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Executive Manager of Operations

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August 15, 2010

Regional Water Quality Control Board, Santa Ana Region

Attention: Mr. Gary Stewart

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

**Subject: Chino Basin Recycled Water Groundwater Recharge Program
Quarterly Monitoring Report for April through June 2010**

Dear Mr. Stewart,

Inland Empire Utilities Agency and Chino Basin Watermaster hereby submit the *Quarterly Monitoring Report* for the second quarter of 2010 (2Q10), April 1 through June 30, 2010, for the *Chino Basin 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 2Q10, the Groundwater Recharge Program was in compliance with all monitoring and reporting requirements as specified in the Order.

Chino Basin Watermaster hereby certifies that, during the period of April 1 through June 30, 2010, there was no reported pumping for drinking water purposes in the buffer zones extending 500 feet laterally and 6 months underground travel time from each of the recharge sites using recycled water, namely 7th & 8th Street, Banana, Brooks, Ely, Hickory, RP-3, 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 15th day of August 2010 in the Cities of Chino and Rancho Cucamonga.

Patrick O. Shields
Executive Manager of Operations

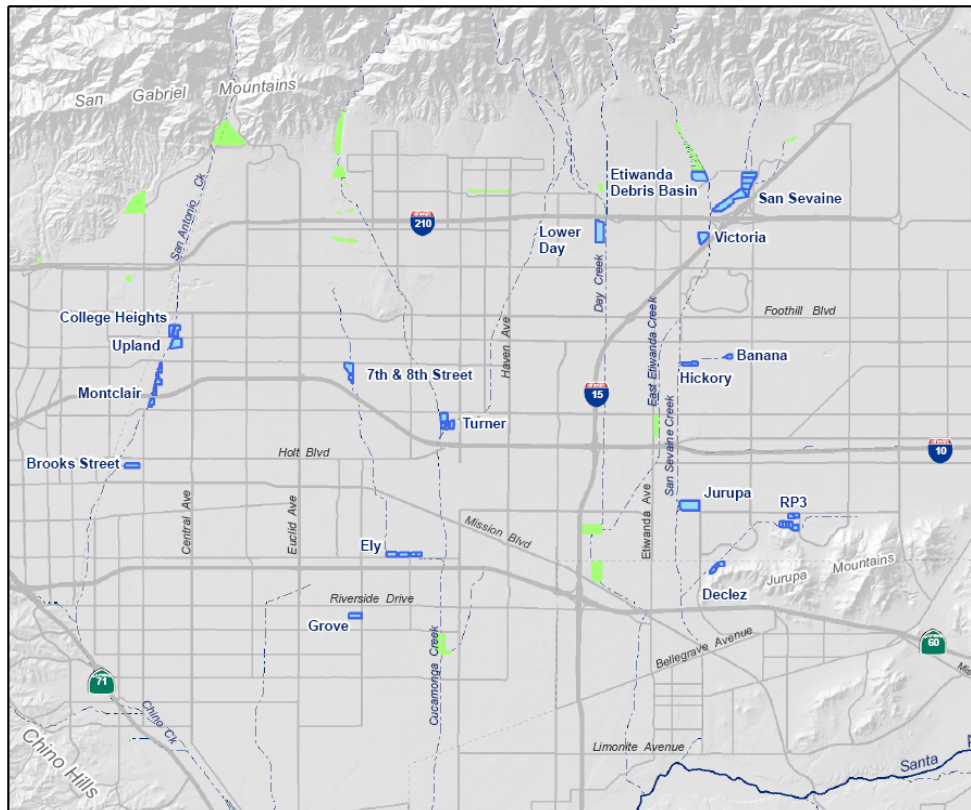
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Chino Basin Recycled Water Groundwater Recharge Program

Quarterly Monitoring Report April 1 through June 30, 2010



Prepared by:



August 15, 2010

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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 (Order) 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 second quarter of 2010 (2Q10).

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 buffer 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. Order No. R8-2009-0057

On October 23, 2009, the Regional Board adopted Order No. R8-2009-0057, which amended the recharge permit (Order No. R8-2007-0039) by extending the previously 60-month averaging period to 120 months for determining a recharge site's recycled water contribution (RWC). The Order No. R8-2009-0057 also allowed a fraction of the groundwater underflow of the Chino Basin aquifers to be used as a source of diluent water when calculating the running average RWC.

In February 2010, the National Water Research Institute (NWRI) convened an independent expert panel to review the amendment and to evaluate if the amendment provided an equal level of public protection. The panel supported a proposed Darcian method of quantifying site specific groundwater underflow, but recommended that to be conservative (from a mixing standpoint), the fraction of the underflow used should only include the uppermost aquifer layers of higher hydraulic conductivity. The proposed methodology, assessment of groundwater underflow, and recommendations made by the expert review panel are appendices in the 2009 Chino Basin Recycled Water Groundwater Recharge Program Annual Report submitted on May 1, 2010.

C. 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.

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 2Q10 data.

Recycled Water Specifications A.5 through A.9 are the narrative limits established in the permit. Corresponding monitoring data are presented in Tables 2-1 and 2-2. None of these limits were exceeded in 2Q10.

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 2Q09 through 1Q10 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 2Q10, the following limits were not exceeded: the primary MCLs for inorganic chemicals, volatile organic chemicals (VOCs), non-volatile synthetic organic chemicals (SOCs), radionuclides, and disinfection byproducts; action levels for lead and copper; secondary MCLs for required constituents; and oil and grease.

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 RRI Energy (formerly Reliant Energy) 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 (DBPs), more specifically, Total Trihalomethanes (TTHMs) and Total Haloacetic Acids (HAA5). Compliance samples for these DBPs are taken from lysimeters at basins actively receiving recycled water. At these locations, DBPs have been able to break down and samples are better representative of the recycled water prior to reaching the groundwater table. Once a quarter, a sample is collected from the selected compliance lysimeter and analyzed for DBPs. For the 2Q10 sampling for DBPs, IEUA chose the 25-foot below ground surface lysimeter at the RP-3 Basin as the compliance point.

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. All basin and lysimeter water quality results from 2Q10 are summarized in Table 2-5a. The table includes lysimeter data for RP-3, Brooks, 7th & 8th Street, Hickory, and Banana Basins. San Sevaine and Victoria

Basin lysimeter data is also included in Table 2-5a as background data only, as recycled water delivery has not been initiated at these two basins.

The Turner and Ely Basins have implemented alternative monitoring plans which include the sampling of recycled water at the RRI Energy pipeline and the application of TOC and total nitrogen (TN) correction factors for Soil-Aquifer Treatment at the basins. These correction factors were determined during each basin's start-up period. The correction factors reduce the TOC results by 70 percent for recycled water delivered to Turner cells 1 & 2, 85 percent for recycled water delivered to Turner cells 3 & 4, and 76 percent for recycled water delivered to Ely Basin. The correction factors reduce TN results by 87 percent for recycled water delivered to all four Turner cells and 52 percent for recycled water delivered to Ely Basin. Turner Basin TOC and TN values calculated based on the correction factors provided in the alternative monitoring plan are summarized in Table 2-5b. Ely Basin did not receive recycled water during 2Q10.

C. Diluent Water

For 2Q10, diluent water sampling of local runoff was conducted on May 19, 2010 for Turner cells 1&2, Turner cells 3&4, and 8th Street Basin. State Water Project water was not delivered to any of the program basins during the monitoring period. Table 2-6 lists the results of the local runoff sampling and analyses. Details on the methods used to measure daily diluent water flow and diluent water monitoring schedule can be found in the CDPH-approved Diluent Water Monitoring Plan (Plan). The quarterly sampling schedule for stormwater and local runoff is presented in Table 4-2 of the Plan. Stormwater is sampled during the rainy season and local runoff is sampled during the dry season. Samples are collected at about half the locations during each seasonal quarter, alternating between even and odd years. Table 5-2 of the Plan summarizes the sample type and reporting frequency for the parameters listed in Tables I, II, III, and IV of the Diluent Water Monitoring requirement III.3 in the Order.

D. Groundwater Monitoring Wells

During 2Q10, 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 Turner Basin was monitored by sampling a network of six wells. The groundwater quality within the vicinity of the 7th & 8th Street Basin was monitored by sampling a network of four wells. The groundwater quality within the vicinity of the RP-3 Basin was monitored by sampling a network of six wells. The groundwater quality within the vicinity of the Ely Basin was monitored by sampling a network of three wells. The groundwater quality within the vicinity of the Brooks Basin was monitored by sampling a network of six wells. The wells in the monitoring well networks for Hickory and Banana Basins, Turner Basin, RP-3, 7th & 8th Street Basin, Brooks Basin, and Ely Basin 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 quarterly monitoring are presented in Table 2-8.

Groundwater monitoring 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 background conditions, time the arrival of recharge waters, and assess the impact recharged water has on downgradient water supplies. Any 2Q10 analyses results which exceeded primary or secondary MCLs are shown in the tables in bold font. Of note are the analyses for the following wells and constituents.

Turbidity exceeding the secondary MCL was observed in several monitoring wells, namely: Southridge JHS, Alcoa MW1 and MW3, and BRK-1/1. These same wells also have exceedances of iron, manganese, and/or aluminum. To evaluate turbidity impacts on metals results, IEUA conducted comparative sampling and analyses for metals for samples from monitoring well BRK1/1. The compared methods were: total metals (unfiltered) and dissolved metals (filtered). Findings indicated

the metals are not appreciably present following filtering. IEUA discussed with CDPH and RWQCB staff changing the metals analyses protocols for samples from monitoring wells with known high turbidity to the dissolved metals method. Both agencies agreed and written approval from the RWQCB is forthcoming.

TDS and EC are slightly higher than the secondary MCLs in wells RP3-1 and Southridge JHS. The wells near RP-3 are located in an area with historically high EC levels ($>1,000$ $\mu\text{mhos/cm}$). Most of the monitoring wells in the RP-3 monitoring network have nitrate concentrations above the primary MCL. These higher levels are characteristic of groundwater quality in the region, where historically $\text{NO}_3\text{-N}$ concentrations ranges from 10-30 mg/L. TDS and nitrate concentrations in the area of the RP-3 monitoring well network are documented in the CBWM 2008 State of the Basin Report.

Monitoring wells BRK-1/1, Alcoa MW-1, and DCZ-1 have anomalous results for aluminum which may be related to their shallow construction across the water table and relatively short development history, or natural occurrence in local sediments.

3. Recharge Operations

IEUA's Groundwater Recharge Coordinator recorded the daily volumes of water routed to all basins. The 7th & 8th Street, Banana, Brooks, Hickory, RP-3, and Turner Basins received recycled water this quarter. Table 3-1 lists the volumes of diluent water, recycled water, and/or local runoff and stormwater captured during 2Q10 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 2Q10 for domestic or municipal use from the buffer zones that extend 500 feet and 6 months underground travel time from the 7th & 8th Street, Banana, Brooks, Ely, Hickory, RP-3, and Turner 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, buffer zones, and township/range/section parcels adjacent the basins and buffer zones.

If a well falls within an abutting parcel, SBCDEHS will review the proposed well location using maps of the basins and buffer zones. If the well falls too near the buffer zone 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 zone.

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. 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.

Table 2-1a
Recycled Water Monitoring: RP-1 & RP-4 Effluent Water Quality for April 2010
(Recycled Water Quality Specifications A.5, A.7, A.8, & A.9)

Unit	RP-1 Effluent										RP-4 Effluent									
	Turbidity ^{1,2}	TOC	NO ₃ -N	TN	TIN ³	pH	EC	TDS ³	Hardness	Coliform ^{1,2,4}	Turbidity ^{1,2}	TOC	NO ₃ -N	TN	TIN ³	pH	EC ⁶	TDS ³	Hardness	Coliform ^{1,2,4}
	NTU	mg/L	mg/L	mg/L	mg/L	unit	µhmo/cm	mg/L	mg/L	mpn/100mL	NTU	mg/L	mg/L	mg/L	mg/L	unit	µhmo/cm	mg/L	mg/L	mpn/100mL
Limits	2;5;10	16		5 ⁵		6<pH<9				2.2;23;240	2;5;10	16		5 ⁵		6<pH<9				2.2;23;240
04/01/10	0.7	5.2	5.9		5.9	7.4	990			<2	0.4	3.6	3.5		3.5	7.3	824			<2
04/02/10	0.7	5.1				7.4	983			<2	0.4	3.6	3.8		3.8	7.3	823			<2
04/03/10	0.7	5.0				7.4	993			<2	0.5	3.8	4.1		4.1	7.2	838			<2
04/04/10	0.7	5.0	5.9		5.9	7.4	996			<2	0.5	3.9	3.6		3.6	7.3	842			<2
04/05/10	0.7	5.3				7.4	980			<2	0.4	3.9	3.0		3.0	7.3	838			2
04/06/10	0.7	5.2	5.3	5.3	5.3	7.4	1005	454	152	2	0.5	3.9	3.1	3.6	3.1	7.3	834	406	142	<2
04/07/10	0.7	5.1				7.4	1035			<2	0.5	3.9	2.8		2.8	7.3	833			<2
04/08/10	1.0	5.5	4.4		4.4	7.4	1042			<2	0.5	3.8	3.0		3.0	7.3	825			<2
04/09/10	1.3	5.7				7.4	1061			<2	0.5	3.7	2.5		2.5	7.3	823			2
04/10/10	1.4	5.8				7.4	1062			<2	0.6	3.8	2.9		2.9	7.3	831			<2
04/11/10	1.1	6.0	5.0		5.0	7.4	1051			2	0.7	4.0	3.2		3.2	7.3	840			<2
04/12/10	1.1	6.3				7.4	1024			<2	0.6	4.0	2.2		2.2	7.3	835			<2
04/13/10	1.1	6.3	4.4	4.4	4.4	7.4	999		143	2	0.7	4.0	2.6	3.5	2.6	7.3	830	406		<2
04/14/10	0.7	5.9				7.4	1023			<2	0.7	3.9	2.4		2.4	7.3	831			<2
04/15/10	0.8	6.3	6.3		6.3	7.4	1041			<2	0.7	3.9	2.8		2.8	7.3	828			<2
04/16/10	0.8	6.0				7.4	1045			<2	0.7	3.8	2.9		2.9	7.3	828			<2
04/17/10	0.7	5.8				7.4	1049			<2	0.7	4.0	2.7		2.7	7.3	835			<2
04/18/10	0.7	5.6	6.1		6.2	7.5	1037			<2	0.7	4.1	2.6		2.6	7.3	841			<2
04/19/10	0.7	5.5				7.5	1023			<2	0.7	4.4	1.9		1.9	7.3	851			<2
04/20/10	0.6	5.5	5.9	6.0	6.0	7.4	1049			<2	0.9	4.3	2.6	3.1	2.7	7.3	851	410		<2
04/21/10	0.6	5.5				7.4	1041			<2	0.9	4.2	2.5		2.6	7.3	846			<2
04/22/10	0.6	5.4	6.5		6.6	7.4	1019			<2	0.7	4.3	3.0		3.1	7.3	832			<2
04/23/10	0.6	5.2				7.5	1013			<2	0.7	4.1	2.9		3.0	7.3	831			<2
04/24/10	0.6	5.1				7.5	1026			<2	0.8	4.2	2.4		2.4	7.3	846			<2
04/25/10	0.6	5.6	5.5		5.6	7.5	1008			<2	1.1	4.4	1.8		1.8	7.3	855			<2
04/26/10	0.6	5.2				7.5	994			2	0.7	4.3	1.9		1.9	7.3	885			<2
04/27/10	0.7	5.3	5.8	5.8	5.8	7.5	1013		147	2	0.6	4.2	1.9	2.5	1.9	7.4	832	408		<2
04/28/10	0.7	5.4				7.5	1025			<2	0.5	4.0	2.2		2.3	7.4	836			<2
04/29/10	0.7	5.5	6.1		6.3	7.5	1032			<2	0.4	4.1	2.8		2.9	7.4	835			<2
04/30/10	0.6	5.0				7.5	1025			<2	0.4	3.9	2.6		2.7	7.4	839			<2
Avg	0.8	5.5	5.6	5.4	5.7	7.4	1023	454	147	<2	0.6	4.0	2.7	3.2	2.8	7.3	837	408	142	<2
Min	0.6	5.0	4.4	4.4	4.4	7.4	980	454	143	<2	0.4	3.6	1.8	2.5	1.8	7.2	823	406	142	<2
Max	1.4	6.3	6.5	6.0	6.6	7.5	1062	454	152	2	1.1	4.4	4.1	3.6	4.1	7.4	885	410	142	2

Note:

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.

¹ 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.

² 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.

³ TDS and TIN limits are based on a 12-month running average values which are presented in Table 2-2

⁴ 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.

⁵ TN compliance can be met at a point prior to the regional groundwater, including lysimeters.

⁶ 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 May 2010
(Recycled Water Quality Specifications A.5, A.7, A.8, & A.9)

Unit	RP-1 Effluent										RP-4 Effluent									
	Turbidity ^{1,2}	TOC	NO ₃ -N	TN	TIN ³	pH	EC	TDS ³	Hardness	Coliform ^{1,2,4}	Turbidity ^{1,2}	TOC	NO ₃ -N	TN	TIN ³	pH	EC ⁶	TDS ³	Hardness	Coliform ^{1,2,4}
	NTU	mg/L	mg/L	mg/L	mg/L	unit	µmho/cm	mg/L	mg/L	mpn/100mL	NTU	mg/L	mg/L	mg/L	mg/L	unit	µmho/cm	mg/L	mg/L	mpn/100mL
Limits	2;5;10	16		5 ⁵		6<pH<9				2.2;23;240	2;5;10	16		5 ⁵		6<pH<9				2.2;23;240
05/01/10	0.7	5.1				7.4	1034			2	0.4	3.8	2.6		2.7	7.4	839			<2
05/02/10	0.7	5.3	5.8		5.9	7.5	1018			<2	0.4	3.8	2.8		2.9	7.4	836			<2
05/03/10	0.9	6.0				7.5	1019			<2	0.4	4.1	2.5		2.6	7.4	839			<2
05/04/10	0.9	6.0	4.7	4.8	4.8	7.5	1051	458	154	<2	0.4	3.8	2.9	3.6	3.0	7.4	839	412	146	<2
05/05/10	0.8	5.6				7.5	1068			<2	0.4	3.9	3.0		3.0	7.4	835			<2
05/06/10	0.8	5.6	5.0		5.1	7.5	1075			<2	0.4	4.0	3.3		3.4	7.4	838			<2
05/07/10	0.9	5.8				7.5	1079			<2	0.4	4.1	3.5		3.6	7.4	841			<2
05/08/10	0.9	5.9				7.5	1082			<2	0.4	3.8	3.6		3.6	7.4	835			<2
05/09/10	1.0	6.0	3.5		3.6	7.5	1075			<2	0.4	3.9	2.8		2.9	7.4	833			<2
05/10/10	0.8	5.7				7.5	1060			2	0.4	3.9	3.2		3.3	7.4	830			<2
05/11/10	0.7	5.9	5.5	5.6	5.6	7.5	1059		149	<2	0.4	4.2	2.5	3.1	2.5	7.4	841	418		<2
05/12/10	0.8	6.0				7.5	1102			2	0.4	3.8	2.3		2.4	7.5	843			<2
05/13/10	0.7	5.8	5.3		5.5	7.4	1093			2	0.4	3.9	2.9		3.0	7.5	842			<2
05/14/10	0.7	5.6				7.5	1069			<2	0.4	3.8	3.1		3.3	7.4	844			<2
05/15/10	0.6	5.4				7.5	1074			<2	0.5	3.9	3.3		3.3	7.4	848			<2
05/16/10	0.6	5.5	5.9		6.1	7.5	1073			<2	0.6	4.1	3.0		3.2	7.4	853			<2
05/17/10	0.6	5.5				7.5	1068			<2	0.7	4.2	2.6		2.8	7.4	855			<2
05/18/10	0.6	5.7	5.6	5.6	5.6	7.5	1071			4	0.7	4.2	2.1	3.4	2.1	7.4	849	412		<2
05/19/10	0.6	5.5				7.5	1079			<2	0.7	4.6	2.2		2.3	7.4	856			<2
05/20/10	0.6	5.6	5.3		5.4	7.5	1081			<2	0.7	4.0	2.6		2.8	7.4	844			<2
05/21/10	0.6	5.3				7.5	1077			<2	0.7	4.0	2.7		2.9	7.4	834			<2
05/22/10	0.6	5.5				7.6	1086			<2	0.6	3.9	2.8		2.9	7.4	842			<2
05/23/10	0.6	5.9	5.9		6.0	7.6	1084			<2	0.6	4.0	2.5		2.6	7.4	843			<2
05/24/10	0.6	5.4				7.5	1071			<2	0.5	3.9	3.1		3.2	7.4	837			<2
05/25/10	0.7	5.8	7.1	7.2	7.2	7.5	1073		147	<2	0.5	3.9	3.2	4.1	3.3	7.4	840	409		<2
05/26/10	0.7	5.3				7.5	1068			<2	0.5	3.7	3.6		3.7	7.4	827			<2
05/27/10	0.6	5.4	5.7		5.7	7.5	1064			2	0.5	3.9	3.4		3.5	7.5	819			<2
05/28/10	0.6	5.0				7.5	1060			<2	0.5	3.9	3.4		3.5	7.5	814			<2
05/29/10	0.6	5.4				7.5	1059			<2	0.5	4.0	3.2		3.3	7.5	816			<2
05/30/10	0.6	5.1				7.5	1064			<2	0.5	4.1	3.0		3.0	7.5	820			2
05/31/10	0.6	5.2				7.5	1062			<2	0.6	4.4	2.9		3.0	7.5	827			<2
Avg	0.7	5.6	5.4	5.8	5.5	7.5	1068	458	150	<2	0.5	4.0	2.9	3.5	3.0	7.4	837	413	146	<2
Min	0.6	5.0	3.5	4.8	3.6	7.4	1018	458	147	<2	0.4	3.7	2.1	3.1	2.1	7.4	814	409	146	<2
Max	1.0	6.0	7.1	7.2	7.2	7.6	1102	458	154	4	0.7	4.6	3.6	4.1	3.7	7.5	856	418	146	2

Note:

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.

¹ 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.

² 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.

³ TDS and TIN limits are based on a 12-month running average values which are presented in Table 2-2

⁴ 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.

⁵ TN compliance can be met at a point prior to the regional groundwater, including lysimeters.

⁶ 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 June 2010
(Recycled Water Quality Specifications A.5, A.7, A.8, & A.9)

Unit	RP-1 Effluent										RP-4 Effluent									
	Turbidity ^{1,2}	TOC	NO ₃ -N	TN	TIN ³	pH	EC	TDS ³	Hardness	Coliform ^{1,2,4}	Turbidity ^{1,2}	TOC	NO ₃ -N	TN	TIN ³	pH	EC ⁶	TDS ³	Hardness	Coliform ^{1,2,4}
	NTU	mg/L	mg/L	mg/L	mg/L	unit	µhmo/cm	mg/L	mg/L	mpn/100mL	NTU	mg/L	mg/L	mg/L	mg/L	unit	µhmo/cm	mg/L	mg/L	mpn/100mL
Limits	2;5;10	16		5 ⁵		6<pH<9				2.2;23;240	2;5;10	16		5 ⁵		6<pH<9				2.2;23;240
06/01/10	0.8	6.2	5.1	6.0	5.1	7.5	1088	465	144	<2	0.6	4.4	2.5	3.7	2.5	7.5	838	433	139	<2
06/02/10	0.9	6.5				7.5	1121			<2	0.7	4.4	2.9		3.0	7.5	846			<2
06/03/10	0.8	6.1	5.5		5.5	7.5	1137			<2	0.9	4.4	3.0		3.0	7.5	843			<2
06/04/10	0.7	6.0				7.5	1156			<2	1.2	4.4	2.9		2.9	7.5	844			<2
06/05/10	0.6	5.9				7.5	1165			<2	1.1	4.2	2.8		2.9	7.6	847			<2
06/06/10	0.6	5.9	4.1		4.1	7.5	1157			<2	1.0	4.1	2.7		2.8	7.5	837			<2
06/07/10	0.8	6.2				7.5	1149			<2	1.0	4.2	2.4		2.5	7.6	838			<2
06/08/10	0.7	6.4	4.0	4.9	4.0	7.5	1174			<2	1.1	4.2	2.6	3.4	2.7	7.6	855	420		<2
06/09/10	0.6	6.0				7.6	1174			<2	0.8	4.0	2.9		3.0	7.5	855			<2
06/10/10	0.6	5.5	3.7		3.7	7.6	1164			<2	0.6	4.0	3.4		3.5	7.6	862			<2
06/11/10	0.5	5.3				7.6	1156			<2	0.7	4.1	3.3		3.4	7.5	848			<2
06/12/10	0.5	5.0				7.6	1151			<2	0.9	4.1	3.4		3.4	7.6	852			<2
06/13/10	0.5	5.1	4.8		4.9	7.5	1134			<2	1.0	4.3	2.8		3.1	7.6	854			<2
06/14/10	0.5	5.2				7.5	1118			<2	1.1	4.2	2.7		2.7	7.6	845			<2
06/15/10	0.5	5.4	4.6	5.5	4.6	7.5	1154		150	<2	1.0	4.0	3.2	3.3	3.3	7.5	861	420		<2
06/16/10	0.5	5.2				7.6	1143			<2	1.0	4.0	3.1		3.2	7.5	857			<2
06/17/10	0.5	5.2	5.5		5.5	7.3	1141			<2	0.9	4.1	3.2		3.3	7.6	851			<2
06/18/10	0.5	5.0				7.2	1140			<2	0.8	3.9	3.5		3.6	7.6	854			<2
06/19/10	0.5	4.9				7.2	1156			<2	0.7	3.7	4.6		4.6	7.6	872			<2
06/20/10	0.5	5.0	5.1		5.1	7.2	1133			<2	0.8	3.7	4.3		4.3	7.6	881			<2
06/21/10	0.5	5.1				7.2	1114			<2	0.8	3.7	4.0		4.1	7.6	876			<2
06/22/10	0.6	5.5	5.0	6.0	5.1	7.2	1145			<2	0.9	3.7	4.3	5.1	4.3	7.5	879	430		<2
06/23/10	0.6	5.3				7.2	1155			<2	0.9	3.6	4.4		4.4	7.5	874			<2
06/24/10	0.6	4.9	4.1		4.1	7.2	1153			<2	0.9	3.6	4.5		4.5	7.6	872			<2
06/25/10	0.5	4.9				7.2	1132			<2	0.8	3.5	4.6		4.6	7.6	877			<2
06/26/10	0.5	4.8				7.2	1137			<2	0.8	3.6	4.5		4.5	7.6	874			<2
06/27/10	0.6	4.8	5.8		5.8	7.2	1136			2	0.8	3.7	3.9		3.9	7.6	871			<2
06/28/10	0.6	5.0				7.2	1151			<2	0.8	3.7	4.0		4.0	7.6	867			<2
06/29/10	0.6	5.3	5.4	6.3	5.4	7.2	1160			<2	0.7	3.7	3.7	4.0	3.8	7.6	869	428		<2
06/30/10	0.6	5.2				7.2	1144			<2	0.7	3.6	3.9		3.9	7.6	866			<2
Avg	0.6	5.4	4.8	5.8	4.9	7.4	1145	465	147	<2	0.9	4.0	3.5	3.9	3.5	7.6	859	426	139	<2
Min	0.5	4.8	3.7	4.9	3.7	7.2	1088	465	144	<2	0.6	3.5	2.4	3.3	2.5	7.5	837	420	139	<2
Max	0.9	6.5	5.8	6.3	5.8	7.6	1174	465	150	2	1.2	4.4	4.6	5.1	4.6	7.6	881	433	139	<2

Note:

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.

¹ 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.

² 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.

³ TDS and TIN limits are based on a 12-month running average values which are presented in Table 2-2

⁴ 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.

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⁶ RP-4 Effluent EC values from IEUA lab data, not continuous monitoring data

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.
Jul-09	5.0	6.4	512	500
Aug-09	4.5	6.3	498	498
Sep-09	4.0	6.0	497	497
Oct-09	4.6	5.8	499	497
Nov-09	4.8	5.7	490	496
Dec-09	5.5	5.6	494	496
Jan-10	5.7	5.6	493	496
Feb-10	6.2	5.4	489	498
Mar-10	6.4	5.4	482	497
Apr-10	5.7	5.3	473	494
May-10	5.2	5.3	471	492
Jun-10	5.0	5.2	478	490
Avg	5.2	5.7	490	496
Min	4.0	5.2	471	490
Max	6.4	6.4	512	500
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.

Table 2-3
Recycled Water Monitoring: Primary & Secondary Maximum Contaminant Levels
(Recycled Water Quality Specifications A.1, A.2, A.3, & A.15)

Constituent	3Q09	4Q09	1Q10	2Q10	4Q Run. Avg. ¹	Limit	Unit	Method
Inorganic Chemicals								
Aluminum	30	<25	<25	<25	<25	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	<0.2	<0.4	<0.2	<1.9	<1.9	7	MFL	EPA 100.2
Barium	4	5	5	9	6	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	1.6	1.6	0.9	2.9	1.7	50	µg/L	EPA 200.8
Cyanide	<5	<5	<5	<5	<5	150	µg/L	SM 4500-CN E
Fluoride	0.2	0.2	0.2	0.2	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	2	2	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	<0.5	<1	<1	<1	<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	<0.5	<0.5	<0.5	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
1,1,1,2-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	<0.3	<0.5	<0.5	<0.5	<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	4	3	2	<1	2	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	<5	<5	<5	<5	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: Primary & Secondary Maximum Contaminant Levels
(Recycled Water Quality Specifications A.1, A.2, A.3, & A.15)

Constituent	3Q09	4Q09	1Q10	2Q10	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	<0.05	<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	<0.1	<0.1	0.5	µg/L	EPA 505
Simazine	<0.05	<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	4.5	3.4	3.7	3.4	3.7	1300	µg/L	EPA 200.8
Lead	<0.5	<0.5	<0.5	<0.5	<0.5	15	µg/L	EPA 200.8
Radionuclides								
Combined Radium-226 and Radium 228	<0.61	0.46	<0.14	<0.72	<0.72	5	pCi/L	EPA 903.0
Gross Alpha Particle Activity	<3	<3	<3	<3	<3	15	pCi/L	EPA 900.0
Tritium	<220	<280	<220	<230	<280	20,000	pCi/L	EPA 906
Strontium-90	<0.54	<0.68	<0.19	<0.74	<0.74	8	pCi/L	EPA 905
Gross Beta Particle Activity	8	8	6	6	7	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	30	<25	<25	<25	<25	200	µg/L	EPA 200.8
Copper	4.5	3.4	3.7	3.4	3.8	1000	µg/L	EPA 200.8
Corrosivity ³	-0.1 (Non-Cor.)	-0.4 (Non-Cor.)	-0.4 (Non-Cor.)	-0.2 (Non-Cor.)	Non-Cor.	Non-Cor.	SI	SM 2330B
Foaming Agents (MBAS) ³	<0.05	NR	0.06	0.07	<0.05	0.5	mg/L	S5540C/EPA 425.1
Iron ³	NR	NR	NR	NR	75	300	µg/L	EPA 200.7
Manganese	11	45	10	26	23	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	3	NR	3	3	3	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	17	17	26	26	21	5000	µg/L	EPA 200.8
Miscellaneous Regulated Constituents								
Oil & Grease ⁴	<1	<1	<1	<1	<1	1	mg/L	EPA 1664
Disinfection Byproducts								
Bromate	7	<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	RP3-25	BRK-25	RP3-10	RP3-25				
Total Trihalomethanes (TTHMs)	5	11	9	4	7	80	µg/L	EPA 524.2/624
Total Haloacetic Acids (HAA5)	<1	<2	<2	<2	<2	60	µg/L	S6251B

NR: Not required 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: Remaining Priority Pollutants, EDCs & Pharmaceuticals, and Unregulated Chemicals
(Monitoring & Reporting Program)

Constituent	2Q10	Unit	Method
Metals			
Chromium (III) ¹	2.9	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	1.0	µg/L	EPA 524.2
Chloroethane	<0.5	µg/L	EPA 524.2
2-Chloroethylvinylether	NR	µg/L	EPA 624
Chloroform	48	mg/L	EPA 524.2
Dichlorobromomethane	9	µg/L	EPA 524.2
Methyl Bromide	<1	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
Benzidine	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	<0.01	µg/L	EPA 505
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
Chromium VI	0.1	µg/L	EPA 218.6

Constituent	2Q10	Unit	Method
Unregulated Chemicals			
Ethyl tertiary butyl ether	<0.5	µg/L	EPA 524.2
Tertiary amyl methyl ether	<0.5	µg/L	EPA 524.2
Chemicals w/ State Notification Levels ²			
Boron	0.3	mg/L	EPA 200.7
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	<0.5	µg/L	EPA 524.2
Chlorate	NR	µg/L	EPA 300.0
2-Chlorotoluene	<0.5	µg/L	EPA 524.2
4-Chlorotoluene	<0.5	µg/L	EPA 524.2
Dichlorodifluoromethane (Freon 12)	<0.5	µg/L	EPA 524.2
1,4 - Dioxane	NR	µg/L	EPA 522
Ethylene glycol	NR	mg/L	EPA 8015B
Formaldehyde	NR	µg/L	SM 6252/EPA 8315
HMX	NR	µg/L	EPA 8330B
Isopropylbenzene	<0.5	µg/L	EPA 524.2
Methyl isobutyl ketone (MIBK)	<2	µg/L	EPA 524.2
N-Nitrosodiethylamine (NDEA)	NR	µg/L	EPA 521
N-nitrosodimethylamine (NDMA)	<2	ng/L	EPA 521
Propachlor	NR	µg/L	EPA 525.2
N-propylbenzene	<0.5	µg/L	EPA 524.2
RDX	NR	µg/L	EPA 8330B
Tertiary butyl alcohol	NR	µg/L	542.2 MOD
1,2,3-Trichloropropane (1,2,3-TCP)	<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
2,4,6-Trinitrotoluene	NR	µg/L	EPA 8330B
Vanadium	4	µg/L	EPA 200.8
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
PBDE 17	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>			
Acetaminophen	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	mg/L	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 with State Notification Levels, Nitrosamines, and EDC, Pharmaceuticals & Other Chemicals (Attachment B, MRP No. R8 2007-0039)

³ Analytical Method is not available for this constituent

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

RP-3 Basin									
Site	Depth, bgs	Date	TOC	TN	TIN	NO ₃ -N	TKN+NO ₂ -N	NO ₂ -N	EC
Unit=>	feet	mm/dd/yy	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	µmho/cm
RP31-LYS-00	0	04/06/10	18.7	2.8	0.9	0.7	2.1	0.09	290
RP31-LYS-00	0	04/13/10	10.08	1.0	0.4	0.2	0.8	<0.01	155
RP31-LYS-00	0	04/29/10	13.60	2.7	1.5	1.2	1.5	0.11	360
RP31-LYS-00	0	05/04/10	5.63	4.2	3.0	2.9	1.2	0.01	685
RP31-LYS-00	0	05/11/10	6.20	2.2	1.4	1.2	1.0	0.10	660
RP31-LYS-00	0	05/18/10	6.39	3.3	2.5	2.1	1.2	0.11	690
RP31-LYS-00	0	05/25/10	8.78	2.4	1.2	1.0	1.4	0.09	685
RP31-LYS-00	0	06/02/10	6.73	3.4	2.0	1.5	1.9	0.26	690
RP31-LYS-00	0	06/08/10	6.54	1.8	1.2	0.7	1.1	0.26	700
RP31-LYS-00	0	06/15/10	6.05	1.4	1.4	1.0	<0.5	0.19	695
RP31-LYS-00	0	06/22/10	5.76	2.1	1.2	1.0	1.1	0.22	690
RP31-LYS-00	0	06/29/10	5.52	1.7	0.8	0.5	1.2	0.15	715
RP31-LYS-10	10	04/06/10	1.49	1.7	1.6	1.6	<0.5	<0.01	785
RP31-LYS-10	10	04/13/10	1.65	1.9	1.9	1.9	<0.5	<0.01	845
RP31-LYS-10	10	04/29/10	2.93	2.8	2.5	2.3	0.5	0.09	550
RP31-LYS-10	10	05/04/10	3.06	1.4	1.1	1.1	<0.5	<0.01	550
RP31-LYS-10	10	05/18/10	2.42	2.8	2.6	2.5	<0.5	0.05	740
RP31-LYS-10	10	05/25/10	1.73	2.2	2.2	2.1	<0.5	0.06	760
RP31-LYS-10	10	06/02/10	1.80	2.5	2.5	2.2	<0.5	0.27	795
RP31-LYS-10	10	06/08/10	1.74	2.5	2.5	2.2	<0.5	0.29	835
RP31-LYS-10	10	06/15/10	1.76	2.7	2.5	2.3	<0.5	0.24	820
RP31-LYS-10	10	06/22/10	1.77	2.7	2.5	2.3	<0.5	0.26	805
RP31-LYS-10	10	06/29/10	1.83	3.1	2.8	2.4	0.7	0.39	805
RP31-LYS-15	15	04/06/10	1.45	1.4	1.3	1.3	<0.5	<0.01	490
RP31-LYS-15	15	04/13/10	1.44	1.3	1.3	1.3	<0.5	<0.01	660
RP31-LYS-15	15	04/29/10	1.74	2.7	2.6	2.5	<0.5	0.08	675
RP31-LYS-15	15	05/04/10	2.18	2.9	2.6	2.6	<0.5	<0.01	575
RP31-LYS-15	15	05/18/10	2.19	2.3	2.2	2.1	<0.5	0.06	605
RP31-LYS-15	15	05/25/10	1.65	2.0	1.9	1.8	<0.5	0.06	660
RP31-LYS-15	15	06/02/10	1.80	2.1	1.7	1.5	0.7	0.23	730
RP31-LYS-15	15	06/08/10	1.52	1.7	1.7	1.4	<0.5	0.23	770
RP31-LYS-15	15	06/15/10	1.57	2.4	2.3	2.1	<0.5	0.22	775
RP31-LYS-15	15	06/22/10	1.62	2.2	2.0	1.8	<0.5	0.23	790
RP31-LYS-15	15	06/29/10	1.46	2.3	1.9	1.6	0.7	0.36	780
RP31-LYS-25	25	04/06/10	1.39	2.0	1.4	1.4	0.5	<0.01	450
RP31-LYS-25	25	04/13/10	1.32	2.0	1.8	1.6	<0.5	<0.01	460
RP31-LYS-25	25	04/29/10	1.15	1.8	1.5	1.5	<0.5	0.04	605
RP31-LYS-25	25	05/04/10	1.63	2.1	1.8	1.8	<0.5	<0.01	560
RP31-LYS-25	25	05/11/10	1.85	2.2	1.9	1.8	<0.5	0.08	540
RP31-LYS-25	25	05/18/10	1.84	2.3	1.8	1.7	0.6	0.06	555
RP31-LYS-25	25	05/25/10	1.57						
RP31-LYS-25	25	05/26/10	1.50	1.9	1.9	1.8	<0.5	0.07	590
RP31-LYS-25	25	06/02/10	1.70	2.4	2.4	2.2	<0.5	0.22	625
RP31-LYS-25	25	06/08/10	1.43	2.6	2.3	2.1	0.5	0.21	660
RP31-LYS-25	25	06/15/10	1.61	2.6	2.0	1.8	0.8	0.19	665
RP31-LYS-25	25	06/22/10	1.32	1.6	1.6	1.4	<0.5	0.22	670
RP31-LYS-25	25	06/29/10	1.40	2.5	1.8	1.4	1.1	0.33	705
RP31-LYS-35	35	04/06/10	1.05	2.1	2.0	2.0	<0.5	<0.01	435
RP31-LYS-35	35	04/13/10	0.99	1.9	1.9	1.9	<0.5	0.02	445
RP31-LYS-35	35	04/29/10	0.82	2.1	2.1	1.9	<0.5	0.11	460
RP31-LYS-35	35	05/04/10	0.99	2.4	1.9	1.9	0.5	0.03	470
RP31-LYS-35	35	05/11/10	1.01	2.5	2.4	2.2	<0.5	0.13	475
RP31-LYS-35	35	05/18/10	0.97	2.5	2.5	2.4	<0.5	0.12	485
RP31-LYS-35	35	05/25/10	1.46						
RP31-LYS-35	35	05/26/10	0.99	2.7	2.3	2.2	0.6	0.11	495
RP31-LYS-35	35	06/02/10	1.04	2.5	2.5	2.3	<0.5	0.25	515
RP31-LYS-35	35	06/08/10	0.99	2.5	2.5	2.2	<0.5	0.22	520
RP31-LYS-35	35	06/15/10	1.37	2.4	2.3	2.1	<0.5	0.20	540
RP31-LYS-35	35	06/22/10	0.97	2.4	2.1	1.9	0.5	0.23	550
RP31-LYS-35	35	06/29/10	0.98	2.2	2.0	1.9	<0.5	0.06	580

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

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

Brooks Basin									
Site	Depth, bgs	Date	TOC	TN	TIN	NO ₃ -N	TKN+NO ₂ -N	NO ₂ -N	EC
Unit==>	feet	mm/dd/yy	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	µmho/cm
BRK-LYS-00	0	04/07/10	4.22	4.3	3.9	3.9	<0.5	<0.01	580
BRK-LYS-00	0	04/15/10	4.15	2.2	1.9	1.9	<0.5	<0.01	560
BRK-LYS-00	0	04/20/10	4.15	3.0	2.2	2.1	1.0	0.09	605
BRK-LYS-00	0	04/28/10	3.75	2.4	1.2	1.1	1.3	0.06	580
BRK-LYS-00	0	05/04/10	4.68	3.1	2.3	2.3	0.9	<0.01	645
BRK-LYS-00	0	05/11/10	5.28	3.3	2.3	2.1	1.1	0.06	665
BRK-LYS-00	0	05/19/10	4.53	2.9	2.2	2.0	0.8	0.06	685
BRK-LYS-00	0	05/25/10	3.89	1.8	1.6	1.1	0.7	0.07	705
BRK-LYS-00	0	06/02/10	4.88	2.7	2.0	1.7	1.0	0.28	700
BRK-LYS-00	0	06/09/10	3.59	2.7	2.0	1.6	1.0	0.19	710
BRK-LYS-00	0	06/15/10	4.50	3.0	2.0	1.9	1.1	0.16	695
BRK-LYS-00	0	06/22/10	4.70	2.8	2.1	1.9	1.0	0.16	700
BRK-LYS-00	0	06/29/10	4.64	3.1	1.5	1.3	1.8	0.02	645
BRK-LYS-05	5	04/07/10	2.89	0.9	0.9	<0.1	0.8	<0.01	555
BRK-LYS-05	5	04/15/10	3.44	0.8	1.1	0.2	0.6	<0.01	525
BRK-LYS-05	5	04/20/10	3.62	1.1	1.6	0.2	0.9	0.11	485
BRK-LYS-05	5	04/28/10	3.33	1.2	1.2	<0.1	1.1	0.05	585
BRK-LYS-05	5	05/04/10	3.37	1.1	1.1	<0.1	1.1	<0.01	590
BRK-LYS-05	5	05/11/10	4.14	2.8	2.2	1.9	0.9	0.05	630
BRK-LYS-05	5	05/19/10	3.79	2.1	1.9	1.2	1.0	0.20	695
BRK-LYS-05	5	05/25/10	2.79	<0.6	<0.2	<0.1	<0.5	0.09	570
BRK-LYS-05	5	06/02/10	3.77	2.4	1.8	1.0	1.4	0.32	720
BRK-LYS-05	5	06/09/10	3.06	<0.6	0.4	0.1	<0.5	0.20	575
BRK-LYS-05	5	06/15/10	3.47	2.1	2.0	1.7	<0.5	0.22	710
BRK-LYS-05	5	06/22/10	3.23	2.2	2.0	1.8	<0.5	0.21	720
BRK-LYS-05	5	06/29/10	3.59	1.8	1.4	1.0	0.8	0.32	725
BRK-LYS-10	10	04/07/10	2.78	<0.6	<0.2	<0.1	<0.5	<0.01	550
BRK-LYS-10	10	04/15/10	2.73	<0.6	<0.2	<0.1	<0.5	<0.01	535
BRK-LYS-10	10	04/20/10	2.68	<0.6	0.3	<0.1	<0.5	0.17	525
BRK-LYS-10	10	04/28/10	2.68	<0.6	<0.2	<0.1	0.6	0.08	525
BRK-LYS-10	10	05/04/10	2.93	<0.6	<0.2	<0.1	<0.5	<0.01	530
BRK-LYS-10	10	05/11/10	2.92	<0.6	0.3	0.1	<0.5	0.08	535
BRK-LYS-10	10	05/19/10	2.86	<0.6	<0.2	<0.1	<0.5	0.08	550
BRK-LYS-10	10	05/25/10	2.27	<0.6	<0.2	<0.1	<0.5	0.07	535
BRK-LYS-10	10	06/02/10	3.15			<0.1		0.30	580
BRK-LYS-10	10	06/09/10	2.37	<0.6	0.2	<0.1	<0.5	0.18	585
BRK-LYS-10	10	06/15/10	2.95	<0.6	0.4	0.1	<0.5	0.22	605
BRK-LYS-10	10	06/22/10	0.00			<0.1		0.23	635
BRK-LYS-10	10	06/29/10	3.50	0.8	0.5	<0.1	0.7	0.38	655
BRK-LYS-25	25	04/07/10	1.75	<0.6	<0.2	<0.1	<0.5	<0.01	205
BRK-LYS-25	25	04/15/10	1.75	<0.6	<0.2	<0.1	<0.5	<0.01	300
BRK-LYS-25	25	04/20/10	1.86	<0.6	<0.2	<0.1	<0.5	0.12	335
BRK-LYS-25	25	04/28/10	1.86	<0.6	<0.2	<0.1	<0.5	0.06	355
BRK-LYS-25	25	05/04/10	1.99	<0.6	<0.2	<0.1	<0.5	<0.01	400
BRK-LYS-25	25	05/11/10	2.18	<0.6	<0.2	<0.1	<0.5	0.06	445
BRK-LYS-25	25	05/19/10	2.37	<0.6	<0.2	<0.1	<0.5	0.06	480
BRK-LYS-25	25	05/25/10	2.64						
BRK-LYS-25	25	05/26/10	2.22	<0.6	<0.2	<0.1	<0.5	0.07	530
BRK-LYS-25	25	06/02/10	2.36	<0.6	0.3	<0.1	0.5	0.27	560
BRK-LYS-25	25	06/09/10	2.46	<0.6	<0.2	<0.1	0.5	0.17	530
BRK-LYS-25	25	06/15/10	2.36	<0.6	0.2	<0.1	<0.5	0.20	605
BRK-LYS-25	25	06/22/10	2.31				<0.5		
BRK-LYS-25	25	06/29/10	2.40	0.8	0.4	<0.1	0.8	0.32	615
BRK-LYS-35	35	04/07/10	0.00	<0.6	<0.2	<0.1	<0.5	<0.01	335
BRK-LYS-35	35	04/15/10	1.90	<0.6	<0.2	<0.1	<0.5	<0.01	345
BRK-LYS-35	35	04/20/10	2.34	<0.6	<0.2	<0.1	<0.5	0.13	365
BRK-LYS-35	35	04/28/10	1.98	<0.6	<0.2	<0.1	<0.5	0.07	415
BRK-LYS-35	35	05/04/10	2.12	<0.6	<0.2	<0.1	<0.5	<0.01	430
BRK-LYS-35	35	05/11/10	2.15	<0.6	<0.2	<0.1	<0.5	0.06	440
BRK-LYS-35	35	05/19/10	2.41	<0.6	<0.2	<0.1	<0.5	0.06	435
BRK-LYS-35	35	05/25/10	4.74						
BRK-LYS-35	35	05/27/10	2.05				<0.5	0.07	525
BRK-LYS-35	35	06/02/10	2.53	<0.6	0.2	<0.1	<0.5	0.22	560
BRK-LYS-35	35	06/09/10	4.73	2.7	1.3	1.1	1.6	0.13	685
BRK-LYS-35	35	06/15/10	2.25	<0.6	<0.2	<0.1	<0.5	0.18	505
BRK-LYS-35	35	06/22/10	2.89			<0.1	<0.5	0.18	505
BRK-LYS-35	35	06/29/10	3.01	0.7	0.3	<0.1	0.7	0.30	560

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

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

8th Street Basin									
Site	Depth, bgs	Date	TOC	TN	TiN	NO ₃ -N	TKN+NO ₂ -N	NO ₂ -N	EC
Unit==>	feet	mm/dd/yy	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	µmho/cm
8TH-LYS-00	0	04/07/10	9.97	2.4	1.3	1.0	1.4	0.06	235
8TH-LYS-00	0	04/15/10	6.93	0.8	0.8	0.4	<0.5	<0.01	215
8TH-LYS-00	0	04/21/10	4.45	7.2	5.3	5.0	2.2	0.16	465
8TH-LYS-00	0	04/29/10	8.03	1.9	0.9	0.7	1.2	0.07	625
8TH-LYS-00	0	05/04/10	4.21	3.9	1.3	0.8	3.1	0.01	435
8TH-LYS-00	0	05/11/10	5.70	2.3	1.4	1.0	1.2	0.08	700
8TH-LYS-00	0	05/19/10	7.42	1.6	0.9	<0.1	1.5	0.06	715
8TH-LYS-00	0	05/25/10	6.42	1.8	0.9	0.9	0.9	0.07	705
8TH-LYS-00	0	06/02/10	7.57	3.1	1.6	1.2	1.9	0.24	695
8TH-LYS-00	0	06/09/10	7.39	2.9	0.8	0.6	2.4	0.15	705
8TH-LYS-00	0	06/15/10	8.28	2.1	<0.2	<0.1	2.1	0.19	690
8TH-LYS-00	0	06/22/10	6.74	4.6	2.6	2.4	2.2	0.20	710
8TH-LYS-00	5	06/29/10	5.51	3.5	2.1	2.0	1.4	0.03	705
8TH-LYS-15	15	04/07/10	1.13	0.6	0.6	0.6	<0.5	<0.01	515
8TH-LYS-15	15	04/15/10	3.40	<0.6	0.3	0.3	<0.5	<0.01	470
8TH-LYS-15	15	04/21/10	1.94	0.6	0.5	0.3	<0.5	0.14	310
8TH-LYS-15	15	04/29/10	1.49	1.2	0.6	0.6	0.6	0.06	350
8TH-LYS-15	15	05/04/10	1.25	1.2	1.1	1.1	<0.5	<0.01	370
8TH-LYS-15	15	05/11/10	1.12	2.0	2.0	1.9	<0.5	0.09	435
8TH-LYS-15	15	05/19/10	1.79	0.9	0.8	0.7	<0.5	0.07	575
8TH-LYS-15	15	05/25/10	1.45	1.5	1.5	1.5	<0.5	0.06	670
8TH-LYS-15	15	06/02/10	2.75	1.4	1.1	0.9	<0.5	0.22	680
8TH-LYS-15	15	06/09/10	3.34	0.8	0.4	0.2	0.6	0.18	690
8TH-LYS-15	15	06/15/10	2.93	<0.6	0.4	0.2	<0.5	0.19	645
8TH-LYS-15	15	06/22/10	3.28	<0.6	0.3	0.1	<0.5	0.21	670
8TH-LYS-15	15	06/29/10	3.30	<0.6	0.5	<0.1	<0.5	0.32	675
8TH-LYS-25	25	04/07/10	2.04	<0.6	0.2	0.2	<0.5	<0.01	595
8TH-LYS-25	25	04/15/10	3.49	<0.6	<0.2	<0.1	<0.5	<0.01	440
8TH-LYS-25	25	04/21/10	2.89	<0.6	0.2	0.1	<0.5	0.12	295
8TH-LYS-25	25	04/29/10	2.20	<0.6	0.3	0.2	<0.5	0.08	395
8TH-LYS-25	25	05/04/10	2.00	<0.6	<0.2	0.2	<0.5	<0.01	410
8TH-LYS-25	25	05/11/10	2.04	<0.6	0.4	0.3	<0.5	0.08	525
8TH-LYS-25	25	05/19/10	2.85	<0.6	<0.2	<0.1	<0.5	0.06	640
8TH-LYS-25	25	05/25/10	2.73	<0.6	0.2	0.1	<0.5	0.05	655
8TH-LYS-25	25	06/02/10	3.40	<0.6	0.3	<0.1	0.5	0.22	650
8TH-LYS-25	25	06/09/10	3.56	0.7	0.4	<0.1	0.6	0.29	655
8TH-LYS-25	25	06/15/10	3.88	0.7	0.2	<0.1	0.7	0.21	660
8TH-LYS-25	25	06/22/10	3.61	<0.6	0.2	<0.1	<0.5	0.21	640
8TH-LYS-25	25	06/29/10	3.72	<0.6	0.4	<0.1	<0.5	0.33	665
8TH-LYS-35	35	04/07/10	2.04			<0.1	<0.5		460
8TH-LYS-35	35	04/15/10	2.48	<0.6	<0.2	<0.1	<0.5	<0.01	580
8TH-LYS-35	35	04/21/10	2.69	<0.6	<0.2	<0.1	<0.5	<0.01	520
8TH-LYS-35	35	04/29/10	2.43	<0.6	<0.2	<0.1	<0.5	0.08	395
8TH-LYS-35	35	05/04/10	2.26	<0.6	<0.2	<0.1	<0.5	<0.01	400
8TH-LYS-35	35	05/11/10	2.09	<0.6	0.2	0.1	<0.5	0.09	435
8TH-LYS-35	35	05/19/10	2.18	<0.6	<0.2	<0.1	<0.5	0.08	485
8TH-LYS-35	35	05/25/10	2.11	<0.6	<0.2	<0.1	<0.5	0.07	580
8TH-LYS-35	35	06/02/10	2.42	<0.6	0.3	<0.1	<0.5	0.23	655
8TH-LYS-35	35	06/09/10	2.58	<0.6	0.2	<0.1	<0.5	0.20	660
8TH-LYS-35	35	06/15/10	3.04	0.6	0.2	<0.1	0.6	0.21	655
8TH-LYS-35	35	06/22/10	2.67	<0.6	0.2	<0.1	<0.5	0.20	650
8TH-LYS-35	35	06/29/10	2.72	<0.6	0.4	<0.1	<0.5	0.31	

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

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

Hickory East Basin									
Site	Depth, bgs	Date	TOC	TN	TIN	NO ₃ -N	TKN+NO ₂ -N	NO ₂ -N	EC
Unit==>	feet	mm/dd/yy	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	µmho/cm
HKYE-LYS-00	0	04/06/10	5.96	3.4	1.4	1.4	2.0	<0.01	655
HKYE-LYS-00	0	04/13/10	10.08	2.4	<0.2	<0.1	2.3	<0.01	525
HKYE-LYS-00	0	04/20/10	8.21	1.3	<0.2	<0.1	1.3	0.08	515
HKYE-LYS-00	0	04/28/10	5.39	3.0	1.4	1.3	1.7	0.05	565
HKYE-LYS-00	0	05/04/10	5.07	2.9	1.0	0.9	2.0	<0.01	670
HKYE-LYS-00	0	05/11/10	4.91	3.3	1.7	1.6	1.7	0.07	680
HKYE-LYS-00	0	05/19/10	5.51	2.4	1.0	0.8	1.6	0.08	700
HKYE-LYS-00	0	05/25/10	5.28	3.0	0.5	0.5	2.5	0.06	695
HKYE-LYS-00	0	06/02/10	6.71	2.0	0.5	0.1	1.8	0.26	690
HKYE-LYS-00	0	06/08/10	6.70	2.6	0.7	0.4	2.2	0.16	690
HKYE-LYS-00	0	06/15/10	5.67	2.7	<0.2	<0.1	2.7	0.13	690
HKYE-LYS-00	0	06/22/10	5.32	0.9	0.3	<0.1	0.8	0.14	690
HKYE-LYS-00	0	06/29/10	5.69	2.4	0.3	<0.1	2.4	0.23	710
HKYE-LYS-25	25	04/06/10	1.72	2.3	2.1	2.1	<0.5	<0.01	605
HKYE-LYS-25	25	04/13/10	2.27	2.3	2.2	2.2	<0.5	<0.01	650
HKYE-LYS-25	25	04/20/10	1.33			1.9		0.07	640
HKYE-LYS-25	25	04/28/10	1.24	1.9	1.6	1.5	<0.5	0.04	595
HKYE-LYS-25	25	05/04/10	1.36			1.0		<0.01	620
HKYE-LYS-25	25	05/11/10	1.40	1.5	1.3	1.2	<0.5	0.05	655
HKYE-LYS-25	25	05/19/10	1.30	0.9	0.7	0.6	<0.5	0.05	630
HKYE-LYS-25	25	05/25/10	1.26			0.7		0.05	645
HKYE-LYS-25	25	06/02/10	1.13	0.7	0.8	0.5	<0.5	0.26	635
HKYE-LYS-25	25	06/08/10	1.06	1.3	1.1	0.8	<0.5	0.16	675
HKYE-LYS-25	25	06/15/10	1.29	1.5	1.4	1.2	<0.5	0.16	665
HKYE-LYS-25	25	06/22/10	1.07			0.8		0.18	645
HKYE-LYS-25	25	06/29/10	1.05	3.2	1.0	0.8	2.4	0.25	650

Banana Basin									
Site	Depth, bgs	Date	TOC	TN	TIN	NO ₃ -N	TKN+NO ₂ -N	NO ₂ -N	EC
Unit==>	feet	mm/dd/yy	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	µmho/cm
BNA-LYS-00	0	04/06/10	5.46	3.1	2.7	2.5	0.7	<0.01	580
BNA-LYS-00	0	04/13/10	5.25	2.4	1.4	1.2	1.2	<0.01	310
BNA-LYS-00	0	04/20/10	4.35	2.2	0.6	0.5	1.7	0.10	485
BNA-LYS-00	0	04/29/10	3.97	1.1	0.4	0.3	0.8	0.05	640
BNA-LYS-00	0	05/04/10	4.81	2.4	1.2	1.2	1.3	<0.01	670
BNA-LYS-00	0	05/11/10	5.20	2.9	2.2	2.0	0.9	0.06	700
BNA-LYS-00	0	05/18/10	4.63	3.6	3.0	2.7	0.9	0.05	720
BNA-LYS-00	0	05/25/10	6.15	2.7	1.0	0.9	1.8	0.06	695
BNA-LYS-00	0	06/02/10	5.24	2.2	1.8	1.4	0.9	0.31	710
BNA-LYS-00	0	06/08/10	6.91	2.3	0.8	0.5	1.7	0.15	700
BNA-LYS-00	0	06/15/10	6.42	2.6	1.2	1.0	1.6	0.15	705
BNA-LYS-00	0	06/22/10	5.10	4.1	3.1	2.9	1.2	0.15	730
BNA-LYS-00	0	06/29/10	5.88	2.5	1.1	1.1	1.4	0.01	705
BNA-LYS-25	25	04/06/10	0.62	<0.6	0.4	0.4	<0.5	<0.01	200
BNA-LYS-25	25	04/13/10	0.88	<0.6	0.4	0.4	<0.5	<0.01	210
BNA-LYS-25	25	04/20/10	0.67	0.6	0.6	0.4	<0.5	0.15	310
BNA-LYS-25	25	04/29/10	0.81	<0.6	0.4	0.3	<0.5	0.08	360
BNA-LYS-25	25	05/04/10	0.69	<0.6	0.3	0.3	<0.5	<0.01	400
BNA-LYS-25	25	05/11/10	0.78	<0.6	0.5	0.4	<0.5	0.08	450
BNA-LYS-25	25	05/18/10	0.75	<0.6	0.5	0.4	<0.5	0.07	505
BNA-LYS-25	25	05/25/10	0.74	<0.6	0.5	0.4	<0.5	0.07	550
BNA-LYS-25	25	06/02/10	0.63	0.8	0.7	0.3	0.5	0.32	620
BNA-LYS-25	25	06/08/10	0.79	0.7	0.8	0.5	<0.5	0.23	645
BNA-LYS-25	25	06/15/10	1.02	1.9	0.8	0.6	1.3	0.20	640
BNA-LYS-25	25	06/22/10	1.01	0.9	0.9	0.7	<0.5	0.20	640
BNA-LYS-25	25	06/29/10	0.92	1.0	1.0	0.7	<0.5	0.30	655

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

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

San Sevaire Basin									
Site	Depth, bgs	Date	TOC	TN	TIN	NO ₃ -N	TKN+NO ₂ -N	NO ₂ -N	EC
Unit==>	feet	mm/dd/yy	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	µmho/cm
SS5-LYS-05	5	06/02/10	10.88	10.8	10.8	9.9	0.9	0.88	2950
SS5-LYS-05	5	06/09/10	11.91	9.7	8.7	8.4	1.3	0.27	2680
SS5-LYS-05	5	06/15/10	9.77	10.4	8.4	8.2	2.2	0.21	2480
SS5-LYS-05	5	06/22/10	9.19	9.9	6.9	6.7	3.2	0.19	2220
SS5-LYS-05	5	06/29/10	11.17	10.2	6.3	6.1	4.1	0.10	2080
SS5-LYS-10	10	06/02/10	8.70	20.1	15.1	14.1	6.0	0.95	2640
SS5-LYS-10	10	06/09/10	8.07	18.5	12.5	11.8	6.6	0.63	2560
SS5-LYS-10	10	06/15/10	7.83	19.1	12.1	11.5	7.7	0.66	2580
SS5-LYS-10	10	06/29/10	8.76			8.8	8.6	0.58	2680
SS5-LYS-15	15	06/02/10	18.42	10.2	1.3	0.5	9.7	0.69	2910
SS5-LYS-15	15	06/09/10	24.83	10.6	0.6	0.5	10.1	0.08	3040
SS5-LYS-15	15	06/15/10	12.86	11.6	0.7	0.6	11.1	0.08	3130
SS5-LYS-20	20	06/02/10	6.18	13.2	1.3	<0.1	13.2	1.16	1740
SS5-LYS-20	20	06/09/10	11.56	13.2	0.2	<0.1	13.2	0.20	1830
SS5-LYS-20	20	06/15/10	6.25	14.4	0.4	<0.1	14.3	0.32	1830
SS5-LYS-20	20	06/22/10	6.16	15.6	0.7	0.3	15.3	0.34	1860
SS5-LYS-20	20	06/29/10	12.97			0.2	16.1	0.06	1890
SS5-LYS-25	25	06/02/10	5.01	21.4	4.4	3.7	17.7	0.74	1360
SS5-LYS-25	25	06/09/10	11.67	21.8	3.8	3.5	18.3	0.27	1490
SS5-LYS-25	25	06/15/10	6.19	22.7	3.7	3.4	19.3	0.27	1600
SS5-LYS-25	25	06/22/10	5.17	22.9	2.9	2.7	20.2	0.23	1750
SS5-LYS-30	30	06/02/10	6.78	27.3	6.3	3.4	23.9	2.95	1790
SS5-LYS-30	30	06/09/10	9.73	27.0	5.0	2.9	24.1	2.15	1850
SS5-LYS-30	30	06/15/10	5.36	27.7	4.7	2.7	25.0	2.03	1830
SS5-LYS-30	30	06/22/10	4.98	27.8	3.9	2.2	25.7	1.66	1800
SS5-LYS-30	30	06/29/10	6.63	28.6	3.6	2.1	26.5	1.54	1730
SS5-LYS-35	35	06/02/10	11.25			1.0	27.2	1.20	1700
SS5-LYS-35	35	06/09/10	18.89	28.7	1.7	1.0	27.7	0.66	1770
SS5-LYS-35	35	06/15/10	7.59	29.8	1.8	1.1	28.7	0.70	1810
SS5-LYS-35	35	06/22/10	21.53	30.4	1.4	0.8	29.6	0.61	1710

Victoria Basin									
Site	Depth, bgs	Date	TOC	TN	TIN	NO ₃ -N	TKN+NO ₂ -N	NO ₂ -N	EC
Unit==>	feet	mm/dd/yy	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	µmho/cm
VCT-LYS-00	0	06/09/10	15.65	<0.6	0.2	<0.1	<0.5	0.13	585
VCT-LYS-00	0	06/15/10	6.87	1.2	0.2	<0.1	1.2	0.18	420
VCT-LYS-00	0	06/22/10	9.63	2.2	<0.2	<0.1	2.1	0.13	690
VCT-LYS-00	0	06/29/10	10.88	3.1	0.2	<0.1	3.0	0.02	870
VCT-LYS-05	5	06/15/10	1.91	5.2	1.2	1.0	4.2	0.22	510
VCT-LYS-10	10	06/09/10	3.59	6.3	1.3	1.1	5.2	0.19	690
VCT-LYS-10	10	06/15/10	2.96	6.7	0.7	0.5	6.2	0.18	690
VCT-LYS-10	10	06/22/10	2.9	7.5	0.5	0.3	7.2	0.20	850
VCT-LYS-10	10	06/29/10	3.01	8.6	0.6	0.3	8.3	0.29	955
VCT-LYS-15	15	06/09/10	3.3	9.2	0.2	<0.1	9.1	0.14	985
VCT-LYS-15	15	06/15/10	3.28	10.2	0.2	<0.1	10.1	0.13	1030
VCT-LYS-15	15	06/22/10	2.9	11.2	<0.2	<0.1	11.1	0.13	930
VCT-LYS-15	15	06/29/10	2.78	12.0	<0.2	<0.1	12.0	0.02	975
VCT-LYS-20	20	06/09/10	3.43	13.2	0.2	<0.1	13.1	0.12	690
VCT-LYS-20	20	06/15/10	3.02	14.1	<0.2	<0.1	14.1	0.11	780
VCT-LYS-20	20	06/22/10	3.02	15.2	<0.2	<0.1	15.1	0.14	840
VCT-LYS-20	20	06/29/10	3.12	16.3	0.3	<0.1	16.2	0.25	710
VCT-LYS-25	25	06/15/10				0.6	17.3	0.25	1420
VCT-LYS-30	30	06/09/10	3.41	18.9	0.9	0.7	18.1	0.15	475
VCT-LYS-30	30	06/15/10	2.77	19.3	0.3	0.1	19.1	0.14	450
VCT-LYS-30	30	06/22/10	2.46	20.2	0.2	<0.1	20.2	0.15	420
VCT-LYS-30	30	06/29/10	2.78	21.1	<0.2	<0.1	21.0	0.03	425
VCT-LYS-35	35	06/09/10	2.22	22.6	0.6	0.4	22.2	0.18	375
VCT-LYS-35	35	06/15/10	1.62	23.2	<0.2	<0.1	23.1	0.15	340
VCT-LYS-35	35	06/29/10	2.14	24.3	0.3	<0.1	24.3	0.30	395

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

Table 2-5b
Alternative Monitoring Plans

Turner Basin					
Date	Recycled Water*	Recycled Water*	Turner 1 & 2	Turner 3 & 4	Turner 1 & 2 Turner 3 & 4
mg/L==>	TOC	TN	TOC (70% reduction)	TOC (85% reduction)	TN (87% reduction)
04/01/10	4.30	3.2	1.29	0.65	0.4
04/06/10	3.58	3.3	1.07	0.54	0.4
04/13/10	3.68	1.3	1.10	0.55	0.2
04/20/10	3.69	3.0	1.11	0.55	0.4
04/28/10	4.05	3.1	1.22	0.61	0.4
05/04/10	4.84	6.2	1.45	0.73	0.8
05/11/10	4.95	6.2	1.49	0.74	0.8
05/19/10	4.49	4.2	1.35	0.67	0.5
05/25/10	4.63	4.3	1.39	0.69	0.6
06/02/10	4.87	4.6	1.46	0.73	0.6
06/29/10	3.83	4.7	1.15	0.57	0.6

Ely Basin**				
Date	Recycled Water*	Recycled Water*	Ely 3 East	Ely 3 East
mg/L==>	TOC	TN	TOC (76% reduction)	TN (52% reduction)
04/01/10	4.30	3.2	1.03	1.5
04/06/10	3.58	3.3	0.86	1.6
04/13/10	3.68	1.3	0.88	0.6
04/20/10	3.69	3.0	0.89	1.5
04/28/10	4.05	3.1	0.97	1.5
05/04/10	4.84	6.2	1.16	3.0
05/11/10	4.95	6.2	1.19	3.0
05/19/10	4.49	4.2	1.08	2.0
05/25/10	4.63	4.3	1.11	2.1
06/02/10	4.87	4.6	1.17	2.2
06/29/10	3.83	4.7	0.92	2.3

*Recycled water sampled at RRI Energy (formerly Reliant Energy)

** Recycled water was not delivered to Ely Basin during 2Q10

Table 2-6
Diluent Water Monitoring*: Local Runoff

Constituent	Cucamonga Creek @ Turner 1&2 May 19, 2010	Deer Creek @ Turner 3&4 May 19, 2010	W. Cucamonga Creek @ 8th St. Basin May 19, 2010	Unit	Method
NO ₂ -N	0.08	0.06	0.12	mg/L	EPA 300.0
NO ₃ -N	0.2	0.1	2.3	mg/L	EPA 300.0
TDS	140	254	416	mg/L	SM 2540C
Total Coliform	NS	NS	NS	mpn/100ml	SM 9221B
Oil & Grease	<2	<2	<2	mg/L	EPA 1664A
Inorganic Chemicals					
Aluminum	65	94	66	µg/L	EPA 200.7
Antimony	<1	<1	1	µg/L	EPA 200.8
Arsenic	<2	<2	2	µg/L	EPA 200.8
Asbestos	<6.4	<6.4	<5.5	MFL	EPA 100.2
Barium	35	40	64	µg/L	EPA 200.7
Beryllium	<0.5	<0.5	<0.5	µg/L	EPA 200.7
Cadmium	<0.25	<0.25	<0.25	µg/L	EPA 200.7
Chromium	0.5	2.0	1.1	µg/L	EPA 200.7
Cyanide	<0.006	<0.006	<0.006	mg/L	SM 4500-CN E
Fluoride	0.3	0.4	0.4	mg/L	SM 4500-F C
Mercury	<0.2	<0.2	<0.2	µg/L	EPA 245.2
Nickel	<1	2	3	µg/L	EPA 200.7
Perchlorate	<4	<4	<4	µg/L	EPA 314
Selenium	<2	<2	<2	µg/L	EPA 200.8
Thallium	<1	<1	<1	µg/L	EPA 200.8
Volatile Organic Chemicals (VOCs)					
Benzene	<0.5	<0.5	<0.5	µg/L	EPA 524.2
Carbon Tetrachloride	<0.5	<0.5	<0.5	µg/L	EPA 524.2
1,2-Dichlorobenzene	<0.5	<0.5	<0.5	µg/L	EPA 524.2
1,4-Dichlorobenzene	<0.5	<0.5	<0.5	µg/L	EPA 524.2
1,1-Dichloroethane	<0.5	<0.5	<0.5	µg/L	EPA 524.2
1,2-Dichloroethane	<0.5	<0.5	<0.5	µg/L	EPA 524.2
1,1-Dichloroethylene	<1	<1	<1	µg/L	EPA 524.2
cis-1,2-Dichloroethylene	<0.5	<0.5	<0.5	µg/L	EPA 524.2
trans-1,2-Dichloroethylene	<0.5	<0.5	<0.5	µg/L	EPA 524.2
Dichloromethane	<0.5	<0.5	<0.5	µg/L	EPA 524.2
1,2-Dichloropropane	<0.5	<0.5	<0.5	µg/L	EPA 524.2
1,3-Dichloropropane	<0.5	<0.5	<0.5	µg/L	EPA 524.2
Ethylbenzene	<0.5	<0.5	<0.5	µg/L	EPA 524.2
Chlorobenzene	<0.5	<0.5	<0.5	µg/L	EPA 524.2
Methyl Tert-butyl ether (MTBE)	<0.5	<0.5	<0.5	µg/L	EPA 524.2
Styrene	<0.5	<0.5	<0.5	µg/L	EPA 524.2
1,1,2,2-Tetrachloroethane	<0.5	<0.5	<0.5	µg/L	EPA 524.2
Tetrachloroethylene	<0.5	<0.5	<0.5	µg/L	EPA 524.2
Toluene	<0.5	<0.5	<0.5	µg/L	EPA 524.2
1,2,4-Trichlorobenzene	<0.5	<0.5	<0.5	µg/L	EPA 524.2
1,1,1-Trichloroethane	<0.5	<0.5	<0.5	µg/L	EPA 524.2
1,1,2-Trichloroethane	<0.5	<0.5	<0.5	µg/L	EPA 524.2
Trichloroethylene	<0.5	<0.5	<0.5	µg/L	EPA 524.2
Trichlorofluoromethane	<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	µg/L	EPA 524.2
Vinyl Chloride	<0.5	<0.5	<0.5	µg/L	EPA 524.2
Total Xylenes	<1	<1	<1	µg/L	EPA 524.2
Non-Volatile Synthetic Organic Chemicals (SOCs)					
Alachlor (Alanex)	<0.1	<0.1	<0.1	µg/L	EPA 505
Atrazine	<0.05	<0.05	<0.05	µg/L	EPA 525.2
Bentazon	<0.5	<0.5	<0.5	µg/L	EPA 515.4
Benzo(a)pyrene	<0.02	<0.02	<0.02	µg/L	EPA 525.2
Carbofuran	<0.5	<0.5	<0.5	µg/L	EPA531.2
Chlordane	<0.1	<0.1	<0.1	µg/L	EPA 505
2,4-D	<0.1	<0.1	<0.1	µg/L	EPA 515.4
Dalapon	<1	2	<1	µg/L	EPA 515.4
Dibromochloropropane	<0.01	<0.01	<0.01	µg/L	EPA 504.1
Di(2-ethylhexyl)adipate	<0.6	<0.6	<0.6	µg/L	EPA 525.2
Di(2-ethylhexyl)phthalate	<0.6	0.61	<0.6	µg/L	EPA 525.2
Dinoseb	<0.2	<0.2	<0.2	µg/L	EPA 515.4
Diquat	<0.4	<0.4	<0.4	µg/L	EPA 549.2
Endothall	<45	<45	<45	µg/L	EPA 548.1
Endrin	<0.01	<0.01	<0.01	µg/L	EPA 505
Ethylene Dibromide	<0.01	<0.01	<0.01	µg/L	EPA 504.1
Glyphosate	<6	<6	9.7	µg/L	EPA 547
Heptachlor	<0.01	<0.01	<0.01	µg/L	EPA 505

Table 2-6
Diluent Water Monitoring*: Local Runoff

Constituent	Cucamonga Creek @ Turner 1&2 May 19, 2010	Deer Creek @ Turner 3&4 May 19, 2010	W. Cucamonga Creek @ 8th St. Basin May 19, 2010	Unit	Method
Heptachlor Epoxide	<0.01	<0.01	<0.01	µg/L	EPA 505
Hexachlorobenzene	<0.05	<0.05	<0.05	µg/L	EPA 525.2
Hexachlorocyclopentadiene	<0.05	<0.05	<0.05	µg/L	EPA 525.2
Lindane	<0.01	<0.01	<0.01	µg/L	EPA 505
Methoxychlor	<0.05	<0.05	<0.05	µg/L	EPA 505
Molinate	<0.1	<0.1	<0.1	µg/L	EPA 525.2
Oxamyl	<0.5	<0.5	<0.5	µg/L	EPA 531.2
Pentachlorophenol	<0.04	<0.04	<0.04	µg/L	EPA 515.4
Picloram	<0.1	<0.1	<0.1	µg/L	EPA 515.4
PCB 1016	<0.08	<0.08	<0.08	µg/L	EPA 505
PCB 1221	<0.1	<0.1	<0.1	µg/L	EPA 505
PCB 1232	<0.1	<0.1	<0.1	µg/L	EPA 505
PCB 1242	<0.1	<0.1	<0.1	µg/L	EPA 505
PCB 1248	<0.1	<0.1	<0.1	µg/L	EPA 505
PCB 1254	<0.1	<0.1	<0.1	µg/L	EPA 505
PCB 1260	<0.1	<0.1	<0.1	µg/L	EPA 505
Simazine	<0.05	<0.05	<0.05	µg/L	EPA 525.2
Thiobencarb	<0.2	<0.2	<0.2	µg/L	EPA 525.2
Toxaphene	<0.5	<0.5	<0.5	µg/L	EPA 505
2,3,7,8-TCDD (Dioxin)	<5	<5	<5	pg/L	EPA 1613
2,4,5-TP (Silvex)	<0.2	<0.2	<0.2	µg/L	EPA 515.4
Disinfection Byproducts					
Total Trihalomethanes (TTHMs)	<2	<2	<2	µg/L	EPA 524.2/624
Total Haloacetic Acids (HAA5)	3	10	60	µg/L	S6251B
Bromate	<5	6	170	µg/L	EPA 300.1
Chlorite	<0.01	<0.01	0.16	mg/L	EPA 300.0
Action Level Chemicals					
Copper	2.3	17.5	10.1	µg/L	EPA 200.7
Lead	<0.5	<0.5	0.6	µg/L	EPA 200.8
Radionuclides					
Combined Radium-226 and Radium 22	<0.58	<0.82	<0.71	pCi/L	EPA 903.0
Gross Alpha Particle Activity	<3	<3	<3	pCi/L	EPA 900.0
Tritium	<217	<217	<217	pCi/L	EPA 906
Strontium-90	<0.22	<0.18	<0.18	pCi/L	EPA 905
Gross Beta Particle Activity	<3	<3	4	pCi/L	EPA 900.0
Uranium	1.2	<0.7	2.2	pCi/L	EPA 200.8
Unregulated Chemicals					
Chromium VI	0.3	1.3	0.4	µg/L	EPA 218.6
Ethyl tertiary butyl ether	<0.5	<0.5	<0.5	µg/L	EPA 524.2
Tertiary amyl methyl ether	<0.5	<0.5	<0.5	µg/L	EPA 524.2
Chemicals w/ State Notification Levels					
Boron	<0.1	<0.1	<0.1	mg/L	EPA 200.7
n-butylbenzene	<0.5	<0.5	<0.5	µg/L	EPA 524.2
sec-butylbenzene	<0.5	<0.5	<0.5	µg/L	EPA 524.2
tert-butylbenzene	<0.5	<0.5	<0.5	µg/L	EPA 524.2
Carbon disulfide	<0.5	<0.5	<0.5	µg/L	EPA 524.2
2-Chlorotoluene	<0.5	<0.5	<0.5	µg/L	EPA 524.2
4-Chlorotoluene	<0.5	<0.5	<0.5	µg/L	EPA 524.2
Dichlorodifluoromethane (Freon 12)	<0.5	<0.5	<0.5	µg/L	EPA 524.2
1,4 - Dioxane	<2	<2	<2	µg/L	EPA 522
Isopropylbenzene	<0.5	<0.5	<0.5	µg/L	EPA 524.2
Methyl isobutyl ketone (MIBK)	<2	<2	<2	µg/L	EPA 524.2
N-nitrosodimethylamine (NDMA)	<2	<2	<2	ng/l	EPA 521
N-propylbenzene	<0.5	<0.5	<0.5	µg/L	EPA 524.2
1,2,3-Trichloropropane (1,2,3-TCP)	<0.5	<0.5	<0.5	µg/L	EPA 524.2
1,2,4 -trimethylbenzene	<0.5	<0.5	<0.5	µg/L	EPA 524.2
1,3,5-trimethylbenzene	<0.5	<0.5	<0.5	µg/L	EPA 524.2
Vanadium	4	21	5	µg/L	EPA 200.8
Secondary Maximum Contaminant Level Chemicals					
Aluminum	65	94	66	µg/L	EPA 200.7
Corrosivity	1.4	2.5	0.9	SI	SM 2330B
Foaming Agents (MBAS)	<0.05	0.13	0.17	mg/L	S5540C/EPA 425.1
Iron	98	113	176	µg/L	EPA 200.7
Manganese	4	6	32	µg/L	EPA 200.7
Odor--Threshold	8	40	40	TON	SM 2150B
Silver	<0.25	<0.25	<0.25	µg/L	EPA 200.7
Thiobencarb	<0.2	<0.2	<0.2	µg/L	EPA 525.2
Zinc	4	20	27	µg/L	EPA 200.7

* Diluent monitoring is monitored per the schedule identified in the CDPH-approved Diluent Water Monitoring Plan

NS: Not Sampled

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
	601001	Inland Empire Utilities Agency - BH-1/1	340 downgradient	365-405	4	Active	Monitoring
	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	Inactive	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
	600997	Inland Empire Utilities Agency - TRN-1/1	50 downgradient	340-360	4	Active	Monitoring
	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	300208	Jurupa Community Services District - 19	8900 downgradient	230-390	18	Active	Municipal
	300207	Jurupa Community Services District - 17	5240 downgradient	259-290, & 300-400	NA	Active	Municipal
	300200	Jurupa Community Services District - 13	5730 downgradient	220-446	16-34	Active	Municipal
	--	Inland Empire Utilities Agency - DCZ-1	50 downgradient	155-175	4	Active	Monitoring
	--	Inland Empire Utilities Agency - D-1/2	50 downgradient	185-205	4	NA	Monitoring
RP-3 Basins	600492	Fontana Water Company - F23a	7900 upgradient	450-740	18	Active	Municipal
	600477	Inland Empire Utilities Agency - Southridge JHS	5500 downgradient	NA	NA	Active	Municipal
	600848	Alcoa - Offsite Mw1	9480 downgradient	NA	NA	Active	Monitoring
	600850	Alcoa - Offsite Mw3	4725 downgradient	NA	NA	Active	Monitoring
	--	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
Jurupa	Not currently planned for recharge						
7th & 8th Street Basins	3601561	San Antonio Water Company No. 12	740 downgradient	379-480, 525-563, 578-609, & 634-679	16	Inactive	Municipal
	3601772	City of Ontario No. 4	3429 downgradient	526-910	16-20	Inactive	Municipal
	--	City of Ontario No. 51	3402 downgradient	Not Yet Constructed	NA	NA	Municipal
	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	1901719	City of Pomona P-10	1983 downgradient	295-784	20	Active	Municipal
	1901713	City of Pomona P-04	2620 downgradient	254-338, & 403-452	NA	Inactive	Municipal
	1903156	City of Pomona P-30	2160 crossgradient	565-875	20	Inactive	Municipal
	1903016	City of Pomona P-2	3455 downgradient	NA	NA	Active	Municipal
	1901725	City of Pomona P-17	4500 downgradient	454-536	20	Inactive	Municipal
	--	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
San Sevaline Basins	600905	Cucamonga Valley Water District No. 39	8300-13170 downgradient	750-870, 940-960, 970-1060, & 1080-1130,	20		Municipal
	--	Inland Empire Utilities Agency - SS-1/1 and 1/2	~39-116 downgradient	640-680	4	NA	Monitoring
	--	Inland Empire Utilities Agency - SS-2/1 and 2/2	~39-116 downgradient	650-690	4	NA	Monitoring
	--	Inland Empire Utilities Agency - SS-3/1 and 3/2	~750 downgradient	650-690	4	NA	Monitoring
	600576	Unitex IRR	~ 1338 downgradient	NA	NA	NA	Private Irrigation
	600462	Unitex 91090	~1601 downgradient	NA	NA	Active	Private Domestic
	600369	Unitex CalDOT	~ 2850 downgradient	400-684	NA	NA	Irrigation
Victoria Basin	600905	Cucamonga Valley Water District No. 39	4329 downgradient	750-870, 940-960, 970-1060, & 1080-1130,	20	Active	Municipal
	601033	Cucamonga Valley Water District No. 43**	8300 downgradient	650-800	32-42	Active	Municipal
	--	Inland Empire Utilities Agency - SS-1/1 and 1/2	~39-116 downgradient	570-610	4	NA	Monitoring
	--	Inland Empire Utilities Agency - SS-1/1 and 1/2	~ 2000 downgradient	570-610	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 number

bgs = below ground surface

* = Ontario Well No. 38 replaced Ontario Well No. 19, which is inactive

** = Cucamonga Valley Water District No. 43 replaced CVWD Well Nos. 35 & 36, which are inactive.

Table 2-8
Groundwater Monitoring Well 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)	Thiobencarb (µg/L)	Turbidity (NTU)	Zn (µg/L)	Cl (mg/L)	Hardness (mg CaCO ₃ /L)	Na (mg/L)	SO ₄ (mg/L)	NH ₄ -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	4/14/10	<0.1	<1.1	7.4	475	304	<25	<3	5	0.4	<0.05	60	2	<0.5	1	<0.25	<0.2	0.5	8	17	215	18	15	<0.1	<0.01	9.5	9.5	<0.5	172	11.9	
	California Speedway Infield Well	4/14/10	0.1	<1.1	7.7	500	334	<25	<3	1.2	0.4	<0.05	<15	<1	<0.5	1	<0.25	<0.2	0.2	<1	14	228	20	40	<0.1	<0.01	7.5	7.5	<0.5	167	1.9	
	California Speedway 2	5/12/10	<0.1	<1.1	7.9	375	244	<25	<3	7	0.1	<0.05	<15	<1	<0.5	1	<0.25	<0.2	1.4	11	12	159	19	13	<0.1	0.11	4.4	4.6	<0.5	159	1.7	
	Reliant Energy East Well	4/14/10	0.1	<1.1	7.1	345	234	<25	<3	4	0.1	<0.05	18	<1	<0.5	1	<0.25	<0.2	0.3	1	20	143	19	17	<0.1	<0.01	4.9	4.9	<0.5	133	26.9	
	Ontario Well No. 20	4/15/10	0.2	<1.1	6.4	385	252	<25	<3	4.7	0.4	<0.05	249	2	<0.5	1	<0.25	<0.2	1.6	5	10	176	15	7	<0.1	0.09	3.1	3.2	<0.5	173	7.8	
	BH-1/2	4/14/10	0.3	<1.1	7.4	505	332	<25	3	0.5	0.2	<0.05	156	4	<0.5	1	<0.25	<0.2	1.8	2	55	206	23	33	<0.1	<0.01	4.5	4.7	<0.5	122	7.3	
Turner	Ontario Well No. 25	4/15/10	<0.1	<1.1	7.2	450	288	<25	3	0.5	0.4	<0.05	<15	<1	<0.5	2	<0.25	<0.2	0.2	<1	16	196	23	17	<0.1	0.07	4.2	4.3	<0.5	179	10.1	
	Ontario Well No. 29	4/15/10	0.2	<1.1	7.3	405	268	<25	3	<0.5	0.2	<0.05	<15	<1	<0.5	1	<0.25	<0.2	0.2	<1	16	169	21	21	<0.1	0.07	5.6	5.7	<0.5	147	7.8	
	Ontario Well No. 38	4/15/10	<0.1	<1.1	7.3	330	210	<25	<3	0.6	0.4	<0.05	<15	<1	<0.5	1	<0.25	<0.2	0.3	<1	5	143	19	8	<0.1	0.12	1.2	1.3	<0.5	156	10.4	
	T-1/2	4/13/10	0.3	<1.1	7.1	320	206	<25	<3	0.5	0.1	<0.05	72	<1	<0.5	1	<0.25	<0.2	0.8	<1	20	138	18	12	<0.1	<0.01	0.1	0.3	<0.5	125	7.3	
	T-2/1	4/13/10	0.6	<1.1	7.3	450	282	<25	<3	0.5	0.1	<0.05	33	<1	<0.5	1	<0.25	<0.2	0.1	<1	49	168	29	20	<0.1	<0.01	0.8	0.9	<0.5	131	7.5	
	T-2/2	4/13/10	0.4	<1.1	7.4	410	270	<25	<3	<0.5	0.2	<0.05	<15	<1	<0.5	1	<0.25	<0.2	0.3	1	32	168	25	26	<0.1	<0.01	1.2	1.4	<0.5	135	7.3	
RP-3	Southridge JHS	4/29/10	0.3	>23	6.9	1020	674	229	5	0.8	0.2	0.05	2410	80	<0.5	1	<0.25	<0.2	12.7	4	119	376	57	80	<0.1	0.04	14.7	14.8	<0.5	217	9.5	
	Fontana Water Company F23a	4/29/10	<0.1	<1.1	5.8	420	284	<25	<3	45.8	0.4	<0.05	65	3	<0.5	1	<0.25	<0.2	0.7	15	31	186	19	25	<0.1	0.09	7.2	7.3	<0.5	140	9.2	
	Alcoa Offsite MW1	5/10/10	0.2	23	7.4	565	396	1250	5	4.4	0.4	<0.05	1990	42	<0.5	1	<0.25	<0.2	11.8	24	25	234	27	34	<0.1	0.10	19.2	19.3	<0.5	158	5.5	
	Alcoa Offsite MW3	5/10/10	0.3	<1.1	7.2	1090	732	272	3	4.8	0.3	<0.05	485	9	<0.5	1	<0.25	<0.2	5.2	15	107	418	47	56	<0.1	<0.01	26.6	26.6	<0.5	254	4.5	
	RP3-1/1	4/6/10	0.7			1230																			<0.1	<0.01	65.4		<0.5			
	RP3-1/1	4/14/10	0.7	2	6.8	1290	924	<25	<3	1.0	0.2	0.12	31	80	<0.5	2	<0.25	<0.2	0.9	2	28	493	84	49	<0.1	<0.01	69.1	69.2	<0.5	307	1.0	
	RP3-1/1	6/2/10	1.0			1370																			<0.1	1.20	69.9	71.1	<0.5			
	RP3-1/2	4/6/10	1.0			1170																			<0.1	0.44	54.4	54.8	<0.5			
	RP3-1/2	4/14/10	1.1	16	6.9	1190	858	<25	<3	0.9	0.2	0.14	<15	322	<0.5	2	<0.25	<0.2	0.4	3	28	449	79	49	<0.1	0.67	59.3	60.1	<0.5	297	0.9	
	RP3-1/2	6/2/10	1.1			1280																			<0.1	1.41	59.7	61.1	<0.5			
7th & 8th St.	8TH-1/1	5/20/10	0.5	2	7.1	305	246	<25	<3	1.5	-0.3	<0.05	264	11	<0.5	1	<0.25	<0.2	1.8	1	51	126	12	5	<0.1	0.11	1.2	1.7	<0.5	64	8.3	
	8TH-1/2	5/20/10	0.4	1	7.1	270	175	<25	<3	<0.5	-0.3	<0.05	<15	<1	<0.5	1	<0.25	<0.2	0.3	1	18	114	14	12	<0.1	0.17	2.9	3.3	<0.5	103	8.9	
	8TH-2/1	5/3/10	0.1	<1.1	7.1	550	386	<25	<3	<0.5	0.1	<0.05	<15	<1	<0.5	1	<0.25	<0.2	0.4	<1	15	253	19	35	<0.1	0.11	19.5	19.6	<0.5	140	12.5	
	8TH-2/2	5/3/10	0.1	<1.1	7.1	550	372	<25	<3	<0.5	0.0	<0.05	15	1	<0.5	1	3.73	<0.2	0.5	<1	17	248	19	23	<0.1	0.11	18.6	18.7	<0.5	158	7.0	
Brooks	Pomona P-10	4/13/10	0.1	<1.1	5.4	550	358	<25	<3	16.5	0.5	<0.05	<15	<1	<0.5	1	<0.25	<0.2	0.4	10	33	260	12	41	<0.1	<0.01	9.8	9.8	<0.5	152	11.2	
	Ontario Well No. 35	4/15/10	<0.1	<1.1	7.3	350	228	<25	<3	1.6	0.2	<0.05	15	<1	<0.5	1	<0.25	<0.2	0.3	3	6	140	23	20	<0.1	0.11	2.3	2.5	<0.5	144	7.3	
	BRK-1/1	4/20/10	0.4	<1.1	7.1	460	288	6920	30	18.4		<0.05	1960	536	<0.5	1	<0.25	<0.2	22.4	35	64	184	19	28	<0.1	0.08	1.9	2.0	<0.5	102	4.5	
	BRK-1/2	4/28/10	0.6	<1.1	7.5	570	378	<25	<3	<0.5	0.4	<0.05	<15	<1	<0.5	1	<0.25	<0.2	0.2	<1	23	274	15	41	<0.1	0.09	17.0		2.2	153	11.3	
	BRK-2/1	4/28/10	0.2	<1.1	7.3	565	372	<25	<3	<0.5	0.6	<0.05	56	2	<0.5	1	<0.25	<0.2	0.6	<1	38	282	11	44	<0.1	0.08	8.5	8.7	<0.5	163	8.1	
	BRK-2/2	4/28/10	<0.1	<1.1	8.0	360	234	45	<3	0.5	0.4	<0.05	77	2	<0.5	1	0.28	<0.2	1.1	1	7	110	35	21	<0.1	0.10	6.9	7.0	<0.5	134	7.2	
Ely	Ely Basin MW-2 Walnut St.	5/20/10	0.4	1.1	7.5	675	399	28	<3	0.6	0.6	<0.05	116	1	<0.5	1	<0.25	<0.2	1.0	<1	42	301	26	32	<0.1	<0.01	14.5		<0.5	201	3.7	
	43840-CWW	4/14/10	0.1	<1.1	7.5	495	322	<25	<3	3.1	0.5	<0.05	<15	<1	<0.5	1	<0.25	<0.2	0.1	18	20	229	21	30	<0.1	<0.01	7.7	7.7	<0.5	172	0.7	
	Bishop of San Bernardino Corp. - DOM	4/14/10	0.2	<1.1	7.2	785	494	<25	<3	3.2	0.5	<0.05	83	5	<0.5	2	<0.25	<0.2	0.9	27	35	370	24	58	<0.1	<0.01	18.3	18.4	<0.5	222	0.8	
Declez*	JCSD Well No. 13	5/13/10	0.1	<1.1	7.0	720	520	<25	<3	2.4	0.5	<0.05	<15	<1	<0.5	2	<0.25	<0.2	0.1	24	114	290	30	31	<0.1	0.03	7.5	7.5	<0.5	137	10.1	
	JCSD Well No. 17	5/13/10	0.1	<1.1	7.3																											

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

	Diluent Water														Recycled Water						
	Imported Water							Local Runoff / Storm Flow													
Date	7th & 8th St.	Banana	Brooks	Ely	Hickory	RP-3	Turner	7th & 8th St.	Banana	Brooks	Ely	Hickory	RP-3	Turner	7th & 8th St.	Banana	Brooks	Ely	Hickory	RP-3	Turner
Jul-09	0	0	0	0	0	0	0	19	0	1	0	9	22	32	0	0	6	0	0	84	0
Aug-09	0	0	0	0	0	0	0	33	0	0	21	4	30	19	24	0	8	0	0	148	20
Sep-09	0	0	0	0	0	0	0	18	0	0	202	3	36	28	0	0	0	24	34	220	18
3Q09 Total	0	0	0	0	0	0	0	70	0	2	223	16	88	78	24	0	14	24	34	452	38
Oct-09	0	0	0	0	7	4	0	74	15	13	132	24	122	80	0	129	184	102	189	203	0
Nov-09	3	0	0	0	0	0	0	90	0	4	282	26	88	52	133	181	246	120	243	287	0
Dec-09	0	0	0	0	0	0	0	303	75	129	242	158	304	499	93	67	144	0	93	103	63
4Q09 Total	3	0	0	0	7	4	0	467	90	146	656	209	513	631	226	377	574	222	525	593	63
Jan-10	0	0	0	0	0	0	0	387	100	251	319	214	526	478	102	75	74	0	19	76	127
Feb-10	3	0	0	0	0	0	0	475	143	215	221	200	370	505	0	0	54	0	0	113	0
Mar-10	0	0	0	0	0	0	0	72	17	27	100	16	104	148	114	0	180	0	61	213	44
1Q10 Total	3	0	0	0	0	0	0	934	260	494	640	429	1000	1132	216	75	307	0	80	401	171
Apr-10	0	0	0	0	0	0	0	206	66	23	394	46	129	241	100	140	235	0	56	71	15
May-10	0	0	0	0	0	0	0	34	0	2	98	0	49	64	199	177	356	0	111	272	70
Jun-10	0	0	0	0	0	0	0	33	0	1	0	0	43	20	302	129	208	0	50	261	40
2Q10 Total	0	0	0	0	0	0	0	273	66	25	492	46	221	326	601	446	798	0	216	604	125

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*	372*	(16)	(805)	(12,728)
	Jun-08	0	1.10	350	107	14	360	(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)
3Q08	Jul-08	0			67	3.5*	310*	612	(722)	213,038
	Aug-08	0			0			612	(722)	213,038
	Sep-08	0			0			612	(722)	213,038
4Q08	Oct-08	0			0			612	(722)	213,038
	Nov-08	0			0			612	(722)	213,038
	Dec-08	0			0			612	(722)	213,038
1Q09	Jan-09	0			0			612	(722)	213,038
	Feb-09	0			0			612	(722)	213,038
	Mar-09	0			0			612	(722)	213,038
2Q09	Apr-09	0			0			612	(722)	213,038
	May-09	0			0			612	(722)	213,038
	Jun-09	0			0			612	(722)	213,038

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)
3Q08	Jul-08	0			67	No Data	No Data	167	No Data	No Data
	Aug-08	0			0			167		
	Sep-08	0			0			167		
4Q08	Oct-08	0			0			167		
	Nov-08	0			0			167		
	Dec-08	0			0			167		
1Q09	Jan-09	0			0			167		
	Feb-09	0			0			167		
	Mar-09	0			0			167		
2Q09	Apr-09	0			0			167		
	May-09	0			0			167		
	Jun-09	0			56	No Data	No Data	111	No Data	No Data

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.

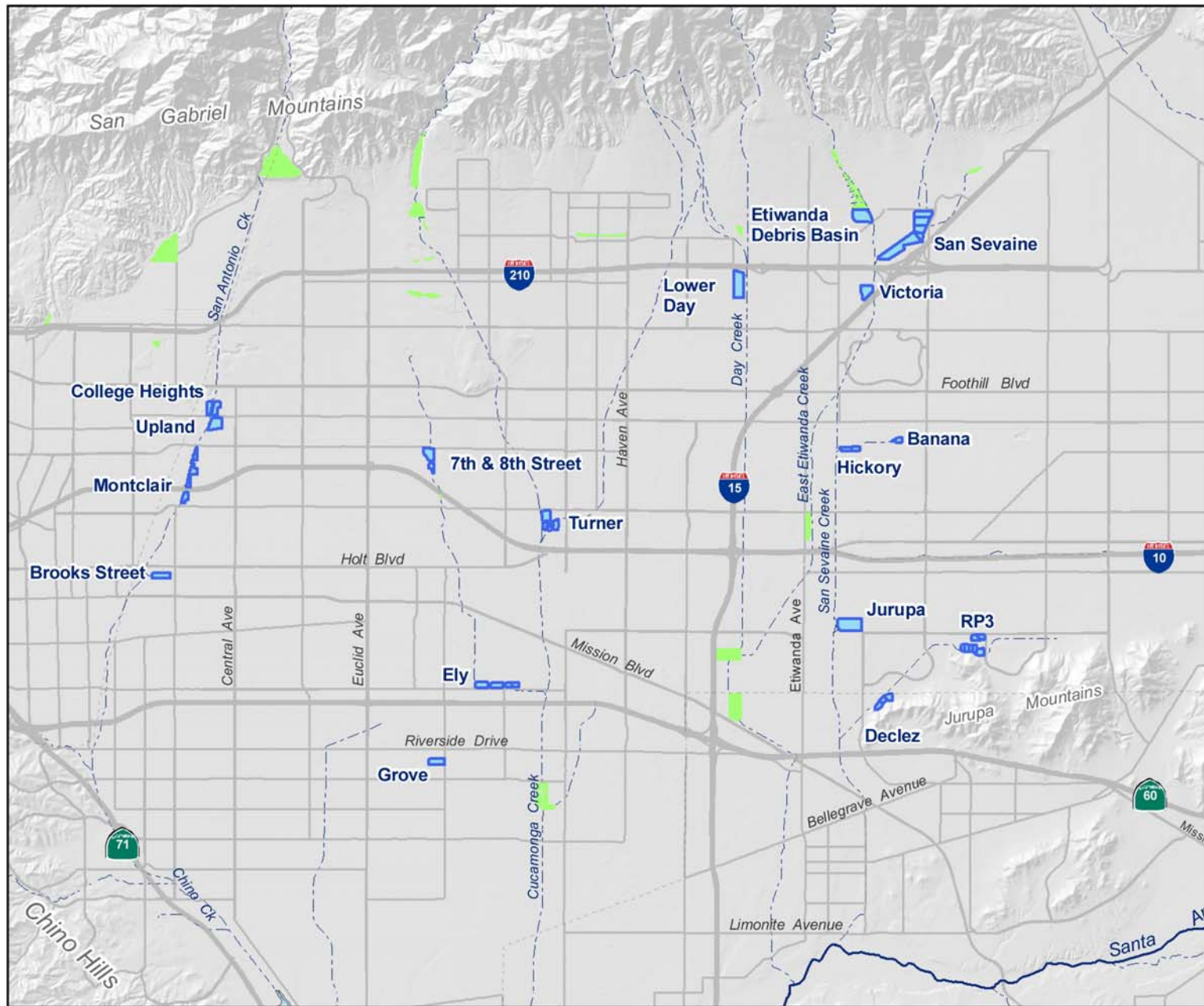
All wells were placed into production (extraction) mode during 2Q08.

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

Total Project (All Wells)										
	Date						Mass Balance			
							Storage (AF)	TIN (kg)	TDS (kg)	
3Q08	Jul-08						657	(3,367)	152,989	
	Aug-08						657	(3,367)	152,989	
	Sep-08						657	(3,367)	152,989	
4Q08	Oct-08						657	(3,367)	152,989	
	Nov-08						657	(3,367)	152,989	
	Dec-08						657	(3,367)	152,989	
1Q09	Jan-09						657	(3,367)	152,989	
	Feb-09						657	(3,367)	152,989	
	Mar-09						657	(3,367)	152,989	
2Q09	Apr-09						657	(3,367)	152,989	
	May-09						657	(3,367)	152,989	
	Jun-09						601	(3,367)	152,989	

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%



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

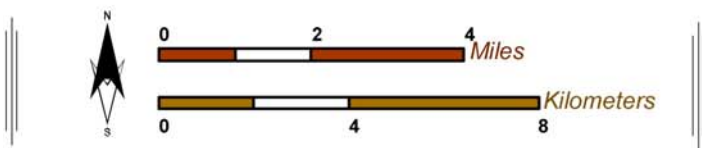
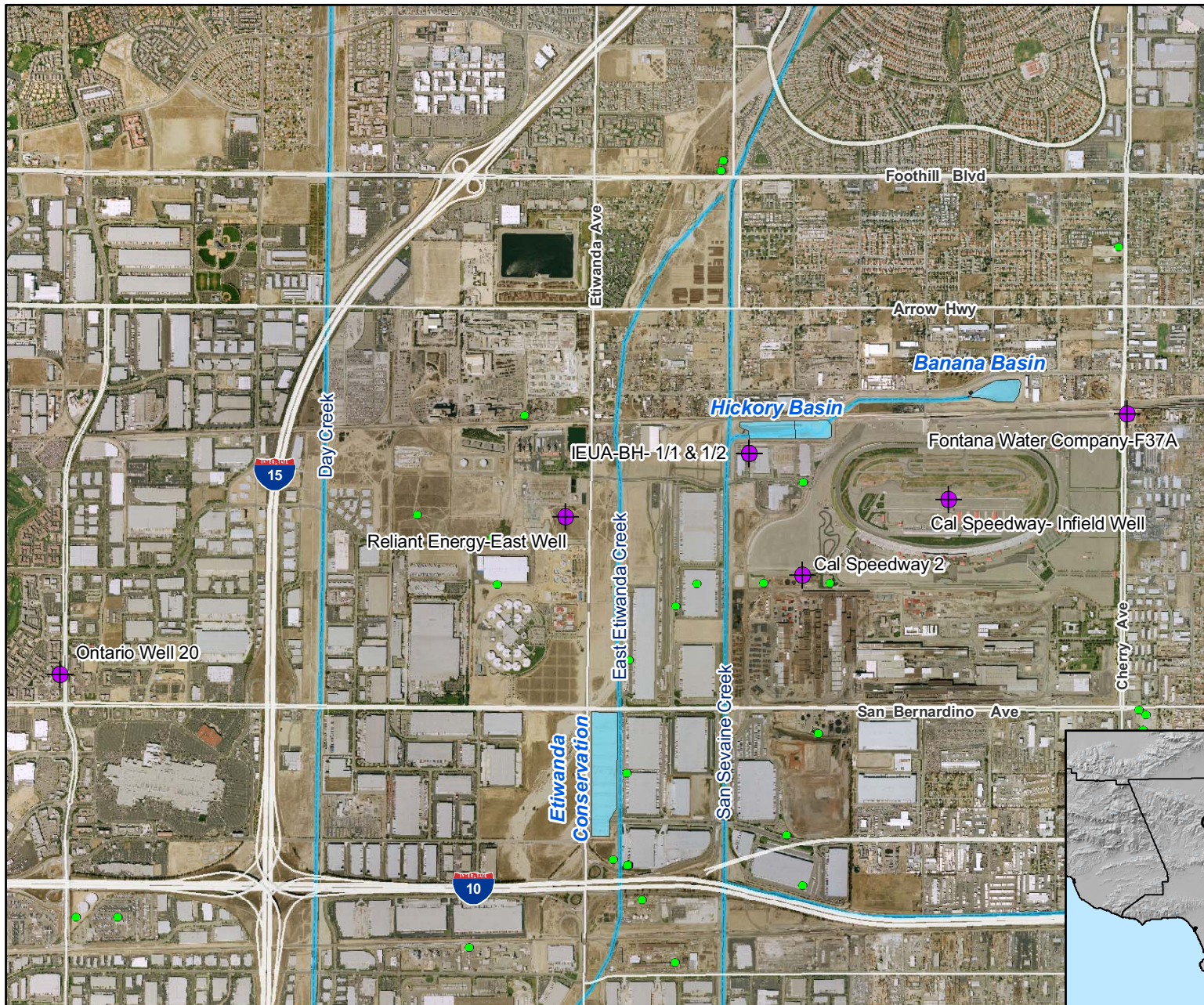


Figure 1-1



Main Map Features

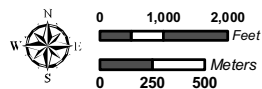
-  Existing Monitoring Well
-  "Other Wells"
-  Rivers/Streams/Creeks
-  Recharge Basins

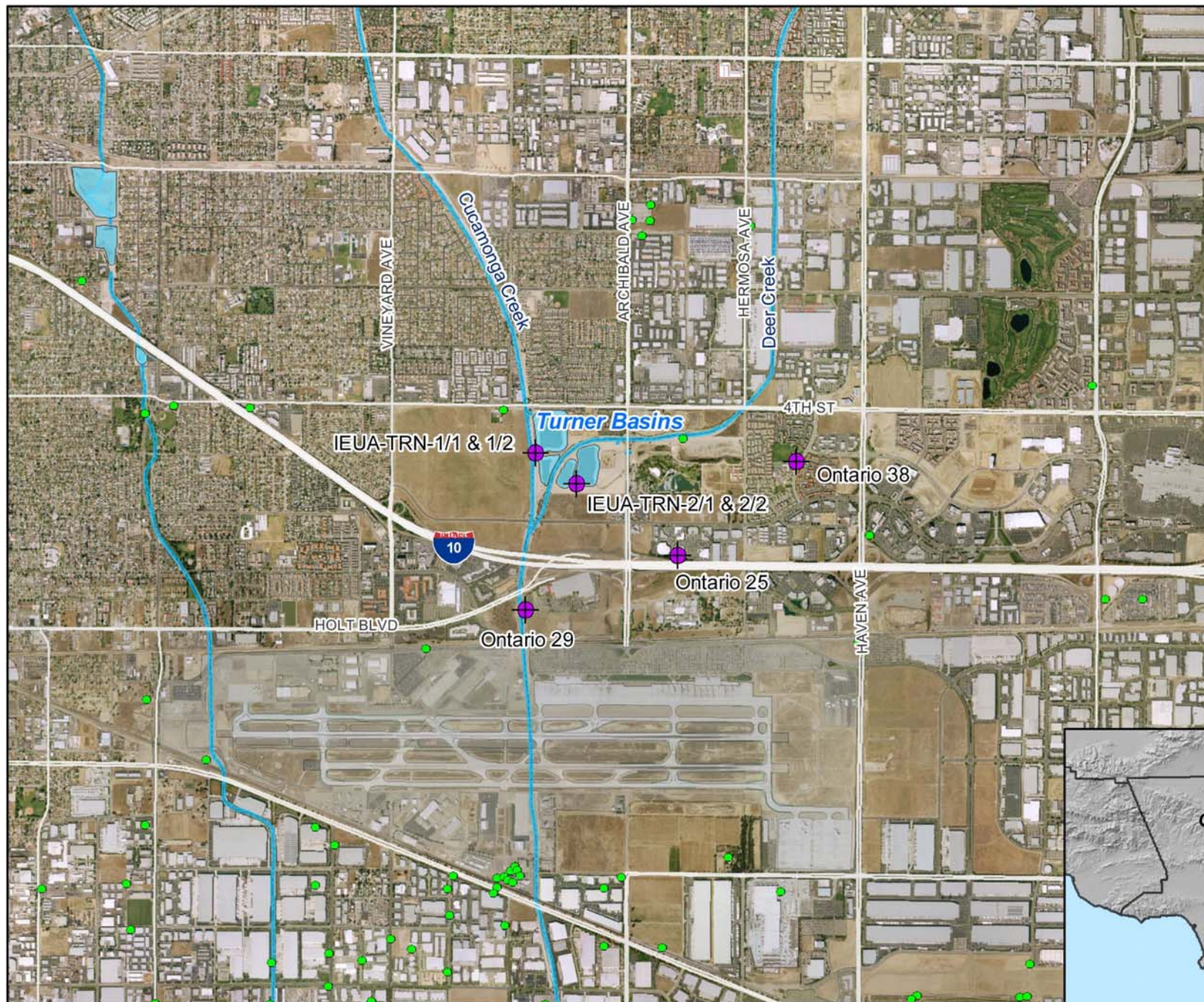


Monitoring Well Network
Hickory and Banana Basins

Figure 2-1

Recycled Water Recharge Program





Main Map Features

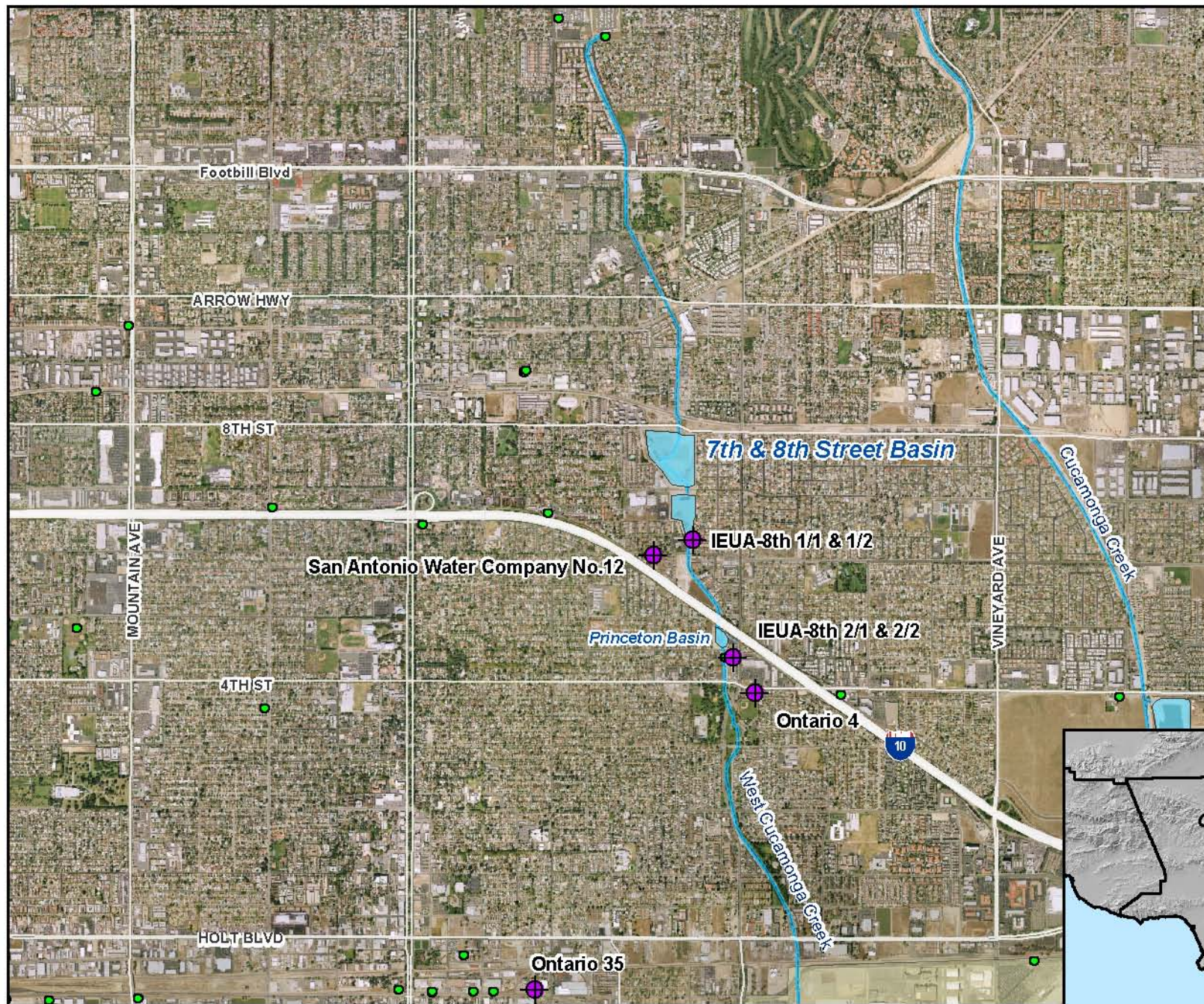
-  Existing Monitoring Well
-  "Other Wells"
-  Rivers/Streams/Creeks
-  Recharge Basins

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



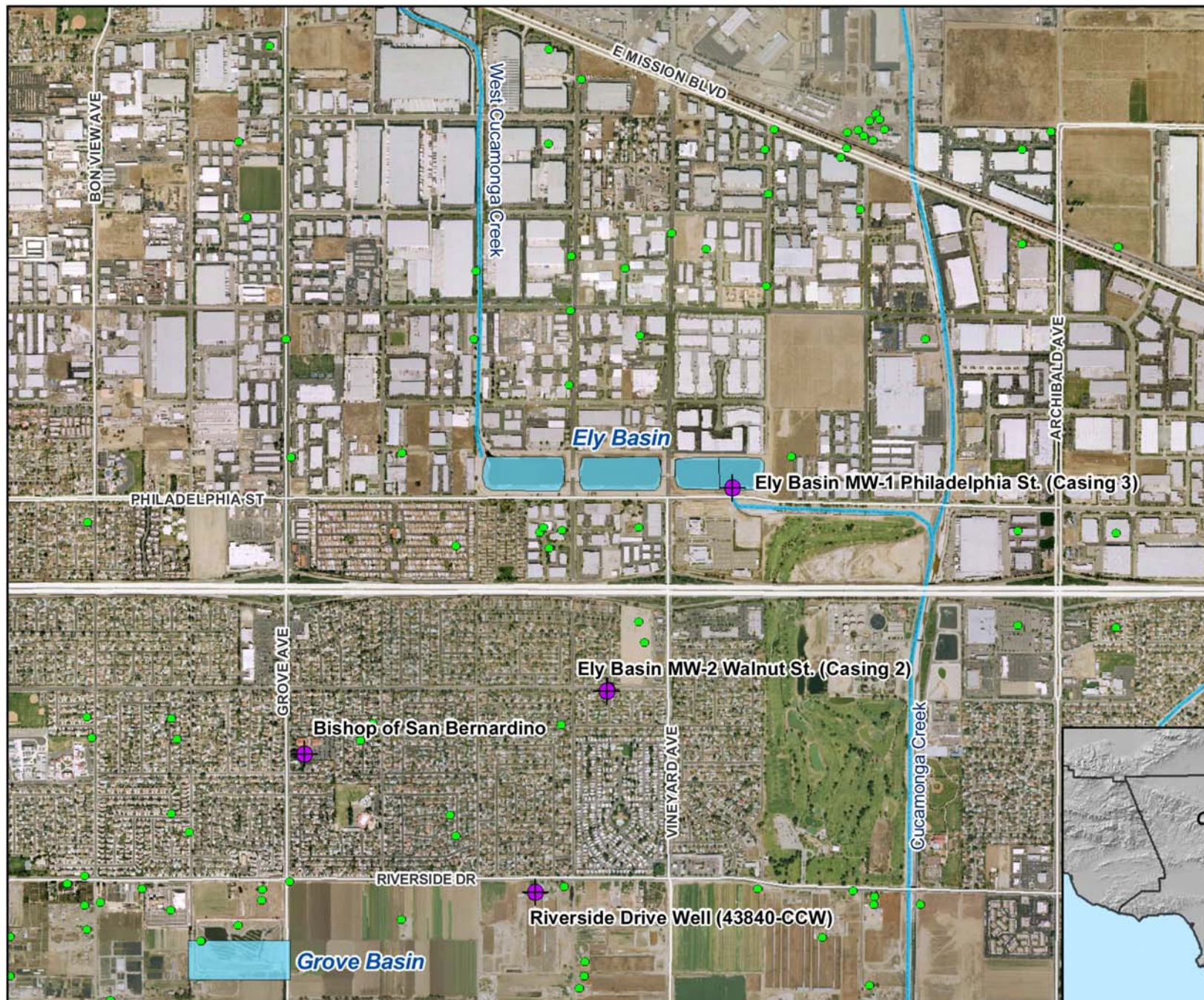
Monitoring Well Network

7th and 8th Street Basin

Figure 2-3

Recycled Water Recharge Program





Main Map Features

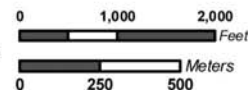
-  Existing Monitoring Well
-  "Other Wells"
-  Rivers/Streams/Creeks
-  Recharge Basins

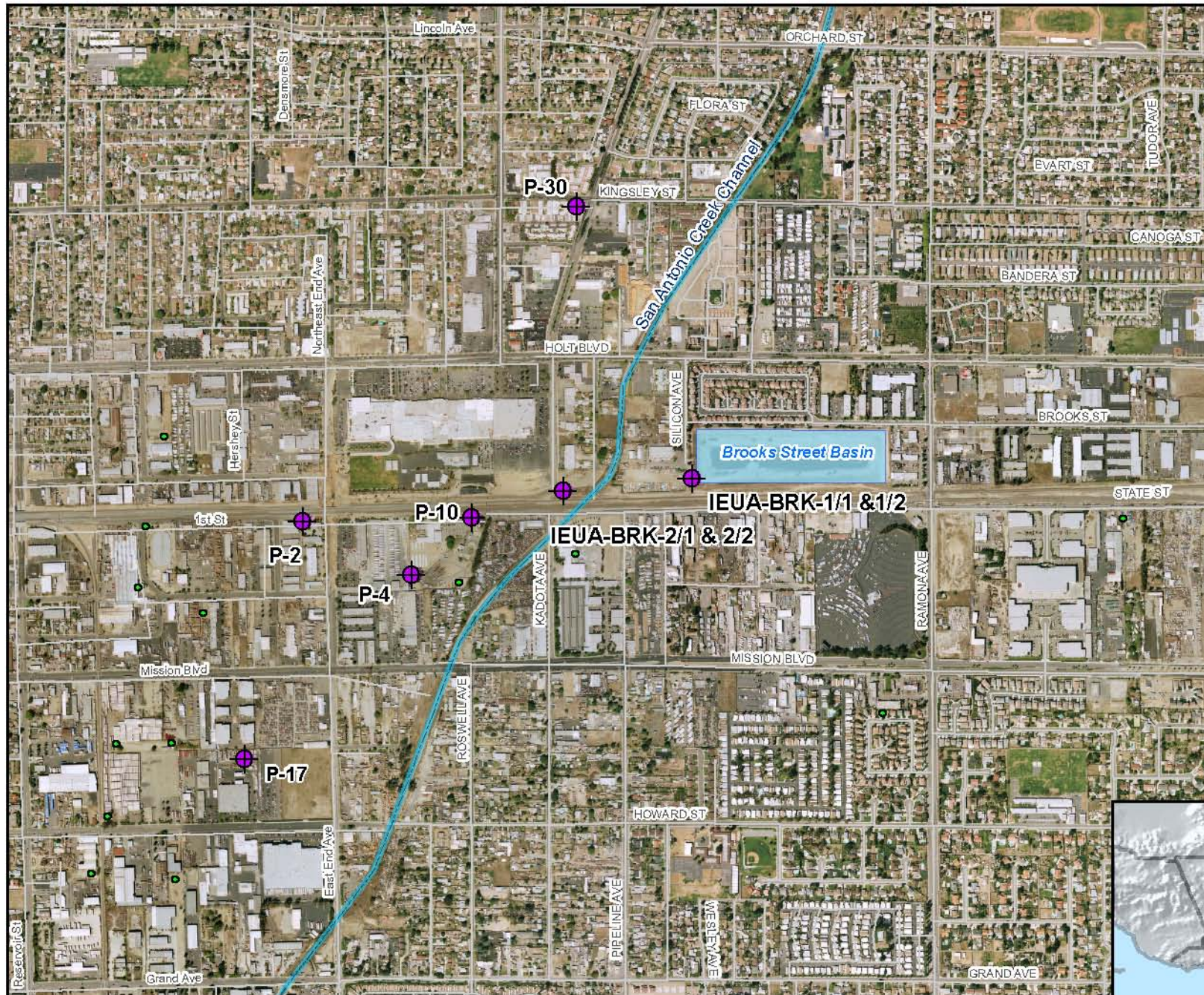


Monitoring Well Network
Ely Basins

Figure 2-4

Recycled Water Recharge Program



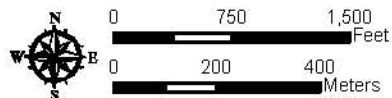


Monitoring Well Network

Brooks Street Basin

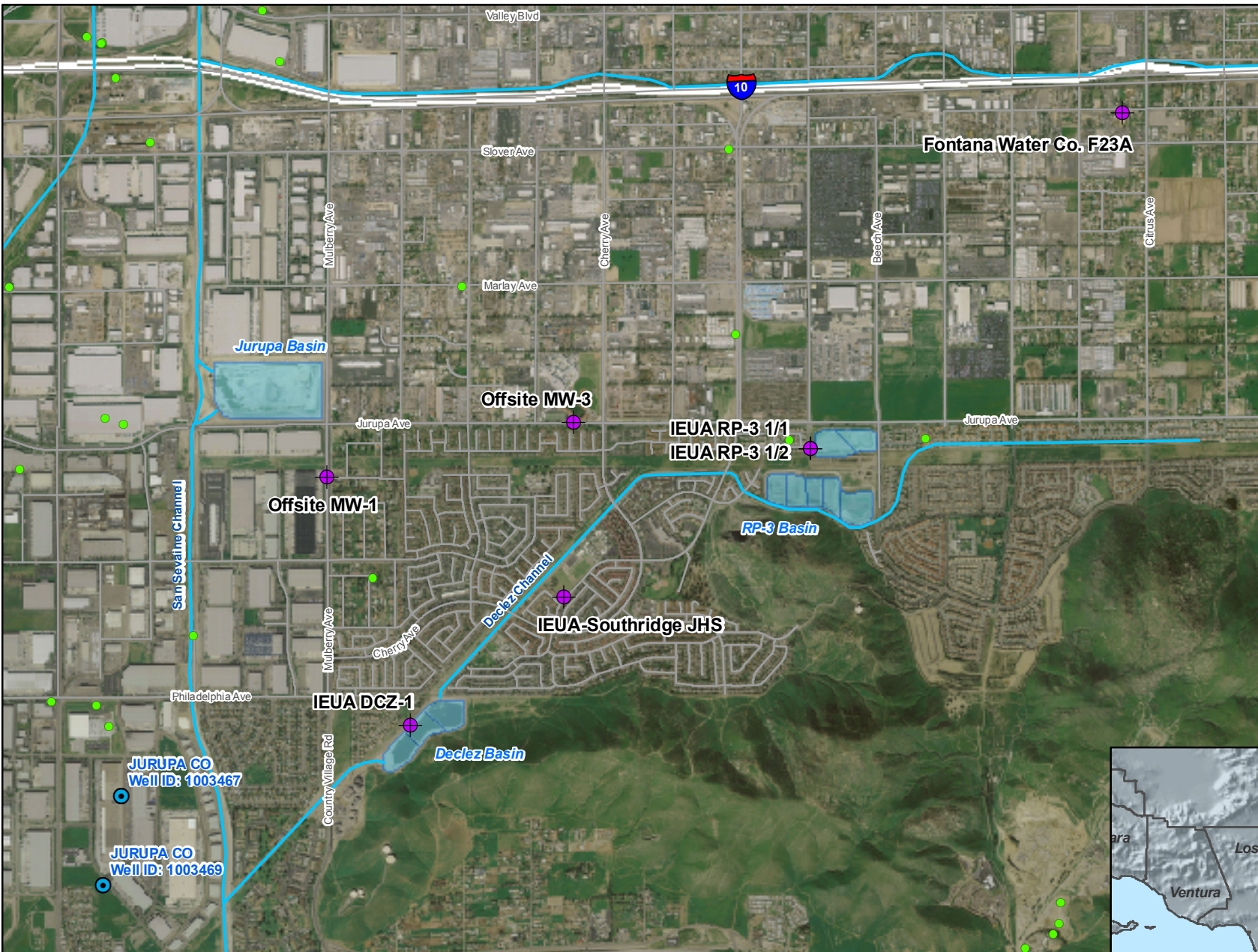
Figure 2-5

Recycled Water Recharge Program



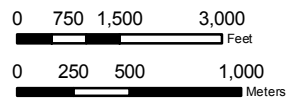
Main Map Features

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



Monitoring Well Network RP-3 Basin

Figure 2-6



Recycled Water Recharge Program

