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Executive Manager of Operations

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May 14, 2009

Regional Water Quality Control Board, Santa Ana Region

Attention: Mr. Gerard Thibeault

3737 Main Street, Suite 500
Riverside, California 92501-3348

**Subject: Chino Basin Recycled Water Groundwater Recharge Program
Quarterly Monitoring Report for January through March 2009**

Dear Mr. Thibeault,

Inland Empire Utilities Agency and Chino Basin Watermaster hereby submit the *Quarterly Monitoring Report* for the first quarter of 2009 (1Q09), January 1 through March 31, 2009, for the *Recycled Water Groundwater Recharge Program*. This document is submitted pursuant to requirements in Order No. R8-2007-0039. All required monitoring and reporting for the quarter are presented in the attached report.

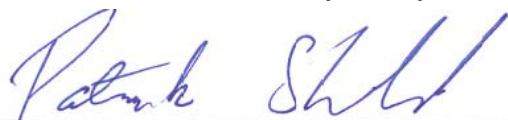
During 1Q09, the Groundwater Recharge Program was in compliance with all monitoring and reporting requirements as specified in the Order, with the exception of Odor. Odor does not have a primary maximum contaminant level (MCL); instead it has a secondary MCL, which is a non-enforceable guideline regulating constituents that may cause cosmetic or aesthetic effects in drinking water. Odor is discussed in further detail in the report.

Chino Basin Watermaster hereby certifies that, during the period of January 1 through March 31, 2009, there was no reported pumping for drinking water purposes in the buffer zones extending 500 feet laterally and 6 months underground travel time of the recharge sites using recycled water, namely Banana, Brooks, Ely, Hickory, 7th & 8th Street, and Turner Basins. In point of fact, there are no production wells in the buffer zones of the aforementioned recharge sites.

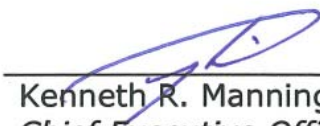
DECLARATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments thereto; and that, based on my inquiry of the individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Executed on the 14th day of May 2009 in the Cities of Chino and Rancho Cucamonga.



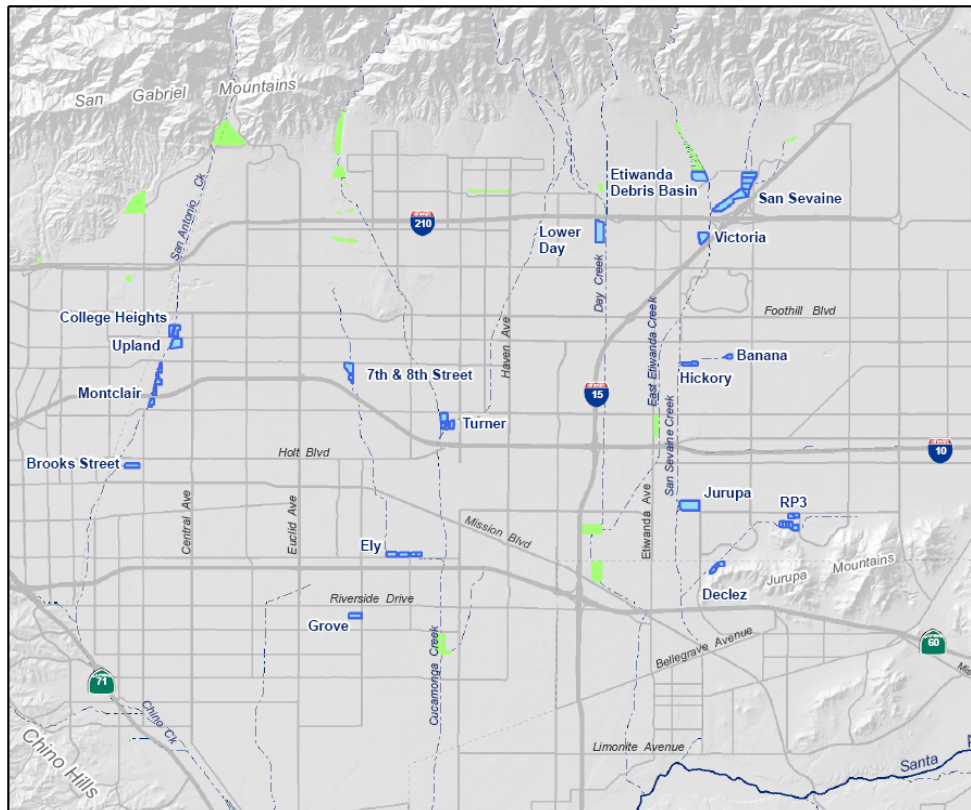
Patrick O. Shields
Executive Manager of Operations



Kenneth R. Manning
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Chino Basin Recycled Water Groundwater Recharge Program

Quarterly Monitoring Report January 1 through March 31, 2009



Prepared by:



May 15, 2009

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1. Introduction

Inland Empire Utilities Agency (IEUA), Chino Basin Watermaster (Watermaster), Chino Basin Water Conservation District, and San Bernardino County Flood Control District are partners in the implementation of the Chino Basin Recycled Water Groundwater Recharge Program. This is a comprehensive water supply program to enhance water supply reliability and improve the groundwater quality in local drinking water wells throughout the Chino Groundwater Basin by increasing the recharge of stormwater, imported water and recycled water. This program is an integral part of Watermaster's Optimum Basin Management Plan (OBMP).

A. Order No. R8-2007-0039

On June 29, 2007, the Santa Ana Regional Water Quality Control Board (Regional Board) adopted Order No. R8-2007-0039 which prescribes the requirements for recycled water use for groundwater recharge in 13 recharge sites within the Chino North Management Zone. Chino Basin Groundwater Recharge Program Basins are presented in Figure 1-1. As a provision of this Order, IEUA and Watermaster must also comply with Monitoring and Reporting Program No. R8-2007-0039 (M&RP).

The M&RP includes the water quality monitoring requirements of the Chino Basin Recycled Water Groundwater Recharge Program and the requirement for the submittal of quarterly and annual reports. This document is the quarterly report for the First Quarter of 2009 (1Q09).

The quarterly report includes the following elements as prescribed in the M&RP:

- Monitoring results for recycled water (including lysimeter monitoring), diluent water, and groundwater.
- Recycled water and diluent water volumes recharged at each basin.
- Reporting of any non-compliance events due to water quality, including records of any operational problems, plant upset and equipment breakdowns or malfunctions, and any diversion(s) of off-specification recycled water and the location(s) of final disposal. All corrective or preventive action(s) taken.
- Certification that no groundwater has been pumped from the zone that extends 500 feet and 6-months underground travel time from the recharge basin(s) where recycled water is applied for domestic water supply use.

B. Outline of the Quarterly Report

Section 2 of this quarterly report discusses the water quality monitoring results for recycled water recharge (water recycling plant effluent, distribution system, basin surface water, and lysimeter data), diluent water, and groundwater. Section 3 provides an overview of recharge operations including the volume of diluent water and recycled water recharged. Section 4 describes any operational problems and preventive and/or corrective actions taken. Section 5 contains the certification of non-pumping in the 500-foot buffer zones around each basin. Section 6 is a brief overview of the Monte Vista Water District (MVWD) Aquifer Storage and Recovery (ASR) project. Finally, Section 7 includes WateReuse Foundation (WRF) research study sampling results.

2. Monitoring Results

A. Recycled Water: RP-1 and RP-4

The requirements for recycled water monitoring are presented in the M&RP. Tables 2-1 through 2-4 include all of the requisite 1Q09 data.

Recycled Water Specifications A.5 through A.9 are narrative limits in the permit and corresponding monitoring data are presented in Tables 2-1 and 2-2. None of these limits were exceeded in 1Q09.

In the Order, compliance for constituents with maximum contaminant levels (MCLs) and secondary MCLs are based on 4-quarter running averages. These constituents are listed in Recycled Water Specifications A.1 through A.3 (Tables I, II, and III in the Order). The 4-quarter running average concentration data for 2Q08 through 1Q09 are summarized in Table 2-3. The table includes the 4-quarter running average for each parameter and the corresponding limits for compliance. Of the Recycled Water Quality Specifications with limitations, only Oil & Grease does not require the 4-quarter running average for compliance determination. During 1Q09, the maximum contaminant levels for inorganic chemicals, organic chemicals, radionuclides, and disinfection byproducts; action levels for lead and copper; and secondary MCLs were not exceeded, with the exception of odor.

The threshold-odor secondary MCL of 3 TON (threshold odor number) was exceeded by a 4-quarter running average value of 4 TON. This is based on the most recent four quarters of analysis. Diluent water sampling results for 1Q09 had odor values of 8 TON.

Due to the volume of sample required for analyses, IEUA has selected, and CDPH has approved, a recycled water sampling point along the distribution pipeline. IEUA selected the turnout to Reliant Energy (an IEUA recycled water customer) to be representative of the system blend of recycled water used for recharge. Although this sampling location is suitable for most constituents, it is not appropriate for disinfection byproducts (DBP), more specifically, Trihalomethanes (TTHMs) and Total Haloacetic Acids (HAA5). For TTHMs and HAA5, samples collected at the basin are more consistent and representative of the recycled water prior to reaching the groundwater table. Compliance is selected at a point prior to the groundwater table and has in previous quarters been selected at a lysimeter actively receiving recycled water recharge during the defined sampling time. For the 1Q09 sampling for DBPs, IEUA chose the 25-foot below ground surface lysimeter at the Brooks Basin as the compliance point, in accordance with Recycled Water Quality Specification A.2.

For constituents with no specified limits, quarterly monitoring data are summarized in Table 2-4.

B. Recycled Water: Basin and Lysimeter Samples

Total organic carbon (TOC) and nitrogen species sampling and analysis are performed weekly during periods when recycled water is delivered to recharge sites. Electrical conductivity is also measured and reported to assist in identifying the presence of recycled water at various depths in the vadose zone. The basin and lysimeter water quality results are summarized in Table 2-5. The table includes lysimeter data for Banana, Brooks, Ely, and Hickory Basins.

During 1Q09, Ely Basin compliance lysimeter sampling continued with an alternative to the failed 15 foot deep lysimeter by sampling both the 10- and 25-foot depths. An alternative monitoring plan was proposed in the 2008 Annual Report to apply an Ely-specific SAT correction factor to a weekly recycled water distribution system sample taken at the Reliant location.

During 3Q08, the Brooks Street Basin Start-Up Period which began on August 6, 2008, continued through 4Q08 and concluded in 1Q09. During 4Q08, a tracer study was initiated at Brooks Basin using both sulfur hexafluoride (SF₆) and enriched boron. Tracer test sampling will continue into 2009.

During 1Q09, relatively high EC and nitrate as nitrogen (NO₃-N) values (3,110 µmhos/cm and 17.7 mg/l, respectively) were detected on March 3 at the 25-foot lysimeter at Hickory Basin. These values are not representative of recycled water and likely represent stagnated pore water ahead of the recharged recycled water. The east Hickory Basin, where the compliance lysimeter is located, had been off line from receiving recharge water during construction activities for nearly one year. The following

week, the EC and NO₃-N values of the sample were more indicative of recycled water (650 µmhos/cm and 3.9 mg/L, respectively).

C. Diluent Water

For 1Q09, diluent water sampling of stormwater was conducted on February 10, 2009 at the Banana, Declez Cell 1, San Sevaïne Cell 1, and Victoria South Basins. State Water Project water was not delivered to any basins during the monitoring period. Table 2-6 lists the results of the stormwater sampling and analyses. Details on the methods used to measure daily diluent water flow can be found in the CDPH-approved Diluent Water Monitoring Plan.

D. Groundwater Monitoring Wells

During 1Q09, groundwater quality within the vicinity of Banana and Hickory Basins was monitored by sampling a network of six wells. The groundwater quality within the vicinity of the Turner Basins was monitored by sampling a network of six wells. The groundwater quality within the vicinity of the 7th & 8th Street Basins is monitored by sampling a network of five wells. The groundwater quality within the vicinity of the Ely Basin was monitored by sampling a network of four wells. The groundwater quality within the vicinity of the Brooks Basin was monitored by sampling a network of four wells. The wells in the monitoring well networks for Hickory and Banana Basins, Turner Basin, 7th & 8th Street Basins, Ely, and Brooks Basins are summarized in Table 2-7, and presented on Figures 2-1 through 2-5, respectively.

The groundwater constituents analyzed from the monitoring wells during 1Q09 are presented in Table 2-8.

Groundwater monitor is conducted to evaluate water quality conditions in the vicinity of the recharge basins utilizing recycled water. Groundwater monitoring results can be used to assess the impact recharge with recycled water on downgradient water supplies once it has arrived. The 1Q09 analyses results that exceed primary or secondary standards are highlighted on Table 2-8. Of note are the analyses for inactive production well Fontana Water Company Well F37A and monitoring wells BRK-1/1. The 1Q09 results for Fontana Water Company Well F37A (a well up gradient of Banana Basin) exceed several parameters (aluminum, copper, iron, and manganese) and are considered non-representative of local groundwater and artifacts of the well's inactive status. During subsequent samplings, IEUA will coordinate with the City of Fontana to purge a larger volume of water from this well prior to sampling. Monitoring well BRK-1/1 (located at Brooks Street Basin) had anomalous 1Q09 results for aluminum, iron, and turbidity which can be considered artifacts of the 2007 well drilling and development. In spring of 2008, IEUA noticed visibly turbid water and fine sand in the water sampled from monitoring well BRK-1/1. Although the well's water cleared during additional development in summer 2008, the 1Q09 results suggested additional natural or artificial development are still needed until the impacts of drilling are no longer observed.

3. Recharge Operations

IEUA's Groundwater Recharge Coordinator recorded the daily volumes of water routed to all basins. The Banana, Brooks, Ely, and Hickory Basins were the only recharge basins to receive recycled water this quarter. No imported water was delivered to any of the aforementioned recharge basins during 1Q09. Table 3-1 lists the volumes of diluent water, recycled water, and/or local runoff and stormwater captured during 1Q09 at the basins that have initiated recharge using recycled water.

4. Operational Problems & Preventive or Corrective Actions

No operational problems were encountered this quarter, therefore no corrective actions were necessary for the following: Regional Plants RP-1 & RP-4, recharge operations, and monitoring well sampling.

5. Certification of Non-Pumping in the Buffer Zones

Watermaster has certified that there was no reported pumping of groundwater in 1Q09 for domestic or municipal use from the zones that extend 500 feet and 6 months underground travel time from the Hickory, Banana, Turner 7th & 8th Street, Brooks, and Ely Basins. In fact, there are no production wells within the buffer zones of these aforementioned recharge sites. In the cover letter of this report, Watermaster certifies non-pumping in the buffer zones.

IEUA continues to work with the San Bernardino County Department of Environmental Health Services (SBCDEHS) to prevent the drilling and construction of new drinking water wells within the buffer zones. SBCDEHS has initiated control over production well permitting within the buffer zones of all recharge sites through the use of buffer zone maps that utilize the same land coordinate system (Township/Range/Section/40-acre Parcel) that is used in the permitting process. SBCDEHS reviews new well permit applications in part by checking the proposed location of a new drinking water well against a list of 40-acre parcels that abut recharge basins and their 500-foot buffers. IEUA has provided SBCDEHS with a list of parcels abutting each recharge basin and a series of maps showing the recharge basins, buffers, and township/range/section parcels adjacent the basins and buffers.

If a well falls within an abutting parcel, SBCDEHS will review the proposed well location using maps of the basins and buffers. If the well falls too near the buffer boundary for SBCDEHS to determine the relationship of the proposed well location to the buffer boundary, SBCDEHS will defer to IEUA for a prompt field review of the proposed well location. The field review may include contacting and having the well applicant to identify the exact location of the proposed well casing. To conduct a detailed field review, SBCDEHS will contact and provide IEUA Groundwater Recharge Coordinator with a copy of the well permit application and a timeline for the completion of IEUA's review. Following the review, IEUA will notify SBCDEHS of its findings in writing. IEUA will also notify the California Department of Public Health and the Regional Board of well permit applications that it recommends be declined due to well locations that are determined to fall within a 500-foot buffer. SBCDEHS has initiated control over production well permitting within the buffer zones of all Phase I and Phase II basins through the use of buffer zone maps that utilize the same land coordinate system (Township/Range/Section) that is used in the permitting process.

6. MVWD ASR Project

The Regional Board has allowed the Monte Vista Water District (MVWD) Aquifer Storage and Recovery (ASR) project to be included under IEUA/CBWM Phase I Groundwater Recharge Order No. R8-2005-0033 and subsequent permit updates. In April 2007, MVWD, Watermaster, and IEUA entered into an agreement to report the MVWD ASR project groundwater injection/recovery volumes and TIN/TDS mass balance in the recharge program quarterly reports. The Regional Board has been apprised of this agreement and that IEUA will be reporting MVWD ASR project data on a quarterly basis. Initial injection began in June 2007. Effective May 1, 2008, MVWD discontinued groundwater injection at the ASR Wells until further notice. Table 6-1 summarizes the monthly volumes and TIN/TDS of injected and recovered water. The table also includes the mass balance of TIN/TDS from the injection-recovery cycles.

7. WaterReuse Study

IEUA is participating in WaterReuse Foundation research study WR-06-018, which includes periodic testing of San Antonio Water Company (SAWCO) Well No. 12, 8th Street Basin 1/1, and 8th Street Basin 2/1. The purge water from the well sampling is delivered to Ely Basin. The Regional Board has allowed the test discharges to be covered under IEUA's Groundwater Recharge Permit (Order No. R8-2007-0039) rather than the General De Minimus Discharge permit (NPDES No. CAG998001, Order No. R8-2006-0004). Therefore, the well discharge will not be sampled for constituents beyond those identified in the WRF study, and the discharge quantities will be reported in the groundwater recharge quarterly reports.

During 1Q09, 8th Street Basin 1/1 was sampled on February 25, March 11, and March 19, 2009; Brooks Basin 1/1 was sampled on March 3, March 11, March 19, March 25, and March 31, 2009. Laboratory results for the four sampling/discharge events are included in Table 7-1. Sampling for this study concluded in early 2Q09.

Table 2-1a
Recycled Water Monitoring: RP-1 & RP-4 Effluent Water Quality for January 2009
(Recycled Water Quality Specifications A.5, A.7, A.8, & A.9)

Unit	RP-1 Effluent										RP-4 Effluent									
	Turbidity NTU	TOC mg/L	NO ₃ -N mg/L	TN mg/L	TIN mg/L	pH unit	EC µhmo/cm	TDS mg/L	Hardness mg/L	Coliform mpn/100mL	Turbidity NTU	TOC mg/L	NO ₃ -N mg/L	TN mg/L	TIN mg/L	pH unit	EC ** µhmo/cm	TDS mg/L	Hardness mg/L	Coliform mpn/100mL
Limits	2;5;10	16		*		6<pH<9				2.2;23;240	2;5;10	16		*		6<pH<9				2.2;23;240
01/01/09	0.7	7.2	5.8		5.8	7.4	780			4	0.3	4.0	3.7		3.7	7.1	730			<2
01/02/09	0.8	7.0				7.4	780			4	0.3	3.9	3.6		3.6	7.1	740			<2
01/03/09	0.8	7.3				7.4	785			<2	0.3	3.9	4.0		4.0	7.1	750			<2
01/04/09	0.7	7.1	6.7		6.7	7.4	795			<2	0.3	4.1	4.1		4.1	7.1	760			<2
01/05/09	0.8	7.9				7.4	780			2	0.2	4.3	3.2		3.2	7.1	750			<2
01/06/09	1.0	8.5	6.8	8.3	6.8	7.4	835		139	4	0.2	4.0	3.9	4.4	3.9	7.1	770	453	140	<2
01/07/09	1.1	9.2				7.4	800			2	0.2	4.0	5.5		5.5	7.0	755			<2
01/08/09	1.0	9.0	7.3		7.3	7.4	815			<2	0.2	3.9	6.8		6.8	7.0	760			<2
01/09/09	1.0	8.7				7.4	820			<2	0.2	4.0	7.3		7.3	7.0	780			<2
01/10/09	0.9	8.4				7.4	830			2	0.3	4.0	7.4		7.4	7.1	775			<2
01/11/09	0.9	9.4	6.0		6.0	7.4	815			<2	0.3	4.2	6.2		6.2	7.1	790			4
01/12/09	0.9	8.8				7.4	805			2	0.3	4.4	3.2		3.2	7.1	800			<2
01/13/09	0.8	8.9	6.2	8.5	6.2	7.4	800	495		4	0.3	4.1	2.5	3.1	2.5	7.1	810	476		<2
01/14/09	0.8	8.7				7.4	795			2	0.3	4.1	2.0		2.0	7.1	820			<2
01/15/09	0.7	8.5	7.3		7.3	7.4	790			<2	0.3	4.0	1.7		1.7	7.2	825			<2
01/16/09	0.8	10.2				7.4	780			<2	0.3	3.8	1.5		1.5	7.1	810			<2
01/17/09	0.9	7.6				7.4	785			<2	0.3	3.9	2.3		2.3	7.1	800			<2
01/18/09	0.8	7.8	6.5		6.5	7.5	770			2	0.3	4.1	3.2		3.2	7.1	800			<2
01/19/09	0.9	7.8				7.5	765			<2	0.3	4.2	3.4		3.4	7.1	790			<2
01/20/09	0.8	9.1	4.6	6.3	4.6	7.5	800			2	0.3	4.1	3.2	3.2	3.2	7.1	780	466		<2
01/21/09	0.9	8.6				7.4	800			<2	0.3	4.2	4.1		4.1	7.1	770			2
01/22/09	0.9	8.6	6.1		6.1	7.5	795			2	0.3	4.1	5.2		5.2	7.1	765			<2
01/23/09	0.8	7.5				7.5	810			<2	0.3	3.9	6.1		6.5	7.0	785			<2
01/24/09	0.8	7.2				7.5	805			<2	0.3	4.0	7.0		7.0	7.0	775			<2
01/25/09	0.7	7.4	7.0		7.0	7.5	775			<2	0.3	4.0	6.1		6.1	7.1	765			<2
01/26/09	0.6	7.6				7.6	755			<2	0.3	4.0	4.5		4.5	7.1	745			<2
01/27/09	0.7	7.4	7.1	8.6	7.1	7.6	745			<2	0.3	3.7	5.0	5.0	5.0	7.2	715	438		4
01/28/09	0.6	7.3				7.5	745			<2	0.3	3.8	5.9		6.0	7.2	700			<2
01/29/09	0.7	7.7	7.5		7.6	7.6	770			2	0.2	3.7	6.4		6.4	7.2	700			<2
01/30/09	0.8	6.8				7.6	770			2	0.2	3.7	6.6		6.6	7.2	690			<2
01/31/09	0.8	6.7				7.6	775			2	0.2	3.8	6.0		6.0	7.2	695			<2
Avg	0.8	8.1	6.5	7.9	6.5	7.4	789	495	139	<2	0.3	4.0	4.6	3.9	4.6	7.1	765	458	140	<2
Min	0.6	6.7	4.6	6.3	4.6	7.4	745	495	139	<2	0.2	3.7	1.5	3.1	1.5	7.0	690	438	140	<2
Max	1.1	10.2	7.5	8.6	7.6	7.6	835	495	139	4	0.3	4.4	7.4	5.0	7.4	7.2	825	476	140	4

Note: Turbidity and coliform must meet water quality standards for disinfected tertiary treated recycled water, as specified in NPDES No. CA0105279, Order No. R8-2006-0010.
Turbidity limits: 2 NTU average daily; 5 NTU no more than 5% of day; 10 NTU at any time. Coliform limits: 2.2 MPN/100mL 7-day median; 23 MPN/100mL in no more than 1 sample per month; 240 MPN/100mL at any time.
Monthly average for coliform is based on "non-detect" values equal to 2. Determination of "less than" is dependent on the number of "non-detect" occurrences more than half the days in the month.
TDS and TIN limits are based on a 12-month running average values which are presented in Table 2-2
Bolded characters signify an exceedance of a permit limitation
Blank cells indicate that analysis was not run for a constituent on that particular date. The data presented meets/exceeds the frequency of analysis specified under the discharge permit for these facilities.
*TN compliance can be met at a point prior to the regional groundwater, including lysimeters. **RP-4 Effluent EC values from IEUA lab data, not continuous monitoring data

Table 2-1b
Recycled Water Monitoring: RP-1 & RP-4 Effluent Water Quality for February 2009
(Recycled Water Quality Specifications A.5, A.7, A.8, & A.9)

Unit	RP-1 Effluent										RP-4 Effluent									
	Turbidity NTU	TOC mg/L	NO ₃ -N mg/L	TN mg/L	TIN mg/L	pH unit	EC µhmo/cm	TDS mg/L	Hardness mg/L	Coliform mpn/100mL	Turbidity NTU	TOC mg/L	NO ₃ -N mg/L	TN mg/L	TIN mg/L	pH unit	EC ** µhmo/cm	TDS mg/L	Hardness mg/L	Coliform mpn/100mL
Limits	2;5;10	16		*		6<pH<9				2.2;23;240	2;5;10	16		*		6<pH<9				2.2;23;240
02/01/09	0.8	7.0	7.6		7.6	7.6	735			<2	0.4	3.9	4.2		4.2	7.3	670			<2
02/02/09	0.7	7.3				7.6	745			<2	0.4	4.0	3.2		3.2	7.3	690			<2
02/03/09	0.8	7.1	7.1	9.4	7.1	7.6	730		155	<2	0.4	3.6	4.0	4.9	4.0	7.2	690	416	143	<2
02/04/09	0.7	6.5				7.6	735			<2	0.4	3.7	4.1		4.1	7.3	705			<2
02/05/09	0.7	6.5	8.0		8.0	7.6	730			<2	0.4	3.6	6.8		7.1	7.3	685			<2
02/06/09	0.7	6.6				7.6	705			2	0.5	3.6	2.8		2.8	7.3	685			<2
02/07/09	0.6	6.2				7.6	700			2	0.5	3.9	2.5		2.7	7.2	675			<2
02/08/09	0.6	6.3	8.2		8.2	7.6	730			<2	0.5	4.0	2.4		2.4	7.2	680			<2
02/09/09	0.6	7.2				7.6	830			<2	0.4	4.2	2.2		2.2	7.3	675			<2
02/10/09	0.6	6.1	8.7	9.3	8.7	7.5	705	426		<2	0.4	4.0	2.5	2.5	2.5	7.3	665	408		<2
02/11/09	0.6	6.1				7.5	720			2	0.5	3.9	1.9		2.1	7.3	660			<2
02/12/09	0.6	6.0	8.7		8.8	7.6	730			<2	0.4	3.7	1.4		1.4	7.3	685			<2
02/13/09	0.6	6.0				7.6	730			<2	0.4	3.8	2.1		2.1	7.3	685			<2
02/14/09	0.5	5.7				7.6	740			2	0.4	3.9	2.8		2.8	7.3	690			<2
02/15/09	0.6	5.7				7.6	740			<2	0.4	3.8	2.4		2.4	7.3	675			<2
02/16/09	0.6	6.0				7.6	705			<2	0.4	4.1	1.7		1.7	7.4	665			<2
02/17/09	0.6	6.0	7.5	8.4	7.6	7.5	680			<2	0.4	4.0	2.0	2.8	2.2	7.3	650	396		<2
02/18/09	0.6	6.2				7.3	715			2	0.4	4.1	2.8		2.8	7.4	660			<2
02/19/09	0.6	6.5	8.0		8.0	7.6	715			<2	0.4	3.9	4.1		4.1	7.4	650			<2
02/20/09	0.6	6.0				7.6	735			<2	0.3	4.0	3.7		3.7	7.3	660			<2
02/21/09	0.6	6.3				7.6	745			<2	0.4	4.0	3.6		3.6	7.3	690			<2
02/22/09	0.5	6.7	7.7		7.7	7.6	720			2	0.4	4.3	3.1		3.1	7.3	645			<2
02/23/09	0.6	6.7				7.6	730			2	0.4	4.5	2.2		2.2	7.4	640			<2
02/24/09	0.6	6.8	7.1	7.4	7.1	7.6	745			2	0.4	4.2	2.1	2.1	2.1	7.4	665	418		<2
02/25/09	0.6	4.7				7.6	775			<2	0.4	4.2	2.9		2.9	7.3	670			<2
02/26/09	0.6	6.7	8.1		8.1	7.6	735			<2	0.4	3.9	3.9		3.9	7.3	670			<2
02/27/09	0.7	6.2				7.6	745			<2	0.5	4.0	4.6		4.6	7.3	675			2
02/28/09	0.7	6.1				7.6	740			2	0.4	4.1	4.3		4.3	7.3	685			<2
Avg	0.6	6.3	7.9	8.6	7.9	7.6	732	426	155	<2	0.4	4.0	3.1	3.1	3.1	7.3	673	410	143	<2
Min	0.5	4.7	7.1	7.4	7.1	7.3	680	426	155	<2	0.3	3.6	1.4	2.1	1.4	7.2	640	396	143	<2
Max	0.8	7.3	8.7	9.4	8.8	7.6	830	426	155	2	0.5	4.5	6.8	4.9	7.1	7.4	705	418	143	2

Note: Turbidity and coliform must meet water quality standards for disinfected tertiary treated recycled water, as specified in NPDES No. CA0105279, Order No. R8-2006-0010.
Turbidity limits: 2 NTU average daily; 5 NTU no more than 5% of day; 10 NTU at any time. Coliform limits: 2.2 MPN/100mL 7-day median; 23 MPN/100mL in no more than 1 sample per month; 240 MPN/100mL at any time.
Monthly average for coliform is based on "non-detect" values equal to 2. Determination of "less than" is dependent on the number of "non-detect" occurrences more than half the days in the month.
TDS and TIN limits are based on a 12-month running average values which are presented in Table 2-2
Bolded characters signify an exceedance of a permit limitation
Blank cells indicate that analysis was not run for a constituent on that particular date. The data presented meets/exceeds the frequency of analysis specified under the discharge permit for these facilities.
*TN compliance can be met at a point prior to the regional groundwater, including lysimeters. **RP-4 Effluent EC values from IEUA lab data, not continuous monitoring data

Table 2-1c
Recycled Water Monitoring: RP-1 & RP-4 Effluent Water Quality for March 2009
(Recycled Water Quality Specifications A.5, A.7, A.8, & A.9)

Unit	RP-1 Effluent										RP-4 Effluent									
	Turbidity NTU	TOC mg/L	NO ₃ -N mg/L	TN mg/L	TIN mg/L	pH unit	EC µhmo/cm	TDS mg/L	Hardness mg/L	Coliform mpn/100mL	Turbidity NTU	TOC mg/L	NO ₃ -N mg/L	TN mg/L	TIN mg/L	pH unit	EC ** µhmo/cm	TDS mg/L	Hardness mg/L	Coliform mpn/100mL
Limits	2;5;10	16		*		6<pH<9				2.2;23;240	2;5;10	16		*		6<pH<9				2.2;23;240
03/01/09	0.7	6.6	5.3		5.3	7.7	730			QC	0.4	4.3	2.5		2.5	7.4	655			QC
03/02/09	0.6	6.9				7.7	755			<2	0.4	4.5	1.9		1.9	7.0	670			<2
03/03/09	0.6	6.9	7.8	9.2	7.8	7.7	740	450	161	<2	0.5	4.6	2.6	4.0	2.6	6.8	665	416	130	<2
03/04/09	0.6	6.8				7.7	755			2	0.5	4.6	3.3		3.3	6.8	685			<2
03/05/09	0.7	7.2	7.4		7.4	7.6	740			2	0.5	4.7	2.8		2.8	6.9	665			<2
03/06/09	0.9	7.0				7.6	745			<2	0.6	4.7	2.2		2.2	6.9	675			<2
03/07/09	0.8	6.9				7.7	740			<2	0.7	4.8	2.6		2.6	6.9	685			<2
03/08/09	0.9	7.6	7.5		7.5	7.7	760			<2	0.7	5.0	2.1		2.1	6.9	660			<2
03/09/09	1.0	7.8				7.7	770			2	0.7	5.4	1.5		1.5	6.9	670			<2
03/10/09	0.9	7.6	7.5	8.7	7.5	7.7	735			<2	0.6	5.1	1.2	1.2	1.2	6.9	655	412		<2
03/11/09	0.7	7.3				7.7	755			<2	0.7	5.1	1.2		1.2	6.9	670			<2
03/12/09	0.7	7.3	8.0		8.0	7.7	740			2	0.5	4.8	1.0		1.0	6.9	660			<2
03/13/09	0.7	7.0				7.7	750			<2	0.5	4.8	1.4		1.4	6.9	665			<2
03/14/09	0.7	7.1				7.7	745			<2	0.5	5.0	1.7		1.7	6.9	690			<2
03/15/09	0.7	8.0	7.6		7.6	7.7	740			<2	0.6	5.3	2.2		2.2	6.9	670			<2
03/16/09	0.7	7.1				7.7	740			<2	0.6	4.9	1.4		1.4	6.9	670			<2
03/17/09	0.7	7.6	7.9	9.0	7.9	7.7	735			<2	0.5	4.9	1.2	1.2	1.2	6.9	680	436		<2
03/18/09	0.7	7.4				7.7	735			<2	0.5	4.9	1.3		1.4	6.9	665			<2
03/19/09	0.7	7.6	8.5		8.5	7.7	735			<2	0.4	5.0	1.5		1.5	6.9	655			<2
03/20/09	0.8	6.8				7.7	750			<2	0.4	4.9	0.9		0.9	6.9	670			<2
03/21/09	0.8	7.1				7.7	750			<2	0.4	4.8	0.7		0.7	6.9	680			<2
03/22/09	0.8	7.4	8.6		8.6	7.8	760			<2	0.4	5.1	1.5		1.5	6.9	690			<2
03/23/09	0.9	7.4				7.7	760			2	0.4	5.2	0.8		0.8	6.9	670			<2
03/24/09	0.8	7.4	7.9	9.3	7.9	7.7	775			<2	0.6	4.9	0.8	1.7	0.8	6.9	685	440		<2
03/25/09	0.9	7.7				7.7	750			2	0.7	5.0	1.1		1.1	6.9	685			<2
03/26/09	0.9	7.7	7.6		7.6	7.8	765			2	0.6	4.6	1.1		1.1	6.9	710			<2
03/27/09	0.9	7.6				o/s	765			<2	0.5	4.5	1.2		1.2	6.9	705			<2
03/28/09	0.9	7.6				o/s	765			8	0.5	4.5	1.5		1.5	6.9	700			<2
03/29/09	1.0	9.2	6.2		6.2	o/s	755			30	0.4	4.7	1.4		1.4	6.9	680			<2
03/30/09	1.0	8.5				o/s	765			<2	0.7	5.0	1.4		1.4	7.0	685			<2
03/31/09	1.0	8.6	6.3	7.9	6.3	7.5	770			<2	0.6	4.8	1.2	2.4	1.2	7.0	685	448		<2
Avg	0.8	7.4	7.4	8.8	7.4	7.7	751	450	161	<3	0.5	4.9	1.6	2.1	1.6	6.9	676	430	130	<2
Min	0.6	6.6	5.3	7.9	5.3	7.5	730	450	161	<2	0.4	4.3	0.7	1.2	0.7	6.8	655	412	130	<2
Max	1.0	9.2	8.6	9.3	8.6	7.8	775	450	161	30	0.7	5.4	3.3	4.0	3.3	7.4	710	448	130	<2

Note: Turbidity and coliform must meet water quality standards for disinfected tertiary treated recycled water, as specified in NPDES No. CA0105279, Order No. R8-2006-0010.
Turbidity limits: 2 NTU average daily; 5 NTU no more than 5% of day; 10 NTU at any time. Coliform limits: 2.2 MPN/100mL 7-day median; 23 MPN/100mL in no more than 1 sample per month; 240 MPN/100mL at any time.
Monthly average for coliform is based on "non-detect" values equal to 2. Determination of "less than" is dependent on the number of "non-detect" occurrences more than half the days in the month.
TDS and TIN limits are based on a 12-month running average values which are presented in Table 2-2
Bolded characters signify an exceedance of a permit limitation
Blank cells indicate that analysis was not run for a constituent on that particular date. The data presented meets/exceeds the frequency of analysis specified under the discharge permit for these facilities.
*TN compliance can be met at a point prior to the regional groundwater, including lysimeters. **RP-4 Effluent EC values from IEUA lab data, not continuous monitoring data o/s: Out of Service QC: Quality Control test failure

Table 2-2
Recycled Water Monitoring: Agency-Wide Flow-Weighted TIN & TDS (mg/L)
(Recycled Water Quality Specifications A.6)

Date	TIN		TDS	
	Monthly	12-Mo. Run Avg.	Monthly	12-Mo. Run Avg.
Apr-08	6.7	6.3	519	502
May-08	7.2	6.4	502	503
Jun-08	6.8	6.5	490	503
Jul-08	6.1	6.6	499	503
Aug-08	5.8	6.6	514	506
Sep-08	8.3	6.8	510	509
Oct-08	7.0	6.9	503	508
Nov-08	5.7	6.7	496	506
Dec-08	6.3	6.7	495	504
Jan-09	6.5	6.6	501	503
Feb-09	7.8	6.7	465	501
Mar-09	6.9	6.8	503	500
Avg	6.8	6.6	500	504
Min	5.7	6.3	465	500
Max	8.3	6.9	519	509
Limit		8.0		550

The data reported above will supersede any information submitted for previous quarters. Agency-wide TIN & TDS were in compliance with permit limits at all times. *Please note changes for the 12-month running average TDS as calculations were corrected during 1Q09.*

Table 2-3
Recycled Water Monitoring: Recycled Water Quality Specifications A.1, A.2, A.3, & A.15

Constituent	2Q08	3Q08	4Q08	1Q09	4Q Run. Avg. ¹	Limit	Unit	Method
Inorganic Chemicals								
Aluminum	57	<25	<25	32	29	1000	µg/L	EPA 200.8
Antimony	<1	<1	<1	1	<1	6	µg/L	EPA 200.8
Arsenic	<2	<2	<2	<2	<2	10	µg/L	EPA 200.8
Asbestos	<1.8	<0.8	<0.2	<1.9	<1.9	7	MFL	EPA 100.2
Barium	7	29	5	9	13	1000	µg/L	EPA 200.8
Beryllium	<0.5	<0.5	<0.5	<0.5	<0.5	4	µg/L	EPA 200.8
Cadmium	<0.25	<0.25	<0.25	<0.25	<0.25	5	µg/L	EPA 200.8
Chromium	1.2	3.4	1.3	1.8	1.9	50	µg/L	EPA 200.8
Cyanide	<6	<6	<6	<6	<6	150	µg/L	SM 4500-CN E
Fluoride	0.2	0.2	0.1	0.1	0.2	2	mg/L	SM 4500-F C
Mercury	<0.2	<0.2	<0.2	<0.2	<0.2	2	µg/L	EPA 245.2
Nickel	3	1	2	2	2	100	µg/L	EPA 200.8
Perchlorate	<4	<4	<4	<4	<4	6	µg/L	EPA 314
Selenium	<2	<2	<2	<2	<2	50	µg/L	EPA 200.8
Thallium	<1	<1	<1	<1	<1	2	µg/L	EPA 200.8
Volatile Organic Chemicals (VOCs)								
Benzene	<0.5	<0.5	<0.5	<0.5	<0.5	1	µg/L	EPA 524.2
Carbon Tetrachloride	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	µg/L	EPA 524.2
1,2-Dichlorobenzene	<0.5	<0.5	<0.5	<0.5	<0.5	600	µg/L	EPA 524.2
1,4-Dichlorobenzene	<0.5	<0.5	<0.5	<0.5	<0.5	5	µg/L	EPA 524.2
1,1-Dichloroethane	<0.5	<0.5	<0.5	<0.5	<0.5	5	µg/L	EPA 524.2
1,2-Dichloroethane	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	µg/L	EPA 524.2
1,1-Dichloroethylene	<1	<0.5	<1	<0.5	<1	6	µg/L	EPA 524.2
cis-1,2-Dichloroethylene	<0.5	<0.5	<0.5	<0.5	<0.5	6	µg/L	EPA 524.2
trans-1,2-Dichloroethylene	<0.5	<0.5	<0.5	<0.5	<0.5	10	µg/L	EPA 524.2
Dichloromethane	<0.5	<0.5	4.3	<0.5	<1.3	5	µg/L	EPA 524.2
1,2-Dichloropropane	<0.5	<0.5	<0.5	<0.5	<0.5	5	µg/L	EPA 524.2
1,3-Dichloropropene	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	µg/L	EPA 524.2
Ethylbenzene	<0.5	<0.5	<0.5	<0.5	<0.5	300	µg/L	EPA 524.2
Monochlorobenzene	<0.5	<0.5	<0.5	<0.5	<0.5	70	µg/L	EPA 524.2
Methyl-tert-butyl ether	<0.5	<0.5	<0.5	<0.5	<0.5	13	µg/L	EPA 524.2
Styrene	<0.5	<0.5	<0.5	<0.5	<0.5	100	µg/L	EPA 524.2
1,1,2,2-Tetrachloroethane	<0.5	<0.5	<0.5	<0.5	<0.5	1	µg/L	EPA 524.2
Tetrachloroethylene	<0.5	<0.5	<0.5	<0.5	<0.5	5	µg/L	EPA 524.2
Toluene	<0.5	<0.5	<0.5	0.5	<0.5	150	µg/L	EPA 524.2
1,2,4-Trichlorobenzene	<0.5	<0.5	<0.5	<0.5	<0.5	5	µg/L	EPA 524.2
1,1,1-Trichloroethane	<0.5	<0.5	<0.5	<0.5	<0.5	200	µg/L	EPA 524.2
1,1,2-Trichloroethane	<0.5	<0.5	<0.5	<0.5	<0.5	5	µg/L	EPA 524.2
Trichloroethylene	<0.5	<0.5	<0.5	<0.5	<0.5	5	µg/L	EPA 524.2
Trichlorofluoromethane	<0.5	<0.5	<0.5	<0.5	<0.5	150	µg/L	EPA 524.2
1,1,2-Trichloro-1,2,2-Trifluoroethane	<0.5	<0.5	<0.5	<0.5	<0.5	1200	µg/L	EPA 524.2
Vinyl Chloride	<0.5	<0.3	<0.5	<0.3	<0.5	0.5	µg/L	EPA 524.2
m,p-Xylene	<0.5	<0.5	<0.5	<0.5	<0.5	1750 ²	µg/L	EPA 524.2
o-Xylene	<0.5	<0.5	<0.5	<0.5	<0.5		µg/L	EPA 524.2
Non-Volatile Synthetic Organic Chemicals (SOCs)								
Alachlor (Alanex)	<0.1	<0.1	<0.1	<0.1	<0.1	2	µg/L	EPA 505
Atrazine	<0.05	<0.05	<0.05	<0.05	<0.05	1	µg/L	EPA 525.2
Bentazon	<0.5	<0.5	<0.5	<0.5	<0.5	18	µg/L	EPA 515.4
Benzo(a)pyrene	<0.02	<0.02	<0.02	<0.02	<0.02	0.2	µg/L	EPA 525.2
Carbofuran	<0.5	<0.5	<0.5	<0.5	<0.5	18	µg/L	EPA 531.2
Chlordane	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	µg/L	EPA 505
2,4-D	<0.1	<0.1	<0.1	<0.1	<0.1	70	µg/L	EPA 515.4
Dalapon	3	<1	4	4	3	200	µg/L	EPA 515.4
Dibromochloropropane	<0.01	<0.01	<0.01	<0.01	<0.01	0.2	µg/L	EPA 504.1
Di(2-ethylhexyl)adipate	<0.6	<0.6	<0.6	<0.6	<0.6	400	µg/L	EPA 525.2
Di(2-ethylhexyl)phthalate	<0.6	<0.6	<0.6	<0.6	<0.6	4	µg/L	EPA 525.2
Dinoseb	<0.2	<0.2	<0.2	<0.2	<0.2	7	µg/L	EPA 515.4
Diquat	<0.4	<0.4	<0.4	<0.4	<0.4	20	µg/L	EPA 549.2
Endothall	<5	<20	<20	<20	<20	100	µg/L	EPA 548.1
Endrin	<0.01	<0.01	<0.01	<0.01	<0.01	2	µg/L	EPA 505

Table 2-3
Recycled Water Monitoring: Recycled Water Quality Specifications A.1, A.2, A.3, & A.15

Constituent	2Q08	3Q08	4Q08	1Q09	4Q Run. Avg. ¹	Limit	Unit	Method
Ethylene Dibromide	<0.01	<0.01	<0.01	<0.01	<0.01	0.05	µg/L	EPA 504.1
Glyphosate	<6	<6	<6	<6	<6	700	µg/L	EPA 547
Heptachlor	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	µg/L	EPA 505
Heptachlor Epoxide	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	µg/L	EPA 505
Hexachlorobenzene	<0.05	<0.05	<0.05	<0.05	<0.05	1	µg/L	EPA 525.2
Hexachlorocyclopentadiene	0.06	<0.05	<0.05	<0.05	<0.05	50	µg/L	EPA 525.2
Lindane	<0.01	<0.01	<0.01	<0.01	<0.01	0.2	µg/L	EPA 505
Methoxychlor	<0.05	<0.05	<0.05	<0.05	<0.05	30	µg/L	EPA 505
Molinate	<0.1	<0.1	<0.1	<0.1	<0.1	20	µg/L	EPA 525.2
Oxamyl	<0.5	<0.5	<0.5	<0.5	<0.5	50	µg/L	EPA 531.2
Pentachlorophenol	<0.04	<0.04	<0.04	<0.04	<0.04	1	µg/L	EPA 515.4
Picloram	<0.1	<0.1	<0.1	<0.1	<0.1	500	µg/L	EPA 515.4
PCB 1016	<0.08	<0.08	<0.08	<0.08	<0.08	0.5	µg/L	EPA 505
PCB 1221	<0.1	<0.1	<0.1	<0.1	<0.1	0.5	µg/L	EPA 505
PCB 1232	<0.1	<0.1	<0.1	<0.1	<0.1	0.5	µg/L	EPA 505
PCB 1242	<0.1	<0.1	<0.1	<0.1	<0.1	0.5	µg/L	EPA 505
PCB 1248	<0.1	<0.1	<0.1	<0.1	<0.1	0.5	µg/L	EPA 505
PCB 1254	<0.1	<0.1	<0.1	<0.1	<0.1	0.5	µg/L	EPA 505
PCB 1260	<0.1	<0.1	<0.1 ³	<0.1	<0.1	0.5	µg/L	EPA 505
Simazine	0.10	<0.05	<0.05	<0.05	<0.05	4	µg/L	EPA 525.2
Thiobencarb	<0.2	<0.2	<0.2	<0.2	<0.2	70	µg/L	EPA 525.2
Toxaphene	<0.5	<0.5	<0.5	<0.5	<0.5	3	µg/L	EPA 505
2,3,7,8-TCDD (Dioxin)	<5	<5	<5	<5	<5	30	pg/L	EPA 1613
2,4,5-TP (Silvex)	<0.2	<0.2	<0.2	<0.2	<0.2	50	µg/L	EPA 515.4
Action Level Chemicals								
Copper	3.6	5.8	9.5	3.9	5.7	1300	µg/L	EPA 200.8
Lead	<0.5	2.8	<0.5	<0.5	<0.9	15	µg/L	EPA 200.8
Radionuclides								
Combined Radium-226 and Radium 228	<0.76	0.218	<0.54	<0.481	<0.76	5	pCi/L	EPA 903.0
Gross Alpha Particle Activity	<3	3.6	7.1	4.4	4.2	15	pCi/L	EPA 900.0
Tritium	<191	<221	<240	<224	<240	20,000	pCi/L	EPA 906
Strontium-90	<0.740	<0.635	1.65	<0.607	<0.66	8	pCi/L	EPA 905
Gross Beta Particle Activity	10	12	13	7	10	50	pCi/L	EPA 900.0
Uranium	<0.7	<0.7	<0.7	<0.7	<0.7	20	pCi/L	EPA 200.8
Secondary Maximum Contaminant Level Chemicals								
Aluminum	57	<25	<25	32	29	200	µg/L	EPA 200.8
Copper	3.6	5.8	9.5	3.9	5.7	1000	µg/L	EPA 200.8
Corrosivity ³	NR	-0.4	-0.5	0.1	-0.3	Non-Cor.	SI	SM 2330B
Foaming Agents (MBAS) ³	<0.05	<0.05	NR	0.17	<0.05	500	µg/L	S5540C/EPA 425.1
Iron ³	NR	NR	NR	NR	85	300	µg/L	EPA 200.7
Manganese	19	5	1	7	8	50	µg/L	EPA 200.8
Methyl-tert-butyl ether (MTBE) ³	<0.5	<0.5	<0.5	<0.5	<0.5	5	µg/L	EPA 524.2
Odor--Threshold ³	2	2	NR	3	4	3	TON	SM 2150B
Silver	<0.25	<0.25	<0.25	<0.25	<0.25	100	µg/L	EPA 200.8
Thiobencarb	<0.2	<0.2	<0.2	<0.2	<0.2	1	µg/L	EPA 525.2
Zinc	15	7	24	24	17	5000	µg/L	EPA 200.8
Miscellaneous Regulated Constituents								
Oil & Grease ⁴	<2	2	<1	<1		1	mg/L	EPA 1664
Disinfection Byproducts								
Bromate	<5	<5	<5	<5	<5	10	µg/L	EPA 300.1
Chlorite	<0.01	<0.01	<0.01	<0.01	<0.01	1	mg/L	EPA 300.0
Lysimeter Compliance Point Data	HE-25	8th-25	BRK-25	BRK-25				
Total Trihalomethanes (TTHMs)	48	3.5	<0.5	<0.5	13	80	µg/L	EPA 524.2/624
Total Haloacetic Acids (HAA5)	<1	<1	<1	<1	<1	60	µg/L	S6251B

NA: Not Analyzed this quarter

¹ 4-quarter running average is calculated based on ND values equal to half the detection limit. The reported 4-quarter running average value, if less than DL, will be based on highest DL found in the data set.

² The sum of m,p-Xylene and o-Xylene is used to calculate compliance for the Total Xylenes limit

³ 4-quarter running average is calculated based on the four most recent results. Monitoring is required annually. However, if monitoring takes place more frequently than required, those results will be reported.

⁴ Oil & Grease compliance determination not based on 4-quarter running average

Bold signifies an exceedance of a limit in the Order. Explained in further detail in the report text.

Table 2-4
Recycled Water Monitoring: Table II. Remaining Priority Pollutants, EDCs & Pharmaceuticals, and Unregulated Chemicals
(Monitoring & Reporting Program)

Constituent	1Q09	Unit	Method
Metals			
Chromium (III) ¹	1.8	µg/L	EPA 200.8
Volatile Organic Chemicals (VOCs)			
Acrolein	NR	µg/L	EPA 624
Acrylonitrile	NR	µg/L	EPA 624
Bromoform	<0.5	µg/L	EPA 524.2
Chlorodibromomethane	4	µg/L	EPA 524.2
Chloroethane	<0.5	µg/L	EPA 524.2
2-Chloroethylvinylether	NR	µg/L	EPA 624
Chloroform	63	mg/L	EPA 524.2
Dichlorobromomethane	19	µg/L	EPA 524.2
Methyl Bromide	<0.5	µg/L	EPA 524.2
Methyl Chloride	<0.5	µg/L	EPA 524.2
Acid Extractibles			
2-Chlorophenol	NR	µg/L	EPA 625
2,4-Dichlorophenol	NR	µg/L	EPA 625
2,4-Dimethylphenol	NR	µg/L	EPA 625
2-Methyl-4,6-dinitrophenol	NR	µg/L	EPA 625
2,4-Dinitrophenol	NR	µg/L	EPA 625
2-Nitrophenol	NR	µg/L	EPA 625
4-Nitrophenol	NR	µg/L	EPA 625
4-Chloro-3-methylphenol	NR	µg/L	EPA 625
Phenol	NR	µg/L	EPA 625
2,4,6-Trichlorophenol	NR	µg/L	EPA 625
Base/Neutral Extractibles			
Acenaphthene	NR	µg/L	EPA 625
Acenaphthylene	NR	µg/L	EPA 625
Anthracene	NR	µg/L	EPA 625
Benidine	NR	µg/L	EPA 625
Benzo(a)anthracene	NR	µg/L	EPA 625
Benzo(b)fluoranthene	NR	µg/L	EPA 625
Benzo(g,h,i)perylene	NR	µg/L	EPA 625
Benzo(k)fluoranthene	NR	µg/L	EPA 625
Bis(2-chloroethoxy)methane	NR	µg/L	EPA 625
Bis(2-chloroethyl)ether	NR	µg/L	EPA 625
Bis(2-chloroisopropyl)ether	NR	µg/L	EPA 625
4-Bromophenyl phenyl ether	NR	µg/L	EPA 625
Butyl benzyl phthalate	NR	µg/L	EPA 625
2-Chloronaphthalene	NR	µg/L	EPA 625
4-Chlorophenyl phenyl ether	NR	µg/L	EPA 625
Chrysene	NR	µg/L	EPA 625
Dibenzo(a,h)anthracene	NR	µg/L	EPA 625
1,3-Dichlorobenzene	NR	µg/L	EPA 625
3,3-Dichlorobenzidine	NR	µg/L	EPA 625
Diethyl phthalate	NR	µg/L	EPA 625
Dimethyl phthalate	NR	µg/L	EPA 625
Di-n-butyl phthalate	NR	µg/L	EPA 625
2,4-Dinitrotoluene	NR	µg/L	EPA 625
2,6-Dinitrotoluene	NR	µg/L	EPA 625
Di-n-octyl phthalate	NR	µg/L	EPA 625
Azobenzene	NR	µg/L	EPA 625
Fluoranthene	NR	µg/L	EPA 625
Fluorene	NR	µg/L	EPA 625
Hexachlorobutadiene	NR	µg/L	EPA 625
Hexachlorocyclopentadiene	NR	µg/L	EPA 625
Hexachloroethane	NR	µg/L	EPA 625
Indeno(1,2,3-cd)pyrene	NR	µg/L	EPA 625
Isophorone	NR	µg/L	EPA 625
Naphthalene	NR	µg/L	EPA 625
Nitrobenzene	NR	µg/L	EPA 625
N-Nitroso-di-n-propylamine	NR	µg/L	EPA 625
N-Nitrosodiphenylamine	NR	µg/L	EPA 625
Phenanthrene	NR	µg/L	EPA 625
Pyrene	NR	µg/L	EPA 625
Pesticides			
Aldrin	NR	µg/L	EPA 608
BHC, alpha isomer	NR	µg/L	EPA 608
BHC, beta isomer	NR	µg/L	EPA 608
BHC, delta isomer	NR	µg/L	EPA 608
4,4'-DDT	NR	µg/L	EPA 608
4,4'-DDE	NR	µg/L	EPA 608
4,4'-DDD	NR	µg/L	EPA 608
Dieldrin	NR	µg/L	EPA 608
Endosulfan I	NR	µg/L	EPA 608
Endosulfan II	NR	µg/L	EPA 608
Endosulfan Sulfate	NR	µg/L	EPA 608
Endrin Aldehyde	NR	µg/L	EPA 608

Constituent	1Q09	Unit	Method
Unregulated Chemicals			
Boron	0.2	mg/L	EPA 200.7
Chromium VI	0.20	µg/L	EPA 218.6
Dichlorodifluoromethane	<0.5	µg/L	EPA 524.2
Ethyl tertiary butyl ether	<3	µg/L	EPA 524.2
N-nitrosodimethylamine (NDMA)	9.6	ng/L	1625MOD
Tertiary amyl methyl ether	<3	µg/L	EPA 524.2
Tertiary butyl alcohol	<2	µg/L	542.2 MOD
Vanadium	3	µg/L	EPA 200.8
1,4 - Dioxane	<2	µg/L	8270MOD
1,2,3-Trichloropropane	<0.5	µg/L	EPA 524.2
Chemicals w/ State Notification Levels ²			
n-butylbenzene	<0.5	µg/L	EPA 524.2
sec-butylbenzene	<0.5	µg/L	EPA 524.2
tert-butylbenzene	<0.5	µg/L	EPA 524.2
Carbon disulfide	NR	µg/L	EPA 524.2
Chlorate	NR	µg/L	EPA 300.0
2-Chlorotoluene	NR	µg/L	EPA 524.2
Diazinon	NR	µg/L	EPA 525.2
Formaldehyde	NR	µg/L	SM 6252/EPA 8315
Isopropylbenzene	<0.5	µg/L	EPA 524.2
N-propylbenzene	<0.5	µg/L	EPA 524.2
1,2,4 -trimethylbenzene	<0.5	µg/L	EPA 524.2
1,3,5-trimethylbenzene	<0.5	µg/L	EPA 524.2
N-Nitrosodiethylamine (NDEA)	NR	µg/L	EPA 521
N-Nitrosopyrrolidine	NR	µg/L	EPA 521
Endocrine Disrupting Chemicals, Pharmaceuticals and Other Chemicals ²			
<u>Hormones</u>			
Ethinyl estradiol	NR	ng/L	HPLC/MS-SEDC
17-B estradiol	NR	ng/L	HPLC/MS-SEDC
Estrone	NR	ng/L	HPLC/MS-SEDC
<u>"Industrial" Endocrine Disruptors</u>			
Bisphenol A	NR	ng/L	HPLC/MS-SEDC
Nonylphenol and nonylphenol polyethoxylate	NR	ng/L	HPLC/MS-SEDC
Octylphenol and octylphenol polyethoxylate	NR	ng/L	HPLC/MS-SEDC
PolybromiNA	NR	ng/L	8270C SIM
PBDE 28	NR	ng/L	8270C SIM
PBDE 71	NR	ng/L	8270C SIM
PBDE 47	NR	ng/L	8270C SIM
PBDE 66	NR	ng/L	8270C SIM
PBDE 100	NR	ng/L	8270C SIM
PBDE 99	NR	ng/L	8270C SIM
PBDE 85	NR	ng/L	8270C SIM
PBDE 154	NR	ng/L	8270C SIM
PBDE 153	NR	ng/L	8270C SIM
PBDE 138	NR	ng/L	8270C SIM
PBDE 128	NR	ng/L	8270C SIM
PBDE 183	NR	ng/L	8270C SIM
PBDE 190	NR	ng/L	8270C SIM
PBDE 203	NR	ng/L	8270C SIM
PBDE 206	NR	ng/L	8270C SIM
PBDE 209	NR	ng/L	8270C SIM
<u>Pharmaceuticals & Other Substances</u>			
Acetaminopen	NR	ng/L	HPLC/MS-SEDC
Amoxicillin	NR		Not Available ³
Azithromycin	NR		Not Available ³
Caffeine	NR	ng/L	HPLC/MS-SEDC
Carbamazepine	NR	ng/L	HPLC/MS-SEDC
Ciprofloxacin	NR		Not Available ³
Ethylenediamine tetra-acetic acid (EDTA)	NR		EPA 300.0MOD
Gemfibrozil	NR	ng/L	HPLC/MS-SEDC
Ibuprofen	NR	ng/L	HPLC/MS-SEDC
Iodinated contrast media	NR	ng/L	HPLC/MS-SEDC
Lipitor	NR		Not Available ³
Methadone	NR	ng/L	HPLC/MS-SEDC
Morphine	NR		Not Available ³
Salicylic acid	NR	ng/L	HPLC/MS-SEDC
Triclosan	NR	ng/L	HPLC/MS-SEDC

NR: Not Required (Annual Requirement)

¹ Trivalent chromium is measured as total chromium

² Chemicals w/ State Notification Levels, Nitrosamines, and EDC, Pharmaceuticals & Other Chemicals (Attachment B)

³ Analytical Method is not available for this constituent

Table 2-5
Lysimeter and Surface Water Monitoring: TOC, Nitrogen Species, and EC

Brooks Basin								
Site	Depth, bgs	Date	TOC	TN	EC	TIN	NO ₃ -N	NO ₂ -N
Unit==>	feet	mm/dd/yy	mg/L	mg/L	µmho/cm	mg/L	mg/L	mg/L
BRK-LYS-00	0	01/06/09	4.68	5.0	595	3.6	3.4	<0.01
BRK-LYS-00	0	01/13/09	3.86	5.2	675	4.2	4.1	<0.01
BRK-LYS-00	0	01/20/09	4.08	4.7	730	4.3	4.2	<0.01
BRK-LYS-00	0	01/27/09	4.43	4.7	710	4.0	4.0	<0.01
BRK-LYS-00	0	02/03/09	4.21	4.7	655	3.9	3.9	<0.01
BRK-LYS-00	0	02/10/09	4.32	2.7	645	2.2	2.0	0.01
BRK-LYS-00	0	02/18/09	3.85	2.4	250	1.7	1.4	0.01
BRK-LYS-00	0	02/24/09	3.35	2.1	250	1.9	1.8	0.01
BRK-LYS-00	0	03/03/09	3.80	1.8	250	1.4	1.2	0.04
BRK-LYS-00	0	03/10/09	4.85	1.9	270	1.4	1.4	0.02
BRK-LYS-00	0	03/18/09	4.01	1.9	530	1.6	1.5	<0.01
BRK-LYS-00	0	03/24/09	4.95	4.1	530	3.8	3.7	<0.01
BRK-LYS-00	0	03/31/09	5.04	1.6	570	1.3	1.2	<0.01
BRK-LYS-05	5	01/06/09	2.98	1.1	280	0.3	<0.1	0.06
BRK-LYS-05	5	01/13/09	3.21	1.1	450	0.3	<0.1	<0.01
BRK-LYS-05	5	01/20/09	3.05	0.8	560	0.8	0.4	0.13
BRK-LYS-05	5	01/27/09	3.31	1.4	645	0.9	0.4	0.12
BRK-LYS-05	5	02/03/09	3.03	1.6	665	1.9	1.4	0.14
BRK-LYS-05	5	02/10/09	2.99	1.6	470	1.4	1.0	0.09
BRK-LYS-05	5	02/18/09	3.45	0.9	390	0.8	0.3	0.02
BRK-LYS-05	5	02/24/09	2.72	<0.6	305	0.3	<0.1	0.04
BRK-LYS-05	5	03/03/09	2.25	<0.6	280	0.3	<0.1	0.05
BRK-LYS-05	5	03/10/09	2.70	<0.6	305	0.3	<0.1	<0.01
BRK-LYS-05	5	03/18/09	3.09	<0.6	375	0.4	<0.1	<0.01
BRK-LYS-05	5	03/24/09	3.74	0.7	485	0.6	<0.1	<0.01
BRK-LYS-05	5	03/31/09	4.15	0.6	540	0.7	<0.1	<0.01
BRK-LYS-10	10	01/06/09	3.99	1.3	470	<0.2	<0.1	<0.01
BRK-LYS-10	10	01/13/09	3.88	1.0	430	<0.2	<0.1	<0.01
BRK-LYS-10	10	01/20/09	3.83	<0.6	400	<0.2	<0.1	0.01
BRK-LYS-10	10	01/27/09	3.89	<0.6	405	<0.2	<0.1	<0.01
BRK-LYS-10	10	02/03/09	3.63	<0.6	390	<0.2	<0.1	<0.01
BRK-LYS-10	10	02/10/09	3.66	<0.6	405	<0.2	<0.1	<0.01
BRK-LYS-10	10	02/18/09	3.87	<0.6	395	0.4	<0.1	0.10
BRK-LYS-10	10	02/24/09	3.93	<0.6	390	0.2	<0.1	<0.01
BRK-LYS-10	10	03/03/09	3.81	<0.6	390	<0.2	<0.1	0.01
BRK-LYS-10	10	03/10/09	4.06	<0.6	390	<0.2	<0.1	<0.01
BRK-LYS-10	10	03/18/09	3.84	<0.6	390	<0.2	<0.1	<0.01
BRK-LYS-10	10	03/24/09	4.35	<0.6	385	<0.2	<0.1	<0.01
BRK-LYS-10	10	03/31/09	4.19	<0.6	370	<0.2	<0.1	<0.01
BRK-LYS-25	25	01/06/09	2.36	0.8	650	<0.2	<0.1	<0.01
BRK-LYS-25	25	01/13/09	2.29	2.2	665	0.8	0.8	<0.01
BRK-LYS-25	25	01/20/09	2.17	<0.6	670	<0.2	<0.1	<0.01
BRK-LYS-25	25	01/27/09	2.13	<0.6	375	<0.2	<0.1	<0.01
BRK-LYS-25	25	02/03/09	2.14	<0.6	590	<0.2	<0.1	<0.01
BRK-LYS-25	25	02/10/09	2.29	3.8	500	<0.2	<0.1	<0.01
BRK-LYS-25	25	02/18/09	2.18	<0.6	390	0.2	<0.1	0.11
BRK-LYS-25	25	02/24/09	1.77	<0.6	345	<0.2	<0.1	<0.01
BRK-LYS-25	25	03/03/09	1.66	<0.6	365	<0.2	<0.1	0.01
BRK-LYS-25	25	03/10/09	2.54	<0.6	385	<0.2	<0.1	<0.01
BRK-LYS-25	25	03/18/09	1.71	<0.6	410	<0.2	<0.1	<0.01
BRK-LYS-25	25	03/24/09	2.07	<0.6	395	<0.2	<0.1	<0.01
BRK-LYS-25	25	03/31/09	2.13	<0.6	355	<0.2	<0.1	<0.01
BRK-LYS-35	35	01/06/09	3.03	<0.6	665	<0.2	<0.1	<0.01
BRK-LYS-35	35	01/13/09	3.45	1.6	640	<0.2	<0.1	<0.01
BRK-LYS-35	35	01/20/09	2.54	<0.6	570	<0.2	<0.1	<0.01
BRK-LYS-35	35	01/27/09	2.70	<0.6	515	<0.2	<0.1	<0.01
BRK-LYS-35	35	02/03/09	2.73	<0.6	460	<0.2	<0.1	<0.01
BRK-LYS-35	35	02/10/09	4.76	<0.6	430	<0.2	<0.1	<0.01
BRK-LYS-35	35	02/18/09	2.78	<0.6	440	<0.2	<0.1	0.13
BRK-LYS-35	35	02/24/09	2.41	<0.6	425	<0.2	<0.1	<0.01
BRK-LYS-35	35	03/03/09	4.66	<0.6	430	<0.2	<0.1	0.01
BRK-LYS-35	35	03/10/09	4.63	<0.6	395	<0.2	<0.1	<0.01
BRK-LYS-35	35	03/18/09	2.73	1.1	370	<0.2	<0.1	<0.01
BRK-LYS-35	35	03/24/09	3.17	<0.6	360	<0.2	<0.1	<0.01
BRK-LYS-35	35	03/31/09	2.73	<0.6	365	<0.2	<0.1	<0.01

Blank cells indicate that analysis was not run for a constituent on that particular date and/or depth due to insufficient volume

Table 2-5
Lysimeter and Surface Water Monitoring: TOC, Nitrogen Species, and EC

Ely Basin No. 3								
Site	Depth, bgs	Date	TOC	TN	EC	TIN	NO ₃ -N	NO ₂ -N
Unit==>	feet	mm/dd/yy	mg/L	mg/L	µmho/cm	mg/L	mg/L	mg/L
ELY3E-00	0	01/27/09	5.66	1.4	200	0.8	0.6	0.02
ELY3E-00	0	02/03/09	5.61	1.9	230	1.2	1.1	0.01
ELY3E-00	0	02/10/09	4.78	1.9	130	1.2	1.0	0.01
ELY3E-10	10	01/27/09	2.76	<0.6	425	<0.2	<0.1	<0.01
ELY3E-10	10	02/03/09	2.30	<0.6	340	<0.2	<0.1	<0.01
ELY3E-10	10	02/10/09	2.60	<0.6	315	<0.2	<0.1	<0.01
ELY3E-25	25	01/27/09	2.12		640			
ELY3E-25	25	02/10/09	2.16		515			

Banana Basin								
Site	Depth, bgs	Date	TOC	TN	EC	TIN	NO ₃ -N	NO ₂ -N
Unit==>	feet	mm/dd/yy	mg/L	mg/L	µmho/cm	mg/L	mg/L	mg/L
BNA-00	0	01/20/09	5.70	4.4	745	3.7	3.7	0.01
BNA-00	0	01/27/09	6.51	3.4	700	2.0	2.0	0.05
BNA-00	0	02/03/09	6.55	2.8	630	0.8	0.8	0.03
BNA-25	25	01/20/09	1.05	1.4	380	1.3	1.3	<0.01
BNA-25	25	01/27/09	0.77	1.4	375	1.2	1.2	<0.01
BNA-25	25	02/03/09	0.73	1.6	390	1.5	1.5	<0.01

Hickory East Basin								
Site	Depth, bgs	Date	TOC	TN	EC	TIN	NO ₃ -N	NO ₂ -N
Unit==>	feet	mm/dd/yy	mg/L	mg/L	µmho/cm	mg/L	mg/L	mg/L
HKYE-00	0	03/03/09	4.47	2.1	640	1.8	1.8	<0.01
HKYE-25	25	03/03/09	0.22		3110		17.7	0.13
HKYE-25	25	03/10/09	1.56	4.5	650	4.1	3.9	0.12

Blank cells indicate that analysis was not run for a constituent on that particular date and/or depth due to insufficient volume

Table 2-6
Diluent Water Monitoring Results (Stormwater)

Constituent	Banana Basin Stormwater February 10, 2009	Declez No. 1 Stormwater February 10, 2009	San Seavine No.1 Stormwater February 10, 2009	Victoria South Stormwater February 10, 2009	Unit	Method
NO ₂ -N	<0.01	0.01	<0.01	0.01	mg/L	EPA 300.0
NO ₃ -N	0.3	0.5	0.5	0.6	mg/L	EPA 300.0
TDS	40	70	78	76	mg/L	SM 2540C
Total Coliform	>23	>23	>23	>23	mpn/100ml	SM 9221B
Oil & Grease	<2	<2	<2	<2	mg/L	EPA 1664A
Inorganic Chemicals						
Aluminum	807	2684	890	274	µg/L	EPA 200.7
Antimony	<1	<1	<1	<1	µg/L	EPA 200.8
Arsenic	<2	<2	<2	<2	µg/L	EPA 200.8
Asbestos	<6.88	<6.88	<6.22	<3.73	MFL	EPA 100.2
Barium	19	44	23	19	µg/L	EPA 200.7
Beryllium	<0.5	<0.5	<0.5	<0.5	µg/L	EPA 200.7
Cadmium	<0.25	1.1	<0.25	<0.25	µg/L	EPA 200.7
Chromium	2.4	7.9	2.0	1.1	µg/L	EPA 200.7
Cyanide	<0.006	<0.006	<0.006	<0.006	mg/L	SM 4500-CN E
Fluoride	0.1	0.1	<0.1	0.1	mg/L	SM 4500-F C
Mercury	<0.2	<0.2	<0.2	<0.2	µg/L	EPA 245.2
Nickel	2	5	1	<1	µg/L	EPA 200.7
Perchlorate	<4	<4	<4	<4	µg/L	EPA 314
Selenium	<2	<2	<2	<2	µg/L	EPA 200.8
Thallium	<1	<1	<1	<1	µg/L	EPA 200.8
Volatile Organic Chemicals (VOCs)						
Benzene	<0.5	<0.5	<0.5	<0.5	µg/L	EPA 524.2
Carbon Tetrachloride	<0.5	<0.5	<0.5	<0.5	µg/L	EPA 524.2
1,2-Dichlorobenzene	<0.5	<0.5	<0.5	<0.5	µg/L	EPA 524.2
1,4-Dichlorobenzene	<0.5	<0.5	<0.5	<0.5	µg/L	EPA 524.2
1,1-Dichloroethane	<0.5	<0.5	<0.5	<0.5	µg/L	EPA 524.2
1,2-Dichloroethane	<0.5	<0.5	<0.5	<0.5	µg/L	EPA 524.2
1,1-Dichloroethylene	<1	<1	<1	<1	µg/L	EPA 524.2
cis-1,2-Dichloroethylene	<0.5	<0.5	<0.5	<0.5	µg/L	EPA 524.2
trans-1,2-Dichloroethylene	<0.5	<0.5	<0.5	<0.5	µg/L	EPA 524.2
Dichloromethane	<0.5	<0.5	<0.5	<0.5	µg/L	EPA 524.2
1,2-Dichloropropane	<0.5	<0.5	<0.5	<0.5	µg/L	EPA 524.2
1,3-Dichloropropene	<0.5	<0.5	<0.5	<0.5	µg/L	EPA 524.2
Ethylbenzene	<0.5	<0.5	<0.5	<0.5	µg/L	EPA 524.2
Chlorobenzene	<0.5	<0.5	<0.5	<0.5	µg/L	EPA 524.2
Methyl Tert-butyl ether (MTBE)	<0.5	<0.5	<0.5	<0.5	µg/L	EPA 524.2
Styrene	<0.5	<0.5	<0.5	<0.5	µg/L	EPA 524.2
1,1,1,2-Tetrachloroethane	<0.5	<0.5	<0.5	<0.5	µg/L	EPA 524.2
Tetrachloroethylene	<0.5	<0.5	<0.5	<0.5	µg/L	EPA 524.2
Toluene	<0.5	<0.5	<0.5	<0.5	µg/L	EPA 524.2
1,2,4-Trichlorobenzene	<0.5	<0.5	<0.5	<0.5	µg/L	EPA 524.2
1,1,1-Trichloroethane	<0.5	<0.5	<0.5	<0.5	µg/L	EPA 524.2
1,1,2-Trichloroethane	<0.5	<0.5	<0.5	<0.5	µg/L	EPA 524.2
Trichloroethylene	<0.5	<0.5	<0.5	<0.5	µg/L	EPA 524.2
Trichlorofluoromethane	<0.5	<0.5	<0.5	<0.5	µg/L	EPA 524.2
1,1,2-Trichloro-1,2,2-Trifluoroethane	<0.5	<0.5	<0.5	<0.5	µg/L	EPA 524.2
Vinyl Chloride	<0.5	<0.5	<0.5	<0.5	µg/L	EPA 524.2
Total Xylenes	<1	<1	<1	<1	µg/L	EPA 524.2
Non-Volatile Synthetic Organic Chemicals (SOCs)						
Alachlor (Alanex)	<0.1	<0.1	<0.1	<0.1	µg/L	EPA 505
Atrazine	<0.05	<0.05	<0.05	<0.05	µg/L	EPA 525.2
Bentazon	<0.5	<0.5	<0.5	<0.5	µg/L	EPA 515.4
Benzo(a)pyrene	<0.02	<0.02	<0.02	<0.02	µg/L	EPA 525.2
Carbofuran	<0.5	<0.5	<0.5	<0.5	µg/L	EPA531.2
Chlordane	<0.1	<0.1	<0.1	<0.1	µg/L	EPA 505
2,4-D	<0.1	0.2	0.6	0.5	µg/L	EPA 515.4
Dalapon	<1	<1	<1	<1	µg/L	EPA 515.4
Dibromochloropropane	<0.01	<0.01	<0.01	<0.01	µg/L	EPA 504.1
Di(2-ethylhexyl)adipate	<0.6	<0.6	<0.6	<0.6	µg/L	EPA 525.2
Di(2-ethylhexyl)phthalate	<0.6	<0.6	<0.6	0.6	µg/L	EPA 525.2
Dinoseb	<0.2	<0.2	<0.2	<0.2	µg/L	EPA 515.4
Diquat	<0.4	<0.4	<0.4	<0.4	µg/L	EPA 549.2
Endothall	<5	<5	<5	<5	µg/L	EPA 548.1

Table 2-6
Diluent Water Monitoring Results (Stormwater)

Constituent	Banana Basin Stormwater February 10, 2009	Declez No. 1 Stormwater February 10, 2009	San Seavine No.1 Stormwater February 10, 2009	Victoria South Stormwater February 10, 2009	Unit	Method
Endrin	<0.01	<0.01	<0.01	<0.01	µg/L	EPA 505
Ethylene Dibromide	<0.01	<0.01	<0.01	<0.01	µg/L	EPA 504.1
Glyphosate	<6	<6	<6	<6	µg/L	EPA 547
Heptachlor	<0.01	<0.01	<0.01	4.78	µg/L	EPA 505
Heptachlor Epoxide	<0.01	<0.01	<0.01	<0.01	µg/L	EPA 505
Hexachlorobenzene	<0.05	<0.05	<0.05	<0.01	µg/L	EPA 525.2
Hexachlorocyclopentadiene	<0.05	<0.05	<0.05	<0.05	µg/L	EPA 525.2
Lindane	<0.01	<0.01	<0.01	<0.05	µg/L	EPA 505
Methoxychlor	<0.05	<0.05	<0.05	<0.05	µg/L	EPA 505
Molinate	<0.1	<0.1	<0.1	<0.1	µg/L	EPA 525.2
Oxamyl	<0.5	<0.5	<0.5	<0.5	µg/L	EPA 531.2
Pentachlorophenol	0.16	0.24	<0.04	0.04	µg/L	EPA 515.4
Picloram	<0.1	<0.1	<0.1	<0.1	µg/L	EPA 515.4
PCB 1016	<0.08	<0.08	<0.08	<0.08	µg/L	EPA 505
PCB 1221	<0.1	<0.1	<0.1	<0.1	µg/L	EPA 505
PCB 1232	<0.1	<0.1	<0.1	<0.1	µg/L	EPA 505
PCB 1242	<0.1	<0.1	<0.1	<0.1	µg/L	EPA 505
PCB 1248	<0.1	<0.1	<0.1	<0.1	µg/L	EPA 505
PCB 1254	<0.1	<0.1	<0.1	<0.1	µg/L	EPA 505
PCB 1260	<0.1	<0.1	<0.1	<0.1	µg/L	EPA 505
Simazine	<0.05	<0.05	<0.05	1	µg/L	EPA 525.2
Thiobencarb	<0.2	<0.2	<0.2	<0.2	µg/L	EPA 525.2
Toxaphene	<0.5	<0.5	<0.5	<0.5	µg/L	EPA 505
2,3,7,8-TCDD (Dioxin)	<5	<5	<5	<5	pg/L	EPA 1613
2,4,5-TP (Silvex)	<0.2	<0.2	<0.2	<0.2	µg/L	EPA 515.4
Disinfection Byproducts						
Total Trihalomethanes (TTHMs)	<2	<2	<2	<2	µg/L	EPA 524.2/624
Total Haloacetic Acids (HAA5)	1	<1	3	3	µg/L	S6251B
Bromate	<5	<5	<5	<5	µg/L	EPA 300.1
Chlorite	<0.01	<0.01	<0.01	<0.01	mg/L	EPA 300.0
Notification Level Chemicals						
Copper	16.3	19.1	4.5	4.6	µg/L	EPA 200.7
Lead	5.2	52.9	0.9	<0.5	µg/L	EPA 200.8
Radionuclides						
Combined Radium-226 and Radium 228	0.43	0.95	<0.49	<0.42	pCi/L	EPA 903.0
Gross Alpha Particle Activity	<3	<3	<3	3.1	pCi/L	EPA 900.0
Tritium	<225	<236	<225	<225	pCi/L	EPA 906
Strontium-90	<0.711	<0.677	<0.805	<0.682	pCi/L	EPA 905
Gross Beta Particle Activity	<3	4	4	<3	pCi/L	EPA 900.0
Uranium	<0.7	<0.7	<0.7	<0.7	pCi/L	EPA 200.8
Unregulated Chemicals						
Boron	<0.1	<0.1	<0.1	<0.1	mg/L	EPA 200.7
Chromium VI	0.3	0.6	0.4	0.4	µg/L	EPA 218.6
Dichlorodifluoromethane	<0.5	<0.5	<0.5	<0.5	µg/L	EPA 524.2
Ethyl tertiary butyl ether	<0.5	<0.5	<0.5	<0.5	µg/L	EPA 524.2
N-nitrosodimethylamine (NDMA)	67	16	71	2.9	ng/L	1625MOD
Perchlorate	<4	<4	<4	<4	µg/L	EPA 314
Tertiary amyl methyl ether	<0.5	<0.5	<0.5	<0.5	µg/L	EPA 524.2
Tertiary butyl alcohol	<2	<2	<2	<2	µg/L	542.2 MOD
Vanadium	3.5	10.9	3.8	2.2	µg/L	EPA 200.8
1,4 - Dioxane	<2	<2	<2	<2	µg/L	8270MOD
1,2,3-Trichloropropane	<0.5	<0.5	<0.5	<0.5	µg/L	EPA 524.2
Secondary Maximum Contaminant Level Chemicals						
Aluminum	807	2684	890	274	µg/L	EPA 200.7
Corrosivity	-1.7	-0.1	-1.2	-1.2	SI	SM 2330B
Foaming Agents (MBAS)	<0.05	<0.05	<0.05	<0.05	mg/L	S5540C/EPA 425.1
Iron	1176	4634	1069	299	µg/L	EPA 200.7
Manganese	39	181	20	9	µg/L	EPA 200.7
Odor--Threshold	8	8	8	8	TON	SM 2150B
Silver	<0.25	<0.25	<0.25	<0.25	µg/L	EPA 200.7
Thiobencarb	<0.2	<0.2	<0.2	<0.2	µg/L	EPA 525.2
Zinc	41	274	12	7	µg/L	EPA 200.7

Table 2-7
Summary of Wells in Groundwater Monitoring Networks

BASIN	CBWM_ID	OWNER/LOCAL NAME	SEPARATION DISTANCE (feet)	SCREENED INTERVAL(S) (feet bgs)	CASING DIAMETER (inches)	STATUS	TYPE
Hickory and Banana Basins	3600573	Fontana Water Company - F37a	2240 upgradient	378-810	20	Active	Municipal
	600660	California Speedway - Infield Well	2070 downgradient	NA	NA	Active	Industrial
	3601365	California Speedway 2	2780 downgradient	451-455, 491-603, & 664-780	20	Active	Industrial
	3600371	Reliant Energy - East Well	4070 downgradient	434-467, 500-513, 553-580, 593-652, & 825-847	20	Active	Industrial
	3602267	City Of Ontario - 20	14500 downgradient	NA	20	Active	Municipal
	601002	Inland Empire Utilities Agency - BH-1/2	340 downgradient	435-475	4	Active	Monitoring
Turner Basins	3600010	City Of Ontario - 25	2530 crossgradient	370-903	20	Active	Municipal
	600453	City Of Ontario - 29	2810 downgradient	400-1095	18	Active	Municipal
	600585	City of Ontario - 38*	4600 crossgradient	500-1010	16	Active	Municipal
	600998	Inland Empire Utilities Agency - TRN-1/2	50 downgradient	380-400	4	Active	Monitoring
	600999	Inland Empire Utilities Agency - TRN-2/1	50 downgradient	350-370	4	Active	Monitoring
	601000	Inland Empire Utilities Agency - TRN-2/2	50 downgradient	392-412	4	Active	Monitoring
Declez Basin	--	Inland Empire Utilities Agency - D-1/1	50 downgradient	135-155	4	NA	Monitoring
	--	Inland Empire Utilities Agency - D-1/2	50 downgradient	185-205	4	NA	Monitoring
RP-3 Basins	--	Inland Empire Utilities Agency - RP3-1/1	100 downgradient	215-235	4	NA	Monitoring
	--	Inland Empire Utilities Agency - RP3-1/2	100 downgradient	265-285	4	NA	Monitoring
7th & 8th Street Basins	600493	City of Ontario No. 35	9695 downgradient	580-1020	18-36	Active	Municipal
	--	Inland Empire Utilities Agency - 8th-1/1	150 downgradient	495-535	4	Active	Monitoring
	--	Inland Empire Utilities Agency - 8th-1/2	150 downgradient	595-645	4	Active	Monitoring
	--	Inland Empire Utilities Agency - 8th-2/1	2460 downgradient	465-505	4	Active	Monitoring
	--	Inland Empire Utilities Agency - 8th-2/2	2460 downgradient	576-616	4	Active	Monitoring
Brooks Basins	--	Inland Empire Utilities Agency - BRK-1/1	144 downgradient	310-350	4	Active	Monitoring
	--	Inland Empire Utilities Agency - BRK-1/2	144 downgradient	520-560	4	Active	Monitoring
	--	Inland Empire Utilities Agency - BRK-2/1	1305 downgradient	320-360	4	NA	Monitoring
	--	Inland Empire Utilities Agency - BRK-2/2	1305 downgradient	560-600	4	NA	Monitoring
Ely Basin	601003	Ely Basin MW-1, Philadelphia Well (Casing 3)	100 downgradient	280 - 300	2	NA	Monitoring
	601004	Ely Basin MW-2, Walnut Well (Casing 2)	3050 downgradient	290 - 310	4	NA	Monitoring
	3600975	Riverside Drive Well (43840-CWW)	6046 downgradient	NA	NA	Active	Private Irrigation
	600134	Bishop Of San Bernardino Corp. - DOM	6500 downgradient	NA	NA	Active	Private Domestic

Notes:

NA = Data not available

CBWM ID = Chino Basin Water Master well identification numbe

bgs = below ground surface

* = Ontario Well No. 38 has taken the place of Ontario Well No. 19, which is inactive

Table 2-8
Groundwater Monitoring Results (Quarterly)

	Sample Location	Date	TOC (mg/L)	Total Coliform (MPN/100mL)	pH	EC (µmho/cm)	TDS (mg/L)	Al (µg/L)	Color (units)	Cu (µg/L)	Corrosivity Index (SI)	Foaming Agents (mg/L)	Fe (µg/L)	Mn (µg/L)	MTBE (µg/L)	Odor Threshold (TON)	Ag (µg/L)	Thiocarb (µg/L)	Turbidity (NTU)	Zn (µg/L)	Cl (mg/L)	Hardness (mg CaCO ₃ /L)	Na (mg/L)	SO ₄ (mg/L)	NH ₃ -N (mg/L)	NO ₂ -N (mg/L)	NO ₃ -N (mg/L)	Nitrogen, Total (mg/L)	TKN (mg/L)	Alkalinity (mg CaCO ₃ /L)	Dissolved Oxygen (mg/L)
Banana & Hickory	Fontana Water Company F37a	1/29/09	0.3	<1.1	6.3	465	292	436	<3	1270	0.4	<0.05	2110	53	<0.5	2	<0.25	<0.2	7.3	19	18	213	18	17	<0.1	0.14	10.5	10.7	<0.5	174	12.2
	California Speedway Infield Well	1/29/09	0.2	<1.1	7.0	510	338	<25	<3	1.3	0.4	<0.05	<15	<1	<0.5	2	<0.25	<0.2	0.3	1	16	229	21	50	<0.1	0.14	8.2	8.3	<0.5	173	12.6
	California Speedway 2	1/29/09	0.1	<1.1	7.3	370	234	<25	<3	10.6	0.2	0.05	25	<1	<0.5	2	<0.25	<0.2	0.4	31	10	158	18	14	<0.1	0.13	4.2	4.3	<0.5	159	9.8
	Reliant Energy East Well	1/29/09	0.1	<1.1	7.0	370	240	<25	<3	1.9	0.0	<0.05	63	12	<0.5	2	<0.25	<0.2	0.8	1	16	152	18	20	<0.1	0.11	8.3	8.4	<0.5	119	14.0
	Ontario Well No. 20	1/27/09	0.3	<1.1	7.1	345	218	<25	3	3.1	0.4	0.05	34	<1	<0.5	2	<0.25	<0.2	2.8	3	6	161	14	6	<0.1	<0.01	1.9	1.9	<0.5	166	12.7
Turner	BH-1/2	1/13/09	0.9	<1.1		485		<25	<3	<0.5	0.4	<0.05	92	2	<0.5	1	<0.25	<0.2	0.9	<1	62	209	21	32	0.2	<0.01	2.4	3.2	0.8	114	
	BH-1/2	2/24/09	0.4			490	342													<1					<0.1	<0.01	2.4	2.4	<0.5		
	Ontario Well No. 25	1/27/09	0.2	<1.1	6.9	440	292	<25	3	4.0	0.4	<0.05	20	<1	<0.5	2	<0.25	<0.2	1.4	2	17	201	24	19	<0.1	<0.01	4.1	4.1	<0.5	177	11.7
	Ontario Well No. 29	1/27/09	0.4	<1.1	6.0	415	272	<25	3	2.9	0.2	<0.05	<15	<1	<0.5	2	<0.25	<0.2	0.2	1	16	171	22	23	<0.1	<0.01	6.1	6.1	<0.5	148	12.6
	Ontario Well No. 38	1/22/09	<0.1	<1.1	7.2	300	178	<25	<3	<0.5	0.4	<0.05	16	<1	<0.5	2	<0.25	<0.2	0.2	<1	4	124	21	8	<0.1	0.08	1.0	1.1	<0.5	148	11.6
7th & 8th Street	T-1/2	1/28/09	0.7	<1.1	6.8	285	192	<25	<3	0.6	0.0	0.05	<15	<1	<0.5	2	<0.25	<0.2	0.3	1	24	112	18	12	<0.1	<0.01	0.3	0.3	<0.5	99	6.6
	T-2/1	1/28/09	0.7	<1.1	7.3	515	308	<25	3	1.7	0.0	0.06	220	3	<0.5	2	<0.25	<0.2	2.3	1	73	199	30	20	<0.1	<0.01	0.8	0.8	<0.5	131	7.3
	T-2/2	1/28/09	0.4	<1.1	7.2	525	326	<25	<3	1020	0.0	<0.05	57	<1	<0.5	2	<0.25	<0.2	0.3	<1	82	211	22	34	0.1	<0.01	1.3	1.3	<0.5	104	7.2
	Ontario Well No. 35	1/22/09	0.7	2	6.3	345	220	<25	<3	4.7	0.2	0.06	<15	<1	<0.5	2	<0.25	<0.2	0.2	19	8	146	22	20	0.2	0.07	2.4	2.4	<0.5	149	9.1
	8TH-1/1	1/8/09	0.3	<1.1	7.2	170	118	<25	<3	0.7	0.1	<0.05	30	<1	<0.5	1	<0.25	<0.2	0.2	6	6	71	11	5	0.2	0.04	0.9	0.9	<0.5	72	7.2
	8TH-1/1	2/25/09	0.3			170	130	<25		1.0				<1	<0.5		<0.25	<0.2		1	8		11	5	<0.1	<0.01	0.8	0.8	<0.5		
	8TH-1/1	3/11/09	0.4			170		<25		<0.5				<1	<0.5		<0.25	<0.2		<1	9		10	5	<0.1	<0.01	0.8	0.8	<0.5		
	8TH-1/1	3/19/09	0.4			170		<25		<0.5				<1	<0.5		<0.25	<0.2		<1	7		11	5	<0.1	0.08	0.8	0.8	<0.5		
	8TH-1/2	1/8/09	0.4	<1.1	6.9	330	216	<25	<3	<0.5	0.0	<0.05	<15	<1	<0.5	1	<0.25	<0.2	0.1	3	13	145	16	11	<0.1	0.03	6.7	6.7	<0.5	114	6.8
	8TH-1/2	1/26/09	0.4			340																			<0.1	<0.01	6.6	6.6	<0.5		
	8TH-1/2	2/10/09	0.4			325																			<0.1	<0.01	6.7	6.7	<0.5		
	8TH-1/2	2/25/09	0.1			330	224																		<0.1	<0.01	6.7	6.7	<0.5		
	8TH-2/1	1/8/09	0.1	<1.1	7.1	420	257	<25	<3	<0.5	0.2	<0.05	<15	<1	<0.5	1	<0.25	<0.2	0.2	3	13	199	18	20	<0.1	0.03	9.5	9.6	<0.5	147	7.3
8TH-2/1	2/26/09	0.3			530	354																		0.1	<0.01	21.0	21.0	<0.5			
8TH-2/2	1/8/09	<0.1	<1.1	6.9	570	383	<25	<3	0.5	0.0	0.08	30	2	<0.5	1	<0.25	<0.2	0.3	7	21	265	20	25	<0.1	<0.01	23.6	23.6	<0.5	151	7.9	
8TH-2/2	2/26/09	0.2			595	408																		<0.1	<0.01	27.1	27.1	<0.5			
Ely	Ely Basin MW-1 Philadelphia St.	1/20/09	1.3	<1.1	8.0	310	198	<25	5	0.6	0.5	<0.05	45	7	<0.5	17	<0.25	<0.2	0.6	<1	34	118	23	11	<0.1	0.06	0.8	0.9	<0.5	98	0.5
	Ely Basin MW-2 Walnut St.	1/20/09	0.4	<1.1	7.2	770	488	<25	<3	0.6	0.8	0.05	33	<1	<0.5	1	<0.25	<0.2	0.6	<1	45	365	27	43	<0.1	<0.01	21.4	21.4	<0.5	230	3.7
	43840-CWW	1/20/09	0.3	<1.1	6.5	475	314	<25	<3	1.7	0.2	<0.05	<15	<1	<0.5	2	<0.25	<0.2	0.2	8	21	224	21	30	<0.1	<0.01	7.6	8.5	0.9	171	9.9
	Bishop of San Bernardino Corp. - DOM	1/20/09	0.5	<1.1	6.9	765	508	<25	<3	3.8	0.6	<0.05	49	4	<0.5	1	<0.25	<0.2	8.8	9	37	373	24	65	<0.1	<0.01	19.8	20.4	0.6	230	10.9
Brooks	BRK-1/1	1/15/09	0.7	<1.1	7.8	530		1580	5	1.9	0.5	<0.05	949	17	<0.5	2	<0.25	<0.2	49.9	5	56	110	72	33	<0.1	<0.01	3.0	3.0	<0.5	140	3.8
	BRK-1/1	2/3/09	0.6			555																			<0.1	<0.01	5.7	5.7	<0.5		
	BRK-1/1	2/19/09	2.6			640	446																		<0.1	<0.01	1.9	3.5	1.6		
	BRK-1/1	3/3/09	0.8			565		12700		8.0				165	<0.5		<0.25	<0.2		25	77		103	35	0.1	<0.01	1.2	1.9	0.7		
	BRK-1/1	3/11/09	1.2			555		16700		9.6				213	<0.5		<0.25	<0.2		38	79		105	30	<0.1	<0.01	1.9	4.5	2.6		
	BRK-1/1	3/19/09	1.2			595		4380		4.6				86	<0.5		<0.25	<0.2		15	89		97	34	<0.1	0.08	1.4	2.1	0.6		
	BRK-1/1	3/25/09	1.3			600		1570		2.4				28	<0.5		<0.25	<0.2		5	82		87	33	<0.1	<0.01	0.9	0.9	<0.5		
	BRK-1/1	3/31/09	1.4			580		745		2.0				16	<0.5		<0.25	<0.2		3	79		82		<0.1	<0.01	1.4	1.4	<0.5		
	BRK-1/2	1/15/09	<0.1	<1.1	7.2	530		<25	<3	0.9	0.4	0.05	<15	<1	<0.5	1	<0.25	<0.2	0.2	<1	15	251	15	38	<0.1	0.01	17.7	17.7	<0.5	151	9.3
	BRK-1/2	2/3/09	0.1			520																			<0.1	<0.01	18.1	18.1	<0.5		
	BRK-1/2	2/19/09	<0.1			525	324																		<0.1	<0.01	18.1	18.1	<0.5		
	BRK-1/2	3/3/09	0.4			520																									

Table 3-1
Diluent & Recycled Water Recharge Volume (Acre-Feet)

	Diluent Water																	
	Imported Water						Local Runoff / Storm Flow											
Date	7th & 8th St.	Ely	Brooks	Turner	Hickory	Banana	7th & 8th St.	Ely	Brooks	Turner	Hickory	Banana	7th & 8th St.	Ely	Brooks	Turner	Hickory	Banana
Apr-08	0	0	0	0	0	0	11	170	4	18	64	0	90	116	0	0	7	47
May-08	0	0	0	0	0	0	90	137	43	181	39	3	158	87	0	0	86	38
Jun-08	0	0	0	0	0	0	15	123	3	39	24	8	86	103	0	0	0	72
2Q08 Totals	0	0	0	0	0	0	116	430	50	238	127	11	334	306	0	0	93	157
Jul-08	0	0	0	0	0	0	29	91	3	11	18	31	224	67	0	0	0	0
Aug-08	0	0	0	0	0	0	15	8	16	8	6	45	128	0	117	0	0	0
Sep-08	0	0	0	0	0	0	15	5	0	141	3	34	0	0	86	0	0	0
3Q08 Total	0	0	0	0	0	0	59	104	19	160	27	110	352	67	203	0	0	0
Oct-08	0	0	0	0	0	0	16	85	0	117	3	36	0	135	166	94	0	0
Nov-08	0	0	0	0	0	0	137	198	23	117	3	50	0	88	103	38	0	0
Dec-08	0	0	0	0	0	0	352	287	162	394	35	87	0	0	88	0	0	0
4Q08 Total	0	0	0	0	0	0	505	571	184	628	41	173	0	223	356	131	0	0
Jan-09	0	0	0	0	0	0	35	38	25	39	0	5	0	39	277	0	0	40
Feb-09	0	0	0	0	0	0	458	399	208	413	63	95	0	9	20	0	23	0
Mar-09	0	0	0	0	0	0	21	32	30	57	31	0	0	0	159	0	23	0
1Q09 Total	0	0	0	0	0	0	514	469	263	509	94	100	0	48	456	0	46	40

Table 6-1
MVWD ASR Project - TIN/TDS Mass Balance

ASR Well No. 4									
Date	Injection			Recovery			Mass Balance		
	Volume (AF)	TIN (mg/L)	TDS (mg/L)	Volume (AF)	TIN (mg/L)	TDS (mg/L)	Storage (AF)	TIN (kg)	TDS (kg)
1Q08	Jan-08	0		0			0	0	0
	Feb-08	0		0			0	0	0
	Mar-08	40	0.87	290	0		40	43	14,307
2Q08	Apr-08	42	1.10	350	0		82	99	32,273
	May-08	0	1.10	350	98	7.5*	(16)	(805)	(12,728)
	Jun-08	0	1.10	350	107	14	(123)	(2,645)	(60,049)

ASR Well No. 30									
Date	Injection			Recovery			Mass Balance		
	Volume (AF)	TIN (mg/L)	TDS (mg/L)	Volume (AF)	TIN (mg/L)	TDS (mg/L)	Storage (AF)	TIN (kg)	TDS (kg)
3Q07	Jul-07	136	0.53	270	0		243	214	80,909
	Aug-07	71	0.53	270	0		314	261	104,598
	Sep-07	47	0.53	270	0		362	292	120,413
4Q07	Oct-07	123	0.13	310	0		484	312	167,280
	Nov-07	13	0.13	310	0		497	314	172,181
	Dec-07	67	0.13	310	0		564	324	197,792
1Q08	Jan-08	132	0.87	290	0		696	466	244,894
	Feb-08	81	0.87	290	0		777	553	273,947
	Mar-08	99	0.87	290	0		876	659	309,405
2Q08	Apr-08	89	1.10	350	0		965	780	348,001
	May-08	0	1.10	350	0		965	780	348,001
	Jun-08	0	1.10	350	286	3.5*	680	(436)	238,737

ASR Well No. 32									
Date	Injection			Recovery			Mass Balance		
	Volume (AF)	TIN (mg/L)	TDS (mg/L)	Volume (AF)	TIN (mg/L)	TDS (mg/L)	Storage (AF)	TIN (kg)	TDS (kg)
1Q08	Jan-08	0		0			0	0	0
	Feb-08	33	0.87	290	0		33	35	11,813
	Mar-08	118	0.87	290	0		151	162	54,139
2Q08	Apr-08	89	1.10	350	0		241	284	92,736
	May-08	0	1.10	350	0		241	284	92,736
	Jun-08	0	1.10	350	6	**	235	**	**

The injected water is WFA-treated water, which meets CCR Title 22 drinking water standards.

During 2Q08, WFA-treated water was sampled for TDS and TIN (NO₃-N + NO₂-N, assuming no NH₃-N in drinking water) on 04/15/08.

MVWD discontinued groundwater injection at ASR Wells 4, 30, and 32, effective May 1, 2008, until further notice.

All wells were placed into production (extraction) mode during 2Q08.

* Wells w/ 2+ sampling events for the month show an avg. of those values. Individual values are at the bottom of the page.

** Well is not required to sample until it reaches 20% extraction. Mass balance will be calculated after 20% threshold has been reached.

	Total Project (All Wells)				
	Date		Mass Balance		
			Storage (AF)	TIN (kg)	TDS (kg)
3Q07	Jul-07		243	214	80,909
	Aug-07		314	261	104,598
	Sep-07		362	292	120,413
4Q07	Oct-07		484	312	167,280
	Nov-07		497	314	172,181
	Dec-07		564	324	197,792
1Q08	Jan-08		696	466	244,894
	Feb-08		810	588	285,760
	Mar-08		1,067	865	377,851
2Q08	Apr-08		1,288	1,164	473,010
	May-08		1,189	259	428,008
	Jun-08		791	(2,797)	271,424

Well 4	TIN	TDS	Est. Prod
5/7/08	4.1	360	20%
5/9/08	6.9	370	40%
5/12/08	6.9	370	60%
5/27/08	12	390	80%
6/6/08	14	360	100%

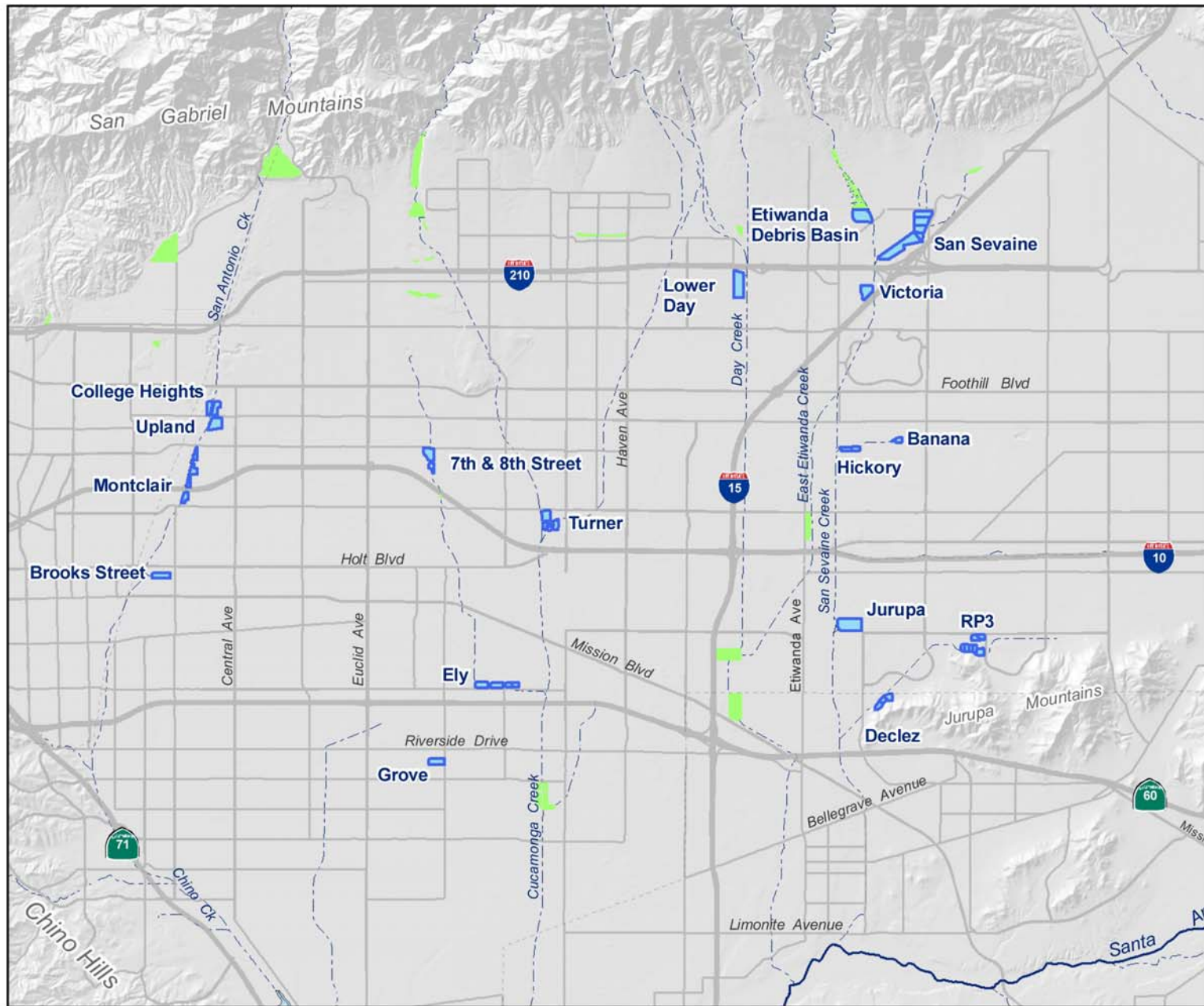
Well 30	TIN	TDS	Est. Prod
6/5/08	2.0	310	20%
6/26/08	4.9	310	40%

Table 7-1
WaterReuse Study Results

Constituent	8th St. 1/1 2/25/09	8th St. 1/1 3/11/09	8th St. 1/1 3/19/09	Brooks 1/1 3/3/09	Brooks 1/1 3/11/09	Brooks 1/1 3/19/09	Brooks 1/1 3/25/09	Brooks 1/1 3/31/09	Unit	Method
1,1,1-Trichloroethane	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	µg/L	ML/EPA 524.2
1,1,2,2-Tetrachloroethane	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	µg/L	ML/EPA 524.2
1,1,2-Trichloro-1,2,2-Trifluoroethane	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	µg/L	ML/EPA 524.2
1,1,2-Trichloroethane	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	µg/L	ML/EPA 524.2
1,1-Dichloroethane	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	µg/L	ML/EPA 524.2
1,1-Dichloroethylene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	µg/L	ML/EPA 524.2
1,2,3-Trichloropropane	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	µg/L	ML/EPA 524.2
1,2,4-Trichlorobenzene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	µg/L	ML/EPA 524.2
1,2,4-Trimethylbenzene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	µg/L	ML/EPA 524.2
1,2-Dichlorobenzene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	µg/L	ML/EPA 524.2
1,2-Dichloroethane	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	µg/L	ML/EPA 524.2
cis-1,2-Dichloroethylene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	µg/L	ML/EPA 524.2
trans-1,2-Dichloroethylene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	µg/L	ML/EPA 524.2
1,2-Dichloropropane	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	µg/L	ML/EPA 524.2
1,3,5-Trimethylbenzene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	µg/L	ML/EPA 524.2
1,3-Dichloropropene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	µg/L	ML/EPA 524.2
1,4-Dichlorobenzene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	µg/L	ML/EPA 524.2
1,4-Dioxane	<2	<2	<2	<2	<2	<2	<2	<2	µg/L	ML/SW 8270 mod
2,4,6-trichlorophenol	<5	<5	<5	<5	<5	<5	<5	<5	µg/L	ML/EPA625/8270
2,4-D	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	µg/L	ML/EPA 515.4
2,4-dichlorophenol	<5	<5	<5	<5	<5	<5	<5	<5	µg/L	ML/EPA625/8270
2,4-dinitrophenol	<50	<50	<50	<50	<50	<50	<50	<50	µg/L	ML/EPA625/8270
2,4-dinitrotoluene	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	µg/L	ML/EPA 525.2
2,6-dinitrotoluene	<5	<5	<5	<5	<5	<5	<5	<5	µg/L	ML/EPA625/8270
2-chlorotoluene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	µg/L	ML/EPA 524.2
4-chlorotoluene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	µg/L	ML/EPA 524.2
Alachlor	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	µg/L	ML/EPA 525.2
Aluminum	<25	<25	<25	12700	16700	4380	1570	745	µg/L	EPA 200.8
Antimony	<1	<0.5	0.5	<0.5	<0.5	<0.5	0.5	0.7	µg/L	EPA 200.8
Arsenic	<2	<2	<2	9	11	5	2	<2	µg/L	EPA 200.8
Atrazine	<0.05	0.07	0.06	<0.05	<0.05	<0.05	<0.05	<0.05	µg/L	ML/EPA 525.2
Barium	17	17	20	107	124	82	63	55	µg/L	EPA 200.8
Bentazon	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	µg/L	ML/EPA 515.4
Benzene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	µg/L	ML/EPA 524.2
Benzo(a)pyrene	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	µg/L	ML/EPA 525.2
Beryllium	<0.5	<0.5	<0.5	2.1	2.8	0.8	<0.5	<0.5	µg/L	EPA 200.8
Boron	<0.1	<0.1	<0.1	0.1	0.1	0.1	0.1	0.1	mg/L	EPA 200.7
Bromate	<1	<1	<1	<1	<1	<1	<1	<1	µg/L	EPA 317
Butylbenzene-n	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	µg/L	ML/EPA 524.2
Butylbenzene-sec	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	µg/L	ML/EPA 524.2
Butylbenzene-tert	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	µg/L	ML/EPA 524.2
Cadmium	<0.25	<0.25	<0.25	<0.25	0.34	<0.25	<0.25	<0.25	µg/L	EPA 200.8
Carbofuran	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	µg/L	ML/EPA 531.2
Carbon Disulfide	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	µg/L	ML/EPA 624
Carbon Tetrachloride	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	µg/L	ML/EPA 524.2
Chlorate	12	10	<10	67	88	64	46	54	µg/L	ML/EPA 300.0
Chlordane	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	µg/L	ML/EPA 505
Chlorite	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/l	ML/EPA 300.0
Chromium	2.2	2.8	0.9	29.4	47.8	10.6	2.4	8.9	µg/L	EPA 200.8
Chromium-6	0.7	0.7	0.6	0.6	0.4	0.4	0.3	0.2	µg/L	EPA 218.6
Copper	1.0	<0.5	<0.5	8.0	9.6	4.6	2.4	2.0	µg/L	EPA 200.8
Cyanide	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	mg/L	SM 4500-CN E
Dalapon	<1	<1	<1	<1	<1	<1	<1	<1	µg/L	ML/EPA 515.4
Diazinon	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	µg/L	ML/EPA 525.2
Dibromochloropropane (DBCP)	<0.01	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	µg/L	ML/EPA 504.1
Dichlorodifluoromethane	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	µg/L	ML/EPA 524.2
Dichloromethane	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	µg/L	ML/EPA 524.2
Di(2-ethylhexyl)adipate	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	µg/L	ML/EPA 525.2
Di(2-ethylhexyl)phthalate	2.0	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	µg/L	ML/EPA 525.2

Table 7-1
WaterReuse Study Results

Constituent	8th St. 1/1 2/25/09	8th St. 1/1 3/11/09	8th St. 1/1 3/19/09	Brooks 1/1 3/3/09	Brooks 1/1 3/11/09	Brooks 1/1 3/19/09	Brooks 1/1 3/25/09	Brooks 1/1 3/31/09	Unit	Method
Dinoseb	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	µg/L	ML/EPA 515.4
Diquat	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	µg/L	ML/EPA 549.2
EC	170	170	170	565	555	595	600	580	µmhos/crr	SM 2510
Endothall	<5	<5	<20	<5	<5	<5	<5	<5	µg/L	EPA 548.1
Endrin	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	µg/L	ML/EPA 505
Ethyl tertiary butyl ether	<3	<3	<3	<3	<3	<3	<3	<3	µg/L	ML/EPA 524.2
Ethylbenzene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	µg/L	ML/EPA 524.2
Ethylene Dibromide (EDB)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	µg/L	ML/EPA 504.1
Fluoride	0.5	0.5	0.5	0.1	0.4	0.1	<0.1	0.1	mg/L	EPA 300.0
Formaldehyde	<5	<5	<5	<5	6	<5	<5	<5	µg/L	ML/SM 6252
Glyphosate	<6	<6	<6	<6	<6	<6	<6	<6	µg/L	EPA 547
Total Haloacetic Acids (HAA5)	<1	<1	<1	1	<1	<1	<1	<1	µg/L	ML/S6251B
Heptachlor	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	µg/L	ML/EPA 505
Heptachlor Epoxide	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	µg/L	ML/EPA 505
Hexachlorobenzene	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	µg/L	ML/EPA 525.2
Hexachlorocyclopentadiene	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	µg/L	ML/EPA 525.2
Isopropylbenzene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	µg/L	ML/EPA 524.2
Lead	<0.5	<0.5	<0.5	38.6	57.5	16.0	5.6	3.2	µg/L	EPA 200.8
Lindane	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	µg/L	ML/EPA 505
Manganese	<1	<1	<1	165	213	86	28	16	µg/L	EPA 200.8
Mercury	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	µg/L	EPA 245.2
Methoxychlor	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	µg/L	ML/EPA 505
Methyl isobutyl ketone (MIBK)	<5	<5	<5	<5	<5	<5	<5	<5	µg/L	ML/EPA 524.2
Methyl-tert-butyl ether (MTBE)	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	µg/L	ML/EPA 524.2
Molinate	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	µg/L	ML/EPA 525.2
Naphthalene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	µg/L	ML/EPA 524.2
Nickel	3	2	2	50	74	29	25	23	µg/L	EPA 200.8
Nitrate Nitrogen	0.8	0.8	0.8	1.2	1.9	1.4	0.9	1.4	mg/L	EPA 300.0
Nitrite Nitrogen	<0.01	<0.01	0.08	<0.01	<0.01	0.08	<0.02	<0.01	mg/L	EPA 300.0
Nitrobenzene	<5	<5	<5	<5	<5	<5	<5	<5	µg/L	ML/EPA625/8270
N-nitrosodiethylamine (NDEA)	<2	<2	<2	<2	<2	<2	<2	<2	ng/l	ML/EPA 521
N-Nitrosodimethylamine (NDMA)	<2	<2	<2	<2	<2	<2	<2	<2	ng/l	ML/EPA 521
N-nitrosodi-n-propylamine (NDPA)	<2	<2	<2	<2	<2	<2	<2	<2	ng/l	ML/EPA 521
n-propylbenzene (isocumene)	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	µg/L	ML/EPA 524.2
Oxamyl	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	µg/L	ML/EPA 531.2
Pentachlorophenol	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	µg/L	ML/EPA 515.4
Perchlorate	<4	<4	<4	<4	<4	<4	<4	<4	µg/L	EPA 314
Picloram	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	µg/L	ML/EPA 515.4
Polychlorinated Biphenyls	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	µg/L	ML/EPA 505
Propachlor	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	µg/L	ML/EPA 525.2
Selenium	<2	<2	<2	<2	<2	<2	<2	<2	µg/L	EPA 200.8
2,4,5-TP (Silvex)	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	µg/L	ML/EPA 515.4
Simazine	0.2	0.2	0.3	<0.05	<0.05	<0.05	<0.05	<0.05	µg/L	ML/EPA 525.2
Styrene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	µg/L	ML/EPA 524.2
Tertiary amyl methyl ether	<3	<3	<3	<3	<3	<3	<3	<3	µg/L	ML/EPA 524.2
Tertiary butyl alcohol	<2	<2	<2	<2	<2	<2	<2	<2	µg/L	ML/524.2
Tetrachloroethylene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	µg/L	ML/EPA 524.2
Thallium	<1	<1	<1	<1	<1	<1	<1	<1	µg/L	EPA 200.8
Thiobencarb	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	µg/L	ML/EPA 525.2
Toluene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	µg/L	ML/EPA 524.2
Total Nitrate/Nitrite (as N)	0.8	0.8	0.9	1.2	1.9	1.4	0.9	1.4	mg/L	EPA 300.0
Total Trihalomethanes (THM)	<0.5	0.5	0.6	2.1	6.2	6.7	5.1	7.2	µg/L	ML/EPA 524.2
Toxaphene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	µg/L	ML/EPA 505
Trichloroethylene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	µg/L	ML/EPA 524.2
Trichlorofluoromethane	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	µg/L	ML/EPA 624
Vanadium	4	5	4	8	7	5	2	2	µg/L	EPA 200.8
Vinyl Chloride	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	µg/L	ML/EPA 524.2
Xylenes	<1	<1	<1	<1	<1	<1	<1	<1	µg/L	ML/EPA 524.2



Explanation

- Recharge Basins in the Recycled Water Groundwater Recharge Program
- Non-program basins
- Rivers and Streams



Chino Basin Recycled Water Groundwater Recharge Program

Basin Locations

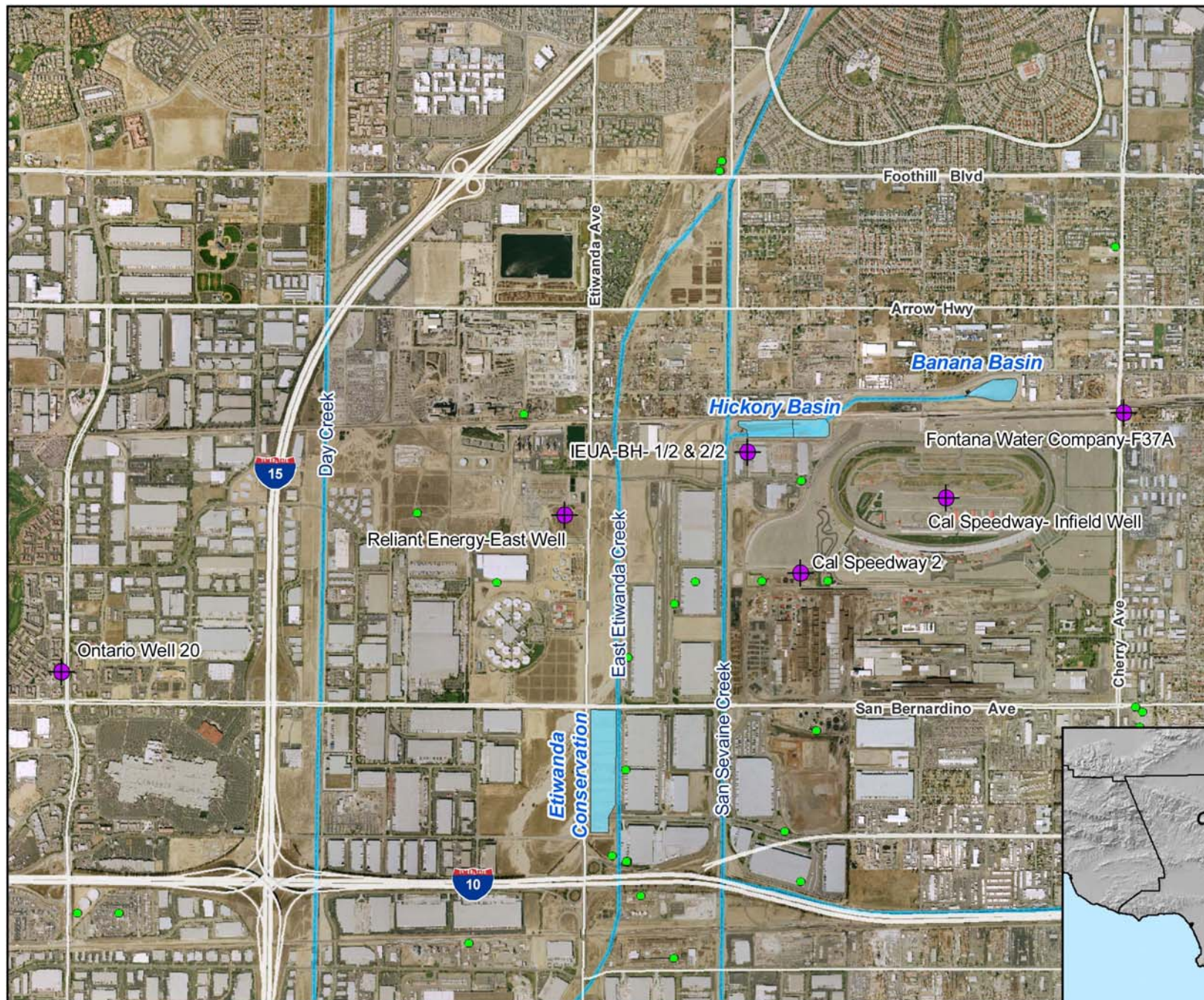


0 2 4 Miles

0 4 8 Kilometers



Figure 1-1



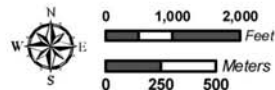
Main Map Features

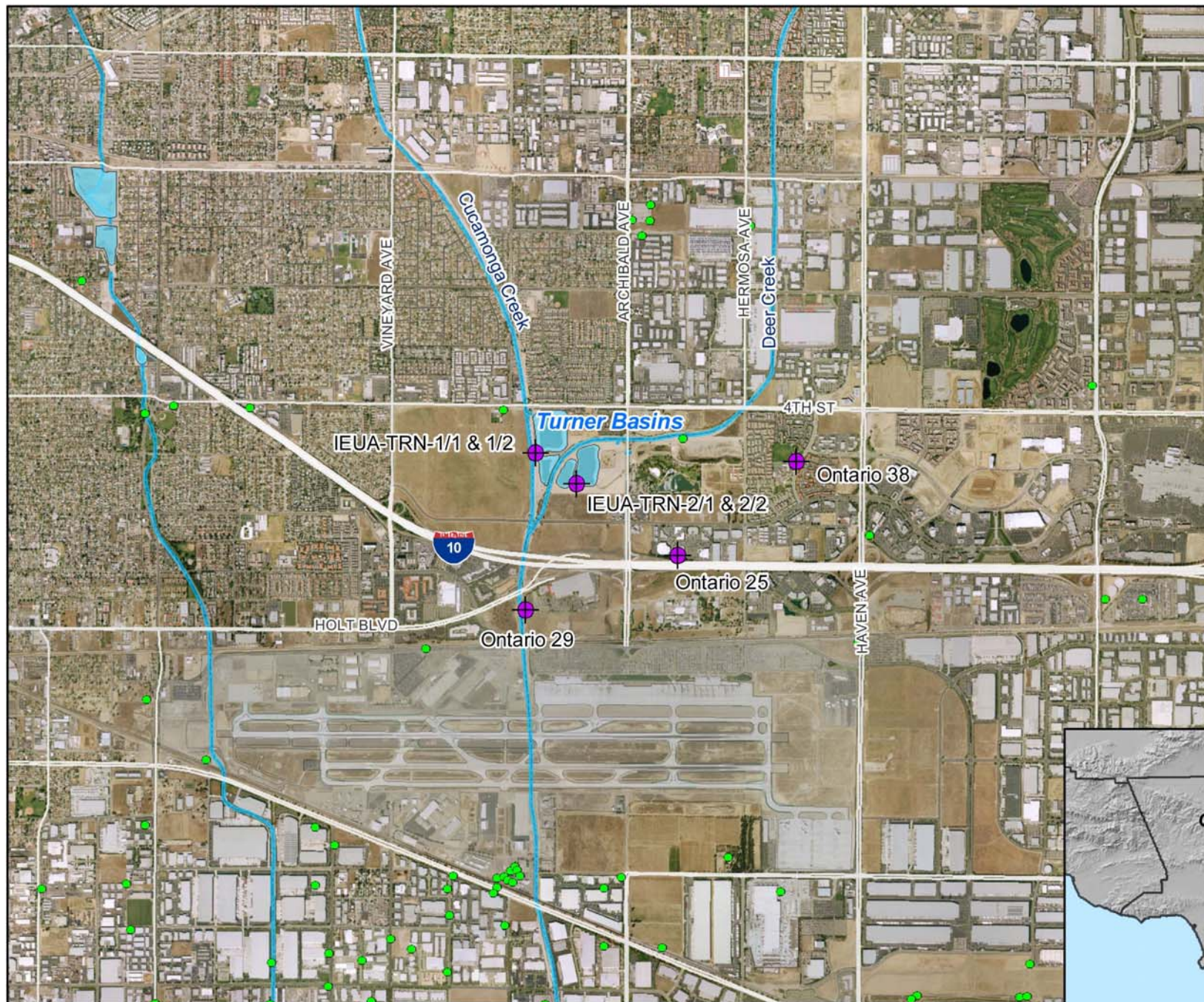
-  Existing Monitoring Well
-  "Other Wells"
-  Rivers/Streams/Creeks
-  Recharge Basins

Monitoring Well Network
Hickory and Banana Basins

Figure 2-1

Recycled Water Recharge Program





Main Map Features

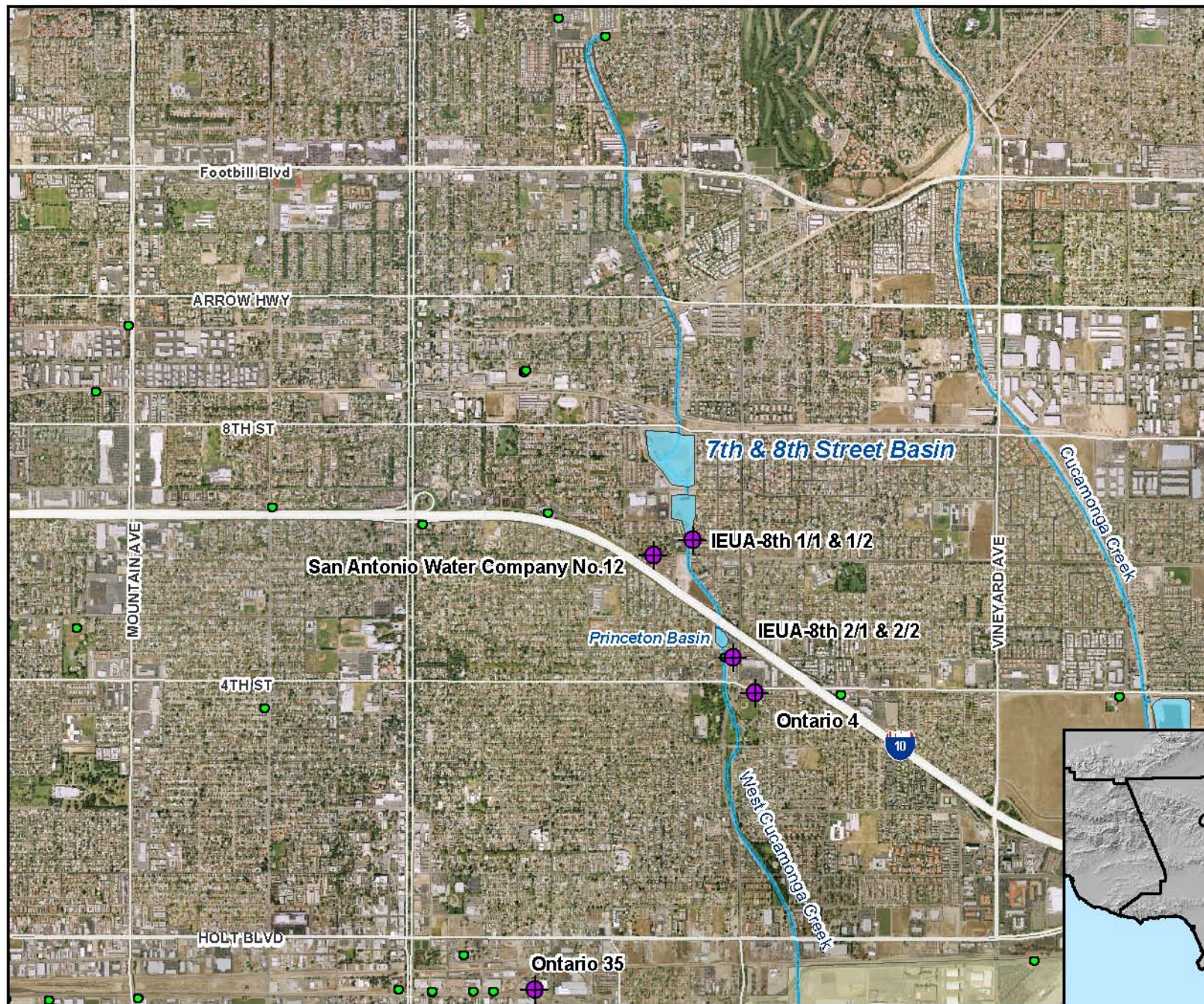
-  Existing Monitoring Well
-  "Other Wells"
-  Rivers/Streams/Creeks
-  Recharge Basins

Monitoring Well Network
Turner Basins

Figure 2-2

Recycled Water Recharge Program





Main Map Features

-  Existing Monitoring Well
-  "Other Wells"
-  Rivers/Streams/Creeks
-  Recharge Basins



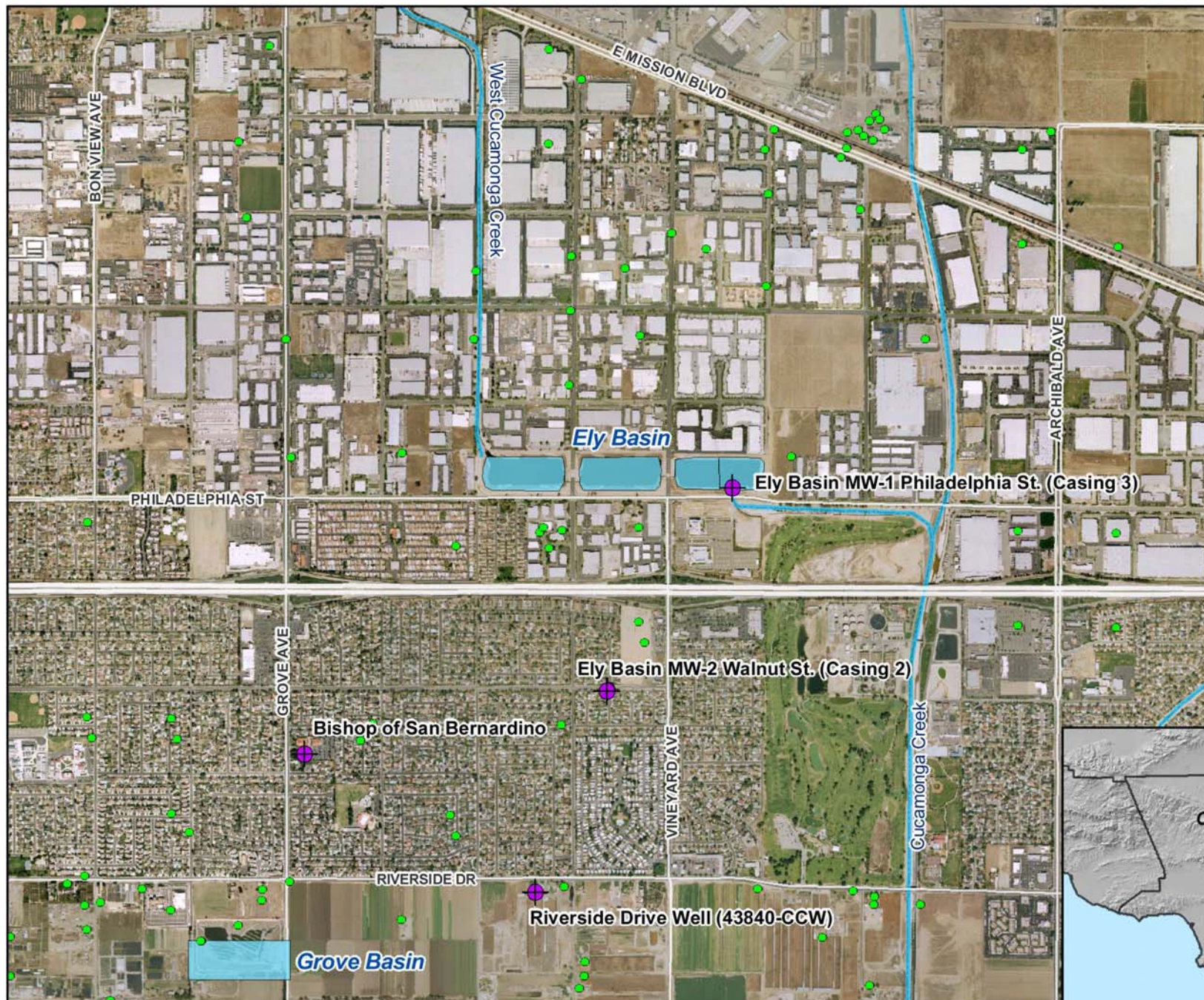
Monitoring Well Network

7th and 8th Street Basin

Figure 2-3

Recycled Water Recharge Program





Main Map Features

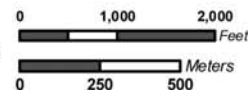
-  Existing Monitoring Well
-  "Other Wells"
-  Rivers/Streams/Creeks
-  Recharge Basins

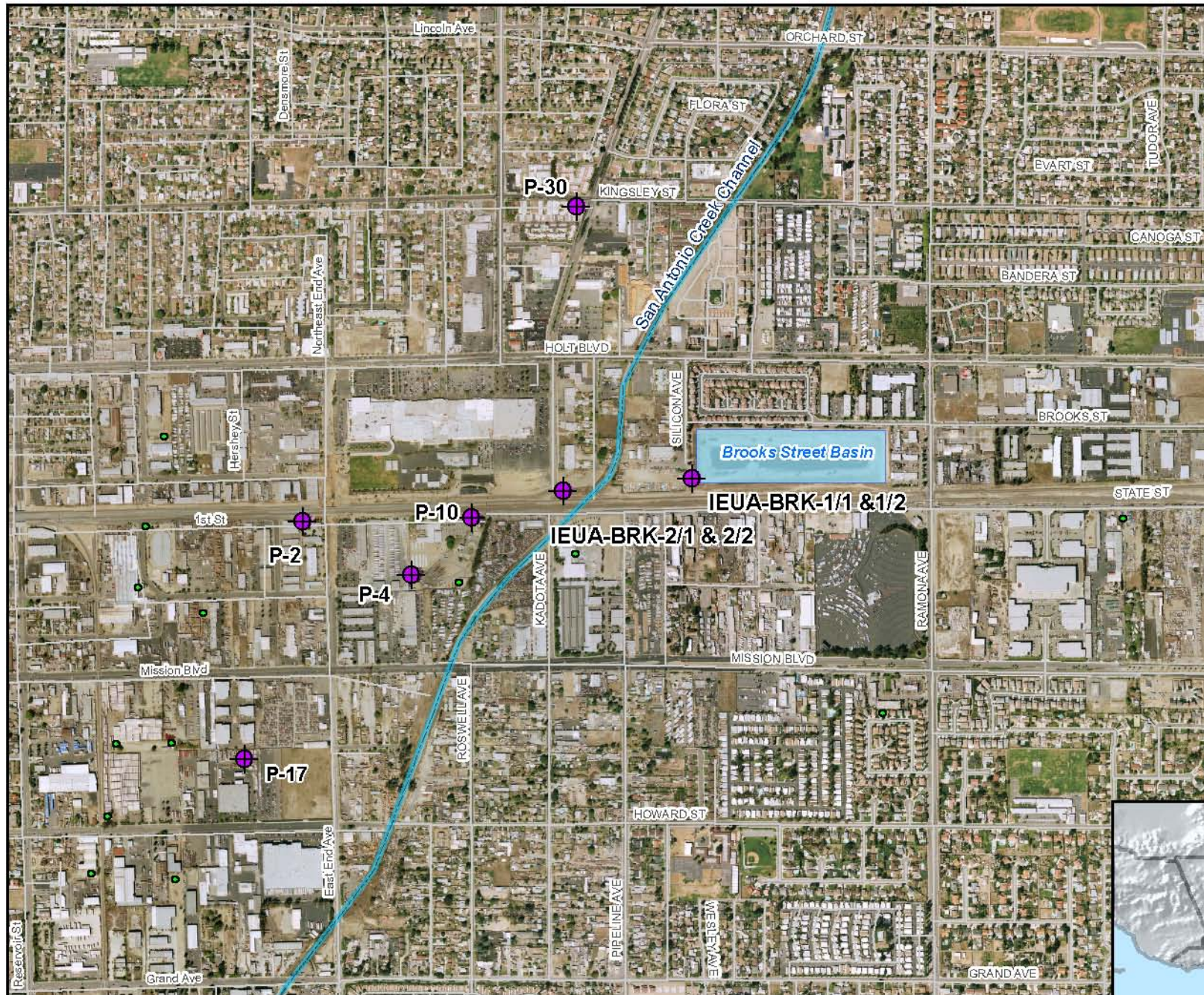


Monitoring Well Network
Ely Basins

Figure 2-4

Recycled Water Recharge Program





Monitoring Well Network

Brooks Street Basin

Figure 2-5

Recycled Water Recharge Program

