

California-American Water Southern Division-
Los Angeles County District



CALIFORNIA
AMERICAN WATER

Water Supply Assessment

for the

The Park at Live Oak Specific Plan

Prepared for:

Irwindale Partners II, LLC

Prepared Under the Responsible Charge of:

Laine Carlson, PE

California R.C.E. No. 72424, Expires 6/30/2020



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1 INTRODUCTION AND PURPOSE

This Water Supply Assessment (WSA) was prepared on behalf of Irwindale Partners II, LLC (Irwindale Partners) for California-American Water (CAW) by Water Systems Consulting, Inc. (WSC) to satisfy the requirements of California Water Code (CWC) Section 10910 (Senate Bill 610) for The Park at Live Oak Specific Plan (Project), which is proposed by Irwindale Partners II, LLC. The Project lies within the city limits of the City of Irwindale (City). The majority of the Project lies within CAW's Duarte water service area. The City is the Lead Agency for the Project's Environmental Impact Report (EIR) which is required by the California Environmental Quality Act (CEQA).

As required by Senate Bill 610 (SB 610), CAW is responsible for assessing whether the total projected water supplies available during average, single dry, and multiple dry water years during a 20-year projection will meet the projected water demand for the Project, in addition to CAW's existing and planned future uses. A water supplier's Urban Water Management Plan (UMWP) serves as a foundational document for a WSA. The water demands of the proposed Project were not accounted for in CAW's 2015 UWMP for the Southern Division- Los Angeles County District (2015 UWMP) (1), as submitted to the California Department of Water Resources (DWR) in June 2016. However, CAW intends to prepare an amendment to the 2015 UWMP to account for a minor revision to the water supply calculations presented in the 2015 UWMP and to address comments received from DWR. The 2015 UWMP will be amended to address these changes and will also incorporate the estimated demands from the proposed Project in the supply and demand analysis. Therefore, the demands of the proposed Project will be accounted for in the in 2015 UWMP, as amended. Content from the 2015 UWMP has been updated and incorporated into this document and reflects the supply and demand information that will be presented in the amended 2015 UWMP. Additional information from other sources is also incorporated into this WSA to document supplies from all sources, including groundwater and purchased water. Documentation includes identifying and quantifying water rights, contracts, and/or entitlements to the supply. CAW must provide the results of the assessment to the City, as the Lead Agency, for inclusion in the CEQA document for the project. This WSA includes the following:

- Description of the Project and proposed water demand (Section 2 & 3)
- Overview of CAW's water system (Section 4)
- Information on CAW's current and projected water demands in the Duarte water service area (Section 5)
- Information on CAW's current and projected water supplies (Section 6)
- Discussion of water supply reliability (Section 7)
- Comparison of water supplies and water demands for average, single dry, and multiple dry years (Section 8)
- Determination of water supply sufficiency and a description of the facilities necessary to provide additional water supplies to serve the demands of the Project (Section 9)

1.1 LEGISLATION

The City has determined that the Project is subject to review under CEQA (*Public Resources Code, Section 21000 et seq.*), and the state CEQA Guidelines (*California Code of Regulations, Section 15000 et seq.*) The City has determined that the Project is a “project” as defined in CWC 10912 and has determined that an EIR is required for the Project.

SB 610 amended the Public Resources Code, effective January 1, 2002, to incorporate CWC requirements for certain types of development projects to improve the link between information on water supply availability and certain land use decisions made by cities and counties. SB 610 seeks to promote more collaborative planning between local water suppliers, cities and counties by requiring detailed information regarding water availability to be provided to the city and county decision-makers prior to approval of specified large development projects.

Under SB 610, water suppliers must prepare WSAs for projects meeting certain project size criteria and deliver them to local governments for inclusion in any environmental documentation. The criteria that trigger preparation of a WSA are shown below with this Project’s applicable criteria marked with an “x”.

- A proposed residential development of more than 500 dwelling units.
- A proposed shopping center or business establishment employing more than 1,000 persons or having more than 500,000 square feet of floor space.
- A proposed commercial office building employing more than 1,000 persons or having more than 250,000 square feet of floor space.
- A proposed hotel or motel, or both, having more than 500 rooms.
- A proposed industrial, manufacturing, or processing plant, or industrial park planned to house more than 1,000 persons, occupying more than 40 acres of land, or having more than 650,000 square feet of floor area.
- A mixed-use project that includes one or more of the projects specified in this subdivision.
- A project that would demand an amount of water equivalent to, or greater than, the amount of water required by a 500 dwelling unit project.

The Project requires a WSA because it proposes construction of uses that exceed the thresholds of a development that would demand an amount of water equivalent to, or greater than, the amount of water required by 650,000 square feet of floor area.

1.2 DEFINITIONS

For the purposes of this WSA, the following defined terms are used:

- **Groundwater production:** The amount of water produced from CAW groundwater supply sources and put into the distribution system based on metered flows at each well. CAW provided annual groundwater production data for 1995-2017.
- **Purchased Water:** The amount of water purchased from CAW’s wholesale supply sources and put into the distribution system based on metered flows at each supply connection. CAW provided annual purchased water data for 2005-2017.

- **Consumption:** The amount of billed metered water consumed by customers. CAW provided annual consumption data for 1995-2017.
- **Demand:** The amount of water distributed through the entire water system, which is the sum of groundwater production and purchased water. Demand includes non-revenue water, which is equal to the difference between water put into the distribution system and consumption.
- **Non-revenue water:** Unmetered water use and losses from the distribution system due to leaks, unauthorized connections or theft.
- **Unit Factor:** The calculated amount of water demand per unit (e.g., acre, sqft, dwelling unit, etc.) of a specific type of use (e.g., land use, development type, business type, etc.).

2 PROJECT DESCRIPTION

The Project site consists of 78.3 acres in the west portion of the City of Irwindale in Los Angeles County, California. The property is located at 1270 Arrow Highway, south of Arrow Highway, north of Live Oak Avenue, and west of Interstate 605. Most of the Project site lies within CAW's Duarte water service area, a public water system as defined in CWC Section 10912, and CAW could supply water to the remaining portion of the site as an extension of service per the California Public Utilities Commission (CPUC) Standard Practice U-14-W. Therefore, according to CWC Section 10910(b), CAW is responsible for preparing a WSA for the Project. Figure 2-1 depicts the Project location relative to CAW's service area boundary.

The Project site is a property that was formerly mined and is being reclaimed and developed as a warehouse distribution/logistics and commercial retail center. The proposed development would include multiple buildings that collectively would provide a maximum of 1,550,000 square feet (sf) of building space, including a maximum of 1,451,400 sf of industrial/business park buildings and a maximum of 98,600 sf of commercial buildings. Specifically, the proposed land uses within the Project are as follows:

Industrial Business Park. Planning Areas 1, 2, and 3 (comprising a total of 39.3 acres of the Project site) are designated as "Industrial/Business Park" land uses, which would allow for the construction of up to 1,451,400 sf of Industrial/Business Park building square footage. Planning Areas 1, 2, and 3 are designed to accommodate large buildings of various sizes that would house users such as general light industrial, manufacturing, warehouse/distribution, shipping/parcel delivery, and e-commerce fulfillment center operations.

Commercial/Industrial. The Project would allow for up to 34.8 acres within Planning Areas 1A, 2A, and 3A to be developed with Commercial/Industrial land uses. Planning Areas 1A, 2A, and 3A are located along the northern Project site boundary adjacent to Arrow Highway and would accommodate market-driven commercial uses to serve nearby residents, employees, visitors, and travelers on the I-605 freeway. The total combined maximum commercial building square footage permitted in Planning Areas 1A, 2A, and 3A is 51,600 sf. This amount of commercial building space is expected to need fewer than 34.8 acres. Therefore, the portions of Planning Areas 1A, 2A, and 3A that are not developed with commercial land uses may be developed as an expansion of the Industrial/Business Park land uses within Planning Areas 1, 2, and 3 described previously.

Commercial. The Project would allow for the 4.2-acre Planning Area 4 to be developed with up to 47,000 sf of Commercial building space. Permitted uses within Planning Area 4 would include employment-generating commercial uses, retail services, professional offices, and possible expansion of the Industrial/Business Park uses from adjacent Planning Areas 2 and 3.

Figure 2-2 presents a Conceptual Land Use Plan for the Project. The developer also provided a Master Site Plan (Figure 2-3) which provides a more detailed estimate of the acreage associated with each land use, as summarized in Table 2-1. Although there is potential for the Project's land uses to vary up to the aforementioned maximum entitled areas, the land use areas used to estimate Project water demands were based on the Master Site Plan acreages as shown in Table 2-2. However, if the actual retail/commercial acreage increases from these assumptions, the associated water demand may increase and would need to be reevaluated.

Table 2-1. Acreage by Use Type

Use Type	Acres
Retail/Commercial	10.29
Industrial	64.23
Streets	3.79
Total	78.32

Table 2-2. Detailed Conceptual Acreage by Use Type and Phase

Phase	Planning Area	Land Use	Acres
Phase 1	PA 1	Industrial/Business Park	36.0
	PA 1A	Commercial	4.8
Phase 1 Subtotal			40.8
Phase 2	PA 2	Industrial/Business Park	6.4
	PA 2A	Industrial/Business Park	17.3
	PA 3	Industrial/Business Park	4.6
	PA 3A	Commercial	1.9
	PA 4	Commercial	3.5
Phase 2 Subtotal			33.7
Streets All			3.8
Total			78.3

Construction is anticipated to begin once entitlements are obtained. The existing Entitlement schedule shows public hearings for the EIR will occur in early to mid 2019. Construction will begin once discretionary applications are approved and grading permits are issued. The Project is expected to be phased as described below:

- Phase 1: Planning Area 1 and 1A will be developed as Phase 1 by early 2020.
- Phase 2: Planning Areas 2, 2A, 3, 3A, and 4 will be developed as Phase 2 by late 2020.

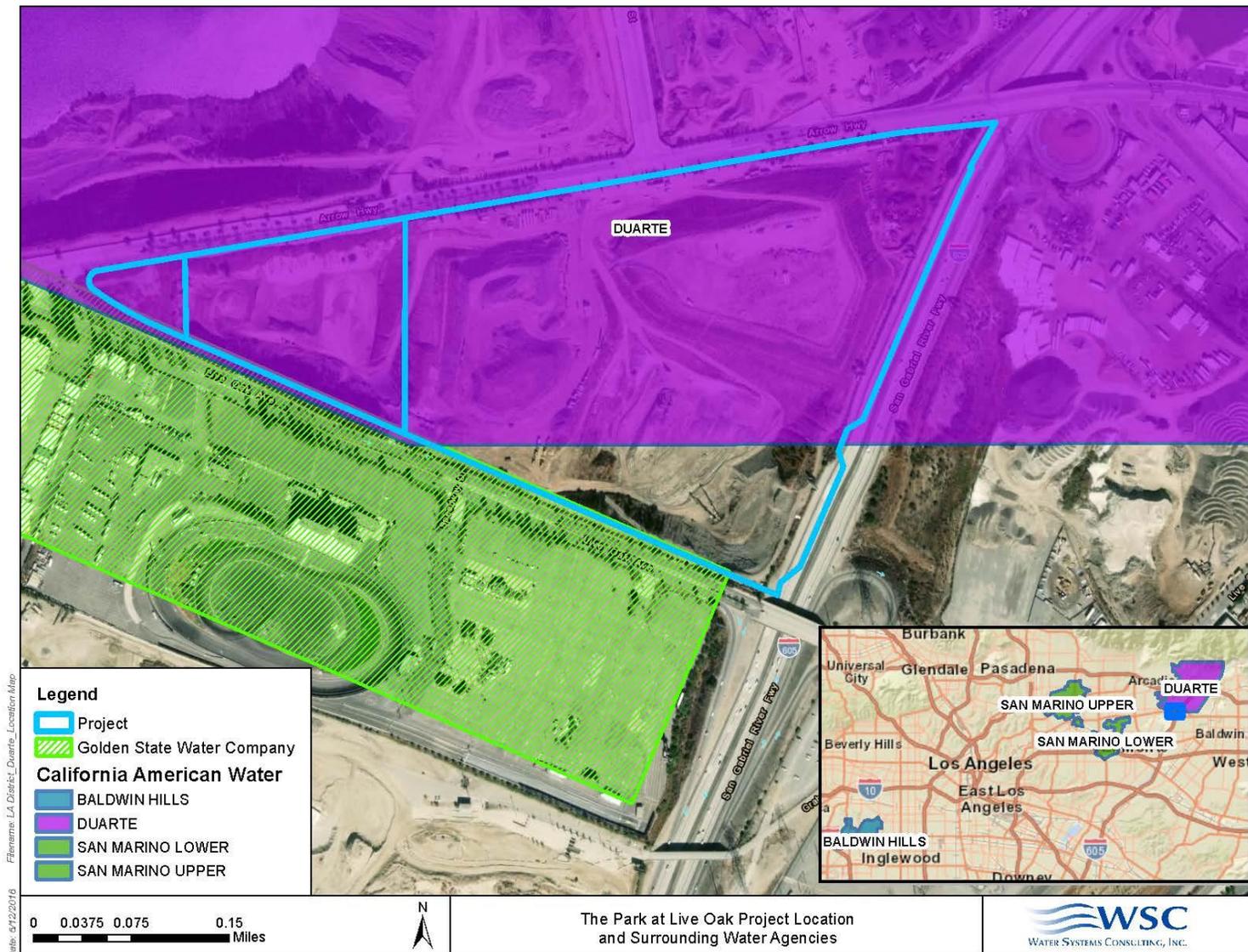


Figure 2-1. Project Vicinity Map

THE PARK @ LIVE OAK
 SPECIFIC PLAN

II. DEVELOPMENT PLAN

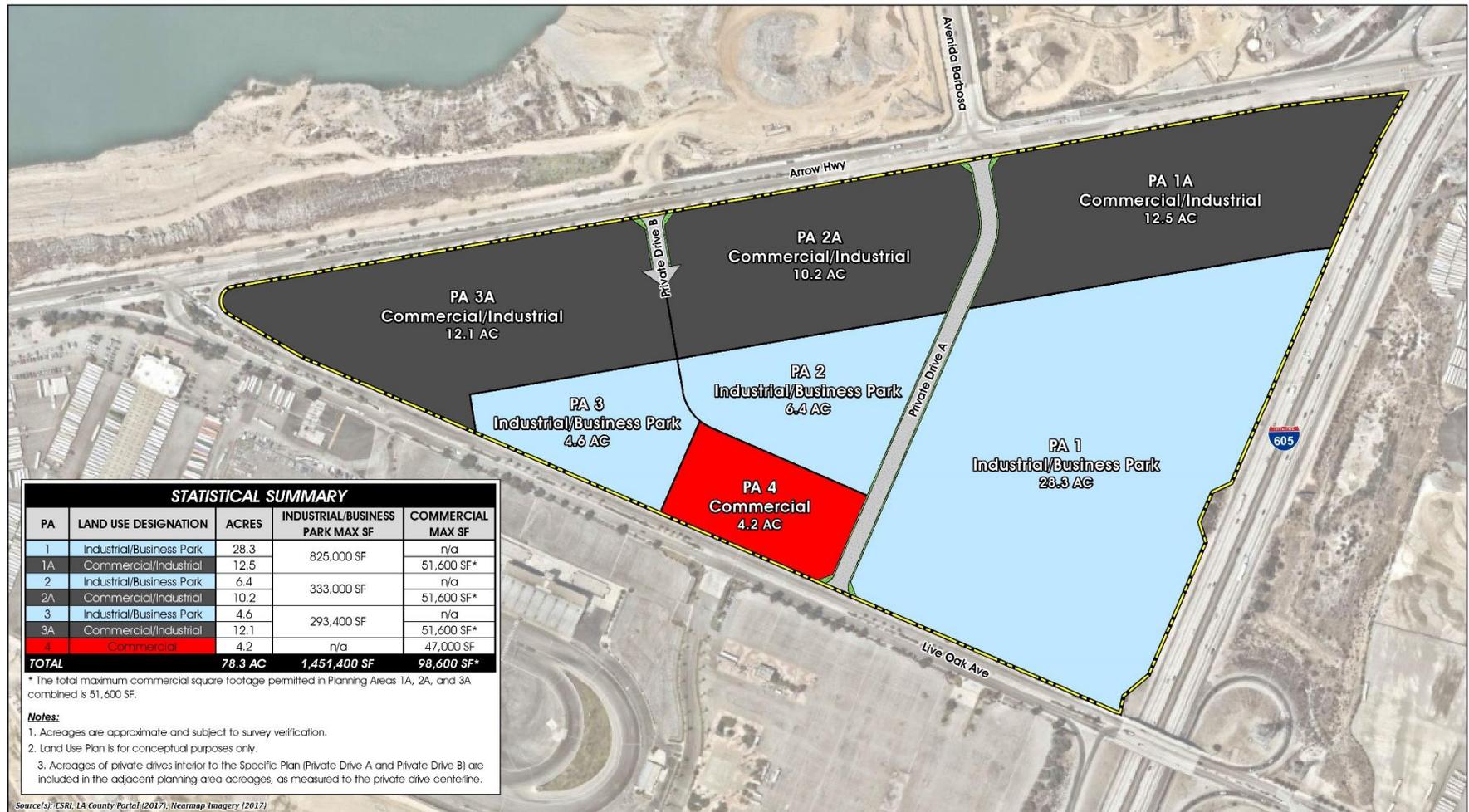
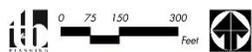


Figure II-1



CONCEPTUAL LAND USE PLAN

Figure 2-2. Project Conceptual Land Use Plan

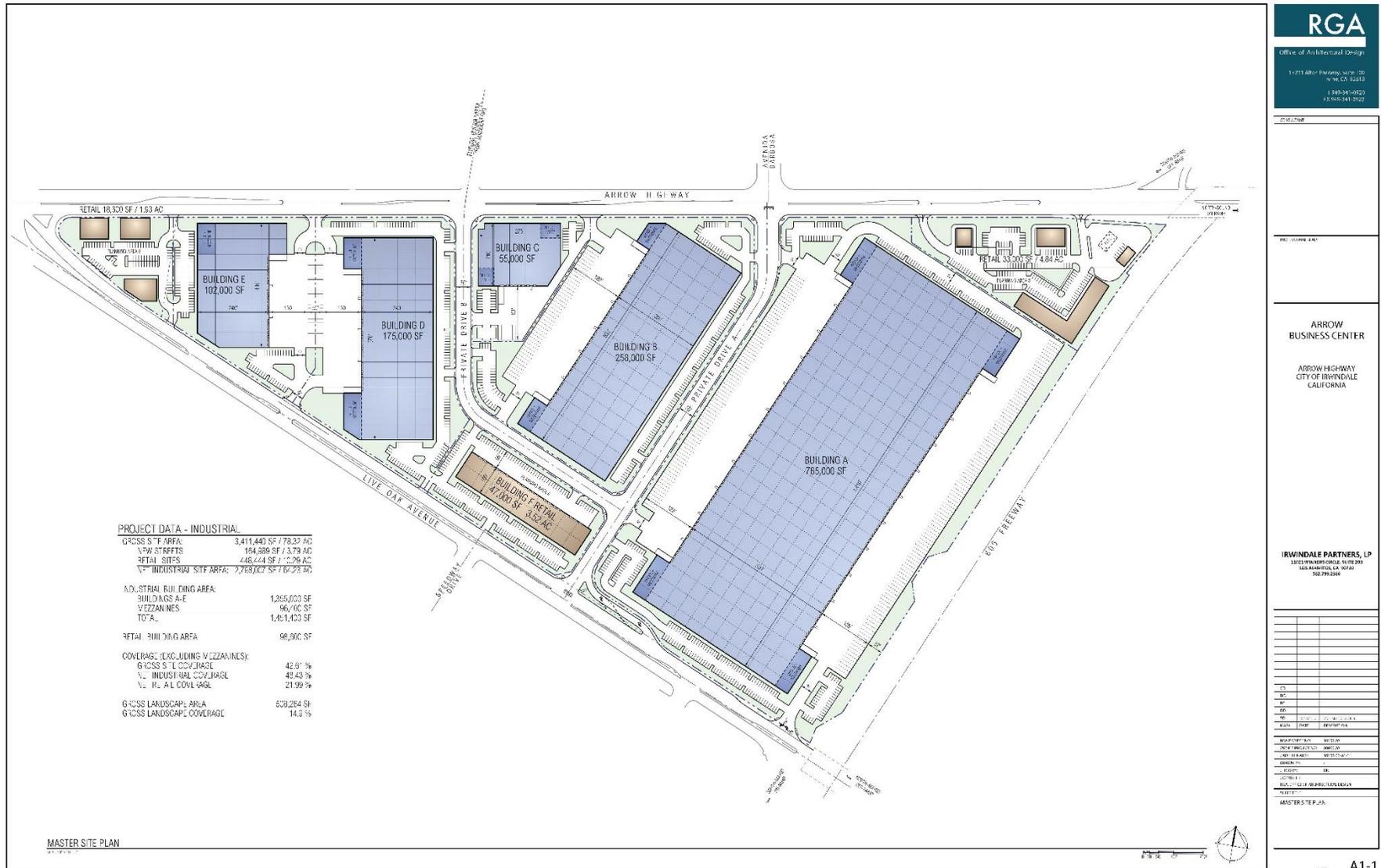


Figure 2-3. Project Master Site Plan

3 PROJECT WATER DEMAND

Per CWC Section 10910(c)(1), CAW’s 2015 Urban Water Management Plan (UWMP) and CAW’s 2012 Comprehensive Planning Study (CPS) did not include the water demands for the Project. Therefore, demands were estimated for the proposed industrial/business park and commercial uses. Water use factors were obtained from numerous water supply master plans and other WSAs with comparable uses. Water use for the Project could vary due to the wide range of uses the property could serve. Therefore, an average of representative water use factors was used to estimate demands. As shown in Table 3-1, the total estimated water demand for the Project is 114 acre feet per year (AFY).

Table 3-1. Estimated Project Water Demands

<u>Land Use</u>	<u>Acres</u>	<u>Water Demand Factor¹</u>	<u>Demand Estimate (AFY)</u>
Retail/Commercial	10.29	2,400	28
Industrial	64.23	1,200	86
Streets	3.79	0	0
Total	78.3		114

¹ Water Demand Factor in gallons per day per acre, based on average of water demand factors from 10 water planning documents with similar types of use.

4 PUBLIC WATER SYSTEM OVERVIEW

CAW’s Southern Division - Los Angeles County District consists of the Baldwin Hills, Duarte, and San Marino water service areas. The water systems within these three service areas are not interconnected with each other and have independent water supplies. All three service areas of the Los Angeles County District are located in Los Angeles County, California. In 2017, the Los Angeles County District provided water to approximately 28,000 connections and served a population of approximately 102,500 people. In 2017, this population made up 1% of the Los Angeles County population. Figure 4-1 shows the location of all three service areas in Los Angeles County.

The Project is located almost entirely within CAW’s Duarte water service area, which is shown in Figure 2-1 and Figure 4-2. The portion of the Project not completely within the Duarte service area is not currently served by a water supplier. The Duarte water service area encompasses approximately 6,459 acres and is located approximately 20 miles northeast of downtown Los Angeles. The Duarte water service area spans both sides of Interstate 210 immediately west of the Interstate 210/ Interstate 605 freeway interchange. The San Gabriel River runs along the eastern border of the Duarte water service area. In 2017, CAW’s Duarte water service area provided water to approximately 7,500 customers in the cities of Azusa, Bradbury, Duarte, Irwindale, and Monrovia. CAW served approximately 29,000 people in the Duarte water service area in 2017. Because the Project is located in the Duarte water service area, which is operated separately from San Marino and Baldwin Hills service areas, only the Duarte service area will be discussed in subsequent sections of this WSA.

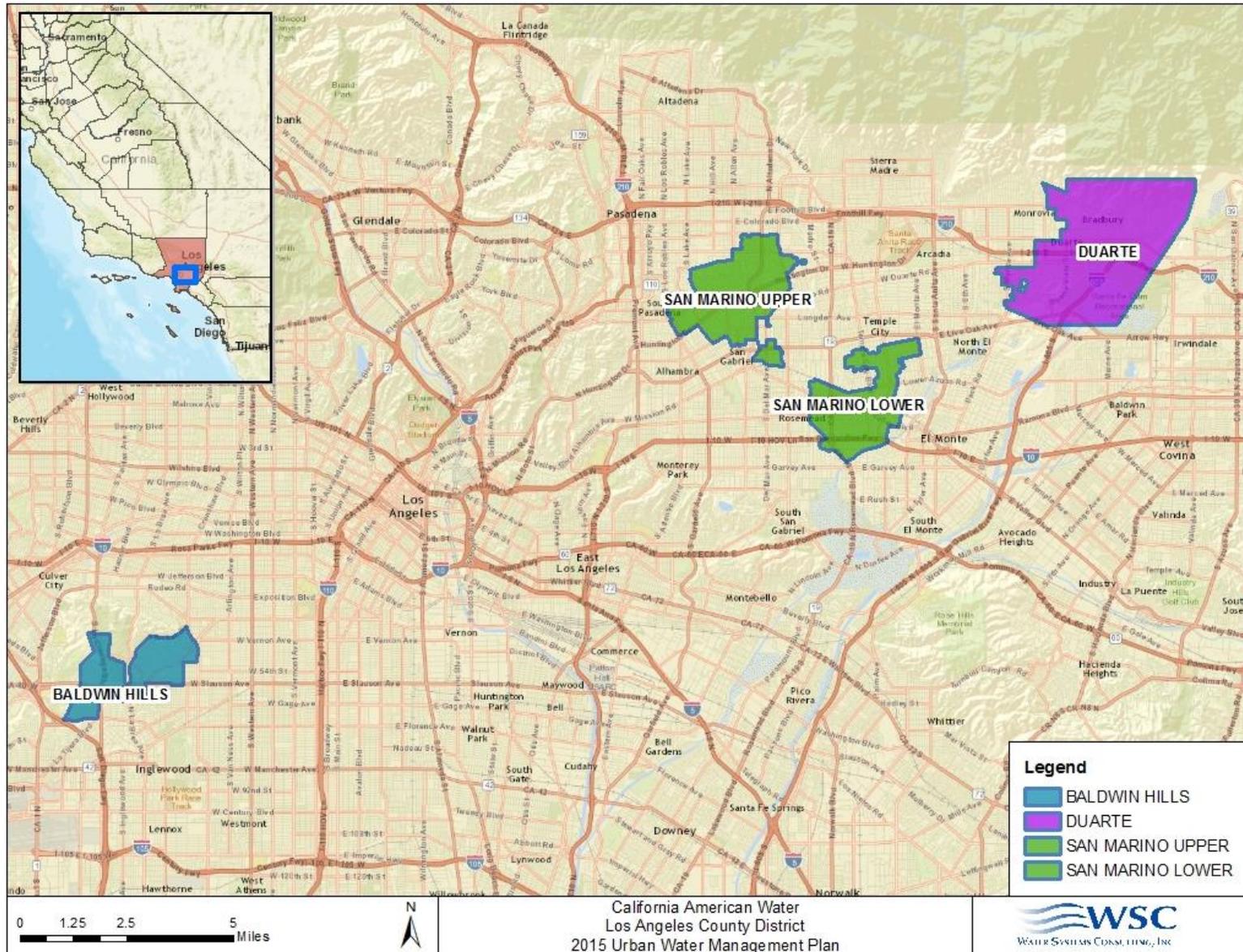


Figure 4-1. CAW Los Angeles County District Water Service Areas (1)

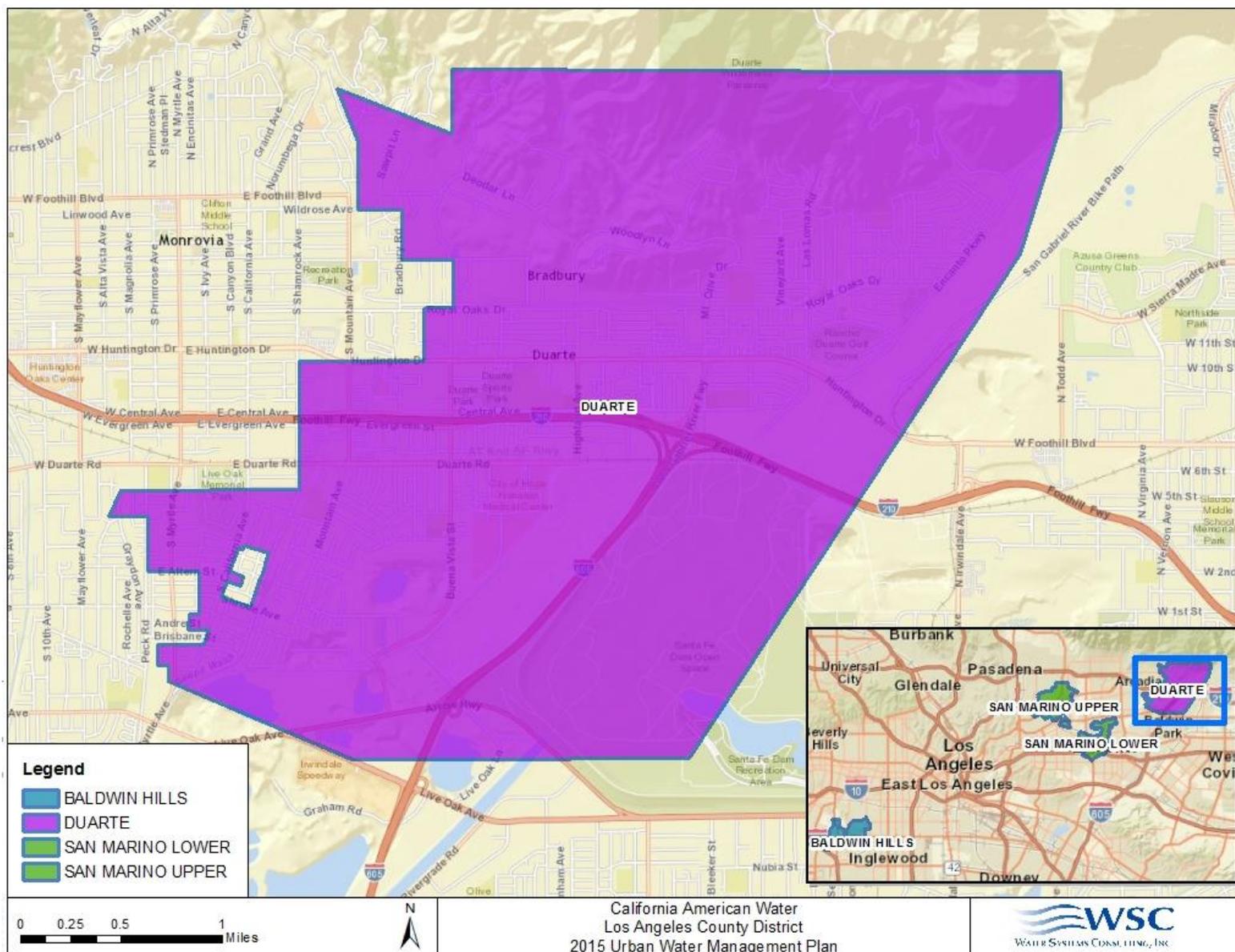


Figure 4-2. CAW Duarte Water Service Area (1)

4.1 CLIMATE

The Los Angeles County District has a Mediterranean climate as evidenced by its dry, warm to hot summers, and mild, somewhat rainy winters with modest transitions in temperature. The warmest month of the year is typically August and the coldest month is typically January. The average temperature is a mild 63.9 degrees Fahrenheit. On average, the weather station used to record climate data receives 20.2 inches of rainfall per year. Table 4-1 and Table 4-2 present monthly climate data in more detail.

Table 4-1. Precipitation and Evapotranspiration in the Los Angeles County District (January through June)

	January	February	March	April	May	June
Standard Average ETo, in¹	2.23	2.41	3.67	4.28	5.02	5.62
Average Rainfall, in²	4.39	4.54	3.39	1.39	0.43	0.13
Average Temperature, °F²	54.55	55.95	57.9	61.1	64.25	68.7

¹ Data from California Irrigation Management Information System (CIMIS), Station 159 in Monrovia, (period of record is from January 2005 through November 2015) <http://www.cimis.water.ca.gov/cimis/data.jsp> (4)
²Data from Western Regional Climate Center, Station:(046719) Pasadena, California, (1893-December 31, 2015) <http://www.wrcc.dri.edu/cgi-bin/cliMAIN.pl?ca6719> (5)

Table 4-2. Precipitation and Evapotranspiration in the Los Angeles County District (July through December)

	July	August	Sept.	Oct.	Nov.	Dec.	Annual
Standard Average ETo, in¹	6.30	6.14	5.86	3.47	2.44	1.82	57.06
Average Rainfall, in²	0.03	0.08	0.36	0.7	1.67	3.14	20.24
Average Temperature, °F²	74.15	74.75	72.8	67	60.5	55.2	63.9

¹ Data from California Irrigation Management Information System (CIMIS), Station 159 in Monrovia, (period of record is from October 1999 through April 2011) <http://www.cimis.water.ca.gov/cimis/data.jsp>
²Data from Western Regional Climate Center, Station:(046719) Pasadena, California, (1893-December 31, 2015) <http://www.wrcc.dri.edu/cgi-bin/cliMAIN.pl?ca6719> (5)

4.2 SERVICE AREA POPULATION

In the greater Southern California region, the population growth rate from 2010-2015 is an extension of the slow growth pattern observed during the 2000-2010 period. The average annual growth rate for the 2010-2015 period was only 0.7 percent, which was lower than the 0.9 percent growth rate of the 2000-2010 period (6). Similar to the Southern California region, Los Angeles County’s growth has slowed from 2010 to 2015, growing by approximately 0.72 percent per year during this time period according to U.S. Census populations (7).

The historical, current and projected populations for the Duarte water service area are shown in Table 4-3. The population projections were calculated based on 2000 and 2010 census block data as well as calculated growth rates from the Southern California Association of Governments’ (SCAG) population projections by census tract. It is not anticipated that the project will result in additional permanent residents within the Duarte water service area in excess of these projections.

Table 4-3. Historical, Current and Projected Population (1)

	2005	2010	2015	2020	2025	2030	2035
CAW Duarte Water Service Area	29,302	29,643	29,156	29,625	30,208	30,801	31,407

4.2.1 Other Demographic Factors

The Duarte service area is located within the West San Gabriel Valley Planning Area and a small portion of the East San Gabriel Planning Area as defined in the Los Angeles County General Plan (Figure 4-3). The projected population growth within the unincorporated portion of the West San Gabriel Valley Planning Area is 33% and the projected employment growth is 10% between 2010 and 2035 (8).

Most of the communities in the Los Angeles District service areas are approaching buildout and have little or no available vacant land left to develop. Most growth is anticipated to come from redevelopment and higher density development. The L.A. County General Plan Housing Element states:

“There will be a continued decrease in land available for new housing throughout the County, coupled with a continued increase in pressure to preserve open space and agricultural land; and higher density housing is needed to balance the shortages of land for development and the increasing needs for housing and commerce” (9).

To make sure the demographic factors impacting the Duarte water service area are accurately captured, the growth rates utilized for projections calculated for this WSA are based on the most current and detailed data available from the Southern California Association of Governments’ (SCAG) population projections by census tract.

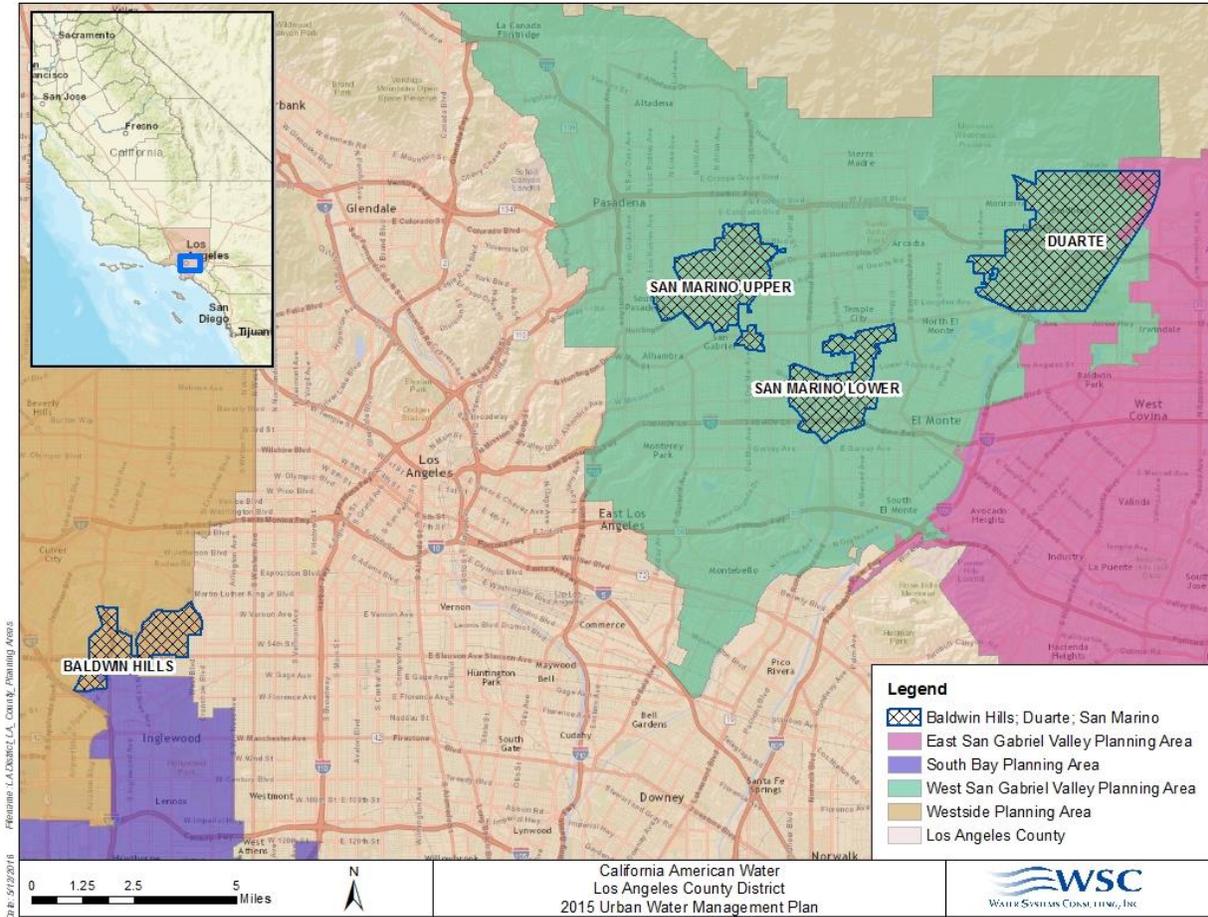


Figure 4-3. Los Angeles County Planning Areas (1)

4.3 DUARTE WATER SYSTEM PRODUCTION FACILITIES

CAW currently operates both a domestic and an irrigation water system in the Duarte water service area.

The irrigation system provides non-potable water from a surface water supply dedicated irrigation connections within the City of Bradbury. Due to the age and poor condition of the irrigation system piping, CAW is in the process of retiring the irrigation system and transferring the irrigation connections onto the domestic water system. The irrigation system currently serves only 9 customers and is anticipated that the irrigation system will be completely abandoned by 2020 and that the domestic system supply and facilities will be used to meet these irrigation demands.

The Duarte domestic water system is supplied by nine (9) groundwater wells that pump from the Main San Gabriel Basin (MSGB). Most of the wells in the Duarte system are in poor physical condition and have diminished in performance as they are approaching the end of their useful lives (10). Additionally, the well yields decline during prolonged dry periods since the static groundwater levels in the basin decline. A list of the wells in the Duarte system, along with their age and current reliable well yield, is shown in Table 4-4.

CAW's 2012 Comprehensive Planning Study (CPS) anticipated that the Duarte water system would have a production capacity deficit of 5.09 mgd by 2020. This capacity deficit limits CAW's ability to extract the groundwater supply that is available to serve the Duarte system. The CPS recommended a comprehensive well improvement program to restore the production capacity of existing wells. The CPS also recommended that a new well be installed to improve reliability and to meet the increased demands from the irrigation customers. In 2015, CAW installed a new well, the Lemon Well. The anticipated capacity for this well prior to drilling was 1,000 gpm; however, the actual production capacity is only 200 gpm.

As required by the California Waterworks Standards, a water system must be able to meet the maximum day demand (MDD) with the largest source out of service. The current reliable supply capacity of the Duarte System with the largest well out of service is 5,232 gpm, as shown in Table 4-4. The 2015 and projected future ADD and MDD for the Duarte system is shown in Table 4-5. The 2015 MDD anticipated in the 2012 CPS is 9,028 gpm, which is greater than the current reliable supply capacity of 5,232 gpm; therefore, there is an existing supply capacity deficit in the Duarte system of 3,796 gpm, or 5.5 mgd, even with the new Lemon Well. The proposed improvements recommended as part of the ongoing well improvement program are expected to result in an increase in well yield for the remaining wells, and are projected to bring the reliable supply capacity to 8,700 gpm. However, based on the projected MDD values shown in Table 4-5, this would still leave a deficit in supply capacity deficit of 223 gpm in 2025 for the existing customers, not including the additional demands associated with this Project. With the additional demands from this Project, the deficit would increase. Note that the Proposed Well Yield values shown in Table 4-4 are estimates, and the actual improvement to well yield cannot be confirmed until the improvements are complete.

Additionally, the Sante Fe well is required to be relocated in the near future because it lies within the Zone of Control of Upper San Gabriel Municipal Water District’s (Upper District) Indirect Reuse Replenishment Project (IRRP), a recycled water recharge project that will help replenish the groundwater supply in the MSGB. Although the well will be replaced with a new well in a different location, the actual production capacity of the new well is uncertain and there is a risk that the capacity of the new well could be lower than that of the existing well, further increasing the supply capacity deficit.

CAW will continue to monitor demands and the results of the ongoing well improvement program to determine whether additional well improvements or new wells are needed to meet existing and projected demands.

Table 4-4. Duarte System Well Yield

Well	Year Installed ¹	Current Reliable Well Yield, gpm ³	Proposed Well Yield, gpm ⁵
Bacon	1948	255 ¹	400
Fish Canyon	1920	294 ¹	500
Wiley	Unknown	1,250 ²	1,400
Encanto	1992	1,500 ²	2,000
Las Lomas No. 2	1992	283 ¹	1,200
Buena Vista No. 2	2011	1,450 ²	2,200
Crownhaven	1967	800 ²	1,600
Sante Fe	1930	700 ²	1,400
Lemon	2015	200 ²	200
Total		6,732	10,900
Reliable Supply Capacity ⁴		5,232	8,700

¹Well ages and yields are from Table 5.2-1 of the 2012 CPS
²Well ages and yields provided in by CAW in August 2018 for this WSA
³Reliable well yield is based on reduced capacity available during a dry year due to lower groundwater levels
⁴Capacity with the largest well out of service
⁵Represents potential well yield during normal operating conditions (not a dry year) and assumes that proposed improvements to existing wells are made to increase capacity. Note that total projected capacity decreases by approximately 2,000 gpm during a drought condition (10)

Table 4-5. Duarte System Maximum Day Demand Projections

	ADD, mgd ¹	MDD, mgd ¹	MDD, gpm
2015	6.58	13.00	9,028
2020	6.54	12.92	8,972
2025	6.50	12.85	8,923

¹ From Table 5.1-4 of the CPS. Includes the demand from the irrigation system which will be transferred to the domestic system. Projections do not include additional demands from the proposed Project.

4.3.1 Required Production Capacity for Project

The existing supply capacity deficit discussed previously does not account for the additional water demands of the proposed Project, which will increase this capacity deficit. The Irwindale Partners II are not required to contribute to any improvements related to addressing the current capacity deficit discussed above; however, the cost of addressing the additional deficit created by the demands of the Project will be attributed to the Project. The production capacity required to serve the projected demands of the Project is equal to the MDD of the Project, which is presented in Table 4-6. As shown, the Project will require a production capacity of 136 gpm by 2020. Because the Duarte System obtains 100% of its potable supply from groundwater wells and does not have access to any other potable supplies, it is recommended that a new well be constructed to meet the demands of the Project. Based on typical well capacities in the Duarte system, it is anticipated that the buildout production capacity could be met with one additional well, although the capacity of a well cannot be confirmed until after it is drilled. The required improvements are discussed further in Section 9.2.4.

Table 4-6. Required Additional Production Capacity for the Project

Additional Project Water Demand	2020
ADD, gpm¹	71
MDD, gpm² (Required Production Capacity)	136
¹ Total Project Water Demand from Table 3-1, expressed in gpm	
² MDD is calculated at 1.92 x ADD based on peaking factor used for the Duarte Water System in CAW's 2012 CPS	

4.3.1.1 Conceptual Alternative Supply Options

As discussed above, it is recommended that the production capacity needed to serve the additional demands of the Project be obtained by drilling a new well. However; two potential conceptual alternatives and their considerations are summarized below.

- 1) Purchasing wholesale potable water from a neighboring water agency.
 - CAW's Duarte System currently has an emergency interconnection with the City of Monrovia. However, this connection is intended to be used in short-term emergency conditions only and not to be used on a regular basis to meet CAW's customer demands.

- 2) Purchasing potable water from Metropolitan Water District of Southern California (MWD).
 - MWD sells wholesale water through its 26 member agencies; Upper District is the member agency who serves the Duarte area. Upper District supplies treated (potable) imported water from MWD to several agencies within its service area through eight turnouts, or service connections, from the MWD system (12). The nearest service connection (USG-7) is located in the City of Monrovia and serves as an emergency connection to the City of Monrovia. The City of Monrovia historically has not utilized imported water supplies to meet demands (12).
 - CAW does not currently have access to imported water from Upper District and would need to enter into a service contract with Upper District in order to obtain new service.
 - CAW does not have a physical connection to the Upper District turnout and may need to construct a pipeline to connect to USG-7, which is approximately 4 miles away. The estimated capital cost for 4 miles of 8-inch pipeline is approximately \$4 Million.
 - The cost of purchasing treated imported water through MWD is higher than the cost of CAW’s current groundwater supplies. The current approved MWD water rates are shown in Table 4-7. Imported water rates have increased annually and are expected to continue increasing. In addition, MWD can adopt higher drought surcharge rates and reduce supply allocations based on water supply conditions pursuant to their Water Supply Allocation Plan. The increased costs of obtaining imported water service would be spread over CAW’s entire customer base, effectively increasing the cost of water for all customers in the Duarte water service area.
 - The supply reliability of imported water is lower than that of CAW’s current groundwater source.

Table 4-7. Treated Imported Water Rates

Fee Component	2018
Full Service Tier 1 Treated Volumetric Cost (\$/AF)¹	\$1,015
Full Service Tier 2 Treated Volumetric Cost (\$/AF)¹	\$1,101
Upper District Surcharge (\$/AF)⁴	TBD
Readiness-to-Serve Charge (\$M)^{1,2}	\$140
Capacity Charge (\$/cfs)^{1,3}	\$8,700
¹ From MWD 2017/18 Biennial Budget	
² Total annual charge spread across all member agencies based on a ten-year rolling average of total demands	
³ Annual charge to each member agency based on a three-year trailing peak flow rate.	
⁴ From Upper District Budget Fiscal Year 2016/17	

Due to the increased cost and complexity as well and the reduced supply reliability of imported water, CAW does not plan to obtain imported water service at this time. A new well remains CAW’s preferred option for meeting the additional demands of the Project. This is consistent with CAW’s existing supply strategy for the Duarte System and groundwater is CAW’s lowest cost potable supply.

5 DUARTE WATER SERVICE AREA WATER DEMAND ANALYSIS

As defined in Section 1, water demand is the sum of consumption and non-revenue water. For the demand estimates in the 2015 UWMP, historical non-revenue water was estimated by examining production and delivery records for each system from 2010 to 2015. The volume of non-revenue water was calculated as the difference between production and customer deliveries for each service area from 2011 through 2015. The average non-revenue water calculated from 2011-2015 was 14% of production and was used to project non-revenue water volumes for years 2020-2035. The Additional Project Water Demand presented in Section 3 is sufficiently conservative and is assumed to include this non-revenue water volume; therefore, no adjustments to the Additional Project Water Demand are needed to account for non-revenue water.

Table 5-1 and Figure 5-1 summarize actual and projected demand in the Duarte water service area, including and excluding the Additional Project Water Demand. The Additional Project Water Demand was added to the 2015 UWMP demands to determine the total service area demand, which is used in subsequent sections of this WSA. As described in detail in Appendix D and Appendix E of the 2015 UWMP, demands were calculated based on gallons per capita per day (GPCD) targets per the requirements of Senate Bill x 7-7 (SB7). The GPCD metric provides a way to gauge water use per person historically in order to project expected future demand patterns based on population projections. The Additional Project Water Demand increases the District-wide GPCD by about 1 GPCD. However, CAW expects to meet or be below its required SB7 GPCD targets with or without the Additional Project Water Demand, as shown for the Duarte service area in Figure 5-1. However, as discussed in Section 4.3.1, additional source water capacity will be needed to serve this Project due to the current supply capacity deficit.

Table 5-1. Historic and Projected Duarte Demand with the Project, AFY

	2005	2010	2015	2020	2025	2030	2035
Water Demand	7,294	6,139	5,429	6,985	7,198	7,392	7,599
Additional Project Water Demand	0	0	0	114	114	114	114
Total Duarte Demand¹	7,294	6,139	5,429	7,099	7,312	7,506	7,713

¹The Total Duarte Demand shown here, which includes the Additional Project Water Demand, will be included in the amended 2015 UWMP, as discussed in Section 1.

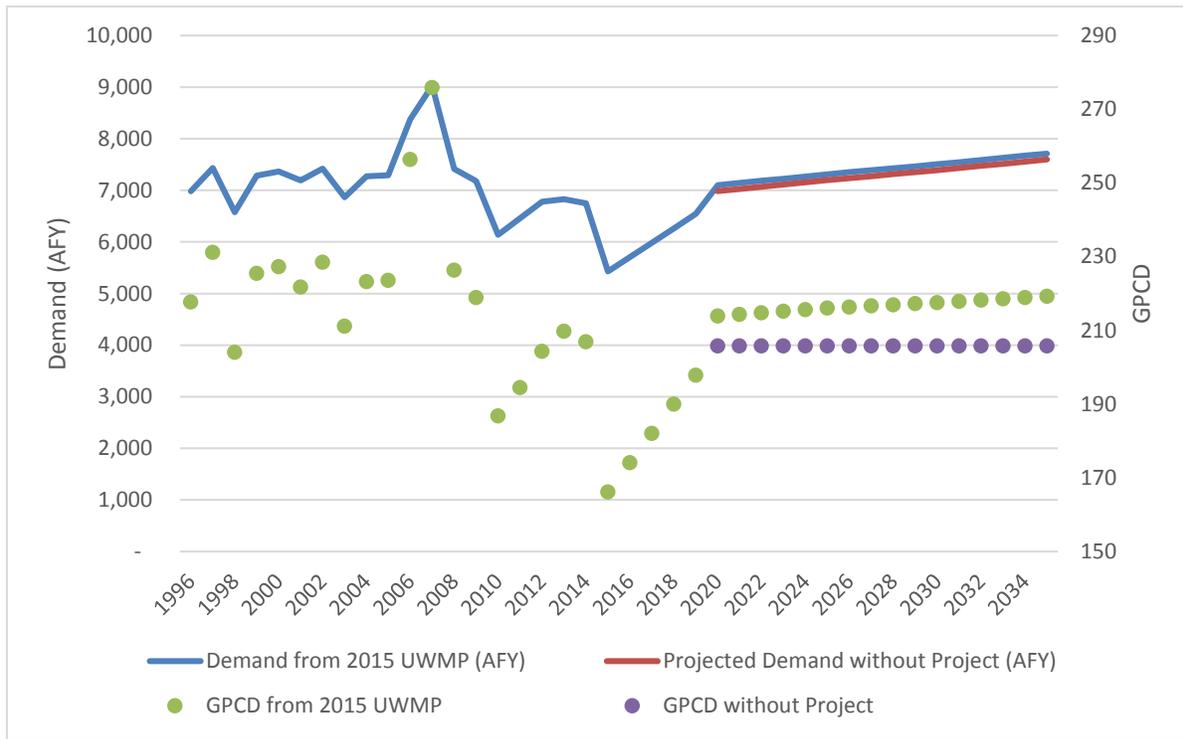


Figure 5-1. Duarte System Historic and Projected Demand and GPCD with and without the Project

6 WATER SUPPLY ANALYSIS

6.1 WATER SOURCES

The current and future water supplies for the Duarte service area consist of groundwater from the Main San Gabriel Basin (MSGB), surface water, and wholesale purchases. Groundwater is the primary source of supply. The amount of demand that is not met by groundwater allocations is met by surface water diversion, and by purchasing replacement water (also known as supplemental water) for indirect offset of over pumping groundwater in MSGB. The following sections describe each water source in more detail.

6.1.1 Groundwater

Groundwater is the primary source of supply for the Duarte service area. Projected groundwater supplies are determined by CAW's stipulated allocation as an Integrated Producer defined in the Judgment of the MSGB as well as CAW's ability to pump beyond their allocation in the MSGB.

6.1.1.1 Main San Gabriel Basin

The Duarte service area overlies the MSGB. The MSGB is an unconfined aquifer which provides up to 90 billion gallons of groundwater annually to San Gabriel Valley's 1.4 million residents. The total surface area of the MSGB is 167 square miles and contains about 2.8 trillion gallons of groundwater (13). The San Gabriel Mountains border the north with smaller hills including San Jose, Puente, Merced, and Repetto forming the east, south, and southwest borders. Figure 6-1 shows the MSGB boundary.

The MSGB is an adjudicated basin that is subject to an entry of judgment through the Upper San Gabriel Valley Municipal Water District v. City of Alhambra, et al., Los Angeles County Case No. 924128, Judgment entered January 4, 1973 (MSGB Judgment). The MSGB Judgment states that "in each and every calendar year commencing with 1953, the Basin has been and is in Overdraft" (12). CAW's Duarte service area has an adjudicated right to 1.84634% of the annually determined Operating Safe Yield (OSY) for the MSGB as defined by the MSGB Judgment attached in Appendix A.

The amount of water parties of the MSGB Judgment may extract from the MSGB is not restricted, but the MSGB Judgment provides a means for replacing all annual extractions in excess of a Party's annual right with Supplemental Water. If a producer extracts water in excess of its portion of the annual OSY, it must pay a Replacement Water assessment, which will be used by the MSGB Watermaster to purchase Supplemental Water through three Responsible Agencies: Upper District, San Gabriel Valley Municipal Water District, and Three Valleys Municipal Water District. See Section 6.1.3.1 for more information on the replacement water mechanism.

The MSGB Watermaster’s *Five-Year Water Quality and Supply Plan 2017-2018 to 2021-2022* (13) serves as the groundwater management plan for the MSGB and is attached in Appendix B. For the purposes of supply projection, it is assumed that CAW’s MSGB groundwater allocation will be equal to 1.84634% of the annually adopted OSY, which is set each year based on the hydrologic conditions of the MSGB. The OSY for Fiscal Year (FY) 2017/18-2021/22 has been adopted by the MSGB Watermaster and is 150,000 AFY in FY 2017/18 and 130,000 AFY from FY 2018/19 to 2021/22. For the purposes of supply projection, the 10-year average OSY (FY 2012/13 to 2021/22) of 154,000 AFY is used for all subsequent years and as the average year as shown in Table 6-1,.

Table 6-1. MSGB OSY and CAW Allocations, AFY

Calendar Year ¹	MSGB Operating Safe Yield	CAW Allocation (1.84634%)
CY 2004	170,000	3,139
CY 2005	205,000	3,785
CY 2006	240,000	4,431
CY 2007	225,000	4,154
CY 2008	195,000	3,600
CY 2009	175,000	3,231
CY 2010	170,000	3,139
CY 2011	190,000	3,508
CY 2012	205,000	3,785
CY 2013	190,000	3,508
CY 2014	165,000	3,046
CY 2015	150,000	2,770
CY 2016	150,000	2,770
CY 2017	150,000	2,770
CY 2018	140,000	2,585
CY 2019	130,000	2,400
CY 2020	130,000	2,400
CY 2021	130,000	2,400
10-Year Average (FY 12/13- FY 21/22)	154,000	2,770

¹ Based on Fiscal Year (FY) Operating Safe Yields from the *Five-Year Water Quality and Supply Plan 2017-2018 to 2021-2022* (15) Calendar year (CY) values calculated based on half of the previous FY plus half the subsequent FY.

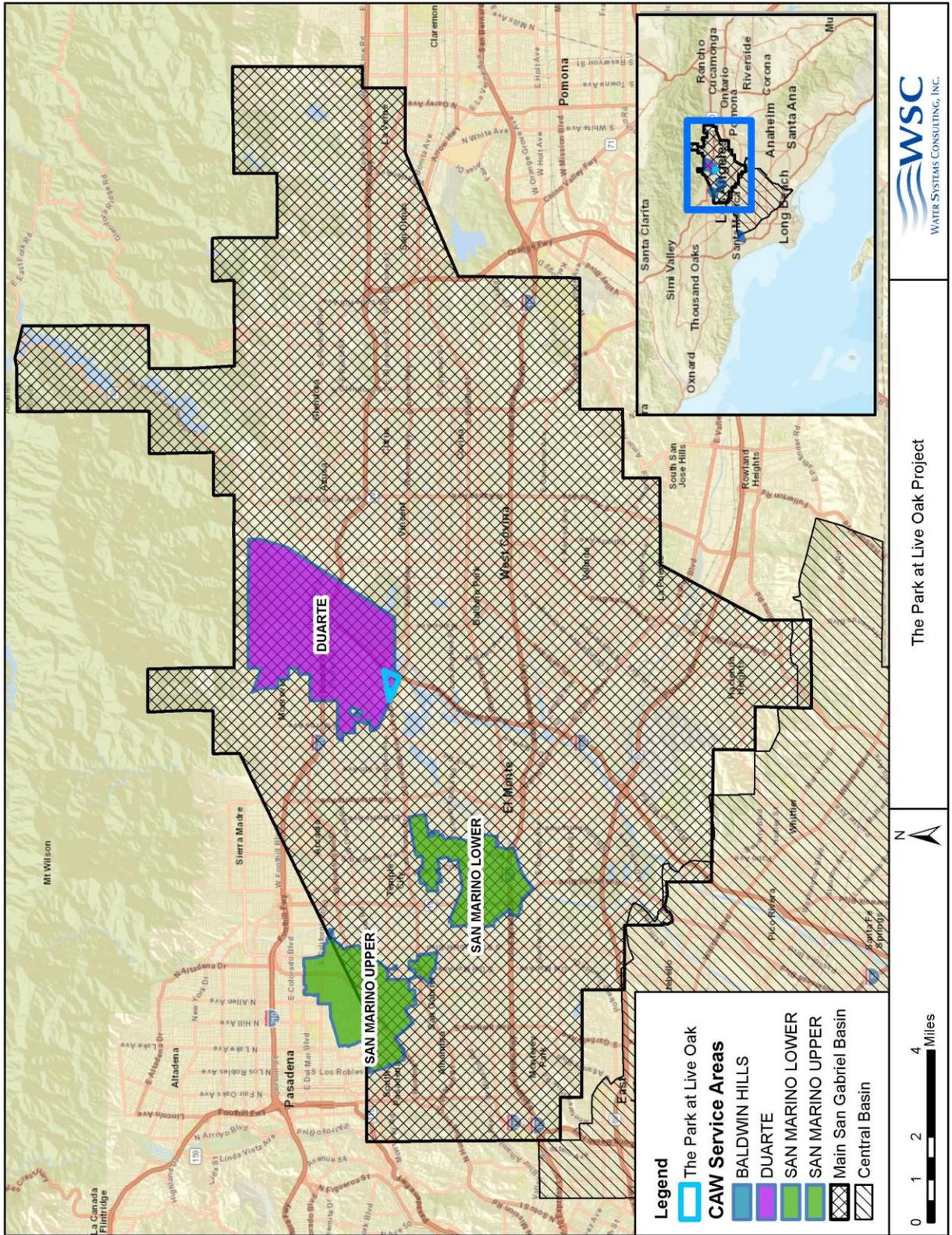


Figure 6-1. Main San Gabriel Basin Boundary (1)

Table 6-2 shows the volume of groundwater that has been pumped from the MSGB since 2011 and Table 6-3 shows the volume of groundwater that is projected to be pumped through 2035.

Table 6-2. Duarte Groundwater- Volume Pumped, AFY

Basin Name	2011	2012	2013	2014	2015	2016	2017
MSGB	6,054	6,475	5,868	6,285	5,002	5,040	5,651
Groundwater as a percent of total water supply	94%	95%	86%	93%	92%	92%	96%

Table 6-3. Duarte Groundwater-Projected to be Pumped, AFY

Basin Name ¹	2020	2025	2030	2035
MSGB	7,099	7,312	7,506	7,713
Groundwater as a percent of total water supply	100%	100%	100%	100%
¹ For more information on how these values were calculated, see Section 6.1. Includes Project additional demand.				

6.1.2 Surface Water

In the Duarte service area, CAW is classified as an "Integrated Producer" in the MSGB Judgement that provides for two types of water allocation rights including a diversion component and a pumping component, which was discussed in Section 6.1.1.1. CAW has surface water diversion rights from the San Gabriel River. The surface water diversion right is fixed at an annual allocation of 1,672 AFY. Historically, the surface water has been diverted from the San Gabriel River located in the San Gabriel watershed. Surface water that is released from the San Gabriel Reservoir is delivered through a weir located adjacent to the City of Pasadena power plant and water from Morris Reservoir is diverted directly from the San Gabriel River. Water from both sources is intercepted by CAW's infrastructure and flows by gravity to the Woodlyn Lane and Lemon Irrigation reservoirs to supply Duarte's irrigation system. As described in Section 4.3, the use of surface water for non-potable irrigation is expected to be discontinued by 2020. The surface water rights allocation of 1,672 AFY will be used per CAW's Integrated Producer status within the MSGB. Integrated Producers can divert or pump their allocation provided that water produced in the beginning of each fiscal year will be classified as a diversion, and any production over the diversion allocation will be deemed pumped water for assessment purposes, regardless of how the water was produced.

6.1.3 Wholesale Water

CAW obtains wholesale water from Upper District, which is a member agency of MWD. MWD acquires water from the Colorado River Aqueduct and the California State Water Project (SWP) and distributes treated and untreated water to its member agencies. Untreated water from Upper District is used indirectly for groundwater replacement in the MSGB. The total current and projected supply from Upper District is shown in Table 6-4 and is equal to the difference in projected demand and groundwater plus surface water allocations.

Table 6-4. Current & Projected Wholesale Supplies, AFY

	2015	2020	2025	2030	2035
Upper District Replacement Water¹	987	2,657	2,870	3,065	3,272
¹ For more information on how these values were calculated, see Section 6.1. Includes Project additional demand.					

6.1.3.1 MSGB Watermaster and Upper District

Water producers within the MSGB are subject to the terms of the MSGB Judgment. Per the MSGB Judgment (attached in Appendix A), parties are allowed to exceed their portion of the OSY, provided they pay an assessed replacement fee to the MSGB Watermaster. For more information regarding MSGB allocations and replacement water, see Section 6.1.1.1. Most years, the MSGB is over pumped because total demand from the various producers, including CAW, exceeds the available OSY established by the Watermaster. The Watermaster uses the funds generated from the replacement fees to purchase replacement water from Responsible Agencies that have access to supplemental water. The authorized Responsible Agency for CAW is the Upper District. Untreated MWD water is purchased from Upper District as Replacement Water and is delivered to spreading grounds to replenish the aquifer. According to the MSGB Judgment, “If any Responsible Agency shall, for any reason, be unable to deliver Supplemental Water to Watermaster when needed, Watermaster shall collect funds at an appropriate level and hold them in trust... ..for purchase of such water when available” (12). Imported water has historically been available for this purpose. However, in recent years, drought mandated cutbacks from the SWP and the Colorado River Aqueduct have limited the availability of imported water. Water supply reliability is discussed in Section 7. The projected supply for Upper District is shown in Table 6-5.

Table 6-5. Upper District Projected Average Year Supply, AFY

Upper District Sources	2015	2020	2025	2030	2035
Surface Water-Treated¹	9,069	11,436	10,351	9,441	9,288
Surface Water-Untreated²	39,841	42,000	42,000	42,000	42,000
Recycled Water	0	18,984	19,896	20,332	20,731
Supply Totals	51,499	72,420	72,247	71,773	72,019
Demand Totals	51,499	56,821	56,086	55,261	55,228
Difference	0	15,599	16,161	16,512	16,791

Source: Table Adapted from Upper District Final 2015 UWMP, Table 6-8, 6-9 and 7-2 (14)
¹ Upper District Receives treated imported water from MWD
² Upper District receives untreated imported surface water from MWD for groundwater replenishment

6.2 TRANSFER OPPORTUNITIES

CAW leases unused portions of other purveyors’ allocations in the MSGB, when available. Typically, these opportunities are available only when other purveyors experience well contamination or other production interruptions. This supply is not considered a reliable source and is not quantifiable as a projected future supply source.

6.3 FUTURE WATER PROJECTS

Other than the redevelopment of existing infrastructure and the well improvement program described in Section 4.3, there are currently no planned future projects to bring in new supply sources to the Duarte system.

The Upper District, in coordination with MWD, is working to expand its existing recycled water program by developing the Indirect Reuse Replenishment Project (IRRP). The IRRP will replenish the Main San Gabriel Groundwater Basin with up to 10,000 acre feet annually with highly treated recycled water. The project is currently in the permitting phase. It is anticipated that the IRRP will help Upper District improve supply reliability within the MSGB.

MWD and the Sanitation Districts of Los Angeles County are developing a multi-phased program called the Regional Recycled Water Program, to explore the potential of a water purification project to beneficially reuse water currently discharged to the Pacific Ocean for recharge of regional groundwater basins. MWD would build a new water purification plant at the Sanitation District's Joint Water Pollution Control Plant in Carson and distribution pipelines to recharge locations in Los Angeles and Orange Counties. The program will start with a 0.5 million gallon per day demonstration facility that will generate information needed for the potential future construction of a full-scale recycled water plant, which could ultimately result in a new purification plant to produce up to 150 million gallons per day of purified water for groundwater replenishment in several basins, including the MSGB. The demonstration facility is currently under construction and is expected to begin operations in late 2018. This program would represent the first in-region production of water by MWD and would diversify the region's water supply sources and likely result in increased supply reliability from MWD for Upper District.

6.4 WATER SUPPLY SUMMARY

Historically, CAW has been able to supply 100% of its demand in the Duarte service area through its groundwater and surface water sources. The 2015 UWMP presented historic water supplies from 2015 and projected water supplies from 2020-2035. The projected supplies presented in this WSA have been revised slightly from those presented in the 2015 UWMP due to a revised MSGB OSY assumption, as shown in Figure 6-2 and described in the previous sections. The 2015 UWMP will be amended to account for this revision and any others required by DWR, as discussed in Section 1.

CAW has historically exceeded its groundwater allocation in the MSGB and made up for the over production by purchasing replacement water from the Upper San Gabriel Valley Municipal Water District (Upper District). The use of surface water for non-potable irrigation is expected to be discontinued by 2020. The surface water diversion right not used for irrigation is transferred to the Los Angeles County spreading basins. It is assumed that once the irrigation system is retired, full allocation of 1,672 AFY will be utilized per CAW's status as an Integrated Producer, which is described in Sections 6.1.1 and 6.1.2. The surface water rights are recovered through additional pumping rights within the MSGB.

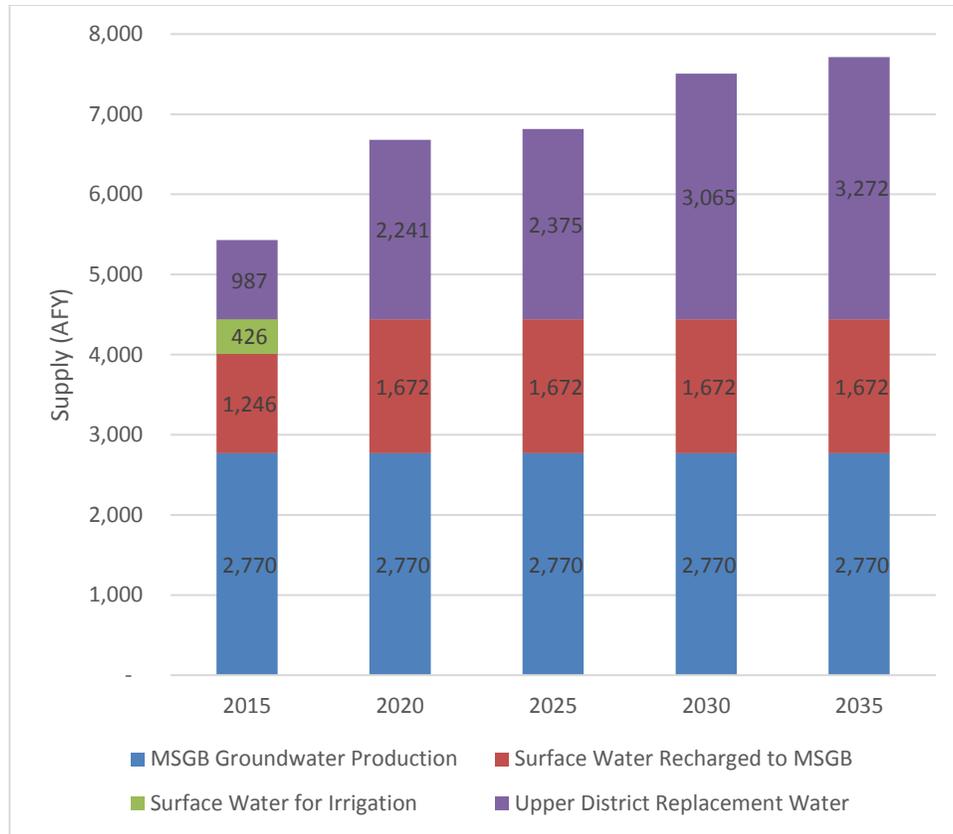


Figure 6-2. Duarte Water Supplies- Actual and Projected, AFY

Based on review of the 2015 UWMP, it was determined that a slight revision to the 2015 UWMP supply projection methodology is appropriate and will be applied for the purposes of this WSA. This WSA assumes that:

- The projected allocation of MSGB groundwater will be equal to 1.84634% of the operating safe yield (OSY). The OSY of 150,000 AFY for Fiscal Year (FY) 2015/16 through FY 2017/18 and 130,000 AFY from FY 2018/19 to 2021/22 was adopted by the Watermaster (15). For the purposes of supply projection, the 10-year average OSY from FY 2011/12 to 2021/22 was converted to calendar year. The resulting 10-year average OSY of 154,000 AFY is used for all subsequent years as the average year. See Section 6.1.1.1.
- The projected availability of surface water diversion rights from the San Gabriel River is fixed at an annual allocation of 1,672 AFY. Historically, the surface water has been diverted from the San Gabriel River located in the San Gabriel watershed. See Section 6.1.2.
- The remaining service area demand not met by groundwater allocations or surface water will be met through overpumping MSGB groundwater. As provided for in the MSGB Judgment, Replacement Water or pre-purchased Cyclic Storage water will be purchased from the MSGB Watermaster through Upper District for pumping beyond CAW's allocation. The supply required to serve the Project is included in the total Replacement Water volumes presented in subsequent sections of this WSA. See Section 6.1.3.1.

Total historic and projected water supplies are shown in Table 6-6. Details of how the projected supplies were developed are discussed further in Sections 6.1.1 and 6.1.3.

Table 6-6. Water Supplies- Historic and Projected, AFY

Water Supply Sources	2015 ¹	2020	2025	2030	2035
Duarte					
Groundwater – MSGB²	2,770	2,770	2,770	2,770	2,770
Surface Water/MSGB²	1,246	1,672	1,672	1,672	1,672
Surface Water for Irrigation³	426	-	-	-	-
Upper District Replacement Water⁴	987	2,241	2,375	3,065	3,272
Total	5,429	7,099	7,312	7,506	7,713

¹ The supplies from 2015 are based on actual production and purchases.

² For more information on the MSGB allocation see Section 6.1.1.1.

³ For more information on MSGB Surface Water see Section 6.1.2. The irrigation system provides non-potable water from a surface water supply and CAW is in the process of retiring the irrigation system. The full allocation of 1,672 AFY will be utilized per CAW’s status as an integrated producer within the MSGB.

⁴ The amount of demand in each year not met by the allocations in the MSGB is assumed to be pumped from the MSGB and untreated replacement water will be purchased from MWD through Upper District. For more information, see Section 6.1.3.

7 WATER SUPPLY RELIABILITY

7.1 WATER SUPPLY RELIABILITY

Table 7-1 summarizes the primary factors affecting the supply reliability of the Duarte system. The legal factors affecting supply include groundwater adjudications, discussed in Appendix A, and Replacement Water purchases for excess pumping. Environmental factors related to wholesale supply reliability are reduced deliveries of SWP due to reduced pumping in the Sacramento Delta. The MWD UWMP states that the “listing of several fish species as threatened or endangered under the federal or California Endangered Species Acts (ESAs) have adversely impacted operations and limited the flexibility of the SWP” (15). Water quality factors influence groundwater production capacity and efficiency in the MSGB and Raymond Basin. All of the supplies are subject to reduction as a result of climatic factors.

Table 7-1. Factors resulting in Inconsistency of Supply

Water Supply Sources	Legal	Environmental	Water Quality	Climatic
MSGB	X		X	X
MWD	X	X		X

Table 7-2 shows the supply reliability base years used to approximate average, single dry and multiple dry years conditions for all supply sources of the Duarte system.

Table 7-2. Supply Reliability Base Years

Supply Reliability	Average Water Year	Single Dry	Multiple Dry Years
MSGB¹	2012-2021	2019	2019-2021
Upper District²	FY 2005-2006	FY 2013-2014	FY 2011/12-2013/14
¹ Source: Drought conditions from 2013-2015 have reduced the operating safe yield in the MSGB from 2019 through 2021 to the lowest it’s been since 1973-1974. (15)			
² Source: Upper District 2015 UWMP (15)			

Table 7-3 shows supply availability during average, single dry and multiple dry years. The average, single dry and multiple dry years for the MSGB were calculated based on historic and projected OSYs. The values in Table 7-3 are based on historical and projected groundwater production records and allocations. However, groundwater production amounts and wholesale supplies could change in the future depending on OSY reductions and availability of wholesale supplies.

Table 7-3. Duarte Supply Reliability- Average, Single Dry Year & Multiple Dry Years Supply, AFY

Water Supply Sources	Multiple Dry Water Years				
	Average / Normal Water Year	Single Dry Water Year (2019)	Year 1 (2019)	Year 2 (2020)	Year 3 (2021)
MSGB ¹	2,843	2,400	2,400	2,400	2,400
Surface Water/MSGB ²	1,672	1,672	1,672	1,672	1,672
Surface Water for Irrigation ²	0	0	0	0	0
Upper District Replacement Water ³	1,938	2,474	2,474	3,027	3,069
Total Water Supply	6,453	6,546	6,546	7,099	7,141
% of Normal⁴	100%	101%	101%	110%	111%

¹ The multiple dry years are based on projected safe yield for 2019, 2020, and 2021. The single dry year is based on the 1.84634% of the 2019 MSGB safe yield and the average year is based on 1.84634% of the 2012-2021 MSGB safe yield (15).

² Available fixed surface water allocation of 1,672 AFY. The irrigation system provides non-potable water from a surface water supply and CAW is in the process of retiring the irrigation system. For more information on MSGB Surface Water see Section 6.1.2. The irrigation system provides non-potable water from a surface water supply and CAW is in the process of retiring the irrigation system. The full allocation of 1,672 AFY will be utilized per CAW's status as an integrated producer within the MSGB. The surface water rights are recovered through additional pumping rights within the MSGB.

³ It is assumed that all demand not met by the allocations in the MSGB will be met by purchasing replacement water from Upper District. Historic volumes of replacement were calculated based on total demands and actual OSYs. Future volumes of replacement water will vary depending upon OSYs and total demands in a given future year.

⁴ Percentage of normal shown is based on actual year comparisons so the differences are a result of different demands in the respective years; however, it is assumed that all demand not met by the allocations in the MSGB will be met by purchasing replacement water from Upper District to supply 100% of demands each year, including single dry and multiple dry years.

Table 7-4 shows the three-year minimum supply available, which reflects the driest three-year historic sequence in the history of CAW's supply. The three-year minimum supply closely mirrors the multiple dry years established in Table 7-3. The driest three-year period on record for the groundwater sources is 2006-2008; however, since the MSGB is projected to have a lower OSY from 2019-2021 than for any year from 2006-2008, those values are used.

Table 7-4. Three-Year Minimum Supply, AFY

Supply Source	2019	2020	2021
MSGB¹	2,400	2,400	2,400
Surface Water/MSGB²	1,672	1,672	1,672
Surface Water for Irrigation²	0	0	0
Upper District Replacement Water³	2,474	3,027	3,069
Subtotal	6,546	7,099	7,141
¹ The multiple dry years are based on projected safe yield for 2019, 2020, and 2021 MSGB safe yield (23). ² The full allocation of 1,672 AFY will be utilized per CAW’s status as an integrated producer within the MSGB. ³ It is assumed that all demand not met by the allocations in the MSGB will be met by purchasing replacement water from Upper District.			

7.1.1 Wholesale Supply Reliability

The Duarte water system relies on wholesale supplies for indirect groundwater replacement. The historic average, single dry, and multiple dry years are shown in Table 7-2 for CAW’s wholesale supply source. The single dry and multiple dry years supply for Upper District are shown in Figure 7-1 and Figure 7-2. Upper District’s UWMP indicates a surplus supply for the UWMPs’ planning horizon.

	2020	2025	2030	2035	2040 (Opt)
Supply totals	73,121	72,933	72,440	72,683	72,675
Demand totals	63,121	62,933	62,440	62,683	62,675
Difference	10,000	10,000	10,000	10,000	10,000
NOTES:					

Figure 7-1. Upper District Single Dry Year Supply (9)

		2020	2025	2030	2035	2040 (Opt)
First year	Supply totals	70,893	74,759	74,339	74,429	74,470
	Demand totals	60,893	64,759	64,339	64,429	64,470
	Difference	10,000	10,000	10,000	10,000	10,000
Second year	Supply totals	70,893	74,759	74,339	74,429	74,470
	Demand totals	60,893	64,759	64,339	64,429	64,470
	Difference	10,000	10,000	10,000	10,000	10,000
Third year	Supply totals	70,893	74,759	74,339	74,429	74,470
	Demand totals	60,893	64,759	64,339	64,429	64,470
	Difference	10,000	10,000	10,000	10,000	10,000
Fourth year <i>(optional)</i>	Supply totals					
	Demand totals					
	Difference	0	0	0	0	0
Fifth year <i>(optional)</i>	Supply totals					
	Demand totals					
	Difference	0	0	0	0	0
Sixth year <i>(optional)</i>	Supply totals					
	Demand totals					
	Difference	0	0	0	0	0
NOTES:						

Figure 7-2. Upper District Multiple Dry Years Supply (9)

Additionally, the MSGB Watermaster and Upper District have multiple ongoing initiatives designed to manage and enhance supply reliability to continue to provide sufficient supply even in dry years. Based on the 2015 UWMP and the following supply reliability management plans and actions, it is anticipated that MSGB Replacement Water will be available from Upper District to meet CAW's total projected demands, including the Additional Project Demand.

7.1.1.1 MSGB Watermaster Water Management Actions

The following ongoing water management actions are identified in the MSGB Annual Report (16).

- Established Financial Incentives to Encourage Pre-Purchase of Supplemental Water.
 - This new program provides a price incentive for those that pre-order and prepay for Supplemental Water. The incentive encourages producers to order water early, allowing Watermaster to better predict the amount of pre-purchase water that will be needed, and have the funds available to immediately purchase supply in a very competitive environment.
- Cyclic Storage Agreements with Responsible Agencies to Allow More Flexibility.
 - There were numerous cyclic storage actions every year, all helping the region get through drought. CAW has the ability to proactively purchase Replacement Water through the Cyclic Storage mechanism identified in the MSGB Judgment.
- Water Resource Development Assessment (RDA) Implemented to Store 100,000 Acre-Feet of Water.
 - On May 14, 2014, the MSGB Watermaster Board adopted Resolution No. 05-14-263 establishing the Water Resource Development Assessment for implementation on all FY 2014-15 production. This program began levying a \$20 per acre-foot assessment on all production beginning in 2014-15, with planned incremental increases up to \$25 per acre-foot over the following five years. The funds will be available to purchase supplemental water to store for future shortages, reaching a planned 100,000 acre-feet of imported water in storage over 10 years. The Watermaster expanded the original RDA to allow for the purchase of imported water to supplement the shortage of local stormwater runoff and natural replenishment under Development of the Stormwater Augmentation Program (RDA II).
- Increased flexibility for In-Lieu Program.
 - Watermaster has maintained an In-lieu Assessment of \$10 an acre-foot on all water produced. This program paid a water producer the difference in cost to purchase treated surface water in-lieu of purchasing untreated imported water for Basin replenishment after over pumping. The result was to keep water in groundwater storage. The program will increase the In-Lieu Assessment depending on how low groundwater levels fall, while increasing the amount in storage.

- Continued Coordination on Flood Control.
 - Watermaster has been actively engaged in monthly meetings with LA County Department of Public Works, Upper District, and area municipalities to plan stormwater related activities. Six new stormwater capture projects have been identified with a potential of 15,000 acre-feet of new water.
- Supported SB 485 to Protect Rights to San Gabriel River Water.
 - Staff developed language to protect rights to the San Gabriel River for inclusion in SB 485 (Hernandez). The legislation, proposed by the Sanitation Districts of Los Angeles County, is intended to allow the Sanitation Districts to assist local jurisdictions in Los Angeles County in stormwater and dry weather runoff management projects.

7.1.1.2 Upper District Water Management Actions

The following ongoing water management actions are identified in the Upper District 2015 UWMP (9).

- Upper District's Water Use Efficiency Plan (WUE Plan)
 - The WUE Plan identifies key WUE programs to save up to 5,108 AFY by 2020 (18). The WUE Plan was prepared in coordination with the Integrated Resources Plan. These plans provide adaptive strategies for Upper District to meet water demand, reliability, and efficiency goals.
- Integrated Resources Plan (IRP)
 - Upper District's IRP incorporates and enhances demand and supply reliability analyses from the 2010 UWMP and WUE Plan. The IRP projects demand based on the most recent land use and demographic data from SCAG. Upper District determined the most beneficial strategy for reducing demands on imported water is through an adaptive management strategy that involves the implementation of a suite of projects including direct and indirect recycled water reuse, stormwater capture, water transfers, and conservation measures that can be phased over time. Upper District evaluated these options based on yield, cost, reliability, and impact to the environment in order to develop strategies to meet projected water demands.
- Recycled Water Programs
 - Upper District's direct use recycled water program has been developed as part of Upper District's continuing effort to augment MWD's imported water supply. As discussed in Section 6.5.4.1 of Upper District's 2015 UWMP, Upper District's direct use recycled water program is currently being expanded to include the South El Monte Recycled Water Expansion Project and the La Puente Valley County Water District Recycled Water Project. This project will reduce local demands on groundwater produced from the MSGB.
 - Upper District is also developing the Indirect Reuse Replenishment Project (IRRP) with the goal of replenishing the MSGB while offsetting imported water demands. The IRRP will provide up to 10,000 AFY of treated recycled water from the SJCWRP for groundwater replenishment at the Santa Fe Spreading Grounds to be used for indirect potable use. These recycled water supplies used for groundwater replenishment will augment imported water supplies currently used for groundwater replenishment in the MSGB.

The Upper District has reviewed the updated MSGB Replacement Water demands presented in this WSA and provided a letter dated May 16, 2018 which provides confirmation of the MSGB Replacement water supply analysis presented in this WSA. A copy of this letter is attached in Appendix C.

Upper District is a member of MWD. MWD's 2015 UWMP, under the historic hydrology conditions, projects 100% reliability for its customers. During the historic dry year periods identified for each wholesale source, the Duarte water system's wholesale demands have always been met. Additionally, numerous water supply reliability management initiatives are underway to enhance and preserve local water supplies.

8 WATER SUPPLY AND DEMAND ANALYSIS

Based on analysis of Additional Project Demand in addition to 2015 UWMP projected demands for existing customers (Table 5-1) and available supplies (Table 6-6), the projected availability of groundwater will be equal to 100% of average year allocations for the MSGB plus the amount required to replace water pumped in excess of CAW’s MSGB allocation. In dry years when MSGB allocations are reduced due to OSY reductions, additional Replacement Water would be purchased to meet the total supply needs.

Note that there is an additional cost for MSGB Replacement Water so any new customer adds to the existing overproduction and further increases the cost of the overall water supply. Currently, these increased costs are spread over the entire customer base and are not charged to the new customers.

Table 8-1 shows a supply and demand comparison during an average year scenario. Table 8-2 shows a supply and demand comparison during a single dry year scenario. Table 8-3 shows a supply and demand comparison during a multiple dry year scenario.

Table 8-1. Duarte Supply and Demand Comparison- Average Year, AFY

	2020	2025	2030	2035
Supply totals	7,099	7,312	7,506	7,713
Demand totals	7,099	7,312	7,506	7,713
Difference	0	0	0	0
Difference as % of Supply	0%	0%	0%	0%
Difference as % of Demand	0%	0%	0%	0%

Table 8-2. Duarte Supply and Demand Comparison- Single Dry Year, AFY

	2020	2025	2030	2035
Supply totals	7,099	7,312	7,506	7,713
Demand totals	7,099	7,312	7,506	7,713
Difference	0	0	0	0
Difference as % of Supply	0%	0%	0%	0%
Difference as % of Demand	0%	0%	0%	0%

Table 8-3. Duarte Supply and Demand Comparison- Multiple Dry-Years, AFY

		2020	2025	2030	2035
Multiple-dry year first year supply	Supply totals	7,099	7,312	7,506	7,713
	Demand totals	7,099	7,312	7,506	7,713
	Difference	0	0	0	0
	Difference as % of Supply	0%	0%	0%	0%
	Difference as % of Demand	0%	0%	0%	0%
Multiple-dry year second year supply	Supply totals	7,099	7,312	7,506	7,713
	Demand totals	7,099	7,312	7,506	7,713
	Difference	0	0	0	0
	Difference as % of Supply	0%	0%	0%	0%
	Difference as % of Demand	0%	0%	0%	0%
Multiple-dry year third year supply	Supply totals	7,099	7,312	7,506	7,713
	Demand totals	7,099	7,312	7,506	7,713
	Difference	0	0	0	0
	Difference as % of Supply	0%	0%	0%	0%
	Difference as % of Demand	0%	0%	0%	0%

9 DETERMINATION OF WATER SUPPLY SUFFICIENCY

9.1 DETERMINATION OF WATER SUPPLY SUFFICIENCY

This WSA concludes that CAW's total projected water supplies available during average, single dry, and multiple dry water years during a 20-year projection will meet the projected water demand for the Project, in addition to CAW's existing and planned future uses, provided that CAW's groundwater production capacity in MSGB is increased to provide the ability to access these supplies.

In the event that new infrastructure is required to convey or deliver a sufficient water supply to a Project, SB 610 requires that the WSA provide information relating to capital costs, financing and permitting of the necessary infrastructure. This information is presented in the following sections.

9.2 WATER SYSTEM EVALUATION

The Duarte distribution system includes seven (7) pressure gradients. The Project location is in close proximity to two gradients, the Scott Gradient and Lemon Gradient, providing two options for connection. WSC evaluated the capacity of the water distribution system to determine which connection option is more beneficial and to determine the extent of infrastructure improvements required to convey and deliver sufficient water supply to the Project. Using data and criteria from the 2012 Los Angeles County Comprehensive Planning Study (CPS), WSC evaluated the capacities of existing reservoirs, pipelines, and planned upgrades. Estimated project demands and 2012 CPS demands for the Scott and Lemon Gradients were used.

9.2.1 Pressure Analysis

The project location has an elevation of about 400 feet. The Scott Gradient has a hydraulic grade line (HGL) of 710 feet which results in a static pressure of approximately 134 psi. The Lemon Gradient has an HGL of 600 feet and a static pressure of about 87 psi. Both gradients provide pressures above the required minimum of 40 psi, however the Scott Gradient pressure will be greater than 80 psi; therefore, pressure regulators will need to be installed as required by the 2016 California Plumbing Code, Section 608.2.

9.2.2 Storage Capacity Analysis

The Scott and Lemon Gradients each have a single reservoir for storage. The capacity of each gradient was evaluated to determine the impact of the Project demand, as shown in Table 9-1. The storage surplus/deficit of the distribution system capacity of the Scott and Lemon Gradients were evaluated based on values and calculations in the 2012 CPS. According to CAW, since the 2012 CPS, the Lemon gradient storage capacity has been reduced by 33%, from 1.5 MG to approximately 1.02 MG due to rehabilitation of the tank and the lowering of the overflow pipe to meet current seismic safety standards. The reduction in Lemon zone capacity results in a 0.49 MG deficit under existing conditions, and the fire flow available from the Lemon zone is restricted due to small pipelines throughout the zone. Therefore, the Lemon zone was eliminated as an option to serve the Project.

With project demands, the Scott gradient has a storage deficit of 0.31 MG, due to higher fire flow storage needs of the Project. The existing site for the Scott Reservoir is space constrained so expanding the storage volume in the Scott zone is expected to be challenging as it would likely require acquisition of additional property at a similar elevation, which may not be feasible. Therefore, CAW prefers that the Project construct on-site fire storage and booster pump to resolve the storage deficit.

Table 9-1. Storage Capacity Analysis

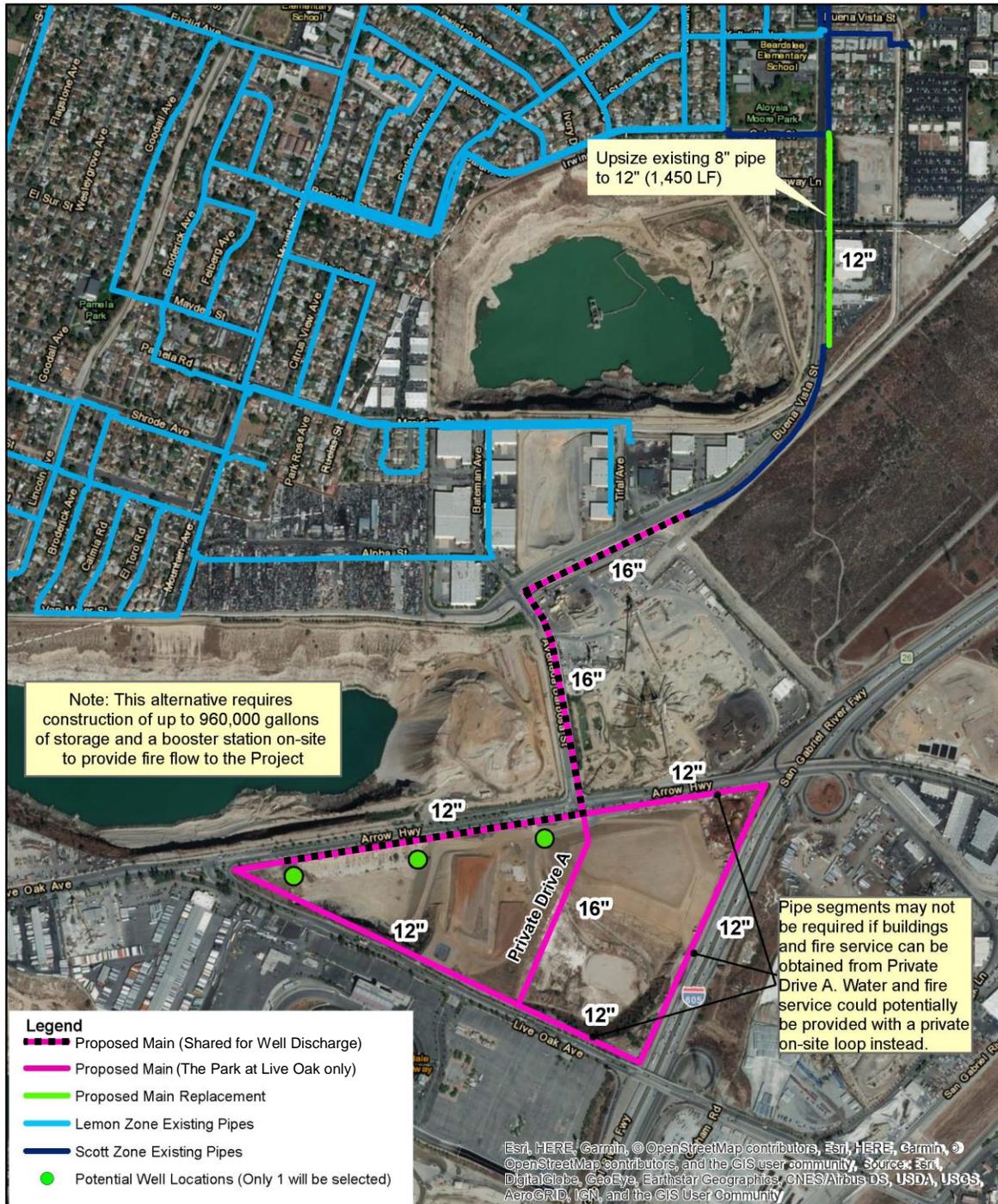
Zone	Storage Volume (MG)	Effective Volume ¹ (MG)	Zone Demand ² (mgd)	Equalizing Volume ³ (MG)	NFF Volume ⁴ (MG)	Total Storage Needed (MG)	Surplus/Deficit (MG)
Scott							
Existing	1.50	1.45	5.16	0.77	0.63	1.40	0.05
With Project	1.50	1.45	5.36	0.80	0.96	1.76	-0.31
Lemon							
Existing	1.02	1.02	3.48	0.52	0.63	1.15	-0.31
With Project	1.02	1.02	3.68	0.55	0.96	1.51	-0.49
Notes:							
1. Effective storage volume is defined as the volume of water to maintain at least 40 psi at all service connections. Effective volume is the estimated value with planned improvements (CPS) and per CAW.							
2. Includes existing and project demands. Existing zone demands used for this analysis are MDD from CPS Table 5.4-5 which show constant current and future demands. Project demands are calculated using peaking factor of 1.92 per CPS.							
3. Equalizing Volume is assumed to be 15% of the demand (CPS).							
4. NFF (Needed Fire Flow) Volume= 3,500 gpm for 3 hours (0.63 MG) or 4000 gpm for 4 hours (0.96 MG).							

9.2.3 Distribution System Analysis

The distribution system capacity was evaluated using the existing Duarte system model provided by CAW. CAW stated that the model is calibrated and up to date, except for the recent addition of the Duarte PRV, which WSC added to the model during the analysis. The Scott gradient was evaluated to determine system capacity and identify required system upgrades. The model was used to evaluate if fire flow conditions can be met for the project by the existing distribution system. Per CPS requirements the distribution system is required to convey MDD with fire flow maintaining pressure of at least 20 psi. Under normal conditions the distribution system must maintain at least 40 psi. Fire flow for the project is required to be 4,000 gpm for 4 hours. The project demand was added to the model demand at the project site location farthest from the existing system to provide the most conservative estimate. The total model demand was updated to 12.9 mgd to reflect the demands used in the 2012 CPS.

The distribution system pipeline was extended west along Buena Vista Street and south along Aveneda Barbosa Street to reach the project area. For the purposes of this analysis, it was assumed that a pipeline loop would surround the project site, however it is possible that some of the pipe segments may not be required if fire service can be provided by Private Drive A. The final pipeline alignments and sizes will need to be validated during the design phase once the fire protection requirements are more well defined.

The distribution system analysis indicated that friction losses within the existing pipeline system were too great to provide the required 4,000 gpm fire flow to the site. To reduce friction losses within the existing system, it is recommended that a segment of existing 8-inch pipeline in Buena Vista Street be replaced with 12-inch pipeline to increase the available fire flow that can be conveyed through the existing system. Additionally, the model was used to determine the required size of the new pipelines connecting to and surrounding the site, as shown in Figure 9-1. The model predicted that, with these improvements in place, the required 4,000 gpm fire flow would be available at the Project site.



Irwindale Partners II
 The Park at Live Oak WSA



Figure 9-1. Proposed Site Improvements

9.2.4 Water Supply Improvements

As discussed in Section 4.3, there is an existing well capacity deficit in the Duarte system so additional supply capacity will need to be added to serve the additional demands of the Project. In order to produce the additional supply for the Project and convey it to the Project, drilling and equipping of one (1) new well will be required to produce additional water supply from the MSGB. The size is anticipated to be approximately 140 gpm to meet the projected buildout MDD of the Project, as shown in Table 4-6. It is assumed that the well will be on the project site and therefore will not include the cost of land acquisition. The well can discharge directly into the proposed pipelines surrounding the site, so no additional pipelines are needed to accommodate the well.

9.2.4.1 Well Location

The new well is assumed to be located on the project site.

Note that there are anticipated restrictions on the locations of new wells in this area as a result of the Upper District IRRP groundwater recharge project discussed in Section 6.3. A small portion of the southeast corner of the Project site lies within the Secondary Boundary of the IRRP, as shown in Figure 9-2, which means a well may be able to be drilled there, subject to certain limitations. However, most of the Project site does not lie within either the Zone of Control or the Secondary Boundary of the IRRP, so restrictions for a well on the remainder of the site are not anticipated. Discussions were held with both Upper District and the MSGB Watermaster regarding the suitability of the Project site for a new well and no constraints related to the IRRP or underlying water quality were identified. Upper District suggested that the well be located toward the western side of the Project site to maximize the distance from the IRRP.

Three conceptual locations have been identified for the well, as shown on Figure 9-1, but only one site will be selected. The well location must be outside of a 100 foot radius from any infiltration basins, dry wells, or planters, according to Los Angeles County Low Impact Development Review Sheet, and from any stormwater infiltration according to LA County GMED Policy GS 200.1.

Note that the MWD recharge project discussed in Section 6.3 also proposes to use the nearby Sante Fe spreading grounds for recycled water recharge and may impact the Zone of Control and Secondary Boundary shown in Figure 9-2. This project is still in the demonstration and feasibility study phase so details of these potential impacts and the regulations that will apply to this project are not available as of the writing of this WSA, but no additional restrictions are anticipated at this time based on currently available information. A more detailed assessment of the well location and impacts is being prepared by WSC as a separate report.

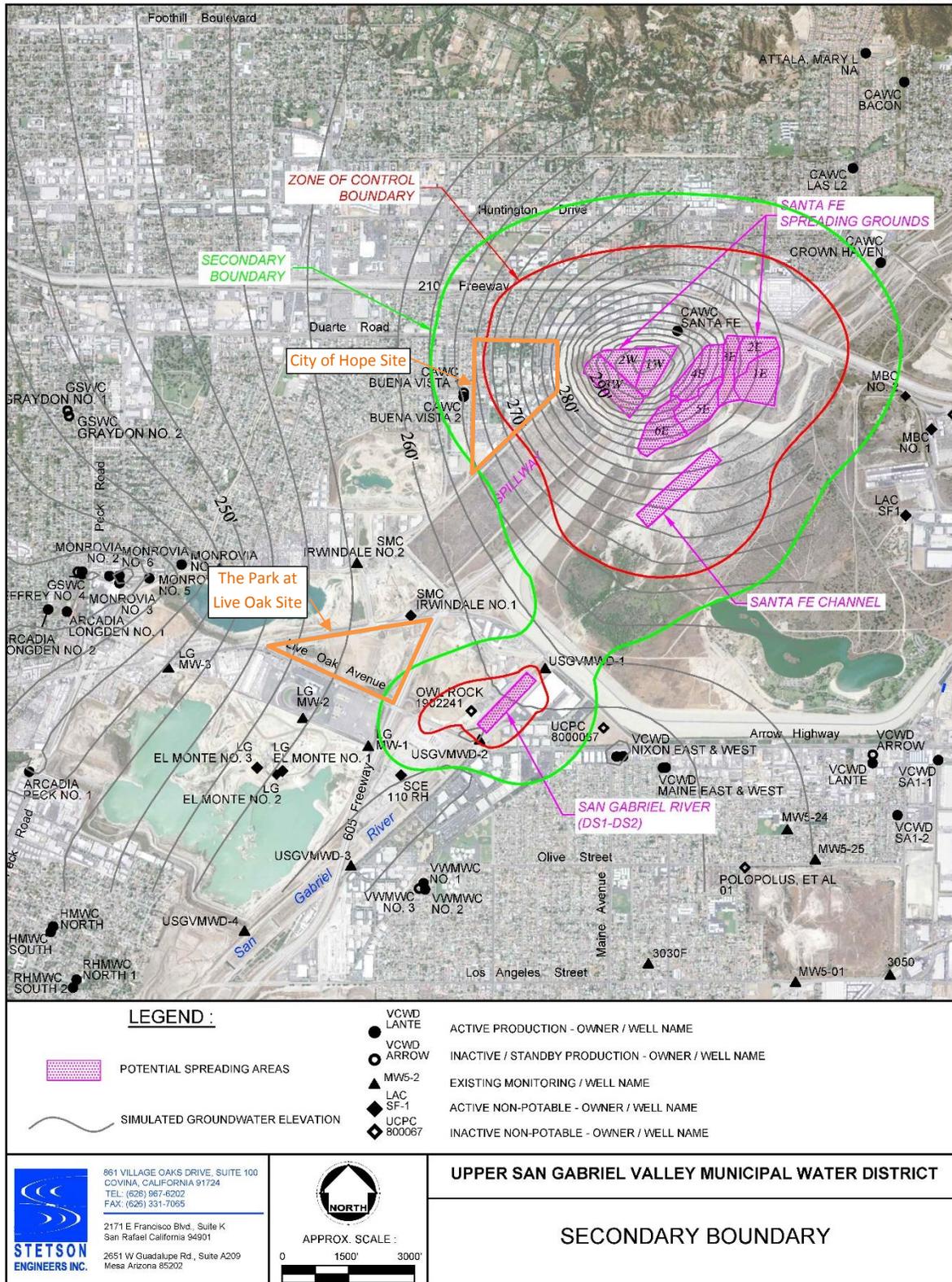
9.2.4.2 Potential Joint Project with City of Hope

In September 2017, CAW approved a WSA for the City of Hope (COH) Specific Plan, which proposes an expansion of the existing COH facility located at 1500 Duarte Road in the City of Duarte, California, approximately 1 mile north of the Park at Live Oak project site. Currently, the COH campus is developed with a mix of hospital-related uses, including inpatient, outpatient, research, office, industrial, warehouse, assembly, hospitality (short-term stay housing provided by COH for family members of patients and guests), and housing (residential), that total 1,600,000 gross square feet of building space.

The COH Specific Plan provides comprehensive direction for enhancement and development of the approximately 116-acre campus over a 20-year period. The proposed development within the Specific Plan includes 1,426,000 square feet of additions to the existing outpatient, inpatient, research, office, industrial, warehouse and hospitality uses. New parking structures and surface lots are also proposed, as well as internal driveways and open space improvements. In addition, the Specific Plan proposes to consolidate modular buildings that are currently dispersed throughout the campus, demolish 387,500 square feet of outdated buildings, and construct new floor area within larger development sites that provide flexibility for future buildout of the campus. The proposed net new development is 1,038,500 gross square feet (GSF).

Similar to this WSA, the COH WSA concluded that CAW's total projected water supplies available during average, single dry, and multiple dry water years during a 20-year projection will meet the projected water demand for the Project, in addition to CAW's existing and planned future uses, provided that CAW's groundwater production capacity in MSGB is increased to provide the ability to access these supplies. The COH site is located approximately 1 mile north of the Park at Live Oak site and is almost entirely within the Secondary Boundary of the IRRP, so locating a well on that site may not be feasible. Due to the proximity of the two projects, the timing of the 2 developments and the common need for a new well, CAW identified an opportunity for COH and Irwindale Partners II to pursue a single well as a joint project to meet the needs of both projects. The COH WSA states that the required production capacity for the COH is 430 gpm. Combined with the Park at Live Oak required production capacity of 140 gpm, the total well capacity would need to be 570 gpm to serve both projects. COH, Irwindale Partners II and CAW have begun discussions toward developing agreements to pursue the well and related improvements as a joint project.

For the purposes of the cost estimates presented in the following section, it is assumed that a single well with a capacity of 570 gpm will be constructed to meet the demands of both projects.



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Figure 9-2. IRRP Zone of Control and Secondary Boundary

9.3 REQUIRED IMPROVEMENT CAPITAL COST OPINIONS

The capital cost opinions (estimates) included in this WSA are based upon the Class 4 Conceptual Report Classification of Opinion of Probable Construction Cost as developed by the Association for the Advancement of Cost Engineering (AACE) Cost Estimate Classification System. The purpose of a Class 4 Estimate is to provide a conceptual level effort that has an expected accuracy range from -30% to +50% and the inclusion of an appropriate contingency for planning and feasibility studies. The conceptual nature of the design concepts and associated costs presented in this WSA are based upon limited design information available at this stage of the projects. These cost estimates have been developed using a combination of data from RS Means CostWorks®, recent bids, experience with similar projects, current and foreseeable regulatory requirements and an understanding of the necessary project components. As the projects progress, the design and associated costs could vary significantly from the project components identified in this report. Cost opinions are in 2018 dollars (ENR Construction Cost Index of 10,959 for March 2018).

Table 9-2 presents a summary of the Total Estimated Capital Cost for the representative water improvements that are anticipated to be required to produce the additional water supply required to serve the Project and to convey water to the site for domestic and fire flow needs. Because there is already a deficiency in the system to serve the current customers, CAW does not have excess capacity to serve the additional project demands and will require these improvements to be constructed during Phase I of Project buildout to serve the additional demands. It is envisioned that these improvements would be constructed by CAW and funded by Irwindale Partners in accordance with CAW's Rule 15. The design will be led and paid for by the Developer in accordance with CAW standards and requirements and will require review and approval by CAW prior to construction.

In accordance with CAW's Rule No. 15, which describes CAW's effective rules regarding service as approved by the California Public Utilities Commission (attached in Appendix D), the developer would need to enter into a main extension agreement with CAW. The mainline extension agreement would identify water system improvements required to serve the proposed customers and the estimated construction costs. The developer would be required to advance the full construction cost at the time of the main extension agreement and CAW would manage the bidding, construction and inspection of the facilities. In lieu of providing the advance, the developer could arrange for the installation of the facilities themselves and pay the costs directly, including the cost of inspection and supervision by CAW. For the water main extension only, the amount advanced for the construction of the improvements would be subject to refund by CAW to the developer over a period of 40 years, as outlined in Appendix D. The drilling and equipping of the new well and the property for the new well are not eligible for refund because they are special facilities needed only to serve the Project.

Table 9-2. Estimated Capital Costs for Representative Water System Improvements

Facility Description	Estimated Construction Cost ⁴	Total Estimated Capital Cost ⁵
Well Drilling and Equipping¹	\$ 1,793,000	\$ 2,331,000
Water Main Extension²	\$ 2,420,000	\$ 3,145,000
Fire Flow Storage (Onsite)³	\$ 1,026,000	\$ 1,334,000
Fire Pump Station (Onsite)³	\$ 1,033,000	\$ 1,343,000
Total	\$ 6,271,000	\$ 8,152,000

¹ Based on well drilled 700 ft deep, equipped with a 570 gpm pumping unit and housed in a masonry building. The cost assumes that the water produced from the new well will meet all drinking water quality standards and does not include the cost of treatment. If the water produced from the well requires treatment, the cost of a treatment system could be up to an additional \$2,000,000, depending on the contaminants that need to be removed.

² Assumes 10,300 feet of 12-inch diameter and 4,200 feet of 16-inch diameter water main will be required to connect to the existing CAW distribution and serve the project site, as shown in Figure 9-1. Actual size, location and length will be determined during preliminary design based on fire department requirements, well location and hydraulic analysis of nearby water distribution system during final design. Some pipe segments shown in Figure 9-1 may not be required if fire service can be provided with onsite pipes instead. The cost of the offsite Water Main Extension is refundable to Irwindale Partners II over a 40-year period.

³ Onsite fire flow facilities are based on storage capacity of 0.31 MG and a fire pump capacity of 4,000 gpm. These costs are representative of similar sized facilities in a public water system and are not specific to onsite fire protection facilities. These representative costs are provided as a placeholder only. It is recommended that the developer obtain the services of a fire protection system specialist to provide cost estimates for these facilities.

⁴ The following markups are applied to the raw cost estimates to calculate the Estimated Construction Cost: 30% for Contingency & Unaccounted-For Items, 3% for Mobilization, 1% for Contractor Insurance & Bonds, 1% for Stormwater Pollution Prevention Measures

⁵ The following markups are applied to the Estimated Construction Cost to calculate the Total Estimated Capital Cost: 30% for pre-construction professional services such as design, surveying, permitting, legal and admin costs as well as professional services during construction, such as materials testing, construction engineering and inspection.

9.4 PERMITTING

Anticipated regulatory approvals and permits required for construction of the water improvements described previously include, but may not be limited to:

- CEQA compliance
- Well review and permit from the MSGB Watermaster
- State Water Resources Control Board Division of Drinking Water permits and source water assessment
- Development Permit(s) from the agency or agencies having jurisdiction over the project area(s)
- Encroachment Permit(s) from the agency or agencies having jurisdiction over the project area(s)
- County of Los Angeles County Public Health well drilling permit
- Regional Water Quality Control Board permit

10 REFERENCES

1. **Water Systems Consulting, Inc.** *2015 Urban Water Management Plan for the Southern Division- Los Angeles County District Prepared for California American Water.* Adopted June 30, 2016.
2. **California Irrigation Management Information System, Station 159 in Monrovia.** [Online] <http://www.cimis.water.ca.gov/cimis/data.jsp>.
3. **Western Regional Climate Center, Station:(046719) Pasadena, California, (1893-January 20, 2015).** [Online] <http://www.wrcc.dri.edu/cgi-bin/cliMAIN.pl?ca6719>.
4. **Southern California Association of Governments.** *2016 RTP SCS Demographics & Growth Forecast Appendix Draft.* December 2015.
5. **United States Census Bureau.** Los Angeles County Quick Facts. [Online] 6/1/2016. <http://www.census.gov/quickfacts/table/PST045215/00,06037>.
6. **Los Angeles County.** *Los Angeles County General Plan 2035.* April 5, 2011.
7. **Los Angeles County Department of Regional Planning.** *Housing Element.* August 5, 2008.
8. **American Water Asset Planning.** *California American Water Los Angeles District - San Marino, Duarte, and Baldwin Hills Service Area Comprehensive Planning Study March 2013.* 2013.
9. **Stetson Engineers, Inc.** *Upper San Gabriel Valley Municipal Water District 2015 Urban Water Management Plan.* June 2016.
10. **Stetson Engineers Inc.** *Final Draft City of Monrovia 2015 Urban Water Management Plan.* May 2016.
11. **Main San Gabriel Basin Watermaster.** *Five Year Water Quality and Supply Plan 2017-2018 to 2021-22.* November 2017.
12. **Upper San Gabriel Valley Municipal Water District v. City of Alhambra, et al., .** Case No. 924128, Los Angeles County : Superior Court of the State of California for the County of Los Angeles, Judgment entered January 4, 1973.
13. **Main San Gabriel Watermaster.** *Report on Final Determination of Operating Safe Yield for 2017-18 through 2021-22.* May 3, 2017.
14. **Main San Gabriel Basin Watermaster.** *Annual Report 2016-2017.*
15. **Metropolitan Water District of Southern California.** *2015 Urban Water Management Plan DRAFT.* March 2016.
16. **Main San Gabriel Watermaster.** *Main San Gabirel Watermaster Annual Report 2016-2017.*

17. A & N Technical Services, Inc. *Upper San Gabriel Valley Municipal Water District Water Use Efficiency Master Plan*. July 18, 2012.
18. Western Regional Climate Center, Station:(047785) San Gabriel Fire Department, California, (1939-2013). [Online] <http://www.wrcc.dri.edu/CLIMATEDATA.html>.
19. Los Angeles County Sanitation District. *An Ordinance Prescribing the connection Fee Rate and Mean Loadings per Unit of Usage for County Sanitation District No. 22 Los Angeles County*. May 25, 2011.
20. KPFF Consulting Engineers. *City of Hope Campus Plan: Revised Water Infrastructure and Demand Analysis Memo to Jack Haupt, City of Hope*. August 16, 2016.
21. —. *Hydrology Report, City of Hope Campus Plan*. August 16, 2016.
22. The Metropolitan Water District of Southern California. Your Water, Regional Recycled Water Supply Program Approved. *mwdh2o.com*. [Online] November 19, 2016. [Cited: October 27, 2016.] http://www.mwdh2o.com/docsvcpubs/mwd_newsletter/Nov2015/email.html.
23. County of Los Angeles Department of Public Works. *Low Impact Development Review Sheet*. Los Angeles : Building and Safety/Land Development Division, 2017.

APPENDIX A. MSGB ADJUDICATION

**SUPERIOR COURT OF THE STATE OF CALIFORNIA
FOR THE COUNTY OF LOS ANGELES**

**UPPER SAN GABRIEL VALLEY
MUNICIPAL WATER DISTRICT**

Plaintiff,

vs.

CITY OF ALHAMBRA, et al,

Defendants.

No. 924128

**AMENDED JUDGMENT
(and Exhibits Thereto),**

**Honorable Florence T. Pickard
Assigned Judge Presiding**

**Original Judgment
Signed and Filed: December 29, 1972;
Entered: January 4, 1973
Book 6741, Page 197**

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Ralph B. Helm
Suite 214
4605 Lankershim Boulevard
North Hollywood, CA 91602
Telephone (818) 769-2002

Attorney for Watermaster

SUPERIOR COURT OF CALIFORNIA, COUNTY OF LOS ANGELES

UPPER SAN GABRIEL VALLEY)
MUNICIPAL WATER DISTRICT,)
Plaintiff,)
vs.)
CITY OF ALHAMBRA, et al.,)
Defendants..)

No. 924128
AMENDED JUDGMENT
(And Exhibits Thereto)

HONORABLE FLORENCE T. PICKARD
Assigned Judge Presiding
DEPARTMENT 38
August 24, 1989

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Exhibits Continued

- "B" -- Boundaries of Relevant Watershed
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- "D" -- Table Showing Rights and Pumper's Share of Each Pumper
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- "G" -- Table Showing Non-consumptive Users
- "H" -- Watermaster Operating Criteria
- "J" -- Puente Narrows Agreement
- "K" -- Overlying Rights
- "L" -- List of Producers and Their Designees (New)
- "M" -- Watermaster Members, Officers, and Staff Including
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1 Ralph B. Helm
Suite 214
2 4605 Lankershim Boulevard
North Hollywood, CA 91602
3 Telephone (818) 769-2002
4 Attorney for Watermaster

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7

8 SUPERIOR COURT OF CALIFORNIA, COUNTY OF LOS ANGELES
9

10	UPPER SAN GABRIEL VALLEY)	
	MUNICIPAL WATER DISTRICT,)	No. 924128
11		
	Plaintiff,)	AMENDED JUDGMENT
12		
	vs.)	
13		
	CITY OF ALHAMBRA, et al.,)	
14		
	Defendants.)	Hearing: August 24, 1989
15		Department 38, 9:00 A.M.
16		

17 The Petition of the MAIN SAN GABRIEL BASIN WATERMASTER
18 for this AMENDED JUDGMENT herein, came on regularly for hearing
19 in this Court before the HONORABLE FLORENCE T. PICKARD, ASSIGNED
20 JUDGE PRESIDING, on August 24, 1989; Ralph B. Helm appeared as
21 attorney for Watermaster - Petitioner; and good cause appearing,
22 the following ORDER and AMENDED JUDGMENT are, hereby, made:

23 I. INTRODUCTION

24 1. Pleadings, Parties, and Jurisdiction. The complaint
25 herein was filed on January 2, 1968, seeking an adjudication of
26 water rights. By amendment of said complaint and dismissals of
27 certain parties, said adjudication was limited to the Main San
28 Gabriel Basin and its Relevant Watershed. Substantially all

1 defendants and the cross-defendant have appeared herein, certain
2 defaults have been entered, and other defendants dismissed.
3 By the pleadings herein and by Order of this Court, the issues
4 have been made those of a full inter se adjudication of water
5 rights as between each and all of the parties. This Court has
6 jurisdiction of the subject matter of this action and of the
7 parties herein.

8 2. Stipulation for Entry of Judgment. A substantial
9 majority of the parties, by number and by quantity of rights
10 herein Adjudicated, Stipulated for entry of a Judgment in
11 substantially the form of the original Judgment herein.

12 3. Lis Pendens. (New) A Lis Pendens was recorded August
13 20, 1970, as Document 2650, in Official Records of Los Angeles
14 County, California, in Book M 3554, Page 866.

15 4. Findings and Conclusions. (Prior Judgment Section 3)
16 Trial was had before the Court, sitting without a jury, John
17 Shea, Judge Presiding, commencing on October 30, 1972, and
18 Findings of Fact and Conclusions of Law have been entered
19 herein.

20 5. Judgment. (New) Judgment (and Exhibits Thereto),
21 Findings of Fact and Conclusions of Law (and Exhibits thereto),
22 Order Appointing Watermaster, and Initial Watermaster Order were
23 signed and filed December 29, 1972, and Judgment was entered
24 January 4, 1973, in Book 6791, Page 197.

25 6. Intervention After Judgment. (New) Certain defendants
26 have, pursuant to the Judgment herein and the Court's continuing
27 jurisdiction, intervened and appeared herein after entry of
28 Judgment.

1 7. Amendments to Judgment. (New) The original Judgment
2 herein was previously amended on March 29, 1979, by: (1) adding
3 definition (r [1]) thereto, (2) amending definition (bb)
4 therein, (3) adding Exhibit "K" thereto, (4) adding Sections
5 14.5 and 16.5 thereto, and (5) amending Sections 37(b), 37(c),
6 37(d), and Section 47 therein; it was again amended on December
7 21, 1979, by amending Section 38(c) thereof; again amended on
8 February 21, 1980, by amending Section 24 thereof; again amended
9 on September 12, 1980, by amending Sections 35(a), 37(a), and
10 38(a); again amended on December 22, 1987, by adding Section
11 37(e) thereto; and last amended on July 22, 1988 by amending
12 Section 37(e) thereof and Ordering an Amended Judgment herein.

13 8. Transfers. (New) Since the entry of Judgment herein
14 there have been numerous transfers of Adjudicated water rights.
15 To the date hereof, said transfers are reflected in Exhibits
16 "C", "D", and "E".

17 9. Producers and Their Designees. (New) The current
18 status of Producers and their Designees is shown on Exhibit "L".

19 10. Definitions. (Prior Judgment Section 4) As used in
20 this Judgment, the following terms shall have the meanings
21 herein set forth:

22 (a) Base Annual Diversion Right -- The average annual
23 quantity of water which a Diverter is herein found to have the
24 right to Divert for Direct Use.

25 (b) Direct Use --Beneficial use of water other than
26 for spreading or Ground Water recharge.

27 (c) Divert or Diverting -- To take waters of any
28 surface stream within the Relevant Watershed.

- 1 (d) Diverter -- Any party who Diverts.
- 2 (e) Elevation -- Feet above mean sea level.
- 3 (f) Fiscal Year -- A period July 1 through June 30,
- 4 following.
- 5 (g) Ground Water -- Water beneath the surface of the
- 6 ground and within the zone of saturation.
- 7 (h) Ground Water Basin -- An interconnected permeable
- 8 geologic formation capable of storing a substantial Ground Water
- 9 supply.
- 10 (i) Integrated Producer -- Any party that is both a
- 11 Pumper and a Diverter, and has elected to have its rights
- 12 adjudicated under the optional formula provided in Section 18 of
- 13 this Judgment.
- 14 (j) In-Lieu Water Cost -- The differential between a
- 15 Producer's non-capital cost of direct delivery of Supplemental
- 16 Water and the cost of Production of Ground Water (including
- 17 depreciation on Production facilities) to a particular Producer
- 18 who has been required by Watermaster to take direct delivery of
- 19 Supplemental Water in lieu of Ground Water.
- 20 (k) Key Well -- Baldwin Park Key Well, being elsewhere
- 21 designated as State Well No. 1S/10W-7R2, or Los Angeles County
- 22 Flood Control District Well No. 3030-F. Said well has a ground
- 23 surface Elevation of 386.7.
- 24 (l) Long Beach Case -- Los Angeles Superior Court
- 25 Civil Action No. 722647, entitled, "Long Beach, et al., v. San
- 26 Gabriel Valley Water Company, et al."
- 27 (m) Main San Gabriel Basin or Basin -- The Ground
- 28 Water Basin underlying the area shown as such on Exhibit "A".

1 (n) Make-up Obligation -- The total cost of meeting
2 the obligation of the Basin to the area at or below Whittier
3 Narrows, pursuant to the Judgment in the Long Beach Case.

4 (o) Minimal Producer -- Any party whose Production in
5 any Fiscal Year does not exceed five (5) acre feet.

6 (p) Natural Safe Yield -- The quantity of natural water
7 supply which can be extracted annually from the Basin under
8 conditions of long term average annual supply, net of the
9 requirement to meet downstream rights as determined in the Long
10 Beach Case (exclusive of Pumped export), and under cultural
11 conditions as of a particular year.

12 (q) Operating Safe Yield -- The quantity of water
13 which the Watermaster determines hereunder may be Pumped from
14 the Basin in a particular Fiscal Year, free of the Replacement
15 Water Assessment under the Physical Solution herein.

16 (r) Overdraft -- A condition wherein the total annual
17 Production from the Basin exceeds the Natural Safe Yield
18 thereof.

19 (s) Overlying Rights -- (Prior Judgment Section
20 4 (r) [1]) The right to Produce water from the Basin for use
21 on Overlying Lands, which rights are exercisable only on
22 specifically defined Overlying Lands and which cannot be
23 separately conveyed or transferred apart therefrom.

24 (t) Physical Solution -- (Prior Judgment Section 4
25 (s)) The Court decreed method of managing the waters of the
26 Basin so as to achieve the maximum utilization of the Basin and
27 its water supply, consistent with the rights herein declared.

28 (u) Prescriptive Pumping Right -- (Prior Judgment

1 Section 4 (t)) The highest continuous extractions of water by
2 a Pumper from the Basin for beneficial use in any five (5)
3 consecutive years after commencement of Overdraft and prior to
4 filing of this action, as to which there has been no cessation
5 of use by that Pumper during any subsequent period of five (5)
6 consecutive years, prior to the said filing of this action.

7 (v) Produce or Producing -- (Prior Judgment Section 4
8 (u)) To Pump or Divert water.

9 (w) Producer -- (Prior Judgment Section 4 (v)) A
10 party who Produces water.

11 (x) Production -- (Prior Judgment Section 4 (w)) The
12 annual quantity of water Produced, stated in acre feet.

13 (y) Pump or Pumping -- (Prior Judgment Section 4
14 (x)) To extract Ground Water from the Basin by Pumping or any
15 other method.

16 (z) Pumper -- (Prior Judgment Section 4 (y)) Any
17 party who Pumps water.

18 (aa) Pumper's Share -- (Prior Judgment Section 4 (z))
19 A Pumper's right to a percentage of the entire Natural Safe
20 Yield, Operating Safe Yield and appurtenant Ground Water
21 storage.

22 (bb) Relevant Watershed -- (Prior Judgment Section
23 4(aa)) That portion of the San Gabriel River watershed
24 tributary to Whittier Narrows which is shown as such on Exhibit
25 "A", and the exterior boundaries of which are described in
26 Exhibit "B".

27 (cc) Replacement Water -- (Prior Judgment Section 4
28 (bb)) Water purchased by Watermaster to replace:

1 (1) Production in excess of a Pumper's Share of Operating Safe
2 Yield; (2) The consumptive use portion resulting from the
3 exercise of an Overlying Right; and (3) Production in excess of
4 a Diverter's right to Divert for Direct Use.

5 (dd) Responsible Agency -- (Prior Judgment Section 4
6 (cc)) The municipal water district which is the normal and
7 appropriate source from whom Watermaster shall purchase
8 Supplemental Water for replacement purposes under the Physical
9 Solution, being one of the following:

10 (1) Upper District -- Upper San Gabriel
11 Valley Municipal Water District, a member public agency of
12 The Metropolitan Water District of Southern California
13 (MWD).

14 (2) San Gabriel District -- San Gabriel Valley
15 Municipal Water District, which has a direct contract with
16 the State of California for State Project Water.

17 (3) Three Valleys District -- Three Valleys
18 Municipal Water District, formerly, "Pomona Valley
19 Municipal Water District", a member public agency of MWD.

20 (ee) Stored Water -- (Prior Judgment Section 4 (dd))
21 Supplemental Water stored in the Basin pursuant to a contract
22 with Watermaster as authorized by Section 34(m).

23 (ff) Supplemental Water -- (Prior Judgment Section 4
24 (ee)) Nontributary water imported through a Responsible Agency.

25 (gg) Transporting Parties -- (Prior Judgment Section 4
26 (ff)) Any party presently transporting water (i.e., during the
27 12 months immediately preceding the making of the findings
28 herein) from the Relevant Watershed or Basin to an area outside

1 thereof, and any party presently or hereafter having an interest
2 in lands or having a service area outside the Basin or Relevant
3 Watershed contiguous to lands in which it has an interest or a
4 service area within the Basin or Relevant Watershed. Division
5 by a road, highway, or easement shall not interrupt contiguity.
6 Said term shall also include the City of Sierra Madre, or any
7 party supplying water thereto, so long as the corporate limits
8 of said City are included within one of the Responsible Agencies
9 and if said City, in order to supply water to its corporate area
10 from the Basin, becomes a party to this action bound by this
11 Judgment.

12 (ih) Water Level -- (Prior Judgment Section 4 (gg))
13 The measured Elevation of water in the Key Well, corrected for
14 any temporary effects of mounding caused by replenishment or
15 local depressions caused by Pumping.

16 (ii) Year -- (Prior Judgment Section 4 (hh)) A
17 calendar year, unless the context clearly indicates a contrary
18 meaning.

19 11. Exhibits. (Prior Judgment Section 5) The following
20 exhibits are attached to this Judgment and incorporated herein
21 by this reference:

22 Exhibit "A" -- Map entitled "San Gabriel River
23 Watershed Tributary to Whittier Narrows", showing the
24 boundaries and relevant geologic and hydrologic features in
25 the portion of the watershed of the San Gabriel River lying
26 upstream from Whittier Narrows.

27 Exhibit "B" -- Boundaries of Relevant Watershed.

28 Exhibit "C" -- Table Showing Base Annual Diversion

1 Rights of Certain Diverters.

2 Exhibit "D" -- Table Showing Prescriptive Pumping
3 Rights and Pumper's Share of Each Pumper.

4 Exhibit "E" -- Table Showing Production Rights of Each
5 Integrated Producer.

6 Exhibit "F" -- Table Showing Special Category Rights.

7 Exhibit "G" -- Table Showing Non-consumptive Users.

8 Exhibit "H" -- Watermaster Operating Criteria.

9 Exhibit "J" -- Puente Narrows Agreement.

10 Exhibit "K" -- Overlying Rights, Nature of Overlying
11 Right, Description of Overlying Lands to which Overlying
12 Rights are Appurtenant, Producers Entitled to Exercise
13 Overlying Rights and their Respective Consumptive Use
14 Portions, and Map of Overlying Lands.

15 Exhibit "L" -- (New) List of Producers And Their
16 Designees, as of June 1988.

17 Exhibit "M" -- (New) Watermaster Members, Officers
18 and Staff, Including Calendar Year 1989.

19 II. DECREE

20 NOW, THEREFORE, IT IS HEREBY DECLARED, ORDERED, ADJUDGED
21 AND DECREED:

22 A. DECLARATION OF HYDROLOGIC CONDITIONS

23 12. Basin as Common Source of Supply. (Prior Judgment
24 Section 6) The area shown on Exhibit "A" as Main San Gabriel
25 Basin overlies a Ground Water basin. The Relevant Watershed is
26 the watershed area within which rights are herein adjudicated.
27 The waters of the Basin and Relevant Watershed constitute a
28 common source of natural water supply to the parties herein.

1 13. Determination of Natural Safe Yield. (Prior Judgment
2 Section 7) The Natural Safe Yield of the Main San Gabriel Basin
3 is found and declared to be one hundred fifty-two thousand
4 seven-hundred (152,700) acre feet under Calendar Year 1967
5 cultural conditions.

6 14. Existence of Overdraft. (Prior Judgment Section 8)
7 In each and every Calendar Year commencing with 1953, the Basin
8 has been and is in Overdraft.

9 B. DECLARATION OF RIGHTS

10 15. Prescription. (Prior Judgment Section 9) The use of
11 water by each and all parties and their predecessors in interest
12 has been open, notorious, hostile, adverse, under claim of
13 right, and with notice of said overdraft continuously from
14 January 1, 1953 to January 4, 1973. The rights of each party
15 herein declared are prescriptive in nature. The following
16 aggregate consequences of said prescription within the Basin and
17 Relevant Watershed are hereby declared:

18 (a) Prior Prescription. Diversions within the
19 Relevant Watershed have created rights for direct
20 consumptive use within the Basin, as declared and
21 determined in Sections 16 and 18 hereof, which are of
22 equal priority inter se, but which are prior and paramount
23 to Pumping Rights in the Basin.

24 (b) Mutual Prescription. The aggregate Prescriptive
25 Pumping Rights of the parties who are Pumpers now exceed,
26 and for many years prior to filing of this action, have
27 exceeded, the Natural Safe Yield of the Basin. By reason
28 of said condition, all rights of said Pumpers are declared

1 to be mutually prescriptive and of equal priority, inter
2 se.

3 (c) Common Ownership of Safe Yield and Incidents
4 Thereeto. By reason of said Overdraft and mutual Pre-
5 scription, the entire Natural Safe Yield of the Basin, the
6 Operating Safe Yield thereof and the appurtenant rights to
7 Ground Water storage capacity of the Basin are owned by
8 Pumpers in undivided Pumpers' Shares as hereinafter
9 individually declared, subject to the control of
10 Watermaster, pursuant to the Physical Solution herein
11 decreed. Nothing herein shall be deemed in derogation of
12 the rights to spread water pursuant to rights set forth in
13 Exhibit "G".

14 16. Surface Rights. (Prior Judgment Section 10) Certain
15 of the aforesaid prior and paramount prescriptive water rights
16 of Diverters to Divert for Direct Use stream flow within the
17 Relevant Watershed are hereby declared and found in terms of
18 Base Annual Diversion Right as set forth in Exhibit "C". Each
19 Diverter shown on Exhibit "C" shall be entitled to Divert for
20 Direct Use up to two hundred percent (200%) of said Base Annual
21 Diversion Right in any one (1) Fiscal Year; provided that the
22 aggregate quantities of water Diverted in any consecutive ten
23 (10) Fiscal Year period shall not exceed ten (10) times such
24 Diverter's Base Annual Diversion Right.

25 17. Ground Water Rights. (Prior Judgment Section 11) The
26 Prescriptive Pumping Right of each Pumper, who is not an
27 Integrated Producer, and his Pumper's Share are declared as set
28 forth in Exhibit "D".

1 18. Optional Integrated Production Rights. (Prior
2 Judgment Section 12) Those parties listed on Exhibit "E" have
3 elected to be treated as Integrated Producers. Integrated
4 Production Rights have two (2) historical components:

5 (1) a fixed component based upon historic
6 Diversions for Direct Use; and

7 (2) a mutually prescriptive Pumper's Share
8 component based upon Pumping during the period 1953 through
9 1967.

10 Assessment and other Watermaster regulation of the rights of
11 such parties shall relate to and be based upon each such
12 component. So far as future exercise of such rights is
13 concerned, however, the gross quantity of the aggregate right in
14 any Fiscal Year may be exercised, in the sole discretion of such
15 party, by either Diversion or Pumping or any combination or
16 apportionment thereof; provided, that for Assessment purposes
17 the first water Produced in any Fiscal Year (other than "carry-
18 over", under Section 49 hereof) shall be deemed an exercise of
19 the Diversion component, and any Production over said quantity
20 shall be deemed Pumped water, regardless of the actual method of
21 Production.

22 19. Special Category Rights. (Prior Judgment Section 13)
23 The parties listed on Exhibit "F" have water rights in the
24 Relevant Watershed which are not ordinary Production rights.
25 The nature of each such right is as described in Exhibit "F".

26 20. Non-consumptive Practices. (Prior Judgment Section
27 14) Certain Producers have engaged in Water Diversion and
28 spreading practices which have caused such Diversions to have a

1 non-consumptive or beneficial impact upon the aggregate water
2 supply available in the Basin. Said parties, and a statement of
3 the nature of their rights, uses and practices, are set forth in
4 Exhibit "G". The Physical Solution decreed herein, and
5 particularly its provisions for Assessments, shall not apply to
6 such non-consumptive uses. Watermaster may require reports on
7 the operations of said parties.

8 21. Overlying Rights. (Prior Judgment Section 14.5)

9 Producers listed in Exhibit "K" hereto were not parties herein
10 at the time of the original entry of Judgment herein. They have
11 exercised in good faith Overlying Rights to Produce water from
12 the Basin during the periods subsequent to the entry of Judgment
13 herein and have by self-help initiated or maintained appurtenant
14 Overlying Rights. Such rights are exercisable without
15 quantitative limit only on specifically described Overlying Land
16 and cannot be separately conveyed or transferred apart
17 therefrom. As to such rights and their exercise, the owners
18 thereof shall become parties to this action and be subject to
19 Watermaster Replacement Water Assessments under Section 45 (b)
20 hereof, sufficient to purchase Replenishment Water to offset the
21 net consumptive use of such Production and practices. In
22 addition, the gross amount of such Production for such overlying
23 use shall be subject to Watermaster Administrative Assessments
24 under Section 45 (a) hereof and the consumptive use portion of
25 such Production for overlying use shall be subject to
26 Watermaster's In-Lieu Water Cost Assessments under Section
27 45 (d) hereof. The Producers presently entitled to exercise
28 Overlying Rights, a description of the Overlying Land to which

1 Overlying Rights are appurtenant, the nature of use and the
2 consumptive use portion thereof are set forth in Exhibit "K"
3 hereto. Watermaster may require reports and make inspections of
4 the operations of said parties for purposes of verifying the
5 uses set forth in said Exhibit "K", and, in the event of a
6 material change, to redetermine the net amount of consumptive
7 use by such parties as changed in the exercise of such Overlying
8 Rights. Annually, during the first two (2) weeks of June in
9 each Calendar Year, such Overlying Rights Producers shall submit
10 to Watermaster a verified statement as to the nature of the then
11 current uses of said Overlying Rights on said Overlying Lands
12 for the next ensuing Fiscal Year, whereupon Watermaster shall
13 either affirm the prior determination or redetermine the net
14 amount of the consumptive use portion of the exercise of such
15 Overlying Right by said Overlying Rights Producer.

16 C. INJUNCTION

17 22. Injunction Against Unauthorized Production. (Prior
18 Judgment Section 15) Effective July 1, 1973, each and every
19 party, its officers, agents, employees, successors and assigns,
20 to whom rights to waters of the Basin or Relevant Watershed have
21 been declared and decreed herein is ENJOINED AND RESTRAINED from
22 Producing water for Direct Use from the Basin or the Relevant
23 Watershed except pursuant to rights and Pumpers' Shares herein
24 decreed or which may hereafter be acquired by transfer pursuant
25 to Section 55, or under the provisions of the Physical Solution
26 in this Judgment and the Court's continuing jurisdiction,
27 provided that no party is enjoined from Producing up to five (5)
28 acre feet per Fiscal Year.

1 23. Injunction re Non-consumptive Uses. (Prior Judgment
2 Section 16) Each party listed in Exhibit "G", its officers,
3 agents, employees, successors and assigns, is ENJOINED AND
4 RESTRAINED from materially changing said non-consumptive method
5 of use.

6 24. Injunction Re Change in Overlying Use Without Notice
7 Thereof To Watermaster. (Prior Judgment Section 16.5) Each
8 party listed in Exhibit "K", its officers, agents, employees,
9 successors and assigns, is ENJOINED AND RESTRAINED from
10 materially changing said overlying uses at any time without
11 first notifying Watermaster of the intended change of use, in
12 which event Watermaster shall promptly redetermine the
13 consumptive use portion thereof to be effective after such
14 change.

15 25. Injunction Against Unauthorized Recharge. (Prior
16 Judgment Section 17) Each party, its officers, agents,
17 employees, successors and assigns, is ENJOINED AND RESTRAINED
18 from spreading, injecting or otherwise recharging water in the
19 Basin except pursuant to: (a) an adjudicated non-consumptive
20 use, or (b) consent and approval of or Cyclic Storage Agreement
21 with Watermaster, or (c) subsequent order of this Court.

22 26. Injunction Against Transportation From Basin or
23 Relevant Watershed. (Prior Judgment Section 18) Except upon
24 further order of Court, all parties, other than Transporting
25 Parties and MWD in its exercise of its Special Category Rights,
26 to the extent authorized therein, are ENJOINED AND RESTRAINED
27 from transporting water hereafter Produced from the Relevant
28 Watershed or Basin outside the areas thereof. For purposes of

1 this Section, water supplied through a city water system which
2 lies chiefly within the Basin shall be deemed entirely used
3 within the Basin. Transporting Parties are entitled to continue
4 to transport water to the extent that any Production of water by
5 any such party does not violate the injunctive provisions
6 contained in Section 22 hereof; provided that said water shall
7 be used within the present service areas or corporate or other
8 boundaries and additions thereto so long as such additions are
9 contiguous to the then existing service area or corporate or
10 other boundaries; except that a maximum of ten percent (10%) of
11 use in any Fiscal Year may be outside said then existing service
12 areas or corporate or other boundaries.

13 D. CONTINUING JURISDICTION

14 27. Jurisdiction Reserved. (Prior Judgment Section 19)
15 Full jurisdiction, power and authority are retained by and
16 reserved to the Court for purposes of enabling the Court upon
17 application of any party or of the Watermaster, by motion and
18 upon at least thirty (30) days notice thereof, and after hearing
19 thereon, to make such further or supplemental orders or
20 directions as may be necessary or appropriate for interim
21 operation before the Physical Solution is fully operative, or
22 for interpretation, enforcement or carrying out of this
23 Judgment, and to modify, amend or amplify any of the provisions
24 of this Judgment or to add to the provisions thereof consistent
25 with the rights herein decreed. Provided, that nothing in this
26 paragraph shall authorize:

27 (1) modification or amendment of the quantities
28 specified in the declared rights of any party;

1 (2) modification or amendment of the manner of
2 exercise of the Base Annual Diversion Right or Integrated
3 Production Right of any party; or

4 (3) the imposition of an injunction prohibiting
5 transportation outside the Relevant Watershed or Basin as
6 against any Transporting Party transporting in accordance
7 with the provisions of this Judgment or against MWD as to
8 its Special Category Rights.

9 E. WATERMASTER

10 28. Watermaster to Administer Judgment. (Prior Judgment
11 Section 20) A Watermaster comprised of nine (9) persons, to be
12 nominated as hereinafter provided and appointed by the Court,
13 shall administer and enforce the provisions of this Judgment and
14 any subsequent instructions or orders of the Court thereunder.

15 29. Qualification, Nomination and Appointment. (Prior
16 Judgment Section 21) The nine (9) member Watermaster shall be
17 composed of six (6) Producer representatives and three (3)
18 public representatives qualified, nominated and appointed as
19 follows:

20 (a). Qualification. Any adult citizen of the State of
21 California shall be eligible to serve on Watermaster;
22 provided, however, that no officer, director, employee or
23 agent of Upper District or San Gabriel District shall be
24 qualified as a Producer member of Watermaster.

25 (b) Nomination of Producer Representatives. A
26 meeting of all parties shall be held at the regular meeting
27 of Watermaster in November of each year, at the offices of
28 Watermaster. Nomination of the six (6) Producer

1 representatives shall be by cumulative voting, in person or
2 by proxy, with each Producer entitled to one (1) vote for
3 each one hundred (100) acre feet, or portion thereof, of
4 Base Annual Diversion Right or Prescriptive Pumping Right
5 or Integrated Production Right.

6 (c) Nomination of Public Representatives. On or
7 before the regular meeting of Watermaster in November of
8 each year, the three (3) public representatives shall be
9 nominated by the boards of directors of Upper District
10 (which shall select two [2]) and San Gabriel District
11 (which shall select one [1]). Said nominees shall be
12 members of the board of directors of said public districts.

13 (d) Appointment. All Watermaster nominations shall be
14 promptly certified to the Court, which will in ordinary
15 course confirm the same by an appropriate order appointing
16 said Watermaster; provided, however, that the Court at all
17 times reserves the right and power to refuse to appoint, or
18 to remove, any member of Watermaster.

19 30. Term and Vacancies. (Prior Judgment Section 22) Each
20 member of Watermaster shall serve for a one (1) year term
21 commencing on January 1, following his appointment, or until his
22 successor is appointed. In the event of a vacancy on
23 Watermaster, a successor shall be nominated at a special meeting
24 to be called by Watermaster within ninety (90) days (in the case
25 of a Producer representative) or by action of the appropriate
26 district board of directors (in the case of a public
27 representative).

28 31. Quorum. (Prior Judgment Section 23) Five (5) members

1 of the Watermaster shall constitute a quorum for the transaction
2 of affairs of the Watermaster. Action by the affirmative vote
3 of five (5) members shall constitute action by Watermaster,
4 except that the affirmative vote of six (6) members shall be
5 required:

6 (a) to approve the purchase, spreading or injection of
7 water for Ground Water recharge, or

8 (b) to enter in any Agreement pursuant to Section
9 34 (m) hereof.

10 32. Compensation. (Prior Judgment Section 24) Each
11 Watermaster member shall receive compensation of One Hundred
12 Dollars (\$100.00) per day for each day's attendance at meetings
13 of Watermaster or for each day's service rendered as a
14 Watermaster member at the request of Watermaster, together with
15 any expenses incurred in the performance of his duties required
16 or authorized by Watermaster. No member of the Watermaster
17 shall be employed by or compensated for professional services
18 rendered by him to Watermaster, other than the compensation
19 herein provided, and any authorized travel or related expense.

20 33. Organization. (Prior Judgment Section 25) At its
21 first meeting in each year, Watermaster shall elect a chairman
22 and a vice chairman from its membership. It shall also select a
23 secretary, a treasurer and such assistant secretaries and
24 assistant treasurers as may be appropriate, any of whom may, but
25 need not be, members of Watermaster.

26 (a) Minutes. Minutes of all Watermaster meetings
27 shall be kept which shall reflect all actions taken by
28 Watermaster. Draft copies thereof shall be furnished to

1 any party who files a request therefor in writing with
2 Watermaster. Said draft copies of minutes shall constitute
3 notice of any Watermaster action therein reported; failure
4 to request copies thereof shall constitute waiver of
5 notice.

6 (b) Regular Meetings. Watermaster shall hold regular
7 meetings at places and times to be specified in
8 Watermaster's rules and regulations to be adopted by
9 Watermaster. Notice of the scheduled or regular meetings
10 of Watermaster and of any changes in the time or place
11 thereof shall be mailed to all parties who shall have filed
12 a request therefor in writing with Watermaster.

13 (c) Special Meetings. Special meetings of
14 Watermaster may be called at any time by the chairman or
15 vice chairman or by any three (3) members of Watermaster by
16 written notice delivered personally or mailed to each
17 member of Watermaster and to each party requesting notice,
18 at least twenty-four (24) hours before the time of each
19 such meeting in the case of personal delivery, and forty-
20 eight (48) hours prior to such meeting in the case of mail.
21 The calling notice shall specify the time and place of the
22 special meeting and the business to be transacted at such
23 meeting. No other business shall be considered at such
24 meeting.

25 (d) Adjournments. Any meeting of Watermaster may be
26 adjourned to a time and place specified in the order of
27 adjournment. Less than a quorum may so adjourn from time
28 to time. A copy of the order or notice of adjournment

1 shall be conspicuously posted on or near the door of the
2 place where the meeting was held within twenty-four (24)
3 hours after adoption of the order of adjournment.

4 34. Powers and Duties. (Prior Judgment Section 26)

5 Subject to the continuing supervision and control of the Court,
6 Watermaster shall have and may exercise the following express
7 powers, and shall perform the following duties, together with
8 any specific powers, authority and duties granted or imposed
9 elsewhere in this Judgment or hereafter ordered or authorized by
10 the Court in the exercise of its continuing jurisdiction.

11 (a) Rules and Regulations. To make and adopt any and
12 all appropriate rules and regulations for conduct of
13 Watermaster affairs. A copy of said rules and regulations
14 and any amendments thereof shall be mailed to all parties.

15 (b) Acquisition of Facilities. To purchase, lease,
16 acquire and hold all necessary property and equipment;
17 provided, however, that Watermaster shall not acquire any
18 interest in real property in excess of year-to-year tenancy
19 for necessary quarters and facilities.

20 (c) Employment of Experts and Agents. To employ such
21 administrative personnel, engineering, geologic,
22 accounting, legal or other specialized services and
23 consulting assistants as may be deemed appropriate in
24 the carrying out of its powers and to require appropriate
25 bonds from all officers and employees handling Watermaster
26 funds.

27 (d) Measuring Devices, etc. To cause parties,
28 pursuant to uniform rules, to install and maintain in good

1 operating condition, at the cost of each party, such
2 necessary measuring devices or meters as may be
3 appropriate; and to inspect and test any such measuring
4 device as may be necessary.

5 (e) Assessments. To levy and collect all Assessments
6 specified in the Physical Solution.

7 (f) Investment of Funds. To hold and invest any and
8 all funds which Watermaster may possess in investments
9 authorized from time to time for public agencies in the
10 State of California.

11 (g) Borrowing. To borrow in anticipation of receipt
12 of Assessment proceeds an amount not to exceed the annual
13 amount of Assessments levied but uncollected.

14 (h) Purchase of and Recharge with Supplemental Water.
15 To purchase Supplemental Water and to introduce the same
16 into the Basin for replacement or cyclic storage purposes,
17 subject to the affirmative vote of six (6) members of
18 Watermaster.

19 (i) Contracts. To enter into contracts for the
20 performance of any administrative powers herein granted,
21 subject to approval of the Court.

22 (j) Cooperation With Existing Agencies. To act
23 jointly or cooperate with agencies of the United States and
24 the State of California or any political subdivision,
25 municipality or district to the end that the purposes of
26 the Physical Solution may be fully and economically carried
27 out. Specifically, in the event Upper District has
28 facilities available and adequate to accomplish any of the

1 administrative functions of Watermaster, consideration
2 shall be given to performing said functions under contract
3 with Upper District in order to avoid duplication of
4 facilities.

5 (k) Assumption of Make-up Obligation. Watermaster
6 shall assume the Make-up Obligation for and on behalf of
7 the Basin.

8 (m) Water Quality. Water quality in the Basin shall
9 be a concern of Watermaster, and all reasonable steps shall
10 be taken to assist and encourage appropriate regulatory
11 agencies to enforce reasonable water quality regulations
12 affecting the Basin, including regulation of solid and
13 liquid waste disposal.

14 (n) Cyclic Storage Agreements. To enter into
15 appropriate contracts, to be approved by the Court, for
16 utilization of Ground Water storage capacity of the Basin
17 for cyclic or regulatory storage of Supplemental Water by
18 parties and non-parties, for subsequent recovery or
19 Watermaster credit by the storing entity, pursuant to
20 uniform rules and conditions, which shall include provision
21 for:

22 (1) Watermaster control of all spreading or
23 injection and extraction scheduling and procedures for
24 such stored water;

25 (2) calculation by Watermaster of any special
26 costs, damages or burdens resulting from such
27 operations;

28 (3) determination by Watermaster of, and

1 accounting for, all losses in stored water, assuming
2 that such stored water floats on top of the Ground
3 Water supplies, and accounting for all losses of water
4 which otherwise would have replenished the Basin, with
5 priorities being established as between two or more
6 such contractors giving preference to parties over
7 non-parties; and

8 (4) payment to Watermaster for the benefit of the
9 parties hereto of all special costs, damages or
10 burdens incurred (without any charge, rent, assessment
11 or expense as to parties hereto by reason of the
12 adjudicated proprietary character of said storage
13 rights, nor credit or offset for benefits resulting
14 from such storage); provided, that no party shall have
15 any direct interest in or control over such contracts
16 or the operation thereof by reason of the adjudicated
17 right of such party, the Watermaster having sole
18 custody and control of all Ground Water storage rights
19 in the Basin pursuant to the Physical Solution herein,
20 and subject to review of the Court.

21 (o) Notice List. Maintain a current list of party
22 designees to receive notice hereunder, in accordance with
23 Section 54 hereof.

24 35. Policy Decisions -- Procedure. (Prior Judgment
25 Section 27) It is contemplated that Watermaster will exercise
26 discretion in making policy decisions relating to Basin
27 management under the Physical Solution decreed herein. In order
28 to assure full participation and opportunity to be heard for

1 those affected, no policy decision shall be made by Watermaster
2 until thirty (30) days after the question involved has been
3 raised for discussion at a Watermaster meeting and noted in the
4 draft of minutes thereof.

5 36. Reports. (Prior Judgment Section 28) Watermaster
6 shall annually file with the Court and mail to the parties a
7 report of all Watermaster activities during the preceding year,
8 including an audited statement of all accounts and financial
9 activities of Watermaster, summary reports of Diversions and
10 Pumping, and all other pertinent information. To the extent
11 practical, said report shall be mailed to all parties on or
12 before November 1.

13 37. Review Procedures. (Prior Judgment Section 29)
14 Any action, decision, rule or procedure of Watermaster (other
15 than a decision establishing Operating Safe Yield, see Section
16 43[c]) shall be subject to review by the Court on its own motion
17 or on timely motion for an Order to Show Cause by any party, as
18 follows:

19 (a) Effective Date of Watermaster Action. Any order,
20 decision or action of Watermaster shall be deemed to have
21 occurred on the date that written notice thereof is mailed.
22 Mailing of draft copies of Watermaster minutes to the
23 parties requesting the same shall constitute notice to all
24 such parties.

25 (b) Notice of Motion. Any party may, by a regularly
26 noticed motion, petition the Court for review of said
27 Watermaster's action or decision. Notice of such motion
28 shall be mailed to Watermaster and all parties. Unless so

1 ordered by the Court, such petition shall not operate to
2 stay the effect of such Watermaster action.

3 (c) Time for Motion. Notice of motion to review any
4 Watermaster action or decision shall be served and filed
5 within ninety (90) days after such Watermaster action or
6 decision.

7 (d) De Novo Nature of Proceeding. Upon filing of such
8 motion for hearing, the Court shall notify the parties of a
9 date for taking evidence and argument, and shall review de
10 novo the question at issue on the date designated. The
11 Watermaster decision or action shall have no evidentiary
12 weight in such proceeding.

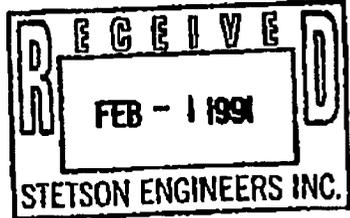
13 (e) Decision. The decision of the Court in such
14 proceeding shall be an appealable Supplemental Order in
15 this case. When the same is final, it shall be binding
16 upon the Watermaster and the parties.

17 F. PHYSICAL SOLUTION

18 38. Purpose and Objective. (Prior Judgment Section 30)
19 Consistent with the California Constitution and the decisions of
20 the Supreme Court, the Court hereby adopts and Orders the
21 parties to comply with this Physical Solution. The purpose and
22 objective of these provisions is to provide a legal and
23 practical means for accomplishing the most economic, long term,
24 conjunctive utilization of surface, Ground Water, Supplemental
25 Water and Ground Water storage capacity to meet the needs and
26 requirements of the water users dependent upon the Basin and
27 Relevant Watershed, while preserving existing equities.

28 39. Need for Flexibility. (Prior Judgment Section 31) In

1 Ralph B. Helm - Bar No. 022004
2 4605 Lankershim Boulevard, #214
3 North Hollywood, CA 91602
4 Telephone (818) 789-2002
5 Attorney for Watermaster - Petitioner



8 SUPERIOR COURT OF CALIFORNIA, COUNTY OF LOS ANGELES

10 UPPER SAN GABRIEL VALLEY) No. 924129
11 MUNICIPAL WATER DISTRICT,)
12 Plaintiff,) ORDER AMENDING JUDGMENT TO
13 vs.) TO INCLUDE MAINTENANCE,
14 CITY OF ALHAMBRA, et al.,) IMPROVEMENT, AND CONTROL OF
15 Defendants.) BASIN WATER QUALITY WITH
16) ALLOWABLE FUNDING THROUGH
17) IN-LIEU ASSESSMENTS
18) Hearing: August 7, 1990
19) Department 38, 9:15 A. M.

17 The Petition of the Main San Gabriel Basin Watermaster
18 (Watermaster) for Amendment to Judgment herein to expand its
19 powers to include maintenance, improvement, and control of Basin
20 water quality by controlling pumping in the Basin, with
21 allowable funding for associated costs to be paid through its
22 In-Lieu Assessments, was continued on July 31, 1990, to August
23 7, 1990, when it duly and regularly came on for hearing, at 9:15
24 o'clock A. M. in Department 38 of the above entitled Court, the
25 Honorable FLORENCE T. PICKARD, Assigned Judge Presiding. Ralph
26 B. Helm appeared as Attorney for Watermaster - Petitioner; Wayne
27 K. Lemieux appeared for Defendant, San Gabriel Valley Municipal
28 Water District, in support of the Petition; Fred Vendig, General

1 Counsel, Karen L. Tachiki, Assistant General Counsel, and
2 Victor E. Gleason, Senior Deputy General Counsel, by Victor E.
3 Gleason, appeared for Defendant, The Metropolitan Water District
4 of Southern California, in support of the Petition; Timothy J.
5 Ryan appeared for Defendant, San Gabriel Valley Water Company,
6 in opposition to the Petition; Lagerlof, Senecal, Drescher &
7 Swift, by H. Jess Senecal, appeared for Defendants, Calmat
8 Company, Livingston-Graham, Owl Rock Products, AZ-Two, Inc., and
9 Sully-Miller Contracting Company, in opposition to the Petition;
10 Ira Reiner, Los Angeles County District Attorney, by Jan
11 Chatten-Brown, Special Assistant to the District Attorney,
12 appeared in opposition to the Petition; and Sarah F. Bates and
13 Laurens H. Silver, by Sarah F. Bates, appeared on behalf of
14 Amicus Curiae Sierra Club, in opposition to the Petition.

15 The Court acknowledged receipt and consideration of:
16 letters in support of the Petition by the California Regional
17 Water Quality Control Board - Los Angeles Region and by the
18 State Water Resources Control Board; a copy of a letter
19 addressed to the Attorney for Petitioner, from the US
20 Environmental Protection Agency - Region IX, by Mark J.
21 Klaiman, Assistant Regional Counsel, regarding several matters
22 of federal law which EPA believed might ultimately affect the
23 subject Petition; a letter in opposition to the Petition by East
24 Valleys Organization; and a FAX communication to the Court, in
25 opposition to the Petition, from Congressman Esteban E. Torres,
26 which was not communicated to nor seen by the parties.

27 Members of the public, present in Court, were invited to,
28 and did, present oral testimony during the hearing.

1 Under date of December 10, 1990 the Court entered its
2 Intended Decision Re Amendment To Judgment and, by minute order
3 duly entered and mailed to Counsel for Petitioner, ordered
4 copies thereof mailed forthwith to all appearing parties,
5 including those appearing as friends of the court, and to all
6 other affected parties on the case's current mailing list.

7 A Proof Of Service by mail on December 13, 1990, Of
8 Intended Decision Re Amendment To Judgment, as ordered, has been
9 filed with the Court.

10 Opposition to Petitioner's Proposed Order were filed by
11 Amicus Curiae Sierra Club, Amicus Curiae Los Angeles District
12 Attorney, and by Producer Parties Calmat Co., Livingston-Graham,
13 Owl Rock Products Company, AZ-Two, Inc., and Sully-Miller
14 Contracting Company.

15 Proof being made to the satisfaction of the Court and good
16 cause appearing:

17 IT IS, HEREBY, ORDERED:

18 1. That the Amended Judgment herein be further amended by
19 amending Subsection (j) of Section 10 thereof, Definitions, and
20 Section 40 thereof, Division F, Physical Solution, to read as
21 follows:

22 "10 (j) In-Lieu Water Cost - - The differential between a
23 particular Producer's cost of Watermaster directed produced,
24 treated, blended, substituted, or Supplemental Water delivered
25 or substituted to, for, or taken by, such Producer in-lieu of
26 his cost of otherwise normally Producing a like amount of Ground
27 Water from the Basin.

28 "40. Watermaster Control. (Prior Judgment Section 32)

1 In order to develop an adequate and effective program of Basin
2 management, it is essential that Watermaster have broad
3 discretion in the making of Basin management decisions within
4 the ambit hereinafter set forth. The maintenance, improvement,
5 and control of the water quality and quantity of the Basin,
6 withdrawal and replenishment of supplies of the Basin and
7 Relevant Watershed, and the utilization of the water resources
8 thereof, must be subject to procedures established by
9 Watermaster in implementation of the Physical Solution
10 provisions of this Judgment. Both the quantity and quality of
11 said water resource are thereby preserved and its beneficial
12 utilization maximized.

13 "(a) Watermaster shall develop an adequate and effective
14 program of Basin management. The maintenance, improvement, and
15 control of the water quality and quantity of the Basin,
16 withdrawal and replenishment of supplies of the Basin and
17 Relevant Watershed, and the utilization of the water resources
18 thereof, must be subject to procedures established by
19 Watermaster in implementation of the Physical Solution
20 provisions of this Judgment. All Watermaster programs and
21 procedures shall be adopted only after a duly noticed public
22 hearing pursuant to Sections 37 and 40 of the Amended Judgment
23 herein.

24 "(b) Watermaster shall have the power to control pumping in
25 the Basin by water Producers therein for Basin cleanup and water
26 quality control so that specific well production can be directed
27 as to a lesser amount, to total cessation, as to an increased
28 amount, and even to require pumping in a new location in the

1 Basin. Watermaster's right to regulate pumping activities of
2 Producers shall be subordinate to any conflicting Basin cleanup
3 plan established by the EPA or other public governmental agency
4 with responsibility for ground water management or clean up.

5 "(c) Watermaster may act individually or participate with
6 others to carry on technical and other necessary investigations
7 of all kinds and collect data necessary to carry out the herein
8 stated purposes. It may engage in contractual relations with
9 the EPA or other agencies in furtherance of the clean up of the
10 Basin and enter into contracts with agencies of the United
11 States, the State of California, or any political subdivision,
12 municipality, or district thereof, to the extent allowed under
13 applicable federal or state statutes. Any cooperative agreement
14 between the Watermaster and EPA shall require the approval of
15 the appropriate Agency(s) of the State of California.

16 "(d) For regulation and control of pumping activity in the
17 Basin, Watermaster shall adopt Rules and Regulations and
18 programs to promote, manage and accomplish clean up of the Basin
19 and its waters, including, but not limited to, measures to
20 confine, move, and remove contaminants and pollutants. Such
21 Rules and Regulations and programs shall be adopted only after a
22 duly Noticed Public Hearing by Watermaster and shall be subject
23 to Court review pursuant to Section 37 of the Amended Judgment
24 herein.

25 "(e) Watermaster shall determine whether funds from local,
26 regional, state or federal agencies are available for regulating
27 pumping and the various costs associated with, or arising from
28 such activities. If no public funds are available from local,

1 regional, state, or federal agencies, the costs shall be
2 obtained and paid by way of an In-Lieu Assessment by Watermaster
3 pursuant to Section 10 (j) of the Amended Judgment herein.
4 Provided such In-Lieu Assessments become necessary, the costs
5 shall be borne by all Basin Producers.

6 "(f) Watermaster is a Court empowered entity with limited
7 powers, created pursuant to the Court's Physical Solution
8 Jurisdiction under Article X, Section 2 of the California
9 Constitution. None of the Powers granted herein to Watermaster
10 shall be construed as designating Watermaster a political
11 subdivision of the State of California or authorizing
12 Watermaster to act as 'lead agency' to administer the federal
13 Superfund for clean up of the Basin."

14 2. This Amended Judgment shall continue in full force and
15 effect as hereby Ordered and Amended.

16 Dated: January 29, 1991.

17
18 /s/Florence T. Pickard
19 FLORENCE T. PICKARD
20 Judge of the Superior Court,
21 Specially Assigned
22
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1 order that Watermaster may be free to utilize both existing and
2 new and developing technological, social and economic concepts
3 for the fullest benefit of all those dependent upon the Basin,
4 it is essential that the Physical Solution hereunder provide for
5 maximum flexibility and adaptability. To that end, the Court
6 has retained continuing jurisdiction to supplement the broad
7 discretion herein granted to the Watermaster.

8 40. Watermaster Control. (Prior Judgment Section 32) In
9 order to develop an adequate and effective program of Basin
10 management, it is essential that Watermaster have broad
11 discretion in the making of Basin management decisions within
12 the ambit hereinafter set forth. Withdrawal and replenishment
13 of supplies of the Basin and Relevant Watershed and the
14 utilization of the water resources thereof, and of available
15 Ground Water storage capacity, must be subject to procedures
16 established by Watermaster in implementation of the provisions
17 of this Judgment. Both the quantity and quality of said water
18 resource are thereby preserved and its beneficial utilization
19 maximized.

20 41. General Pattern of Contemplated Operation. (Prior
21 Judgment Section 33) In general outline (subject to the
22 specific provisions hereafter and to Watermaster Operating
23 Criteria set forth in Exhibit "H"), Watermaster will determine
24 annually the Operating Safe Yield of the Basin and will notify
25 each Pumper of his share thereof, stated in acre feet per Fiscal
26 Year. Thereafter, no party may Produce in any Fiscal Year an
27 amount in excess of the sum of his Diversion Right, if any, plus
28 his Pumper's Share of such Operating Safe Yield, or his

1 Integrated Production Right, or the terms of any Cyclic Storage
2 Agreement, without being subject to Assessment for the purpose
3 of purchasing Replacement Water. In establishing the Operating
4 Safe Yield, Watermaster shall follow all physical, economic, and
5 other relevant parameters provided in the Watermaster Operating
6 Criteria. Watermaster shall have Assessment powers to raise
7 funds essential to implement the management plan in any of the
8 several special circumstances herein described in more detail.

9 42. Basin Operating Criteria. (Prior Judgment Section 34)
10 Until further order of the Court and in accordance with the
11 Watermaster Operating Criteria, Watermaster shall not spread
12 Replacement Water when the water level at the Key Well exceeds
13 Elevation two hundred fifty (250), and Watermaster shall spread
14 Replacement Water, insofar as practicable, to maintain the water
15 level at the Key Well above Elevation two hundred (200).

16 43. Determination of Operating Safe Yield. (Prior
17 Judgment Section 35) Watermaster shall annually determine the
18 Operating Safe Yield applicable to the succeeding Fiscal Year
19 and estimate the same for the next succeeding four (4) Fiscal
20 Years. In making such determination, Watermaster shall be
21 governed in the exercise of its discretion by the Watermaster
22 Operating Criteria. The procedures with reference to said
23 determination shall be as follows:

24 (a) Preliminary Determination. On or before
25 Watermaster's first meeting in April of each year,
26 Watermaster shall make a Preliminary Determination of the
27 Operating Safe Yield of the Basin for each of the
28 succeeding five Fiscal Years. Said determination shall be

1 made in the form of a report containing a summary statement
2 of the considerations, calculations and factors used by
3 Watermaster in arriving at said Operating Safe Yield.

4 (b) Notice and Hearing. A copy of said Preliminary
5 Determination and report shall be mailed to each Pumper and
6 Integrated Producer at least ten (10) days prior to a
7 hearing to be held at Watermaster's regular meeting in May,
8 of each year, at which time objections or suggested
9 corrections or modifications of said determinations shall
10 be considered. Said hearing shall be held pursuant to
11 procedures adopted by Watermaster.

12 (c) Watermaster Determination and Review Thereof.
13 Within thirty (30) days after completion of said hearing,
14 Watermaster shall mail to each Pumper and Integrated
15 Producer a final report and determination of said Operating
16 Safe Yield for each such Fiscal Year, together with a
17 statement of the Producer's entitlement in each such Fiscal
18 Year stated in acre feet. Any affected party, within
19 thirty (30) days of mailing of notice of said Watermaster
20 determination, may, by a regularly noticed motion, petition
21 the Court for an Order to Show Cause for review of said
22 Watermaster finding, and thereupon the Court shall hear
23 such objections and settle such dispute. Unless so ordered
24 by the Court, such petition shall not operate to stay the
25 effect of said report and determination. In the absence of
26 such review proceedings, the Watermaster determination
27 shall be final.

28 44. Reports of Pumping and Diversion. (Prior Judgment

1 Section 36) Each party (other than Minimal Producers) shall
2 file with the Watermaster quarterly, on or before the last day
3 of January, April, July and October, a report on a form to be
4 prescribed by Watermaster showing the total Pumping and
5 Diversion (separately for Direct Use and for non-consumptive
6 use, if any,) of such party during the preceding calendar
7 quarter.

8 45. Assessments -- Purpose. (Prior Judgment Section 37)
9 Watermaster shall have the power to levy and collect Assessments
10 from the parties (other than Minimal Producers, non-consumptive
11 users, or Production under Special Category Rights or Cyclic
12 Storage Agreements) based upon Production during the preceding
13 Fiscal Year. Said Assessments may be for one or more of the
14 following purposes:

15 (a) Watermaster Administration Costs. Within thirty
16 (30) days after completion of the hearing on the
17 Preliminary Determination of the Operating Safe Yield of
18 the Basin and Watermaster's determination thereof, pursuant
19 to Section 43 hereof, Watermaster shall adopt a proposed
20 budget for the succeeding Fiscal Year and shall mail a copy
21 thereof to each party, together with a statement of the
22 level of Administration Assessment levied by Watermaster
23 which will be collected for purposes of raising funds for
24 said budget. Said Assessment shall be uniformly applicable
25 to each acre foot of Production.

26 (b) Replacement Water Costs. Replacement Water
27 Assessments shall be collected from each party on account
28 of such party's Production in excess of its Diversion

1 Rights, Pumper's Share or Integrated Production Right, and
2 on account of the consumptive use portion of Overlying
3 Rights, computed at the applicable rate established by
4 Watermaster consistent with the Watermaster Operating
5 Criteria.

6 (c) Make-Up Obligation. An Assessment shall be
7 collected equally on account of each acre foot of
8 Production, which does not bear a Replacement Assessment
9 hereunder, to pay all necessary costs of Administration and
10 satisfaction of the Make-Up Obligation. Such Assessment
11 shall not be applicable to water Production for an
12 Overlying Right.

13 (d) In-Lieu Water Cost. Watermaster may levy an
14 Assessment against all Pumping to pay reimbursement for In-
15 Lieu Water Costs except that such Assessment shall not be
16 applicable to the non-consumptive use portion of an
17 Overlying Right.

18 (e) Basin Water Quality Improvement. For purposes of
19 testing, protecting or improving the water quality in the
20 Basin, Watermaster may, after a noticed hearing thereon,
21 fix terms and conditions under which it may waive all or
22 any part of its Assessments on such ground water
23 Production and if such Production, in addition to his other
24 Production, does not exceed such Producer's Share or
25 entitlement for that Fiscal Year, such stated Production
26 shall be allowed to be carried over for a part of such
27 Producer's next Fiscal Year's Producer's Share or
28 entitlement. In connection therewith, Watermaster may also

1 waive the provisions of Sections 25, 26 and 57 hereof,
2 relating to Injunction Against Unauthorized Recharge,
3 Injunction Against Transportation From Basin or Relevant
4 Watershed, and Intervention After Judgment, respectively.
5 Nothing in this Judgment is intended to allow an increase
6 in any Producer's annual entitlement nor to prevent
7 Watermaster, after hearing thereon, from entering into
8 contracts to encourage, assist and accomplish the clean up
9 and improvement of degraded water quality in the Basin by
10 non-parties herein. Such contracts may include the
11 exemption of the Production of such Basin water therefor
12 from Watermaster Assessments and, in connection therewith,
13 the waiver of the provisions of Judgment Sections 25, 26,
14 and 57 hereof.

15 46. Assessments -- Procedure. (Prior Judgment Section 38)
16 Assessments herein provided for shall be levied and collected
17 as follows:

18 (a) Levy and Notice of Assessment. Within thirty
19 (30) days of Watermaster's annual determination of
20 Operating Safe Yield of the Basin for each Fiscal Year and
21 succeeding four (4) Fiscal Years, Watermaster shall levy
22 applicable Administration Assessments, Replacement Water
23 Assessments, Make-up Water Assessments and In-Lieu Water
24 Assessments, if any. Watermaster shall give written notice
25 of all applicable Assessments to each party on or before
26 August 15, of each year.

27 (b) Payment. Each Assessment shall be payable, and
28 each party is Ordered to pay the same, on or before

1 September 20, following such Assessment, subject to the
2 rights reserved in Section 37 hereof.

3 (c) Delinquency. Any Assessment which becomes
4 delinquent after January 1, 1980, shall bear interest at
5 the annual prime rate plus one percent (1%) in effect on
6 the first business day of August of each year. Said prime
7 interest rate shall be that fixed by the Bank of America
8 NT&SA for its preferred borrowing customers on said date.
9 Said prime interest rate plus one percent (1%) shall be
10 applicable to any said delinquent Assessment from the due
11 date thereof until paid. Provided, however, in no event
12 shall any said delinquent Assessment bear interest at a
13 rate of less than ten percent (10%) per annum. Such
14 delinquent Assessment and interest may be collected in a
15 Show Cause proceeding herein or any other legal proceeding
16 instituted by Watermaster, and in such proceeding the Court
17 may allow Watermaster its reasonable costs of collection,
18 including attorney's fees.

19 47. Availability of Supplemental Water From Responsible
20 Agencies. (Prior Judgment Section 39) If any Responsible
21 Agency shall, for any reason, be unable to deliver Supplemental
22 Water to Watermaster when needed, Watermaster shall collect
23 funds at an appropriate level and hold them in trust, together
24 with interest accrued thereon, for purchase of such water when
25 available.

26 48. Accumulation of Replacement Water Assessment Proceeds.
27 (Prior Judgment Section 40) In order to minimize fluctuation
28 in Assessments and to give Watermaster flexibility in Basin

1 management, Watermaster may make reasonable accumulations of
2 Replacement Water Assessments. Such moneys and any interest
3 accrued thereon shall only be used for the purchase of
4 Replacement Water.

5 49. Carry-over of Unused Rights. (Prior Judgment Section
6 41) Any Pumper's Share of Operating Safe Yield, and the
7 Production right of any Integrated Producer, which is not
8 Produced in a given Fiscal Year may be carried over and
9 accumulated for one Fiscal Year, pursuant to reasonable rules
10 and procedures for notice and accounting which shall be adopted
11 by Watermaster. The first water Produced in the succeeding
12 Fiscal Year shall be deemed Produced pursuant to such Carry-over
13 Rights.

14 50. Minimal Producers. (Prior Judgment Section 42) In
15 the interest of Justice, Minimal Producers are exempted from the
16 operation of this Physical Solution, so long as such party's
17 annual Production does not exceed five (5) acre feet. Quarterly
18 Production reports by such parties shall not be required, but
19 Watermaster may require, and Minimal Producers shall furnish,
20 specific periodic reports. In addition, Watermaster may conduct
21 such investigation of future operations of any Minimal Producer
22 as may be appropriate.

23 51. Effective Date. (Prior Judgment Section 43) The
24 effective date for commencing accounting and operation under
25 this Physical Solution, other than for Replacement Water
26 Assessments, shall be July 1, 1972. The first Assessment for
27 Replacement Water shall be payable on September 20, 1974, on
28 account of Fiscal Year 1973-74 Production.

1 G. MISCELLANEOUS PROVISIONS

2 52. Puente Narrows Flow. (Prior Judgment Section 44)

3 The Puente Basin is tributary to the Main San Gabriel Basin.
4 All Producers within said Puente Basin have been dismissed
5 herein, based upon the Puente Narrows Agreement (Exhibit "J"),
6 whereby Puente Basin Water Agency agreed not to interfere with
7 surface inflow and to assure continuance of historic subsurface
8 contribution of water to Main San Gabriel Basin. The Court
9 declares said Agreement to be reasonable and fair and in full
10 satisfaction of claims by Main San Gabriel Basin for natural
11 water from Puente Basin.

12 53. San Gabriel District - Interim Order. (Prior Judgment

13 Section 45) San Gabriel District has a contract with the State
14 of California for State Project Water, delivered at Devil Canyon
15 in San Bernardino County. San Gabriel District is HEREBY
16 ORDERED to proceed with and complete necessary pipeline
17 facilities as soon as practical.

18 Until said pipeline is built and capable of delivering a
19 minimum of twenty-eight thousand eight-hundred (28,800) acre
20 feet of State Project water per year, defendant cities of
21 Alhambra, Azusa, and Monterey Park shall pay to Watermaster each
22 Fiscal Year a Replacement Assessment at a uniform rate
23 sufficient to purchase Replenishment Water when available,
24 which rate shall be declared by San Gabriel District.
25 When water is available through said pipeline, San Gabriel
26 District shall make the same available to Watermaster, on his
27 reasonable demand, at said specified rate per acre foot.
28 Interest accrued on such funds shall be paid to San Gabriel

1 District.

2 54. Service Upon and Delivery to Parties of Various
3 Papers. (Prior Judgment Section 46) Service of the Judgment
4 on those parties who have executed the Stipulation for Judgment
5 shall be made by first class mail, postage prepaid, addressed to
6 the Designee and at the address designated for that purpose in
7 the executed and filed counterpart of the Stipulation for
8 Judgment, or in any substitute designation filed with the Court.

9 Each party who has not heretofore made such a designation
10 shall, within thirty (30) days after the Judgment shall have
11 been served upon that party, file with the Court, with proof of
12 service of a copy thereof upon Watermaster, a written
13 designation of the person to whom and the address at which all
14 future notices, determinations, requests, demands, objections,
15 reports and other papers and processes to be served upon that
16 party or delivered to that party are to be so served or
17 delivered.

18 A later substitute designation filed and served in the same
19 manner by any party shall be effective from the date of filing
20 as to the then future notices, determinations, requests,
21 demands, objections, reports and other papers and processes to
22 be served upon or delivered to that party.

23 Delivery to or service upon any party by Watermaster, by
24 any other party, or by the Court, of any item required to be
25 served upon or delivered to a party under or pursuant to the
26 Judgment may be made by deposit thereof (or by copy thereof) in
27 the mail, first class, postage prepaid, addressed to the
28 Designee of the party and at the address shown in the latest

1 designation filed by that party.

2 55. Assignment, Transfer, etc., of Rights. (Prior
3 Judgment Section 47) Any rights Adjudicated herein except
4 Overlying Rights, may be assigned, transferred, licensed or
5 leased by the owners thereof; provided however, that no such
6 assignment shall be complete until the appropriate notice
7 procedures established by Watermaster have been complied with.
8 No water Produced pursuant to rights assigned, transferred,
9 licensed, or leased may be transported outside the Relevant
10 Watershed except by:

11 (1) a Transporting Party, or

12 (2) a successor in interest immediate or mediate to a
13 water system on lands or portion thereof, theretofore
14 served by such a Transporting Party, for use by such
15 successor in accordance with limitations applicable to
16 Transporting Parties, or

17 (3) a successor in interest to the Special Category
18 rights of MWD.

19 The transfer and use of Overlying Rights shall be
20 limited, as provided in Section 21 hereof, as exercisable
21 only on the specifically defined Overlying Lands and they
22 cannot be separately conveyed or transferred apart therefrom.

23 56. Abandonment of Rights. (Prior Judgment Section 48)
24 It is in the interest of reasonable beneficial use of the Basin
25 and its water supply that no party be encouraged to take and use
26 more water in any Fiscal Year than is actually required.
27 Failure to Produce all of the water to which a party is entitled
28 hereunder shall not, in and of itself, be deemed or constitute

1 an abandonment of such party's right, in whole or in part.
2 Abandonment and extinction of any right herein Adjudicated shall
3 be accomplished only by:

4 (1) a written election by the party, filed in this
5 case, or

6 (2) upon noticed motion of Watermaster, and after
7 hearing.

8 In either case, such abandonment shall be confirmed by
9 express subsequent order of this Court.

10 57. Intervention After Judgment. (Prior Judgment Section
11 49) Any person who is not a party or successor to a party and
12 who proposes to Produce water from the Basin or Relevant
13 Watershed, may seek to become a party to this Judgment through a
14 Stipulation For Intervention entered into with Watermaster.
15 Watermaster may execute said Stipulation on behalf of the other
16 parties herein but such Stipulation shall not preclude a party
17 from opposing such Intervention at the time of the Court hearing
18 thereon. Said Stipulation For Intervention must thereupon be
19 filed with the Court, which will consider an order confirming
20 said Intervention following thirty (30) days' notice to the
21 parties. Thereafter, if approved by the Court, such Intervenor
22 shall be a party bound by this Judgment and entitled to the
23 rights and privileges accorded under the Physical Solution
24 herein.

25 58. Judgment Binding on Successors, etc. (Prior Judgment
26 Section 50) Subject to specific provisions hereinbefore
27 contained, this Judgment and all provisions thereof are
28 applicable to and binding upon and inure to the benefit of not

1 only the parties to this action, but as well to their respective
2 heirs, executors, administrators, successors, assigns, lessees,
3 licensees and to the agents, employees and attorneys in fact of
4 any such persons.

5 59. Water Rights Permits. (Prior Judgment Section 51)
6 Nothing herein shall be construed as affecting the relative
7 rights and priorities between MWD and San Gabriel Valley
8 Protective Association under State Water Rights Permits Nos.
9 7174 and 7175, respectively.

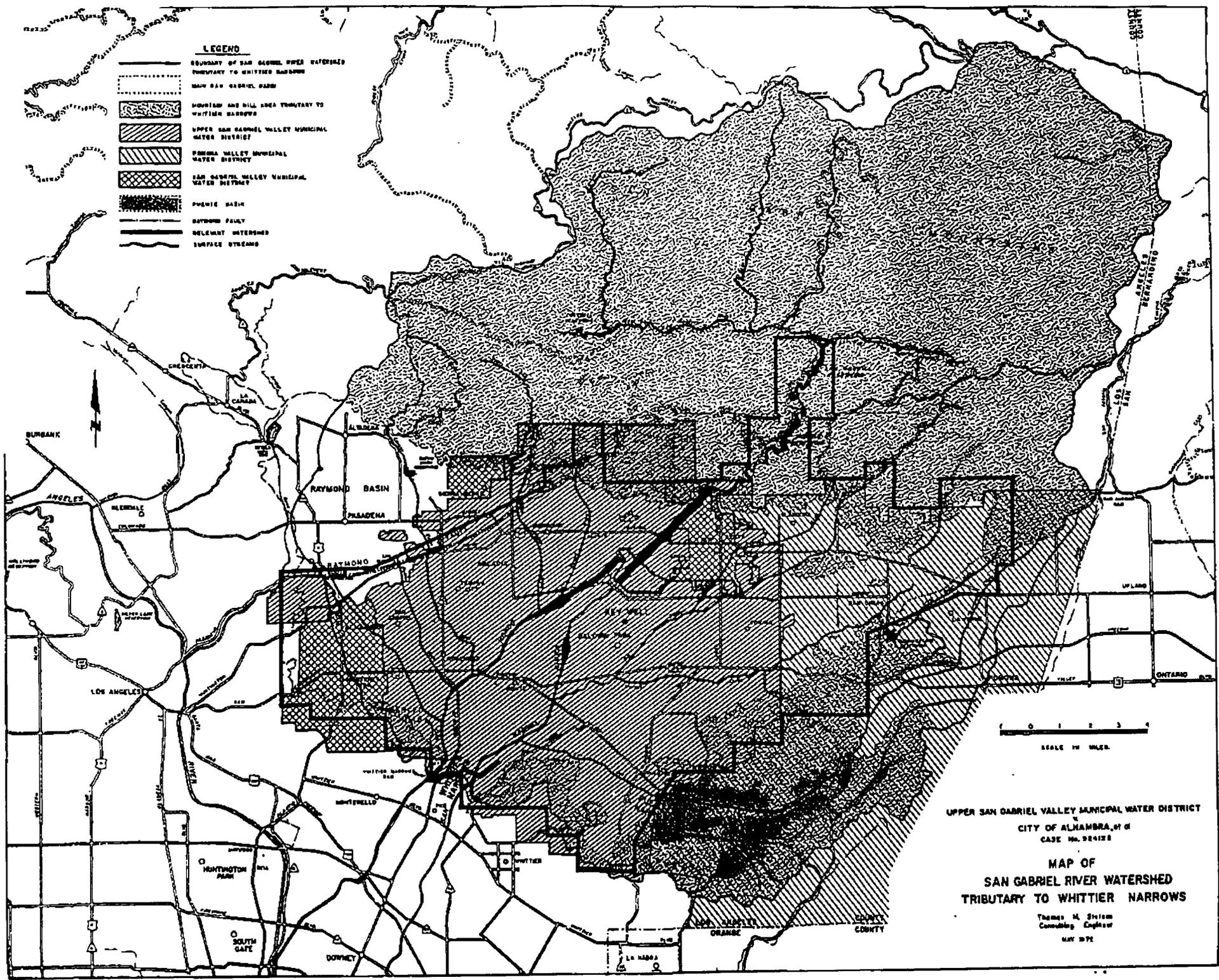
10 60. Costs. (Prior Judgment Section 52) No party shall
11 recover any costs in this proceeding from any other party.

12 61. Entry of Judgment. (New) The Clerk shall enter this
13 Judgment.

14 DATED: August 24, 1989.

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s/ Florence T. Pickard
Florence T. Pickard, Judge
Specially Assigned



LEGEND

- BOUNDARY OF SAN GABRIEL UPPER WATERSHED TRIBUTARY TO WHITTIER NARROWS
- SAN GABRIEL BASIN
- ▨ MOUNTAIN AND HILL AREA TRIBUTARY TO WHITTIER NARROWS
- ▧ UPPER SAN GABRIEL VALLEY MUNICIPAL WATER DISTRICT
- ▩ PASADENA VALLEY MUNICIPAL WATER DISTRICT
- ▤ SAN GABRIEL VALLEY MUNICIPAL WATER DISTRICT
- ▦ PHOENIX BASIN
- RAYMOND FAULT
- RELEVANT WATERSHED
- SURFACE STREAMS



UPPER SAN GABRIEL VALLEY MUNICIPAL WATER DISTRICT
 CITY OF ALHAMBRA, et al
 CASE No. 924128
MAP OF
SAN GABRIEL RIVER WATERSHED
TRIBUTARY TO WHITTIER NARROWS
 Thomas H. Shimm
 Consulting Engineer
 MAY 1972

Exhibit "B"

BOUNDARIES OF RELEVANT WATERSHED

The following described property is located in Los Angeles County, State of California:

Beginning at the Southwest corner of Section 14, Township 1 North, Range 11 West, San Bernardino Base and Meridian;

Thence Northerly along the West line of said Section 14 to the Northwest corner of the South half of said Section 14;

Thence Easterly along the North line of the South half of Section 14 to the East line of said Section 14;

Thence Northerly along the East line of said Section 14, Township 1 North, Range 11 West and continuing Northerly along the East line of Section 11 to the Northeast corner of said Section 11;

Thence Easterly along the North line of Section 12 to the Northeast corner of said Section 12;

Thence Southerly along the East line of said Section 12 and continuing Southerly along the East line of Section 13 to the Southeast corner of said Section 13, said corner being also the Southwest corner of Section 18, Township 1 North, Range 10 West;

Thence Easterly along the South line of Sections 18, 17, 16 and 15 of said Township 1 North, Range 10 West to the Southwest corner of Section 14;

Thence Northerly along the West line of Section 14 to the Northwest corner of the South half of Section 14;

Thence Easterly along the North line of the South half of Section 14 to the East line of said section;

Thence Northerly along the East line of said Section 14, and continuing Northerly along the West line of Section 12 of said Township 1 North, Range 10 West to the North line of said Section 12;

Thence Easterly along the North line of said Section 12, to the Northeast corner of said Section 12, said corner being also the Southwest corner of Section 6, Township 1 North, Range 9 West;

Thence Northerly along the West line of said Section 6 and continuing Northerly along West line of Sections 31 and 30, Township 2 North, Range 9 West to the Westerly prolongation of the North line of said Section 30;

Thence Easterly along said Westerly prolongation of the North line of said Section 30 and continuing Easterly along the North line of Section 29 to the Northeast corner of said Section 29;

Thence Southerly along the East line of said Section 29 and continuing Southerly along the East line of Section 32, Township 2 North, Range 9 West, and thence continuing Southerly along the East line of Section 5, Township 1 North, Range 9 West to the Southeast corner of said Section 5;

Thence Westerly along the South line of said Section 5 to the Southwest corner of said Section 5, said point being also the Northwest corner of Section 8;

Thence Southerly along the West line of said Section 8 and continuing Southerly along the West line of Section 17, to the Southwest corner of said Section 17, said corner being also the Northwest corner of Section 20;

Thence Easterly along the North line of Sections 20 and 21 to the Northwest corner of Section 22, said corner being also the Southwest corner of Section 15;

Thence Northerly along the West line of said Section 15 to the Northwest corner of the South half of said Section 15;

Thence Easterly along the North line of said South half of Section 15 to the Northeast corner of said South half of Section 15;

Thence Southerly along the East line of Section 15 and continuing Southerly along the East line of Section 22 to the Southeast corner of said Section 22, said point being also the Southwest corner of Section 23;

Thence Easterly along the South line of Sections 23 and 24 to the East line of the West half of said Section 24;

Thence Northerly along said East line of the West half of Section 24 to the North line thereof;

Thence Easterly along said North line of Section 24 to the Northeast corner thereof, said point also being the Northwest corner of Section 19, Township 1 North, Range 8 West;

Thence continuing Easterly along the North line of Section 19 and Section 20 of said Township 1 North, Range 8 West to the Northeast corner of said Section 20;

Thence Southerly along the East line of Sections 20, 29 and 32 of said Township 1 North, Range 8 West to the Southeast corner of said Section 32;

Thence Westerly along the South line of Section 32 to the Northwest corner of the East half of Section 5, Township 1 South, Range 8 West;

Thence Southerly along the West line of the East half of said Section 5 to the South line of said Section 5;

Thence West to the East line of the Northerly prolongation of Range 9 West;

Thence South 67° 30' West to an intersection with the Northerly prolongation of the West line of Section 27, Township 1 South, Range 9 West;

Thence Southerly along the Northerly prolongation of said West line of Section 27 and continuing Southerly along the West line of Section 27 to the Southwest corner of said Section 27, said point being also the Southeast corner of Section 28;

Thence Westerly along the South line and Westerly projection of the South line of said Section 28 to the Northerly prolongation of the West line of Range 9 West; ✓

Thence Southerly along said prolongation of the West line of Range 9 West to the Westerly prolongation of the North line of Township 2 South;

Thence Westerly along said Westerly prolongation of the North line of Township 2 South, a distance of 8,500 feet; ✓

Thence South a distance of 4,500 feet; ✓

Thence West a distance of 10,700 feet;

Thence South 29° West to an intersection with the Northerly prolongation of the West line of Section 20, Township 2 South, Range 10 West;

Thence Southerly along said Northerly prolongation of the West line of said Section 20 and continuing Southerly along the West line of Section 20 to the Southwest corner of said Section 20;

Thence South a distance of 2,000 feet;

Thence West a distance of two miles, more or less, to an intersection with the East line of Section 26, Township 2 South, Range 11 West;

Thence Northerly along said East line of Section 26 and continuing Northerly along the East line of Section 23, Township 2 South, Range 11 West to the Northeast corner of said Section 23;

Thence Westerly along the North line of said Section 23 to the Northwest corner thereof, said point being also the Southeast corner of Section 15, Township 2 South, Range 11 West;

Thence Northerly and Westerly along the East and North lines, respectively, of said Section 15, Township 2 South, Range 11 West, to the Northwest corner thereof;

Thence continuing Westerly along the Westerly prolongation of said North line of Section 15, Township 2 South, Range 11 West to an intersection with a line parallel to and one mile East of the West line of Range 11 West;

Thence Northerly along said parallel line to an intersection with the Northerly boundary of the City of Pico Rivera as said City of Pico Rivera existed on July 17, 1970;

Thence Westerly along said City boundary to an intersection with the East line of Range 12 West;

Thence Northerly along said East line of Range 12 West to the North line of Township 2 South;

Thence Westerly along the North line of Township 2 South to an intersection with the Southerly prolongation of the East line of the West half of Section 26, Township 1 South, Range 12 West;

Thence Northerly along said Southerly prolongation of said East line of the West half of said Section 26 to the Southeast corner of said West half;

Thence Westerly along the South line of Sections 26, 27 and 28, Township 1 South, Range 12 West, to the Southeast corner of Section 29, Township 1 South, Range 12 West;

Thence Northerly along the East line of said Section 29 to the Northeast corner of the South half of said Section 29;

Thence Westerly along the North line of the South half of said Section 29 to the Northwest corner thereof;

Thence Northerly along the West line of Sections 29, 20, 17 and 8, Township 1 South, Range 12 West;

Thence continuing Northerly along the Northerly prolongation of the West line of Section 8, Township 1 South, Range 12 West to an intersection with the North line of Township 1 South;

Thence Easterly along said North line of Township 1
South to the Northeast corner of Section 3, Township 1 South,
Range 12 West;

Thence North $64^{\circ} 30'$ East to an intersection with the
West line of Section 23, Township 1 North, Range 11 West;

Thence Northerly along the West line of said Section 23
to the Northwest corner thereof, said point being the
Southwest corner of Section 14, Township 1 North, Range 11
West and said point being also the point of beginning.

Exhibit "C"

TABLE
SHOWING BASE
ANNUAL DIVERSION
RIGHTS OF CERTAIN
DIVERTERS

	Base Annual Diversion Right <u>Acre-Feet</u>
Covell, Ralph (Successor to Rittenhouse, Catherine and Rittenhouse, James)	2.12
Maddock, A. G.	3.40
Rittenhouse, Catherine (Transferred to Covell, Ralph)	0
Rittenhouse, James (Transferred to Covell, Ralph)	0
Ruebhausen, Arline (Held in common with Ruebhausen, Victor) (Transferred to City of Glendale)	0
Ruebhausen, Victor (See Ruebhausen, Arline, above)	0
TOTAL	<u>5.52</u>

Exhibit "D"

TABLE
SHOWING PRESCRIPTIVE PUMPING RIGHTS
AND PUMPER'S SHARE OF EACH PUMPER
AS OF JUNE, 1988

<u>Pumper</u>	<u>Prescriptive Pumping Right Acre-feet</u>	<u>Pumper's Share Percent (%)</u>
Adams Ranch Mutual Water Company	100.00	0.05060
A & E Plastik Pak Co., Inc. (Transferred to Industry Properties, Ltd.)	0	0
Alhambra, City of	8,812.05	4.45876
Amarillo Mutual Water Company	709.00	0.35874
Anchor Plating Co., Inc. (Successor to Bodger & Sons) (Transferred to Crown City Plating Co.)	0	0
Anderson, Ray L. and Helen T., Trustees (Successor to Covina-Valley Unified School District)	50.16	0.02538
Andrade, Marcario and Consuelo; and Andrade, Robert and Jayne (Successor to J. F. Isbell Estate, Inc.)	8.36	0.00423
Arcardia, City of (Successor to First National Finance Corporation) (Transferred to City of Monrovia)	9,252.00 60.90 <u>951.00</u> 8,361.90	4.68137 0.03081 <u>0.48119</u> 4.23099
Associated Southern Investment Company (Transferred to Southern California Edison Company)	0	0
AZ-Two, Inc. (Lessee of Southwestern Portland Cement Co.)	0	0
Azusa, City	3,655.99	1.84988
Azusa-Western Inc. (Transferred to Southwestern Portland Cement Co.)	0	0
Bahnsen & Beckman Ind., Inc. (Transferred to Woodland, Richard)	0	0

Exhibit "D"

<u>Pumper</u>	<u>Prescriptive Pumping Right Acre-feet</u>	<u>Pumper's Share %</u>
Bahnsen, Betty M. (Transferred to Dawes, Mary Kay)	0	0
Baldwin Park County Water District (See Valley County Water District)	-	-
Banks, Gale C. (Successor to Doyle, Mr. and Mrs.; and Madruga, Mr. and Mrs.)	50.00	0.02530
Base Line Water Company	430.20	0.21767
Beverly Acres Mutual Water Company	93.00	0.04706
Birenbaum, Max (Held in common with Birenbaum, Sylvia; Schneiderman, Alan; Schneiderman, Lydia; Wigodsky, Bernard; Wigodsky, Estera) (Transferred to City of Whittier)	0	0
Birenbaum, Sylvia (See Birenbaum, Max)	-	-
) Blue Diamond Concrete Materials Div., The Flintkote Company (Transferred to Sully-Miller Contracting Co.)	0	0
Bodger & Sons DBA Bodger Seeds Ltd. (Transferred to Anchor Plating Co., Inc.)	0	0
Botello Water Company	0	0
Burbank Development Company	50.65	0.02563
Cadway, Inc. (Successor to: Corcoran, Jack S. and R. L.) Corcoran, Jack S. and R. L.)	100.00 <u>100.00</u> 200.00	0.05060 <u>0.05060</u> 0.10120
Cal Fin (Transferred to Suburban Water Systems)	0	0
California-American Water Company (San Marino System)	7,868.70	3.98144
California Country Club	0	0

<u>Pumper</u>	<u>Prescriptive Pumping Right Acre-feet</u>	<u>Pumper's Share %</u>
California Domestic Water Company (Successor to: Cantrill Mutual Water Company Industry Properties, Ltd. Modern Accent Corporation Fisher, Russell)	11,024.82 42.50 73.50 256.86 <u>19.00</u> 11,416.68	5.57839 0.02150 0.03719 0.12997 <u>0.00961</u> 5.77666
California Materials Company	0	0
Cantrill Mutual Water Company (Transferred to California Domestic Water Co.)	0	0
Cedar Avenue Mutual Water Company	121.10	0.06127
Champion Mutual Water Company	147.68	0.07472
Chronis, Christine (See Polopolus, et al)	-	-
Clayton Manufacturing Company	511.80	0.25896
Collison, E. O.	0	0
Comby, Erma M. (See Wilmott, Erma M.)	-	-
Conrock Company (Formerly Consolidated Rock Products Co.) (Successor to Manning Bros. Rock & Sand Co.)	1,465.35 <u>328.00</u> 1,793.35	0.74144 <u>0.16596</u> 0.90740
Consolidated Rock Products Co. (See Conrock Company)	-	-
Corcoran, Jack S. (Held in common with Corcoran, R. L.) (Transferred to: Cadway, Inc. Cadway, Inc.)	 747.00 100.00 <u>100.00</u> 547.00	 0.37797 0.05060 <u>0.05060</u> 0.27677
Corcoran, R. L. (See Corcoran, Jack S.)	-	-
County Sanitation District No. 18 of Los Angeles County	4.50	0.00228

<u>Pumper</u>	<u>Prescriptive Pumping Right Acre-feet</u>	<u>Pumper's Share %</u>
Covell, et al. (Successor to Rittenhouse, Catherine and Rittenhouse, James) (Held in common with Jobe, Darr; Goedert, Lillian E.; Goedert, Marion W.; Lakin, Kendall R.; Lakin, Kelly R.; Snyder, Harry)	111.05	0.05619
Covina, City of (Transferred to Covina Irrigating Company)	2,507.89	1.26895
(Transferred to Covina Irrigating Company)	1,734.00	0.87737
	<u>300.00</u>	<u>0.15179</u>
	473.89	0.23979
Covina-Valley Unified School District (Transferred to Anderson, Ray)	0	0
Crevolin, A. J.	2.25	0.00114
Crocker National Bank, Executor of the Estate of A. V. Handorf (Transferred to Modern Accent Corp.)	0	0
Cross Water Company (Transferred to City of Industry)	0	0
Crown City Plating Company (Successor to Anchor Plating Co., Inc.)	190.00	0.09614
	<u>10.00</u>	<u>0.00506</u>
	200.00	0.10120
Davidson Optronics, Inc.	22.00	0.01113
Dawes, Mary Kay (Successor to Bahnsen, Betty M.)	441.90	0.22359
Del Rio Mutual Water Company	199.00	0.10069
Denton, Kathryn W., Trustee for San Jose Ranch Company (Transferred to White, June G., Trustee of the June G. White Share of the Garnier Trust)	0	0
Doyle, Mr. and Mrs.; and Madruga, Mr. and Mrs. (Successor to Sawpit Farms, Ltd.) (Transferred to Banks, Gale C.)	0	0
Driftwood Dairy	163.80	0.08288
Duhalde, L. (Transferred to El Monte Union High School District)	0	0

<u>Pumper</u>	<u>Prescriptive Pumping Right Acre-feet</u>	<u>Pumper's Share %</u>
Dunning, George (Held in common with Dunning, Vera H.) (Successor to Vera H. Dunning)	324.00	0.16394
Dunning, Vera H. (Transferred to George Dunning)	-	-
East Pasadena Water Company, Ltd.	1,407.69	0.71227
Eckis, Rollin (Successor to Sawpit Farms, Ltd.) (Transferred to City of Monrovia)	0	0
El Encanto Properties (Transferred to La Puente Valley County Water District)	0	0
El Monte, City of	2,784.23	1.40878
El Monte Cemetary Association	18.50	0.00936
El Monte Union High School District (Successor to Duhalde, L.) (Transferred to City of Whittier)	0	0
Everett, Mrs. Alda B. (Held in common with Everett, W. B., Executor of the Estate of I. Worth Everett)	0	0
Everett, W. B., Executor of the Estate of I. Worth Everett (See Everett, Mrs. Alda B.)	-	-
Faix, Inc. (Successor to Frank F. Pellissier & Sons, Inc.) (Transferred to Faix, Ltd.)	0	0
Faix, Ltd. (Successor to Faix, Inc.)	6,490.00	3.28384
First National Finance Corporation (Transferred to City of Arcadia)	0	0
Fisher, Russell (Held in common with Hauch, Edward and Warren, Clyde) (Transferred to California Domestic Water Company)	0	0

<u>Pumper</u>	<u>Prescriptive Pumping Right Acre-feet</u>	<u>Pumper's Share %</u>
Frank F. Pellissier & Sons, Inc. (Transferred to Faix, Inc.)	0	0
Fruit Street Water Company (Transferred to: Gifford, Brooks, Jr. City of La Verne)	0	0
Gifford, Brooks, Jr. (Successor to: Fruit Street Water Co., Mission Gardens Mutual Water Company) (Transferred to City of Whittier)	0	0
Gilkerson, Frank B. (Transferred to Jobe, Darr)	-	-
Glendora Unified High School District (Transferred to City of Glendora)	0	0
Goedert, Lillian E. (See Covell, et al)	-	-
Goedert, Marion W. (See Covell, et al)	-	-
Graham, William (Transferred to Darr Jobe)	-	-
Green, Walter	71.70	0.03628
Grizzle, Lissa B. (Held in common with Grizzle, Mervin A.; Wilson, Harold R.; Wilson, Sarah C.) (Transferred to City of Whittier)	0	0
Grizzle, Mervin A. (See Grizzle, Lissa B.)	0	0
Hansen, Alice	0.75	0.00038
Hartley, David	0	0
Hauch, Edward (See Fisher, Russell)	0	0
Hemlock Mutual Water Company	166.00	0.08399

<u>Pumper</u>	<u>Prescriptive Pumping Right Acre-feet</u>	<u>Pumper's Share %</u>
Hollenbeck Street Water Company (Transferred to Suburban Water Systems)	0	0
Hunter, Lloyd F. (Successor to R. Wade)	4.40	0.00223
Hydro-Conduit Corporation	0	0
Industry Waterworks System, City of (Successor to Cross Water Company)	1,103.00	0.55810
Industry Properties, Ltd. (Successor to A & E Plastik Pak Co., Inc.) (Transferred to California Domestic Water Co.)	0	0
J. F. Isbell Estate, Inc. (Transferred to Andrade, Macario and Consuelo; and Andrade, Robert and Jayne)	0	0
Jerris, Helen (See Polopolus, et al)	-	-
Jobe, Darr (See Covell, et al)	-	-
Kirklen Family Trust (Formerly Kirklen, Dawn L.) (Held in common with Kirklen, William R.) (Successor to San Dimas-La Verne Recreational Facilities Authority)	375.00 <u>62.50</u> 437.50	0.18974 <u>0.03162</u> 0.22136
Kirklen, Dawn L. (See Kirklen Family Trust)	-	-
Kirklen, William R. (See Kirklen, Dawn L.)	-	-
Kiyan, Hideo (Held in common with Kiyan, Hiro)	30.00	0.01518
Kiyan, Hiro (See Kiyan, Hideo)	-	-
Knight, Kathryn M. (Successor to William Knight)	227.88	0.11530
Knight, William (Transferred to Kathryn M. Knight)	0	0

<u>Pumper</u>	<u>Prescriptive Pumping Right Acre-feet</u>	<u>Pumper's Share %</u>
Lakin, Kelly R. (See Covell, et al)	-	-
Lakin, Kendall R. (See Covell, et al)	-	-
Landeros, John	0.75	0.00038
La Grande Source Water Company (Transferred to Suburban Water Systems)	0	0
Lang, Frank (Transferred to San Dimas-La Verne Recreational Facilities Authority)	0	0
La Puente Cooperative Water Company (Transferred to Suburban Water Systems)	0	0
La Puente Valley County Water District (Successor to El Encanto Properties)	1,097.00 <u>33.40</u> 1,130.40	0.55507 <u>0.01690</u> 0.57197
La Verne, City of (Successor to Fruit Street Water Co.)	250.00 <u>105.71</u> 355.71	0.12650 <u>0.05319</u> 0.17999
Lee, Paul M. and Ruth A.; Nasmyth, Virginia; Nasmyth, John	0	0
Little John Dairy	0	0
Livingston-Graham, Inc.	1,824.40	0.92312
Los Flores Mutual Water Company (Transferred to City of Monterey Park)	0	0
Loucks, David	3.00	0.00162
Manning Bros. Rock & Sand Co. (Transferred to Conrock Company)	0	0
Maple Water Company	118.50	0.05996
Martinez, Frances Mercy (Held in common with Martinez, Jaime)	0.75	0.00038
Martinez, Jaime (See Martinez, Frances Mercy)	-	-
Massey-Ferguson Company	0	0

<u>Pumper</u>	<u>Prescriptive Pumping Right Acre-feet</u>	<u>Pumper's Share %</u>
Miller Brewing Company (Successor to: Maechtlen, Estate of J. J. Phillips, Alice B., et al)	111.01 151.50 <u>50.00</u> 312.51	0.05617 0.07666 <u>0.02530</u> 0.15813
Mission Gardens Mutual Water Company (Transferred to Gifford, Brooks, Jr.)	0	0
Modern Accent Corporation (Successor to Crocker National Bank, Executer of the Estate of A. V. Handorf) (Transferred to California Domestic Water Co.)	0	0
Monterey Park, City of (Successor to Los Flores Mutual Water Co.)	6,677.48 <u>26.60</u> 6,704.08	3.37870 <u>0.01346</u> 3.39216
Murphy Ranch Mutual Water Company (Transferred to Southwest Suburban Water)	0	0
Nanimatsu Farms (Transferred to California Cities Water Company)	0	0
Nick Tomovich & Sons	0.02	0.00001
No. 17 Walnut Place Mutual Water Co. (Transferred to San Gabriel Valley Water Company)	0	0
Orange Production Credit Association	0	0
Owl Rock Products Co.	715.60	0.36208
Pacific Rock & Gravel Co. (Transferred to: City of Whittier Rose Hills Memorial Park Association)	0	0
Park Water Company (Transferred to Valley County Water District)	0	0
Penn, Margaret (See Polopolus, et al)	-	-
Pico County Water District	0.75	0.00038
Polopolus, John (See Polopolus, et al)	-	-

<u>Pumper</u>	<u>Prescriptive Pumping Right Acre-feet</u>	<u>Pumper's Share %</u>
Polopolus, et al (Successor to Polopolus, Steve) (Held in common with Chronis, Christine; Jerris, Helen; Penn, Margaret; Polopolus, John)	22.50	0.01138
Polopolus, Steve (Transferred to Polopolus, et al)	-	-
Rados, Alexander (Held in common with Rados, Stephen and Rados, Walter)	43.00	0.02176
Rados, Stephen (See Rados, Alexander)	-	-
Rados, Walter (See Rados, Alexander)	-	-
Richwood Mutual Water Company	192.60	0.09745
Rincon Ditch Company	628.00	0.31776
Rincon Irrigation Company	314.00	0.15888
Rittenhouse, Catherine (Transferred to Covell, Ralph)	0	0
Rittenhouse, James (Transferred to Covell, Ralph)	0	0
Rose Hills Memorial Park Association (Successor to Pacific Rock & Gravel Co.)	594.00 <u>200.00</u> 794.00	0.30055 <u>0.10120</u> 0.40175
Rosemead Development, Ltd. (Successor to Thompson, Earl W.)	1.00	0.00051
Rurban Homes Mutual Water Company	217.76	0.11018
Ruth, Roy	0.75	0.00038
San Dimas-La Verne Recreational Facilities Authority (Successor to Lang, Frank) (Transferred to Kirklen, Dawn L. and William R.)	0	0
San Gabriel Country Club	286.10	0.14476
San Gabriel County Water District	4,250.00	2.15044

<u>Pumper</u>	<u>Prescriptive Pumping Right Acre-feet</u>	<u>Pumper's Share %</u>
San Gabriel Valley Municipal Water District	0	0
San Gabriel Valley Water Company (Successor to: Vallecito Water Co. No. 17 Walnut Place Mutual Water Co.)	16,659.00 2,867.00 <u>21.50</u> 19,547.50	8.42920 1.45086 <u>0.01088</u> 9.89074
Sawpit Farms, Limited (Transferred to: Eckis, Rollin Doyle and Madruga)	0	0
Schneiderman, Alan (See Birenbaum, Max)	-	-
Schneiderman, Lydia (See Birenbaum, Max)	-	-
Security Pacific National Bank, Co-Trustee for the Estate of Winston F. Stoodly (See Stoodly, Virginia A.) (Transferred to City of Whittier)	0	0
Sierra Madre, City of	0	0
Sloan Ranches	129.60	0.06558
Smith, Charles	0	0
Snyder, Harry (See Covell, et al)	-	-
Sonoco Products Company	311.60	0.15766
South Covina Water Service	992.30	0.50209
Southern California Edison Company (Successor to: Associated Southern Investment Company)	155.25 <u>16.50</u> 171.75	0.07855 <u>0.00835</u> 0.08690
Southern California Water Company, San Gabriel Valley District	5,773.00	2.92105
South Pasadena, City of	3,567.70	1.80520
Southwest Suburban Water (See Suburban Water Systems)	-	-

<u>Pumper</u>	<u>Prescriptive Pumping Right Acre-feet</u>	<u>Pumper's Share %</u>
Southwestern Portland Cement Company (Successor to Azusa Western, Inc.)	742.00	0.37544
Speedway 605, Inc.	0	0
Standard Oil Company of California	2.00	0.00101
Sterling Mutual Water Company	120.00	0.06072
Stoody, Virginia A., Co-Trustee for the Estate of Winston F. Stoody (See Security Pacific National Bank, Co-Trustee)	-	-
Suburban Water Systems (Formerly Southwest Suburban Water) (Successor to:	20,462.47	10.35370
Hollenbeck Street Water Company	646.39	0.32706
La Grande Source Water Company	1,078.00	0.54545
La Puente Cooperative Water Co.	1,210.90	0.61270
Valencia Valley Water Company	651.50	0.32965
Victoria Mutual Water Company	469.60	0.23761
Cal Fin	118.10	0.05976
Murphy Ranch Mutual Water Co.	<u>223.23</u>	<u>0.11295</u>
	24,860.19	12.57888
Sully-Miller Contracting Company (Successor to Blue Diamond Concrete Materials Division, The Flintkote Co.)	1,399.33	0.70804
Sunny Slope Water Company	2,228.72	1.12770
Taylor Herb Garden (Transferred to Covina Irrigating Company)	0	0
Texaco, Inc.	50.00	0.02530
Thompson, Earl W. (Held in common with Thompson, Mary) (Transferred to Rosemead Development, Ltd.)	0	0
Thompson, Mary (See Thompson, Earl W.)	-	-
Tyler Nursery	3.21	0.00162
United Concrete Pipe Corporation (See U. S. Pipe & Foundry Company)	-	-

<u>Pumper</u>	<u>Prescriptive Pumping Right Acre-feet</u>	<u>Pumper's Share %</u>
U. S. Pipe & Foundry Company (Formerly United Concrete Pipe Corporation)	376.00	0.19025
Valencia Heights Water Company	861.00	0.43565
Valencia Valley Water Company (Transferred to Suburban Water Systems)	0	0
Vallecito Water Company (Transferred to San Gabriel Valley Water Company)	0	0
Valley County Water District (Formerly Baldwin Park County Water District) (Successor to Park Water Company)	5,775.00 <u>184.01</u> 5,959.01	2.92206 <u>0.09311</u> 3.01517
Valley Crating Company	0	0
Valley View Mutual Water Company	616.00	0.31169
Via, H. (See Via, H., Trust of)	-	-
Via, H., Trust of (Formerly Via, H.)	46.20	0.02338
Victoria Mutual Water Company (Transferred to Suburban Water Systems)	0	0
Wade, R. (Transferred to Lloyd F. Hunter)	0	0
Ward Duck Company	1,217.40	0.61599
Warren, Clyde (See Fisher, Russell)	-	-
W. E. Hall Company	0.20	0.00010
White, June G., Trustee of the June G. White Share of the Garnier Trust (Successor to Denton, Kathryn W., Trustee for the San Jose Ranch Company)	185.50	0.09386

<u>Pumper</u>	<u>Prescriptive Pumping Right Acre-feet</u>	<u>Pumper's Share %</u>
Whittier, City of (Successor to: Grizzle, Lissa B. Pacific Rock and Gravel Co.) Security Pacific National Bank, Co-Trustee for the Estate of Winston F. Stoody El Monte Union High School District Gifford, Brooks, Jr. Birenbaum, Max)	7,620.23 184.00 208.00 38.70 16.20 198.25 <u>6.00</u> 8,271.38	3.85572 0.09310 0.10524 0.01958 0.00820 0.10031 <u>0.00304</u> 4.18519
Wigodsky, Bernard (See Birenbaum, Max)	-	-
Wigodsky, Estera (See Birenbaum, Max)	-	-
Wilmott, Erma M. (Formerly Comby, Erma M.)	0.75	0.00038
Wilson, Harold R. (See Grizzle, Lissa B.)	-	-
) Wilson, Sarah C. (See Grizzle, Lissa B.)	-	-
Woodland, Frederick G.	-	-
Woodland, Richard (Successor to: Bahnsen and Beckman Ind., Inc.)	<u>840.50</u>	<u>0.42528</u>
Totals for Exhibit "D"	<u>155,800.68</u>	<u>78.83276</u>
Totals from Exhibit "E"	41,833.75 38,826.25	21.16724 19.54431
GRAND TOTALS	<u>197,634.43</u>	<u>100.00000</u>

TABLE
SHOWING PRODUCTION RIGHTS
OF EACH
INTEGRATED PRODUCER
AS OF JUNE 1988

<u>Party</u>	<u>Diversion Component Acre-feet</u>	<u>Prescriptive Pumping Component Acre-feet</u>	<u>Pumping Component Share Percent (%)</u>
Azusa Agricultural Water Company	1,000.00	1,732.20	0.87647
Azusa Foot-Hill Citrus Water Company (Transferred to Monrovia Nursery Company)	0	0	0
Azusa Valley Water Company	2,422.00	8,274.00	4.18652
California-American Water Company (Duarte System)	1,672.00	3,649.00	1.84634
California Cities Water Company (See Southern California Water Company, San Dimas District)	-	-	-
Covina Irrigating Company (Successor to: City of Covina, City of Covina, and Taylor Herb Garden)	2,514.00	4,140.00 1,734.00 300.00 <u>6.00</u>	2.09478 0.87737 0.15179 <u>0.00304</u>
	<u>2,514.00</u>	<u>6,180.00</u>	<u>3.12698</u>
Glendora, City of (Successor to: Maechtlen, Estate of J. J., Maechtlen, Trust of P. A., Ruebhausen, Arline, and Glendora Unified High School District)	17.00 18.34 <u>35.34</u>	8,258.00 150.00 50.00 <u>9.00</u> 8,557.00	4.17842 0.07590 0.02530 <u>0.05009</u> 4.32971
Los Angeles, County of	310.00	3,721.30	1.88292
Maechtlen, Estate of J. J. (Transferred to: City of Glendora Miller Brewing Company)	0 <u>0</u>	301.50 -150.00 <u>-151.50</u> 0	0.15256 -0.07590 <u>-0.07666</u> 0

<u>Party</u>	<u>Diversion Componet Acre-feet</u>	<u>Prescriptive Pumping Component Acre-feet</u>	<u>Pumping Component Share %</u>
Maechtlen, Estate of J. J.	1.49	0	0
Maechtlen, Trust of P. A.	0.50	100.50	0.05085
(Transferred to: City of Glendora Alice B. Phillips, et al)	<u>-0.50</u> 0	<u>-50.00</u> <u>-50.50</u> 0	<u>-0.02530</u> <u>-0.02555</u> 0
The Metropolitan Water District of Southern California	9.59	165.00	0.08349
Monrovia, City of (Sucessor to: Eckis, Rollin City of Arcadia)	1,098.00 <u>1,098.00</u>	5,042.22 123.00 <u>951.00</u> 6,116.22	2.55129 0.06224 <u>0.48119</u> 3.09472
Monrovia, Nursery Company (Successor to: Azusa Foot-Hill Citrus Co.)	239.50 718.50	0 0	0 0
Phillips, Alice B., et al (Successor to: Maechtlen, Trust of P. A.) (Transferred to: Miller Brewing Company)	0.50 <u>0.50</u>	50.50 <u>-50.00</u> 0.50	0.02530 <u>-0.02530</u> 0.00025
Southern California Water Company (San Dimas Dist.) (Formerly California Cities Water Company) (Successor to: Namimatsu Farms)	500.00 <u>500.00</u>	3,242.53 <u>196.00</u> <u>3,438.53</u>	1.64076 <u>0.09917</u> <u>1.73984</u>
TOTAL for Exhibit "E"	<u>10,520.92</u>	<u>41,833.75</u>	<u>21.16724</u>

Exhibit "F"

TABLE SHOWING
SPECIAL CATAGORY RIGHTS

PARTY

Nature of Right

The Metropolitan Water
District of Southern
California

Morris Reservoir Storage and
Withdrawal

- (a) A right to divert, store and use San Gabriel River Water, pursuant to Permit No. 7174.
- (b) Prior and paramount right to divert 72 acre-feet annually to offset Morris Reservoir evaporation and seepage losses and to provide the water supply necessary for presently existing incidental Morris Dam facilities.

Los Angeles County Flood
Control District (Now
Los Angeles County
Department of Public Works)

Puddingstone Reservoir

Prior Prescriptive right to divert water from San Dimas Wash for storage in Puddingstone Reservoir in quantities sufficient to offset annual evaporation and seepage losses of the reservoir at approximate elevation 942.

Exhibit "G"

TABLE SHOWING
NON-CONSUMPTIVE USERS

<u>Party</u>	<u>Nature of Right</u>
Covina Irrigating Company Azusa Valley Water Company Azusa Agricultural Water Co. Azusa Foot-Hill Citrus Co. Monrovia Nursery Company	<u>"Committee-of-Nine" Spreading Right</u> To continue to divert water from the San Gabriel River pursuant to the 1888 Settlement, and to spread in spreading grounds within the Basin all water thus diverted without the right to recapture water in excess of said parties' rights as adjudicated in Exhibit "E".
California-American Water Company (Duarte System)	<u>Spreading Right</u> To continue to divert water from the San Gabriel River pursuant to the 1888 Settlement, and to continue to divert water from Fish Canyon and to spread said waters in its spreading grounds in the Basin without the right to recapture water in excess of said party's rights as adjudicated in Exhibit "E".
City of Glendora	<u>Spreading Right</u> To continue to spread the water of Big and Little Dalton Washes, pursuant to License No. 2592 without the right to recapture water in excess of said party's rights as adjudicated in Exhibit "E".
San Gabriel Valley Protective Association	<u>Spreading Right</u> To continue to spread San Gabriel River water pursuant to License Nos. 9991 and 12,209, without the right to recapture said water.
California Cities Water Company	<u>Spreading Right</u> To continue to spread waters from San Dimas Wash without the right to recapture water in excess of said party's rights as adjudicated in Exhibit "E".
Los Angeles County Flood Control District	<u>Temporary storage</u> of storm flow for regulatory purposes; <u>Spreading</u> and conservation for general benefit in streambeds, reservoirs and spreading grounds without the right to recapture said water. <u>Maintenance and operation</u> of dams and other flood control works.

Exhibit "G"

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EXHIBIT "H"

WATERMASTER OPERATING CRITERIA

1. Basin Storage Capacity. The highest water level at the end of a water year during the past 40 years was reached at the Key Well on September 30, 1944 (elevation 316). The State of California, Department of Water Resources, estimates that as of that date, the quantity of fresh water in storage in the Basin was approximately 8,600,000 acre-feet. It is also estimated by said Department that by September 30, 1960, the quantity of fresh water in storage had decreased to approximately 7,900,000 acre-feet (elevation 237) at the Key Well).

The lowest water level at the end of a water year during the past 40 years was reached at the Key Well on September 30, 1965 (elevation 209). It is estimated that the quantity of fresh water in storage in the Basin on that date was approximately 7,700,000 acre-feet.

Thus, the maximum utilization of Basin storage was approximately 900,000 acre-feet, occurring between September 30, 1944, and September 30, 1965 (between elevations 316 and 209 at the Key Well). This is not to say that more than 900,000 acre-feet of storage space below the September 30, 1944 water levels cannot be utilized. However, it demonstrates that pumpers have deepened their wells and lowered their pumps so that such 900,000 acre-feet of storage can be safely and economically utilized.

The storage capacity of the Basin between elevations of 200 and 250 at the Key Well represents a usable volume of approximately 400,000 acre-feet of water.

2. Operating Safe Yield and Spreading. Watermaster in determining Operating Safe Yield and the importation of Replacement Water shall be guided by water level elevations in the Basin. He shall give recognition to, and base his operations on, the following general objectives insofar as practicable:

- (a) The replenishment of ground water from sources of supplemental water should not cause excessively high levels of ground water and such replenishment should not cause undue waste of local water supplies.
- (b) Certain areas within the Basin are not at the present time capable of being recharged with supplemental water. Efforts should be made to provide protection to such areas from excessive ground water lowering either through the "in lieu" provisions of the Judgment or by other means.
- (c) Watermaster shall consider and evaluate the long-term consequences on ground water quality, as well as quantity, in determining and establishing Operating Safe Yield. Recognition shall be given to the enhancement of ground water quality insofar as practicable, especially in the area immediately upstream of Whittier Narrows where degradation of water quality may occur when water levels at the Key Well are maintained at or below elevation 200.
- (d) Watermaster shall take into consideration the comparative costs of supplemental and Make-up Water in determining the savings on a present value basis of temporary or permanent lowering or raising of water levels and other economic data and analyses indicating both the short-term and long-term

} propriety of adjusting Operating Safe Yield in order to derive optimum water levels during any period. Watermaster shall utilize the provisions in the Long Beach Judgment which will result in the least cost of delivering Make-up Water.

3. Replacement Water -- Sources and Recharge Criteria. The following criteria shall control purchase of Replacement Water and Recharge of the Basin by Watermaster.

(a) Responsible Agency From Which to Purchase. Watermaster, in determining the Responsible Agency from which to purchase supplemental water for replacement purposes, shall be governed by the following:

- (1) Place of Use of Water which is used primarily within the Basin or by cities within San Gabriel District in areas within or outside the Basin shall control in determining the Responsible Agency. For purposes of this subparagraph, water supplied through a municipal water system which lies chiefly within the Basin shall be deemed entirely used within the Basin; and
- (2) Place of production of water shall control in determining the Responsible Agency as to water exported from the Basin, except as to use within San Gabriel District.

Any Responsible Agency may, at the request of Watermaster, waive its right to act as the source for such supplemental water, in which case Watermaster shall be free to purchase such water from the remaining Responsible Agencies which are the most beneficial and appropriate sources; provided, however, that a Responsible Agency shall not

authorize any sale of water in violation of the California Constitution.

(b) Water Quality. Watermaster shall purchase the best quality of supplemental water available for replenishment of the Basin, pursuant to subsection (a) hereof.

(c) Reclaimed Water. It is recognized that the technology and economic and physical necessity for utilization of reclaimed water is increasing. The purchase of reclaimed water in accordance with the Long Beach Judgment to satisfy the Make-up Obligation is expressly authorized. At the same time, water quality problems involved in the reuse of water within the Basin pose serious questions of increased costs and other problems to the pumpers, their customers and all water users. Accordingly, Watermaster is authorized to gather information, make and review studies, and make recommendations on the feasibility of the use of reclaimed water for replacement purposes; provided that no reclaimed water shall be recharged in the Basin by Watermaster without the prior approval of the court, after notice to all parties and hearing thereon.

4. Replacement Assessment Rates. The Replacement Assessment rates shall be in an amount calculated to allow Watermaster to purchase one acre-foot of supplemental water for each acre-foot of excess Production to which such Assessment applies.

EXHIBIT "J"

PUENTE NARROWS AGREEMENT

THIS AGREEMENT is made and entered into as of the 8th day of May, 1972, by and between PUENTE BASIN WATER AGENCY, herein called "Puente Agency", and UPPER SAN GABRIEL VALLEY MUNICIPAL WATER DISTRICT, herein called "Upper District".

A. RECITALS

1. Puente Agency. Puente Agency is a joint powers agency composed of Walnut Valley Water District, herein called "Walnut District", and Rowland Area County Water District, herein called "Rowland District". Puente Agency is formed for the purpose of developing and implementing a ground water basin management program for Puente Basin. Pursuant to said purpose, said Agency is acting as a representative of its member districts and of the water users and water right claimants therein in the defense and maintenance of their water rights within Puente Basin.

2. Upper District. Upper District is a municipal water district overlying a major portion of the Main San Gabriel Basin. Upper District is plaintiff in the San Gabriel Basin Case, wherein it seeks to adjudicate rights and implement a basin management plan for the Main San Gabriel Basin.

3. Puente Basin is a ground water basin tributary to the Main San Gabriel Basin. Said area was included within the scope of the San Gabriel Basin Case and substantially

Exhibit "J"

all water rights claimants within Puente Basin were joined as defendants therein. The surface contribution to the Main San Gabriel Basin from Puente Basin is by way of the paved flood control channel of San Jose Creek, which passes through Puente Basin from the Pomona Valley area. Subsurface outflow is relatively limited and moves from the Puente Basin to the Main San Gabriel Basin through Puente Narrows.

4. Intent of Agreement. Puente Agency is prepared to assure Upper District that no activity within Puente Basin will hereafter be undertaken which will (1) interfere with surface flows in San Jose Creek, or (2) impair the subsurface flow from Puente Basin to the Main San Gabriel Basin. Walnut District and Rowland District, by operation of law and by express assumption endorsed hereon, assume the covenants of this agreement as a joint and several obligation. Based upon such assurances and the covenants hereinafter contained in support thereof, Upper District consents to the dismissal of all Puente Basin parties from the San Gabriel Basin Case. By reason of said dismissals, Puente Agency will be free to formulate a separate water management program for Puente Basin.

B. DEFINITIONS AND EXHIBITS

5. Definitions. As used in this Agreement, the following terms shall have the meanings herein set forth:

(a) Annual or Year refers to the fiscal year July 1 through June 30.

(b) Base Underflow. The underflow through

Exhibit "J"

Puente Narrows which Puente Agency agrees to maintain, and on which accrued debits and credits shall be calculated.

(c) Make-up Payment. Make-up payments shall be an amount of money payable to the Watermaster appointed in the San Gabriel Basin Case, sufficient to allow said Watermaster to purchase replacement water on account of any accumulated deficit as provided in Paragraph 9 hereof.

(d) Puente Narrows. The subsurface geologic constriction at the downstream boundary of Puente Basin, located as shown on Appendix "B".

(e) Main San Gabriel Basin, the ground water basin shown and defined as such in Exhibit "A" to the Judgment in the San Gabriel Basin Case.

(f) San Gabriel Basin Case. Upper San Gabriel Valley Municipal Water District v. City of Alhambra, et al., L. A. Sup. Ct. No. 924128, filed January 2, 1968.

6. Appendices. Attached hereto and by this reference made a part hereof are the following appendices:

"A" -- Location Map of Puente Basin, showing major geographic, geologic, and hydrologic features.

"B" -- Map of Cross-Section Through Puente Narrows, showing major physical features and location of key wells.

Exhibit "J"

"C" -- Engineering Criteria, being a description of a method of measurement of subsurface outflow to be utilized for Watermaster purposes.

C. COVENANTS

7. Watermaster. There is hereby created a two member Watermaster service to which each of the parties to this agreement shall select one consulting engineer. The respective representatives on said Watermaster shall serve at the pleasure of the governing body of each appointing party and each party shall bear its own Watermaster expense.

a. Organization. Watermaster shall perform the duties specified herein on an informal basis, by unanimous agreement. In the event the two representatives are unable to agree upon any finding or decision, they shall select a third member to act, pursuant to the applicable laws of the State of California. Thereafter, until said issue is resolved, said three shall sit formally as a board of arbitration. Upon resolution of the issue in dispute, the third member shall cease to function further.

b. Availability of Information. Each party hereto shall, for itself and its residents and water users, use its best efforts to furnish all appropriate information to the Watermaster in order that the required determination can be made.

Exhibit "J"

c. Cooperation With Other Watermasters. Watermaster hereunder shall cooperate and coordinate activities with the Watermasters appointed in the San Gabriel Basin Case and in Long Beach v. San Gabriel Valley Water Company, et al.

d. Determination of Underflow. Watermaster shall annually determine the amount of underflow from Puente Basin to the San Gabriel Basin, pursuant to Engineering Criteria.

e. Perpetual Accounting. Watermaster shall maintain a perpetual account of accumulated base underflow, accumulated subsurface flow, any deficiencies by reason of interference with surface flows, and the offsetting credit for any make-up payments. Said account shall annually show the accumulated credit or debit in the obligation of Puente Agency to Upper District.

f. Report. Watermaster findings shall be incorporated in a brief written report to be filed with the parties and with the Watermaster in the San Gabriel Basin Case. Said report shall contain a statement of the perpetual account heretofore specified.

8. Base Underflow. On the basis of a study and review of historic underflow from Puente Basin to the Main San Gabriel Basin, adjusted for the effect of the paved flood control channel and other relevant considerations, it is

Exhibit "J"

mutually agreed by the parties that the base underflow is and shall be 580 acre feet per year, calculated pursuant to Engineering Criteria.

9. Puente Agency's Obligation. Puente Agency covenants, agrees and assumes the following obligation hereunder:

a. Noninterference with Surface Flow. Neither Puente Agency nor any persons or entities within the corporate boundaries of Walnut District or Rowland District will divert or otherwise interfere with or utilize natural surface runoff now or hereafter flowing in the storm channel of San Jose Creek; provided, however, that this covenant shall not prevent the use, under Watermaster supervision, of said storm channel by the Puente Agency or Walnut District or Rowland District for transmission within Puente Agency of supplemental or reclaimed water owned by said entities and introduced into said channel solely for transmission purposes. In the event any unauthorized use of surface flow in said channel is made contrary to the covenant herein provided, Puente Agency shall compensate Upper District by utilizing any accumulated credit or by make-up payment in the same manner as is provided for deficiencies in subsurface outflow from Puente Basin.

b. Subsurface Outflow. To the extent that

Exhibit "J"

the accumulated subsurface outflow falls below the accumulated base underflow and the result thereof is an accumulated deficit in the Watermaster's annual accounting, Puente Agency agrees to provide make-up payments during the next year in an amount not less than one-third of the accumulated deficit.

c. Purchase of Reclaimed Water. To the extent that Puente Agency or Walnut District or Rowland District may hereafter purchase reclaimed water from the facilities of Sanitation District 21 of Los Angeles County, such purchaser shall use its best efforts to obtain waters originating within San Gabriel River Watershed.

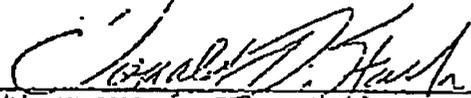
10. Puente Basin Parties Dismissal. In consideration of the assumption of the obligation hereinabove provided by Puente Agency, Upper District consents to entry of dismissals as to all Puente Basin parties in San Gabriel Basin Case. This agreement shall be submitted for specific approval by the Court and a finding that it shall operate as full satisfaction of any and all claims by the parties within Main San Gabriel Basin against Puente Basin parties by reason of historic surface and subsurface flow.

Exhibit "J"

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IN WITNESS WHEREOF the parties hereto have caused
this Agreement to be executed as of the day and date first
above written.

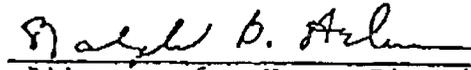
Approved as to form:
CLAYSON, STARK, ROTHROCK & MANN

By 
Attorneys for Puente Agency

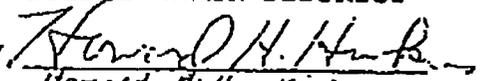
PUENTE BASIN AGENCY

By 
EDMUND M. BIEDERMAN
President

Approved as to form:

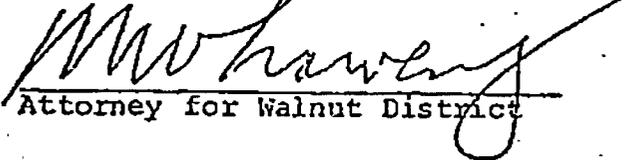
By 
Attorney for Upper District

UPPER SAN GABRIEL VALLEY
MUNICIPAL WATER DISTRICT

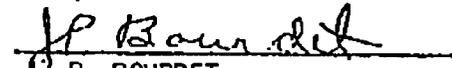
By 
Howard H. Hawkins
President

The foregoing agreement is approved and accepted, and
the same is acknowledged as the joint and several obligation
of the undersigned.

Approved as to form:


Attorney for Walnut District

WALNUT VALLEY WATER DISTRICT

By 
J. P. BOURDET
Vice President

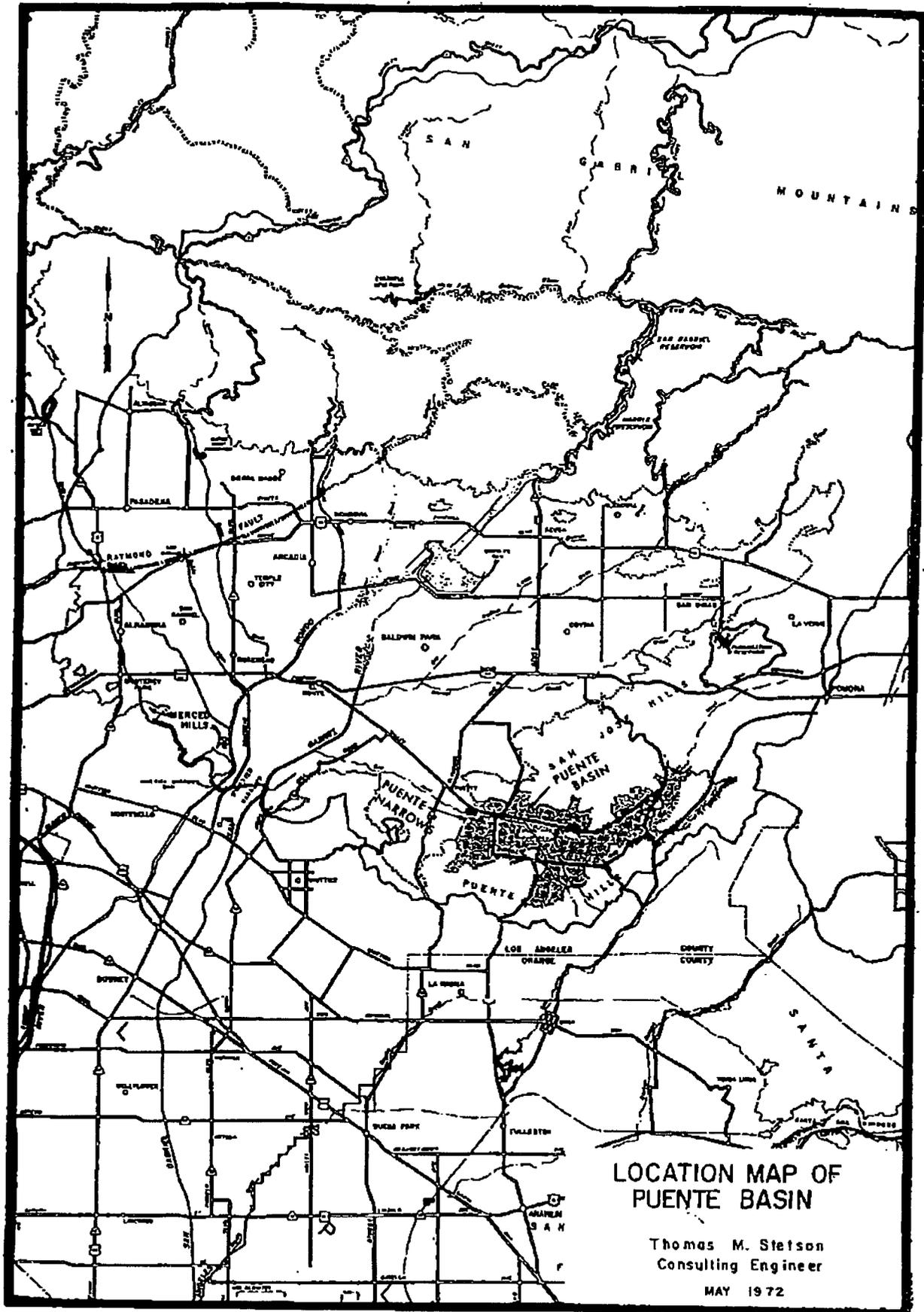
Approved as to form:


Attorneys for Rowland District

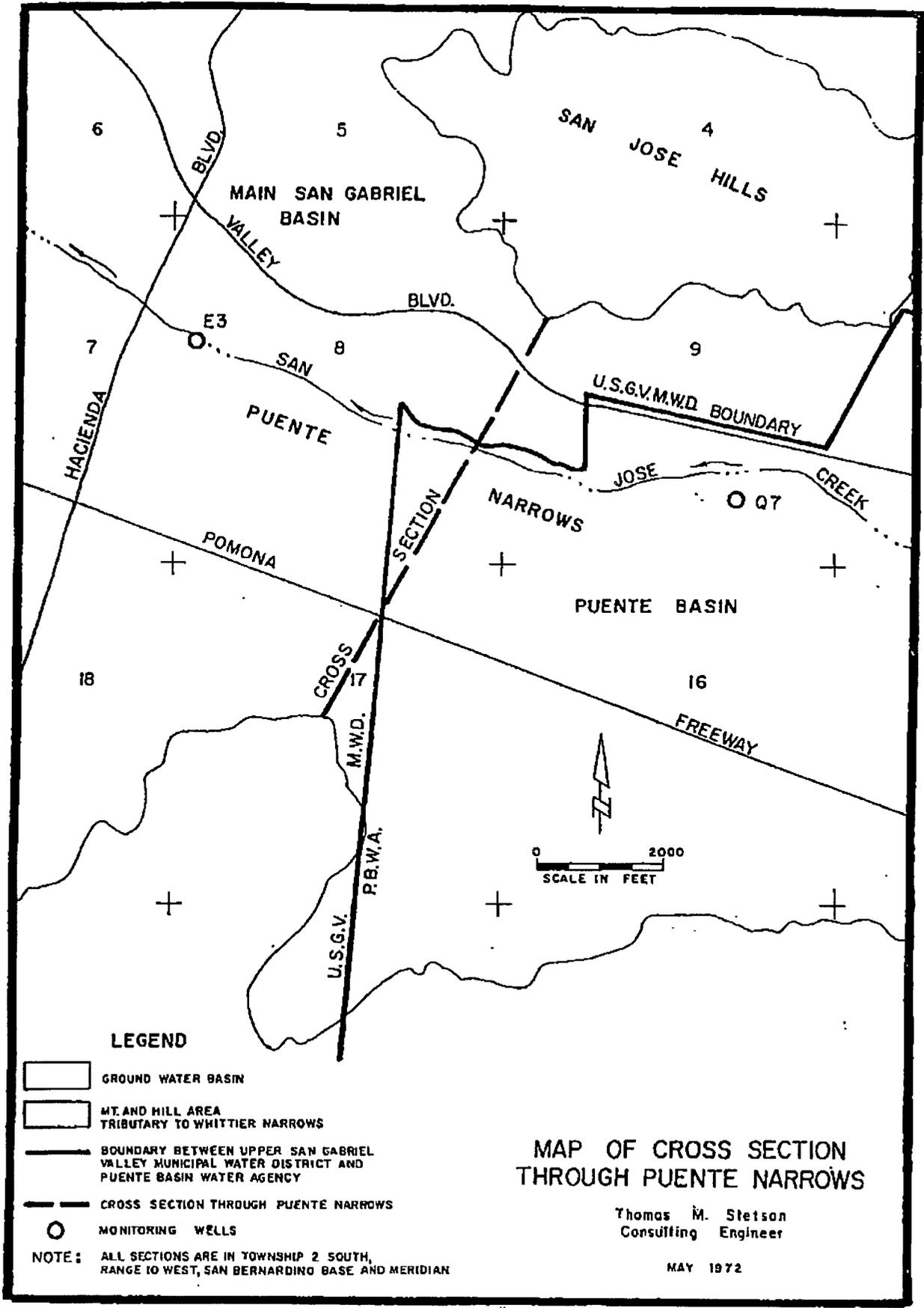
ROWLAND AREA COUNTY WATER
DISTRICT

By 
President
W. A. Simons

Exhibit "J"



APPENDIX "A"
EXHIBIT "J"



MAP OF CROSS SECTION THROUGH PUENTE NARROWS

Thomas M. Stetson
Consulting Engineer

MAY 1972

ENGINEERING CRITERIA

APPENDIX "C"

1. Monitoring Wells. The wells designated as State Wells No. 2S/10W-9Q7 and 2S/10W-8E3 and Los Angeles County Flood Control District Nos. 3079M and 3048B, respectively, shall be used to measure applicable ground water elevations. In the event either monitoring well should fail or become unrepresentative, a substitute well shall be selected or drilled by Watermaster. The cost of drilling a replacement well shall be the obligation of the Puente Agency.

2. Measurement. Each monitoring well shall be measured and the ground water elevation determined semi-annually on or about April 1 and October 1 of each year. Prior to each measurement, the pump shall be turned off for a sufficient period to insure that the water table has recovered to a static or near equilibrium condition.

3. Hydraulic Gradient. The hydraulic gradient, or slope of the water surface through Puente Narrows, shall be calculated between the monitoring wells as the difference in water surface elevation divided by the distance, approximately 9,000 feet, between the wells. The hydraulic gradient shall be determined for the spring and fall and the average hydraulic gradient calculated for the year.

4. Ground Water Elevation at Puente Narrows Cross Section. The ground water elevation at the Puente Narrows

APPENDIX "C"

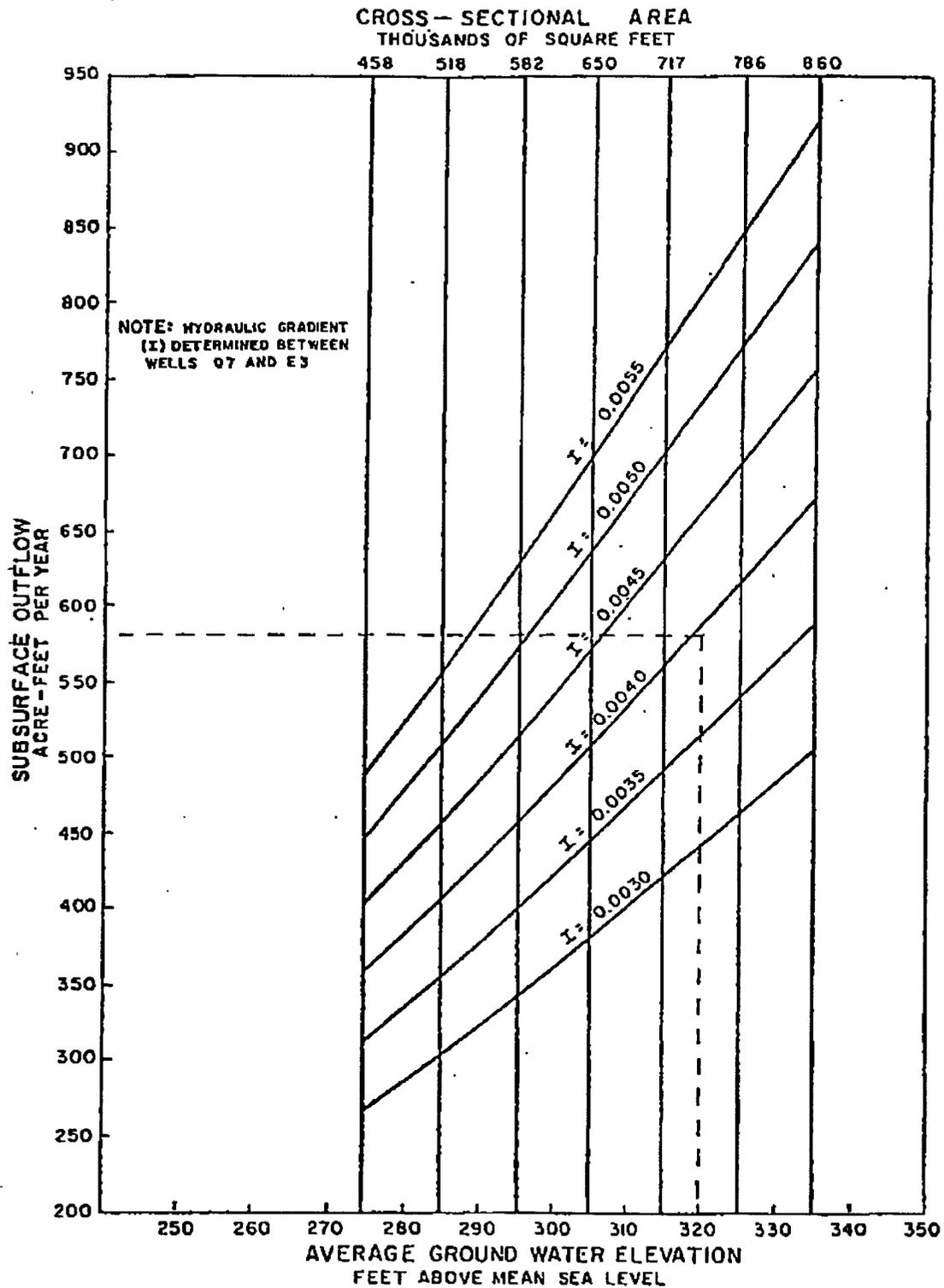
Exhibit "J"

cross section midway between the monitoring wells shall be the average of the ground water elevation at the two wells. This shall be determined for the spring and fall and the average annual ground water elevation calculated for the year.

5. Determination of Underflow. The chart attached is a photo-reduction of a full scale chart on file with the Watermaster. By applying the appropriate average annual hydraulic gradient (I) to the average annual ground water elevation at the Puente Narrows cross section (involving the appropriate cross-sectional area [A]), it is possible to read on the vertical scale the annual acre feet of underflow.

APPENDIX "C"

Exhibit "J"



RELATIONSHIP OF AVERAGE GROUND WATER ELEVATION AT PUENTE NARROWS AND APPLICABLE CROSS-SECTIONAL AREA WITH SUBSURFACE OUTFLOW THROUGH PUENTE NARROWS FOR VARIOUS HYDRAULIC GRADIENTS

Thomas M. Stelson
Consulting Engineer
MAY 1972

EXHIBIT "K"

OVERLYING RIGHTS

I. NATURE OF OVERLYING RIGHT

An "Overlying Right" is the right to Produce water from the Main San Gabriel Basin for use on the overlying lands hereinafter described. Such rights are exercisable without quantitative limit only on said overlying land and cannot be separately conveyed or transferred apart therefrom. The exerciser of such right is assessable by Watermaster as provided in Paragraph 21 of the Amended Judgment herein (prior Paragraph 14.5 of the Judgment herein) and is subject to the other provisions of said Paragraph.

II. OVERLYING LANDS (Description)

The overlying lands to which Overlying Rights are appurtenant are described as follows:

"Those portions of Lots 1 and 2 of the lands formerly owned by W.A. Church, in the Rancho San Francisquito, in the City of Irwindale, County of Los Angeles, State of California, as shown on recorder's filed map No. 509, in the office of the County Recorder of said County, lying northeasterly of the northeasterly line and its southeasterly prolongation of Tract 1888, as shown on map recorded in Book 21 page 183 of Maps, in the office of the County Recorder of said County.

"EXCEPT the portions thereof lying northerly and northwesterly of the center line of Arrow Highway described 'Sixth' and the center line of Live Oak Avenue described 'Third' in a final decree of condemnation, a certified copy of which was recorded August 18, 1933 as Instrument No. 354, in Book 12289, Page 277, Official Records.

"ALSO EXCEPT that portion of said land described in the final decree of condemnation entered in Los Angeles County Superior Court Case No. 805008, a certified copy of which was recorded September 21, 1964, as Instrument No. 3730, in Book D-2634, Page 648, Official Records."

III. PRODUCERS ENTITLED TO EXERCISE OVERLYING RIGHTS AND THEIR RESPECTIVE CONSUMPTIVE USE PORTIONS

The persons entitled to exercise Overlying Rights are both the owners of Overlying Rights and persons and entities licensed by such owners to exercise such Overlying Rights. The persons entitled to exercise Overlying Rights and their respective Consumptive Use portions are as follows:

<u>OWNER PRODUCERS</u>	<u>CONSUMPTIVE USE PORTION</u>
BROOKS GIFFORD, SR. BROOKS GIFFORD, JR. PAUL MNOIAN JOHN MGRDICHIAN J. EARL GARRETT	3.5 acre-feet per year

Present User:
Nu-Way Industries

PRODUCERS UNDER LICENSE

- | | |
|---|-------------------------------|
| A. WILLIAM C. THOMAS
and EVELYN F. THOMAS,
husband and wife, and
MALCOLM K. GATHERER
and JACQUELINE GATHERER,
husband and wife,
doing business by
and through B & B
REDI-I-MIX CONCRETE,
INC., a corporation | 45.6 acre-feet per year |
| B. PRE-STRESS CRANE RIGGING &
TRUCK CO., INC.,
a corporation | <u>1.0</u> acre-foot per year |

Present Users:
Pre-Stress Crane Rigging &
Truck Co., Inc., a corporation

Total 50.1 acre-feet per year

IV. ANNUAL GROSS AMOUNT OF PRODUCTION FROM WHICH CONSUMPTIVE USE PORTIONS WERE DERIVED

183.65 acre-feet

Exhibit "L"

LIST OF PRODUCERS AND THEIR DESIGNERS
June, 1989

<u>Producer Name</u>	<u>Designee</u>
<u>A</u>	
Adams Ranch Mutual Water Company	Goji Iwakiri
Alhambra, City of	T. E. Shollenberger
Amarillo Mutual Water Company	Ester Guadagnolo
Anderson, Ray	Ray Anderson
Andrade, Macario, et al.	Macario R. Andrade
Arcadia, City of	Eldon Davidson
AZ-Two, Inc.	R. S. Chamberlain
Azusa, City of	William H. Redcay
Azusa Ag. Water Company	Robert E. Talley
Azusa Valley Water Company	Edward Heck
<u>B</u>	
Baldwin Park County Water District (See Valley County Water District)	-
Banks, Gale C.	Gale C. Banks
Base Line Water Company	Everett W. Hughes, Jr.
Beverly Acres Mutual Water User's Assn. (Formerly Beverly Acres Mutual Water Co.)	Eloise A. Moore
Burbank Development Company	Darrell A. Wright
<u>C</u>	
Cadway, Inc.	P. Geoffrey Nunn
California-American Water Company (San Marino System)	Andrew A. Krueger
California-American Water Company (Duarte System)	Andrew A. Krueger
California Country Club	Henri F. Pellissier
California Domestic Water Company	P. Geoffrey Nunn
Cedar Avenue Mutual Water Company	Austin L. Knapp

Exhibit "L"

<u>Producer Name</u>	<u>Designee</u>
Champion Mutual Water Company	Margaret Bauwens
Chevron, USA, Inc.	Ms. Margo Bart
Clayton Manufacturing Company	Don Jones
Conrock Company	Gene R. Block
Corcoran Brothers	Ray Corcoran
County Sanitation District No. 18	Charles W. Curry
Covell, et al.	Darr Jobe
Covell, Ralph	Ralph Covell
Covina, City of	Wayne B. Dowdey
Covina Irrigating Company	William R. Temple
Crevolin, A. J.	A. J. Crevolin
Crown City Plating Company	N. G. Gardner
<u>D</u>	
Davidson Optronics, Inc.	James McBride
Dawes, Mary Kay	Mary Kay Dawes
Del Rio Mutual Water Company	Gonzalo Galindo
Driftwood Dairy	James E. Dolan
Dunning, George	George Dunning
<u>E</u>	
East Pasadena Water Company	Robert D. Mraz
El Monte, City of	Robert J. Pinniger
El Monte Cemetery Association	Linn E. Magoffin
<u>F</u>	
Faix, Ltd.	Henri F. Pellissier
<u>G</u>	
Glendora, City of	Arthur E. Cook
Green, Walter	Dr. Walter Green
<u>H</u>	
Hansen, Alice	Alice Hansen

Exhibit "L"

<u>Producer Name</u>	<u>Designee</u>
Hartley, David	David Hartley
Hemlock Mutual Water Company	Bud Selander
Hunter, Lloyd F.	Lloyd F. Hunter
<u>I</u> Industry Waterworks System, City of	Mary L. Jaureguy
<u>K</u> Kiyon Farm Kiyon, Hideo	Mrs. Hideo Kiyon
Kirklen Family Trust	Dawn Kirklen
Knight, Kathryn M.	William J. Knight
<u>L</u> Landeros, John	John Landeros
La Puente Valley County Water District	Mary L. Jaureguy
La Verne, City of	N. Kathleen Hamm
Livingston-Graham	Gary O. Tompkins
Los Angeles, County of	Robert L. Larson
Loucks, David	David Loucks
<u>M</u> Maddock, A. G.	Ranney Draper, Esq.
Maechtlen, Trust of J. J.	Jack F. Maechtlen
Maple Water Company, Inc.	Charles King
Martinez, Francis Mercy	Francis Mercy Martinez
Metropolitan Water District of Southern California	Fred Vendig, Esq.
Miller Brewing Company	Dennis B. Puffer
Mnoian, Paul, et al.	Mal Gatherer
Monrovia, City of	Robert K. Sandwick
Monrovia Nursery	Miles R. Rosedale
Monterey Park, City of	Nels Palm

Exhibit "L"

Producer Name

Designee

N

Nick Tomovich & Sons

Nick Tomovich

O

Owl Rock Products Company

Peter L. Chiu

P

Phillips, Alice B., et al.

Jack F. Maechtlen

Pico County Water District

Robert P. Fuller

Polopolus, et al.

Christine Chronis

R

Rados Brothers

Alexander S. Rados

Richwood Mutual Water Company

Bonnie Pool

Rincon Ditch Company

K. E. Nungesser

Rincon Irrigation Company

K. E. Nungesser

Rose Hills Memorial Park Association

Allan D. Smith

Rosemead Development, Ltd.

John W. Lloyd

Rurban Homes Mutual Water Company

George W. Bucey

Ruth, Roy

Roy Ruth

S

San Dimas - La Verne Recreational
Facilities Authority

R. F. Griszka

San Gabriel Country Club

Fran Wolfe

San Gabriel County Water District

Philip G. Crocker

San Gabriel Valley Municipal
Water District

Bob Stallings

San Gabriel Valley Water Company

Robert H. Nicholson, Jr.

Sloan Ranches

Larry R. Sloan

Sonoco Products Company

Elaine Corboy

South Covina Water Service

Anton C. Garnier

Southern California Edison Company

S. R. Shermoen

Exhibit "L"

<u>Producer Name</u>	<u>Designee</u>
Southern California Water Company -San Dimas District	J. F. Young
Southern California Water Company -San Gabriel Valley District	J. F. Young
South Pasadena, City of	John Bernardi
Southwestern Portland Cement Company	Dale W. Heineck
Standard Oil Company of California	John A. Wild
Sterling Mutual Water Company	Bennie L. Prowett
Suburban Water Systems	Anton C. Garnier
Sully-Miller Contracting Company	R. R. Munro
Sunny Slope Water Company	Michael J. Hart
<u>T</u>	
Taylor Herb Garden	Paul S. Taylor
Texaco, Inc.	E. O. Wakefield
Tyler Nursery	James K. Mitsumori, Esq.
<u>U</u>	
United Concrete Pipe Corporation	Doyle H. Wadley
United Rock Products Corporation	William S. Capps, Esq.
<u>V</u>	
Valencia Heights Water Company	Herman Weskamp
Valley County Water District (Formerly Baldwin Park County Water District)	Stanley D. Yarbrough
Valley View Mutual Water Company	Robert T. Navarre
Via, H., Trust of	Marverna Parton
<u>W</u>	
Ward Duck Company	Richard J. Woodland
W. E. Hall Company	Thomas S. Bunn, Jr., Esq.
White, June G., Trustee	June G. Lovelady
Whittier, City of	Neil Hudson
Wilmott, Erma M.	Erma M. Wilmott

Exhibit "M"

WATERMASTER MEMBERS

FOR CALENDAR YEAR 1973

ROBERT T. BALCH (Producer Member), Chairman
LINN E. MAGOFFIN (Producer Member), Vice Chairman
RICHARD L. ROWLAND (Producer Member), Secretary
BOYD KERN (Public Member), Treasurer
WALKER HANNON (Producer Member)
HOWARD H. HAWKINS (Public Member)
M. E. MOSLEY (Producer Member)
CONRAD T. REIBOLD (Public Member)
HARRY C. WILLS (Producer Member)

STAFF

Carl Fossette, Assistant Secretary-Assistant Treasurer
Ralph B. Helm, Attorney
Thomas M. Stetson, Engineer

FOR CALENDAR YEAR 1974

ROBERT T. BALCH (Producer Member), Chairman
LINN E. MAGOFFIN (Producer Member), Vice Chairman
RICHARD L. ROWLAND (Producer Member), Secretary
BOYD KERN (Public Member), Treasurer
WALKER HANNON (Producer Member)
BURTON E. JONES (Public Member)
M. E. MOSLEY (Producer Member)
CONRAD T. REIBOLD (Public Member)
HARRY C. WILLS (Producer Member)

STAFF

Carl Fossette, Assistant Secretary-Assistant Treasurer
Ralph B. Helm, Attorney
Thomas M. Stetson, Engineer

Exhibit "M"

M - 1

FOR CALENDAR YEAR 1975

ROBERT T. BALCH (Producer Member), Chairman
LINN E. MAGOFFIN (Producer Member), Vice Chairman
HARRY C. WILLS (Producer Member), Secretary
BOYD KERN (Public Member), Treasurer
WALKER HANNON (Producer Member)
BURTON E. JONES (Public Member)
D. J. LAUGHLIN (Producer Member)
M. E. MOSLEY (Producer Member)
CONRAD T. REIBOLD (Public Member)

STAFF

Carl Fossette, Assistant Secretary-Assistant Treasurer
Ralph B. Helm, Attorney
Thomas M. Stetson, Engineer

FOR CALENDAR YEAR 1976

ROBERT T. BALCH (Producer Member), Chairman
LINN E. MAGOFFIN (Producer Member), Vice Chairman
HARRY C. WILLS (Producer Member), Secretary
BOYD KERN (Public Member), Treasurer
WALKER HANNON (Producer Member)
BURTON E. JONES (Public Member)
D. J. LAUGHLIN (Producer Member)
M. E. MOSLEY (Producer Member)
CONRAD T. REIBOLD (Public Member)

STAFF

Jane M. Bray, Assistant Secretary-Assistant Treasurer
Ralph B. Helm, Attorney
Thomas M. Stetson, Engineer

FOR CALENDAR YEAR 1977

ROBERT T. BALCH (Producer Member), Chairman
LINN E. MAGOFFIN (Producer Member), Vice Chairman
HARRY C. WILLS (Producer Member), Secretary
CONRAD T. REIBOLD (Public Member), Treasurer
WALKER HANNON (Producer Member)
BURTON E. JONES (Public Member)
BOYD KERN (Public Member)
D. J. LAUGHLIN (Producer Member)
R. H. NICHOLSON, JR. (Producer Member)

STAFF

Jane M. Bray, Assistant Secretary-Assistant Treasurer)
Ralph B. Helm, Attorney
Thomas M. Stetson, Engineer

FOR CALENDAR YEAR 1978

ROBERT T. BALCH (Producer Member), Chairman
LINN E. MAGOFFIN (Producer Member), Vice Chairman
D. J. LAUGHLIN (Producer Member), Secretary
CONRAD T. REIBOLD (Public Member), Treasurer
WALKER HANNON (Producer Member)
BURTON E. JONES (Public Member)
L. E. MOELLER (Producer Member)
R. H. NICHOLSON, JR. (Producer Member)
WILLIAM M. WHITESIDE (Public Member)

STAFF

Jane M. Bray, Assistant Secretary-Assistant Treasurer
Ralph B. Helm, Attorney
Thomas M. Stetson, Engineer

FOR CALENDAR YEAR 1979

LINN E. MAGOFFIN (Producer Member), Chairman
D. J. LAUGHLIN (Producer Member), Vice Chairman
R. H. NICHOLSON, JR. (Producer Member), Secretary
CONRAD T. REIBOLD (Public Member), Treasurer
WALKER HANNON (Producer Member)
BURTON E. JONES (Public Member)
L. E. MOELLER (Producer Member)
WILLIAM M. WHITESIDE (Public Member)

STAFF

Jane M. Bray, Assistant Secretary-Assistant Treasurer
Ralph B. Helm, Attorney
Thomas M. Stetson, Engineer

FOR CALENDAR YEAR 1980

LINN E. MAGOFFIN (Producer Member), Chairman
R. H. NICHOLSON, JR. (Producer Member), Vice Chairman
WILLIAM M. WHITESIDE (Public Member), Secretary
CONRAD T. REIBOLD (Public Member), Treasurer
ROBERT T. BALCH (Producer Member)
ROBERT G. BERLIEN (Producer Member)
ANTON C. GARNIER (Producer Member)
TRAVIS L. MANNING (Public Member)
L. E. MOELLER (Producer Member)

STAFF

Jane M. Bray, Assistant Secretary-Assistant Treasurer
Ralph B. Helm, Attorney
Thomas M. Stetson. Engineer

FOR CALENDAR YEAR 1981

LINN E. MAGOFFIN (Producer Member), Chairman
R. H. NICHOLSON, JR. (Producer Member), Vice Chairman
WILLIAM M. WHITESIDE (Public Member), Secretary
CONRAD T. REIBOLD (Public Member), Treasurer
ROBERT T. BALCH (Producer Member)
ROBERT G. BERLIEN (Producer Member)
ANTON C. GARNIER (Producer Member)
TRAVIS L. MANNING (Public Member)
L. E. MOELLER (Producer Member)

STAFF

Jane M. Bray, Assistant Secretary-Assistant Treasurer
Ralph B. Helm, Attorney
Thomas M. Stetson, Engineer

FOR CALENDAR YEAR 1982

LINN E. MAGOFFIN (Producer Member), Chairman
R. H. NICHOLSON, JR. (Producer Member), Vice Chairman
WILLIAM M. WHITESIDE (Public Member), Secretary
CONRAD T. REIBOLD (Public Member), Treasurer
ROBERT T. BALCH (Producer Member)
ROBERT G. BERLIEN (Producer Member)
ANTON C. GARNIER (Producer Member)
L. E. MOELLER (Producer Member)
ALFRED F. WITTIG (Public Member)

STAFF

Jane M. Bray, Assistant Secretary-Assistant Treasurer
Ralph B. Helm, Attorney
Thomas M. Stetson, Engineer

FOR CALENDAR YEAR 1983

LINN E, MAGOFFIN (Producer Member), Chairman
R. H. NICHOLSON, JR. (Producer Member), Vice Chairman
ROBERT G. BERLIEN (Producer Member), Secretary
CONRAD T. REIBOLD (Public Member), Treasurer
ROBERT T. BALCH (Producer Member)
DONALD F. CLARK (Public Member)
ANTON C. GARNIER (Producer Member)
L. E. MOELLER (Producer Member)
ALFRED R. WITTIG (Public Member)

STAFF

Jane M. Bray, Assistant Secretary-Assistant Treasurer
Ralph B. Helm, Attorney
Thomas M. Stetson, Engineer

FOR CALENDAR YEAR 1984

LINN E. MAGOFFIN (Producer Member), Chairman
R. H. NICHOLSON, JR. (Producer Member), Vice Chairman
ROBERT G. BERLIEN (Producer Member), Secretary
CONRAD T. REIBOLD (Public Member), Treasurer
ROBERT T. BALCH (Producer Member)
DONALD F. CLARK (Public Member)
ANTON C. GARNIER (Producer Member)
L. E. MOELLER (Producer Member)
ALFRED R. WITTIG (Public Member)

STAFF

Jane M. Bray, Assistant Secretary-Assistant Treasurer
Ralph B. Helm, Attorney
Thomas M. Stetson, Engineer

Exhibit "M"

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FOR CALENDAR YEAR 1985

LINN E. MAGOFFIN (Producer Member), Chairman
R. H. NICHOLSON, JR. (Producer Member), Vice Chairman
ROBERT G. BERLIEN (Producer Member), Secretary
CONRAD T. REIBOLD (Public Member), Treasurer
ROBERT T. BALCH (Producer Member)
DONALD F. CLARK (Public Member)
ANTON C. GARNIER (Producer Member)
L. E. MOELLER (Producer Member)
ALFRED R. WITTIG (Public Member)

STAFF

Jane M. Bray, Assistant Secretary-Assistant Treasurer
Ralph B. Helm, Attorney
Thomas M. Stetson, Engineer

FOR CALENDAR YEAR 1986

LINN E. MAGOFFIN (Producer Member), Chairman
R. H. NICHOLSON, JR. (Producer Member), Vice Chairman
ROBERT G. BERLIEN (Producer Member), Secretary
CONRAD T. REIBOLD (Public Member), Treasurer
ROBERT T. BALCH (Producer Member)
DONALD F. CLARK (Public Member)
L. E. MOELLER (Producer Member)
REGINOLD A. STONE (Producer Member)
ALFRED R. WITTIG (Public Member)

STAFF

Jane M. Bray, Assistant Secretary-Assistant Treasurer
Ralph B. Helm, Attorney
Thomas M. Stetson, Engineer

FOR CALENDAR YEAR 1987

LINN E. MAGOFFIN (Producer Member), Chairman
REGINALD A. STONE (Producer Member), Vice Chairman
L. E. MOELLER (Producer Member), Secretary
ALFRED R. WITTIG (Public Member), Treasurer
ROBERT T. BALCH (Producer Member)
GERALD J. BLACK (Producer Member)
DONALD F. CLARK (Public Member)
EDWARD R. HECK (Producer Member)
JOHN E. MAULDING (Public Member)

STAFF

Robert G. Berlien, Assistant Secretary-Assistant Treasurer
Ralph B. Helm, Attorney
Thomas M. Stetson, Engineer

FOR CALENDAR YEAR 1988

LINN E. MAGOFFIN (Producer Member), Chairman
REGINALD A. STONE (Producer Member), Vice Chairman
L. E. MOELLER (Producer Member), Secretary
ALFRED R. WITTIG (Public Member), Treasurer
ROBERT T. BALCH (Producer Member)
GERALD J. BLACK (Producer Member)
DONALD F. CLARK (Public Member)
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ROBERT T. BALCH (Producer Member) *
DONALD F. CLARK (Public Member)
EDWARD R. HECK (Producer Member)
BURTON E. JONES (Public Member)
NELS PALM (Producer Member) **
THOMAS E. SCHOLLENBERGER (Producer Member)

STAFF

Robert G. Berlien, Assistant Secretary-Assistant Treasurer
Ralph B. Helm, Attorney
Thomas M. Stetson, Engineer

* DECEASED APRIL 25, 1989

** Appointed August 24, 1989, for the balance of the calendar year term, to replace deceased member, Robert T. Balch.

APPENDIX B. MSGB FIVE-YEAR WATER QUALITY AND SUPPLY PLAN

Five-Year Water Quality and Supply Plan



Main San Gabriel Basin
WATERMASTER

2017-18 to 2021-22

DRAFT

“To assure that pumping does not lead to further degradation of water quality in the Basin, a Five-Year Water Quality and Supply Plan must be prepared and updated annually by Watermaster...”

Section 28 of Watermaster's Rules and Regulations

Five-Year Water Quality and Supply Plan

November 2017



Main San Gabriel Basin
WATERMASTER

Telephone (626) 815-1300 • Fax (626) 815-1303
725 North Azusa Avenue • Azusa, California 91702
www.watermaster.org

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INTRODUCTION

Watermaster prepares and annually updates this Five-Year Water Quality and Supply Plan (Five-Year Plan) in accordance with the requirements of Section 28 of its Rules and Regulations. The objective is to coordinate groundwater-related activities so that both water supply and water quality in the Main San Gabriel Basin (Basin) are protected and improved.

PURPOSE OF THE FIVE-YEAR PLAN

Many important issues are detailed in the Five-Year Plan, including Watermaster's plans to:

1. monitor groundwater supply and quality;
2. develop projections of future groundwater supply and quality;
3. ensure adequate supplemental water is available for groundwater replenishment;
4. review and cooperate on cleanup projects, and provide technical assistance to other agencies;
5. assure that pumping does not lead to further degradation of water quality in the Basin;
6. address emerging contaminants in the Basin;
7. develop a cleanup and water supply program consistent with the U.S. Environmental Protection Agency (USEPA) plans for its San Gabriel Basin Superfund sites; and
8. continue to perform responsibilities under the Baldwin Park Operable Unit (BPOU) Project Agreement relating to project administration and performance evaluation.

WATERMASTER BACKGROUND

The Los Angeles County Superior Court created the Main San Gabriel Basin Watermaster in 1973 to resolve water issues that had arisen among water users in the San Gabriel Valley. Watermaster's mission was to generally manage the water supply of the Main San Gabriel Groundwater Basin.

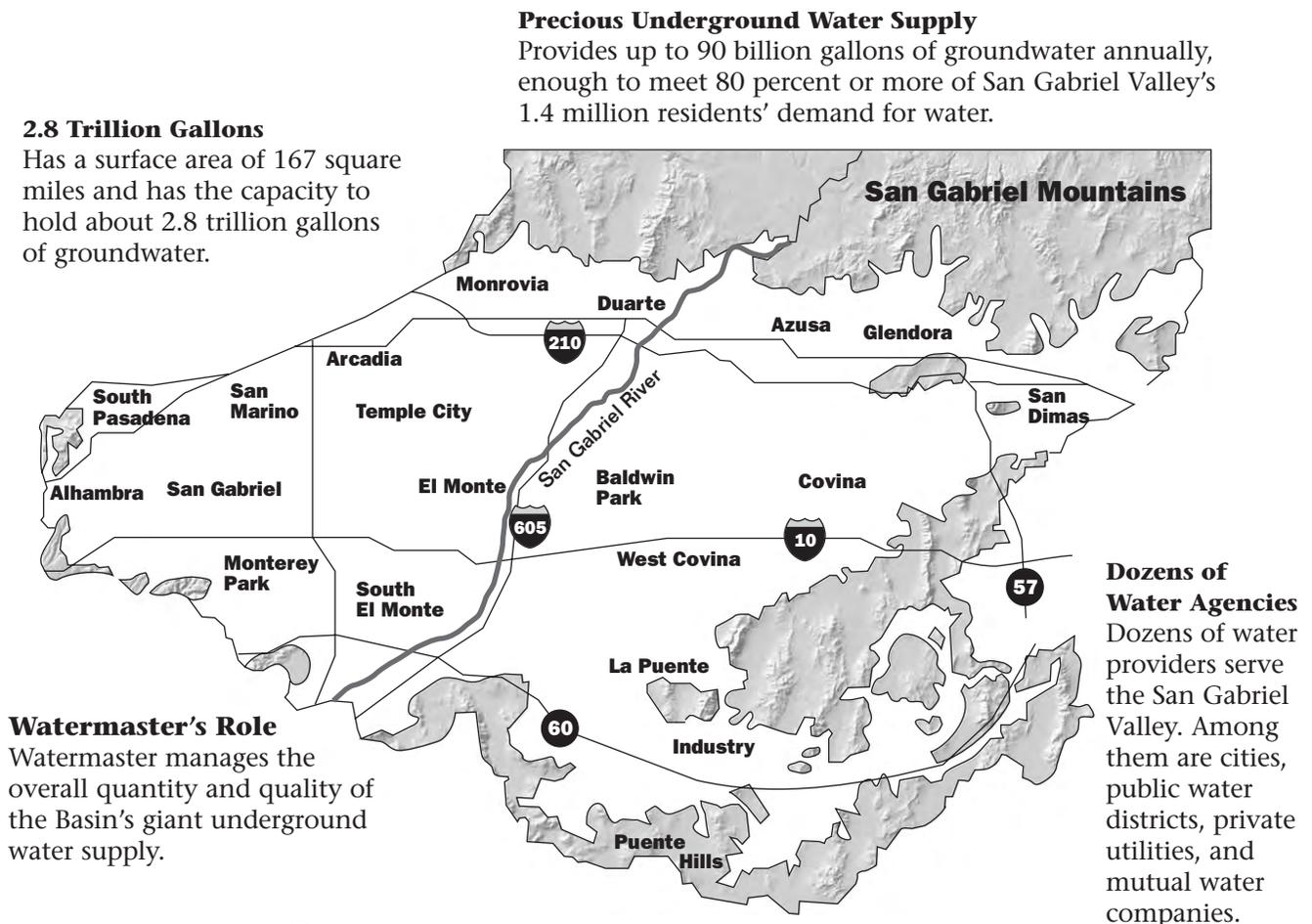
During the late 1970s and early 1980s, significant groundwater contamination was discovered in the Basin. The contamination was caused in part by past practices of local industries that had inappropriately disposed of industrial solvents, as well as by infiltration of nitrates from an earlier agricultural period. Cleanup efforts for industrial contamination were undertaken at the local, state, and federal levels.

WATERMASTER RECEIVES WATER QUALITY RESPONSIBILITIES

By 1989, local water agencies adopted a joint resolution concerning water quality issues, which stated that Watermaster should coordinate local activities aimed at preserving and restoring the quality of groundwater in the Basin. The joint resolution also called for a cleanup plan.

In 1991, the Los Angeles County Superior Court granted Watermaster the authority to control pumping for water quality purposes. Accordingly, Watermaster added Section 28 to its Rules and Regulations regarding water quality management. The new responsibilities included: developing this Five-Year Water Quality and Supply Plan; updating it annually, and submitting it to the California Regional Water Quality Control Board Los Angeles Region (Regional Board); and making it available for public review by November 1 of each year.

Figure 1. AREA COVERED BY MAIN SAN GABRIEL BASIN



CURRENT WATER SUPPLY CONDITIONS

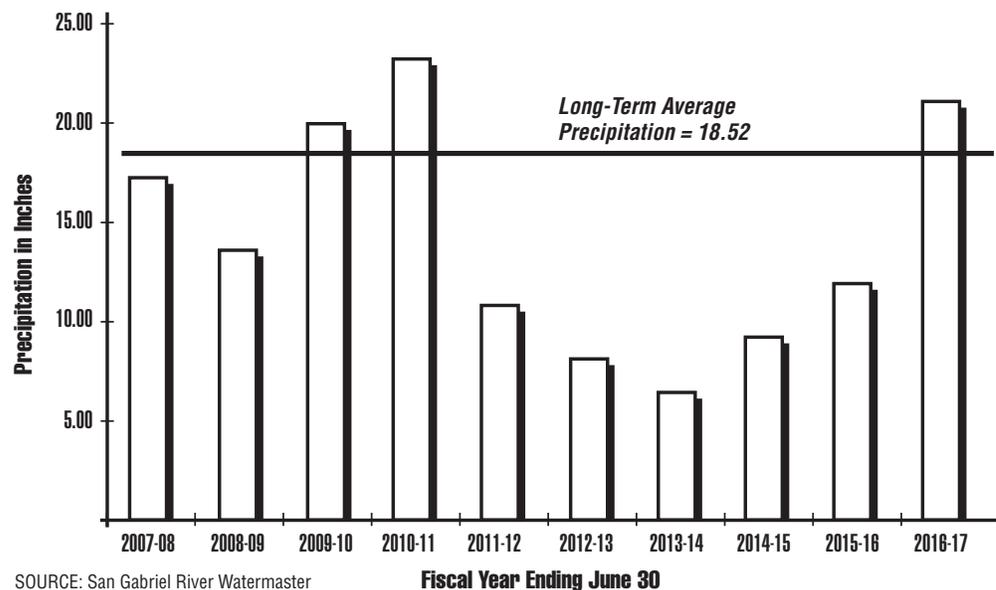
Rainfall in the San Gabriel Valley was well below average during a five-year drought which encompassed the period from fiscal year 2011-12 to 2015-16. Although rainfall during fiscal year 2016-17 was about 110 percent of average, replenishment of storm runoff was about 65 percent of average due to the San Gabriel River watershed infiltrating much of the rainfall before it could flow into rivers or channels. In a concerted effort to off-set the lack of storm water runoff, during fiscal year 2016-17 Watermaster and local Producers coordinated the delivery of about 76,000 acre-feet of untreated imported water for groundwater replenishment. In addition, groundwater production totaled about 184,400 acre-feet, which is the second lowest amount since the creation of Watermaster. As a result of below average groundwater production and significant untreated imported water deliveries, the groundwater level increased by about five feet during fiscal year 2016-17.

WATER SUPPLY INFLOWS DURING 2016-17

VALLEY RECEIVES ABOVE-AVERAGE RAINFALL

In 2016-17 the San Gabriel Valley received about 21 inches of rain, which is about 110 percent of the long-term average of 18.52 inches.

Figure 2. RAINFALL ABOVE LONG-TERM AVERAGE



The long-term average rainfall is 18.52 inches. The rainfall total is made up of an average taken from four stations located in San Dimas, Diamond Bar, El Monte and Pasadena.

LOCAL STORMWATER CAPTURE 65 PERCENT OF LONG-TERM AVERAGE

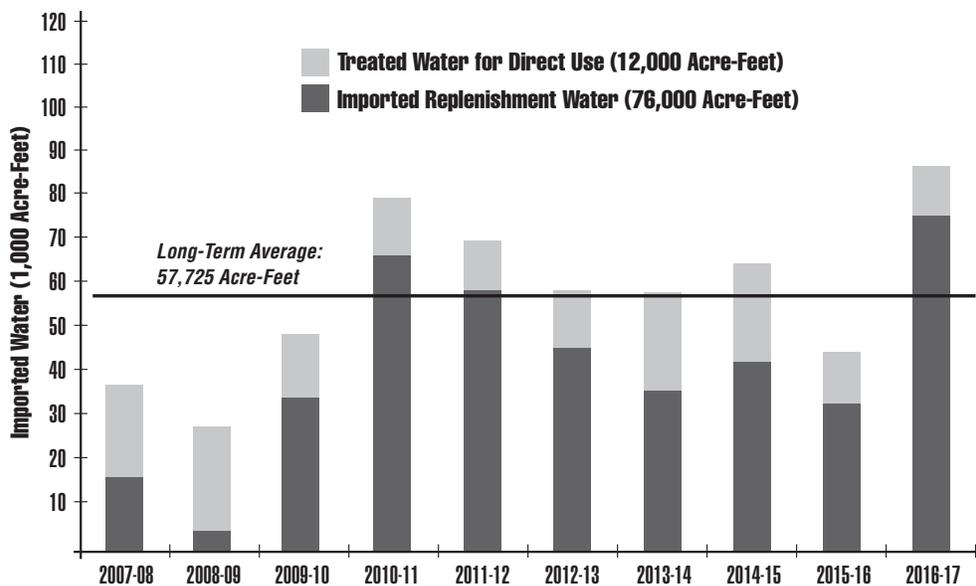
Fiscal year 2015-16 was the fifth consecutive year of below average rainfall. However, during fiscal year 2016-17, rainfall was about 110 percent of average. As a result of

five years of drought conditions, the San Gabriel River watershed was very dry; consequently, the rainfall contributed to storm water capture of about 69,000 acre-feet, which is about 65 percent of the long-term average. In addition, as of the end of the fiscal year (June 30, 2017), about 47,000 acre-feet of local storm runoff remained in storage in reservoirs in the San Gabriel Canyon. About 15,000 acre-feet will be delivered to Central Basin. That will leave about 19,000 acre-feet of water for groundwater replenishment – representing a potential 2.5-foot benefit to the Basin and off-set lowering groundwater levels due to pumping within the Basin. Typically, about 13,000 acre-feet remains in reservoirs at the beginning of the storm season in October.

LOCAL WATER USE SIGNIFICANTLY BELOW AVERAGE

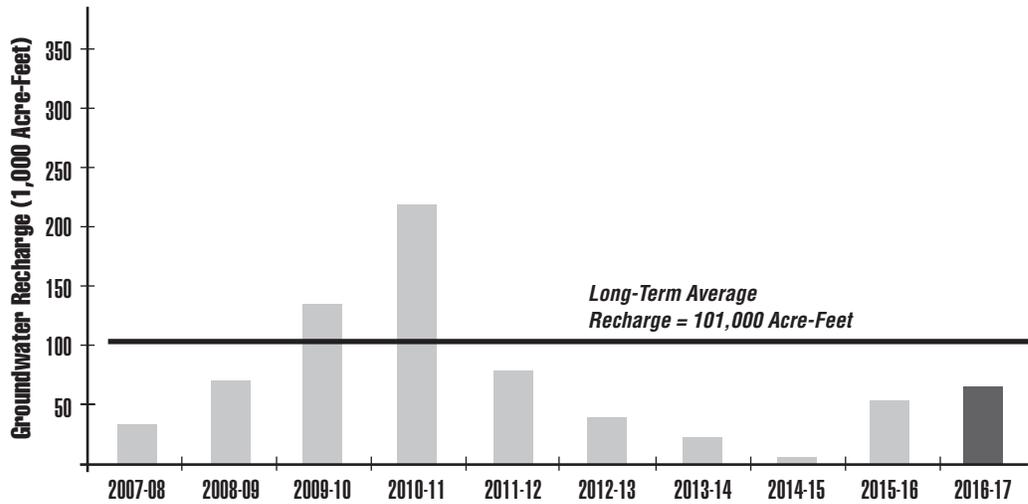
Total water use within the San Gabriel Valley consists of groundwater production, surface water diversions, treated imported water deliveries, and recycled water for irrigation projects. During the previous fiscal year 2015-16, total water use was about 201,800 acre-feet. During fiscal year 2016-17, total water use was about 214,000 acre-feet, consisting of about 184,000 acre-feet of groundwater production, 13,000 acre-feet of treated local surface water, 12,000 acre-feet of treated imported water, and 5,000 acre-feet of recycled water. In recent years, Watermaster has worked with stakeholders to promote retail water conservation, and water use has decreased due to a greater awareness by consumers of the drought conditions and increased water conservation by those consumers. Total water use during fiscal year 2016-17 is about 16 percent lower than the recent 10-year average of about 256,000 acre-feet, and also about 20 percent lower than fiscal year 2013-14, which precedes the Governor’s declaration for mandated water conservation.

Figure 3. IMPORTED WATER DELIVERIES ABOVE LONG-TERM AVERAGE



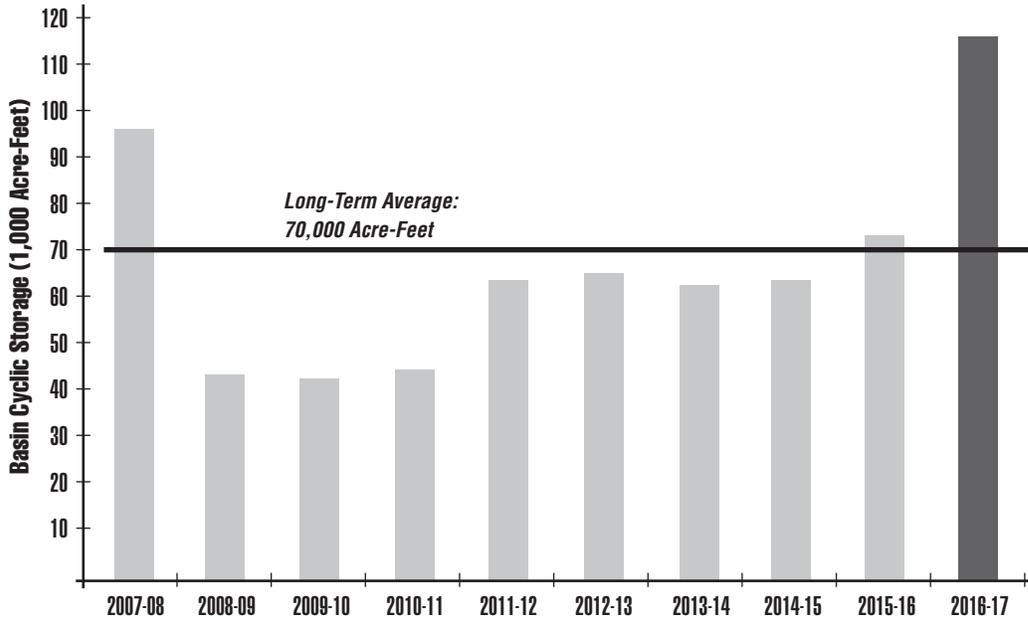
2016-17 Imported Water. Imported water deliveries (treated and untreated) totaled about 88,000 acre-feet for direct use and groundwater replenishment. This is 50 percent higher than the recent 10-year average.

Figure 4. LOCAL WATER CONSERVED ABOUT 65% OF AVERAGE



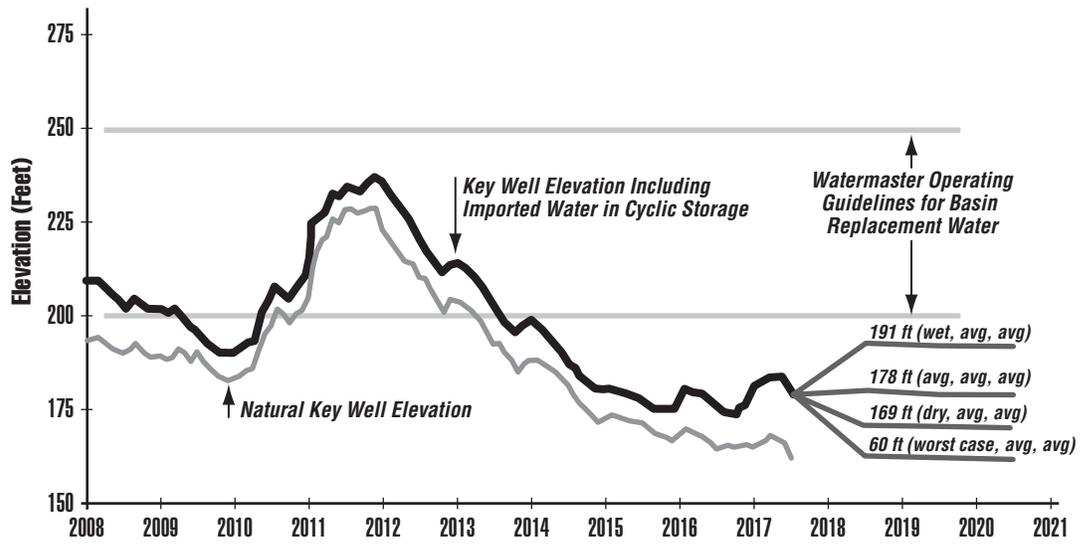
Approximately 69,000 acre-feet of local water was conserved during 2016-17, which is about 65 percent of the long-term average of 101,000 acre-feet.

Figure 5. CYCLIC STORAGE INCREASED



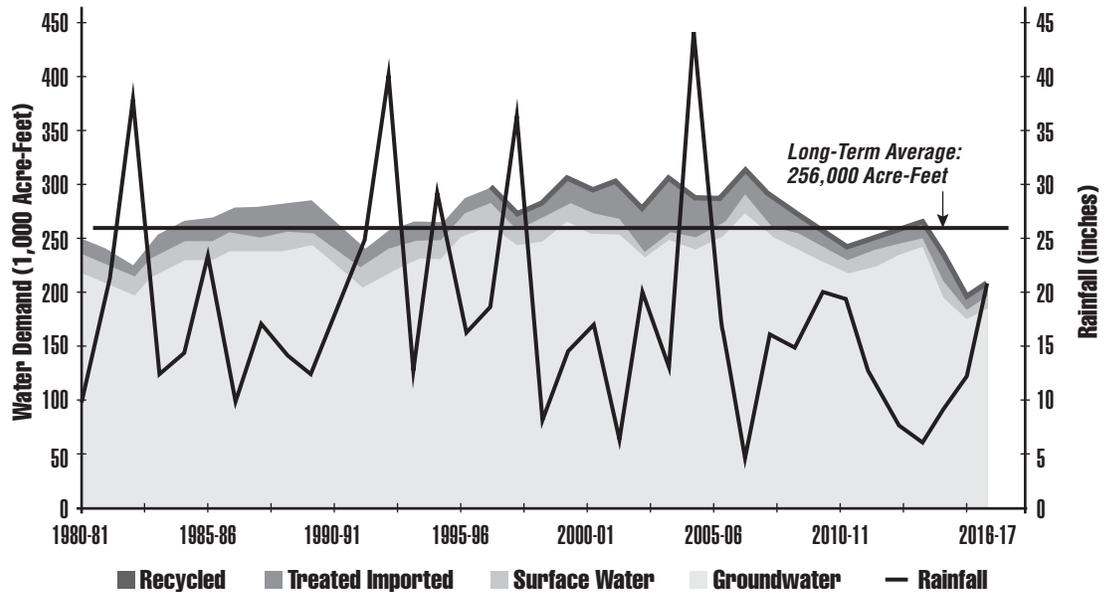
As of June 30, 2017, a total of about 117,000 acre-feet was in Cyclic Storage, consisting of about 14,000 acre-feet of Three Valleys Municipal Water District, about 9,000 acre-feet of San Gabriel Valley Municipal Water District, about 7,000 acre-feet of Upper San Gabriel Valley Municipal Water District, about 9,000 acre-feet of Watermaster, about 51,000 acre-feet of Producer, about 13,000 acre-feet in Water Resource Development storage, and about 14,000 acre-feet of Puente Basin Water Agency cyclic storage. Cyclic Storage, as of June 30, 2017, has increased by about 45,000 acre-feet since the end of fiscal year 2015-16. The long-term average annual storage is about 70,000 acre-feet.

Figure 6. CYCLIC STORAGE AND RAINFALL IMPACTS ON KEY WELL



The additional water provided by cyclic storage (shown with the black line) helps local agencies meet their future replacement water obligations. This graph also forecasts Key Well elevations for four scenarios: upcoming: wet years, average years, dry years, and drier years.

FIGURE 7. TOTAL WATER DEMAND INCREASED



Long-term average water demand is about 256,000 acre-feet. During fiscal year 2016-17, the total demand was about 214,000 acre-feet, made up of groundwater (184,000 acre-feet), surface water (13,000 acre-feet), imported treated water (12,000 acre-feet), and recycled water (5,000 acre-feet).

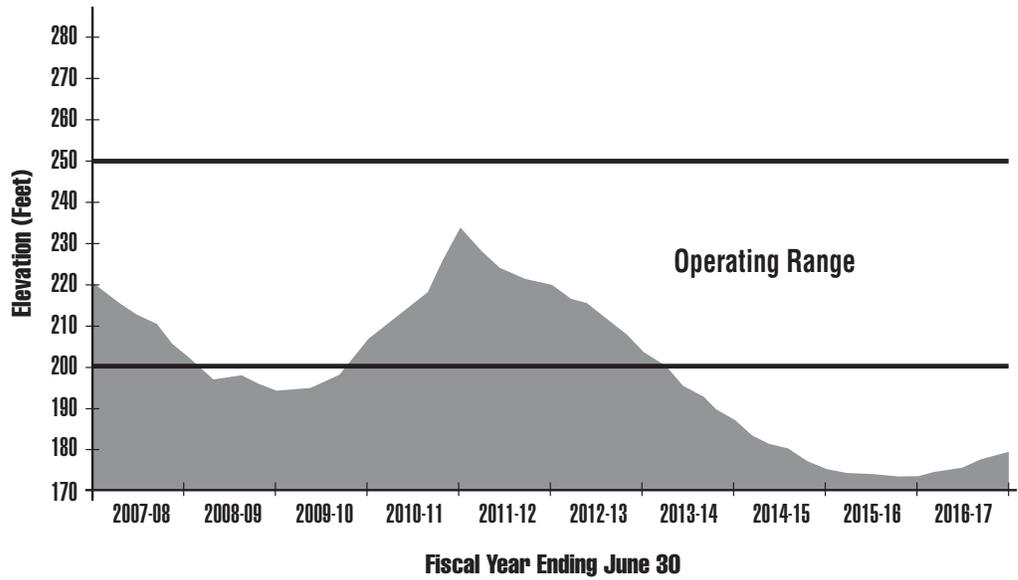
OPERATING SAFE YIELD

Main San Gabriel Basin Watermaster annually establishes an Operating Safe Yield (OSY), which is based on prevailing hydrologic conditions in the San Gabriel Valley. Production in excess of the OSY is subject to an assessment that is used to purchase untreated imported water to replenish the Basin. Production in excess of water rights during fiscal year 2016-17 was about 31,500 acre-feet, which is about 15 percent lower than the long-term average of about 37,000 acre-feet. Watermaster aggressively responded to the decreasing trend of the groundwater level at the Key Well during fiscal year 2016-17 by establishing an OSY of 150,000 acre-feet for fiscal year 2017-18 (identical to the OSY for fiscal year 2016-17 and about 45,000 acre-feet below the long-term average of about 195,000 acre-feet). The reduced OSY provides Watermaster with a mechanism to purchase additional replenishment supplies for the Basin. During fiscal year 2016-17, the OSY was set using a management approach that seeks to set the OSY within a narrower range than previously. This is part of the overall effort to manage the Basin in a way that makes the water supply more stable, and costs more predictable, in both wet and dry years.

KEY WELL BELOW OPERATING RANGE

The Baldwin Park Key Well is used as the benchmark for determining how the groundwater supply for the entire Basin is trending. Pursuant to the Judgment, Watermaster manages the Basin to maintain the groundwater level at the Key Well between 200 feet and 250 feet, to the extent possible. Five consecutive years of below-average rainfall, below average stormwater runoff, and local groundwater production resulted in a decrease in the groundwater elevation at the Key Well to 173.6 feet, as of June 30, 2016. However, the recent decrease of the groundwater elevation at the Baldwin Park Key Well was only about four feet between July 1, 2015 and July 1, 2016. This was largely the result of delivery of about 31,000 acre-feet of untreated imported water and historic low groundwater production of about 174,000 acre-feet (compared to the long-term average of about 235,000 acre-feet). This level was about 26 feet below the “low” end of the operating range for Watermaster, and represented a new historic low groundwater elevation at the Key Well. During fiscal year 2016-17, rainfall was about 110 percent of average while storm water runoff was about 65 percent of average. However, Watermaster coordinated with Producers and the Responsible Agencies to have about 76,000 acre-feet of untreated imported water delivered to the Basin. Furthermore, groundwater production was about 184,000 acre-feet, which is second lowest production since inception of Watermaster management. Collectively, these actions resulted in a Key Well elevation of 179.4 feet, as of June 30, 2017. Although this elevation is about 21 feet below the “low” end of the operating range for Watermaster, it represents a five-foot increase from the prior year.

Figure 8. KEY WELL ELEVATIONS DURING THE LAST TEN YEARS



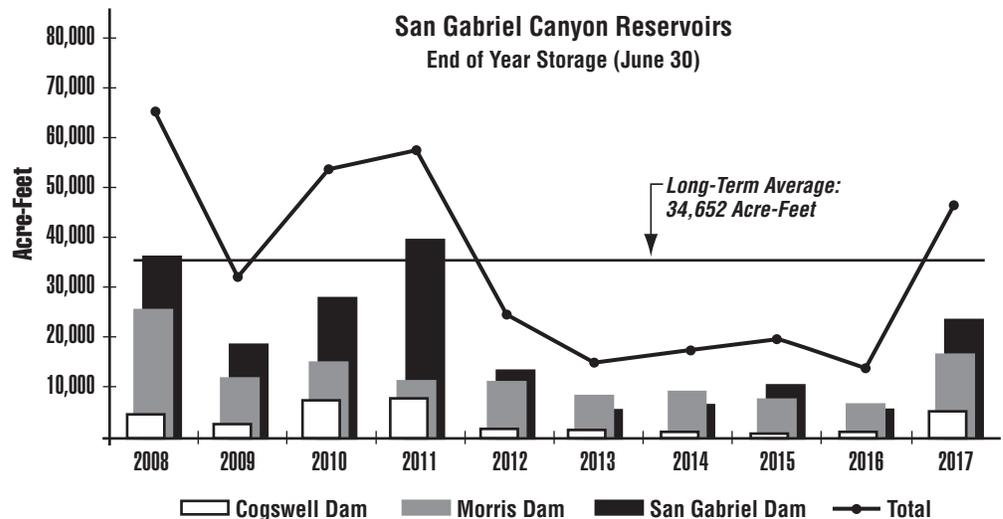
The groundwater elevation at the Key Well on June 30, 2017, was about 179.4 feet, which is below the Basin’s operating range of 200 to 250 feet.

INCREASE IN WATER STORED IN CANYON RESERVOIRS

Cogswell, San Gabriel, and Morris reservoirs have a combined maximum storage capacity of about 85,000 acre-feet. At the end of the 2016-17 fiscal year, about 47,000 acre-feet of water was stored in these reservoirs. This is about 33,000 acre-feet more than the previous year, representing about 135 percent of the long-term average of about 35,000 acre-feet of water in storage at the end of the fiscal year, but only about 55 percent of total reservoir capacity. In addition, about 69,000 acre-feet of local runoff was recharged into the groundwater basin during fiscal year 2016-17.

Figure 9. WATER STORED IN SAN GABRIEL CANYON RESERVOIRS

Total water stored in San Gabriel Canyon Reservoirs at the end of the fiscal year was 47,000 acre-feet, about 135 percent of the long-term average.



INCREASED BASIN REPLENISHMENT ACTIVITIES

Historical Basin management practices encouraged Producers to maximize groundwater production instead of relying on treated imported water to address water demands in excess of Producer's water rights. Under normal conditions, Watermaster quantifies groundwater production in excess of Producers' water rights, and arranges to have an equal amount of untreated imported water delivered to replenish the overproduction from the Basin at a "Full Service" untreated water rate. However, in response to the recent drought, Watermaster has implemented wide-ranging, additional new tools to more intensely manage Basin groundwater supplies, refill the Basin, and ensure long-term water supply reliability.

IMPLEMENTATION OF WATER

RESOURCE DEVELOPMENT ASSESSMENT PROGRAM

Watermaster adopted Resolution No. 05-14-263, which established a Water Resource Development Assessment (RDA), that was applied to all production during fiscal year 2014-15 and 2015-16. The purpose of the RDA is to establish a fund from which untreated imported water may be purchased and delivered to the Basin. It is intended to create a "reservoir" of water that is available to assist in the management of the Basin in the event untreated water is not available in the future as a result of a short-term Statewide emergency. As a result of the severe 5-year drought, resulting in significant reductions of the quantity of local water replenishment to the Basin, during fiscal year 2016-17 Watermaster expanded the Supplement Water Reliability Program (RDA) into the Supplemental Water Stormwater Augmentation Program (RDA II), using the Water Resources Development Assessment described below.

Watermaster developed the Supplemental Water Stormwater Augmentation Program to help manage Basin water supplies under a perceived "worst case" hydrologic conditions, which is assumed to be two more consecutive 5-year droughts, using the same hydrologic conditions as the recent fiscal years 2011-12 through 2015-16 severe drought (total of 15 years of drought). The new Program is intended to purchase imported replenishment water, for stormwater augmentation, to maintain the Key Well elevation above 180 feet by the end of the tenth year, using Water Resource Development Assessment funds (RDA II). A stabilized Key Well elevation essentially ensures continued Basin water supply to the Basin Producers under the perceived worst case, 15-year sustained drought. The RDA II Program has an initial RDA II assessment of \$40 per acre-foot on all fiscal year 2016-17 production and is planned to increase to \$175 per acre-foot on all fiscal year 2020-21 production. Watermaster will use the RDA II funds to purchase untreated imported water to replenish the Basin for the "general benefit" of all Producers within the Basin. Unlike the original RDA (Supplemental Water Replenishment Storage Program), which is a Watermaster pre-purchase of Replacement Water, the RDA II water will supplement local stormwater replenishment, and have "no right of recovery" using a water right, by any Basin Producer.

PROACTIVE MEASURES TO INCREASE CYCLIC STORAGE

Watermaster and Producers recognized that prolonged drought conditions will adversely impact untreated imported water availability. Consequently, Watermaster took proactive measures to increase Producer Cyclic Storage from about 15,000 acre-feet as of the end of June 2010 to 51,000 acre-feet as of June 2017. In addition, Watermaster, along with the three municipal water districts, collectively have an additional 39,000 acre-feet of imported water in Cyclic Storage, which can be made available for Basin Management. In response to five consecutive years of drought conditions, MWD implemented a “Water Supply Allocation Program” (WSAP) during fiscal year 2015-16. The WSAP provided an untreated imported water allocation to Upper District of about 25,000 acre-feet and about 4,000 acre-feet to Three Valleys District. Additional untreated imported water requirements, which may be incurred may be deducted from pre-deliveries made by Watermaster and Producers to Cyclic Storage accounts. As a result of significant precipitation in northern California during the first half of calendar year 2016, MWD suspended the WSAP for fiscal year 2016-17.

ACTIVELY PURSUING NEW REPLENISHMENT METHODS

In addition to those Programs noted above, Watermaster is actively pursuing alternative means of Basin replenishment including:

RETAIL WATER CONSERVATION

Watermaster is working with stakeholders across the Basin to encourage consumer-based conservation efforts to reduce groundwater production, which results in in-lieu Basin replenishment.

ALTERNATIVE SUPPLEMENTAL SUPPLIES

Watermaster and Upper District have entered into an agreement with MWD to have 80,000 acre-feet of untreated imported water replenished in the Basin during calendar year 2017. Watermaster will then use RDA II funds to purchase 16,000 acre-feet per year over the next five consecutive years. The agreement enables the Basin groundwater supplies to be enhanced while providing a regional benefit to MWD.

RECYCLED WATER

Watermaster is working with Sanitation Districts of Los Angeles County, Upper San Gabriel Valley Municipal Water District, and others to pursue a firm supply of treated recycled water for Basin replenishment.

INCREASE RECHARGE

Watermaster is working with a range of stakeholders to implement tighter coordination and management to allow replenishment of imported water even during rainy periods, and finding new opportunities to deliver imported water for Basin replenishment.

MORE FLEXIBLE FINANCIAL TOOLS

Watermaster has instituted use of new, more flexible financial tools to increase water imports, such as pre-purchase of water, and is evaluating others, including mid-year assessments.

DEVELOPING AND IMPLEMENTING STORAGE AND EXPORT PROGRAMS

Watermaster has developed criteria for new water storage and export programs and implemented them for the first time in 2015. These Programs will continue in future years.

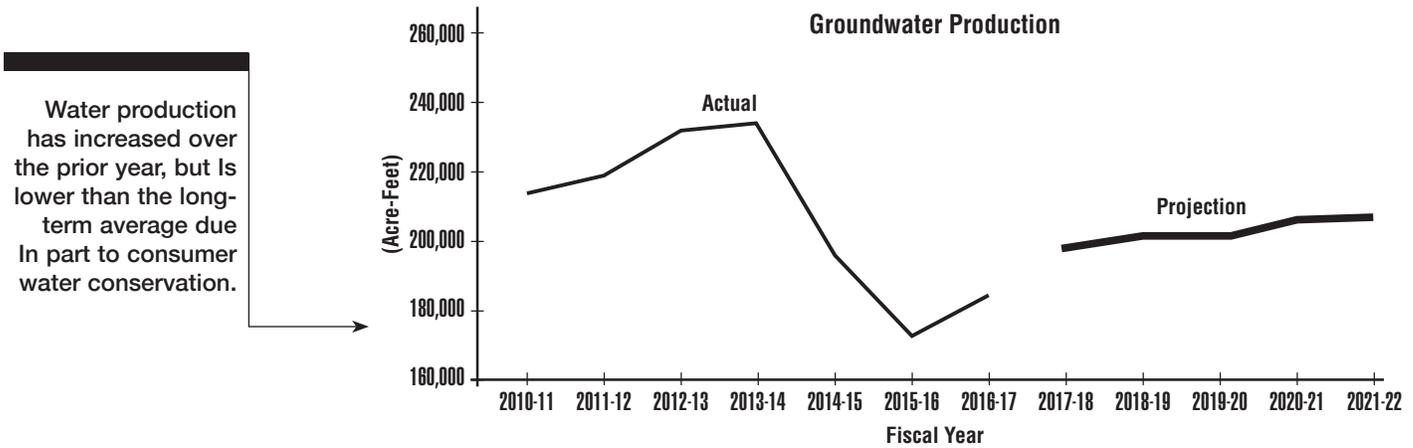
PROJECTED GROUNDWATER DEMANDS

PRODUCER ESTIMATES

Section 28 directs each Producer to submit a report to Watermaster detailing its projected water demands and water production requirements over the following five years. Projections were received from 16 Producers (all municipal water suppliers), accounting for about 70 percent of the groundwater production from the Basin.

For those Producers who did not submit projections, Watermaster provided an estimate based on the assumption that each Producer had an aggregate projected growth rate that was the same as those Producers who did submit projections. Projected groundwater production is shown in Appendix A. Figure 10 shows the total projected and historical groundwater production from the Basin since 2010-11.

Figure 10. PROJECTED AND HISTORICAL WATER PRODUCTION



Total groundwater production for the 2016-17 fiscal year from the Basin was 184,400 acre feet, which is higher than the previous year's production of 173,800 acre-feet, but significantly lower than the 10-year average of 222,000 acre-feet. The decrease in groundwater production over time, as illustrated in Figure 7, is primarily the result of increased water conservation at the consumer level. Groundwater production is influenced by a variety of conditions, including population, seasonal precipitation, groundwater contamination, and availability of surface water. Excluding the impacts of seasonal precipitation, groundwater production had experienced a gradual long-term increase, consistent with increasing population, as shown on Figure 7. The impacts of groundwater contamination during the 1980s and 1990s resulted in reduced groundwater production, offset by an equal increase of treated imported water purchases. Since the late 1990's groundwater production and treatment facilities have become operational, enabling water purveyors to resume use of groundwater. However, since the late-2000s, there has been a significant decrease in groundwater (and overall) demand, which is likely the result of increased water conservation by consumers.

UPGRADE OF GROUNDWATER MODEL

The long-used and highly effective 2D groundwater model is being updated in a multi-year process. It will provide advanced capabilities for identifying existing conditions, designing programs and testing outcomes. It will be useful for virtually every aspect of Basin management, from recycled water development, to water quality evaluations, to well performance analysis and more.

CURRENT WATER QUALITY CONDITIONS

Since the early 1990s, over 1.4 million acre-feet of contaminated groundwater has been treated for beneficial use.

Groundwater delivered to customers continues to be of high quality and always meets state and federal drinking water standards. However, a number of contaminants in areas of the Basin require careful monitoring and treatment before the water is served for domestic use. These contaminants include a variety of industrial solvents referred to as Volatile Organic Compounds, or VOCs. Another common contaminant found in the Basin is nitrate, primarily from fertilizers used during the Valley's agricultural period. Since 1997, additional contaminants have been detected: perchlorate, a solid rocket fuel ingredient; N-nitrosodimethylamine (NDMA), associated with liquid rocket fuel; 1,2,3-trichloropropane (1,2,3-TCP), a degreasing agent; and 1,4-dioxane, a stabilizer for chlorinated solvents.

In response to the detection of these contaminants, Watermaster and local water entities aggressively pursued construction of treatment facilities to control the spread of contaminants, and continue providing high quality water to consumers, which meets all state and federal drinking water standards. This policy of remediation and reuse both preserves a valuable resource, particularly in the midst of the current drought, and reduces the overall cost of groundwater cleanup. Initially, a number of VOC treatment facilities were constructed, while excessive nitrate concentrations were blended with higher quality water to acceptable levels. Since the detection of perchlorate, NDMA, 1,2,3-TCP, and 1,4-dioxane, Watermaster has been instrumental in the successful operation of treatment facilities to treat those contaminants.

While only present in limited parts of the Basin, these chemicals pose difficult challenges to water Producers. When the chemicals were initially detected, Watermaster responded vigorously by working closely with the local water community to sponsor research, as well as to design, fund, and construct cleanup projects as rapidly as possible rather than wait for the USEPA and the firms named as responsible for the contamination. Watermaster subsequently led negotiations that resulted in the Baldwin Park Operable Unit (BPOU) Project Agreement, including reimbursement for groundwater cleanup costs from certain parties responsible for the contamination. Under the BPOU Agreement, Watermaster is responsible for overall project coordination and administration, groundwater monitoring, and compliance with USEPA reporting requirements. Watermaster also participates in decisions regarding technology selection, construction, and operations. Now that all of the BPOU treatment facilities are operational, Watermaster also monitors the BPOU project's performance in containing and removing contamination.

In addition, cleanup activities with the BPOU, Watermaster coordinates and maintains records on groundwater cleanup efforts within the Puente Valley Operable Unit (PVOU), the El Monte Operable Unit (EMOU), South El Monte Operable Unit (SEMOU), and the Area 3 Operable Unit (Area 3 OU). The location of these Operable Units is shown on Figure 11.

PRIMARY CONTAMINANTS IN THE GROUNDWATER BASIN

VOLATILE ORGANIC COMPOUNDS AND NITRATES

VOCs and nitrates are the most prevalent contaminants found in the Basin. Intensive monitoring and research concerning these two types of contaminants have been underway for many years. The location of VOC contamination and cleanup methods for VOCs are generally well understood; during fiscal year 2016-17, 33 plants treated about 24.5 billion gallons (about 75,200 acre-feet), as shown in Appendix E, of VOC-contaminated water. Note in Figure 12 that although VOC contamination is substantial, it is centered in just a few areas, leaving a large portion of the Basin unaffected. Water containing nitrates above the Maximum Contaminant Level (MCL) is either blended with other low nitrate sources of water or not used. Figure 13 indicates that nitrates, similar to VOCs, are centered in a few areas and have the highest concentrations in the eastern portion of the Basin, away from the most productive pumping areas.

PERCHLORATE

In January 2002, the State Water Resources Control Board, Division of Drinking Water (DDW) formerly the California Department of Public Health (CDPH), and prior to that the California Department of Health Services, lowered the Notification Level (NL) for perchlorate from 18 to 4 parts per billion, and a total of 22 wells were removed from service due to unacceptable levels of perchlorate. DDW subsequently raised the NL to 6 parts per billion in March 2004 and later established an MCL of 6 parts per billion during October 2007. Watermaster played a key role in development of the first treatment facility to remove perchlorate from drinking water. On February 27, 2015, the Office of Environmental Health Hazard Assessment (OEHHA) published an updated Public Health Goal (PHG) of 1 part per billion for perchlorate in drinking water. Once OEHHA establishes or revises a PHG for a contaminant with an MCL, a determination will be made by DDW as to whether the MCL should be considered for possible revision. In anticipation of a possible revision to the perchlorate MCL, Watermaster coordinated with Producers to conduct “low-level” detection sampling for perchlorate, using a laboratory detection level of 0.1 part per billion, which allowed for detection of perchlorate below the current detection level of 4 parts per billion. Ion-exchange technology treatment facilities were operational at five sites in the BPOU and at two facilities in other parts of the Basin during fiscal year 2016-17.

NDMA

During 1998, eight local wells were found to contain levels of NDMA above the NL at that time of 2 parts per trillion. Five of the wells with measurable levels of NDMA had already been taken out of service for other reasons, and the other three wells were put on inactive status once NDMA was detected. DDW subsequently raised the NL to 10 parts per trillion. As with perchlorate, Watermaster played a key role in the construction of NDMA treatment facilities in the BPOU area of the Basin. Five facilities were operational during fiscal year 2016-17.

Figure 11. LOCATION MAP OF USEPA OPERABLE UNITS

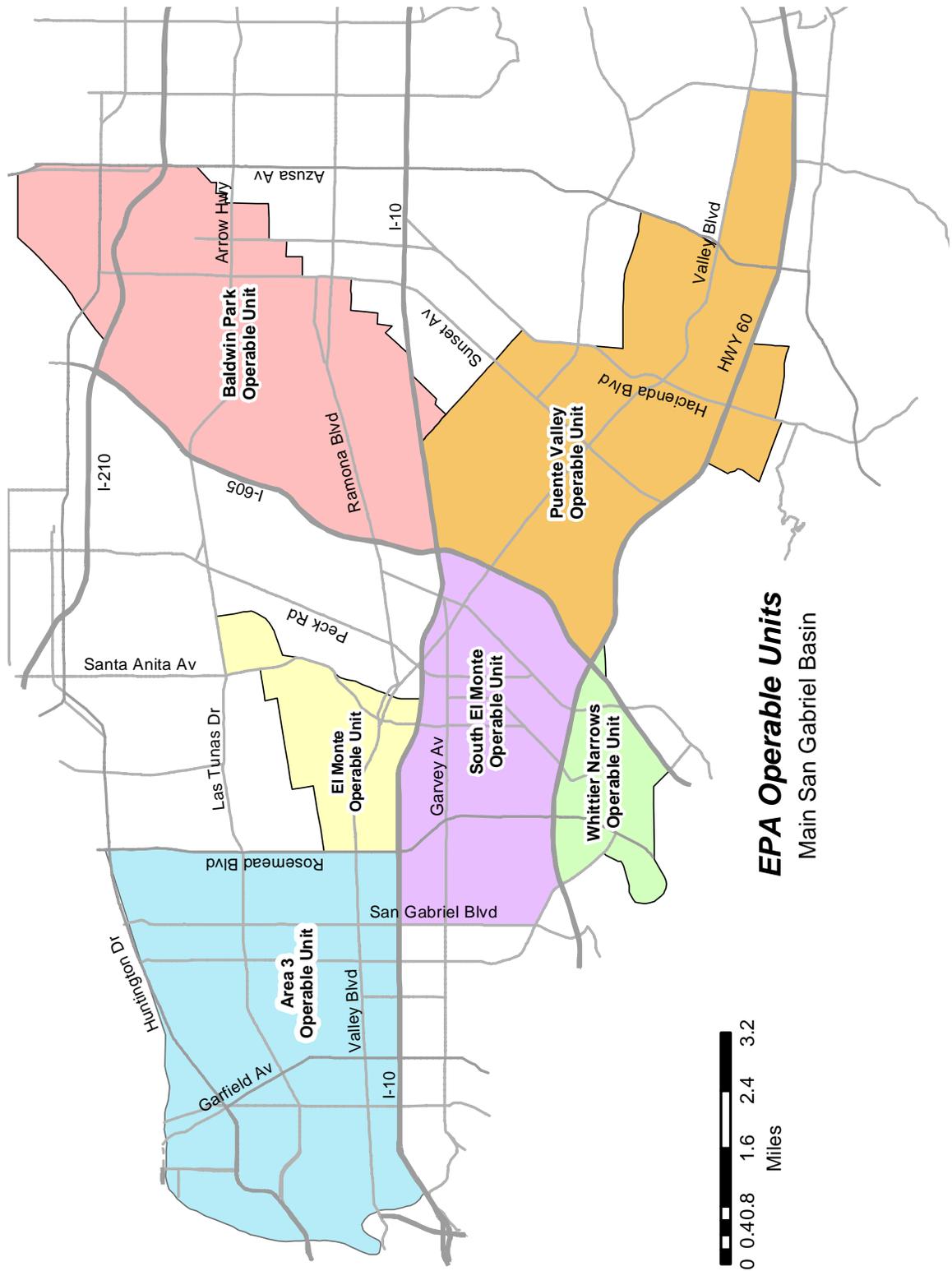


Figure 12. VOLATILE ORGANIC COMPOUND LEVELS IN GROUNDWATER THROUGHOUT THE BASIN

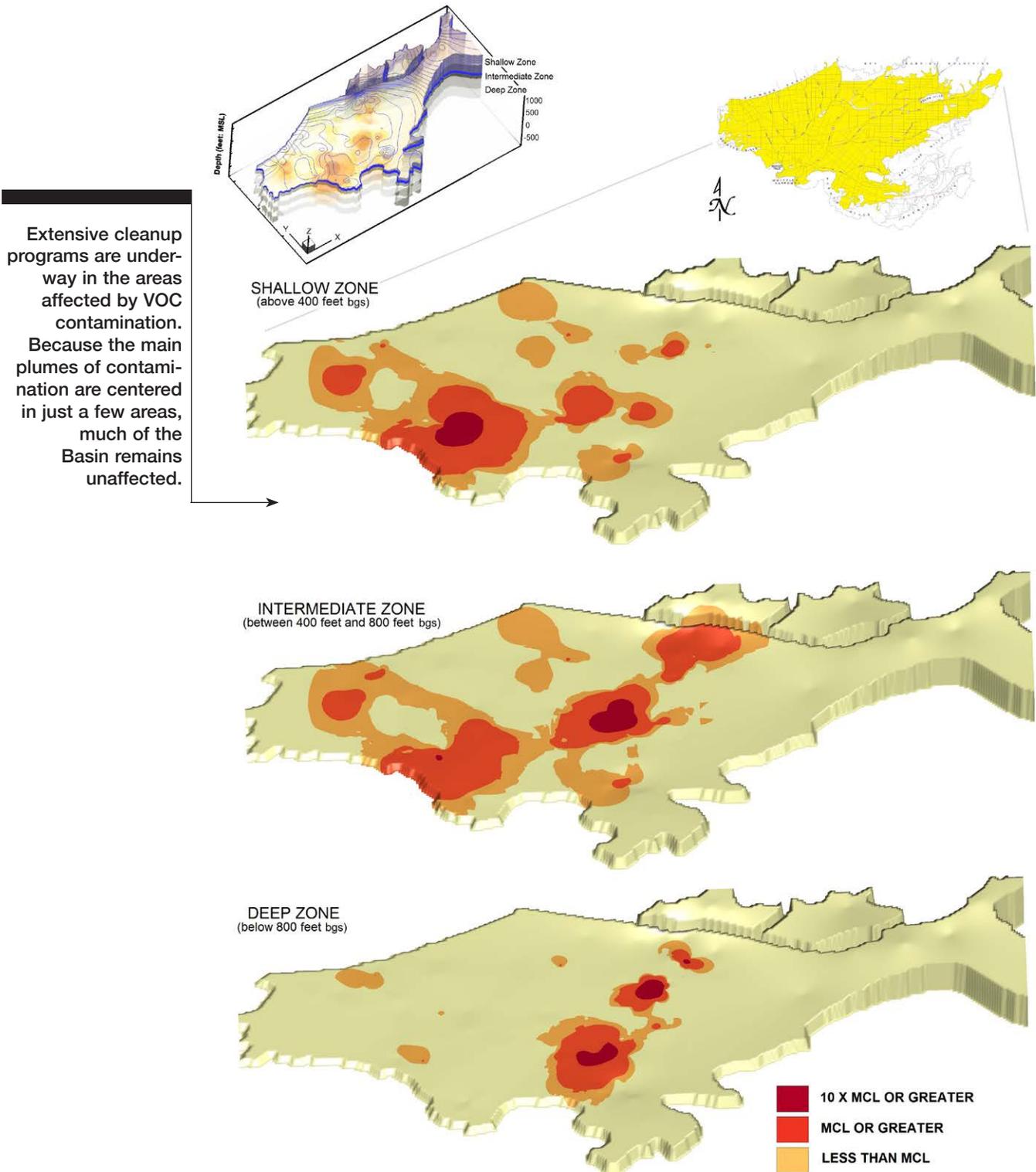
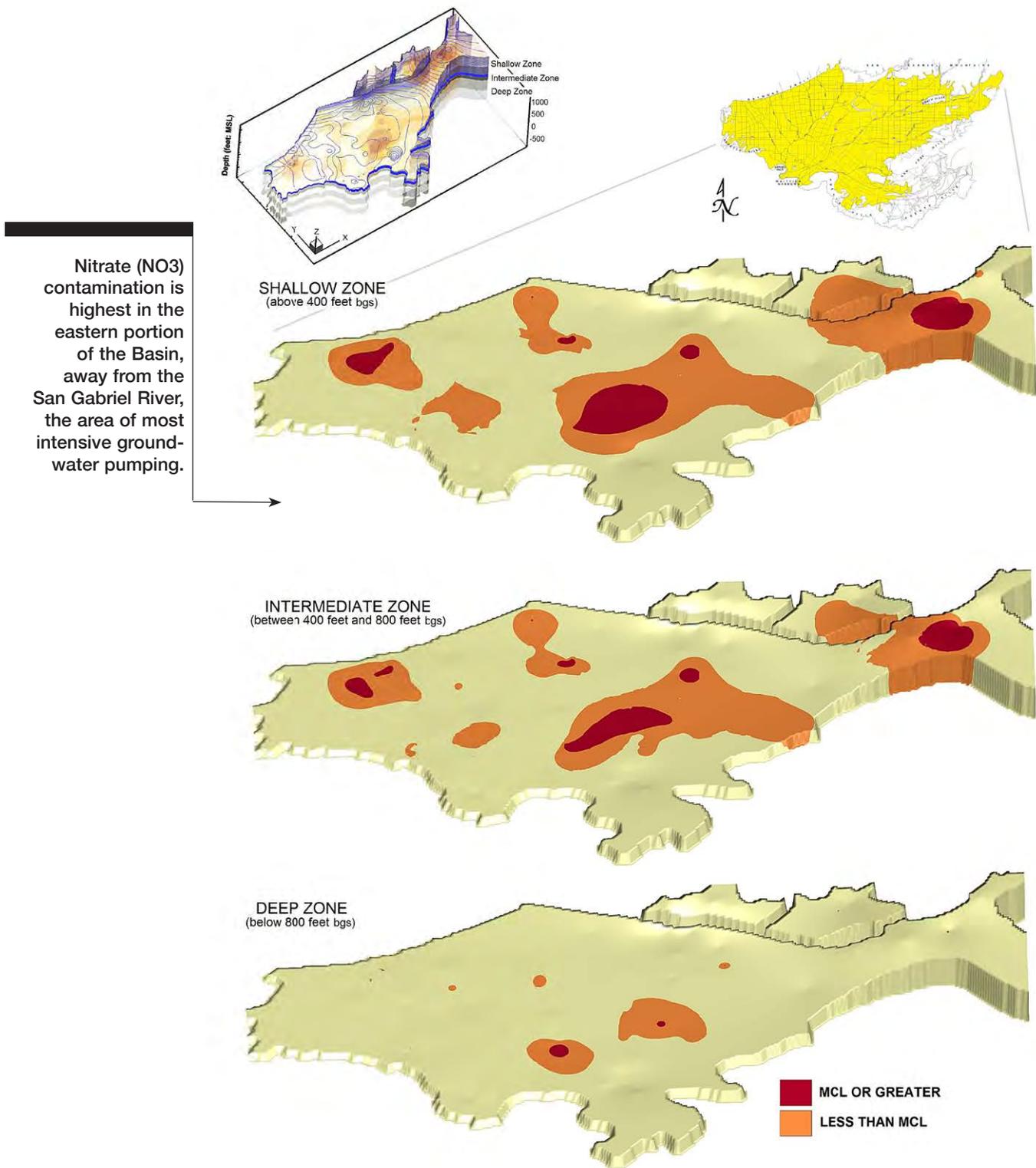


Figure 13. NITRATE LEVELS IN GROUNDWATER THROUGHOUT THE BASIN



TRICHLOROPROPANE (1,2,3-TCP)

The compound 1,2,3-trichloropropane is a degreasing agent that has been detected in the groundwater above the NL of 5 parts per trillion, primarily in the BPOU and the Area 3 OU. On July 18, 2017, DDW reported it had adopted an MCL for 1,2,3-TCP of 5 parts per trillion. The MCL will take effect on October 1, 2017, and public water systems will be required to meet the new MCL beginning in January 2018. Trichloropropane was detected in the BPOU during the winter of 2006, and its presence delayed use of one treatment facility for potable purposes. Following detection, Watermaster, in cooperation with its BPOU project partners, worked to construct treatment facilities to remove 1,2,3-TCP from the groundwater to make it suitable for potable uses. Those facilities were operational during fiscal year 2016-17.

WELLS ASSESSED FOR VULNERABILITY TO CONTAMINATION

One of the primary purposes of the Five-Year Plan is to identify wells in the Basin that are vulnerable to contamination. A well is considered vulnerable if the concentration of contaminants has ever reached 50 percent of the NL or MCL allowed by state drinking water regulations. In an effort to project which wells may be vulnerable over the next five years, Watermaster reviews water quality tests performed on each well, regional water quality conditions, and contaminant migration patterns. Watermaster also participates in plans to construct treatment facilities, as needed.

WATER QUALITY PROTECTION PLAN

Watermaster maintains a Water Quality Protection Plan that provides an early warning to Producers of potential increases in contaminant levels. The Water Quality Protection Plan also provides suggested alternative sources of supply, and proposes long-term actions to solve contamination problem(s) without contributing to the migration of contaminants in the Basin.

FIVE-YEAR WATER QUALITY AND SUPPLY PLAN

The Main San Gabriel Basin’s designation as a federal Superfund site was prompted by the discovery of widespread VOC contamination. Cleanup plans were developed to contain and remove VOCs from groundwater, and Watermaster, along with various other local water agencies, water Producers and regulators, have worked to develop the expertise, financing and treatment technologies to effectively address Basin wide cleanup of VOCs.

Watermaster facilitates groundwater cleanup projects that also meet water supply needs.

The discovery of perchlorate and NDMA, however, complicated the existing VOC cleanup approach by creating a number of challenges. Most importantly, these new contaminants could not be removed using existing treatment facilities, and new, additional treatment methods had to be identified, financed, and implemented.

This report outlines a comprehensive water quality cleanup and water supply plan for the Main San Gabriel Basin, including each of the USEPA Operable Units. Watermaster’s plan for each area is consistent with the USEPA plans, and its goal is to implement cleanup as promptly as possible, with or without the cooperation of the Responsible Parties.

SALT AND NUTRIENT MANAGEMENT PLAN

During February 2009, the State Water Resources Control Board (SWRCB) adopted the “Recycled Water Policy,” which adopted goals for water recycling, water conservation and replenishment of stormwater runoff to enhance water supplies throughout California. One component of the Recycled Water Policy requires all groundwater basins to develop a “Salt and Nutrient Management Plan” (SNMP). Watermaster took the lead role in developing the SNMP for the Main San Gabriel Basin. The SNMP identifies the existing water quality of the Main San Gabriel Basin (specifically Total Dissolved Solids (TDS), Nitrate, Chloride and Sulfate), which are not addressed by USEPA cleanup activities, and compares that water quality to standards established by the Los Angeles Regional Water Quality Control Board (LA RWQCB). Each of the four water quality parameters comply with the standards established by LA RWQCB resulting in significant flexibility to implement new programs to enhance groundwater replenishment and reliability. A final draft of the SNMP was submitted to LA RWQCB in May 2016 to satisfy the submittal requirement and was approved by the RWQCB in December 2016.

GROUNDWATER MONITORING PROGRAMS

Monitoring involves measuring groundwater levels, groundwater quality, and groundwater flow. Watermaster continuously refines its understanding of the groundwater Basin to better define the safe yield of the Basin, and to protect and improve local water quality.

GROUNDWATER ELEVATION MONITORING

CONTINUE KEY WELL AND SUPPLEMENTAL KEY WELL OPERATION AND DATA PROCESSING

The entire 167-square-mile groundwater Basin is managed as one unit based on the groundwater levels as measured at a single Key Well in Baldwin Park. Water levels have been measured at this well since 1903 and are currently measured every three hours by an automated recorder.

Additional groundwater level recorders have been installed near the Santa Fe Spreading Grounds; adjacent to the San Gabriel River above the I-210 Freeway; in the City of Rosemead; in the City of Covina; and near Whittier Narrows Dam. These water level records are synchronized with the record in the Key Well. Collectively, water level data from these wells provides a better understanding of impacts of recharge operations at the Santa Fe Spreading Grounds on Basin hydrogeology. Water elevation data are collected semi-annually at about 170 additional wells throughout the Basin, and water level recorders may be installed in some of those wells over the next five years.

CONTINUE BASINWIDE GROUNDWATER ELEVATION MONITORING PROGRAM (BGWEMP)

The purpose of the BGWEMP is to obtain groundwater level measurements from a large number of wells across the Basin. The information is used to prepare groundwater contour maps showing the direction of groundwater flow. The data are also used in the Basin computer model to simulate future groundwater flow patterns. The BGWEMP plan for the coming years includes:

- taking weekly measurements of water levels in 9 of the 170 primary wells;
- gathering semi-annual measurements of water levels at all 170 of the primary wells;
- obtaining water levels in secondary wells from well owners or water Producers, the San Gabriel Valley Protective Association, Regional Board, USEPA, and others;
- updating the database with water level data;
- preparing semi-annual groundwater contour maps of the entire Basin; and
- participating in the California Statewide Groundwater Elevation Monitoring (CASGEM) program.

GROUNDWATER QUALITY MONITORING

CONTINUE BASINWIDE GROUNDWATER QUALITY MONITORING PROGRAM (BGWQMP)

Under the BGWQMP, all production wells in the Basin are sampled at least once a year for VOCs, nitrates, and TDS. In addition, sulfate and chloride are sampled at least once every three years as required by DDW. The frequency of BGWQMP sampling compliments the monitoring requirements under state law, and supplements information gathered through Regional Water Quality Control Board source investigations, and USEPA remedial investigations. The data collected by BGWQMP are used to identify and evaluate the current locations and magnitude of contaminant levels, along with the effectiveness of the cleanup project.

CONTINUE TITLE 22 WATER QUALITY TESTING

Watermaster continues to perform DDW-mandated Title 22 water quality sampling of groundwater from approximately 200 active wells in the Basin. Watermaster also continues to track regulations and inform local water purveyors about regulatory issues and requirements. Information from centralized water quality testing is added to Watermaster's water quality database, which contains data from many sources. The centralized testing enables Watermaster to identify water quality trends on a regional scale that might otherwise go unnoticed at a specific well, and also lowers monitoring costs to Producers.

GROUNDWATER FLOW AND CONTAMINANT MIGRATION STUDIES

Groundwater level and quality data are entered into the Basin computer model, which simulates where contamination is projected to flow in the future. The goal is to project contaminant levels by areas in advance of the actual event, and identify remedial steps to be taken. The Basin computer model has been used to identify the area of contamination that may be captured (capture zone) under various groundwater pumping scenarios. The capture zone is also able to show the length of time it may take contamination to flow toward a well, and subsequently be treated for contaminant removal prior to use as a drinking water supply.

GROUNDWATER ELEVATION SIMULATIONS SHOW FUTURE PUMPING WILL NOT SIGNIFICANTLY CHANGE GROUNDWATER MOVEMENT

To determine the direction of groundwater flow through the Basin, Watermaster compiles the daily average 2016-17 production for each well, enters the data into the groundwater model, and simulates how production impacts water levels throughout the Basin. A computer simulation is then run using estimated production for 2021-22, assuming all other water supply variables (i.e. local water recharge, imported water recharge, subsurface inflow/outflow) do not change. These simulations indicate the

Simulations of the direction of groundwater flow in 2016-17 and projections for 2021-22 show that the estimated increase in groundwater pumping during this period would not significantly change the overall direction of Basin groundwater movement.

estimated increase in groundwater production, based on projections by Producers, as of fiscal year 2021-22 will not significantly change the overall direction of Basin groundwater movement, which continues to flow generally from east to west to a pumping trough in the western portion of the Basin, and also northeast to southwest, exiting through Whittier Narrows. The simulation for 2021-22 also shows localized pumping depressions in the Baldwin Park area, which are expected to be created by continuous pumping from groundwater extraction wells associated with the BPOU contaminant cleanup project to contain and control groundwater contaminant movement. Contaminated groundwater from those wells is treated at several treatment facilities and the DDW-permitted water is provided for potable use.

SIMULATE IMPACTS OF GROUNDWATER PUMPING ON CONTAMINANT MIGRATION

Simulations similar to the ones described above were used to make the finding that pumping from USEPA mandated cleanup projects as managed by Watermaster helps to control and contain contaminant migration. Groundwater quality data collected during 2016-17 and projected quality data for 2021-22 were entered into the groundwater model for the contamination migration studies. The computer model is used to simulate how the flow of water would affect the migration of contamination. The simulation showed that changes in groundwater flow did not have major impacts on the migration of contaminants (refer to Figures 16 and 17 in Appendix F).

GROUNDWATER CLEANUP PROJECTS

Watermaster coordinates and provides technical assistance on many cleanup projects in the Basin, although the cleanup facilities are owned and operated by local water utilities. Watermaster's involvement includes coordinating proposed USEPA cleanup programs to ensure, to the extent feasible, that treated water is put to beneficial use within the Basin, and that projects are consistent with the Judgment.

REVIEW OF SECTION 28 APPLICATIONS

Watermaster reviews every proposal to construct, destroy, or modify a well, or build a treatment plant pursuant to Section 28 of its Rules and Regulations.

Watermaster's review ensures that any new or increased extractions from the Basin or any changes in production patterns are consistent with contamination cleanup efforts, and will not adversely affect Basin water quality. In conjunction with the evaluation of an application to construct a new well or a treatment facility, Watermaster uses a computer model to predict the potential future impacts of each project on contaminant migration and Basin cleanup.

BASIN CLEANUP PROJECTS/USEPA OPERABLE UNIT PLANS

The USEPA established Operable Units for the various areas within the Basin that have been contaminated and require groundwater cleanup. The Operable Units Are Area 3 (Alhambra area), Baldwin Park, El Monte, Puente Valley, South El Monte, and Whittier Narrows (See Figure 11). USEPA has established a methodical process that includes a review of the extent of contamination (Remedial Investigation), development of cleanup alternatives (Feasibility Study), and selection of the most appropriate cleanup plan (Proposed Plan). Following these activities, the USEPA issues a report identifying the agreed-upon Cleanup Plan (Record of Decision). Subsequently, the project facilities are designed and constructed.

The USEPA has identified cleanup plans for nearly all the Operable Units. Unlike the USEPA, Watermaster is not only concerned with cleaning up the Basin, but also wants to ensure that the water supply needs of the region are met. With USEPA plans generally in place, Watermaster continues to work with affected Producers, Responsible Parties, and others to implement solutions that not only provide effective cleanup and conform to the USEPA plans, but also meet local water supply needs.

This Five-Year Plan describes each of the Operable Units along with the USEPA proposed cleanup plan. In addition, Appendix A identifies current, and projected groundwater production over the next five years, to address the contamination and to implement the cleanup plans. In areas where the groundwater supply has been affected by contamination, Watermaster works with affected Producers and other local water agencies to implement cleanup as quickly as possible, with or without the cooperation of the Responsible Parties. Watermaster and affected Producers continue to seek cost recovery from the Responsible Parties for any cleanup costs they incur.

BALDWIN PARK OPERABLE UNIT (BPOU)

The BPOU is a seven-mile-long, one-mile-wide area of groundwater contamination that lies east of the San Gabriel River, stretching from an area north of the I-210 freeway in Azusa to south of the I-10 freeway in Baldwin Park (see Figure 11). The contamination primarily has been the result of improper use and disposal of industrial chemicals in the Azusa area, and it continues to spread generally in a south-westerly direction.

The USEPA originally issued its Record of Decision (ROD), or cleanup plan, for the BPOU in the mid-1990s. The ROD calls for pumping and treating groundwater in the northern area, where contaminant concentrations are highest, and also in the southern area to limit further migration of contaminants. The ROD initially involved pumping and treating an average of about 7,000 gallons per minute in the northern area and 16,000 gallons per minute in the southern area. During 2015, the extraction rates were modified and now require pumping and treating an

average of about 6,000 gallons per minute in the northern area and 23,750 gallons per minute in the southern area. The ROD also recommends the use of existing water supply wells, treatment systems, and pipelines when feasible. Importantly, the plan encourages adding the treated water to the potable supply, rather than simply recharging it back into the ground or discharging it to storm drain.

The discovery of perchlorate and NDMA during the late 1990s resulted in the shutdown of numerous treatment facilities, including the La Puente Valley County Water District (LPVCWD) Plant and San Gabriel Valley Water Company (SGVWC) Plant B6 that were designed by local water agencies to remove VOCs but not the new contaminants. Shutting down the VOC treatment plants allowed contaminants to migrate southward into previously unaffected areas, in turn forcing the shutdown of other water supply wells.

In 2002, after several years of negotiation led by Watermaster, eight of the BPOU Responsible Parties (called Cooperating Respondents, or CRs) and seven Water Entities signed the BPOU Project Agreement. Under this landmark agreement, Watermaster provided overall project management and project coordination services. The CRs have paid the cost to construct, and are required to continue to provide funding to operate, the USEPA-required BPOU cleanup facilities for a total of about 15 years under the current agreement through 2017. During fiscal year 2016-17, Watermaster, the Water Entities and the CRs negotiated a 10-year extension of the BPOU Project Agreement (Including amendments) which will run through 2027. Several water purveyors own and operate the facilities, and they use the highly treated water in their water systems. The San Gabriel Basin Water Quality Authority (WQA) has also obtained outside funds to help construct necessary BPOU treatment facilities, extraction wells, and pipelines.

The BPOU Project consists of four centralized treatment facilities with a combined extraction and treatment capacity of up to 33,900 gallons per minute (gpm). Those treatment facilities are located at Valley County Water District's Lante Plant (7,800 gpm), San Gabriel Valley Water Company's Plant B6 (7,800 gpm) and Plant B5 (7,800 gpm), California Domestic Water Company's (CDWC) Bassett plant (8,000 gpm), and La Puente Valley County Water District's (LPVCWD) site (2,500 gpm).

VALLEY COUNTY WATER DISTRICT (VCWD) PROJECT

In the northerly portion of the BPOU, the VCWD Project consists of three extraction wells, including two wells, pumping up to 7,800 gpm (average annual rate of 6,000 gpm) to a centralized treatment facility at the VCWD Lante Plant. The VCWD Project consists of separate facilities to treat VOCs, 1,2,3-TCP, perchlorate, NDMA, and 1,4-dioxane. In addition, a treated-water pipeline provides up to 6,000 gpm of fully treated water to Suburban Water Systems (SWS) to offset production lost due to contamination of some of its wells; VCWD can use the remaining

portion of the treated water. The VCWD Project began operation for contamination cleanup in 2006 and received its DDW operating permit in July 2007 to provide potable water to customers. Since operation began in 2006, the VCWD treatment facility has treated about 70,700 acre-feet and has removed about 41,200 pounds of contaminants, as shown in Appendix E.

VCWD and its BPOU partners are coordinating the construction of a new single-pass, ion-exchange facility that will remove perchlorate more cost effectively. Construction of the new system is complete, but start-up has been pushed back while the parties determine the most cost-effective way to address high nitrate concentrations. Meanwhile, the existing VCWD treatment facility continues to provide treated water for municipal use.

LPVCWD PROJECT

The LPVCWD consists of three existing production wells. Well-pumping capacity is limited to 2,500 gpm to equal the capacity of the treatment facility (average annual rate of 2,250 gpm). The LPVCWD project consists of separate facilities to treat VOCs, perchlorate, NDMA, and 1,4-dioxane. The LPVCWD project is permitted by DDW and has been operating since March 2001. Treated water in excess of LPVCWD's needs is provided to SWS to enable the treatment facility to be operated on a continuous basis. Since operation began, the LPVCWD treatment facility has treated about 68,100 acre-feet (including prior operations with only VOC treatment) and removed about 11,700 pounds of contaminants, as shown in Appendix E.

SGVWC B6 PROJECT

The SGVWC B6 project is permitted by DDW and has been operational since July 2005. The B6 project consists of four extraction wells and a centralized treatment facility that treats up to 7,800 gpm (average annual rate of 6,500 gpm). The facility treats the contaminated groundwater for VOCs, perchlorate, NDMA, and 1,4-dioxane. The treated water is provided to SGVWC customers. Since operation began, the SGVWC B6 treatment facility has treated about 121,400 acre-feet, (including prior operations with only VOC treatment), and removed about 21,700 pounds of contaminants, as shown in Appendix E.

SGVWC B5 PROJECT

The SGVWC B5 Project consists of one extraction well and two existing wells that provide up to 7,800 gpm (average annual rate of 7,000 gpm) to a centralized treatment facility located at the SGVWC B5 site. The treatment facility treats the contaminated water for VOCs, perchlorate, NDMA, and 1,4-dioxane. The treated water is provided to City of Industry customers (1,000 gpm) and the balance (6,000 gpm) is provided to SGVWC customers. The SGVWC B5 Project was permitted by DDW in fiscal year 2007-08. Since operation began in 2007, the SGVWC B5 treatment facility has treated about 105,500 acre-feet and has removed about 4,300 pounds of contaminants, as shown in Appendix E.

CDWC PROJECT

The CDWC Project consists of four existing wells that provide up to 17,500 gpm (average annual rate of 8,000 gpm) to a centralized treatment facility located at the CDWC Bassett site. The treatment facility treats the contaminated water for VOCs, perchlorate, and NDMA. The treated water is provided to CDWC customers. The CDWC Project was permitted by DDW in 1993. Since operation began in 1993, the CDWC treatment facility has treated about 340,700 acre-feet and has removed about 16,200 pounds of contaminants, as shown in Appendix E.

PURVEYOR PROJECTS

In addition to the USEPA-required BPOU facilities, Watermaster has issued permits under Section 28 of its Rules and Regulations to SWS to construct new wells that also are being used to blend with wells impacted by contaminants. These activities reduce reliance on expensive imported water, and contribute to contaminant removal.

BPOU CLEANUP PROGRESS

Watermaster regularly reviews water quality data to evaluate the impact the production wells and specially-constructed extraction wells have on control of contamination migration. It is difficult to develop a precise picture of the geographic extent of contamination because water quality is obtained from numerous wells that produce water from different depths below the groundwater table. Figure 14 shows the approximate extent of VOC contamination from about five years ago and from current data. In addition, the approximate geographic extent of VOC contamination, using engineering judgment, for five years into the future is shown on Figure 14. The 2016-17 plume indicates treatment facilities are controlling plume movement. Watermaster anticipates the area of the VOC plume will continue to decrease, as shown on the 2021-22 plume. Similarly, Figure 15 shows the approximate extent of perchlorate. The series of three plume characterizations indicate plume movement is expected to be controlled and, similar to VOCs, continue to decrease in the future (2021-22).

The original term of the BPOU Project Agreement was for 15 years and extended through March 2017. subsequently, the BPOU Project Agreement has been extended an additional 10 years through 2027. Watermaster will continue to coordinate BPOU cleanup activities among the various parties to the BPOU Project Agreement through at least 2027, interfacing with USEPA, and overseeing agreements between water purveyors to use the treated water. With all of the BPOU facilities now operational, Watermaster is also coordinating collection of field data, such as water production, water quality and water levels, and is providing BPOU Project performance reports to USEPA in cooperation with the CRs. The projects will ensure that there is an adequate water supply for the BPOU area. These projects are consistent with the USEPA ROD, meet contaminant removal and containment requirements, and meet local water supply needs.

Figure 14. VOC PLUME MAP IN BPOU

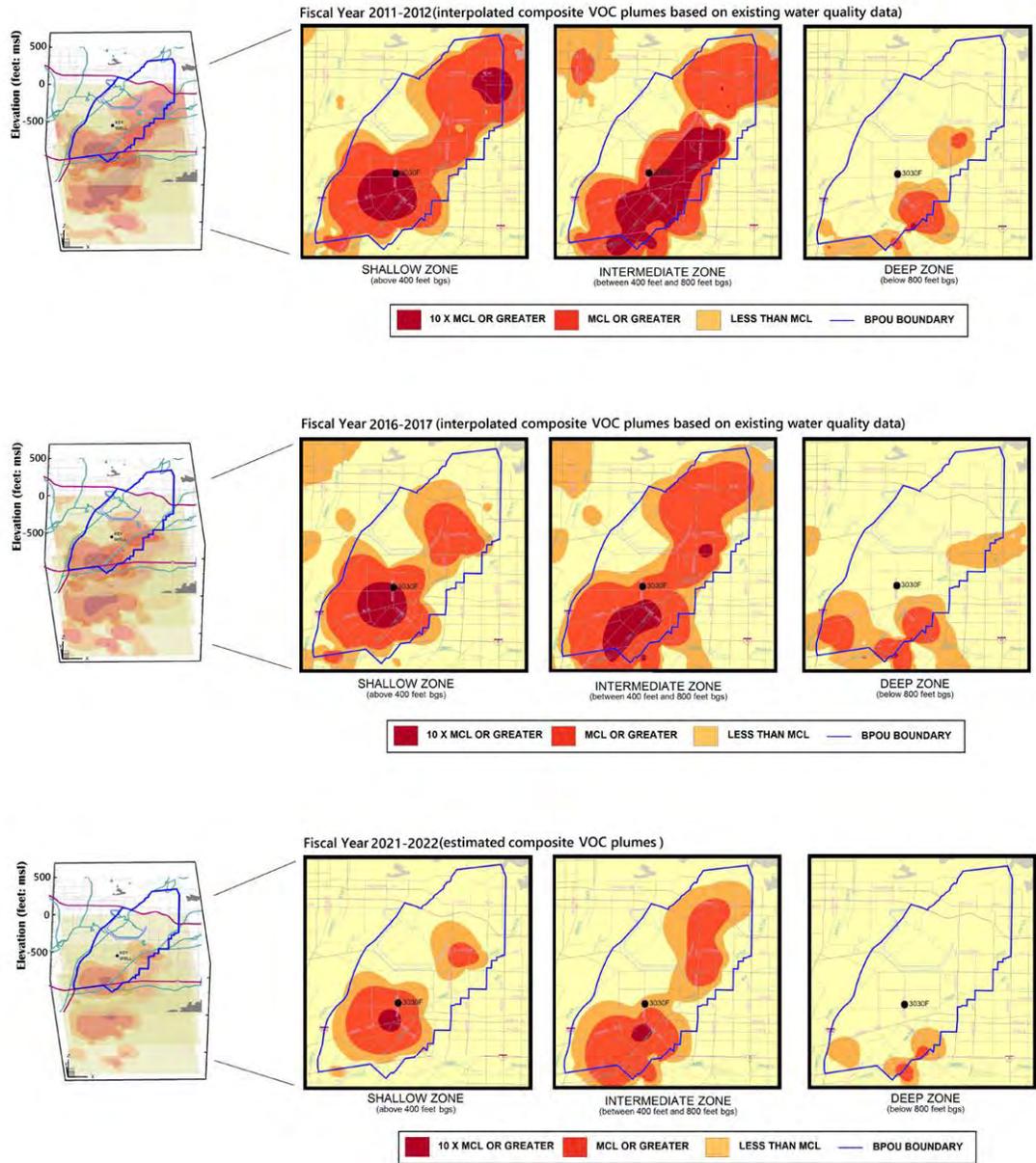
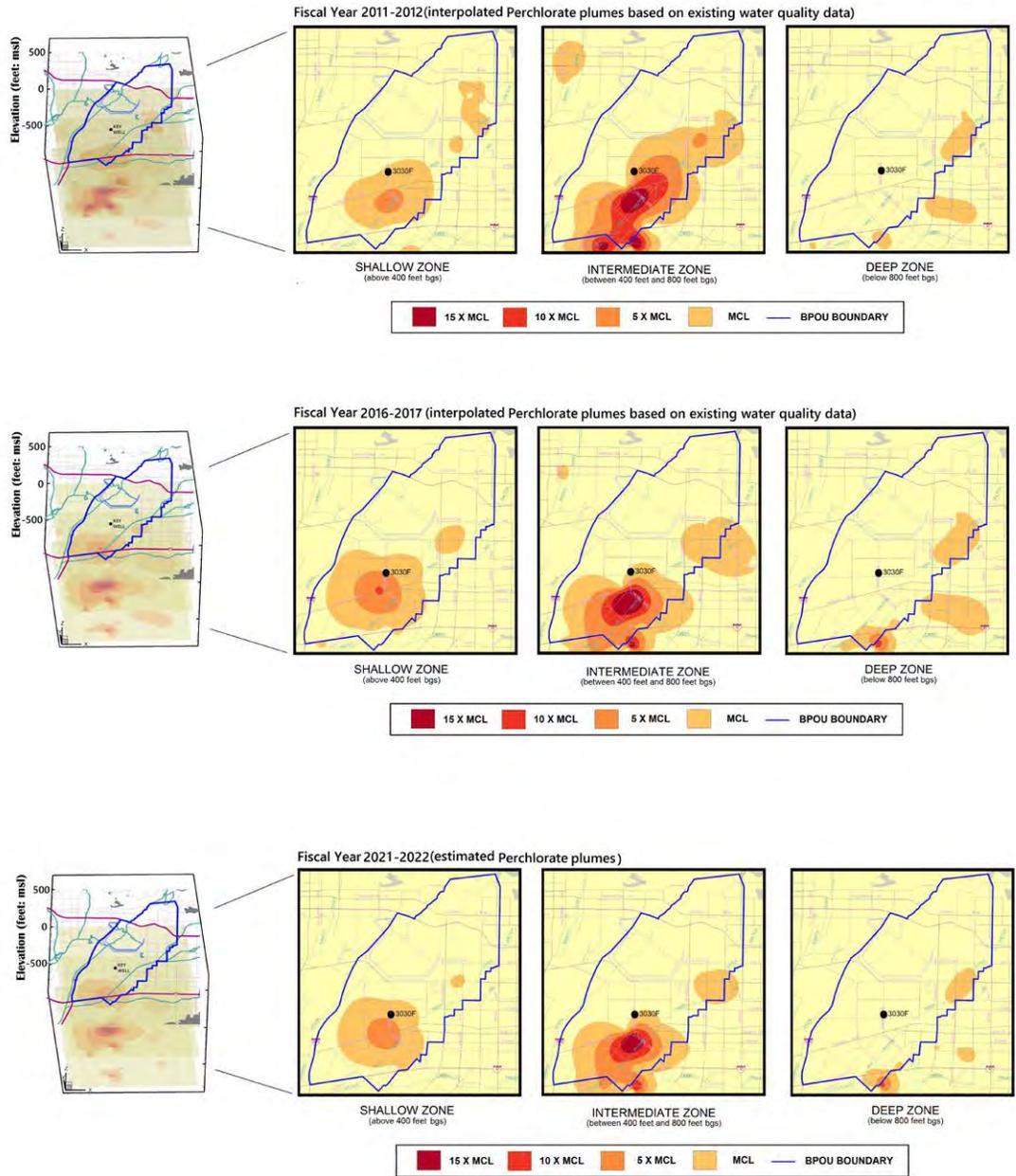


Figure 15. PERCHLORATE PLUME MAP IN BPOU



SOUTH EL MONTE OPERABLE UNIT (SEMOU)

The SEMOU covers approximately eight square miles in the south-central portion of the Basin. It is bounded by the I-10 Freeway, the 60 Freeway, the I-605 Freeway, and San Gabriel Boulevard (See Figure 11). A ROD for the SEMOU was issued in 2000, addressing VOC contamination in a limited area. Subsequently, additional water supply wells became contaminated, and new contaminants, including perchlorate, were detected in wells in the SEMOU area. In November 2005, USEPA revisited its ROD and issued an Explanation of Significant Differences (ESD) indicating that SEMOU cleanup projects would also address treatment of perchlorate. Because a perchlorate source has not yet been identified in that area, the Responsible Parties (RPs) objected to a requirement to pay for perchlorate treatment, and negotiations for the RPs to fund SEMOU groundwater cleanup activities have been moving slowly.

In the meantime, area water purveyors who were impacted by contaminant migration and new perchlorate detections were forced to construct new or additional treatment facilities to maintain safe, reliable water supplies. The City of Monterey Park, San Gabriel Valley Water Company, and Golden State Water Company (GSWC) have all constructed new or additional treatment facilities within SEMOU. WQA has assisted these Producers by securing outside funding to help offset project costs.

MONTEREY PARK PROJECT

Monterey Park constructed a water treatment facility at its Delta Plant to treat VOCs and perchlorate. Monterey Park Well No. 9 (which only had detectable concentrations of VOCs) began operating through the VOC treatment facility in April 2002. Following construction and permitting of the perchlorate treatment facility, Monterey Park Well No. 12 began operation in spring 2005. Monterey Park began operation of Well No. 15 in summer 2006. Production is from Monterey Park Wells No. 12 and No. 15 to operate consistent with the SEMOU ROD. Watermaster and Monterey Park maintain data on water quality in monitoring wells located up-gradient of Wells No. 9, 12, and 15. Since the treatment facility began operation, over 73,100 acre-feet of water has been treated and about 12,300 pounds of contaminants removed from the groundwater, as shown in Appendix E.

SAN GABRIEL VALLEY WATER COMPANY (SGVWC) PLANT 8 PROJECT

SGVWC Plant 8 VOC Treatment Facility has a capacity of 5,000 gpm and has been in operation since fiscal year 2001-02. In response to increasing VOC concentrations, SGVWC voluntarily constructed supplemental VOC treatment at Plant 8. The supplemental VOC treatment facility was permitted by DDW in September 2006 and went online in December 2006. Since the original VOC treatment facility operation, over 41,500 acre-feet of water has been treated and about 5,900 pounds of contaminants have been removed from the groundwater, as shown in Appendix E.

GOLDEN STATE WATER COMPANY (GSWC) PROJECT

GSWC VOC treatment facility at San Gabriel Wells No. 1 and 2 had been permitted and operating. However, with the establishment of the revised Perchlorate NL in 2002, GSWC voluntarily removed the wells from operation. Subsequently, GSWC installed an ion exchange system to remove perchlorate and has resumed operation at its San Gabriel Well No. 1. The treatment facility has treated about 19,600 acre-feet of water and removed about 600 pounds of contaminants, as shown in Appendix E.

EL MONTE OPERABLE UNIT (EMOU)

The EMOU covers an area of about 10 square miles in the south-central portion of the Basin. It is bounded by the I-10 Freeway on the south, Rosemead Boulevard on the west, and Santa Anita Avenue and Rio Hondo on the east. The northern boundary generally follows Lower Azusa Road (see Figure 11). While shallow contamination is found throughout the EMOU, deep (intermediate zone) contamination is found in the northwest and easterly area of the EMOU.

The USEPA's ROD for the EMOU includes numerous small, shallow extraction wells and treatment, along with two areas of deep extraction and treatment. Due to generally poor water quality in the area, the shallow groundwater will not be used for a potable supply. The deep extractions are recommended for potable use by local water purveyors. The remediation efforts are separated into "Westside" and "Eastside" activities.

EMOU WESTSIDE PROJECTS

On the Westside, there are plans to clean up contaminants occurring in the shallow aquifer. The shallow zone water is treated for VOCs, discharged to an adjacent channel and the fully treated water is infiltrated back into the Basin. The treatment facility (Hermetic Seal) has treated about 300 acre-feet and removed about 30 pounds of contaminants, as shown in Appendix E. The deep-zone extraction and treatment in the northwest area is being accomplished by the existing Encinita Wellfield and Treatment Facility owned by GSWC, which began operation during 1998. The GSWC treatment facility has treated about 26,200 acre-feet of water and has removed about 600 pounds of contaminants, as shown in Appendix E. During July 2002, USEPA issued an Explanation of Significant Differences (ESD), which indicated that perchlorate, NDMA, 1,4-dioxane, and hexavalent chromium had been detected in excess of DDW notification levels. In the event water from extraction wells cannot be blended to acceptable levels, additional treatment facilities will need to be installed, significantly increasing cleanup costs. Thus far, extraction and treatment of VOCs at GSWC Encinita Plant have not been impacted.

EMOU EASTSIDE PROJECTS

On the Eastside, there are plans to clean up contaminants occurring in the shallow aquifer. The shallow zone water is treated for VOCs, discharged to an adjacent channel and the fully treated water is infiltrated back into the Basin. The treatment facility (Gould/Johnson Controls) has treated about 80 acre-feet and removed about 20 pounds of contaminants, as shown in Appendix E. The deep-zone extraction and treatment in the northwest area is being accomplished by three new extraction wells which began operation during 2015-16. The treatment facility has treated about 1,200 acre-feet of water and has removed about 50 pounds of contaminants, as shown in Appendix E.

PUENTE VALLEY OPERABLE UNIT (PVOU)

The PVOU lies in the southeastern portion of the Basin, essentially bounded by the 60 Freeway on the south, Azusa Avenue on the east, and the I-10 Freeway on the north (see Figure 11). The PVOU encompasses the Puente Valley, which is tributary to the southeasterly portion of the Basin. Contamination in the PVOU includes various VOCs. All aquifers within the PVOU (shallow, intermediate, and deep) are considered sources for municipal water supplies. The USEPA has issued a ROD for the PVOU. The plan identified in the ROD includes extraction and treatment of groundwater within the shallow and intermediate zones from wells located in the center of the PVOU.

PVOU SHALLOW-ZONE PROJECT

The cleanup plan for shallow-zone contamination includes nine wells that will collectively produce about 1,000 gpm. Due to the poor quality of shallow-zone water (which is high in naturally-occurring dissolved solids), the water will not be used as drinking water, but will instead be treated to remove VOCs and will then be recharged back into the Basin. Watermaster is currently working with USEPA and the Responsible Party to develop an agreement to allow production and discharge of the PVOU shallow-zone water.

PVOU INTERMEDIATE ZONE

Watermaster is working with USEPA, Responsible Parties, and local water entities to develop a cleanup solution that meets potable water supply needs. Approximately 1,000 gpm will be produced from the intermediate zone extraction wells, treated and used for potable purposes by a local water purveyor.

WHITTIER NARROWS OPERABLE UNIT (WNOU)

The USEPA declared the WNOU is a “fund-lead” project, meaning that the USEPA (with the state) has funded the design, construction, and operation of the remedy, and will seek cost recovery from Responsible Parties later. The USEPA cleanup plan

involves a series of shallow and intermediate zone extraction wells with treatment (see Figure 11). As of May 2013, the responsibility for the WNOU was transferred from USEPA to the California Department of Toxic Substances Control (DTSC). Furthermore, the WNOU Shallow Zone Project (as described below) ceased operation during 2013 due to improved water quality.

WNOU SHALLOW ZONE PROJECT

During fiscal year 2002-03, NDMA was detected in some of the shallow extraction wells, prolonging the testing and review process for the shallow zone water through June 2007. Studies indicated the shallow zone contamination could be adequately contained at an extraction rate of 2,500 gpm. Treated shallow zone water has been discharged for conservation and recreational use at Legg Lake, and Watermaster entered into a production agreement with USEPA and the County of Los Angeles regarding the accounting of that water. Since production began at the WNOU facility, over 30,000 acre-feet of groundwater has been treated, and over 1,620 pounds of contaminants have been removed. During fiscal year 2012-13 the WNOU's Shallow Zone Project ceased operation.

WNOU INTERMEDIATE ZONE PROJECT

The City of Whittier obtained a DDW permit to use the 6,000 gpm of treated intermediate zone water for municipal use instead of producing water from its existing wells. During April 2013, the City of Whittier ceased taking treated intermediate zone water. Subsequently, the treated intermediate zone water has been delivered to Legg Lake, while DTSC negotiates with a municipal water supplier to accept additional treated intermediate zone water. Since production began in late 2005, about 49,600 acre-feet of groundwater has been treated and about 1,800 pounds of contaminants removed, as shown in Appendix E.

AREA 3 OPERABLE UNIT

The Area 3 Operable Unit is located in the westerly portion of the Basin. It is generally bounded on the south by the I-10 Freeway, on the east by Rosemead Boulevard, on the North by Huntington Drive, and on the west by the boundary of the Main Basin (see Figure 11). EPA has installed a series of monitoring wells to collect water quality data to supplement data collected from water supply wells and has initiated a Remedial Investigation and Feasibility Study to identify the extent of the contamination and to evaluate appropriate cleanup remedies. In addition, Watermaster issued a permit during 2005-06 to the City of Alhambra to construct a treatment facility to remove VOCs from wells No. 7, 8, 11, and 12. The treatment facility became operational in April 2009, prior to USEPA's development of a final remedy, but is necessary for Alhambra to receive a reliable source of supply from the groundwater basin. The facility has treated about 24,600 acre-feet and has removed about 800 pounds of contaminants, as shown in Appendix E.

PRODUCERS' WATER SUPPLY PLANS

Watermaster's Water Quality Protection Plan provides early warning to Producers before their wells are found to exceed drinking water quality standards. The Plan also contains pre-analyzed suggestions to the Producers for responding to the presence of contaminants.

WATER SUPPLY PLANS TO MEET PROJECTED DEMANDS

Water Producers propose to construct nine new wells and six treatment plants during the next five years. Watermaster will continue providing the following services to assist Producers in meeting water demand:

- investigate all new or increased water extractions;
- provide computer modeling and technical support on treatment issues concerning the impact of extractions on contaminant migration;
- prioritize areas requiring further investigation, and coordinate with Producers on water supply modifications; and
- direct changes in pumping or treatment as necessary.

CONDUCT STUDIES, MONITORING AND INVESTIGATIONS

The Main San Gabriel Groundwater Basin is very complex, covering 167 square miles, and has the capacity to hold about 2.8 trillion gallons of water. Water enters the Basin from countless, natural and man-made locations, and is extracted by over 200 wells operated by dozens of independent Producers. Watermaster conducts special studies to identify projected water demands and to increase understanding of the Basin, so that it can be managed in a way that preserves and improves water supply and quality. In addition, Watermaster routinely reviews available data and is prepared to construct new monitoring wells to obtain supplemental water level and water quality data to better, manage the Basin. As a result of these activities, and the cooperative activities with, the Regional Board (noted below), there is no longer on-going VOC or Perchlorate contamination occurring; rather the **focus** is on clean-up activities.

LANDFILL INSPECTIONS

Watermaster routinely conducts on-site inspections of area landfills to ensure they are operated in a way that does not allow contaminants to seep into the groundwater. Watermaster reports any violations of Waste Discharge Requirements to the Regional Water Quality Control Board for enforcement.

IDENTIFY AND REDUCE POTENTIAL SOURCES OF CONTAMINATION, COOPERATE WITH THE REGIONAL WATER QUALITY CONTROL BOARD

Since 1993, Watermaster has obtained information from the RWQCB about sources of VOC contamination in the Basin as part of the RWQCB investigations of potential contaminated sites. The information includes a description of all potential sources of contamination investigated by the RWQCB, including:

- maps showing the location of all investigation sites;
- available cause-and-effect relationships between pollution sources and contaminated wells; and
- plans and tentative schedules to abate the source of pollution and to clean up the soil and water.

Watermaster has reviewed a large amount of information gathered in RWQCB files and entered it into a database. This information is used in Watermaster's Section 28 process to help evaluate changes in pumping practices in relation to known contamination sources.

AQUIFER PERFORMANCE TESTS

Watermaster has developed a groundwater flow model for the entire Basin that assists in evaluating the potential impacts of changes in groundwater production. Although Watermaster completed its three-year Aquifer Performance Test investigation, additional tests will be conducted as required for Section 28 applications or for other needs. A tabulation of potential Aquifer Performance Test investigation sites is included in Appendix D. The sites identified include a pumping well and at least one monitoring well. The tests provide information on the characteristics of the aquifer, such as transmissivity, hydraulic conductivity, and coefficient of storage. The information gathered on aquifer characteristics will support cleanup activities including groundwater model development and calibration (see Appendix D).

DIRECTORY TO APPENDICES

The Following Appendices Are Found in This Section:

- A. Projected Groundwater Demands from 2017-18 to 2021-22
- B. Simulated Changes in Groundwater Elevations at Wells or Wellfields in Main San Gabriel Basin
- C. Highlights of Volatile Organic Compounds and Nitrate Concentrations and Wells Vulnerable to Contamination
- D. Potential Sites for Aquifer Performance Tests
- E. Summary of Treatment Facility Activity in the Main San Gabriel Basin
- F. Simulated Basin Groundwater Contours 2016-17 and 2021-22 (Figures 16 and 17)

APPENDIX A.

PROJECTED GROUNDWATER DEMANDS— 2017-18 TO 2021-22

APPENDIX A

PROJECTED GROUNDWATER DEMANDS FROM 2017-18 TO 2021-22

RECORDATION NUMBER	WELL NAME	WELL CAPACITY		2016-17 PRODUCTION	PROJECTED GROUNDWATER DEMANDS				
		ACRE-FEET	GPM		2017-18	2018-19	2019-20	2020-21	2021-22
ADAMS RANCH MUTUAL WATER COMPANY (CALIFORNIA AMERICAN WATER COMPANY)									
1902106	1	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
1902689	2	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
8000182	3	379	235	0.00	0.00	0.00	0.00	0.00	0.00
SUBTOTAL:		NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
ALHAMBRA, CITY OF (2)									
1900010	MOELR (8)	3,387	2,100	750.69	814.79	825.38	836.08	846.79	857.74
1900011	9	798	495	7.40	8.03	8.14	8.24	8.35	8.46
1900012	10	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
1900013	12	807	500	7.11	7.72	7.82	7.92	8.02	8.12
1900014	13	1,048	650	255.63	277.46	281.06	284.71	288.35	292.08
1900015	14	1,532	950	1,428.99	1,551.01	1,571.16	1,591.54	1,611.92	1,632.76
1900016	15	1,774	1,100	1,148.72	1,246.81	1,263.01	1,279.39	1,295.77	1,312.52
1900017	2 LON	1,589	985	1,480.30	1,606.70	1,627.57	1,648.69	1,669.80	1,691.39
1900018	GARF	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
1902789	1 LON	1,613	1,000	1,151.36	1,249.67	1,265.91	1,282.33	1,298.75	1,315.54
1903014	11	1,032	640	8.43	9.15	9.27	9.39	9.51	9.63
1903097	7	1,250	775	1.54	1.67	1.69	1.72	1.74	1.76
SUBTOTAL:		14,832	9,195	6,240.17	6,773.00	6,861.00	6,950.00	7,039.00	7,130.00
AMARILLO MUTUAL WATER COMPANY (SAN GABRIEL VALLEY WATER COMPANY) (2)									
1900791	SOUTH (1)	644	399	242.39	378.45	386.02	393.75	401.62	409.65
1900792	NORTH (2)	424	263	90.84	0.77	0.77	0.77	0.77	0.77
SUBTOTAL:		1,068	662	333.23	379.22	386.79	394.52	402.39	410.42
ANDERSON, RAY L. AND HELEN									
8000085	NA	18	11	0.00	0.00	0.00	0.00	0.00	0.00
SUBTOTAL:		18	11	0.00	0.00	0.00	0.00	0.00	0.00
ARCADIA, CITY OF (1)									
1901013	1 LON	1,613	1,000	211.92	491.00	481.00	472.00	472.00	472.00
1901014	2 LON	1,613	1,000	0.06	12.00	12.00	12.00	12.00	12.00
1901015	1 BAL	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
1902077	1 CAM	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
1902078	2 CAM	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
1902084	2 LGY	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
1902358	1 STJ	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
1902791	2 BAL	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
1902854	1 PEC	5,968	3,700	2,331.31	3,270.00	3,206.00	3,143.00	3,143.00	3,143.00
8000127	1 LO	6,613	4,100	3,372.57	2,229.00	2,186.00	2,143.00	2,143.00	2,143.00
8000177	2 STJ	1,452	900	45.43	23.00	22.00	22.00	22.00	22.00
8000213	3 CAM	4,355	2,700	2,497.83	1,705.00	1,672.00	1,639.00	1,639.00	1,639.00
8000214	3 LGY	2,903	1,800	1,769.58	1,859.00	1,822.00	1,787.00	1,787.00	1,787.00
SUBTOTAL:		24,518	15,200	10,228.70	9,589.00	9,401.00	9,218.00	9,218.00	9,218.00
ATTALLA, MARY L.									
8000119	NA	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
SUBTOTAL:		NA	NA	0.00	0.00	0.00	0.00	0.00	0.00

APPENDIX A

PROJECTED GROUNDWATER DEMANDS FROM 2017-18 TO 2021-22

RECORDATION NUMBER	WELL NAME	WELL CAPACITY		2016-17 PRODUCTION	PROJECTED GROUNDWATER DEMANDS				
		ACRE-FEET	GPM		2017-18	2018-19	2019-20	2020-21	2021-22
AZUSA, CITY OF (AZUSA AGRICULTURAL WATER COMPANY, AZUSA VALLEY WATER COMPANY) (2)									
1902533	5 (1)	1,613	1,000	646.71	1,200.00	1,200.00	1,200.00	1,200.00	1,200.00
1902535	6 (3)	4,839	3,000	614.66	550.00	550.00	550.00	550.00	550.00
1902536	GENESIS 1 (4)	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
1902537	GENESIS 2 (5)	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
1902538	GENESIS 3 (6)	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
8000072	1 (7)	4,839	3,000	1,458.20	1,300.00	1,300.00	1,300.00	1,300.00	1,300.00
8000086	3 (8)	4,678	2,900	2,574.85	2,380.00	2,380.00	2,380.00	2,380.00	2,380.00
1902457	2 (1 NORTH)	3,226	2,000	910.80	1,370.00	1,370.00	1,370.00	1,370.00	1,370.00
1902458	4 (2 SOUTH)	4,516	2,800	1,542.66	2,160.00	2,160.00	2,160.00	2,160.00	2,160.00
1902113	AVWC 1	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
1902114	AVCW 2	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
1902115	8 (AVWC 4)	3,065	1,900	943.49	200.00	200.00	200.00	200.00	200.00
1902116	7 (AVWC 5)	1,613	1,000	219.78	550.00	550.00	550.00	550.00	550.00
1902117	9 (AVWC 6)	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
1902425	AVWC 7	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
8000103	10 (AVWC 8)	4,194	2,600	22.54	70.00	70.00	70.00	70.00	70.00
8000178	11	3,468	2,150	1,651.56	1,600.00	1,600.00	1,600.00	1,600.00	1,600.00
8000179	12	2,823	1,750	1,541.30	1,450.00	1,450.00	1,450.00	1,450.00	1,450.00
1903119	VULCAN	NA	NA	90.13	0.00	0.00	0.00	0.00	0.00
SUBTOTAL:		15,162	9,400	12,216.68	12,830.00	12,830.00	12,830.00	12,830.00	12,830.00
AZUSA ASSOCIATES LLC (COVELL, ET AL)									
1900390	DALTON	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
SUBTOTAL:		NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
B & B RED-I-MIX CONCRETE INC.									
1902589	1	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
SUBTOTAL:		NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
BANKS, GALE & VICKI (1)									
1900415	NA	560	347	32.47	32.00	32.00	32.00	32.00	32.00
SUBTOTAL		560	347	32.47	32.00	32.00	32.00	32.00	32.00
BASELINE WATER COMPANY									
1901200	1	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
1901201	2	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
1901202	3	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
SUBTOTAL:		NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
BEVERLY ACRES MUTUAL									
8000004	ROSE HILLS	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
SUBTOTAL:		NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
BIRENBAUM, MAX									
8000005	NA	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
SUBTOTAL:		NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
BROOKS, GIFFORD JR.									
1902144	1	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
SUBTOTAL:		NA	NA	0.00	0.00	0.00	0.00	0.00	0.00

APPENDIX A

PROJECTED GROUNDWATER DEMANDS FROM 2017-18 TO 2021-22

RECORDATION NUMBER	WELL NAME	WELL CAPACITY		2016-17 PRODUCTION	PROJECTED GROUNDWATER DEMANDS				
		ACRE-FEET	GPM		2017-18	2018-19	2019-20	2020-21	2021-22
BURBANK DEVELOPMENT COMPANY									
1900093	BURB	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
SUBTOTAL:		NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
CALIFORNIA-AMERICAN WATER COMPANY/DUARTE SYSTEM (1)									
1900354	STA FE	1,694	1,050	650.85	621.93	621.93	621.93	621.93	621.93
1900355	B V	NA	NA	0.11	0.11	0.11	0.11	0.11	0.11
1900356	MT AVE	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
1900357	LAS L	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
1900358	FISH C	484	300	0.00	0.00	0.00	0.00	0.00	0.00
1902907	WILEY	2,420	1,500	2,126.90	2,032.38	2,032.38	2,032.38	2,032.38	2,032.38
1903018	CR HV	2,097	1,300	602.88	576.09	576.09	576.09	576.09	576.09
8000139	ENCTO	2,903	1,800	28.07	26.82	26.82	26.82	26.82	26.82
8000140	LASL 2	2,258	1,400	444.14	424.40	424.40	424.40	424.40	424.40
1900497	BACON	484	300	6.43	6.14	6.14	6.14	6.14	6.14
8000216	B V 2	2,903	1,800	1,391.31	1,329.48	1,329.48	1,329.48	1,329.48	1,329.48
SUBTOTAL:		15,243	9,450	5,250.69	5,017.35	5,017.35	5,017.35	5,017.35	5,017.35
CALIFORNIA-AMERICAN WATER COMPANY/SAN MARINO SYSTEM (1)									
1900917	HALL	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
1900918	GUESS	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
1900919	MISVW	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
1900920	MISVW	2,097	1,300	0.00	0.00	0.00	0.00	0.00	0.00
1900921	RIC-1	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
1900922	RIC-2	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
1900923	IVR-1	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
1900924	MAR-1	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
1900925	MAR-2	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
1900926	GRAND	1,532	950	1,178.03	1,188.37	1,188.37	1,188.37	1,188.37	1,188.37
1900927	ROSE	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
1900934	ROAN	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
1900935	LONG	1,548	960	41.16	41.52	41.52	41.52	41.52	41.52
1901441	BR-1	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
1902424	HOWL	968	600	532.86	537.54	537.54	537.54	537.54	537.54
1902787	BR-2	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
1902867	IVR-2	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
1903019	MAR-3	1,936	1,200	601.94	607.23	607.23	607.23	607.23	607.23
1903059	DELMAR	1,613	1,000	445.18	449.09	449.09	449.09	449.09	449.09
8000175	HALL-2	1,936	1,200	722.29	728.63	728.63	728.63	728.63	728.63
8000222	RIC-3	NA	NA	2,430.89	2,452.24	2,452.24	2,452.24	2,452.24	2,452.24
8000182	ADA-3	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
SUBTOTAL:		11,630	7,210	5,952.35	6,004.62	6,004.62	6,004.62	6,004.62	6,004.62
CALIFORNIA COUNTRY CLUB (1)									
1902529	CLUB	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
1902531	ARTES	1,129	700	0.00	0.00	0.00	0.00	0.00	0.00
1903084	SYC	1,290	800	0.00	0.00	0.00	0.00	0.00	0.00
SUBTOTAL:		2,420	1,500	0.00	0.00	0.00	0.00	0.00	0.00
CALIFORNIA DOMESTIC WATER COMPANY (2)									
1901181	2	5,404	3,350	1,901.04	2,122.55	2,440.93	2,440.93	2,727.48	2,727.48
1901182	1-E	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
1901183	5	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
1901185	13-N	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
1902967	6	6,452	4,000	2,921.09	3,261.46	3,750.68	3,750.68	4,190.97	4,190.97
1903057	3	7,259	4,500	6,358.01	7,098.85	8,163.68	8,163.68	9,122.03	9,122.03
1903081	8	4,839	3,000	1,469.42	1,640.64	1,886.73	1,886.73	2,108.22	2,108.22
8000100	5A	6,452	4,000	5,087.98	5,680.84	6,532.96	6,532.96	7,299.88	7,299.88
8000174	14	4,516	2,800	0.00	0.00	0.00	0.00	0.00	0.00
8000223	10	8,065	5,000	175.24	195.66	225.01	225.01	251.42	251.42
1900092	NA	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
SUBTOTAL:		42,986	26,650	17,912.78	20,000.00	23,000.00	23,000.00	25,700.00	25,700.00

APPENDIX A

PROJECTED GROUNDWATER DEMANDS FROM 2017-18 TO 2021-22

RECORDATION NUMBER	WELL NAME	WELL CAPACITY		2016-17 PRODUCTION	PROJECTED GROUNDWATER DEMANDS					
		ACRE-FEET	GPM		2017-18	2018-19	2019-20	2020-21	2021-22	
CARRIER CORPORATION (1)										
--	--	--	--	19.66	30.00	30.00	30.00	30.00	30.00	30.00
SUBTOTAL:		--	--	19.66	30.00	30.00	30.00	30.00	30.00	30.00
CEDAR AVENUE MUTUAL WATER COMPANY										
1901411	1	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1902783	2	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SUBTOTAL:		0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CEMEX CONSTRUCTION MATERIALS L.P. (AZ-TWO INC.)										
1900038	2	2,305	1,429	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SUBTOTAL:		2,305	1,429	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CHAMPION MUTUAL WATER COMPANY (SAN GABRIEL VALLEY WATER COMPANY)										
1900908	1	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1902816	2	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8000121	3	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SUBTOTAL:		0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CHEVRON USA										
1900250	TEMP1	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SUBTOTAL:		NA	NA	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CITRUS VALLEY MEDICAL CENTER, QUEEN OF THE VALLEY CAMPUS (QUEEN OF THE VALLEY HOSPITAL) (1)										
8000138	NA	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SUBTOTAL:		NA	NA	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CLAYTON MANUFACTURING COMPANY										
1901055	2	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8000170	MW-4	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SUBTOTAL:		NA	NA	0.00	0.00	0.00	0.00	0.00	0.00	0.00
COINER, JAMES W., DBA COINER NURSERY (WOODLAND FARMS INC.) (1)										
1902951	3	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1903072	5R	NA	NA	62.51	100.00	100.00	100.00	100.00	100.00	100.00
SUBTOTAL:		NA	NA	62.51	100.00	100.00	100.00	100.00	100.00	100.00
COLLISON, E.O.										
1902968	NA	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SUBTOTAL:		NA	NA	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CORCORAN BROS.										

APPENDIX A

PROJECTED GROUNDWATER DEMANDS FROM 2017-18 TO 2021-22

RECORDATION NUMBER	WELL NAME	WELL CAPACITY		2016-17 PRODUCTION	PROJECTED GROUNDWATER DEMANDS				
		ACRE-FEET	GPM		2017-18	2018-19	2019-20	2020-21	2021-22
1902814	1	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
SUBTOTAL:		NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
COUNTY SANITATION DISTRICT NO. 18 (1)									
8000008	2	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
8000009	3	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
8000104	LE 1	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
8000105	LE 2	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
8000106	LE 3	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
8000107	LE 4	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
8000128	EO8A	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
8000129	E09A	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
8000130	E10A	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
8000131	E11A	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
8000141	EX1	NA	NA	0.34	0.33	0.33	0.33	0.33	0.33
8000142	EX2	NA	NA	0.03	0.03	0.03	0.03	0.03	0.03
8000143	EX3	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
8000144	EX4	NA	NA	0.01	0.01	0.01	0.01	0.01	0.01
8000153	E16A	NA	NA	0.56	0.55	0.55	0.55	0.55	0.55
8000154	E17A	NA	NA	3.94	3.86	3.86	3.86	3.86	3.86
8000155	E18A	NA	NA	0.64	0.63	0.63	0.63	0.63	0.63
8000156	E19A	NA	NA	0.93	0.91	0.91	0.91	0.91	0.91
8000173	E20A	NA	NA	0.77	0.75	0.75	0.75	0.75	0.75
8000161	E01R	NA	NA	0.12	0.12	0.12	0.12	0.12	0.12
8000162	E03R	NA	NA	0.04	0.04	0.04	0.04	0.04	0.04
8000163	E05R	NA	NA	0.59	0.58	0.58	0.58	0.58	0.58
8000164	E07R	NA	NA	0.83	0.81	0.81	0.81	0.81	0.81
8000165	E02R	NA	NA	1.51	1.48	1.48	1.48	1.48	1.48
8000166	E04R	NA	NA	0.32	0.31	0.31	0.31	0.31	0.31
8000167	E06R	NA	NA	0.16	0.16	0.16	0.16	0.16	0.16
8000168	E08R	NA	NA	0.46	0.45	0.45	0.45	0.45	0.45
NA	WRP FL E	NA	NA	9.15	8.97	8.97	8.97	8.97	8.97
SUBTOTAL:		NA	NA	20.40	20.00	20.00	20.00	20.00	20.00
COVINA, CITY OF									
1901685	1	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
1901686	2	968	600	0.00	0.00	0.00	0.00	0.00	0.00
1901687	3	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
SUBTOTAL:		968	600	0.00	0.00	0.00	0.00	0.00	0.00
COVINA IRRIGATING COMPANY (2)									
1900881	CONTR	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
1900882	3 BAL	2,903	1,800	0.00	1,000.00	1,200.00	1,300.00	1,600.00	1,800.00
1900883	2 BAL	2,581	1,600	0.00	750.00	1,000.00	1,200.00	1,200.00	1,600.00
1900885	1 BAL	2,097	1,300	0.00	800.00	1,000.00	1,200.00	1,600.00	1,600.00
1900880	VALEN	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
SUBTOTAL:		7,581	4,700	0.00	2,550.00	3,200.00	3,700.00	4,400.00	5,000.00
CREVOLIN, A.J.									
8000011	NA	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
SUBTOTAL:		NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
CROWN CITY PLATING COMPANY									
8000012	01	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
SUBTOTAL:		NA	NA	0.00	0.00	0.00	0.00	0.00	0.00

APPENDIX A

PROJECTED GROUNDWATER DEMANDS FROM 2017-18 TO 2021-22

RECORDATION NUMBER	WELL NAME	WELL CAPACITY		2016-17 PRODUCTION	PROJECTED GROUNDWATER DEMANDS				
		ACRE-FEET	GPM		2017-18	2018-19	2019-20	2020-21	2021-22
DAVIDSON OPTRONICS INC.									
8000013	NA	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
SUBTOTAL:		NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
DAWES, MARY K.									
1902952	04	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
SUBTOTAL:		NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
DEFALCO, JOHN & CAROLE									
8000194	NA	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
SUBTOTAL:		NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
DEL RIO MUTUAL WATER COMPANY (1)									
1900331	BURKE	261	162	105.00	100.00	100.00	100.00	100.00	100.00
1900332	KLING	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
SUBTOTAL:		261	162	105.00	100.00	100.00	100.00	100.00	100.00
DRIFTWOOD DAIRY									
1902924	01	298	185	0.00	0.00	0.00	0.00	0.00	0.00
SUBTOTAL:		298	185	0.00	0.00	0.00	0.00	0.00	0.00
DUNNING, GEORGE									
1900091	1910	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
SUBTOTAL:		NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
EAST PASADENA WATER COMPANY, LTD. (2)									
1901508	9	2,420	1,500	146.15	144.56	147.45	148.93	150.42	151.92
8000217	11	2,420	1,500	1,164.19	1,151.55	1,174.59	1,186.33	1,198.18	1,210.18
SUBTOTAL:		4,839	3,000	1,310.34	1,296.11	1,322.04	1,335.26	1,348.60	1,362.10
EL MONTE, CITY OF (1)									
1901692	2A	1,532	950	805.64	769.35	769.35	769.35	769.35	769.35
1901693	3	807	500	0.00	0.00	0.00	0.00	0.00	0.00
1901694	4	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
1901695	5	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
1901699	10	2,420	1,500	859.03	820.34	820.34	820.34	820.34	820.34
1901700	11	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
1902612	MT VW	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
1903137	12	3,468	2,150	492.09	469.93	469.93	469.93	469.93	469.93
8000066	--	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
8000101	13	4,678	2,900	47.52	45.38	45.38	45.38	45.38	45.38
SUBTOTAL:		12,904	8,000	2,204.28	2,105.00	2,105.00	2,105.00	2,105.00	2,105.00
EL MONTE CEMETERY ASSOCIATION									
8000017	NA	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
SUBTOTAL:		NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
FRUIT STREET WATER COMPANY									
1901199	NA	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
SUBTOTAL:		NA	NA	0.00	0.00	0.00	0.00	0.00	0.00

APPENDIX A

PROJECTED GROUNDWATER DEMANDS FROM 2017-18 TO 2021-22

RECORDATION NUMBER	WELL NAME	WELL CAPACITY		2016-17 PRODUCTION	PROJECTED GROUNDWATER DEMANDS				
		ACRE-FEET	GPM		2017-18	2018-19	2019-20	2020-21	2021-22
GATES, JAMES RICHARD (1)									
8000215	NA	NA	NA	0.87	5.00	5.00	5.00	5.00	5.00
SUBTOTAL:		NA	NA	0.87	5.00	5.00	5.00	5.00	5.00
GLENDORA, CITY OF (1)									
1900826	11-E	1,452	900	11.61	12.54	12.54	12.54	12.54	12.54
1900827	12-G	3,226	2,000	3,780.98	4,082.73	4,082.73	4,082.73	4,082.73	4,082.73
1900828	10-E	1,048	650	19.37	20.92	20.92	20.92	20.92	20.92
1900829	8-E	2,742	1,700	1,615.80	1,744.75	1,744.75	1,744.75	1,744.75	1,744.75
1900830	9-E	2,742	1,700	1,743.10	1,882.21	1,882.21	1,882.21	1,882.21	1,882.21
1900831	7-G	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
1901523	1-E	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
1901524	4-E	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
1901525	3-G	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
1901526	2-E	807	500	112.56	121.54	121.54	121.54	121.54	121.54
8000003	--	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
8000149	5-E	2,903	1,800	2,418.97	2,612.02	2,612.02	2,612.02	2,612.02	2,612.02
8000184	13-E	1,290	800	299.40	323.29	323.29	323.29	323.29	323.29
SUBTOTAL:		16,211	10,050	10,001.79	10,800.00	10,800.00	10,800.00	10,800.00	10,800.00
GOEDERT, LILLIAN									
8000027	GOEDERT	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
SUBTOTAL:		NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
GOLDEN STATE WATER COMPANY (SOUTHERN CALIFORNIA WATER COMPANY)/SAN DIMAS DISTRICT (1)									
1902148	BAS-3	968	600	313.75	309.99	309.99	309.99	309.99	309.99
1902149	BAS-4	1,210	750	309.94	306.22	306.22	306.22	306.22	306.22
1902150	HIGHWAY	1,129	700	469.71	464.08	464.08	464.08	464.08	464.08
1902151	ART-1	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
1902152	ART-2	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
1902154	L H-2	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
1902266	COL-1	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
1902267	COL-2	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
1902268	COL-4	726	450	176.65	174.53	174.53	174.53	174.53	174.53
1902269	COL-5	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
1902270	COL-6	686	425	0.00	0.00	0.00	0.00	0.00	0.00
1902271	COL-7	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
1902272	COL-8	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
1902286	CITY	323	200	150.01	148.21	148.21	148.21	148.21	148.21
1902842	ART-3	403	250	139.23	137.56	137.56	137.56	137.56	137.56
1902287	MALON	605	375	481.74	475.96	475.96	475.96	475.96	475.96
8000212	HIGHWAY 2	1,613	1,000	445.23	439.89	439.89	439.89	439.89	439.89
SUBTOTAL:		7,662	4,750	2,486.26	2,456.44	2,456.44	2,456.44	2,456.44	2,456.44
GOLDEN STATE WATER COMPANY (SOUTHERN CALIFORNIA WATER COMPANY)/SAN GABRIEL DISTRICT (1)									
1900510	1 S G	1,774	1,100	1,284.81	1,267.65	1,267.65	1,267.65	1,267.65	1,267.65
1900511	2 S G	1,452	900	288.61	284.76	284.76	284.76	284.76	284.76
1900512	2 GAR	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
1900513	1 GAR	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
1900514	3 SAX	565	350	148.70	146.71	146.71	146.71	146.71	146.71
1900515	1 SAX	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
8000146	4 SAX	1,532	950	120.99	119.37	119.37	119.37	119.37	119.37
1902144	1 EAR	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
1902017	1 JEF	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
1902018	2 JEF	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
1902019	3 JEF	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
1902020	1 AZU	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
1902024	1 ENC	1,936	1,200	383.38	378.26	378.26	378.26	378.26	378.26
1902027	1 PER	697	432	118.63	117.05	117.05	117.05	117.05	117.05
1902030	1 GRA	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
1902031	2 GID	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
1902032	1 GID	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
1902034	1 FAR	1,936	1,200	287.64	283.80	283.80	283.80	283.80	283.80
1902035	2 ENC	968	600	702.78	693.40	693.40	693.40	693.40	693.40
1902461	2 GRA	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00

APPENDIX A

PROJECTED GROUNDWATER DEMANDS FROM 2017-18 TO 2021-22

RECORDATION NUMBER	WELL NAME	WELL CAPACITY		2016-17 PRODUCTION	PROJECTED GROUNDWATER DEMANDS				
		ACRE-FEET	GPM		2017-18	2018-19	2019-20	2020-21	2021-22
1902948	2 FAR	1,210	750	129.41	127.68	127.68	127.68	127.68	127.68
8000073	3 ENC	1,048	650	501.04	494.35	494.35	494.35	494.35	494.35
8000111	4 JEF	2,097	1,300	754.79	744.71	744.71	744.71	744.71	744.71
8000221	3 GAR			511.32	504.49	504.49	504.49	504.49	504.49
SUBTOTAL:		9,891	6,132	5,232.10	5,162.23	5,162.23	5,162.23	5,162.23	5,162.23
GOULD ELECTRONICS INC. AND JOHNSON CONTROLS INC. (1)									
	SEW	NA	NA	43.09	31.55	31.55	31.55	31.55	31.55
	DEW	NA	NA	789.46	578.12	578.12	578.12	578.12	578.12
SUBTOTAL:		NA	NA	832.55	609.67	609.67	609.67	609.67	609.67
GREEN, WALTER									
8000027	NA	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
8000028	NA	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
SUBTOTAL:		NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
HANSEN, ALICE									
8000029	2946	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
SUBTOTAL:		NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
HANSON AGGREGATES WEST, INC. (LIVINGSTON-GRAHAM) (1)									
1900961	1 DUA	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
1900963	1 KIN	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
1901492	1 EL	3,302	2,047	51.16	44.03	44.03	44.03	44.03	44.03
1901493	3 EL	4,563	2,829	116.03	99.87	99.87	99.87	99.87	99.87
1903006	4 EL	356	221	0.00	0.00	0.00	0.00	0.00	0.00
SUBTOTAL:		8,221	5,097	167.19	143.90	143.90	143.90	143.90	143.90
HARTLEY, DAVID									
8000029	NA	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
SUBTOTAL:		NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
HEMLOCK MUTUAL WATER COMPANY (1)									
1901178	NORTH	219	136	30.45	30.62	30.62	30.62	30.62	30.62
1902806	SOUTH	516	320	36.74	36.94	36.94	36.94	36.94	36.94
SUBTOTAL:		736	456	67.19	67.56	67.56	67.56	67.56	67.56
HERMETIC SEAL CORPORATION (1)									
--	--	NA	NA	53.07	54.12	54.12	54.12	54.12	54.12
SUBTOTAL:		NA	NA	53.07	54.12	54.12	54.12	54.12	54.12
INDUSTRY WATERWORKS SYSTEM, CITY OF (2)									
1902581	1	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
1902582	2	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
1902583	5TH AVE	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
8000078	3	2,420	1,500	0.00	0.00	0.00	0.00	0.00	0.00
8000096	4	3,871	2,400	0.00	0.00	0.00	0.00	0.00	0.00
8000097	5	1,936	1,200	1,707.17	1,920.00	1,920.00	1,920.00	1,920.00	1,920.00
SUBTOTAL:		8,226	5,100	1,707.17	1,920.00	1,920.00	1,920.00	1,920.00	1,920.00
KIYAN, HIDEO									
1902970	NA	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
SUBTOTAL:		NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
LA PUENTE VALLEY COUNTY WATER DISTRICT (2)									
1901459	1	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
1901460	2	2,016	1,250	50.70	4.00	4.00	4.00	4.00	4.00

APPENDIX A

PROJECTED GROUNDWATER DEMANDS FROM 2017-18 TO 2021-22

RECORDATION NUMBER	WELL NAME	WELL CAPACITY		2016-17 PRODUCTION	PROJECTED GROUNDWATER DEMANDS				
		ACRE-FEET	GPM		2017-18	2018-19	2019-20	2020-21	2021-22
1902859	3	2,016	1,250	61.49	4.00	4.00	4.00	4.00	4.00
8000062	4	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
8000209	5	4,033	2,500	3,403.37	3,628.00	3,628.00	3,628.00	3,628.00	3,628.00
SUBTOTAL:		8,065	5,000	3,515.56	3,636.00	3,636.00	3,636.00	3,636.00	3,636.00
LA VERNE, CITY OF									
1902322	SNIDO	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
SUBTOTAL:		NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
LAKIN, KELLY									
8000158	NA	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
SUBTOTAL:		NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
LANDEROS, JOHN									
8000031	NA	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
SUBTOTAL:		NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
LOS ANGELES, COUNTY OF (1)									
1902579	1 WHI	2,710	1,680	0.00	0.00	0.00	0.00	0.00	0.00
1902580	2	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
1902663	3	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
1902664	4	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
1902665	5	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
1902666	6	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
8000070	1 SF	3,349	2,076	785.92	699.27	699.27	699.27	699.27	699.27
8000074	2 SF	458	284	21.25	18.91	18.91	18.91	18.91	18.91
8000088	B RED	174	108	0.00	0.00	0.00	0.00	0.00	0.00
8000089	N LK	1,323	820	0.00	0.00	0.00	0.00	0.00	0.00
8000090	600	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
1902158	BN PK	2,087	1,294	0.00	0.00	0.00	0.00	0.00	0.00
8000150	3A	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
NA	WNOU	NA	NA	3,408.80	3,032.95	3,032.95	3,032.95	3,032.95	3,032.95
SUBTOTAL:		10,101	6,262	4,215.97	3,751.12	3,751.12	3,751.12	3,751.12	3,751.12
LOS FLORES MUTUAL WATER COMPANY									
1902098	1-LO	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
21902098	1-HI	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
SUBTOTAL:		NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
LOUCKS, DAVID									
8000032	NA	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
SUBTOTAL:		NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
MAECHTLEN, J.J. TRUSTEE									
1902321	OLD60	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
1902322	SNIDO	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
1902323	M & N	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
SUBTOTAL:		NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
MANNING BROS. ROCK & SAND COMPANY									
1900117	36230	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
SUBTOTAL:		NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
MAPLE WATER COMPANY (SUBURBAN WATER SYSTEMS)									
1900042	2	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
8000109	1	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
SUBTOTAL:		NA	NA	0.00	0.00	0.00	0.00	0.00	0.00

APPENDIX A

PROJECTED GROUNDWATER DEMANDS FROM 2017-18 TO 2021-22

RECORDATION NUMBER	WELL NAME	WELL CAPACITY		2016-17 PRODUCTION	PROJECTED GROUNDWATER DEMANDS				
		ACRE-FEET	GPM		2017-18	2018-19	2019-20	2020-21	2021-22
MARTINEZ, FRANCES MERCY									
8000033	NA	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
SUBTOTAL:		NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA									
1900693	2	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
1900694	3	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
SUBTOTAL:		NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
MILLERCOORS LLC (MILLER BREWERIES WEST, L.P. /MILLER BREWING COMPANY) (1)									
8000034	--	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
8000075	1	5,533	3,430	450.86	400.00	400.00	400.00	400.00	400.00
8000076	2	5,533	3,430	0.00	0.00	0.00	0.00	0.00	0.00
SUBTOTAL:		11,065	6,860	450.86	400.00	400.00	400.00	400.00	400.00
MONROVIA, CITY OF (1)									
1900417	1	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
1900418	2	2,742	1,700	469.40	452.48	452.48	452.48	452.48	452.48
1900419	3	2,742	1,700	1,118.33	1,078.02	1,078.02	1,078.02	1,078.02	1,078.02
1900420	4	2,903	1,800	884.24	852.37	852.37	852.37	852.37	852.37
1940104	5	3,871	2,400	1,975.48	1,904.27	1,904.27	1,904.27	1,904.27	1,904.27
8000171	6	3,871	2,400	2,133.07	2,056.18	2,056.18	2,056.18	2,056.18	2,056.18
SUBTOTAL:		16,130	10,000	6,580.52	6,343.32	6,343.32	6,343.32	6,343.32	6,343.32
MONROVIA NURSERY									
1902456	DIV 4	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
SUBTOTAL:		NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
MONTEREY PARK, CITY OF (1)									
1900453	1	968	600	26.87	26.67	26.67	26.67	26.67	26.67
1900454	2	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
1900455	3	968	600	0.00	0.00	0.00	0.00	0.00	0.00
1900456	4	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
1900457	5	2,903	1,800	568.63	564.34	564.34	564.34	564.34	564.34
1900458	6	968	600	0.00	0.00	0.00	0.00	0.00	0.00
1902372	7	1,290	800	0.00	0.00	0.00	0.00	0.00	0.00
1902373	8	2,903	1,800	0.00	0.00	0.00	0.00	0.00	0.00
1902690	9	2,903	1,800	5.41	5.37	5.37	5.37	5.37	5.37
1902818	10	2,903	1,800	1,017.59	1,009.91	1,009.91	1,009.91	1,009.91	1,009.91
1903033	12	3,226	2,000	3,213.89	3,189.64	3,189.64	3,189.64	3,189.64	3,189.64
1903092	14	1,129	700	0.00	0.00	0.00	0.00	0.00	0.00
8000126	FERN	1,613	1,000	178.55	177.20	177.20	177.20	177.20	177.20
8000196	15	3,226	2,000	2,525.18	2,506.13	2,506.13	2,506.13	2,506.13	2,506.13
SUBTOTAL:		25,002	15,500	7,536.12	7,479.27	7,479.27	7,479.27	7,479.27	7,479.27
MUNOZ, RALPH (1)									
MUNOZ	8000219	--	--	2.51	5.00	5.00	5.00	5.00	5.00
SUBTOTAL:		--	--	2.51	5.00	5.00	5.00	5.00	5.00
NAMIMATSU FARMS INC.									
1901034	NA	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
SUBTOTAL:		NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
NICK TOMOVICH & SON									
8000037	NA	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
SUBTOTAL:		NA	NA	0.00	0.00	0.00	0.00	0.00	0.00

APPENDIX A

PROJECTED GROUNDWATER DEMANDS FROM 2017-18 TO 2021-22

RECORDATION NUMBER	WELL NAME	WELL CAPACITY		2016-17 PRODUCTION	PROJECTED GROUNDWATER DEMANDS				
		ACRE-FEET	GPM		2017-18	2018-19	2019-20	2020-21	2021-22
NO. 17 WALNUT PLACE MUTUAL WATER COMPANY									
8000038	NA	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
SUBTOTAL:		NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
OWL ROCK PRODUCTS (ROBERTSON'S READY MIX)									
1900043	NA	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
1902241	NA	3,205	1,987	0.00	0.00	0.00	0.00	0.00	0.00
1903119	NA	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
SUBTOTAL:		3,205	1,987	0.00	0.00	0.00	0.00	0.00	0.00
PARK WATER CO.									
1901307	26-A	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
8000039	NA	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
SUBTOTAL:		NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
PICO COUNTY WATER DISTRICT									
8000040	NA	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
SUBTOTAL:		NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
POLOPOLUS, ET AL									
1902169	1	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
SUBTOTAL:		NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
RICHWOOD MUTUAL WATER COMPANY									
1901521	1 SOUTH	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
1901522	2 NORTH	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
SUBTOTAL:		NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
ROWLAND WATER DISTRICT (1)									
--	--	NA	NA	58.29	65.00	65.00	65.00	65.00	65.00
SUBTOTAL:		NA	NA	58.29	65.00	65.00	65.00	65.00	65.00
RURBAN HOMES MUTUAL WATER COMPANY (1)									
1900120	1-NORTH	726	450	143.98	142.67	142.67	142.67	142.67	142.67
1900121	2-SOUTH	484	300	0.00	0.00	0.00	0.00	0.00	0.00
SUBTOTAL:		1,210	750	143.98	142.67	142.67	142.67	142.67	142.67
RUTH, ROY									
8000041	NA	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
SUBTOTAL:		NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
S.L.S. & N. INC. (1)									
8000151	NA	NA	NA	25.79	14.20	14.20	14.20	14.20	14.20
SUBTOTAL:		NA	NA	25.79	14.20	14.20	14.20	14.20	14.20
SAN GABRIEL COUNTRY CLUB (1)									
1900547	1	226	140	23.31	25.70	25.70	25.70	25.70	25.70
1902979	2	750	465	248.76	274.30	274.30	274.30	274.30	274.30
SUBTOTAL:		976	605	272.07	300.00	300.00	300.00	300.00	300.00

APPENDIX A

PROJECTED GROUNDWATER DEMANDS FROM 2017-18 TO 2021-22

RECORDATION NUMBER	WELL NAME	WELL CAPACITY		2016-17 PRODUCTION	PROJECTED GROUNDWATER DEMANDS				
		ACRE-FEET	GPM		2017-18	2018-19	2019-20	2020-21	2021-22
SAN GABRIEL COUNTY WATER DISTRICT (1)									
1901669	5 BRA	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
1901670	6 BRA	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
1901671	7	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
1901672	8	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
1902785	9	1,613	1,000	1,439.33	1,572.89	1,572.89	1,572.89	1,572.89	1,572.89
1902786	10	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
8000067	11	1,452	900	23.56	25.75	25.75	25.75	25.75	25.75
8000123	12	4,033	2,500	1,359.26	1,485.39	1,485.39	1,485.39	1,485.39	1,485.39
8000133	14	3,871	2,400	1,315.21	1,437.25	1,437.25	1,437.25	1,437.25	1,437.25
8000220	15	3,871	2,400	1,124.39	1,228.72	1,228.72	1,228.72	1,228.72	1,228.72
SUBTOTAL:		14,840	9,200	5,261.75	5,750.00	5,750.00	5,750.00	5,750.00	5,750.00
SAN GABRIEL VALLEY WATER COMPANY (2)									
1900725	G4A	1,519	942	218.63	160.00	160.00	160.00	160.00	160.00
1900733	5A	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
1902635	B1	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
8000112	B5C	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
8000038	--	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
1900729	1B	2,471	1,532	1.81	20.00	20.00	20.00	20.00	20.00
1902946	1C	3,268	2,026	1.61	20.00	20.00	20.00	20.00	20.00
8000081	1B4	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
8000082	1B5	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
8000102	1D	3,902	2,419	2,258.89	1,158.00	1,226.00	1,274.00	1,274.00	1,274.00
1900749	2C	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
1902857	2D	3,653	2,265	1,889.21	1,258.00	1,326.00	1,374.00	1,374.00	1,374.00
8000065	2E	3,758	2,330	20.71	100.00	100.00	100.00	100.00	100.00
1900736	8A	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
1900746	8B	1,887	1,170	9.42	4.00	4.00	4.00	4.00	4.00
1900747	8C	2,420	1,500	897.40	1,050.00	1,050.00	1,050.00	1,050.00	1,050.00
1903103	8D	4,370	2,709	1,322.96	1,050.00	1,050.00	1,050.00	1,050.00	1,050.00
8000113	8E	4,412	2,735	31.93	20.00	20.00	20.00	20.00	20.00
1900739	11A	3,574	2,216	1,237.38	1,002.00	1,002.00	1,002.00	1,002.00	1,002.00
1900745	11B	2,894	1,794	1.49	20.00	20.00	20.00	20.00	20.00
1902713	11C	1,665	1,032	70.81	20.00	20.00	20.00	20.00	20.00
8000083	11B7	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
1902858	B4B	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
1902947	B4C	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
1900718	B5A	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
1900719	B5B	4,624	2,867	4,180.66	5,646.00	5,646.00	5,646.00	5,646.00	5,646.00
1900721	B6B	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
1903093	B6C	3,268	2,026	0.03	4.00	4.00	4.00	4.00	4.00
8000084	B6B2	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
8000098	B6D	3,184	1,974	0.74	4.00	4.00	4.00	4.00	4.00
1902525	B2	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
8000122	B7E	807	500	1.67	50.00	50.00	50.00	50.00	50.00
1901435	B7A	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
1901436	B8	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
1901437	B9	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
1901439	B11A	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
1901440	B7B	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
8000068	B7C	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
8000094	B7D	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
8000099	B9B	1,079	669	438.01	50.00	50.00	50.00	50.00	50.00
8000108	B11B	3,371	2,090	982.81	50.00	50.00	50.00	50.00	50.00
8000172	1E	4,666	2,893	1,164.76	1,158.00	1,226.00	1,274.00	1,274.00	1,274.00
8000160	B5D	3,755	2,328	62.25	100.00	100.00	100.00	100.00	100.00
8000169	8F	4,983	3,089	23.93	20.00	20.00	20.00	20.00	20.00
NA	G4B	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
NA	1F	NA	NA	0.00	20.00	20.00	20.00	20.00	20.00
8000197	2F	NA	1,887	463.17	120.00	120.00	120.00	120.00	120.00
NA	B11C	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
8000203	B24A	3,992	2,475	43.93	50.00	50.00	50.00	50.00	50.00
8000204	B24B	3,763	2,333	7.28	50.00	50.00	50.00	50.00	50.00
8000187	B25A	3,041	1,885	3,656.89	4,033.00	4,033.00	4,033.00	4,033.00	4,033.00
8000188	B25B	4,589	2,845	4,095.53	4,033.00	4,033.00	4,033.00	4,033.00	4,033.00
8000189	B26A	1,195	741	877.80	1,210.00	1,210.00	1,210.00	1,210.00	1,210.00
8000190	B26B	2,197	1,362	1,515.03	1,210.00	1,210.00	1,210.00	1,210.00	1,210.00
8000205	B5E	5,212	3,231	3,679.93	5,646.00	5,646.00	5,646.00	5,646.00	5,646.00
NA	11D	NA	NA	0.00	20.00	20.00	20.00	20.00	20.00
NA	B24C	NA	NA	0.00	20.00	20.00	20.00	20.00	20.00
NA	B24D	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
SUBTOTAL:		93,519	59,865	29,156.67	29,376.00	29,580.00	29,724.00	29,724.00	29,724.00

APPENDIX A

PROJECTED GROUNDWATER DEMANDS FROM 2017-18 TO 2021-22

RECORDATION NUMBER	WELL NAME	WELL CAPACITY		2016-17 PRODUCTION	PROJECTED GROUNDWATER DEMANDS				
		ACRE-FEET	GPM		2017-18	2018-19	2019-20	2020-21	2021-22
SLOAN RANCHES									
1901198	1	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
8000045	2	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
SUBTOTAL:		NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
SIERRA LA VERNE COUNTRY CLUB (1)									
8000124	1	NA	NA	0.00	7.29	7.29	7.29	7.29	7.29
8000125	2	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
8000192	15 OFFSITE	NA	NA	0.00	2.30	2.30	2.30	2.30	2.30
SUBTOTAL:		NA	NA	0.00	9.59	9.59	9.59	9.59	9.59
SIERRA MADRE, CITY OF (1)									
8000193	NA	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
SUBTOTAL:		NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
SONOCO PRODUCTS COMPANY (1)									
1912786	1	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
1902971	2	NA	NA	69.42	79.13	79.13	79.13	79.13	79.13
8000137	2	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
SUBTOTAL:		NA	NA	69.42	79.13	79.13	79.13	79.13	79.13
SOUTH COVINA WATER SERVICE									
1901606	102	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
SUBTOTAL:		NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
SOUTH PASADENA, CITY OF (1)									
1901679	GRAV 2	1,137	705	108.61	106.56	106.56	106.56	106.56	106.56
1901681	2 WIL	1,936	1,200	0.00	0.00	0.00	0.00	0.00	0.00
1901682	3 WIL	3,161	1,960	2,169.16	2,128.22	2,128.22	2,128.22	2,128.22	2,128.22
1903086	4 WIL	1,774	1,100	1,173.37	1,151.22	1,151.22	1,151.22	1,151.22	1,151.22
SUBTOTAL:		8,009	4,965	3,451.14	3,386.00	3,386.00	3,386.00	3,386.00	3,386.00
SOUTHERN CALIFORNIA EDISON COMPANY (1)									
1900342	1EB86	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
1900343	2EB76	211	131	0.00	0.00	0.00	0.00	0.00	0.00
8000046	110RH	NA	NA	0.10	0.55	0.55	0.55	0.55	0.55
8000047	MURAT	2,420	1,500	0.00	0.00	0.00	0.00	0.00	0.00
11900344	38EIS	1,415	877	0.00	0.00	0.00	0.00	0.00	0.00
21900344	38W	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
SUBTOTAL:		4,045	2,508	0.10	0.55	0.55	0.55	0.55	0.55
STERLING MUTUAL WATER COMPANY (1)									
1902085	SOUTH	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00

APPENDIX A

PROJECTED GROUNDWATER DEMANDS FROM 2017-18 TO 2021-22

RECORDATION NUMBER	WELL NAME	WELL CAPACITY		2016-17 PRODUCTION	PROJECTED GROUNDWATER DEMANDS				
		ACRE-FEET	GPM		2017-18	2018-19	2019-20	2020-21	2021-22
1902096	NORTH	397	246	36.94	48.92	48.92	48.92	48.92	48.92
8000132	NEW SO	436	270	49.83	44.62	44.62	44.62	44.62	44.62
SUBTOTAL:		832	516	86.77	93.54	93.54	93.54	93.54	93.54
SUBURBAN WATER SYSTEMS (1)									
1900337	152W1	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
1901429	201W1	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
1901430	201W2	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
1901431	201W3	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
1901432	201W5	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
1901433	201W4	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
1901434	201W6	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
1901596	147W1	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
1901597	142W1	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
1901598	139W1	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
1901599	139W2	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
1901600	139W3	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
1901602	140W1	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
1901604	148W1	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
1901608	105W1	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
1901609	106W1	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
1901610	111W1	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
1901611	112W1	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
1901612	113W1	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
1901613	114W1	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
1901614	117W1	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
1901615	120W1	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
1901616	122W1	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
1901617	123W1	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
1901618	124W1	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
1901619	125W1	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
1901620	126W1	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
1901621	131W1	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
1901622	133W1	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
1901623	134W1	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
1901624	135W1	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
1901625	136W1	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
1901627	202W1	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
1902119	149W1	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
1902519	150W1	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
1902760	147W2	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
1902761	153W1	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
1902762	154W1	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
1902763	157W1	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
1903067	140W3	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
8000069	139W4	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
8000077	147W3	1,936	1,200	680.48	735.90	735.90	735.90	735.90	735.90
8000087	125W2	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
8000092	126W2	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
8000093	140W4	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
8000145	140W5	4,516	2,800	1,116.11	1,207.02	1,207.02	1,207.02	1,207.02	1,207.02
8000095	139W5	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
8000152	139W6	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
1902518	151W1	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
1902819	155W1	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
1902820	155W2	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
1901605	101W1	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
1901607	103W1	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
8000181	121W1	2,742	1,700	1,688.03	1,825.52	1,825.52	1,825.52	1,825.52	1,825.52
8000183	142W2	4,033	2,500	4,159.93	4,498.75	4,498.75	4,498.75	4,498.75	4,498.75
8000195	201W7	4,839	3,000	2,818.55	3,048.12	3,048.12	3,048.12	3,048.12	3,048.12
8000198	201W8	4,516	2,800	2,160.71	2,336.70	2,336.70	2,336.70	2,336.70	2,336.70
8000207	151W2	5,162	3,200	4,845.87	5,240.56	5,240.56	5,240.56	5,240.56	5,240.56

APPENDIX A

PROJECTED GROUNDWATER DEMANDS FROM 2017-18 TO 2021-22

RECORDATION NUMBER	WELL NAME	WELL CAPACITY		2016-17 PRODUCTION	PROJECTED GROUNDWATER DEMANDS				
		ACRE-FEET	GPM		2017-18	2018-19	2019-20	2020-21	2021-22
8000208	201W9	5,162	3,200	3,912.09	4,230.73	4,230.73	4,230.73	4,230.73	4,230.73
8000210	201W10	5,807	3,600	1,729.36	1,870.22	1,870.22	1,870.22	1,870.22	1,870.22
SUBTOTAL:		38,712	24,000	23,111.13	24,993.52	24,993.52	24,993.52	24,993.52	24,993.52
SUNNY SLOPE WATER COMPANY (2)									
1900026	8	2,724	1,689	575.89	679.01	679.01	679.01	679.01	679.01
1902792	9	2,710	1,680	581.00	685.03	685.03	685.03	685.03	685.03
8000048	10	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
8000157	13	2,845	1,764	1,023.81	1,207.13	1,207.13	1,207.13	1,207.13	1,207.13
SUBTOTAL:		8,280	5,133	2,180.70	2,571.17	2,571.17	2,571.17	2,571.17	2,571.17
TEXACO INC.									
1900001	14	519	322	0.00	0.00	0.00	0.00	0.00	0.00
SUBTOTAL:		519	322	0.00	0.00	0.00	0.00	0.00	0.00
TRAN, HIEU (1)									
TRAN	8000218	NA	NA	4.99	5.00	5.00	5.00	5.00	5.00
SUBTOTAL:		NA	NA	4.99	5.00	5.00	5.00	5.00	5.00
TYLER NURSERY									
8000049	NA	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
SUBTOTAL:		NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
UNITED CONCRETE PIPE CORPORATION									
8000067	NA	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
SUBTOTAL:		NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
UNITED ROCK PRODUCTS CORPORATION (1)									
1900106	IRW-1	NA	NA	289.01	288.87	288.87	288.87	288.87	288.87
1902532	SIERRA	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
1903062	IRW-2	NA	NA	11.14	11.13	11.13	11.13	11.13	11.13
SUBTOTAL:		NA	NA	300.15	300.00	300.00	300.00	300.00	300.00
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY									
NA	EW4-3	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
NA	EW4-4	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
NA	EW4-8	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
NA	EW4-9	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
SUBTOTAL:		0	0	0.00	0.00	0.00	0.00	0.00	0.00
VALENCIA HEIGHTS WATER COMPANY (2)									
8000051	1	NA	NA	639.89	0.00	0.00	0.00	0.00	0.00
8000052	2	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
8000054	4	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
8000055	3A	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
8000120	5	565	350	0.00	161.18	163.03	172.24	172.24	172.24
8000180	6	1,129	700	0.00	322.37	326.05	344.47	344.47	344.47
8000211	7	1,371	850	0.00	391.45	395.92	418.29	418.29	418.29
SUBTOTAL:		3,065	1,900	639.89	875.00	885.00	935.00	935.00	935.00
VALECITO WATER COMPANY									
1901435	1	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
1901436	2	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
1901437	3	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
1901438	4	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00

APPENDIX A

PROJECTED GROUNDWATER DEMANDS FROM 2017-18 TO 2021-22

RECORDATION NUMBER	WELL NAME	WELL CAPACITY		2016-17 PRODUCTION	PROJECTED GROUNDWATER DEMANDS					
		ACRE-FEET	GPM		2017-18	2018-19	2019-20	2020-21	2021-22	
1901439	5	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00	
1901440	6	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00	
SUBTOTAL:		NA	NA	0.00	0.00	0.00	0.00	0.00	0.00	
VALLEY COUNTY WATER DISTRICT (3)										
1900027	E MAIN	2,742	1,700	1,696.65	1,461.78	1,461.78	1,461.78	1,461.78	1,461.78	
1900028	W MAIN	1,855	1,150	1,053.24	988.85	988.85	988.85	988.85	988.85	
1900029	MORADA	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00	
1900031	PADDY	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00	
1900032	E NIXON (JOAN)	4,194	2,600	1,781.43	2,235.66	2,235.66	2,235.66	2,235.66	2,235.66	
1900034	ARROW	NA	2,500	0.00	4,033.00	4,033.00	4,033.00	4,033.00	4,033.00	
1900035	B DAL	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00	
1901307	11	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00	
1902356	W NIXON (JOAN)	3,629	2,250	2,306.92	1,934.71	1,934.71	1,934.71	1,934.71	1,934.71	
8000039	PALM	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00	
8000060	LANTE (SA1-3)	4,033	2,500	2,864.57	4,033.00	4,033.00	4,033.00	4,033.00	4,033.00	
8000185	SA1-1	1,613	1,000	474.47	1,613.00	1,613.00	1,613.00	1,613.00	1,613.00	
8000186	SA1-2	0	0	0.00	0.00	0.00	0.00	0.00	0.00	
SUBTOTAL:		18,066	13,700	10,177.28	16,300.00	16,300.00	16,300.00	16,300.00	16,300.00	
VALLEY VIEW MUTUAL WATER COMPANY (2)										
1900363	1	310	192	0.00	0.00	0.00	0.00	0.00	0.00	
1900364	2	766	475	527.20	532.00	532.00	532.00	532.00	532.00	
1900365	3	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00	
SUBTOTAL:		1,076	667	527.20	532.00	532.00	532.00	532.00	532.00	
VIA TRUST										
1903012	1	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00	
SUBTOTAL:		NA	NA	0.00	0.00	0.00	0.00	0.00	0.00	
VIETNAMESE AMERICAN BUDDHIST TEMPLE (1)										
8000191	NA	NA	NA	3.27	5.00	5.00	5.00	5.00	5.00	
SUBTOTAL		NA	NA	3.27	5.00	5.00	5.00	5.00	5.00	
VULCAN MATERIALS COMPANY (CALMAT COMPANY) (1)										
1902920	E DUR	6,386	3,959	0.00	0.00	0.00	0.00	0.00	0.00	
1903088	1 REL	4,068	2,522	217.10	213.14	213.14	213.14	213.14	213.14	
8000063	W DUR	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00	
NA	TEMP/NEW PERM	NA	NA	458.84	450.48	450.48	450.48	450.48	450.48	
SUBTOTAL:		10,454	6,481	675.94	663.62	663.62	663.62	663.62	663.62	
WHITTIER, CITY OF (1)										
1901745	9	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00	
1901746	10	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00	
1901747	11	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00	
1901748	12	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00	
1901749	13	1,774	1,100	307.93	309.94	309.94	309.94	309.94	309.94	
8000021	FROM	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00	
8000071	15	5,968	3,700	1,640.88	1,651.57	1,651.57	1,651.57	1,651.57	1,651.57	
8000110	16	7,259	4,500	1,583.81	1,594.13	1,594.13	1,594.13	1,594.13	1,594.13	
8000135	17	6,452	4,000	1.86	1.87	1.87	1.87	1.87	1.87	
8000136	18	6,452	4,000	29.55	29.74	29.74	29.74	29.74	29.74	
SUBTOTAL:		27,905	17,300	3,564.03	3,587.25	3,587.25	3,587.25	3,587.25	3,587.25	

APPENDIX A

PROJECTED GROUNDWATER DEMANDS FROM 2017-18 TO 2021-22

RECORDATION NUMBER	WELL NAME	WELL CAPACITY		2016-17 PRODUCTION	PROJECTED GROUNDWATER DEMANDS				
		ACRE-FEET	GPM		2017-18	2018-19	2019-20	2020-21	2021-22
WILMOTT, ERMA M.									
8000006	1	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
SUBTOTAL:		NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
WOODLAND, RICHARD									
1902949	1	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
1902950	2	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
SUBTOTAL:		NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
WORKMAN MILL INVESTMENT COMPANY (RINCON DITCH COMPANY) (1)									
1902790	4	2,153	1,335	0.00	100.00	100.00	100.00	100.00	100.00
SUBTOTAL:		2,153	1,335	0.00	100.00	100.00	100.00	100.00	100.00
WORKMAN MILL INVESTMENT COMPANY (RINCON IRRIGATION COMPANY) (1)									
1900132	1	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
1900095	2	1,428	885	0.00	0.00	0.00	0.00	0.00	0.00
SUBTOTAL:		1,428	885	0.00	0.00	0.00	0.00	0.00	0.00
WORKMAN MILL INVESTMENT COMPANY (ROSE HILLS MEMORIAL PARK) (1)									
1900052	3	1,192	739	0.00	0.00	0.00	0.00	0.00	0.00
1900094	1	673	417	0.00	403.02	403.02	403.02	403.02	403.02
SUBTOTAL:		1,865	1,156	0.00	403.02	403.02	403.02	403.02	403.02
TOTAL		533,574	335,183	184,449.55	199,212.18	203,009.67	203,630.62	207,140.83	207,853.36

NOTES :

GROUNDWATER PRODUCTION AND DEMANDS IN ACRE-FEET

GPM : GALLONS PER MINUTE

NA : NOT AVAILABLE

(1) GROUNDWATER DEMANDS PROJECTED BY WATERMASTER

(2) PROJECTED GROUNDWATER DEMANDS PROVIDED BY PRODUCER

(3) PROJECTED GROUNDWATER DEMANDS PROVIDED BY PRODUCER AND ADJUSTED BY WATERMASTER

APPENDIX B.

SIMULATED CHANGES IN GROUNDWATER ELEVATIONS AT WELLS OR WELLFIELDS IN MAIN SAN GABRIEL BASIN

APPENDIX B

SIMULATED CHANGES IN GROUNDWATER ELEVATION AT WELLS OR WELLFIELDS IN MAIN SAN GABRIEL BASIN

WELL OR WELLFIELD	RECORDATION NUMBER	WELL STATUS	SIMULATED ELEVATION (1)		CHANGE (2) (FEET)
			2016-17	2021-22	
ALHAMBRA, CITY OF					
MOEL (08)	1900010	Active	119.16	118.93	-0.23
09	1900011	Active	121.89	121.88	-0.01
10	1900012	Inactive	119.81	119.51	-0.30
12	1900013	Active	120.16	120.02	-0.14
13	1900014	Inactive	121.34	120.79	-0.55
14	1900015	Active	119.73	119.13	-0.60
15	1900016	Active	128.56	128.18	-0.38
LON 1	1903014	Active	128.15	127.36	-0.79
LON 2	1900017	Active			
GARF	1900018	Inactive	121.14	121.13	-0.01
11	1903014	Active	120.30	120.21	-0.09
07	1903097	Active	118.75	118.53	-0.22
AMARILLO MUTUAL WATER COMPANY					
01	1900791	Active	146.79	146.76	-0.03
02	1900792	Active			
ARCADIA, CITY OF					
LON 1	1901013	Active	176.95	176.87	-0.08
LON 2	1901014	Active	177.00	176.87	-0.13
CAM REAL 3	8000213	Active	175.95	176.63	0.68
ST JO 2	8000177	Active	200.34	200.36	0.02
BAL 2	1902791	Inactive	153.37	153.37	0.00
PECK 1	1902854	Active	170.12	169.67	-0.45
L OAK 1	8000127	Active	168.14	168.95	0.81
LGY 3	8000214	Active	160.71	160.75	0.04
AZUSA, CITY OF (AZUSA AGRICULTURE WATER COMPANY, AZUSA VALLEY WATER COMPANY)					
05 (01)	1902533	Active	569.77	569.06	-0.71
06 (03)	1902535	Active	575.79	575.24	-0.55
GENESIS 2 (05)	1902537	Inactive	234.57	234.57	0.00
01 (07)	8000072	Active	614.61	613.47	-1.14
03 (08)	8000086	Active	629.30	628.74	-0.56
02 (1 NORTH)	1902457	Active	628.92	628.44	-0.48
04 (2 SOUTH)	1902458	Active	615.69	614.72	-0.97
08 (AVWC 04)	1902115	Active	575.20	575.21	0.01
07 (AVWC 05)	1902116	Active	570.73	570.29	-0.44
09 (AVWC 06)	1902117	Inactive	239.62	239.61	-0.01
10 (AVWC 08)	8000103	Active	236.95	236.93	-0.02
11	8000178	Active	635.31	635.17	-0.14
12	8000179	Active	644.00	644.00	0.00

APPENDIX B

SIMULATED CHANGES IN GROUNDWATER ELEVATION AT WELLS OR WELLFIELDS IN MAIN SAN GABRIEL BASIN

WELL OR WELLFIELD	RECORDATION NUMBER	WELL STATUS	SIMULATED ELEVATION (1)		CHANGE (2) (FEET)
			2016-17	2021-22	
CALIFORNIA-AMERICAN WATER COMPANY/DUARTE SYSTEM					
STA FE	1900354	Active	212.23	212.26	0.03
B V	1900355	Inactive			
B V 2	8000216	Active	208.18	208.23	0.05
FISH C	1900358	Inactive	624.09	623.85	-0.24
WILEY	1902907	Active	581.69	581.73	0.04
CR HV	1903018	Active	208.87	208.91	0.04
ENCANTO	8000139	Active	579.86	579.86	0.00
LAS L2	8000140	Active	549.19	549.23	0.04
BACON	1900497	Active	561.31	561.35	0.04
CALIFORNIA-AMERICAN WATER COMPANY/SAN MARINO SYSTEM					
GUESS	1900918	Inactive	144.25	144.24	-0.01
MIVW 2	1900920	Active	147.28	147.28	0.00
GRAND	1900926	Active	138.47	138.43	-0.04
ROSEMEAD	1900927	Inactive	137.78	137.74	-0.04
ROANOKE	1900934	Inactive	122.25	122.25	0.00
LONGDEN	1900935	Active	119.49	118.24	-1.25
HOWLAND	1902424	Active	153.79	153.80	0.01
MAR 3	1903019	Active	153.15	153.15	0.00
DELMAR	1903059	Active	129.98	129.70	-0.28
HALL 2	8000175	Active	157.23	157.24	0.01
CALIFORNIA COUNTRY CLUB					
ARTES	1902531	Standby	171.56	171.56	0.00
SYCAMORE	1903084	Standby	171.56	171.57	0.01
CALIFORNIA DOMESTIC WATER COMPANY					
02	1901181	Active	163.68	160.14	-3.54
06	1902967	Active	164.44	161.35	-3.09
03	1903057	Active	164.26	160.69	-3.57
08	1903081	Active	166.01	163.44	-2.57
05A	8000100	Active	164.78	162.23	-2.55
14	8000174	Active	165.27	161.73	-3.54
CARRIER CORPORATION					
NA	NA	Active	331.69	331.62	-0.07
CITRUS VALLEY MEDICAL CENTER, QUEEN OF THE VALLEY CAMPUS (QUEEN OF THE VALLEY HOSPITAL)					
NA	8000138	Inactive	182.06	181.98	-0.08
COINER, JAMES W., DBA COINER NURSERY (WOODLAND FARM INC.)					
03	1902951	Inactive	169.40	168.40	-1.00
05R	1903072	Active	170.34	170.01	-0.33
COVINA, CITY OF					
01	1901685	Inactive	238.95	238.95	0.00
02 (GRAND)	1901686	Inactive	367.90	367.90	0.00

APPENDIX B

SIMULATED CHANGES IN GROUNDWATER ELEVATION AT WELLS OR WELLFIELDS IN MAIN SAN GABRIEL BASIN

WELL OR WELLFIELD	RECORDATION NUMBER	WELL STATUS	SIMULATED ELEVATION (1)		CHANGE (2) (FEET)
			2016-17	2021-22	
COVINA IRRIGATING COMPANY					
BAL 3	1900882	Inactive	178.93	177.74	-1.19
BAL 1	1900885	Inactive	179.21	178.56	-0.65
BAL 2	1900883	Inactive			
CROWN CITY PLATING COMPANY					
01	8000012	Inactive	152.99	152.99	0.00
DEL RIO MUTUAL WATER COMPANY					
BURKETT	1900331	Active	169.83	169.82	-0.01
DRIFTWOOD DAIRY					
01	1902924	Inactive	160.97	161.20	0.23
EAST PASADENA WATER COMPANY, LTD.					
09	1901508	Active	149.73	149.68	-0.05
11	8000217	Active			
EL MONTE, CITY OF					
02A	1901692	Active	162.46	162.49	0.03
03	1901693	Inactive	163.17	163.19	0.02
04	1901694	Inactive	163.82	163.83	0.01
10	1901699	Active	163.97	163.97	0.00
12	1903137	Active	161.11	161.14	0.03
13	8000101	Active	161.38	161.41	0.03
GLENDORA, CITY OF					
11-E	1900826	Active	547.52	547.52	0.00
08-E	1900829	Active	595.41	594.37	-1.04
09-E	1900830	Active			
12-G	1900827	Active			
10-E	1900828	Active	551.18	551.18	0.00
07-G	1900831	Inactive	238.46	238.46	0.00
13-E	8000184	Active			
02-E	1901526	Active	553.13	553.12	-0.01
03-G	1901525	Inactive	210.03	210.01	-0.02
04-E	1901524	Inactive			
05-E	8000149	Active	596.54	596.11	-0.43
GOLDEN STATE WATER COMPANY (SOUTHERN CALIFORNIA WATER COMPANY)/SAN DIMAS DISTRICT					
BAS-3	1902148	Active	901.43	901.45	0.02
BAS-4	1902149	Active	883.28	883.32	0.04
HIGHWAY	1902150	Active	906.90	906.92	0.02
HIGHWAY 2	8000212	Active	907.88	907.90	0.02
ART-3	1902842	Active	889.94	889.99	0.05
COL-4	1902268	Active	608.81	608.81	0.00
COL-6	1902270	Inactive	607.48	607.48	0.00
COL-8	1902272	Inactive	776.63	776.63	0.00
CITY	1902286	Active	1024.77	1024.77	0.00
MALON	1902287	Active	998.47	998.49	0.02

APPENDIX B

SIMULATED CHANGES IN GROUNDWATER ELEVATION AT WELLS OR WELLFIELDS IN MAIN SAN GABRIEL BASIN

WELL OR WELLFIELD	RECORDATION NUMBER	WELL STATUS	SIMULATED ELEVATION (1)		CHANGE (2) (FEET)
			2016-17	2021-22	
GOLDEN STATE WATER COMPANY (SOUTHERN CALIFORNIA WATER COMPANY)/SAN GABRIEL VALLEY DISTRICT					
S G 1	1900510	Active	134.80	134.90	0.10
S G 2	1900511	Active			
SAX 3	1900514	Active	132.10	131.94	-0.16
SAX 4	8000146	Active			
EARL 1	1902144	Inactive	149.48	149.50	0.02
JEF 4	8000111	Active	178.92	178.99	0.07
ENC 1	1902024	Active	146.16	146.17	0.01
ENC 2	1902035	Active	145.02	145.03	0.01
ENC 3	8000073	Active			
PER 1	1902027	Active	160.78	160.99	0.21
GRA 2	1902461	Inactive			
FAR 1	1902034	Active	166.53	166.77	0.24
FAR 2	1902948	Active	165.76	166.01	0.25
GOULD ELECTRONICS INC. AND JOHNSON CONTROLS INC.					
NA	SEW	Active	150.97	150.94	-0.03
NA	DEW	Active	147.04	147.00	-0.04
HANSON AGGREGATES WEST, INC. (LIVINGSTON-GRAHAM)					
EL 4	1903006	Inactive	178.38	178.39	0.01
EL 1	1901492	Active	178.92	178.94	0.02
EL 3	1901493	Active			
HARTLEY, DAVID					
NA	8000085	Inactive	726.82	726.82	0.00
HEMLOCK MUTUAL WATER COMPANY					
NORTH	1901178	Active	169.78	169.80	0.02
SOUTH	1902806	Active			
INDUSTRY WATERWORKS SYSTEM, CITY OF					
01	1902581	Inactive	169.36	168.52	-0.84
03	8000078	Standby			
04	8000096	Standby			
02	1902582	Inactive			
05	8000097	Active	169.54	168.92	-0.62
LA PUENTE VALLEY COUNTY WATER DISTRICT					
02	1901460	Active	174.26	174.24	-0.02
04	8000062	Standby			
03	1902859	Active	174.64	174.63	-0.01
05	NA	Active			
LOS ANGELES, COUNTY OF					
KEY WELL	3030F	Monitoring	177.93	177.88	-0.05
WHI 1	1902579	Inactive	169.13	169.03	-0.10
SF 1	8000070	Active	203.19	203.19	0.00
BIG RED	8000088	Inactive	171.67	171.61	-0.06
NEW LAKE	8000089	Inactive	168.76	168.66	-0.10
MILLERCOORS LLC (MILLER BREWERIES WEST, L.P./MILLER BREWING COMPANY)					
01	8000075	Active	209.62	209.66	0.04
02	8000076	Inactive	210.31	210.34	0.03

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SIMULATED CHANGES IN GROUNDWATER ELEVATION AT WELLS OR WELLFIELDS IN MAIN SAN GABRIEL BASIN

WELL OR WELLFIELD	RECORDATION NUMBER	WELL STATUS	SIMULATED ELEVATION (1)		CHANGE (2) (FEET)
			2016-17	2021-22	
MONROVIA, CITY OF					
02	1900418	Active	179.74	179.86	0.12
03	1900419	Active			
04	1900420	Active	185.04	185.11	0.07
05	1940104	Active	182.41	182.50	0.09
06	8000171	Active	182.27	182.36	0.09
MONTEREY PARK, CITY OF					
01	1900453	Active	146.58	146.60	0.02
03	1900455	Inactive	143.66	143.70	0.04
05	1900457	Active	139.56	139.64	0.08
06	1900458	Inactive	142.05	142.12	0.07
07	1902372	Inactive	154.60	154.63	0.03
08	1902373	Inactive	155.61	155.64	0.03
09	1902690	Active	154.63	154.65	0.02
10	1902818	Active	136.94	137.00	0.06
12	1903033	Active	154.05	154.08	0.03
14	1903092	Inactive	151.74	151.76	0.02
FERN	8000126	Active	144.14	144.19	0.05
15	8000196	Active	155.80	155.83	0.03
OWL ROCK PRODUCTS COMPANY					
NA	1902241	Inactive	181.20	181.20	0.00
NA	1903119	Active	604.17	603.77	-0.40
POLOPOLUS ET AL.					
01	1902169	Inactive	179.16	178.90	-0.26
ROWLAND WATER DISTRICT					
NA	NA	Active	331.69	331.62	-0.07
RURBAN HOMES MUTUAL WATER COMPANY					
NORTH 1	1900120	Active	170.07	170.16	0.09
SOUTH 2	1900121	Inactive			
SAN GABRIEL COUNTRY CLUB					
01	1900547	Active	127.95	127.17	-0.78
02	1902979	Active			
SAN GABRIEL COUNTY WATER DISTRICT					
05 BRA	1901669	Inactive	141.85	141.84	-0.01
08	1901672	Inactive	121.49	121.49	0.00
09	1902785	Active	132.38	132.11	-0.27
10	1902786	Inactive	134.35	134.24	-0.11
11	8000067	Active	135.10	134.98	-0.12
12	8000123	Active	135.41	135.29	-0.12
14	8000133	Active	127.95	127.62	-0.33
15	8000220	Active	124.06	123.12	-0.94

APPENDIX B

SIMULATED CHANGES IN GROUNDWATER ELEVATION AT WELLS OR WELLFIELDS IN MAIN SAN GABRIEL BASIN

WELL OR WELLFIELD	RECORDATION NUMBER	WELL STATUS	SIMULATED ELEVATION (1)		CHANGE (2) (FEET)
			2016-17	2021-22	
SAN GABRIEL VALLEY WATER COMPANY					
G4A	1900725	Active	145.96	145.85	-0.11
B1	1902635	Inactive	172.58	172.57	-0.01
B5A	1900718	Inactive			
B5B	1900719	Active	167.92	165.97	-1.95
B5C	8000112	Inactive			
B5D	8000160	Active	168.59	166.75	-1.84
B5E	NA	Active	167.05	164.87	-2.18
B25A	8000187	Active	163.76	163.27	-0.49
B25B	8000188	Active			
B26A	8000189	Active	170.56	170.51	-0.05
B26B	8000190	Active			
8A	1900736	Inactive			
8B	1900746	Active	156.06	156.12	0.06
8C	1900747	Active			
8E	8000113	Active			
8D	1903103	Active	155.98	156.04	0.06
8F	8000169	Active			
1B	1900729	Active	166.29	166.91	0.62
1C	1902946	Active			
1D	8000102	Active			
1E	8000172	Active			
2D	1902857	Active	162.86	163.50	0.64
2E	8000065	Active			
2F	8000197	Active			
11A	1900739	Active	170.58	170.69	0.11
11B	1900745	Active			
11C	1902713	Active	169.58	169.97	0.39
B4B	1902858	Inactive	168.21	168.03	-0.18
B4C	1902947	Inactive			
B6C	1903093	Active	174.08	174.07	-0.01
B6D	8000098	Active			
B7C	8000068	Inactive			
B7E	8000122	Active	200.86	201.20	0.34
B2	1902525	Inactive	173.06	173.04	-0.02
B11A	1901439	Inactive			
B11B	8000108	Active	191.72	192.61	0.89
B9B	8000099	Active	188.16	189.04	0.88
B24A	8000203	Active	204.23	204.47	0.24
B24B	8000204	Active			
SIERRA LA VERNE COUNTRY CLUB					
01	8000124	Inactive	1054.91	1054.89	-0.02
02	8000125	Inactive	1065.82	1065.81	-0.01
SONOCO PRODUCTS COMPANY					
01	1912786	Inactive			
02	1902971	Inactive			
2	8000137	Active	170.33	169.97	-0.36
SOUTH PASADENA, CITY OF					
GRAV 2	1901679	Active	121.48	121.48	0.00
WIL 2	1901681	Inactive	120.84	120.83	-0.01
WIL 3	1901682	Active	121.11	121.09	-0.02
WIL 4	1903086	Active			

APPENDIX B

SIMULATED CHANGES IN GROUNDWATER ELEVATION AT WELLS OR WELLFIELDS IN MAIN SAN GABRIEL BASIN

WELL OR WELLFIELD	RECORDATION NUMBER	WELL STATUS	SIMULATED ELEVATION (1)		CHANGE (2) (FEET)
			2016-17	2021-22	
SOUTHERN CALIFORNIA EDISON COMPANY					
110RH	8000046	Active	180.68	180.69	0.01
STERLING MUTUAL WATER COMPANY					
NEW SO. NORTH	8000132 1902096	Active Active	166.56	166.69	0.13
SUBURBAN WATER SYSTEMS					
121W-1	8000181	Active	187.01	186.93	-0.08
125W-2	8000087	Inactive	229.52	229.57	0.05
126W-2	8000092	Inactive	234.07	234.14	0.07
139W-2	1901599	Inactive	178.79	178.75	-0.04
139W-4	8000069	Inactive			
139W-5	8000095	Inactive	178.44	178.40	-0.04
139W-6	8000152	Inactive			
140W-3	1903067	Standby			
140W-4	8000093	Inactive			
140W-5	8000145	Active	177.74	177.69	-0.05
142W-2	8000183	Active	183.60	183.46	-0.14
147W-3	8000077	Active	195.53	196.22	0.69
151W-2	8000207	Active	183.76	183.57	-0.19
155W-1	1902819	Inactive	277.15	277.15	0.00
201W-9	8000208	Active	167.55	167.05	-0.50
201W-7	8000195	Active	168.00	167.59	-0.41
201W-8	8000198	Active	168.54	168.14	-0.40
201W-10	8000210	Active	170.15	169.88	-0.27
SUNNY SLOPE WATER COMPANY					
08	1900026	Active	138.57	138.30	-0.27
09	1902792	Active			
10	8000048	Inactive	146.23	146.20	-0.03
13	8000157	Active	138.68	138.40	-0.28
TYLER NURSERY					
NA	8000049	Inactive	168.17	168.16	-0.01
UNITED ROCK PRODUCTS CORPORATION					
IRW-1	1900106	Active	187.71	187.72	0.01
IRW-2	1903062	Active	189.40	189.41	0.01
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY					
MW4-1	NA	Monitoring	172.37	172.37	0.00
MW4-2	NA	Monitoring	171.96	171.97	0.01
MW4-3	NA	Monitoring	191.45	191.45	0.00
MW4-4	NA	Monitoring	169.68	169.66	-0.02
MW4-5	NA	Monitoring	167.96	168.05	0.09
MW4-6	NA	Monitoring	168.75	168.85	0.10
MW4-7	NA	Monitoring	173.64	173.65	0.01
MW4-8	NA	Monitoring	173.85	173.85	0.00
MW4-9	NA	Monitoring	174.04	174.05	0.01
MW4-10	NA	Monitoring	165.99	166.01	0.02

APPENDIX B

SIMULATED CHANGES IN GROUNDWATER ELEVATION AT WELLS OR WELLFIELDS IN MAIN SAN GABRIEL BASIN

WELL OR WELLFIELD	RECORDATION NUMBER	WELL STATUS	SIMULATED ELEVATION (1)		CHANGE (2) (FEET)
			2016-17	2021-22	
MW4-11	NA	Monitoring	168.16	168.14	-0.02
MW5-1	NA	Monitoring	170.18	170.12	-0.06
MW5-3	NA	Monitoring	171.88	171.85	-0.03
MW5-5	NA	Monitoring	173.17	173.18	0.01
MW5-8	NA	Monitoring	179.75	179.39	-0.36
MW5-11	NA	Monitoring	191.68	191.36	-0.32
MW5-13	NA	Monitoring	173.71	173.70	-0.01
MW5-15	NA	Monitoring	174.39	174.39	0.00
MW5-17	NA	Monitoring	196.52	196.33	-0.19
MW5-18	NA	Monitoring	210.79	210.76	-0.03
MW5-19	NA	Monitoring	176.41	176.38	-0.03
MW5-20	NA	Monitoring	203.12	203.06	-0.06
MW5-22	NA	Monitoring	198.89	198.75	-0.14
MW5-23	NA	Monitoring	168.97	166.92	-2.05
MW6-1	NA	Monitoring	172.91	172.88	-0.03
MW6-2	NA	Monitoring	169.82	169.32	-0.50
MW6-4	NA	Monitoring	167.39	166.97	-0.42
MW6-5	NA	Monitoring	179.01	179.03	0.02
MW6-6	NA	Monitoring	171.97	171.97	0.00
MW6-7	NA	Monitoring	216.37	216.42	0.05
MW6-8	NA	Monitoring	217.29	217.35	0.06
EW4-3	NA	Remedial	167.81	167.88	0.07
EW4-4	NA	Remedial	168.06	168.23	0.17
EW4-5	8000200	Remedial	167.98	168.17	0.19
EW4-9	NA	Remedial			
EW4-6	8000201	Remedial	169.22	169.22	0.00
EW4-10	NA	Remedial			
EW4-7	8000202	Remedial	168.26	168.41	0.15
EW4-8	NA	Remedial	167.69	167.76	0.07
VALENCIA HEIGHTS WATER COMPANY					
06	8000180	Active			
04	8000054	Inactive	226.53	226.55	0.02
05	8000120	Active	267.96	267.52	-0.44
07	8000211	Active			
VALLEY COUNTY WATER DISTRICT					
E MAINE	1900027	Active	178.27	178.22	-0.05
W MAINE	1900028	Active			
MORADA	1900029	Inactive	200.34	200.27	-0.07
E NIXON (JOAN)	1900032	Active	177.71	177.69	-0.02
W NIXON (JOAN)	1902356	Active			
ARROW	1900034	Inactive			
LANTE (SA1-3)	8000060	Active	183.39	181.89	-1.50
PALM	8000039	Inactive	176.96	176.95	-0.01
B DALTON	1900035	Inactive	176.80	176.75	-0.05
PADDY LN	1900031	Inactive	174.59	174.58	-0.01
SA1-1	8000185	Active	185.39	184.52	-0.87
SA1-2	8000186	Inactive	182.18	181.19	-0.99

APPENDIX B

SIMULATED CHANGES IN GROUNDWATER ELEVATION AT WELLS OR WELLFIELDS IN MAIN SAN GABRIEL BASIN

WELL OR WELLFIELD	RECORDATION NUMBER	WELL STATUS	SIMULATED ELEVATION (1)		CHANGE (2) (FEET)
			2016-17	2021-22	
VALLEY VIEW MUTUAL WATER COMPANY					
01	1900363	Active			
02	1900364	Active	178.76	178.80	0.04
VULCAN MATERIALS COMPANY (CALMAT COMPANY)					
REL 1	1903088	Active	206.99	207.00	0.01
WHITTIER, CITY OF					
13	1901749	Active	169.58	169.40	-0.18
15	8000071	Active	168.66	168.47	-0.19
16	8000110	Active	168.24	168.01	-0.23
17	8000135	Active			
18	8000136	Active	167.60	167.37	-0.23
WOODLAND, RICHARD					
01	1902949	Inactive	169.05	167.94	-1.11
02	1902950	Inactive			
WORKMAN MILL INVESTMENT COMPANY (RINCON DITCH COMPANY)					
04	1902790	Inactive	170.48	170.13	-0.35
WORKMAN MILL INVESTMENT COMPANY (RINCON IRRIGATION COMPANY)					
02	1900095	Inactive	170.44	170.18	-0.26
WORKMAN MILL INVESTMENT COMPANY (ROSE HILLS MEMORIAL PARK)					
03	1900052	Inactive	170.33	170.04	-0.29
01	1900094	Inactive	172.00	171.50	-0.50
AVERAGE CHANGE					-0.20

(1) SIMULATED ELEVATION IN FEET ABOVE MEAN SEA LEVEL
(2) DIFFERENCE BETWEEN 2021-22 AND 2016-17 SIMULATED ELEVATIONS

APPENDIX C.

HIGHLIGHTS OF VOLATILE ORGANIC COMPOUNDS AND NITRATE CONCENTRATIONS AND WELLS VULNERABLE TO CONTAMINATION

**APPENDIX C
HIGHLIGHTS OF VOLATILE ORGANIC COMPOUNDS, NITRATE, AND PERCHLORATE CONCENTRATIONS
AND WELLS VULNERABLE TO CONTAMINATION (AS OF MAY 31, 2017)**

WELL NAME	USAGE	STATUS	CONCENTRATION (NITRATE IN MG/L, OTHERS IN UG/L)				REMARKS	
			CONTAMINANT OF CONCERN	HISTORIC HIGH		MOST RECENT		
				VALUE	DATE	VALUE		DATE
ADAMS RANCH MUTUAL WATER COMPANY								
01	MUNICIPAL	INACTIVE	TCE	2.2	05/88	ND	02/97	
			NITRATE (NO3)	97.0	04/92	38.9	02/97	
			NITRATE (N)	21.9	04/92	8.8	02/97	
			CLO4	NA	NA	NA	NA	
02	MUNICIPAL	INACTIVE	TCE	3.5	08/86	2.5	09/86	
			NITRATE (NO3)	NA	NA	NA	NA	
			NITRATE (N)	NA	NA	NA	NA	
			CLO4	NA	NA	NA	NA	
03	MUNICIPAL	INACTIVE	TCE	22.0	05/15	14	02/16	VULNERABLE (VOCS) (1)
			PCE	10.0	05/15	6.6	02/16	
			NITRATE (NO3)	21.0	03/04	20.0	05/15	
			NITRATE (N)	4.7	03/04	4.5	05/15	
			CLO4	ND	08/08	ND	02/16	
			AS	ND	05/03	ND	05/15	
			CR6	1.1	08/13	1.1	08/13	
ALHAMBRA, CITY OF								
07	MUNICIPAL	ACTIVE	TCE	13.4	08/91	13.0	05/17	VULNERABLE (VOCS AND NITRATE) (1)
			PCE	0.8	04/07	0.5	05/17	
			C-1,2-DCE	1.6	02/05	1.4	05/17	
			CTC	0.6	02/85	ND	05/17	
			NITRATE (NO3)	53.2	07/93	44.3	05/17	
			NITRATE (N)	12.0	07/93	10.0	05/17	
			CLO4	2.4	10/07	ND	05/17	
			AS	0.7	07/96	ND	05/17	
			CR6	9.0	07/01	8.3	05/17	
09	MUNICIPAL	ACTIVE	TCE	21.1	08/08	2.8	04/17	VULNERABLE (VOCS, NITRATE, AND CLO4)
			C-1,2-DCE	2.3	10/07	ND	04/17	
			NITRATE (NO3)	62.0	12/16	57.5	05/17	
			NITRATE (N)	14.0	12/16	13.0	05/17	
			CLO4	4.7	02/14	ND	05/17	
			AS	0.9	07/96	ND	01/17	
			CR6	5.7	12/05	4.7	01/17	
10	IRRIGATION	INACTIVE	TCE	30.1	02/09	22.0	10/10	
			C-1,2-DCE	5.8	03/05	ND	10/10	
			1,1-DCE	0.5	03/05	ND	10/10	
			NITRATE (NO3)	56.3	01/07	55.0	10/10	
			NITRATE (N)	12.7	01/07	12.4	10/10	
			CLO4	ND	08/97	ND	08/97	
11	MUNICIPAL	ACTIVE	PCE	4.7	05/12	3.4	05/17	VULNERABLE (VOCS AND NITRATE) (1)
			TCE	4.2	05/89	0.5	07/16	
			C-1,2-DCE	1.5	04/08	ND	07/16	
			NITRATE (NO3)	48.0	10/12	38.5	07/16	
			NITRATE (N)	10.8	10/12	8.7	07/16	
			CLO4	ND	08/97	ND	05/17	
			AS	0.8	07/96	ND	04/15	
CR6	7.7	06/01	5.4	09/13				
12	MUNICIPAL	ACTIVE	TCE	39.4	08/08	30.0	05/17	VULNERABLE (VOCS AND NITRATE) (1)
			PCE	1.7	01/14	1.7	05/17	
			C-1,2-DCE	41.0	05/17	41.0	05/17	
			1,1-DCE	0.8	09/08	0.8	05/17	
			T-1,2-DCE	0.9	09/08	ND	05/17	
			NITRATE (NO3)	42.0	01/14	9.7	05/17	
			NITRATE (N)	9.5	01/14	2.2	05/17	
			CLO4	ND	08/08	ND	04/17	
			AS	ND	08/89	ND	07/14	
			CR6	3.6	09/13	3.6	09/13	
13	MUNICIPAL	INACTIVE	TCE	0.5	08/07	ND	04/14	
			NITRATE (NO3)	59.0	07/13	59.0	07/13	
			NITRATE (N)	13.3	07/13	13.3	07/13	
			CLO4	ND	03/97	ND	01/14	
			AS	8.0	06/78	ND	11/10	

**APPENDIX C
HIGHLIGHTS OF VOLATILE ORGANIC COMPOUNDS, NITRATE, AND PERCHLORATE CONCENTRATIONS
AND WELLS VULNERABLE TO CONTAMINATION (AS OF MAY 31, 2017)**

WELL NAME	USAGE	STATUS	CONCENTRATION (NITRATE IN MG/L, OTHERS IN UG/L)						REMARKS
			CONTAMINANT OF CONCERN	HISTORIC HIGH		MOST RECENT			
				VALUE	DATE	VALUE	DATE		
14	MUNICIPAL	ACTIVE	CR6	7.1	08/01	4.6	09/13	VULNERABLE (NITRATE)	
			TCE	2.4	08/08	0.7	05/17		
			NITRATE (NO3)	46.0	08/12	12.8	05/17		
			NITRATE (N)	10.4	08/12	2.9	05/17		
			CLO4	ND	08/97	ND	04/17		
			AS	0.6	07/96	ND	10/16		
			CR6	5.8	06/01	4.8	10/16		
15	MUNICIPAL	ACTIVE	PCE	0.8	10/14	ND	05/17	VULNERABLE (NITRATE)	
			NITRATE (NO3)	28.0	10/12	10.2	05/17		
			NITRATE (N)	6.3	10/12	2.3	05/17		
			CLO4	ND	08/97	ND	04/17		
			AS	1.5	07/96	ND	04/16		
			CR6	4.1	12/00	3.2	04/16		
GARF	MUNICIPAL	INACTIVE	TCE	11.0	08/82	ND	09/93		
			PCE	0.5	11/87	ND	09/93		
			CTC	0.1	04/80	ND	09/93		
			1,1,2,2-PCA	1.0	11/87	ND	09/93		
			NITRATE (NO3)	68.1	08/89	53.6	09/93		
			NITRATE (N)	15.4	08/89	12.1	09/93		
			CLO4	NA	NA	NA	NA		
			AS	ND	06/80	ND	08/92		
LON 1	MUNICIPAL	ACTIVE	PCE	0.3	07/81	ND	07/16	VULNERABLE (NITRATE AND CLO4)	
			NITRATE (NO3)	33.0	09/11	27.9	05/17		
			NITRATE (N)	7.5	09/11	6.3	05/17		
			CLO4	5.0	12/97	ND	04/17		
			AS	2.4	07/95	ND	07/16		
			CR6	7.2	06/01	6.4	07/16		
LON 2	MUNICIPAL	ACTIVE	PCE	1.3	06/10	ND	07/16	VULNERABLE (NITRATE AND CLO4)	
			NITRATE (NO3)	50.4	04/86	23.5	02/17		
			NITRATE (N)	11.4	04/86	5.3	02/17		
			CLO4	5.6	07/97	ND	04/17		
			AS	0.8	07/96	ND	04/17		
			CR6	9.5	06/01	6.8	04/17		
MOEL (8)	MUNICIPAL	ACTIVE	TCE	23.0	07/14	19.0	05/17	VULNERABLE (VOCS AND NITRATE) (1)	
			PCE	1.6	07/08	1.1	05/17		
			C-1,2-DCE	2.6	05/17	2.6	05/17		
			NITRATE (NO3)	76.0	07/08	53.1	05/17		
			NITRATE (N)	17.2	07/08	12.0	05/17		
			CLO4	ND	12/99	ND	08/16		
			AS	0.9	07/96	ND	08/16		
			CR6	6.6	10/14	6.6	08/16		
AMARILLO MUTUAL WATER COMPANY									
01	MUNICIPAL	ACTIVE	PCE	5.5	10/99	1.3	05/17	VULNERABLE (VOCS AND NITRATE)	
			TCE	1.3	11/14	0.6	05/17		
			CTC	0.1	08/82	ND	11/16		
			NITRATE (NO3)	27.4	10/99	15.9	05/17		
			NITRATE (N)	6.2	10/99	3.6	05/17		
			CLO4	ND	08/97	ND	08/16		
			AS	0.5	07/96	ND	08/16		
			CR6	8.6	08/16	8.6	08/16		
02	MUNICIPAL	ACTIVE	PCE	6.3	08/16	5.1	05/17	VULNERABLE (VOCS AND NITRATE)	
			TCE	2.3	08/16	1.9	05/17		
			NITRATE (NO3)	29.9	02/96	21.2	05/17		
			NITRATE (N)	6.8	02/96	4.8	05/17		
			CLO4	ND	08/97	ND	08/16		
			AS	0.4	07/96	ND	08/16		
			CR6	6.9	08/13	5.9	08/16		
ANDERSON FAMILY MARITAL TRUST									
01	DOMESTIC	INACTIVE	VOCS	NA	NA	NA	NA		
			NITRATE (NO3)	NA	NA	NA	NA		
			NITRATE (N)	NA	NA	NA	NA		

APPENDIX C
HIGHLIGHTS OF VOLATILE ORGANIC COMPOUNDS, NITRATE, AND PERCHLORATE CONCENTRATIONS
AND WELLS VULNERABLE TO CONTAMINATION (AS OF MAY 31, 2017)

WELL NAME	USAGE	STATUS	CONCENTRATION (NITRATE IN MG/L, OTHERS IN UG/L)					REMARKS
			CONTAMINANT OF CONCERN	HISTORIC HIGH		MOST RECENT		
				VALUE	DATE	VALUE	DATE	
			CLO4	NA	NA	NA	NA	
ARCADIA, CITY OF								
BAL 1	MUNICIPAL	DESTROYED	VOCS	ND	09/98	ND	09/98	
			NITRATE (NO3)	52.0	04/78	3.0	09/98	
			NITRATE (N)	11.7	04/78	0.7	09/98	
			CLO4	NA	NA	NA	NA	
BAL 2	MUNICIPAL	INACTIVE	VOCS	ND	05/89	ND	06/09	
			NITRATE (NO3)	33.4	05/08	28.0	06/09	
			NITRATE (N)	7.5	05/08	6.3	06/09	
			CLO4	ND	08/97	ND	07/08	
			AS	0.7	08/96	ND	03/09	
			CR6	11.1	06/01	11.1	06/01	
CAM REAL 1	MUNICIPAL	DESTROYED	VOCS	ND	01/85	ND	05/92	
			NITRATE (NO3)	28.1	05/91	22.4	08/92	
			NITRATE (N)	6.3	05/91	5.1	08/92	
			CLO4	NA	NA	NA	NA	
			AS	ND	03/09	ND	08/92	
CAM REAL 2	MUNICIPAL	DESTROYED	VOCS	ND	05/89	ND	06/98	
			NITRATE (NO3)	58.0	05/92	39.0	05/98	
			NITRATE (N)	13.1	05/92	8.8	05/98	
			CLO4	ND	08/97	ND	12/97	
			AS	0.4	08/96	ND	06/98	
CAM REAL 3	MUNICIPAL	ACTIVE	VOCS	ND	03/11	ND	10/16	
			NITRATE (NO3)	19.5	01/16	16.8	01/17	
			NITRATE (N)	4.4	01/16	3.8	01/17	
			CLO4	ND	03/11	ND	07/16	
			AS	ND	03/10	ND	01/16	
			CR6	6.4	09/13	4.4	01/16	
L OAK 1	MUNICIPAL	ACTIVE	PCE	1.4	01/08	ND	04/17	VULNERABLE (VOCS AND NITRATE)
			TCE	6.0	02/15	4.8	04/17	
			NITRATE (NO3)	31.0	05/15	19.5	04/17	
			NITRATE (N)	7.0	05/15	4.4	04/17	
			CLO4	ND	08/97	ND	07/16	
			AS	0.6	08/96	ND	04/17	
			CR6	3.1	04/17	3.1	04/17	
LGY	MUNICIPAL	DESTROYED	VOCS	ND	01/08	ND	01/08	
			NITRATE (NO3)	104.0	01/08	104.0	01/08	
			NITRATE (N)	23.5	01/08	23.5	01/08	
			CLO4	6.0	01/08	6.0	01/08	
LGY 3	MUNICIPAL	ACTIVE	VOCS	ND	06/11	ND	10/16	
			NITRATE (NO3)	9.3	01/15	9.3	01/17	
			NITRATE (N)	2.1	01/15	2.1	01/17	
			CLO4	ND	06/11	ND	07/16	
			AS	ND	03/11	ND	01/17	
			CR6	8.7	01/17	8.7	01/17	
LON 1	MUNICIPAL	ACTIVE	TCE	30.0	07/87	0.9	02/17	VULNERABLE (VOCS AND NITRATE) (1)
			PCE	2.7	07/87	ND	02/17	
			1,1-DCE	4.1	06/87	ND	08/16	
			1,2-DCA	1.4	07/87	ND	08/16	
			1,1,1-TCA	4.6	07/87	ND	07/16	
			NITRATE (NO3)	62.0	07/16	8.0	02/17	
			NITRATE (N)	14.0	07/16	1.8	02/17	
			CLO4	ND	12/97	ND	07/16	
			AS	ND	04/85	ND	06/14	
			CR6	1.9	11/00	1.5	09/13	
LON 2	MUNICIPAL	ACTIVE	TCE	62.0	01/85	4.7	01/17	VULNERABLE (VOCS AND NITRATE) (1)
			PCE	7.7	01/82	0.8	02/17	
			CTC	2.6	09/87	ND	08/16	
			1,1-DCE	0.9	05/87	ND	08/16	
			1,1,1-TCA	12.0	01/85	ND	07/16	
			NITRATE (NO3)	109.1	05/85	44.3	01/17	

APPENDIX C
HIGHLIGHTS OF VOLATILE ORGANIC COMPOUNDS, NITRATE, AND PERCHLORATE CONCENTRATIONS
AND WELLS VULNERABLE TO CONTAMINATION (AS OF MAY 31, 2017)

WELL NAME	USAGE	STATUS	CONCENTRATION (NITRATE IN MG/L, OTHERS IN UG/L)					REMARKS
			CONTAMINANT OF CONCERN	HISTORIC HIGH		MOST RECENT		
				VALUE	DATE	VALUE	DATE	
			NITRATE (N)	24.6	05/85	10.0	01/17	
			CLO4	ND	07/97	ND	07/16	
			AS	0.7	08/96	ND	01/16	
			CR6	4.7	01/16	4.7	01/16	
PECK 1	MUNICIPAL	ACTIVE	VOCS	ND	05/89	ND	05/17	
			NITRATE (NO3)	11.0	08/09	1.9	05/17	
			NITRATE (N)	2.5	08/09	0.4	05/17	
			CLO4	ND	08/97	ND	07/16	
			AS	2.4	09/94	ND	06/14	
			CR6	1.0	11/00	0.7	09/13	
ST JO 1	MUNICIPAL	DESTROYED	TCE	5.4	01/02	4.8	02/02	
			PCE	2.7	08/91	2.2	02/02	
			NITRATE (NO3)	60.0	06/96	46.0	06/02	
			NITRATE (N)	13.6	06/96	10.4	06/02	
			CLO4	1.0	08/97	ND	01/02	
			AS	0.3	08/96	ND	06/01	
ST JO 2	MUNICIPAL	ACTIVE	TCE	2.4	12/09	0.9	05/17	VULNERABLE (VOCS, NITRATE, AND CLO4)
			PCE	9.8	09/16	5.8	05/17	
			NITRATE (NO3)	51.0	12/04	48.7	05/17	
			NITRATE (N)	11.5	12/04	11.0	05/17	
			CLO4	8.6	06/02	ND	07/16	
			AS	ND	06/02	ND	04/17	
			CR6	3.2	11/02	2.6	04/17	
ATTALLA, MARY L.								
NA	IRRIGATION	INACTIVE	VOCS	ND	09/96	ND	04/98	
			NITRATE (NO3)	19.4	04/98	19.4	04/98	
			NITRATE (N)	4.4	04/98	4.4	04/98	
			CLO4	ND	04/98	ND	04/98	
AZUSA ASSOCIATES LLC								
DALTON	IRRIGATION	DESTROYED	VOCS	ND	03/98	ND	03/98	
			NITRATE (NO3)	4.7	03/98	4.7	03/98	
			NITRATE (N)	1.1	03/98	1.1	03/98	
			CLO4	ND	03/98	ND	03/98	
AZUSA, CITY OF								
AVWC 01	MUNICIPAL	DESTROYED	VOCS	ND	09/97	ND	09/97	
			NITRATE (NO3)	55.0	08/87	32.1	09/97	
			NITRATE (N)	12.4	08/87	7.3	09/97	
			CLO4	5.6	09/97	5.6	09/97	
AVWC 02	MUNICIPAL	DESTROYED	VOCS	ND	01/98	ND	01/98	
			NITRATE (NO3)	43.1	01/98	43.1	01/98	
			NITRATE (N)	9.7	01/98	9.7	01/98	
			CLO4	6.9	01/98	6.9	01/98	
AVWC 07	MUNICIPAL	DESTROYED	TCE	4.5	01/80	ND	03/85	
			NITRATE (NO3)	107.0	02/77	39.4	12/85	
			NITRATE (N)	24.2	02/77	8.9	12/85	
			CLO4	NA	NA	NA	NA	
GENESIS 1 (OLD 04)	MUNICIPAL	DESTROYED	MTBE	1.2	11/98	1.1	11/98	
			NITRATE (NO3)	126.6	06/87	109.8	11/98	
			NITRATE (N)	28.6	06/87	24.8	11/98	
			CLO4	7.2	11/98	7.2	11/98	
			AS	5.0	08/79	ND	02/88	
GENESIS 2 (OLD 05)	MUNICIPAL	INACTIVE	TCE	250.0	12/79	3.7	02/08	
			PCE	95.0	04/80	1.0	02/08	
			1,1-DCE	18.0	02/08	18.0	02/08	
			1,1,1-TCA	2.5	02/08	2.5	02/08	
			NITRATE (NO3)	105.5	02/93	15.9	02/08	
			NITRATE (N)	23.8	02/93	3.6	02/08	
			CLO4	ND	11/98	ND	02/08	
			AS	ND	12/89	ND	02/08	

APPENDIX C
HIGHLIGHTS OF VOLATILE ORGANIC COMPOUNDS, NITRATE, AND PERCHLORATE CONCENTRATIONS
AND WELLS VULNERABLE TO CONTAMINATION (AS OF MAY 31, 2017)

WELL NAME	USAGE	STATUS	CONCENTRATION (NITRATE IN MG/L, OTHERS IN UG/L)					REMARKS
			CONTAMINANT OF CONCERN	HISTORIC HIGH		MOST RECENT		
				VALUE	DATE	VALUE	DATE	
GENESIS 3 (OLD 06)	MUNICIPAL	DESTROYED	PCE	3.5	03/97	ND	03/97	
			TCE	0.1	01/80	ND	03/97	
			NITRATE (NO3)	112.9	06/86	ND	04/01	
			NITRATE (N)	25.5	06/86	ND	04/01	
			CLO4	NA	NA	NA	NA	
01 (OLD 07)	MUNICIPAL	ACTIVE	VOCS	ND	06/87	ND	11/16	
			NITRATE (NO3)	4.5	07/97	2.2	09/16	
			NITRATE (N)	1.0	07/97	0.5	09/16	
			CLO4	ND	07/97	ND	08/16	
			AS	5.1	08/95	2.3	08/16	
			CR6	1.0	11/00	ND	08/16	
02 (01 NORTH)	MUNICIPAL	ACTIVE	VOCS	ND	06/89	ND	08/16	
			NITRATE (NO3)	5.5	03/92	ND	12/16	
			NITRATE (N)	1.2	03/92	ND	12/16	
			CLO4	ND	07/97	ND	08/16	
			AS	4.3	07/96	2.9	09/14	
			CR6	1.0	11/00	0.1	08/13	
03 (OLD 08)	MUNICIPAL	ACTIVE	VOCS	ND	06/87	ND	08/16	
			NITRATE (NO3)	4.4	03/95	ND	08/16	
			NITRATE (N)	1.0	03/95	ND	08/16	
			CLO4	ND	07/97	ND	08/16	
			AS	5.0	08/06	2.9	08/15	
			CR6	1.0	11/00	ND	08/15	
04 (02 SOUTH)	MUNICIPAL	ACTIVE	VOCS	ND	06/88	ND	08/16	
			NITRATE (NO3)	5.5	06/89	2.3	09/16	
			NITRATE (N)	1.2	06/89	ND	09/16	
			CLO4	ND	07/97	ND	08/16	
			AS	5.0	08/05	2.8	08/14	
			CR6	1.0	11/00	0.1	08/13	
05 (OLD 01)	MUNICIPAL	ACTIVE	TCE	1.0	12/80	ND	08/16	VULNERABLE (NITRATE)
			PCE	0.3	12/80	ND	08/16	
			NITRATE (NO3)	22.9	07/95	7.1	12/16	
			NITRATE (N)	5.2	07/95	1.6	12/16	
			CLO4	ND	07/97	ND	08/16	
			AS	2.6	07/95	ND	08/16	
CR6	1.0	11/00	ND	08/16				
06 (OLD 03)	MUNICIPAL	ACTIVE	VOCS	ND	03/85	ND	08/16	
			NITRATE (NO3)	14.2	03/95	2.0	08/16	
			NITRATE (N)	3.2	03/95	0.5	08/16	
			CLO4	ND	07/97	ND	08/16	
			AS	3.5	07/95	ND	08/16	
			CR6	1.0	11/00	ND	08/16	
07 (AVWC 05)	MUNICIPAL	ACTIVE	VOCS	ND	06/88	ND	08/16	VULNERABLE (NITRATE)
			NITRATE (NO3)	24.7	04/95	2.7	08/16	
			NITRATE (N)	5.6	04/95	0.6	08/16	
			CLO4	ND	06/97	ND	08/16	
			AS	3.5	08/14	3.5	08/14	
			CR6	1.0	11/00	0.3	08/13	
08 (AVWC 04)	MUNICIPAL	ACTIVE	TCE	0.8	03/94	ND	08/16	
			NITRATE (NO3)	12.1	09/94	2.8	08/16	
			NITRATE (N)	2.7	09/94	0.6	08/16	
			CLO4	ND	07/97	ND	08/16	
			AS	4.2	07/95	2.4	08/16	
			CR6	1.0	11/00	ND	08/16	
09 (AVWC 06)	MUNICIPAL	INACTIVE	PCE	7.4	12/87	0.6	01/99	
			NITRATE (NO3)	117.7	12/89	84.0	01/99	
			NITRATE (N)	26.6	12/89	19.0	01/99	
			CLO4	NA	NA	NA	NA	
			AS	ND	02/87	ND	01/99	
10 (AVWC 08)	MUNICIPAL	ACTIVE	PCE	1.0	05/15	1.0	05/17	VULNERABLE (NITRATE AND CLO4)
			NITRATE (NO3)	66.0	05/08	53.1	05/17	

APPENDIX C
HIGHLIGHTS OF VOLATILE ORGANIC COMPOUNDS, NITRATE, AND PERCHLORATE CONCENTRATIONS
AND WELLS VULNERABLE TO CONTAMINATION (AS OF MAY 31, 2017)

WELL NAME	USAGE	STATUS	CONCENTRATION (NITRATE IN MG/L, OTHERS IN UG/L)				REMARKS	
			CONTAMINANT OF CONCERN	HISTORIC HIGH		MOST RECENT		
				VALUE	DATE	VALUE		DATE
			NITRATE (N)	14.9	05/08	12.0	05/17	
			CLO4	12.6	08/05	7.8	05/17	
			AS	1.8	07/96	ND	11/15	
			CR6	2.5	11/15	2.5	11/15	
11	MUNICIPAL	ACTIVE	VOCS	ND	06/02	ND	08/16	
			NITRATE (NO3)	3.7	08/08	1.9	08/16	
			NITRATE (N)	0.8	08/08	0.4	08/16	
			CLO4	ND	06/02	ND	08/16	
			AS	4.0	08/05	2.5	08/14	
			CR6	0.2	08/13	0.2	08/13	
12	MUNICIPAL	ACTIVE	VOCS	ND	06/02	ND	08/16	
			NITRATE (NO3)	3.9	08/08	1.9	08/16	
			NITRATE (N)	0.9	08/08	0.4	08/16	
			CLO4	ND	06/02	ND	08/16	
			AS	4.0	08/05	2.9	08/14	
			CR6	0.5	08/13	0.5	08/13	
B & B RED-I-MIX CONCRETE INC.								
03	INDUSTRIAL	INACTIVE	VOCS	NA	NA	NA	NA	
			NITRATE (NO3)	NA	NA	NA	NA	
			NITRATE (N)	NA	NA	NA	NA	
			CLO4	NA	NA	NA	NA	
BANKS, GALE & VICKI								
NA	IRRIGATION	ACTIVE	VOCS	ND	08/96	ND	10/10	
			NITRATE (NO3)	20.7	10/98	17.0	10/10	
			NITRATE (N)	4.7	10/98	3.8	10/10	
			CLO4	ND	09/97	ND	09/97	
BASELINE WATER COMPANY								
01	IRRIGATION	DESTROYED	VOCS	ND	02/98	ND	02/98	
			NITRATE (NO3)	99.7	02/98	99.7	02/98	
			NITRATE (N)	22.5	02/98	22.5	02/98	
			CLO4	12.9	02/98	12.9	02/98	
02	IRRIGATION	DESTROYED	VOCS	ND	11/98	ND	11/98	
			NITRATE (NO3)	74.3	11/98	74.3	11/98	
			NITRATE (N)	16.8	11/98	16.8	11/98	
			CLO4	10.6	11/98	10.6	11/98	
03	IRRIGATION	DESTROYED	VOCS	NA	NA	NA	NA	
			NITRATE (NO3)	NA	NA	NA	NA	
			NITRATE (N)	NA	NA	NA	NA	
			CLO4	NA	NA	NA	NA	
BEVERLY ACRES MUTUAL WATER USERS ASSOCIATION								
ROSE HILLS	MUNICIPAL	DESTROYED	TCE	8.4	10/88	2.5	03/93	
			PCE	6.0	10/88	2.8	03/93	
			C-1,2-DCE	8.0	08/86	2.4	03/93	
			NITRATE (NO3)	22.5	08/86	14.6	09/90	
			NITRATE (N)	5.1	08/86	3.3	09/90	
			CLO4	NA	NA	NA	NA	
			AS	ND	09/89	ND	08/91	
BIRENBAUM, MAX								
NA	NON-POTABLE	INACTIVE	VOCS	NA	NA	NA	NA	
			NITRATE (NO3)	NA	NA	NA	NA	
			NITRATE (N)	NA	NA	NA	NA	
			CLO4	NA	NA	NA	NA	
BOTELLO WATER COMPANY								
NA	MUNICIPAL	INACTIVE	VOCS	NA	NA	NA	NA	
			NITRATE (NO3)	NA	NA	NA	NA	
			CLO4	NA	NA	NA	NA	

APPENDIX C
HIGHLIGHTS OF VOLATILE ORGANIC COMPOUNDS, NITRATE, AND PERCHLORATE CONCENTRATIONS
AND WELLS VULNERABLE TO CONTAMINATION (AS OF MAY 31, 2017)

WELL NAME	USAGE	STATUS	CONCENTRATION (NITRATE IN MG/L, OTHERS IN UG/L)				REMARKS	
			CONTAMINANT OF CONCERN	HISTORIC HIGH		MOST RECENT		
				VALUE	DATE	VALUE		DATE
BURBANK DEVELOPMENT COMPANY								
BURB	NON-POTABLE	INACTIVE	VOCS	NA	NA	NA	NA	
			NITRATE (NO3)	NA	NA	NA	NA	
			NITRATE (N)	NA	NA	NA	NA	
			CLO4	NA	NA	NA	NA	
CALIFORNIA-AMERICAN WATER COMPANY/DUARTE SYSTEM								
B V	MUNICIPAL	STANDBY	VOCS	ND	02/85	ND	08/16	
			NITRATE (NO3)	3.9	10/10	3.0	08/16	
			NITRATE (N)	0.9	10/10	0.7	08/16	
			CLO4	ND	06/97	ND	08/16	
			AS	6.0	07/93	3.0	08/16	
			CR6	1.0	12/00	0.5	03/13	
B V 2	MUNICIPAL	ACTIVE	VOCS	ND	03/12	ND	12/16	
			NITRATE (NO3)	4.1	12/14	3.0	09/16	
			NITRATE (N)	0.9	12/14	0.7	09/16	
			CLO4	ND	09/12	ND	09/16	
			AS	ND	12/14	ND	08/16	
			CR6	1.0	04/11	ND	12/16	
BACON	MUNICIPAL	ACTIVE	VOCS	ND	09/15	ND	09/16	
			NITRATE (NO3)	10.0	10/81	4.4	09/16	
			NITRATE (N)	2.3	10/81	1.0	09/16	
			CLO4	ND	06/97	ND	09/16	
			AS	6.0	09/93	ND	09/16	
			CR6	0.4	06/11	ND	12/16	
CR HV	MUNICIPAL	ACTIVE	VOCS	ND	06/88	ND	09/16	
			NITRATE (NO3)	8.5	12/13	8.0	09/16	
			NITRATE (N)	1.9	12/13	1.8	09/16	
			CLO4	ND	06/97	ND	09/16	
			AS	3.0	09/04	ND	09/16	
			CR6	1.0	12/00	ND	09/16	
ENCANTO	MUNICIPAL	ACTIVE	VOCS	ND	12/92	ND	12/16	
			NITRATE (NO3)	11.3	12/92	3.9	09/16	
			NITRATE (N)	2.6	12/92	0.9	09/16	
			CLO4	ND	06/97	ND	09/16	
			AS	4.6	08/95	2.5	09/16	
			CR6	1.0	12/00	ND	09/16	
FISH C	MUNICIPAL	STANDBY	VOCS	ND	02/85	ND	03/14	
			NITRATE (NO3)	6.7	11/94	2.5	12/13	
			NITRATE (N)	1.5	11/94	0.6	12/13	
			CLO4	ND	06/97	ND	09/14	
			AS	13.0	09/80	ND	10/10	
			CR6	1.0	12/00	0.1	03/13	
LAS L	MUNICIPAL	DESTROYED	VOCS	ND	02/85	ND	06/91	
			NITRATE (NO3)	12.1	08/80	4.1	09/91	
			NITRATE (N)	2.7	08/80	0.9	09/91	
			CLO4	NA	NA	NA	NA	
			AS	18.0	06/78	ND	11/94	
LAS L2	MUNICIPAL	ACTIVE	TCE	1.6	08/96	ND	09/16	
			NITRATE (NO3)	16.6	12/92	5.3	09/16	
			NITRATE (N)	3.7	12/92	1.2	09/16	
			CLO4	ND	06/97	ND	09/16	
			AS	3.1	08/95	2.0	09/16	
			CR6	1.0	06/01	ND	09/16	
MT AVE	MUNICIPAL	DESTROYED	TCE	16.5	07/87	ND	09/93	
			PCE	1.0	08/82	ND	09/93	
			1,1,1-TCA	8.4	04/85	ND	09/93	
			1,1-DCE	3.4	07/87	ND	09/93	
			T-1,2-DCE	2.0	04/85	ND	09/93	
			NITRATE (NO3)	65.0	05/89	10.1	09/93	
			NITRATE (N)	14.7	05/89	2.3	09/93	

**APPENDIX C
HIGHLIGHTS OF VOLATILE ORGANIC COMPOUNDS, NITRATE, AND PERCHLORATE CONCENTRATIONS
AND WELLS VULNERABLE TO CONTAMINATION (AS OF MAY 31, 2017)**

WELL NAME	USAGE	STATUS	CONCENTRATION (NITRATE IN MG/L, OTHERS IN UG/L)						REMARKS
			CONTAMINANT OF CONCERN	HISTORIC HIGH		MOST RECENT			
				VALUE	DATE	VALUE	DATE		
STA FE	MUNICIPAL	ACTIVE	CLO4	NA	NA	NA	NA	VULNERABLE (VOCS AND NITRATE)	
			AS	ND	05/89	ND	05/89		
			TCE	3.3	04/84	ND	09/15		
			NITRATE (NO3)	59.0	01/80	3.5	09/16		
			NITRATE (N)	13.3	01/80	0.8	09/16		
			CLO4	ND	06/97	ND	09/16		
			AS	3.0	08/79	ND	09/16		
WILEY	MUNICIPAL	ACTIVE	CR6	1.0	12/00	ND	09/16		
			VOCS	ND	09/01	ND	09/16		
			NITRATE (NO3)	11.0	03/81	4.9	09/16		
			NITRATE (N)	2.5	03/81	1.1	09/16		
			CLO4	ND	06/97	ND	09/16		
			AS	2.0	09/09	ND	09/16		
			CR6	1.0	12/00	ND	09/16		
CALIFORNIA-AMERICAN WATER COMPANY/SAN MARINO SYSTEM									
BR 1	MUNICIPAL	DESTROYED	CTC	0.5	12/96	0.5	12/96		
			TCE	27.0	07/93	27.0	12/96		
			PCE	9.0	07/93	7.7	12/96		
			NITRATE (NO3)	31.4	12/96	31.4	12/96		
			NITRATE (N)	7.1	12/96	7.1	12/96		
			CLO4	NA	NA	NA	NA		
			AS	1.0	03/81	ND	10/81		
BR 2	MUNICIPAL	DESTROYED	TCE	17.0	12/96	17.0	12/96		
			PCE	6.4	12/96	6.4	12/96		
			NITRATE (NO3)	25.3	07/93	25.1	12/96		
			NITRATE (N)	5.7	07/93	5.7	12/96		
			CLO4	NA	NA	NA	NA		
			AS	ND	03/81	ND	10/81		
DELMAR	MUNICIPAL	ACTIVE	VOCS	ND	06/88	ND	09/16		
			NITRATE (NO3)	19.9	06/14	17.7	09/16		
			NITRATE (N)	4.5	06/14	4.0	09/16		
			CLO4	ND	06/97	ND	09/16		
			AS	5.0	07/96	2.9	09/16		
			CR6	5.7	09/16	5.7	09/16		
GRAND	MUNICIPAL	ACTIVE	TCE	4.8	03/07	3.9	03/17	VULNERABLE (VOCS)	
			PCE	2.1	12/08	1.2	03/17		
			NITRATE (NO3)	10.9	09/03	7.1	09/16		
			NITRATE (N)	2.5	09/03	1.6	09/16		
			CLO4	ND	08/97	ND	09/16		
			AS	0.4	07/96	ND	09/16		
			CR6	10.4	11/16	9.6	03/17		
GUESS	MUNICIPAL	INACTIVE	TCE	5.2	09/99	5.2	12/01		
			PCE	5.4	12/01	5.4	12/01		
			NITRATE (NO3)	20.0	05/01	19.0	09/01		
			NITRATE (N)	4.5	05/01	4.3	09/01		
			CLO4	ND	08/97	ND	03/00		
			AS	0.4	07/96	ND	02/01		
			CR6	7.8	10/00	4.8	06/01		
HALL	MUNICIPAL	DESTROYED	VOCS	NA	NA	NA	NA		
			NITRATE (NO3)	NA	NA	NA	NA		
			NITRATE (N)	NA	NA	NA	NA		
			CLO4	NA	NA	NA	NA		
HALL 2	MUNICIPAL	ACTIVE	VOCS	ND	03/01	ND	06/16	VULNERABLE (NITRATE)	
			NITRATE (NO3)	29.2	06/16	26.6	03/17		
			NITRATE (N)	6.6	06/16	6.0	03/17		
			CLO4	ND	03/00	ND	09/16		
			AS	ND	09/01	ND	09/16		
			CR6	9.6	12/01	9.2	03/17		
HOWLAND	MUNICIPAL	ACTIVE	TCE	6.9	07/89	0.8	09/16	VULNERABLE (VOCS)	
			PCE	3.6	03/01	ND	03/17		
			C-1,2-DCE	3.3	11/87	ND	09/16		

APPENDIX C
HIGHLIGHTS OF VOLATILE ORGANIC COMPOUNDS, NITRATE, AND PERCHLORATE CONCENTRATIONS
AND WELLS VULNERABLE TO CONTAMINATION (AS OF MAY 31, 2017)

WELL NAME	USAGE	STATUS	CONCENTRATION (NITRATE IN MG/L, OTHERS IN UG/L)				REMARKS	
			CONTAMINANT OF CONCERN	HISTORIC HIGH		MOST RECENT		
				VALUE	DATE	VALUE		DATE
IVAR 1	MUNICIPAL	DESTROYED	NITRATE (NO3)	20.8	09/16	6.2	01/17	
			NITRATE (N)	4.7	09/16	1.4	01/17	
			CLO4	ND	08/97	ND	09/16	
			AS	0.7	07/96	ND	01/17	
			CR6	6.7	11/16	6.7	11/16	
IVAR 1	MUNICIPAL	DESTROYED	PCE	7.4	06/99	6.2	06/00	
			TCE	1.7	06/99	ND	06/00	
			NITRATE (NO3)	29.2	09/94	26.0	09/01	
			NITRATE (N)	6.6	09/94	5.9	09/01	
			CLO4	ND	08/97	ND	03/01	
IVAR 2	MUNICIPAL	DESTROYED	AS	0.5	10/96	0.5	10/96	
			VOCS	NA	NA	NA	NA	
			NITRATE (NO3)	24.0	12/84	24.0	12/84	
			NITRATE (N)	5.4	12/84	5.4	12/84	
			CLO4	NA	NA	NA	NA	
LONGDEN	MUNICIPAL	ACTIVE	AS	ND	10/81	ND	10/81	VULNERABLE (VOCS, NITRATE, AND CLO4)
			PCE	12.6	09/16	11.0	03/17	
			TCE	0.7	07/16	ND	03/17	
			NITRATE (NO3)	70.1	10/16	62.0	12/16	
			NITRATE (N)	15.8	10/16	14.0	03/17	
MAR 1	MUNICIPAL	DESTROYED	CLO4	5.5	06/16	ND	03/17	
			AS	4.6	06/01	ND	09/16	
			CR6	4.3	05/15	4.0	11/16	
			VOCS	ND	01/85	ND	01/85	
			NITRATE (NO3)	89.0	03/79	39.0	01/84	
MAR 2	MUNICIPAL	INACTIVE	NITRATE (N)	20.1	03/79	8.8	01/84	
			CLO4	NA	NA	NA	NA	
			AS	2.0	03/81	ND	10/81	
			VOCS	NA	NA	NA	NA	
			NITRATE (NO3)	33.0	01/84	33.0	01/84	
MAR 3	MUNICIPAL	ACTIVE	NITRATE (N)	7.5	01/84	7.5	01/84	
			CLO4	NA	NA	NA	NA	
			AS	1.0	03/81	ND	10/81	
			VOCS	ND	01/85	ND	09/16	
			NITRATE (NO3)	9.7	01/01	8.9	09/16	
MIVW 1	MUNICIPAL	DESTROYED	NITRATE (N)	2.2	01/01	2.0	09/16	
			CLO4	ND	06/97	ND	09/16	
			AS	1.0	05/00	ND	09/16	
			CR6	8.9	06/01	8.6	03/17	
			VOCS	NA	NA	NA	NA	
MIVW 2	MUNICIPAL	ACTIVE	NITRATE (NO3)	31.0	03/01	31.0	03/01	VULNERABLE (NITRATE)
			NITRATE (N)	7.0	03/01	7.0	03/01	
			CLO4	NA	NA	NA	NA	
			VOCS	ND	07/87	ND	09/16	
			NITRATE (NO3)	44.3	03/16	38.1	12/16	
RIC 1	MUNICIPAL	DESTROYED	NITRATE (N)	10.0	03/16	8.6	12/16	
			CLO4	ND	06/97	ND	09/16	
			AS	0.6	07/96	ND	09/16	
			CR6	10.1	12/00	8.8	11/16	
			VOCS	ND	02/85	ND	12/90	
RIC 2	MUNICIPAL	DESTROYED	NITRATE (NO3)	23.4	08/89	11.8	11/94	
			NITRATE (N)	5.3	08/89	2.7	11/94	
			CLO4	NA	NA	NA	NA	
			AS	ND	09/80	ND	11/94	
			VOCS	NA	NA	NA	NA	
RIC 3	MUNICIPAL	ACTIVE	NITRATE (NO3)	10.6	09/16	10.2	03/17	
			PCE	0.6	08/16	ND	03/17	
			TCE	0.9	11/16	0.8	03/17	
			CLO4	NA	NA	NA	NA	
			AS	ND	09/80	ND	11/94	

**APPENDIX C
HIGHLIGHTS OF VOLATILE ORGANIC COMPOUNDS, NITRATE, AND PERCHLORATE CONCENTRATIONS
AND WELLS VULNERABLE TO CONTAMINATION (AS OF MAY 31, 2017)**

WELL NAME	USAGE	STATUS	CONCENTRATION (NITRATE IN MG/L, OTHERS IN UG/L)				REMARKS	
			CONTAMINANT OF CONCERN	HISTORIC HIGH		MOST RECENT		
				VALUE	DATE	VALUE		DATE
ROANOKE	MUNICIPAL	INACTIVE	NITRATE (N)	2.4	09/16	2.3	03/17	
			CR6	9.3	11/16	8.9	03/17	
			CLO4	NA	NA	ND	09/16	
			AS	NA	NA	ND	09/16	
			TCE	5.0	06/00	4.7	12/00	
			PCE	1.2	04/90	ND	09/00	
			C-1,2-DCE	0.5	09/00	ND	12/00	
			NITRATE (NO3)	33.0	05/89	29.2	12/00	
			NITRATE (N)	7.5	05/89	6.6	12/00	
			CLO4	5.6	06/97	ND	03/00	
AS	0.8	07/96	ND	02/01				
CR6	5.0	10/00	4.9	06/01				
ROSEMEAD	MUNICIPAL	INACTIVE	TCE	6.1	03/12	3.8	05/14	VULNERABLE (VOCS AND NITRATE)
			PCE	3.4	03/09	ND	05/14	
			NITRATE (NO3)	38.0	12/13	29.3	05/14	
			NITRATE (N)	8.6	12/13	6.6	05/14	
			CLO4	ND	08/97	ND	05/14	
			AS	0.4	07/96	ND	05/14	
			CR6	11.0	10/00	5.2	06/11	
CALIFORNIA COUNTRY CLUB								
ARTES	IRRIGATION	STANDBY	VOCS	ND	05/87	ND	10/10	VULNERABLE (NITRATE)
			NITRATE (NO3)	29.0	10/10	29.0	10/10	
			NITRATE (N)	6.6	10/10	6.6	10/10	
			CLO4	NA	NA	NA	NA	
CLUB	IRRIGATION	INACTIVE	PCE	189.0	11/87	189.0	11/87	
			1,1,2,2-PCA	24.0	11/87	24.0	11/87	
			NITRATE (NO3)	NA	NA	NA	NA	
			NITRATE (N)	NA	NA	NA	NA	
			CLO4	NA	NA	NA	NA	
SYCAMORE	IRRIGATION	STANDBY	PCE	7.1	09/02	0.6	10/10	VULNERABLE (VOCS AND NITRATE)
			TCE	0.7	09/01	ND	10/10	
			NITRATE (NO3)	128.0	10/07	19.0	10/10	
			NITRATE (N)	28.9	10/07	4.3	10/10	
			CLO4	ND	02/98	ND	02/98	
CALIFORNIA DOMESTIC WATER COMPANY								
01-E	MUNICIPAL	DESTROYED	VOCS	NA	NA	NA	NA	
			NITRATE (NO3)	NA	NA	NA	NA	
			NITRATE (N)	NA	NA	NA	NA	
			CLO4	NA	NA	NA	NA	
02	MUNICIPAL	ACTIVE	CTC	0.7	09/96	ND	05/17	VULNERABLE (VOCS, NITRATE, AND CLO4)
			PCE	3.7	09/12	ND	05/17	
			TCE	4.0	10/99	ND	05/17	
			NITRATE (NO3)	27.0	02/15	13.7	05/17	
			NITRATE (N)	6.1	42037	3.1	05/17	
			CLO4	5.6	10/99	ND	05/17	
			AS	7.4	12/11	ND	05/17	
CR6	3.0	10/16	1.9	04/17				
03	MUNICIPAL	ACTIVE	CTC	5.3	02/01	1.3	05/17	VULNERABLE (VOCS, NITRATE AND CLO4) (1,4)
			PCE	32.0	11/12	15.0	05/17	
			TCE	43.0	10/13	17.0	05/17	
			1,1-DCE	6.4	01/14	ND	04/17	
			C-1,2-DCE	4.2	04/13	2.5	04/17	
			NITRATE (NO3)	47.6	01/07	20.4	05/17	
			NITRATE (N)	10.8	01/07	4.6	05/17	
			CLO4	13.0	10/16	11.0	05/17	
			AS	3.3	12/11	ND	05/17	
			CR6	3.3	11/00	2.6	04/17	
05	MUNICIPAL	DESTROYED	PCE	2.0	02/85	ND	12/90	
			NITRATE (NO3)	13.0	03/84	13.0	03/84	
			NITRATE (N)	2.9	03/84	2.9	03/84	
			CLO4	NA	NA	NA	NA	

APPENDIX C
HIGHLIGHTS OF VOLATILE ORGANIC COMPOUNDS, NITRATE, AND PERCHLORATE CONCENTRATIONS
AND WELLS VULNERABLE TO CONTAMINATION (AS OF MAY 31, 2017)

WELL NAME	USAGE	STATUS	CONCENTRATION (NITRATE IN MG/L, OTHERS IN UG/L)						REMARKS
			CONTAMINANT OF CONCERN	HISTORIC HIGH		MOST RECENT			
				VALUE	DATE	VALUE	DATE		
05A	MUNICIPAL	ACTIVE	AS	40.0	06/78	ND	03/84	VULNERABLE (VOCS AND NITRATE) (1)	
			CTC	1.9	08/96	ND	05/17		
			PCE	20.0	11/15	6.1	05/17		
			TCE	19.0	11/15	4.1	05/17		
			1,1-DCE	2.7	10/08	ND	04/17		
			C-1,2-DCE	1.6	10/08	0.6	04/17		
			NITRATE (NO3)	29.0	04/01	8.0	05/17		
			NITRATE (N)	6.6	04/01	1.8	05/17		
			CLO4	ND	06/97	ND	05/17		
			AS	3.8	08/95	ND	05/17		
CR6	2.0	04/17	1.6	04/17					
06	MUNICIPAL	ACTIVE	CTC	3.5	12/06	0.5	05/17	VULNERABLE (VOCS, NITRATE, AND CLO4) (1)	
			PCE	39.0	10/14	16.0	05/17		
			TCE	44.0	10/14	12.0	05/17		
			1,1-DCE	6.2	10/14	ND	04/17		
			C-1,2-DCE	4.5	10/14	2.7	04/17		
			NITRATE (NO3)	34.0	04/11	19.9	05/17		
			NITRATE (N)	7.7	04/11	4.5	05/17		
			CLO4	7.1	04/17	5.3	05/17		
			AS	3.2	04/04	ND	05/17		
			CR6	2.2	04/17	1.8	04/17		
08	MUNICIPAL	ACTIVE	PCE	9.8	02/09	1.3	05/17	VULNERABLE (VOCS, NITRATE, AND CLO4)	
			TCE	12.0	02/09	ND	05/17		
			CTC	1.1	09/93	ND	05/17		
			NITRATE (NO3)	24.0	08/02	9.7	05/17		
			NITRATE (N)	5.4	08/02	2.2	05/17		
			CLO4	5.6	08/02	ND	05/17		
			AS	6.0	09/94	ND	05/17		
			CR6	3.2	11/00	2.1	04/17		
10	MUNICIPAL	ACTIVE	PCE	52.0	10/16	22.0	05/17	VULNERABLE (VOCS, NITRATE, AND CLO4) (1)	
			TCE	55.0	10/16	14.0	05/17		
			CTC	1.0	08/16	ND	05/17		
			1,1-DCE	9.4	10/16	ND	04/17		
			C-1,2-DCE	6.5	10/16	3.3	04/17		
			NITRATE (NO3)	30.5	09/16	16.4	05/17		
			NITRATE (N)	6.9	09/16	3.7	05/17		
			CLO4	8.3	09/16	4.5	05/17		
			AS	2.6	11/16	ND	05/17		
			CR6	2.7	10/16	2.5	04/17		
13-N	MUNICIPAL	DESTROYED	VOCS	NA	NA	NA	NA		
			NITRATE (NO3)	NA	NA	NA	NA		
			NITRATE (N)	NA	NA	NA	NA		
			CLO4	NA	NA	NA	NA		
14	MUNICIPAL	ACTIVE	CTC	4.4	10/07	ND	05/17	VULNERABLE (VOCS, NITRATE, AND CLO4) (1)	
			PCE	16.0	11/12	1.0	05/17		
			TCE	20.0	11/12	0.9	05/17		
			1,2-DCA	1.0	06/08	ND	05/17		
			C-1,2-DCE	1.6	10/12	ND	04/17		
			1,1-DCE	1.9	10/12	ND	04/17		
			NITRATE (NO3)	75.0	12/14	16.8	05/17		
			NITRATE (N)	16.9	12/14	3.8	05/17		
			CLO4	16.0	12/12	ND	05/17		
			AS	4.5	04/01	ND	05/17		
CR6	5.1	04/17	5.1	04/17					
CEDAR AVENUE MUTUAL WATER COMPANY									
01 SOUTH	MUNICIPAL	DESTROYED	PCE	2.2	09/90	ND	06/94		
			NITRATE (NO3)	26.8	08/93	8.9	06/94		
			NITRATE (N)	6.1	08/93	2.0	06/94		
			CLO4	NA	NA	NA	NA		
			AS	NA	09/89	ND	08/93		
02 NORTH	MUNICIPAL	DESTROYED	PCE	0.8	04/92	ND	06/94		
			NITRATE (NO3)	20.0	01/86	7.4	08/93		
			NITRATE (N)	4.5	01/86	1.7	08/93		

**APPENDIX C
HIGHLIGHTS OF VOLATILE ORGANIC COMPOUNDS, NITRATE, AND PERCHLORATE CONCENTRATIONS
AND WELLS VULNERABLE TO CONTAMINATION (AS OF MAY 31, 2017)**

WELL NAME	USAGE	STATUS	CONCENTRATION (NITRATE IN MG/L, OTHERS IN UG/L)				REMARKS		
			CONTAMINANT OF CONCERN	HISTORIC HIGH		MOST RECENT			
				VALUE	DATE	VALUE		DATE	
			CLO4	NA	NA	NA	NA		
			AS	ND	09/89	ND	09/92		
CEMEX CONSTRUCTION MATERIALS L.P. (AZ TWO)									
02	INDUSTRIAL	DESTROYED	PCE	700.0	01/85	2.8	09/03		
			TCE	940.0	04/85	6.3	09/03		
			CTC	2.2	09/02	ND	09/03		
			1,1-DCE	350.0	01/87	7.2	09/03		
			1,1-DCA	1.0	08/01	ND	09/03		
			1,1,1-TCA	430.0	01/87	3.6	09/03		
			VC	19.0	12/87	ND	09/03		
			NITRATE (NO3)	79.0	09/02	73.1	09/03		
			NITRATE (N)	17.8	09/02	16.5	09/03		
			CLO4	4.2	06/97	ND	09/98		
CHAMPION MUTUAL WATER COMPANY									
01	MUNICIPAL	INACTIVE	PCE	3.0	09/86	ND	06/98		
			NITRATE (NO3)	NA	NA	NA	NA		
			NITRATE (N)	NA	NA	NA	NA		
			CLO4	NA	NA	NA	NA		
02	MUNICIPAL	INACTIVE	PCE	0.6	06/88	ND	09/13	VULNERABLE (NITRATE)	
			NITRATE (NO3)	28.0	09/10	22.0	06/14		
			NITRATE (N)	6.3	09/10	5.0	06/14		
			CLO4	ND	09/97	ND	09/13		
			AS	3.6	08/98	2.4	09/13		
			CR6	1.0	06/01	0.7	09/13		
03	MUNICIPAL	INACTIVE	PCE	1.3	09/96	ND	12/14	VULNERABLE (NITRATE)	
			FREON 113	18.0	03/07	ND	03/15		
			NITRATE (NO3)	24.0	03/09	18.0	03/15		
			NITRATE (N)	5.4	03/09	4.1	03/15		
			CLO4	ND	03/98	ND	12/14		
			AS	13.2	05/98	2.8	03/15		
			CR6	1.0	06/01	ND	09/14		
CHEVRON USA INC.									
TEMP 1	NON-POTABLE	INACTIVE	VOCS	NA	NA	NA	NA		
			NITRATE (NO3)	NA	NA	NA	NA		
			NITRATE (N)	NA	NA	NA	NA		
			CLO4	NA	NA	NA	NA		
CITRUS VALLEY MEDICAL CENTER, QUEEN OF THE VALLEY CAMPUS									
01	NON-POTABLE	INACTIVE	VOCS	ND	09/96	ND	10/10	VULNERABLE (NITRATE, CLO4)	
			NITRATE (NO3)	104.8	02/98	83.0	10/10		
			NITRATE (N)	23.7	02/98	18.7	10/10		
			CLO4	24.0	02/98	24.0	02/98		
CLAYTON MANUFACTURING COMPANY									
02	INDUSTRIAL	DESTROYED	TCE	150.0	08/01	47.0	09/03		
			PCE	30.0	08/01	ND	09/03		
			1,1-DCE	10.0	08/01	1.7	09/03		
			C-1,2-DCE	1.7	08/01	ND	09/03		
			1,1-DCA	15.0	08/01	ND	09/03		
			1,2-DCA	13.0	08/01	ND	09/03		
			1,1,1-TCA	1.1	08/01	ND	09/03		
			NITRATE (NO3)	87.0	08/01	39.7	09/03		
			NITRATE (N)	19.7	08/01	9.0	09/03		
			CLO4	4.0	09/97	4.0	09/97		
COINER, JAMES W., DBA COINER NURSERY									
03	NON-POTABLE	INACTIVE	PCE	293.5	02/98	170.0	10/01		
			TCE	10.2	11/87	3.4	10/01		
			CTC	1.6	08/87	1.6	10/01		
			1,1-DCE	6.7	02/98	4.6	10/01		
			C-1,2-DCE	6.8	07/96	2.7	10/01		

**APPENDIX C
HIGHLIGHTS OF VOLATILE ORGANIC COMPOUNDS, NITRATE, AND PERCHLORATE CONCENTRATIONS
AND WELLS VULNERABLE TO CONTAMINATION (AS OF MAY 31, 2017)**

WELL NAME	USAGE	STATUS	CONCENTRATION (NITRATE IN MG/L, OTHERS IN UG/L)				REMARKS	
			CONTAMINANT OF CONCERN	HISTORIC HIGH		MOST RECENT		
				VALUE	DATE	VALUE		DATE
05R	NON-POTABLE	ACTIVE	1,1,1-TCA	22.0	02/98	12.0	10/01	VULNERABLE (VOCS, NITRATE, AND CLO4)
			NITRATE (NO3)	67.0	10/01	44.7	09/07	
			NITRATE (N)	15.1	10/01	10.1	09/07	
			CLO4	9.0	02/98	ND	09/98	
			PCE	7.7	02/98	3.6	10/10	
			TCE	1.6	10/01	ND	10/10	
			CTC	2.7	07/96	ND	10/10	
			1,1-DCE	5.5	10/01	1.3	10/10	
			NITRATE (NO3)	110.0	10/09	72.0	10/10	
			NITRATE (N)	24.8	10/09	16.3	10/10	
CLO4	9.0	02/98	4.0	09/98				
CORCORAN BROTHERS								
01	NON-POTABLE	DESTROYED	VOCS	NA	NA	NA	NA	
			NITRATE (NO3)	NA	NA	NA	NA	
			NITRATE (N)	NA	NA	NA	NA	
			CLO4	NA	NA	NA	NA	
COUNTY SANITATION DISTRICT NO. 18								
E08A	REMEDIAL	INACTIVE	VOCS	NA	NA	NA	NA	
			NITRATE (NO3)	NA	NA	NA	NA	
			NITRATE (N)	NA	NA	NA	NA	
			CLO4	NA	NA	NA	NA	
E09A	REMEDIAL	INACTIVE	VOCS	NA	NA	NA	NA	
			NITRATE (NO3)	NA	NA	NA	NA	
			NITRATE (N)	NA	NA	NA	NA	
			CLO4	NA	NA	NA	NA	
E10A	REMEDIAL	INACTIVE	VOCS	NA	NA	NA	NA	
			NITRATE (NO3)	NA	NA	NA	NA	
			NITRATE (N)	NA	NA	NA	NA	
			CLO4	NA	NA	NA	NA	
E11A	REMEDIAL	INACTIVE	VOCS	NA	NA	NA	NA	
			NITRATE (NO3)	NA	NA	NA	NA	
			NITRATE (N)	NA	NA	NA	NA	
			CLO4	NA	NA	NA	NA	
EX1	REMEDIAL	ACTIVE	VOCS	NA	NA	NA	NA	
			NITRATE (NO3)	NA	NA	NA	NA	
			NITRATE (N)	NA	NA	NA	NA	
			CLO4	NA	NA	NA	NA	
EX2	REMEDIAL	ACTIVE	VOCS	NA	NA	NA	NA	
			NITRATE (NO3)	NA	NA	NA	NA	
			NITRATE (N)	NA	NA	NA	NA	
			CLO4	NA	NA	NA	NA	
EX3	REMEDIAL	ACTIVE	VOCS	NA	NA	NA	NA	
			NITRATE (NO3)	NA	NA	NA	NA	
			NITRATE (N)	NA	NA	NA	NA	
			CLO4	NA	NA	NA	NA	
EX4	REMEDIAL	ACTIVE	VOCS	NA	NA	NA	NA	
			NITRATE (NO3)	NA	NA	NA	NA	
			NITRATE (N)	NA	NA	NA	NA	
			CLO4	NA	NA	NA	NA	
LE1	REMEDIAL	INACTIVE	TCE	4.2	06/86	3.7	09/86	
			PCE	0.8	09/86	0.8	09/86	
			NITRATE (NO3)	NA	NA	NA	NA	
			NITRATE (N)	NA	NA	NA	NA	
			CLO4	NA	NA	NA	NA	
LE2	REMEDIAL	INACTIVE	TCE	0.1	06/86	ND	09/86	
			PCE	NA	06/86	ND	09/86	
			NITRATE (NO3)	NA	NA	NA	NA	
			NITRATE (N)	NA	NA	NA	NA	
			CLO4	NA	NA	NA	NA	

**APPENDIX C
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AND WELLS VULNERABLE TO CONTAMINATION (AS OF MAY 31, 2017)**

WELL NAME	USAGE	STATUS	CONCENTRATION (NITRATE IN MG/L, OTHERS IN UG/L)					REMARKS
			CONTAMINANT OF CONCERN	HISTORIC HIGH		MOST RECENT		
				VALUE	DATE	VALUE	DATE	
LE3	REMEDIAL	INACTIVE	CLO4	NA	NA	NA	NA	
			TCE	1.5	06/86	1.2	09/86	
			PCE	1.6	06/86	0.8	09/86	
			NITRATE (NO3)	NA	NA	NA	NA	
			NITRATE (N)	NA	NA	NA	NA	
LE4	REMEDIAL	INACTIVE	CLO4	NA	NA	NA	NA	
			TCE	5.1	09/86	5.1	09/86	
			PCE	2.0	09/86	2.0	09/86	
			NITRATE (NO3)	NA	NA	NA	NA	
			NITRATE (N)	NA	NA	NA	NA	
COVINA, CITY OF								
01	MUNICIPAL	INACTIVE	PCE	0.6	01/99	0.6	01/99	
			NITRATE (NO3)	120.0	01/99	120.0	01/99	
			NITRATE (N)	27.1	01/99	27.1	01/99	
			CLO4	NA	NA	NA	NA	
02 (GRAND)	MUNICIPAL	INACTIVE	VOCS	ND	06/88	ND	09/98	
			NITRATE (NO3)	116.0	08/89	103.0	04/99	
			NITRATE (N)	26.2	08/89	23.3	04/99	
			CLO4	23.0	09/97	22.0	09/98	
			AS	3.3	08/97	3.3	08/97	
03	MUNICIPAL	DESTROYED	VOCS	NA	NA	NA	NA	
			NITRATE (NO3)	72.0	10/73	72.0	10/73	
			NITRATE (N)	16.3	10/73	16.3	10/73	
			CLO4	NA	NA	NA	NA	
COVINA IRRIGATING COMPANY								
BAL 1	MUNICIPAL	STANDBY	TCE	200.0	07/80	ND	10/13	VULNERABLE (VOCS AND NITRATE) (5)
			PCE	7.6	07/80	ND	10/13	
			1,1-DCE	0.5	10/06	ND	10/13	
			NITRATE (NO3)	35.5	12/89	3.9	09/14	
			NITRATE (N)	8.0	12/89	0.9	09/14	
			CLO4	1.5	10/06	ND	09/14	
			AS	4.7	12/89	3.5	01/14	
			CR6	1.0	10/00	0.2	07/13	
BAL 2	MUNICIPAL	STANDBY	TCE	195.0	06/80	ND	11/15	VULNERABLE (VOCS, NITRATE AND CLO4) (5)
			PCE	7.9	06/80	ND	11/15	
			1,1-DCE	0.8	07/07	ND	11/15	
			NITRATE (NO3)	47.0	03/10	20.0	07/15	
			NITRATE (N)	10.6	03/10	4.5	07/15	
			CLO4	5.5	03/09	ND	11/15	
			AS	4.0	08/76	3.4	07/15	
			CR6	1.0	10/00	0.5	07/13	
BAL 3	MUNICIPAL	STANDBY	TCE	225.0	01/80	ND	10/14	VULNERABLE (VOCS, NITRATE AND CLO4) (5)
			PCE	10.0	02/85	ND	10/14	
			CTC	3.0	04/85	ND	10/14	
			1,1-DCA	4.0	04/85	ND	10/14	
			1,2-DCA	3.7	02/85	ND	10/14	
			1,1-DCE	2.1	04/85	ND	10/14	
			T-1,2-DCE	2.9	02/85	ND	10/14	
			1,1,1-TCA	5.2	04/85	ND	10/14	
			NITRATE (NO3)	57.3	08/89	26.0	07/15	
			NITRATE (N)	12.9	08/89	5.9	07/15	
			CLO4	5.6	09/08	ND	07/15	
			AS	3.1	07/15	3.1	07/15	
			CR6	1.0	11/00	0.8	07/13	
			CONTR	MUNICIPAL	DESTROYED	PCE	1.4	
NITRATE (NO3)	125.3	12/89				108.0	03/94	
NITRATE (N)	28.3	12/89				24.4	03/94	
CLO4	NA	NA				NA	NA	
AS	ND	12/89				ND	12/92	

**APPENDIX C
HIGHLIGHTS OF VOLATILE ORGANIC COMPOUNDS, NITRATE, AND PERCHLORATE CONCENTRATIONS
AND WELLS VULNERABLE TO CONTAMINATION (AS OF MAY 31, 2017)**

WELL NAME	USAGE	STATUS	CONCENTRATION (NITRATE IN MG/L, OTHERS IN UG/L)						REMARKS
			CONTAMINANT OF CONCERN	HISTORIC HIGH		MOST RECENT			
				VALUE	DATE	VALUE	DATE		
VALEN	MUNICIPAL	DESTROYED	PCE	2.4	08/85	0.6	09/97		
			NITRATE (NO3)	73.0	06/81	69.3	09/97		
			NITRATE (N)	16.5	06/81	15.7	09/97		
			CLO4	6.4	09/97	6.4	09/97		
CREVOLIN, A.J.									
NA	DOMESTIC	DESTROYED	VOCS	NA	NA	NA	NA		
			NITRATE (NO3)	NA	NA	NA	NA		
			CLO4	NA	NA	NA	NA		
CROWN CITY PLATING COMPANY									
01	INDUSTRIAL	INACTIVE	TCE	1.2	09/04	1.2	09/04		
			T-1,2-DCE	1.4	05/87	ND	09/04		
			NITRATE (NO3)	7.4	09/04	3.4	09/08		
			NITRATE (N)	1.7	09/04	0.8	09/08		
			CLO4	ND	09/97	ND	10/07		
DAVIDSON OPTRONICS INC.									
NA	INDUSTRIAL	INACTIVE	VOCS	NA	NA	NA	NA		
			NITRATE (NO3)	NA	NA	NA	NA		
			NITRATE (N)	NA	NA	NA	NA		
			CLO4	NA	NA	NA	NA		
DAWES, MARY K.									
04	IRRIGATION	INACTIVE	VOCS	NA	NA	NA	NA		
			NITRATE (NO3)	NA	NA	NA	NA		
			NITRATE (N)	NA	NA	NA	NA		
			CLO4	NA	NA	NA	NA		
DEL RIO MUTUAL WATER COMPANY									
BURKETT	MUNICIPAL	ACTIVE	TCE	2.2	06/90	ND	09/16	VULNERABLE (VOCS AND NITRATE)	
			PCE	3.7	03/97	ND	09/16		
			NITRATE (NO3)	31.0	12/03	2.7	09/16		
			NITRATE (N)	7.0	12/03	0.6	09/16		
			CLO4	ND	09/97	ND	12/15		
			AS	2.6	03/02	ND	02/15		
			CR6	3.4	07/01	0.7	09/13		
KLING	MUNICIPAL	INACTIVE	PCE	1.3	08/86	ND	02/89		
			NITRATE (NO3)	NA	NA	NA	NA		
			NITRATE (N)	NA	NA	NA	NA		
			CLO4	NA	NA	NA	NA		
DRIFTWOOD DAIRY									
01	INDUSTRIAL	INACTIVE	PCE	13.9	06/98	13.9	06/98	VULNERABLE (VOCS AND NITRATE)	
			1,1,1-TCA	0.3	03/93	ND	06/98		
			NITRATE (NO3)	65.1	03/93	46.8	06/98		
			NITRATE (N)	14.7	03/93	10.6	06/98		
			CLO4	ND	06/98	ND	06/98		
DUNNING, GEORGE									
1910	IRRIGATION	INACTIVE	VOCS	NA	NA	NA	NA		
			NITRATE (NO3)	NA	NA	NA	NA		
			NITRATE (N)	NA	NA	NA	NA		
			CLO4	NA	NA	NA	NA		
EAST PASADENA WATER COMPANY, LTD.									
09	MUNICIPAL	ACTIVE	VOCS	ND	06/88	ND	03/17		
			NITRATE (NO3)	6.4	09/12	4.4	03/17		
			NITRATE (N)	1.4	09/12	1.0	03/17		
			CLO4	ND	07/97	ND	03/17		
			AS	0.9	08/96	ND	04/15		
			CR6	9.4	07/01	8.4	10/14		

APPENDIX C
HIGHLIGHTS OF VOLATILE ORGANIC COMPOUNDS, NITRATE, AND PERCHLORATE CONCENTRATIONS
AND WELLS VULNERABLE TO CONTAMINATION (AS OF MAY 31, 2017)

WELL NAME	USAGE	STATUS	CONCENTRATION (NITRATE IN MG/L, OTHERS IN UG/L)						REMARKS
			CONTAMINANT OF CONCERN	HISTORIC HIGH		MOST RECENT			
				VALUE	DATE	VALUE	DATE		
11	MUNICIPAL	ACTIVE	VOCS	ND	12/11	ND	04/17		
			NITRATE (NO3)	3.5	09/16	3.1	03/17		
			NITRATE (N)	0.8	09/16	0.7	03/17		
			CLO4	ND	12/11	ND	03/17		
			AS	ND	05/14	ND	04/15		
			CR6	5.9	10/14	5.9	10/14		
EL MONTE, CITY OF									
02A	MUNICIPAL	ACTIVE	PCE	13.0	03/98	5.3	05/17	VULNERABLE (VOCS AND NITRATE) (1)	
			TCE	5.3	01/95	1.0	05/17		
			NITRATE (NO3)	37.6	06/16	23.0	04/17		
			NITRATE (N)	8.5	06/16	5.2	04/17		
			CLO4	ND	07/97	ND	07/16		
			AS	10.0	03/73	ND	07/14		
			CR6	2.0	12/00	1.9	07/13		
03	MUNICIPAL	STANDBY	PCE	23.6	12/00	15.0	06/13	VULNERABLE (VOCS AND NITRATE) (3)	
			1,1,1-TCA	1.0	11/93	ND	07/12		
			NITRATE (NO3)	71.6	08/89	21.9	09/16		
			NITRATE (N)	16.2	08/89	4.9	09/16		
			CLO4	ND	07/97	ND	07/12		
			AS	10.0	03/73	ND	09/10		
			CR6	2.4	07/13	2.4	07/13		
04	MUNICIPAL	STANDBY	PCE	16.2	03/84	0.6	01/08	VULNERABLE (VOCS AND NITRATE)	
			TCE	7.8	02/80	ND	12/07		
			NITRATE (NO3)	58.0	11/14	58.0	11/14		
			NITRATE (N)	13.1	11/14	13.1	11/14		
			CLO4	ND	07/97	ND	07/03		
			AS	10.0	03/73	ND	12/07		
			CR6	2.8	07/01	1.2	11/14		
05	MUNICIPAL	DESTROYED	TCE	150.0	07/93	70.0	12/96		
			PCE	51.0	07/93	32.0	12/96		
			CTC	4.3	07/93	1.4	12/96		
			NITRATE (NO3)	53.9	12/96	26.3	06/99		
			NITRATE (N)	12.2	12/96	5.9	06/99		
			CLO4	5.9	06/97	5.9	06/97		
			AS	10.0	04/73	10.0	04/73		
10	MUNICIPAL	ACTIVE	TCE	7.2	09/81	ND	05/17	VULNERABLE (VOCS AND NITRATE) (1)	
			PCE	17.7	12/93	1.3	05/17		
			NITRATE (NO3)	41.2	04/16	27.9	04/17		
			NITRATE (N)	9.3	04/16	6.3	04/17		
			CLO4	ND	06/97	ND	07/16		
			AS	20.0	03/73	ND	04/17		
			CR6	1.6	04/17	1.6	04/17		
11	MUNICIPAL	DESTROYED	VOCS	NA	NA	NA	NA		
			NITRATE (NO3)	21.6	07/79	21.6	07/79		
			NITRATE (N)	4.9	07/79	4.9	07/79		
			CLO4	NA	NA	NA	NA		
			AS	20.0	03/73	3.0	08/79		
12	MUNICIPAL	ACTIVE	TCE	58.0	04/17	53.0	05/17	VULNERABLE (VOCS AND NITRATE) (1)	
			PCE	29.0	04/17	21.0	05/17		
			CTC	1.0	06/92	ND	05/17		
			C-1,2-DCE	0.9	10/16	0.8	04/17		
			NITRATE (NO3)	41.0	06/05	35.0	04/17		
			NITRATE (N)	9.3	06/05	7.9	04/17		
			CLO4	ND	06/97	ND	07/16		
			AS	ND	05/84	ND	07/16		
			CR6	4.8	07/16	4.8	07/16		
13	MUNICIPAL	ACTIVE	PCE	7.5	04/16	1.8	05/17	VULNERABLE (VOCS) (3)	
			TCE	15.0	04/16	2.1	05/17		
			NITRATE (NO3)	23.5	06/16	16.4	03/17		
			NITRATE (N)	5.3	06/16	3.7	03/17		
			CLO4	ND	07/97	ND	07/16		
			AS	1.3	08/96	ND	07/16		
			CR6	5.3	07/16	5.3	07/16		

**APPENDIX C
HIGHLIGHTS OF VOLATILE ORGANIC COMPOUNDS, NITRATE, AND PERCHLORATE CONCENTRATIONS
AND WELLS VULNERABLE TO CONTAMINATION (AS OF MAY 31, 2017)**

WELL NAME	USAGE	STATUS	CONCENTRATION (NITRATE IN MG/L, OTHERS IN UG/L)					REMARKS
			CONTAMINANT OF CONCERN	HISTORIC HIGH		MOST RECENT		
				VALUE	DATE	VALUE	DATE	
MT VW	IRRIGATION	DESTROYED	PCE	2.1	08/85	ND	01/01	
			TCE	2.0	01/85	ND	01/01	
			NITRATE (NO3)	30.0	02/87	10.0	01/01	
			NITRATE (N)	6.8	02/87	2.3	01/01	
			CLO4	ND	09/97	ND	11/97	
			AS	ND	02/84	ND	02/84	
EL MONTE CEMETERY ASSOCIATION								
NA	IRRIGATION	INACTIVE	VOCS	NA	NA	NA	NA	
			NITRATE (NO3)	NA	NA	NA	NA	
			NITRATE (N)	NA	NA	NA	NA	
			CLO4	NA	NA	NA	NA	
FRUIT STREET WATER COMPANY								
NA	IRRIGATION	DESTROYED	VOCS	NA	NA	NA	NA	
			NITRATE (NO3)	NA	NA	NA	NA	
			NITRATE (N)	NA	NA	NA	NA	
			CLO4	NA	NA	NA	NA	
GATES, JAMES RICHARD								
GATES 1	IRRIGATION	ACTIVE	VOCS	NA	NA	NA	NA	
			NITRATE (NO3)	NA	NA	NA	NA	
			NITRATE (N)	NA	NA	NA	NA	
			CLO4	NA	NA	NA	NA	
GIFFORD, BROOKS JR.								
01	NA	DESTROYED	VOCS	NA	NA	NA	NA	
			NITRATE (NO3)	NA	NA	NA	NA	
			NITRATE (N)	NA	NA	NA	NA	
			CLO4	NA	NA	NA	NA	
GLENDORA, CITY OF								
01-E	MUNICIPAL	DESTROYED	TCE	0.8	12/80	ND	09/07	
			NITRATE (NO3)	38.1	10/88	35.0	08/08	
			NITRATE (N)	8.6	10/88	7.9	08/08	
			CLO4	ND	06/97	ND	03/03	
			AS	2.8	07/98	ND	03/08	
			CR6	1.0	05/01	1.0	05/01	
02-E	MUNICIPAL	ACTIVE	VOCS	ND	03/85	ND	03/17	VULNERABLE (NITRATE)
			NITRATE (NO3)	70.0	05/78	6.6	05/17	
			NITRATE (N)	15.8	05/78	1.5	05/17	
			CLO4	ND	07/97	ND	03/17	
			AS	0.7	08/96	ND	09/16	
			CR6	1.3	09/16	1.3	09/16	
03-G	MUNICIPAL	INACTIVE	TCE	0.5	12/79	ND	05/97	
			PCE	0.5	05/97	0.5	05/97	
			NITRATE (NO3)	162.4	08/83	111.0	08/99	
			NITRATE (N)	36.7	08/83	25.1	08/99	
			CLO4	NA	NA	NA	NA	
04-E	MUNICIPAL	INACTIVE	TCE	0.7	08/80	ND	08/91	
			PCE	0.1	07/81	ND	08/91	
			NITRATE (NO3)	126.0	06/83	56.8	08/91	
			NITRATE (N)	28.5	06/83	12.8	08/91	
			CLO4	NA	NA	NA	NA	
			AS	ND	07/74	ND	07/74	
05-E	MUNICIPAL	ACTIVE	VOCS	ND	02/95	ND	09/16	
			NITRATE (NO3)	3.2	05/95	3.2	06/16	
			NITRATE (N)	0.7	05/95	0.7	06/16	
			CLO4	ND	07/97	ND	09/16	
			AS	5.3	04/98	3.1	06/16	
			CR6	1.0	11/00	ND	06/16	
07-G	MUNICIPAL	INACTIVE	TCE	302.0	01/81	ND	04/98	

**APPENDIX C
HIGHLIGHTS OF VOLATILE ORGANIC COMPOUNDS, NITRATE, AND PERCHLORATE CONCENTRATIONS
AND WELLS VULNERABLE TO CONTAMINATION (AS OF MAY 31, 2017)**

WELL NAME	USAGE	STATUS	CONCENTRATION (NITRATE IN MG/L, OTHERS IN UG/L)				REMARKS	
			CONTAMINANT OF CONCERN	HISTORIC HIGH		MOST RECENT		
				VALUE	DATE	VALUE		DATE
			PCE	25.0	01/81	1.9	04/98	
			1,1-DCE	435.0	05/84	ND	04/98	
			C-1,2-DCE	21.0	05/82	ND	04/98	
			1,1-DCA	5.0	05/84	ND	04/98	
			1,2-DCA	12.1	12/93	ND	04/98	
			1,1,1-TCA	3200.0	05/84	64.0	04/98	
			NITRATE (NO3)	106.0	04/98	75.9	04/98	
			NITRATE (N)	23.9	04/98	17.1	04/98	
			CLO4	5.3	04/98	5.3	04/98	
			AS	ND	07/74	ND	08/95	
08-E	MUNICIPAL	ACTIVE	VOCS	ND	08/02	ND	03/17	
			NITRATE (NO3)	6.6	08/86	ND	09/16	
			NITRATE (N)	1.5	08/86	ND	09/16	
			CLO4	ND	07/97	ND	09/16	
			AS	3.2	08/96	ND	09/14	
			CR6	1.0	11/00	0.2	09/13	
09-E	MUNICIPAL	ACTIVE	VOCS	ND	05/89	ND	09/16	
			NITRATE (NO3)	4.1	08/96	ND	09/16	
			NITRATE (N)	0.9	08/96	ND	09/16	
			CLO4	ND	07/97	ND	09/16	
			AS	2.5	05/98	ND	09/14	
			CR6	1.0	11/00	0.1	09/13	
10-E	MUNICIPAL	ACTIVE	VOCS	ND	07/97	ND	03/17	VULNERABLE (NITRATE)
			NITRATE (NO3)	78.0	05/77	36.3	05/17	
			NITRATE (N)	17.6	05/77	8.2	05/17	
			CLO4	ND	07/97	ND	03/17	
			AS	7.0	08/79	ND	03/17	
			CR6	1.2	03/17	1.2	03/17	
11-E	MUNICIPAL	ACTIVE	VOCS	ND	05/82	ND	09/16	VULNERABLE (NITRATE AND CLO4)
			NITRATE (NO3)	117.5	08/73	41.6	05/17	
			NITRATE (N)	26.5	08/73	9.4	05/17	
			CLO4	4.9	12/10	4.0	03/17	
			AS	3.2	07/98	ND	09/16	
			CR6	1.8	09/16	1.8	09/16	
12-G	MUNICIPAL	ACTIVE	TCE	0.9	12/80	ND	09/16	
			NITRATE (NO3)	4.7	07/98	ND	09/16	
			NITRATE (N)	1.1	07/98	ND	09/16	
			CLO4	ND	06/97	ND	09/16	
			AS	4.4	07/97	2.2	09/15	
			CR6	1.0	11/00	ND	09/15	
13-E	MUNICIPAL	ACTIVE	VOCS	ND	06/04	ND	03/17	VULNERABLE (NITRATE)
			NITRATE (NO3)	29.0	12/09	8.4	05/17	
			NITRATE (N)	6.6	12/09	1.9	05/17	
			CLO4	ND	06/04	ND	09/16	
			AS	2.2	09/15	ND	06/16	
			CR6	0.6	09/13	ND	06/16	
GOEDERT, LILLIAN								
GOEDERT	IRRIGATION	DESTROYED	VOCS	ND	06/98	ND	06/98	
			NITRATE (NO3)	7.0	06/98	7.0	06/98	
			NITRATE (N)	1.6	06/98	1.6	06/98	
			CLO4	ND	06/98	ND	06/98	
GOLDEN STATE WATER COMPANY/SAN DIMAS DISTRICT								
ART-1	MUNICIPAL	DESTROYED	VOCS	NA	NA	NA	NA	
			NITRATE (NO3)	60.0	10/74	60.0	10/74	
			NITRATE (N)	13.6	10/74	13.6	10/74	
			CLO4	NA	NA	NA	NA	
			AS	ND	07/74	ND	07/74	
ART-2	MUNICIPAL	DESTROYED	VOCS	ND	06/89	ND	05/07	
			NITRATE (NO3)	26.2	08/07	9.4	09/07	
			NITRATE (N)	5.9	08/07	2.1	09/07	
			CLO4	ND	08/97	ND	09/07	

APPENDIX C
HIGHLIGHTS OF VOLATILE ORGANIC COMPOUNDS, NITRATE, AND PERCHLORATE CONCENTRATIONS
AND WELLS VULNERABLE TO CONTAMINATION (AS OF MAY 31, 2017)

WELL NAME	USAGE	STATUS	CONCENTRATION (NITRATE IN MG/L, OTHERS IN UG/L)					REMARKS
			CONTAMINANT OF CONCERN	HISTORIC HIGH		MOST RECENT		
				VALUE	DATE	VALUE	DATE	
ART-3	MUNICIPAL	ACTIVE	AS	0.8	08/96	ND	05/07	VULNERABLE (NITRATE AND CLO4) (4)
			VOCS	ND	05/89	ND	08/16	
			NITRATE (NO3)	140.0	05/14	57.5	05/17	
			NITRATE (N)	31.6	05/14	13.0	05/17	
			CLO4	21.0	05/14	6.7	05/17	
			AS	0.7	08/96	ND	05/16	
BAS-3	MUNICIPAL	ACTIVE	CR6	1.8	05/16	1.8	05/16	VULNERABLE (NITRATE AND CLO4) (4)
			VOCS	ND	06/89	ND	05/17	
			NITRATE (NO3)	124.0	05/16	97.4	05/17	
			NITRATE (N)	28.0	05/16	22.0	05/17	
			CLO4	21.0	10/14	13.0	05/17	
			AS	4.0	08/76	ND	05/16	
BAS-4	MUNICIPAL	ACTIVE	CR6	1.8	05/16	1.8	05/16	VULNERABLE (NITRATE AND CLO4) (4)
			VOCS	ND	03/85	ND	06/16	
			NITRATE (NO3)	110.0	01/13	53.1	12/16	
			NITRATE (N)	24.8	01/13	12.0	12/16	
			CLO4	23.0	03/13	7.6	12/16	
			AS	1.0	08/96	ND	05/16	
CITY	MUNICIPAL	ACTIVE	CR6	2.3	05/16	2.3	05/16	VULNERABLE (NITRATE)
			VOCS	ND	06/88	ND	05/08	
			NITRATE (NO3)	44.7	09/93	31.0	11/08	
			NITRATE (N)	10.1	09/93	7.0	11/08	
			CLO4	ND	08/97	ND	08/08	
			AS	0.7	08/96	ND	08/06	
COL-1	MUNICIPAL	DESTROYED	CR6	0.2	12/00	ND	07/01	
			VOCS	NA	NA	NA	NA	
			NITRATE (NO3)	93.0	09/75	10.0	10/76	
			NITRATE (N)	21.0	09/75	2.3	10/76	
COL-2	MUNICIPAL	DESTROYED	CLO4	NA	NA	NA	NA	
			VOCS	NA	NA	NA	NA	
			NITRATE (NO3)	117.5	10/76	117.5	10/76	
			NITRATE (N)	26.5	10/76	26.5	10/76	
			AS	18.0	06/78	18.0	06/78	
COL-4	MUNICIPAL	ACTIVE	AS	0.7	08/96	ND	03/16	VULNERABLE (NITRATE)
			CR6	1.0	07/01	ND	03/16	
			VOCS	ND	09/97	ND	11/16	
			NITRATE (NO3)	64.0	03/83	44.3	03/17	
			NITRATE (N)	14.5	03/83	10.0	03/17	
			CLO4	2.9	04/11	ND	03/17	
COL-5	MUNICIPAL	DESTROYED	AS	0.7	08/96	ND	03/16	
			CR6	1.0	07/01	ND	03/16	
			VOCS	NA	NA	NA	NA	
			NITRATE (NO3)	NA	NA	NA	NA	
COL-6	MUNICIPAL	INACTIVE	NITRATE (N)	NA	NA	NA	NA	
			CLO4	NA	NA	NA	NA	
			VOCS	NA	NA	NA	NA	
			NITRATE (NO3)	NA	NA	NA	NA	
			PCE	7.2	07/85	ND	02/11	
			NITRATE (NO3)	56.0	06/85	36.0	03/11	
COL-7	MUNICIPAL	DESTROYED	NITRATE (N)	12.7	06/85	8.1	03/11	
			CLO4	2.1	03/11	2.1	03/11	
			AS	4.0	08/76	ND	05/10	
			CR6	1.0	07/01	1.0	07/01	
			PCE	22.0	12/87	3.1	11/99	
			TCE	9.9	01/80	ND	09/99	
COL-8	MUNICIPAL	INACTIVE	1,1-DCE	1.1	03/85	ND	09/99	
			1,1,1-TCA	1.7	07/85	ND	09/99	
			NITRATE (NO3)	118.0	05/79	68.1	01/00	
			NITRATE (N)	26.7	05/79	15.4	01/00	
			CLO4	4.2	01/02	4.2	01/02	
			AS	0.9	08/96	ND	01/00	
			PCE	0.2	09/80	ND	12/96	
			NITRATE (NO3)	120.0	06/83	50.8	12/96	
NITRATE (N)	27.1	06/83	11.5	12/96				

**APPENDIX C
HIGHLIGHTS OF VOLATILE ORGANIC COMPOUNDS, NITRATE, AND PERCHLORATE CONCENTRATIONS
AND WELLS VULNERABLE TO CONTAMINATION (AS OF MAY 31, 2017)**

WELL NAME	USAGE	STATUS	CONCENTRATION (NITRATE IN MG/L, OTHERS IN UG/L)						REMARKS
			CONTAMINANT OF CONCERN	HISTORIC HIGH		MOST RECENT			
				VALUE	DATE	VALUE	DATE		
HIGHWAY	MUNICIPAL	ACTIVE	CLO4	NA	NA	NA	NA	VULNERABLE (NITRATE AND CLO4) (4)	
			AS	6.0	08/79	ND	03/85		
			TCE	0.6	12/80	ND	09/16		
			PCE	0.1	12/80	ND	09/16		
			NITRATE (NO3)	84.0	08/15	31.0	05/17		
			NITRATE (N)	19.0	08/15	7.0	05/17		
			CLO4	12.0	08/15	ND	05/17		
HIGHWAY 2	MUNICIPAL	ACTIVE	AS	0.8	08/96	ND	09/16	VULNERABLE (NITRATE)	
			CR6	1.0	07/01	ND	09/16		
			VOCS	ND	10/10	ND	01/17		
			NITRATE (NO3)	27.0	11/15	19.0	05/17		
			NITRATE (N)	6.1	11/15	4.3	05/17		
			CLO4	ND	10/10	ND	05/17		
			AS	ND	10/10	ND	01/17		
L HILL 2	MUNICIPAL	DESTROYED	CR6	1.7	10/10	ND	01/17	VULNERABLE (NITRATE)	
			VOCS	NA	NA	NA	NA		
			NITRATE (NO3)	NA	NA	NA	NA		
			NITRATE (N)	NA	NA	NA	NA		
			CLO4	NA	NA	NA	NA		
MALON	MUNICIPAL	ACTIVE	VOCS	ND	08/96	ND	05/17	VULNERABLE (NITRATE)	
			NITRATE (NO3)	42.0	09/87	23.5	05/17		
			NITRATE (N)	9.5	09/87	5.3	05/17		
			CLO4	ND	08/97	ND	08/16		
			AS	0.7	08/96	ND	09/15		
			CR6	1.0	07/01	ND	09/15		
GOLDEN STATE WATER COMPANY/SAN GABRIEL VALLEY DISTRICT (SOUTH ARCADIA)									
AZU 1	MUNICIPAL	DESTROYED	TCE	15.0	07/93	0.6	01/95	VULNERABLE (VOCS, NITRATE AND CLO4) (1)	
			PCE	1.9	07/93	ND	01/95		
			NITRATE (NO3)	72.9	12/90	35.0	07/02		
			NITRATE (N)	16.5	12/90	7.9	07/02		
			CLO4	NA	NA	NA	10/02		
			AS	0.6	08/96	0.6	08/96		
EARL 1	MUNICIPAL	DESTROYED	AS	0.6	08/96	0.6	08/96	VULNERABLE (VOCS) (1)	
			PCE	6.0	09/03	6.0	09/03		
			NITRATE (NO3)	7.2	08/03	7.1	09/03		
			NITRATE (N)	1.6	08/03	1.6	09/03		
			CLO4	ND	08/97	ND	08/03		
			AS	0.5	08/96	ND	07/01		
ENC 1	MUNICIPAL	ACTIVE	TCE	21.0	04/03	3.8	04/17	VULNERABLE (VOCS, NITRATE AND CLO4) (1)	
			PCE	3.5	04/03	1.3	04/17		
			NITRATE (NO3)	77.6	08/91	11.1	02/17		
			NITRATE (N)	17.5	08/91	2.5	02/17		
			CLO4	5.7	02/13	ND	04/17		
			AS	ND	07/89	ND	06/16		
			CR6	8.2	07/01	7.6	06/16		
ENC 2	MUNICIPAL	ACTIVE	CR6	8.2	07/01	7.6	06/16	VULNERABLE (VOCS) (1)	
			TCE	29.1	02/01	3.0	05/17		
			PCE	6.4	02/15	1.1	05/17		
			NITRATE (NO3)	21.0	02/09	9.3	05/17		
			NITRATE (N)	4.7	02/09	2.1	05/17		
			CLO4	1.5	03/10	ND	05/17		
			AS	0.7	08/96	ND	08/14		
ENC 3	MUNICIPAL	ACTIVE	CR6	7.2	02/01	7.0	11/14	VULNERABLE (VOCS AND NITRATE) (1)	
			TCE	19.0	03/17	13.0	05/17		
			PCE	7.8	03/17	4.6	05/17		
			NITRATE (NO3)	43.2	07/93	16.4	05/17		
			NITRATE (N)	9.8	07/93	3.7	05/17		
			CLO4	1.9	03/10	ND	05/17		
			AS	16.3	07/90	ND	08/14		
FAR 1	MUNICIPAL	ACTIVE	CR6	8.0	09/01	7.1	11/14	VULNERABLE (VOCS)	
			TCE	11.9	10/80	1.3	05/17		
			PCE	3.1	10/87	ND	02/17		
			NITRATE (NO3)	13.0	07/89	12.8	05/17		

**APPENDIX C
HIGHLIGHTS OF VOLATILE ORGANIC COMPOUNDS, NITRATE, AND PERCHLORATE CONCENTRATIONS
AND WELLS VULNERABLE TO CONTAMINATION (AS OF MAY 31, 2017)**

WELL NAME	USAGE	STATUS	CONCENTRATION (NITRATE IN MG/L, OTHERS IN UG/L)				REMARKS	
			CONTAMINANT OF CONCERN	HISTORIC HIGH		MOST RECENT		
				VALUE	DATE	VALUE		DATE
			NITRATE (N)	2.9	07/89	2.9	05/17	
			CLO4	ND	08/97	ND	05/17	
			AS	2.7	08/97	ND	05/16	
			CR6	1.6	05/16	1.6	05/16	
FAR 2	MUNICIPAL	ACTIVE	TCE	12.9	07/80	ND	05/17	VULNERABLE (VOCS)
			PCE	2.6	10/87	ND	08/16	
			NITRATE (NO3)	12.2	07/90	7.1	08/16	
			NITRATE (N)	2.8	07/90	1.6	08/16	
			CLO4	ND	08/97	ND	08/16	
			AS	0.9	08/96	ND	08/14	
			CR6	1.9	11/14	1.9	11/14	
			CR6	1.9	11/14	1.9	11/14	
GAR 1	MUNICIPAL	DESTROYED	VOCS	ND	08/99	ND	07/03	
			PCE	4.5	10/03	4.5	10/03	
			NITRATE (NO3)	8.3	08/03	7.7	09/03	
			NITRATE (N)	1.9	08/03	1.7	09/03	
			CLO4	ND	08/97	ND	08/03	
			AS	0.5	08/96	ND	08/03	
GAR 2	MUNICIPAL	DESTROYED	PCE	12.0	07/03	11.0	08/03	
			TCE	2.2	08/03	2.2	08/03	
			NITRATE (NO3)	7.3	08/97	4.6	07/02	
			NITRATE (N)	1.6	08/97	1.0	07/02	
			CLO4	ND	08/97	ND	08/03	
			AS	0.5	08/96	ND	08/00	
GAR 3	MUNICIPAL	ACTIVE	TCE	0.8	02/17	ND	05/17	
			PCE	7.8	02/17	5.0	05/17	
			NITRATE (NO3)	16.8	02/17	9.3	05/17	
			NITRATE (N)	3.8	02/17	2.1	05/17	
			CLO4	ND	06/16	ND	05/17	
			AS	NA	NA	NA	06/16	
			CR6	NA	NA	6.2	06/16	
GID 1	MUNICIPAL	DESTROYED	TCE	6.6	04/85	4.1	09/93	
			PCE	0.9	09/93	0.9	09/93	
			NITRATE (NO3)	40.6	09/93	40.6	09/93	
			NITRATE (N)	9.2	09/93	9.2	09/93	
			CLO4	NA	NA	NA	NA	
GID 2	MUNICIPAL	DESTROYED	TCE	86.0	05/87	5.2	09/93	
			PCE	20.0	05/87	1.5	09/93	
			CTC	3.0	05/87	ND	09/93	
			NITRATE (NO3)	45.8	09/93	45.8	09/93	
			NITRATE (N)	10.3	09/93	10.3	09/93	
			CLO4	NA	NA	NA	NA	
GRA 1	MUNICIPAL	DESTROYED	TCE	33.0	09/88	25.4	11/94	
			PCE	2.5	11/93	0.6	11/94	
			NITRATE (NO3)	86.8	08/89	44.4	07/95	
			NITRATE (N)	19.6	08/89	10.0	07/95	
			CLO4	NA	NA	NA	NA	
			AS	18.0	06/78	ND	08/94	
GRA 2	MUNICIPAL	INACTIVE	TCE	31.3	08/89	24.6	08/94	
			PCE	3.3	09/94	3.3	09/94	
			1,1-DCE	4.8	08/94	4.8	08/94	
			NITRATE (NO3)	82.1	07/90	44.2	07/95	
			NITRATE (N)	18.5	07/90	10.0	07/95	
			CLO4	NA	NA	NA	NA	
			AS	ND	01/89	ND	08/94	
JEF 1	MUNICIPAL	INACTIVE	TCE	340.0	01/80	98.0	01/85	
			PCE	23.0	03/81	8.0	01/85	
			1,1,1-TCA	31.0	01/85	31.0	01/85	
			NITRATE (NO3)	52.0	07/83	48.7	03/86	
			NITRATE (N)	11.7	07/83	11.0	03/86	
			CLO4	NA	NA	NA	NA	
JEF 2	MUNICIPAL	DESTROYED	TCE	260.0	01/80	140.0	01/85	
			PCE	15.0	03/81	6.0	01/85	

**APPENDIX C
HIGHLIGHTS OF VOLATILE ORGANIC COMPOUNDS, NITRATE, AND PERCHLORATE CONCENTRATIONS
AND WELLS VULNERABLE TO CONTAMINATION (AS OF MAY 31, 2017)**

WELL NAME	USAGE	STATUS	CONCENTRATION (NITRATE IN MG/L, OTHERS IN UG/L)				REMARKS	
			CONTAMINANT OF CONCERN	HISTORIC HIGH		MOST RECENT		
				VALUE	DATE	VALUE		DATE
JEF 3	MUNICIPAL	DESTROYED	1,1-DCE	20.0	01/85	20.0	01/85	
			1,1,1-TCA	54.0	01/85	54.0	01/85	
			NITRATE (NO3)	68.0	06/77	61.0	06/79	
			NITRATE (N)	15.4	06/77	13.8	06/79	
			CLO4	NA	NA	NA	NA	
			TCE	121.0	02/81	4.9	08/92	
			PCE	12.0	03/81	0.6	08/92	
JEF 3	MUNICIPAL	DESTROYED	1,1,1-TCA	29.0	04/85	ND	08/92	
			T-1,2-DCE	2.4	04/85	ND	08/92	
			NITRATE (NO3)	52.0	12/84	23.5	08/92	
			NITRATE (N)	11.7	12/84	5.3	08/92	
			CLO4	NA	NA	NA	NA	
			AS	ND	12/84	ND	08/86	
			CR6	ND	12/84	ND	08/86	
JEF 4	MUNICIPAL	ACTIVE	VOCS	ND	08/89	ND	08/16	
			NITRATE (NO3)	14.7	07/89	3.7	08/16	
			NITRATE (N)	3.3	07/89	0.8	08/16	
			CLO4	ND	08/97	ND	08/16	
			AS	0.7	08/96	ND	08/15	
			CR6	1.3	07/01	ND	08/15	
PER 1	MUNICIPAL	ACTIVE	TCE	25.8	10/80	0.8	05/17	VULNERABLE (VOCS AND NITRATE)
			PCE	6.8	07/87	ND	05/17	
			NITRATE (NO3)	38.0	12/11	6.2	05/17	
			NITRATE (N)	8.6	12/11	1.4	05/17	
			CLO4	ND	08/97	ND	11/16	
			AS	0.9	08/96	ND	08/15	
			CR6	5.6	08/15	5.6	08/15	
S G 1	MUNICIPAL	ACTIVE	PCE	46.0	04/06	11.0	05/17	VULNERABLE (VOCS, NITRATE AND CLO4) (1)
			TCE	6.8	12/03	1.0	05/17	
			C-1,2-DCE	1.8	11/04	ND	05/17	
			1,1-DCA	1.8	06/04	ND	05/17	
			1,1-DCE	0.7	11/04	ND	05/17	
			FREON 11	1.2	08/03	ND	08/15	
			NITRATE (NO3)	27.0	04/02	14.6	05/17	
			NITRATE (N)	6.1	04/02	3.3	05/17	
			CLO4	8.1	08/03	ND	05/17	
			AS	2.7	08/94	ND	08/16	
			CR6	5.9	12/01	5.6	08/16	
S G 2	MUNICIPAL	ACTIVE	PCE	28.0	05/11	10.0	05/17	VULNERABLE (VOCS, NITRATE AND CLO4) (1)
			TCE	3.6	06/99	0.5	05/17	
			1,1-DCE	0.7	04/11	ND	05/17	
			C-1,2-DCE	1.2	02/01	ND	05/17	
			NITRATE (NO3)	75.3	08/16	57.5	05/17	
			NITRATE (N)	17.0	08/16	13.0	05/17	
			CLO4	7.0	02/03	ND	05/17	
			AS	0.8	08/96	ND	08/15	
			CR6	8.0	08/15	8.0	08/15	
SAX 1	MUNICIPAL	DESTROYED	PCE	1.4	04/97	0.9	12/97	
			NITRATE (NO3)	33.1	10/97	33.1	10/97	
			NITRATE (N)	7.5	10/97	7.5	10/97	
			CLO4	ND	08/97	ND	12/97	
			AS	0.3	08/96	0.3	08/96	
SAX 3	MUNICIPAL	ACTIVE	VOCS	ND	04/89	ND	08/16	VULNERABLE (NITRATE)
			NITRATE (NO3)	27.3	11/96	6.6	08/16	
			NITRATE (N)	6.2	11/96	1.5	08/16	
			CLO4	ND	08/97	ND	08/16	
			AS	0.4	08/96	ND	08/16	
			CR6	5.8	08/16	5.8	08/16	
SAX 4	MINICIPAL	ACTIVE	PCE	0.8	12/16	ND	01/17	
			TCE	0.5	12/16	ND	01/17	
			NITRATE (NO3)	11.9	08/99	9.7	12/16	
			NITRATE (N)	2.7	08/99	2.2	12/16	
			CLO4	ND	08/97	ND	12/16	
			AS	5.2	12/09	3.5	12/16	
			CR6	4.8	11/14	4.3	12/16	

**APPENDIX C
HIGHLIGHTS OF VOLATILE ORGANIC COMPOUNDS, NITRATE, AND PERCHLORATE CONCENTRATIONS
AND WELLS VULNERABLE TO CONTAMINATION (AS OF MAY 31, 2017)**

WELL NAME	USAGE	STATUS	CONCENTRATION (NITRATE IN MG/L, OTHERS IN UG/L)				REMARKS	
			CONTAMINANT OF CONCERN	HISTORIC HIGH		MOST RECENT		
				VALUE	DATE	VALUE		DATE
GREEN, WALTER								
NA	IRRIGATION	INACTIVE	VOCS	NA	NA	NA	NA	
			NITRATE (NO3)	NA	NA	NA	NA	
			NITRATE (N)	NA	NA	NA	NA	
			CLO4	NA	NA	NA	NA	
NA	NON-POTABLE	INACTIVE	VOCS	NA	NA	NA	NA	
			NITRATE (NO3)	NA	NA	NA	NA	
			NITRATE (N)	NA	NA	NA	NA	
			CLO4	NA	NA	NA	NA	
HALL (W.E.) COMPANY								
NA	DOMESTIC	INACTIVE	VOCS	NA	NA	NA	NA	
			NITRATE (NO3)	NA	NA	NA	NA	
			NITRATE (N)	NA	NA	NA	NA	
			CLO4	NA	NA	NA	NA	
HANSEN, ALICE								
2946C	IRRIGATION	INACTIVE	VOCS	NA	NA	NA	NA	
			NITRATE (NO3)	NA	NA	NA	NA	
			NITRATE (N)	NA	NA	NA	NA	
			CLO4	NA	NA	NA	NA	
HANSON AGGREGATES WEST, INC.								
DUA 1	INDUSTRIAL	INACTIVE	VOCS	NA	NA	NA	NA	
			NITRATE (NO3)	NA	NA	NA	NA	
			NITRATE (N)	NA	NA	NA	NA	
			CLO4	NA	NA	NA	NA	
EL 1	INDUSTRIAL	ACTIVE	VOCS	ND	05/98	ND	09/02	
			NITRATE (NO3)	17.0	02/93	2.2	09/02	
			NITRATE (N)	3.8	02/93	0.5	09/02	
			CLO4	ND	03/98	ND	03/98	
EL 3	INDUSTRIAL	ACTIVE	VOCS	ND	06/98	ND	09/02	
			NITRATE (NO3)	22.0	05/93	2.8	09/02	
			NITRATE (N)	5.0	05/93	0.6	09/02	
			CLO4	ND	03/98	ND	03/98	
EL 4	INDUSTRIAL	ACTIVE	VOCS	ND	12/87	ND	09/02	
			NITRATE (NO3)	6.3	06/98	ND	09/02	
			NITRATE (N)	1.4	06/98	ND	09/02	
			CLO4	NA	NA	NA	NA	
KIN 1	INDUSTRIAL	DESTROYED	VOCS	NA	NA	NA	NA	
			NITRATE (NO3)	NA	NA	NA	NA	
			NITRATE (N)	NA	NA	NA	NA	
			CLO4	NA	NA	NA	NA	
HARTLEY, DAVID								
NA	DOMESTIC	INACTIVE	VOCS	ND	10/95	ND	10/95	
			NITRATE (NO3)	111.0	01/96	75.0	04/96	
			NITRATE (N)	25.1	01/96	16.9	04/96	
			CLO4	NA	NA	NA	NA	
HEMLOCK MUTUAL WATER COMPANY								
NORTH	MUNICIPAL	ACTIVE	PCE	51.7	04/82	ND	09/16	VULNERABLE (VOCS) (1)
			TCE	0.7	12/87	ND	09/16	
			NITRATE (NO3)	18.9	12/06	2.2	09/16	
			NITRATE (N)	4.3	12/06	0.5	09/16	
			CLO4	ND	09/97	ND	09/16	
			AS	2.7	12/08	ND	12/14	
			CR6	1.0	12/00	0.5	09/13	
SOUTH	MUNICIPAL	ACTIVE	PCE	210.0	12/87	ND	03/17	VULNERABLE

APPENDIX C
HIGHLIGHTS OF VOLATILE ORGANIC COMPOUNDS, NITRATE, AND PERCHLORATE CONCENTRATIONS
AND WELLS VULNERABLE TO CONTAMINATION (AS OF MAY 31, 2017)

WELL NAME	USAGE	STATUS	CONCENTRATION (NITRATE IN MG/L, OTHERS IN UG/L)				REMARKS	
			CONTAMINANT OF CONCERN	HISTORIC HIGH		MOST RECENT		
				VALUE	DATE	VALUE		DATE
			TCE	0.9	04/89	ND	09/16	(VOCS AND NITRATE) (1)
			NITRATE (NO3)	32.7	12/94	2.7	03/17	
			NITRATE (N)	7.4	12/94	0.6	03/17	
			CLO4	ND	09/97	ND	09/16	
			AS	2.1	08/96	ND	12/14	
			CR6	1.1	12/00	0.6	09/13	
INDUSTRY WATERWORKS SYSTEM, CITY OF								
01	MUNICIPAL	INACTIVE	TCE	40.0	01/80	1.7	10/92	
			PCE	9.0	04/80	5.0	10/92	
			CTC	5.7	10/92	5.7	10/92	
			1,1-DCE	15.3	10/92	15.3	10/92	
			1,2-DCA	0.6	10/92	0.6	10/92	
			NITRATE (NO3)	60.2	10/92	60.2	10/92	
			NITRATE (N)	13.6	10/92	13.6	10/92	
			CLO4	NA	NA	NA	NA	
			AS	ND	01/80	ND	01/80	
02	MUNICIPAL	INACTIVE	TCE	19.0	01/80	2.3	04/81	
			PCE	10.0	04/81	10.0	04/81	
			NITRATE (NO3)	55.5	02/86	55.5	02/86	
			NITRATE (N)	12.5	02/86	12.5	02/86	
			CLO4	100.0	04/99	100.0	04/99	
			AS	ND	01/80	ND	01/80	
03	MUNICIPAL	INACTIVE	PCE	2.6	09/80	1.6	07/06	VULNERABLE (VOCS, NITRATE, AND CLO4)
			TCE	12.0	07/06	12.0	07/06	
			CTC	0.5	07/06	0.5	07/06	
			1,2-DCA	0.5	07/06	0.5	07/06	
			NITRATE (NO3)	31.1	08/00	ND	07/06	
			NITRATE (N)	7.0	08/00	ND	07/06	
			CLO4	120.0	04/99	ND	07/06	
			AS	5.4	07/95	ND	08/04	
			CR6	6.9	11/00	6.9	11/00	
04	MUNICIPAL	INACTIVE	PCE	2.4	08/01	0.5	07/06	VULNERABLE (VOCS, NITRATE, AND CLO4)
			TCE	8.0	11/01	1.7	07/06	
			1,1-DCE	0.9	09/02	0.6	07/06	
			1,2-DCA	1.0	11/01	ND	07/06	
			CTC	0.7	11/01	ND	07/05	
			NITRATE (NO3)	42.0	06/02	33.0	04/07	
			NITRATE (N)	9.5	06/02	7.5	04/07	
			CLO4	14.8	06/01	6.5	01/06	
			AS	6.9	07/95	2.8	08/01	
			CR6	8.9	11/00	8.4	06/01	
05	MUNICIPAL	ACTIVE	PCE	12.0	10/16	8.0	05/17	VULNERABLE (VOCS, NITRATE, AND CLO4) (1,4)
			TCE	6.8	04/96	2.7	05/17	
			1,2-DCA	0.7	09/02	ND	05/17	
			1,1-DCE	2.4	10/16	1.4	05/17	
			NITRATE (NO3)	32.3	07/16	28.3	05/17	
			NITRATE (N)	7.3	07/16	6.4	05/17	
			CLO4	11.0	04/04	ND	05/17	
			AS	6.8	07/95	2.3	12/15	
			CR6	8.3	05/11	6.5	12/15	
05TH AVE	MUNICIPAL	DESTROYED	TCE	0.3	12/80	0.3	12/80	
			NITRATE (NO3)	NA	NA	NA	NA	
			NITRATE (N)	NA	NA	NA	NA	
			CLO4	NA	NA	NA	NA	
KNIGHT, KATHRYN M.								
NA	DOMESTIC	INACTIVE	VOCS	NA	NA	NA	NA	
			NITRATE (NO3)	NA	NA	NA	NA	
			NITRATE (N)	NA	NA	NA	NA	
			CLO4	NA	NA	NA	NA	
LANDEROS, JOHN								
NA	DOMESTIC	INACTIVE	VOCS	NA	NA	NA	NA	

APPENDIX C
HIGHLIGHTS OF VOLATILE ORGANIC COMPOUNDS, NITRATE, AND PERCHLORATE CONCENTRATIONS
AND WELLS VULNERABLE TO CONTAMINATION (AS OF MAY 31, 2017)

WELL NAME	USAGE	STATUS	CONCENTRATION (NITRATE IN MG/L, OTHERS IN UG/L)				REMARKS		
			CONTAMINANT OF CONCERN	HISTORIC HIGH		MOST RECENT			
				VALUE	DATE	VALUE		DATE	
			NITRATE (NO3)	NA	NA	NA	NA		
			NITRATE (N)	NA	NA	NA	NA		
			CLO4	NA	NA	NA	NA		
LA PUENTE VALLEY COUNTY WATER DISTRICT									
01	MUNICIPAL	DESTROYED	VOCS	NA	NA	NA	NA		
			NITRATE (NO3)	NA	NA	NA	NA		
			NITRATE (N)	NA	NA	NA	NA		
			CLO4	NA	NA	NA	NA		
02	MUNICIPAL	ACTIVE	TCE	120.0	12/12	84.0	05/17	VULNERABLE (VOCS, NITRATE, AND CLO4) (1,4)	
			PCE	6.6	03/00	4.4	05/17		
			CTC	8.5	12/02	3.4	05/17		
			1,1-DCA	2.1	11/03	0.7	05/17		
			1,2-DCA	6.1	03/00	2.4	05/17		
			1,1-DCE	1.6	12/00	ND	05/17		
			C-1,2-DCE	1.9	04/10	1.5	05/17		
			NITRATE (NO3)	35.4	05/17	35.4	05/17		
			NITRATE (N)	8.0	05/17	8.0	05/17		
			CLO4	183.0	02/98	34.0	05/17		
			AS	1.9	04/06	ND	06/16		
			CR6	3.7	04/06	3.5	10/16		
03	MUNICIPAL	ACTIVE	TCE	72.0	03/11	0.6	05/17	VULNERABLE (VOCS, NITRATE, AND CLO4) (1,4)	
			PCE	6.3	04/85	ND	05/17		
			CTC	8.5	11/04	ND	05/17		
			1,1-DCE	0.9	10/95	ND	05/17		
			1,2-DCA	6.7	02/99	ND	05/17		
			C-1,2-DCE	1.4	01/97	ND	05/17		
			1,1-DCA	0.5	09/01	ND	05/17		
			NITRATE (NO3)	95.0	01/80	43.8	05/17		
			NITRATE (N)	21.5	01/80	9.9	05/17		
			CLO4	174.0	02/98	6.6	05/17		
			AS	2.1	08/04	ND	10/16		
			CR6	4.3	06/01	4.0	10/16		
04	MUNICIPAL	INACTIVE	TCE	84.3	03/00	46.0	04/04	VULNERABLE (VOCS, NITRATE, AND CLO4) (1,4)	
			PCE	6.6	03/00	2.9	04/04		
			CTC	7.6	04/95	1.9	04/04		
			1,1-DCA	0.7	04/04	0.7	04/04		
			1,2-DCA	8.1	03/00	4.4	04/04		
			1,1-DCE	1.3	04/97	0.5	04/04		
			C-1,2-DCE	15.6	11/98	1.7	04/04		
			NITRATE (NO3)	24.9	04/95	18.1	04/04		
			NITRATE (N)	5.6	04/95	4.1	04/04		
			CLO4	159.0	06/97	71.2	04/04		
			AS	2.3	09/94	ND	11/98		
			CR6	4.3	11/00	4.3	11/00		
05	MUNICIPAL	ACTIVE	TCE	43.0	03/08	12.0	05/17	VULNERABLE (VOCS, NITRATE, AND CLO4) (1,4)	
			PCE	3.8	03/08	1.1	05/17		
			CTC	2.3	03/08	ND	05/17		
			1,1-DCA	0.5	03/08	ND	05/17		
			1,2-DCA	2.7	03/08	ND	05/17		
			1,1-DCE	0.5	03/08	ND	05/17		
			C-1,2-DCE	0.8	11/08	ND	05/17		
			NITRATE (NO3)	34.5	12/16	34.1	05/17		
			NITRATE (N)	7.8	12/16	7.7	05/17		
			CLO4	65.0	03/08	14.0	05/17		
			AS	1.1	03/08	ND	08/16		
			CR6	3.1	05/11	3.0	11/14		
LA VERNE, CITY OF									
SNIDO	MUNICIPAL	DESTROYED	VOCS	NA	NA	NA	NA		
			NITRATE (NO3)	NA	NA	NA	NA		
			NITRATE (N)	NA	NA	NA	NA		
			CLO4	NA	NA	NA	NA		
W15-L	MUNICIPAL	DESTROYED	VOCS	NA	NA	NA	NA		
			NITRATE (NO3)	NA	NA	NA	NA		

**APPENDIX C
HIGHLIGHTS OF VOLATILE ORGANIC COMPOUNDS, NITRATE, AND PERCHLORATE CONCENTRATIONS
AND WELLS VULNERABLE TO CONTAMINATION (AS OF MAY 31, 2017)**

WELL NAME	USAGE	STATUS	CONCENTRATION (NITRATE IN MG/L, OTHERS IN UG/L)				REMARKS	
			CONTAMINANT OF CONCERN	HISTORIC HIGH		MOST RECENT		
				VALUE	DATE	VALUE		DATE
W24-L	MUNICIPAL	DESTROYED	NITRATE (N)	NA	NA	NA	NA	
			CLO4	NA	NA	NA	NA	
			VOCS	NA	NA	NA	NA	
			NITRATE (NO3)	NA	NA	NA	NA	
			NITRATE (N)	NA	NA	NA	NA	
			CLO4	NA	NA	NA	NA	
LEE, PAUL								
01	DOMESTIC	INACTIVE	VOCS	NA	NA	NA	NA	
			NITRATE (NO3)	NA	NA	NA	NA	
			NITRATE (N)	NA	NA	NA	NA	
			CLO4	NA	NA	NA	NA	
02	DOMESTIC	INACTIVE	VOCS	NA	NA	NA	NA	
			NITRATE (NO3)	NA	NA	NA	NA	
			NITRATE (N)	NA	NA	NA	NA	
			CLO4	NA	NA	NA	NA	
03	DOMESTIC	INACTIVE	VOCS	NA	NA	NA	NA	
			NITRATE (NO3)	NA	NA	NA	NA	
			NITRATE (N)	NA	NA	NA	NA	
			CLO4	NA	NA	NA	NA	
04	DOMESTIC	INACTIVE	VOCS	NA	NA	NA	NA	
			NITRATE (NO3)	NA	NA	NA	NA	
			NITRATE (N)	NA	NA	NA	NA	
			CLO4	NA	NA	NA	NA	
LOS ANGELES, COUNTY OF								
02	NON POTABLE	DESTROYED	PCE	6.6	09/04	6.6	09/04	
			TCE	1.3	09/04	1.3	09/04	
			1,2-DCA	0.5	01/96	ND	09/04	
			NITRATE (NO3)	10.7	09/04	10.7	09/04	
			NITRATE (N)	2.4	09/04	2.4	09/04	
			CLO4	ND	08/97	ND	08/97	
03	IRRIGATION	DESTROYED	PCE	2.1	06/94	2.1	06/94	
			TCE	0.7	06/94	0.7	06/94	
			NITRATE (NO3)	4.8	06/94	4.8	06/94	
			NITRATE (N)	1.1	06/94	1.1	06/94	
			CLO4	NA	NA	NA	NA	
03A	IRRIGATION	DESTROYED	PCE	2.5	11/99	ND	10/08	
			NITRATE (NO3)	2.1	08/96	ND	10/08	
			NITRATE (N)	0.5	08/96	ND	10/08	
			CLO4	ND	08/97	ND	08/97	
04	IRRIGATION	DESTROYED	1,1,1-TCA	0.7	05/87	ND	11/87	
			NITRATE (NO3)	NA	NA	NA	NA	
			NITRATE (N)	NA	NA	NA	NA	
			CLO4	NA	NA	NA	NA	
05	IRRIGATION	DESTROYED	PCE	39.0	09/03	35.7	10/08	
			TCE	1.3	09/03	ND	10/08	
			NITRATE (NO3)	18.0	09/03	14.0	10/08	
			NITRATE (N)	4.1	09/03	3.2	10/08	
			CLO4	ND	08/97	ND	08/97	
06	IRRIGATION	DESTROYED	PCE	7.4	08/96	2.8	11/99	
			TCE	8.3	08/96	2.9	11/99	
			1,1-DCA	2.0	08/96	ND	11/99	
			1,1-DCE	1.4	08/96	ND	11/99	
			C-1,2-DCE	4.5	08/96	0.8	11/99	
			NITRATE (NO3)	11.6	08/96	8.4	11/99	
			NITRATE (N)	2.6	08/96	1.9	11/99	
			CLO4	NA	NA	NA	NA	
600	IRRIGATION	INACTIVE	VOCS	ND	07/98	ND	07/98	
			NITRATE (NO3)	4.8	07/98	4.8	07/98	
			NITRATE (N)	1.1	07/98	1.1	07/98	

**APPENDIX C
HIGHLIGHTS OF VOLATILE ORGANIC COMPOUNDS, NITRATE, AND PERCHLORATE CONCENTRATIONS
AND WELLS VULNERABLE TO CONTAMINATION (AS OF MAY 31, 2017)**

WELL NAME	USAGE	STATUS	CONCENTRATION (NITRATE IN MG/L, OTHERS IN UG/L)					REMARKS
			CONTAMINANT OF CONCERN	HISTORIC HIGH		MOST RECENT		
				VALUE	DATE	VALUE	DATE	
			CLO4	ND	07/98	ND	07/98	
BIG RED	NON POTABLE	INACTIVE	1,2-DCA	0.6	01/96	ND	10/09	
			NITRATE (NO3)	12.0	09/02	ND	10/09	
			NITRATE (N)	2.7	09/02	ND	10/09	
			CLO4	ND	08/97	ND	08/97	
NEW LAKE	NON POTABLE	INACTIVE	PCE	19.7	02/00	ND	11/10	
			TCE	0.9	02/00	ND	11/10	
			NITRATE (NO3)	22.0	02/00	18.0	11/10	
			NITRATE (N)	5.0	02/00	4.1	11/10	
			CLO4	ND	08/97	ND	08/97	
SF 1	NON POTABLE	ACTIVE	TCE	4.3	09/04	ND	10/10	VULNERABLE (VOCS)
			PCE	7.6	09/04	ND	10/10	
			VC	1.4	12/87	ND	10/10	
			NITRATE (NO3)	16.0	09/02	6.3	10/10	
			NITRATE (N)	3.6	09/02	1.4	10/10	
			CLO4	ND	06/97	ND	05/10	
WHI 1	NON POTABLE	INACTIVE	PCE	3.8	09/04	1.4	11/10	
			TCE	1.0	09/04	ND	11/10	
			NITRATE (NO3)	7.7	10/09	5.1	11/10	
			NITRATE (N)	1.7	10/09	1.2	11/10	
			CLO4	ND	08/97	ND	08/97	
LOS FLORES MUTUAL WATER COMPANY								
HI 1	MUNICIPAL	DESTROYED	VOCS	NA	NA	NA	NA	
			NITRATE (NO3)	NA	NA	NA	NA	
			NITRATE (N)	NA	NA	NA	NA	
			CLO4	NA	NA	NA	NA	
LO 1	MUNICIPAL	DESTROYED	VOCS	NA	NA	NA	NA	
			NITRATE (NO3)	NA	NA	NA	NA	
			NITRATE (N)	NA	NA	NA	NA	
			CLO4	NA	NA	NA	NA	
LOUCKS, DAVID								
NA	DOMESTIC	INACTIVE	VOCS	NA	NA	NA	NA	
			NITRATE (NO3)	NA	NA	NA	NA	
			CLO4	NA	NA	NA	NA	
MAECHTLEN ESTATE								
M-N	DOMESTIC	INACTIVE	VOCS	NA	NA	NA	NA	
			NITRATE (NO3)	NA	NA	NA	NA	
			CLO4	NA	NA	NA	NA	
OLD60	DOMESTIC	INACTIVE	VOCS	NA	NA	NA	NA	
			NITRATE (NO3)	NA	NA	NA	NA	
			CLO4	NA	NA	NA	NA	
SNIDO	DOMESTIC	INACTIVE	VOCS	NA	NA	NA	NA	
			NITRATE (NO3)	NA	NA	NA	NA	
			CLO4	NA	NA	NA	NA	
MANNING BROTHERS ROCK AND SAND COMPANY								
36230	INDUSTRIAL	DESTROYED	TCE	520.0	12/79	100.0	01/80	
			NITRATE (NO3)	NA	NA	NA	NA	
			CLO4	NA	NA	NA	NA	
MAPLE WATER COMPANY								
01	MUNICIPAL	DESTROYED	VOCS	ND	06/89	ND	07/96	
			NITRATE (NO3)	68.0	09/94	55.5	07/96	
			NITRATE (N)	15.4	09/94	12.5	07/96	
			CLO4	NA	NA	NA	NA	
			AS	1.3	07/96	1.3	07/96	

**APPENDIX C
HIGHLIGHTS OF VOLATILE ORGANIC COMPOUNDS, NITRATE, AND PERCHLORATE CONCENTRATIONS
AND WELLS VULNERABLE TO CONTAMINATION (AS OF MAY 31, 2017)**

WELL NAME	USAGE	STATUS	CONCENTRATION (NITRATE IN MG/L, OTHERS IN UG/L)					REMARKS				
			CONTAMINANT OF CONCERN	HISTORIC HIGH		MOST RECENT						
				VALUE	DATE	VALUE	DATE					
02	MUNICIPAL	DESTROYED	VOCS	ND	06/89	ND	07/96					
			NITRATE (NO3)	62.7	11/89	55.3	07/96					
			NITRATE (N)	14.2	11/89	12.5	07/96					
			CLO4	NA	NA	NA	NA					
			AS	1.3	07/96	1.3	07/96					
MARTINEZ, FRANCES M.												
NA	DOMESTIC	INACTIVE	VOCS	NA	NA	NA	NA					
			NITRATE (NO3)	NA	NA	NA	NA					
			NITRATE (N)	NA	NA	NA	NA					
			CLO4	NA	NA	NA	NA					
METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA												
02	NON-POTABLE	DESTROYED	VOCS	NA	NA	NA	NA					
			NITRATE (NO3)	NA	NA	NA	NA					
			NITRATE (N)	NA	NA	NA	NA					
			CLO4	NA	NA	NA	NA					
03	NON-POTABLE	DESTROYED	VOCS	NA	NA	NA	NA					
			NITRATE (NO3)	NA	NA	NA	NA					
			NITRATE (N)	NA	NA	NA	NA					
			CLO4	NA	NA	NA	NA					
MILLERCOORS LLC (MILLER BREWERIES WEST, L.P. /MILLER BREWING COMPANY)												
01	INDUSTRIAL	ACTIVE	VOCS	ND	01/92	ND	10/09					
			NITRATE (NO3)	9.8	01/93	4.3	10/09					
			NITRATE (N)	2.2	01/93	1.0	10/09					
			CLO4	ND	06/97	ND	06/08					
			AS	3.9	06/08	3.9	06/08					
02 (NW WELL)	INDUSTRIAL	INACTIVE	VOCS	ND	01/92	ND	03/15					
			NITRATE (NO3)	14.0	10/92	3.4	06/14					
			NITRATE (N)	3.2	10/92	0.8	06/14					
			CLO4	ND	06/97	ND	06/14					
			AS	3.5	05/08	3.3	06/13					
			CR6	ND	12/14	ND	12/14					
N BREWER	INDUSTRIAL	INACTIVE	VOCS	NA	NA	NA	NA					
			NITRATE (NO3)	NA	NA	NA	NA					
			NITRATE (N)	NA	NA	NA	NA					
			CLO4	NA	NA	NA	NA					
MONROVIA, CITY OF												
01	MUNICIPAL	DESTROYED	TCE	46.8	11/92	12.0	04/02					
			PCE	3.9	03/81	0.8	04/02					
			1,1-DCE	1.2	08/96	0.9	04/02					
			1,1,1-TCA	2.1	08/87	ND	07/01					
			NITRATE (NO3)	78.0	02/01	60.0	03/02					
			NITRATE (N)	17.6	02/01	13.6	03/02					
			CLO4	11.1	02/01	8.4	04/02					
			AS	2.5	10/00	2.5	10/00					
			02	MUNICIPAL	ACTIVE	TCE	167.0		08/82	3.4	05/17	VULNERABLE (VOCS, NITRATE AND CLO4) (1)
						PCE	11.0		08/82	0.9	05/17	
1,1,1-TCA	7.1	02/87				ND	07/16					
1,1-DCE	3.4	06/87				ND	04/17					
1,2-DCA	1.5	02/87				ND	07/16					
NITRATE (NO3)	65.6	12/91				57.5	05/17					
NITRATE (N)	14.8	12/91				13.0	05/17					
CLO4	6.9	04/15				ND	05/17					
AS	0.9	08/96				ND	04/16					
CR6	7.1	04/16				7.1	04/16					
03	MUNICIPAL	ACTIVE	TCE	18.0	08/82	1.4	05/17	VULNERABLE (VOCS AND NITRATE) (1)				
			PCE	17.0	08/82	ND	05/17					
			1,1-DCE	0.8	12/08	ND	04/17					
			NITRATE (NO3)	49.6	05/76	7.1	05/17					
			NITRATE (N)	11.2	05/76	1.6	05/17					

**APPENDIX C
HIGHLIGHTS OF VOLATILE ORGANIC COMPOUNDS, NITRATE, AND PERCHLORATE CONCENTRATIONS
AND WELLS VULNERABLE TO CONTAMINATION (AS OF MAY 31, 2017)**

WELL NAME	USAGE	STATUS	CONCENTRATION (NITRATE IN MG/L, OTHERS IN UG/L)						REMARKS
			CONTAMINANT OF CONCERN	HISTORIC HIGH		MOST RECENT			
				VALUE	DATE	VALUE	DATE		
04	MUNICIPAL	ACTIVE	CLO4	ND	08/97	ND	05/17	VULNERABLE (VOCS AND NITRATE) (1)	
			AS	3.6	08/97	ND	04/16		
			CR6	5.8	08/13	1.7	04/16		
			TCE	6.5	02/91	1.3	05/17		
			PCE	1.0	02/91	ND	05/17		
			1,1-DCE	1.1	01/05	ND	04/17		
			NITRATE (NO3)	28.8	06/91	11.1	05/17		
			NITRATE (N)	6.5	06/91	2.5	05/17		
			CLO4	ND	08/97	ND	05/17		
AS	3.8	08/97	ND	12/16					
CR6	1.1	07/01	ND	12/16					
05	MUNICIPAL	ACTIVE	TCE	6.5	06/16	3.5	05/17	VULNERABLE (VOCS AND NITRATE) (1)	
			PCE	1.0	10/02	ND	05/17		
			1,1-DCE	1.0	10/02	ND	04/17		
			NITRATE (NO3)	29.4	01/91	10.6	05/17		
			NITRATE (N)	6.6	01/91	2.4	05/17		
			CLO4	ND	08/97	ND	05/17		
			AS	1.0	08/96	ND	04/16		
			CR6	1.5	04/16	1.5	04/16		
			06	MUNICIPAL	ACTIVE	TCE	23.0		04/14
PCE	2.3	01/10				1.9	05/17		
1,1-DCE	0.8	10/07				ND	04/17		
NITRATE (NO3)	42.0	06/14				29.2	05/17		
NITRATE (N)	9.5	06/14				6.6	05/17		
CLO4	4.9	06/14				ND	05/17		
AS	ND	10/99				ND	04/16		
CR6	3.5	04/16				3.5	04/16		
MONROVIA NURSERY									
DIV 4	IRRIGATION	DESTROYED	VOCS	ND	08/96	ND	02/07		
			NITRATE (NO3)	213.0	09/04	202.0	02/07		
			NITRATE (N)	48.1	09/04	45.6	02/07		
			CLO4	ND	02/98	ND	02/98		
DIV 8	IRRIGATION	INACTIVE	VOCS	NA	NA	NA	NA		
			NITRATE (NO3)	NA	NA	NA	NA		
			NITRATE (N)	NA	NA	NA	NA		
			CLO4	NA	NA	NA	NA		
MONTEREY PARK, CITY OF									
01	MUNICIPAL	ACTIVE	PCE	64.1	12/08	2.4	05/17	VULNERABLE (VOCS, NITRATE AND CLO4) (1)	
			TCE	4.1	05/04	ND	05/17		
			1,1-DCE	0.6	05/04	ND	05/17		
			1,1-DCA	1.0	05/04	ND	05/17		
			C-1,2-DCE	1.0	03/04	ND	05/17		
			NITRATE (NO3)	24.0	12/12	11.1	05/17		
			NITRATE (N)	5.4	12/12	2.5	05/17		
			CLO4	4.7	05/04	ND	05/17		
			AS	0.5	07/96	ND	05/17		
			CR6	6.2	11/00	3.4	11/14		
			02	MUNICIPAL	DESTROYED	PCE	6.4		04/98
NITRATE (NO3)	18.3	07/95				13.0	07/97		
NITRATE (N)	4.1	07/95				2.9	07/97		
CLO4	3.0	07/97				ND	03/98		
AS	0.4	07/96				0.4	07/96		
03	MUNICIPAL	INACTIVE	PCE	25.0	08/11	22.0	05/12	VULNERABLE (VOCS AND CLO4) (1)	
			TCE	2.7	05/04	1.3	05/12		
			C-1,2-DCE	0.8	05/04	ND	05/12		
			NITRATE (NO3)	13.3	07/97	5.5	05/12		
			NITRATE (N)	3.0	07/97	1.2	05/12		
			CLO4	4.2	05/04	ND	08/11		
			AS	12.9	08/89	4.1	08/11		
			CR6	3.2	05/04	2.5	01/10		
04	MUNICIPAL	DESTROYED	PCE	0.4	01/80	ND	11/87		

APPENDIX C
HIGHLIGHTS OF VOLATILE ORGANIC COMPOUNDS, NITRATE, AND PERCHLORATE CONCENTRATIONS
AND WELLS VULNERABLE TO CONTAMINATION (AS OF MAY 31, 2017)

WELL NAME	USAGE	STATUS	CONCENTRATION (NITRATE IN MG/L, OTHERS IN UG/L)				REMARKS		
			CONTAMINANT OF CONCERN	HISTORIC HIGH		MOST RECENT			
				VALUE	DATE	VALUE		DATE	
			NITRATE (NO3)	6.2	09/87	6.2	09/87		
			NITRATE (N)	1.4	09/87	1.4	09/87		
			CLO4	NA	NA	NA	NA		
05	MUNICIPAL	ACTIVE	PCE	40.0	06/13	16.0	04/17	VULNERABLE (VOCS, NITRATE AND CLO4) (1,4)	
			TCE	7.0	01/92	0.6	04/17		
			C-1,2-DCE	2.0	11/01	ND	04/17		
			1,1-DCA	1.1	11/01	ND	04/17		
			1,1-DCE	0.7	11/01	ND	04/17		
			NITRATE (NO3)	27.0	11/15	23.5	04/17		
			NITRATE (N)	6.1	11/15	5.3	04/17		
			CLO4	6.5	02/01	ND	04/17		
			AS	1.5	10/12	ND	11/15		
			CR6	4.7	11/14	4.7	11/15		
06	MUNICIPAL	INACTIVE	PCE	13.6	03/01	3.1	05/05		
			TCE	6.4	05/89	3.1	05/05		
			C-1,2-DCE	1.3	01/99	1.2	05/05		
			1,1-DCA	0.8	11/01	0.6	05/05		
			NITRATE (NO3)	30.0	06/03	24.7	05/05		
			NITRATE (N)	6.8	06/03	5.6	05/05		
			CLO4	5.9	04/02	5.9	04/02		
			AS	2.2	09/00	ND	08/02		
			CR6	4.1	11/00	3.4	05/01		
07	MUNICIPAL	INACTIVE	PCE	6.0	09/10	6.0	09/10		
			NITRATE (NO3)	12.8	08/89	2.7	08/10		
			NITRATE (N)	2.9	08/89	0.6	08/10		
			CLO4	ND	08/97	ND	08/10		
			AS	28.4	07/96	2.1	08/09		
			CR6	5.3	02/07	5.1	01/10		
08	MUNICIPAL	INACTIVE	PCE	2.5	02/05	1.9	03/09		
			NITRATE (NO3)	17.0	08/05	ND	11/08		
			NITRATE (N)	3.8	08/05	ND	11/08		
			CLO4	ND	08/97	ND	11/08		
			AS	45.0	03/09	45.0	03/09		
			CR6	6.7	12/01	6.7	12/01		
09	MUNICIPAL	ACTIVE	PCE	13.0	05/15	ND	05/17	VULNERABLE (VOCS) (1,4)	
			TCE	1.3	04/97	ND	05/17		
			NITRATE (NO3)	18.0	07/12	ND	05/17		
			NITRATE (N)	4.1	07/12	ND	05/17		
			CLO4	ND	08/97	ND	05/17		
			AS	15.0	06/07	12.0	04/17		
			CR6	3.4	11/00	2.4	02/16		
10	MUNICIPAL	ACTIVE	PCE	17.0	02/12	7.5	05/17	VULNERABLE (VOCS, NITRATE AND CLO4) (1)	
			TCE	2.6	05/04	0.7	05/17		
			C-1,2-DCE	0.8	05/04	ND	05/17		
			NITRATE (NO3)	28.8	11/16	24.3	05/17		
			NITRATE (N)	6.5	11/16	5.5	05/17		
			CLO4	4.3	05/04	ND	05/17		
			AS	6.7	07/98	3.1	05/17		
			CR6	6.6	11/00	5.7	08/16		
12	MUNICIPAL	ACTIVE	PCE	85.0	05/02	40.0	05/17	VULNERABLE (VOCS, NITRATE AND CLO4) (1,4)	
			TCE	5.4	10/95	2.1	05/17		
			1,1-DCA	1.3	05/12	0.6	05/17		
			1,1-DCE	0.5	05/12	ND	05/17		
			C-1,2-DCE	1.4	05/12	0.6	05/17		
			NITRATE (NO3)	27.2	08/07	12.4	05/17		
			NITRATE (N)	6.1	08/07	2.8	05/17		
			CLO4	15.0	09/97	ND	05/17		
			AS	ND	04/81	ND	05/17		
			CR6	4.6	02/07	3.8	02/16		
14	MUNICIPAL	INACTIVE	PCE	2.2	05/02	0.7	05/06		
			TCE	2.9	11/02	1.5	05/06		
			1,1-DCA	0.8	08/02	ND	05/06		
			C-1,2-DCE	1.0	11/02	ND	05/06		
			NITRATE (NO3)	10.0	10/06	10.0	10/06		

**APPENDIX C
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AND WELLS VULNERABLE TO CONTAMINATION (AS OF MAY 31, 2017)**

WELL NAME	USAGE	STATUS	CONCENTRATION (NITRATE IN MG/L, OTHERS IN UG/L)				REMARKS					
			CONTAMINANT OF CONCERN	HISTORIC HIGH		MOST RECENT						
				VALUE	DATE	VALUE		DATE				
15	MUNICIPAL	ACTIVE	NITRATE (N)	2.3	10/06	2.3	10/06	VULNERABLE (VOCS AND NITRATE) (1,4)				
			CLO4	ND	08/97	ND	05/03					
			AS	41.0	08/05	39.0	03/06					
			CR6	1.0	11/00	1.0	05/01					
			PCE	190.0	02/12	66.0	05/17					
			TCE	3.6	03/15	1.8	05/17					
			C-1,2-DCE	0.8	08/16	ND	05/17					
			1,1-DCA	0.7	08/16	ND	05/17					
			NITRATE (NO3)	23.0	11/08	16.8	05/17					
			NITRATE (N)	5.2	11/08	3.8	05/17					
			CLO4	2.4	07/06	ND	05/17					
			AS	ND	09/06	ND	05/17					
			CR6	2.9	02/07	ND	08/15					
FERN	MUNICIPAL	ACTIVE	PCE	12.0	08/10	ND	05/17	VULNERABLE (VOCS) (1)				
			TCE	2.8	10/16	ND	05/17					
			C-1,2-DCE	0.7	03/04	ND	05/17					
			NITRATE (NO3)	6.5	03/04	ND	11/15					
			NITRATE (N)	1.5	03/04	ND	11/15					
			CLO4	2.0	08/97	ND	05/17					
			AS	16.0	07/16	15.0	05/17					
			CR6	1.5	11/00	ND	08/16					
			NAMIMATSU FARMS									
			NA	IRRIGATION	INACTIVE	VOCS	NA		NA	NA	NA	
NITRATE (NO3)	NA	NA				NA	NA					
CLO4	NA	NA				NA	NA					
OWL ROCK PRODUCTS COMPANY												
NA	INDUSTRIAL	INACTIVE	VOCS	ND	05/87	ND	10/09					
			NITRATE (NO3)	8.7	08/89	ND	10/09					
			NITRATE (N)	2.0	08/89	ND	10/09					
			CLO4	NA	NA	NA	NA					
NA	INDUSTRIAL	INACTIVE	VOCS	NA	NA	NA	NA					
			NITRATE (NO3)	NA	NA	NA	NA					
			NITRATE (N)	NA	NA	NA	NA					
			CLO4	NA	NA	NA	NA					
NA	INDUSTRIAL	INACTIVE	VOCS	ND	10/02	ND	11/04					
			NITRATE (NO3)	ND	10/02	ND	11/04					
			NITRATE (N)	NA	NA	NA	11/04					
			CLO4	NA	NA	NA	NA					
PICO COUNTY WATER DISTRICT												
NA	MUNICIPAL	INACTIVE	VOCS	NA	NA	NA	NA					
			NITRATE (NO3)	NA	NA	NA	NA					
			NITRATE (N)	NA	NA	NA	NA					
			CLO4	NA	NA	NA	NA					
POLOPOLUS ET AL.												
01	IRRIGATION	INACTIVE	PCE	330.0	10/96	270.0	03/98					
			TCE	498.9	09/92	180.0	03/98					
			1,1-DCA	22.0	03/98	22.0	03/98					
			1,2-DCA	1.2	06/96	0.9	03/98					
			1,1-DCE	115.3	09/92	22.0	03/98					
			T-1,2-DCE	1.5	06/87	ND	03/98					
			1,1,1-TCA	53.0	09/92	12.0	03/98					
			CTC	0.8	06/96	0.6	03/98					
			NITRATE (NO3)	50.8	07/91	29.7	03/98					
			NITRATE (N)	11.5	07/91	6.7	03/98					
			CLO4	ND	03/98	ND	03/98					
			RICHWOOD MUTUAL WATER COMPANY									
			NORTH 2	MUNICIPAL	DESTROYED	PCE	93.0		05/83	4.0	12/93	
TCE	3.0	03/81				ND	05/92					

**APPENDIX C
HIGHLIGHTS OF VOLATILE ORGANIC COMPOUNDS, NITRATE, AND PERCHLORATE CONCENTRATIONS
AND WELLS VULNERABLE TO CONTAMINATION (AS OF MAY 31, 2017)**

WELL NAME	USAGE	STATUS	CONCENTRATION (NITRATE IN MG/L, OTHERS IN UG/L)				REMARKS	
			CONTAMINANT OF CONCERN	HISTORIC HIGH		MOST RECENT		
				VALUE	DATE	VALUE		DATE
			CTC	0.2	10/80	ND	05/92	
			NITRATE (NO3)	25.0	02/84	19.7	06/99	
			NITRATE (N)	5.6	02/84	4.5	06/99	
			CLO4	NA	NA	NA	NA	
			AS	ND	06/90	ND	09/92	
SOUTH 1	MUNICIPAL	DESTROYED	PCE	96.0	05/83	3.4	12/93	
			TCE	0.7	12/82	ND	05/92	
			NITRATE (NO3)	28.6	06/99	28.6	06/99	
			NITRATE (N)	6.5	06/99	6.5	06/99	
			CLO4	NA	NA	NA	NA	
			AS	ND	06/90	ND	09/92	
ROY, RUTH								
NA	DOMESTIC	INACTIVE	VOCS	NA	NA	NA	NA	
			NITRATE (NO3)	NA	NA	NA	NA	
			NITRATE (N)	NA	NA	NA	NA	
			CLO4	NA	NA	NA	NA	
RURBAN HOMES MUTUAL WATER COMPANY								
NORTH 1	MUNICIPAL	ACTIVE	PCE	16.0	11/80	ND	03/17	VULNERABLE (VOCS AND NITRATE)
			1,1-DCE	0.9	09/08	ND	03/17	
			FREON 11	13.3	05/04	ND	03/17	
			FREON 113	64.4	05/04	ND	03/17	
			NITRATE (NO3)	30.0	03/01	12.0	03/17	
			NITRATE (N)	6.8	03/01	2.7	03/17	
			CLO4	ND	09/97	ND	09/16	
			AS	3.0	08/03	2.5	09/15	
			CR6	1.0	06/01	ND	09/15	
SOUTH 2	MUNICIPAL	INACTIVE	PCE	24.3	02/81	ND	03/13	VULNERABLE (VOCS AND NITRATE)
			1,1-DCE	1.7	10/08	ND	03/13	
			FREON 11	14.1	05/04	ND	03/13	
			FREON 113	54.2	05/04	ND	03/13	
			NITRATE (NO3)	38.2	03/07	21.0	03/13	
			NITRATE (N)	8.6	03/07	4.7	03/13	
			CLO4	ND	09/97	ND	06/11	
			AS	3.0	08/03	2.1	09/12	
			CR6	1.0	06/01	ND	12/01	
SAN GABRIEL COUNTRY CLUB								
01	IRRIGATION	ACTIVE	VOCS	ND	05/85	ND	08/05	
			NITRATE (NO3)	67.0	07/96	54.0	08/05	
			NITRATE (N)	15.1	07/96	12.2	08/05	
			CLO4	8.5	07/97	5.4	08/05	
02	IRRIGATION	ACTIVE	VOCS	ND	05/87	ND	08/05	VULNERABLE (NITRATE)
			NITRATE (NO3)	23.0	10/02	20.3	08/05	
			NITRATE (N)	5.2	10/02	4.6	08/05	
			CLO4	1.4	12/97	1.1	08/05	
SAN GABRIEL COUNTY WATER DISTRICT								
05 BRA	MUNICIPAL	INACTIVE	TCE	0.9	01/97	ND	03/01	
			PCE	1.9	02/99	1.0	03/01	
			NITRATE (NO3)	83.9	08/89	70.7	03/01	
			NITRATE (N)	19.0	08/89	16.0	03/01	
			CLO4	ND	09/97	ND	09/00	
			AS	0.6	08/96	ND	08/98	
			CR6	7.0	12/00	7.0	12/00	
06 BRA	MUNICIPAL	DESTROYED	VOCS	ND	02/99	ND	02/99	
			NITRATE (NO3)	108.9	08/72	57.6	03/00	
			NITRATE (N)	24.6	08/72	13.0	03/00	
			CLO4	3.0	02/99	3.0	02/99	
07	MUNICIPAL	DESTROYED	VOCS	ND	09/89	ND	10/11	
			NITRATE (NO3)	48.0	03/03	35.0	10/11	
			NITRATE (N)	10.8	03/03	7.9	10/11	

**APPENDIX C
HIGHLIGHTS OF VOLATILE ORGANIC COMPOUNDS, NITRATE, AND PERCHLORATE CONCENTRATIONS
AND WELLS VULNERABLE TO CONTAMINATION (AS OF MAY 31, 2017)**

WELL NAME	USAGE	STATUS	CONCENTRATION (NITRATE IN MG/L, OTHERS IN UG/L)						REMARKS
			CONTAMINANT OF CONCERN	HISTORIC HIGH		MOST RECENT			
				VALUE	DATE	VALUE	DATE		
08	MUNICIPAL	INACTIVE	CLO4	5.6	03/03	ND	10/11		
			AS	1.3	08/96	ND	07/09		
			CR6	4.5	07/01	4.5	07/01		
			VOCS	ND	01/90	ND	03/91		
			NITRATE (NO3)	76.0	01/82	23.4	08/93		
			NITRATE (N)	17.2	01/82	5.3	08/93		
			CLO4	NA	NA	NA	NA		
AS	ND	06/78	ND	08/90					
09	MUNICIPAL	ACTIVE	PCE	2.7	01/16	2.2	04/17	VULNERABLE (VOCS AND NITRATE)	
			NITRATE (NO3)	51.0	03/03	25.2	05/17		
			NITRATE (N)	11.5	03/03	5.7	05/17		
			CLO4	ND	09/97	ND	07/16		
			AS	ND	09/89	ND	07/15		
			CR6	8.1	12/02	7.8	07/15		
10	MUNICIPAL	INACTIVE	PCE	18.0	08/93	1.9	11/98		
			NITRATE (NO3)	50.0	05/89	31.0	11/98		
			NITRATE (N)	11.3	05/89	7.0	11/98		
			CLO4	5.5	11/98	5.5	11/98		
			AS	ND	06/78	ND	11/98		
			CR6	ND	06/78	ND	11/98		
11	MUNICIPAL	ACTIVE	PCE	3.8	04/17	3.8	05/17	VULNERABLE (NITRATE)	
			TCE	0.7	04/12	ND	04/17		
			NITRATE (NO3)	57.5	07/16	57.5	04/17		
			NITRATE (N)	13.0	07/16	13.0	04/17		
			CLO4	ND	09/97	ND	07/16		
			AS	ND	06/78	ND	07/16		
			CR6	25.0	12/00	7.3	07/16		
			CR6	25.0	12/00	7.3	07/16		
12	MUNICIPAL	ACTIVE	TCE	0.8	09/02	ND	07/16		
			PCE	1.0	10/15	0.7	04/17		
			NITRATE (NO3)	8.9	06/16	7.5	05/17		
			NITRATE (N)	2.0	06/16	1.7	05/17		
			CLO4	ND	09/97	ND	07/16		
			AS	7.0	10/96	3.9	10/14		
			CR6	7.6	07/01	5.0	08/13		
			CR6	7.6	07/01	5.0	08/13		
14	MUNICIPAL	ACTIVE	PCE	0.6	09/02	ND	07/16		
			NITRATE (NO3)	19.5	02/17	4.0	05/17		
			NITRATE (N)	4.4	02/17	0.9	05/17		
			CLO4	ND	09/97	ND	07/16		
			AS	3.1	07/08	2.7	07/14		
			CR6	4.6	07/01	1.9	08/13		
			CR6	4.6	07/01	1.9	08/13		
15	MUNICIPAL	ACTIVE	PCE	1.9	04/17	1.9	04/17	VULNERABLE (NITRATE)	
			NITRATE (NO3)	32.3	03/17	31.9	05/17		
			NITRATE (N)	7.5	03/17	7.2	05/17		
			CLO4	ND	12/14	ND	10/16		
			AS	ND	06/14	ND	04/17		
			CR6	3.6	11/14	2.9	04/17		
			CR6	3.6	11/14	2.9	04/17		
SAN GABRIEL VALLEY WATER COMPANY									
1B	MUNICIPAL	ACTIVE	PCE	46.0	04/81	ND	05/17	VULNERABLE (VOCS)	
			TCE	1.8	02/80	ND	05/17		
			FREON 113	22.3	08/08	ND	05/17		
			NITRATE (NO3)	22.4	05/08	9.7	05/17		
			NITRATE (N)	5.1	05/08	2.2	05/17		
			CLO4	ND	08/97	ND	08/16		
			AS	2.9	07/96	2.3	08/14		
			CR6	1.0	05/14	1.0	05/14		
1C	MUNICIPAL	ACTIVE	VOCS	ND	07/98	ND	08/16		
			NITRATE (NO3)	8.3	08/11	4.9	08/16		
			NITRATE (N)	1.9	08/11	1.1	08/16		
			CLO4	ND	10/99	ND	08/16		
			AS	2.6	09/94	2.1	08/15		
			CR6	1.0	05/01	ND	08/15		
1D	MUNICIPAL	ACTIVE	VOCS	ND	07/98	ND	08/16		

APPENDIX C
HIGHLIGHTS OF VOLATILE ORGANIC COMPOUNDS, NITRATE, AND PERCHLORATE CONCENTRATIONS
AND WELLS VULNERABLE TO CONTAMINATION (AS OF MAY 31, 2017)

WELL NAME	USAGE	STATUS	CONCENTRATION (NITRATE IN MG/L, OTHERS IN UG/L)				REMARKS	
			CONTAMINANT OF CONCERN	HISTORIC HIGH		MOST RECENT		
				VALUE	DATE	VALUE		DATE
1E	MUNICIPAL	ACTIVE	NITRATE (NO3)	5.0	07/89	3.4	08/16	VULNERABLE (CLO4)
			NITRATE (N)	1.1	07/89	0.8	08/16	
			CLO4	ND	08/97	ND	08/16	
			AS	2.0	11/06	ND	11/15	
			CR6	1.0	05/01	ND	11/15	
			PCE	0.7	09/02	ND	05/17	
			NITRATE (NO3)	4.9	11/16	4.9	11/16	
			NITRATE (N)	1.1	11/16	1.1	11/16	
			CLO4	5.0	06/00	ND	08/16	
			AS	2.7	11/08	2.0	11/14	
CR6	1.0	05/01	0.7	08/13				
2C	MUNICIPAL	DESTROYED	TCE	15.2	12/80	ND	11/05	
			PCE	3.0	10/87	ND	11/05	
			NITRATE (NO3)	16.4	08/04	5.2	08/05	
			NITRATE (N)	3.7	08/04	1.2	08/05	
			CLO4	ND	08/97	ND	02/03	
			AS	ND	07/89	ND	08/05	
2D	MUNICIPAL	ACTIVE	TCE	25.0	12/80	ND	05/17	VULNERABLE (VOCS)
			PCE	0.9	03/17	0.8	05/17	
			NITRATE (NO3)	8.3	08/15	7.1	08/16	
			NITRATE (N)	1.9	08/15	1.6	08/16	
			CLO4	ND	08/97	ND	08/16	
			AS	ND	07/89	ND	09/14	
			CR6	1.7	05/01	1.2	05/11	
2E	MUNICIPAL	ACTIVE	TCE	18.0	01/80	ND	05/17	VULNERABLE (VOCS)
			PCE	3.6	09/16	3.2	05/17	
			NITRATE (NO3)	20.0	08/15	18.6	08/16	
			NITRATE (N)	4.5	08/15	4.2	08/16	
			CLO4	ND	08/97	ND	08/16	
			AS	ND	07/89	ND	08/14	
			CR6	2.8	06/01	1.9	05/11	
2F	MUNICIPAL	ACTIVE	TCE	1.3	02/15	ND	05/17	
			PCE	1.3	09/16	1.1	05/17	
			NITRATE (NO3)	11.0	08/15	8.0	08/16	
			NITRATE (N)	2.5	08/15	1.8	08/16	
			CLO4	ND	09/06	ND	08/16	
			AS	0.7	03/06	ND	08/15	
			CR6	3.1	08/15	3.1	08/15	
8A	MUNICIPAL	INACTIVE	PCE	0.6	11/87	ND	02/97	
			NITRATE (NO3)	40.2	02/97	40.2	02/97	
			NITRATE (N)	9.1	02/97	9.1	02/97	
			CLO4	NA	NA	NA	NA	
			AS	ND	07/89	ND	07/89	
8B	MUNICIPAL	ACTIVE	PCE	220.0	02/09	140.0	05/17	VULNERABLE (VOCS, NITRATE, AND CLO4) (1,5)
			TCE	1.2	11/15	0.9	05/17	
			NITRATE (NO3)	23.0	08/08	19.5	05/17	
			NITRATE (N)	5.2	08/08	4.4	05/17	
			CLO4	3.0	08/97	ND	05/17	
			AS	0.4	07/96	ND	08/15	
			CR6	2.9	11/02	2.4	08/15	
8C	MUNICIPAL	ACTIVE	PCE	170.0	05/09	85.0	05/17	VULNERABLE (VOCS AND CLO4) (1,5)
			TCE	0.8	05/09	0.6	05/17	
			NITRATE (NO3)	20.0	07/98	10.6	05/17	
			NITRATE (N)	4.5	07/98	2.4	05/17	
			CLO4	4.0	03/08	ND	05/17	
			AS	0.5	07/96	ND	08/15	
			CR6	3.4	08/15	3.4	08/15	
8D	MUNICIPAL	ACTIVE	PCE	150.0	05/17	150.0	05/17	VULNERABLE (VOCS AND NITRATE) (1,5)
			TCE	1.0	02/14	1.0	05/17	
			C-1,2 DCE	0.8	05/04	ND	05/17	
			CTC	0.6	06/88	ND	05/17	
			NITRATE (NO3)	29.0	06/09	19.9	05/17	
			NITRATE (N)	6.6	06/09	4.5	05/17	

**APPENDIX C
HIGHLIGHTS OF VOLATILE ORGANIC COMPOUNDS, NITRATE, AND PERCHLORATE CONCENTRATIONS
AND WELLS VULNERABLE TO CONTAMINATION (AS OF MAY 31, 2017)**

WELL NAME	USAGE	STATUS	CONCENTRATION (NITRATE IN MG/L, OTHERS IN UG/L)						REMARKS
			CONTAMINANT OF CONCERN	HISTORIC HIGH		MOST RECENT			
				VALUE	DATE	VALUE	DATE		
			CLO4	2.3	03/08	ND	05/17		
			AS	29.5	09/94	ND	05/17		
			CR6	3.3	11/00	2.9	05/17		
8E	MUNICIPAL	ACTIVE	PCE	10.0	03/03	ND	05/17	VULNERABLE (VOCS) (1,5)	
			NITRATE (NO3)	7.2	07/01	ND	05/17		
			NITRATE (N)	1.6	07/01	ND	05/17		
			CLO4	ND	08/97	ND	05/17		
			AS	2.8	08/95	ND	08/16		
			CR6	4.8	08/16	4.8	08/16		
8F	MUNICIPAL	ACTIVE	VOCS	ND	10/98	ND	05/17		
			NITRATE (NO3)	19.0	11/10	3.5	05/17		
			NITRATE (N)	4.3	11/10	0.8	05/17		
			CLO4	ND	01/99	ND	05/17		
			AS	2.2	11/01	2.1	11/16		
			CR6	7.0	11/16	7.0	11/16		
11A	MUNICIPAL	ACTIVE	PCE	1.5	02/08	ND	05/17		
			NITRATE (NO3)	14.7	07/89	6.2	08/16		
			NITRATE (N)	3.3	07/89	1.4	08/16		
			CLO4	ND	08/97	ND	08/16		
			AS	3.9	07/96	2.9	08/15		
			CR6	6.8	05/01	5.4	08/15		
11B	MUNICIPAL	ACTIVE	PCE	17.8	04/90	ND	12/16	VULNERABLE (VOCS) (1)	
			TCE	4.0	04/90	ND	12/16		
			1,1-DCE	0.2	04/89	ND	12/16		
			C-1,2-DCE	3.0	04/89	ND	12/16		
			NITRATE (NO3)	18.3	08/06	7.1	11/16		
			NITRATE (N)	4.1	08/06	1.6	11/16		
			CLO4	ND	06/97	ND	08/16		
			AS	4.8	09/94	2.4	12/15		
			CR6	6.1	11/00	2.4	12/15		
11C	MUNICIPAL	ACTIVE	PCE	4.1	12/91	ND	05/17	VULNERABLE (VOCS)	
			TCE	0.6	12/91	ND	05/17		
			1,1-DCE	1.1	08/08	ND	05/17		
			C-1,2-DCE	2.5	03/92	ND	05/17		
			NITRATE (NO3)	12.0	08/06	6.2	08/16		
			NITRATE (N)	2.7	08/06	1.4	08/16		
			CLO4	ND	08/97	ND	08/16		
			AS	7.5	07/96	3.0	08/15		
			CR6	4.8	05/01	1.0	08/15		
B1	MUNICIPAL	INACTIVE	TCE	12.0	04/85	ND	08/06		
			PCE	7.3	05/88	ND	08/06		
			C-1,2-DCE	7.2	12/92	ND	08/06		
			1,1-DCE	2.1	08/89	ND	08/06		
			NITRATE (NO3)	17.4	02/87	3.5	03/05		
			NITRATE (N)	3.9	02/87	0.8	03/05		
			CLO4	ND	08/97	ND	02/03		
			AS	2.8	07/96	2.3	02/05		
B2	MUNICIPAL	INACTIVE	TCE	17.0	03/80	ND	11/98		
			PCE	15.8	06/80	0.7	11/98		
			CTC	1.7	05/82	ND	11/98		
			1,2-DCA	7.7	07/82	ND	11/98		
			1,1,1-TCA	7.6	07/82	ND	11/98		
			C-1,2-DCE	2.6	08/93	ND	11/98		
			NITRATE (NO3)	8.7	11/98	8.7	11/98		
			NITRATE (N)	2.0	11/98	2.0	11/98		
			CLO4	ND	11/98	ND	11/98		
B4B	MUNICIPAL	INACTIVE	TCE	25.2	02/08	25.2	02/08		
			PCE	43.0	11/07	5.8	02/08		
			CTC	10.0	11/03	6.6	02/08		
			1,2-DCA	1.0	09/07	0.5	02/08		
			1,1-DCE	3.2	11/07	2.3	02/08		
			C-1,2-DCE	4.2	11/07	2.7	02/08		
			NITRATE (NO3)	13.1	11/07	13.1	11/07		
			NITRATE (N)	3.0	11/07	3.0	11/07		

**APPENDIX C
HIGHLIGHTS OF VOLATILE ORGANIC COMPOUNDS, NITRATE, AND PERCHLORATE CONCENTRATIONS
AND WELLS VULNERABLE TO CONTAMINATION (AS OF MAY 31, 2017)**

WELL NAME	USAGE	STATUS	CONCENTRATION (NITRATE IN MG/L, OTHERS IN UG/L)				REMARKS	
			CONTAMINANT OF CONCERN	HISTORIC HIGH		MOST RECENT		
				VALUE	DATE	VALUE		DATE
B4C	MUNICIPAL	INACTIVE	CLO4	24.5	04/08	24.5	04/08	
			AS	6.3	08/95	2.0	02/08	
			CR6	4.1	05/01	4.1	05/01	
			CTC	22.3	02/01	14.0	08/01	
			TCE	15.5	02/01	9.3	08/01	
			PCE	3.4	02/01	2.2	08/01	
			1,1-DCE	2.3	09/01	2.3	09/01	
			C-1,2-DCE	2.4	09/01	2.4	09/01	
			NITRATE (NO3)	14.2	02/01	14.2	02/01	
			NITRATE (N)	3.2	02/01	3.2	02/01	
			CLO4	6.0	06/00	ND	07/00	
			AS	5.8	08/95	ND	03/99	
			CR6	3.3	05/01	3.3	05/01	
B5A	MUNICIPAL	INACTIVE	PCE	17.5	03/91	ND	11/05	
			TCE	5.2	03/98	ND	11/05	
			1,1-DCE	2.5	03/85	ND	08/05	
			CTC	1.1	12/91	ND	11/05	
			1,1,1-TCA	3.7	03/90	ND	08/05	
			NITRATE (NO3)	46.1	07/96	25.3	11/05	
			NITRATE (N)	10.4	07/96	5.7	11/05	
			CLO4	14.0	06/97	4.0	08/05	
			AS	2.8	07/96	2.0	08/05	
			CR6	6.4	11/00	6.2	05/01	
			B5B	MUNICIPAL	ACTIVE	TCE	5.8	
PCE	4.3	10/16				2.4	05/17	
CTC	2.3	02/85				ND	05/17	
1,1-DCE	0.6	10/16				ND	05/17	
1,2-DCA	0.6	09/07				ND	05/17	
NITRATE (NO3)	56.0	12/12				43.8	05/17	
NITRATE (N)	12.7	12/12				9.9	05/17	
CLO4	12.0	06/97				5.3	05/17	
AS	2.4	08/16				2.4	08/16	
CR6	7.1	08/16				7.1	08/16	
B5C	MUNICIPAL	INACTIVE				VOCS	ND	05/89
			NITRATE (NO3)	3.8	05/07	3.8	05/07	
			NITRATE (N)	0.9	05/07	0.9	05/07	
			CLO4	ND	06/97	ND	03/08	
			AS	5.8	08/95	2.0	08/07	
			CR6	5.8	05/01	5.8	05/01	
			B5D	MUNICIPAL	ACTIVE	CTC	1.2	11/15
NITRATE (NO3)	4.9	08/08				3.7	05/17	
NITRATE (N)	1.1	08/08				0.8	05/17	
CLO4	ND	12/97				ND	05/17	
AS	2.4	09/10				2.4	08/16	
CR6	4.6	05/01				3.2	08/16	
B5E	MUNICIPAL	ACTIVE				TCE	21.0	10/16
			PCE	3.8	08/15	2.4	05/17	
			CTC	5.2	05/07	1.4	05/17	
			1,2-DCA	1.2	10/16	0.7	05/17	
			1,1-DCE	1.1	08/16	0.6	05/17	
			C-1,2-DCE	1.6	10/16	0.9	05/17	
			NITRATE (NO3)	26.0	08/15	19.5	05/17	
			NITRATE (N)	5.9	08/15	4.4	05/17	
			CLO4	21.0	11/14	17.0	05/17	
			AS	3.0	08/07	2.9	08/16	
			CR6	7.0	02/09	6.6	08/16	
B6B	MUNICIPAL	DESTROYED	TCE	111.0	02/85	35.8	09/92	
			PCE	6.4	10/81	4.3	09/92	
			CTC	17.0	02/85	5.0	09/92	
			1,1-DCE	1.1	04/85	0.5	09/92	
			1,1-DCA	0.6	09/92	0.6	09/92	
			1,2-DCA	8.3	09/92	8.3	09/92	
			NITRATE (NO3)	85.4	02/91	57.2	09/92	
			NITRATE (N)	19.3	02/91	12.9	09/92	
			CLO4	NA	NA	NA	NA	

APPENDIX C
HIGHLIGHTS OF VOLATILE ORGANIC COMPOUNDS, NITRATE, AND PERCHLORATE CONCENTRATIONS
AND WELLS VULNERABLE TO CONTAMINATION (AS OF MAY 31, 2017)

WELL NAME	USAGE	STATUS	CONCENTRATION (NITRATE IN MG/L, OTHERS IN UG/L)						REMARKS
			CONTAMINANT OF CONCERN	HISTORIC HIGH		MOST RECENT			
				VALUE	DATE	VALUE	DATE		
B6C	MUNICIPAL	ACTIVE	TCE	84.0	03/88	1.3	08/16	VULNERABLE (VOCS, NITRATE, AND CLO4) (1,4)	
			PCE	12.0	11/81	ND	08/16		
			CTC	13.0	02/85	ND	08/16		
			1,2-DCA	9.0	05/88	ND	08/16		
			1,1-DCE	1.5	06/94	ND	08/16		
			C-1,2-DCE	6.2	04/88	ND	08/16		
			NITRATE (NO3)	97.4	08/16	97.4	08/16		
			NITRATE (N)	22.0	08/16	22.0	08/16		
			CLO4	370.0	11/05	18.0	08/16		
			AS	3.7	07/96	2.2	08/14		
			CR6	3.9	03/10	2.3	10/14		
B6D	MUNICIPAL	ACTIVE	TCE	140.0	05/11	45.0	05/17	VULNERABLE (VOCS, NITRATE, AND CLO4) (1,4)	
			PCE	7.1	05/09	2.3	05/17		
			CTC	14.0	05/11	4.9	05/17		
			1,1-DCA	1.1	05/09	ND	05/17		
			1,2-DCA	3.7	05/11	1.1	05/17		
			1,1-DCE	1.0	08/08	ND	05/17		
			C-1,2-DCE	2.8	05/09	0.9	05/17		
			NITRATE (NO3)	29.0	05/15	20.8	05/17		
			NITRATE (N)	6.6	05/15	4.7	05/17		
			CLO4	390.0	11/05	23.0	05/17		
			AS	3.1	07/96	ND	08/14		
			CR6	2.9	10/14	2.9	10/14		
			B7B	MUNICIPAL	DESTROYED	TCE	2.4		03/85
PCE	1.4	03/85				1.2	03/85		
NITRATE (NO3)	12.4	08/87				12.4	08/87		
NITRATE (N)	2.8	08/87				2.8	08/87		
CLO4	NA	NA				NA	NA		
B7C	MUNICIPAL	DESTROYED	TCE	15.0	11/10	4.8	11/14	VULNERABLE (VOCS AND NITRATE) (1)	
			PCE	35.0	03/03	15.0	11/14		
			1,1-DCE	6.7	12/89	2.9	11/14		
			C-1,2-DCE	4.7	12/93	0.9	11/14		
			CTC	0.6	02/89	ND	08/14		
			NITRATE (NO3)	28.4	08/92	15.0	08/14		
			NITRATE (N)	6.4	08/92	3.4	08/14		
			CLO4	ND	06/97	ND	08/14		
			AS	2.0	08/05	ND	08/14		
			CR6	5.0	05/01	3.5	05/11		
			B7D	MUNICIPAL	INACTIVE	PCE	5.3		07/87
TCE	3.9	07/87				3.3	09/87		
1,1-DCE	5.3	05/87				5.0	09/87		
NITRATE (NO3)	NA	NA				NA	NA		
NITRATE (N)	NA	NA				NA	NA		
CLO4	NA	NA				NA	NA		
B7E	MUNICIPAL	ACTIVE	PCE	1.1	08/15	ND	05/17		
			NITRATE (NO3)	16.0	11/08	3.1	05/17		
			NITRATE (N)	3.6	11/08	0.7	05/17		
			CLO4	ND	06/97	ND	08/16		
			AS	4.6	03/97	3.1	05/15		
			CR6	3.4	05/01	3.0	05/11		
B8	MUNICIPAL	INACTIVE	VOCS	NA	NA	NA	NA		
			NITRATE (NO3)	NA	NA	NA	NA		
			NITRATE (N)	NA	NA	NA	NA		
			CLO4	NA	NA	NA	NA		
B9	MUNICIPAL	INACTIVE	TCE	37.0	02/85	34.7	01/87		
			PCE	4.9	01/87	4.9	01/87		
			CTC	8.3	01/87	8.3	01/87		
			NITRATE (NO3)	84.7	02/86	68.1	02/87		
			NITRATE (N)	19.1	02/86	15.4	02/87		
			CLO4	NA	NA	NA	NA		
B9B	MUNICIPAL	ACTIVE	VOCS	ND	06/87	ND	08/16		
			NITRATE (NO3)	4.5	06/87	2.9	08/16		
			NITRATE (N)	1.0	06/87	0.7	08/16		

APPENDIX C
HIGHLIGHTS OF VOLATILE ORGANIC COMPOUNDS, NITRATE, AND PERCHLORATE CONCENTRATIONS
AND WELLS VULNERABLE TO CONTAMINATION (AS OF MAY 31, 2017)

WELL NAME	USAGE	STATUS	CONCENTRATION (NITRATE IN MG/L, OTHERS IN UG/L)					REMARKS
			CONTAMINANT OF CONCERN	HISTORIC HIGH		MOST RECENT		
				VALUE	DATE	VALUE	DATE	
B11A	MUNICIPAL	INACTIVE	CLO4	1.2	03/08	ND	08/16	
			AS	3.5	08/95	ND	08/16	
			CR6	9.8	05/01	7.1	03/17	
			TCE	9.8	08/01	5.8	08/04	
			PCE	21.7	05/92	8.5	08/04	
			1,1-DCE	14.0	08/01	2.8	08/04	
			CTC	0.9	01/88	ND	08/04	
			C-1,2-DCE	1.5	08/01	0.6	09/04	
			1,1-DCA	1.0	08/01	ND	08/04	
			NITRATE (NO3)	37.7	03/00	36.5	08/04	
			NITRATE (N)	8.5	03/00	8.2	08/04	
			CLO4	8.0	12/97	ND	08/04	
			AS	2.7	07/96	ND	09/02	
CR6	10.0	06/01	10.0	06/01				
B11B	MUNICIPAL	ACTIVE	TCE	33.0	11/14	7.8	05/17	VULNERABLE (VOCS, NITRATE, AND CLO4) (1)
			PCE	34.5	06/92	10.0	05/17	
			CTC	0.8	08/16	ND	05/17	
			1,1-DCE	64.0	11/14	15.0	05/17	
			1,1-DCA	4.7	11/14	0.9	05/17	
			1,1,1-TCA	2.9	10/88	ND	05/17	
			C-1,2-DCE	5.1	11/14	1.4	05/17	
			NITRATE (NO3)	46.0	11/14	21.7	05/17	
			NITRATE (N)	10.4	11/14	4.9	05/17	
			CLO4	7.0	06/00	ND	03/17	
			AS	2.2	07/96	ND	08/14	
			CR6	10.3	05/01	7.9	03/17	
			B24A	MUNICIPAL	ACTIVE	VOCS	ND	
NITRATE (NO3)	13.0	02/15				5.3	02/17	
NITRATE (N)	2.9	02/15				1.2	02/17	
CLO4	ND	01/07				ND	03/17	
AS	2.4	02/16				2.4	02/16	
CR6	1.2	08/13				ND	02/16	
B24B	MUNICIPAL	ACTIVE	PCE	2.1	05/07	ND	05/17	
			TCE	0.7	05/07	ND	05/17	
			NITRATE (NO3)	15.0	02/14	7.5	02/17	
			NITRATE (N)	3.4	02/14	1.7	02/17	
			CLO4	ND	01/07	ND	03/17	
			AS	2.8	02/16	2.8	02/16	
CR6	3.3	08/13	1.1	02/16				
B25A (SA3-1S)	MUNICIPAL	ACTIVE	TCE	73.0	05/17	73.0	05/17	VULNERABLE (VOCS, NITRATE, AND CLO4) (1,4)
			PCE	35.0	08/13	32.0	05/17	
			CTC	5.9	10/07	2.6	05/17	
			1,1-DCA	0.7	05/17	0.7	05/17	
			1,2-DCA	1.7	08/16	1.4	05/17	
			1,1-DCE	6.6	02/08	6.3	05/17	
			C-1,2-DCE	6.3	08/07	5.4	05/17	
			NITRATE (NO3)	78.0	05/09	57.5	05/17	
			NITRATE (N)	17.6	05/09	13.0	05/17	
			CLO4	47.0	02/17	47.0	05/17	
			AS	3.2	03/10	ND	05/16	
			CR6	3.2	08/14	3.1	05/16	
			B25B (SA3-1D)	MUNICIPAL	ACTIVE	TCE	43.0	
PCE	13.0	08/16				9.7	05/17	
CTC	10.0	09/04				5.5	05/17	
1,1-DCA	1.2	10/07				ND	05/17	
1,2-DCA	0.7	05/17				0.7	05/17	
1,1-DCE	4.8	08/14				2.6	05/17	
C-1,2-DCE	3.1	08/16				2.6	05/17	
NITRATE (NO3)	27.0	05/09				9.3	05/17	
NITRATE (N)	6.1	05/09				2.1	05/17	
CLO4	22.0	01/17				20.0	05/17	
AS	3.0	03/06				2.4	05/16	
CR6	2.4	08/06				2.4	05/16	
B26A	MUNICIPAL	ACTIVE				TCE	57.0	05/09

**APPENDIX C
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AND WELLS VULNERABLE TO CONTAMINATION (AS OF MAY 31, 2017)**

WELL NAME	USAGE	STATUS	CONCENTRATION (NITRATE IN MG/L, OTHERS IN UG/L)				REMARKS	
			CONTAMINANT OF CONCERN	HISTORIC HIGH		MOST RECENT		
				VALUE	DATE	VALUE		DATE
(SA3-2S)			PCE	6.8	12/10	2.2	05/17	(VOCs, NITRATE, AND CLO4) (1,4)
			CTC	5.4	12/10	1.1	05/17	
			1,1-DCA	0.8	05/09	ND	05/17	
			1,2-DCA	4.3	11/04	1.3	05/17	
			1,1-DCE	2.0	12/10	ND	05/17	
			C-1,2-DCE	3.3	05/06	0.8	05/17	
			NITRATE (NO3)	70.8	05/17	70.8	05/17	
			NITRATE (N)	16.0	05/17	16.0	05/17	
			CLO4	87.0	07/06	27.0	05/17	
			AS	3.0	03/06	2.1	02/15	
			CR6	4.2	08/14	4.2	08/14	
B26B (SA3-2D)	MUNICIPAL	ACTIVE	TCE	100.0	05/17	100.0	05/17	
			PCE	3.0	05/17	3.0	05/17	
			CTC	17.0	08/16	12.0	05/17	
			1,2-DCA	3.6	08/16	2.8	05/17	
			1,1-DCE	0.6	08/16	0.6	05/17	
			C-1,2-DCE	1.8	08/16	1.6	05/17	
			NITRATE (NO3)	16.4	10/16	15.5	05/17	
			NITRATE (N)	3.7	10/16	3.5	05/17	
			CLO4	66.0	01/17	65.0	05/17	
			AS	2.9	11/04	2.1	02/15	
			CR6	3.7	02/06	3.1	08/14	
EW4-5	MUNICIPAL	ACTIVE	PCE	29.0	10/06	22.0	12/11	VULNERABLE (VOCs) (1)
			TCE	4.1	10/06	1.6	12/11	
			NITRATE (NO3)	16.0	12/05	13.0	11/11	
			NITRATE (N)	3.6	12/05	2.9	11/11	
			CLO4	ND	12/05	ND	11/11	
			AS	1.1	08/09	1.1	08/09	
EW4-6	MUNICIPAL	INACTIVE	PCE	8.1	06/06	4.7	12/11	VULNERABLE (VOCs) (1)
			TCE	1.1	10/06	0.7	12/11	
			NITRATE (NO3)	15.0	11/06	15.0	11/11	
			NITRATE (N)	3.4	11/06	3.4	11/11	
			CLO4	ND	05/06	ND	11/11	
			AS	1.0	08/09	1.0	08/09	
EW4-7	MUNICIPAL	INACTIVE	PCE	8.2	01/06	2.0	12/11	VULNERABLE (VOCs) (1)
			TCE	1.8	02/06	ND	12/11	
			NITRATE (NO3)	18.0	01/06	13.0	11/11	
			NITRATE (N)	4.1	01/06	2.9	11/11	
			CLO4	ND	12/05	ND	11/11	
			AS	1.8	08/09	1.8	08/09	
G4A	MUNICIPAL	ACTIVE	PCE	9.4	05/14	6.0	05/17	VULNERABLE (VOCs AND NITRATE) (1)
			TCE	1.3	11/97	0.6	05/17	
			NITRATE (NO3)	28.0	05/14	22.6	05/17	
			NITRATE (N)	6.3	05/14	5.1	05/17	
			CLO4	1.0	03/08	ND	04/17	
			AS	0.5	07/96	ND	11/15	
			CR6	4.4	11/00	3.7	11/15	
SIERRA LA VERNE COUNTRY CLUB								
01	IRRIGATION	INACTIVE	VOCS	ND	08/96	ND	10/07	
			NITRATE (NO3)	10.5	05/99	ND	10/07	
			NITRATE (N)	2.4	05/99	ND	10/07	
			CLO4	ND	03/98	ND	03/98	
02	IRRIGATION	INACTIVE	VOCS	ND	10/08	ND	10/10	
			NITRATE (NO3)	17.4	08/96	ND	10/10	
			NITRATE (N)	3.9	08/96	ND	10/10	
			CLO4	28.0	03/98	ND	04/98	
SLOAN RANCHES								
01	IRRIGATION	INACTIVE	VOCS	NA	NA	NA	NA	
			NITRATE (NO3)	NA	NA	NA	NA	
			NITRATE (N)	NA	NA	NA	NA	
			CLO4	NA	NA	NA	NA	

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WELL NAME	USAGE	STATUS	CONCENTRATION (NITRATE IN MG/L, OTHERS IN UG/L)					REMARKS
			CONTAMINANT OF CONCERN	HISTORIC HIGH		MOST RECENT		
				VALUE	DATE	VALUE	DATE	
02	IRRIGATION	INACTIVE	VOCS	NA	NA	NA	NA	
			NITRATE (NO3)	NA	NA	NA	NA	
			NITRATE (N)	NA	NA	NA	NA	
			CLO4	NA	NA	NA	NA	
SONOCO PRODUCTS COMPANY								
01	INDUSTRIAL	INACTIVE	TCE	28.6	12/99	0.6	12/05	VULNERABLE (VOCS AND NITRATE)
			PCE	8.5	12/99	ND	12/05	
			1,1-DCE	113.0	12/99	1.0	12/05	
			1,1,1-TCA	71.8	12/99	ND	12/05	
			CTC	1.2	07/96	ND	12/05	
			NITRATE (NO3)	72.8	12/05	72.8	12/05	
			NITRATE (N)	16.4	12/05	16.4	12/05	
			CLO4	ND	06/98	ND	07/04	
02	INDUSTRIAL	ACTIVE	CTC	0.9	11/87	ND	12/05	VULNERABLE (VOCS, NITRATE, AND CLO4)
			1,1,1-TCA	2.0	11/87	ND	12/05	
			1,1-DCE	5.9	02/98	1.0	12/05	
			PCE	1.8	10/03	0.6	12/05	
			TCE	16.0	10/03	1.0	12/05	
			NITRATE (NO3)	74.5	12/05	74.5	12/05	
			NITRATE (N)	16.8	12/05	16.8	12/05	
			CLO4	10.0	02/98	ND	07/04	
SOUTH COVINA WATER SERVICE								
102W-1	MUNICIPAL	DESTROYED	VOCS	NA	NA	NA	NA	
			NITRATE (NO3)	NA	NA	NA	NA	
			NITRATE (N)	NA	NA	NA	NA	
			CLO4	NA	NA	NA	NA	
SOUTHERN CALIFORNIA EDISON COMPANY								
110RH	NON-POTABLE	ACTIVE	VOCS	ND	08/89	ND	02/07	
			NITRATE (NO3)	8.9	02/07	8.9	02/07	
			NITRATE (N)	2.0	02/07	2.0	02/07	
			CLO4	ND	11/97	ND	11/97	
			AS	ND	08/98	ND	08/98	
1EB86	NON-POTABLE	DESTROYED	VOCS	NA	NA	NA	NA	
			NITRATE (NO3)	NA	NA	NA	NA	
			NITRATE (N)	NA	NA	NA	NA	
			CLO4	NA	NA	NA	NA	
2EB76	IRRIGATION	DESTROYED	PCE	4.3	09/04	4.1	02/07	
			TCE	1.3	09/04	0.7	02/07	
			NITRATE (NO3)	51.4	09/98	26.5	02/07	
			NITRATE (N)	11.6	09/98	6.0	02/07	
			CLO4	2.0	11/97	2.0	11/97	
38EIS	NON-POTABLE	INACTIVE	VOCS	NA	NA	NA	NA	
			NITRATE (NO3)	NA	NA	NA	NA	
			NITRATE (N)	NA	NA	NA	NA	
			CLO4	NA	NA	NA	NA	
38W	NON-POTABLE	INACTIVE	VOCS	NA	NA	NA	NA	
			NITRATE (NO3)	NA	NA	NA	NA	
			NITRATE (N)	NA	NA	NA	NA	
			CLO4	NA	NA	NA	NA	
MURAT	IRRIGATION	DESTROYED	PCE	4.1	09/02	0.6	10/08	
			TCE	0.9	09/02	ND	10/08	
			NITRATE (NO3)	26.9	09/04	14.0	10/08	
			NITRATE (N)	6.1	09/04	3.2	10/08	
			CLO4	ND	04/98	ND	04/98	
			AS	ND	04/98	ND	04/98	
SOUTH PASADENA, CITY OF								
GRAV 2	MUNICIPAL	ACTIVE	PCE	16.0	07/08	5.0	11/16	VULNERABLE (VOCS, NITRATE, AND CLO4)
			CTC	0.9	07/08	ND	11/16	

**APPENDIX C
HIGHLIGHTS OF VOLATILE ORGANIC COMPOUNDS, NITRATE, AND PERCHLORATE CONCENTRATIONS
AND WELLS VULNERABLE TO CONTAMINATION (AS OF MAY 31, 2017)**

WELL NAME	USAGE	STATUS	CONCENTRATION (NITRATE IN MG/L, OTHERS IN UG/L)					REMARKS
			CONTAMINANT OF CONCERN	HISTORIC HIGH		MOST RECENT		
				VALUE	DATE	VALUE	DATE	
			NITRATE (NO3)	58.2	04/87	44.3	11/16	
			NITRATE (N)	13.1	04/87	10.0	11/16	
			CLO4	6.9	02/03	ND	11/16	
			AS	0.7	07/96	ND	08/15	
			CR6	4.0	06/01	2.9	08/15	
WIL 2	MUNICIPAL	INACTIVE	PCE	23.0	01/88	9.1	03/01	
			TCE	4.6	03/00	4.6	03/01	
			NITRATE (NO3)	86.8	03/00	77.9	02/01	
			NITRATE (N)	19.6	03/00	17.6	02/01	
			CLO4	5.0	07/97	ND	12/99	
			AS	0.6	07/96	ND	08/99	
WIL 3	MUNICIPAL	ACTIVE	PCE	9.5	08/94	2.7	05/17	VULNERABLE (VOCS AND NITRATE)
			TCE	1.9	04/13	1.6	05/17	
			NITRATE (NO3)	66.0	01/83	25.2	05/17	
			NITRATE (N)	14.9	01/83	5.7	05/17	
			CLO4	ND	07/97	ND	05/17	
			AS	2.2	08/01	ND	08/16	
			CR6	3.7	08/16	3.7	08/16	
WIL 4	MUNICIPAL	ACTIVE	PCE	8.1	06/00	2.0	05/17	VULNERABLE (VOCS AND NITRATE)
			TCE	2.1	05/07	1.8	05/17	
			NITRATE (NO3)	30.0	02/03	23.0	05/17	
			NITRATE (N)	6.8	02/03	5.2	05/17	
			CLO4	ND	07/97	ND	05/17	
			AS	2.0	02/03	ND	05/15	
			CR6	3.9	06/01	3.5	08/13	
SPEEDWAY 605 INC.								
NA	NON-POTABLE	INACTIVE	VOCS	NA	NA	NA	NA	
			NITRATE (NO3)	NA	NA	NA	NA	
			NITRATE (N)	NA	NA	NA	NA	
			CLO4	NA	NA	NA	NA	
STERLING MUTUAL WATER COMPANY								
NEW SO.	MUNICIPAL	ACTIVE	VOCS	ND	06/91	ND	08/16	VULNERABLE (NITRATE)
			NITRATE (NO3)	35.0	02/10	20.8	08/16	
			NITRATE (N)	7.9	02/10	4.7	08/16	
			CLO4	ND	10/97	ND	08/16	
			AS	2.9	12/00	2.7	07/14	
			CR6	1.0	06/01	0.6	08/13	
NORTH	MUNICIPAL	ACTIVE	VOCS	ND	06/88	ND	08/16	VULNERABLE (NITRATE)
			NITRATE (NO3)	43.4	02/07	21.0	08/16	
			NITRATE (N)	9.8	02/07	4.8	08/16	
			CLO4	ND	09/97	ND	08/16	
			AS	4.6	08/95	2.8	08/16	
			CR6	1.0	06/01	1.0	08/16	
SOUTH	MUNICIPAL	DESTROYED	VOCS	ND	01/85	ND	06/91	
			NITRATE (NO3)	16.2	03/91	14.0	05/12	
			NITRATE (N)	3.7	03/91	3.2	05/12	
			CLO4	NA	NA	NA	NA	
			AS	2.6	08/11	2.6	08/11	
SUBURBAN WATER SYSTEMS								
101W-1	MUNICIPAL	DESTROYED	TCE	1.5	07/87	ND	08/89	
			NITRATE (NO3)	54.2	08/89	54.2	08/89	
			NITRATE (N)	12.2	08/89	12.2	08/89	
			CLO4	NA	NA	NA	NA	
			AS	ND	02/88	ND	08/89	
102W-1	MUNICIPAL	DESTROYED	VOCS	NA	NA	NA	NA	
			NITRATE (NO3)	NA	NA	NA	NA	
			NITRATE (N)	NA	NA	NA	NA	
			CLO4	NA	NA	NA	NA	
102W-2	MUNICIPAL	DESTROYED	TCE	2.0	01/80	ND	06/85	

**APPENDIX C
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AND WELLS VULNERABLE TO CONTAMINATION (AS OF MAY 31, 2017)**

WELL NAME	USAGE	STATUS	CONCENTRATION (NITRATE IN MG/L, OTHERS IN UG/L)					REMARKS
			CONTAMINANT OF CONCERN	HISTORIC HIGH		MOST RECENT		
				VALUE	DATE	VALUE	DATE	
			NITRATE (NO3)	NA	NA	NA	NA	
			NITRATE (N)	NA	NA	NA	NA	
			CLO4	NA	NA	NA	NA	
103W-1	MUNICIPAL	DESTROYED	TCE	2.5	06/80	ND	07/82	
			NITRATE (NO3)	NA	NA	NA	NA	
			NITRATE (N)	NA	NA	NA	NA	
			CLO4	NA	NA	NA	NA	
105W-1	MUNICIPAL	DESTROYED	PCE	1.4	01/96	1.4	01/96	
			NITRATE (NO3)	46.2	04/95	46.2	04/95	
			NITRATE (N)	10.4	04/95	10.4	04/95	
			CLO4	NA	NA	NA	NA	
			AS	ND	06/88	ND	06/94	
106W-1	MUNICIPAL	DESTROYED	VOCS	NA	NA	NA	NA	
			NITRATE (NO3)	NA	NA	NA	NA	
			NITRATE (N)	NA	NA	NA	NA	
			CLO4	NA	NA	NA	NA	
111W-1	MUNICIPAL	DESTROYED	VOCS	NA	NA	NA	NA	
			NITRATE (NO3)	82.5	03/73	82.5	03/73	
			NITRATE (N)	18.6	03/73	18.6	03/73	
			CLO4	NA	NA	NA	NA	
112W-1	MUNICIPAL	DESTROYED	VOCS	NA	NA	NA	NA	
			NITRATE (NO3)	99.2	07/69	99.2	07/69	
			NITRATE (N)	22.4	07/69	22.4	07/69	
			CLO4	NA	NA	NA	NA	
113W-1	MUNICIPAL	DESTROYED	TCE	0.7	02/80	0.5	03/85	
			NITRATE (NO3)	85.0	10/85	67.8	02/88	
			NITRATE (N)	19.2	10/85	15.3	02/88	
			CLO4	NA	NA	NA	NA	
114W-1	MUNICIPAL	DESTROYED	TCE	2.9	01/80	ND	07/95	
			PCE	0.5	12/93	ND	07/95	
			NITRATE (NO3)	46.7	08/91	39.8	04/95	
			NITRATE (N)	10.5	08/91	9.0	04/95	
			CLO4	NA	NA	NA	NA	
			AS	ND	11/88	ND	11/94	
117W-1	MUNICIPAL	DESTROYED	VOCS	NA	NA	NA	NA	
			NITRATE (NO3)	NA	NA	NA	NA	
			NITRATE (N)	NA	NA	NA	NA	
			CLO4	NA	NA	NA	NA	
120W-1	MUNICIPAL	DESTROYED	TCE	0.3	07/82	ND	08/96	
			NITRATE (NO3)	66.0	07/88	60.5	08/96	
			NITRATE (N)	14.9	07/88	13.7	08/96	
			CLO4	NA	NA	NA	NA	
121W-1	MUNICIPAL	ACTIVE	VOCS	ND	10/02	ND	05/17	VULNERABLE (NITRATE AND CLO4)
			NITRATE (NO3)	27.0	04/17	23.0	02/17	
			NITRATE (N)	6.1	04/17	5.2	05/17	
			CLO4	10.0	02/17	5.3	05/17	
			AS	1.6	02/04	ND	02/17	
			CR6	9.6	02/05	6.4	04/13	
122W-1	MUNICIPAL	DESTROYED	TCE	2.6	08/96	2.6	08/96	
			NITRATE (NO3)	90.0	05/86	60.7	08/96	
			NITRATE (N)	20.3	05/86	13.7	08/96	
			CLO4	NA	NA	NA	NA	
			AS	3.0	08/79	ND	05/85	
123W-1	MUNICIPAL	DESTROYED	TCE	26.8	04/81	ND	08/96	
			PCE	33.0	04/81	ND	08/96	
			NITRATE (NO3)	47.0	05/76	4.0	08/96	
			NITRATE (N)	10.6	05/76	0.9	08/96	
			CLO4	NA	NA	NA	NA	
124W-1	MUNICIPAL	DESTROYED	TCE	0.5	06/83	ND	08/89	

APPENDIX C
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WELL NAME	USAGE	STATUS	CONCENTRATION (NITRATE IN MG/L, OTHERS IN UG/L)				REMARKS	
			CONTAMINANT OF CONCERN	HISTORIC HIGH		MOST RECENT		
				VALUE	DATE	VALUE		DATE
			NITRATE (NO3)	60.0	09/84	53.6	08/89	
			NITRATE (N)	13.6	09/84	12.1	08/89	
			CLO4	NA	NA	NA	NA	
			AS	ND	06/80	ND	08/89	
125W-1	MUNICIPAL	DESTROYED	VOCS	ND	01/80	ND	09/81	
			NITRATE (NO3)	30.0	05/76	21.0	05/79	
			NITRATE (N)	6.8	05/76	4.7	05/79	
			CLO4	NA	NA	NA	NA	
125W-2	MUNICIPAL	INACTIVE	VOCS	ND	03/83	ND	07/95	
			NITRATE (NO3)	50.0	08/87	40.6	03/95	
			NITRATE (N)	11.3	08/87	9.2	03/95	
			CLO4	NA	NA	NA	NA	
126W-1	MUNICIPAL	DESTROYED	VOCS	NA	NA	NA	NA	
			NITRATE (NO3)	18.0	05/75	18.0	05/75	
			NITRATE (N)	4.1	05/75	4.1	05/75	
			CLO4	NA	NA	NA	NA	
126W-2	MUNICIPAL	INACTIVE	VOCS	ND	03/85	ND	08/00	
			NITRATE (NO3)	38.8	07/91	34.9	03/01	
			NITRATE (N)	8.8	07/91	7.9	03/01	
			CLO4	4.8	07/97	ND	01/98	
			AS	1.3	07/96	ND	08/00	
			TCE	56.0	10/93	56.0	10/93	
			PCE	227.0	04/80	52.0	10/93	
			CTC	2.7	10/93	2.7	10/93	
			1,1-DCE	40.0	10/93	40.0	10/93	
			1,1,1-TCA	5.3	10/93	5.3	10/93	
			NITRATE (NO3)	62.0	09/81	55.3	10/93	
			NITRATE (N)	14.0	09/81	12.5	10/93	
			CLO4	NA	NA	NA	NA	
			TCE	0.5	07/87	ND	08/89	
			CTC	0.5	08/89	0.5	08/89	
			NITRATE (NO3)	49.1	08/89	47.8	09/89	
			NITRATE (N)	11.1	08/89	10.8	09/89	
			CLO4	NA	NA	NA	NA	
			AS	ND	04/81	ND	08/89	
			TCE	56.0	10/93	56.0	10/93	
			PCE	0.1	12/80	ND	10/93	
			1,1-DCE	8.6	10/93	8.6	10/93	
			1,1,1-TCA	13.2	03/83	ND	10/93	
			NITRATE (NO3)	43.0	06/87	40.9	10/93	
			NITRATE (N)	9.7	06/87	9.2	10/93	
			CLO4	NA	NA	NA	NA	
			AS	ND	03/88	ND	07/89	
			TCE	0.8	03/85	0.3	05/85	
			NITRATE (NO3)	59.0	02/86	47.5	09/86	
			NITRATE (N)	13.3	02/86	10.7	09/86	
			CLO4	NA	NA	NA	NA	
			PCE	335.0	03/80	66.0	10/93	
			TCE	53.0	03/80	9.1	10/93	
			CTC	2.4	10/93	2.4	10/93	
			1,1-DCE	15.0	10/93	15.0	10/93	
			NITRATE (NO3)	48.0	01/77	37.6	10/93	
			NITRATE (N)	10.8	01/77	8.5	10/93	
			CLO4	NA	NA	NA	NA	
			AS	5.0	08/79	5.0	08/79	
			TCE	34.8	06/81	ND	01/97	
			PCE	5.0	02/88	ND	01/97	
			CTC	0.8	09/80	ND	07/96	
			NITRATE (NO3)	99.2	05/94	92.9	07/96	
			NITRATE (N)	22.4	05/94	21.0	07/96	
			CLO4	NA	NA	NA	NA	

**APPENDIX C
HIGHLIGHTS OF VOLATILE ORGANIC COMPOUNDS, NITRATE, AND PERCHLORATE CONCENTRATIONS
AND WELLS VULNERABLE TO CONTAMINATION (AS OF MAY 31, 2017)**

WELL NAME	USAGE	STATUS	CONCENTRATION (NITRATE IN MG/L, OTHERS IN UG/L)				REMARKS	
			CONTAMINANT OF CONCERN	HISTORIC HIGH		MOST RECENT		
				VALUE	DATE	VALUE		DATE
139W-2	MUNICIPAL	INACTIVE	AS	3.6	07/95	2.6	07/96	
			TCE	18.7	09/80	ND	05/10	
			PCE	12.1	03/80	ND	05/10	
			CTC	0.8	09/80	ND	05/10	
			NITRATE (NO3)	103.5	10/08	58.5	05/10	
			NITRATE (N)	23.4	10/08	13.2	05/10	
			CLO4	34.0	10/08	15.0	05/10	
AS	3.2	07/95	2.6	08/01				
139W-4	MUNICIPAL	STANDBY	TCE	4.7	04/97	ND	11/11	VULNERABLE (NITRATE AND CLO4)
			NITRATE (NO3)	53.1	12/15	53.1	11/16	
			NITRATE (N)	12.0	12/15	12.0	11/16	
			CLO4	12.0	12/03	11.0	11/16	
			AS	1.5	07/96	ND	12/14	
			CR6	4.1	11/00	3.5	12/14	
139W-5	MUNICIPAL	INACTIVE	TCE	19.0	08/01	19.0	08/01	
			PCE	10.8	05/99	0.7	08/01	
			CTC	1.0	08/01	1.0	08/01	
			1,2-DCA	1.0	02/00	ND	08/01	
			NITRATE (NO3)	36.5	06/01	36.5	10/09	
			NITRATE (N)	8.2	06/01	8.2	10/09	
			CLO4	12.0	09/97	12.0	10/09	
			AS	1.6	07/96	ND	08/01	
139W-6	MUNICIPAL	INACTIVE	TCE	51.2	02/01	ND	05/10	
			PCE	2.8	02/01	ND	05/10	
			CTC	1.9	02/01	ND	05/10	
			1,2-DCA	1.6	02/01	ND	05/10	
			NITRATE (NO3)	42.8	10/08	36.5	05/10	
			NITRATE (N)	9.7	10/08	8.2	05/10	
			CLO4	35.4	11/00	2.0	05/10	
			AS	2.7	05/96	ND	05/99	
140W-1	MUNICIPAL	DESTROYED	TCE	1.0	01/80	1.0	01/80	
			NITRATE (NO3)	86.9	04/73	68.0	05/75	
			NITRATE (N)	19.6	04/73	15.4	05/75	
			CLO4	NA	NA	NA	NA	
			AS	ND	01/02	ND	01/02	
140W-3	MUNICIPAL	STANDBY	TCE	13.6	03/80	ND	12/11	VULNERABLE (VOCS, NITRATE, AND CLO4)
			PCE	1.0	06/88	ND	12/11	
			CTC	1.0	09/81	ND	12/11	
			1,1-DCE	1.1	10/09	ND	12/11	
			NITRATE (NO3)	78.0	03/85	48.7	11/16	
			NITRATE (N)	17.6	03/85	11.0	11/16	
			CLO4	16.0	12/05	4.8	11/16	
			AS	4.0	08/76	2.5	12/14	
			CR6	12.7	06/01	8.7	12/14	
140W-4	MUNICIPAL	INACTIVE	TCE	7.0	01/96	1.5	11/06	
			NITRATE (NO3)	36.4	10/03	36.3	12/04	
			NITRATE (N)	8.2	10/03	8.2	12/04	
			CLO4	12.6	10/03	11.6	12/04	
			AS	2.4	07/95	ND	12/04	
140W-5	MUNICIPAL	ACTIVE	TCE	21.0	02/91	7.8	05/17	VULNERABLE (VOCS, NITRATE, CLO4)
			PCE	1.0	06/07	ND	05/17	
			NITRATE (NO3)	36.0	02/14	19.0	05/17	
			NITRATE (N)	8.1	02/14	4.3	05/17	
			CLO4	15.0	10/12	8.1	05/17	
			AS	1.9	07/96	ND	11/15	
			CR6	9.8	02/05	6.8	04/13	
142W-1	MUNICIPAL	DESTROYED	VOCS	ND	02/80	ND	07/82	
			NITRATE (NO3)	74.0	06/81	74.0	06/81	
			NITRATE (N)	16.7	06/81	16.7	06/81	
			CLO4	NA	NA	NA	NA	
142W-2	MUNICIPAL	ACTIVE	VOCS	ND	03/04	ND	05/17	VULNERABLE (CLO4)
			NITRATE (NO3)	15.0	03/14	15.1	05/17	

APPENDIX C
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AND WELLS VULNERABLE TO CONTAMINATION (AS OF MAY 31, 2017)

WELL NAME	USAGE	STATUS	CONCENTRATION (NITRATE IN MG/L, OTHERS IN UG/L)				REMARKS	
			CONTAMINANT OF CONCERN	HISTORIC HIGH		MOST RECENT		
				VALUE	DATE	VALUE		DATE
147W-1	MUNICIPAL	DESTROYED	NITRATE (N)	3.4	03/14	3.4	05/17	
			CLO4	4.1	01/17	ND	05/17	
			AS	1.6	07/04	ND	07/15	
			CR6	12.0	02/05	6.8	04/13	
			TCE	23.0	03/85	23.0	03/85	
147W-2	MUNICIPAL	DESTROYED	PCE	1.2	03/85	1.2	03/85	
			NITRATE (NO3)	100.0	03/85	100.0	03/85	
			NITRATE (N)	22.6	03/85	22.6	03/85	
			CLO4	NA	NA	NA	NA	
			VOCS	NA	NA	NA	NA	
147W-3	MUNICIPAL	ACTIVE	NITRATE (NO3)	54.0	09/74	54.0	09/74	VULNERABLE (VOCS AND CLO4)
			NITRATE (N)	12.2	09/74	12.2	09/74	
			CLO4	NA	NA	NA	NA	
			TCE	4.1	01/92	2.7	11/16	
			PCE	4.4	04/89	1.9	11/16	
148W-1	MUNICIPAL	DESTROYED	1,1-DCE	8.9	01/89	3.6	11/16	
			1,1-DCA	4.8	05/89	ND	11/16	
			NITRATE (NO3)	19.8	09/88	8.9	11/16	
			NITRATE (N)	4.5	09/88	2.0	11/16	
			CLO4	3.0	04/10	ND	11/16	
149W-1	MUNICIPAL	DESTROYED	AS	1.8	07/04	ND	08/14	
			CR6	13.0	04/05	11.0	11/16	
			TCE	0.8	06/80	ND	04/97	
			NITRATE (NO3)	47.0	02/76	34.8	04/97	
			NITRATE (N)	10.6	02/76	7.9	04/97	
150W-1	MUNICIPAL	DESTROYED	CLO4	NA	NA	NA	NA	
			AS	26.0	06/78	26.0	06/78	
			VOCS	NA	NA	NA	NA	
			NITRATE (NO3)	NA	NA	NA	NA	
			NITRATE (N)	NA	NA	NA	NA	
151W-1	MUNICIPAL	DESTROYED	CLO4	NA	NA	NA	NA	
			AS	ND	07/89	ND	08/94	
			TCE	6.0	09/81	ND	08/93	
			NITRATE (NO3)	53.0	03/86	13.4	08/94	
			NITRATE (N)	12.0	03/86	3.0	08/94	
151W-2	MUNICIPAL	ACTIVE	CLO4	21.6	03/98	21.6	03/98	VULNERABLE (CLO4)
			AS	7.0	08/79	7.0	08/79	
			VOCS	ND	01/80	ND	03/98	
			NITRATE (NO3)	116.0	03/98	116.0	03/98	
			NITRATE (N)	26.2	03/98	26.2	03/98	
152W-1	MUNICIPAL	DESTROYED	CLO4	5.5	01/17	ND	05/17	
			AS	1.3	12/06	ND	02/16	
			CR6	12.0	04/05	8.1	04/13	
			TCE	3.6	05/17	3.6	05/17	
			NITRATE (NO3)	9.7	05/17	9.7	05/17	
153W-1	MUNICIPAL	INACTIVE	NITRATE (N)	2.2	05/17	2.2	05/17	
			NITRATE (NO3)	43.4	05/86	43.4	05/86	
			NITRATE (N)	9.8	05/86	9.8	05/86	
			CLO4	NA	NA	NA	NA	
			TCE	12.8	11/82	8.0	03/85	
154W-1	MUNICIPAL	DESTROYED	PCE	0.8	11/82	0.3	03/85	
			NITRATE (NO3)	43.4	05/86	43.4	05/86	
			NITRATE (N)	9.8	05/86	9.8	05/86	
			CLO4	NA	NA	NA	NA	
			VOCS	NA	NA	NA	NA	
154W-1	MUNICIPAL	DESTROYED	NITRATE (NO3)	81.0	05/79	81.0	05/79	
			NITRATE (N)	18.3	05/79	18.3	05/79	
			CLO4	NA	NA	NA	NA	
			VOCS	NA	NA	NA	NA	
			NITRATE (NO3)	81.0	05/79	81.0	05/79	

APPENDIX C
HIGHLIGHTS OF VOLATILE ORGANIC COMPOUNDS, NITRATE, AND PERCHLORATE CONCENTRATIONS
AND WELLS VULNERABLE TO CONTAMINATION (AS OF MAY 31, 2017)

WELL NAME	USAGE	STATUS	CONCENTRATION (NITRATE IN MG/L, OTHERS IN UG/L)				REMARKS	
			CONTAMINANT OF CONCERN	HISTORIC HIGH		MOST RECENT		
				VALUE	DATE	VALUE		DATE
155W-1	MUNICIPAL	INACTIVE	PCE	190.0	11/80	90.0	11/98	
			TCE	50.0	07/81	24.0	11/98	
			CTC	19.0	02/82	ND	11/98	
			1,1-DCE	16.0	03/85	13.0	11/98	
			NITRATE (NO3)	60.0	11/80	49.8	11/98	
			NITRATE (N)	13.6	11/80	11.2	11/98	
			CLO4	5.4	11/98	5.4	11/98	
			AS	4.0	08/76	ND	03/85	
155W-2	MUNICIPAL	DESTROYED	PCE	190.0	09/93	76.0	11/98	
			TCE	39.0	04/80	22.0	11/98	
			1,1-DCE	21.0	09/93	11.0	11/98	
			1,1-DCA	3.0	09/93	1.4	11/98	
			C-1,2-DCE	16.0	03/85	1.8	11/98	
			NITRATE (NO3)	49.0	11/98	49.0	11/98	
			NITRATE (N)	11.1	11/98	11.1	11/98	
			CLO4	4.3	11/98	ND	11/98	
157W-1	MUNICIPAL	DESTROYED	TCE	12.2	02/80	ND	03/85	
			NITRATE (NO3)	58.0	02/86	58.0	02/86	
			NITRATE (N)	13.1	02/86	13.1	02/86	
			CLO4	NA	NA	NA	NA	
201W-1	MUNICIPAL	DESTROYED	VOCS	NA	NA	NA	NA	
			NITRATE (NO3)	NA	NA	NA	NA	
			NITRATE (N)	NA	NA	NA	NA	
			CLO4	NA	NA	NA	NA	
201W-2	MUNICIPAL	DESTROYED	TCE	6.8	04/89	1.7	08/06	
			PCE	3.9	09/88	1.4	08/06	
			1,1-DCE	3.2	08/89	ND	08/06	
			C-1,2-DCE	6.1	02/91	4.3	08/06	
			NITRATE (NO3)	6.8	08/94	6.3	08/06	
			NITRATE (N)	1.5	08/94	1.4	08/06	
			CLO4	ND	08/97	ND	09/03	
			AS	8.5	08/97	3.0	08/06	
201W-3	MUNICIPAL	DESTROYED	VOCS	NA	NA	NA	NA	
			NITRATE (NO3)	NA	NA	NA	NA	
			NITRATE (N)	NA	NA	NA	NA	
			CLO4	NA	NA	NA	NA	
201W-4	MUNICIPAL	STANDBY	TCE	6.4	09/89	ND	06/14	
			PCE	4.1	09/88	ND	06/14	
			1,1-DCE	2.0	07/88	ND	06/14	
			C-1,2-DCE	5.2	05/97	ND	06/14	
			NITRATE (NO3)	21.0	11/14	21.0	11/14	
			NITRATE (N)	4.7	11/14	4.7	11/14	
			CLO4	ND	06/97	ND	07/14	
			AS	4.0	08/97	ND	06/14	
CR6	1.9	05/01	ND	11/14				
201W-5	MUNICIPAL	DESTROYED	TCE	6.4	09/89	ND	03/08	
			PCE	3.8	09/89	ND	03/08	
			1,1-DCE	2.9	09/88	ND	03/08	
			C-1,2-DCE	4.9	08/88	ND	03/08	
			NITRATE (NO3)	12.0	08/94	12.0	08/07	
			NITRATE (N)	2.7	08/94	2.7	08/07	
			CLO4	ND	06/97	ND	06/03	
			AS	8.9	09/89	4.0	09/05	
201W-6	MUNICIPAL	DESTROYED	TCE	3.9	05/88	ND	09/05	
			PCE	3.3	05/88	ND	09/05	
			1,1-DCE	3.2	09/88	ND	09/05	
			C-1,2-DCE	8.7	05/88	ND	09/05	
			NITRATE (NO3)	20.0	06/85	7.7	05/05	
			NITRATE (N)	4.5	06/85	1.7	05/05	
			CLO4	ND	06/97	ND	06/03	
			AS	9.2	08/95	2.0	09/04	
201W-7	MUNICIPAL	ACTIVE	PCE	0.6	08/08	ND	05/17	
			C-1,2-DCE	0.9	08/08	ND	05/17	

**APPENDIX C
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AND WELLS VULNERABLE TO CONTAMINATION (AS OF MAY 31, 2017)**

WELL NAME	USAGE	STATUS	CONCENTRATION (NITRATE IN MG/L, OTHERS IN UG/L)				REMARKS	
			CONTAMINANT OF CONCERN	HISTORIC HIGH		MOST RECENT		
				VALUE	DATE	VALUE		DATE
			NITRATE (NO3)	14.6	08/16	14.6	08/16	
			NITRATE (N)	3.3	08/16	3.3	08/16	
			CLO4	ND	08/08	ND	08/16	
			AS	2.0	08/08	ND	08/14	
			CR6	0.8	04/13	0.8	04/13	
201W-8	MUNICIPAL	ACTIVE	TCE	0.5	05/07	ND	05/17	
			C-1,2-DCE	1.1	05/07	ND	05/17	
			NITRATE (NO3)	15.9	08/16	15.9	08/16	
			NITRATE (N)	3.6	08/16	3.6	08/16	
			CLO4	2.1	07/06	ND	08/16	
			AS	2.7	08/09	ND	08/15	
201W-9	MUNICIPAL	ACTIVE	PCE	0.9	04/12	ND	05/17	
			NITRATE (NO3)	19.0	02/15	14.2	03/17	
			NITRATE (N)	4.3	02/15	3.2	03/17	
			CLO4	ND	03/08	ND	08/16	
			AS	1.5	05/07	ND	02/17	
			CR6	0.6	04/13	0.6	04/13	
201W-10	MUNICIPAL	ACTIVE	TCE	1.4	09/07	ND	05/17	VULNERABLE (VOCS)
			PCE	1.3	09/07	ND	05/17	
			C-1,2-DCE	3.0	09/07	ND	05/17	
			NITRATE (NO3)	8.0	05/17	8.0	05/17	
			NITRATE (N)	1.8	05/17	1.8	05/17	
			CLO4	ND	09/07	ND	05/17	
			AS	2.1	09/07	ND	05/15	
			CR6	0.3	09/07	0.3	09/07	
202W-1	MUNICIPAL	DESTROYED	TCE	4.3	09/81	ND	01/89	
			PCE	15.0	10/88	12.1	01/89	
			NITRATE (NO3)	24.0	07/87	23.0	10/88	
			NITRATE (N)	5.4	07/87	5.2	10/88	
			CLO4	NA	NA	NA	NA	
			AS	ND	09/88	ND	09/88	
SUNNY SLOPE WATER COMPANY								
08	MUNICIPAL	ACTIVE	VOCS	ND	01/87	ND	05/17	VULNERABLE (NITRATE)
			NITRATE (NO3)	27.0	08/16	15.5	05/17	
			NITRATE (N)	6.1	08/16	3.5	05/17	
			CLO4	ND	07/97	ND	09/16	
			AS	ND	09/89	ND	09/14	
			CR6	7.1	12/00	3.4	03/17	
09	MUNICIPAL	ACTIVE	VOCS	ND	01/85	ND	05/17	VULNERABLE (NITRATE)
			NITRATE (NO3)	36.0	06/03	16.4	05/17	
			NITRATE (N)	8.1	06/03	3.7	05/17	
			CLO4	ND	07/97	ND	09/16	
			AS	3.6	08/96	ND	09/15	
			CR6	7.0	03/17	7.0	03/17	
10	MUNICIPAL	INACTIVE	VOCS	ND	01/85	ND	08/96	
			NITRATE (NO3)	63.6	12/94	50.9	08/96	
			NITRATE (N)	14.4	12/94	11.5	08/96	
			CLO4	NA	NA	NA	NA	
			AS	0.7	08/96	0.7	08/96	
13	MUNICIPAL	ACTIVE	VOCS	ND	08/96	ND	05/17	
			NITRATE (NO3)	7.2	09/09	1.8	05/17	
			NITRATE (N)	1.6	09/09	0.4	05/17	
			CLO4	ND	07/97	ND	06/16	
			AS	3.2	06/15	3.2	06/15	
			CR6	13.0	03/17	12.0	05/17	
TAYLOR HERB GARDEN								
NA	IRRIGATION	INACTIVE	VOCS	NA	NA	NA	NA	
			NITRATE (NO3)	NA	NA	NA	NA	
			NITRATE (N)	NA	NA	NA	NA	
			CLO4	NA	NA	NA	NA	

APPENDIX C
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WELL NAME	USAGE	STATUS	CONCENTRATION (NITRATE IN MG/L, OTHERS IN UG/L)				REMARKS	
			CONTAMINANT OF CONCERN	HISTORIC HIGH		MOST RECENT		
				VALUE	DATE	VALUE		DATE
TEXACO INC.								
14	INDUSTRIAL	DESTROYED	PCE	40.0	07/01	2.8	09/03	
			TCE	5.0	05/85	ND	09/03	
			1,2-DCA	0.6	01/96	ND	09/03	
			NITRATE (NO3)	33.0	07/01	6.4	09/03	
			NITRATE (N)	7.5	07/01	1.4	09/03	
			CLO4	ND	09/97	ND	09/97	
THOMPSON, EARL W.								
01	DOMESTIC	INACTIVE	VOCS	NA	NA	NA	NA	
			NITRATE (NO3)	NA	NA	NA	NA	
			NITRATE (N)	NA	NA	NA	NA	
			CLO4	NA	NA	NA	NA	
TOMOVICH (NICK) & SON								
NA	DOMESTIC	DESTROYED	VOCS	NA	NA	NA	NA	
			NITRATE (NO3)	NA	NA	NA	NA	
			NITRATE (N)	NA	NA	NA	NA	
			CLO4	NA	NA	NA	NA	
TYLER NURSERY								
NA	IRRIGATION	INACTIVE	TCE	12.9	12/99	1.2	09/04	
			PCE	44.6	12/99	1.2	09/04	
			1,1-DCE	0.6	09/02	ND	09/04	
			1,1-DCA	0.9	09/02	ND	09/04	
			C-1,2-DCE	8.7	09/02	ND	09/04	
			NITRATE (NO3)	31.0	09/02	ND	09/04	
			NITRATE (N)	7.0	09/02	ND	09/04	
			CLO4	NA	NA	NA	NA	
UNITED CONCRETE PIPE CORPORATION								
NA	INDUSTRIAL	DESTROYED	VOCS	ND	08/89	ND	10/08	
			NITRATE (NO3)	4.3	08/89	4.3	08/89	
			NITRATE (N)	1.0	08/89	1.0	08/89	
			CLO4	NA	NA	NA	NA	
UNITED ROCK PRODUCTS CORPORATION								
IRW-1	INDUSTRIAL	ACTIVE	VOCS	ND	08/89	ND	10/09	
			NITRATE (NO3)	6.4	07/96	2.5	10/09	
			NITRATE (N)	1.4	07/96	0.6	10/09	
			CLO4	ND	02/98	ND	02/98	
			AS	ND	04/98	ND	04/98	
IRW-2	INDUSTRIAL	ACTIVE	VOCS	ND	07/96	ND	11/05	
			NITRATE (NO3)	4.5	10/04	2.6	11/05	
			NITRATE (N)	1.0	10/04	0.6	11/05	
			CLO4	ND	02/98	ND	02/98	
SIERRA	INDUSTRIAL	INACTIVE	VOCS	NA	NA	NA	NA	
			NITRATE (NO3)	NA	NA	NA	NA	
			NITRATE (N)	NA	NA	NA	NA	
			CLO4	NA	NA	NA	NA	
VALENCIA HEIGHTS WATER COMPANY								
01	MUNICIPAL	INACTIVE	VOCS	ND	06/89	ND	07/09	
			NITRATE (NO3)	46.5	04/99	32.6	07/07	
			NITRATE (N)	10.5	04/99	7.4	07/07	
			CLO4	8.5	08/00	ND	07/09	
			AS	0.7	08/96	ND	07/07	
02	MUNICIPAL	INACTIVE	TCE	0.2	01/80	ND	07/08	
			NITRATE (NO3)	53.7	07/97	27.0	07/06	

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AND WELLS VULNERABLE TO CONTAMINATION (AS OF MAY 31, 2017)**

WELL NAME	USAGE	STATUS	CONCENTRATION (NITRATE IN MG/L, OTHERS IN UG/L)				REMARKS					
			CONTAMINANT OF CONCERN	HISTORIC HIGH		MOST RECENT						
				VALUE	DATE	VALUE		DATE				
03A	MUNICIPAL	INACTIVE	NITRATE (N)	12.1	07/97	6.1	07/06					
			CLO4	8.0	10/98	4.2	07/08					
			AS	0.9	08/96	ND	07/06					
			VOCS	ND	03/85	ND	03/92					
			NITRATE (NO3)	34.8	09/89	12.1	08/92					
			NITRATE (N)	7.9	09/89	2.7	08/92					
04	MUNICIPAL	INACTIVE	CLO4	NA	NA	NA	NA					
			PCE	1.0	09/99	ND	09/01					
			NITRATE (NO3)	90.0	11/97	78.0	03/02					
			NITRATE (N)	20.3	11/97	17.6	03/02					
			CLO4	32.6	11/00	28.0	03/02					
			AS	2.2	07/00	ND	08/00					
05	MUNICIPAL	ACTIVE	CR6	5.0	11/00	5.0	11/00	VULNERABLE (NITRATE AND CLO4)				
			VOCS	ND	06/90	ND	04/17					
			NITRATE (NO3)	42.0	08/12	27.0	01/17					
			NITRATE (N)	9.5	08/12	6.1	01/17					
			CLO4	7.2	11/00	ND	04/17					
			AS	0.9	08/96	ND	01/17					
06	MUNICIPAL	ACTIVE	CR6	1.7	08/13	1.3	01/17	VULNERABLE (NITRATE AND CLO4)				
			VOCS	ND	12/02	ND	07/16					
			NITRATE (NO3)	49.3	06/04	48.7	05/17					
			NITRATE (N)	11.1	06/04	11.0	05/17					
			CLO4	8.9	01/07	7.2	05/17					
			AS	ND	12/02	ND	10/14					
07	MUNICIPAL	ACTIVE	CR6	8.0	12/02	2.2	08/13	VULNERABLE (NITRATE AND CLO4)				
			VOCS	ND	05/08	ND	07/16					
			NITRATE (NO3)	33.2	08/16	33.2	05/17					
			NITRATE (N)	7.5	08/16	7.5	05/17					
			CLO4	5.4	10/12	ND	05/17					
			AS	ND	12/09	ND	10/15					
VALLEY COUNTY WATER DISTRICT												
ARROW	MUNICIPAL	INACTIVE	TCE	700.0	07/82	600.0	12/96					
			PCE	980.0	12/96	980.0	12/96					
			1,1-DCE	64.0	12/96	64.0	12/96					
			C-1,2-DCE	59.0	12/96	59.0	12/96					
			CTC	14.5	09/92	8.0	12/96					
			1,2-DCA	9.0	02/92	7.3	12/96					
			1,1,1-TCA	45.0	12/96	45.0	12/96					
			1,1-DCA	2.9	02/95	2.7	12/96					
			NITRATE (NO3)	26.4	08/96	26.4	08/96					
			NITRATE (N)	6.0	08/96	6.0	08/96					
			CLO4	NA	NA	NA	NA					
			AS	1.5	08/96	1.5	08/96					
			B DALTON	MUNICIPAL	INACTIVE	TCE	137.0		04/85	ND	05/11	
						PCE	8.0		04/85	ND	05/11	
1,1-DCA	0.9	05/96				ND	05/11					
C-1,2-DCE	2.0	11/95				ND	05/11					
CTC	9.9	04/85				ND	05/11					
1,2-DCA	11.0	12/98				ND	05/11					
NITRATE (NO3)	72.0	10/09				72.0	05/11					
NITRATE (N)	16.3	10/09				16.3	05/11					
CLO4	99.1	12/98				11.0	05/11					
AS	5.0	11/95				2.7	09/07					
E NIXON (E JOAN)	MUNICIPAL	ACTIVE	TCE	7.0	11/08	1.4	05/17	VULNERABLE (VOCS) (1)				
			PCE	11.0	10/04	ND	05/17					
			1,1-DCE	1.3	10/04	ND	05/17					
			C-1,2-DCE	1.7	10/04	ND	05/17					
			NITRATE (NO3)	13.6	02/05	4.0	05/17					
			NITRATE (N)	3.1	02/05	0.9	05/17					
			CLO4	ND	05/97	ND	05/17					
			AS	3.0	08/06	2.0	06/16					
			CR6	1.0	05/01	ND	06/16					

APPENDIX C
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AND WELLS VULNERABLE TO CONTAMINATION (AS OF MAY 31, 2017)

WELL NAME	USAGE	STATUS	CONCENTRATION (NITRATE IN MG/L, OTHERS IN UG/L)				REMARKS					
			CONTAMINANT OF CONCERN	HISTORIC HIGH		MOST RECENT						
				VALUE	DATE	VALUE		DATE				
E MAINE	MUNICIPAL	ACTIVE	TCE	36.0	10/04	ND	05/17	VULNERABLE (VOCs AND CLO4) (1)				
			PCE	110.0	10/04	1.5	05/17					
			1,1-DCE	10.1	02/91	ND	05/17					
			1,2-DCA	1.4	10/04	ND	05/17					
			1,1,1-TCA	9.1	02/91	ND	05/17					
			C-1,2-DCE	13.0	06/03	ND	05/17					
			NITRATE (NO3)	21.0	02/11	9.7	05/17					
			NITRATE (N)	4.7	02/11	2.2	05/17					
			CLO4	7.8	10/04	ND	05/17					
			AS	4.4	08/89	2.0	03/15					
			CR6	1.0	05/01	0.4	08/13					
LANTE (SA1-3)	MUNICIPAL	ACTIVE	TCE	1315.0	04/98	ND	05/17	VULNERABLE (VOCS, NITRATE, AND CLO4) (1,4)				
			PCE	1200.0	11/96	1.1	05/17					
			1,1-DCE	110.0	11/96	ND	05/17					
			C-1,2-DCE	90.0	11/96	ND	05/17					
			T-1,2-DCE	110.0	04/85	ND	05/17					
			1,1-DCA	18.0	08/04	ND	05/17					
			1,2-DCA	12.5	01/92	ND	05/17					
			CTC	17.6	01/92	ND	05/17					
			1,1,1-TCA	170.0	04/85	ND	05/17					
			NITRATE (NO3)	45.0	05/15	41.6	05/17					
			NITRATE (N)	10.2	05/15	9.4	05/17					
			CLO4	94.0	04/98	7.5	05/17					
			AS	2.4	01/05	ND	04/17					
			CR6	18.0	01/05	2.3	08/13					
MORADA	MUNICIPAL	INACTIVE	TCE	770.0	03/80	ND	05/11					
			PCE	100.0	02/85	2.2	05/11					
			CTC	29.0	04/84	ND	05/11					
			1,1-DCE	2.5	04/88	ND	05/11					
			1,1-DCA	8.5	02/85	ND	05/11					
			1,2-DCA	0.7	04/88	ND	05/11					
			C-1,2-DCE	8.1	08/95	ND	05/11					
			NITRATE (NO3)	110.8	11/90	85.5	05/11					
			NITRATE (N)	25.0	11/90	19.3	05/11					
			CLO4	21.0	02/04	11.0	05/11					
			AS	3.6	08/95	3.6	08/95					
			PADDY LN	MUNICIPAL	INACTIVE	TCE	166.0		04/94	29.0	05/11	
						PCE	42.0		11/93	3.5	05/11	
CTC	15.0	12/87				1.0	05/11					
1,1-DCE	17.2	11/93				1.6	05/11					
C-1,2-DCE	23.8	11/93				1.9	05/11					
1,2-DCA	6.6	02/04				2.6	05/11					
NITRATE (NO3)	63.0	05/10				39.6	05/11					
NITRATE (N)	14.2	05/10				8.9	05/11					
CLO4	154.0	02/98				38.0	05/11					
AS	ND	06/80				ND	11/94					
PALM	MUNICIPAL	INACTIVE				CTC	48.0	07/82	0.8	02/04		
			TCE	56.0	02/04	56.0	02/04					
			PCE	51.0	02/04	51.0	02/04					
			C-1,2-DCE	7.1	02/04	7.1	02/04					
			1,1,1-TCA	1.8	02/04	1.8	02/04					
			NITRATE (NO3)	11.0	12/94	10.0	02/04					
			NITRATE (N)	2.5	12/94	2.3	02/04					
			CLO4	5.6	02/04	5.6	02/04					
			AS	ND	10/87	ND	11/92					
			W NIXON (W JOAN)	MUNICIPAL	ACTIVE	TCE	4.0	11/04	0.6	05/17		VULNERABLE (VOCS) (1)
PCE	8.0	11/04				1.3	05/17					
NITRATE (NO3)	8.5	08/13				4.9	05/17					
NITRATE (N)	1.9	08/13				1.1	05/17					
CLO4	ND	05/97				ND	05/17					
AS	3.1	08/95				ND	08/16					
CR6	1.0	05/01				ND	08/16					
W MAINE	MUNICIPAL	ACTIVE	TCE	47.3	02/91	1.2	05/17	VULNERABLE (VOCS AND CLO4) (1)				
			PCE	70.0	02/03	3.0	05/17					
			1,1-DCE	14.2	02/91	ND	05/17					

**APPENDIX C
HIGHLIGHTS OF VOLATILE ORGANIC COMPOUNDS, NITRATE, AND PERCHLORATE CONCENTRATIONS
AND WELLS VULNERABLE TO CONTAMINATION (AS OF MAY 31, 2017)**

WELL NAME	USAGE	STATUS	CONCENTRATION (NITRATE IN MG/L, OTHERS IN UG/L)					REMARKS
			CONTAMINANT OF CONCERN	HISTORIC HIGH		MOST RECENT		
				VALUE	DATE	VALUE	DATE	
SA1-1	MUNICIPAL	ACTIVE	1,2-DCA	0.8	08/04	ND	05/17	VULNERABLE (VOCS, NITRATE, AND CLO4) (1,4)
			1,1,1-TCA	10.6	02/91	ND	05/17	
			C-1,2-DCE	9.0	02/03	ND	05/17	
			NITRATE (NO3)	20.8	05/90	8.0	05/17	
			NITRATE (N)	4.7	05/90	1.8	05/17	
			CLO4	6.3	10/04	ND	05/17	
			AS	2.6	07/96	2.1	03/15	
			CR6	1.0	05/01	0.4	08/13	
			TCE	34.0	07/05	18.0	05/17	
			PCE	47.0	04/07	40.0	05/17	
			1,1-DCA	11.0	07/05	ND	05/17	
			1,1-DCE	110.0	07/05	5.6	05/17	
			1,2-DCA	1.0	07/05	ND	05/17	
			C-1,2-DCE	4.1	07/05	0.9	05/17	
			1,1,1-TCA	6.0	05/06	ND	05/17	
SA1-2	MUNICIPAL	STANDBY	FREON 11	5.8	02/12	ND	05/17	VULNERABLE (VOCS, NITRATE, AND CLO4) (1,4)
			NITRATE (NO3)	87.0	01/05	79.7	05/17	
			NITRATE (N)	19.7	01/05	18.0	05/17	
			CLO4	17.0	01/05	6.0	05/17	
			AS	1.3	06/03	ND	02/15	
			CR6	2.4	03/06	1.7	11/14	
			TCE	25.0	04/06	2.0	12/09	
			PCE	37.0	05/06	4.8	12/09	
			1,1-DCA	8.7	07/05	ND	12/09	
			1,1-DCE	62.0	04/06	1.2	12/09	
			1,2-DCA	1.0	07/05	ND	12/09	
			C-1,2-DCE	6.2	07/05	ND	12/09	
			1,1,1-TCA	2.2	05/06	ND	12/09	
			NITRATE (NO3)	72.0	03/05	72.0	05/12	
			NITRATE (N)	16.3	03/05	16.3	05/12	
CLO4	15.0	03/05	11.0	12/09				
AS	2.0	03/06	ND	02/09				
CR6	2.6	03/06	2.0	09/07				
VALLEY VIEW MUTUAL WATER COMPANY								
01	MUNICIPAL	ACTIVE	VOCS	ND	06/89	ND	09/10	
			NITRATE (NO3)	6.4	09/09	5.7	09/10	
			NITRATE (N)	1.4	09/09	1.3	09/10	
			CLO4	ND	08/97	ND	09/10	
			AS	3.0	09/07	ND	09/10	
			CR6	1.0	11/00	1.0	05/01	
02	MUNICIPAL	ACTIVE	PCE	2.1	09/16	ND	03/17	
			TCE	0.7	09/16	ND	03/17	
			NITRATE (NO3)	7.9	09/15	6.6	09/16	
			NITRATE (N)	1.8	09/15	1.5	09/16	
			CLO4	ND	08/97	ND	09/16	
			AS	2.0	09/96	2.0	09/16	
CR6	2.5	05/01	ND	09/16				
03	MUNICIPAL	INACTIVE	TCE	1.3	01/80	ND	03/98	
			NITRATE (NO3)	26.9	03/98	26.9	03/98	
			NITRATE (N)	6.1	03/98	6.1	03/98	
			CLO4	18.6	03/98	18.6	03/98	
VIA TRUST								
01	NON-POTABLE	DESTROYED	VOCS	NA	NA	NA	NA	
			NITRATE (NO3)	NA	NA	NA	NA	
			NITRATE (N)	NA	NA	NA	NA	
			CLO4	NA	NA	NA	NA	
VULCAN MATERIALS COMPANY (CALMAT COMPANY)								
DUR E	INDUSTRIAL	DESTROYED	TCE	32.0	11/04	ND	10/10	VULNERABLE (VOCS)
			PCE	27.0	11/04	0.9	10/10	
			1,1-DCE	5.3	11/04	ND	10/10	
			C-1,2-DCE	2.8	11/04	ND	10/10	
			1,1,1-TCA	0.7	11/04	ND	10/10	

**APPENDIX C
HIGHLIGHTS OF VOLATILE ORGANIC COMPOUNDS, NITRATE, AND PERCHLORATE CONCENTRATIONS
AND WELLS VULNERABLE TO CONTAMINATION (AS OF MAY 31, 2017)**

WELL NAME	USAGE	STATUS	CONCENTRATION (NITRATE IN MG/L, OTHERS IN UG/L)				REMARKS	
			CONTAMINANT OF CONCERN	HISTORIC HIGH		MOST RECENT		
				VALUE	DATE	VALUE		DATE
			NITRATE (NO3)	16.2	10/04	7.2	10/10	
			NITRATE (N)	3.7	10/04	1.6	10/10	
			CLO4	ND	04/98	ND	10/08	
			AS	ND	04/98	ND	04/98	
DUR W	INDUSTRIAL	DESTROYED	PCE	0.8	02/07	ND	10/09	
			NITRATE (NO3)	16.0	07/01	14.0	10/09	
			NITRATE (N)	3.6	07/01	3.2	10/09	
			CLO4	4.0	05/98	4.0	05/98	
			AS	2.9	05/98	2.9	05/98	
REL 1	INDUSTRIAL	ACTIVE	VOCS	ND	05/94	ND	10/10	
			NITRATE (NO3)	6.5	09/02	ND	10/10	
			NITRATE (N)	1.5	09/02	ND	10/10	
			CLO4	ND	05/98	ND	05/98	
			AS	4.8	05/94	3.5	07/94	
WADE, RICHARD I.								
NA	DOMESTIC	INACTIVE	VOCS	NA	NA	NA	NA	
			NITRATE (NO3)	NA	NA	NA	NA	
			NITRATE (N)	NA	NA	NA	NA	
			CLO4	NA	NA	NA	NA	
WEST COVINA VENTURE LIMITED								
NA	NA	INACTIVE	VOCS	NA	NA	NA	NA	
			NITRATE (NO3)	NA	NA	NA	NA	
			NITRATE (N)	NA	NA	NA	NA	
			CLO4	NA	NA	NA	NA	
WHITTIER, CITY OF								
09	MUNICIPAL	DESTROYED	TCE	1.4	04/85	ND	08/89	
			PCE	1.9	10/88	0.6	08/89	
			NITRATE (NO3)	8.8	08/89	8.8	08/89	
			NITRATE (N)	2.0	08/89	2.0	08/89	
			CLO4	NA	NA	NA	NA	
			AS	ND	07/74	ND	08/89	
10	MUNICIPAL	DESTROYED	VOCS	NA	NA	NA	NA	
			NITRATE (NO3)	6.6	01/74	6.6	01/74	
			NITRATE (N)	1.5	01/74	1.5	01/74	
			CLO4	NA	NA	NA	NA	
11	MUNICIPAL	DESTROYED	VOCS	ND	06/87	ND	11/90	
			NITRATE (NO3)	10.1	01/90	10.1	01/90	
			NITRATE (N)	2.3	01/90	2.3	01/90	
			CLO4	NA	NA	NA	NA	
			AS	ND	04/80	ND	08/89	
12	MUNICIPAL	INACTIVE	TCE	1.5	07/88	1.5	07/88	
			PCE	0.7	07/88	0.7	07/88	
			NITRATE (NO3)	10.0	12/84	8.5	12/85	
			NITRATE (N)	2.3	12/84	1.9	12/85	
			CLO4	NA	NA	NA	NA	
13	MUNICIPAL	ACTIVE	PCE	4.9	11/87	ND	05/17	VULNERABLE (VOCS) (3)
			TCE	1.1	06/87	ND	03/17	
			MTBE	6.4	03/02	ND	03/17	
			NITRATE (NO3)	17.0	03/11	16.4	03/17	
			NITRATE (N)	3.8	03/11	3.7	03/17	
			CLO4	ND	08/97	ND	11/16	
			AS	4.1	03/02	ND	03/17	
			CR6	1.0	05/01	ND	03/17	
15	MUNICIPAL	ACTIVE	PCE	9.4	03/03	0.7	05/17	VULNERABLE (VOCS) (3)
			TCE	0.7	09/04	ND	03/17	
			C-1,2-DCE	2.5	12/93	ND	03/17	
			NITRATE (NO3)	13.0	08/89	8.4	02/17	
			NITRATE (N)	2.9	08/89	1.9	02/17	
			CLO4	ND	08/97	ND	09/16	

**APPENDIX C
HIGHLIGHTS OF VOLATILE ORGANIC COMPOUNDS, NITRATE, AND PERCHLORATE CONCENTRATIONS
AND WELLS VULNERABLE TO CONTAMINATION (AS OF MAY 31, 2017)**

WELL NAME	USAGE	STATUS	CONCENTRATION (NITRATE IN MG/L, OTHERS IN UG/L)				REMARKS					
			CONTAMINANT OF CONCERN	HISTORIC HIGH		MOST RECENT						
				VALUE	DATE	VALUE		DATE				
16	MUNICIPAL	ACTIVE	AS	3.5	03/02	ND	09/16	VULNERABLE (VOCS) (3)				
			CR6	2.2	10/00	ND	09/16					
			PCE	3.4	12/02	2.1	05/17					
			TCE	1.4	01/97	ND	03/17					
			C-1,2-DCE	2.5	10/96	ND	03/17					
			NITRATE (NO3)	13.3	03/16	13.7	03/17					
			NITRATE (N)	3.0	03/16	3.1	03/17					
			CLO4	ND	08/97	ND	09/16					
			AS	5.8	03/02	ND	03/17					
			CR6	2.5	05/01	ND	03/17					
17	MUNICIPAL	ACTIVE	PCE	12.0	12/02	6.1	05/17					
			TCE	2.2	05/92	0.6	03/17					
			C-1,2-DCE	1.2	04/95	ND	03/17					
			NITRATE (NO3)	13.0	03/03	12.4	03/17					
			NITRATE (N)	2.9	03/03	2.8	03/17					
			CLO4	ND	08/97	ND	09/16					
			AS	3.4	03/02	ND	03/16					
			CR6	1.6	10/00	ND	03/16					
			18	MUNICIPAL	ACTIVE	PCE	9.2		09/08	2.3	05/17	VULNERABLE (VOCS)
						TCE	2.4		11/95	ND	03/17	
C-1,2-DCE	0.7	10/96				ND	03/17					
NITRATE (NO3)	15.1	03/17				15.1	03/17					
NITRATE (N)	3.4	03/17				3.4	03/17					
CLO4	ND	08/97				ND	09/16					
AS	4.1	03/02				ND	03/15					
CR6	1.0	10/00				0.8	09/13					
WILMOTT, ERMA M.												
01	DOMESTIC	INACTIVE				VOCS	NA	NA	NA	NA		
			NITRATE (NO3)	NA	NA	NA	NA					
			NITRATE (N)	NA	NA	NA	NA					
			CLO4	NA	NA	NA	NA					
WOODLAND, RICHARD												
01	NON-POTABLE	INACTIVE	VOCS	NA	NA	NA	NA					
			NITRATE (NO3)	NA	NA	NA	NA					
			NITRATE (N)	NA	NA	NA	NA					
			CLO4	NA	NA	NA	NA					
02	NON-POTABLE	INACTIVE	VOCS	NA	NA	NA	NA					
			NITRATE (NO3)	NA	NA	NA	NA					
			NITRATE (N)	NA	NA	NA	NA					
			CLO4	NA	NA	NA	NA					
WORKMAN MILL INVESTMENT COMPANY (ROSE HILLS MEMORIAL PARK)												
04	IRRIGATION	INACTIVE	PCE	5.3	08/87	ND	10/09	VULNERABLE (VOCS AND NITRATE)				
			TCE	11.0	04/85	ND	10/09					
			1,1-DCE	14.0	04/85	ND	10/09					
			1,1,1-TCA	3.3	04/85	ND	10/09					
			NITRATE (NO3)	52.8	02/07	43.0	10/10					
			NITRATE (N)	11.9	02/07	9.7	10/10					
			CLO4	ND	06/98	ND	06/98					
01	IRRIGATION	INACTIVE	VOCS	NA	NA	NA	NA					
			NITRATE (NO3)	NA	NA	NA	NA					
			NITRATE (N)	NA	NA	NA	NA					
			CLO4	NA	NA	NA	NA					
02	IRRIGATION	INACTIVE	PCE	8.6	04/85	ND	10/04					
			TCE	11.0	04/85	ND	10/04					
			NITRATE (NO3)	91.4	10/04	91.4	10/04					
			NITRATE (N)	20.6	10/04	20.6	10/04					
			CLO4	ND	06/98	ND	06/98					
01	IRRIGATION	INACTIVE	TCE	6.1	04/87	ND	10/10					
			PCE	6.4	11/87	1.1	10/10					

APPENDIX C
HIGHLIGHTS OF VOLATILE ORGANIC COMPOUNDS, NITRATE, AND PERCHLORATE CONCENTRATIONS
AND WELLS VULNERABLE TO CONTAMINATION (AS OF MAY 31, 2017)

WELL NAME	USAGE	STATUS	CONCENTRATION (NITRATE IN MG/L, OTHERS IN UG/L)				REMARKS	
			CONTAMINANT OF CONCERN	HISTORIC HIGH		MOST RECENT		
				VALUE	DATE	VALUE		DATE
03	IRRIGATION	INACTIVE	1,2-DCA	0.8	01/96	ND	10/10	VULNERABLE (VOCS AND NITRATE)
			1,1-DCE	1.0	04/87	ND	10/10	
			C-1,2-DCE	2.6	05/85	ND	10/10	
			NITRATE (NO3)	45.2	02/98	31.0	10/10	
			NITRATE (N)	10.2	02/98	7.0	10/10	
			CLO4	ND	02/98	ND	02/98	
			AS	3.0	06/95	2.1	06/96	
			TCE	21.0	05/85	ND	09/05	
			PCE	7.4	05/85	ND	09/05	
			1,1-DCE	2.7	05/85	ND	09/05	
			C-1,2-DCE	28.0	05/85	ND	09/05	
			1,1-DCA	1.1	05/85	ND	09/05	
			1,1,1-TCA	7.5	05/85	ND	09/05	
			NITRATE (NO3)	46.4	08/00	25.7	09/05	
			NITRATE (N)	10.5	08/00	5.8	09/05	
CLO4	ND	02/98	ND	02/98				

NOTES	CONTAMINANT	MAXIMUM CONTAMINANT LEVEL	REPORTING LIMIT	REMARKS
	1,1-Dichloroethane (1,1-DCA)	5 micrograms per liter (ug/L)	0.5 ug/L	(1) Existing VOC treatment
	1,1-Dichloroethylene (1,1-DCE)	6 ug/L	0.5 ug/L	(2) VOC treatment under construction
	1,1,1-Trichloroethane (1,1,1-TCA)	200 ug/L	0.5 ug/L	(3) VOC treatment proposed
	1,1,2,2-Tetrachloroethane (1,1,2,2-PCA)	1 ug/L	0.5 ug/L	(4) Existing CLO4 treatment
	1,2-Dichloroethane (1,2-DCA)	0.5 ug/L	0.5 ug/L	(5) CLO4 treatment proposed
	Arsenic (AS)	10 ug/L	2.0 ug/L	
	Perchlorate (CLO4)	6 ug/L	4.0 ug/L	NA Not Available
	Carbon Tetrachloride (CTC)	0.5 ug/L	0.5 ug/L	ND Not Detected above Reporting Limit
	Cis-1,2-Dichloroethylene (c-1,2-DCE)	6 ug/L	0.5 ug/L	NL Notification Level
	Hexavalent Chromium (CR6)	10 ug/L	1.0 ug/L	VOCS Volatile Organic Compounds
	Trichlorofluoromethane (Freon 11)	150 ug/L	5.0 ug/L	
	Trichlorotrifluoroethane (Freon 113)	1200 ug/L	10.0 ug/L	
	Methyl Tert-Butyl Ether (MTBE)	13 ug/L	3.0 ug/L	
	Nitrate as NO3 (NITRATE [NO3])	45 milligrams per liter (mg/L)	2.0 mg/L	
	Nitrate as Nitrogen (NITRATE [N])	10 mg/L	0.4 mg/L	
	Tetrachloroethylene (PCE)	5 ug/L	0.5 ug/L	
	Trichloroethylene (TCE)	5 ug/L	0.5 ug/L	
	Trans-1,2-Dichloroethylene (t-1,2-DCE)	10 ug/L	0.5 ug/L	
	Vinyl Chloride (VC)	0.5 ug/L	0.5 ug/L	

APPENDIX D.

POTENTIAL SITES FOR AQUIFER PERFORMANCE TESTS

APPENDIX D

POTENTIAL SITES FOR AQUIFER PERFORMANCE TESTS

NAME	RECORD.	USAGE	STATUS	PERF. (1)	FUNCTION	REMARKS
ALHAMBRA, CITY OF						
LON 1	1902789	MUNICIPAL	ACTIVE	411-800	MONITORING	
LON 2	1900017	MUNICIPAL	ACTIVE	296-563	PUMPING	
AZUSA, CITY OF						
NO. 12	8000179	MUNICIPAL	ACTIVE	206-311	PUMPING	
NO. 11	8000178	MUNICIPAL	ACTIVE	200-320	MONITORING	
CALIFORNIA AMERICAN WATER COMPANY/DUARTE						
B V	1900035	MUNICIPAL	STANDBY	300-580	PUMPING	
B V 2	8000216	MUNICIPAL	ACTIVE	300-700	MONITORING	
CALIFORNIA DOMESTIC WATER COMPANY						
05A	8000100	MUNICIPAL	ACTIVE	?-920	PUMPING	
06	1902967	MUNICIPAL	ACTIVE	200-800	MONITORING	
GLENDORA, CITY OF						
05-E	8000149	MUNICIPAL	ACTIVE	150-400	PUMPING	
NA	1903119	INDUSTRIAL	INACTIVE	?-220	MONITORING	OWL ROCK PRODUCTS WELL
GOLDEN STATE WATER COMPANY (SOUTHERN CALIFORNIA WATER COMPANY)/SAN DIMAS DISTRICT						
COL-4	1902268	MUNICIPAL	ACTIVE	122-190	PUMPING	
COL-6	1902270	MUNICIPAL	INACTIVE	?-414	MONITORING	
GOLDEN STATE WATER COMPANY (SOUTHERN CALIFORNIA WATER COMPANY)/SAN GABRIEL VALLEY DISTRICT						
FAR 1	1902034	MUNICIPAL	ACTIVE	274-455	PUMPING	
FAR 2	1902948	MUNICIPAL	ACTIVE	229-600	MONITORING	
SG 1	1900510	MUNICIPAL	ACTIVE	190-411	MONITORING	
SG 2	1900511	MUNICIPAL	ACTIVE	209-393	PUMPING	
RURBAN HOMES MUTUAL WATER COMPANY						
NORTH 1	1900120	MUNICIPAL	ACTIVE	140-190	MONITORING	
SOUTH 2	1900121	MUNICIPAL	INACTIVE	125-165	PUMPING	
SAN GABRIEL COUNTY WATER DISTRICT						
05 BRA	1901669	MUNICIPAL	INACTIVE	450-800	MONITORING	
11	8000067	MUNICIPAL	ACTIVE	350-800	PUMPING	
12	8000123	MUNICIPAL	ACTIVE	470-1320	MONITORING	
SAN GABRIEL VALLEY WATER COMPANY						
B24A	8000203	MUNICIPAL	ACTIVE	600-1150	PUMPING	
B24B	8000204	MUNICIPAL	ACTIVE	600-1150	MONITORING	

APPENDIX D

POTENTIAL SITES FOR AQUIFER PERFORMANCE TESTS

NAME	RECORD.	USAGE	STATUS	PERF. (1)	FUNCTION	REMARKS
SUBURBAN WATER SYSTEMS						
201W-9	8000208	MUNICIPAL	ACTIVE	260-650	PUMPING	
201W-7	8000195	MUNICIPAL	ACTIVE	200-650	MONITORING	
201W-8	8000198	MUNICIPAL	ACTIVE	200-650	MONITORING	
201W-10	8000210	MUNICIPAL	ACTIVE	NA	MONITORING	
VALLEY COUNTY WATER DISTRICT						
E NIXON (JOANBRIDGE)	1900032	MUNICIPAL	ACTIVE	300-586	MONITORING	ALTERNATE FOR MAINE SITE
W NIXON (JOANBRIDGE)	1902356	MUNICIPAL	ACTIVE	300-584	PUMPING	
E MAINE	1900027	MUNICIPAL	ACTIVE	250-580	PUMPING	ALTERNATE FOR NIXON SITE
W MAINE	1900028	MUNICIPAL	ACTIVE	250-580	MONITORING	
VALLEY VIEW MUTUAL WATER COMPANY						
01	1900363	MUNICIPAL	ACTIVE	300-585	MONITORING	
02	1900364	MUNICIPAL	ACTIVE	300-535	PUMPING	
03	1900365	MUNICIPAL	INACTIVE	100-200	MONITORING	
WORKMAN MILL INVESTMENT COMPANY (ROSE HILLS MEMORIAL PARK)						
01	1900094	IRRIGATION	INACTIVE	137-264	PUMPING	
ROSE HILLS	8000004	MUNICIPAL	INACTIVE	?-200	MONITORING	BEVERLY ACRES MWC

NOTES

NA: NOT AVAILABLE

RECORD.: RECORDATION NUMBER

PERF.: PERFORATION INTERVAL

(1) TOP OF THE TOP INTERVAL - BOTTOM OF THE BOTTOM INTERVAL (DEPTH BELOW GROUND SURFACE IN FEET)

APPENDIX E.

SUMMARY OF TREATMENT FACILITY ACTIVITY IN THE MAIN SAN GABRIEL BASIN

APPENDIX E
SUMMARY OF TREATMENT FACILITY ACTIVITY
IN THE MAIN SAN GABRIEL BASIN
AS OF JUNE 30, 2017

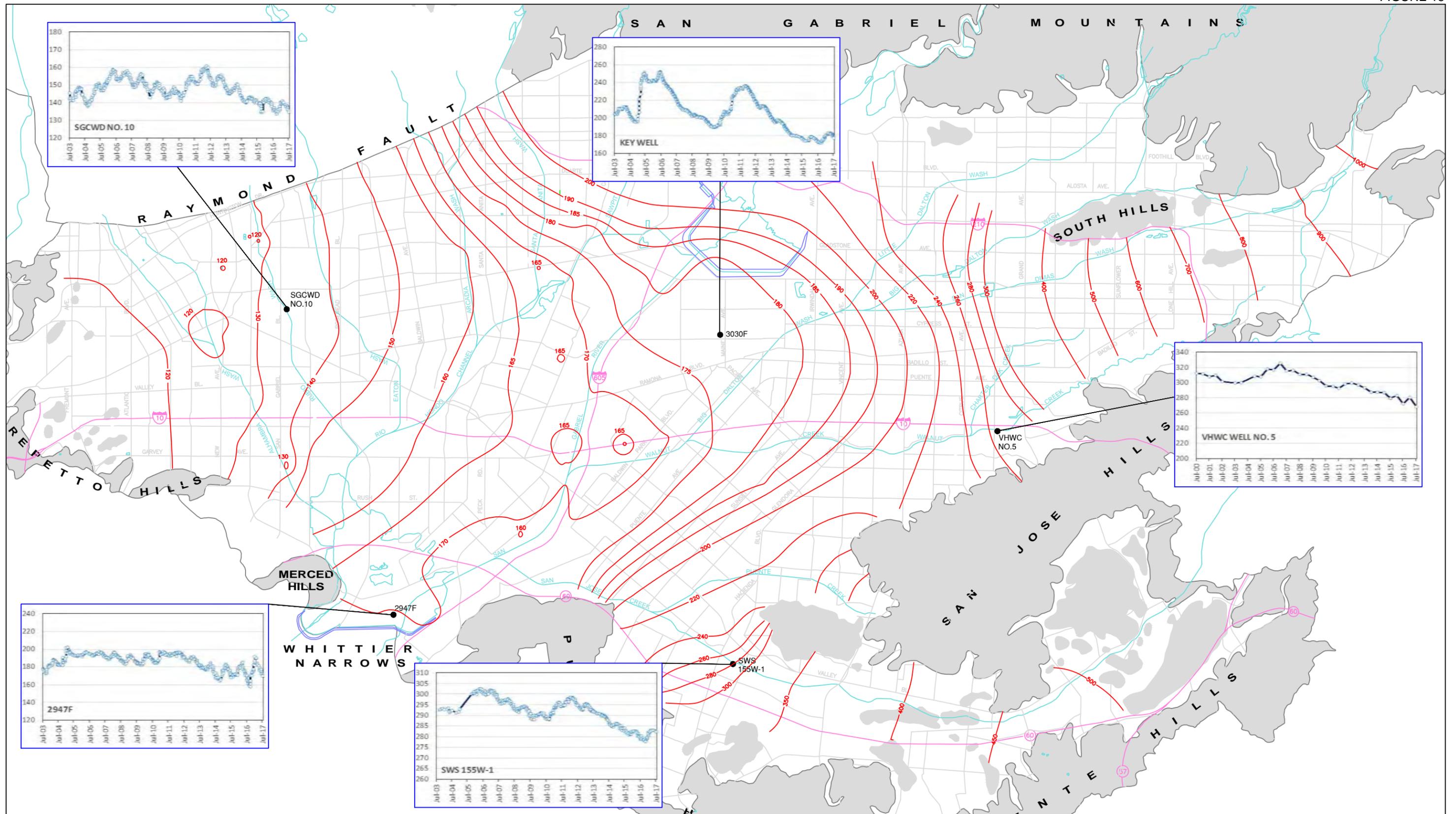
Operable Unit	Treatment Facility Owner	Treatment Facility(s)	Start Date 1/	Total Water Treated		Total Contaminants Removed	
				Fiscal Year 2016-17 (Acre-feet)	Accum. Total (Acre-feet)	Fiscal Year 2016-17 (Pounds)	Accum. Total (Pounds)
AREA 3	ALHAMBRA, CITY OF	Well No. 7 Well No. 7, 8, 11 & 12	July 2001 April 2009	— 772.00	7,582.35 24,626.80	— 36.9	130.1 805.5
	Subtotal:			772.00	32,209.15	36.90	935.61
BPOU	CALIFORNIA DOMESTIC WATER COMPANY	Well No. 3, Well No. 5A Well No. 6, & Well No. 10	September 1993 April 1997	14,542.29	340,696.76	1,200.8	16,166.6
	LA PUENTE VALLEY COUNTY WATER DISTRICT	Well No. 2, 3 & 4 Well No. 2, 3 & 5 (BPOU)	August 1992 January 2000	— 3,516.95	11,493.13 56,581.84	— 284.5	826.9 10,869.0
	SAN GABRIEL VALLEY WATER COMPANY	Well B6C 5/ Well B6D 5/ Plant B5 (BPOU) Plant B6 (BPOU)	April 1994 April 1994 January 2007 September 2004	— — 9,626.43 10,146.03	5,194.17 14,526.27 105,543.00 101,714.84	— — 322.0 1,879.6	856.2 421.7 4,296.3 20,429.3
	VALLEY COUNTY WATER DISTRICT	Lante Lante, SA1-1 & SA1-2 (BPOU)	June 1984 December 2004	— 3,339.04	7,719.61 70,733.64	— 630.4	10,356.7 41,206.8
	Subtotal:			41,170.74	714,203.26	4,317.30	105,429.50
EMOU	ADAMS RANCH MUTUAL WATER COMPANY	Well No. 3 5/	November 2003	—	881.58	—	32.7
	HERMETIC SEAL CORPORATION	Hermetic Seal	May 2012	53.07	301.12	4.9	27.0
	GOULD AND JOHNSON CONTROLS	EMOU (Deep Zone) EMOU (Shallow Zone)	October 2015 October 2015	789.46 43.09	1,164.84 79.14	35.7 8.0	53.1 18.3
	GOLDEN STATE WATER COMPANY (SGV)	Encinita No. 1, 2 & 3	April 1998	1,587.19	26,202.24	41.0	621.6
	Subtotal:			2,472.81	28,628.92	89.60	752.70
PVOU	BDP - CARRIER	Carrier	April 1988	77.95	6,718.02	5.5	2,837.0
	Subtotal:			77.95	6,718.02	5.50	2,837.00
SEMOU	MONTEREY PARK, CITY OF	Well No. 5 Well No. 9 & 12, 15	September 1999 April 2002	568.63 5,744.48	17,716.51 73,122.49	36.3 1,093.0	1,314.1 12,277.6
	SAN GABRIEL VALLEY WATER COMPANY	Well 8B, 8C, 8D & 8E	August 2002	2,261.69	41,544.15	495.0	5,896.9
	GOLDEN STATE WATER COMPANY (SGV)	San Gabriel No.1 & 2	November 2001	1,573.32	19,611.42	35.0	577.1
	Subtotal:			10,148.12	151,994.57	1,659.30	20,065.70
WNOU	EPA	WNOU (Shallow Zone) 5/	December 1999	—	30,065.52	—	1,618.9
	SAN GABRIEL VALLEY WATER COMPANY	WNOU (Intermediate Zone) 2/	December 2005	3,408.80	49,629.13	36.6	1,783.2
	Subtotal:			3,408.80	79,694.65	36.60	3,402.10
PRODUCER FACILITY	ARCADIA, CITY OF	Longden 1 & 2	January 1985	211.74	70,219.44	1.0	739.9
	BOZUNG	Well B36, F38, F39 & BC34 3/	October 1994	—	233.00	—	131.3
	EL MONTE, CITY OF	Well No. 12 Well No. 10 5/ Well No. 2A	February 1997 May 2004 July 1999	230.19 — 1,600.24	15,801.15 6,360.82 9,613.61	37.3 — 13.7	1,037.8 43.4 137.3
	EPA	Richwood (North Well) 4/ Richwood (South Well) 4/	April 1990 April 1990	—	451.98	—	5.8
	GOLDEN STATE WATER COMPANY (SD)	Art 2 & 3, Base 3 & 4, Hwy 1	May 2005	1,208.77	18,363.08	26.2	341.8
	GOLDEN STATE WATER COMPANY (SGV)	Garvey No. 3	June 2016	511.25	622.29	4.2	5.3
	HEMLOCK MUTUAL WATER COMPANY	Hemlock (North Well) 5/ Hemlock (South Well) 5/	April 1986 April 1986	—	2,553.65	—	44.6
	MONROVIA, CITY OF	Wells No. 2 & 6 Wells No. 3, 4 & 5	March 1996 October 2007	2,106.48 1,953.77	45,300.50 17,414.11	67.9 23.3	889.0 159.3
	MONTEREY PARK, CITY OF	Well No. 1, 3, 10 & Fern	June 2004	1,266.59	27,126.36	25.6	1,667.3
	SAN GABRIEL VALLEY WATER COMPANY	Well 11B Well B11B Well B7C 6/ Well B4B & B4C Well G4A	March 1991 March 1993 March 1993 January 1999 December 2005	1.49 982.81 — — 186.86	44,883.73 47,137.04 46,711.28 24,093.04 4,163.96	0.0 57.9 — — 3.1	319.7 3,180.1 1,824.2 1,233.5 65.2
	SUBURBAN WATER SYSTEMS	Well No. 140W-4 5/	May 2001	—	2,247.59	—	16.2
	VALLEY COUNTY WATER DISTRICT	Maine East & West Nixon East & West	June 1990 January 2004	2,749.89 4,106.52	52,434.23 45,449.95	28.2 33.7	1,805.1 299.3
	WATER QUALITY AUTHORITY	Arrow (Project No. 1) 5/ Big Dalton (Project No. 2) 5/	February 1992 March 1997	—	7,250.41	—	17,423.0
		Whitmore Street	January 2008	16.66	298.08	9.2	170.4
		SEMOU	July 1999	—	3,885.19	—	1,558.5
	TOTAL			75,133.68	1,507,312.08	6,476.50	166,603.15

Footnotes:

- 1/ From date of beginning of operation.
2/ Previously operated by City of Whittier from December 2005 to May 2013.
3/ Treatment facility has been permanently dismantled.
4/ Wells destroyed in June 1999.
5/ Wellfield no longer pumps to treatment facility.
6/ Well destroyed in October 2016

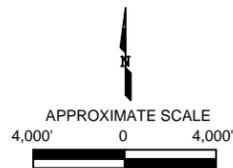
APPENDIX F.

SIMULATED BASIN GROUNDWATER CONTOURS 2016-17 AND 2021-22 (FIGURES 16 AND 17)



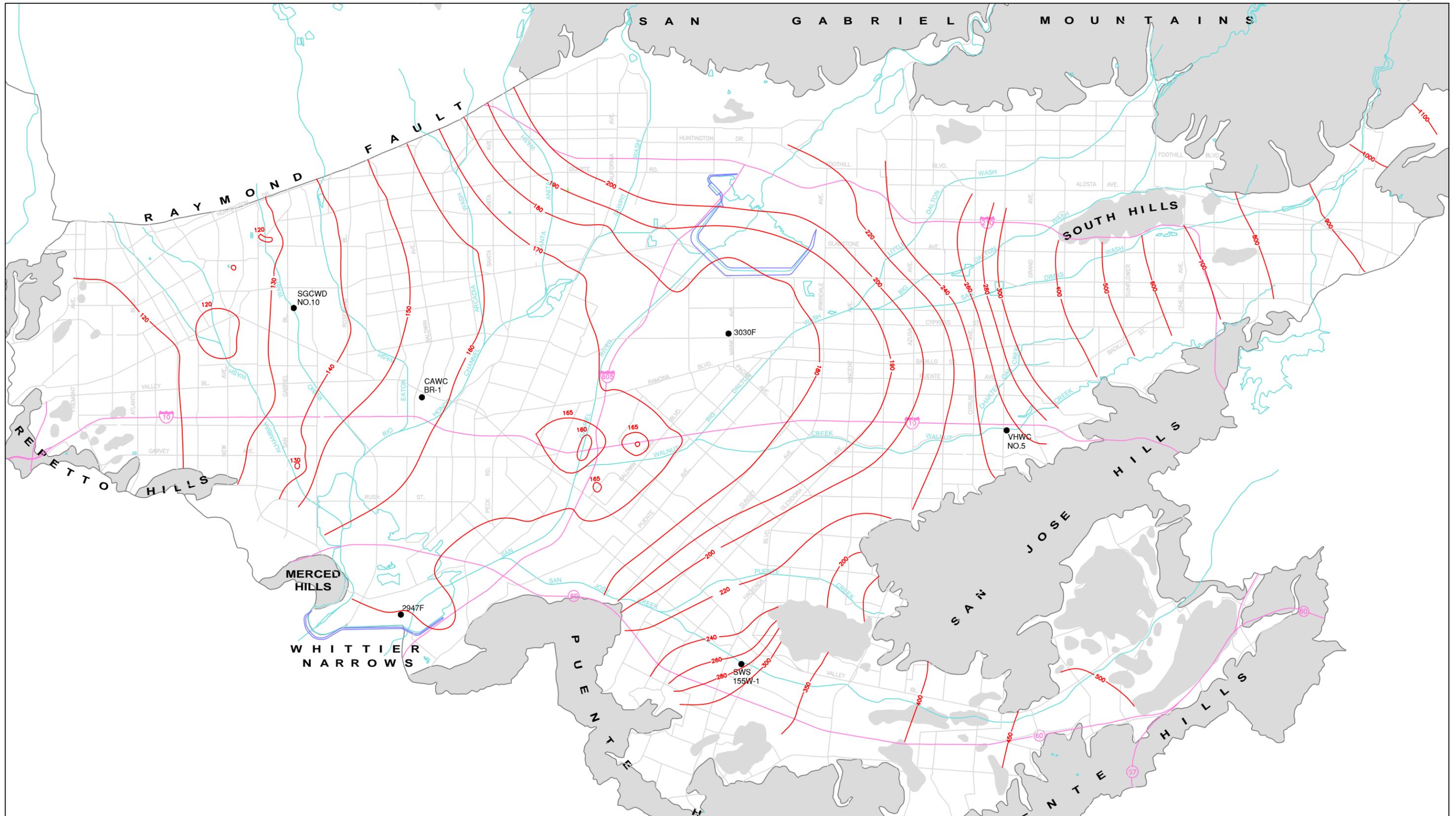

 861 VILLAGE OAKS DRIVE, SUITE 100
 COVINA, CALIFORNIA 91724
 TEL: (626) 967-6202
 FAX: (626) 331-7065

 2171 E Francisco Blvd., Suite K
 San Rafael California 94901
 2651 W Guadalupe Rd., Suite A209
 Mesa Arizona 85202



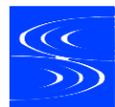
MAIN SAN GABRIEL BASIN WATERMASTER
SIMULATED 2016-17 BASIN GROUNDWATER CONTOURS

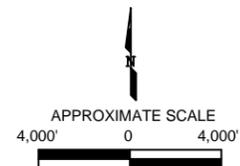
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MAIN SAN GABRIEL BASIN WATERMASTER

SIMULATED 2021-22 BASIN GROUNDWATER CONTOURS


 861 VILLAGE OAKS DRIVE, SUITE 100
 COVINA, CALIFORNIA 91724
 TEL: (626) 967-6202
 FAX: (626) 331-7065
 2171 E Francisco Blvd., Suite K
 San Rafael California 94901
 2651 W Guadalupe Rd., Suite A209
 Mesa Arizona 85202



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James M. Byerrum, Chairman – California Domestic Water Company

David Michalko, Vice Chairman – Valencia Heights Water Company

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Ron Bow, Treasurer – City of Monterey Park

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Garry Hofer, California American Water Company

Anthony R. Fellow, Upper San Gabriel Valley Municipal Water District

Charles Trevino, Upper San Gabriel Valley Municipal Water District

Thomas Love, San Gabriel Valley Municipal Water District

EXECUTIVE OFFICER

Anthony C. Zampielo

725 North Azusa Avenue • Azusa, California 91702

Telephone (626) 815-1300 • Fax (626) 815-1303

www.watermaster.org

APPENDIX C. UPPER DISTRICT SUPPLY VERIFICATION LETTER



May 16, 2018

Mr. Spencer Waterman
Water Systems Consulting, Inc.
3765 S. Higuera Street, Suite 102
San Luis Obispo, CA 93401

SUBJECT: Supplemental Imported Water Provided for
Main San Gabriel Basin Groundwater Replenishment

Board of Directors:

Anthony R. Fellow, Ph.D.,
Division 1

Charles M. Treviño,
Division 2

Ed Chavez,
Division 3

Alfonso "Al" Contreras,
Division 4

Bryan Urias,
Division 5

Dear Mr. Waterman:

The Upper San Gabriel Valley Municipal Water District (Upper District) is in receipt of your email dated April 17, 2018, regarding the Water Supply Assessment (WSA) being prepared for a proposed development entitled "The Park at Live Oak" within California American Water – Duarte's (CAW-Duarte) service area. By comparing projected demands (including "The Park at Live Oak", a City of Hope planned expansion and general increased demands as a result of population increases) to projected water rights (assuming an Operating Safe Yield of 150,000 acre-feet), the projected Replacement Water Requirement for CAW-Duarte may be as much as 3,277 acre-feet per year as of calendar year 2035.

Upper District is identified in the Main San Gabriel Basin Judgment as a Responsible Agency for the purposes of delivering untreated imported water on behalf of water producers within Upper District's service area, which produce local water supplies in excess of their water rights, including CAW-Duarte. Upper District is also a member of the Metropolitan Water District of Southern California (MWD). Based on historical deliveries, MWD has established a Tier 1 allocation of 67,228 acre-feet for Upper District. The projected 2035 imported water supply to Upper District during an average year is accurately presented on your Table 6-5 and totals 51,288 acre-feet. In addition, Upper District anticipates its recycled water supply will be 20,731 acre-feet, including 10,000 acre-feet for our planned groundwater replenishment project. Consequently, total supply is projected to be 72,019 acre-feet during an average year, while total demand is projected to be 55,228 acre-feet, resulting in a projected surplus of supply over demand of about 16,791 acre-feet. (A surplus of 10,000 acre-feet per year is projected to be available in single and multiple dry year scenarios.)

Upper District anticipates it will be able to meet the projected demand from the proposed project in CAW-Duarte's service area now and over the next 20 years through 2035.

Mr. Spencer Waterman
Water Systems Consulting, Inc.
May 16, 2018 – Page 2

Upper District also notes that CAW-Duarte has a Cyclic Storage account with the Main San Gabriel Basin Watermaster in the amount of 2,200 acre-feet and has about 100 acre-feet in storage as of March 31, 2018. Maintaining water in its Cyclic Storage account provides CAW-Duarte with an added level of flexibility to address future demands requiring delivery of untreated imported water.

Please feel free to contact me should you have any questions.

Sincerely,

A handwritten signature in black ink, appearing to read "Thomas A. Love". The signature is fluid and cursive, with a long horizontal stroke at the end.

Thomas A. Love, P.E.
General Manager

APPENDIX D. RULE NO. 15

Rule No. 15
MAIN EXTENSIONS

A. General Provisions and Definitions

1. Applicability

- a. All extensions of distribution mains, from the utility's basic production and transmission system or existing distribution system, to serve new customers, except for those specifically excluded below, shall be made under the provisions of this rule unless specific authority is first obtained from the Commission to deviate there from. A main extension contract shall be executed by the utility and the applicant or applicants for the main extension before the utility commences construction work on said extensions or, if constructed by applicant or applicants, before the facilities comprising the main extension are transferred to the utility.
- b. Extensions primarily for fire hydrant, private fire protection, resale, temporary, standby, or supplemental service shall not be made under this rule.
- c. The utility may, but will not be required to, make extensions under this rule in easements or rights-of-way where final grades have not been established, or where street grades have not been brought to those established by public authority. If extensions are made when grades have not been established and there is a reasonable probability that the existing grade will be changed, the utility shall require that the applicant or applicants for the main extension deposit, at the time of execution of the main extension agreement, the estimated net cost of relocating, raising or lowering facilities upon establishment of final grades. Adjustment of any difference between the amount so deposited and the actual cost of relocating, raising or lowering facilities shall be made within ten days after the utility has ascertained such actual cost. The net deposit representing actual cost is not subject to refund. The entire deposit related to the proposed relocation, raising or lowering shall be refunded when such displacements are determined by proper authority to be not required.

2. Limitation of Expansion

- a. Whenever the outstanding advance contract balances reach 40 percent of total capital (defined, for the purpose of this rule, as proprietary capital, or capital stock and surplus, plus debt and advances for construction) the utility shall so notify the Commission within thirty days.
- b. Whenever the outstanding advance contract balances plus the advance on a proposed new extension would exceed 50 percent of total capital, as defined in Section A.2.a. plus the advance on the proposed new extension, the utility shall not make the proposed new extension of distribution mains without authorization of the Commission. Such authorization may be granted by a letter from the Executive Director of the Commission.
- c. Whenever the outstanding advance contract balances reach the above level, the utility shall so notify the Commission within thirty days.

(Continued)

(TO BE INSERTED BY UTILITY)
ADVICE LETTER NO. 949

ISSUED BY
D. P. STEPHENSON
NAME

(TO BE INSERTED BY C.P.U.C.)
DATE FILED JUN 13 2012

DECISION NO. D.12-06-016

DIRECTOR - Rates & Regulatory
TITLE

EFFECTIVE JUN 18 2012
RESOLUTION

Rule No. 15 (Continued)
MAIN EXTENSIONS

A. 3. Definitions

- a. A "bona-fide customer," for the purposes of this rule, shall be a customer (excluding any customer formerly served at the same location) who has given satisfactory evidence that service will be reasonably permanent to the property which has been improved with a building of a permanent nature, and to which service has commenced. The provision of service to a real estate developer or builder, during the construction or development period, shall not establish him as a bona-fide customer.
- b. A "real estate developer" or "builder," for the purposes of this rule, shall include any individual, association of individuals, partnership, or corporation that divides a parcel of land into two or more portions, or that engages in the construction and resale of individual structures on a continuing basis.
- c. The "adjusted construction cost," for the purposes of this rule, shall be reasonable and shall not exceed the costs recorded in conformity with generally accepted water utility accounting practices, and as specifically defined in the Uniform System of Accounts for Water Utilities prescribed by the Commission for installing facilities of adequate capacity for the service requested. If the utility, at its option, should install facilities with a larger capacity or resulting in a greater footage of extension than required for the service requested, the "adjusted construction cost," for the purpose of this rule, shall be determined by the application of an adjustment factor to actual construction cost of facilities installed. This factor shall be the ratio of estimated cost of required facilities to estimated cost of actual facilities installed.

4. Ownership, Design, and Construction of Facilities

- a. Any facilities installed hereunder shall be the sole property of the utility. In those instances in which title to certain portions of the installation, such as fire hydrants, will be held by a political subdivision, such facilities shall not be included as a part of the main extension under this rule, and will neither be owned by the utility nor subject to refund under the provisions of Section C.2. of this rule.
- b. The size, type, quality of materials, and their location shall be specified by the utility; and the actual construction shall be done by the utility or by a constructing agency acceptable to it.
- c. Where the property of an applicant is located adjacent to a right-of-way, exceeding 70 feet in width, for a street, highway, or other public purpose, regardless of the width of the traveled way or pavement; or on a freeway, waterway, or railroad right of way, the utility may elect to install a main extension on the same side thereof as the property of the applicant, and the estimated, and the adjusted construction costs in such case shall be based upon such an extension.

(Continued)

(TO BE INSERTED BY UTILITY)
ADVICE LETTER NO. 949

ISSUED BY
D. P. STEPHENSON
NAME

(TO BE INSERTED BY C.P.U.C.)
DATE FILED JUN 13 2012
EFFECTIVE JUN 18 2012
RESOLUTION

DECISION NO. D.12-06-016

DIRECTOR - Rates & Regulatory
TITLE

Rule No. 15 (Continued)
MAIN EXTENSIONS

A. 4. Ownership, Design, and Construction of Facilities (continued)

d. When an extension must comply with an ordinance, regulation, or specification of a public authority, the estimated and adjusted construction costs of said extension shall be based upon the facilities required to comply therewith.

e. If the following provisions for water conservation are included in local building codes and/or ordinances, the main extension contract shall contain these provisions.

(1) All interior plumbing in new buildings shall meet the following requirements:

(a) Toilets shall not use more than 3-1/2 gallons per flush, except that toilets and urinals with flush valves may be installed.

(b) Shower heads shall contain flow controls which restrict flow to a maximum of approximately 3 gallons per minute.

(c) Kitchen and lavatory faucets shall have flow controls which restrict flow to a maximum of approximately 2 gallons per minute.

(2) All new parks, median strips, landscaped public areas and landscaped areas surrounding condominiums, townhouses, apartments and industrial parks shall have a well-balanced automatic irrigation system designed by a landscape architect or other competent person, and shall be operated by electric time controller stations set for early morning irrigation.

5. Estimates, Plans, and Specifications

a. Upon request by a potential applicant for a main extension of 100 feet or less, the utility shall prepare, without charge, an installation to be advanced by said applicant.

b. Any applicant for a main extension requesting the utility to prepare detailed plans, specification, and cost estimates shall be required to deposit with the utility an amount equal to the estimated cost of preparation of such material. The utility shall, upon request, make available within 45 days after receipt of the deposit referred to above, such plans, specifications, and cost estimates of the proposed main extension. If the extension is to include over sizing of facilities to be done at the utility's expense, appropriate details shall be set forth in the plans, specifications, and cost estimates.

c. In the event a main extension contract with the utility is executed within 180 days after the utility furnishes the detailed plans and specifications, the deposit shall become a part of the advance, and shall be refunded in accordance with the terms of the main extension contract. If such contract is not so executed, the deposit to cover the cost of preparing plans, specifications, and cost estimates, shall be forfeited by the applicant for the main extension and the amount of the forfeited deposit shall be credited to the account or accounts to which the expense of preparing said material was charged.

(Continued)

(TO BE INSERTED BY UTILITY)
ADVICE LETTER NO. 949

ISSUED BY
D. P. STEPHENSON
NAME

(TO BE INSERTED BY C.P.U.C.)
DATE FILED JUN 13 2012
EFFECTIVE JUN 18 2012

DECISION NO. D.12-06-016

DIRECTOR - Rates & Regulatory
TITLE

RESOLUTION

Rule No. 15 (Continued)
MAIN EXTENSIONS

A. 5. Estimates, Plans, and Specifications (continued)

d. When detailed plans, specifications, and cost estimates are requested, the applicant for a main extension shall furnish a map to a suitable scale showing the street and lot layouts and, when requested by the utility, contours or other indication of the relative elevation of the various parts of the area to be developed. If changes are made subsequent to the presentation of this map by the applicant, and these changes require additional expense in revising plans, specifications, and cost estimates, this additional expense shall be borne by the applicant, not subject to refund, and the additional expense thus recovered shall be credited to the account or accounts to which the additional expense was charged.

6. Timing and Adjustment of Advances

a. Unless the applicant for the main extension elects to arrange for the installation of the extension himself, as permitted by Section C.1.c., the full amount of the required advance or an acceptable surety bond must be provided to the utility at the time of the main extension agreement.

b. If the applicant for a main extension posts a surety bond in lieu of cash, such surety bond must be replaced with cash not less than ten calendar days before construction is to commence; provided, however, that if special facilities are required primarily for the service requested, the applicant for the extension may be required to deposit sufficient cash to cover the cost of such special facilities before they are ordered by the utility.

c. An applicant for a main extension who advances funds shall be provided with a statement of actual construction cost and adjusted construction cost showing in reasonable detail the costs incurred for material, labor, any other direct and indirect costs, overheads, and total costs; or unit costs; or contract costs, whichever are appropriate.

d. Said statement shall be submitted within sixty days after the actual construction costs of the installation have been ascertained by the utility. In the event that the actual construction costs of the entire installation shall not have been determined within 120 days after completion of construction work, a preliminary determination of actual and adjusted construction costs shall be submitted, based upon the best available information at that time.

e. Any differences between the adjusted construction costs and the amount advanced shall be shown as a revision of the amount of advance and shall be payable within thirty days of date of submission of statement.

(Continued)

(TO BE INSERTED BY UTILITY)
ADVICE LETTER NO. 949

ISSUED BY
D. P. STEPHENSON

(TO BE INSERTED BY C.P.U.C.)
DATE FILED JUN 13 2012
EFFECTIVE JUN 18 2012
RESOLUTION

DECISION NO. D.12-06-016

DIRECTOR - Rates & Regulatory

TITLE

Rule No. 15 (Continued)
MAIN EXTENSIONS

A. 7. Assignment of Main Extension Contracts

Any contract entered into under Sections B and C of this rule, or under similar provisions of former rules, may be assigned, after settlement of adjusted construction costs, after written notice to the utility by the holder of said contract as shown by the utility's records. Such assignment shall apply only to those refunds which become due more than thirty days after the date of receipt by the utility of the notice of assignment. The utility shall not be required to make any one refund payment under such contract to more than a single assignee.

8. Interpretations and Deviations

In case of disagreement or dispute regarding the application of any provision of this rule, or in circumstances where the application of this rule appears unreasonable to either party, the utility, applicant or applicants may refer the matter to the Commission for determination.

B. Extensions to Serve Individuals

1. Payment

Extensions of water mains to serve new individual customers shall be paid for and contributed to the utility by the individual customer requesting the main extension. Calculation of payment shall be on the basis of a main not in excess of 6" in diameter, except where a larger main is required by the special needs of the new customer. The utility shall be responsible for installing and paying for service pipes, meter boxes, and meters to serve a new individual customer; provided, however, a Class C or Class D utility, or a Class A or Class B utility district or subsidiary serving 2,000 or fewer connections, may accept from individual customers amounts in contribution as a connection fee calculated pursuant to the Commission's Connection Fee Data Form contained in the utility's tariffs.

2. Refunds

If subsequent applications for water service are connected directly to the main extension contributed by the original individual customer, such subsequent applicants shall pay to the utility an amount equal to the cost of 100 feet of the original extension. Such amounts shall be immediately refunded by the utility to the initial customer who originally paid for and contributed the main extension to the utility. Total payments to the initial customer by subsequent applicants for water service who are connected directly to the extension shall not exceed the original cost of the extension. No refunds shall be made after a period of ten years from completion of the main extension.

(Continued)

(TO BE INSERTED BY UTILITY)
ADVICE LETTER NO. 949

ISSUED BY
D. P. STEPHENSON
NAME

(TO BE INSERTED BY C.P.U.C.)
DATE FILED JUN 13 2012
EFFECTIVE JUN 18 2012
RESOLUTION

DECISION NO. D.12-06-016

DIRECTOR - Rates & Regulatory
TITLE

Rule No. 15 (Continued)
MAIN EXTENSIONS

C. Extensions to Serve Subdivisions, Tracts, Housing Projects, Industrial Developments, Commercial Buildings, or Shopping Centers

1. Advances

- a. Unless the procedure outlined in Section C.1.c., is followed, an applicant for a main extension to serve a new subdivision, tract, housing project, industrial development, commercial building, or shopping center shall be required to advance to the utility, before construction is commenced, the estimated reasonable cost of the extension to be actually installed, from the nearest utility facility at least equal in size or capacity to the main required to serve both the new customers and a reasonable estimate of the potential customers who might be served directly from the main extension. The costs of the extension shall include necessary service stubs or service pipes, fittings, gates and housing there for, and meter boxes, but shall not include meters. To this shall be added the cost of fire hydrants when requested by the applicant for the main extension or required by public authority, whenever such hydrants are to become the property of the utility.
- b. If special facilities consisting of items not covered by Section C.1.a. are required for the service requested and, when such facilities to be installed will supply both the main extension and other parts of the utility's system, at least 50 percent of the design capacity (in gallons, gpm, or other appropriate units) is required to supply the main extension, the cost of such special facilities may be included in the advance, subject to refund, as hereinafter provided, along with refunds of the advance of the cost of the extension facilities described in Section C.1.a. above, except as specified in Section C.1.e.
- c. In lieu of providing the advances in accordance with Sections C.1.a. and C.1.b., the applicant for a main extension shall be permitted, if qualified in the judgment of the utility, to construct and install the facilities himself, or arrange for their installation pursuant to competitive bidding procedures initiated by him and limited to the qualified bidders. The cost, including the cost of inspection and supervision by the utility, shall be paid directly by applicant. The applicant shall provide the utility with a statement of actual construction cost in reasonable detail. The amount to be treated as an advance subject to refund shall be the lesser of (1) the actual cost, or (2) the price quoted in the utility's detailed cost estimate. The installation shall be in accordance with the plans and specifications submitted by the utility pursuant to Section A.5.b.
- d. If, in the opinion of the utility it appears that a proposed main extension will not, within a reasonable period, develop sufficient revenue to make the extension self-supporting, or if for some other reason it appears to the utility that a main extension contract would place an excessive burden on customers, the utility may require nonrefundable contributions of plant facilities from developers in lieu of a main extension contract.

If an applicant for a main extension contract who is asked to contribute the facilities believes such request to be unreasonable, such applicant may refer the matter to the Commission for determination, as provide for in Section A. 8. of this rule.

(Continued)

(TO BE INSERTED BY UTILITY)
ADVICE LETTER NO. 949

ISSUED BY
D. P. STEPHENSON
NAME

(TO BE INSERTED BY C.P.U.C.)
DATE FILED JUN 13 2012
EFFECTIVE JUN 18 2012
RESOLUTION

DECISION NO. D.12-06-016

DIRECTOR - Rates & Regulatory
TITLE

Rule No. 15 (Continued)
MAIN EXTENSIONS
(Continued)

C. Extensions to Serve Subdivisions, Tracts, Housing Projects, Industrial Developments, Commercial Buildings, or Shopping Centers

1. Advances

e. A special facilities fee for water supply will be contributed in lieu of any domestic water supply requirement covered under Section C. 1.b in some areas of the West Placer County service area. The special facilities area and fees applicable are shown below.

(N)

West Placer Service Area:

Year	Fee per EDU	Year	Fee per EDU
2014	\$5,354	2021	\$7,534
2015	\$5,622	2022	\$7,910
2016	\$5,903	2023	\$8,306
2017	\$6,198	2024	\$8,721
2018	\$6,508	2025	\$9,157
2019	\$6,833	2026	\$9,615
2020	\$7,175	2027	\$10,096

The West Placer facilities fee area is that portion of land in general to the area bordered by Baseline Road to the north, the Placer County line (just south of PFE Road) to the south, Walerga Road to the west, and Foothills Boulevard/Brady Road to the east. Also included is the initial planned development of Riolo Vineyards (107 EDU's) which immediately "fronts" the west side of Walerga Road, generally between the entrance to Dry Creek Park (to the north) and PFE Road (to the south). This service area excludes almost all parcels generally located west of Walerga Road (namely Placer Vineyards, located within Parcel E1) and the majority of Riolo Vineyards. The service area is more specifically identified on the West Placer Service Area Tariff Map.

Residential Fire Sprinkler System (RFSS) metered service:

Any customer located within the West Placer service area of the Sacramento District that is required or is requesting a Residential Fire Sprinkler System (RFSS) to be installed in accordance with either local fire or building codes shall have their meter factor modified. The facility fee to be paid by the customer is based on their RFSS that will be verified by the company that the proper Meter Equivalency Factor is applied.

Meter Equivalency Factor per EDU	
For 5/8 x 3/4-inch residential to 1-inch residential metered fire sprinkler	1
For 5/8 x 3/4-inch residential to 1 1/2-inch residential metered fire sprinkler	1
For 5/8 x 3/4-inch residential to 2-inch residential metered fire sprinkler	1
For 3/4-inch residential to 1-inch residential metered fire sprinkler	1.5
For 3/4-inch residential to 1 1/2-inch residential metered fire sprinkler	1.5
For 3/4-inch residential to 2-inch residential metered fire sprinkler	1.5
For 1-inch residential to 1 1/2-inch residential metered fire sprinkler	2.5
For 1-inch residential to 2-inch residential metered fire sprinkler	2.5
For 1 1/2-inch residential to 2-inch residential metered fire sprinkler	5

(N)

(Continued)

(TO BE INSERTED BY UTILITY)
ADVICE LETTER NO. 1018

ISSUED BY
D. P. STEPHENSON
NAME

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DECISION NO. D.13-10-003

DIRECTOR - Rates & Regulatory
TITLE

Rule No. 15 (Continued)
MAIN EXTENSIONS

C. Extensions to Serve Subdivisions, Tracts, Housing Projects, Industrial Developments, Commercial Buildings, or Shopping Centers

1. Advances (continued)

- f. A special facilities fee for water supply will be contributed in lieu of any domestic water supply requirement covered under Section C. 1.b in the Rosemont service area. The special facilities area and fees applicable are shown below.

Area: Jackson Well

Facilities Fee: Based on Meter Size

This fee is determined by Meter Size and is applicable to all subdivisions, tracts, housing projects, industrial developments, commercial buildings, or shopping centers requiring a main extension within the area described below. The following Table lists the Special Facility Fee per Meter Size.:

<u>Meter Size:</u>	<u>Special Facility Fee:</u>	<u>Meter Size:</u>	<u>Special Facility Fee:</u>
5/8 x 3/4 - inch	\$ 1,795.27	6 - inch	\$ 89,763.26
3/4 - inch	2,692.90	8 - inch	143,621.22
1 - inch	4,488.16	10 - inch	206,455.50
1 1/2 - inch	8,976.33	12 - inch	296,218.76
2 - inch	14,362.12		
3 - inch	26,928.98		
4 - inch	44,881.63		

The Suburban water system and the Rosemont water system are contiguous systems located south of the American River, east of the City of Sacramento, west of Mather Air Force Base, and north of Jackson Highway. A portion of the City of Rancho Cordova comprises most of the Suburban system to the east of Bradshaw Road. The location of the Suburban and Rosemont systems are more specifically identified on the Suburban/Rosemont Service Area Tariff Map

(Continued)

(TO BE INSERTED BY UTILITY)
 ADVICE LETTER NO. 949

ISSUED BY
D. P. STEPHENSON
NAME

(TO BE INSERTED BY C.P.U.C.)
 DATE FILED JUN 13 2012
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DECISION NO. D.12-06-016

DIRECTOR - Rates & Regulatory
TITLE

Rule No. 15 (Continued)
MAIN EXTENSIONS

C. Extensions to Serve Subdivisions, Tracts, Housing Projects, Industrial Developments,
Commercial Buildings, or Shopping Centers

1. Advances (continued)

f. (Continued)

Residential Fire Sprinkler System (RFSS) metered service:

Any customer in the Jackson Well Facilities Fee area located within the Rosemont service area of the Sacramento District that is required or is requesting a Residential Fire Sprinkler System (RFSS) to be installed in accordance with either local fire or building codes shall have their Special Facility Fee based on meter size modified. The special facility fee to be paid by the customer is based on their RFSS that will be verified by the company that the proper Special Facility Fee based on Meter Rate Equivalency is applied.

Meter Rate Equivalency

For 5/8 x 3/4-inch residential to 1-inch residential metered fire sprinkler ...	\$1,795.27
For 5/8 x 3/4-inch residential to 1 1/2-inch residential metered fire sprinkler	1,795.27
For 5/8 x 3/4-inch residential to 2-inch residential metered fire sprinkler	1,795.27
For 3/4-inch residential to 1-inch residential metered fire sprinkler	2,692.90
For 3/4-inch residential to 1 1/2-inch residential metered fire sprinkler	2,692.90
For 3/4-inch residential to 2-inch residential metered fire sprinkler	2,692.90
For 1-inch residential to 1 1/2-inch residential metered fire sprinkler	4,488.16
For 1-inch residential to 2-inch residential metered fire sprinkler	4,488.16
For 1 1/2-inch residential to 2-inch residential metered fire sprinkler	8,976.33

(Continued)

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DIRECTOR - Rates & Regulatory
TITLE

Rule No. 15 (Continued)
MAIN EXTENSIONS

C. 2. Refunds

- a. The amount advanced under Sections C.1.a., C.1.b., and C.1.c. shall be subject to refund by the utility, in cash, without interest, to the party or parties entitled thereto as set forth in the following two paragraphs. The total amount so refunded shall not exceed the total of the amount advanced and for a period not to exceed 40 years after the date of the contract.
- b. Payment of refunds shall be made not later than June 30 of each year, beginning the year following execution of contract, or not later than 6 months after the contract anniversary date if on an anniversary date basis.
- c. Whenever costs of main extensions and/or special facilities have been advanced pursuant to Section C.1.a., C.1.b., or C.1.c., the utility shall annually refund to the contract holders an amount equal to 2-1/2 percent of the advances until the principal amounts of the contracts have been fully repaid.

Whenever costs of special facilities have been advanced pursuant to Sections C.1.b., or C.1.c., the amount so advanced shall be divided by the number of lots (or living units, whichever is greater) which the special facilities are designed to serve, to obtain an average advance per lot (or living unit) for special facilities. When another builder applies for a main extension to serve any lots for which the special facilities are to be used, the new applicant shall, in addition to the costs of his proposed main extension, also advance an amount for special facilities. This amount shall be the average advance per lot for special facilities for each lot to be used less 2-1/2 percent of the average advance for each year in which refunds have been due and payable on the original contract anniversary date on a monthly basis.

The amount advanced to the utility by the new applicant shall be immediately refunded to the holder of the original contract, which included the cost of the special facilities, and the original contract advance will be reduced accordingly. The utility will thenceforth refund 2-1/2 percent annually on each of the contract amounts, as determined above, to the holders of the contracts.

Advances and refunds based on additional builder participation will be determined in a similar manner.

In no case shall the refund on any contract exceed the amount advanced.

(Continued)

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DECISION NO. D.12-06-016

DIRECTOR - Rates & Regulatory
TITLE

Rule No. 15 (Continued)
MAIN EXTENSIONS

C. 3. Termination of Main Extension Contracts

a. Any contract whose refunds are based on a percentage of the amount advanced may be purchased by the utility and terminated provided that the terms are mutually agreed to by the parties or their assignees and Section C.3.c. and Section C.3.d. are complied with. The maximum price that may be paid by the utility to terminate a contract shall be calculated by multiplying the remaining unrefunded contract balance times the appropriate termination factor set out below. No contract that has been in effect for less than 10 years shall be terminated without prior Commission approval.

TERMINATION FACTORS

Years Remaining	Factor						
1	0.8929	11	0.5398	21	0.3601	31	0.2608
2	0.8450	12	0.5162	22	0.3475	32	0.2535
3	0.8006	13	0.4941	23	0.3356	33	0.2465
4	0.7593	14	0.4734	24	0.3243	34	0.2399
5	0.7210	15	0.4541	25	0.3137	35	0.2336
6	0.6852	16	0.4359	26	0.3037	36	0.2276
7	0.6520	17	0.4188	27	0.2942	37	0.2218
8	0.6210	18	0.4028	28	0.2851	38	0.2136
9	0.5920	19	0.3877	29	0.2766	39	0.2111
10	0.5650	20	0.3729	30	0.2685	40	0.2061

b. Any contract with refunds based upon percentage of revenues and entered into under Section C. of the former rule, may be purchased by the utility and terminated, provided the payment is not in excess of the estimated revenue refund multiplied by the termination factor in the following table, the terms are otherwise mutually agreed to by the parties or their assignees and Section C.3.c. and Section C.3.d. herein are complied with. The estimated revenue refund is the amount that would otherwise be refunded, at the current level of refunds, over the remainder of the twenty-year contract period, or shorter period that would be required to extinguish the total refund obligation. It shall be determined by multiplying 22 percent of the average annual revenue per service for the immediately preceding calendar year by the number of bona fide customers at the proposed termination date, times the number of years or fractions thereof to the end of the twenty-year contract period or shorter period that would be required to refund the remaining contract balance.

(Continued)

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DIRECTOR - Rates & Regulatory
TITLE

Rule No. 15 (Continued)
MAIN EXTENSIONS

C. 3. b. (continued)

TERMINATION FACTORS			
Years Remaining	Factor	Years Remaining	Factor
1	0.8929	11	0.5398
2	0.8450	12	0.5162
3	0.8006	13	0.4941
4	0.7593	14	0.4734
5	0.7210	15	0.4541
6	0.6852	16	0.4359
7	0.6520	17	0.4188
8	0.6210	18	0.4028
9	0.5920	19	0.3877
10	0.5650		

c. The utility shall furnish promptly to the Commission the following information in writing and shall obtain prior authorization by a formal application under Sections 816-830 of the Public Utilities Code if payment is to be made other than in cash:

- (1) A copy of the main extension contract, together with data adequately describing the development for which the advance as made and the total adjusted construction cost of the extension.
- (2) The balance unpaid on the contract and the calculation of the maximum termination price, as above defined, as of the date of termination and the terms under which the obligation was terminated.
- (3) The name of the holder of the contract when terminated.

d. Discounts obtained by the utility from contracts terminated under the provisions of this section shall be accounted for by credits to Ac. 265, Contributions in Aid of Construction.

D. Extension Designed to Include Fire Protection

1. The cost of distribution mains designed to meet the fire flow requirements set forth in Section VIII.1(a) of General Order No. 103 is to be advanced by the applicant. The utility shall refund this advance as provided in Sections B.2. and C.2. of this rule.
2. Should distribution mains be designed to meet fire flow requirements in excess of those set forth in Section VIII.1(a) of General Order No. 103, the increase in cost of the distribution mains necessary to meet such higher fire flow requirements shall be paid to the utility as a contribution in aid of construction.
3. The cost of facilities other than hydrants and distribution mains required to provide supply, pressure, or storage primarily for fire protection purposes, or portions of such facilities allocated in proportion to the capacity designed for fire protection purposes, shall be paid to the utility as a contribution in aid of construction.

(Continued)

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DECISION NO. D.12-06-016

DIRECTOR - Rates & Regulatory

RESOLUTION

Rule No. 15 (Continued)
MAIN EXTENSIONS

E. INCOME TAX COMPONENT OF CONTRIBUTIONS AND ADVANCES PROVISION

1. Contributions is Aid of Construction (CIAC) and Advances for Construction (AIC) shall include, but are not limited to, cash, services, facilities, labor, property, and income taxes thereon provided by a person or agency to the utility. The value of all contributions and advances shall be based on the utility's estimates. Contributions and advances shall consist of two components for the purpose of recording transactions as follows:
 - a. Income Tax Component, and
 - b. The balance of the contribution or advance.

2. Starting from January 11, 2001, the Income Tax Component shall be calculated by multiplying the following tax factors times the appropriate portion of the contribution or advance:
 - a. For CIAC:

Service Connection Component:	33.58%
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 - b. For AIC:

Service Connection Component:	38.42%
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3. The tax factors are established by using Method 5 as set forth in Decision No. 87-09-026 in I. 86-11-019.

4. The formula to compute Method 5 includes the following factors:
 - a. Corporate tax rate of: 35%
 - b. Franchise tax rate of: 8.84%
 - c. A discount rate of: 8.89%
 - d. A pre-tax rate of return of: 11.99%

5. The Income Tax Component factor has been derived from the federal and state corporate income tax rates and will remain in effect until changes to those rates would increase or decrease the gross-up rate by five percentage points or more as reflected in Ordering Paragraph No. 7 of I. 86-11-019/D. 87-09-026. When and if that occurs, the utility will file and advice letter showing the new rates and cancel out this sheet.

6. In the event that the Utility collects a gross-up using an incremental tax rate that is more than its incremental tax rate as determined on a taxable year basis, without consideration of a tax credit or tax loss carry forward, the difference between what was and what should have been collected will be refunded to the Applicant.

(Continued)

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 ADVICE LETTER NO. 949
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