amar Road greenbelt (Walnut)	Jun 86	16	L	0.146	164
Diamond Bar Golf Course (Diamond Bar)	Jul 86	174	L,P	0.169	189
Walnut Ridge Landscape Maintenance Dist. (Walnut)	Mar 87	25.5	L	0.028	31
Morningside Park (Walnut)	Mar 87	4	L	0.006	7
Gateway Corporate Center (Diamond Bar)	Jun 87	45	L	0.051	57
20659 E. Valley Blvd. (Walnut)	May 88	7	O	0	0
Westhoff Elementary School (Walnut)	Sep 88	8	AF,L	0.006	7
Temple Avenue greenbelt (Walnut)	Jan 90	1	L	0.0003	0.3
Walnut Tech Business Center (Walnut)	Apr 90	1	L	0.002	2
Lemon Avenue greenbelt (Walnut)	Sep 91	4.3	L	0.007	7
South Coast AQMD Headquarters (Diamond Bar)	Nov 91	2	L	0.007	8
WVWD reservoir (Diamond Bar)	May 92	1	L	0.003	4
First Chinese Baptist Church (Walnut)	Dec 92	0.3	L	0.002	2
Burger King restaurant (Diamond Bar)	Oct 93	0.2	L	0.0001	0.1
Majestic Mgmt., 19850 E. Business Parkway (Walnut)	Nov 93	0.8	L	0.003	3
General Electric, 19705 E. Business Parkway (Walnut)	Nov 93	1.6	L	0.006	6
Rodeo Ridge Estates (Walnut)	Dec 93	6.3	L	0.003	3
Golden Springs Drive medians (Diamond Bar)	Jan 94	1.3	L	0.005	6
Walnut Hills Village Shopping Center (Walnut)	Mar 94	2.4	L	0.005	6
Brookside Equestrian Center (Walnut)	Aug 94	13.6	L	0.009	10
WVWD Office (Walnut)	Oct 94	0.2	L	0.001	1
Cattelus Development (Walnut)	Oct 94	18.9	L	0.010	11
Circuit City, 501 Cheryl Lane (Walnut)	Oct 94	1	L	0.005	6
Dreyer's Grand Ice Cream, 351 Cheryl Lane (Walnut)	Oct 94	0.6	L	0.004	4
Metrolink Station (Industry)	Nov 94	0.6	L	0.002	2
Del Paso High School (Walnut)	Jan 95	3	AF,L	0.003	4
Sea Shield Marine Products, 20832 Currier (Walnut)	Jan 95	0.1	L	0.0002	0.2
Unical Aviation Inc., Currier/Lemon (Walnut)	Apr 95	1.1	L	0.007	8
Sysco Food Service, 20701 Currier Road (Walnut)	Apr 95	2.3	L	0.008	9
Thermaltake Inc., 20420 E. Bus. Parkway (Walnut)	Apr 95	0.8	L	0.005	5
Equus Computer Systems, 20480 E. Bus. Pkwy (Walnut)	Apr 95	0.9	L	0.004	4
Dura Freight Lines, 515-525 S. Lemon (Walnut)	Apr 95	0.5	L	0.001	1
S/W-S/E Corner Lemon/Business Parkway (Walnut)	Apr 95	0.2	L	0.004	5
Dura Freight Lines, 20275 Business Parkway (Walnut)	Apr 95	1.3	L	0.003	3

NOTES: AF = Athletic field irrigation, AG = Agricultural irrigation, E = Environmental enhancement, I = Industrial, L = Landscape irrigation, O = Ornamental plant irrigation, P = Impoundment, R = Groundwater replenishment.

TABLE 13
SUMMARY OF FISCAL YEAR 14-15 RECYCLED WATER USAGE
WALNUT VALLEY WATER DISTRICT
(PAGE 2 OF 4)

Reuse Site (City)	Start-up Date	Acreage	Type of Use	Usage (MGD)	Usage (AFY)
Coaster Co. of America, 20300 Bus. Parkway (Walnut)	Apr 95	0.7	L	0.002	2
Dura Freight Lines, 20405 Bus. Parkway (Walnut)	Apr 95	1	L	0.002	2
Dura Freight Lines, 20595 E. Bus. Parkway (Walnut)	Apr 95	0.8	L	0.003	4
Dura Freight Lines, 20435-45 Bus. Parkway (Walnut)	Apr 95	0.7	L	0.002	2
820 Fairway Drive medians (Industry)	Jun 95	0.1	L	0.001	1
Spencer N Enterprises, Inc., 435 S. Lemon (Walnut)	Jun 95	0.5	L	0.001	1
General Electric, 19805 E Business Parkway (Walnut)	Jun 95	1.1	L	0.004	5
ACME Furniture, 20002 E. Business Parkway (Walnut)	Jun 95	4	L	0.006	7
General Electric, 20005 E. Business Parkway (Walnut)	Jun 95	6.7	L	0.009	10
Ping Ting Hsu, 20732 Currier Road (Walnut)	Aug 96	0.1	L	0.0002	0.3
Santa Fe Distributing LLC., 20822 Currier (Walnut)	Oct 96	0.1	L	0.001	1
Tung Hsin Trading Group, 19700 Bus. Pkwy. (Walnut)	Nov 96	0.4	L	0.004	5
Rowland Heights Christian Church (Rowland Heights)	Feb 97	0.5	L	0.0004	0.4
Catellus, 510 Cheryl/455 Brea Canyon Rd. (Walnut)	Jul 97	1.8	L	0.010	11
Countryside Suites (Diamond Bar)	Mar 98	1.4	L	0.002	3
Diamond Crest Homeowners Assn. (Diamond Bar)	Oct 98	14	L	0.021	24
Norm Ashley Park (Walnut)	Nov 98	0.2	L	0.001	1
Play Hut, 368 Cheryl Lane (Walnut)	Nov 98	0.8	L	0.002	3
Waterfall Estates (Rowland Heights)	Dec 98	1.2	L	0.004	5
Calvary Chapel (Diamond Bar)	Apr 99	1	L	0.016	18
Anfield Apparel Group Inc., 20851 Currier(Walnut)	Jun 99	0.2	L	0.001	2
Campus Group Inc., 319 Cheryl Road (Walnut)	Jul 99	0.1	L	0	0
Wind River Homeowners Assn. (Rowland Heights)	Jul 99	12.6	L	0.031	35
L.A. Fitness Inter., 20801 Golden Springs (Industry)	Sep 99	1.2	L	0.003	4
Comtop Enterprises, 268 Benton Court (Industry)	Sep 99	0.3	L	0.001	1
Gemini Foods Corp., 251 Benton Court (Industry)	Sep 99	0.6	L	0.0004	0.5
Tri-Net Technology, 21709 Ferraro Parkway (Industry)	Sep 99	0.3	L	0.002	2
Hupa International, 21717 Ferraro Parkway (Industry)	Oct 99	0.3	L	0.001	2
Nu-Health Products, 20875-85-95 Currier Rd. (Walnut)	Oct 99	0.1	L	0	0
Lemon Avenue medians (Industry)	Dec 99	0.1	L	0.0004	0.5
Prudential Insurance Co., 21558 Ferraro (Walnut)	Jan 00	3.5	L	0.007	8
McDonald's Restaurant (Diamond Bar)	Mar 00	0.1	L	0.001	1
J&L Footwear, 250 Benton Court (Industry)	Jul 00	0.6	L	0.003	4
Markwins Inter. Corp., 22067 Ferraro (Industry)	Nov 00	1.9	L	0.003	4
Lee Wang LLC, 21901 Ferraro Parkway (Industry)	Nov 00	2	L	0.007	8
Sun Yin USA, 280 Maclin Court (Industry)	Nov 00	0.8	L	0.001	1
SL Investment Group LLC, 218 Maclin Ct. (Industry)	Nov 00	1.5	L	0.002	2
Morrow Meadows, 231 Benton Court (Industry)	Apr 01	0.9	L	0.002	2
The Cross Schools of Education (Walnut)	May 01	0.6	AF,L	0.001	1
Bank of the West (Rowland Heights)	Sep 01	0.1	L	0.0001	0.1
Gym/Teen Center (Walnut)	Sep 01	0.6	L	0.002	2
Yellow Box Corp., 19835 Walnut Drive (Walnut)	Dec 01	0.3	L	0	0
Harvard Estates (Rowland Heights)	Dec 01	2	L	0.004	4
Walnut Nazarene Church (Walnut)	Feb 02	0.8	L	0.0002	0.2
Majestic Mgmt., 168-188 Brea Canyon Road (Walnut)	Apr 02	0.6	L	0.002	2
Synnex, 108-118 Brea Canyon Road (Walnut)	Apr 02	0.7	L	0.002	3
Port Logistics, 108-288 Mayo Drive (Walnut)	Apr 02	0.1	L	0.001	1
Holiday Inn Express (Walnut)	May 02	0.4	L	0.004	4
Lemon Avenue Investments (Walnut)	Jun 02	0.6	L	0.003	3
Magnolia at Snow Creek (Walnut)	Jul 02	5.4	L	0.016	17
Everbright Management, 1163 Fairway Dr. (Industry)	Sep 02	0.6	L	0.003	3
Everbright Management, 1169 Fairway Dr. (Industry)	Sep 02	0.2	L	0.001	1
Kelly Paper, 288 Brea Canyon Road (Walnut)	Sep 02	1.2	L	0.0003	0.3

NOTES: AF = Athletic field irrigation, AG = Agricultural irrigation, E = Environmental enhancement, I = Industrial, L = Landscape irrigation, O = Ornamental plant irrigation, P = Impoundment, R = Groundwater replenishment.

TABLE 13
SUMMARY OF FISCAL YEAR 14-15 RECYCLED WATER USAGE
WALNUT VALLEY WATER DISTRICT
(PAGE 3 OF 4)

Reuse Site (City)	Start-up Date	Acreage	Type of Use	Usage (MGD)	Usage (AFY)
V-Tec Automotive, 19677 Valley Blvd. (Walnut)	Sep 02	0.1	L	0.0002	0.2
Grand and Valley landscaping (Walnut)	Sep 02	0.1	L	0.006	7
Extra Space Storage (Walnut)	Oct 02	0.8	L	0.002	2
Latter Days Saints Church (Walnut)	Oct 02	0.9	L	0.003	4
Nogales and Killian landscaping (Rowland Heights)	Oct 02	0.1	L	0.001	1
A&R West Family LLC, 20855 Golden Sprgs (D. Bar)	Nov 02	0.2	L	0.001	1
Brea Canyon Rd./Old Ranch Road medians (Industry)	May 03	0.1	L	0.0003	0.3
CLT Computers, Inc., 20153 Paseo del Prado (Walnut)	May 03	0.6	L	0.002	2
CU Transport, Inc., 19885 Harrison Ave. (Industry)	Aug 03	0.2	L	0.001	1
Broadway.com, 19715 Harrison Ave. (Industry)	Aug 03	0.5	L	0.002	3
Bayharbor-Harrison Assn., 19901 Harrison (Industry)	Aug 03	0.8	L	0.004	4
J Pack International, 19789 Harrison Ave. (Industry)	Aug 03	0.5	L	0.001	1
Golden Applexx Co. Inc., 19805 Harrison (Industry)	Aug 03	0.2	L	0.001	1
Soo Hoo Customes Broker, 19865 Harrison (Industry)	Aug 03	0.3	L	0.001	2
Shinetec Group, Inc., 19835 Harrison Ave. (Industry)	Aug 03	0.4	L	0.002	2
Majestic Realty, Grand Ave./Village Staples (Walnut)	Aug 03	1.6	L	0.006	7
Orange Grove Services, Lemon/La Puente (Walnut)	Sep 03	0.4	L	0.002	3
Max Property LLC, 21401 Ferraro Pkwy. (Industry)	Sep 03	0.7	L	0.003	3
NP 21301 Ferraro Parkway, 21301 Ferraro (Industry)	Sep 03	0.8	L	0.003	3
568 TriNet Court (Walnut)	Oct 03	0.3	L	0.0003	0.3
Walnut City Hall (Walnut)	Dec 03	0.6	L	0.001	1
Walnut Senior Center (Walnut)	Dec 03	0.5	L	0.001	1
East Lion Corporation, 318 Brea Canyon Rd. (Walnut)	Dec 03	2.6	L	0.008	9
Young Hoon Cho, 1709 Nogales (Rowland Heights)	Mar 04	0.1	L	0.0003	0.3
Shell Station, 21103 Golden Springs (Diamond Bar)	Mar 04	0.1	L	0.0003	0.3
Ferraro/Grand East ramp (Industry)	Apr 04	3.8	L	0.008	9
Hing Wa Lee Plaza, 1569 Fairway Drive (Walnut)	May 04	0.1	L	0.0005	1
Dream Wireless Inc., 20625 Lycoming St. (Walnut)	Jun 04	0.3	L	0.002	2
APL Logistics, 408 Brea Canyon Rd. (Walnut)	Jun 04	2.1	L	0.006	7
Adnoff Family Trust, 20801 Currier Rd. (Walnut)	Jul 04	0.1	L	0.001	1
Crystal Cal No. 1 LLC, 2889 Valley Blvd. (Walnut)	Aug 04	0.1	L	0.0003	0.4
Community Day School (Walnut)	Nov 04	0.1	AF,L	0.0002	0.2
Majestic Mgmt., 21438 Baker Parkway (Walnut)	Jan 05	0.1	L	0.0004	0.4
Sy Develop. condos, 20118-20138 Colima (Walnut)	Jun 05	0.1	L	0.0001	0.1
N/E corner Cheryl Lane/Baker Parkway (Industry)	Aug 05	3.3	L	0.017	19
Jakk's Pacific, Inc. 21733-21749 Baker (Industry)	Aug 05	1.2	L	0.004	5
20813 Valley Blvd. medians (Walnut)	Sep 05	0.4	L	0.001	1
20265 Valley Blvd. medians (Walnut)	Sep 05	0.4	L	0.001	1
19849 Valley Blvd. medians (Walnut)	Sep 05	0.4	L	0.002	2
Kohl's Center (Walnut)	Sep 05	2	L	0.009	11
Phoenix Private Schools (Rowland Heights)	Dec 05	0.1	AF,L	0	0
The Home Depot, 21535-21651 Baker (Industry)	Jan 06	2.8	L	0.009	10
Golden State Foods, 21415-21489 Baker (Industry)	Jan 06	2.3	L	0.007	8
Haitao Group LLC, 350 Cheryl Lane (Walnut)	Apr 06	0.7	L	0.006	7
Fairway median@ Brea Canyon (Walnut)	Jun 06	0.3	L	0.001	1
Grand Avenue Crossing (Industry)	Jul 06	18.5	L	0.011	13
22002 Valley Blvd. (Industry)	Jul 06	1.6	L	0.004	5
Southland Schools, 1920 Brea Canyon Cutoff (Walnut)	Aug 06	2.2	L	0.006	7
Target Store T-2179, 747 Grand Ave. (Walnut)	Sep 06	3.9	L	0.006	7
Leg Avenue, 19601 E. Walnut Drive (Walnut)	Oct 06	0.5	L	0.005	6
Harold M. Pitman Co., 21908-21958 Baker (Industry)	Jan 07	0.8	L	0.003	3
Williams-Sonoma, 21508-21662 Baker (Industry)	Apr 07	4.8	L	0.015	17

NOTES: AF = Athletic field irrigation, AG = Agricultural irrigation, E = Environmental enhancement, I = Industrial, L = Landscape irrigation, O = Ornamental plant irrigation, P = Impoundment, R = Groundwater replenishment.

TABLE 13
SUMMARY OF FISCAL YEAR 14-15 RECYCLED WATER USAGE
WALNUT VALLEY WATER DISTRICT
(PAGE 4 OF 4)

Reuse Site (City)	Start-up Date	Acreage	Type of Use	Usage (MGD)	Usage (AFY)
FedEx Ground, 200 Old Ranch Road (Walnut)	May 07	28	L	0.009	10
Currier Road Devel. Inc., 20819 Currier Rd. (Walnut)	May 07	0.3	L	0.002	2
Williams-Sonoma, 21700 Baker Parkway (Industry)	Aug 07	2	L	0.005	6
21350 Valley Blvd. (Industry)	Feb 08	0.4	L	0.001	1
Grand Avenue Venture, 21508 Ferraro Pkwy. (Walnut)	Apr 08	3.5	L	0.004	4
Grand Avenue/Baker Parkway medians (Industry)	May 08	6.7	L	0.019	21
Majestic Management, 21530-21590 Baker (Industry)	May 08	2	L	0.009	10
Gomez Upholstery, 19935 Valley Blvd. (Walnut)	Jul 08	2	L	0	0
Wendy Zheng, 1335-1337 Otterbein (Rowland Heights)	Jul 08	0.1	L	0.0002	0.2
Apex Capital Investment, 20657 Golden Sprgs (D. Bar)	Aug 08	0.4	L	0.001	1
Chili's Restaurant, Golden Springs Dr. (Diamond Bar)	Sep 08	0.01	L	0.001	1
AIC Advanced Industrial, 21808 Garcia Ln. (Industry)	Sep 08	0.5	L	0.002	2
T&C Footwear, 21858 Garcia Lane (Industry)	Sep 08	0.4	L	0.002	2
JL Concepts Inc., 21912 Garcia Lane (Industry)	Sep 08	0.3	L	0.001	1
Majestic Management, 21760-21788 Garcia (Industry)	Sep 08	0.4	L	0.002	2
CFT Development, Golden Springs Dr. (Diamond Bar)	Oct 08	0.01	L	0.0003	0.4
Jenny Hsieh, 20125 Valley Blvd. (Walnut)	Nov 08	0.03	L	0.0002	0.3
Brea Canyon Road/Currier Road median (Walnut)	Feb 09	2	L	0.007	8
Cardinal Capital Partners, Currier/Lemon (Walnut)	Mar 09	2.5	L	0	0
Family Property Holdings, 20888 Amar Rd. (Walnut)	May 09	0.04	L	0.0003	0.3
KW Global Inc., 293 Brea Canyon Drive (Walnut)	May 09	0.3	L	0.001	1
Clemson Distribution Inc., 20722 Currier Rd. (Walnut)	Sep 09	0.1	L	0.0004	0.5
Ybarra Elementary School (Rowland Heights)	Sep 09	5.6	AF,L	0.007	7
A Professional Law Corp, 19803 Valley (Walnut)	Sep 10	0.1	L	0.0005	1
Bell Memorial Church, 1747 Nogales (Rowland Hts.)	Dec 10	0.3	L	0.001	1
Majestic Realty, 179 S. Grand Ave. (Walnut)	Dec 11	2.5	L	0.005	5
WVWD Parker Canyon Reservoir (Walnut)	May 12	3.5	L	0.005	5
Rowland Hts. Korean Church, 1717 Otterbein (Walnut)	Jan 13	0.3	L	0.001	1
St. Lorenzo Church, 747 Meadow Pass Rd. (Walnut)	Aug 13	0.3	L	0.023	26
Lemon Valley LLC, 20373 Valley Blvd. (Walnut)	Sep 13	0.1	L	0.0005	1
Foothill Transit, 500 Brea Canyon Road (Walnut)	Sep 13	0.2	L	0.002	2
Sukut Construction (Walnut)	Mar 14	--	I	0.100	112
C.A. Rasmussen, Inc., Grand Crossing/Baker (Walnut)	Nov 14	-	I	0.071	79
South Pointe Middle School (Walnut)	Jan 15	7	AF,L	0.007	8
TOTALS		**722.4**		**1.420**	**1,592**

NOTES: AF = Athletic field irrigation, AG = Agricultural irrigation, E = Environmental enhancement, I = Industrial, L = Landscape irrigation, O = Ornamental plant irrigation, P = Impoundment, R = Groundwater replenishment.

2.4.4 WATER REPLENISHMENT DISTRICT OF SOUTHERN CALIFORNIA

The remainder of recycled water produced by this plant and not delivered for direct reuse by the three distribution systems described above, is discharged into the south fork of San Jose Creek. San Jose Creek eventually joins with the San Gabriel River, and the effluent from the Pomona WRP is used to recharge the Central Basin aquifer. In FY 14-15, 3.297 MGD (3,694 AFY) was used to replenish the groundwater supply, a16.0% decrease from the preceding fiscal year and 50.8% of the plant's production.

2.5 SAN JOSE CREEK WRP

SAN JOSE CREEK WRP FACTS	
Plant capacity:	100 MGD
Water produced:	55.34 MGD 62,003 AFY 6.9% FY decrease
FY14-15 O&M:	$321/AF (east) $270/AF (west)
Water reused:	39.48 MGD 44,235 AFY 13.1% FY decrease 71.3% of production
Delivery systems:	7 511,570 ft. of pipe
No. of reuse sites:	173 3,612.7 acres

This treatment facility, located at 1965 Workman Mill Road, Whittier, CA 90601, was first built in 1971 with a design capacity of 37.5 MGD. The 25 MGD Stage II expansion was completed in 1982, and the 37.5 MGD Stage III expansion was completed in 1993. The facility currently has a design capacity of 100 MGD, with enough space for a future 25 MGD Stage IV expansion; however, there is no set schedule for this project. During FY 14-15, Stages I & II (east side) produced 35.82 MGD (40,133 AFY) and Stage III (west side) produced 19.52 MGD (21,869 AFY), at O&M costs of $321/AF and $270/AF, respectively. The entire facility, therefore, produced a total of 55.34 MGD (62,003 AFY) of coagulated, filtered, disinfected tertiary recycled water (15.1% of the effluent produced in the JOS), a 6.9% decrease from the preceding fiscal year.

Recycled water quality from both the east and west sides of the plant for FY 14-15 is presented in Tables B-4 and B-5, respectively, of Appendix B. Of the total amount of recycled water produced, 39.48 MGD (44,235 AFY), or 71.3% of the plant's combined production, was actively reused, a 13.1% decrease from the preceding fiscal year.

The remaining effluent was discharged to the concrete-lined portion of the San Gabriel River below Firestone Boulevard where it flows to the ocean. Recycled water from this plant is used at 173 sites (not including recharge) shown on Figure 13 and listed in Table 14. Use of recycled water from this facility is permitted under LARWQCB Order Nos. 87-50 and 97-072 for direct, non-potable applications, and Order Nos. 91-100 and R4-2009-0048 for groundwater replenishment.

2.5.1 WATER REPLENISHMENT DISTRICT OF SOUTHERN CALIFORNIA

The majority (85.0%) of recycled water actively used from the San Jose Creek WRP goes to recharge the Central Basin groundwater aquifer, which in FY 14-15 was 33.543 MGD (37,587 AFY), a 14.5% decrease from the preceding fiscal year and 60.6% of the recycled water produced by this plant. All of the recycled water delivered from the San Jose Creek WRP for groundwater recharge went to the San Gabriel Coastal Spreading Grounds, with none being delivered to the Rio Hondo Spreading Grounds during this fiscal year. For the second time in two years, none of the recycled water delivered was bypassed around the spreading grounds and lost to the ocean during storm episodes. Any discrepancy between the total amount discharged and the totals recharged and bypassed is attributed to differences in metering between the Sanitation Districts and the LACDPW.

FIGURE 13
SAN JOSE CREEK WRP REUSE SITES

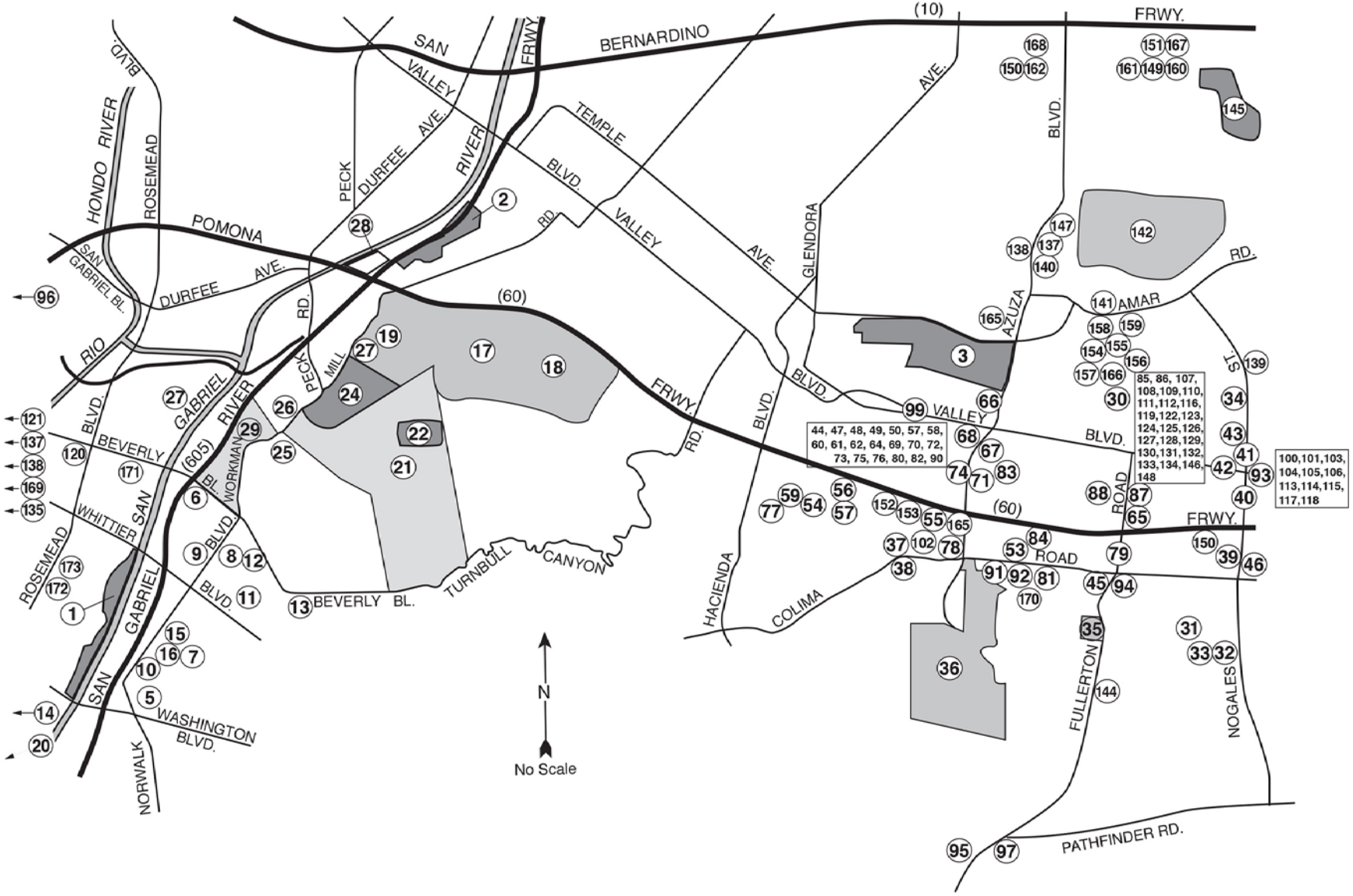


TABLE 14
SUMMARY OF FISCAL YEAR 14-15 RECYCLED WATER USAGE
SAN JOSE CREEK WRP
(PAGE 1 OF 4)

Reuse Site (City)	Start-up Date	Acreage	Type of Use	Usage (MGD)	Usage (AFY)
Water Replenishment District (1)	Jun 71	--	R	35.543	37,587
California Country Club (Industry) (2)	Jun 78	120	L,P	0.398	446
Industry Hills Recreation Area (Industry) (3)	Aug 83	600	L,P	0.960	1,076
Field, S/W corner Norwalk/Telegraph (S.F. Spgs.) (4)	Aug 94	5.2	L	0.013	14
Washington Elementary School (Whittier) (5)	Sep 94	5	AF,L	0.007	8
605 Freeway at Beverly (Whittier) (6)	Sep 94	30	L	0.018	20
Sorenson Elementary School (Whittier) (7)	Oct 94	4	AF,L	0.005	6
Palm Park West (Whittier) (8)	Nov 94	5	L	0.008	9
Orange Grove School (Whittier) (9)	Apr 95	6.6	AF,L	0.011	12
Katherine Edwards Middle School (Whittier) (10)	Sep 95	19	AF,L	0.023	26
Longfellow Elementary School (Whittier) (11)	Sep 95	4.5	AF,L	0.007	8
Walter Dexter Middle School (Whittier) (12)	Sep 95	15.5	AF,L	0.010	11
Founders Memorial Park (Whittier) (13)	Jan 96	4	L	0.013	15
Salt Lake Municipal Park (Huntington Park) (14)	Apr 96	20.9	L	0.062	70
Sorenson Park (Whittier) (15)	May 96	10.7	L	0.017	19
Sorenson Library (Whittier) (16)	May 96	0.4	L	0	0
Puente Hills Landfill irrigation (Industry) (17)	Nov 97	320	L	0.952	1,067
Puente Hills Landfill dust control (Industry) (18)	Nov 97	130	I	0.040	45
Puente Hills Gas-to-Energy Facility (Industry) (19)	Nov 97	--	I	0.538	603
Lugo Park (Cudahy) (20)	Apr 98	7	L	0.006	7
Rose Hills Memorial Park – upper area (Whittier) (21)	Jun 98	298	L	0.590	661
River Ridge Golf Course (Pico Rivera) (23)	Jul 02	21.3	L	0.049	55
Rio Hondo College (Whittier) (24)	Jun 03	85	AF,L	0.017	19
Mill Elementary School (Whittier) (25)	Jun 03	15	AF,L	0.008	9
Gateway Pointe (Whittier) (26)	Jan 05	8	L	0.020	23
Puente Hills Materials Recovery Facility (Industry) (27)	Feb 05	2.4	L	0.074	83
Jose Munoz Nursery (Industry) (28)	Apr 06	5	O	0.009	10
Rose Hills Memorial Park – lower area (Whittier) (29)	Aug 06	275	L	0.538	603
Sunshine Park (L.A. County) (30)	Jul 09 (May 86)	4	L	0.010	11
Rowland Elementary School (Rowland Hts.) (31)	Jul 09 (May 86)	3	AF,L	0.007	8
Southland Schools (Rowland Heights) (32)	Jul 09 (May 86)	4	AF,L	0.003	4
Farjardo Park (Rowland Heights) (33)	Jul 09 (May 86)	4	L	0.007	8
Nogales High School (L.A. County) (34)	Jul 09 (Jun 86)	11	AF,L	0.024	27
Queen of Heaven Cemetery (Rowland Hts.) (35)	Jul 09 (Jun 86)	35	L	0.055	61
Schabarum Regional County Park (L.A. Co.) (36)	Jul 09 (Sep 86)	233	L	0.073	82
Pepperbrook Park (Hacienda Heights) (37)	Jul 09	4.4	L	0.005	6
Countrywood Park (Hacienda Heights) (38)	Jul 09	5.4	L	0.008	9
Rowland Heights Golf Center (Rowland Heights) (39)	Jul 09	8	L	0.011	12
Medians at 755 Nogales (Industry) (40)	Jul 09	0.1	L	0.001	1
Nogales Med. Plaza, 4115-½ Nogales (W. Covina) (41)	Jul 09	0.1	L	0.006	7
Medians at 2654-½ Valley Blvd. (West Covina) (42)	Jul 09	0.2	L	0.0002	0.3
Tsai Lien Liao, 4111 Nogales (West Covina) (43)	Jul 09	0.5	L	0.001	1
GMP Products, 788 Phillips (Industry) (44)	Jul 09	0.1	L	0.001	1
JJ Plaza, 18253 Colima Road (Rowland Heights) (45)	Jul 09	0.1	L	0.0003	0.4
New World RTCI-LP, 18958 Daisetta (Row. Hts.) (46)	Jul 09	0.1	L	0.0001	0.1
Battery Technology, 16651 Johnson Dr. (Industry) (47)	Jul 09	0.1	L	0.0002	0.3
Super Max Corp., 16685 Johnson Dr. (Industry) (48)	Jul 09	0.1	L	0.0004	0.4
Ancillary Provider 16664 Johnson Dr. (Industry) (49)	Jul 09	0.1	L	0.001	1
Ancillary Provider 16666 Johnson Dr. (Industry) (50)	Jul 09	0.2	L	0.001	1
Vonnic Inc., 16610 Gale Ave. (Industry) (51)	Jul 09	0.2	L	0.001	1
Blue Pacific, 1354 Marion Ct. (Industry) (52)	Jul 09	0.2	L	0.002	2
Romano's Macaroni Grill, 17603 Colima (R. Hts.) (53)	Jul 09	0.1	L	0.002	2
Acosta Growers, 16412 Wedgeworth (Industry) (54)	Jul 09	5	O	0	0

NOTES: AF = Athletic field irrigation, AG = Agricultural irrigation, E = Environmental enhancement, I = Industrial, L = Landscape irrigation, O = Ornamental plant irrigation, P = Impoundment, R = Groundwater replenishment.

TABLE 14
SUMMARY OF FISCAL YEAR 14-15 RECYCLED WATER USAGE
SAN JOSE CREEK WRP
(PAGE 2 OF 4)

Reuse Site (City)	Start-up Date	Acreage	Type of Use	Usage (MGD)	Usage (AFY)
Wedgeworth Elementary School (Hacienda Hts.) (55)	Aug 09	2.5	AF,L	0.005	5
Wilson High School (Hacienda Heights) (56)	Aug 09	18.3	AF,L	0.026	30
Bixby Elementary School (Hacienda Heights) (57)	Sep 09	6.1	AF,L	0.012	13
Jade Fashion, 1350 Bixby Dr. (Industry) (58)	Sep 09	0.1	L	0.001	1
Sunshine Growers, 16411 Wedgeworth (Industry) (59)	Sep 09	4	O	0.007	8
Seibon International, 1215 Bixby Dr. (Industry) (60)	Dec 09	0.1	L	0.001	2
Laido International, 16710-12 Johnson (Industry) (61)	Dec 09	0.1	L	0.0004	0.5
Bolt Products, 16725 Johnson Dr. (Industry) (62)	Dec 09	0.1	L	0.001	1
Ily Enterprise, 783 Phillips (Industry) (63)	Jan 10	0.1	L	0.002	2
Superior Profiles, 1325 Bixby Dr. (Industry) (64)	Jan 10	0.2	L	0.001	1
60 Freeway, Countrywood & Fullerton (Industry) (65)	Jan 10	5	L	0.003	4
Camacho Strawberries (Industry) (66)	Jan 10	3	O	0	0
Harmoni International Spice, 881 Azusa (Industry) (67)	Jan 10	0.1	L	0.002	2
East Group Prop., 855 Anaheim-Puente (Industry) (68)	Mar 10	0.6	L	0.003	3
So. Cal. Air Condition, 16950 Chestnut (Industry) (69)	Mar 10	2	L	0.002	2
USACD, 16900 Chestnut (Industry) (70)	Mar 10	0.3	L	0.001	1
Azusa Ave. medians (Industry) (71)	Mar 10	0.2	L	0.0005	0.5
Acosta Growers, 17101 Chestnut (Industry) (72)	Mar 10	2.4	O	0	0
L.A. Co. ISD building, 16610 Chestnut (Industry) (73)	Apr 10	0.5	L	0.001	2
Azusa Property Co., 885 Azusa (Industry) (74)	Apr 10	0.2	L	0.001	1
Golden West Footwear, 16750 Chestnut (Industry) (75)	Apr 10	0.3	L	0.001	1
Teledyne Instruments, 16830 Chestnut (Industry) (76)	Apr 10	0.4	L	0.003	3
Medians, 18927 Daisetta St. (Rowland Heights) (77)	Apr 10	0.2	L	0.0002	0.2
Colima Road medians (L.A. County) (78)	Apr 10	0.1	L	0.0004	0.4
Medians, 1442 Fullerton Road (Industry) (79)	Apr 10	0.3	L	0.0001	0.1
Teledyne Picco, 16800 Chestnut (Industry) (80)	May 10	0.4	L	0.001	1
Melody Tsai Nursery, 18002 Colima (Row. Hts.) (81)	May 10	1.3	O	0.001	1
East Group Prop., 16700 Chestnut (Industry) (82)	Jun 10	0.6	L	0.002	2
Deyce USA, 883 Azusa Ave. (Industry) (83)	Jun 10	0.1	L	0.001	1
New Age Kaleidoscope, 7 Colima Road (Industry) (84)	Jun 10	0.6	L	0.004	5
Min Maw Intl. Inc., 18350 San Jose Ave. (Industry) (85)	Jun 10	0.7	L	0.003	3
Hot Topic, 18305 San Jose Ave. (Industry) (86)	Jul 10	0.6	L	0.004	4
FedEx, 1081 Fullerton Road (Industry) (87)	Jul 10	0.6	L	0.002	2
Port Logistics Group, 18215 Rowland St. (Industry) (88)	Sep 10	0.6	L	0.003	3
New Age Kaleidoscope, 5 Stoner Creek (Industry) (89)	Oct 10	1.4	L	0.008	9
Perrin Manufacturing, 1020 Bixby Dr. (Industry) (90)	Oct 10	0.1	L	0.001	1
Centro Watt Operating, 17518A Colima (Industry) (91)	Oct 10	0.4	L	0.002	2
Centro Watt Operating, 17414 Colima (Industry) (92)	Oct 10	0.5	L	0.002	2
717 Nogales LLC, 717 Nogales St. (Industry) (93)	Oct 10	0.5	L	0.002	2
Walgreens, 18308 Colima Road (Industry) (94)	Dec 10	0.1	L	0.001	1
RWD Office, 3021 S. Fullerton Road (Industry) (95)	Dec 10	0.3	L	0.002	2
Pathfinder Park (Rowland Heights) (97)	May 11	29	L	0.027	30
USGVMWD site, 401 Nogales St. (Industry) (98)	May 11	0.5	L	0	0
Quest Nutrition, 18551 Arenth Ave. (Industry) (100)	May 11	0.7	L	0.003	3
717 Nogales LLC, 18961 Arenth Ave. (Industry) (101)	May 11	0.5	L	0.003	3
Kimco Realty, 17100 Colima Road (Industry) (102)	May 11	3	L	0.006	7
Acme Trading Group (18895 Arenth, (Industry) (103)	May 11	0.9	L	0.005	5
Winit America, 18501 Arenth Ave. (Industry) (104)	May 11	0.6	L	0.003	4
BMS Motorsports, Inc., 18701 Arenth (Industry) (105)	May 11	0.4	L	0.002	2
YHS Trading, 755 Epperson Dr. (Industry) (106)	Jul 11	0.1	L	0.001	1
TriVantage LLC, 745 Epperson Dr. (Industry) (107)	Jul 11	0.1	L	0.002	2
Siegfried & Parsifal Inc., 18689 Arenth (Industry) (108)	Aug 11	0.4	L	0.002	2
HT Window Fashions, 770 Epperson (Industry) (109)	Aug 11	0.1	L	0.001	2

NOTES: AF = Athletic field irrigation, AG = Agricultural irrigation, E = Environmental enhancement, I = Industrial, L = Landscape irrigation, O = Ornamental plant irrigation, P = Impoundment, R = Groundwater replenishment.

TABLE 14
SUMMARY OF FISCAL YEAR 14-15 RECYCLED WATER USAGE
SAN JOSE CREEK WRP
(PAGE 3 OF 4)

Reuse Site (City)	Start-up Date	Acreage	Type of Use	Usage (MGD)	Usage (AFY)
HT Development, 780 Epperson Dr. (Industry) (110)	Aug 11	0.1	L	0.004	4
HD Technology, 738 Epperson Dr. (Industry) (111)	Aug 11	0.2	L	0.001	1
Walnut Creek Energy Park, 911 Bixby (Industry) (99)	Aug 11	--	I	0.179	200
Guardian Life Ins., 710 Epperson (Industry) (112)	Sep 11	0.2	L	0.003	3
Valor Communication, 18071 Arenth (Industry) (113)	Sep 11	0.1	L	0.004	4
K-1 Printing, 17989 Arenth Ave. (Industry) (114)	Oct 11	0.2	L	0.0004	0.5
K-1 Printing, 17979 Arenth Ave. (Industry) (115)	Oct 11	0.2	L	0.001	1
Private Label PC Inc., 748 Epperson (Industry) (116)	Nov 11	0.2	L	0.001	1
Penske Truck Leasing, 18305 Arenth (Industry) (117)	Nov 11	0.6	L	0.002	2
Schurr High School (Montebello) (96)	Nov 11	11	AF,L	0.023	26
Commercial Cooling, 17855 Arenth (Industry) (118)	Dec 11	0.4	L	0.001	1
Forever Link, 18738 San Jose Ave. (Industry) (119)	Dec 11	0.4	L	0.002	3
Beverly Blvd. medians (Pico Rivera) (120)	Jan 12	1	L	0.002	2
Rio Hondo Park (Pico Rivera) (121)	Jan 12	8	L	0.034	38
Brook Furniture, 18960 San Jose Ave. (Industry) (122)	Jan 12	0.4	L	0	0
Twin Tiger Footwear, 18901 Railroad (Industry) (123)	Feb 12	0.4	L	0	0
CWCI Insulation, 18825 Railroad St. (Industry) (124)	Feb 12	0.2	L	0.0003	0.3
Hot Topic, 18385 San Jose Ave. (Industry) (125)	Feb 12	0.8	L	0.004	4
Ko Amex, 18965 San Jose Ave. (Industry) (126)	Feb 12	0.5	L	0.001	1
Ferguson Fire, 18825 San Jose Ave. (Industry) (127)	Feb 12	0.3	L	0.002	2
MA Labs Inc., 18755 San Jose Ave. (Industry) (128)	Feb 12	0.4	L	0.001	1
Majestic Management, 18691 San Jose (Industry)(129)	Mar 12	0.3	L	0.002	3
Majestic Management, 18601 San Jose (Industry) (130)	Mar 12	0.6	L	0.004	4
Hot Topic, 18501 San Jose Ave. (Industry) (131)	Mar 12	0.6	L	0.007	7
Extra Express, 18591 San Jose Ave. (Industry) (132)	Mar 12	0.6	L	0.003	4
Shoe Magnate Inc., 18560 San Jose (Industry) (133)	Mar 12	0.4	L	0.001	1
Pinky Footware Shoes, 18600 San Jose (Industry) (134)	Mar 12	0.8	L	0.002	2
La Merced Elementary School (Montebello) (135)	Jun 12	10	AF,L	0.017	19
Montebello Gardens Elementary (Pico Rivera) (136)	Jun 12	1	AF,L	0.011	12
Home Depot, 2320 Azusa Ave. (West Covina) (137)	Jul 12	0.2	L	0.002	2
The Heights Shopping Center (West Covina) (138)	Jul 12	12.5	L	0.026	29
Nogales Ave. medians (West Covina) (139)	Jul 12	0.6	L	0.002	2
Azusa Ave. medians (West Covina) (140)	Jul 12	3.1	L	0.009	10
Amar Road medians (West Covina) (141)	Jul 12	2.1	L	0.004	4
BKK Landfill (West Covina) (142)	Jul 12	220	L	0.079	88
South Hills Country Club (West Covina) (143)	Aug 12	100	L	0.261	293
Medians, 2357 Fullerton Road (L.A. County) (144)	Aug 12	0.4	L	0.001	1
McDonalds, 2623 Valley Blvd. (Industry) (145)	Sep 12	0.2	L	0.001	1
Whitewave Foods, 18275 Arenth Ave. (Industry) (146)	Oct 12	2.6	L	0.008	9
Big League Dreams (West Covina) (147)	Oct 12	21	AF,L	0.060	67
Pearl of the East, 18888 Labin Ct. (Industry) (148)	Feb 13	0.5	L	0.003	4
Beverly Blvd. medians (Pico Rivera) (171)	Feb 13	1.5	L	0.003	3
Walnut Creek Energy Park, 911 Bixby (Industry) (99)	Apr 13	0.3	L	0.002	2
J.M. Farming (Whittier) (22)	Apr 13	107	AG	0	0
Cortez Elementary School (West Covina) (149)	Aug 13	6.2	AF,L	0.018	20
Cameron Elementary School (West Covina) (150)	Aug 13	3.9	AF,L	0.013	15
Vine Elementary School (West Covina) (151)	Aug 13	3.8	AF,L	0.013	15
Countrywood Park I, (Rowland Heights) (152)	Nov 13	17	L	0.011	12
Countrywood Park II, (Rowland Heights) (153)	Nov 13	15	L	0.010	11
Shadow Oak Paseo A (West Covina) (154)	Jan 14	8.1	L	0.019	21
Shadow Oak Paseo B (West Covina) (155)	Jan 14	6.9	L	0.013	15
Shadow Oak Paseo C (West Covina) (156)	Jan 14	1.6	L	0.004	4

NOTES: AF = Athletic field irrigation, AG = Agricultural irrigation, E = Environmental enhancement, I = Industrial, L = Landscape irrigation, O = Ornamental plant irrigation, P = Impoundment, R = Groundwater replenishment.

TABLE 14
SUMMARY OF FISCAL YEAR 14-15 RECYCLED WATER USAGE
SAN JOSE CREEK WRP
(PAGE 4 OF 4)

Reuse Site (City)	Start-up Date	Acreage	Type of Use	Usage (MGD)	Usage (AFY)
Shadow Oak Paseo D (West Covina) (157)	Jan 14	1.8	L	0.007	8
Shadow Oak Paseo F (West Covina) (158)	Jan 14	1.5	L	0.002	2
Shadow Oak Paseo G (West Covina) (159)	Jan 14	8.1	L	0.008	9
Hollencrest Middle School (West Covina) (160)	Jan 14	10.8	AF,L	0.025	28
Merced Elementary School (West Covina) (161)	Jan 14	7.6	AF,L	0.020	22
West Covina High School (West Covina) (162)	Jan 14	9.7	AF,L	0.041	46
Woodgrove Park (West Covina) (163)	Feb 14	10	L	0.021	23
Hacienda Heights Little League (Hacienda Hts.) (164)	Mar 14	4	AF	0.006	7
Smith Park (Pico Rivera) (172)	Apr 14	16	L	0.029	33
Pico Rivera Public Library (Pico Rivera) (173)	Apr 14	0.6	L	0.003	4
Rimgrove Park (West Covina) (165)	Jun 14	7.1	L	0.018	21
Shadow Park Center (West Covina) (166)	Jun 14	9.6	L	0.011	12
Cortez Park (West Covina) (167)	Jul 14	14	L	0.041	46
Cameron Park (West Covina) (168)	Jul 14	4.2	L	0.012	14
Grant Rea Park (Montebello) (169)	Aug 14	22.7	L	0.023	25
Pheasant Ridge Apartments (Rowland Heights) (170)	Sep 14	25	L	0.015	17
TOTALS		**3,612.7**		**39.440**	**44195**

NOTES: AF = Athletic field irrigation, AG = Agricultural irrigation, E = Environmental enhancement, I = Industrial, L = Landscape irrigation, O = Ornamental plant irrigation, P = Impoundment, R = Groundwater replenishment.

The groundwater recharge operation was previously limited by its 1991 permit that restricted recycled water use to a three-year running total of 150,000 AFY, with no more than 35% of the total water recharged may be comprised of recycled water (with maximums of 60,000 AFY and 50% recycled water in any one year). To allow the use of more recycled water, WRD requested that the LARWQCB revise the 1991 recharge permit to eliminate the existing annual and three-year total quantity limits (60,000 and 150,000 AF, respectively), and rely on a running average recycled water contribution of 35%. This permit modification was supported by California Department of Public Health (now the Division of Drinking Water, or DDW, under the SWRCB) staff and was adopted by the LARWQCB in April 2009 using a 5-year average and then readopted in May 2013 using a more versatile 10-year running average that is more closely aligned with the region's cyclical rainfall pattern. An April 2014 permit revision allowed for an increase in recycled water contribution from 35 to 45%. Assuming there is sufficient dilution water, these changes would allow approximately 5,000-10,000 AFY more recycled water to be recharged.

2.5.2 City of Industry

In August 1983, the City of Industry completed a recycled water distribution system to serve the Industry Hills Recreation and Conservation Area. This system includes a 13,500 gpm pump station at the San Jose Creek WRP, 36,960 feet of 36-inch pipe following the San Jose Creek Channel, and a 2 million gallon reservoir with a 3,400 gpm booster pump station at Anaheim-Puente Road. From this point, a 16-inch pipe with a second, 3,300 gpm booster pump station brings recycled water into the 600-acre reuse site for landscape irrigation of two 18-hole golf courses and an equestrian center, and as a source of supply for eight ornamental lakes and storage impoundments. In addition, construction was completed in 2012 on an expansion of the City's pump station at San Jose Creek WRP East which included the replacement of the existing three pumps, addition of a fourth pump, installation of a larger surge tank, new control panels, and a new, separate SCE power supply.

During FY 14-15, 0.960 MGD (1,076 AFY), or 1.7% of recycled water produced at this plant, was delivered through a total of 44,350 feet of pipeline and used at this site, a 0.4% decrease from the preceding fiscal year. While no new sites were directly connected to the Industry distribution system, RWD and USGVMWD did, however, continue connecting sites to their own extensions off the Industry system throughout the fiscal year. These systems are discussed in the Sections 2.5.3 and 2.5.9, respectively.

2.5.3 Rowland Water District

In July 2009, RWD began recycled water deliveries through a new distribution system that branched off the City of Industry pipeline. In FY 14-15, RWD connected one new reuse site to its distribution system: The landscaping around the Pheasant Ridge Apartments was connected in September 2014.

During FY 14-15, RWD delivered 0.664 MGD (744 AFY), or 1.2% of the recycled water produced at the San Jose Creek WRP to 111 sites serving 938.4 acres listed in Table 14 and shown on Figure 13. This was a 15.5% decrease from the preceding fiscal year. RWD purchased the recycled water from the City of Industry, retailing it at 57% of its potable rate of $1,263.24/AF (for "Zone I" elevation), or $723.10/AF.

2.5.4 California Country Club

In June 1978, deliveries of recycled water began to this 120-acre golf course located directly across the San Jose Creek Channel from the San Jose Creek WRP. An 8-inch polypropylene line inside a 24-inch reinforced concrete pipe siphon under the channel delivers chlorinated recycled water from the plant's "foam spray" system to the golf course's 0.75-acre lake No. 2. The golf course irrigation system is supplied by two pumps that can deliver a maximum of 1,800 gallons per minute (gpm) of recycled water from the lake. During FY 14-15, 0.398 MGD (446 AFY), or 0.7% of recycled water produced at this plant, was delivered to this site, a decrease of 16.3% from the preceding fiscal year.

2.5.5 San Gabriel Valley Water Company - Jose Munoz Nursery

This nursery has signed a lease with Los Angeles Department of Water and Power (LADWP) for the property immediately adjacent to San Jose Creek WRP West formerly occupied by Arbor, Chuy's, J&E's, Ortiz's, and LA Sanchez nurseries. During FY 14-15, 0.009 MGD (10 AFY), or <0.02% of recycled water produced at this plant, was delivered to this site for the irrigation of ornamental plants for commercial resale. This was exactly the same as the preceding fiscal year. Contract No. 3286 with the San Gabriel Valley Water Company (SGVWC) replaced the old contract for the sale of recycled water directly to this nursery's predecessor (Contract No. 2835) beginning in September 1994. SGVWC resold the recycled water to the nursery for $825.02/AF, a 30% discount from its corresponding potable water rate of $1,172.03/AF.

2.5.6 Central Basin Municipal Water District (Rio Hondo System)

CBMWD continues to develop its second regional distribution system to deliver an estimated 5,000 to 10,000 AFY of recycled water from the San Jose Creek WRP to sites in the upper portion of its service area in the cities of Montebello, Pico Rivera, Commerce, Cudahy, Huntington Park, Bell Gardens, Vernon, Santa Fe Springs, and Whittier. This project is patterned after the regional concept of the "Century Project" described previously in Section 2.3.5. Interconnections with the Century distribution system originating from the Los Coyotes WRP will allow for a looped system (once the western connection is completed) served by both treatment plants for additional reliability and system pressures. Both the Century and Rio Hondo distribution systems can be partially supplied with recycled water from either the Los Coyotes WRP or either side of the San Jose Creek WRP individually or in combination and there is no way to differentiate which reuse sites receive which recycled water. However, for the sake of consistency, recycled water usage at the Rio Hondo facilities is reported in water reuse reports as coming from the San Jose Creek WRP and at the Century facilities as coming from the Los Coyotes WRP. Recycled water is used at 20 sites shown on Figure 13 and listed in Table 14. A narrative description of the layout of the Rio Hondo recycled water distribution system is contained in Appendix H. The layout of the pipelines for both the Century and Rio Hondo distribution systems is shown on Figure 10.

During FY 14-15, CBMWD delivered 0.395 MGD (442 AFY), or 0.7% of the recycled water produced at this plant, through 290,400 feet of pipeline to seven water purveyors (SGVWC, Pico Water District and the cities of Whittier, Cudahy, Huntington Park, Pico Rivera, and Santa Fe Springs) for landscape and athletic field irrigation on approximately 231 acres at the 24 sites. This represents a 22.1% increase over the preceding fiscal year. CBMWD has constructed the delivery facilities right up to the end users; however, the local retail water purveyors are the entities actually supplying the recycled water. One new site was connected to the Rio Hondo recycled water distribution system during FY 14-15. Grant Rea Park in Montebello was connected in February 2014. Also, recycled water service from CBMWD was extended to the Pico Water District beginning with medians along Beverly Boulevard in February 2013 and continuing to Smith Park and the Pico Rivera Public Library in April 2014. These latter sites were inadvertently omitted from previous versions of this report.

In FY 14-15, CBMWD wholesaled the recycled water to its customers, the retail water purveyors, on a monthly use, tiered rate schedule ($556 for the first 50 AF, and $507 for anything above 50 AF). This is between 49% and 54% of the rate of $1,029/AF it charges for Tier 1 non-interruptible potable water supplied by MWD, and between 43% and 47% of the rate of $1,171/AF it charges for Tier 2 supplies. Recycled water delivered outside of CBMWD's service area was subject to a $21-23/AF surcharge on each of the two tiers. Recycled water deliveries to the Malburg Power Plant in Vernon received an industrial use rate ($402 for the first 25 AF, $374 for the next 25 AF, $346 for the next 50 AF, and $318 for anything above 100 AF). The retail purveyors then set their own rates for the recycled water.

2.5.7 Puente Hills/Rose Hills

A distribution system was constructed to deliver recycled water from the San Jose Creek WRP to the Sanitation Districts' nearby Puente Hills Landfill, Materials Recovery Facility (MRF), Puente Hills Energy Recovery from Landfill Gas (PERG) Facility, and to Rose Hills Memorial Park. These sites are shown on Figure 13 and listed in Table 14.

This project was conceived of as far back as 1978 as a means of reducing the Landfill's $20,000 per month water bill; however, various impediments stalled this project over the years. Not the least of these impediments was the claim of "duplication of services" by the local water company that had served domestic water to the Puente Hills Landfill. To resolve this, Senate Bill 778 became law on January 1, 1995, allowing the Sanitation Districts to deliver its recycled water to its own landfill, without having to pay the water company for lost revenues, paying only for the physical facilities that would be rendered less useful (i.e., "stranded assets").

Recycled water deliveries to the Puente Hills Landfill and the PERG Facility began in November 1997, while deliveries commenced to Rose Hills in June 1998 and to the MRF in February 2005. The total project cost was approximately $7.2 million and was funded by a low-interest State water reclamation loan. In order to serve the eastern portions of the Landfill and the upper areas of the cemetery, $4 million of additional on-site distribution facilities were completed in mid-2001. A narrative description of the layout of the Puente Hills/Rose Hills recycled water distribution system is contained in Appendix I.

During FY 14-15, the Puente Hills/Rose Hills distribution system delivered 2.194 MGD (2,458 AFY), or 4.0% of the recycled water produced at this plant, through 8,900 feet of pipeline to six users on approximately 857 acres, a decrease of 8.0% from the preceding fiscal year. Recycled water is used for landscape irrigation of slopes and for dust control on the working deck at the Puente Hills Landfill and MRF, for cooling tower supply at the PERG Facility, and for landscape irrigation and impoundments at Rose Hills Memorial Park.

2.5.8 Upper San Gabriel Valley Municipal Water District (Phase I Extension)

A distribution system has been completed that transports water from CBMWD's Rio Hondo distribution system to the Upper San Gabriel Valley Municipal Water District's (USGVMWD's) service area, referred to by this latter agency as its Phase I Extension. This system will ultimately deliver approximately 1,800 AFY from the San Jose Creek WRP to a number of sites. Rio Hondo College and Mill Elementary School were both connected in June 2003 and the Gateway Pointe commercial development was connected in January 2005. In August 2006, recycled water deliveries to 275 acres of the lower, older portion of Rose Hills Memorial Park began (acreage was previously incorrectly reported as 858). Due to the age of its irrigation system, Rose Hills required extensive retrofitting, mainly consisting of the installation of a separate domestic water system to serve hose bibbs for visitor use (i.e., vase filling). These sites are shown on Figure 13 and listed in Table 14.

From the existing Whittier Connector Unit on CBMWD's Rio Hondo distribution system (Section 2.5.5 above), a 36-inch distribution pipeline located at intersection of Strong Avenue and Pioneer Avenue, USGVMWD installed a tee connecting to a 16-inch steel pipeline, which extends north along Pioneer Avenue to Workman Mill Road. Approximately 200 feet north of the intersection of Workman Mill Road and Mill Road, a 6-inch service lateral provides service to Mill Elementary School. The 16-inch steel pipeline continues north along Workman Mill Road, terminating approximately 50 feet south of the main entrance of Rio Hondo College in a 10-inch service connection to the college.

During FY 14-15, the USGVMWD distribution system delivered 0.584 MGD (654 AFY), or 1.1% of the recycled water produced at this plant, through 11,020 feet of pipeline to four users on 383 acres, a decrease of 17.2% from the preceding fiscal year. SGVWC, the retail purveyor for this system, resold the recycled water to three of its customers at its tariff rate of $996.22/AF, or 85% of its corresponding potable water rate of

$1,172.03/AF. Since Rose Hills Memorial Park is not a part of SGVWC's service area, it received recycled water at a contract rate of $220/AF.

2.5.9 Upper San Gabriel Valley Municipal Water District (Phase II-B Extension)

The City of Industry has long planned to extend its recycled water distribution system, since the demand at its Industry Hills Recreation Area only uses a small portion of the capacity of the City's 36-inch distribution line coming from the Sanitation Districts' San Jose Creek WRP. The proposed expansion involved several alternatives over the years, including the possibility of locating a 10,000 AF open reservoir in the Tres Hermanos area of the City of Diamond Bar for seasonal storage of recycled water. In 2000, the City of Industry, Suburban Water Systems (SWS, which had purchased the City of West Covina's water system), the former BKK Landfill, RWD, and WVWD signed an MOU to develop a regional distribution system. A revised contract between the Sanitation Districts and City of Industry that included additional quantities of recycled water was executed on September 27, 2000. The "Phase II-B Extension" off the City of Industry transmission line was developed by USGVMWD to serve SWS, BKK Landfill and, perhaps in the future, WVWD.

USGVMWD's distribution system was built in four packages, consisting of a pump station, storage reservoir and approximately 15.1 miles of 6- to 24-inch pipeline. The first package pipeline was completed in December 2010 and connects to the Industry's existing 36-inch pipeline at the intersection of Azusa Avenue and Temple Avenue. The pipeline extends to the Big League Dreams Development/BKK landfill entrance and continues east to Nogales Street. As part of this package, a new reservoir was completed in December 2011. The second package pipeline was completed in August 2011 and continues north along Azusa Avenue to the South Hills Country Club.

The third package consists of approximately 3.8 miles of pipeline ranging in size from 4- to 12-inches in diameter. The pipelines are located in the City of West Covina and branch off of the Package 2 recycled water main installed in Azusa Avenue and Vine Avenue. The fourth package consists of approximately 3.4 miles of pipeline ranging in size from 4- to 12-inches in diameter. The pipelines are located in the cities of West Covina and Walnut along Shadow Oak Drive, Gemini Street, Stephanie Drive, Woodgate Drive, and other local side streets. Construction of these packages was completed in winter 2012, with deliveries of recycled water beginning in July 2012. In FY 14-15, SWS connected 2 new reuse sites to its distribution system: Cortez Park and Cameron Park were connected in July 2014.

During FY 14-15, the USGVMWD distribution system delivered 0.729 MGD (817 AFY), or 1.3% of the recycled water produced at this plant, through 71,360 feet of pipeline to 25 users on 477.5 acres. This was a 15.4% increase over the preceding fiscal year. SWS, the retail purveyor for this system, resold the recycled water to its customers at its tariff rates of $1,031.94 to $1,107.73 /AF (depending on pressure zone), or 85% of its corresponding potable water rates of $1,214.05 to $1,303.21 /AF.

2.6 Whittier Narrows WRP

This treatment facility, located at 301 North Rosemead Boulevard, El Monte, CA 91733, was completed in 1962 as the first of the Sanitation Districts' activated sludge plants, with a design capacity of 15 MGD. Of the 5.91 MGD (6,623 AFY) of coagulated, filtered, disinfected tertiary recycled water produced during FY 14-15 (1.6% of the effluent produced in the JOS) at an O&M cost of $695/AF, 5.811 MGD (6,573 AFY) was actively reused. Recycled water production decreased 31.3% from the preceding fiscal year due to the complete shutdown of the plant from April-June 2015 for plant upgrade construction, while the amount reused decreased 30.4%.

Recycled water quality for FY 14-15 is presented in Table B-6 of Appendix B. Recycled water from this plant is used at eighteen direct, non-potable reuse sites and for groundwater recharge of the Central Basin, as shown

on Figure 14 and listed in Table 15. Use of recycled water from this facility is permitted under LARWQCB Order Nos. 88-107 and 97-072 for direct, non-potable applications, and Order Nos. 91-100 and R4-2009-0048 for groundwater replenishment (see Section 2.5.1 for a discussion on the amended groundwater recharge permit).

WHITTIER NARROWS WRP FACTS

Plant capacity:	15 MGD
Water produced:	5.91 MGD 6,623 AFY 31.3% FY decrease
FY14-15 O&M:	$695/AF
Water reused:	5.811 MGD 6,573 AFY 30.4% FY decrease 99.2% of production
Delivery systems:	1 18,900 ft. of pipe
No. of reuse sites:	18 969.2 acres

2.6.1 Water Replenishment District of Southern California

The majority (84.4%) of recycled water actively used from this plant went to recharge the Central Basin aquifer. In FY 14-15, 4.953 MGD (5,550 AFY) was used to replenish the groundwater supply, a 28.4% decrease from the preceding fiscal year and 83.9% of the plant's production.

Of the total amount of recycled water delivered from the Whittier Narrows WRP to recharge the Central Basin aquifer, 100% went to the Rio Hondo Spreading Grounds with none going to the San Gabriel Coastal Spreading Grounds during this fiscal year. Only 0.073 MGD (27 AFY) was bypassed around the spreading grounds and lost to the ocean in December 2014. Any discrepancy between the total amount discharged and the totals recharged and bypassed is attributed to differences in metering between the Sanitation Districts and the LACDPW.

2.6.2 Upper San Gabriel Valley Municipal Water District (Phase II-A Extension) – Whittier Narrows Recreation Area

This project (designated Phase II-A by USGVMWD) began deliveries of recycled water to the Los Angeles County Department of Parks and Recreation's (LACDPR's) Whittier Narrows Recreation Area, adjacent to the Whittier Narrows WRP, in September 2006, followed by South El Monte High School in July 2007 and the Whittier Narrows Golf Course in December 2009. The $9 million project was constructed with the help of a $2.1 million Prop. 50 grant from the SWRCB, utilizing the plant's existing chlorine contact tanks that are no longer needed for effluent disinfection following conversion to UV disinfection. Construction of 14,467 linear feet of pipeline for the "Rosemead Extension" began in the fall of 2009 and was completed in 2010, with retrofits and connections completed in early 2012.

During FY 14-15, the USGVMWD distribution system delivered 0.913 MGD (1,023 AFY) through 18,900 feet of pipeline for use at 18 sites on 969.2 acres. This was 15.6% of the recycled water produced at this plant and a 41.2% decrease from the preceding fiscal year. This decrease was due to a milder year requiring less irrigation and, more significantly, the complete shutdown of the Whittier Narrows WRP from April-June 2015 for plant upgrade construction. No new sites were added to the system during FY 14-15.

USGVMWD wholesaled the recycled water to SGVWC, the retail purveyor for this system, who then resold the recycled water to the LACDPR at a contract rate of $773/AF, or 66% of its corresponding potable water rate of $1,172.03/AF. LACDPR then leases a portion of its groundwater pumping rights to SGVWC in exchange, resulting in a lower effective rate for the recycled water. The golf course was charged a contract rate of $937.63/AF, 80% of the potable water rate. All of the other users were charged their recycled water tariff rate of $996.22/AF, 85% of the potable water rate.

FIGURE 14
WHITTIER NARROWS WRP REUSE SITES

1. Whittier Narrows Recreation Area
2. South El Monte High School
3. Whittier Narrows Golf Course
4. Sanchez Elementary/Temple Middle Schools
5. Loma Elementary School
6. Jess Gonzales Sports Park
7. Garvey Medians
8. Walnut Grove Medians
9. Rush Street Medians
10. SCE Campus
11. WalMart
12. Panda restaurant Group
13. Sunshine Nursery
14. Rice Elementary School
15. Willard Elementary School
16. University of the West
17. Zapopan Park
18. Garvey Medians

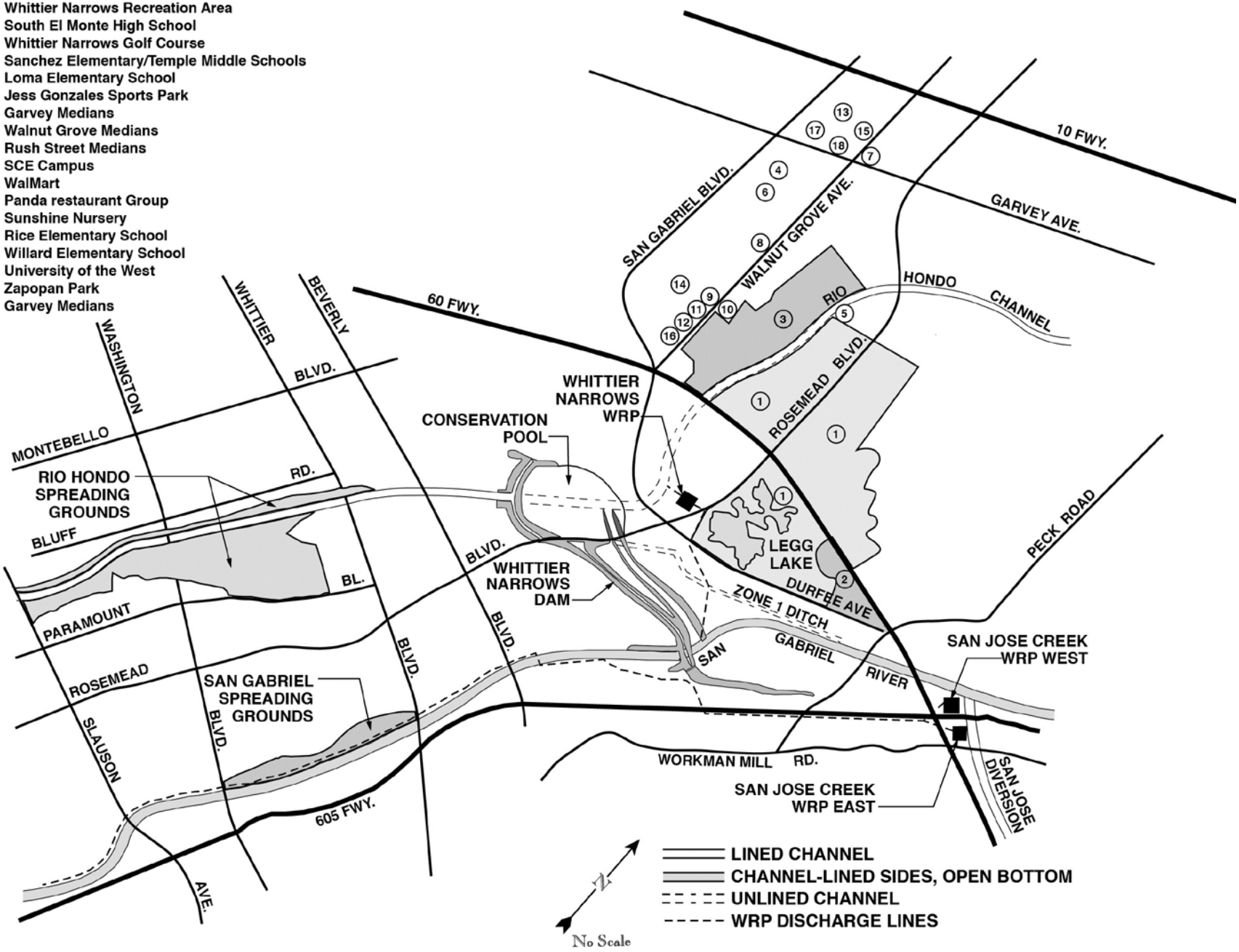


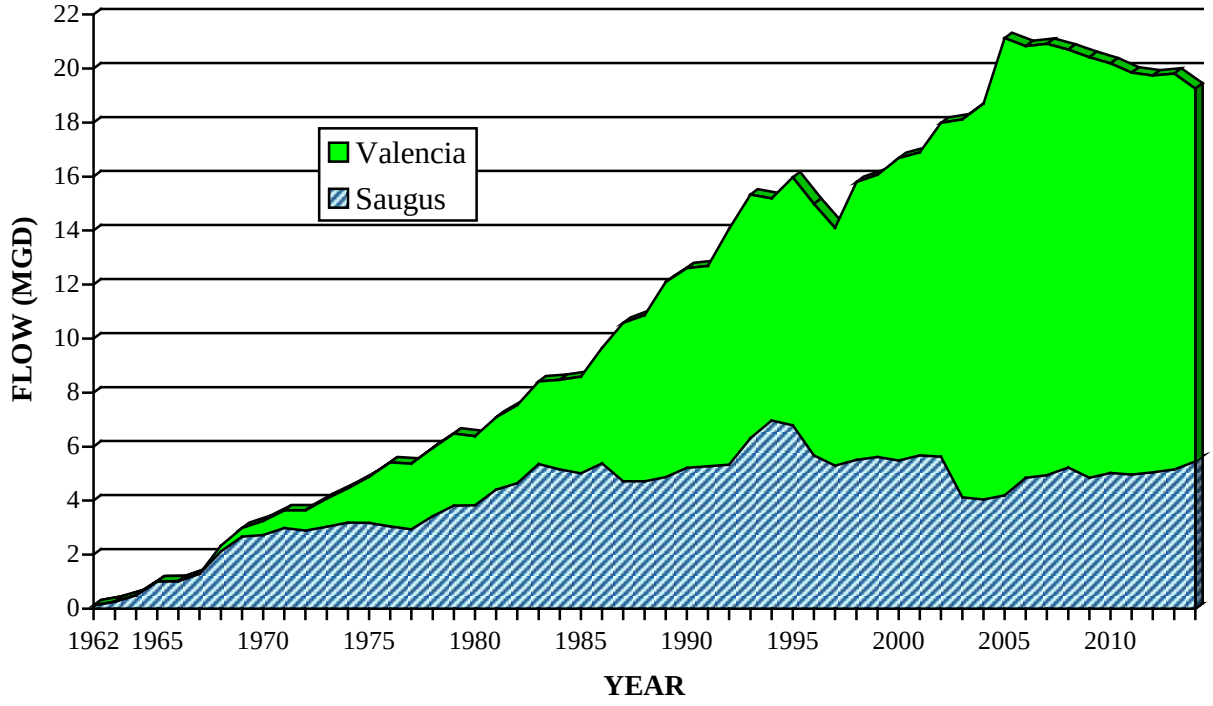
TABLE 15
SUMMARY OF FISCAL YEAR 14-15 RECYCLED WATER USAGE
WHITTIER NARROWS WRP

Reuse Site (City)	Start-up Date	Acreage	Type of Use	Usage (MGD)	Usage (AFY)
Water Replenishment District	Aug 62	--	R	4.953	5,550
Whittier Narrows Recreation Area	Sep 06	568	L	0.492	552
South El Monte High School	Aug 07	16.1	AF, L	0.045	50
Whittier Narrows Golf Course	Dec 09	260	L	0.275	308
Sanchez Elementary/Temple Middle School	Aug 11	12.8	AF, L	0.004	4
Loma Elementary School	Aug 11	1.9	AF, L	0.003	3
Jess Gonzales Sports Park	Oct 11	4	L	0.009	10
Southern California Edison corporate offices	Oct 11	53	L	0.039	44
Eldridge Rice Elementary School	Oct 11	8.3	AF, L	0.011	12
Garvey Ave. medians	Dec 11	0.1	L	0.0004	0.5
Walnut Grove Ave. medians	Dec 11	0.1	L	0.001	2
Rush St. medians	Dec 11	0.1	L	0.001	1
Sunshine Nursery, 8448 Dorothy St.	Dec 11	4.6	L	0.003	3
WalMart, 1827 Walnut Grove Ave.	Dec 11	17.7	L	0.008	9
Panda Restaurant Group, 1683 Walnut Grove Ave.	Dec 11	8.9	L	0.010	11
Willard Elementary School	Jan 12	6	AF, L	0.002	3
University of the West, 1409 Walnut Grove Ave.	Feb 12	0.4	L	0.004	4
Zapopan Park	Apr 12	7	L	0.006	6
Garvey Blvd. medians	Apr 12	0.2	L	0.0005	1
TOTALS		**969.2**		**5.811**	6,573

NOTES: AF = Athletic field irrigation, AG = Agricultural irrigation, E = Environmental enhancement, I = Industrial, L = Landscape irrigation, O = Ornamental plant irrigation, P = Impoundment, R = Groundwater replenishment.

This area, which includes the City of Santa Clarita, is located northwest of the City of Los Angeles. The Valencia and Saugus WRPs together make up the Santa Clarita Valley Joint Sewerage System (SCVJSS) and have a combined design capacity of 28.1 MGD (31,487 AFY). During FY 14-15, these plants produced 18.89 MGD (21,167 AFY) of recycled water available for reuse, a 3.4% decrease from the preceding fiscal year. Figure 15 illustrates the growth of recycled water production from Valencia and Saugus WRPs from 1962 through the end of 2014. During most of the history of these plants, only occasional reuse via water truck hauling occurred. The use of recycled water through a permanent distribution system began during FY 03-04, with 0.387 MGD (434 AFY), or 2.1% of the total amount of recycled water produced in the SCVJSS, being delivered from the Valencia WRP during FY 14-15. This was a 33.1% increase over the preceding fiscal year.

FIGURE 15
SANTA CLARITA VALLEY JOINT SEWERAGE SYSTEM RECYCLED WATER PRODUCTION
1962-2014



3.1 VALENCIA WRP

The Valencia WRP, located at 28185 The Old Road, Valencia, CA 91355, was completed in 1967. Following several expansions, the construction of a 4.4 million gallon flow equalization tank in February 1995, a solids handling expansion in August 2002, and the construction of additional aeration tanks for NDN in May 2003, the Valencia WRP now has a capacity of 21.6 MGD. In FY 14-15, the plant produced an average of 13.55 MGD (15,178 AFY) of recycled water, a 4.9% decrease from the preceding fiscal year. The FY 14-15 O&M cost to produce this water was approximately $797/AF, which includes solids processing for both the Saugus and Valencia WRPs. Recycled water quality for FY 14-15 is presented in Table B-7 of Appendix B.

Use of recycled water from this facility is permitted under LARWQCB Order Nos. 87-48 and 97-072. During FY 14-15, 0.387 MGD (434 AF), or 2.9% of the recycled water produced was actively reused, a 33.1% increase over the preceding year.

VALENCIA WRP FACTS	
Plant capacity:	21.6 MGD
Water produced:	13.55 MGD 15,178 AFY 4.9% FY decrease
FY14-15 O&M:	$797/AF
Water reused:	0.387 MGD 434 AFY 2.9% of production 33.1% FY increase
Delivery systems:	1
No. of reuse sites:	6 130.6 acres

3.1.1 Castaic Lake Water Agency

The Castaic Lake Water Agency (CLWA), the regional importer and wholesaler of State Project water in the Santa Clarita Valley, owns and operates the area's recycled water distribution system. In spring 1998, Kennedy/Jenks completed design of a 10,000 gpm pump station located adjacent to the Valencia WRP's chlorine contact tanks, with enough pipeline to go through the plant site to the street, with construction being completed in 1999. Construction of a 20- and 24-inch pipeline southerly along The Old Road to Valencia Boulevard was completed in May 2002. Recycled water deliveries for hydrostatic testing of the storage reservoir constructed at the Westridge Development reuse site as a part of this project began in August 2003, with irrigation of the Tournament Players Club golf course beginning the following month. These facilities are shown on Figure 16 and listed in Table 16.

During FY 14-15, 0.387 MGD (434 AF), or 2.9% of the recycled water produced at the Valencia WRP was delivered through 16,490 feet of pipeline, a 33.1% increase over the preceding fiscal year. Three new reuse sites were added at the Entrada development during FY14-15: the landscaping at 27640 Media Center Drive, 27780 Entertainment Drive, and 27770 Entertainment Drive were connected in June 2015.

Valencia Water Company, the retail purveyor for this system, purchased the recycled water from CLWA for $516/AF and resold it at its tariff rate of $555.08/AF, or 84% of its corresponding potable water rate of $660.81/AF.

SAUGUS WRP FACTS	
Plant capacity:	6.5 MGD
Water produced:	5.35 MGD 5,990 AFY 0.8% FY increase
FY14-15 O&M:	$623/AF
Water reused:	none

3.2 Saugus WRP

The Saugus WRP, located at 26200 Springbrook Avenue, Saugus, CA 91350, was completed in 1962. Three subsequent expansions in 1964, 1965, and 1968 and flow equalization facilities in 1991 brought its current design capacity to 6.5 MGD. The treatment process was upgraded to tertiary with the addition of dual-media pressure filters in 1987. No future conventional expansions are possible due to space limitations on the site; any increase in plant capacity would have to be in some form of compact treatment technology, such as membrane bioreactors (MBRs). In FY 14-15, the plant produced an average of 5.35 MGD (5,990 AFY) of recycled water, which was a 0.8% increase over the preceding fiscal year, at an O&M cost of $623/AF. Recycled water quality for FY 14-15 is presented in Table B-8 of Appendix B. Use of recycled water from this facility is permitted under LARWQCB Order Nos. 87-49 and 97-072; however, no recycled water was used from this facility in FY 14-15.

FIGURE 16
CASTAIC LAKE WATER AGENCY
RECYCLED WATER DISTRIBUTION SYSTEM

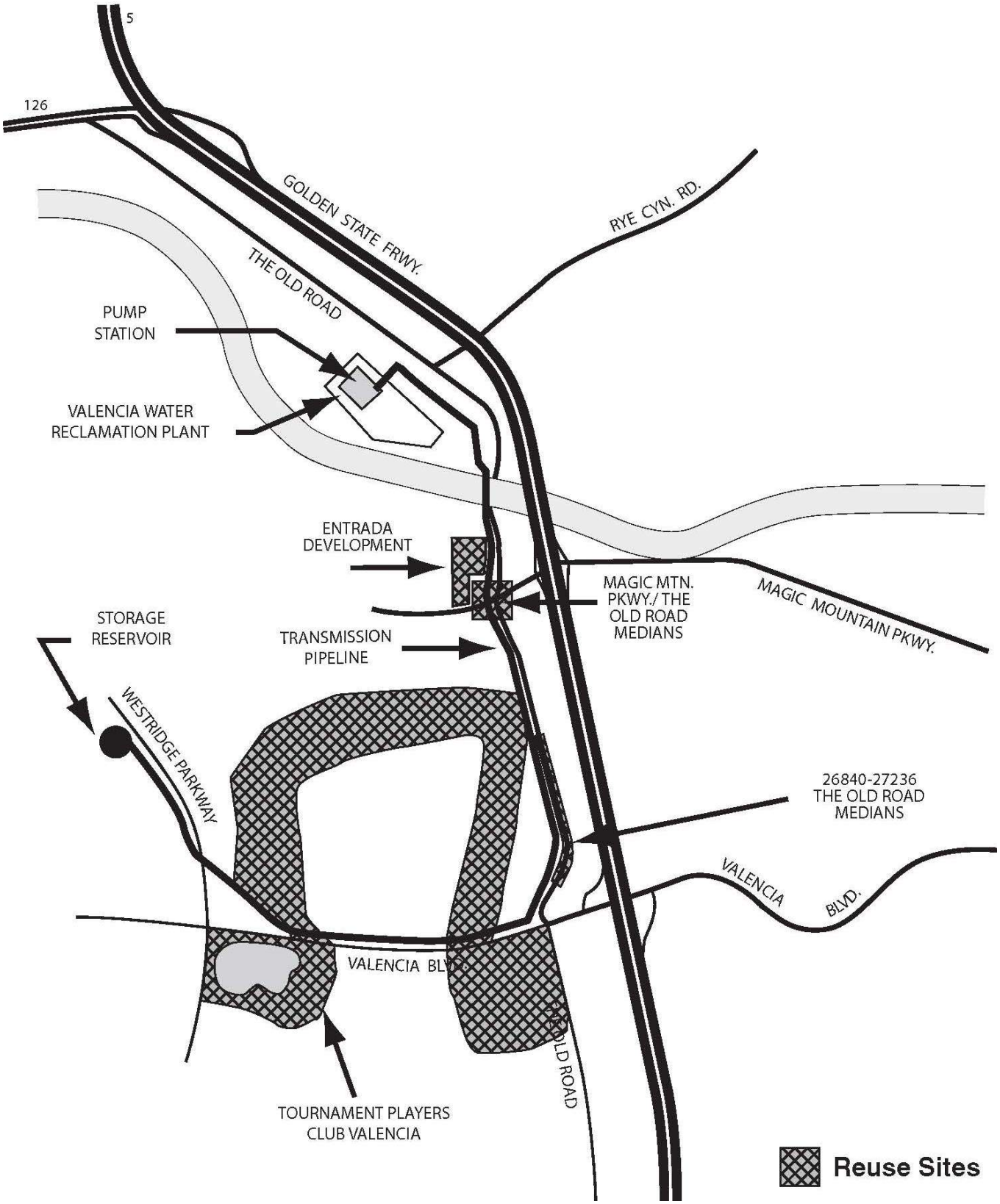


TABLE 16
SUMMARY OF FISCAL YEAR 14-15 RECYCLED WATER USAGE
VALENCIA WRP

Reuse Site (City)	Start-up Date	Acreage	Type of Use	Usage (MGD)	Usage (AFY)
Tournament Players Club at Valencia	Aug 03	120	L	0.344	386
The Old Road medians, (26840-27236 The Old Road)	Aug 03	5.8	L	0.032	35
The Old Road/Magic Mountain Parkway medians	Nov 10	2.8	L	0.009	10
Entrada, 27640 Media Center Drive	Jun 15	1.4	L	0.0004	0.4
Entrada, 27770 Entertainment Drive	Jun 15	0.7	L	0.001	1
Entrada, 27780 Entertainment Drive	Jun 15	0.7	L	0.001	1
TOTALS		**130.6**		**0.387**	434

NOTES: AF = Athletic field irrigation, AG = Agricultural irrigation, E = Environmental enhancement, I = Industrial, L = Landscape irrigation, O = Ornamental plant irrigation, P = Impoundment, R = Groundwater replenishment.

Two treatment plants serve the communities of the southern Antelope Valley, one each in the cities of Lancaster and Palmdale (Sanitation Districts Nos. 14 and 20, respectively). Historically, both WRPs produced secondary effluent by means of oxidation ponds, but have since upgraded treatment to replace the oxidation ponds with an activated sludge and nitrification-denitrification secondary treatment process, and include tertiary filtration and chlorination for disinfection. The plant upgrades were completed in December 2011 at the Palmdale WRP and July 2012 at the Lancaster WRP. Both plants use anaerobic digesters and drying beds for solids processing. During FY 14-15 the two WRPs treated a combined 24.28 MGD of wastewater to produce 21.87 MGD (24,507 AFY) of effluent available for reuse, a decrease of 1.2% from the preceding fiscal year. Figure 17 illustrates the growth of influent flows at the Lancaster and Palmdale WRPs from 1960 through the end of 2014. From this graph, it appears from the decrease in influent flows over the past few years that water conservation and the economic slowdown have finally outweighed population growth in regard to wastewater generation in the Antelope Valley. For the Antelope Valley plants, influent has proven to be a more accurate gauge of plant flows because the actual amount of effluent from the previously employed oxidation ponds had been extremely variable from month to month, as water was either lost by evaporation/percolation or gained by rainfall. Even though both WRPs have been converted to activated sludge secondary treatment followed by tertiary filtration and their effluent flows are now much more accurate, influent flow will continue to be used as a long-term gauge due to the availability of accurate historical data.

During FY 14-15, 16.05 MGD (17,985 AFY), or 73.4% of the recycled water produced, was actively reused, a 9.4% decrease from the preceding fiscal year. The difference between production and reuse flows would be the effect of evaporation from the recycled water storage reservoirs and change in storage, and not discharge to a waterway. Reuse flows from both WRPs are presented in Table 17.

FIGURE 17
ANTELOPE VALLEY WRPS INFLUENT FLOW
1960-2014

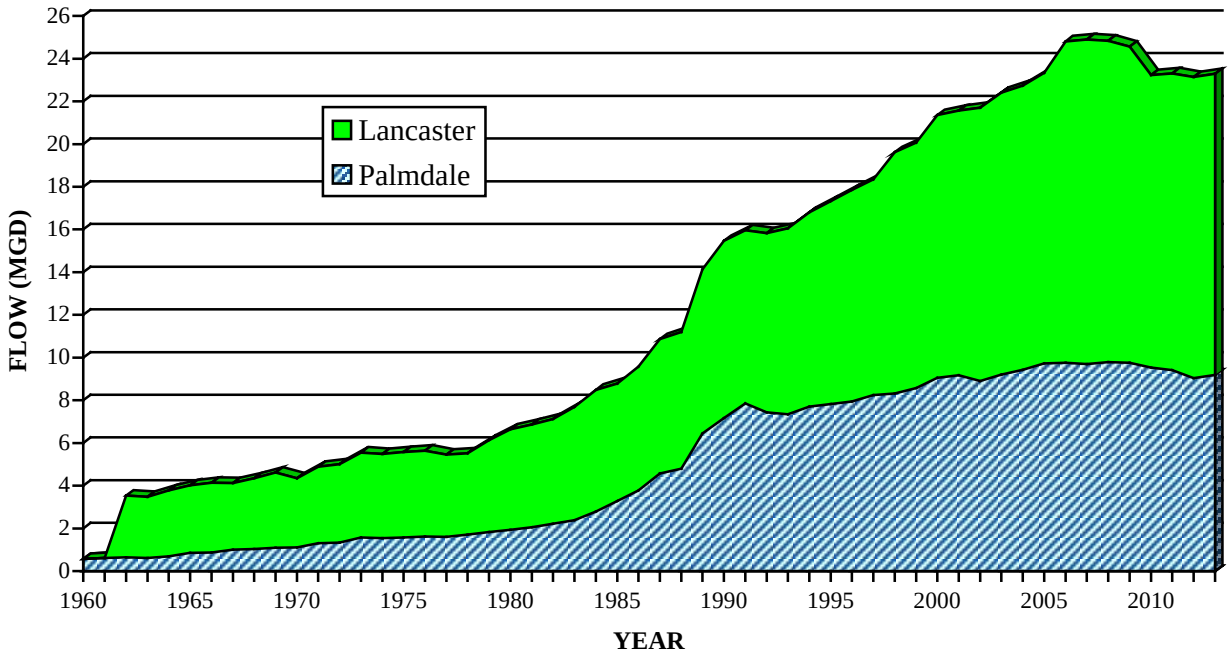


TABLE 17
SUMMARY OF FISCAL YEAR 14-15 RECYCLED WATER USAGE
LANCASTER AND PALMDALE WRPs

Reuse Site (City)	Start-up Date	Acreage	Type of Use	Usage (MGD)	Usage (AFY)
Apollo Lakes Community Regional Park (Lancaster)	Jun 69	56	L,P	0.235	263
Piute Ponds (Lancaster)	May 81	400	E	4.398	5,760
Harrington Farms Pistachio Orchard (Palmdale)	Apr 85	23	AG	0.027	31
Tree Farm (Palmdale)	Feb 89	28	O	0	0
Antelope Valley Farms (Palmdale)	Mar 02	2,034	AG	6.041	6,769
Eastern Agricultural Site (Lancaster)	Dec 06	1,725	AG	4.398	4,928
Public Works Dept. sewer flushing (Lancaster)	Jan 09	--	I	0.001	1
Public Works Dept. street sweeping (Lancaster)	Feb 09	--	I	0.0003	0.3
Lancaster University Center (Lancaster)	May 09	2	L	0.002	2
AV Greek Festival dust control (Lancaster)	Sep 10	--	I	0.00001	0.01
CIMIS Weather Station (Palmdale)	Oct 12	1	L	0.005	6
McAdam Park (Palmdale)	Oct 12	15	L	0.060	68
Tree Barriers (Palmdale)	Jan 13	4	AG	0.009	11
Lancaster City Park (Lancaster)	Mar 14	36	L	0.080	89
West Antelope Solar Project construction (Lancaster)	Jul 14	--	I	0.044	50
Tierra Bonita construction (Lancaster)	Oct 14	--	I	0.00002	0.03
Avenue J street & sidewalk construction (Lancaster)	Dec 14	--	I	0.00002	0.02
High Desert Solar Complex Project (Lancaster)	Jan 15	--	I	0.000002	0.002
BYD Energy Road landscaping (Lancaster)	Jan 15	0.8	L	0.0001	0.1
Barren Ridge Renewable Transmission const. (Lanc.)	Feb 15	--	I	0.004	4
Lancaster 43130 10th St. W dust control (Lancaster)	Feb 15	--	I	0.0001	0.1
West Antelope Solar Park landscaping (Lancaster)	Feb 15	--	L	0.00001	0.01
Poppy Festival dust control (Lancaster)	Apr 15	--	I	0.0002	0.2
Public Works Dept. road maintenance (Lancaster)	May 15	--	I	0.0002	0.2
First Assembly of God Church construction (Lancaster)	May 15	--	I	0.0004	0.5
Sierra Solar Greenworks construction (Lancaster)	May 15	--	I	0.002	3
AT&T cable trench construction (Lancaster)	May 15	--	I	0.0001	0.01
Endeavor Middle School construction (Lancaster)	Jun 15	--	I	0.0001	0.01
El Pollo Loco 42839 10th St. W. construct. (Lancaster)	Jun 15	--	I	0.00003	0.03
Storm Drain construction Ave I & 20th St. E (Lancaster)	Jun 15	--	I	0.00001	0.01
TOTALS		**4,324.8**		**16.050**	**17,985**

NOTES: AF = Athletic field irrigation, AG = Agricultural irrigation, E = Environmental enhancement, I = Industrial, L = Landscape irrigation, O = Ornamental plant irrigation, P = Impoundment, R = Groundwater replenishment.

4.1 LANCASTER WRP

LANCASTER WRP FACTS	
Plant capacity:	18 MGD
Water produced	13.56 MGD 15,200 AFY 0.4% FY decrease
FY14-15 O&M:	$646/AF
Water reused:	9.91 MGD 11,101 AFY 73.0% of production 11.2% FY increase
Delivery systems:	5
No. of reuse sites:	24 2,220 acres

The existing treatment facility, located at 1865 West Avenue D, Lancaster, CA 93534, began operation in 1959, replacing an earlier treatment plant that had begun operation in 1941. The plant's capacity was expanded in 1989 to 8 MGD, with 460 million gallons (1,400 AF) of storage ponds to capture excess winter flows. The Stage III expansion increased plant capacity to 10 MGD in December 1992. The Stage IV expansion, consisting of a flow equalization basin, two sedimentation tanks, and additional aeration equipment in the oxidation ponds, increased the plant's secondary treatment capacity to 16 MGD in May 1997. The MBR plant that went into operation in February 2007 raised the total plant treatment capacity to 17 MGD. In June 1969, the Antelope Valley Tertiary Treatment Plant (AVTTP) was placed in operation with the ability to treat 0.6 MGD of Lancaster WRP secondary effluent to tertiary quality. The Lancaster WRP completed its conversion to full tertiary treatment in mid-2012 with a capacity of 18 MGD, after which the AVTTP and MBR facilities were taken off-line.

This plant produced an average of 13.56 MGD (15,200 AFY) of recycled water in FY 14-15, or a 0.4% decrease from the preceding fiscal year. The FY 14-15 O&M cost to produce tertiary effluent was approximately $646/AF (including solids processing). During FY 14-15, 9.907 MGD (11,101 AFY), or 73.0% of the plant's production, was actively reused on 2,220 acres at six fixed sites and numerous hauled uses shown on Figure 18 and presented in Table 17. This was an 11.2% increase over the preceding fiscal year.

4.1.1 PIUTE PONDS

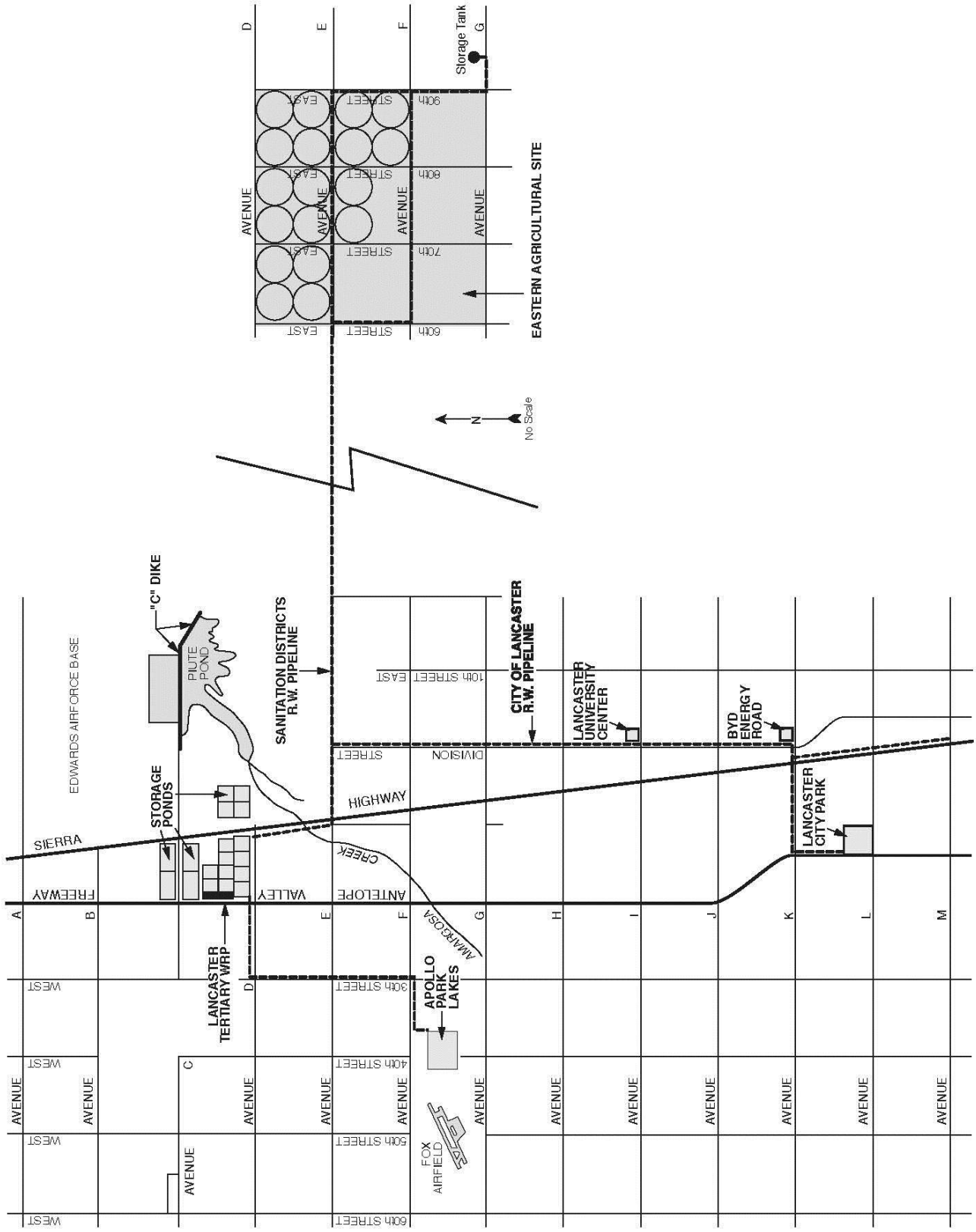
The initial discharge point for disposal of effluent from the Lancaster WRP had been to Amargosa Creek that then flowed onto Rosamond Dry Lake. In order to prevent flooding of the dry lakebed (which is located within the boundaries of Edwards Air Force Base), a 1-⅓ mile long dike was constructed in 1960 to impound the effluent. Approximately 200 acres of wetlands formed, becoming an important migratory stopover for ducks along the Pacific Flyway. In a 1981 agreement with Edwards Air Force Base and the California Department of Fish and Game, the Sanitation Districts agreed to maintain at least 200 acres of wetlands with recycled water in order to preserve Piute Ponds as a wildlife refuge and allow Air Force officers to use this area for duck-hunting.

In FY 14-15, 5.140 MGD (5,760 AFY) was delivered to Piute Ponds, an increase of 19.9% over the preceding fiscal year. This reuse constitutes 37.9% of the recycled water produced at this facility.

4.1.2 APOLLO COMMUNITY REGIONAL PARK

In 1962, the then Los Angeles County Engineer devised and developed an aquatic recreation area next to the General William J. Fox Airfield in the City of Lancaster. The source of water was an advanced treatment plant located at the Sanitation Districts' Lancaster WRP that consisted of chemical coagulation (for the reduction of phosphate to inhibit algal growth), sedimentation, dual-media filtration, and chlorination. The AVTTP was placed in operation in June 1969 with a capacity of 0.6 MGD. Recycled water from the AVTTP was delivered by means of a 12-inch force main for construction of the 56-acre Apollo Community Regional Park (formerly

FIGURE 18
LANCASTER WATER RECLAMATION PLANT FACILITIES



known as Apollo Lakes County Park), which was opened to the public in November 1972. The three lakes in the park, named Aldrin, Armstrong, and Collins, are stocked with trout and catfish for public fishing, although no swimming is allowed. Following the upgrade of the Lancaster WRP to tertiary treatment, the AVTTP has been taken out of service and decommissioned, with recycled water produced by the Lancaster plant being delivered for use at Apollo Park instead. It is expected that the AVTTP will eventually be dismantled.

In FY 14-15, 0.235 MGD (263 AFY) of recycled water was delivered through 23,800 feet of pipeline to maintain 26 acres (80 million gallon) of lakes at the park to make up for evaporative losses and for irrigation water withdrawn from the lakes for use on the park, an increase of 26.4% from the preceding fiscal year. In August and September 2014, approximately 3.2 MG (9.8 AF) of water withdrawn from the park's lakes was hauled by truck and used at the West Antelope Solar Project reuse site for dust control. This reuse constitutes 1.5% of the recycled water produced at this plant.

4.1.3 Eastern Agricultural Site Development and Storage Project

In order to prevent unauthorized overflows of effluent from Piute Ponds onto Rosamond Dry Lake and to handle future increases in effluent flow, the 2020 Facilities Plan for the Lancaster WRP identified new treatment processes (conventional NDN activated sludge replacing oxidation ponds, followed by tertiary filtration and disinfection) and treatment capacity expansion (18 MGD in 2010, with an ultimate capacity of 26 MGD). This plant expansion was completed in July 2012. Additionally, since demand for recycled water is seasonal and weather dependent, approximately 4,000 AF of storage ponds were constructed.

There has been an increased interest in the recycled water produced by the plant. Agreements for the purchase of recycled water have been executed with Los Angeles County Waterworks District 40 (13,500 AFY), City of Lancaster (950 AFY), and City of Palmdale (2,000 AFY). These agreements allow recycled water to be provided from the Lancaster and/or Palmdale WRPs. Since many industrial/municipal reuse projects and the required infrastructure are still in their early development stages, the Eastern Agricultural Site was developed to immediately utilize the water. In February 2006, construction of the 18.3-mile distribution pipeline to the Eastern Agricultural Site was completed. A narrative description of the layout of this system is included in Appendix K.

In the interim, while the new treatment facilities were being designed and constructed, a 1 MGD MBR pilot plant (with a chlorine disinfection system and a UV disinfection system) was installed and put into operation in February 2007. The effluent from this plant had been delivered to the first agricultural area consisting of eight center pivot irrigation systems in the area bounded by 70th and 90th Streets East and Avenues D and E. However, tertiary recycled water from the newly upgraded Lancaster WRP has been delivered since the start-up of the new facilities, and the MBR plant has been decommissioned. During FY 14-15, 4.398 MGD (4,928 AFY) of recycled water was used at this site for the irrigation of 1,725 acres of fodder crops, such as alfalfa or grains, through 15 center pivots (345 acres were left fallow during this year). Reuse at this site constitutes 32.4% of the recycled water produced at this plant and a decrease of 18.6% from the preceding fiscal year.

4.1.4 City of Lancaster – Division Street Corridor

A contract for the sale of recycled water produced at the Lancaster and Palmdale WRPs to the City of Lancaster was signed in March 2008 for deliveries of up to 950 AFY. Recycled water deliveries from the Lancaster WRP to the City's Division Street Corridor Recycled Water Project (Division Street Corridor) began in January 2009. The City, in collaboration with the U.S. Army Corps of Engineers, constructed an extension of this distribution pipeline, which was completed in early 2014. Through the Sanitation Districts' Supplementary Environmental Project Fund, more than $3 million has so far been contributed to the construction of this system. The remaining financing consisted of City and American Recovery and Reinvestment Act funds. During FY 14-15, a total of 0.134 MGD (150 AFY) was delivered through 29,800

feet of pipeline, a 368.8% increase over the preceding fiscal year. In late 2014, the City completed installing a booster pump station along the distribution pipeline to maintain adequate system pressure, thus enabling the Lancaster University Center to resume receiving recycled water for landscape irrigation in February 2015. A 0.8-acre roadside landscaping site along BYD Energy Road began using recycled water in January 2015. Tertiary treated recycled water was also used by the City of Lancaster for non-irrigation uses, such street sweeping of 2,125 curb-miles of roadways and parking lots, sewer flushing, catch basin cleaning, road maintenance, and dust control. The City of Lancaster also mandates that private construction projects within the city must use recycled water in lieu of potable water for dust control, grading, and other construction applications. Fifteen construction or temporary use sites hauled recycled water by truck at various times throughout the fiscal year. The City has an existing storage reservoir and now a booster pump station to serve their developing system.

4.2 PALMDALE WRP

This treatment facility, located at 39300 30th Street East, Palmdale, CA 93550, began operation in 1953 as 0.75 MGD plant, with subsequent expansions in 1958 (2.5 MGD), 1972 (3.1 MGD), 1989 (6.5 MGD), 1993 (8 MGD), and 1996 (15 MGD). This plant completed its conversion to full tertiary treatment in December 2011, although with only a capacity of 12 MGD through the filters. Additional filters can be added in the future as influent flow to this plant increases.

PALMDALE WRP FACTS	
Plant capacity:	12 MGD
Water produced:	8.31 MGD 9,307 AFY 2.3% FY decrease
FY14-15 O&M:	$884/AF
Water reused:	6.716 MGD 7,525 AFY 11.2% FY decrease 80.9% of production
Delivery systems:	1
No. of reuse sites:	5 2,069 acres

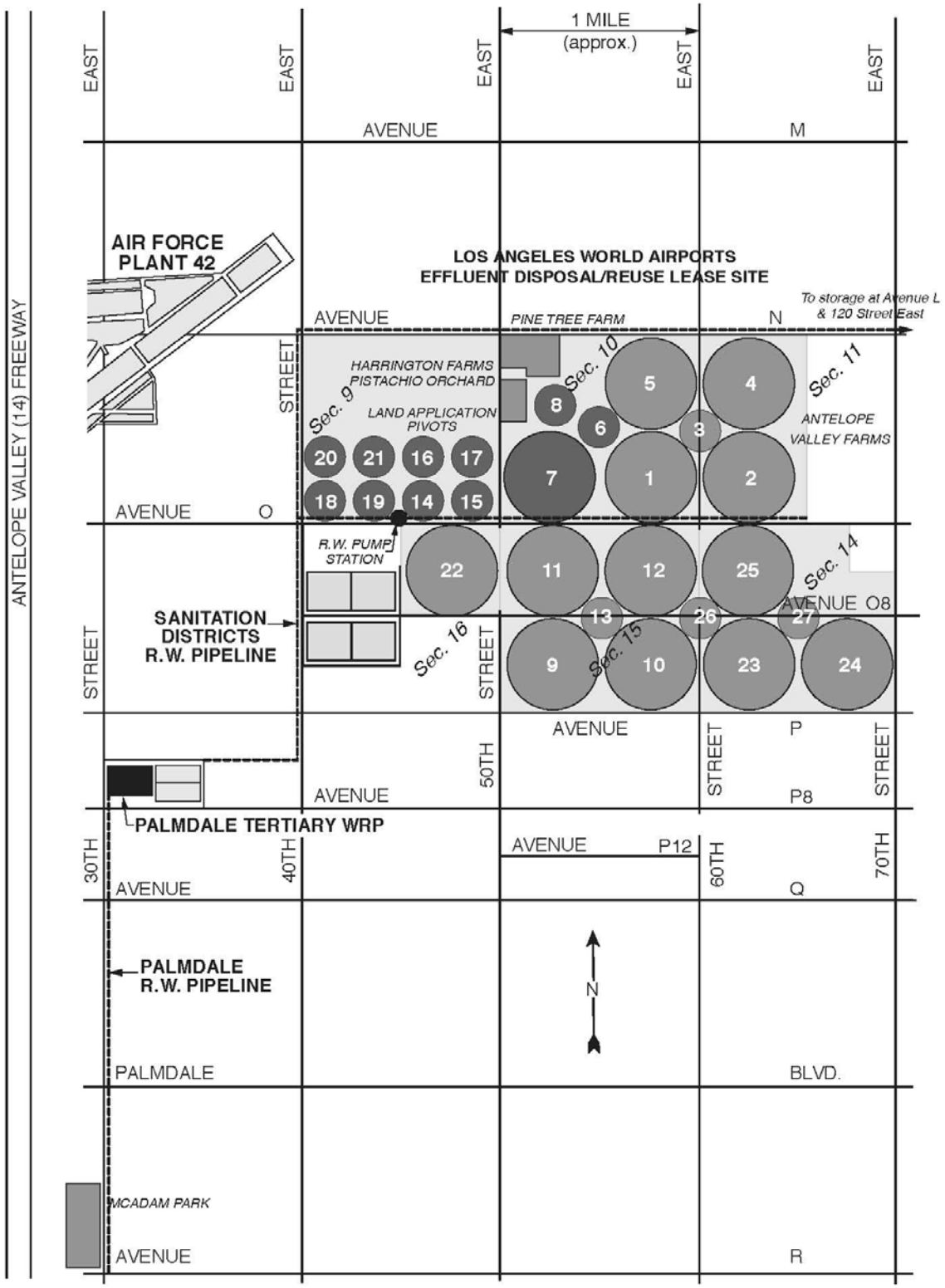
This plant produced an average of 8.31 MGD (9,307 AFY) of recycled water in FY 14-15, or a 2.3% decrease from the preceding fiscal year. The O&M cost to produce this water was approximately $884/AF (including solids processing).

During FY 14-15, 6.716 MGD (7,525AFY), or 80.9% of the plant's production, was actively reused on 2,069 acres at five sites. Most of the reuse occurred on property owned by the City of Los Angeles World Airports (LAWA) but now under long-term lease to the Sanitation Districts. This usage represents an 11.2% decrease in reuse from the preceding fiscal year. The area receiving recycled water is shown on Figure 19. The reuse sites are listed in Table 16 along with the reuse flows from the Lancaster WRP.

4.2.1 CITY OF LOS ANGELES WORLD AIRPORTS LEASE

Recycled water from the Palmdale WRP has been sold to a series of local farmers since 1959. However, since the recycled water produced at the Palmdale WRP had been secondary effluent, its applications have been limited. In January 1981, the Sanitation Districts signed Contract No. 2474 for the delivery of all the plant's effluent to City of Los Angeles World Airports (LAWA; formerly known as the Department of Airports, or DOA), who had purchased much of the land in the area in anticipation of the construction of Palmdale International Airport. LAWA had planned to lease out this land to farmers until the airport could be built, reselling the recycled water to these farmers and spreading the excess on uncultivated land. However, LAWA was unable to find tenants to buy the recycled water, so a second contract (No. 3013) was signed in 1989 to extend the 1981 agreement.

FIGURE 19
PALMDALE WATER RECLAMATION PLANT FACILITIES



In January 2001, in accordance with the plant's Waste Discharge Requirements (WDRs), the Sanitation Districts submitted a Farm Management Plan (FMP), an Effluent Disposal Plan and a Corrective Action Plan for the Palmdale WRP. These documents provide an integrated solution for meeting the revised WDRs established in Order No. 6-00-57. As a means of implementing the FMP, the Sanitation Districts signed a long-term lease with LAWA for four square miles of land to allow for the development of an integrated reuse system for water produced by the Palmdale WRP. As the master leaseholder, the Sanitation Districts are directly responsible for all land application and reuse activities at the site and, accordingly, have implemented agricultural management measures to minimize impacts to groundwater quality in land application areas. In March 2009, the Sanitation Districts eliminated land application of the recycled water and maximized reuse activities.

Recycled water is delivered to the Sanitation Districts' LAWA-leased property through 13,200 feet of 36-inch DIP force main and is used to irrigate 23 acres of the Pistachio Orchard (previously planted and maintained by LAWA) and a 46-acre Sanitation Districts-operated tree farm (formerly operated by Tree Mover). Both the Pistachio Orchard and Tree Farm are leased from the Sanitation Districts by Harrington Farms. In addition, recycled water is being used to irrigate an acre of landscaping around a CIMIS weather station and four acres of tree barriers. These sites used a cumulative 0.042 MGD (47 AFY) during FY 14-15.

As part of the FMP implementation, the Sanitation Districts embarked on the Palmdale Agricultural Effluent Reuse Project, submitting an Engineering Report for the Demonstration Phase to the Lahontan RWQCB in October 2001. In March 2002, this project officially began with Antelope Valley Farms installing two center-pivot irrigation systems (125 acres each) on land leased by the Sanitation Districts from LAWA. The only cost to the farmer was the capital costs for the irrigation systems and the O&M and energy costs for the booster pumps. By the end of FY 14-15, a total of 13 center pivots and 14 mini-pivots had been installed. Previously, the pivots were used primarily for land application of effluent on crops (i.e., above agronomic rates) and were not considered as "reuse". However, all application of recycled water began meeting agronomic rates in March 2009, therefore is now counted as reuse. During FY 14-15, this 2,000-acre site used 6.041 MGD (6,769 AFY), or 72.7% of the recycled water produced by the Palmdale WRP to grow livestock feed (oats and alfalfa). This was an 18.0% decrease from the preceding fiscal year.

4.2.2 CITY OF PALMDALE

The Palmdale Recycled Water Authority (PWRA) was created in 2012 through an agreement between the City of Palmdale and the Palmdale Water District (see details in Section 5.8.2). As part of this project, the City of Palmdale installed a temporary pump station that began delivering recycled water to McAdam Park in October 2012, using 0.060 MGD (68 AFY) in FY 14-15. This was a 13.9% decrease from the preceding fiscal year.

5. FUTURE WATER RECYCLING PROJECTS

A number of recycled water distribution projects throughout the Sanitation Districts' service area are in various stages of development to make use of up to an estimated 92,715AFY of the remaining recycled water currently produced but not yet beneficially reused, with the possibility of another 16,600 AFY of effluent from JWPCP receiving additional treatment prior to reuse. These projects are listed in Table 18 along with the WRP that would supply the recycled water, the estimated quantities of recycled water, and the anticipated completion date. Unsecured funding, institutional concerns, and lack of regulatory approval make the anticipated completion dates for several projects uncertain.

Compounding this is the fact that, for the first time in history, the estimated future demands on the Sanitation Districts' recycled water supply exceeds the remaining unused quantities (74,225 AFY). In the case of the Antelope Valley, this will require the transition from Sanitation Districts' sponsored agricultural operations to urban applications. And while there is currently a lack of competition for recycled water from the Valencia and Saugus WRPs, the San Jose Creek WRP appears to be headed towards oversubscription. At some point, it may be required to increase recycled water flows (e.g., sewer diversions, flow equalization) if some of the proposed recycled water projects are to be fully developed.

TABLE 18
SUMMARY OF FUTURE WATER RECYCLING PROJECTS

Project Name	Recycled Water Source	Quantity (AFY)	Anticipated Completion
Long Beach Water Dept. (recommended projects)	Long Beach WRP	4,510	TBD
City of Signal Hill	Long Beach WRP	180	TBD
City of Lakewood	Los Coyotes WRP	160	TBD
Walnut Valley Water District	Pomona WRP	4,550	TBD
CBMWD West San Gabriel Extension	Los Coyotes WRP	800	TBD
CBMWD La Mirada Extension	Los Coyotes WRP	900	TBD
CBMWD Gateway Cities Extension	Los Coyotes WRP	455	TBD
CBMWD Pico Rivera-Mines Ave. Extension	Los Coyotes WRP	275	TBD
CBMWD Monterey Park Extension	Los Coyotes WRP	750	TBD
City of Pomona Master Plan (recommended projects)	Pomona WRP	1,500	2030
Groundwater Reliability Improvement Program	San Jose Creek WRP	21,000	TBD
USGVMWD groundwater recharge project	San Jose Creek WRP	10,000	2017
La Puente Valley County Water District	San Jose Creek WRP	400	TBD
City of Arcadia	Whittier Narrows WRP	740	TBD
SGVWC South El Monte Extension	Whittier Narrows WRP	550	2016-
West Basin Municipal Water District	JWPCP	16,600	2020-25
Castaic Lake Water Agency	Valencia/Saugus WRPs	17,400	2024
Newhall Ranch Development	Valencia WRP	9,545	TBD
County Waterworks – Backbone System	Palmdale/Lancaster WRPs	400	TBD
City of Palmdale	Palmdale/Lancaster WRPs	2,000	Spring 2018
TOTAL		92,715	

TBD = to be determined

In addition to the listed projects, there are a number of other potential reuse projects that are much more conceptual at this time that are described in Section 5.8 below.

5.1 LONG BEACH WRP

5.1.1 LONG BEACH WATER DEPARTMENT MASTER PLAN

In August 2010, the LBWD, with the assistance of Montgomery-Watson-Harza (MWH) and in conjunction with WRD, released a draft update of its recycled water Master Plan. MWH identified an additional 49 irrigation and industrial potable water customers with a demand of approximately 4,510 AFY that could be converted to recycled water, including the Haynes and AES power plants and the Southeast Resource Recovery Facility (SERRF), a number of residential developments, several industrial users and commercial laundries, and numerous greenbelts (schools, parks, golf courses, commercial nurseries, etc.). The revised Master Plan also took into consideration the expansion of the LVLAWTF for increased seawater intrusion barrier injection and recommended the construction of two, 3.3 MG storage tanks at the Alamitos Reservoir site. Seventeen of these customers with a total demand of 2,505 AFY have been identified as the "most probable" for conversion to recycled water in the near term, as they are either located near an existing recycled water line or have expressed interest in conversion.

Eleven alternative construction projects were identified, with five being recommended for implementation (a sixth recommended project has already been completed):

Alternative 8 – A 6-inch pipeline west along Anaheim St. and north on Orizaba Ave. at a capital cost of $240,000 to serve 102 AFY to American Textile Maintenance Company laundry (customer no longer interested).

Alternative 7 – A 16-inch pipeline beginning at the intersection of Vuelte Grand Ave. and Atherton St. at a capital cost of $7 million to serve 1,000 AFY to the Haynes Generating Station.

Alternative 6 – A 4-inch pipeline west on Spring St. at a capital cost of $250,000 to serve 20 AFY to Long Beach Airport Marriott Hotel.

Alternative 1A – 6- and 12-inch pipelines beginning at the intersection of 46th St. and Atlantic Ave. at a capital cost of $750,000 to serve 52 AFY to Los Angeles County Community Development (residential).

Alternative 9 – Sub-project 9A will begin at the intersection of 11th St. and Obispo Ave. and run to the intersection of Pico Ave. and Ocean Blvd. to serve 93 AFY to the Hyatt Regency Hotel, Rainbow Harbor Esplanade, Long Beach Shoreline Marina and Cesar Chavez Elementary School. Sub-projects 9B, 9C and 9D all require Subproject 9A to be built, although they each can be constructed individually. Sub-project 9B would serve 488 AFY to TOPKO and Montenay Pacific Power Corp. Sub-project 9C would serve 797 AFY to Nation Gypsum and BP West Coast Products. Sub-project 9D would serve 628 AFY for industrial uses at THUMS Long Beach and TOPKO. The four sub-projects would use 6- to 20-inch pipelines and are projected to have a capital cost of $32.9 million.

LBWD currently does not plan on implementing the above projects in the foreseeable future, as there is insufficient recycled water available at the Long Beach WRP during the summer months to support these customers.

5.1.2 City of Signal Hill

The City of Signal Hill completed a Recycled Water Feasibility Study in March 2012, the purpose of which was to identify potential customers, pipeline alignments, pump station and reservoir locations and possible connection points. The original point of connection was to have been with the LBWD, but lack of available water from that system prompted a 2015 investigation into connecting to the CBMWD system through the City of Lakewood. Signal Hill's anticipated Phase 1 system would serve approximately 180 AFY to 39 customers through 25,000 feet of pipe at a total estimated cost of $6.6 million. There is no current schedule for this project, as it requires coordination with several agencies, purchase of land for a storage reservoir and successfully obtaining funding.

5.2 Los Coyotes WRP

5.2.1 City of Lakewood Master Plan

The City of Lakewood commissioned Wildan and Associates to conduct a study to determine the feasibility of expanding its recycled water distribution system westward. This potential expansion could serve an additional 159 AFY to city parks (e.g., Bolivar and Biscailuz Parks), numerous medians and parkways, and a number of public and private schools (e.g., Craig William and Lakewood Elementary Schools, the Intensive Learning Center, St. Pancratius School, and Hoover Junior High School). Such an extension would require about 7.7 miles of pipeline to be built in five phases and could cost as much as $7.25 million. This study was completed in July 2010; however, no implementation schedule was set as funding had been unavailable. With the passage of Proposition 1 in November 2014, city staff will be reevaluating the economics of this project.

5.2.2 Additional CBMWD Expansion Projects

The CBMWD recycled water distribution system is broken up into two separate systems. The southern portion of the system is the Thornton E. lbbetson Century Recycled Water Project (Century System) which receives recycled water primarily from the Los Coyotes WRP in Cerritos. The Esteban Torres Rio Hondo Recycled Water Project (Rio Hondo System) receives its supply primarily from the San Jose Creek WRP in Whittier. And while an eventual looping of the system for flow reliability, system pressure, and to aid in chlorination would be the ultimate goal, this may not be attainable in the short-term. However, CBMWD has several projects in their CIP for the near term. CBMWD is currently looking into expansion projects, and while the CBMWD's distribution system is interconnected between the San Jose Creek and Los Coyotes WRPs, recycled water in these areas would most likely be supplied from the latter facility.

5.2.2.1 West San Gabriel Extension

CBMWD, Montebello Land Company, City of Montebello, San Gabriel Valley Water Company, and the City of Monterey Park are looking to construct a pipeline to bring recycled water supply into northern area of the Cities of Montebello, San Gabriel, and Monterey Park. The recycled water pipeline will extend from the existing CBMWD system in the City of Montebello. Currently, confirmed annual recycled water demand is estimated to be 800 AFY, including temporary irrigation estimated to be 200 AFY. Additional recycled water connections and demand estimated as 1,500 AFY are currently being investigated and will influence final pipe diameters and length. Final design diameter for the pipeline will be between 16-inches and 30-inches in diameter. The present design, for confirmed demands in the amount of 800 AFY, consists of 16-inch diameter piping for 20,500 linear feet, along with a pump station and master meter that will be included in this project.

Project timelines will be impacted by the demand needs of the Montebello Hills Specific Plan, a new housing development, in the City of Montebello. The developer, Montebello Land Company, has a need for recycled

water supply as soon as October 2016. To accelerate this project, CBMWD is exploring the possibility of dividing this project into phases. Phase 1 will bring a 16-inch to 30-inch diameter pipeline approximately 7,500 linear feet up to points of connection for the Montebello Hills Specific Plan, Montebello Town Center, and the Shops at Montebello. Phase 2 will extend a 16-inch to 30-inch diameter pipeline north 5,500 linear feet to serve Resurrection Cemetery and additional sites currently being investigated. Phase 3 will extend the pipeline an additional 7,000 linear feet to serve additional sites out of CBMWD's service area. Additional pipeline alignments may be added to connect additional sites.

5.2.2.2 CITY OF LA MIRADA EXTENSION

CBMWD is planning to expand the existing recycled water system in south Santa Fe Springs into the City of La Mirada in order to serve recycled water to several large landscaped facilities including La Mirada Park, La Mirada Golf Course, La Mirada High School, Olive View Cemetery, Biola University, La Mirada City Buildings, Behringer Park and many more recycled sites that are currently being investigated. The number of potential recycled water customer connections is estimated to be around 24 sites with an estimated cumulative total of approximately 900 AFY for landscape irrigation. Facilities needed consist of approximately 9,100 linear feet of 8-inch diameter piping, 10,100 linear feet of 12-inch diameter piping, 20,900 linear feet of 16-inch diameter piping. The recycled water expansion would start by connecting to CBMWD's existing recycled water pipelines at Bonavista Avenue, continue east on Gannet Street, go north on Valley View Avenue, and then continue east through the most cost effective route.

5.2.2.3 GATEWAY CITIES EXTENSION

CBMWD and the Cities of Bell Gardens, Lynwood, and South Gate, are looking into partnering to expand CBMWD's existing system into their cities to supply more sites with recycled water. A bundled project named the Gateway Cities Project has been submitted for Proposition 84 funding. After completing planning, pre-design, and environmental documentation for this project, the partnering agencies plan to look to Proposition 1 funding for design and construction. This project will provide 455 AFY of recycled water to irrigate nine parks and schools.

Bell Gardens: CBMWD and the City of Bell Gardens are looking to construct a recycled water pipeline extension from the existing CBMWD system located on Park Lane to sites located within Bell Gardens. Currently, confirmed annual recycled water demand is estimated to be 90 AFY. CBMWD has an existing 16-inch pipeline on Park Lane before Garfield Avenue and is planning to extend a 16-inch pipeline for approximately 2,950 linear feet along Garfield Avenue from Park Lane to Florence Place, and consequently, a 12-inch pipeline for approximately 2,320 linear feet along Florence Place to Sudan Avenue in order to connect Suva Elementary School. The plan is to also add an 8-inch pipeline along Emil Avenue from Florence Place in order to connect Bell Gardens Park.

Lynwood: CBMWD and the City of Lynwood are looking into constructing a pipeline to extend from the existing CBMWD system located on Wright Road to sites located within Lynwood. Currently, confirmed annual recycled water demand is estimated to be 206 AFY. CBMWD has an 8-inch pipeline along Wright Road. CBMWD plans to extend a 12-inch pipeline for approximately 6,120 linear feet along Fernwood Avenue from Wright Road to Bullis Road and consequently a 12-inch pipeline for approximately 1,800 linear feet along Bullis Road in order to connect Lynwood City Park, Linear Park, and Lynwood City Hall Complex.

South Gate: The City of South Gate Extension will start with a 12-inch line from Burke Avenue to Alameda Street and serve Firestone Boulevard Medians, South Gate Middle School, San Gabriel Avenue Elementary, South Gate High School, Willow Elementary School, the East Los Angeles Community Education Center, and the Alameda Street Commercial Industrial Development Complex. There will be an 8-inch line along California Avenue from City Place to Southern Avenue that will serve South Gate City Hall and Cesar Chavez

State Park. The present design, for confirmed demands in the amount of 236 AFY, consist of 12-inch diameter piping for 14,000 linear feet and 8-inch diameter piping for 1,860 linear feet.

5.2.2.4 Pico Rivera Mines Avenue Extension

CBMWD is looking to extend the recycled water pipeline from its existing 12-inch and 8-inch recycled water lateral located on Mines Avenue to sites located within the City of Pico Rivera. Several potential sites with an estimated recycled water usage of 275 AFY require 5,700 linear feet of 6-inch to 8-inch diameter pipe extending from the previous Mains Avenue Phase 1B Project.

5.2.2.5 City of Monterey Park Extension

This project expands the recycled water system into the City of Monterey Park which is served by three water purveyors: City of Monterey Park, California Water Service Company, and San Gabriel Valley Water Company. The proposed expansion consists of approximately 11,500 linear feet of pipeline construction and will serve approximately 750 AFY.

5.4.2.6 Distribution System Storage Project

The existing CBMWD recycled water system is divided into three pressure zones. Zone 1 in the north is supplied from the Rio Hondo Pump Station. To the south is Zone 2, which can receive water from Zone 1 through a pressure-reducing valve or from the Cerritos Pump Station through variable frequency drives currently set to maintain system pressures. Zone 3 lies in the western portion of the service area and is supplied through the Hollydale Pump Station from Zone 2. All three pressure zones make a hydraulically closed system with no storage to buffer customer demands. Since water can be fed from Zone 1 into Zone 2, but not completely in the opposite manner, Rio Hondo Pump Station needs to be operational whenever there are demands in Zone 1 downstream of the pump station in the Pico Rivera and Montebello areas.

Operation of the recycled water system cannot be evaluated with an isolated view of only new customers due to the movement of water from one pressure zone to another and because there are two water sources. Hydraulic analysis encompasses all aspects of the recycled water system from pressure-reducing valve settings to pumping station operations. System expansion, customer changes in operations and demands can significantly alter system conditions experienced without storage.

Prospective expansion projects and demands are emerging due to water conservation measures mandated by the State of California and implemented locally within CBMWD's service area. To ensure a reliable regional recycled water supply to offset potable water demands, CBMWD is looking to implement storage in the form of storage tanks. The number, type, size, and locations for storage tanks, as well as piping and pumping needs, have yet to be determined. CBMWD is looking to complete an in-depth storage study that will include the additional demands currently being developed under related expansion projects described above.

5.3 Pomona WRP

5.3.1 Walnut Valley Water District

WVWD contracts directly with the Sanitation Districts for the purchase of recycled water, instead of receiving recycled water through the City of Pomona. In conjunction with the Sanitation Districts, WVWD has essentially completed repairing/replacing the gravity line that serves both it and the Sanitation Districts' Spadra Landfill. All but a very short portion of the gravity line between the Pomona WRP and the Spadra site has already been replaced with 24-inch cement-lined and coated steel pipe. WVWD and the Sanitation Districts are

also investigating the construction of an up to 3 million gallon storage reservoir at or near the Spadra site to serve both agencies and make use of Pomona WRP recycled water that is currently discharged to the river. According to staff of WVWD, both of these capital improvement projects are necessary to increase WVWD's use of recycled water from the Pomona WRP. In mid-2013, WVWD had its soil consultant begin evaluating the suitability of a 7-acre parcel along Valley Boulevard at the Spadra site as the location for the proposed storage tank. The "Intermediate Pad" was found to be the most suitable, and is located completely within Sanitation Districts' property. Once an agreement is in place between WVWD and the Sanitation Districts for an easement, joint use, etc., WVWD can put out an RFP for design and construction.

In December 2011, WVWD finalized an updated master plan for the future orderly expansion of its recycled water distribution system by up to an estimated 1,974 AFY through build-out in the year 2020. This Master Plan detailed the potential for expansion, which would consist of adding 167,000 feet of 6- to 20-inch pipeline, nine pump stations, and three reservoirs (a fourth one in the Master Plan has already been constructed) to the recycled water distribution system. Completion of this $33 million system expansion would be conducted in phases corresponding to the six pressure zones being served. The overall plan is contingent upon WVWD Board approval and the construction of the aforementioned storage reservoir at the Spadra site, as there are insufficient flows in the gravity distribution system as currently configured. In addition to its continued use of recycled water from the Pomona WRP, WVWD is expected to connect to the East San Gabriel Regional Recycled Water System detailed in Section 2.5.9.

5.3.2 CITY OF POMONA MASTER PLAN

The City's consultant, Carollo Engineers, completed a master plan for expanding their recycled water distribution system in November 2009. The additional demand for their entire potential customer base was estimated at 6,150 AFY. However, the estimated maximum daily demand would be 11.6 MGD, which is not available to the City from the Pomona WRP. Therefore, additional sources of water would be required if all the potential reuse sites were connected. These water sources include potable water, non-potable groundwater from existing or rehabilitated wells, increased sewage flow to the Pomona WRP (i.e., process optimization/flow equalization), and recycled water from the Inland Empire Utilities Agency (although this agency has stated that it will not be delivering recycled water to the City within the Master Plan's time horizon of 2030).

The proposed expansion of the City's recycled water distribution system was divided into 10 segments serving an ultimate demand of 2,981 AFY. Because of the high, anticipated cost of implementing the entire proposed expansion (in addition to new distribution lines, eight new pump stations, five new storage reservoirs, and four additional pumps were needed), the Master Plan recommended that only three segments be built at this time, as they were the most cost effective and could be served by the existing recycled water supply from the Pomona WRP. This recommended project would be built in four phases from 2010 to 2030 yielding an additional 1,497 AFY at an estimated capital cost of $20.7 million. The Master Plan also recommended replacing the existing pumps at the Pomona WRP with variable frequency drives prior to construction of the third segment so that more of the WRP's production could be beneficially reused with less discharge to the San Jose Creek channel. The seven remaining segments, if built, would be constructed in two phases after 2030, serving an additional 1,484 AFY of demand at an estimated capital cost of $52 million.

Independent work has already been undertaken on the delivery of recycled water from Cal Poly to Forest Lawn's Covina Hills cemetery. A potable water standby agreement was negotiated with Golden State Water Company that will allow recycled water irrigation use at this site. As part of an amendment to their recycled water agreement, Forest Lawn constructed a pump station and piping to lift recycled water from Cal Poly's recycled water reservoir up to Forest Lawn's irrigation water tanks, and has upgraded Cal Poly's irrigation water lift station to increase maximum flow rate from 3,000 to 4,000 gpm to accommodate the cemetery's demands. Forest Lawn will begin using 300 AFY of recycled water in summer 2015, which will increase

gradually until the final build-out of the cemetery occurs in the year 2160, with an ultimate projected irrigation demand of 900 AFY.

5.4 San Jose Creek WRP

5.4.1 Groundwater Recharge Program

USGVMWD, along with the San Gabriel Valley Municipal Water District (SGVMWD), had been developing a plan to replace imported State Project water (purchased either through MWD or directly) with a like amount of recycled water from the Sanitation Districts' San Jose Creek WRP West to prevent long-term groundwater overdraft of the basin. The initial proposal in the early 1990s was for transmission line running north along the San Gabriel River to the Santa Fe Spreading Grounds to deliver a long-term average of 16,000 AFY (maximum of 25,000 AFY) of tertiary treated recycled water.

Because of opposition from a nearby brewery and a California Environmental Quality Act (CEQA) lawsuit, a compromise "demonstration" recharge project was proposed that would use a maximum of 10,000 AFY of recycled water for recharge downstream of the Santa Fe Dam at five concrete drop structures in the San Gabriel River. The five, new discharge points in the San Gabriel River that would be the recharge locations for this project were identified in the June 2009 NPDES permit for the San Jose Creek WRP. Contracts for the sale of recycled water from the Sanitation Districts to USGVMWD and SGVMWD were executed in August and September 1998, respectively. However, permit action was delayed when LARWQCB staff proposed that this groundwater recharge project immediately comply with surface water human health-based criteria (California Toxics Rule, or CTR) for water bodies (i.e., the unlined San Gabriel River) that are existing or potential drinking water sources. CTR criteria for some constituents are significantly lower than Title 22 drinking water standards and are not attainable with current conventional tertiary treatment. Since that time, the designation as an existing or potential drinking water source has been removed from a number of water bodies in the Los Angeles Basin, including this portion of the San Gabriel River. CTR human health criteria for non-drinking water sources and criteria for aquatic life and all other applicable Basin Plan Objectives would be applied to the recycled water at the point of discharge to the San Gabriel River. Subsequently raised concerns about the disinfection by-product, NDMA, in recycled water had continued to prevent this project from moving forward. As such, the only way to obtain compliance with these requirements would be by the addition of advanced treatment to that portion of the recycled water to be recharged. Because of the substantial additional cost that would be incurred, the project was shelved at that time.

Interest in this project was rekindled following MWD's May 2007 cessation of all deliveries of imported water for spreading. USGVMWD, WRD, and the Sanitation Districts entered into a Memorandum of Understanding (MOU) on September 24, 2008, to develop the Groundwater Reliability Improvement Program (GRIP). As envisioned, Phase I of GRIP would consist of an advanced treatment plant (MF/RO/advanced oxidation) located at or adjacent to San Jose Creek WRP West that would produce 18,000 AFY for recharge in both the Main San Gabriel and Central groundwater basins. Phase II would increase production capacity to 46,000 AFY. In November 2010, a Joint Powers Authority (JPA) was formed by the three agencies to proceed with the project.

However, despite initial progress, the USGVMWD Board of Directors voted in March 2011 to remove their agency from the JPA due to shifting replenishment needs and cost concerns. Instead, USGVMWD has received a $150,000 grant from USBR to conduct a feasibility study to offset current interruptible imported State Water Project supplies with locally supplied recycled water. USGVMWD is finalizing design of the Indirect Reuse Replenishment Project (IRRP) that will deliver up to 10,000 AFY of highly treated recycled water for recharge of the groundwater basin. USGVMWD is in the process of completing the efforts to permit the spreading of this water for recharge at the Santa Fe Dam spreading grounds operated by the LACDPW in

conjunction with the Army Corps of Engineers. This project will include a pump station located at the Sanitation Districts' San Jose Creek WRP as well as a 9-mile transmission pipeline adjacent to the San Gabriel River. Construction is expected to break ground in 2017, with capacity planned to increase to about 15,000 AFY per year by 2035.

WRD and the Sanitation Districts are moving forward with GRIP as a 21,000 AFY project focused on replenishment at the Montebello Forebay. WRD has purchased land in Pico Rivera for the advanced treatment facilities, and the two agencies have begun working on the preliminary engineering to support the environmental documentation for the project (CEQA/NEPA).

5.4.2 La Puente Valley County Water District Master Plan

The La Puente Valley County Water District's (LPVCWD's) potable water source is groundwater and it currently pumps over its annual allotment by approximately 40%, thereby requiring them to pay replenishment fees to the basin Watermaster. In May 2011 MWH produced a recycled water master plan for LPVCWD. Environmental documentation has been completed and LPVCWD has been approved for funding from Proposition 84, while still pursuing both SRF and Proposition 1 funding. The project is proposed to be constructed in three phases, with Tetra Tech nearing completion of the design for Phase 1 (53 AFY). All three phases are expected to have a total demand of approximately 400 AFY. This project will connect to the City of Industry's main transmission system, and will supply recycled water from the City of Industry's contractual allotment.

5.5 Whittier Narrows WRP

5.5.1 City of Arcadia (USGVMWD Phase III Extension)

The City of Arcadia, along with USGVMWD, commissioned Stetson Engineers to examine the feasibility of supplying recycled water to various sites within the city. A draft report was completed in December 2006 identifying an extension of USGVMWD's distribution system from the Whittier Narrows WRP as the most feasible alternative compared with obtaining recycled water from the San Jose Creek WRP or LADWP's LA-Glendale WRP. The proposed project consists of approximately 64,100 feet of 14- and 16-inch distribution lines, a 900 HP booster pump station, and an existing 1.5 million gallon storage reservoir for an estimated cost of $7.6 million. The pipeline route is proposed to run east on Rush Street, north on Santa Anita Avenue, north along the Rio Hondo, west on Live Oak Avenue, then north again on Santa Anita to Foothill Blvd. Within the main part of Arcadia, the pipeline would form a loop going west on Foothill/Colorado Blvd., then south on Michillinda Avenue, then east on Huntington Drive back to Santa Anita. This system would provide recycled water to 23 potential customers with a total annual recycled water demand of approximately 644 AFY and a peak demand of 4.3 MGD. Another 23 sites with a total annual demand of 96 AFY were identified in the vicinity, although not adjacent to the proposed pipeline route, and would require investment in additional service laterals. The four largest sites, Santa Anita Racetrack, the Los Angeles County Arboretum, Arcadia County Park, and Santa Anita Golf Course, make up 56% of the total identified demand for water. This study did not include any potential reuse sites that might be located along the pipeline route outside of the City of Acadia. This project, designated Phase III by USGVMWD, has no specific timetable for implementation.

5.5.2 SGVWC – South El Monte Extension

The existing recycled water distribution system emanating from the Whittier Narrows WRP was built by USGVMWD, but the proposed extension into South El Monte is being designed by SGVWC. They have received Prop. 84 money and have applied for a Prop.1 grant. Design on Construction Package 1 is complete and the construction contract has been awarded to T.E. Roberts, although no Notice-to-Proceed has been issued

as of early 2016. Package 1 will connect to the existing USGVMWD recycled water distribution line on Loma Avenue, run east along Rush Street, then south on Central Avenue, then northeast on Santa Anita Avenue. The 13 identified sites for this phase have an annual demand of 72 AF. The additional proposed construction packages are projected to use a cumulative 550 AFY (including Package 1), but may only get to 150 AFY. The conceptual overview of the various phases also indicates a Package 2 connection at SJCWRP West, although the Sanitation Districts have not been approached with this proposal.

5.6 Joint Water Pollution Control Plant

5.6.1 West Basin Municipal Water District

The WBMWD's June 2009 Master Plan outlined the expansion of its recycled water system deliveries to a potential of 70,000 AFY by 2020 and to 83,000 AFY by 2030, including expansion of their Carson Regional Water Recycling Facility (CRWRF) from 6 to 20 MGD. Their study of the options found that both their pump station at the City of Los Angeles' Hyperion treatment plant, which supplies its effluent for recycling and its distribution system would require extensive expansion in order to accommodate the additional flows from its El Segundo water recycling facility to serve reuse sites in the Carson and Palos Verdes areas. One option, which could prove more cost effective, would be to supply 20% of WBMWD's future needs, or up to approximately 16,600 AFY, from the Sanitation Districts JWPCP. This option would also help WBMWD meet its contractual obligation of using recycled water of Sanitation Districts' origin for future expansions in exchange for capacity in the JWPCP ocean outfall for disposal of brine from the CRWRF. The recommended option was a new $187.8 million, 26 MGD treatment plant at JWPCP to augment WBMWD's Title 22 distribution system and supply advanced treated recycled water to such large reuse customers at the Dominguez Gap Seawater Intrusion Barrier and Tesoro's Carson refinery expansion, as well as for the Amoco and Watson cogeneration facilities. The option of using JWPCP effluent is expected to save WBMWD approximately $25 million in capital costs. The location of this new treatment plant could be at JWPCP, the CRWRF, or along the transmission line in route to a specific user or group of recycled water sites. Currently, plans for a major expansion of demands in the Carson and Harbor Area are being re-evaluated by WBMWD, along with the feasibility of a new treatment plant at the JWPCP. According to the Master Plan's recommended CIP, construction of the new treatment facilities is not scheduled until 2020-25.

5.7 Valencia and Saugus WRPs

5.7.1 Castaic Lake Water Agency

In 2002, CLWA, the regional importer and wholesaler of State Water Project water in the Santa Clarita Valley, developed an updated Recycled Water Master Plan for the use of 17,400 AFY of recycled water produced at both the Sanitation District's Valencia and Saugus WRPs by the year 2030. CLWA requires an update of the 2002 Master Plan in order to compile the latest information with regard to potential recycled water users, design of infrastructure, and the availability of recycled water to serve them. In March 2012, CLWA submitted an Integrated Regional Water Management planning grant application to DWR for the development of the Master Plan and subsequent Environmental Impact Report (EIR). CLWA is expected to enter into a new contract with the Sanitation District for the purchase and sale of recycled water to support the updated Master Plan, which is anticipated to be completed in 2016. In 2014, CLWA, along with the local purveyor Valencia Water Company, received LARWQCB approval to expand its recycled water system at the Entrada Development for landscape irrigation and to construct a recycled water fill station near CLWA's recycled water tank site for non-irrigation use.

In June 2009, CLWA began investigating the feasibility of delivering recycled water from the Sanitation Districts' Saugus WRP. This Phase 2A of the Master Plan consists of a booster pump station, several thousand

feet of pipelines and a storage reservoir. This system would deliver and estimated 511 AFY of recycled water from the Saugus WRP to the 80-acre Central Park, the River Village and Bridgeport developments, and assorted city landscaping. In June 2011, the Mitigated Negative Declaration/Environmental Assessment (MND/EA) was completed and USEPA issued a Finding of No Significant Impact for this project. In July 2011, CLWA approved the resolution adopting the MND/EA and approving the Mitigation Monitoring and Reporting Program, and a Notice of Determination was filed with the Los Angeles County Office of Clerk/Recorder and with the California State Clearinghouse. CLWA anticipates the construction of the project to be completed in 2024.

5.7.2 Newhall Ranch Development

The Newhall Land and Farming Company, a major landowner in the Santa Clarita Valley, has plans for a 12,000-acre residential/commercial development known as Newhall Ranch. A new sanitation district, the Newhall Ranch County Sanitation District, has been formed and is now a part of the Sanitation Districts of Los Angeles County. Construction of a Newhall Ranch WRP is planned to serve the sewer needs of Newhall Ranch, along with a portion of Newhall Ranch's estimated 9,545 AFY of recycled water demand.[8] During the initial development of this project, the recycled water demand is expected to be supplied by the Sanitation Districts' Valencia WRP, which may continue supplying recycled water even after full implementation of the construction and occupation of the residential project. The earliest predicted occupation of Newhall Ranch homes had been 2016, with recycled water needed for grading activities planned for 2015. However, a court challenge to the project's EIR has delayed implementation for at least 18 months.

5.8 Lancaster and Palmdale WRPs

5.8.1 Antelope Valley Regional Recycled Water Distribution Project

Sanitation Districts' staff continues to work with the cities of Lancaster and Palmdale and Los Angeles County Waterworks District 40, Antelope Valley, (Waterworks) to develop a regional "backbone" recycled water distribution system for municipal and industrial users. The proposed North Los Angeles/Kern County Regional Recycled Water Project (AV Backbone) includes facilities for the primary distribution system to provide disinfected tertiary recycled water produced from the Sanitation Districts' Palmdale and Lancaster WRPs and from Rosamond Community Services District's Rosamond WRP to end users in the Antelope Valley Region. The Project is being built in phases and portions, with the Division Street Corridor and its extensions to Columbia Way and to City Park already constructed and partially implemented in the City of Lancaster using tertiary treated recycled water produced by the Lancaster WRP (detailed in Section 4.1.4).

The City of Palmdale and Waterworks have entered an agreement to design, construct, and implement a southern segment of the AV Backbone. The main backbone pipeline will originate at the Palmdale WRP, travel west down Rancho Vista Blvd., then north on 10th St. East, west on Avenue O-8 and north along Sierra Highway, terminating at Columbia Way and connecting to the extension of the Division Street Corridor (described above). The Columbia Way lateral would serve a proposed power plant project, a 645-megawatt (recently revised from 570 megawatts) electric generating facility, currently projected to begin operation in FY19-20. Another portion of the main backbone pipeline will head west from Sierra Highway, along Avenue O, to the Amargosa Creek, and roughly parallel the creek to reach the Waterworks' tank site facility next to the Antelope Valley Freeway, at 10th St. West and Avenue O-12. Facilities will also include the pump station and forebay tank to be located at the Palmdale WRP, as well as a storage tank at the Waterworks' tank site. This segment of the backbone system has been designed and is planned for completion at nearly the same time as

8 "Valencia Water Company Reclaimed Water Master Plan for Newhall Ranch", Dexter Wilson Engineering, Inc., January 2006.

the completion of the power plant, whose funding will also finance the recycled water pipeline. The Palmdale Hybrid Power Plant (PHPP) project was approved by the California Energy Commission (CEC) in August 2011, purchased by Summit Power Group LLC in May 2012, and is currently pending CEC approval of a petition to amend the technology and design of the power plant, as well as change the name of the project to the Palmdale Energy Project (PEP). Once initiated, construction of the PEP is estimated to take about 30 months. The PEP is projected to use up to 400 AFY (recently reduced from 4,300 AFY) of recycled water, which may be distributed by either by the above-mentioned City of Palmdale/Waterworks pipeline or the Division Street Corridor.

5.8.2 Palmdale Recycled Water Authority (PRWA)

The PRWA was created in 2012 through an agreement between the City of Palmdale and the Palmdale Water District (PWD) to jointly study, promote, develop, distribute, construct, install, finance, use, and manage recycled water resources created by the Sanitation Districts' Palmdale and Lancaster WRPs for any and all reasonable and beneficial uses, including irrigation and recharge, and to finance the acquisition and construction or installation of recycled water facilities, recharge facilities and irrigation systems. The City of Palmdale allocated all of its contractual recycled water rights to the PRWA.

The PWRA has a contract with the Sanitation Districts for the purchase of up to 2,000 AFY of recycled water from the Palmdale and Lancaster WRPs. The PWRA is planning Phase 2 of its recycled water distribution project, which would extend the existing recycled water distribution line along 30th St. East from the Palmdale WRP to Mc Adam Park, south to Avenue R-8 then east until 55th St. East with laterals to four parks: Palmdale Oasis, Yellen, and Domenic Massari. These parks are expected to use approximately 1,000 to 1,200 AFY. The PWRA also plans on using recycled water on the numerous (150 to 200) Landscape Maintenance Districts (LMDs) and five elementary schools along the route of the recycled water line. In addition, any schools or businesses that are easily accessible to this water will also be connected. The PWRA and Los Angeles County Waterworks are currently planning for the portion of the Backbone project that will connect the Palmdale WRP to the proposed PHPP (discussed in Section 5.8.1, above). The PWRA installed a temporary pump station that began delivering recycled water to McAdam Park in October 2012. The PWRA is also working on implementing a truck filling station for street sweeping using recycled water. The entire project is expected to be completed in the spring of 2018.

5.9 Conceptual Water Recycling Projects

The most recent statewide water crisis that first began in 2006 and started up again in 2012 spurred numerous entities into giving more serious consideration to water recycling in their service areas. This sense of urgency was further stimulated by the passage of SB 7 in 2009 that requires urban water agencies to reduce per capita water consumption by 20 percent by the year 2020 (commonly referred to as the "20 x 2020 Plan"). Several ambitious, large-scale water recycling projects involving groundwater replenishment continue to be investigated. The list of conceptual projects below is not meant to be exhaustive. Rather it is a listing of the most likely or ambitious projects the Sanitation Districts are currently tracking.

5.9.1 MWD Advanced Treatment Demonstration Plant at JWPCP

In FY 14-15, JWPCP provided primary and secondary treatment to approximately 263.13 MGD (294,854 AFY) of wastewater prior to discharge through outfall tunnels to the Pacific Ocean, with water recycling at the facility being limited to in-plant uses. MWD and the Sanitation Districts have partnered to study the potential for a regional, indirect potable reuse program to advance treat as much as 150 MGD (168,100 AFY) of treated wastewater that is currently discharged to the ocean. Implementation of such a large-scale regional reuse program could provide MWD with a significant supply of reliable, drought-resistant water to supplement

imported raw water supplies and would be consistent with the enhanced regional approach currently being considered in their Integrated Resources Plan (IRP). Such a project would involve complex interagency agreements, extensive regulatory approvals, public outreach, and considerable capital costs.

From a technical standpoint, this project would require new advanced treatment facilities (e.g., MF/RO/advanced oxidation), a regional distribution system to groundwater basins (e.g., Montebello Forebay and/or the Main San Gabriel Basin), and injection and extraction wells, modeled somewhat after the Groundwater Replenishment System in Orange County. Pilot scale testing of treatment systems was performed, funded with a $330,000 grant from the USBR to demonstrate the technology. Pilot scale testing concluded in June 2012 and a final report was submitted to the USBR in September 2012. MWD and the Sanitation Districts entered into an agreement for the construction of a 1 MGD demonstration plant at JWPCP to be completed by 2018.

5.9.2 Downey/Cerritos Advanced Treatment Plant for Recharge

The cities of Downey and Cerritos had begun a joint investigation of a potential project to take 7.1 MGD (8,000 AFY) of effluent from the Los Coyotes WRP, treat it to an advanced level (MF/RO/UV), and pipe approximately 6,000 AFY (after brine losses) north to the Montebello Forebay where it will be stored underground for the exclusive use by those cities. In addition to technical, financial, and permitting obstacles, implementation of this project would require that the existing Basin Adjudication be significantly revised. No significant progress has been made on this project to date.

5.9.3 Scalping Plants

The Sanitation Districts have been contacted regarding scalping plants in both the JOS and SCV systems. An evaluation of these proposals is currently underway. In general, there are several obstacles to overcome, including technical, financial, permitting, and siting. In addition, construction of scalping plants will decrease the amount of water available at the already constructed downstream WRPs. This poses a problem because recycled produced at these downstream WRPs has already been fully allocated by contracts.

5.9.4 Palmdale Regional Groundwater Recharge and Recovery Project

The PWD is planning a groundwater banking, storage, and extraction program, the Palmdale Regional Groundwater Recharge and Recovery Project (PRGRRP), which intends to recharge the groundwater by surface spreading a blend of recycled water produced at the Palmdale WRP and State Water Project imported water at a site in northeast City of Palmdale. PWD completed its feasibility study in February 2015 and intends to complete a CEQA analysis, Preliminary Design Report, and the Title 22 Engineering Report in the next fiscal year.

LIST OF ABBREVIATIONS

AF	acre-foot
AFY	acre-foot per year
AVTTP	Antelope Valley Tertiary Treatment Plant
AWWARF	American Water Works Association Research Foundation
BOD	biological oxygen demand
CBMWD	Central Basin Municipal Water District
CDPH	California Department of Public Health
CDM	Camp/Dresser/McKee
CEQA	California Environmental Quality Act
CLWA	Castaic Lake Water Agency
COD	chemical oxygen demand
CRWRF	Carson Regional Water Recycling Facility
CTR	California Toxics Rule
DDW	State Division of Drinking Water (formerly CDPH)
DIP	ductile iron pipe
EIR	Environmental Impact Report
EPA	United States Environmental Protection Agency
FMP	Farm Management Plan
FY	fiscal year
GAC	granular activated carbon
gpm	gallons per minute
HP	horsepower
IRRP	Indirect Reuse Replenishment Project
JOS	Joint Outfall System
JPA	Joint Powers Authority
JWPCP	Joint Water Pollution Control Plant
LACDPR	Los Angeles County Department of Parks and Recreation
LACDPW	Los Angeles County Department of Public Works
LADWP	City of Los Angeles Department of Water and Power
LAWA	Los Angeles World Airports
LBWD	Long Beach Water Department
LMD	Landscape Maintenance District
LPVCWD	La Puente Valley County Water District
LVLAWTF	Leo Vander Lans Advanced Water Treatment Facility
MBR	membrane bioreactor

MF/RO	microfiltration/reverse osmosis
MGD	million gallons per day
MND/EA	Mitigated Negative Declaration/Environmental Assessment
MRF	Materials Recovery Facility
MTA	Metropolitan Transportation Authority
MWD	Metropolitan Water District of Southern California
MWH	Montgomery-Watson-Harza
NDMA	N-nitrosodimethylamine
NDN	nitrification-denitrification
O&M	operation and maintenance
OCWD	Orange County Water District
PERG	Puente Hills Energy Recovery from Landfill Gas Facility
PHPP	Palmdale Hybrid Power Plant
PVC	polyvinyl chloride
PRGRRP	Palmdale Regional Groundwater Recharge and Recovery Project
PWD	Pomona Water Department
PRWA	Palmdale Recycled Water Authority
RWD	Rowland Water District
RWQCB	Regional Water Quality Control Board
SCE	Southern California Edison
SCVJSS	Santa Clarita Valley Joint Sewerage System
SJCWRP	San Jose Creek Water Reclamation Plant
SGVMWD	San Gabriel Valley Municipal Water District
SGVWC	San Gabriel Valley Water Company
SRF	State Revolving Funds
SWS	Suburban Water Systems
THUMS	Texaco, Humboldt, Union, Mobil, Shell
TOC	total organic carbon
TVMWD	Three Valleys Municipal Water District
USBR	United States Bureau of Reclamation
USGS	United States Geologic Survey
USGVMWD	Upper San Gabriel Valley Municipal Water District
UV	ultraviolet light disinfection
WDR	waste discharge requirements
WRD	Water Replenishment District of Southern California
WRP	water reclamation plant
WVWD	Walnut Valley Water District

APPENDIX A

CHRONOLOGY OF SANITATION DISTRICTS' REUSE ACTIVITIES

July 1927	The Tri-City Plant serving the cities of Pomona, Claremont, and La Verne is placed into service and the effluent is used for irrigation of crop and pasture land by the Diamond Bar Ranch Company and the Northside Water Company.
December 1941	The 0.36 MGD Lancaster WRP is placed into operation.
April 1949	Sanitation Districts' Report upon the Reclamation of Water from Sewage and Industrial Wastes in Los Angeles County, California is published which demonstrated the feasibility of water reclamation and eventual reuse.
January 1952	The Lancaster WRP is expanded from 0.36 to 1.35 MGD.
September 1953	The 0.75 MGD Palmdale WRP is placed into operation.
September 1954	Sanitation Districts assumes operations of Tri-City Plant.
November 1958	The Palmdale WRP is expanded from 0.75 to 2.5 MGD.
November 1958	Sanitation Districts' A Report Upon the Potential Reclamation of Sewage Now Wasting to the Ocean in Los Angeles County outlining the financing and construction of the Whittier Narrows WRP is published.
May 1959	The first direct deliveries of effluent from the Palmdale WRP for alfalfa irrigation begin.
October 1959	The new 6.5 MGD Lancaster WRP is constructed and placed into operation. The original plant ceased operation two months later.
1960	Edwards Air Force Base constructs "C" dike on Rosamond Dry Lake to impound effluent from the Lancaster WRP, forming Piute Pond.
July 1962	The 15 MGD Whittier Narrows WRP is placed into operation, becoming first of the "upstream" treatment plants in the Sanitation Districts' JOS.
July 1962	The 0.25 MGD Saugus WRP is placed into operation, with effluent being discharged into the Santa Clarita River.
August 1962	The first deliveries of recycled water from the Whittier Narrows WRP begin for groundwater replenishment in the Montebello Forebay of the Central Basin.
November 1962	The Angeles Crest Development Company completes the 0.1 MGD La Cañada WRP on the site of the La Cañada-Flintridge Country Club to treat wastewater produced by the homes surrounding the golf course. Recycled water produced by this facility is still used as a source of supply for the lakes and the irrigation system on the golf course.

July 1963	The Sanitation Districts produce A Plan for Water Re-use that studied the reclamation potential for the entire JOS and proposed the construction of 11 water reclamation facilities. However, this plan was only partially implemented.
August 1964	The Saugus WRP is expanded from 0.25 to 0.75 MGD.
October 1965	The Saugus WRP is expanded from 0.75 to 1.5 MGD.
June 1966	The 4 MGD Pomona WRP is constructed to replace Tri-City Plant.
September 1966	The La Cañada WRP is purchased by the Sanitation Districts.
July 1967	The 1.5 MGD Valencia WRP is placed into operation, with effluent begin discharged into the Santa Clarita River.
February 1968	The Saugus WRP is expanded from 1.5 to 5 MGD.
May 1968	The Central and West Basin Water Replenishment District (now the Water Replenishment District of Southern California, or WRD) contracts for the purchase of recycled water from the proposed San Jose Creek WRP.
June 1969	The County of Los Angeles constructs the 0.6 MGD Antelope Valley Tertiary Treatment Plant (AVTTP) to further treat Lancaster WRP effluent for use at Apollo Lakes Regional County Park, which opened in November 1972.
March 1970	The Pomona WRP is expanded from 4 to 10 MGD.
October 1970	The 12.5 MGD Los Coyotes WRP is placed into operation.
May 1971	The La Cañada WRP is expanded from 0.1 to 0.2 MGD.
June 1971	The 37.5 MGD San Jose Creek WRP is placed into operation.
September 1972	The Palmdale WRP is expanded from 2.5 to 3.1 MGD.
May 1973	The 12.5 MGD Long Beach WRP is placed into operation.
December 1973	The first direct deliveries of recycled water from the Pomona WRP begin through the Pomona Water Department (PWD) to Cal Poly Pomona.
June 1975	The Los Coyotes WRP is expanded from 12.5 to 37.5 MGD.
April 1976	The Valencia WRP is expanded from 1.5 to 4.5 MGD.
February 1977	The Sanitation Districts' Pomona Virus Study final report is published, demonstrating that direct filtration (adding coagulant just prior to inert media filters) was as effective at removing virus from secondary effluent as coagulation followed by a separate flocculation basin and then filtration. This led to the construction of effluent filters at the upstream WRPs in the late 1970s. The WRPs were then classified as tertiary treatment facilities.

June 1978	The first direct deliveries of recycled water from the San Jose Creek WRP begin with the adjacent California Country Club.
October 1978	Revised wastewater reclamation regulations are adopted by the California Department of Health Services (now California Division of Drinking Water, or DDW) as Title 22 of the California Code of Regulations. The effluent from the Sanitation Districts' tertiary treatment plants can be used for all of the approved applications contained in these regulations.
November 1978	The first direct deliveries of recycled water from the Los Coyotes WRP begin through the cities of Cerritos and Bellflower with the Ironwood 9 Golf Course and Caruthers Park, respectively.
October 1979	The first industrial use of recycled water occurs as Garden State Paper (later Blue Heron Paper Company) begins to use more than 3 MGD of Pomona WRP effluent for recycling old newspapers.
August 1980	The first direct deliveries of recycled water from the Long Beach WRP begin through the City of Long Beach Water Department (LBWD) with El Dorado Park West and El Dorado Golf Course.
January 1981	Contract signed with City of Los Angeles Department of Airports (now Los Angeles World Airports, or LAWA) for the use of recycled water from the Palmdale WRP for tree irrigation and effluent disposal.
May 1981	Agreement is signed requiring the maintenance of 200 acres of wetlands at Piute Pond for use by waterfowl migrating along the Pacific Flyway migratory route.
April 1982	The Orange and Los Angeles Counties (OLAC) Water Reuse Study is published, which detailed numerous potential recycled water distribution system projects, many of which were subsequently constructed in the Sanitation Districts' service area and elsewhere.
October 1982	The San Jose Creek WRP is expanded from 37.5 to 62.5 MGD.
August 1983	The City of Industry completes its 7,100 gpm recycled water pump station at the San Jose Creek WRP and begins deliveries of recycled water to the Industry Hills Recreation Area.
January 1984	LBWD's North Long Beach recycled water distribution system is completed.
March 1984	The Sanitation Districts publish the Health Effects Study. This study determined that the recharge of recycled water into the groundwater drinking supply of the Central Basin did not adversely affect in a statistically significant way the health of people ingesting up to 15% recycled water in regards to gastrointestinal disease and cancers or birth defects. It also determined that recharge with recycled water was not adversely affecting the groundwater quality of the Central Basin.
May 1984	Daily average reuse flows in the Sanitation Districts' service area exceed 70 MGD for the first time.
June 1984	The Long Beach WRP is expanded from 12.5 to 25 MGD.
March 1986	LBWD's South Long Beach recycled water distribution system is completed.

May 1986	Deliveries of recycled water from the Pomona WRP begin to Walnut Valley Water District (WVWD) (purchased from PWD).
January 1987	The Saugus WRP's treatment process is upgraded to tertiary with the addition of dual-media pressure filters.
March 1987	The Los Angeles RWQCB adopts Board Order No. 87-40, which permits the increase in the use of recycled water for groundwater recharge in the Montebello Forebay from 32,700 to 50,000 acre-feet per year (AFY).
December 1987	The City of Cerritos completes its 14,800 gpm pump station at the Los Coyotes WRP and expands delivery of recycled water throughout the city.
May 1988	Daily average reuse flows in the Sanitation Districts' service area exceed 80 MGD for the first time.
June 1988	Deliveries of recycled water from the Lancaster WRP begin to Nebeker Ranch for alfalfa irrigation.
September 1988	The Valencia WRP is expanded from 4.5 to 7.5 MGD.
December 1988	Norman's Nursery moves from the site of the Stage III expansion of the San Jose Creek WRP to a site next to the Whittier Narrows WRP, using recycled water from the latter facility.
February 1989	The Palmdale WRP is expanded from 3.1 to 6.5 MGD.
June 1989	Daily average reuse flows in the Sanitation Districts' service area exceed 90 MGD for the first time, and the running 12-month average daily reuse flows exceed 60 MGD.
August 1989	Deliveries of recycled water from the Los Coyotes WRP begin to the City of Lakewood through the City of Cerritos' recycled water distribution system.
November 1989	The Lancaster WRP is expanded from 6.5 to 8 MGD.
June 1991	The Pomona WRP is expanded from 10 to 15 MGD.
September 1991	The LARWQCB adopts Board Order No. 91-100, which increases the amount of recycled water for groundwater recharge in the Montebello Forebay up to 60,000 AFY in any one year (150,000 acre-feet (AF) in any three-year period).
October 1991	The Saugus WRP is expanded from 5 to 6.5 MGD with the completion of flow equalization facilities.
February 1992	Central Basin Municipal Water District (CBMWD) constructs its Century (E. Thornton Ibbetson) recycled water distribution system (Century System) and begins delivery of recycled water from the Los Coyotes WRP through the City of Cerritos pump station.
December 1992	The Lancaster WRP is expanded from 8 to 10 MGD.
January 1993	The San Jose Creek WRP is expanded from 62.5 to 100 MGD with the completion of the Stage III expansion.

July 1993	The Palmdale WRP is expanded from 6.5 to 8 MGD.
August 1993	Daily average reuse flows in the Sanitation Districts' service area exceed 100 MGD for the first time, setting a record at 113 MGD.
February 1994	The running 12-month daily average reuse flows exceed 70 MGD for the first time.
April 1994	The running 12-month daily average reuse flows exceed 75 MGD for the first time.
May 1994	The running 12-month daily average reuse flows exceed 80 MGD for the first time.
July 1994	CBMWD constructs the Rio Hondo (Esteban Torres) recycled water pump station and distribution system (Rio Hondo System), which was interconnected to the CBMWD Century System. For the first time, two different WRPs (Los Coyotes and San Jose Creek) are used to supply recycled water to the same regional distribution system.
November 1994	Deliveries of recycled water from the Valencia WRP begin to the City of Santa Clarita via water trucks for irrigation of city-owned trees and parkways. This activity is extended to the Saugus WRP in March 1995; however, this practice ends in September 1995.
December 1994	The Valencia WRP is expanded from 7.5 to 11 MGD
June 1995	LBWD restores recycled water service to the THUMS project on Island White for oil field repressurization.
December 1995	Sanitation Districts complete the Plan for Beneficial Use of Recycled Water, which identifies impediments to expanding water reuse, along with solutions and potential new users.
December 1995	Deliveries of recycled water from the Pomona WRP begin to the Spadra Landfill and the adjacent Gas-to-Energy Facility (SPERG).
February 1996	An outfall trunk sewer for waste activated sludge disposal and excess storm flows was completed that connected the La Cañada WRP with the main sewer system in the Los Angeles Basin, officially making this plant a JOS facility.
June 1996	The Valencia WRP is expanded from 11 to 13.5 MGD
July 1996	The Palmdale WRP is expanded from 8 to 15 MGD.
December 1996	RAND Corporation publishes its first epidemiological study, commissioned by WRD, of the health effects associated with the consumption of recycled water that had been used to augment the surface recharge of the Central Basin aquifer. There was no statistical evidence that indicated that recycled water consumed in this manner adversely impacted human health in regards to certain cancers and gastrointestinal diseases.
May 1997	The Lancaster WRP is expanded from 10 to 16 MGD.
May 1997	The LARWQCB readopts all of the Sanitation Districts' reuse permits that had been previously issued in the 1980s.

November 1997	Following years of delays, recycled water deliveries finally begin from the San Jose Creek WRP to the Puente Hills Landfill and the adjacent Gas-to-Energy Facility (PERG).
June 1998	Rose Hills Memorial Park begins receiving recycled water from the San Jose Creek WRP through the Puente Hills distribution system.
October 1999	RAND Corporation publishes its second epidemiological study, commissioned by the WRD, of the health effects associated with the consumption of Central Basin groundwater that had been augmented by the surface recharge of recycled water. There was no statistical evidence indicating that recycled water consumed in this manner adversely impacted human health in regards to certain birth outcomes.
December 2000	CDPH (now DDW) adopts revised Title 22 Water Recycling Criteria that contains an expanded list of approved uses of recycled water.
June 2001	The San Jose Creek WRP produces over 100,000 AF of recycled water during a fiscal year for the first time.
March 2002	Antelope Valley Farms begins installing center pivot irrigation systems in order to make commercial use of Palmdale WRP effluent on land leased from LAWA by Sanitation Districts.
January 2003	Rowland Water District (RWD) takes over that portion of WVWD's recycled water distribution system that lies within the RWD service area.
February 2003	WRD completes construction of the Leo J. Vander Lans Treatment Facility and begins using Long Beach WRP effluent for process testing.
May 2003	The Valencia WRP is expanded from 13.5 to 17 MGD with the completion of additional aeration tanks.
June 2003	The Upper San Gabriel Valley Municipal Water District (USGVMWD) begins delivery of recycled water from the San Jose Creek WRP through the CBMWD Rio Hondo System.
August 2003	The first direct deliveries of recycled water from the Valencia WRP begin through the Castaic Lake Water Agency (CLWA) with the Tournament Players Club golf course. This is the first permanently plumbed reuse site in the Santa Clarita Valley.
February 2005	Deliveries of recycled water begin from the San Jose Creek WRP to the Puente Hills Materials Recovery Facility (MRF).
May 2005	The Valencia WRP is expanded from 17 to 21.6 MGD with the completion of the Stage V expansion.
October 2005	Recycled water deliveries through the CBMWD's Century System are extended to the City of Vernon with the start-up of the Malburg Generation Station power plant.
October 2005	Deliveries of recycled water begin from the Leo J. Vander Lans Treatment Facility to the Alamitos Seawater Intrusion Barrier for injection.

March 2006	The Lahontan RWQCB adopts a master reuse permit allowing recycled water produced at the Lancaster WRP to be used at the City of Lancaster's Division Street Corridor.
August 2006	After extensive retrofitting, a large section of the lower portion of Rose Hills Memorial Park is connected to the USGVMWD recycled water distribution system, making this site one of the largest direct users of the Sanitation Districts' recycled water.
September 2006	USGVMWD begins deliveries of recycled water from the Whittier Narrows WRP to the Whittier Narrows Recreation Area.
December 2006	The Lancaster WRP begins deliveries of recycled water from to the Lancaster Eastern Agricultural Site for agricultural-related reuse.
February 2007	A 1 MGD pilot membrane bioreactor (MBR) plant begins operation at the Lancaster WRP, supplying tertiary treated effluent to the Sanitation Districts' Eastern Agricultural Site.
February 2007	The Sanitation Districts adopt the last of its Water Recycling Ordinances for its various service areas that allow it to govern the use of its recycled water supplies.
March 2007	One of the Sanitation Districts' largest non-potable users, Blue Heron Newsprint, ceases operations and stops receiving its usual 3 MGD of recycled water from the Pomona WRP.
May 2007	MWD ceases all deliveries of imported water for groundwater replenishment, increasing the demand for recycled water.
November 2007	The Sanitation Districts and the WVWD sign an agreement for the direct sale of recycled water from the Pomona WRP.
January 2008	The Sanitation Districts and Los Angeles County Waterworks District No. 40 sign an agreement for the sale of 13,500 AFY of recycled water from the Lancaster and Palmdale WRPs.
March 2008	The Sanitation Districts and the City of Lancaster sign an agreement for the sale of 950 AFY of recycled water from the Lancaster and Palmdale WRPs.
July 2008	The Sanitation Districts adopt "Rules and Regulations" to regulate the use of its recycled water supplies.
August 2008	The Sanitation Districts initiate the Reuse Site Supervisor Training Program.
September 2008	The Sanitation Districts, USGVMWD, and WRD sign a Memorandum of Understanding to contract with MWH to study the feasibility of advanced treatment at the San Jose Creek WRP for increased groundwater recharge in both the Central and Main San Gabriel basins.
January 2009	Deliveries of tertiary treated recycled water from the Lancaster WRP begin to the City of Lancaster.
April 2009	The LARWQCB adopts a general reuse permit allowing for the use of recycled water for non-irrigation purposes.

April 2009	LARWQCB revises the 1991 Montebello Forebay recharge permit to eliminate the existing annual and three-year total quantity limits (60,000 and 150,000 AF, respectively), and rely on a running 5-year average recycled water contribution of 35%. This change is expected to allow for approximately 5,000 AFY more of recycled water to be recharged.
April 2009	A 24-inch valve was installed between chlorine contact chambers nos. 2 and 3 at the Long Beach WRP to increase recycled water supply to LBWD.
June 2009	The Lahontan RWQCB replaces the Lancaster master reuse permit with a new master permit that allows for an expanded area of reuse and additional types of reuse.
July 2009	Deliveries of recycled water from the San Jose Creek WRP begin to RWD through the City of Industry distribution system.
July 2009	The Sanitation Districts and the City of Palmdale sign an agreement for the sale of 2,000 AFY of recycled water from the Lancaster and Palmdale WRPs.
December 2009	The Lahontan RWQCB again replaces the Lancaster WRP master reuse permit with a new master permit that allows for an expanded list of permitted reuse types.
June 2010	The Sanitation Districts and California County Club sign a new agreement for the sale of 525 AFY of recycled water from the San Jose Creek WRP.
August 2010	The City of Long Beach Department of Public Works began using recycled water this month for street sweeping and sewer flushing under the LARWQCB's new, region-wide non-irrigation reuse permit.
December 2011	The Palmdale WRP conversion to tertiary treatment is completed.
January 2012	The Lahontan RWQCB adopts a master reuse permit allowing recycled water produced at the Palmdale WRP.
May 2012	The landscaping around the Parker Canyon Storage Reservoir was connected to the WVWD distribution system, becoming the Sanitation Districts' 700th recycled water customer.
July 2012	The Lancaster WRP conversion to tertiary treatment is completed.
July 2012	USGVMWD completes it Phase II-B recycled water distribution system in the Suburban Water Systems service area and begins serving reuse sites in the City of West Covina.
October 2012	The City of Palmdale completes the first portion of its planned recycled water distribution system and begins deliveries to McAdam Park.
May 2013	LARWQCB revises the 1991 Montebello Forebay recharge permit allow for compliance with the recycled water contribution of 35% on a running 10-year average.
June 2013	For the first time, the Sanitation Districts' recycled water program exceeds 100,000 AFY in beneficial reuse in any fiscal year period.

July 2013	The new contract for the sale of recycled water to WRD went into effect. This contract includes recycled water produced at the San Jose Creek, Whittier Narrows and Pomona WRPs delivered for groundwater recharge.
March 2014	The City of Lancaster connects the first of its large (>100 AFY) planned recycled water users and begins deliveries to City Park.
April 2014	LARWQCB increases the allowable recycled water contribution in the Montebello Forebay to 45% based on a running 10-year average.
June 2014	For the second fiscal year in a row, the Sanitation Districts' recycled water program exceeds 100,000 AFY in beneficial reuse.

APPENDIX B

RECYCLED WATER QUALITY FROM SANITATION DISTRICTS' TERTIARY WRPS

TABLE B-1
LONG BEACH WATER RECLAMATION PLANT
RECYCLED WATER QUALITY, FY 2014-15

Constituent	Units	Mean	Maximum	Minimum
pH		7.42	7.7	6.8
Turbidity	NTU	0.68	1.10	0.50
Total Coliform	org./100 ml	<1	2	<1
Fecal Coliform	org./100 ml	<1	1	<1
Temperature	deg. F	78.7	86.2	72.0
Suspended Solids	mg/L	<2.5	<2.5	<2.5
Settleable Solids	ml/L	<0.1	<0.1	<0.1
Total Dissolved Solids	mg/L	650	774	556
Total BOD	mg/L	<3.0	<3.0	<3.0
Ammonia Nitrogen	mg/L	1.14	2.50	0.60
Organic Nitrogen	mg/L	1.59	3.05	0.556
Nitrate Nitrogen	mg/L	6.70	7.22	6.16
Nitrite Nitrogen	mg/L	0.124	0.360	0.034
Fluoride	mg/L	0.667	0.708	0.634
Boron	mg/L	0.31	0.35	0.27
Cyanide	µg/L	<5.0	<5.0	<5.0
Chloride	mg/L	124	146	112
Sulfate	mg/L	115	174	69
Total Hardness	mg/L	200	292	147
Total Alkalinity	mg/L	183	236	166
Antimony	µg/L	0.58	0.66	0.55
Arsenic	µg/L	3.39	3.75	2.67
Barium	µg/L	69.6	97.0	44.5
Beryllium	µg/L	<0.25	<0.25	<0.25
Cadmium	µg/L	<0.20	<0.20	<0.20
Total Chromium	µg/L	0.31	0.40	0.26
Hexavalent Chromium	µg/L	0.04	0.071	0.02
Copper	µg/L	2.07	3.42	1.48
Lead	µg/L	0.11	0.17	0.06
Mercury	µg/L	0.00083	0.0013	0.00062
Nickel	µg/L	1.28	1.35	1.16
Selenium	µg/L	0.46	0.63	0.24
Silver	µg/L	<0.20	<0.20	<0.20
Thallium	µg/L	<0.25	<0.25	<0.25
Zinc	µg/L	39.7	78.9	29.2
Detergents (MBAS)	mg/L	<0.10	0.13	<0.10
Oil and Grease	mg/L	<4.6	<4.7	<4.3
Conductivity	µmhos/cm	1021	1170	808

TABLE B-2
LOS COYOTES WATER RECLAMATION PLANT
RECYCLED WATER QUALITY, FY 2014-15

Constituent	Units	Mean	Maximum	Minimum
pH		7.32	7.6	7.0
Turbidity	NTU	0.70	1.30	0.40
Total Coliform	org./100 ml	<1	4	<1
Fecal Coliform	org./100 ml	<1	<1	<1
Temperature	deg. F	80.5	88.0	73.0
Suspended Solids	mg/L	<2.5	<2.5	<2.5
Settleable Solids	ml/L	<0.1	<0.1	<0.1
Total Dissolved Solids	mg/L	817	884	743
Total BOD	mg/L	<3.0	3.7	1.6
Ammonia Nitrogen	mg/L	1.825	4.5	0.787
Organic Nitrogen	mg/L	0.995	2.81	0.292
Nitrate Nitrogen	mg/L	6.29	8.31	4.63
Nitrite Nitrogen	mg/L	0.069	0.129	0.032
Fluoride	mg/L	0.488	0.536	0.455
Boron	mg/L	0.40	0.45	0.36
Cyanide	mg/L	<3.31	<5.0	1.28
Chloride	mg/L	175	192	157
Sulfate	mg/L	185	216	165
Total Hardness	mg/L	267	320	238
Total Alkalinity	mg/L	207	266	181
Antimony	µg/L	2.14	2.51	1.95
Arsenic	µg/L	0.90	0.98	0.79
Barium	µg/L	55.6	60.4	48.5
Beryllium	µg/L	<0.25	<0.25	<0.25
Cadmium	µg/L	<0.20	<0.20	<0.20
Total Chromium	µg/L	0.72	1.14	0.55
Hexavalent Chromium	µg/L	0.03	0.035	0.02
Copper	µg/L	1.91	4.43	1.36
Lead	µg/L	0.16	0.17	0.15
Mercury	µg/L	0.0014	0.0017	0.00053
Nickel	µg/L	3.62	3.98	3.41
Selenium	µg/L	0.34	0.49	0.23
Silver	µg/L	<0.20	<0.20	<0.20
Sodium	mg/L	203	218	188
Thallium	µg/L	<0.250	<0.25	<0.25
Zinc	µg/L	38.2	43.6	29.7
Detergents (MBAS)	mg/L	<0.11	0.14	<0.10
Oil and Grease	mg/L	<4.5	<5.0	<4.3
Conductivity	µmhos/cm	1386	1610	1110

TABLE B-3
POMONA WATER RECLAMATION PLANT
RECYCLED WATER QUALITY, FY 2014-15

Constituent	Units	Mean	Maximum	Minimum
pH		7.25	7.4	7.1
Turbidity	NTU	0.51	1.40	0.25
Total Coliform	org./100 ml	<1	8	<1
Fecal Coliform	org./100 ml	<1	<1	<1
Temperature	deg. F	78.6	87.0	69.5
Suspended Solids	mg/L	<2.5	2.7	<2.5
Settleable Solids	ml/L	<0.1	<0.1	<0.1
Total Dissolved Solids	mg/L	604	640	560
Total COD	mg/L	<25.9	30.2	<25.0
Total BOD	mg/L	<3.0	4.0	<3.0
Total Organic Carbon	mg/L	6.80	8.32	6.23
Ammonia Nitrogen	mg/L	1.634	4.90	0.80
Organic Nitrogen	mg/L	<1.362	4.44	<0.200
Nitrate Nitrogen	mg/L	7.00	8.57	4.12
Nitrite Nitrogen	mg/L	<0.173	0.510	<0.030
Fluoride	mg/L	0.319	0.354	0.283
Boron	mg/L	0.28	0.34	0.23
Cyanide	µg/L	3.2	<5.0	1.8
Chloride	mg/L	138	144	134
Sulfate	mg/L	85.8	101	70.1
Total Alkalinity	mg/L	165	179	152
Total Hardness	mg/L	219	252	194
Calcium	mg/L	72.2	76.3	66.2
Magnesium	mg/L	14.4	15.2	13.5
Antimony	µg/L	0.40	0.45	0.37
Arsenic	µg/L	1.09	1.17	1.00
Barium	µg/L	43.5	44.4	35.5
Beryllium	µg/L	<0.21	<0.25	<0.10
Cadmium	µg/L	<0.118	<0.20	0.039
Total Chromium	µg/L	1.02	1.16	0.81
Hexavalent Chromium	µg/L	0.06	0.12	0.03
Copper	µg/L	4.26	5.47	3.33
Iron	µg/L	32.2	38.1	24.4
Lead	µg/L	0.37	0.50	0.24
Manganese	µg/L	7.41	8.15	4.96
Mercury	µg/L	0.0013	0.0016	0.0010
Nickel	µg/L	1.90	2.19	1.56
Potassium	mg/L	15.4	16.6	13.0
Selenium	µg/L	0.50	0.58	0.41
Silver	µg/L	<0.20	<0.20	0.03
Sodium	mg/L	109	119	102
Thallium	µg/L	<0.25	<0.25	<0.25
Zinc	µg/L	61.4	67.5	48.6
Detergents (MBAS)	mg/L	<0.12	0.25	<0.10
Oil and Grease	mg/L	<4.5	<4.8	<4.3
Conductivity	µmhos/cm	962	1100	787

TABLE B-4
SAN JOSE CREEK WATER RECLAMATION PLANT EAST
RECYCLED WATER QUALITY, FY 2014-15

Constituent	Units	Mean	Maximum	Minimum
pH		7.07	7.3	6.6
Turbidity	NTU	0.52	1.30	0.25
Total Coliform	org./100 ml	<1	7	<1
Fecal Coliform	org./100 ml	<1	3	<1
Temperature	deg. F	80.4	89.0	72.9
Suspended Solids	mg/L	<2.5	4.8	<2.5
Settleable Solids	ml/L	<0.1	<0.1	<0.1
Total Dissolved Solids	mg/L	699	755	730
Total COD	mg/L	<26.5	34.9	<25.0
Total BOD	mg/L	<3.1	4.8	<3.0
Total Organic Carbon	mg/L	6.54	7.96	5.86
Ammonia Nitrogen	mg/L	1.119	1.7	0.5
Organic Nitrogen	mg/L	1.40	2.44	0.486
Nitrate Nitrogen	mg/L	4.81	7.74	1.52
Nitrite Nitrogen	mg/L	<0.062	0.177	<0.030
Fluoride	mg/L	0.491	0.558	0.427
Boron	mg/L	0.32	0.36	0.28
Cyanide	µg/L	<2.45	<5.00	1.17
Chloride	mg/L	155	169	142
Sulfate	mg/L	138	151	116
Total Alkalinity	mg/L	167	200	154
Total Hardness	mg/L	242	309	212
Calcium	mg/L	70.3	76.1	63.2
Magnesium	mg/L	22.0	30.9	16.6
Antimony	µg/L	0.66	0.98	0.51
Arsenic	µg/L	1.49	1.64	1.12
Barium	µg/L	74.2	87.6	38.7
Beryllium	µg/L	<0.25	<0.25	<0.25
Cadmium	µg/L	<0.20	<0.20	<0.20
Total Chromium	µg/L	0.79	1.18	0.57
Hexavalent Chromium	µg/L	0.10	0.19	0.06
Copper	µg/L	3.54	4.83	2.93
Iron	mg/L	0.037	0.045	0.033
Lead	µg/L	0.23	0.48	0.15
Manganese	µg/L	4.90	9.42	1.48
Mercury	µg/L	0.00110	0.0014	0.00064
Nickel	µg/L	3.36	5.78	1.57
Potassium	mg/L	17.8	19.1	14.9
Selenium	µg/L	0.48	0.64	0.34
Silver	µg/L	<0.20	<0.20	<0.20
Sodium	mg/L	126	138	102
Thallium	µg/L	<0.25	<0.25	<0.25
Zinc	µg/L	48.5	59.1	32.1
Detergents (MBAS)	mg/L	<0.10	0.15	<0.10
Oil and Grease	mg/L	<3.9	<4.6	<1.0
Conductivity	µmhos/cm	1068	1170	951

TABLE B-5
SAN JOSE CREEK WATER RECLAMATION PLANT WEST
RECYCLED WATER QUALITY, FY 2014-15

Constituent	Units	Mean	Maximum	Minimum
pH		7.10	7.40	6.8
Turbidity	NTU	0.64	1.20	0.35
Total Coliform	org./100 ml	<1	1	<1
Fecal Coliform	org./100 ml	<1	<1	<1
Temperature	deg. F	79.8	87.0	71.5
Suspended Solids	mg/L	<2.5	5.6	<2.5
Settleable Solids	ml/L	<0.1	<0.1	<0.1
Total Dissolved Solids	mg/L	567	624	282
Total COD	mg/L	<25.3	30.2	<25
Total BOD	mg/L	<3.1	5.0	<3.0
Total Organic Carbon	mg/L	5.19	6.15	4.47
Ammonia Nitrogen	mg/L	0.817	2.3	0.5
Organic Nitrogen	mg/L	<0.884	1.91	<0.200
Nitrate Nitrogen	mg/L	7.43	8.78	3.68
Nitrite Nitrogen	mg/L	<0.037	0.052	<0.030
Fluoride	mg/L	0.769	0.841	0.698
Boron	mg/L	0.33	0.37	0.30
Cyanide	mg/L	<4.76	10.4	1.18
Chloride	mg/L	114	126	106
Sulfate	mg/L	98.5	112	91.9
Total Alkalinity	mg/L	165	205	147
Total Hardness	mg/L	212	277	190
Calcium	mg/L	64.6	75.0	57.0
Magnesium	mg/L	17.7	19.7	16.5
Antimony	µg/L	0.49	0.60	0.34
Arsenic	µg/L	1.19	1.30	1.02
Barium	µg/L	40.9	87.8	22.4
Beryllium	µg/L	<0.25	<0.25	<0.25
Cadmium	µg/L	0.18	<0.20	0.040
Total Chromium	µg/L	1.10	1.45	0.82
Hexavalent Chromium	µg/L	0.15	0.20	0.09
Copper	µg/L	4.99	9.60	3.35
Iron	mg/L	0.035	0.041	0.031
Lead	µg/L	0.23	0.28	0.19
Manganese	µg/L	4.56	10.1	2.55
Mercury	µg/L	0.00132	0.0019	0.00074
Nickel	µg/L	1.81	3.13	1.38
Potassium	mg/L	15.8	17.4	14.2
Selenium	µg/L	0.32	0.62	0.22
Silver	µg/L	<0.20	<0.20	<0.20
Sodium	mg/L	110.3	134	92.7
Thallium	µg/L	<0.25	<0.25	<0.25
Zinc	µg/L	49.0	54.2	45.1
Detergents (MBAS)	mg/L	<0.10	0.11	<0.10
Oil and Grease	mg/L	<4.4	<4.6	<4.3
Conductivity	µmhos/cm	890	979	811

TABLE B-6
WHITTIER NARROWS WATER RECLAMATION PLANT
RECYCLED WATER QUALITY, FY 2014-15

Constituent	Units	Mean	Maximum	Minimum
pH		7.42	7.6	7.2
Turbidity	NTU	0.39	1.20	0.25
Total Coliform	org./100 ml	<1	6	<1
Fecal Coliform	org./100 ml	<1	<1	<1
Temperature	deg. F	79.9	87.0	72.2
Suspended Solids	mg/L	<2.5	<2.5	<2.5
Settleable Solids	ml/L	<0.1	<0.1	<0.1
Total Dissolved Solids	mg/L	618	698	578
Total COD	mg/L	<25.3	28.2	<25.0
Total BOD	mg/L	<3.0	3.2	<3.0
Total Organic Carbon	mg/L	5.68	9.32	4.80
Ammonia Nitrogen	mg/L	0.343	0.735	0.226
Organic Nitrogen	mg/L	0.577	1.07	0.200
Nitrate Nitrogen	mg/L	7.63	9.32	6.73
Nitrite Nitrogen	mg/L	0.065	0.119	0.040
Fluoride	mg/L	0.669	0.760	0.587
Boron	mg/L	0.26	0.29	0.23
Cyanide	µg/L	<4.11	<5.00	1.78
Chloride	mg/L	116	125	111
Sulfate	mg/L	127	156	112
Total Alkalinity	mg/L	165	185	148
Total Hardness	mg/L	216	255	194
Calcium	mg/L	64.3	68.3	61.0
Magnesium	mg/L	18.2	18.8	17.4
Antimony	µg/L	0.77	0.86	0.66
Arsenic	µg/L	1.23	1.54	1.06
Barium	µg/L	45.5	54.3	36.1
Beryllium	µg/L	<0.25	<0.25	<0.25
Cadmium	µg/L	<0.164	<0.2	0.049
Total Chromium	µg/L	1.13	1.30	0.95
Hexavalent Chromium	µg/L	0.11	0.28	0.07
Copper	µg/L	3.97	4.94	3.30
Iron	µg/L	31.0	37.0	29.4
Lead	µg/L	0.21	0.29	0.16
Manganese	µg/L	3.01	8.48	1.08
Mercury	µg/L	0.00201	0.0048	0.00079
Nickel	µg/L	6.01	7.11	3.93
Potassium	mg/L	14.9	15.5	14.1
Selenium	µg/L	0.50	0.57	0.38
Silver	µg/L	<0.14	<0.20	0.01
Sodium	mg/L	123	147	115
Thallium	µg/L	<0.25	<0.25	<0.25
Zinc	µg/L	52.0	61.8	41.4
Detergents (MBAS)	mg/L	<0.11	0.21	<0.10
Oil and Grease	mg/L	<4.4	<4.6	<4.3
Conductivity	µmhos/cm	964	1060	901

TABLE B-7
VALENCIA WATER RECLAMATION PLANT
RECYCLED WATER QUALITY, FY 2014-15

Constituent	Units	Mean	Maximum	Minimum
pH		7.45	7.6	7.3
Turbidity	NTU	0.46	1.20	0.25
Total Coliform	org./100 ml	<1	1	<1
Fecal Coliform	org./100 ml	<1	<1	<1
Temperature	deg. F	78.7	84.9	72.8
Suspended Solids	mg/L	<2.5	<2.5	<2.5
Settleable Solids	ml/L	<0.1	<0.1	<0.1
Total Dissolved Solids	mg/L	790	842	741
Total COD	mg/L	<25.2	39.6	<25.0
Total BOD	mg/L	<3.0	4.1	<3.0
Ammonia Nitrogen	mg/L	0.909	1.35	0.700
Organic Nitrogen	mg/L	1.130	2.85	0.52
Nitrate Nitrogen	mg/L	2.41	3.28	1.61
Nitrite Nitrogen	mg/L	<0.031	0.042	<0.030
Fluoride	mg/L	0.395	0.420	0.379
Boron	mg/L	0.54	0.61	0.44
Cyanide	µg/L	3.65	<5.00	2.38
Chloride	mg/L	143	161	124
Sulfate	mg/L	211	221	202
Total Alkalinity	mg/L	211	247	186
Total Hardness	mg/L	297	349	268
Antimony	µg/L	1.03	1.56	0.50
Arsenic	µg/L	0.66	0.96	0.48
Barium	µg/L	9.20	10.80	7.95
Beryllium	µg/L	<0.25	<0.25	<0.25
Cadmium	µg/L	<0.20	<0.20	<0.20
Total Chromium	µg/L	0.40	0.98	0.21
Hexavalent Chromium	µg/L	0.039	0.03	0.026
Copper	µg/L	1.95	2.56	1.30
Iron	µg/L	67.2	93.1	46.8
Lead	µg/L	0.05	0.06	0.03
Mercury	µg/L	0.00048	0.0011	0.00013
Nickel	µg/L	2.62	2.95	2.08
Selenium	µg/L	0.58	0.80	0.44
Silver	µg/L	<0.20	<0.20	<0.20
Thallium	µg/L	<0.25	<0.25	<0.25
Zinc	µg/L	24.4	25.1	24.0
Detergents (MBAS)	mg/L	<0.10	0.10	<0.10
Oil and Grease	mg/L	<4.7	<5.2	<4.3
Conductivity	µmhos/cm	1246	1540	1130

TABLE B-8
SAUGUS WATER RECLAMATION PLANT
RECYCLED WATER QUALITY, FY 2014-15

Constituent	Units	Mean	Maximum	Minimum
pH		7.35	7.6	7.0
Turbidity	NTU	0.73	1.10	0.40
Total Coliform	org./100 ml	<1	2	<1
Fecal Coliform	org./100 ml	<1	<1	<1
Temperature	deg. F	77.7	83.9	72.5
Suspended Solids	mg/L	<2.5	<2.5	<2.5
Settleable Solids	ml/L	<0.1	<0.1	<0.1
Total Dissolved Solids	mg/L	621	697	556
Total COD	mg/L	<25.7	35.8	<25.0
Total BOD	mg/L	<3.0	3.1	<2.4
Ammonia Nitrogen	mg/L	1.018	1.20	0.80
Organic Nitrogen	mg/L	1.06	1.47	0.72
Nitrate Nitrogen	mg/L	5.17	5.85	4.69
Nitrite Nitrogen	mg/L	<0.035	0.053	<0.030
Fluoride	mg/L	0.271	0.310	0.214
Boron	mg/L	0.56	0.75	0.41
Cyanide	mg/L	<3.23	<5.00	1.79
Chloride	mg/L	137	145	132
Sulfate	mg/L	129	146	105
Total Alkalinity	mg/L	169	199	136
Total Hardness	mg/L	206	267	162
Antimony	µg/L	0.52	0.63	0.40
Arsenic	µg/L	1.09	1.56	0.83
Barium	µg/L	37.0	46.1	28.7
Beryllium	µg/L	<0.25	<0.25	<0.25
Cadmium	µg/L	<0.103	<0.20	0.040
Total Chromium	µg/L	0.40	0.56	0.23
Hexavalent Chromium	µg/L	0.030	0.051	0.02
Copper	µg/L	6.50	8.09	4.33
Iron	µg/L	20.3	26.4	14.6
Lead	µg/L	0.14	0.15	0.12
Mercury	µg/L	0.00062	0.00073	0.00051
Nickel	µg/L	1.27	1.41	1.15
Selenium	µg/L	0.50	0.70	0.34
Silver	µg/L	<0.20	<0.20	<0.20
Thallium	µg/L	<0.25	<0.25	<0.25
Zinc	µg/L	62.5	66.7	57.4
Detergents (MBAS)	mg/L	<0.10	0.12	<0.10
Oil and Grease	mg/L	<4.4	<4.4	<4.4
Conductivity	µmhos/cm	1032	1160	889

TABLE B-9
LANCASTER WATER RECLAMATION PLANT
RECYCLED WATER QUALITY, FY 2014-15

Constituent	Units	Mean	Maximum	Minimum
pH		7.42	8.4	7.1
Turbidity	NTU	0.64	1.40	0.40
Total Coliform	org./100 ml	<1	2	<1
Temperature	deg. F	72.9	82.9	64.2
Suspended Solids	mg/L	<2.5	<2.5	<2.5
Total Dissolved Solids	mg/L	501	527	486
Total COD	mg/L	<26.2	40.2	<25.0
Total BOD	mg/L	<3.3	6.3	<3.0
Total Organic Carbon	mg/L	4.80	5.38	4.49
Ammonia Nitrogen	mg/L	1.68	2.68	1.28
Nitrate Nitrogen	mg/L	8.07	9.42	6.25
Nitrite Nitrogen	mg/L	<0.051	0.082	<0.030
Cyanide	mg/L	<0.005	<0.005	<0.005
Chloride	mg/L	114	118	110
Sulfate	mg/L	68.6	70.6	66.8
Total Alkalinity	mg/L	133	144	122
Total Hardness	mg/L	132	155	115
Calcium	mg/L	49.9	59.2	44.3
Magnesium	mg/L	7.7	8.7	6.7
Antimony	µg/L	0.51	0.51	0.51
Arsenic	µg/L	2.25	2.88	1.61
Barium	µg/L	17.7	18.9	16.5
Beryllium	µg/L	<0.25	<0.25	<0.25
Cadmium	µg/L	<0.20	<0.20	<0.20
Total Chromium	µg/L	0.90	0.97	0.83
Hexavalent Chromium	µg/L	<0.055	0.065	<0.05
Copper	µg/L	1.50	1.60	1.39
Iron	mg/L	0.08	0.08	0.07
Lead	µg/L	0.06	0.06	0.05
Manganese	µg/L	14.6	17.0	12.1
Mercury	µg/L	<0.03	<0.04	0.014
Nickel	µg/L	1.21	1.31	1.10
Potassium	mg/L	13.2	13.3	13.1
Selenium	µg/L	0.68	0.88	0.48
Silver	µg/L	<0.20	<0.20	<0.20
Sodium	mg/L	110	113	103
Thallium	µg/L	<0.25	<0.25	<0.25
Zinc	µg/L	50.2	52.0	48.4
Detergents (MBAS)	mg/L	<0.10	<0.10	<0.10
Conductivity	µmhos/cm	799	847	746

TABLE B-10
PALMDALE WATER RECLAMATION PLANT
RECYCLED WATER QUALITY, FY 2014-15

Constituent	Units	Mean	Maximum	Minimum
pH		7.31	7.7	7.0
Turbidity	NTU	0.62	1.3	0.40
Total Coliform	org./100 ml	<1	2	<1
Temperature	deg. F	74.3	84.2	64.0
Suspended Solids	mg/L	<2.5	<2.5	<2.5
Total Dissolved Solids	mg/L	519	548	489
Total COD	mg/L	<25.2	27.9	<25.0
Total BOD	mg/L	<3.0	<3.0	<3.0
Total Organic Carbon	mg/L	4.99	5.51	4.68
Ammonia Nitrogen	mg/L	2.34	4.42	1.51
Nitrate Nitrogen	mg/L	2.83	5.10	1.37
Nitrite Nitrogen	mg/L	0.074	0.244	0.032
Cyanide	mg/L	<0.0050	<0.0050	0.0020
Chloride	mg/L	150	168	127
Sulfate	mg/L	91.3	95.2	86.2
Calcium	mg/L	43.5	44.0	43.2
Magnesium	mg/L	10.1	11.4	8.3
Antimony	µg/L	0.44	0.47	0.40
Arsenic	µg/L	0.66	0.86	0.45
Beryllium	µg/L	<0.25	<0.25	<0.25
Cadmium	µg/L	<0.20	<0.20	<0.20
Total Chromium	µg/L	0.67	0.80	0.53
Hexavalent Chromium	µg/L	<0.05	<0.05	<0.05
Copper	µg/L	1.79	1.81	1.76
Lead	µg/L	0.06	0.07	0.04
Mercury	µg/L	0.00060	0.00089	0.00031
Nickel	µg/L	1.18	1.24	1.12
Selenium	µg/L	0.29	0.31	0.26
Silver	µg/L	<0.20	<0.20	<0.20
Sodium	mg/L	136	151	125
Thallium	µg/L	<0.25	<0.25	<0.25
Zinc	µg/L	79.7	82.5	76.8
Detergents (MBAS)	mg/L	<0.10	<0.10	<0.10

LONG BEACH WATER DEPARTMENT

Phase 1 was completed in 1980 at a cost of $280,000. It consisted of a 200 HP, 2,500 gallon per minute (gpm) pump station, and 1,500 feet of 12-inch line that served El Dorado Park West and Golf Course.

Phase 2 made use of a previously constructed, but never used, 21-inch line between the Long Beach WRP and the Island White oil pumping facility in Long Beach Harbor. Recycled water travels through the 21-inch steel concrete-cylinder transmission line that runs south along Studebaker Road, west on Atherton Street, south on Clark Avenue, west on Anaheim Street, and then south on Park Avenue. At the intersection of Park Avenue and 11th Street, the 21-inch line turns west again, then south on Obispo Lane on its way to Island White. The line was capped at Obispo Lane and 2nd Street. This line was built in 1970 by the THUMS group (Texaco, Humboldt, Union, Mobil, and Shell) in the hope of using recycled water from the then under-construction Long Beach WRP to repressurize the oil-bearing zones that were being depleted. This project did not proceed at that time and the THUMS group deeded ownership of the pipeline to the city. In 1982, 520 feet of 12-inch line was installed to deliver recycled water to the Recreation Park and Golf Course, at a cost of $50,000.

Phase 3 was completed in 1983 at a total cost of $2,560,000. It consisted of a 750 HP, 8,500 gpm pump station (five variable speed, vertical turbine pumps producing 95 psi, with capacity for a sixth pump) connected to the adjacent Long Beach WRP effluent forebay through a 36-inch line, 25,685 feet of 20-inch pipe, and 4,130 feet of 12-inch pipe. The 20-inch main line runs north along the east bank of the San Gabriel River. Just south of Carson Street, the pipeline turns west and runs through a siphon under the river, then along Parkcrest Street. At Clark Avenue, the pipeline reduces to 12-inches, turns south and terminates at Wardlow Road. In 1983, the 200 HP 2,100 gpm pump located in El Dorado Park West was relocated to a spot next to the lake in El Dorado Park East where it serves to supply lake water to the recycled water system when recycled water may be unavailable.

Phase 4 was completed in 1986 and consisted of 3,760 feet of 8-inch pipe and 2,350 feet of 6-inch pipe at a cost of $410,000. At Park Avenue and 11th Street, an 8-inch steel line was connected to the 21-inch transmission line that had been built to serve the THUMS project. The 8-inch line runs south along Park Avenue, through Woodlands Park, then east along 6th Street, reducing to a 6-inches after serving the Recreation 9-Hole Golf Course. The 6-inch line turns south on Monrovia Avenue and terminates at the northern boundary of Marina Vista Park.

Phase 5 was completed in the first half of 1989 at a cost of $3,980,000. It consisted of 4,820 feet of 20-inch pipe, 5,917 feet of 14-inch pipe, 12,364 feet of 12-inch pipe, and 1,857 feet of 8-inch pipe. Also included in this project was a four pump, 500 HP, 105 psi, 3,000 gpm pump station at the south lake of the Lakewood Golf Course that had supplied recycled water, stored in the lake during the day peak supply period, to the distribution system during the peak nighttime demand period. From the end of the 20-inch Stage 3 line in Long Beach City College, a 20-inch ductile iron pipe (DIP) runs 300 feet north, where it turns west on Carson Street, and continues to the South Lake Pumping Plant. A 16-inch DIP continues westerly from the pumping plant along Carson Street, reducing to 14-inches. At Gardenia Avenue, the pipe turns north and runs to 45th Street where it reduces to 12-inches. The 12-inch line continues westerly along 45th Street, then north on Falcon Avenue, then southwest on San Antonio Drive, then northwest on East Goldfield Avenue, then southwest on 45th Way, then north on California Avenue, then west on 46th Street to its terminus at the Virginia Country Club.

The North Long Beach extension of Phase 5 was completed at the beginning of 1992 at a total cost of $627,000. This project connected to the 14-inch line at the intersection of Carson Street and Gardenia Avenue

with a 14-inch tapping sleeve expanding to a 20-inch DIP. This 20-inch line runs south to Marshall Place where it turns west and runs along Marshall Place to a T-section at Gaviota Avenue. This line turns south again from the T-section and runs along Gaviota Avenue to Wardlow Road. The line turns west again and runs along Wardlow Road to Walnut Avenue where it terminates in a T-section. From this T-section, an 8-inch DIP line runs south along Walnut Avenue to the 405 Freeway where it terminates in a 3-inch service for use by the California Department of Transportation. Approximately midway along this final stretch of pipe, at 33rd Street, a 2-inch service runs to the LBWD Service Center. In addition, several smaller lines branch off the main distribution line:

- At the intersection of Marshall Place and Gaviota Avenue, a 6-inch DIP line branches off the T-section and runs west to Walnut Avenue where it terminates in a T-section. From this point, the 6-inch line continues north another where it terminates at a 4-inch service to Somerset Park.

- At the intersection of Gaviota Avenue and Bixby Road there is a T-section, from where an 8-inch DIP runs west to a point just beyond Cerritos Avenue where it supplies a 4-inch service to Hughes Junior High School. The 8-inch line continues west to Myrtle Avenue where it terminates in a 2-inch service to Longfellow Elementary School.

- At the intersection of Gaviota Avenue and Wardlow Road, a 6-inch DIP branches off a T-section and runs east to a point just past Rose Avenue where it terminates in a two more 2-inch services to the LBWD Service Center.

- At the intersection of Walnut Avenue and 33rd Street, a 6-inch DIP branches off and runs west into the City of Signal Hill and to a 3-inch service to Burroughs Elementary School, where it terminates. In addition, the 6-inch lateral has a 6-inch T-section at Brayton Avenue that extends north and terminates in a 4-inch service to Reservoir Park.

Recycled water service was extended to the common areas of the El Dorado Lakes Condominiums in August 1998. From the 20-inch main line running north along the San Gabriel River, an 8-inch DIP branches off and runs east along Spring Street. This line reduces to a 4-inch DIP which runs to the condominiums located on the east side of the 605 Freeway.

The recycled water system was extended again as LBWD began implementing its Master Plan with the completion of Phase 1A in June 1999 at a cost of $1.4 million. LBWD's potable water tanks nos. 21, 22 and 23 on Alamitos Hill were converted to recycled water storage. Each tank has its own new 20-inch discharge line connecting to a 36-inch DIP that runs north, then west along 20th Street to a T-section at Redondo Avenue. The north side of this T-section on Redondo Avenue serves a 24-inch line which was constructed in 2000 as Phase 1B. A 24-inch DIP continues westerly along 20th Street for 939 feet to a T-section at Obispo Lane. The line turns south on Obispo Lane, where it terminates in a new T-section installed in the existing 21-inch recycled water line on 11th Street. Along Obispo Lane, a 6-inch DIP branches off and runs east along 14th Street, allowing for future expansion and customer connections.

CITY OF CERRITOS

A 14,800 gpm pump station next to the north side of the Los Coyotes WRP effluent forebay delivers recycled water to reuse sites through 142,600 feet of pipe that loops through the city. Provisions were made so that neighboring cities could connect to this distribution system sometime in the future and make use of the ultimate system capacity of 4,000 AFY.

The pump station discharges into a 30-inch cement-lined and coated steel line which branches into two, 24-inch concrete cylinder pipelines. One of these lines runs east through the north part of the city, while the other turns south along the San Gabriel River. The two lines ultimately meet and form a loop in the distribution system. Pipes greater than 12-inches are cement-lined and coated steel, while the 4- to 10-inch pipes are PVC.

The 24-inch main line serving the northern part of the city runs east from the WRP past the Ironwood 9 Golf Course, then continues east under the 605 Freeway and along 166th Street. At Studebaker Road, a 6-inch line runs north to Cerritos College, and an 8-inch line runs south to Gahr High School. At the school, the line branches into a 4-inch line running north to the 91 Freeway, and a 6-inch line running to the Artesia Cemetery. The 24-inch northern line reduces to 20-inches at 166th Street and Studebaker Road, then continues east along 166th Street through the City of Norwalk. This line branches into two 16-inch lines at the intersection of 166th Street and Norwalk Boulevard.

- One 16-inch line runs south along Norwalk Boulevard to form the west side of a smaller loop in the distribution system. At Artesia Boulevard, a 6-inch line branches off and runs west to Juarez Elementary School and two sections of the 91 Freeway on Pioneer Boulevard. The 16-inch line turns east on Artesia and runs to Barnhill Avenue where a short 4-inch line branches off and runs south to Kennedy Elementary School and Loma Park. At this point, the 16-inch line reduces to 14-inches and continues east on Artesia Boulevard to Bloomfield Avenue before it continues south. At Bloomfield Avenue and 183rd Street, a 6-inch line branches off the 14-inch line and runs west to Cerritos High School. It reduces to a 4-inch line before continuing west to Elliot Elementary School where it terminates. Also at Bloomfield Avenue and 183rd Street, an 8-inch line runs east to Dina Place where it connects with a 10-inch line from the east half of the loop (described below). Also at this point, a short 6-inch line branches off and runs south to Heritage Park.

- The second 16-inch line at Norwalk Boulevard and 166th Street continues east. At Elm Park Drive, a 4-inch line runs north to Satellite Park, and the 16-inch line reduces to 14-inches before continuing east. At Bloomfield Avenue, a 6-inch line runs south to serve Frontier Park, Wittman Elementary School and a section of the 91 Freeway. The 14-inch line continues east to Carmenita Road, where a 6-inch line continues east along 166th Street into Carmenita Junior High School and then to Carmenita Park. A 4-inch line branches off the 6-inch line south on Stowers Avenue to Park Street, then east to Gonsalves Elementary School where it terminates. The 14-inch line on 166th reduces to 10-inches and turns south on Carmenita Road, forming the east side of the smaller loop. An 8-inch line branches off at Red Plum Street to City Park East at Ironbark Drive where it terminates. The 10-inch line also reduces to 8-inches at this point and it continues south toward Artesia Boulevard, at which point two 4-inch lines branch to the west and east to Saddleback Park and Friendship Park, respectively. When the 8-inch line on Carmenita Road reaches 183rd, a 6-inch line branches off and runs east then south on Stowers Avenue to Cerritos Elementary School, Rainbow Park and Bettencort Park. Also from the 8-inch line at Carmenita and 183rd, a 10-inch line runs west on 183rd Street, then runs south under the freeway to Brookhaven Street. At this point, a 4-inch line branches off southeast to serve another section of the 91 Freeway, and a second 4-inch

line branches off to Brookhaven Park. At the intersection of Shoemaker Avenue and 183rd Street, the southern branch of the main loop (the second 24-inch line leaving the WRP) connects with the northern branch to complete the system.

From the WRP, the second 24-inch transmission line runs south along the San Gabriel River. At 183rd Street, a 6-inch line branches east through an Edison easement to serve the Bellflower Christian School and a section of the 605 Freeway. At South Street, a short 12-inch line branches off west past Westgate Park, providing a connection point for the City of Lakewood.

Approximately 1,000 feet south of 195th Street, the 24-inch line branches off into a 10-inch line to the south to provide a connection point for the City of Lakewood, and a 20-inch line to the east that follows a Southern California Edison (SCE) right-of-way. The 20-inch line passes the Orange County nursery and the SCE-operated nursery and at Gridley Road, a 4-inch line branches off north to Bragg Elementary School. At Pioneer Boulevard, a 6-inch line branches off south to Cabrillo Lane Elementary School. At Jacob Street, a 6-inch line branches off north to Pat Nixon Elementary School. At Norwalk Boulevard, a 6-inch line branches off south to provide the third connection point for the City of Lakewood.

At Norwalk Boulevard, the 20-inch line reduces to 16-inches and continues east to Bloomfield Avenue, where it enters Cerritos Regional County Park. The 16-inch line reduces to 8-inches (with a 16-inch stub out for future connections to other municipalities) and curves north onto Shoemaker Avenue. A 4-inch line at Espinheira Drive branches off to Sunshine Park, and a 4-inch line at Droxford Street branches off to Leal Elementary School. The 8-inch line connects with the rest of the transmission system loop at the intersection of Shoemaker Avenue and 183rd Street.

CITY OF LAKEWOOD

The City of Cerritos provided three stub-out locations on one of its 24-inch concrete mortar lined and coated steel distribution lines for connections to the City of Lakewood. Each of these stub-out locations is within the City of Lakewood. A 12-inch stub-out connection is located on South Street, on the west side of the San Gabriel River, and consists of two, 6-inch meters in a manifold structure with isolation valves. A 10-inch stub-out connection is located across Del Amo Boulevard into River Park, approximately 40 feet west of Studebaker Avenue and consists of a single, 6-inch meter. A 6-inch stub-out is located on Norwalk Boulevard, just south of Del Amo Boulevard and approximately 70 feet south of the City of Lakewood boundary. This last stub-out is not in use and currently there are no future plans for it.

From the first stub-out location on South Street, a 12-inch PVC line runs west to a T-section at Woodruff Avenue. From this T-section, a 10-inch PVC line continues west along South Street, ending in a T-section at the Los Cerritos Drainage Channel. There are smaller connections branching off the 10- and 12-inch transmission lines on South Street.

- Approximately 550 feet east of Woodruff Avenue, the 12-inch PVC line along South Street branches at a T-section to a 6-inch PVC line. This line follows Spahn Avenue north, turning west at Edgefield Street and continuing until it reaches Woodruff Avenue. At Woodruff Avenue, the 6-inch line heads north along Woodruff Avenue. There are two, 2-inch connections to parkway irrigation systems along this 6-inch line. A 4-inch connection approximately 600 feet north of Edgefield Street runs approximately 100 feet west to serve St. Joseph's Parish School. Approximately 120 feet north of Arabella Street, the 6-inch line connects to a 4-inch line serving Mayfair High School and Lindstrom Elementary School.

- Along the 12-inch PVC line on South Street there are five, 2-inch connections to parkway irrigation systems east of Woodruff Avenue. Approximately 1,700 feet east of Woodruff, 12-inch PVC line is flanged underground to 12-inch ductile iron pipe on either side of the Palo Verde storm drain. The iron pipe then runs above ground to be suspended over the 14-foot wide channel, with air release valves on either side of the channel.

- A 10-inch PVC line branches off the T-section on South Street at Woodruff Avenue and runs south along Woodruff Avenue, terminating in a T-section at Centralia Street. A 6-inch PVC line branches from the T-section at Centralia Street and runs west along Centralia Street to just past Eastbrook Avenue, where it turns south and feeds a 4-inch connection serving Lakewood High School. There is a 4-inch connection approximately 800 feet south of Arbor Road, to service Jose Del Valle Park. From this 4-inch line there is also a 2-inch connection to service parkway irrigation systems. A 4-inch PVC line branches off a T-section at Arbor Road. The 4-inch line runs west along Arbor Road, ending just before Radnor Avenue with a 4-inch service connection to the City of Lakewood Water Yard. Another 4-inch PVC line branches off a T-section at Dashwood Street. The line runs west along Dashwood, ending in a 4-inch connection on the west side of Ocana Avenue to service Jose San Martin Park. There are six, 2-inch connections to parkway irrigation systems from the 10-inch PVC line along Woodruff Avenue.

- Along the 10-inch PVC line on South Street (west of Woodruff Avenue), there are five 2-inch connections to parkway irrigation systems and one 4-inch PVC line approximately 570 feet east of the Los Cerritos Channel serving Foster Elementary School.

- A 6-inch PVC line branches off the T-section on South Street at Fidler Avenue at a 45-degree angle. The 6-inch line crosses Fidler Avenue at an angle until it reaches the edge of Mayfair Park. From there, the line turns directly south and follows the park's eastern boundary until it reaches Bigelow Street. A 4-inch line branches from a T-section at Bigelow Street and crosses over the Los Cerritos Channel. This 4-inch line serves the west side of Mayfair Park. From the T-section at Bigelow Street, a 6-inch line branches off at a 45-degree angle. The line heads southwest until it reaches the south end of Mayfair Park where it then heads directly south along the east side of the channel. At Candlewood Street, the 6-inch line ends with a T-section. From here, a 2-inch PVC line runs south to the Civic Center and a 6-inch line runs west crossing the channel. The line is flanged underground on either side of the channel to 6-inch ductile iron that runs aboveground to be suspended under a footbridge over the channel. After crossing the channel, the 6-inch line terminates in a T-section, from which a second 2-inch PVC line runs south to serve the Civic Center.

From the second stub-out location on Del Amo Boulevard, a 6-inch PVC line branches from a T-section and runs approximately 640 feet west terminating in a T-section at Mae Boyer Park. Another 10-inch PVC line branches from the T-section at the connection point, running south along the east side of the San Gabriel River channel for approximately 2,000 feet and ending with a 4-inch service connection to the River Park pump station. There are several smaller connections branching off the 6-inch and 10-inch transmission lines from the second connection point to the system.

- Approximately 1,200 feet south of Del Amo Boulevard, a 4-inch PVC line branches from the 10-inch line on the east side of the San Gabriel River. The line runs east, terminating at a T-section with a 2-inch service connection to Rynerson Park.

- A 4-inch PVC line branches from the 6-inch line at a T-section located on the west side of the San Gabriel River. The 4-inch line south, then turns west through the city yard, then south to Monte Verde Park.

- From the T-section at Mae Boyer Park, 4-inch lines run 85 feet under Del Amo Boulevard to either side of the road. These 4-inch lines feed service connections to Mae Boyer Park that is on both the north and south sides of Del Amo Boulevard.

CENTRAL BASIN MWD – CENTURY SYSTEM

Construction of Phase I of the Century Reclamation Program began in March 1991 and was completed in February 1992. The facilities in this phase consist of the 30-inch cement-lined and coated steel "backbone" pipeline from the Los Coyotes WRP that crosses over the San Gabriel River and runs 18,900 feet north along the western bank to a point north of Firestone Boulevard, where the outfall from the San Jose Creek WRP discharges into the San Gabriel River. At this point, the line reduces to a 24-inch cement-lined and coated steel line that continues northerly to Florence Avenue, then easterly to Fairview Avenue, where it runs to Dollison Drive. The line then follows Dollison Drive southeasterly to Buell Street, where it crosses under the Santa Ana (5) Freeway to Orr & Day Road. The line runs north on Orr & Day back to Florence Avenue, then easterly to Jersey Avenue where it terminates. Several 6- and 8-inch PVC lines branch off the large diameter transmission lines at various points.

- At a point just south of Compton Boulevard, an 8-inch PVC line branches off the 30-inch line and runs northwesterly to Compton Boulevard, where it continues westerly to its terminus at Bellflower High School. A 6-inch PVC line branches off this line at McNab Avenue and runs northerly.

- At a point just north of Columbus High School, another 8-inch PVC line branches off the 30-inch line and runs westerly through an easement to Woodruff Avenue, where it turns south and runs to Everest Street. This line runs westerly to Benedict Avenue, then through Gauldin School to its terminus on Dunrobin Avenue at Independence Park.

- At a point north of Firestone Boulevard, a 6-inch PVC line branches off the 30-inch line and runs westerly through the Rio San Gabriel Park parking lot to Newville Avenue, where it turns north and runs northerly to La Villa Street. The line then runs westerly to Pangborn Avenue, where it turns north and runs to Buell Street. The line runs westerly to its terminus at Casanes Avenue.

- From the 24-inch line on Florence Avenue, a 6-inch PVC line branches off at Little Lake Road and runs southerly to its terminus at Little Lake Park and School.

- At the end of the 24-inch line at Florence Avenue and Jersey Avenue, an 8-inch PVC line runs north on along an easement to Jersey Avenue, then to Joslin Avenue. This line then runs westerly along Joslin Avenue and easterly to its terminus at Fallon Avenue.

In 2007, The City of Downey constructed additional pipelines connecting to the existing CBMWD distribution system at two points: on the 8-inch line on Dunrobin Avenue at Independence Park, and on another 8-inch line on Lakewood Boulevard at Donovan Street (see Construction Schedule 2 of Phase II below).

From the connection point on Lakewood Boulevard, a 12-inch line runs northeasterly along Lakewood Boulevard to its termination point at 5th Avenue. Three smaller lines branch off of this 12-inch line:

- At Firestone Boulevard, a 4-inch line runs west to its termination at Nash Avenue.

- At Stewart & Gray Road, an 8-inch line runs east to a T-section at Bellflower Boulevard, then easterly to its termination at a point just east of Coldbrook Avenue.

- At Clark Avenue, an 8-inch line runs south along Clark to a newly constructed portion of Congressman

Steve Horn Way, where it turns east and continues to Bellflower Boulevard. There is a T-section at Steve Horn Way and Bellflower Boulevard where two more 8-inch lines branch off. The first line runs north along Bellflower Boulevard to Stewart & Gray Road where it connects to the T-section on the previously described 8-inch line in this street. The second line continues east along Steve Horn Way and through Independence Park where it connects to the existing CBMWD distribution system on Dunrobin Avenue.

Construction of Phase II began in March 1992 and was completed in June 1993. Four construction "schedules" provided for several pipelines to branch off the main 30-inch and 24-inch Phase I line.

Schedule 1: From the end of the 24-inch Phase I line in the City of Santa Fe Springs at Florence Avenue and Jersey Avenue, the Phase II 24-inch line continues east to Bloomfield Avenue, where it terminates in a 4-way X-section. From this point, the 24-inch line runs southerly to Lakeland Road, then easterly to Greenstone Avenue, where it terminates in a T-section. At this point, a 16-inch PVC pipe branches off and runs southerly to Sunshine Avenue, then easterly for to Shoemaker Avenue, then southerly to Leffingwell Avenue where the line jogs to the west into an easement parallel to Shoemaker Avenue. The 16-inch line then continues southerly to a point just south of the AT&SF railroad right-of-way where Shoemaker Avenue begins again. The line continues southerly along Shoemaker Avenue until it reaches Firestone Boulevard where the line turns southeasterly and runs to Excelsior Drive. At this point, the line continues east along Excelsior Drive until the dead-end at Marquardt Avenue. The 16-inch line then follows a storm drain easement easterly, where it was jacked under the Coyote Creek channel. On the east side of the channel, the line turns south and runs along the channel levee, then runs easterly to its terminus at Bona Vista Avenue. At this point, an 8-inch PVC line branches off south along Bona Vista Avenue to the end of the cul-de-sac. There are several other lines that branch off the 24- and 16-inch main line in this schedule.

- From the 24-inch line on Florence Avenue, a 6-inch PVC line branches off at Fulton Wells Avenue (between Pioneer and Norwalk) and runs southerly to Lakeland Road, where it turns west and runs to its terminus at Zeus Avenue.

- As the 16-inch line proceeds southwesterly along Firestone Boulevard, a 6-inch PVC line branches off at Dinard Avenue and runs north to Mapledale Street, where it turns easterly and runs to its terminus just east of Cabrillo Avenue.

- At the intersection of Excelsior Drive and Marquardt Avenue, a 6-inch PVC line branches off the 16-inch line and runs south along Marquardt Avenue to its terminus.

- At the four-way cross-section at Florence Avenue and Bloomfield Avenue, an 8-inch PVC line branches off the 24-inch line and runs south along Bloomfield Avenue to its terminus at Lakeland Avenue. This line was constructed by the City of Santa Fe Springs in 2008.

Schedule 2: This portion of the recycled water system branches off to the east and west from the 30-inch line at Foster Road. The east section begins as a 12-inch cement-lined and coated steel pipe connected to the 30-inch line on the west side of the San Gabriel River, just north of Foster Road. This line crosses the river along the Foster Road Bikeway, then runs southerly back to Foster Road where it turns east again into the City of Norwalk. At Dalwood Avenue, a 6-inch PVC line branches off and runs south to Leffingwell Road where it terminates. The 12-inch line on Foster Road continues east to a T-section at McRae Avenue. From this point, one branch of the Tee, a 6-inch PVC line, runs northerly along McRae Avenue until it terminates at Ratliffe Street. From the T-section at Foster Road and McRae Avenue, a 12-inch steel line runs southerly to Leffingwell Road, then east to Gard Avenue where a T-section was installed. The 6-inch line on Leffingwell Road continues east until it terminates just east of Maidstone Avenue. From the T-section at Leffingwell Road and Gard Avenue, a 6-inch PVC line runs southerly along Gard Avenue to Taddy Street where it turns west and runs to Harvest Avenue where it turns south. The 6-inch line runs along Harvest Avenue to Mapledale Street where a T-section branches to the east and west. From this point, a 6-inch PVC line runs westerly along

Mapledale Street to Graystone Avenue where it turns south and runs to its terminus at Sibley Street. Also, from the Tee at Harvest Avenue and Mapledale Street, another 6-inch line runs easterly to Jersey Avenue. This line turns south and runs until it ends at Excelsior Drive.

The west section also begins as a 12-inch cement-lined and coated steel pipe connected to the 30-inch line on the west side of the San Gabriel River, just south of Foster Road. This line jogs back onto Foster Road and runs westerly along this road, which forms the boundary between the cities of Downey and Bellflower. This line runs to Lakewood Boulevard where it turns north and reduces to 8 inches. The 8-inch line runs along Lakewood Boulevard until it terminates at Meadow Road, just north of Imperial Highway. Two other lines branch off the 12-inch line along Foster at Bellflower Boulevard.

- A 6-inch PVC line comes off a T-section in the middle of the intersection of Foster Road and Bellflower Boulevard and runs southerly until it terminates just south of Arthurdale Street.

- A second 6-inch PVC line comes off a T-section just to the west of the first T-section on Bellflower Boulevard and Foster Road and runs northerly until it terminates near Angell Street.

Schedule 3: In the City of Bellflower, a 24-inch line connects to the 30-inch main line just after it crosses the San Gabriel River from the Los Coyotes WRP. This line runs westerly along Flora Vista Street to an existing Metropolitan Transportation Authority (MTA) right-of-way. At this point the line runs northwesterly toward the Los Angeles River. At this point, an 8-inch branch runs southerly along an SCE right-of-way (just west of Texaco Avenue) to Alondra Boulevard. The 24-inch line turns north and follows the SCE right-of-way to Cortland Avenue, where it runs west to Orange Avenue. The line then runs north on Orange Avenue to Century Boulevard where a T-section was installed. From this point, the 24-inch line runs westerly along Century Boulevard to the Los Angeles River, where it was jacked under the river and the Long Beach (710) Freeway. This line terminates just to the west of the freeway for connection to Construction Schedule 4 (detailed below) at Martin Luther King Jr. Boulevard. From the T-section on Century Boulevard, the line reduces to a 16-inch pipe that runs northeasterly back to the SCE right-of-way, where the line runs northerly then northeasterly to Rio Hondo Drive. The 16-inch line continues northeast along this street to the end of the cul-de-sac. At this point, the line crosses over to the Rio Hondo channel and continues northeast along the flood channel's east side levee. The line reduces to 8-inches and uses an existing footbridge to cross the Rio Hondo channel where it terminates at John Anson Ford Park in the City of Bell Gardens. There are several other lines that branch off the 24- and 16-inch main line in this schedule.

- A 16-inch cement-lined and coated pipe branches off the 24-inch line running along the MTA right-of-way (located just west of the intersection of Somerset Boulevard and Hayter Avenue) and runs southerly along Los Angeles Department of Water and Power (LADWP) right-of-way to a point just north of Flower Street.

- At the point where the 24-inch line ends within the MTA right-of-way and moves into the SCE right-of-way, the 8-inch line (previously mentioned) runs southerly along the east side of the SCE right-of-way by Texaco Avenue where a T-section was installed at San Luis Street. At this point a 6-inch line continues to Somerset Boulevard where it turns west to the west side of the SCE right-of-way. The 6-inch line continues southerly to the south side of Alondra Boulevard where it terminates in a T-section.

- From the 8-inch line, another 6-inch PVC line branches off just north of Exeter Street and runs westerly to Gundry Avenue, where it turns north and runs to its terminus at San Rafael Street.

- At the T-section at San Luis Street, an 8-inch line crosses the SCE right-of-way westerly, continuing along San Luis Street to San Antonio Avenue where another T-section was installed. The 8-inch line continues southerly along San Antonio Avenue to Somerset Boulevard, where the line turns westerly and runs to its terminus at the Los Angeles River.

- From the T-section at San Luis Street and San Antonio Avenue, a 4-inch PVC line runs westerly along San Luis Street to its terminus at Banana Park. A 6-inch PVC line branches off the 8-inch line on San Luis Street at San Jose Avenue (east of San Antonio Avenue) and runs southerly to Mark Keppel Street where it terminates in a T-section. From this point, a 6-inch line runs the west and to the east.

- Farther north along the 16-inch line in the SCE right-of-way, a 6-inch PVC line branches off at Southern Avenue, which becomes Stewart & Gray Road, and runs easterly to Pernell Avenue. The 6-inch line turns south and runs to Cole Street, where it turns east back to Pernell Avenue. The line turns south and runs to the Los Amigos Country Club, where the line runs easterly to its terminus.

- Also along the 16-inch line in the SCE right-of-way, another 6-inch PVC line branches off at Garfield Avenue and runs southerly to its terminus in a public alley south of Burntwood Street.

- The Bell Gardens Extension was completed in July 1995, and was connected to the 8-inch line that terminated in John Anson Ford Park. A di-eccentric reducer was installed to allow for a 16-inch line to be connected. The 16-inch line then runs north through the park to Scout Avenue, where it turns east. The line continues along Scout, which changes to Park Lane, to its terminus at Garfield Avenue.

Schedule 4: A 24-inch cement-lined and coated steel pipe was connected to the 24-inch Schedule 3 line that terminated just west of the 710 Freeway. This line runs westerly along Martin Luther King Jr. Boulevard to a T-section at Wright Road, where two sections of pipeline run to the north and south. The north section begins with a 12-inch line that runs north along Wright Road to Duncan Avenue, where both Wright Road and the 12-inch line turn north. This line runs to Atlantic Avenue, where the line turns northeast and runs to a T-section at Tweedy Boulevard, then west to its terminus.

The south section begins with an 8-inch line from the T-section at Wright Road and Martin Luther King Jr. Boulevard and runs south along Wright Road to McMillan Street. At this point, the line turns west and runs to Gibson Avenue, where it turns south and runs for 1,039 feet to a T-section a San Rafael Street. From this point, the line reduces to a 6-inch pipe and runs easterly along San Rafael Street to its terminus at the 710 Freeway.

In 2008, The City of Lynwood connected an extension to the 8-inch line along the southerly section of the line on Wright Road. An 8-inch PVC line runs westerly along Josephine Street to its termination point at Virginia Avenue where it will serve the relocated Ham Park.

WALNUT VALLEY WATER DISTRICT

A 3,500 gpm pump station and an 8,000 gallon wet well was constructed at the intersection of Valley Boulevard and Grand Avenue, at the end of the 21-inch concrete gravity line from the Pomona WRP. At the pump station, a smaller, 500 gpm booster pump and hydropnuematic system supplies a 12-inch PVC pipe which runs north along Grand Avenue to Snow Creek Drive where it reduces to an 8-inch PVC pipe. The 8-inch line continues north from Snow Creek Drive to Amar Road where it turns west and terminates just before Lemon Avenue. An 8-inch AC line branches off the 12-inch PVC line at Snow Creek Drive and Grand Avenue and runs east, reducing to a 6-inch PVC line at La Puente Road and terminating east of Rodeo Way. A 6-inch AC line branches off from the 8-inch AC line at La Puente Road where it runs north before terminating just south of Bridgewater Lane.

From the pump station, a 20-inch cement-lined and coated steel pipe runs west along Valley Boulevard to Fairway Avenue, where it turns south. This line continues to Colima Road, then south again along Brea Canyon Cutoff Road, where it terminates at the storage reservoirs located at Oakleaf Canyon Road. Several smaller transmission lines branch off the 20-inch main transmission line.

- A 6-inch PVC line branches off the main line on Valley Boulevard at Somerset Drive to serve the Walnut Ridge housing tract.

- An 8-inch PVC line branches off the main line on Valley Boulevard and Pierre Avenue. This line runs north on Pierre Avenue to Puente Avenue, where it reduces to a 6-inch PVC line. The 6-inch line continues east on Puente Avenue, then north on Suzanne Road where it terminates just south of Fuerte Drive.

- A 6-inch PVC line branches off the main line at Valley Boulevard and Lemon Avenue, running north to Vejar Road where it splits into 6-inch PVC lines running east and west. The line continues north on Lemon Avenue and terminates north of La Puente Road. The west line turns north through an easement, then continues west on Avenida Deseo, then south on Avenida Alipaz, where it terminates at Calle Baja. The east line continues along Vejar Road to its termination just east of Scherer Avenue.

- At the point where the 20-inch main line turns south off of Valley Boulevard and onto Fairway Drive, a 12-inch PVC line branches off and continues west along Valley Boulevard to Nogales Street, where it reduces to 8-inches. The line terminates at a T-section at Trafalgar Avenue, allowing for future expansion. Several smaller lines branch off this section of the distribution system. A 6-inch PVC line branches off at Valley Boulevard and Sentous Street, where it runs north to Hollingworth Street. From this point, three 6-inch lines branch off for short distances to serve users located to the east, west and north. A 12-inch PVC line branches off at Valley Boulevard and Nogales Street, where it runs north to its terminus just before La Puente Avenue. In addition to serving Nogales High School, this line allows for possible future service into the City of West Covina. A 6-inch PVC line continues north from the T-section at Valley Boulevard and Trafalgar Avenue, then east on Rorimer Street and north on Deepmead Avenue to its terminus at Sunshine Park.

- Another 12-inch PVC line branches off the line on Fairway Drive, running west along Colima Road to Otterbein Avenue, where it reduces to 8-inches and terminates at Shabarum Regional County Park, just before Azusa Avenue. Several smaller lines branch off this section of the distribution system. A 6-inch PVC line branches off the 12-inch line, running north along Bandida Avenue to its terminus at Rowland

Regional County Park. Two 6-inch PVC lines branch off the 12-inch line at the intersection of Colima Road and Otterbein Avenue. The first line runs north to Addis Street, while the second runs south along Otterbein Avenue, then west along Killian Street, then south on Lerona Avenue. An 8-inch PVC line branches off the 12-inch line, running south along Fullerton Road to a T-section at Galatina Street. One end of the T-section is blind-flanged, while a 6-inch PVC line runs east through an easement, then continuing along Galatina Street. This line then runs north on Cantaria Avenue, east on Farjardo Street to its terminus just before Los Padres Drive. Another 6-inch PVC line runs along Batson Avenue from Farjardo Street.

- A second 12-inch PVC line branches off the main transmission line along Fairway Drive, running east along Colima Road to Lemon Avenue, where a 6-inch PVC line branches off and runs north to serve several users. The 12-inch line continues east along Colima Road to Grand Avenue, where it turns north to a meter at the Diamond Bar Golf Course. The 12-inch line continues north along Grand Avenue, where it reconnects to the 20-inch main line on Valley Boulevard. Two 6-inch PVC lines branch off the 12-inch line to supply a looped-system serving Gateway Corporate Center. Another 6-inch PVC line branches off the 12-inch line at Brea Canyon Road, terminating just north of Golden Springs Drive.

- In a 1994-95 extension of the recycled water system, a 12-inch PVC line was connected to the 20-inch main transmission line on Fairway Drive, running east along Business Parkway and Currier Road, and terminating on Currier Road just before Brea Canyon Road. A 6-inch AC line branches off the 12-inch PVC line and runs north through an easement to join an 8-inch PVC line on Spanish Lane. The 8-inch PVC line runs west where it terminates just west of Brea Canyon Road. The 8-inch line also runs east on Spanish Lane, then north on Cheryl Lane and Brea Canyon Road to its terminus at the WVWD office. This section serves the landscaping around a number of commercial and light industrial buildings.

- In a 1998-99 extension of the recycled water system, the 8-inch PVC line terminating at the WVWD office was extended north to Old Ranch Road. From this point, the line turns east and runs to a frontage road along the Union Pacific Railroad, where it turns and runs north to its terminus at Grand Avenue in the City of Industry. Also during this year, a 12-inch PVC was connected to an existing 12-inch PVC line on Golden Springs Drive, with the new line running south along Adel Avenue and Davan Street. Approximately 100 feet of DIP runs east along a right-of-way to Via Sorella, where the line changes back to PVC and continues south to Brea Canyon Road. The line continues southerly to its terminus at Diamond Lane. This line serves the Diamond Crest Homeowners Association.

CENTRAL BASIN MWD – RIO HONDO SYSTEM

Construction began in April 1993 on a 22,000 gpm pump station, located adjacent to the 66-inch San Jose Creek Outfall on the east side of San Gabriel River Parkway, approximately 900 feet north of Beverly Boulevard. The pump station was completed in March 1994 and went on-line delivering recycled water in July 1994. The first schedule of pipeline construction in the City of Whittier and the City of Santa Fe Springs began in April 1993 and was completed in February 1994, with the Whittier Connector Unit crossing of the 605 Freeway/San Gabriel River being completed in May 1994. Construction on the Vernon Phase 1 and 2A Unit began in June 1993 and was completed in September 1994, while construction on the Pico Rivera, Montebello, Montebello/Vernon, and Vernon 2B units has not yet begun.

Whittier Connector Unit: A 48-inch cement-lined and coated steel pipeline carries recycled water from the Rio Hondo Pump Station toward San Gabriel River Parkway. Just outside the pump station, a 36-inch cement-lined and coated steel pipeline tees off and runs back toward the San Gabriel River levee, where it turns and runs north. The line then turns east and invert siphons under the San Gabriel River channel, where it then crosses an SCE and a Yellow Freight Company railroad right-of-way. The line was then jacked under a Union Pacific Railroad line and the 605 Freeway to Pioneer Boulevard, just south of Strong Avenue. Between the railroad and the freeway, the pipeline was reduced to 24-inches. The 30-inch line is contained in a 42-inch steel casing, and the 24-inch line is contained in a 36-inch steel casing. At Pioneer Boulevard, the 24-inch line expands back to 30-inches and runs southwest to a point where it is jacked under Beverly Boulevard in a 42-inch steel casing. This portion of the pipeline construction connects to the Whittier Unit on the south side of Beverly Boulevard.

Whittier Unit: The construction for this schedule began where the Whittier Connector Unit ended on Pioneer Boulevard just south of Beverly Boulevard. From this point, the 30-inch line continues southwest along Pioneer Boulevard to Orange Grove Avenue, where it turns southeast. The line continues along Orange Grove Avenue to Norwalk Boulevard, where it turns southwest and runs to El Rancho Drive. At this point, the line turns southeast and runs along El Rancho Drive to a T-section at Broadway Road. From this T-section, an 18-inch line runs east along Broadway Road to Western Avenue where it terminates in a temporary blow-off valve, plug and blind flange. Any future (although currently unplanned) extensions of the recycled water system into the City of Whittier will continue from the point.

From the T-section at El Rancho Drive and Broadway Road, a 16-inch cement-lined and coated steel pipeline continues southwesterly along Broadway Road to Norwalk Boulevard. Along the way, the line was jacked underneath Washington Boulevard. At Norwalk Boulevard, the 16-inch line turns south and runs to a point just south of Walnut Street, where the line connects to the Santa Fe Springs Unit. Along the way, the line was jacked underneath Slauson Avenue.

A second set of pipelines was constructed from the Rio Hondo Pump Station. From the pump station, a 48-inch cement-lined and coated steel pipeline runs to the property line on San Gabriel River Parkway, where it terminates in a T-section. A 12-inch line runs northeasterly from the T-section along the parkway to the intersection of Fairway Drive, where it terminates in a blind-flanged T-section. Also branching from the 48-inch line T-section is a 36-inch cement-lined and coated steel line that runs southwesterly to Beverly Boulevard. At this point, the line reduces to 30-inches and terminates in a T-section at Tobias Avenue, with the 30-inch branch blind-flanged. A 10-inch line runs along Tobias Avenue from the T-section before it also terminates in a blind-flange. Future construction will continue from the blind-flanged sections.

Santa Fe Springs Unit: The main portion of this construction schedule is a 16-inch cement-lined and coated steel that connects to the Whittier Unit on Norwalk Boulevard, between Walnut and Burke Streets. The 16-inch line continues south along Norwalk Boulevard to Florence Avenue, where it connects to a 24-inch line of the Century recycled water distribution system. This is the first of several links between the two distribution systems. Along the 16-inch line on Norwalk Boulevard, two T-sections were installed to allow for construction of other pipelines.

The first T-section on the 16-inch line is located at the intersection of Norwalk Boulevard and Burke Street, with a 12-inch line branching off and running east to its termination at a T-section at Dice Road. From this point, a looped-section of pipelines begins. The northern portion consists of a 12-inch line running north on Dice Road to a T-section, then east through an alley to a T-section on Sorenson Avenue, where the line reduces to 6-inches and continues south to a T-section at Santa Fe Springs Road, then southwest to a T-section at Los Nietos Road. The south portion also begins at the T-section at Burke Street and Dice Road and consists of a 12-inch line running south to Los Nietos Road, then southeast to Santa Fe Springs Road, where it connects to the northern portion at the T-section.

From the T-section at Los Nietos and Santa Fe Springs Roads (the street name changes to Bloomfield Avenue at Telegraph Road), the 12-inch line continues southwest to Florence Avenue, where it connects to a 12-inch line of the Century recycled water distribution system.

The second T-section on the 16-inch Norwalk line is located at Norwalk Boulevard and Los Nietos Road. From this point, an 8-inch line runs west to Pioneer Boulevard, where the line terminates in a temporary blow-off valve and plug.

Vernon Phase 1 and 2A Unit: This section of pipeline connects the west side of the Rio Hondo distribution system to Schedule 4 of the Century distribution system, detailed in Appendix F. The 12-inch line of Schedule 4 terminated at a T-section at the intersection of Atlantic Avenue and Tweedy Boulevard in the City of South Gate. From this point, an 18-inch line runs north along Atlantic Avenue to a T-section at Ardine Street, where a 10-inch line runs west to Quartz Avenue, then south to its terminus at Independence Avenue.

From the T-section at Atlantic Avenue and Ardine Street, the 18-inch line continues north to a T-section at Elizabeth Street. At this intersection, the line turns west and runs to Otis Avenue. The 18-inch line turns north again and runs along Otis Avenue to a T-section at Randolph Street.

From the T-section at Otis Avenue and Randolph Street, a short section of 6-inch line runs east where a blind-flange was installed to allow for future construction. The 18-inch line continues west along Randolph Street to its terminus at Boyle Avenue. Along Randolph Street, an 8-inch line branches off at Newell Street and runs south to its terminus at Saturn Avenue.

PUENTE HILLS/ROSE HILLS

The distribution system consists of 2,956 feet of 36-inch reinforced concrete gravity line that runs east from the 66-inch San Jose Creek WRP Outfall on Workman Mill Road to the original landfill entrance. The first of three pump stations lifts 12,000 gpm of recycled water 500 feet through 2,200 feet of 36-inch force main to an existing 650,000 gallon reservoir located close to the PERG Facility. The second pump station, located at the 650,000 gallon reservoir, lifts the recycled water another 300 feet through 3,700 feet of 30-inch force main to a 1.2 million gallon reservoir constructed by Rose Hills on the border between the landfill and cemetery. The third pump station, located at the Rose Hills storage tank, lifts 2,200 gpm of recycled water through 4,700 feet of 18-inch buried DIP leading to a new 800,000 gallon reservoir located at the former Nike site, with 2,000 feet of aboveground galvanized steel pipe serving the eastern landfill.

Construction of the gravity line was completed in June 1993, with construction of its connection to the San Jose Creek Outfall completed in March 1996. In 2001, construction of the expansion to serve the eastern portions of the landfill and the upper areas of the ever-expanding cemetery was completed.

APPENDIX J

USGVMWD – WHITTIER NARROWS RECREATION AREA EXTENSION

Recycled water is delivered from the USGVMWD pump station located adjacent to the chlorine contact tanks in the northwest section of the WNWRP. This pump station, designed by Tetra Tech, Inc., is capable of providing 10,000 gpm of recycled water to the transmission and distribution system. This pumping plant consists of one 200 HP, 2,000 gpm and three 350 HP, 4,000 gpm vertical turbine pumps provided by Simflo Pumps Inc. The third 4,000 gpm pump serves as a backup.

From the USGVMWD pump station the recycled water is transported through a 24-inch, Class 200 ductile iron pipeline (DIP) that runs northeasterly, suspended along the eastern side of the WRP's chlorine contact tank. All buried portions of the DIP have been double-bagged with 8 ml purple plastic to protect it against corrosion and to identify it as a recycled water pipeline. The 24-inch pipeline exits the pump station near the northeast corner of the WNWRP site and heads north for approximately 165 feet and turns northwest for 115 feet, tentatively following the property line. The pipeline then turns due west for 195 feet.

Approximately 50 feet south of the northwest corner of the WRP's property and a SCE easement, the 24-inch pipeline exits the WRP site and runs northwest to the southern edge of the SCE easement, then continues north through the easement. On the north side of the easement, the pipeline is jacked under Mission Creek and encased in an 82-foot long, 36-inch welded steel casing. The 24-inch pipeline continues northward through an archery range and a second SCE easement to a point approximately 33 feet north of the easement where it ends in a T-section (hereinafter identified as "Junction 1").

There is a 24-inch butterfly valve on the western branch of the Tee at Junction 1, after which the 24-inch pipeline continues due west, then northwesterly, then due west again, then northwesterly until it reaches the eastern bank of the Rio Hondo. The 24-inch pipeline then follows the bike path northward along the eastern edge of the river until it passes under the Pomona (60) Freeway right-of-way. Under the freeway, the pipeline is encased in a 36-inch welded steel casing. Just north of the freeway, the 24-inch pipeline turns east and runs parallel to the freeway to Loma Avenue.

Along Loma Avenue, the 24-inch pipeline runs north where it reduces to an 18-inch Class 250 DIP. Along this run, three T-sections with gate valves (two 6-inch and one 12-inch) were installed to serve the existing irrigation systems in what is known as Area "A" of the Whittier Narrows Recreation Area. The 18-inch pipeline continues north along Loma Avenue where it terminates with an 18-inch butterfly valve and a blind-flange for future extension. Three more T-sections with 6-inch gate valves for servicing Area "A" have been installed along the 18-inch pipeline.

In order to interconnect the irrigation systems serving Area "A" (located north of the 60 Freeway and bordered by Loma Avenue on the west and Rosemead Boulevard on the east) and Area "B" (located east of Rosemead Boulevard), a 12-inch Class 350 DIP was installed. On the south side of the Rosemead Boulevard entrance to Area "A", north of the 60 Freeway, a 12-inch tapping sleeve and gate valve was installed on an existing 12-inch AC irrigation pipeline. From this point, a 12-inch DIP runs northeast to the north side of the park entrance where it was jacked under Rosemead Boulevard and encased in 18-inch welded steel casing. From the west side of Rosemead Boulevard, the 12-inch pipeline runs due east to Area "B". At the end of this pipeline, an 8-inch reducer and tapping sleeve with a gate valve were installed on an existing 8-inch irrigation pipeline completing the interconnection of the two recreation areas.

Back at the T-section at Junction 1, the east branch reduces to a 16-inch Class 250 DIP through a butterfly valve, running due east to a T-section with a 6-inch stub-out and gate valve for a future extension. From this

Tee, the 16-inch pipeline jogs slightly to the north, then continues due east where a second T-section with a 6-inch stub-out and gate valve for a future extension was installed. From the second Tee, the 16-inch pipeline continues due east where a third T-section with a 6-inch stub-out and gate valve for a future extension was installed. From the third Tee, the 16-inch pipeline continues due east to the west side of Rosemead Boulevard at the southern entrance to the Whittier Narrows Recreation Area, south of the 60 Freeway. At this point, the 16-inch pipeline was jacked under the street and encased in 24-inch welded steel casing.

From the east side of Rosemead Boulevard, the 16-inch pipeline continues due east into Area "D" of the Whittier Narrows Recreation Area where a fourth T-section with a 6-inch stub-out and gate valve for a future extension was installed. From the fourth Tee, the 16-inch pipeline continues due east to the edge of Legg Lake. From this point, the 16-inch pipeline was jacked under the connecting channel between the middle lake and the south lake and encased in 24-inch welded steel casing. From this point, the 16-inch pipeline continues due east where it turns southeast and runs to a T-section at the intersection of Santa Anita Avenue and Lexington Gallatin Road (hereinafter identified as "Junction 2").

There is a 16-inch butterfly valve on the southeastern branch of the Tee at Junction 2, after which the 16-inch pipeline continues southeast, where it terminates in a fifth T-section with a 6-inch stub-out and gate valve for a future extension.

Back at Junction 2 at the Santa Anita Avenue/Lexington Gallatin Road intersection, an 8-inch reducer and gate valve is connected to the T-section, and an 8-inch, Class 350 DIP pipeline runs. This pipeline then turns southeast. The pipeline then runs due east where it terminates at Andrews Street in a T-section with a 6-inch gate valve and an 8-inch lateral that serves a 4-inch stub out to South El Monte High School.

For the Rosemead Extension, 3,633 feet of 12-inch line runs west from the Golf Course along Garvey Avenue between River Avenue and Earle Avenue, with two, short 6-inch laterals running north on Willard Avenue and Earle Avenue (761 and 822 feet, respectively). A 6,393 foot, 8-inch line tees off of the 12-inch line on Garvey and runs south on Walnut Grove Avenue to a point just north of Cameta Drive. From this 8-inch line, a 180 foot, 4-inch lateral branches off to the west at Gravalia Avenue, a 1,440 foot, 6-inch lateral branches off to the east on Klingerman Street, and a 1,258 foot, 6-inch line branches off to the west on Rush Street.

LANCASTER EASTERN AGRICULTURAL SITE

To deliver recycled water to this site, approximately 17.2 miles of transmission lines (terminating in a 2 million gallon storage tank) were designed and constructed to supply the proposed agricultural area of approximately 4,650 acres (3,800 acres actually cultivated). A 36-inch steel transmission line runs south from the Lancaster WRP along Sierra Highway, then east along East Avenue E. At 60th Street East, the transmission line transitions down to a 28-inch HDPE line and splits, with one line running down Avenue E then south on 90th Street East to Avenue G, then east again to its terminus halfway between 90th and 100th Streets. The second line runs south on 60th Street East then east on East Avenue F to 90th Street East where it reconnects with the first line.