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Manager of Planning & Environmental Compliance

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May 15, 2012

Regional Water Quality Control Board, Santa Ana Region
Attention: Mr. Kurt Berchtold
3737 Main Street, Suite 500
Riverside, California 92501-3348

Subject: Chino Basin Recycled Water Groundwater Recharge Program Quarterly Monitoring Report for January through March 2012

Dear Mr. Berchtold,

Inland Empire Utilities Agency and Chino Basin Watermaster hereby submit the *Quarterly Monitoring Report* for the first quarter of 2011 (1Q12), January 1 through March 31, 2012, 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 1Q12, the Groundwater Recharge Program was in compliance with all monitoring and reporting requirements as specified in the Order. Total nitrogen in Hickory Basin was closely monitored during 1Q12 due to exceedances from December 2012 through February 2012. This is discussed in further detail within the report text.

Chino Basin Watermaster hereby certifies that, during the period of January 1 through March 31, 2012, 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, RP3, San Sevaine, Turner, and Victoria Basins. In point of fact, there are no production wells in the buffer zones of the aforementioned recharge sites.

DECLARATION

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

Executed on the 15th day of May 2012 in the Cities of Chino and Rancho Cucamonga.

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Ken Jeske
Interim Chief Executive Officer

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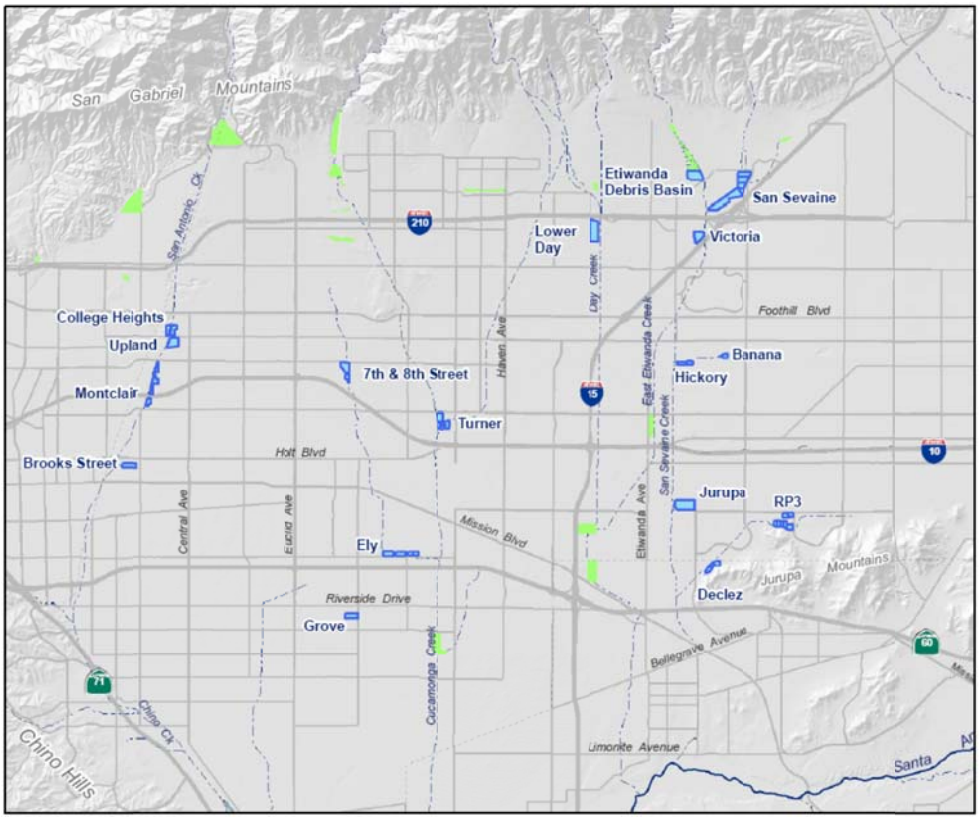
Chino Basin Recycled Water Groundwater Recharge Program

Quarterly Monitoring Report

January 1 through March 31, 2012



Prepared by:

Inland Empire Utilities Agency
A MUNICIPAL WATER DISTRICT

May 15, 2012

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1. Introduction

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

A. Order No. R8-2007-0039

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

The MRP includes the water quality monitoring requirements of the Chino Basin Recycled Water Groundwater Recharge Program and the requirement for the submittal of quarterly and annual reports. This document is the quarterly report for the first quarter of 2012 (1Q12).

The quarterly report includes the following elements as prescribed in the MRP:

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

B. Order No. R8-2009-0057

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

C. Revised Monitoring & Reporting Program No. R8-2007-0039

On October 27, 2010, the Regional Board revised Monitoring and Reporting Program No. R8-2007-0039 (MRP) based on requests for modifications from IEUA and approved by the CDPH. The following changes were made to the MRP:

1) Sampling Requirements A.3, A.4, and A.5 were modified by specifying that samples shall be collected on a representative day instead of the 10th day.

2) Groundwater Monitoring Program Requirement V.1. was modified by adding a sentence to the paragraph that allows IEUA to analyze the groundwater samples collected on a quarterly basis from non-active municipal drinking water wells for dissolved metals, instead of total recoverable metals.

3) Reporting Requirement VI.B.3.b. has been modified and footnote No. 18 has been added to reflect that IEUA uses groundwater monitoring information contained in the *State of the Basin* report prepared on a biennial basis by the Chino Basin Watermaster, amongst other sources, for the annual determination of the recycled water groundwater flow path.

D. 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 MRP. Tables 2-1 through 2-4 include all of the requisite 1Q12 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. Recycled water compliance for the total nitrogen (TN) limit of 5 mg/L is met at the lysimeters.

In December 2011, two exceedances of TN occurred at the Hickory Basin East 25-foot depth lysimeter during two consecutive weeks of sampling. On December 30, 2011, the CDPH and the Regional Board were both given verbal notification regarding the two TN exceedances and the subsequent cessation of recycled water deliveries until the reason for the diminished effectiveness of Soil-Aquifer Treatment (SAT) for TN could be evaluated. SAT efficiency for TOC was not impacted. Upon investigation of the probable causes, it was deduced that colder weather and the recent basin cleaning activities during 3Q11 may have temporarily disrupted the nitrogen-reducing bacterial population in the Hickory Basin soils. This can be attributed to the removal of the main carbon source in the soil, which lessens bacterial activity creating aerobic soil conditions less favorable to nitrite- and nitrate-reducing bacterial populations. The most viable solution for resuming recycled water recharge at Hickory basin was to allow naturally-occurring carbon sources to be carried back into the basin by local runoff and stormwater, which would also allow for dilution of the recycled water TN. During 1Q12, stormwater capture at Hickory Basin occurred on January 21-23 (43 AF), February 13-14 (44 AF), February 27 (12 AF), March 17 (32 AF), and March 25 (8 AF). Following each rain event, recycled water deliveries to Hickory Basin were resumed. Throughout the quarter, lysimeter sampling took place on a weekly basis. Starting with the February 15th sample, TN at the 25-foot depth lysimeter was observed to be less than 5 mg/L and stayed below 5 mg/L for the remainder of the quarter (6 consecutive sampling events). Based on the TN results, the Hickory Basin has returned to normal recycled water recharge operation, but will continue to be monitored.

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 2Q11 through 1Q12 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 1Q12, there were no exceedances in the following categories: primary MCLs for inorganic chemicals, volatile organic compounds (VOCs), non-volatile synthetic organic chemicals (SOCs), radionuclides, and disinfection byproducts; action levels for lead and copper; secondary MCLs for required constituents; and oil and grease.

Due to the volume of sample required for analyses, IEUA has selected, and CDPH has approved, a recycled water sampling point along the distribution pipeline. IEUA selected the turnout to GenOn Energy (formerly Reliant Energy) to be representative of the system blend of recycled water used for recharge. Although this sampling location is suitable for most constituents, it is not appropriate for disinfection byproducts (DBPs), more specifically, Total Trihalomethanes (TTHMs) and Total Haloacetic Acids (HAA5). Compliance samples for these DBPs are taken from lysimeters at basins actively receiving recycled water. At these locations, the samples better represent the DBPs present in the recycled water prior to reaching the groundwater table. Once a quarter, a single representative sample is collected from a selected compliance lysimeter and analyzed for DBPs. For the 1Q12 sampling for DBPs, IEUA chose the 25-foot below ground surface lysimeter at the Brooks Basin as the compliance point. The Brooks Basin lysimeter was selected as the 1Q12 compliance point because the basin received consistent recycled water recharge and recycled water was present at the 25-foot depth based on electrical conductivity (EC) measurements.

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. EC is also measured and reported to assist in identifying the presence of recycled water at various depths in the vadose zone. All basin and lysimeter water quality results from 1Q12 are summarized in Table 2-5a. The table includes lysimeter data for 7th & 8th Street, Banana, Brooks, Hickory, RP3, San Sevaine, and Victoria Basins.

The Turner and Ely Basins have implemented alternative monitoring plans which include the sampling of recycled water at the GenOn Energy turnout and the application of TOC and TN correction factors for SAT at the basins. These correction factors were determined from each basin's start-up period findings. The correction factors reduce the TOC results by 70 percent for recycled water delivered to Turner cells 1 & 2, 85 percent for recycled water delivered to Turner cells 3 & 4, and 76 percent for recycled water delivered to Ely Basin. The correction factors reduce TN results by 87 percent for recycled water delivered to all four Turner cells and 52 percent for recycled water delivered to Ely Basin. Turner Basin TOC and TN values calculated based on the correction factors provided in the alternative monitoring plan are summarized in Table 2-5b.

The Brooks and RP3 Basins have implemented alternative monitoring plans based on start-up period findings. The Brooks Basin alternative monitoring plan includes monthly sampling of the Brooks Basin surface water, 25-foot lysimeter, and monitoring well BRK-1/1 for EC, TOC, and TN to be conducted as long as recycled water has been recharged in the prior 180 days. Additionally, chloride will be analyzed for BRK-1/1 and used to verify the presence of recycled water. The 25-foot lysimeter will be the compliance point for TN and the monitoring well will be the compliance point for TOC. The RP3 alternative monitoring plan includes monthly sampling of the 35-foot deep lysimeter for EC, TOC, and TN. The monitoring schedule would be conducted during the initial year of recycled water recharge at the RP3 Basin. If sufficient SAT is demonstrated in this initial year, the alternative monitoring plan proposes compliance monitoring from samples collected from the recycled water distribution pipeline

and applying a performance-based TOC correction factor determined from past lysimeter monitoring. Brooks and RP3 Basins alternative monitoring data are summarized in Table 2-5b.

C. Diluent Water

For 1Q12, diluent water quality sampling of stormwater was conducted on January 23, 2012 at Ely, Lower Day, Turner 1&2, and Turner 3&4 Basins and on January 24, 2012 at Montclair Basin. Table 2-6 lists the results of the stormwater sampling and analyses. Details on the methods used to measure daily diluent water flow and diluent water monitoring schedule can be found in the CDPH-approved Diluent Water Monitoring Plan. The quarterly sampling schedule for stormwater and local runoff is presented in Table 4-2 of the plan. Stormwater is sampled during the rainy season and local runoff is sampled during the dry season. Samples are collected at about half the locations during each seasonal quarter, alternating between even and odd years. Table 5-2 of the plan summarizes the sample type and reporting frequency for the parameters listed in Tables I, II, III, and IV of the Diluent Water Monitoring requirement III.3 of the MRP.

D. Groundwater Monitoring Wells

During 1Q12, groundwater quality within the vicinity of Banana and Hickory Basins was monitored by sampling a network of six wells. The groundwater quality within the vicinity of Turner Basin was monitored by sampling a network of five wells. The groundwater quality within the vicinity of the RP3 Basin was monitored by sampling a network of four wells. The groundwater quality within the vicinity of the 7th & 8th Street Basin was monitored by sampling a network of five wells. The groundwater quality within the vicinity of the Brooks 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 four wells. The groundwater quality within the vicinity of the San Sevaine and Victoria Basins were monitored by sampling a network of four wells. The wells in the monitoring well networks for Hickory and Banana, Turner, 7th & 8th Street, Ely, Brooks, RP3, and San Sevaine & Victoria Basins are summarized in Table 2-7, and presented on Figures 2-1 through 2-7, respectively. The groundwater constituents analyzed from the monitoring wells during quarterly monitoring are presented in Table 2-8.

Groundwater monitoring is conducted to evaluate water quality conditions in the vicinity of the recharge basins utilizing recycled water. Groundwater monitoring results can be used to assess background conditions, time the arrival of recharge waters, and the impact recharged water has on downgradient water supplies. Any 1Q12 analyses results which exceeded primary or secondary MCLs are shown in the tables in bold font. Of note are the analyses for the following wells and constituents:

Turbidity exceeding the secondary MCL was observed in several monitoring wells, namely: BH-1/2, TRN-2/1, BRK-1/1, BRK-2/1, VCT-1/1 and VCT-2/2. In subsequent quarters, additional well purging will be performed at the three other wells where turbidity levels continue to be elevated. However, additional purging may still not resolve turbidity issues. During 1Q12, manganese was above secondary standards at RP3 Basin's well, RP3-1/2. Color exceeded the secondary MCL in monitoring wells BH-1/2, Southridge JHS, BRK-2/1, Ely MW-1 (Philadelphia), and VCT-2/2.

TDS and EC are slightly higher than the secondary MCLs in the RP3 basin area wells (Alcoa MW3 and Southridge JHS) and the Ely Basin area well (Walnut). The wells south of Ely and near RP3 are located in an area with historically high EC levels (>1,000 µmhos/cm). Some monitoring wells in the Banana & Hickory, RP3, Brooks, and Ely monitoring networks also have NO_3-N concentrations above the primary MCL. These higher levels are characteristic of groundwater quality in the local area where historically the NO_3-N concentrations ranges from 10-30 mg/L. TDS and NO_3-N concentrations in the area of the RP3 monitoring well network are documented in the CBWM 2008 State of the Basin report.

3. Recharge Operations

IEUA's Groundwater Recharge Coordinator recorded the daily volumes of water routed to all basins. The 7th & 8th Street, Banana, Ely, Hickory, RP3, San Sevaine, Turner, and Victoria Basins received recycled water this quarter. Table 3-1 lists the volumes of recycled water and diluent water (local runoff, stormwater, and/or imported water) captured during 1Q12 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 Water Recycling Facilities - RP-1 & RP-4. As previously discussed in Section 2 of this report, recycled water recharge operations at Hickory Basin were temporarily suspended in late December 2011 and resumed in January 2012. As of March 2012, Hickory Basin has returned to normal recycled water recharge operation.

5. Certification of Non-Pumping in the Buffer Zones

Watermaster has certified that there was no reported pumping of groundwater in 1Q12 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, RP3, San Sevaine, Turner, and Victoria Basins. In fact, there are no production wells within the buffer zones of these aforementioned recharge sites.

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 recharge basin location maps and parcel lists, both provided by IEUA. The maps and lists show township/range/section parcels (40-acre parcels) that abut recharge basins and their 500-foot buffers.

If a proposed well falls within an abutting parcel, SBCDEHS will review the 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 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 determined to fall with a 500-foot buffer zone.

6. MVWD ASR Project

Reporting for the Monte Vista Water District (MVWD) Aquifer Storage and Recovery (ASR) project was allowed by the RWQCB 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. In May 2008, MVWD discontinued groundwater injection at the ASR wells for an extended period of time. In June 2011, MVWD groundwater injection activities resumed at four ASR wells. MVWD continued injection of imported water through September 2011. 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 January 2012
(Recycled Water Quality Specifications A.5, A.7, A.8, & A.9)

	RP-1 Effluent										RP-4 Effluent									
	Turbidity [1,2,7]	TOC	NO_3-N	TN	TIN [3]	pH [7]	EC [7]	TDS [3]	Hardness	Coliform [1,2,4]	Turbidity [1,2,7]	TOC	NO_3-N	TN	TIN [3]	pH [7]	EC	TDS [3]	Hardness	Coliform [1,2,4]
Unit	NTU	mg/L	mg/L	mg/L	mg/L	unit	µhmo/cm	mg/L	mg/L	mpn/100mL	NTU	mg/L	mg/L	mg/L	mg/L	unit	µhmo/cm	mg/L	mg/L	mpn/100mL
Limits	2;5;10	16 [5]		5 [6]		6<pH<9				2.2;23;240	2;5;10	16 [5]		5 [6]		6<pH<9				2.2;23;240
01/01/12	0.9	5.6				7.0	717			2	0.5	3.7				7.0	670			<2
01/02/12	1.0	6.1	7.3	7.3	7.3	7.0	708			2	0.5	3.9	5.9	6.9	5.9	7.0	675			<2
01/03/12	1.0	6.3				7.0	714			<2	0.4	4.0				7.0	670			<2
01/04/12	0.8	6.4	7.2		7.2	6.9	722	442	132	2	0.3	3.9	6.5		6.5	7.0	686	404	130	<2
01/05/12	0.8	5.9	7.9		7.9	7.0	734			<2	0.4	3.8	6.0		6.0	7.0	670			<2
01/06/12	0.8	5.7				7.0	709			<2	0.8	3.9				7.0	680			<2
01/07/12	0.8	5.7				7.0	711			<2	0.6	3.7				7.0	670			<2
01/08/12	0.8	6.0	8.5	8.5	8.5	7.1	698			4	0.9	3.9	5.3	5.9	5.3	7.2	700			<2
01/09/12	0.8	6.1	7.1		7.2	7.0	690			2	0.5	3.8	5.0		5.2	7.0	685			<2
01/10/12	0.8	6.2	7.9		8.0	7.1	708			2	0.4	3.8	5.1		5.2	7.0	690			<2
01/11/12	0.7	6.1	7.9		8.0	7.1	709	428		<2	0.6	3.8	5.0		5.1	6.9	685	404		<2
01/12/12	0.8	6.0	7.8		7.9	7.0	656			<2	0.6	3.7	5.5		5.6	6.9	683			<2
01/13/12	1.0	6.2				7.0	602			<2	0.6	3.6				6.9	675			<2
01/14/12	1.0	6.0				7.1	715			<2	0.6	3.7				6.9	685			<2
01/15/12	0.9	6.4	7.8	7.8	7.8	7.1	706			2	0.7	3.9	5.5	5.5	5.5	6.9	690			<2
01/16/12	0.9	7.2				7.1	704			<2	0.7	3.9				6.9	695			<2
01/17/12	0.8	8.8	5.7		5.7	7.1	726			<2	0.8	4.1	4.9		4.9	6.9	700			<2
01/18/12	0.8	8.0	6.7		6.7	7.0	724	454	135	4	0.7	4.1	5.0		5.0	6.9	690	408		<2
01/19/12	0.8	6.9				7.0	731			<2	0.7	4.0				6.9	670			<2
01/20/12	0.7	7.5				7.0	719			<2	0.6	3.8				6.9	680			<2
01/21/12	0.6	6.7				7.0	725			<2	0.7	4.0				6.9	675			<2
01/22/12	0.6	6.9	7.1	7.1	7.1	7.0	699			<2	0.7	4.0	5.6	6.7	5.7	6.9	675			<2
01/23/12	0.6	7.0	6.6		6.6	7.0	699			<2	0.7	4.1	5.2		5.3	6.9	685			<2
01/24/12	0.7	6.6	7.2		7.2	7.0	653			<2	0.7	4.1	5.7		5.7	6.9	685			<2
01/25/12	0.7	7.6	6.1		6.1	7.0	726	438		<2	0.7	4.1	6.0		6.0	6.9	690	410		<2
01/26/12	0.7	7.8				7.0	733			<2	0.6	3.9				6.9	680			<2
01/27/12	0.6	7.7				7.1	748			<2	0.7	3.9				7.0	680			<2
01/28/12	0.6	7.8				7.1	746			<2	0.7	4.0				7.0	685			<2
01/29/12	0.6	6.3	7.3	7.3	7.3	7.0	738			<2	0.6	4.0	5.6	5.6	5.6	6.9	690			<2
01/30/12	0.7	7.3	6.1		6.1	7.1	753			<2	0.6	4.1	5.1		5.1	7.0	680			<2
01/31/12	0.9	7.0	6.1		6.1	7.1	746			<2	0.6	4.1	4.7		4.7	7.0	700			<2
Avg	0.8	6.7	7.1	7.6	7.2	7.0	712	441	134	<2	0.6	3.9	5.4	6.1	5.5	7.0	683	407	130	<2
Min	0.6	5.6	5.7	7.1	5.7	6.9	602	428	132	<2	0.3	3.6	4.7	5.5	4.7	6.9	670	404	130	<2
Max	1.0	8.8	8.5	8.5	8.5	7.1	753	454	135	4	0.9	4.1	6.5	6.9	6.5	7.2	700	410	130	<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. CA8000409, Order No. R8-2009-0021.

[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] TOC shall not exceed 16 mg/L for more than two consecutive samples and an average of the last 4 sample results.

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

[7] These values based on continuous monitoring data generated by the Supervisory Control and Data Acquisition (SCADA) system.

Table 2-1b
Recycled Water Monitoring: RP-1 & RP-4 Effluent Water Quality for February 2012
(Recycled Water Quality Specifications A.5, A.7, A.8, & A.9)

	RP-1 Effluent										RP-4 Effluent									
	Turbidity [1,2,7]	TOC	NO_3-N	TN	TIN [3]	pH [7]	EC [7]	TDS [3]	Hardness	Coliform [1,2,4]	Turbidity [1,2,7]	TOC	NO_3-N	TN	TIN [3]	pH [7]	EC	TDS [3]	Hardness	Coliform [1,2,4]
Unit	NTU	mg/L	mg/L	mg/L	mg/L	unit	µhmo/cm	mg/L	mg/L	mpn/100mL	NTU	mg/L	mg/L	mg/L	mg/L	unit	µhmo/cm	mg/L	mg/L	mpn/100mL
Limits	2;5;10	16 [5]		5 [6]		6<pH<9				2.2;23;240	2;5;10	16 [5]		5 [6]		6<pH<9				2.2;23;240
02/01/12	0.9	7.3	7.0		7.0	7.0	755	435	139	2	0.6	3.9	5.5		5.5	7.0	705	405	137	<2
02/02/12	0.8	6.9				7.0	753			<2	0.5	3.8				6.9	690			<2
02/03/12	0.8	6.3				7.0	757			<2	0.5	3.7				7.0	705			<2
02/04/12	0.7	6.9				7.0	763			<2	0.6	3.8				7.0	710			<2
02/05/12	0.8	7.0	6.7	6.7	6.7	7.0	756			2	0.5	4.1	5.3	6.0	5.3	7.0	705			<2
02/06/12	0.8	7.8	7.0		7.0	7.0	754			<2	0.6	4.0	4.8		4.8	7.0	715			<2
02/07/12	0.7	7.5	6.6		6.6	7.0	768			<2	0.6	4.1	4.8		4.8	7.0	720			<2
02/08/12	0.7	6.8	6.6		6.6	7.0	783	459		<2	0.7	4.1	5.5		5.5	7.0	720	426		<2
02/09/12	0.7	6.0				7.1	1174			<2	0.8	4.2				7.0	730			<2
02/10/12	0.8	5.6				7.1	772			2	0.8	4.0				7.1	725			<2
02/11/12	0.7	5.6				7.1	781			2	0.7	3.9				7.1	710			<2
02/12/12	0.6	6.0	6.1	6.1	6.1	7.1	789			<2	0.7	4.0	5.3	5.3	5.3	7.1	725			<2
02/13/12	0.6	5.8	6.8		6.8	7.1	763			<2	0.8	4.0	5.1		5.1	7.1	725			<2
02/14/12	0.6	5.8	6.9		6.9	7.1	761			<2	0.8	4.1	4.8		4.8	7.1	730			<2
02/15/12	0.5	5.6	7.6		7.6	7.1	744	465	145	2	0.8	4.0	4.9		4.9	7.0	740	414		<2
02/16/12	0.5	5.4				7.1	781			<2	0.8	4.0				7.1	720			<2
02/17/12	0.5	5.3				7.1	776			<2	0.7	3.8				7.1	720			<2
02/18/12	0.6	5.5				7.1	776			<2	0.7	3.8				7.1	720			<2
02/19/12	0.6	5.5				7.1	791			<2	0.8	3.7				7.1	720			<2
02/20/12	0.6	6.1	7.7	7.7	7.7	7.1	777			<2	0.8	4.0	4.3	4.3	4.3	7.1	720			<2
02/21/12	0.8	6.2	8.0		8.0	7.0	793			<2	0.7	4.0	3.6		3.6	7.1	720			<2
02/22/12	0.8	6.2	7.8		7.8	7.0	805	460		<2	0.7	3.9	3.6		3.6	7.1	725	423		<2
02/23/12	0.9	6.1				7.0	825			<2	0.9	4.7				6.9	715			<2
02/24/12	0.9	5.8				7.0	865			<2	1.0	3.8				7.0	720			<2
02/25/12	0.9	5.8				7.0	834			<2	1.2	4.1				7.0	725			<2
02/26/12	0.9	6.6	7.3	7.3	7.3	7.0	836			8	1.1	4.0	2.4	3.1	2.4	7.0	730			<2
02/27/12	0.8	6.7	7.4		7.4	7.1	841			<2	1.1	4.1	3.1		3.1	7.0	740			<2
02/28/12	0.7	6.6	7.8		7.8	7.0	823			<2	1.1	4.2	3.7		3.7	7.0	745			<2
02/29/12	0.8	6.4	7.5		7.5	7.0	807	455		<2	1.0	4.0	4.1		4.1	7.0	735	413		<2
Avg	0.7	6.2	7.2	7.0	7.2	7.0	800	455	142	<2	0.8	4.0	4.4	4.7	4.4	7.0	721	416	137	<2
Min	0.5	5.3	6.1	6.1	6.1	7.0	744	435	139	<2	0.5	3.7	2.4	3.1	2.4	6.9	690	405	137	<2
Max	0.9	7.8	8.0	7.7	8.0	7.1	1174	465	145	8	1.2	4.7	5.5	6.0	5.5	7.1	745	426	137	<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. CA8000409, Order No. R8-2009-0021.

[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] TOC shall not exceed 16 mg/L for more than two consecutive samples and an average of the last 4 sample results. TOC compliance can be met at a point prior to the regional groundwater, including lysimeters.

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

[7] These values based on continuous monitoring data generated by the Supervisory Control and Data Acquisition (SCADA) system.

Table 2-1c
Recycled Water Monitoring: RP-1 & RP-4 Effluent Water Quality for March 2012
(Recycled Water Quality Specifications A.5, A.7, A.8, & A.9)

	RP-1 Effluent										RP-4 Effluent									
	Turbidity [1,2,7]	TOC	NO_3-N	TN	TIN [3]	pH [7]	EC [7]	TDS [3]	Hardness	Coliform [1,2,4]	Turbidity [1,2,7]	TOC	NO_3-N	TN	TIN [3]	pH [7]	EC	TDS [3]	Hardness	Coliform [1,2,4]
Unit	NTU	mg/L	mg/L	mg/L	mg/L	unit	µhmo/cm	mg/L	mg/L	mpn/100mL	NTU	mg/L	mg/L	mg/L	mg/L	unit	µhmo/cm	mg/L	mg/L	mpn/100mL
Limits	2;5;10	16 [5]		5 [6]		6<pH<9				2.2;23;240	2;5;10	16 [5]		5 [6]		6<pH<9				2.2;23;240
03/01/12	0.9	6.1				7.0	808			<2	1.2	3.9				7.0	720			<2
03/02/12	0.7	5.3				7.0	804			<2	1.2	4.0				7.1	730			<2
03/03/12	0.8	5.5				7.0	801			<2	1.0	3.8				7.1	725			<2
03/04/12	0.9	6.1	6.2	6.2	6.2	7.0	847			<2	1.0	3.9	2.7	3.5	2.7	7.0	720			<2
03/05/12	1.0	6.2	5.9		5.9	7.1	808			<2	1.0	3.9	2.7		2.7	7.0	735			<2
03/06/12	1.0	6.4	7.1		7.1	7.1	822			<2	1.0	4.0	2.9		2.9	7.1	740			<2
03/07/12	1.1	6.8	7.3		7.3	7.0	782	497	141	<2	1.0	3.9	4.3		4.3	7.0	745	451	142	<2
03/08/12	1.1	6.5				7.0	809			<2	0.8	3.9				7.0	745			<2
03/09/12	1.0	6.0				7.0	801			<2	0.8	3.8				7.0	760			<2
03/10/12	0.7	6.0				7.1	760			<2	0.9	3.9				7.0	760			<2
03/11/12	0.7	6.6	6.1	6.1	6.1	7.1	826			2	0.8	4.0	2.8	4.0	5.1	7.0	755			<2
03/12/12	0.8	6.8	5.6		5.6	7.1	803			2	0.8	4.1	2.5		2.5	7.0	760			<2
03/13/12	0.9	6.8	6.7		6.7	7.1	818			<2	0.8	4.1	2.8		2.8	7.0	770			<2
03/14/12	0.7	6.3	6.9		6.9	7.1	816	472		<2	0.8	4.1	3.4		3.6	7.0	770	440		2
03/15/12	0.5	5.8				7.1	808			<2	0.8	4.1				7.0	755			<2
03/16/12	0.5	5.4				7.1	786			<2	0.8	4.0				7.0	755			<2
03/17/12	0.4	5.5				7.1	773			13	1.1	4.4				7.1	760			<2
03/18/12	0.4	5.6	6.8	6.8	6.8	7.0	742			<2	0.9	4.1	2.4	2.5	2.5	7.1	735			<2
03/19/12	0.5	5.8	7.0		7.1	7.1	729			<2	0.9	4.1	2.3		2.4	7.0	745			<2
03/20/12	0.5	6.0	6.5		6.5	7.1	801			<2	1.1	4.3	1.9		2.1	6.9	755			<2
03/21/12	0.5	5.7	6.0		6.0	7.1	830	459	137	<2	1.1	4.2	1.9		1.9	7.0	750	423		<2
03/22/12	0.5	5.8				7.1	781			<2	1.1	4.2				7.0	740			<2
03/23/12	0.5	5.4				7.1	761			<2	0.9	4.2				7.0	720			<2
03/24/12	0.5	5.3				7.1	753			<2	1.0	4.2				7.0	725			<2
03/25/12	0.5	5.7	6.8	6.9	6.9	7.2	757			<2	1.0	4.4	2.1	2.8	2.2	6.9	730			<2
03/26/12	0.6	5.7	7.2		7.3	7.1	798			QC	1.0	4.2	2.1		2.2	7.0	725			QC
03/27/12	0.6	6.0	7.5		7.6	7.1	757			<2	0.9	4.4	2.6		2.7	7.0	725			<2
03/28/12	0.6	5.9	5.8		5.9	7.1	769	470		<2	0.8	4.2	3.4		3.5	7.0	730	426		<2
03/29/12	0.6	5.8				7.1	793			<2	0.8	4.3				6.9	715			<2
03/30/12	0.6	5.5				7.1	791			<2	0.9	4.3				6.9	720			<2
03/31/12	0.6	5.6				7.2	789			<2	0.9	4.4				7.0	715			<2
Avg	0.7	5.9	6.6	6.5	6.6	7.1	791	475	139	<2	0.9	4.1	2.7	3.2	2.9	7.0	740	435	142	<2
Min	0.4	5.3	5.6	6.1	5.6	7.0	729	459	137	<2	0.8	3.8	1.9	2.5	1.9	6.9	715	423	142	<2
Max	1.1	6.8	7.5	6.9	7.6	7.2	847	497	141	13	1.2	4.4	4.3	4.0	5.1	7.1	770	451	142	2

Note: **Bolded characters signify an exceedance of a permit limitation**

Blank cells indicate that analysis was not run for a constituent on that particular date. The data presented meets/exceeds the frequency of analysis specified under the discharge permit for these facilities.

[1] Turbidity and coliform must meet water quality standards for disinfected tertiary treated recycled water, as specified in NPDES No. CA8000409, Order No. R8-2009-0021.

[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] TOC shall not exceed 16 mg/L for more than two consecutive samples and an average of the last 4 sample results. TOC compliance can be met at a point prior to the regional groundwater, including lysimeters.

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

[7] These values based on continuous monitoring data generated by the Supervisory Control and Data Acquisition (SCADA) system.

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

	TIN		TDS	
Date	**Monthly**	**12-Mo. Run Avg.**	**Monthly**	**12-Mo. Run Avg.**
Apr-11	6.5	5.5	460	472
May-11	6.0	5.6	462	471
Jun-11	5.7	5.6	464	470
Jul-11	4.3	5.5	454	468
Aug-11	4.4	5.5	457	467
Sep-11	5.8	5.7	457	465
Oct-11	5.2	5.7	457	463
Nov-11	5.9	5.7	453	461
Dec-11	6.3	5.8	454	460
Jan-12	6.4	5.8	465	459
Feb-12	6.7	5.8	476	461
Mar-12	6.7	5.8	497	463
Avg	5.8	5.7	463	465
Min	4.3	5.5	453	459
Max	6.7	5.8	497	472
Limit		8.0		550

Date source: IEUA NPDES monthly self-monitoring report (MRP No. R8-2009-0021)
The data reported above will supersede any information submitted for previous quarters. Agency-wide TIN & TDS were in compliance with permit limits at all times.

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

Constituent	2Q11	3Q11	4Q11	1Q12	4Q Run. Avg.[1]	Limit	Unit	Method
Inorganic Chemicals								
Aluminum	35	<25	27	28	26	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	<2	<2	<0.8	<2	<2	7	MFL	EPA 100.2
Barium	6	7	8	5	6	1000	µg/L	EPA 200.8
Beryllium	<0.5	<0.5	<0.5	<0.5	<0.5	4	µg/L	EPA 200.8
Cadmium	<0.25	<0.25	<0.25	<0.25	<0.25	5	µg/L	EPA 200.8
Chromium	0.8	1.4	2.7	2.4	1.8	50	µg/L	EPA 200.8
Cyanide	<5	<5	<5	<5	<5	150	µg/L	SM 4500-CN E
Fluoride	0.2	0.1	0.3	0.2	0.2	2	mg/L	SM 4500-F C
Mercury	<0.05	<0.05	<0.05	<0.05	<0.05	2	µg/L	EPA 245.2
Nickel	3	2	3	2	2	100	µg/L	EPA 200.8
Perchlorate	<4	<4	<4	<4	<4	6	µg/L	EPA 314
Selenium	<2	<2	<2	<2	<2	50	µg/L	EPA 200.8
Thallium	<1	<1	<1	<1	<1	2	µg/L	EPA 200.8
Volatile Organic Chemicals (VOCs)								
Benzene	<0.5	<0.5	<0.5	<0.5	<0.5	1	µg/L	EPA 524.2
Carbon Tetrachloride	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	µg/L	EPA 524.2
1,2-Dichlorobenzene	<0.5	<0.5	<0.5	<0.5	<0.5	600	µg/L	EPA 524.2
1,4-Dichlorobenzene	<0.5	<0.5	<0.5	<0.5	<0.5	5	µg/L	EPA 524.2
1,1-Dichloroethane	<0.5	<0.5	<0.5	<0.5	<0.5	5	µg/L	EPA 524.2
1,2-Dichloroethane	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	µg/L	EPA 524.2
1,1-Dichloroethylene	<1	<1	<0.5	<0.5	<1	6	µg/L	EPA 524.2
cis-1,2-Dichloroethylene	<0.5	<0.5	<0.5	<0.5	<0.5	6	µg/L	EPA 524.2
trans-1,2-Dichloroethylene	<0.5	<0.5	<0.5	<0.5	<0.5	10	µg/L	EPA 524.2
Dichloromethane	<0.5	<0.5	<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
1,1,2,2-Tetrachloroethane	<0.5	<0.5	<0.5	<0.5	<0.5	1	µg/L	EPA 524.2
Tetrachloroethylene	<0.5	<0.5	<0.5	<0.5	<0.5	5	µg/L	EPA 524.2
Toluene	<0.5	<0.5	<0.5	<0.5	<0.5	150	µg/L	EPA 524.2
1,2,4-Trichlorobenzene	<0.5	<0.5	<0.5	<0.5	<0.5	5	µg/L	EPA 524.2
1,1,1-Trichloroethane	<0.5	<0.5	<0.5	<0.5	<0.5	200	µg/L	EPA 524.2
1,1,2-Trichloroethane	<0.5	<0.5	<0.5	<0.5	<0.5	5	µg/L	EPA 524.2
Trichloroethylene	<0.5	<0.5	<0.5	<0.5	<0.5	5	µg/L	EPA 524.2
Trichlorofluoromethane	<0.5	<0.5	<0.5	<0.5	<0.5	150	µg/L	EPA 524.2
1,1,2-Trichloro-1,2,2-Trifluoroethane	<0.5	<0.5	<0.5	<0.5	<0.5	1200	µg/L	EPA 524.2
Vinyl Chloride	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	µg/L	EPA 524.2
m,p-Xylene	<0.5	<0.5	<0.5	<0.5	<0.5	1750 [2]	µg/L	EPA 524.2
o-Xylene	<0.5	<0.5	<0.5	<0.5	<0.5		µg/L	EPA 524.2
Non-Volatile Synthetic Organic Chemicals (SOCs)								
Alachlor (Alanex)	<0.1	<0.1	<0.1	<0.1	<0.1	2	µg/L	EPA 505
Atrazine	<0.05	<0.05	<0.05	<0.05	<0.05	1	µg/L	EPA 525.2
Bentazon	<0.5	<0.5	<0.5	<0.5	<0.5	18	µg/L	EPA 515.4
Benzo(a)pyrene	<0.02	<0.02	<0.02	<0.02	<0.02	0.2	µg/L	EPA 525.2
Carbofuran	<0.5	<0.5	<0.5	<0.5	<0.5	18	µg/L	EPA 531.2
Chlordane	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	µg/L	EPA 505
2,4-D	<0.1	<0.1	<0.1	<0.1	<0.1	70	µg/L	EPA 515.4
Dalapon	<1	<1	<1	2	1	200	µg/L	EPA 515.4
Dibromochloropropane	<0.01	<0.01	<0.01	<0.01	<0.01	0.2	µg/L	EPA 504.1
Di(2-ethylhexyl)adipate	<0.6	<0.6	<0.6	<0.6	<0.6	400	µg/L	EPA 525.2
Di(2-ethylhexyl)phthalate	<0.6	<0.6	<0.6	<0.6	<0.6	4	µg/L	EPA 525.2
Dinoseb	<0.2	<0.2	<0.2	<0.2	<0.2	7	µg/L	EPA 515.4
Diquat	<0.4	<0.4	<0.4	<0.4	<0.4	20	µg/L	EPA 549.2
Endothall	<5	<5	<5	<5	<5	100	µg/L	EPA 548.1
Endrin	<0.01	<0.01	<0.01	<0.01	<0.01	2	µg/L	EPA 505

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

Constituent	2Q11	3Q11	4Q11	1Q12	4Q Run. Avg.[1]	Limit	Unit	Method
Ethylene Dibromide	<0.01	<0.01	<0.01	<0.01	<0.01	0.05	µg/L	EPA 504.1
Glyphosate	<25	<25	<6	<6	<25	700	µg/L	EPA 547
Heptachlor	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	µg/L	EPA 505
Heptachlor Epoxide	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	µg/L	EPA 505
Hexachlorobenzene	<0.05	<0.05	<0.05	<0.05	<0.05	1	µg/L	EPA 525.2
Hexachlorocyclopentadiene	<0.05	<0.05	<0.05	<0.05	<0.05	50	µg/L	EPA 525.2
Lindane	<0.01	<0.01	<0.01	<0.01	<0.01	0.2	µg/L	EPA 505
Methoxychlor	<0.05	<0.05	<0.05	<0.05	<0.05	30	µg/L	EPA 505
Molinate	<0.1	<0.1	<0.1	<0.1	<0.1	20	µg/L	EPA 525.2
Oxamyl	<0.5	<0.5	<0.5	<0.5	<0.5	50	µg/L	EPA 531.2
Pentachlorophenol	<0.04	<0.04	<0.04	<0.04	<0.04	1	µg/L	EPA 515.4
Picloram	<0.1	<0.1	<0.1	<0.1	<0.1	500	µg/L	EPA 515.4
PCB 1016	<0.08	<0.08	<0.08	<0.08	<0.08	0.5	µg/L	EPA 505
PCB 1221	<0.1	<0.1	<0.1	<0.1	<0.1	0.5	µg/L	EPA 505
PCB 1232	<0.1	<0.1	<0.1	<0.1	<0.1	0.5	µg/L	EPA 505
PCB 1242	<0.1	<0.1	<0.1	<0.1	<0.1	0.5	µg/L	EPA 505
PCB 1248	<0.1	<0.1	<0.1	<0.1	<0.1	0.5	µg/L	EPA 505
PCB 1254	<0.1	<0.1	<0.1	<0.1	<0.1	0.5	µg/L	EPA 505
PCB 1260	<0.1	<0.1	<0.1	<0.1	<0.1	0.5	µg/L	EPA 505
Simazine	<0.05	<0.05	<0.05	<0.05	<0.05	4	µg/L	EPA 525.2
Thiobencarb	<0.2	<0.2	<0.2	<0.2	<0.2	70	µg/L	EPA 525.2
Toxaphene	<0.5	<0.5	<0.5	<0.5	<0.5	3	µg/L	EPA 505
2,3,7,8-TCDD (Dioxin)	<5	<5	<5	<5	<5	30	pg/L	EPA 1613
2,4,5-TP (Silvex)	<0.2	<0.2	<0.2	<0.2	<0.2	50	µg/L	EPA 515.4
Action Level Chemicals								
Copper	2.8	2.4	2.6	2.4	2.6	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	<0.41	<0.38	<0.26	<0.48	5	pCi/L	EPA 903.0
Gross Alpha Particle Activity	<2.4	<3	<3	4	<3	15	pCi/L	EPA 900.0/SM7110C
Tritium	<386	<236	<228	<230	<386	20,000	pCi/L	EPA 906
Strontium-90	<0.79	<0.49	<0.62	<0.40	<0.79	8	pCi/L	EPA 905
Gross Beta Particle Activity	8	10	13	11	10	50	pCi/L	EPA 900.0
Uranium	<0.7	<0.7	<0.7	<0.7	<0.7	20	pCi/L	EPA 200.8
Secondary Maximum Contaminant Level Chemicals								
Aluminum	35	<25	27	28	26	200	µg/L	EPA 200.8
Copper	2.8	2.4	2.6	2.4	2.5	1000	µg/L	EPA 200.8
Corrosivity [3]	-0.4 (Non-Cor.)	-0.2 (Non-Cor.)	-0.4 (Non-Cor.)	-0.4 (Non-Cor.)	Non-Cor.	Non-Cor.	SI	SM 2330B
Foaming Agents (MBAS) [3]	0.06	<0.05	0.06	<0.05	0.06	0.5	mg/L	S5540C/EPA 425.1
Iron [3]	NR	NR	51	NR	62	300	µg/L	EPA 200.7
Manganese	10	8	16	17	13	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	1	3	2	3	TON	SM 2150B
Silver	<0.25	<0.25	<0.25	0.30	<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	25	24	27	26	25	5000	µg/L	EPA 200.8
Miscellaneous Regulated Constituents								
Oil & Grease [4]	<1	<1	<1	<1	<1	1	mg/L	EPA 1664
Disinfection Byproducts								
Bromate	<5	<5	<5	<5	<5	10	µg/L	EPA 300.1
Chlorite	<0.01	<0.01	<0.01	<0.01	<0.01	1	mg/L	EPA 300.0
Lysimeter Compliance Point Data	VCT-30 2Q11	BNA-15 3Q11	BNA-15 4Q11	BRK-LYS-25 1Q12				
Total Trihalomethanes (TTHMs)	<2	80	79	<4	40	80	µg/L	EPA 524.2/624
Total Haloacetic Acids (HAA5)	<2	<2	<2	<2	<2	60	µg/L	S6251B

NR: Not required this quarter

[1] 4-quarter running average is calculated based on ND values equal to half the detection limit. The reported 4-quarter running average value, if less then 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	1Q12	Unit	Method
Metals			
Chromium (III) [1]	2.4	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	2.3	µg/L	EPA 524.2
Chloroethane	<0.5	µg/L	EPA 524.2
2-Chloroethylvinylether	NR	µg/L	EPA 624
Chloroform	50	µg/L	EPA 524.2
Dichlorobromomethane	14.9	µg/L	EPA 524.2
Methyl Bromide	<1	µg/L	EPA 524.2
Methyl Chloride	<0.5	µg/L	EPA 524.2
Acid Extractibles			
2-Chlorophenol	NR	µg/L	EPA 625
2,4-Dichlorophenol	NR	µg/L	EPA 625
2,4-Dimethylphenol	NR	µg/L	EPA 625
2-Methyl-4,6-dinitrophenol	NR	µg/L	EPA 625
2,4-Dinitrophenol	NR	µg/L	EPA 625
2-Nitrophenol	NR	µg/L	EPA 625
4-Nitrophenol	NR	µg/L	EPA 625
4-Chloro-3-methylphenol	NR	µg/L	EPA 625
Phenol	NR	µg/L	EPA 625
2,4,6-Trichlorophenol	NR	µg/L	EPA 625
Base/Neutral Extractibles			
Acenaphthene	NR	µg/L	EPA 625
Acenaphthylene	NR	µg/L	EPA 625
Anthracene	NR	µg/L	EPA 625
Benzidine	NR	µg/L	EPA 625
Benzo(a)anthracene	NR	µg/L	EPA 625
Benzo(b)fluoranthene	NR	µg/L	EPA 625
Benzo(g,h,i)perylene	NR	µg/L	EPA 625
Benzo(k)fluoranthene	NR	µg/L	EPA 625
Bis(2-chloroethoxy)methane	NR	µg/L	EPA 625
Bis(2-chloroethyl)ether	NR	µg/L	EPA 625
Bis(2-chloroisopropyl)ether	NR	µg/L	EPA 625
4-Bromophenyl phenyl ether	NR	µg/L	EPA 625
Butyl benzyl phthalate	NR	µg/L	EPA 625
2-Chloronaphthalene	NR	µg/L	EPA 625
4-Chlorophenyl phenyl ether	NR	µg/L	EPA 625
Chrysene	NR	µg/L	EPA 625
Dibenzo(a,h)anthracene	NR	µg/L	EPA 625
1,3-Dichlorobenzene	NR	µg/L	EPA 625
3,3-Dichlorobenzidine	NR	µg/L	EPA 625
Diethyl phthalate	NR	µg/L	EPA 625
Dimethyl phthalate	NR	µg/L	EPA 625
Di-n-butyl phthalate	NR	µg/L	EPA 625
2,4-Dinitrotoluene	NR	µg/L	EPA 625
2,6-Dinitrotoluene	NR	µg/L	EPA 625
Di-n-octyl phthalate	NR	µg/L	EPA 625
Azobenzene	NR	µg/L	EPA 625
Fluoranthene	NR	µg/L	EPA 625
Fluorene	NR	µg/L	EPA 625
Hexachlorobutadiene	NR	µg/L	EPA 625
Hexachlorocyclopentadiene	NR	µg/L	EPA 625
Hexachloroethane	NR	µg/L	EPA 625
Indeno(1,2,3-cd)pyrene	NR	µg/L	EPA 625
Isophorone	NR	µg/L	EPA 625
Naphthalene	NR	µg/L	EPA 625
Nitrobenzene	NR	µg/L	EPA 625
N-Nitroso-di-n-propylamine	NR	µg/L	EPA 625
N-Nitrosodiphenylamine	NR	µg/L	EPA 625
Phenanthrene	NR	µg/L	EPA 625
Pyrene	NR	µg/L	EPA 625

Constituent	1Q12	Unit	Method
Pesticides			
Aldrin	NR	µg/L	EPA 608
BHC, alpha isomer	NR	µg/L	EPA 608
BHC, beta isomer	NR	µg/L	EPA 608
BHC, delta isomer	NR	µg/L	EPA 608
4,4'-DDT	NR	µg/L	EPA 608
4,4'-DDE	NR	µg/L	EPA 608
4,4'-DDD	NR	µg/L	EPA 608
Dieldrin	NR	µg/L	EPA 608
Endosulfan I	NR	µg/L	EPA 608
Endosulfan II	NR	µg/L	EPA 608
Endosulfan Sulfate	NR	µg/L	EPA 608
Unregulated Chemicals			
Endrin Aldehyde	NR	µg/L	EPA 608
Chromium VI	0.10	µg/L	EPA 218.6
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
Diazinon	NR	µg/L	EPA 525.2
Dichlorodifluoromethane (Freon 12)	<0.5	µg/L	EPA 524.2
1,4 - Dioxane	1	µg/L	EPA 522
Ethylene glycol	NR	mg/L	EPA 8015B
Formaldehyde	NR	µg/L	EPA 556
HMX	NR	µg/L	EPA 8330B
Isopropylbenzene	<0.5	µg/L	EPA 524.2
Methyl isobutyl ketone (MIBK)	<2	µg/L	EPA 524.2
N-Nitrosodiethylamine (NDEA)	NR	µg/L	EPA 521
N-nitrosodimethylamine (NDMA)	<2	ng/L	EPA 521
Propachlor	NR	µg/L	EPA 525.2
N-propylbenzene	<0.5	µg/L	EPA 524.2
RDX	NR	µg/L	EPA 8330B
Tertiary butyl alcohol	<2	µg/L	EPA 524.2
1,2,3-Trichloropropane (1,2,3-TCP)	<0.5	µg/L	EPA 524.2
1,2,4–trimethylbenzene	<0.5	µg/L	EPA 524.2
1,3,5-trimethylbenzene	<0.5	µg/L	EPA 524.2
2,4,6-Trinitrotoluene	NR	µg/L	EPA 8330B
Vanadium	2	µg/L	EPA 200.8
Endocrine Disrupting Chemicals, Pharmaceuticals and Other Chemicals [2]			
Acetominophen	NR	ng/L	LC-MS-MS
Bis Phenol A (BPA)	NR	ng/L	LC-MS-MS
Caffeine	NR	ng/L	LC-MS-MS
Carbamazepine	NR	ng/L	LC-MS-MS
Diazepam	NR	ng/L	LC-MS-MS
Estradiol	NR	ng/L	LC-MS-MS
Estrone	NR	ng/L	LC-MS-MS
Ethinyl Estradiol - 17 alpha	NR	ng/L	LC-MS-MS
Fluoxetine	NR	ng/L	LC-MS-MS
Gemfibrozil	NR	ng/L	LC-MS-MS
Ibuprofen	NR	ng/L	LC-MS-MS
Iopromide	NR	ng/L	LC-MS-MS
Progesterone	NR	ng/L	LC-MS-MS
Testosterone	NR	ng/L	LC-MS-MS
Sulfamethoxazole	NR	ng/L	LC-MS-MS
Trimethoprim	NR	ng/L	LC-MS-MS
Triclosan	NR	ng/L	LC-MS-MS
EDTA	NR	mg/L	Dionex-MWH

[1] Trivalent chromium is measured as total chromium

[2] Chemicals with State Notification Levels, Nitrosamines, and EDC, Pharmaceuticals & Other Chemicals

NR: Not Required (Annual Requirement)

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	01/17/12	7.19	4.1	2.5	2.4	1.7	0.07	435
8TH-LYS-00	0	02/23/12	4.82	2.8	1.9	1.8	1.0	0.09	205
8TH-LYS-00	0	03/21/12	5.91	2.3	0.4	0.4	1.9	0.03	80
8TH-LYS-35	35	01/17/12	1.85	0.7	<0.2	<0.1	0.7	0.16	385
8TH-LYS-35	35	02/23/12	1.74	<0.6	<0.2	<0.1	<0.5	0.05	385
8TH-LYS-35	35	03/21/12	1.65	<0.6	<0.2	<0.1	0.5	<0.01	390

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	01/04/12	4.02	6.1	5.4	5.4	0.7	<0.01	690
BNA-LYS-00	0	01/10/12	4.32	6.1	5.1	5.0	1.1	0.10	695
BNA-LYS-00	0	01/17/12	4.61	7.5	6.4	6.4	1.1	0.03	700
BNA-LYS-00	0	01/25/12	5.78	5.1	3.9	3.5	1.6	0.05	410
BNA-LYS-00	0	01/31/12	4.23	6.4	5.7	5.7	0.7	0.02	635
BNA-LYS-00	0	02/08/12	4.29	7.2	6.2	6.2	1.0	<0.01	715
BNA-LYS-00	0	02/15/12	4.94	6.4	5.4	5.4	1.0	<0.01	680
BNA-LYS-00	0	02/23/12	4.50	5.4	4.3	4.3	1.1	<0.01	660
BNA-LYS-00	0	02/29/12	5.87	4.3	3.5	3.1	1.2	<0.01	665
BNA-LYS-00	0	03/07/12	5.87	4.9	4.8	3.1	1.8	<0.01	720
BNA-LYS-00	0	03/14/12	5.64	4.1	2.4	2.4	1.7	<0.01	745
BNA-LYS-00	0	03/21/12	5.81	3.3	1.1	0.8	2.5	<0.01	240
BNA-LYS-00	0	03/28/12	5.63	1.8	0.6	0.6	1.2	<0.01	160
BNA-LYS-05	5	01/04/12	3.07	4.9	4.9	4.9	<0.5	<0.01	705
BNA-LYS-05	5	01/10/12	2.41	5.8	5.1	5.1	0.7	<0.01	695
BNA-LYS-05	5	01/17/12	2.48	6.0	6.0	6.0	<0.5	0.03	715
BNA-LYS-05	5	01/25/12	3.03	3.5	3.5	3.4	<0.5	0.08	495
BNA-LYS-05	5	02/08/12	2.50	6.4	5.9	5.9	0.5	<0.01	675
BNA-LYS-05	5	02/15/12	2.56	5.8	5.2	5.2	0.6	0.03	690
BNA-LYS-05	5	02/23/12	2.76	3.9	4.0	3.9	<0.5	0.03	635
BNA-LYS-05	5	02/29/12	2.57	4.1	4.1	3.6	0.5	0.03	675
BNA-LYS-05	5	03/07/12	2.50	2.8	2.8	2.8	<0.5	<0.01	690
BNA-LYS-05	5	03/14/12	2.52	2.6	1.6	1.6	1.0	<0.01	710
BNA-LYS-05	5	03/21/12	2.59	2.5	1.4	1.4	1.1	<0.01	680
BNA-LYS-05	5	03/28/12	2.48	1.2	0.4	0.4	0.8	<0.01	395
BNA-LYS-10	10	01/04/12	3.04	5.5	5.5	5.5	<0.5	<0.01	730
BNA-LYS-10	10	01/10/12	1.51	5.6	5.6	5.6	<0.5	<0.01	750
BNA-LYS-10	10	01/17/12	1.37	5.6	5.6	5.6	<0.5	0.03	755
BNA-LYS-10	10	01/25/12	1.36	5.7	5.7	5.7	<0.5	0.02	765
BNA-LYS-10	10	02/08/12	1.28	4.8	4.8	4.8	<0.5	<0.01	690
BNA-LYS-10	10	02/15/12	1.36	5.1	5.1	5.1	<0.5	<0.01	685
BNA-LYS-10	10	02/23/12	1.51	5.1	5.1	5.1	<0.5	<0.01	735
BNA-LYS-10	10	02/29/12	1.46	4.6	5.1	4.6	<0.5	<0.01	745
BNA-LYS-10	10	03/07/12	1.36	3.7	3.7	3.7	<0.5	<0.01	715
BNA-LYS-10	10	03/14/12	1.38	2.7	2.7	2.7	<0.5	<0.01	715
BNA-LYS-10	10	03/21/12	1.43	3.1	1.9	1.9	1.2	<0.01	745
BNA-LYS-10	10	03/28/12	1.34	2.4	1.7	1.7	0.7	<0.01	730
BNA-LYS-15	15	01/04/12	2.27	5.6	5.6	5.6	<0.5	<0.01	690
BNA-LYS-15	15	01/10/12	1.43	5.6	5.6	5.6	<0.5	<0.01	720
BNA-LYS-15	15	01/17/12	1.29	5.4	5.4	5.4	<0.5	0.03	735
BNA-LYS-15	15	01/25/12	1.26	5.6	5.6	5.6	<0.5	0.02	735
BNA-LYS-15	15	02/08/12	1.34	4.8	4.8	4.8	<0.5	<0.01	635
BNA-LYS-15	15	02/15/12	1.31	5.7	5.7	5.7	<0.5	<0.01	675
BNA-LYS-15	15	02/23/12	1.34	5.5	5.5	5.5	<0.5	<0.01	725
BNA-LYS-15	15	02/29/12	1.34	4.4	5.0	4.4	<0.5	<0.01	700
BNA-LYS-15	15	03/07/12	1.27	3.3	3.3	3.3	<0.5	<0.01	670
BNA-LYS-15	15	03/14/12	1.25	2.6	2.6	2.6	<0.5	<0.01	695
BNA-LYS-15	15	03/21/12	1.38	1.9	1.9	1.9	<0.5	<0.01	720
BNA-LYS-15	15	03/28/12	1.24	2.1	1.2	1.2	0.9	<0.01	735
BNA-LYS-25	25	01/04/12	0.85	5.2	5.2	5.2	<0.5	<0.01	625
BNA-LYS-25	25	01/10/12	0.94	5.2	5.2	5.2	<0.5	<0.01	645
BNA-LYS-25	25	01/17/12	0.87	5.1	5.1	5.1	<0.5	0.02	650
BNA-LYS-25	25	01/25/12	0.80	5.2	5.2	5.2	<0.5	0.04	650
BNA-LYS-25	25	01/31/12	0.90	5.0	5.0	5.0	<0.5	0.02	645
BNA-LYS-25	25	02/08/12	0.87	4.7	4.7	4.7	<0.5	<0.01	610
BNA-LYS-25	25	02/15/12	0.86	4.9	4.9	4.9	<0.5	<0.01	630
BNA-LYS-25	25	02/23/12	0.87	4.8	4.8	4.8	<0.5	0.02	660
BNA-LYS-25	25	02/29/12	0.87	4.4	4.4	4.4	<0.5	<0.01	650
BNA-LYS-25	25	03/07/12	0.80	3.7	3.7	3.7	<0.5	<0.01	645
BNA-LYS-25	25	03/14/12	0.82	3.2	3.2	3.2	<0.5	<0.01	645
BNA-LYS-25	25	03/21/12	0.98	2.9	2.9	2.9	<0.5	<0.01	660
BNA-LYS-25	25	03/28/12	0.84	2.5	2.5	2.5	<0.5	<0.01	675

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	01/17/12	4.71	5.5	4.5	4.4	1.1	0.06	610
BRK-LYS-00	0	02/23/12	5.01	4.3	3.4	3.4	0.9	0.04	515
BRK-LYS-00	0	03/21/12	5.36	3.6	2.4	2.4	1.2	<0.01	480
BRK-LYS-25	25	01/17/12	2.49	<0.6	<0.2	<0.1	<0.5	0.04	475
BRK-LYS-25	25	02/23/12	2.42	<0.6	<0.2	<0.1	<0.5	<0.01	535
BRK-LYS-25	25	03/21/12	2.45	<0.6	<0.2	<0.1	<0.5	<0.01	540

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	01/04/12	4.16	6.1	5.0	4.9	1.2	0.07	680
HKYE-LYS-00	0	01/10/12	31.6	8.9	1.6	0.4	8.5	0.61	825
HKYE-LYS-00	0	01/17/12	11.3	3.9	<0.2	0.1	3.8	0.03	535
HKYE-LYS-00	0	01/25/12	6.25	2.7	1.9	1.2	1.5	0.11	153
HKYE-LYS-00	0	01/31/12	4.60	5.8	5.0	5.0	0.8	0.03	590
HKYE-LYS-00	0	02/07/12	4.56	5.9	5.0	5.0	0.9	<0.01	650
HKYE-LYS-00	0	02/15/12	5.58	3.1	2.2	1.7	1.4	0.11	305
HKYE-LYS-00	0	02/23/12	5.83	3.4	2.4	2.0	1.4	0.08	370
HKYE-LYS-00	0	02/29/12	4.50	4.7	3.8	3.8	0.9	<0.01	705
HKYE-LYS-00	0	03/07/12	4.36	5.0	4.0	4.0	1.0	<0.01	750
HKYE-LYS-00	0	03/14/12	3.97	6.1	5.1	5.1	1.0	<0.01	765
HKYE-LYS-00	0	03/21/12	5.33	2.9	1.5	1.2	1.7	<0.01	375
HKYE-LYS-00	0	03/28/12	5.16	1.7	0.8	0.8	0.9	<0.01	260
HKYE-LYS-05	5	02/23/12	0.93	2.8	2.8	2.8	<0.5	<0.01	525
HKYE-LYS-05	5	02/29/12	2.37	3.1	2.5	2.5	0.6	<0.01	615
HKYE-LYS-05	5	03/07/12	2.08	3.7	3.7	3.7	<0.5	<0.01	705
HKYE-LYS-05	5	03/14/12	1.85	5.2	4.0	4.0	1.2	<0.01	760
HKYE-LYS-05	5	03/21/12	1.77	4.6	3.3	3.3	1.3	<0.01	695
HKYE-LYS-05	5	03/28/12	1.69	2.3	1.6	1.6	0.7	0.02	495
HKYE-LYS-10	10	01/04/12	2.18	2.1	2.1	2.1	<0.5	<0.01	470
HKYE-LYS-10	10	01/10/12			4.4	4.0		0.11	545
HKYE-LYS-10	10	01/17/12					0.7		625
HKYE-LYS-10	10	01/25/12			5.3	5.3		0.02	625
HKYE-LYS-10	10	01/31/12	1.49						625
HKYE-LYS-10	10	02/07/12				4.3		0.02	560
HKYE-LYS-10	10	02/15/12	3.82	4.9	4.3	4.2	0.7	0.06	575
HKYE-LYS-10	10	02/29/12	2.71	3.4	3.4	3.4	<0.5	<0.01	660
HKYE-LYS-10	10	03/07/12	2.28	4.1	4.1	4.1	<0.5	<0.01	725
HKYE-LYS-10	10	03/14/12	2.31	5.0	4.2	4.2	0.8	<0.01	765
HKYE-LYS-10	10	03/21/12	2.31	2.0	2.0	2.0	<0.5	<0.01	500
HKYE-LYS-10	10	03/28/12		2.2	1.7	1.7	0.5	0.04	450
HKYE-LYS-25	25	01/04/12	1.63	5.8	5.8	5.8	<0.5	<0.01	680
HKYE-LYS-25	25	01/10/12	2.29	6.1	5.5	5.5	0.6	0.04	705
HKYE-LYS-25	25	01/17/12		6.2	5.7	5.7	0.5	0.02	705
HKYE-LYS-25	25	01/25/12	0.94	7.1	6.3	6.3	0.8	0.03	700
HKYE-LYS-25	25	01/31/12	1.07			5.8		0.02	700
HKYE-LYS-25	25	02/07/12	1.16	5.7	5.2	5.2	0.5	<0.01	650
HKYE-LYS-25	25	02/15/12		5.5	5.5	5.5	<0.5	<0.01	685
HKYE-LYS-25	25	02/23/12	1.52	4.7	4.2	4.2	0.5	<0.01	595
HKYE-LYS-25	25	02/29/12	1.37	2.9	2.9	2.9	<0.5	<0.01	455
HKYE-LYS-25	25	03/07/12	1.55	3.5	3.5	3.5	<0.5	<0.01	620
HKYE-LYS-25	25	03/14/12	1.83	5.1	4.3	4.3	0.8	<0.01	745
HKYE-LYS-25	25	03/21/12	1.73	3.1	3.1	3.1	<0.5	<0.01	685
HKYE-LYS-25	25	03/28/12	1.61	1.2	1.2	1.2	<0.5	<0.01	475

RP3 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	01/17/12	8.63	6.6	5.4	5.1	1.5	0.08	680
RP31-LYS-00	0	02/23/12	4.99	4.4	3.3	3.3	1.1	0.03	690
RP31-LYS-00	0	03/21/12	7.22	2.4	1.2	0.8	1.6	0.03	205
RP31-LYS-35	35	01/17/12	0.96	0.7	0.7	0.6	<0.5	0.07	440
RP31-LYS-35	35	02/23/12	0.85	1.5	1.5	1.5	<0.5	<0.01	455
RP31-LYS-35	35	03/21/12	0.90	2.4	2.4	2.4	<0.5	<0.01	480

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

San Sevaine Basin									
Site	Depth, bgs	Date	TOC	TN *	TIN	NO_3-N	TKN+NO_2-N	NO_2-N	EC
Unit==>	feet	mm/dd/yy	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	µmho/cm
SS5-LYS-00	0	01/04/12	9.75	5.1	3.5	3.5	1.6	<0.01	285
SS5-LYS-00	0	01/10/12	4.10	6.5	5.8	5.8	0.7	<0.01	695
SS5-LYS-00	0	01/17/12	4.28	7.0	5.8	5.8	1.2	0.03	710
SS5-LYS-00	0	01/25/12	4.03	6.1	4.6	4.5	1.6	0.05	560
SS5-LYS-00	0	01/31/12	3.97	5.4	4.8	4.8	0.6	0.02	655
SS5-LYS-00	0	02/08/12	5.03	5.8	4.6	4.5	1.3	0.06	665
SS5-LYS-00	0	02/15/12	5.97	4.5	2.7	2.6	1.9	0.09	550
SS5-LYS-00	0	02/23/12	5.78	3.8	2.6	2.5	1.3	0.06	630
SS5-LYS-00	0	02/29/12	5.06	3.5	3.0	2.7	0.8	0.02	680
SS5-LYS-00	0	03/07/12	7.64	3.5	1.9	1.4	2.1	0.07	620
SS5-LYS-00	0	03/14/12	8.37	4.3	2.3	1.3	3.0	0.05	650
SS5-LYS-00	0	03/21/12	6.79	3.3	1.8	0.9	2.4	0.04	430
SS5-LYS-00	0	03/28/12	6.08	3.3	1.5	0.8	2.5	0.04	350
SS5-LYS-05	5	02/08/12	1.93	4.4	4.4	4.4	<0.5	<0.01	705
SS5-LYS-05	5	02/15/12	1.96	4.2	4.2	4.2	<0.5	<0.01	685
SS5-LYS-05	5	02/23/12	1.92	2.7	2.7	2.6	<0.5	0.06	615
SS5-LYS-05	5	02/29/12		2.3	2.6	2.3	<0.5	<0.01	625
SS5-LYS-10	10	01/04/12	2.54	<0.6	0.2	0.2	<0.5	<0.01	1110
SS5-LYS-10	10	01/10/12	2.46	<0.6	<0.2	0.1	<0.5	<0.01	1110
SS5-LYS-10	10	01/17/12	2.35	5.9	5.9	5.7	<0.5	0.17	1130
SS5-LYS-10	10	01/25/12	2.03	6.2	5.5	5.3	0.9	0.19	840
SS5-LYS-10	10	01/31/12	1.86	4.8	4.8	4.6	<0.5	0.17	730
SS5-LYS-10	10	02/08/12	1.74	4.3	4.3	4.2	<0.5	0.10	650
SS5-LYS-10	10	02/15/12	1.84	4.7	4.2	4.1	0.6	0.06	680
SS5-LYS-10	10	02/23/12	1.79	3.1	3.1	3.0	<0.5	0.06	640
SS5-LYS-10	10	02/29/12	1.84	2.3	2.6	2.3	<0.5	0.03	590
SS5-LYS-10	10	03/07/12	1.77	1.7	1.7	1.7	<0.5	0.02	600
SS5-LYS-10	10	03/14/12	1.97	1.2	0.2	0.2	1.0	<0.01	605
SS5-LYS-10	10	03/21/12	2.03	0.7	<0.2	<0.1	0.7	<0.01	625
SS5-LYS-10	10	03/28/12	2.23	<0.6	<0.2	<0.1	<0.5	<0.01	670
SS5-LYS-15	15	01/04/12	1.75	<0.6	<0.2	<0.1	<0.5	<0.01	1460
SS5-LYS-15	15	01/10/12	1.87	<0.6	<0.2	<0.1	<0.5	<0.01	1470
SS5-LYS-15	15	01/17/12	1.99	<0.6	0.3	0.3	<0.5	0.02	1080
SS5-LYS-15	15	01/25/12	2.23	1.0	1.0	1.0	<0.5	0.02	855
SS5-LYS-15	15	01/31/12	2.30	<0.6	0.5	0.5	<0.5	0.02	770
SS5-LYS-15	15	02/08/12	2.18	0.9	0.4	0.4	0.5	<0.01	710
SS5-LYS-15	15	02/15/12	2.21	<0.6	0.5	0.5	<0.5	<0.01	665
SS5-LYS-15	15	02/23/12	1.98	<0.6	0.4	0.4	<0.5	<0.01	675
SS5-LYS-15	15	02/29/12	1.89	0.9	1.3	0.9	<0.5	<0.01	700
SS5-LYS-15	15	03/07/12	1.79	1.8	1.8	1.8	<0.5	<0.01	735
SS5-LYS-15	15	03/14/12	1.77	0.9	0.9	0.9	<0.5	<0.01	735
SS5-LYS-15	15	03/21/12	1.73	1.3	0.6	0.6	0.7	<0.01	710
SS5-LYS-15	15	03/28/12	1.68	0.6	0.6	0.6	<0.5	<0.01	705
SS5-LYS-20	20	01/04/12	5.36						935
SS5-LYS-20	20	01/10/12			<0.2	0.1		<0.01	965
SS5-LYS-20	20	03/07/12	1.74	4.5	4.5	4.5	<0.5	<0.01	695
SS5-LYS-20	20	03/14/12	1.58	4.3	4.3	4.3	<0.5	<0.01	690
SS5-LYS-20	20	03/21/12	1.60	4.5	3.4	3.4	1.1	<0.01	670
SS5-LYS-20	20	03/28/12	1.51	2.7	2.7	2.7	<0.5	<0.01	670
SS5-LYS-25	25	03/21/12	4.67	3.4	2.3	2.3	1.1	<0.01	1800
SS5-LYS-25	25	03/28/12		2.8	2.0	2.0	0.8	<0.01	1770
SS5-LYS-30	30	03/21/12	2.90	0.7	<0.2	0.1	0.6	<0.01	2290
SS5-LYS-30	30	03/28/12	2.80	1.1	0.2	0.2	0.9	<0.01	2250
SS5-LYS-35	35	01/04/12	3.97						1280
SS5-LYS-35	35	01/10/12			0.9	0.7		0.14	1250
SS5-LYS-35	35	01/17/12					<0.5		1240
SS5-LYS-35	35	01/25/12			0.3	0.3		0.02	1250
SS5-LYS-35	35	01/31/12	3.20			0.5		<0.01	1270
SS5-LYS-35	35	02/08/12				0.2	<0.5	<0.01	1330
SS5-LYS-35	35	02/23/12	3.12	1.2	1.2	1.2	<0.5	<0.01	1540
SS5-LYS-35	35	02/29/12		1.1	1.5	1.1	<0.5	<0.01	1550
SS5-LYS-35	35	03/21/12	1.7	5.2	4.1	3.9	1.3	<0.01	1640
SS5-LYS-35	35	03/28/12	1.7	4.4	4.4	4.4	<0.5	<0.01	1560

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

Victoria Basin									
Site	Depth, bgs	Date	TOC	TN *	TIN	NO_3-N	TKN+NO_2-N	NO_2-N	EC
Unit==>	feet	mm/dd/yy	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	µmho/cm
VCT-LYS-00	0	01/04/12	7.58	4.2	1.3	1.3	2.9	0.04	480
VCT-LYS-00	0	01/10/12	7.91	6.0	1.8	1.7	4.3	0.10	490
VCT-LYS-00	0	01/17/12	7.53	3.5	0.3	0.2	3.3	0.09	495
VCT-LYS-05	5	01/04/12	2.59						600
VCT-LYS-05	5	01/10/12			1.8	1.8		<0.01	585
VCT-LYS-05	5	01/17/12		1.9	1.4	1.3	0.6	0.05	575
VCT-LYS-10	10	01/04/12	2.13						670
VCT-LYS-10	10	01/10/12			2.1	2.1		<0.01	655
VCT-LYS-25	25	01/04/12	1.55	0.6	0.6	0.6	<0.5	<0.01	795
VCT-LYS-25	25	01/10/12	1.52	0.9	0.9	0.9	<0.5	0.04	785
VCT-LYS-25	25	01/17/12	1.38	1.5	1.5	1.3	<0.5	0.15	805
VCT-LYS-30	30	01/04/12	2.20						690
VCT-LYS-30	30	01/10/12			<0.2	0.1		<0.01	685
VCT-LYS-30	30	01/17/12		<0.6	0.3	0.2	<0.5	0.07	700
VCT-LYS-35	35	01/04/12	1.17	1.3	1.3	1.3	<0.5	0.02	470
VCT-LYS-35	35	01/10/12	1.06	2.2	2.2	2.1	<0.5	0.13	530
VCT-LYS-35	35	01/17/12	1.2	2.8	2.8	2.7	<0.5	0.12	585

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

* If TN limit of 5 mg/L is not met prior to the RW distribution system, TN compliance can be met at a point prior to reaching the regional groundwater, including lysimeters.

Table 2-5b
Alternative Monitoring Plans

Turner Basin					
Date	Recycled Water*	Recycled Water*	Turner 1 & 2	Turner 3 & 4	Turner 1 & 2 Turner 3 & 4
mg/L==>	TOC	TN	TOC (70% reduction)	TOC (85% reduction)	TN (87% reduction)
01/04/12	3.95	5.7	1.19	0.59	0.7
01/10/12	4.79	7.7	1.44	0.72	1.0
01/17/12	4.31	7.1	1.29	0.65	0.9
01/25/12	3.79	8.6	1.14	0.57	1.1
01/30/12	3.81	7.1	1.14	0.57	0.9
02/08/12	3.87	7.4	1.16	0.58	1.0
02/15/12	3.73	4.6	1.12	0.56	0.6
02/23/12	3.75	5.1	1.13	0.56	0.7
02/29/12	3.81	6.3	1.14	0.57	0.8
03/07/12	3.96	5.6	1.19	0.59	0.7
03/14/12	3.96	5.1	1.19	0.59	0.7
03/21/12	3.89	3.0	1.17	0.58	0.4
03/28/12	3.91	4.2	1.17	0.59	0.5

Ely Basin				
Date	Recycled Water*	Recycled Water*	Ely 3 East	Ely 3 East
mg/L==>	TOC	TN	TOC (76% reduction)	TN (52% reduction)
01/04/12	3.95	5.7	0.95	2.7
01/10/12	4.79	7.7	1.15	3.7
01/17/12	4.31	7.1	1.03	3.4
01/25/12	3.79	8.6	0.91	4.1
01/30/12	3.81	7.1	0.91	3.4
02/08/12	3.87	7.4	0.93	3.6
02/15/12	3.73	4.6	0.90	2.2
02/23/12	3.75	5.1	0.90	2.4
02/29/12	3.81	6.3	0.91	3.0
03/07/12	3.96	5.6	0.95	2.7
03/14/12	3.96	5.1	0.95	2.4
03/21/12	3.89	3.0	0.93	1.4
03/28/12	3.91	4.2	0.94	2.0

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

Brooks Basin				
Date	BRK-LYS-00	BRK-LYS-00	BRK-LYS-00	BRK-LYS-00
mg/L==>	TOC	TN	EC	
01/17/12	4.71	5.5	610	
02/23/12	5.01	4.3	515	
03/21/12	5.36	3.6	480	
Date	BRK-LYS-25	BRK-LYS-25	BRK-LYS-25	BRK-LYS-25
mg/L==>	TOC	TN**	EC	
01/17/12	2.49	<0.6	475	
02/23/12	2.42	<0.6	535	
03/21/12	2.45	<0.6	540	
Date	BRK-1/1	BRK-1/1	BRK-1/1	BRK-1/1
mg/L==>	TOC**	TN	EC	Cl
01/16/12	1.02	0.4	580	81
02/23/12	0.58	0.5	585	75
03/21/12	0.49	0.5	575	73

**BRK-LYS-25 is the compliance point for TN and BRK-1/1 is the compliance point for TOC.

NA: Not analyzed

RP3 Basin			
Date	RP3-LYS-35	RP3-LYS-35	RP3-LYS-35
mg/L==>	TOC	TN	EC
01/17/12	0.96	0.7	440
02/23/12	0.85	1.5	455
03/21/12	0.90	2.4	480

Table 2-6
Diluent Water Monitoring*: Stormwater

Constituent	Cucamonga Creek @ Turner 1&2 Basins 01/23/12	Day Creek @ Lower Day Basin 01/23/12	Deer Creek @ Turner 3&4 Basins 01/23/12	W. Cucamonga Creek @ Ely Basin 01/23/12	San Antonio Creek @ Montclair Basin 01/24/12	Unit	Method
NO_2-N	0.12	0.12	0.17	0.08	0.13	mg/L	EPA 300.0
NO_3-N	0.7	0.7	0.9	0.6	0.8	mg/L	EPA 300.0
TDS	66	70	70	60	98	mg/L	SM 2540C
Total Coliform	161000	2300	92000	51000	230000	mpn/100ml	SM 9221B
Oil & Grease	2	<2	3	5	<2	mg/L	EPA 1664A
Inorganic Chemicals							
Aluminum	1225	263	725	1979	434	µg/L	EPA 200.7
Antimony	2	<1	2	3	2	µg/L	EPA 200.8
Arsenic	<2	<2	<2	<2	<2	µg/L	EPA 200.8
Asbestos	<6.63	<6.63	<6.63	<6.63	<6.63	MFL	EPA 100.2
Barium	41	24	29	87	27	µg/L	EPA 200.7
Beryllium	<0.5	<0.5	<0.5	<0.5	<0.5	µg/L	EPA 200.7
Cadmium	<0.25	<0.25	<0.25	0.5	<0.25	µg/L	EPA 200.7
Chromium	4.0	1.0	3.3	6.1	2.0	µg/L	EPA 200.7
Cyanide	<0.005	<0.005	<0.005	<0.005	<0.005	mg/L	SM 4500-CN E
Fluoride	0.1	0.1	0.1	0.2	0.2	mg/L	SM 4500-F C
Mercury	<0.05	<0.05	<0.05	<0.05	<0.05	µg/L	EPA 245.2
Nickel	4	1	3	5	2	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	<0.5	<0.5	<0.5	<0.5	<0.5	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	4.2	0.68	5.3	5.6	2.1	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	8	9	7	<6	<6	µg/L	EPA 547
Heptachlor	<0.01	<0.01	<0.01	<0.01	<0.01	µg/L	EPA 505

Table 2-6
Diluent Water Monitoring*: Stormwater

Constituent	Cucamonga Creek @ Turner 1&2 Basins 01/23/12	Day Creek @ Lower Day Basin 01/23/12	Deer Creek @ Turner 3&4 Basins 01/23/12	W. Cucamonga Creek @ Ely Basin 01/23/12	San Antonio Creek @ Montclair Basin 01/24/12	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	0.14	<0.04	0.15	0.30	0.09	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	0.26	<0.05	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	SM 6251B
Bromate	<5	<5	<5	<5	<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	22.9	5.6	18.1	34.9	12.6	µg/L	EPA 200.7
Lead	4.7	0.5	3.4	11.0	1.7	µg/L	EPA 200.8
Radionuclides							
Combined Radium-226 and Radium 228	<0.312	<0.405	<0.377	<0.348	<0.309	pCi/L	EPA 903.0
Gross Alpha Particle Activity	<3	<3	<3	<3	<3	pCi/L	EPA 900.0
Tritium	<228	<229	<232	<231	<230	pCi/L	EPA 906.0
Strontium-90	<0.413	<0.476	<1.15	<0.414	<0.391	pCi/L	EPA 905.0
Gross Beta Particle Activity	7	<3	6	7	<3	pCi/L	EPA 900.0
Uranium	<0.7	<0.7	<0.7	<0.7	0.9	pCi/L	EPA 200.8
Unregulated Chemicals							
Chromium VI	0.54	0.17	0.72	0.91	0.46	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
Carbon disulfide	<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	<1	<1	<1	<1	<1	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	<2	<2	<2	<2	µg/L	EPA 524.2
N-nitrosodimethylamine (NDMA)	6	27	20	3	<2	ng/l	EPA 521
N-propylbenzene	<0.5	<0.5	<0.5	<0.5	<0.5	µg/L	EPA 524.2
1,2,3-Trichloropropane (1,2,3-TCP)	<0.5	<0.5	<0.5	<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	6	2	5	6	3	µg/L	EPA 200.8
Secondary Maximum Contaminant Level Chemicals							
Aluminum	1225	263	725	1979	434	µg/L	EPA 200.7
Corrosivity	-1.5	-1.5	-1.2	-1.9	-0.8	SI	SM 2330B
Foaming Agents (MBAS)	0.16	0.08	0.38	0.13	0.11	mg/L	SM 5540C/EPA 425.1
Iron	1361	291	1029	2515	565	µg/L	EPA 200.7
Manganese	36	15	28	58	18	µg/L	EPA 200.7
Odor--Threshold	3	3	1	3	3	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	88	14	119	170	29	µg/L	EPA 200.7

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

Table 2-7
Summary of Wells in Groundwater Monitoring Networks

BASIN	CBWM_ID	OWNER/LOCAL NAME	SEPARATION DISTANCE (feet)	SCREENED INTERVAL(S) (feet bgs)	CASING DIAMETER (inches)	STATUS	TYPE
Hickory and Banana Basins	3600573	Fontana Water Company - F37a	2240 upgradient	378-810	20	Active	Municipal
	600660	California Speedway - Infield Well	2070 downgradient	NA	NA	Active	Industrial
	3601365	California Speedway 2	2780 downgradient	451-455, 491-603, & 664-780	20	Active	Industrial
	3600371	Reliant Energy - East Well	4070 downgradient	434-467, 500-513, 553-580, 593-652, & 825-847	20	Active	Industrial
	3602267	City Of Ontario - 20	14500 downgradient	NA	20	Active	Municipal
	601001	Inland Empire Utilities Agency - BH-1/1	340 downgradient	365-405	4	Active	Monitoring
	601002	Inland Empire Utilities Agency - BH-1/2	340 downgradient	435-475	4	Active	Monitoring
Turner Basins	3600010	City Of Ontario - 25	2530 crossgradient	370-903	20	Inactive	Municipal
	600453	City Of Ontario - 29	2810 downgradient	400-1095	18	Active	Municipal
	600585	City of Ontario - 38*	4600 crossgradient	500-1010	16	Active	Municipal
	600997	Inland Empire Utilities Agency - TRN-1/1	50 downgradient	340-360	4	Active	Monitoring
	600998	Inland Empire Utilities Agency - TRN-1/2	50 downgradient	380-400	4	Active	Monitoring
	600999	Inland Empire Utilities Agency - TRN-2/1	50 downgradient	350-370	4	Active	Monitoring
	601000	Inland Empire Utilities Agency - TRN-2/2	50 downgradient	392-412	4	Active	Monitoring
Declez Basin	300208	Jurupa Community Services District - 19	8900 downgradient	230-390	18	Active	Municipal
	300207	Jurupa Community Services District - 17	5240 downgradient	259-290, & 300-400	NA	Active	Municipal
	300200	Jurupa Community Services District - 13	5730 downgradient	220-446	16-34	Active	Municipal
	300484	Inland Empire Utilities Agency - DCZ-1	50 downgradient	155-175	4	Active	Monitoring
	--	Inland Empire Utilities Agency - D-1/2	50 downgradient	185-205	4	NA	Monitoring
RP-3 Basins	600492	Fontana Water Company - F23a	7900 upgradient	450-740	18	Active	Municipal
	600477	Inland Empire Utilities Agency - Southridge JHS	5500 downgradient	NA	NA	Active	Monitoring
	600848	Alcoa - Offsite MW1	9480 downgradient	NA	NA	Active	Monitoring
	600850	Alcoa - Offsite MW3	4725 downgradient	NA	NA	Active	Monitoring
	601040	Inland Empire Utilities Agency - RP3-1/1	100 downgradient	215-235	4	Active	Monitoring
	601041	Inland Empire Utilities Agency - RP3-1/2	100 downgradient	265-285	4	Active	Monitoring
Jurupa Basin	Not currently planned for recharge						
7th & 8th Street Basins	3601561	San Antonio Water Company No. 12	740 downgradient	379-480, 525-563, 578-609, & 634-679	16	Inactive	Municipal
	3601772	City of Ontario No. 4	3429 downgradient	526-910	16-20	Inactive	Municipal
	--	City of Ontario No. 51	3402 downgradient	Not Yet Constructed	NA	NA	Municipal
	600493	City of Ontario No. 35	9695 downgradient	580-1020	18-36	Active	Municipal
	601036	Inland Empire Utilities Agency - 8TH-1/1	150 downgradient	495-535	4	Active	Monitoring
	601037	Inland Empire Utilities Agency - 8TH-1/2	150 downgradient	595-645	4	Active	Monitoring
	601038	Inland Empire Utilities Agency - 8TH-2/1	2460 downgradient	465-505	4	Active	Monitoring
	601039	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
	601050	Inland Empire Utilities Agency - BRK-1/1	144 downgradient	310-350	4	Active	Monitoring
	601051	Inland Empire Utilities Agency - BRK-1/2	144 downgradient	520-560	4	Active	Monitoring
	601048	Inland Empire Utilities Agency - BRK-2/1	1305 downgradient	320-360	4	Active	Monitoring
	601049	Inland Empire Utilities Agency - BRK-2/2	1305 downgradient	560-600	4	Active	Monitoring
San Sevaine Basins	600905	Cucamonga Valley Water District No. 39	8300-13170 downgradient	750-870, 940-960, 970-1060, & 1080-1130,	20	Active	Municipal
	601115	Inland Empire Utilities Agency - SS-1/1 and 1/2	~39-116 downgradient	640-680	4	Active	Monitoring
	600462	Unitex 91090	~1601 downgradient	NA	NA	Active	Private Domestic
Victoria Basin	600905	Cucamonga Valley Water District No. 39	4329 downgradient	750-870, 940-960, 970-1060, & 1080-1130,	20	Active	Municipal
	601033	Cucamonga Valley Water District No. 43**	8300 downgradient	650-800	32-42	Active	Municipal
	601117	Inland Empire Utilities Agency - VCT-1/1 and 1/2	~39-116 downgradient	570-610	4	Active	Monitoring
	--	Inland Empire Utilities Agency - VCT-1/1 and 1/2	~ 2000 downgradient	570-610	4	Active	Monitoring
Ely Basin	601003	Ely Basin MW-1, Philadelphia Well (Casing 3)	100 downgradient	280 - 300	2	Active	Monitoring
	601004	Ely Basin MW-2, Walnut Well (Casing 2)	3050 downgradient	290 - 310	4	Active	Monitoring
	3600975	Riverside Drive Well (43840-CWW)	6046 downgradient	NA	NA	Active	Private Irrigation
	600134	Bishop Of San Bernardino Corp. - DOM	6500 downgradient	NA	NA	Active	Private Domestic

Notes:

NA = Data not available
CBWM ID = Chino Basin Water Master well identification numbe
bgs = below ground surface
* = Ontario Well No. 38 replaced Ontario Well No. 19, which is inactive
** = Cucamonga Valley Water District No. 43 replaced CVWD Well Nos. 35 & 36, which are inactive.

Table 2-8
Groundwater Monitoring Well Results (Quarterly)

	Sample Location	Date	TOC (mg/L)	Total Coliform (MPN/100mL)	pH	EC (µmho/cm)	TDS (mg/L)	Al (µg/L)	Color (units)	Cu (µg/L)	Corrosivity Index (SI)	Foaming Agents (mg/L)	Fe (µg/L)	Mn (µg/L)	MTBE (µg/L)	Odor Threshold (TON)	Ag (µg/L)	Thiobencarb (µg/L)	Turbidity (NTU)	Zn (µg/L)	Cl (mg/L)	Hardness (mg $CaCO_3$/L)	Na (mg/L)	SO_4 (mg/L)	NH_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 Co. - F37a	2/2/12	0.16	<1.1	7.8	490	306	83	<3	3.0	0.5	<0.05	142	8	<0.5	1	<0.25	<0.2	0.88	8	21	210	18	20	<0.1	<0.02	9.9	9.9	<0.5	165	4.8
	California Speedway - Infield Well	2/1/12	0.14	<1.1	7.5	570	377	<25	<3	1.1	0.2	<0.05	16	<1	<0.5	1	<0.25	<0.2	1.09	2	19	244	21	67	<0.1	<0.02	***10.2***	10.2	<0.5	159	5.3
	California Speedway 2	1/26/12	<0.10	<1.1	7.8	390	250	<25	<3	1.3	0.3	<0.05	<15	<1	<0.5	<1	<0.25	<0.2	0.07	5	11	172	19	13	<0.1	0.14	4.8	4.9	<0.5	159	5.4
	Reliant Energy - East Well	1/26/12	<0.10	<1.1	7.9	335	212	<25	<3	2.4	0.1	<0.05	45	10	<0.5	<1	<0.25	<0.2	0.54	2	10	138	22	13	0.4	0.13	2.2	2.3	<0.5	139	5.9
	Ontario Well No. 20	2/1/12	<0.10	<1.1	8.1	360	234	<25	<3	0.5	0.3	<0.05	<15	<1	<0.5	<1	<0.25	<0.2	0.17	<1	7	169	14	6	<0.1	<0.02	2.1	2.1	<0.5	168	5.7
	BH-1/2	1/12/12	0.99	<1.1	7.4	530	468	<25	***25***	<0.5	0.3	<0.05	<15	4	<0.5	1	<0.25	<0.2	***10.6***	<1	60	208	23	34	<0.1	<0.02	3.8	3.8	<0.5	125	6.6
Turner	Ontario Well No. 25	2/1/12	<0.10	<1.1	7.9	440	279	<25	<3	<0.5	0.3	<0.05	<15	<1	<0.5	1	<0.25	<0.2	0.09	<1	18	189	23	17	<0.1	<0.02	4.3	4.3	<0.5	173	5.6
	Ontario Well No. 38	2/1/12	<0.10	<1.1	8.2	320	202	<25	<3	<0.5	0.3	<0.05	<15	<1	<0.5	1	<0.25	<0.2	0.10	<1	5	135	18	8	<0.1	<0.02	1.4	1.4	<0.5	152	5.4
	T-1/2	1/9/12	0.52	<1.1	7.5	330	202	<25	<3	<0.5	-0.1	<0.05	<15	1	<0.5	1	0.36	<0.2	0.24	<1	14	141	18	7	<0.1	<0.02	0.3	<0.6	<0.5	144	5.5
	T-2/1	1/9/12	1.07	<1.1	7.3	465	300	<25	5	0.6	-0.1	<0.05	<15	3	<0.5	<1	<0.25	<0.2	***270***	<1	74	177	25	29	<0.1	<0.02	1.1	1.1	<0.5	98	4.1
	T-2/2	1/9/12	0.73	<1.1	7.4	390	232	<25	<3	0.6	-0.2	<0.05	<15	1	<0.5	1	0.50	<0.2	0.32	5	49	145	22	18	<0.1	<0.02	1.0	1.5	0.5	101	5.9
RP3	Southridge JHS	1/27/12	0.39	<1.1	6.9	***985***	***672***	<25	***25***	0.5	0.2	<0.05	<15	3	<0.5	<1	0.33	<0.2	1.31	18	101	379	58	81	<0.1	0.02	***15.0***	15.0	<0.5	227	5.0
	Alcoa MW1	1/12/12	0.39	<1.1	7.5	605	416	<25	<3	<0.5	0.4	<0.05	<15	<1	<0.5	1	<0.25	<0.2	0.12	<1	23	249	28	45	<0.1	<0.02	***16.0***	16.0	<0.5	172	7.1
	Alcoa MW3	1/12/12	0.75	<1.1	7.1	***1070***	***726***	<25		<0.5	0.3	<0.05	<15	4	<0.5	1	<0.25	<0.2	0.93	<1	115	436	47	57	<0.1	<0.02	***23.5***	23.5	<0.5	231	6.2
	Alcoa MW3	1/30/12							<3							1															
	RP3-1/1	1/12/12	1.16	<1.1	7.2	530	340	<25	5	1.0	0.0	<0.05	<15	20	<0.5	1	<0.25	<0.2	2.03	14	46	168	46	29	<0.1	<0.02	1.3	1.3	<0.5	169	0.6
	RP3-1/2	1/12/12	1.21	<1.1	7.2	515	332	<25	<3	0.9	0.0	<0.05	<15	***103***	<0.5	1	<0.25	<0.2	0.46	21	45	164	43	29	<0.1	0.19	0.2	<0.6	<0.5	165	0.7
7th & 8th St.	Ontario Well No. 35	2/1/12	<0.10	<1.1	7.9	354	216	<25	<3	0.8	0.2	<0.05	<15	<1	<0.5	1	<0.25	<0.2	0.08	<1	7	137	24	21	<0.1	<0.02	2.5	2.5	<0.5	143	4.3
	8TH-1/1	1/18/12	0.53	<1.1	7.8	395	280	<25	5	<0.5	0.0	<0.05	<15	20	<0.5	1	<0.25	<0.2	1.99	36	62	164	11	13	<0.1	0.05	0.8	0.9	<0.5	81	5.1
	8TH-1/2	1/18/12	0.67	<1.1	7.6	290	198	<25	<3	<0.5	-0.3	<0.05	<15	<1	<0.5	1	<0.25	<0.2	0.15	1	34	116	14	13	<0.1	0.09	2.3	2.4	<0.5	85	4.7
	8TH-2/1	1/18/12	0.62	<1.1	7.6	350	238	<25	<3	<0.5	0.0	<0.05	<15	<1	<0.5	1	<0.25	<0.2	0.15	9	10	165	12	11	<0.1	<0.02	4.8	4.8	<0.5	140	4.5
	8TH-2/2	1/18/12	0.67	<1.1	7.7	425	288	<25	<3	<0.5	0.1	<0.05	<15	<1	<0.5	1	<0.25	<0.2	0.49	3	14	178	20	27	<0.1	<0.02	7.5	7.5	<0.5	139	4.7
Brooks	Pomona Well No. 10	1/25/12	0.16	<1.1	8.1	550	342	<25	<3	1.0	0.4	<0.05	<15	<1	<0.5	1	<0.25	<0.2	0.22	3	44	261	11	40	<0.1	0.06	7.8	7.9	<0.5	146	6.2
	Pomona Well No. 2	1/25/12	0.12	<1.1	8.1	625	390	<25	<3	0.7	0.6	<0.05	<15	<1	<0.5	1	<0.25	<0.2	0.23	<1	37	302	13	58	<0.1	0.08	***12.9***	13.0	<0.5	163	6.4
	BRK-1/1	1/16/12	1.02	<1.1	7.4	580	372	<25	15	<0.5	0.2	<0.05	<15	4	<0.5	1	<0.25	<0.2	***17.2***	<1	81	259	17	29	0.1	<0.02	0.4	<0.6	<0.5	146	5.2
	BRK-1/1	2/23/12	0.58		7.8	585															75				<0.1	<0.02	0.5	<0.6	<0.5		4.5
	BRK-1/1	3/21/12	0.49			575															73				<0.1	<0.02	0.5	<0.6	<0.5		
	BRK-1/2	1/16/12	0.19	<1.1	7.6	595	376	<25	<3	<0.5	0.4	<0.05	<15	<1	<0.5	1	<0.25	<0.2	0.25	<1	30	280	15	47	<0.1	<0.02	***19.2***	19.2	<0.5	148	6.3
	BRK-2/1	1/16/12	0.84	<1.1	7.7	520	322	<25	***30***	<0.5	0.3	<0.05	<15	9	<0.5	1	<0.25	<0.2	***20.3***	<1	62	244	10	31	<0.1	<0.02	2.4	2.4	<0.5	135	4.0
	BRK-2/2	1/16/12	0.53	<1.1	8.1	355	232	<25	5	<0.5	0.4	<0.05	<15	<1	<0.5	1	<0.25	<0.2	1.23	4	12	111	35	20	<0.1	<0.02	6.3	6.3	<0.5	129	3.6
Ely	Ely Basin MW1 Philadelphia St.	1/25/12	0.39	<1.1	7.7	405	244	<25	***20***	<0.5	0.1	<0.05	<15	28	<0.5	1	<0.25	<0.2	3.12	4	40	150	29	15	<0.1	0.08	0.8	0.9	<0.5	130	0.6
	Ely Basin MW2 Walnut St.	1/24/12	1.08	2.0	7.6	***1380***	***868***	<25	<3	0.6	0.5	<0.05	<15	1	<0.5	1	<0.25	<0.2	0.58	7	141	663	37	78	<0.1	<0.02	***45.5***	45.5	<0.5	272	5.4
	Riverside Well (43840-CWW)	1/24/12	0.15	<1.1	8.1	570	360	43	5	1.7	0.4	<0.05	231	3	<0.5	1	<0.25	<0.2	4.35	20	28	260	23	36	<0.1	0.09	***11.0***	11.1	<0.5	183	6.2
	Bishop of SB Corp. - DOM	1/24/12	0.21	<1.1	7.6	775	480	<25	<3	0.9	0.6	<0.05	27	2	<0.5	1	<0.25	<0.2	0.73	3	37	370	25	63	<0.1	0.07	***19.3***	19.4	<0.5	222	6.3
Declez**	JCSD Well No. 13	1/26/12	<0.10	<1.1	7.7	725	476	<25	<3	<0.5	0.4	<0.05	29	1	<0.5	<1	<0.25	<0.2	0.21	2	141	272	33	13	<0.1	0.02	1.9	1.9	<0.5	119	5.1
	JCSD Well No. 17	1/26/12	0.14	<1.1	7.9	590	388	<25	<3	1.7	0.4	<0.05	<15	2	<0.5	<1	<0.25	<0.2	0.11	1	60	233	31	39	<0.1	0.04	***12.3***	12.3	<0.5	119	4.8
	DCZ-1/1	1/12/12	1.24	<1.1	7.9	355	242	<25	***20***	<0.5	0.3	<0.05	<15	1	<0.5	1	<0.25	<0.2	***7.12***	<1	13	127	29	17	<0.1	<0.02	1.8	1.8	<0.5	146	2.1
Victoria & San Sevaine	SS-1/1	2/16/12	0.11	<1.1	7.5	290	200	<25	<3	0.6	-0.6	<0.05	<15	<1	<0.5	<1	<0.25	<0.2	0.65	4	15	113	16	28	<0.1	<0.02	2.4	2.4	<0.5	88	6.6
	VCT-1/1	2/16/12	0.25	<1.1	7.8	365	269	<25	10	<0.5	-0.4	<0.05	<15	5	<0.5	<1	<0.25	<0.2	***8.58***	3	43	143	18	15	<0.1	<0.02	1.4	1.4	<0.5	94	6.4
	VCT-2/2	2/16/12	0.24	1.1	8.3	265	196	<25	***30***	<0.5	0.0	<0.05	<15	<1	<0.5	2	<0.25	<0.2	***55.2***	2	4	109	18	7	<0.1	<0.02	0.8	0.8	<0.5	124	5.5
	Unitex 91090	1/24/12	0.13	<1.1	7.3	395	254	<25	<3	<0.5	0.1	<0.05	<15	<1	<0.5	<1	<0.25	<0.2	0.21	4	29	171	17	28	0.3	0.08	2.2	2.3	<0.5	124	6.2
Primary Maximum Contaminant Level								1000		1300					13			70									10				
Secondary Maximum Contaminant Level					6.5-8.5	900	500	200	15	1000		0.5	300	50	5	3	100	1	5	5000	250			250						

Blank cells indicate that analysis was not run for a constituent on that particular date. On certain dates, supplemental analysis was conducted on several monitoring wells. On those occasions, a full set of analysis was not necessary and only parameters of interest were analyzed.

* Total dissolved metals reported for these monitoring wells. The remaining wells report total recoverable metals values.

** Recycled water delivery has not been initiated at this basin. Data collected and reported is for background monitoring purposes only and will not be discussed in report text until the basin starts receiving recycled water.

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	RP3	San Sevaine	Turner	Victoria	7th & 8th St.	Banana	Brooks	Ely	Hickory	RP3	San Sevaine	Turner	Victoria	7th & 8th St.	Banana	Brooks	Ely	Hickory	RP3	San Sevaine	Turner	Victoria
Apr-11	0	0	0	0	0	0	0	0	0	24	0	1	3	0	86	0	333	-56*	181	0	174	107	52	237	0	0	0
May-11	218	0	0	0	2	299	538	0	69	33	0	10	13	0	60	7	181	6	243	0	162	155	84	176	36	0	141
Jun-11	325	0	0	83	8	547	1169	0	0	21	0	1	8	0	26	0	78	3	202	0	223	206	74	184	34	0	61
2Q11 Total	**543**	**0**	**0**	**83**	**10**	**846**	**1707**	**0**	**69**	**78**	**0**	**12**	**24**	**1**	**172**	**7**	**592**	**-47***	**626**	**0**	**559**	**468**	**210**	**596**	**71**	**0**	**201**
Jul-11	191	0	236	285	0	787	1011	0	0	10	31	2	18	0	80	0	16	4	88	0	0	176	14	252	113	0	62
Aug-11	222	0	183	275	68	287	11	55	123	11	0	2	16	4	31	0	25	1	46	135	0	141	0	15	90	7	52
Sep-11	160	0	142	325	447	567	221	145	209	8	0	12	19	32	47	0	43	0	2	395	0	6	20	30	0	186	0
3Q11 Total	**572**	**0**	**561**	**885**	**515**	**1641**	**1242**	**199**	**332**	**30**	**31**	**16**	**53**	**36**	**157**	**0**	**85**	**5**	**136**	**530**	**0**	**323**	**35**	**297**	**203**	**193**	**114**
Oct-11	0	0	0	0	0	83	0	0	0	44	20	18	215	17	138	39	63	30	0	404	80	0	35	182	0	223	0
Nov-11	0	0	0	0	0	0	0	0	0	138	30	50	211	11	123	32	147	25	0	161	36	0	202	97	0	137	15
Dec-11	0	0	0	0	0	0	0	0	0	77	18	16	36	1	79	21	157	9	0	245	98	0	226	164	0	113	25
4Q11 Total	**0**	**0**	**0**	**0**	**0**	**83**	**0**	**0**	**0**	**258**	**67**	**84**	**463**	**29**	**339**	**92**	**368**	**65**	**0**	**810**	**214**	**0**	**463**	**443**	**0**	**473**	**40**
Jan-12	0	0	0	0	0	0	0	0	0	57	48	45	89	49	104	55	233	11	28	161	142	64	16	91	159	102	0
Feb-12	0	0	0	0	0	0	0	0	0	153	21	50	95	59	176	54	330	4	0	167	77	6	83	160	74	97	0
Mar-12	0	0	0	0	0	0	0	0	0	281	44	103	247	53	223	161	421	18	0	72	85	0	79	94	16	35	0
1Q12 Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**490**	**112**	**198**	**431**	**161**	**502**	**270**	**984**	**33**	**28**	**401**	**303**	**70**	**178**	**346**	**248**	**233**	**0**

* Negative numbers indicate that more water was transferred from a basin than captured. Transferred water was captured in a downstream basin.

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

	ASR Well No. 4								
		Injection			Recovery			Mass Balance		
	Date	Volume (AF)	TIN (mg/L)	TDS (mg/L)	Volume (AF)	TIN (mg/L)	TDS (mg/L)	Storage (AF)	TIN (kg)	TDS (kg)
2Q11	Apr-11	0.0			78			(201)	(2,645)	(60,049)
	May-11	0.0			86			(287)	(2,645)	(60,049)
	Jun-11	25.8	0.59	170	45			(307)	(2,626)	(54,640)
3Q11	Jul-11	27.7	0.40	140	39			(319)	(2,613)	(49,851)
	Aug-11	20.9	0.40	140	58			(356)	(2,602)	(46,238)
	Sep-11	55.6	0.40	140	0			(300)	(2,575)	(36,638)
4Q11	Oct-11	0.0			0			(300)	(2,575)	(36,638)
	Nov-11	0.0			0			(300)	(2,575)	(36,638)
	Dec-11	0.0			0			(301)	(2,575)	(36,638)
1Q12	Jan-12	0.0			0			(301)	(2,575)	(36,638)
	Feb-12	0.0			0			(301)	(2,575)	(36,638)
	Mar-12	0.0			0			(301)	(2,575)	(36,638)

	ASR Well No. 30								
		Injection			Recovery			Mass Balance		
	Date	Volume (AF)	TIN (mg/L)	TDS (mg/L)	Volume (AF)	TIN (mg/L)	TDS (mg/L)	Storage (AF)	TIN (kg)	TDS (kg)
2Q11	Apr-11	0.0			0			612	(722)	213,038
	May-11	0.0			0			612	(722)	213,038
	Jun-11	79.7	0.59	170	0			692	(663)	229,761
3Q11	Jul-11	139.8	0.40	140	0			831	(594)	253,909
	Aug-11	135.0	0.40	140	0			966	(528)	277,216
	Sep-11	134.6	0.40	140	0			1,101	(461)	300,463
4Q11	Oct-11	0.0			272			829	(461)	300,463
	Nov-11	0.0			79			751	(461)	300,463
	Dec-11	0.0			0			751	(461)	300,463
1Q12	Jan-12	0.0			0			751	(461)	300,463
	Feb-12	0.0			0			751	(461)	300,463
	Mar-12	0.0			0			750	(461)	300,463

	ASR Well No. 32								
		Injection			Recovery			Mass Balance		
	Date	Volume (AF)	TIN (mg/L)	TDS (mg/L)	Volume (AF)	TIN (mg/L)	TDS (mg/L)	Storage (AF)	TIN (kg)	TDS (kg)
2Q11	Apr-11	0.0			0			(1,417)	284	92,736
	May-11	0.0			0			(1,417)	284	92,736
	Jun-11	79.7	0.59	170	0			(1,337)	342	109,450
3Q11	Jul-11	137.4	0.40	140	0			(1,200)	410	133,186
	Aug-11	95.0	0.40	140	82			(1,186)	456	149,594
	Sep-11	139.9	0.40	140	0			(1,047)	353	116,889
4Q11	Oct-11	0.0			145			(1,192)	353	116,889
	Nov-11	0.0			28			(1,220)	353	116,889
	Dec-11	0.0			0			(1,220)	353	116,889
1Q12	Jan-12	0.0			0			(1,220)	353	116,889
	Feb-12	0.0			27			(1,248)	353	116,889
	Mar-12	0.0			0			(1,248)	353	116,889

	ASR Well No. 33								
		Injection			Recovery			Mass Balance		
	Date	Volume (AF)	TIN (mg/L)	TDS (mg/L)	Volume (AF)	TIN (mg/L)	TDS (mg/L)	Storage (AF)	TIN (kg)	TDS (kg)
2Q11	Apr-11	0.0			19			0	0	0
	May-11	0.0			1			(1)	0	0
	Jun-11	0.3	0.59	170	9			(10)	0	61
3Q11	Jul-11	0.0	0.40	140	0			(10)	0	61
	Aug-11	0.1	0.40	140	4			(14)	0	78
	Sep-11	12.6	0.40	140	0			(1)	6	2,246
4Q11	Oct-11	0.0			0			(1)	6	2,246
	Nov-11	0.0			16			(17)	6	2,246
	Dec-11	0.0			1			(18)	6	2,246
1Q12	Jan-12	0.0			1			(19)	6	2,246
	Feb-12	0.0			0			(19)	6	2,246
	Mar-12	0.0			0			(19)	6	2,246

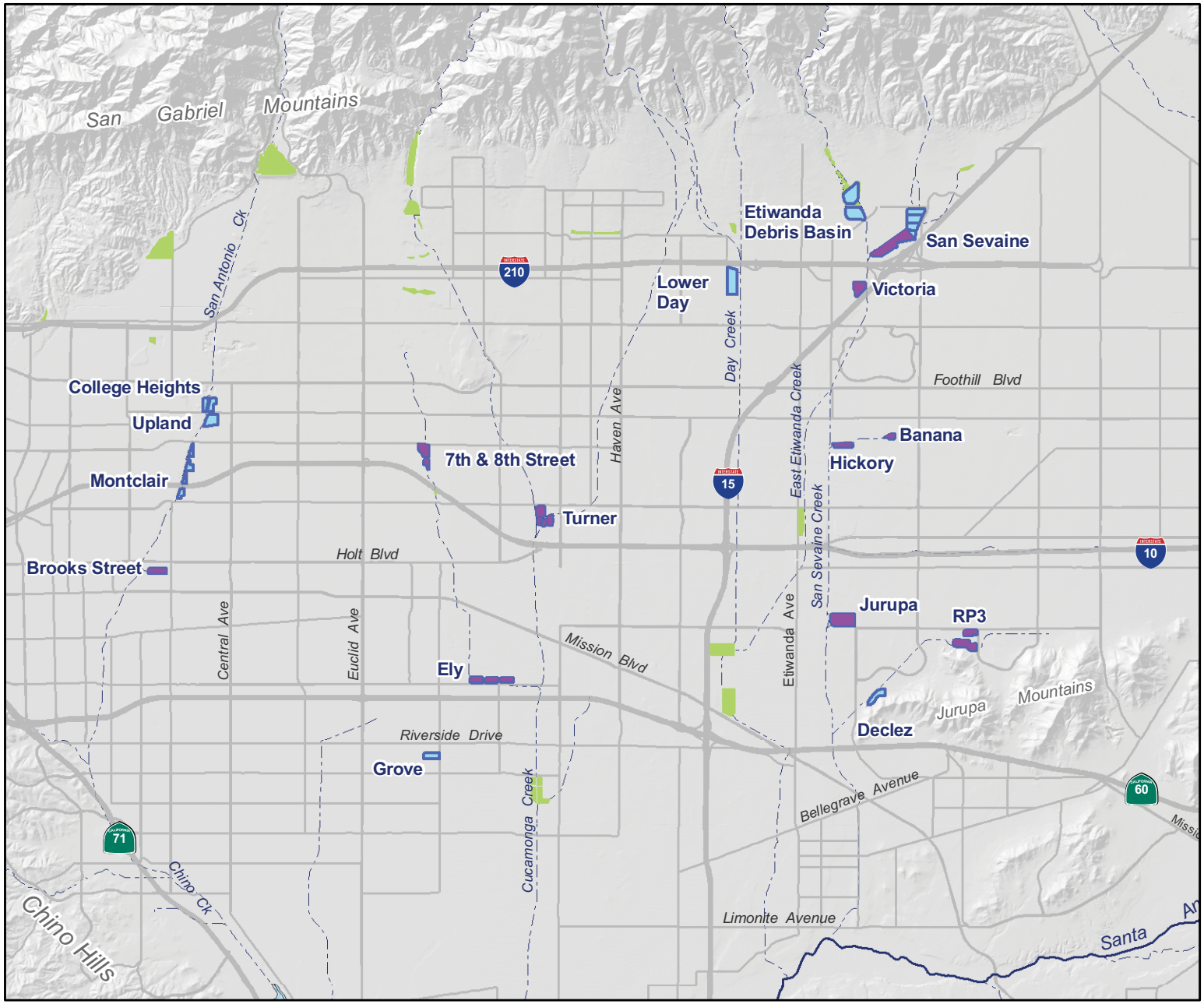
The injected water is WFA-treated water, which meets CCR Title 22 drinking water standards.
During 2Q11, WFA-treated water was sampled for TDS and TIN (NO_3-N + NO_2-N, assuming no NH_3-N in drinking water) on 04/19/11.

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

	Total Project (All Wells)				
	Date		Mass Balance		
			Storage (AF)	TIN (kg)	TDS (kg)
2Q11	Apr-11		(1,006)	(3,083)	245,725
	May-11		(1,094)	(3,083)	245,725
	Jun-11		(963)	(2,948)	284,632
3Q11	Jul-11		(697)	(2,797)	337,305
	Aug-11		(589)	(2,674)	380,650
	Sep-11		(247)	(2,677)	382,960
4Q11	Oct-11		(664)	(2,677)	382,960
	Nov-11		(787)	(2,677)	382,960
	Dec-11		(788)	(2,677)	382,960
1Q12	Jan-12		(789)	(2,677)	382,960
	Feb-12		(817)	(2,677)	382,960
	Mar-12		(817)	(2,677)	382,960

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%



Main Map Features

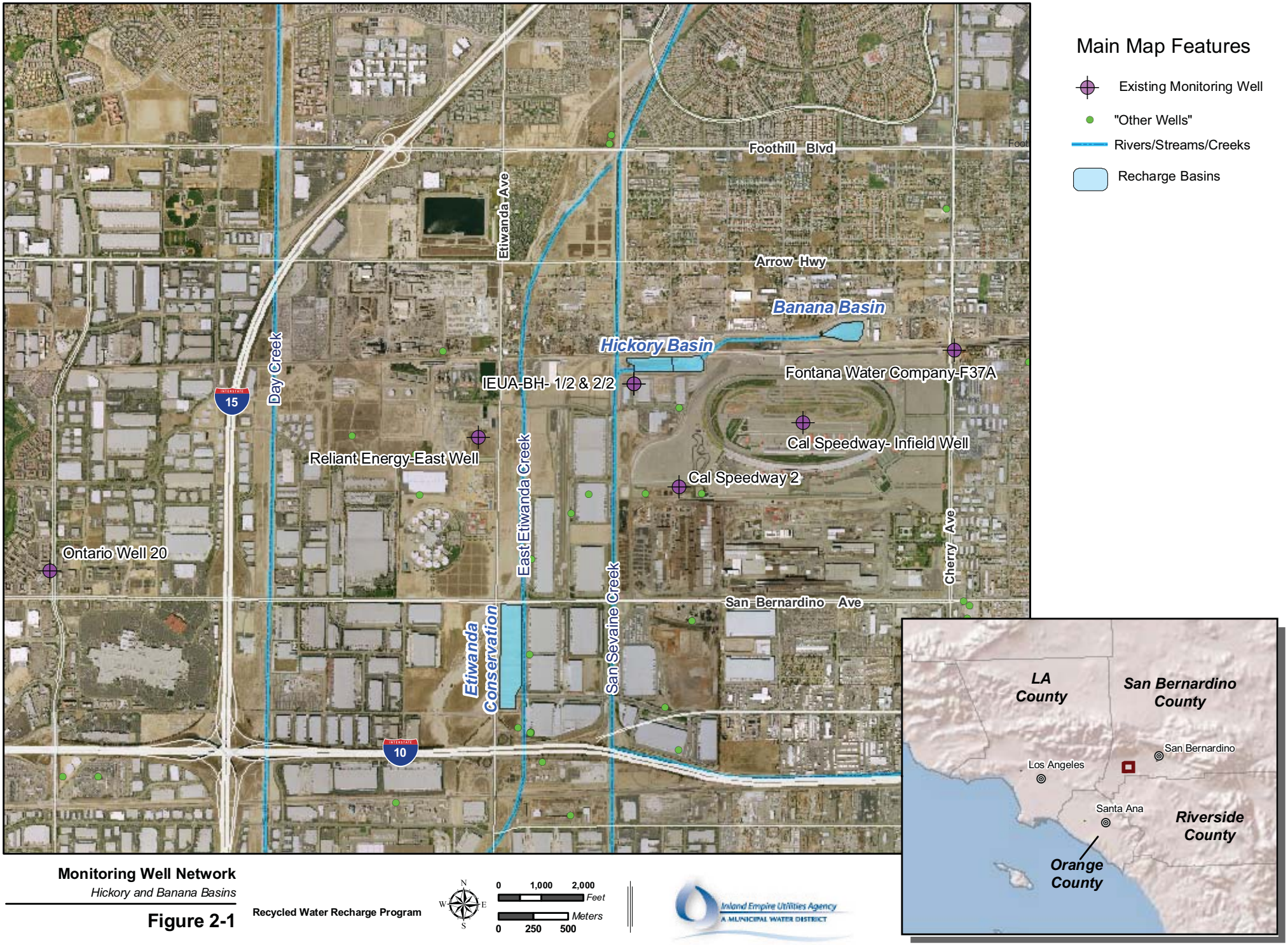
- Recharge Basins in the Recycled Water Groundwater Recharge Program (Recycled Water not initiated)
- Recharge Basins in the Recycled Water Groundwater Recharge Program (Recycled Water initiated)
- Non-program basins
- Rivers and Streams

N
S
0 2 4 Miles
0 4 8 Kilometers

Chino Basin Recycled Water Groundwater Recharge Programs

Basin Locations

Figure 1-1

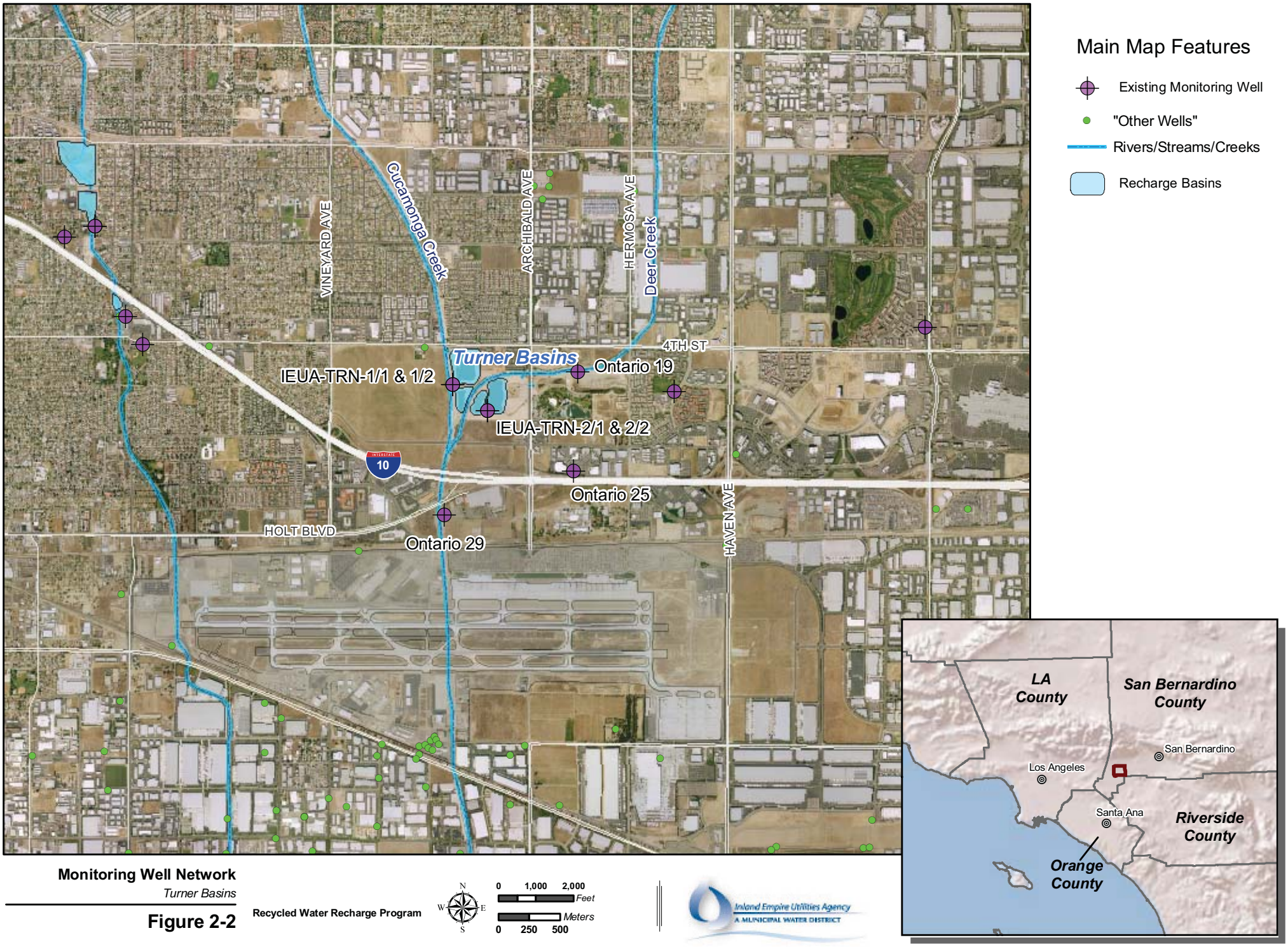


Monitoring Well Network

Hickory and Banana Basins

Figure 2-1

Recycled Water Recharge Program



Monitoring Well Network

Turner Basins

Figure 2-2

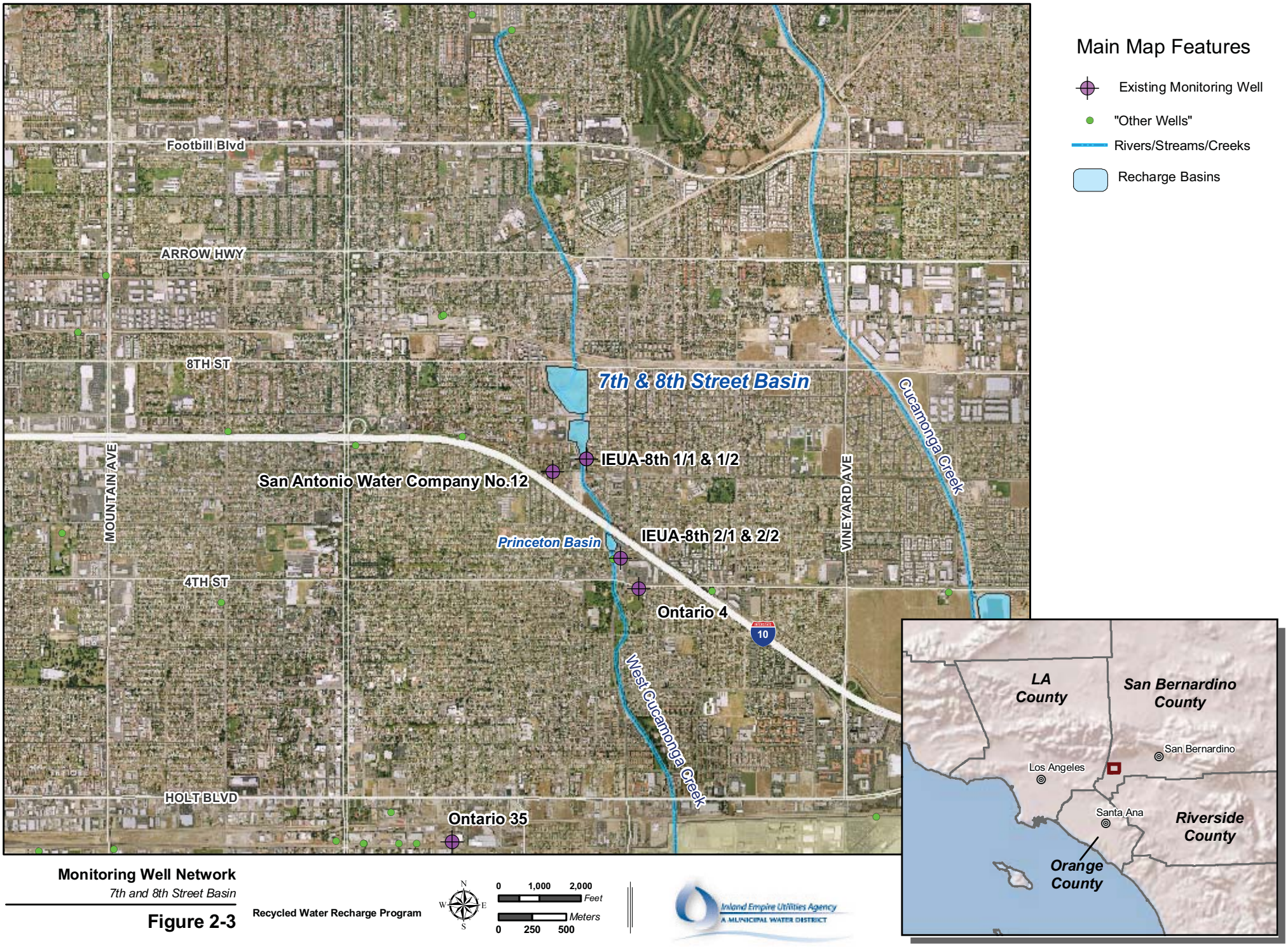
Recycled Water Recharge Program

N W E S

0 1,000 2,000 Feet

0 250 500 Meters

Inland Empire Utilities Agency
A MUNICIPAL WATER DISTRICT

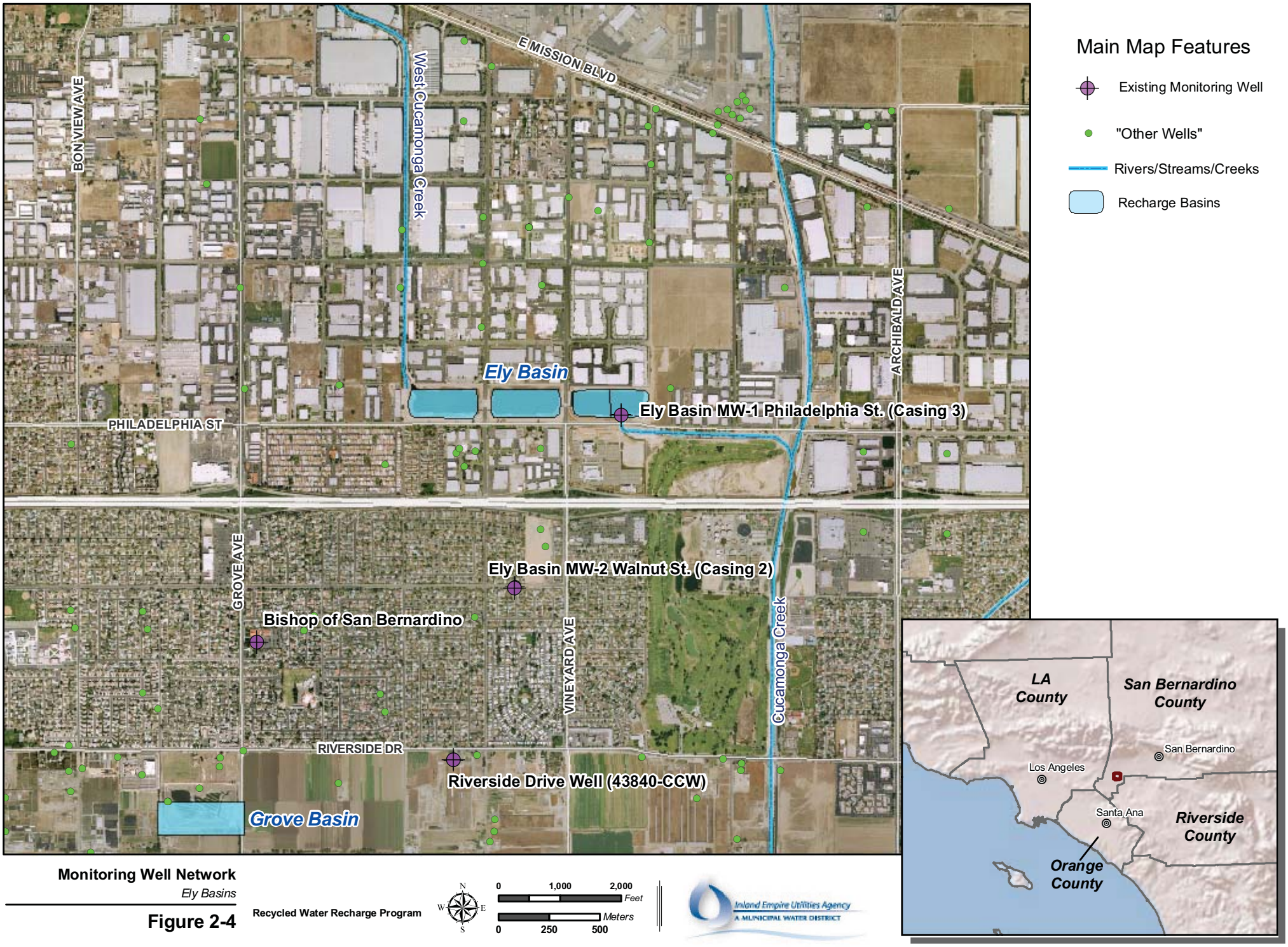


Monitoring Well Network

7th and 8th Street Basin

Figure 2-3

Recycled Water Recharge Program



Monitoring Well Network

Ely Basins

Figure 2-4

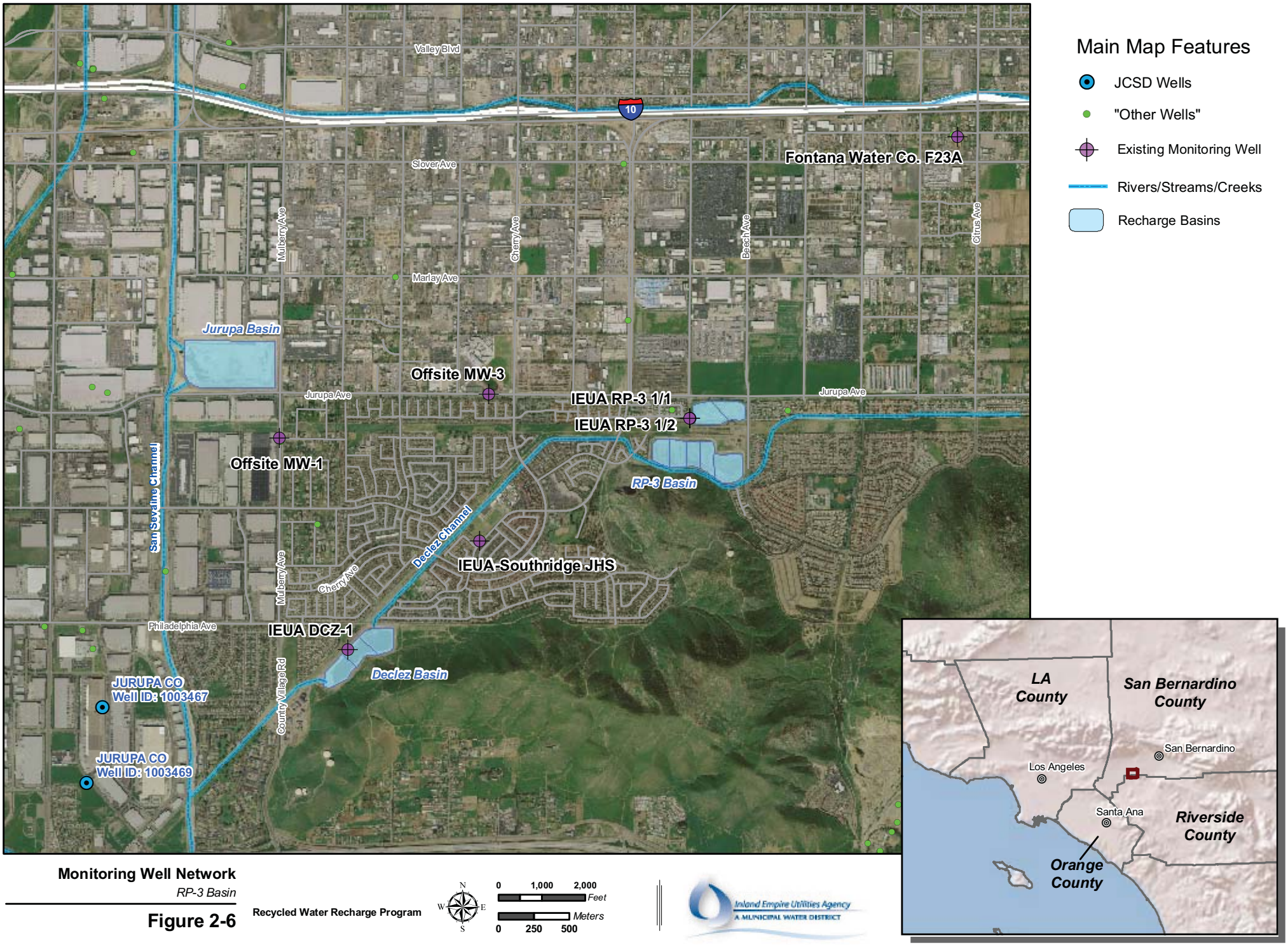
Recycled Water Recharge Program

Monitoring Well Network

Brooks Street Basin

Figure 2-5

Recycled Water Recharge Program

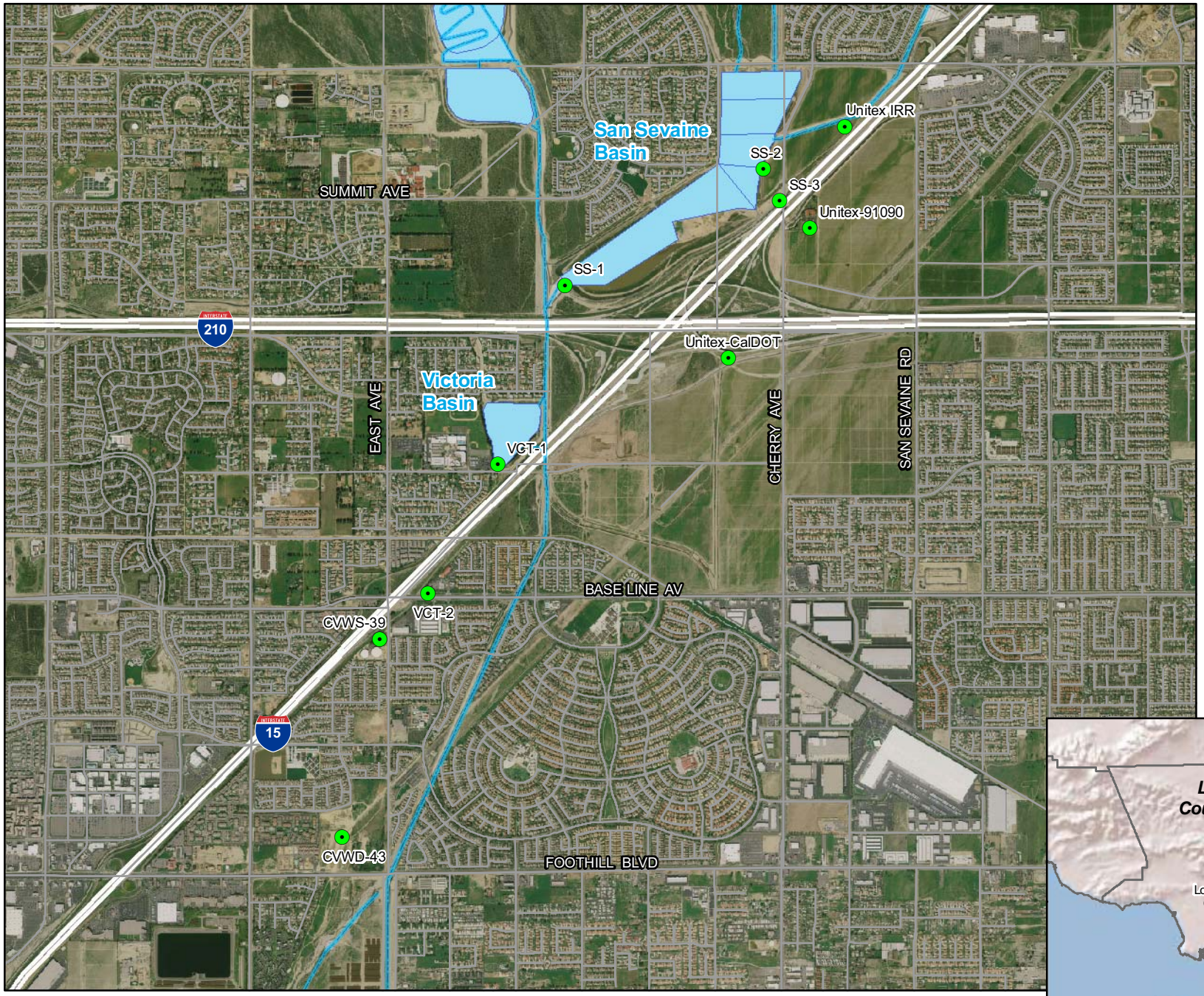


Monitoring Well Network

RP-3 Basin

Figure 2-6

Recycled Water Recharge Program



Main Map Features

- Existing Monitoring Well
- Rivers/Streams/Creeks
- Recharge Basins

Monitoring Well Network

San Sevaine and Victoria Basin

Figure 2-7

Recycled Water Recharge Program

N W E S

0 1,000 2,000 Feet

0 250 500 Meters

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