

Patrick O. Shields
Executive Manager of Operations

Kenneth R. Manning
CEO

February 11, 2010

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 October through December 2009**

Dear Mr. Thibeault,

Inland Empire Utilities Agency and Chino Basin Watermaster hereby submit the *Quarterly Monitoring Report* for the fourth quarter of 2009 (4Q09), October 1 through December 31, 2009, 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 4Q09, 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 October 1 through December 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 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 11th day of February 2010 in the Cities of Chino and Rancho Cucamonga.



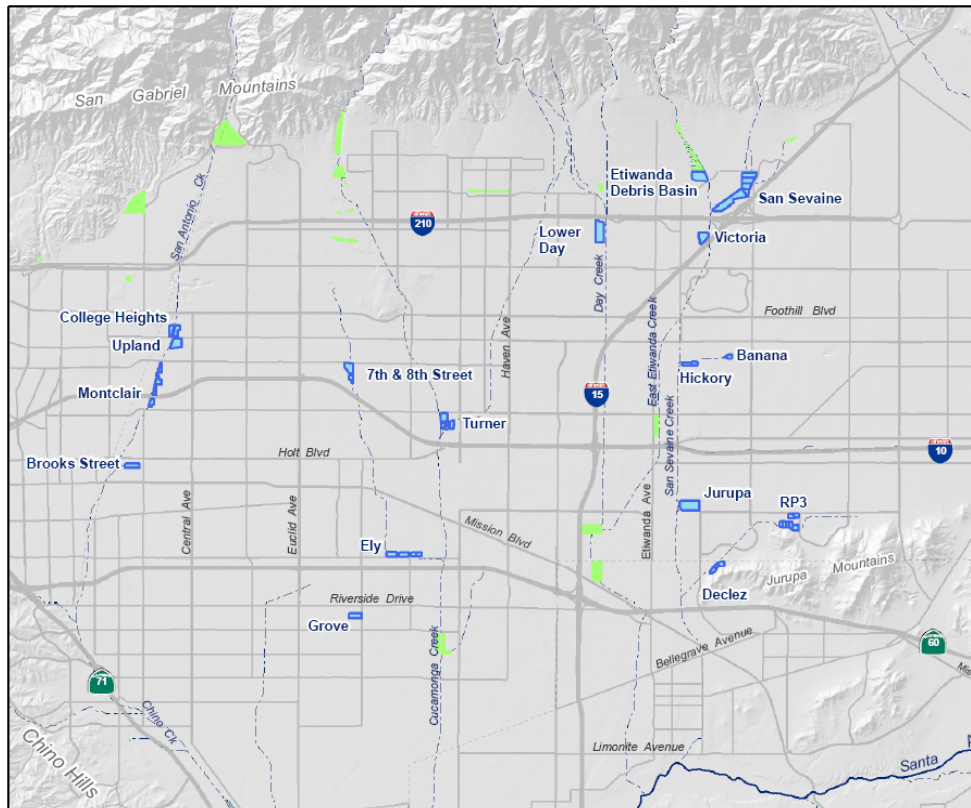
Patrick O. Shields
Executive Manager of Operations



Kenneth R. Manning
Chief Executive Officer

Chino Basin Recycled Water Groundwater Recharge Program

Quarterly Monitoring Report October 1 through December 31, 2009



Prepared by:



February 15, 2010

Table of Contents

1. Introduction	1
<i>A. Order No. R8-2007-0039</i>	<i>1</i>
<i>B. Outline of the Quarterly Report</i>	<i>1</i>
2. Monitoring Results.....	1
<i>A. Recycled Water: RP-1 and RP-4</i>	<i>1</i>
<i>B. Recycled Water: Basin and Lysimeter Samples</i>	<i>2</i>
<i>C. Diluent Water</i>	<i>2</i>
<i>D. Groundwater Monitoring Wells</i>	<i>3</i>
3. Recharge Operations	4
4. Operational Problems & Preventive or Corrective Actions	4
5. Certification of Non-Pumping in the Buffer Zones	4
6. MVWD ASR Project	4

LIST OF TABLES

2-1	Recycled Water Monitoring: RP-1 & RP-4 Effluent Water Quality (Recycled Water Quality Specifications A.5, A.7, A.8, & A.9)
2-2	Recycled Water Monitoring: Agency-Wide Flow-Weighted TIN & TDS (Recycled Water Quality Specifications A.6)
2-3	Recycled Water Monitoring: Recycled Water Quality Specifications A.1, A.2, A.3, & A.15
2-4	Recycled Water Monitoring: Remaining Priority Pollutants, EDCs & Pharmaceuticals, and Unregulated Chemicals (Monitoring & Reporting Program)
2-5a	Lysimeter and Surface Water Monitoring: TOC, Nitrogen Species, and EC
2-5b	Alternative Monitoring Plan for TOC and TN (mg/L)
2-6a	Diluent Water Monitoring: Local Runoff / Stormwater
2-6b	Diluent Water Monitoring: State Water Project - Lake Silverwood
2-7	Summary of Wells in Groundwater Monitoring Networks
2-8a	Groundwater Monitoring Well Results (Quarterly)
2-8b	Groundwater Monitoring Well Results (Annual)
3-1	Diluent & Recycled Water Recharge Volumes
6-1	MVWD ASR Project – TIN/TDS Mass Balance

LIST OF FIGURES

1-1	Basin Locations
2-1	Monitoring Well Network: Hickory and Banana Basins
2-2	Monitoring Well Network: Turner Basins
2-3	Monitoring Well Network: 7th & 8th Street Basins
2-4	Monitoring Well Network: Ely Basin
2-5	Monitoring Well Network: Brooks Basin
2-6	Monitoring Well Network: RP-3 Basins

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 Fourth Quarter of 2009 (4Q09).

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. 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 4Q09 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 4Q09.

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 1Q09 through 4Q09 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 4Q09, the maximum contaminant levels for inorganic chemicals, organic chemicals, radionuclides, and disinfection byproducts; action levels for lead and copper; secondary MCLs; and Oil & Grease were not exceeded.

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, Total Trihalomethanes (TTHMs) and Total Haloacetic Acids (HAA5). Compliance sampling for these DBP are usually done at lysimeters actively receiving recycled water from the basins because they are more representative of the recycled water prior to reaching the groundwater table. For the 4Q09 sampling for DBPs, IEUA chose the 25-foot below ground surface lysimeter at 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 2-5a. The table includes lysimeter data for RP-3, Brooks, 7th & 8th Street, Hickory, and Banana Basins.

The Turner and Ely Basins have implemented alternative monitoring plans which include the sampling of recycled water at the Reliant Energy pipeline and the application of TOC and 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 and Ely Basins TOC and TN values calculated based on the correction factors provided in the alternative monitoring plan are summarized in Table 2-5b.

C. Diluent Water

For 4Q09, diluent water sampling of local runoff/stormwater was conducted on December 2, 2009 at Declez Basin; December 7, 2009 at Banana and Etiwanda Spreading Basins; and December 8, 2009 at 8th Street and San Sevaine Basins. State Water Project water was delivered to Hickory and RP-3 Basins during the monitoring period. Table 2-6a lists the results of the local runoff/stormwater sampling and analyses. Table 2-6b lists the analysis results for State Water Project water reported by the Metropolitan

Water District. 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.

D. Groundwater Monitoring Wells

During 4Q09, groundwater quality within the vicinity of Banana and Hickory Basins was monitored by sampling a network of seven wells. The groundwater quality within the vicinity of Turner Basin was monitored by sampling a network of five wells. The groundwater quality within the vicinity of the 7th & 8th Street Basin is 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 seven 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 regular quarterly monitoring are presented in Table 2-8a. Table 2-8b includes annual monitoring results for Ely MW-2, 8TH-1/1, 8TH-2/1, 8TH-2/2, BRK-1/1, BRK-1/2, BRK-2/1, and BRK-2/2.

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 4Q09 analyses results which exceeded primary or secondary standards are shown in the tables in bold font. Of note are the analyses for the following wells and constituents.

Turbidity more than twice the secondary standard was observed in monitoring wells Southridge JHS, Alcoa MW-1, BRK-1/1, and DCZ-1. Additional well purging will be conducted at these wells during future sample to determine if the turbidity is characteristic of these wells. Iron and Manganese more than twice the secondary standard were observed at wells Southridge JHS, Alcoa MW1, BRK-2/1, Ely MW-2, and DCZ-1. These parameters are likely related to well casing bacteria and the higher turbidity at these wells.

TDS and EC were slightly higher than the secondary standards in wells RP3-1, Southridge JHS, and 8TH-2/2. The wells near RP-3 are located in an area with historically high EC levels (>1,000 µmhos/cm). The wells near RP-3 nearly all have nitrate concentrations greater than the primary standard, and are located in areas with historically high NO₃-N (10-30 mg/L). Monitoring wells BRK-1/1, RP3-1/1, 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.

The semi-volatile synthetic organic chemicals, Dibromochloropropane (3.3 µg/L) and Di (2-ethylhexyl) phthalate (4 µg/L) identified in well 8TH-2/2. These parameters are not found in recycled water and the City of Ontario is being notified of their presence as the owner of the nearest potable use wells. Recycled water has yet to be identified at well 8TH-2/2 based on a lack of increase in EC, as would be anticipated with recycled water arrival. Perchlorate (10 µg/L) and chromium (95.6 µg/L) were identified in BRK-1/2 and BRK-2/1, respectively. These parameters are not found in recycled water and the City of Pomona is being notified as the owner of the nearest potable use wells. Recycled water has yet to be identified at well BRK-2/1 based on a lack of increase in EC, as would be anticipated with recycled water arrival.

3. Recharge Operations

IEUA's Groundwater Recharge Coordinator recorded the daily volumes of water routed to all basins. The 7th & 8th Street, Banana, Brooks, Ely, Hickory, RP-3, and Turner Basins received recycled water this quarter. Imported water was delivered to Hickory and RP-3 Basins during 4Q09. Table 3-1 lists the volumes of diluent water, recycled water, and/or local runoff and stormwater captured during 4Q09 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 4Q09 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 October 2009
(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}	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	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		5 ⁵		6<pH<9				2.2;23;240	
10/01/09	0.5	5.0	4.8		4.8	7.3	1045			<2	0.6	4.5		4.5	6.9	725			<2	
10/02/09	0.4	4.9				7.3	1010			<2	0.7	4.9		4.9	6.8	765			<2	
10/03/09	0.5	5.0				7.3	1017			<2	0.6	4.6		4.6	6.8	760			<2	
10/04/09	0.6	5.1	4.5		4.5	7.3	1002			<2	0.6	3.7		3.7	6.8	740			<2	
10/05/09	0.5	5.3				7.3	981			2	0.8	3.0		3.0	6.8	740			<2	
10/06/09	0.5	5.1	4.8	4.8	4.8	7.3	988	476	158	2	0.6	3.2	3.7	3.2	6.8	745	456	146	<2	
10/07/09	0.5	5.0				7.3	985			2	0.6	3.5		3.6	6.8	740			<2	
10/08/09	0.5	5.0	4.4		4.6	7.3	975			<2	0.6	3.8		3.8	6.8	750			<2	
10/09/09	0.4	4.8				7.3	969			<2	0.5	4.4		4.4	6.7	750			<2	
10/10/09	0.4	4.8				7.3	991			<2	0.5	3.7		3.9	6.7	745			<2	
10/11/09	0.4	5.0	4.5		4.5	7.3	986			<2	0.5	3.1		3.2	6.7	745			<2	
10/12/09	0.4	5.4				7.3	988			<2	0.5	2.7		2.7	6.8	740			<2	
10/13/09	0.4	5.4	5.0	5.0	5.0	7.3	1005			<2	0.7				6.8	740	438		<2	
10/14/09	0.4	5.4				7.3	985			<2	0.7	3.3		3.3	6.7	730			<2	
10/15/09	0.3	5.4	3.4		3.4	7.2	984			2	0.8	3.3		3.3	6.7	725			<2	
10/16/09	0.3	5.4				7.3	1062			2	0.4	3.1		3.1	6.7	740			<2	
10/17/09	0.2	5.2				7.3	1104			<2	0.4	3.4		3.4	6.7	745			<2	
10/18/09	0.3	5.2	4.8		4.8	7.3	1095			<2	0.4	3.0		3.0	6.8	730			<2	
10/19/09	0.3	5.0				7.4	1109			<2	0.8	2.7		2.7	6.8	730			<2	
10/20/09	0.3	5.0	4.6	4.6	4.6	7.4	1044			<2	0.4	3.5	3.9	3.5	6.8	730	446		<2	
10/21/09	0.3	4.8				7.4	999			<2	0.4	4.1		4.1	6.8	730			<2	
10/22/09	0.3	4.8	3.9		3.9	7.4	971			<2	0.4	4.3		4.3	6.8	735			<2	
10/23/09	0.3	5.2				7.4	983			<2	0.4	4.3		4.3	6.8	750			<2	
10/24/09	0.3	5.0				7.4	993			2	0.4	4.6		4.6	6.8	755			<2	
10/25/09	0.3	5.3	4.0		4.0	7.2	1056			<2	0.5	4.1		4.1	6.8	740			<2	
10/26/09	0.3	5.2				7.1	1080			<2	0.5	3.1		3.1	6.9	740			<2	
10/27/09	0.4	5.2	4.7	4.7	4.7	7.1	1080			<2	0.5	3.4	4.3	3.4	6.8	740	460		<2	
10/28/09	0.5	5.5				7.1	965			<2	0.4	4.0		4.0	6.8	750			<2	
10/29/09	0.6	5.9	0.5		0.5	7.2	964			<2	0.4	4.7		4.7	6.8	750			<2	
10/30/09	0.6	5.7				7.0	1056			<2	0.5	4.6		4.6	6.8	775			<2	
10/31/09	0.5	5.2				7.1	1106			<2	0.5	4.4		4.4	6.6	770			<2	
Avg	0.4	5.2	4.1	4.8	4.2	7.3	1019	476	158	<2	0.5	3.8	3.9	3.8	6.8	744	450	146	<2	
Min	0.2	4.8	0.5	4.6	0.5	7.0	964	476	158	<2	0.4	2.7	3.7	2.7	6.6	725	438	146	<2	
Max	0.6	5.9	5.0	5.0	5.0	7.4	1109	476	158	2	0.8	4.9	4.3	4.9	6.9	775	460	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 2-1b
Recycled Water Monitoring: RP-1 & RP-4 Effluent Water Quality for November 2009
(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}	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	unit	µhmo/cm	mg/L	mg/L	mpn/100mL	
Limits	2;5;10	16		5 ^b		6<pH<9				2.2;23;240	2;5;10		5 ^b		6<pH<9				2.2;23;240	
11/01/09	0.4	5.2	3.6		3.6	7.3	1145			<2	0.5	3.3		3.3	6.8	740			<2	
11/02/09	0.3	5.3				7.2	1031			<2	0.5	2.7		3.2	6.8	740			<2	
11/03/09	0.3	5.5	3.7	3.7	3.7	7.1	1009	466	153	<2	0.7	2.4	3.0	2.4	6.8	750	440	140	<2	
11/04/09	0.3	5.2				7.1	1004			2	0.4	3.0		3.0	6.8	745			<2	
11/05/09	0.4	5.2	3.9		3.9	7.1	983			<2	0.4				6.8	754			<2	
11/06/09	0.4	5.4				7.1	975			<2	0.5	4.3		4.3	6.8	755			<2	
11/07/09	0.4	5.3				7.1	979			<2	0.5	4.7		4.7	6.8	760			<2	
11/08/09	0.3	5.3	3.3		3.3	7.1	973			<2	0.6	3.8		3.8	6.9	750			<2	
11/09/09	0.3	5.9				7.1	970			<2	0.5	3.0		3.0	6.8	750			<2	
11/10/09	0.3	6.2	3.1	3.1	3.1	7.1	993			<2	0.5	3.0	3.6	3.0	6.8	755	428		<2	
11/11/09	0.3	6.3				7.1	1011			<2	0.4	3.7		3.7	6.8	755			<2	
11/12/09	0.3	6.3	3.8		3.8	7.1	1024			2	0.4	3.8		3.8	6.7	750			<2	
11/13/09	0.4	6.1				7.1	1009			<2	0.5	3.8		3.8	6.7	785			2	
11/14/09	0.4	5.9				7.1	992			<2	0.5	3.6		3.6	6.7	780			<2	
11/15/09	0.4	5.9	5.1		5.1	7.1	970			<2	0.5	2.8		2.8	6.7	775			<2	
11/16/09	0.4	5.8				7.1	949			<2	0.5	2.1		2.1	6.8	775			<2	
11/17/09	0.4	6.7	5.6	5.6	5.6	6.9	1064			<2	0.4	2.0	2.2	2.0	6.8	770	446		<2	
11/18/09	0.6	6.9				7.0	1078			<2	0.4	2.8		2.8	6.8	760			<2	
11/19/09	0.8	6.5	6.2		6.2	7.2	1179			<2	0.4	3.8		3.8	6.7	770			<2	
11/20/09	0.8	6.0				7.2	1166			2	0.3	3.8		3.8	6.7	780			<2	
11/21/09	0.7	5.7				7.2	1159			<2	0.4	4.0		4.0	6.7	780			<2	
11/22/09	0.6	5.7	6.5		6.5	7.2	1128			4	0.4	3.4		3.4	6.8	755			<2	
11/23/09	0.6	5.7				7.2	1104			<2	0.4	3.7		3.7	6.8	770			<2	
11/24/09	0.6	5.8	5.2	5.2	5.2	7.2	1084			<2	0.4	3.5	4.1	3.5	6.8	765	438		<2	
11/25/09	0.5	5.7				7.2	1080			<2	0.4	3.5		3.5	6.8	765			<2	
11/26/09	0.5	5.3				7.2	1079			<2	0.5	2.3		2.3	6.8	790			<2	
11/27/09	0.6	5.3				7.2	1068			2	0.5	2.4		2.4	6.8	795			<2	
11/28/09	0.7	5.2				7.2	1076			<2	0.4	2.9		3.0	6.8	790			<2	
11/29/09	0.6	5.5	6.9		6.9	7.2	1051			<2	0.4	3.8		3.8	6.9	765			<2	
11/30/09	0.5	5.7				7.2	1043			4	0.4	3.4		3.4	6.9	755			<2	
Avg	0.5	5.7	4.7	4.4	4.7	7.1	1046	466	153	<2	0.4	3.3	3.2	3.3	6.8	764	438	140	<2	
Min	0.3	5.2	3.1	3.1	3.1	6.9	949	466	153	<2	0.3	2.0	2.2	2.0	6.7	740	428	140	<2	
Max	0.8	6.9	6.9	5.6	6.9	7.3	1179	466	153	4	0.7	4.7	4.1	4.7	6.9	795	446	140	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 December 2009
(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}	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	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		5 ⁵		6<pH<9				2.2;23;240	
12/01/09	0.5	5.6	5.7	6.7	5.7	7.2	1053	468	149	<2	0.3	3.3	4.1	3.3	6.8	755	452	136	<2	
12/02/09	0.6	5.8				7.2	1018			4	0.3	4.6		4.6	6.8	745			<2	
12/03/09	0.6	6.0	7.2		7.2	7.2	1024			<2	0.3	4.8		4.8	6.8	755			<2	
12/04/09	0.5	5.6				7.2	1033			<2	0.3	5.0		5.0	6.9	770			<2	
12/05/09	0.5	5.4				7.1	1028			<2	0.3	4.9		4.9	6.8	780			<2	
12/06/09	0.5	5.6	6.5		6.5	7.2	1005			4	0.3	4.1		4.1	6.9	755			<2	
12/07/09	0.6	5.5				7.1	998			<2	0.3	3.4		3.4	7.0	760			2	
12/08/09	0.6	5.6	6.5	7.5	6.5	7.1	937			4	0.3	3.5	4.3	3.5	7.0	740	436		<2	
12/09/09	0.6	5.9				7.1	985			<2	0.4	3.4		3.4	6.8	735			<2	
12/10/09	0.7	5.8	4.5		5.0	7.1	1010			4	0.3	3.4		3.4	7.1	725			<2	
12/11/09	0.7	5.5				7.2	1003			<2	0.3	3.5		3.5	7.1	720			<2	
12/12/09	0.7	5.4				7.1	960			<2	0.3	3.1		3.1	7.1	730			<2	
12/13/09	0.5	5.5	4.6		4.6	7.1	884			<2	0.2	1.2		1.2	7.3	700			<2	
12/14/09	0.5	5.6				7.1	926			4	0.2	2.8		2.8	6.6	720			<2	
12/15/09	0.5	5.3	5.5	6.5	5.5	7.2	964			<2	0.2	2.6	3.5	2.6	6.7	730	418		<2	
12/16/09	0.5	5.5				7.2	989			2	0.3	2.4		2.4	6.9	730			<2	
12/17/09	0.5	5.8	5.0		5.0	7.1	1010			<2	0.3	2.4		2.4	6.9	730			<2	
12/18/09	0.5	6.0				7.2	1013			<2	0.3	1.8		1.8	6.9	725			<2	
12/19/09	0.5	6.1				7.2	1036			<2	0.3	1.6		1.6	7.0	730			<2	
12/20/09	0.7	7.5	8.2		8.2	7.2	1052			2	0.4	1.7		1.7	6.9	732			<2	
12/21/09	0.7	5.9				7.2	1007			2	0.5	1.6		1.6	7.0	745			<2	
12/22/09	0.8	6.3	4.8	5.8	4.8	7.2	993			<2	0.5	1.4	2.1	1.4	7.0	735	444		<2	
12/23/09	0.7	6.0				7.2	953			2	0.5	1.5		1.5	7.0	730			<2	
12/24/09	0.6	5.4				7.2	964			<2	0.5	0.9		0.9	7.0	735			<2	
12/25/09	0.6	5.4				7.2	946			<2	0.5	0.7		0.7	7.0	730			<2	
12/26/09	0.6	5.5				7.2	927			2	0.4	1.6		1.6	7.0	725			<2	
12/27/09	0.6	5.6				7.2	939			<2	0.5	1.2		1.2	6.9	720			<2	
12/28/09	0.5	6.2				7.2	939			<2	0.4	1.2		1.2	6.9	735			<2	
12/29/09	0.5	6.3	6.0	7.0	6.0	7.2	938			<2	0.4	1.3	1.5	1.3	6.9	725	426		<2	
12/30/09	0.6	6.0				7.2	931			2	0.4	1.2		1.2	6.9	725			<2	
12/31/09	0.6	5.5				7.2	930			<2	0.4	1.3		1.3	6.9	720			<2	
Avg	0.6	5.8	5.9	6.7	5.9	7.2	980	468	149	<2	0.3	2.5	3.1	2.5	6.9	735	435	136	<2	
Min	0.5	5.3	4.5	5.8	4.6	7.1	884	468	149	<2	0.2	0.7	1.5	0.7	6.6	700	418	136	<2	
Max	0.8	7.5	8.2	7.5	8.2	7.2	1053	468	149	4	0.5	5.0	4.3	5.0	7.3	780	452	136	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

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.
Jan-09	6.5	6.6	497	503
Feb-09	7.8	6.7	463	500
Mar-09	6.9	6.8	496	499
Apr-09	6.6	6.8	509	498
May-09	5.8	6.6	501	498
Jun-09	5.4	6.5	505	499
Jul-09	5.0	6.4	512	499
Aug-09	4.5	6.3	499	497
Sep-09	4.0	6.0	498	497
Oct-09	4.6	5.8	500	497
Nov-09	4.8	5.7	489	497
Dec-09	5.5	5.6	494	497
Avg	5.6	6.3	497	498
Min	4.0	5.6	463	497
Max	7.8	6.8	512	503
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: Recycled Water Quality Specifications A.1, A.2, A.3, & A.15

Constituent	1Q09	2Q09	3Q09	4Q09	4Q Run. Avg. ¹	Limit	Unit	Method
Inorganic Chemicals								
Aluminum	32	26	30	<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	<1.9	<0.8	<0.2	<0.37	<0.8	7	MFL	EPA 100.2
Barium	9	13	4	5	8	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	1.8	1.2	1.6	1.6	1.5	50	µg/L	EPA 200.8
Cyanide	<5	<5	<5	<5	<5	150	µg/L	SM 4500-CN E
Fluoride	0.1	0.1	0.2	0.2	0.1	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	<0.5	<0.5	<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	0.50	<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	<0.3	<0.3	<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	EPA531.2
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	4	4	3	4	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	<20	<5	<5	<5	<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	1Q09	2Q09	3Q09	4Q09	4Q Run.		Unit	Method
					Avg. ¹	Limit		
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	0.1	<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	3.9	5.8	4.5	3.4	4.4	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	<0.48	0.86	<0.61	0.46	<0.47	5	pCi/L	EPA 903.0
Gross Alpha Particle Activity	4.4	<3.0	<3	<3	<3	15	pCi/L	EPA 900.0
Tritium	<224	<210	<220	<280	<280	20,000	pCi/L	EPA 906
Strontium-90	<0.61	<1.07	<0.54	<0.68	<1.07	8	pCi/L	EPA 905
Gross Beta Particle Activity	7	6	8	8	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	32	26	30	<25	21	200	µg/L	EPA 200.8
Copper	3.9	5.8	4.5	3.4	4.4	1000	µg/L	EPA 200.8
Corrosivity ³	0.1 (Non-Cor.)	0.1 (Non-Cor.)	-0.1 (Non-Cor.)	-0.4 (Non-Cor.)	Non-Cor.	Non-Cor.	SI	SM 2330B
Foaming Agents (MBAS) ³	0.17	<0.05	<0.05	NR	<0.06	0.5	mg/L	S5540C/EPA 425.1
Iron ³	NR	44	NR	NR	75	300	µg/L	EPA 200.7
Manganese	7	4	11	45	17	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	3	3	NR	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	24	40	17	17	24	5000	µg/L	EPA 200.8
Miscellaneous Regulated Constituents								
Oil & Grease ⁴	<1	2	<1	<1		1	mg/L	EPA 1664
Disinfection Byproducts								
Bromate	<5	<5	7	<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	BRK-25	BRK-25	RP3-25	BRK-25				
Total Trihalomethanes (TTHMs)	<0.5	<0.5	4.8	10.9	4.1	80	µg/L	EPA 524.2/624
Total Haloacetic Acids (HAA5)	<1	<1	<1	<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	4Q09	Unit	Method
Metals			
Chromium (III) ¹	1.6	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	6	µg/L	EPA 524.2
Chloroethane	<0.5	µg/L	EPA 524.2
2-Chloroethylvinylether	NR	µg/L	EPA 624
Chloroform	41	mg/L	EPA 524.2
Dichlorobromomethane	22	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	4Q09	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	0.2	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	<5.0	mg/L	EPA 8015B
Formaldehyde	NR	µg/L	SM 6252/EPA 8315
HMX	<4.5	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	<4.5	µg/L	EPA 8330B
Tertiary butyl alcohol	<2	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	<4.5	µg/L	EPA 8330B
Vanadium	2	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 w/ State Notification Levels, Nitrosamines, and EDC, Pharmaceuticals & Other Chemicals (Attachment B, MRP No. R8 2007-0039) were sampled during 2Q09 for the annual requirement.

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	10/06/09	11.8	3.2	1.0	0.4	2.8	0.12	730
RP31-LYS-00	0	10/13/09	7.03	3.1	1.3	0.9	2.2	0.12	725
RP31-LYS-00	0	10/20/09	6.70	3.1	1.6	1.1	1.9	0.08	735
RP31-LYS-00	0	10/27/09	5.92	2.9	2.3	1.7	1.2	0.13	760
RP31-LYS-00	0	11/03/09	6.88	4.3	2.3	1.7	2.6	0.10	810
RP31-LYS-00	0	11/10/09	5.52	2.6	1.8	1.5	1.1	0.12	740
RP31-LYS-00	0	11/17/09	5.84	2.7	1.9	1.6	1.1	0.08	760
RP31-LYS-00	0	11/24/09	5.30	3.6	2.6	2.6	1.0	0.06	765
RP31-LYS-00	0	12/01/09	7.24	3.2	2.5	2.3	0.9	0.03	680
RP31-LYS-00	0	12/09/09	8.93	2.5	1.0	0.6	1.9	0.07	165
RP31-LYS-00	0	12/15/09	6.27	1.5	0.9	0.4	1.1	0.08	89
RP31-LYS-00	0	12/22/09	7.94	2.2	1.1	0.1	2.0	0.07	135
RP31-LYS-00	0	12/31/09	4.99	1.3	0.7	0.6	0.6	<0.01	725
RP31-LYS-05	5	10/06/09	2.82						770
RP31-LYS-05	5	10/13/09	2.69						760
RP31-LYS-05	5	10/20/09	8.66	1.1	0.2	0.2	0.9	<0.01	645
RP31-LYS-05	5	10/27/09	2.86	3.1	2.2	2.2	1.0	<0.01	730
RP31-LYS-05	5	11/03/09	2.46	3.1	2.8	2.8	<0.5	<0.01	770
RP31-LYS-05	5	11/10/09	2.55	1.8	1.6	1.6	<0.5	<0.01	755
RP31-LYS-05	5	11/17/09	6.07	0.8	0.5	0.5	<0.5	<0.01	600
RP31-LYS-05	5	11/24/09	2.62	2.2	1.9	1.9	<0.5	<0.01	780
RP31-LYS-05	5	12/01/09	2.51	1.8	1.7	1.7	<0.5	<0.01	795
RP31-LYS-05	5	12/09/09	2.32	3.0	2.5	2.5	<0.5	<0.01	780
RP31-LYS-05	5	12/15/09	4.20	1.0	0.6	0.5	<0.5	0.06	240
RP31-LYS-05	5	12/22/09	3.34		1.1	1.0		0.08	235
RP31-LYS-05	5	12/31/09	2.14	0.9	0.9	0.9	<0.5	<0.01	505
RP31-LYS-10	10	10/06/09	2.33	2.8	2.1	2.1	0.7	0.04	750
RP31-LYS-10	10	10/13/09	2.74	2.0	1.9	1.8	<0.5	0.04	775
RP31-LYS-10	10	10/20/09	6.12	4.5	2.4	2.4	2.1	<0.01	750
RP31-LYS-10	10	10/27/09	3.56	2.6	2.1	2.1	0.5	<0.01	730
RP31-LYS-10	10	11/03/09	2.94	3.4	2.8	2.8	0.6	<0.01	750
RP31-LYS-10	10	11/10/09	2.81	2.1	1.9	1.9	<0.5	<0.01	760
RP31-LYS-10	10	11/17/09	5.88	1.5	1.1	1.1	<0.5	<0.01	635
RP31-LYS-10	10	11/24/09	3.04	2.4	2.1	2.0	<0.5	0.03	760
RP31-LYS-10	10	12/01/09	3.53	2.0	1.8	1.8	<0.5	<0.01	755
RP31-LYS-10	10	12/09/09	2.49	3.1	2.6	2.6	0.5	<0.01	780
RP31-LYS-10	10	12/15/09	3.84	1.7	0.8	0.8	0.9	0.04	335
RP31-LYS-10	10	12/22/09	3.14	2.1	1.7	1.7	<0.5	0.02	470
RP31-LYS-10	10	12/31/09	2.48	2.0	1.7	1.6	<0.5	0.06	350
RP31-LYS-15	15	10/06/09	1.97	2.2	1.8	1.7	0.5	0.07	755
RP31-LYS-15	15	10/13/09	1.89	2.1	1.8	1.7	<0.5	0.04	770
RP31-LYS-15	15	10/20/09	2.83	2.2	1.9	1.9	<0.5	<0.01	760
RP31-LYS-15	15	10/27/09	3.50	2.3	2.0	2.0	<0.5	<0.01	745
RP31-LYS-15	15	11/03/09	3.03	2.5	2.1	2.1	<0.5	<0.01	750
RP31-LYS-15	15	11/10/09	2.68	2.4	2.1	2.1	<0.5	<0.01	770
RP31-LYS-15	15	11/17/09	2.40	2.1	1.9	1.9	<0.5	<0.01	770
RP31-LYS-15	15	11/24/09	2.86	3.7	3.3	3.2	0.5	0.05	700
RP31-LYS-15	15	12/01/09	2.59	2.3	1.9	1.9	<0.5	0.03	730
RP31-LYS-15	15	12/09/09	2.98	2.1	1.7	1.7	<0.5	0.07	730
RP31-LYS-15	15	12/15/09	3.00	2.3	2.0	1.9	<0.5	0.04	705
RP31-LYS-15	15	12/22/09	2.88	3.0	2.6	2.6	<0.5	<0.01	715
RP31-LYS-15	15	12/31/09	2.39	2.4	1.9	1.9	<0.5	<0.01	605
RP31-LYS-25	25	10/06/09	1.51	2.4	1.9	1.8	0.6	0.06	710
RP31-LYS-25	25	10/13/09	1.47	1.7	1.7	1.6	<0.5	0.04	725
RP31-LYS-25	25	10/20/09	1.43	2.1	2.0	2.0	<0.5	<0.01	750
RP31-LYS-25	25	10/27/09	3.44	1.8	1.5	1.5	<0.5	<0.01	655
RP31-LYS-25	25	11/03/09	2.47	1.9	1.8	1.8	<0.5	<0.01	690
RP31-LYS-25	25	11/10/09	1.79	2.7	2.4	2.4	<0.5	<0.01	730
RP31-LYS-25	25	11/17/09	1.63	2.7	2.4	2.4	<0.5	<0.01	760
RP31-LYS-25	25	11/24/09	2.15	2.7	2.5	2.5	<0.5	<0.01	680
RP31-LYS-25	25	12/01/09	1.96	2.6	2.5	2.5	<0.5	<0.01	705
RP31-LYS-25	25	12/09/09	2.03	2.9	2.5	2.5	<0.5	<0.01	720
RP31-LYS-25	25	12/15/09	2.31	2.8	2.4	2.4	<0.5	<0.01	705
RP31-LYS-25	25	12/22/09	1.89	3.0	2.6	2.6	<0.5	<0.01	730
RP31-LYS-25	25	12/31/09	2.21	2.6	2.4	2.4	<0.5	<0.01	680
RP31-LYS-35	35	10/06/09	1.22	3.6	3.6	3.5	<0.5	0.06	700
RP31-LYS-35	35	10/13/09	1.12	3.6	3.3	3.3	<0.5	0.05	705
RP31-LYS-35	35	10/20/09	0.82	3.1	3.1	3.0	<0.5	0.04	705
RP31-LYS-35	35	10/27/09	0.89	2.8	2.6	2.6	<0.5	<0.01	700
RP31-LYS-35	35	11/03/09	0.99	2.6	2.3	2.3	<0.5	<0.01	700
RP31-LYS-35	35	11/10/09	1.01	2.5	2.3	2.3	<0.5	<0.01	695
RP31-LYS-35	35	11/17/09	1.08	2.2	2.2	2.2	<0.5	<0.01	705
RP31-LYS-35	35	11/24/09	0.95	2.5	2.2	2.2	<0.5	<0.01	705
RP31-LYS-35	35	12/01/09	0.97	2.1	2.1	2.1	<0.5	<0.01	700
RP31-LYS-35	35	12/09/09	0.74	2.4	2.0	2.0	<0.5	<0.01	705
RP31-LYS-35	35	12/15/09	1.10	2.1	1.8	1.8	<0.5	<0.01	695
RP31-LYS-35	35	12/22/09	1.11	2.1	2.0	2.0	<0.5	<0.01	700
RP31-LYS-35	35	12/31/09	1.15	2.0	1.9	1.9	<0.5	0.02	690

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	10/06/09	3.80	4.9	4.1	4.0	0.9	0.05	790
BRK-LYS-00	0	10/13/09	4.02	4.5	3.6	3.5	1.0	0.05	780
BRK-LYS-00	0	10/20/09	10.18	4.3	2.6	2.4	1.9	0.10	645
BRK-LYS-00	0	10/27/09	6.35	4.3	2.7	2.6	1.7	0.04	720
BRK-LYS-00	0	11/03/09	4.68	4.4	3.5	3.4	0.9	<0.01	745
BRK-LYS-00	0	11/10/09	4.32	3.8	3.0	3.0	0.9	<0.01	755
BRK-LYS-00	0	11/17/09	4.75	3.5	2.5	2.4	1.2	<0.01	775
BRK-LYS-00	0	11/24/09	4.13	4.2	3.3	3.3	0.9	<0.01	770
BRK-LYS-00	0	12/02/09	4.67	3.6	2.9	2.8	0.8	<0.01	765
BRK-LYS-00	0	12/09/09	5.65	3.6	2.4	2.3	1.3	<0.01	540
BRK-LYS-00	0	12/15/09	5.59	2.4	1.6	1.4	1.0	0.05	295
BRK-LYS-00	0	12/22/09	5.59	2.7	2.1	1.8	0.9	0.02	450
BRK-LYS-00	0	12/31/09	5.36	2.3	1.6	1.4	1.0	<0.01	485
BRK-LYS-05	5	10/06/09	4.99	74.9	74.9	74.9	<0.5	<0.01	1570
BRK-LYS-05	5	10/13/09	3.41	5.6	4.7	4.6	1.0	0.05	805
BRK-LYS-05	5	10/20/09	6.76	1.3	0.7	0.3	1.0	<0.01	655
BRK-LYS-05	5	10/27/09	4.65	2.0	1.4	0.9	1.1	<0.01	710
BRK-LYS-05	5	11/03/09	4.10	2.5	2.1	1.7	0.8	<0.01	720
BRK-LYS-05	5	11/10/09	3.29	2.7	2.4	2.2	0.5	<0.01	750
BRK-LYS-05	5	11/17/09	3.96	1.7	1.2	1.1	0.6	<0.01	760
BRK-LYS-05	5	11/24/09	3.14	1.9	1.5	1.4	0.5	<0.01	765
BRK-LYS-05	5	12/02/09	3.31	2.1	1.7	1.4	0.8	0.35	760
BRK-LYS-05	5	12/09/09	2.89	1.9	1.1	1.1	0.8	<0.01	770
BRK-LYS-05	5	12/15/09	3.77	0.7	<0.2	0.1	0.6	<0.01	380
BRK-LYS-05	5	12/22/09	4.15	<0.6	<0.2	<0.1	<0.5	0.02	375
BRK-LYS-05	5	12/31/09	3.96	<0.6	<0.2	<0.1	<0.5	<0.01	475
BRK-LYS-10	10	10/06/09	4.51						1160
BRK-LYS-10	10	10/13/09	2.93	11.2	10.8	10.7	<0.5	0.06	1040
BRK-LYS-10	10	10/20/09	4.43	4.8	4.1	4.0	0.8	0.12	855
BRK-LYS-10	10	10/27/09	4.16	2.1	1.6	1.5	0.6	0.06	815
BRK-LYS-10	10	11/03/09	3.69	1.2	0.9	0.9	<0.5	<0.01	760
BRK-LYS-10	10	11/10/09	3.46	1.3	0.9	0.9	<0.5	<0.01	765
BRK-LYS-10	10	11/17/09	3.39	1.1	0.3	0.3	0.8	<0.01	775
BRK-LYS-10	10	11/24/09	3.02	<0.6	<0.2	<0.1	<0.5	<0.01	770
BRK-LYS-10	10	12/02/09	3.10	0.8	<0.2	<0.1	0.7	<0.01	780
BRK-LYS-10	10	12/09/09	2.90	0.7	<0.2	<0.1	0.7	<0.01	800
BRK-LYS-10	10	12/15/09	3.18	<0.6	<0.2	<0.1	<0.5	<0.01	765
BRK-LYS-10	10	12/22/09	3.45	<0.6	<0.2	<0.1	<0.5	<0.01	710
BRK-LYS-10	10	12/31/09	3.22	<0.6	<0.2	<0.1	<0.5	<0.01	620
BRK-LYS-25	25	10/13/09	2.20	11.0	10.6	10.5	0.5	0.05	915
BRK-LYS-25	25	10/20/09	3.65	8.9	8.3	8.2	0.6	0.12	1070
BRK-LYS-25	25	10/27/09	3.15	4.9	4.3	4.1	0.8	0.20	960
BRK-LYS-25	25	11/03/09	3.21	1.5	1.1	0.9	0.6	0.16	835
BRK-LYS-25	25	11/10/09	3.28	0.7	0.3	0.2	0.6	0.07	780
BRK-LYS-25	25	11/17/09	3.20	<0.6	<0.2	<0.1	<0.5	0.03	770
BRK-LYS-25	25	11/24/09	2.59	<0.6	<0.2	<0.1	<0.5	<0.01	745
BRK-LYS-25	25	12/02/09	2.55	<0.6	<0.2	<0.1	<0.5	<0.01	735
BRK-LYS-25	25	12/09/09	2.31	<0.6	<0.2	<0.1	<0.5	<0.01	730
BRK-LYS-25	25	12/15/09	2.27	<0.6	<0.2	<0.1	<0.5	<0.01	710
BRK-LYS-25	25	12/22/09	2.50	<0.6	<0.2	<0.1	<0.5	<0.01	715
BRK-LYS-25	25	12/31/09	2.35	<0.6	<0.2	<0.1	<0.5	<0.01	745
BRK-LYS-35	35	10/13/09	7.24	1.1	1.1	0.9	<0.5	0.12	695
BRK-LYS-35	35	10/20/09	9.08	<0.6	<0.2	0.1	<0.5	0.05	730
BRK-LYS-35	35	10/27/09	8.71	0.6	<0.2	<0.1	0.5	0.07	830
BRK-LYS-35	35	11/03/09	6.27	1.1	<0.2	<0.1	1.0	<0.01	860
BRK-LYS-35	35	11/10/09	6.70						810
BRK-LYS-35	35	11/17/09	4.80	<0.6	<0.2	0.1	<0.5	0.03	755
BRK-LYS-35	35	11/24/09	4.27	<0.6	<0.2	<0.1	<0.5	<0.01	720
BRK-LYS-35	35	12/02/09	3.34	<0.6	<0.2	<0.1	<0.5	<0.01	705
BRK-LYS-35	35	12/09/09	4.07	<0.6	<0.2	<0.1	<0.5	<0.01	710
BRK-LYS-35	35	12/15/09	4.04	<0.6	<0.2	<0.1	0.6	<0.01	720
BRK-LYS-35	35	12/22/09	4.61		<0.2	<0.1		<0.01	725
BRK-LYS-35	35	12/31/09	2.80	<0.6	<0.2	<0.1	<0.5	<0.01	690

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	11/17/09	15.70	3.0	1.5	0.6	2.4	0.33	390
8TH-LYS-00	0	11/24/09	5.81	2.8	1.9	1.8	1.0	0.03	760
8TH-LYS-00	0	12/01/09	7.16	4.2	2.7	2.6	1.6	0.03	650
8TH-LYS-00	0	12/09/09	9.28	1.1	0.5	0.4	0.7	0.04	55
8TH-LYS-00	0	12/15/09	6.44	1.2	0.4	0.3	0.9	0.03	66
8TH-LYS-00	0	12/22/09	5.64	1.8	1.0	0.9	0.8	<0.01	585
8TH-LYS-00	0	12/30/09	5.42	1.2	0.2	0.2	1.0	<0.01	690
8TH-LYS-05	5	11/10/09	5.01						690
8TH-LYS-05	5	11/17/09	8.51	3.0	2.6	2.6	<0.5	<0.01	430
8TH-LYS-05	5	12/15/09	3.87						295
8TH-LYS-15	15	11/10/09	4.18						355
8TH-LYS-15	15	11/17/09	7.79	1.1	0.9	0.9	<0.5	<0.01	395
8TH-LYS-15	15	11/24/09	5.02	0.9	0.3	0.3	0.6	0.02	640
8TH-LYS-15	15	12/01/09	5.71	0.6	<0.2	0.2	<0.5	<0.01	545
8TH-LYS-15	15	12/09/09	4.44	1.3	1.1	1.0	<0.5	0.02	420
8TH-LYS-15	15	12/15/09	3.89	<0.6	<0.2	<0.1	<0.5	0.05	173
8TH-LYS-15	15	12/22/09	3.36	<0.6	<0.2	<0.1	<0.5	0.03	370
8TH-LYS-15	15	12/30/09	3.52	<0.6	<0.2	<0.1	<0.5	<0.01	560
8TH-LYS-25	25	11/10/09	4.81	4.5	4.1	4.0	<0.5	0.11	425
8TH-LYS-25	25	11/17/09	7.50	1.2	0.9	0.9	<0.5	<0.01	385
8TH-LYS-25	25	11/24/09	4.65	<0.6	<0.2	<0.1	<0.5	<0.01	625
8TH-LYS-25	25	12/01/09	5.42	<0.6	<0.2	0.1	<0.5	<0.01	510
8TH-LYS-25	25	12/09/09	4.11	0.9	0.6	0.6	<0.5	<0.01	550
8TH-LYS-25	25	12/15/09	4.61	<0.6	<0.2	<0.1	<0.5	0.05	200
8TH-LYS-25	25	12/22/09	3.58	<0.6	<0.2	<0.1	<0.5	0.04	200
8TH-LYS-25	25	12/30/09	3.44	<0.6	<0.2	<0.1	<0.5	<0.01	480
8TH-LYS-35	35	11/10/09	3.43	2.0	1.8	1.7	<0.5	0.10	525
8TH-LYS-35	35	11/17/09	4.29	0.6	0.5	0.4	<0.5	0.11	430
8TH-LYS-35	35	11/24/09	3.93	1.1	0.9	0.8	<0.5	0.06	505
8TH-LYS-35	35	12/01/09	3.51	<0.6	<0.2	<0.1	<0.5	<0.01	600
8TH-LYS-35	35	12/09/09	2.98	<0.6	<0.2	<0.1	<0.5	<0.01	665
8TH-LYS-35	35	12/15/09	3.25	<0.6	<0.2	<0.1	<0.5	<0.01	525
8TH-LYS-35	35	12/22/09	3.06	<0.6	<0.2	<0.1	<0.5	0.05	360
8TH-LYS-35	35	12/30/09	2.29	<0.6	<0.2	<0.1	<0.5	0.05	250

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	10/20/09	3.32	4.3	3.8	3.8	<0.5	<0.01	745
HKYE-LYS-00	0	10/27/09	3.46	4.5	4.0	4.0	0.5	<0.01	750
HKYE-LYS-00	0	11/03/09	3.67	4.2	3.2	3.2	1.0	<0.01	755
HKYE-LYS-00	0	11/10/09	4.40	3.9	3.1	3.1	0.8	<0.01	765
HKYE-LYS-00	0	11/17/09	4.83	3.3	2.8	2.8	0.5	<0.01	785
HKYE-LYS-00	0	11/24/09	4.86	5.5	4.8	4.8	0.7	<0.01	780
HKYE-LYS-00	0	12/01/09	4.27	3.9	3.7	3.7	<0.5	<0.01	775
HKYE-LYS-00	0	12/09/09	5.22	2.1	1.2	0.9	1.3	0.06	137
HKYE-LYS-00	0	12/15/09	4.80	1.7	1.0	0.7	1.0	0.06	82
HKYE-LYS-00	0	12/22/09	4.11	2.6	1.9	1.8	0.8	<0.01	650
HKYE-LYS-00	0	12/30/09	4.30	1.4	1.1	1.1	<0.5	<0.01	730
HKYE-LYS-25	25	10/20/09	4.25	4.0	3.3	3.3	0.7	0.03	730
HKYE-LYS-25	25	10/27/09	1.75						740
HKYE-LYS-25	25	11/03/09	3.10						720
HKYE-LYS-25	25	11/10/09	2.16						780
HKYE-LYS-25	25	11/17/09	1.90	4.1	3.6	3.5	0.6	0.03	785
HKYE-LYS-25	25	11/24/09	0.00						740
HKYE-LYS-25	25	12/01/09	1.16						780
HKYE-LYS-25	25	12/09/09	1.53						775
HKYE-LYS-25	25	12/15/09	2.04						670
HKYE-LYS-25	25	12/22/09	2.37		2.0	1.9		<0.01	495
HKYE-LYS-25	25	12/30/09	2.04						620

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

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	10/06/09	4.46	4.5	3.9	3.5	1.0	0.13	760
BNA-LYS-00	0	10/13/09	4.17	4.1	3.2	3.1	1.0	0.03	760
BNA-LYS-00	0	10/20/09	14.95				3.2		420
BNA-LYS-00	0	11/10/09	4.76	3.6	2.7	2.7	0.9	<0.01	760
BNA-LYS-00	0	11/17/09	5.17	3.2	2.7	2.7	0.5	<0.01	775
BNA-LYS-00	0	11/24/09	4.61	4.4	4.1	4.1	<0.5	<0.01	770
BNA-LYS-00	0	12/01/09	5.09	3.4	3.0	2.9	<0.5	<0.01	710
BNA-LYS-00	0	12/09/09	6.74	1.6	1.0	0.7	1.0	0.06	95
BNA-LYS-00	0	12/15/09	5.09	1.4	0.8	0.4	0.9	0.06	61
BNA-LYS-00	0	12/22/09	5.03	2.3	1.6	1.4	0.8	<0.01	595
BNA-LYS-00	0	12/30/09	4.35	1.3	0.8	0.8	0.6	<0.01	610
BNA-LYS-05	5	10/20/09	2.35	2.0	1.6	1.3	0.7	0.29	725
BNA-LYS-10	10	10/20/09	2.14	7.8	7.1	7.1	0.6	<0.01	995
BNA-LYS-15	15	10/20/09	1.34	3.5	2.2	2.2	1.3	<0.01	835
BNA-LYS-25	25	10/06/09	0.55	3.1	3.1	3.0	<0.5	0.07	360
BNA-LYS-25	25	10/13/09	1.42	4.0	3.7	3.6	<0.5	0.05	645
BNA-LYS-25	25	10/20/09	1.05	2.9	2.6	2.6	<0.5	0.02	635
BNA-LYS-25	25	10/27/09	0.69	2.9	2.5	2.5	<0.5	<0.01	600
BNA-LYS-25	25	11/03/09	0.74	2.2	2.2	2.2	<0.5	0.03	595
BNA-LYS-25	25	11/10/09	1.04	1.9	1.9	1.8	<0.5	0.02	590
BNA-LYS-25	25	11/17/09	1.55	3.0	2.9	2.9	<0.5	<0.01	670
BNA-LYS-25	25	11/24/09	1.56	3.7	3.7	3.7	<0.5	<0.01	755
BNA-LYS-25	25	12/01/09	1.81	3.0	2.9	2.9	<0.5	<0.01	700
BNA-LYS-25	25	12/09/09	1.03	3.0	2.7	2.7	<0.5	<0.01	690
BNA-LYS-25	25	12/15/09	1.43	2.0	1.6	1.6	<0.5	<0.01	405
BNA-LYS-25	25	12/22/09	0.96	1.0	1.0	1.0	<0.5	0.03	300
BNA-LYS-25	25	12/30/09	1.06	1.3	1.3	1.3	<0.5	<0.01	490

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 Plan for TOC and TN (mg/L)

Turner Basin					
Date	Recycled Water*	Recycled Water*	Turner 1 & 2	Turner 3 & 4	Turner 1 & 2 Turner 3 & 4
	TOC	TN	TOC (70% reduction)	TOC (85% reduction)	TN (87% reduction)
12/30/09	4.08	2.2	1.22	0.61	0.3

Ely Basin				
Date	Recycled Water*	Recycled Water*	Ely 3 East	Ely 3 East
	TOC	TN	TOC (76% reduction)	TN (52% reduction)
10/06/09	3.75	5.6	0.90	2.7
10/13/09	3.24	4.6	0.78	2.2
10/20/09	3.15	4.7	0.76	2.3
10/27/09	3.21	4.9	0.77	2.3
11/04/09	4.13	3.5	0.99	1.7
11/10/09	4.43	3.7	1.06	1.8
11/17/09	4.77	3.9	1.14	1.9
11/24/09	5.06	6.0	1.21	2.9

*Recycled water sampled at Reliant

Table 2-6a
Diluent Water Monitoring*: Local Runoff / Stormwater

Constituent	Declez Channel @ Declez Basin Stormwater December 2, 2009	W. Fontana Channel @ Banana Basin Stormwater December 7, 2009	Etiwanda Creek @ Etiwanda Spreading Basins Stormwater December 7, 2009	W. Cucamonga Creek @ 8th Street Basin Stormwater December 8, 2009	San Sevaine Creek @ San Sevaine Basins Stormwater December 8, 2009	Unit	Method
NO ₂ -N	0.22	0.08	0.02	0.05	0.03	mg/L	EPA 300.0
NO ₃ -N	0.9	0.9	0.9	0.7	1.9	mg/L	EPA 300.0
TDS	184	70	42	56	90	mg/L	SM 2540C
Total Coliform	>23	>23	>23	>23000	>23	mpn/100ml	SM 9221B
Oil & Grease	<2	6	<2	<2	<2	mg/L	EPA 1664A
Inorganic Chemicals							
Aluminum	366	2514	3307	333	644	µg/L	EPA 200.7
Antimony	1	2	<1	1	<1	µg/L	EPA 200.8
Arsenic	<2	<2	<2	<2	<2	µg/L	EPA 200.8
Asbestos	<6.17	<6.94	<6.94	<3.7	<3.7	MFL	EPA 100.2
Barium	30	64	61	16	22	µg/L	EPA 200.7
Beryllium	<0.5	<0.5	<0.5	<0.5	<0.5	µg/L	EPA 200.7
Cadmium	<0.25	0.6	<0.25	<0.25	<0.25	µg/L	EPA 200.7
Chromium	2.0	8.9	3.0	1.8	<1	µg/L	EPA 200.7
Cyanide	<0.006	<0.006	<0.006	<0.006	2	mg/L	SM 4500-CN E
Fluoride	0.2	0.2	0.3	0.7	<0.1	mg/L	SM 4500-F C
Mercury	<0.2	<0.2	<0.2	<0.2	<0.2	µg/L	EPA 245.2
Nickel	4	7	2	2	1	µg/L	EPA 200.7
Perchlorate	<4	<4	<4	<4	<4	µg/L	EPA 314
Selenium	<2	<2	<2	<2	<2	µg/L	EPA 200.8
Thallium	<1	<1	<1	<1	<1	µg/L	EPA 200.8
Volatile Organic Chemicals (VOCs)							
Benzene	<0.5	<0.5	<0.5	<0.5	<0.5	µg/L	EPA 524.2
Carbon Tetrachloride	<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	µg/L	EPA 524.2
1,4-Dichlorobenzene	<0.5	<0.5	<0.5	<0.5	<0.5	µg/L	EPA 524.2
1,1-Dichloroethane	<0.5	<0.5	<0.5	<0.5	<0.5	µg/L	EPA 524.2
1,2-Dichloroethane	<0.5	<0.5	<0.5	<0.5	<0.5	µg/L	EPA 524.2
1,1-Dichloroethylene	<1	<1	<1	<1	<1	µg/L	EPA 524.2
cis-1,2-Dichloroethylene	<0.5	<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	<0.5	µg/L	EPA 524.2
Dichloromethane	<0.5	<0.5	<0.5	<0.5	<0.5	µg/L	EPA 524.2
1,2-Dichloropropane	<0.5	<0.5	<0.5	<0.5	<0.5	µg/L	EPA 524.2
1,3-Dichloropropene	<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	µg/L	EPA 524.2
Chlorobenzene	<0.5	<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	<0.5	µg/L	EPA 524.2
Styrene	<0.5	<0.5	<0.5	<0.5	<0.5	µg/L	EPA 524.2
1,1,2,2-Tetrachloroethane	<0.5	<0.5	<0.5	<0.5	<0.5	µg/L	EPA 524.2
Tetrachloroethylene	<0.5	<0.5	<0.5	<0.5	<0.5	µg/L	EPA 524.2
Toluene	<0.5	<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	<0.5	µg/L	EPA 524.2
1,1,1-Trichloroethane	<0.5	<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	<0.5	µg/L	EPA 524.2
Trichloroethylene	<0.5	<0.5	<0.5	<0.5	<0.5	µg/L	EPA 524.2
Trichlorofluoromethane	<0.5	<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	<0.5	µg/L	EPA 524.2
Vinyl Chloride	<0.5	<0.5	<0.5	<0.5	<0.5	µg/L	EPA 524.2
Total Xylenes	<1	<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	<0.1	µg/L	EPA 505
Atrazine	<0.05	<0.05	<0.05	<0.05	<0.05	µg/L	EPA 525.2
Bentazon	<0.5	<0.5	<0.5	<0.5	<0.5	µg/L	EPA 515.4
Benzo(a)pyrene	<0.02	<0.02	<0.02	<0.02	<0.02	µg/L	EPA 525.2
Carbofuran	<0.5	<0.5	<0.5	<0.5	<0.5	µg/L	EPA531.2
Chlordane	<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	µg/L	EPA 515.4
Dalapon	<1	<1	<1	<1	<1	µg/L	EPA 515.4
Dibromochloropropane	<0.01	<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	<0.6	µg/L	EPA 525.2
Di(2-ethylhexyl)phthalate	<0.6	2	<0.6	1.7	0.89	µg/L	EPA 525.2
Dinoseb	<0.2	<0.2	<0.2	<0.2	<0.2	µg/L	EPA 515.4
Diquat	<0.4	<0.4	<0.4	<0.4	<0.4	µg/L	EPA 549.2
Endothall	<5	<5	<5	<5	<5	µg/L	EPA 548.1
Endrin	<0.01	<0.01	<0.01	<0.01	<0.01	µg/L	EPA 505
Ethylene Dibromide	<0.01	<0.01	<0.01	<0.01	<0.01	µg/L	EPA 504.1
Glyphosate	14	10	<6	<6	<6	µg/L	EPA 547
Heptachlor	<0.01	<0.01	<0.01	<0.01	<0.01	µg/L	EPA 505

Table 2-6a
Diluent Water Monitoring*: Local Runoff / Stormwater

Constituent	Declez Channel @ Declez Basin Stormwater December 2, 2009	W. Fontana Channel @ Banana Basin Stormwater December 7, 2009	Etiwanda Creek @ Etiwanda Spreading Basins Stormwater December 7, 2009	W. Cucamonga Creek @ 8th Street Basin Stormwater December 8, 2009	San Sevaine Creek @ San Sevaine Basins Stormwater December 8, 2009	Unit	Method
Heptachlor Epoxide	<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	µg/L	EPA 525.2
Hexachlorocyclopentadiene	<0.05	<0.05	<0.05	<0.05	<0.05	µg/L	EPA 525.2
Lindane	<0.01	<0.01	<0.01	<0.01	<0.01	µg/L	EPA 505
Methoxychlor	<0.05	<0.05	<0.05	<0.05	<0.05	µg/L	EPA 505
Molinate	<0.1	<0.1	<0.1	<0.1	<0.1	µg/L	EPA 525.2
Oxamyl	<0.5	<0.5	<0.5	<0.5	<0.5	µg/L	EPA 531.2
Pentachlorophenol	0.12	0.17	<0.04	0.063	<0.04	µg/L	EPA 515.4
Picloram	<0.1	<0.1	<0.1	<0.1	<0.1	µg/L	EPA 515.4
PCB 1016	<0.08	<0.08	<0.08	<0.08	<0.08	µg/L	EPA 505
PCB 1221	<0.1	<0.1	<0.1	<0.1	<0.1	µg/L	EPA 505
PCB 1232	<0.1	<0.1	<0.1	<0.1	<0.1	µg/L	EPA 505
PCB 1242	<0.1	<0.1	<0.1	<0.1	<0.1	µg/L	EPA 505
PCB 1248	<0.1	<0.1	<0.1	<0.1	<0.1	µg/L	EPA 505
PCB 1254	<0.1	<0.1	<0.1	<0.1	<0.1	µg/L	EPA 505
PCB 1260	<0.1	<0.1	<0.1	<0.1	<0.1	µg/L	EPA 505
Simazine	<0.05	<0.05	<0.05	<0.05	0	µg/L	EPA 525.2
Thiobencarb	<0.2	<0.2	<0.2	<0.2	<0.2	µg/L	EPA 525.2
Toxaphene	<0.5	<0.5	<0.5	<0.5	<0.5	µg/L	EPA 505
2,3,7,8-TCDD (Dioxin)	<5	<5	<5	<5	<5	pg/L	EPA 1613
2,4,5-TP (Silvex)	<0.2	<0.2	<0.2	<0.2	<0.2	µg/L	EPA 515.4
Disinfection Byproducts							
Total Trihalomethanes (TTHMs)	<2	<2	<2	<2	<2	µg/L	EPA 524.2/624
Total Haloacetic Acids (HAA5)	<2	<2	<2	<2	<2	µg/L	S6251B
Bromate	<5	<5	<5	7	<5	µg/L	EPA 300.1
Chlorite	<0.01	<0.01	<0.01	<0.01	<0.01	mg/L	EPA 300.0
Action Level Chemicals							
Copper	7.2	43.1	4.5	11.4	5.5	µg/L	EPA 200.7
Lead	1.6	22.1	1.2	2.6	0.7	µg/L	EPA 200.8
Radionuclides							
Combined Radium-226 and Radium 22	<0.33	0.4	<0.31	<0.51	<0.64	pCi/L	EPA 903.0
Gross Alpha Particle Activity	<3	<3	<3	<3	<3	pCi/L	EPA 900.0
Tritium	<280	<280	<280	290	<270	pCi/L	EPA 906
Strontium-90	<0.65	<0.85	<0.55	<0.68	<0.76	pCi/L	EPA 905
Gross Beta Particle Activity	6	6	<3	<3	<3	pCi/L	EPA 900.0
Uranium	<0.7	<0.7	<0.7	<0.7	<0.7	pCi/L	EPA 200.8
Unregulated Chemicals							
Chromium VI	0.1	1.1	<0.1	0.6	0.2	µg/L	EPA 218.6
Ethyl tertiary butyl ether	<0.5	<0.5	<0.5	<0.5	<0.5	µg/L	EPA 524.2
Tertiary amyl methyl ether	<0.5	<0.5	<0.5	<0.5	<0.5	µg/L	EPA 524.2
Chemicals w/ State Notification Levels							
Boron	<0.1	<0.1	<0.1	<0.1	<0.1	mg/L	EPA 200.7
n-butylbenzene	<0.5	<0.5	<0.5	<0.5	<0.5	µg/L	EPA 524.2
sec-butylbenzene	<0.5	<0.5	<0.5	<0.5	<0.5	µg/L	EPA 524.2
tert-butylbenzene	<0.5	<0.5	<0.5	<0.5	<0.5	µg/L	EPA 524.2
2-Chlorotoluene	<0.5	<0.5	<0.5	<0.5	<0.5	µg/L	EPA 524.2
4-Chlorotoluene	<0.5	<0.5	<0.5	<0.5	<0.5	µg/L	EPA 524.2
Dichlorodifluoromethane (Freon 12)	<0.5	<0.5	<0.5	<0.5	<0.5	µg/L	EPA 524.2
1,4 - Dioxane	<2	<2	<2	<2	<2	µg/L	EPA 522
Isopropylbenzene	<0.5	<0.5	<0.5	<0.5	<0.5	µg/L	EPA 524.2
Methyl isobutyl ketone (MIBK)	<2	5.4	<2	<2	<2	µg/L	EPA 524.2
N-nitrosodimethylamine (NDMA)	3	3	<2	<2	<2	ng/l	EPA 521
N-propylbenzene	<0.5	<0.5	<0.5	<0.5	<0.5	µg/L	EPA 524.2
Tertiary butyl alcohol	<2	<2	<2	<2	<2	µg/L	EPA 524.2 SIM
1,2,3-Trichloropropane (1,2,3-TCP)	<0.5	<0.5	<0.5	<0.5	<0.5	µg/L	EPA 524.2
1,2,4 -trimethylbenzene	<0.5	<0.5	<0.5	<0.5	<0.5	µg/L	EPA 524.2
1,3,5-trimethylbenzene	<0.5	<0.5	<0.5	<0.5	<0.5	µg/L	EPA 524.2
Vanadium	5	11	10	1.8	3.2	µg/L	EPA 200.8
Secondary Maximum Contaminant Level Chemicals							
Aluminum	366	2514	3307	333	644	µg/L	EPA 200.7
Corrosivity	-0.9	-0.8	-2.3	-1.7	-1.5	SI	SM 2330B
Foaming Agents (MBAS)	0.45	0.37	0.06	0.13	<0.05	mg/L	S5540C/EPA 425.1
Iron	750	4844	4628	578	670	µg/L	EPA 200.7
Manganese	90	148	72	24	16	µg/L	EPA 200.7
Odor--Threshold	4	8	8	4	4	TON	SM 2150B
Silver	<0.25	<0.25	<0.25	<0.25	<0.25	µg/L	EPA 200.7
Thiobencarb	<0.2	<0.2	<0.2	<0.2	<0.2	µg/L	EPA 525.2
Zinc	39	250	16	45	16	µg/L	EPA 200.7

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

Table 2-6b
Diluent Water Monitoring: State Water Project - Lake Silverwood

Constituent	Oct-09	Nov-09	Dec-09	Unit
Silica	9.7	10.8	11.7	mg/L
Calcium	17	21	21	mg/L
Magnesium	12	12	10	mg/L
Sodium	59	65	56	mg/L
Potassium	2.8	2.9	2.5	mg/L
Carbonate	0	0	0	mg/L
Bicarbonate	83	93	83	mg/L
Sulfate	25	35	35	mg/L
Chloride	87	92	74	mg/L
Nitrate	0.9	2.0	2.9	mg/L
Fluoride	0.1	0.1	0.1	mg/L
Boron	0.11	--	--	mg/L
Total Dissolved Solids	255	287	255	mg/L
Total Hardness as CaCO ₃	91	100	90	mg/L
Total Alkalinity as CaCO ₃	68	76	68	mg/L
Free Carbon Dioxide	1.2	1.2	1.9	mg/L
pH	8.05	8.12	7.87	unit
Specific Conductance	496	531	478	µmho/cm
Color	7	--	--	CU
Turbidity	1.0	0.7	0.8	NTU
Temperature	19	17	12	°C
Bromide	0.28	0.32	0.26	mg/L
Total Organic Carbon	2.53	2.38	2.22	mg/L

|

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	3601065	City Of Ontario - 19	2200 upgradient	NA	16	Inactive	Municipal
	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	--	Inland Empire Utilities Agency - DCZ-1	50 downgradient	155-175	4	Active	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
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
	--	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 number
bgs = below ground surface
* = Ontario Well No. 38 has taken the place of Ontario Well No. 19, which is inactive

Table 2-8a
Groundwater Monitoring Well Results (Quarterly)

		Sample Location	Date	TOC (mg/L)	Total Coliform (MPN/100mL)	pH	EC (µmhol/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)	Thiocencarb (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	10/7/09	0.1	<1.1	7.8	470	320	26	<3		8	0.4	0.14	74	4	<0.5	2	<0.25	<0.2	0.3	10	20	190	17	16	<0.1	0.12	10.3	10.8	<0.5	175	4.4
	California Speedway Infield Well	10/21/09	0.1	<1.1	7.8	520	352	<25	<3		1.2	0.4	<0.05	7	<1	<0.5	1	<0.25	<0.2	0.5	3	18	242	21	48	<0.1	0.10	8.8	8.9	<0.5	175	2.2
	California Speedway 2	10/7/09	0.5	<1.1	7.6	385	264	<25	<3		12	0.3	<0.05	59	1	<0.5	1	<0.25	<0.2	1.0	185	13	179	21	14	<0.1	0.13	4.4	4.9	<0.5	159	3.8
	Reliant Energy East Well	10/7/09	0.2	<1.1	7.5	365	260	54	<3		6	0.0	<0.05	67	12		1	<0.25	<0.2	0.4	<1	15	139	17	21	<0.1	0.11	8.0	8.2	<0.5	118	3.9
	Reliant Energy East Well	11/4/09														<0.5																
	Ontario Well No. 20	10/5/09	0.2	<1.1	7.9	345	246	<25	<3		5.5		<0.05	9	<1	<0.5	1	<0.25	<0.2	0.5	2	6	148	13	6	<0.1	0.13	2.1	2.3	<0.5	172	7.9
	BH-1/2	10/7/09	0.5	<1.1	7.4	525	370	<25	5	1.0	0.3	<0.05	814	5	<0.5	2	<0.25	<0.2	7.7	<1	72	224	24	34	<0.1	0.07	2.6	2.8	<0.5	117	3.4	
Turner	Ontario Well No. 25	10/5/09	0.2	<1.1	7.7	440	282	<25	<3		28.6		<0.05	4	<1	<0.5	2	<0.25	<0.2	0.2	5	18	177	22	18	<0.1	0.13	4.2	4.7	<0.5	178	6.7
	Ontario Well No. 29	10/5/09	0.1	<1.1	7.8	410	256	<25	<3		1.2		<0.05	10	<1	<0.5	2	<0.25	<0.2	0.3	1	16	159	22	25	<0.1	0.12	5.5	5.9	<0.5	152	7.8
	Ontario Well No. 38	10/5/09	<0.1	<1.1	8.4	305	200	<25	<3		12.2		<0.05	1	<1	<0.5	1	<0.25	<0.2	0.2	1	5	113	20	8	<0.1	0.13	1.2	1.3	<0.5	151	6.8
	T-1/2	11/9/09	0.6	<1.1	7.4	390	244	<25	<3		<0.5	0.1	<0.05	28	2		1	<0.25	<0.2	0.3	<1	27	165	20	7	<0.1	0.05	<0.1	0.1	<0.5	157	6.5
	T-2/2	11/9/09	0.6	<1.1	7.5	465	286	<25	<3		<0.5	0.0	<0.05	52	1		2	<0.25	<0.2	0.5	<1	46	190	23	27	<0.1	0.04	1.1	1.1	<0.5	134	8.9
RP-3	Southridge JHS	11/11/09	0.5	<1.1	6.4	1020	600	412	15	1.5	0.2	<0.05	23800	733		2	<0.25	<0.2	95.4	10	121	387	57	74	<0.1	<0.01	14.2	14.2	<0.5	205	9.3	
	Fontana Water Company F23a	11/4/09	0.3	<1.1	7.7	640	384	<25	<3		2.5	0.4	<0.05	0	<1	<0.5	1	<0.25	<0.2	0.6	2	36	172	20	51	<0.1	0.05	11.3	11.3	<0.5	163	2.8
	Alcoa Offsite MW1	11/5/09	1.1	2	7.0	585	384	1276	5	3.8	0.3	<0.05	1971	42		2	<0.25	<0.2	25.6	20	24	243	27	33	<0.1	0.06	18.8	18.9	<0.5	161	5.3	
	Alcoa Offsite MW3	11/5/09	1.1	<1.1	6.9	655	422	280	<3		2.8	0.2	0.06	465	9		2	<0.25	<0.2	5.0	12	37	275	36	50	<0.1	0.04	16.3	16.4	<0.5	174	4.6
	RP3-1/1	10/7/09	2.8	<1.1	6.9	1020	694	243	3	2.3	0.3	<0.05	242	281	<0.5	2	<0.25	<0.2	8.6	5	20	297	140	70	<0.1	0.24	29.8	30.0	<0.5	346	5.3	
	RP3-1/1	10/19/09	2.5			1020																			<0.1	0.49	27.2	27.9	<0.5			
	RP3-1/1	11/2/09	3.5			960																			0.2	0.39	6.1	6.8	<0.5			
	RP3-1/1	12/1/09	2.3			975																			<0.1	0.81	22.3	23.4	<0.5			
	RP3-1/1	12/9/09	4.1			610																			0.2	0.38	11.5	12.9	1.0			
	RP3-1/2	10/7/09	1.6	<1.1	6.8	915	644	<25	3	0.8	0.2	<0.05	4	47	<0.5	3	<0.25	<0.2	0.2	1	20	285	66	75	<0.1	0.22	24.1	24.6	<0.5	324	8.4	
	RP3-1/2	10/19/09	1.6			880																			<0.1	0.46	18.8	19.3	<0.5			
	RP3-1/2	11/2/09	3.2			775																			<0.1	0.24	0.8	1.5	<0.5			
	RP3-1/2	12/1/09	3.2			760																			<0.1	0.32	3.8	4.4	<0.5			
	RP3-1/2	12/9/09	2.4			760																			<0.1	0.85	4.6	5.8	<0.5			
7th & 8th St.	8TH-1/1	11/2/09	0.4	<1.1	8.2	240	174	<25	<3		<0.5	0.2	<0.05	110	4	<0.5	1	<0.25	<0.2	0.6	<1	28	98	11	4	<0.1	0.10	0.7	1.1	<0.5	72	5.1
	8TH-2/1	11/4/09	0.3	<1.1	7.3	415	252	<25	<3		<0.5	0.2	<0.05	2	<1	<0.5	2	0.26	<0.2	0.2	<1	11	202	15	15	<0.1	0.09	6.3	6.4	<0.5	157	5.9
	8TH-2/2	11/4/09	0.1	<1.1	7.2	605	382	<25	<3		<0.5	0.2	<0.05	7	1	<0.5	1	1.74	<0.2	0.2	<1	22	270	20	24	<0.1	0.07	22.0	23.6	1.6	156	5.9
	8TH-2/2	12/2/09			7.1											<0.5															7.6	
Brooks	Pomona Well No. 2	11/4/09	0.1	<1.1	7.6	400	242	<25	<3		12.9	0.7	<0.05	0	<1	<0.5	2	<0.25	<0.2	0.6	26	16	318	13	16	<0.1	0.08	5.2	5.3	<0.5	142	3.4
	Pomona Well No. 10	11/4/09	0.1	<1.1	7.7	570	346	<25	<3		2.6	0.4	<0.05	3	<1	<0.5	2	<0.25	<0.2	0.1	9	34	278	12	39	<0.1	0.05	8.6	8.9	<0.5	158	3.3
	Pomona Well No. 34	11/4/09	0.1	<1.1	7.7	590	362	<25	<3		1.2	0.5	<0.05	3	<1	<0.5	1	<0.25	<0.2	0.1	6	26	277	12	40	<0.1	0.06	13.2	13.3	<0.5	157	3.8
	BRK-1/1	10/5/09	0.4	<1.1	7.8	420	33	<3	<0.5				<0.05	71	3		1	<0.25	<0.2	1.1	1	50	189	21	24	<0.1	0.05	1.2	1.4	<0.5	116	5.4
	BRK-1/1	10/12/09	0.5			430																			<0.1	<0.01	1.3	1.3	<0.5			
	BRK-1/1	10/26/09	0.5		7.8	440			15						<0.5	2			41.0												3.9	
	BRK-1/2	10/5/09	0.1	<1.1	7.7	540	348	<25	<3		<0.5		<0.05	28	<1		2	<0.25	<0.2	0.2	<1	18	233	14	41	<0.1	0.11	18.4	18.5	<0.5	153	6.8
	BRK-1/2	10/12/09	0.6			540																			<0.1	0.07	18.3	18.4	<0.5			
	BRK-1/2	10/26/09	0.1		7.6	550			<3						<0.5	2			0.4							<0.1	0.07	18.3	18.4	<0.5		
	BRK-2/1	10/5/09	0.4	<1.1	7.4	595	372	36	5	2.2			<0.05																			

Table 2-8b
Groundwater Monitoring Well Results (Annual)

Constituent	Ely Basin MW-2 10/21/09	8TH-1/1 11/02/09	8TH-2/1 11/04/09	8TH-2/2 11/04/09	Limit	Unit	Method
Inorganic Chemicals							
Aluminum	92	<25	<25	<25	1000	µg/L	EPA 200.7
Antimony	<1	<1	<1	<1	6	µg/L	EPA 200.8
Arsenic	<2	<2	<2	<2	10	µg/L	EPA 200.8
Asbestos	<1.85	<0.37	<0.2	<0.2	7	MFL	EPA 100.2
Barium	90	23	41	59	1000	µg/L	EPA 200.7
Beryllium	<0.5	<0.5	<0.5	<0.5	4	µg/L	EPA 200.7
Cadmium	<0.25	<0.25	<0.25	<0.25	5	µg/L	EPA 200.7
Chromium	18.1	13.3	3.2	3.4	50	µg/L	EPA 200.7
Cyanide	<0.006	<0.006	<0.006	<0.006	150	mg/L	SM 4500-CN E
Fluoride	0.2	0.4	0.3	0.3	2	mg/L	SM 4500-F C
Mercury	<0.2	<0.2 *	NA	NA	2	µg/L	EPA 245.2
Nickel	2	50	1	2	100	µg/L	EPA 200.7
Perchlorate	<4	<4	<4	<4	6	µg/L	EPA 314
Selenium	<2	<2	<2	<2	50	µg/L	EPA 200.8
Thallium	<1	<1	<1	<1	2	µg/L	EPA 200.8
Volatile Organic Chemicals (VOCs)							
Benzene	<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	µg/L	EPA 524.2
1,2-Dichlorobenzene	<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	5	µg/L	EPA 524.2
1,1-Dichloroethane	<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	µg/L	EPA 524.2
1,1-Dichloroethylene	<1	<1	<1	<1	6	µg/L	EPA 524.2
cis-1,2-Dichloroethylene	<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	10	µg/L	EPA 524.2
Dichloromethane	<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	5	µg/L	EPA 524.2
1,3-Dichloropropene	<0.5	<0.5	<0.5	<0.5	0.5	µg/L	EPA 524.2
Ethylbenzene	<0.5	<0.5	<0.5	<0.5	300	µg/L	EPA 524.2
Chlorobenzene	<0.5	<0.5	<0.5	<0.5	70	µg/L	EPA 524.2
Methyl Tert-butyl ether (MTBE)	<0.5	<0.5	<0.5	<0.5	13	µg/L	EPA 524.2
Styrene	<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	1	µg/L	EPA 524.2
Tetrachloroethylene	<0.5	<0.5	<0.5	<0.5	5	µg/L	EPA 524.2
Toluene	<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	5	µg/L	EPA 524.2
1,1,1-Trichloroethane	<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	5	µg/L	EPA 524.2
Trichloroethylene	<0.5	<0.5	<0.5	<0.5	5	µg/L	EPA 524.2
Trichlorofluoromethane	<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	1200	µg/L	EPA 524.2
Vinyl Chloride	<0.5	<0.5	<0.5	<0.5	0.5	µg/L	EPA 524.2
Total Xylenes	<1	<1	<1	<0.5	1750	µg/L	EPA 524.2
Non-Volatile Synthetic Organic Chemicals (SOCs)							
Alachlor (Alanex)	<0.05	<0.05	<0.05	<0.05	2	µg/L	EPA 525.2
Atrazine	<0.05	<0.05	<0.05	<0.05	1	µg/L	EPA 525.2
Bentazon	<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	0.2	µg/L	EPA 525.2
Carbofuran	<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	µg/L	EPA 505
2,4-D	<0.1	<0.1	<0.1	<0.1	70	µg/L	EPA 515.4
Dalapon	<1	<1	<1	<1	200	µg/L	EPA 515.4
Dibromochloropropane	<0.01	<0.01	<0.01	3.3	0.2	µg/L	EPA 504.1
Di(2-ethylhexyl)adipate	<0.6	<0.6	<0.6	<0.6	400	µg/L	EPA 525.2

Table 2-8b
Groundwater Monitoring Well Results (Annual)

Constituent	Ely Basin MW-2 10/21/09	8TH-1/1 11/02/09	8TH-2/1 11/04/09	8TH-2/2 11/04/09	Limit	Unit	Method
Di(2-ethylhexyl)phthalate	<0.6	1.0	0.7	4	4	µg/L	EPA 525.2
Dinoseb	<0.2	<0.2	<0.2	<0.2	7	µg/L	EPA 515.4
Diquat	<0.4	<0.4	<0.4	<0.4	20	µg/L	EPA 549.2
Endothall	<5	<5	<5	<5	100	µg/L	EPA 548.1
Endrin	<0.01	<0.01	<0.01	<0.01	2	µg/L	EPA 505
Ethylene Dibromide	<0.01	<0.01	<0.01	<0.01	0.05	µg/L	EPA 504.1
Glyphosate	<6	<6	<6	<6	700	µg/L	EPA 547
Heptachlor	<0.01	<0.01	<0.03	<0.01	0.01	µg/L	EPA 505
Heptachlor Epoxide	<0.01	<0.01	<0.01	<0.01	0.01	µg/L	EPA 505
Hexachlorobenzene	<0.05	<0.05	<0.05	<0.05	1	µg/L	EPA 525.2
Hexachlorocyclopentadiene	<0.05	<0.05	<0.05	<0.05	50	µg/L	EPA 525.2
Lindane	<0.01	<0.01	<0.01	<0.01	0.2	µg/L	EPA 505
Methoxychlor	<0.05	<0.05	<0.05	<0.05	30	µg/L	EPA 505
Molinate	<0.1	<0.1	<0.1	<0.1	20	µg/L	EPA 525.2
Oxamyl	<0.5	<0.5	<0.5	<0.5	50	µg/L	EPA 531.2
Pentachlorophenol	<0.04	<0.04	<0.04	<0.04	1	µg/L	EPA 515.4
Picloram	<0.1	<0.1	<0.1	<0.1	500	µg/L	EPA 515.4
PCB 1016	<0.08	<0.08	<0.08	<0.08	0.5	µg/L	EPA 505
PCB 1221	<0.1	<0.1	<0.1	<0.1	0.5	µg/L	EPA 505
PCB 1232	<0.1	<0.1	<0.1	<0.1	0.5	µg/L	EPA 505
PCB 1242	<0.1	<0.1	<0.1	<0.1	0.5	µg/L	EPA 505
PCB 1248	<0.1	<0.1	<0.1	<0.1	0.5	µg/L	EPA 505
PCB 1254	<0.1	<0.1	<0.1	<0.1	0.5	µg/L	EPA 505
PCB 1260	<0.1	<0.1	<0.1	<0.1	0.5	µg/L	EPA 505
Simazine	0.13	0.27	0.06	<0.05	4	µg/L	EPA 525.2
Thiobencarb	<0.2	<0.2	<0.2	<0.2	70	µg/L	EPA 525.2
Toxaphene	<0.5	<0.5	<0.5	<0.5	3	µg/L	EPA 505
2,3,7,8-TCDD (Dioxin)	<5	<5	<5	<5	30	pg/L	EPA 1613
2,4,5-TP (Silvex)	<0.2	<0.2	<0.2	<0.2	50	µg/L	EPA 515.4
Notification Level Chemicals							
Copper	1.5	<0.5	<0.5	<0.5	1300	µg/L	EPA 200.7
Lead	<0.5	<0.5	<0.5	<0.5	15	µg/L	EPA 200.8
Radionuclides							
Combined Radium-226 and Radium 228	<0.23	<0.35	<0.68	<0.54	5	pCi/l	EPA 903.0
Gross Alpha Particle Activity	NA	NA	NA	NA	15	pCi/l	EPA 900.0
Tritium	<250	<220	<210	<200	20,000	pCi/l	EPA 906
Strontium-90	<0.48	1.7	<0.47	<0.49	8	pCi/l	EPA 905
Gross Beta Particle Activity	NA	NA	NA	NA	50	pCi/l	EPA 900.0
Uranium	3.8	<0.7	1.3	1.8	20	pCi/l	EPA 200.8

NA: Not Analyzed

* 8TH-1/1 was sampled on March 19, 2009

Bold signifies an exceedance of an Maximum Contaminant Level. Explained in further detail in the report text.

Table 2-8b
Groundwater Monitoring Well Results (Annual)

Constituent	BRK-1/1 10/5/09 &10/26/09	BRK-1/2 10/5/09 &10/26/09	BRK-2/1 10/5/09 &10/28/09	BRK-2/2 10/5/09 &10/28/09	Limit	Unit	Method
Inorganic Chemicals							
Aluminum	33	<25	36	<25	1000	µg/L	EPA 200.7
Antimony	<1	<1	<1	<1	6	µg/L	EPA 200.8
Arsenic	<2	<2	<2	3	10	µg/L	EPA 200.8
Asbestos	<6.94	<0.2	<1.85	<0.2	7	MFL	EPA 100.2
Barium	33	61	36	44	1000	µg/L	EPA 200.7
Beryllium	<0.5	<0.5	<0.5	<0.5	4	µg/L	EPA 200.7
Cadmium	<0.25	<0.25	<0.25	<0.25	5	µg/L	EPA 200.7
Chromium	8.0	7.0	95.9	9.7	50	µg/L	EPA 200.7
Cyanide	<0.006	<0.006	<0.006	<0.006	150	mg/L	SM 4500-CN E
Fluoride	0.3	0.2	0.3	0.2	2	mg/L	SM 4500-F C
Mercury	<0.2	<0.2	<0.2	<0.2	2	µg/L	EPA 245.2
Nickel	38	2	14	2	100	µg/L	EPA 200.7
Perchlorate	<4	10	<4	<4	6	µg/L	EPA 314
Selenium	<2	<2	<2	<2	50	µg/L	EPA 200.8
Thallium	<1	<1	<1	<1	2	µg/L	EPA 200.8
Volatile Organic Chemicals (VOCs)							
Benzene	<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	µg/L	EPA 524.2
1,2-Dichlorobenzene	<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	5	µg/L	EPA 524.2
1,1-Dichloroethane	<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	µg/L	EPA 524.2
1,1-Dichloroethylene	<1	<1	<1	<1	6	µg/L	EPA 524.2
cis-1,2-Dichloroethylene	<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	10	µg/L	EPA 524.2
Dichloromethane	<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	5	µg/L	EPA 524.2
1,3-Dichloropropene	<0.5	<0.5	<0.5	<0.5	0.5	µg/L	EPA 524.2
Ethylbenzene	<0.5	<0.5	<0.5	<0.5	300	µg/L	EPA 524.2
Chlorobenzene	<0.5	<0.5	<0.5	<0.5	70	µg/L	EPA 524.2
Methyl Tert-butyl ether (MTBE)	<0.5	<0.5	<0.5	<0.5	13	µg/L	EPA 524.2
Styrene	<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	1	µg/L	EPA 524.2
Tetrachloroethylene	<0.5	<0.5	0.7	<0.5	5	µg/L	EPA 524.2
Toluene	<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	5	µg/L	EPA 524.2
1,1,1-Trichloroethane	<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	5	µg/L	EPA 524.2
Trichloroethylene	<0.5	<0.5	<0.5	<0.5	5	µg/L	EPA 524.2
Trichlorofluoromethane	<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	1200	µg/L	EPA 524.2
Vinyl Chloride	<0.5	<0.5	<0.5	<0.5	0.5	µg/L	EPA 524.2
Total Xylenes	<1	<1	<1	<1	1750	µg/L	EPA 524.2
Non-Volatile Synthetic Organic Chemicals (SOCs)							
Alachlor (Alanex)	<0.05	<0.05	<0.05	<0.05	2	µg/L	EPA 525.2
Atrazine	<0.05	<0.05	<0.05	<0.05	1	µg/L	EPA 525.2
Bentazon	<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	0.2	µg/L	EPA 525.2
Carbofuran	<0.5	<0.5	<0.5	<0.5	18	µg/L	EPA531.2
Chlordane	<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	70	µg/L	EPA 515.4
Dalapon	<1	<1	<1	<1	200	µg/L	EPA 515.4
Dibromochloropropane	<0.01	0.08	<0.01	<0.01	0.2	µg/L	EPA 504.1
Di(2-ethylhexyl)adipate	<0.6	<0.6	<0.6	<0.6	400	µg/L	EPA 525.2

Table 2-8b
Groundwater Monitoring Well Results (Annual)

Constituent	BRK-1/1 10/5/09 &10/26/09	BRK-1/2 10/5/09 &10/26/09	BRK-2/1 10/5/09 &10/28/09	BRK-2/2 10/5/09 &10/28/09	Limit	Unit	Method
Di(2-ethylhexyl)phthalate	<0.6	2.6	<0.6	<0.6	4	µg/L	EPA 525.2
Dinoseb	<0.2	<0.2	<0.2	<0.2	7	µg/L	EPA 515.4
Diquat	<0.4	<0.4	<0.4	<0.4	20	µg/L	EPA 549.2
Endothall	<5	<5	<5	<5	100	µg/L	EPA 548.1
Endrin	<0.01	<0.01	<0.01	<0.01	2	µg/L	EPA 505
Ethylene Dibromide	<0.01	<0.01	<0.01	<0.01	0.05	µg/L	EPA 504.1
Glyphosate	<6	<6	<6	<6	700	µg/L	EPA 547
Heptachlor	<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	µg/L	EPA 505
Hexachlorobenzene	<0.05	<0.05	<0.05	<0.05	1	µg/L	EPA 525.2
Hexachlorocyclopentadiene	<0.05	<0.05	<0.05	<0.05	50	µg/L	EPA 525.2
Lindane	<0.01	<0.01	<0.01	<0.01	0.2	µg/L	EPA 505
Methoxychlor	<0.05	<0.05	<0.05	<0.05	30	µg/L	EPA 505
Molinate	<0.1	<0.1	<0.1	<0.1	20	µg/L	EPA 525.2
Oxamyl	<0.5	<0.5	<0.5	<0.5	50	µg/L	EPA 531.2
Pentachlorophenol	<0.04	<0.04	<0.04	<0.04	1	µg/L	EPA 515.4
Picloram	<0.1	<0.1	<0.1	<0.1	500	µg/L	EPA 515.4
PCB 1016	<0.08	<0.08	<0.08	<0.08	0.5	µg/L	EPA 505
PCB 1221	<0.1	<0.1	<0.1	<0.1	0.5	µg/L	EPA 505
PCB 1232	<0.1	<0.1	<0.1	<0.1	0.5	µg/L	EPA 505
PCB 1242	<0.1	<0.1	<0.1	<0.1	0.5	µg/L	EPA 505
PCB 1248	<0.1	<0.1	<0.1	<0.1	0.5	µg/L	EPA 505
PCB 1254	<0.1	<0.1	<0.1	<0.1	0.5	µg/L	EPA 505
PCB 1260	<0.1	<0.1	<0.1	<0.1	0.5	µg/L	EPA 505
Simazine	<0.05	<0.05	<0.05	<0.05	4	µg/L	EPA 525.2
Thiobencarb	<0.2	<0.2	<0.2	<0.2	70	µg/L	EPA 525.2
Toxaphene	<0.5	<0.5	<0.5	<0.5	3	µg/L	EPA 505
2,3,7,8-TCDD (Dioxin)	<5	<5	<5	<5	30	pg/L	EPA 1613
2,4,5-TP (Silvex)	<0.2	<0.2	<0.2	<0.2	50	µg/L	EPA 515.4
Notification Level Chemicals							
Copper	<0.5	<0.5	2.2	<0.5	1300	µg/L	EPA 200.7
Lead	<0.5	<0.5	<0.5	<0.5	15	µg/L	EPA 200.8
Radionuclides							
Combined Radium-226 and Radium 228	1.4	<0.3	0.24	<0.36	5	pCi/l	EPA 903.0
Gross Alpha Particle Activity	NA	NA	NA	NA	15	pCi/l	EPA 900.0
Tritium	<240	<240	<200	<220	20,000	pCi/l	EPA 906
Strontium-90	<0.47	<0.49	0.72	0.56	8	pCi/l	EPA 905
Gross Beta Particle Activity	NA	NA	NA	NA	50	pCi/l	EPA 900.0
Uranium	1.7	1.5	2.7	0.79	20	pCi/l	EPA 200.8

NA: Not Analyzed

Bold signifies an exceedance of an Maximum Contaminant Level. Explained in further detail in the report text.

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
Jan-09	0	0	0	0	0	0	0	35	5	25	38	0	12	39	0	40	277	39	0	0	0
Feb-09	0	0	0	0	0	0	0	458	95	208	399	63	272	413	0	0	20	9	23	0	0
Mar-09	0	0	0	0	0	0	0	21	0	30	32	31	46	57	0	0	159	0	23	0	0
1Q09 Total	0	0	0	0	0	0	0	514	100	263	469	94	330	509	0	40	456	48	46	0	0
Apr-09	0	0	0	0	0	0	0	15	0	1	78	8	18	13	0	0	296	15	0	0	0
May-09	0	0	0	0	0	0	0	16	0	17	38	18	6	19	0	0	115	11	0	0	30
Jun-09	0	0	0	0	0	0	0	30	0	0	14	11	21	62	0	0	178	0	0	106	9
2Q09 Total	0	0	0	0	0	0	0	61	0	18	130	36	45	94	0	0	589	27	0	106	39
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	4	4	0	74	15	13	132	24	122	80	0	129	184	102	189	203	0
Nov-09	0	0	0	0	0	0	0	90	0	4	486	26	88	52	133	181	246	120	243	287	0
Dec-09	0	0	0	0	0	0	0	303	75	129	199	158	304	499	93	67	144	0	93	103	63
4Q09 Total	0	0	0	0	4	4	0	467	90	146	817	209	513	631	226	377	574	222	525	593	63

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.

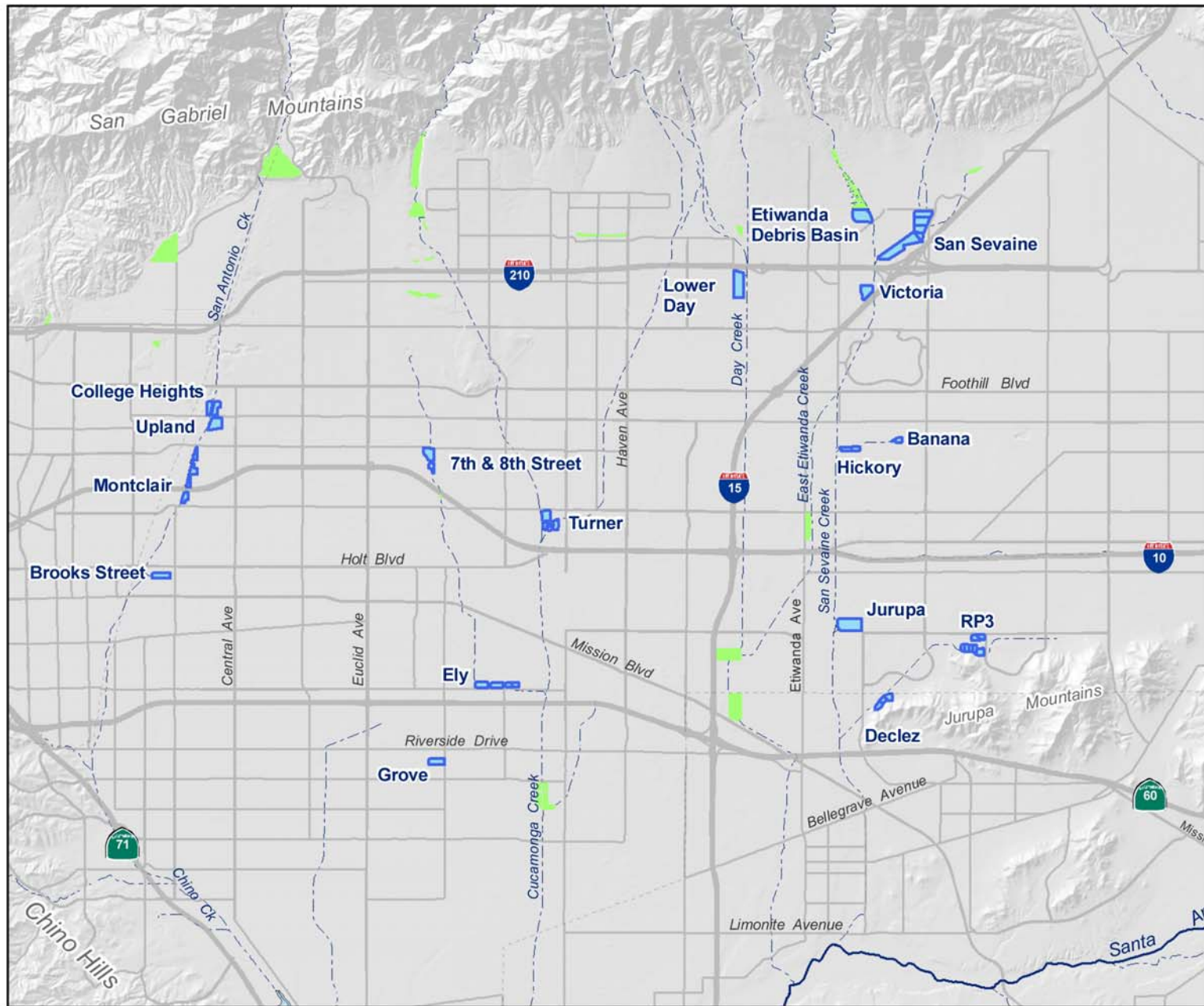
All wells were placed into production (extraction) mode during 2Q08.

* 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

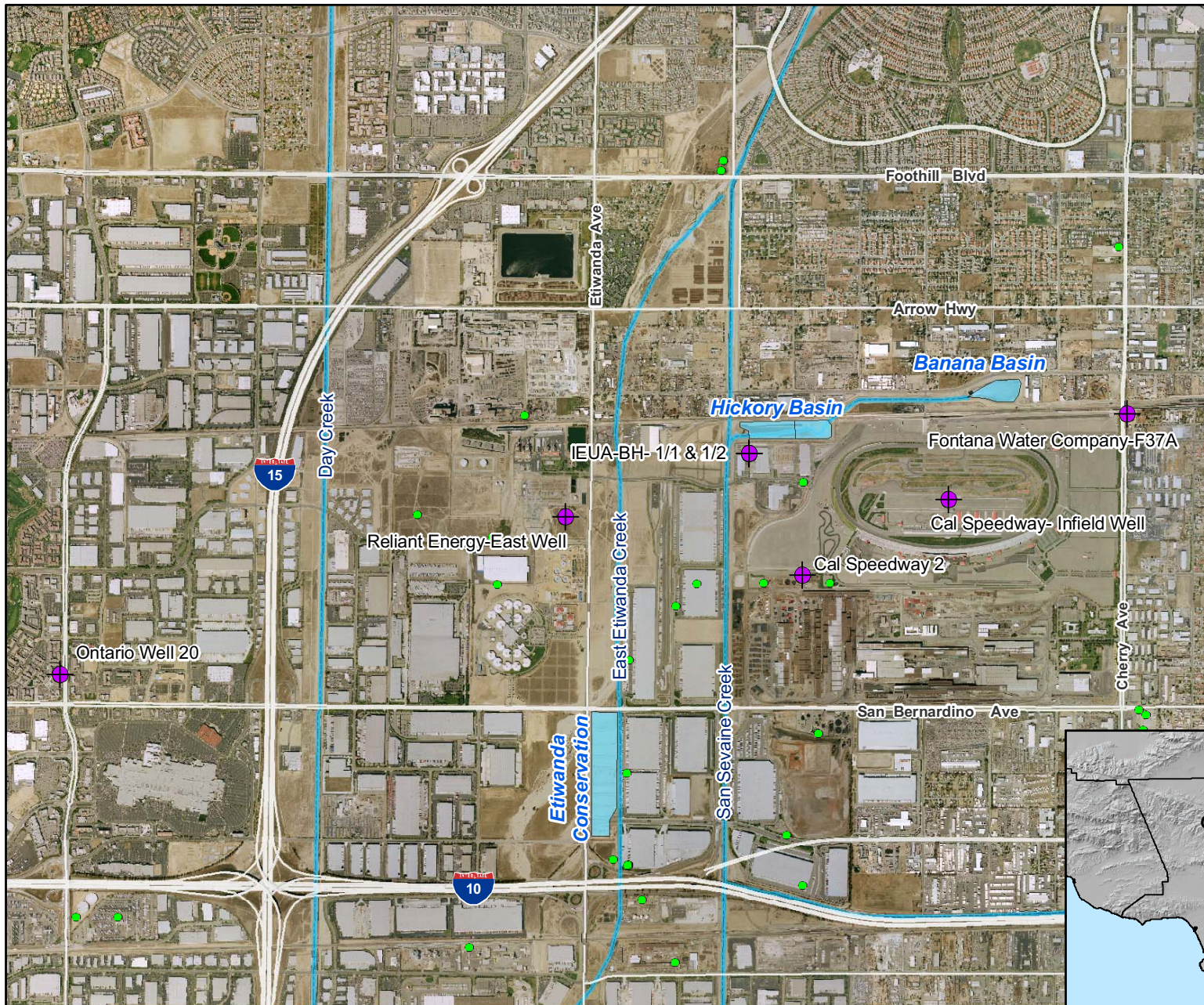


0 2 4 Miles

0 4 8 Kilometers



Figure 1-1



Main Map Features

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

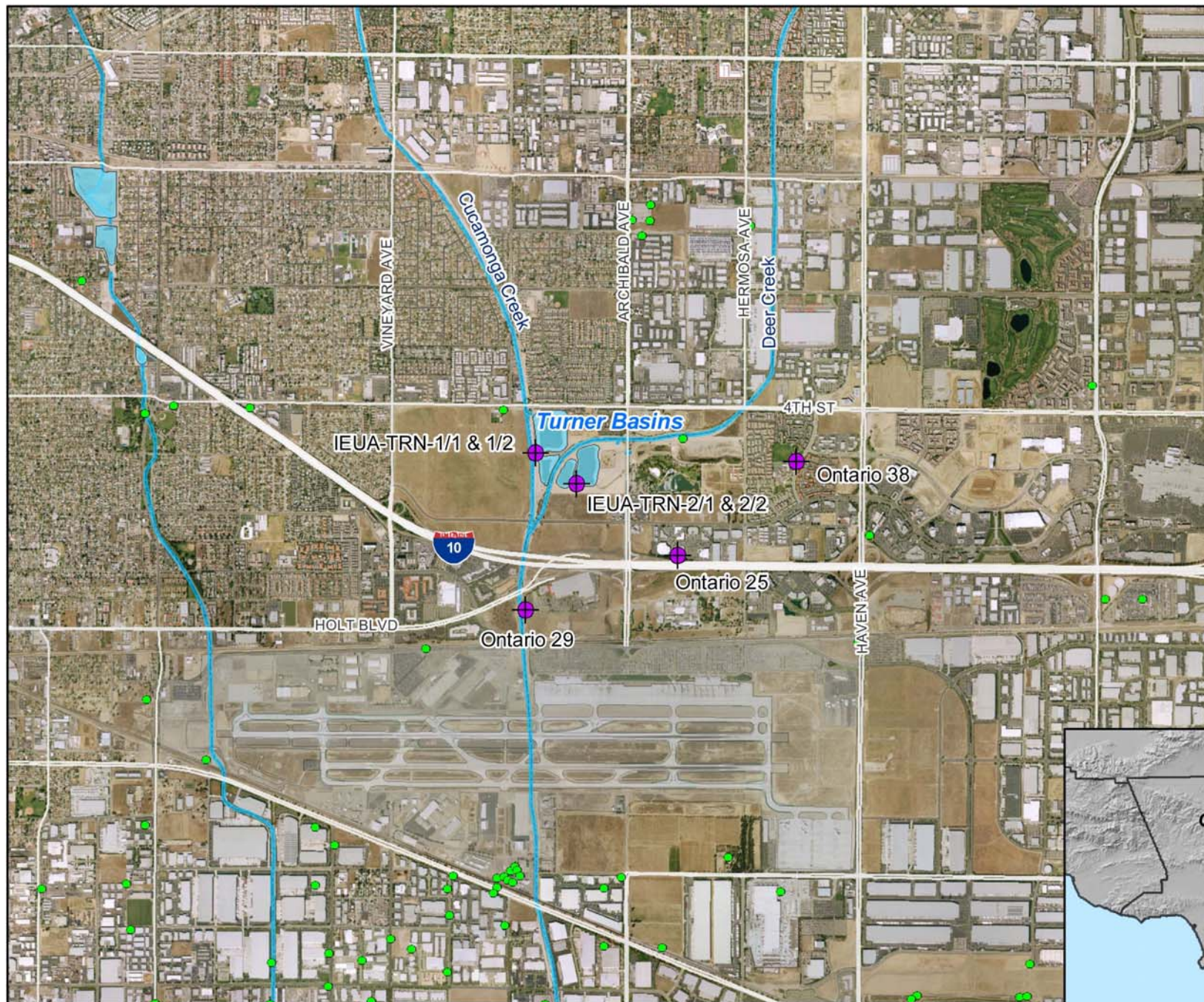


Monitoring Well Network
Hickory and Banana Basins

Figure 2-1

Recycled Water Recharge Program





Main Map Features

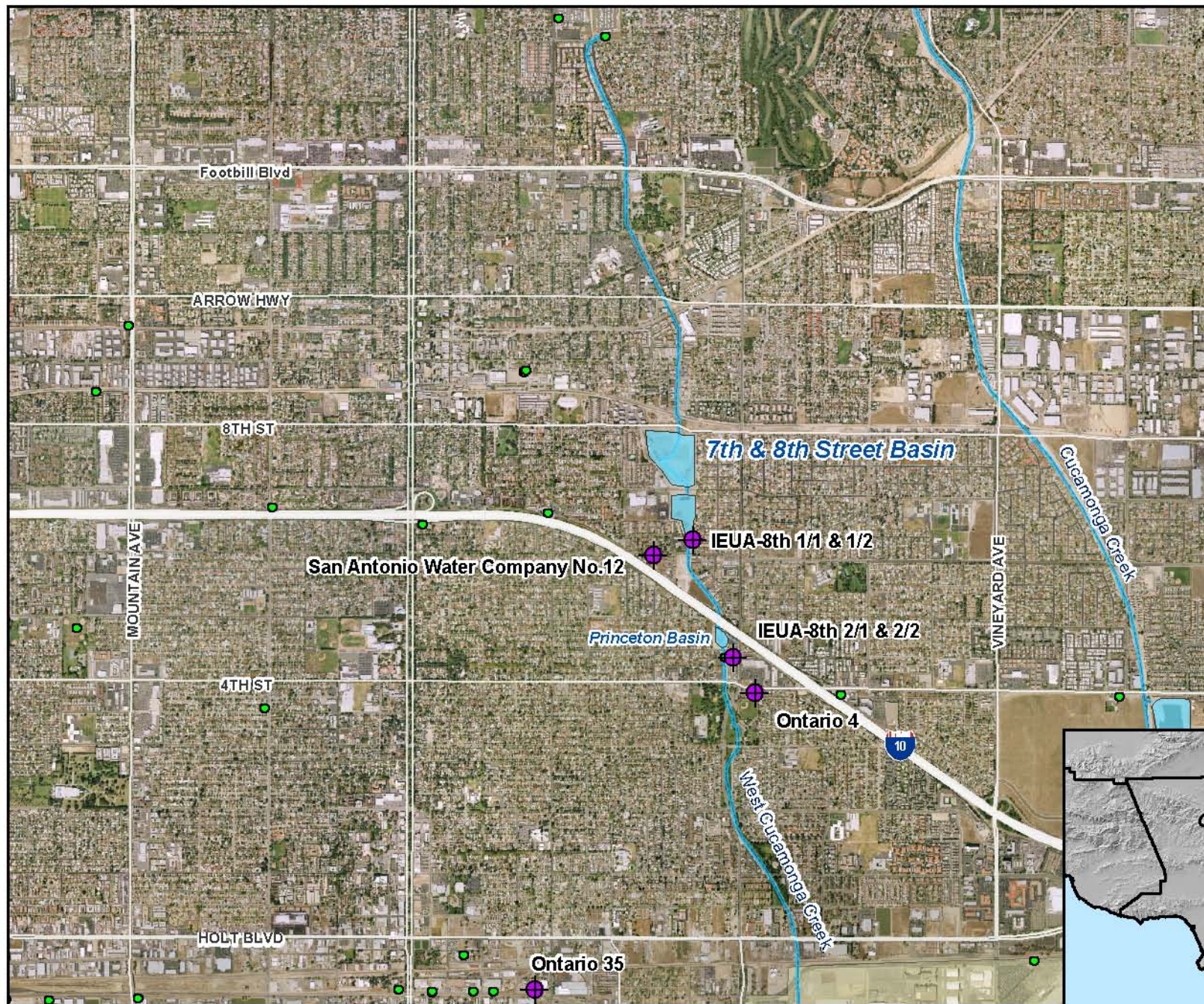
-  Existing Monitoring Well
-  "Other Wells"
-  Rivers/Streams/Creeks
-  Recharge Basins

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



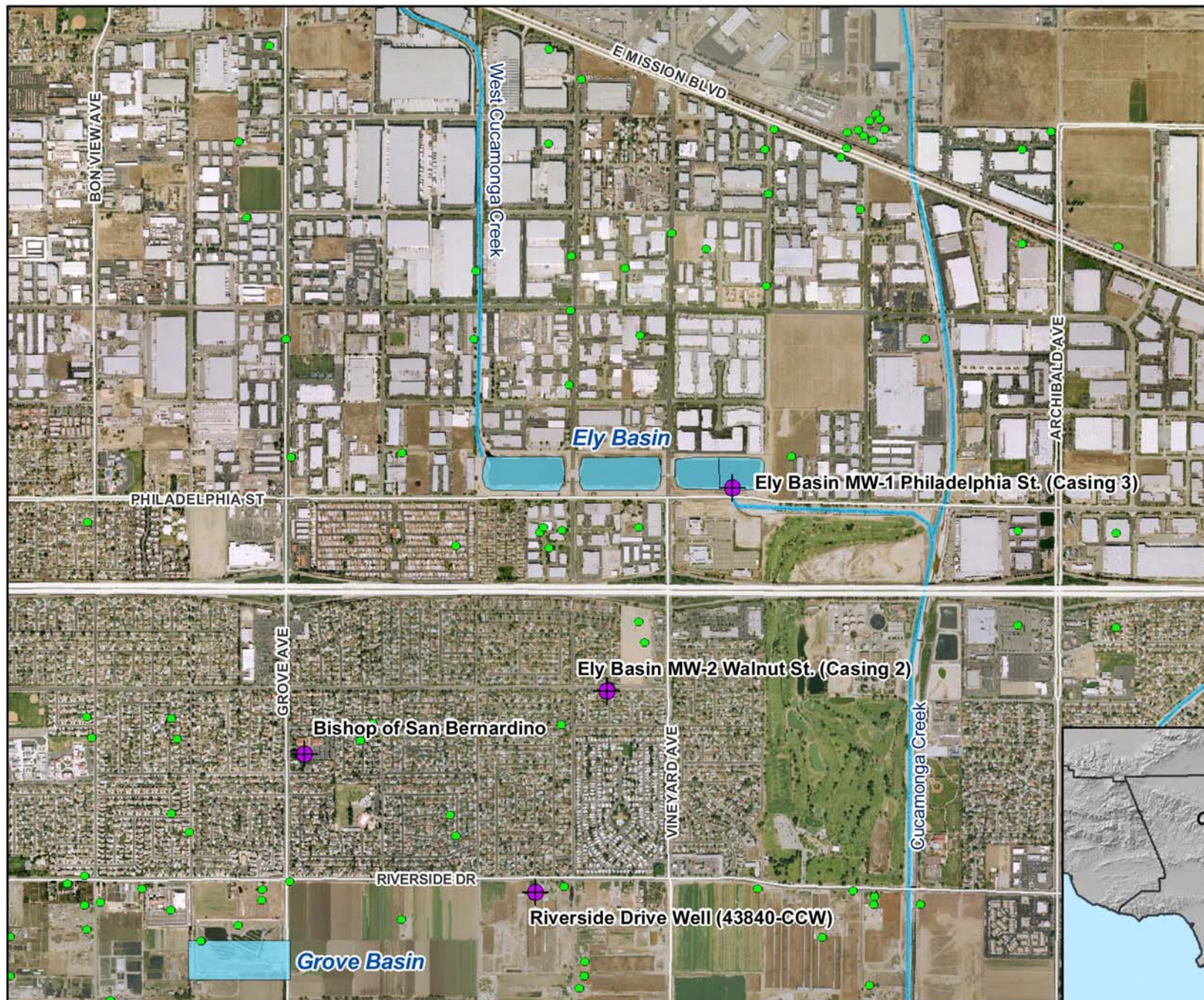
Monitoring Well Network

7th and 8th Street Basin

Figure 2-3

Recycled Water Recharge Program





Main Map Features

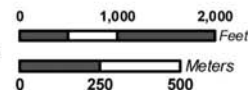
-  Existing Monitoring Well
-  "Other Wells"
-  Rivers/Streams/Creeks
-  Recharge Basins

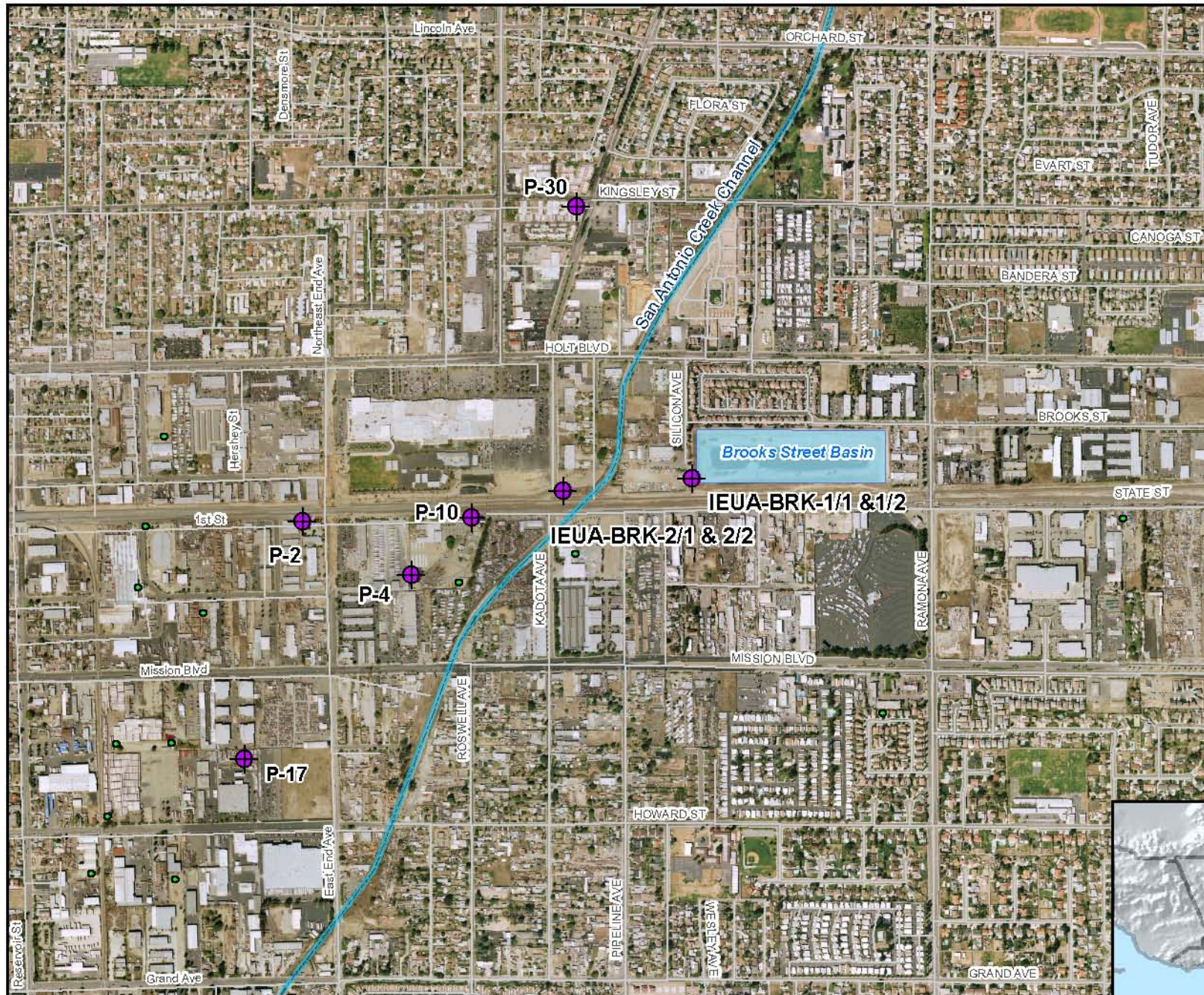


Monitoring Well Network
Ely Basins

Figure 2-4

Recycled Water Recharge Program



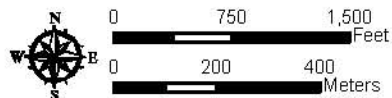


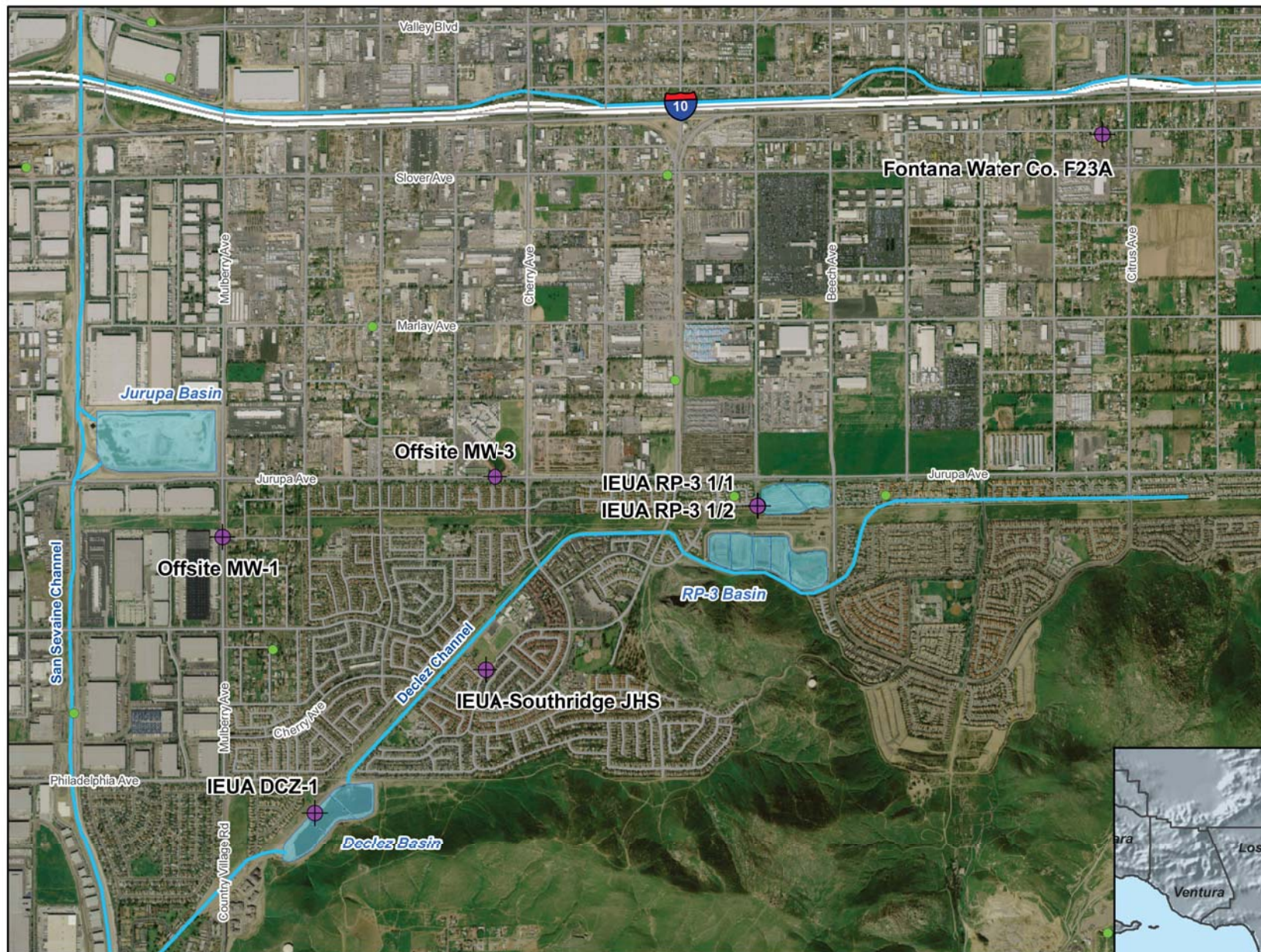
Monitoring Well Network

Brooks Street Basin

Figure 2-5

Recycled Water Recharge Program



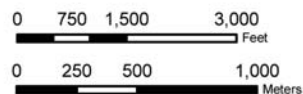


Main Map Features

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

Monitoring Well Network RP-3 Basin

Figure 2-6



Recycled Water Recharge Program

