Inland Empire Utilities Agency
A MUNICIPAL WATER DISTRICT

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General Manager

February 15, 2013

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 October through December 2012

Dear Mr. Berchtold,

Inland Empire Utilities Agency and Chino Basin Watermaster hereby submit the *Quarterly Monitoring Report* for the fourth quarter of 2012 (4Q12), October 1 through December 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 4Q12, the Groundwater Recharge Program was in compliance with all monitoring and reporting requirements as specified in the Order, with the exception of an exceedance of a total nitrogen two-sample average at the Hickory Basin East 25-foot depth lysimeter. This will be discussed in further detail in the report text.

Chino Basin Watermaster hereby certifies that, during the period of October 1 through December 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 domestic or municipal 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 February 2013 in the Cities of Chino and Rancho Cucamonga.

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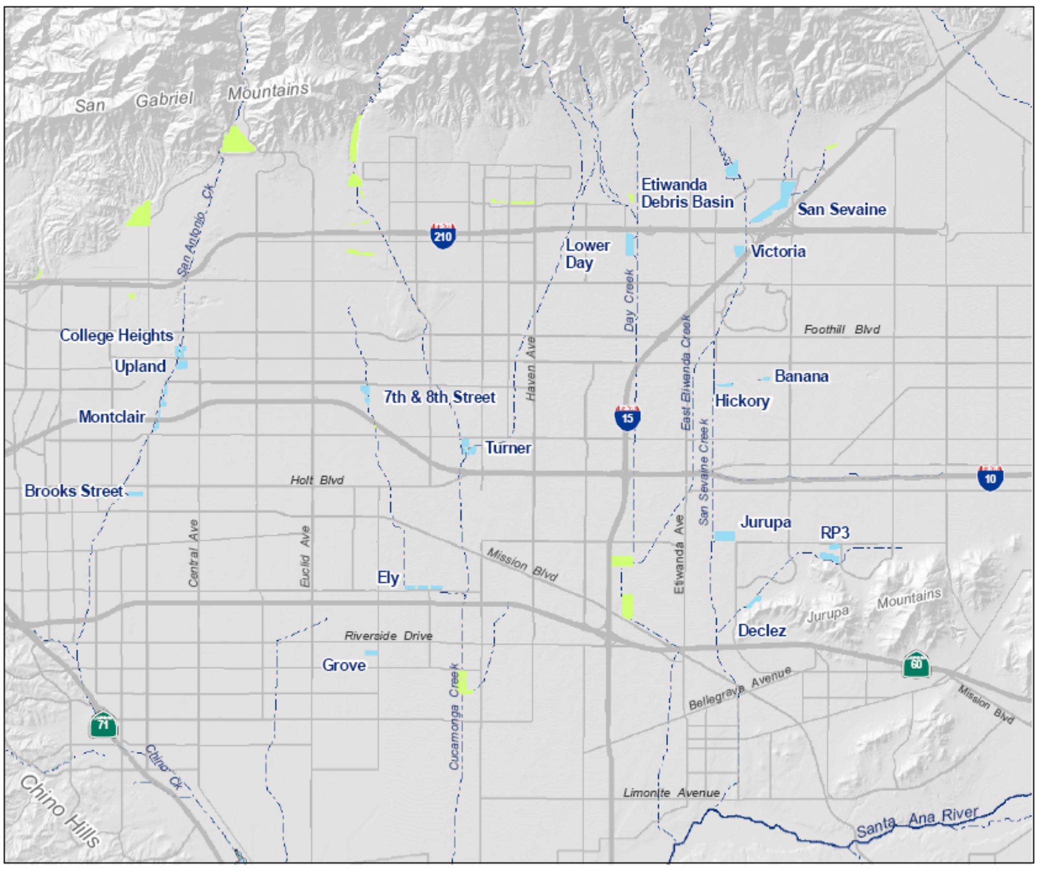
Chino Basin Recycled Water Groundwater Recharge Program

Quarterly Monitoring Report
October 1 through December 31, 2012



Prepared by:

Inland Empire Utilities Agency
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February 15, 2013

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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 fourth quarter of 2012 (4Q12).

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 for domestic water supply use from the buffer zone that extends 500 feet and 6-months underground travel time from the recharge basin(s) where recycled water is applied.

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 4Q12 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 2012, the average of two consecutive sample results for TN exceeded 5 mg/L. The CDPH and the Regional Board were both notified via e-mail regarding the exceedance and subsequent cessation of recycled water deliveries. IEUA staff speculates that the elevated TN is primarily attributed to small volumes of recycled water recharged to this basin during a lengthy construction project at this basin (a culvert crossing for the San Bernardino County Flood Control District). Recycled water deliveries were restarted on November 7, 2012 after the construction activities were complete. Compliance sampling was continued through the remainder of 4Q12. TN concentration at Hickory Basin continued to exceed 5 mg/L through December 2012 and will continue to be evaluated in 1Q13.

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 1Q12 through 4Q12 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 4Q12, 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 4Q12 sampling for DBPs, IEUA chose the 25-foot below ground surface lysimeter at the Banana Basin as the compliance point. The Banana Basin lysimeter was selected as the 4Q12 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 4Q12 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, Ely, San Sevaine, and Victoria 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. The following correction factors were determined from each basin’s start-up period findings:

- Turner 1 & 2: TOC reduction of 70 percent and TN reduction of 87 percent
- Turner 3 & 4: TOC reduction of 85 percent and TN reduction of 87 percent
- Ely Basins: TOC reduction of 76 percent and TN reduction of 52 percent
- San Sevaine 5: TOC reduction of 78 percent and TN reduction of 69 percent
- Victoria: TOC reduction of 78 percent and TN reduction of 82 percent

The TOC and TN values calculated based on the correction factors provided above are summarized in Table 2-5b.

The Brooks and RP3 Basins have also 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 4Q12, diluent water quality sampling of stormwater was conducted in December 2012 at Montclair, Ely, Lower Day, Turner 1&2, and Turner 3&4 Basins. 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 (1^{st} and 4^{th} quarters) and local runoff is sampled during the dry season (2^{nd} and 3^{rd} quarters). 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 4Q12, groundwater quality within the vicinity of Banana and Hickory Basins was monitored by sampling a network of six wells. The groundwater quality within the vicinity of Turner Basin was monitored by sampling a network of six wells. The groundwater quality within the vicinity of the RP3 Basin was monitored by sampling a network of five wells. The groundwater quality within the vicinity of the 7^{th} & 8^{th} 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 seven 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 six wells. The wells in the monitoring well networks for Hickory and Banana, Turner, 7^{th} & 8^{th} Street, Ely, Brooks, RP3, and San Sevaine and 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 is 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 4Q12 analyses results which exceeded primary or secondary MCLs are shown in the tables in bold italic font. Of note are the analyses for the following wells and constituents:

Turbidity exceeding the secondary MCL of 5 NTU was observed in several monitoring wells, namely: BH-1/2, 8TH-1/1, BRK-1/1, BRK-2/1, Bishop of San Bernardino Corporation (Ely), VCT-1/1, and VCT-2/2. The Bishop of San Bernardino Corporation well was found to have high turbidity caused by a hole in the pump column; a second sampling event was conducted following the repair by the owner of the well. In subsequent quarters, additional well purging will be performed at the wells where turbidity levels continue to be elevated. However, additional purging may still not resolve turbidity issues.

TDS and EC were higher than their secondary MCLs of 500 mg/L and 900 μmhos/cm, respectively, in the RP3 basin area wells (Alcoa MW1, Alcoa MW3, and Southridge JHS) and Ely MW2 (Walnut). The wells south of Ely and near RP3 are located in an area with historically high EC levels (>1,000 μmhos/cm).

Color exceeded the secondary MCL of 15 units in monitoring wells BRK-2/1, Bishop of San Bernardino Corporation (Ely), and VCT-1/1. Total recoverable iron was above the secondary MCL of 300 μg/L at the Bishop of San Bernardino Corporation well due to the pump column repair. The iron concentration should decrease with continued use of the well following the repair. Total recoverable manganese was above the secondary MCL of 50 μg/L at RP3-1/2, Ely MW1 (Philadelphia), and Bishop of San Bernardino Corporation. The pH was above the secondary MCL of 8.5 at VCT-2/2.

Some monitoring wells in the Banana & Hickory, RP3, Brooks, and Ely monitoring networks also have NO_3-N concentrations above the primary MCL of 10 mg/L. 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 2010 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, Brooks, 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 4Q12 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 and recharge operations.

5. Certification of Non-Pumping in the Buffer Zones

Watermaster has certified that there was no reported pumping of groundwater in 4Q12 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 domestic or municipal 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. No injection has occurred since 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 October 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
10/01/12	1.3	6.0	3.1		3.2	7.1	895			<2	0.3	3.9	5.2		5.3	7.3	730			<2
10/02/12	1.3	5.8	4.2		4.3	7.1	882			<2	0.3	4.0	5.2		5.3	7.3	730			<2
10/03/12	1.2	5.7	5.3		5.4	7.1	856			<2	0.3	3.9	6.0		6.1	7.3	740			<2
10/04/12	1.1	5.5				7.1	852			<2	0.4	3.8				7.2	750			<2
10/05/12	1.2	5.4				7.1	847			<2	0.3	3.7				7.1	740			<2
10/06/12	1.1	5.5				7.1	847			<2	0.4	3.7				7.1	740			<2
10/07/12	1.2	5.9	4.9	5.0	5.0	7.1	841	444	149	<2	0.3	3.9	5.6	6.7	5.7	7.1	735	440	147	<2
10/08/12	1.2	5.8	2.4		2.5	7.2	829			<2	0.4	3.8	5.0		5.1	7.1	730			<2
10/09/12	1.3	5.8	3.0		3.0	7.2	850			<2	0.5	3.7	4.9		4.9	7.0	755			<2
10/10/12	1.2	5.5	4.3		4.3	7.2	868			<2	0.6	3.5	5.7		5.7	7.0	748			<2
10/11/12	0.8	5.2				7.1	864			<2	0.7	3.4				7.0	750			<2
10/12/12	0.7	5.0				7.1	862			2	0.5	3.2				7.1	740			<2
10/13/12	0.8	4.8				7.1	863			<2	0.5	3.3				7.1	745			<2
10/14/12	1.0	5.8	4.5	4.6	4.6	7.1	875	468		<2	0.4	3.4	5.0	5.8	5.1	7.1	745	440		<2
10/15/12	1.2	6.0	3.8		3.9	7.1	884			<2	0.4	3.4	4.1		4.2	7.0	720			<2
10/16/12	1.0	5.8	3.7		3.7	7.2	880			<2	0.3	3.4	4.5		4.6	7.0	745			<2
10/17/12	1.5	6.0	4.5		4.6	7.1	877			<2	0.3	3.4	2.9		3.0	7.0	750			<2
10/18/12	1.1	5.6				7.2	865			<2	0.3	3.3				7.1	755			<2
10/19/12	0.9	5.3				7.2	856			<2	0.2	3.3				7.0	760			<2
10/20/12	0.8	5.1				7.2	855			<2	0.2	3.4				7.0	775			<2
10/21/12	0.8	5.3	2.9		3.0	7.2	844			<2	0.3	3.6	4.4	5.1	4.5	7.1	775	454		<2
10/22/12	0.8	5.7	5.5	5.6	5.6	7.2	830	480	146	<2	0.3	3.6	3.6		3.7	7.1	770			<2
10/23/12	0.7	5.2	6.2		6.3	7.2	834			<2	0.3	3.7	4.4		4.5	7.1	785			<2
10/24/12	0.7	5.0	6.4		6.5	7.1	839			2	0.2	3.5	5.7		5.8	7.1	785			<2
10/25/12	0.7	4.9				7.1	840			<2	0.2	3.4				7.0	760			<2
10/26/12	0.6	4.9				7.1	844			<2	0.2	3.4				7.1	777			<2
10/27/12	0.6	4.9				7.1	849			<2	0.3	3.4				7.0	785			<2
10/28/12	0.6	5.0	6.8	6.9	6.9	7.1	856	470		2	0.2	3.4	4.9	5.5	5.0	7.0	780	468		<2
10/29/12	0.6	5.1	5.5		5.5	7.2	824			<2	0.3	3.5	4.2		4.3	7.1	790			<2
10/30/12	0.6	5.2	5.6		5.7	7.1	816			<2	0.3	3.6	4.8		4.9	7.0	785			<2
10/31/12	0.6	5.0	6.1		6.2	7.1	815			<2	0.3	3.6	6.6		6.7	7.0	775			<2
Avg	0.9	5.4	4.7	5.5	4.8	7.1	853	466	147	<2	0.3	3.6	4.9	5.8	5.0	7.1	756	451	147	<2
Min	0.6	4.8	2.4	4.6	2.5	7.1	815	444	146	<2	0.2	3.2	2.9	5.1	3.0	7.0	720	440	147	<2
Max	1.5	6.0	6.8	6.9	6.9	7.2	895	480	149	2	0.7	4.0	6.6	6.7	6.7	7.3	790	468	147	<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 November 2012

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

RP-1 Effluent

	Turbidity [1,2,7]	TOC	NO_3-N	TN	TIN [3]	pH [7]	EC [7]	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
Limits	2;5;10	16 [5]		5 [6]		6<pH<9				2.2;23;240
11/01/12	0.5	4.9				7.3	792			2
11/02/12	0.5	4.7				7.3	772			<2
11/03/12	0.5	4.8				7.3	778			<2
11/04/12	0.6	5.1	5.7	5.8	5.8	7.3	769	472	146	<2
11/05/12	0.6	5.3	5.6		5.7	7.3	765			2
11/06/12	0.6	5.1	4.4		4.5	7.3	787			<2
11/07/12	0.7	5.3	5.5		5.6	7.3	816			<2
11/08/12	0.6	5.2				7.3	807			<2
11/09/12	0.6	5.5				7.3	805			<2
11/10/12	0.6	4.8				7.3	791			<2
11/11/12	0.5	4.8	7.4	7.5	7.5	7.3	763	470		<2
11/12/12	0.5	5.1	6.3		6.4	7.3	756			<2
11/13/12	0.7	5.1	6.6		6.6	7.3	771			<2
11/14/12	0.5	4.9	5.5		5.6	7.3	774			<2
11/15/12	0.5	4.7				7.3	746			<2
11/16/12	0.5	4.7				7.3	732			<2
11/17/12	0.4	4.6				7.3	731			2
11/18/12	0.4	4.8	7.1	7.1	7.1	7.3	726	468	148	2
11/19/12	0.6	5.4	6.9		7.0	7.3	731			2
11/20/12	0.4	5.3	7.6		7.6	7.2	763			<2
11/21/12	0.4	5.1				7.3	777			<2
11/22/12	0.4	5.0				7.3	772			<2
11/23/12	0.4	4.9				7.3	775			<2
11/24/12	0.4	5.2				7.2	778			<2
11/25/12	0.5	5.2	6.1	6.1	6.1	7.2	777	466		<2
11/26/12	0.5	5.4	6.7		6.7	7.3	761			<2
11/27/12	0.5	5.3	7.1		7.1	7.3	772			4
11/28/12	0.5	5.4	5.9		5.9	7.3	789			<2
11/29/12	0.5	5.0				7.2	785			<2
11/30/12	0.5	5.8				7.2	794			<2
Avg	0.5	5.1	6.3	6.6	6.4	7.3	772	469	147	<2
Min	0.4	4.6	4.4	5.8	4.5	7.2	726	466	146	<2
Max	0.7	5.8	7.6	7.5	7.6	7.3	816	472	148	4

RP-4 Effluent

	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
Limits	2;5;10	16 [5]		5 [6]		6<pH<9				2.2;23;240
11/01/12	0.3	3.4				7.0	765			<2
11/02/12	0.3	3.3				7.0	750			<2
11/03/12	0.3	3.2				7.1	740			<2
11/04/12	0.2	3.3	5.7	7.1	5.8	7.1	750	452	143	<2
11/05/12	0.3	3.5	4.1		4.2	7.1	725			<2
11/06/12	0.3	3.3	4.6		4.7	7.1	740			<2
11/07/12	0.3	3.4	4.8		4.9	7.2	740			<2
11/08/12	0.3	3.2				7.2	730			2
11/09/12	0.3	3.1				7.2	735			<2
11/10/12	0.3	3.1				7.2	740			<2
11/11/12	0.2	3.2	5.9	6.8	6.0	7.2	740	450		<2
11/12/12	0.2	3.2	5.7		5.8	7.2	735			<2
11/13/12	0.2	3.3	4.8		4.8	7.2	730			<2
11/14/12	0.3	3.2	5.1		5.2	7.1	725			<2
11/15/12	0.4	3.0				7.0	720			<2
11/16/12	0.4	3.2				7.0	725			<2
11/17/12	0.3	3.1				7.0	720			<2
11/18/12	0.3	3.2	4.7	4.7	4.7	7.1	705	440		<2
11/19/12	0.3	3.4	4.6		4.6	7.1	710			<2
11/20/12	0.3	3.4	4.5		4.5	7.0	712			<2
11/21/12	0.3	3.3				7.0	700			<2
11/22/12	0.3	3.3				7.1	700			<2
11/23/12	0.4	3.4				7.1	710			<2
11/24/12	0.4	3.6				7.1	715			<2
11/25/12	0.3	3.4	4.2	5.0	4.2	7.1	710	432		<2
11/26/12	0.4	3.6	4.2		4.2	7.0	710			<2
11/27/12	0.4	3.6	4.7		4.7	7.1	715			<2
11/28/12	0.3	3.6	4.9		4.9	7.1	715			<2
11/29/12	0.3	3.4				7.1	710			<2
11/30/12	0.3	3.4				7.1	710			<2
Avg	0.3	3.3	4.8	5.9	4.9	7.1	724	444	143	<2
Min	0.2	3.0	4.1	4.7	4.2	7.0	700	432	143	<2
Max	0.4	3.6	5.9	7.1	6.0	7.2	765	452	143	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 December 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
12/01/12	0.5	6.3				7.2	790			<2	0.3	3.3				7.0	700			<2
12/02/12	0.4	6.4	4.8		4.9	7.3	790	466	142	2	0.3	3.7	5.5		5.5	7.1	705	438	146	<2
12/03/12	0.4	6.8	4.5		4.6	7.2	774			<2	0.3	3.7	5.3		5.4	7.0	705			<2
12/04/12	0.5	6.5	4.2		4.3	7.2	791			<2	0.3	3.3	4.6		4.6	7.1	705			<2
12/05/12	0.5	6.3	4.9	5.0	5.0	7.2	822			<2	0.3	2.7	4.9	5.9	5.0	7.0	725			<2
12/06/12	0.5	6.8				7.2	838			<2	0.3	3.7				7.0	730			<2
12/07/12	0.5	6.1				7.2	824			<2	0.3	2.9				7.0	725			<2
12/08/12	0.5	5.9				7.2	835			<2	0.3	2.8				7.0	725			<2
12/09/12	0.5	6.0	4.2	4.3	4.3	7.2	832	478		<2	0.3	3.0	4.6	4.7	4.7	7.0	725	440		<2
12/10/12	0.6	6.1	4.2		4.3	7.2	718			<2	0.3	3.3	4.7		4.8	7.1	730			<2
12/11/12	0.5	5.5	5.0		5.1	7.2	822			<2	0.3	3.1	4.5		4.6	7.0	735			<2
12/12/12	0.4	5.0	6.0		6.1	7.2	808			<2	0.3	2.9	5.3		5.4	7.0	725			<2
12/13/12	0.4	4.9				7.1	788			<2	0.3	3.1				7.1	725			<2
12/14/12	0.4	5.6				7.1	763			2	0.4	3.1				7.0	718			<2
12/15/12	0.4	5.5				7.1	719			<2	0.3	3.0				7.0	737			<2
12/16/12	0.4	5.3	7.2	7.2	7.2	7.1	796	472		<2	0.3	3.2	5.5	7.3	5.5	7.0	733	440		<2
12/17/12	0.4	6.0	6.2		6.3	7.1	801			4	0.3	3.2	5.5		5.6	7.0	742			<2
12/18/12	0.4	6.4	6.2		6.3	7.1	817			2	0.3	3.2	5.3		5.4	7.0	757			<2
12/19/12	0.4	6.3	7.7		7.7	7.1	795			<2	0.4	3.4	4.3		4.3	7.1	755			2
12/20/12	0.7	6.2				7.1	812			<2	0.3	3.2				7.1	762			<2
12/21/12	0.5	6.1				7.1	816			<2	0.3	3.2				7.0	760			<2
12/22/12	0.5	6.0				7.1	816			2	0.3	3.2				7.0	760			<2
12/23/12	0.5	6.2	7.5	7.6	7.6	7.1	819	472		<2	0.3	3.3	5.2	6.3	5.3	7.1	750	468		<2
12/24/12	0.5	5.9				7.1	824			2	0.3	3.2				7.1	751			<2
12/25/12	0.5	5.7				7.1	804			2	0.3	3.2				7.1	738			<2
12/26/12	0.5	6.3	7.4		7.5	7.1	771			<2	0.3	3.5	4.4		4.5	7.1	740			<2
12/27/12	0.6	6.9				7.1	803			<2	0.4	3.5				7.0	753			<2
12/28/12	0.9	6.3				7.1	816			<2	0.4	3.5				7.0	741			<2
12/29/12	1.0	6.6				7.1	823			<2	0.4	3.4				7.0	746			<2
12/30/12	0.9	6.7	7.1	7.1	7.1	7.1	815	486		2	0.4	3.5	4.6	4.6	4.6	7.0	752	450		<2
12/31/12	0.9	6.0				7.2	812			<2	0.4	3.4				7.0	750			<2
Avg	0.5	6.1	5.8	6.2	5.9	7.2	802	475	142	<2	0.3	3.3	4.9	5.8	5.0	7.0	736	447	146	<2
Min	0.4	4.9	4.2	4.3	4.3	7.1	718	466	142	<2	0.3	2.7	4.3	4.6	4.3	7.0	700	438	146	<2
Max	1.0	6.9	7.7	7.6	7.7	7.3	838	486	142	4	0.4	3.7	5.5	7.3	5.6	7.1	762	468	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. 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.**
Jan-12	6.4	5.8	465	459
Feb-12	6.7	5.8	476	461
Mar-12	6.7	5.8	497	463
Apr-12	7.4	5.9	496	466
May-12	6.4	5.9	493	469
Jun-12	5.8	5.9	482	470
Jul-12	5.4	6.0	477	472
Aug-12	4.8	6.1	463	473
Sep-12	5.1	6.0	472	474
Oct-12	4.9	6.0	486	476
Nov-12	6.1	6.0	485	479
Dec-12	6.0	6.0	492	482
Avg	6.0	5.9	482	470
Min	4.8	5.8	463	459
Max	7.4	6.1	497	482
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	1Q12	2Q12	3Q12	4Q12	4Q Run. Avg.[1]	Limit	Unit	Method
Inorganic Chemicals								
Aluminum	28	62	39	28	39	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	<2.0	<6.7	<0.8	<0.4	<6.7	7	MFL	EPA 100.2
Barium	5	7	4	6	5	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	2.4	2.6	0.8	1.5	1.8	50	µg/L	EPA 200.8
Cyanide	<5	<5	<5	<5	<5	150	µg/L	SM 4500-CN E
Fluoride	0.2	0.4	0.2	0.2	0.3	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	2	3	2	2	3	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	<0.5	<0.5	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	2	4	3	3	3	200	µg/L	EPA 515.4
Dibromochloropropane	<0.01	<0.01	<0.01	<0.01	<0.01	0.2	µg/L	EPA 504.1
Di(2-ethylhexyl)adipate	<0.6	<0.6	<0.6	<0.6	<0.6	400	µg/L	EPA 525.2
Di(2-ethylhexyl)phthalate	<0.6	<0.6	<0.6	<0.6	<0.6	4	µg/L	EPA 525.2
Dinoseb	<0.2	<0.2	<0.2	<0.2	<0.2	7	µg/L	EPA 515.4
Diquat	<0.4	<0.4	<0.4	<0.4	<0.4	20	µg/L	EPA 549.2
Endothall	<5	<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	1Q12	2Q12	3Q12	4Q12	4Q Run. Avg.[1]	Limit	Unit	Method
Ethylene Dibromide	<0.01	<0.01	<0.01	<0.01	<0.01	0.05	µg/L	EPA 504.1
Glyphosate	<6	<6	<25	<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	<0.010	<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	2.4	3.3	3.4	2.8	3.0	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	<0.26	<0.58	<0.43	<0.27	<0.58	5	pCi/L	EPA 903.0
Gross Alpha Particle Activity	4	<1.7	<2.9	<3	<3	15	pCi/L	EPA 900.0/SM7110C
Tritium	<230	<220	<241	<250	<241	20,000	pCi/L	EPA 906
Strontium-90	<0.40	<0.81	<0.64	<0.50	<0.81	8	pCi/L	EPA 905
Gross Beta Particle Activity	11	9	9	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	28	62	39	28	26	200	µg/L	EPA 200.8
Copper	2.4	3.3	3.4	2.8	3.0	1000	µg/L	EPA 200.8
Corrosivity [3]	-0.4 (Non-Cor.)	-0.3 (Non-Cor.)	NR	NR	Non-Cor.	Non-Cor.	SI	SM 2330B
Foaming Agents (MBAS) [3]	<0.05	0.08	0.05	0.07	<0.05	0.5	mg/L	S5540C/EPA 425.1
Iron [3]	NR	300	NR	NR	109	300	µg/L	EPA 200.7
Manganese	17	148	4	18	47	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	4	3	3	3	3	TON	SM 2150B
Silver	0.30	<0.27	<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	26	35	23	26	27	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	BRK-LYS-25 1Q12	BRK-LYS-25 2Q12	BRK-LYS-25 3Q12	BNA-LYS-25 4Q12				
Total Trihalomethanes (TTHMs)	<4	<2	<4	<4	21	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 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	4Q12	Unit	Method
Metals			
Chromium (III) [1]	1.5	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	6.9	µg/L	EPA 524.2
Chloroethane	<0.5	µg/L	EPA 524.2
2-Chloroethylvinylether	NR	µg/L	EPA 624
Chloroform	48.8	µg/L	EPA 524.2
Dichlorobromomethane	27.4	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	4Q12	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	0.13	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	ng/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
DEET	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
Sucralose	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

[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	10/25/12	4.35	7.5	5.7	5.5	2.0	0.14	785
8TH-LYS-00	0	11/13/12	7.94	6.9	5.9	5.6	1.3	0.17	705
8TH-LYS-00	0	12/12/12	5.49	5.9	2.2	0.5	5.4	0.17	645
8TH-LYS-35	35	10/25/12	2.24	5.5	3.8	3.6	1.9	0.17	705
8TH-LYS-35	35	11/13/12	2.50	4.8	4.3	4.2	0.6	0.14	715
8TH-LYS-35	35	12/12/12	2.50	4.5	1.9	1.8	2.7	0.13	610

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	10/04/12	0.89	4.7	3.7	3.6	1.1	0.13	715
BNA-LYS-00	0	10/09/12	3.83	5.1	4.5	4.5	0.6	<0.01	735
BNA-LYS-00	0	10/18/12	7.43	4.9	3.4	2.9	2.0	0.41	615
BNA-LYS-00	0	10/25/12	5.30	6.0	5.0	4.7	1.3	0.19	725
BNA-LYS-00	0	11/01/12	4.55	5.5	4.5	4.4	1.1	0.14	750
BNA-LYS-00	0	11/06/12	4.31	5.6	4.4	4.3	1.3	0.13	755
BNA-LYS-00	0	11/13/12	4.09	8.2	7.6	7.5	0.7	0.11	745
BNA-LYS-00	0	11/20/12	4.22	7.5	5.8	5.8	1.7	<0.01	745
BNA-LYS-00	0	11/27/12	4.21	5.3	5.3	5.3	<0.5	<0.01	745
BNA-LYS-00	0	12/04/12	5.45	6.6	3.7	3.5	3.1	0.15	585
BNA-LYS-00	0	12/12/12	4.54	5.3	3.9	3.1	2.2	0.24	590
BNA-LYS-00	0	12/19/12	5.97	6.9	5.1	1.9	5.0	0.27	310
BNA-LYS-00	0	12/26/12	4.44	5.8	4.9	1.9	3.9	0.25	344
BNA-LYS-25	25	10/04/12	3.48	1.2	1.2	1.1	<0.5	0.14	710
BNA-LYS-25	25	10/09/12	0.78	1.0	1.0	1.0	<0.5	<0.01	700
BNA-LYS-25	25	10/18/12	0.77	1.0	1.0	0.9	<0.5	0.13	685
BNA-LYS-25	25	10/25/12	0.76	1.3	1.3	1.2	<0.5	0.13	690
BNA-LYS-25	25	11/01/12	0.72	2.8	1.6	1.5	1.3	0.12	690
BNA-LYS-25	25	11/06/12	0.75	2.5	1.6	1.5	1.0	0.14	680
BNA-LYS-25	25	11/13/12	0.79	1.6	1.6	1.5	<0.5	0.13	665
BNA-LYS-25	25	11/20/12	0.86	2.4	1.0	1.0	1.4	<0.01	660
BNA-LYS-25	25	11/27/12	0.86	3.4	2.2	2.2	1.2	<0.01	665
BNA-LYS-25	25	12/04/12	0.62	0.9	0.9	0.8	<0.5	0.10	655
BNA-LYS-25	25	12/12/12	0.57	0.8	0.8	0.7	<0.5	0.10	680
BNA-LYS-25	25	12/19/12	0.64	0.8	0.9	0.7	<0.5	0.11	675
BNA-LYS-25	25	12/26/12	0.59	2.4	2.4	2.3	<0.5	0.10	692

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	10/25/12	10.0	4.3	0.8	<0.1	4.3	0.13	670
BRK-LYS-00	0	11/13/12	12.3	6.3	0.7	<0.1	6.3	0.14	685
BRK-LYS-00	0	12/12/12	8.95	4.6	0.7	0.3	4.3	0.12	650
BRK-LYS-25	25	12/12/12	3.26	1.8	<0.2	<0.1	1.8	<0.01	905

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	11/06/12	29.5	7.0	<0.2	<0.1	7.0	0.14	665
HKYE-LYS-00	0	11/13/12	13.3	2.6	<0.2	<0.1	2.6	0.13	625
HKYE-LYS-00	0	11/20/12	4.63	7.5	5.0	5.0	2.5	<0.01	740
HKYE-LYS-00	0	11/27/12	4.82	6.6	4.5	4.5	2.1	<0.01	740
HKYE-LYS-00	0	12/04/12	4.02	4.4	4.4	4.3	<0.5	0.14	660
HKYE-LYS-00	0	12/12/12	3.50	5.9	4.8	4.7	1.2	0.10	745
HKYE-LYS-00	0	12/19/12	3.88	7.3	5.2	4.8	2.5	0.14	641
HKYE-LYS-00	0	12/26/12	3.86	6.0	3.5	3.1	2.9	0.11	634
HKYE-LYS-25	25	11/06/12	1.40	6.7	5.6	5.5	1.2	0.12	945
HKYE-LYS-25	25	11/13/12				5.2		0.12	920
HKYE-LYS-25	25	11/20/12	1.73	6.1	4.6	4.6	1.5	<0.01	875
HKYE-LYS-25	25	11/27/12	1.80	6.0	4.9	4.9	1.1	<0.01	775
HKYE-LYS-25	25	12/04/12				4.8		0.10	720
HKYE-LYS-25	25	12/12/12	2.35	6.4	5.3	5.2	1.2	0.11	735
HKYE-LYS-25	25	12/19/12	2.50	5.7	5.7	5.6	<0.5	0.11	725
HKYE-LYS-25	25	12/26/12		6.7	5.3	5.2	1.5	0.06	757

Table 2-5a

Lysimeter and Surface Water Monitoring: TOC, Nitrogen Species, and EC

Hickory West 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
HKYW-LYS-00	0	10/04/12	9.70	2.1	0.2	0.1	2.0	0.14	575
HKYW-LYS-00	0	10/09/12	10.0	3.1	<0.2	0.1	3.0	<0.01	600
HKYW-LYS-00	0	10/18/12	13.8	2.2	<0.2	<0.1	2.2	0.12	525
HKYW-LYS-00	0	10/25/12	11.9	3.4	0.3	0.1	3.3	0.15	565
HKYW-LYS-00	0	11/01/12	11.3	3.9	<0.2	<0.1	3.9	0.12	605
HKYW-LYS-00	0	11/06/12	10.8	2.9	0.2	0.1	2.8	0.14	615
HKYW-LYS-00	0	11/13/12		7.2	5.3	5.2	2.0	0.13	735
HKYW-LYS-00	0	11/20/12	11.5	4.1	0.9	0.9	3.2	<0.01	655
HKYW-LYS-00	0	11/27/12	7.86	5.5	2.2	2.1	3.4	<0.01	695
HKYW-LYS-00	0	12/04/12	6.96	3.9	1.9	1.6	2.3	0.18	675
HKYW-LYS-10	10	10/04/12		1.3	0.6	0.1	1.2	0.16	590
HKYW-LYS-10	10	10/09/12				0.1		<0.01	595
HKYW-LYS-10	10	10/18/12				0.1		0.13	575
HKYW-LYS-10	10	10/25/12				0.1		0.16	575
HKYW-LYS-10	10	11/01/12				0.1		0.13	585
HKYW-LYS-10	10	11/06/12				0.2		0.14	600
HKYW-LYS-10	10	11/13/12	5.85			0.3		0.16	600
HKYW-LYS-10	10	11/20/12				0.2		<0.01	605
HKYW-LYS-10	10	12/04/12				0.4		0.10	640

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	11/13/12	7.46	7.0	6.4	6.0	1.0	0.16	745
RP31-LYS-00	0	12/12/12	5.33	6.6	3.7	3.6	3.0	0.14	740
RP31-LYS-35	35	10/25/12	0.90	3.5	2.5	2.3	1.2	0.16	615
RP31-LYS-35	35	11/13/12	1.02	2.2	2.2	2.1	<0.5	0.14	630
RP31-LYS-35	35	12/12/12	1.04	3.2	3.2	3.1	<0.5	0.12	645

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	10/25/12	7.63	5.1	2.5	2.3	2.8	0.18	810
SS5-LYS-00	0	11/13/12	8.19	4.3	2.2	1.9	2.4	0.29	785
SS5-LYS-00	0	12/12/12	6.83	8.9	7.3	6.2	2.7	0.17	645
SS5-LYS-15	15	10/25/12	1.37	1.0	<0.2	<0.1	1.0	0.10	875
SS5-LYS-15	15	11/13/12	1.78	<0.6	<0.2	<0.1	<0.5	<0.01	900
SS5-LYS-15	15	12/12/12	2.13	<0.6	<0.2	0.1	<0.5	0.08	895
SS5-LYS-20	20	10/25/12	1.05	<0.6	0.2	0.1	<0.5	0.12	785
SS5-LYS-20	20	11/13/12	1.66	<0.6	<0.2	<0.1	<0.5	0.11	815
SS5-LYS-20	20	12/12/12	2.33	<0.6	<0.2	<0.1	<0.5	0.09	790

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	10/25/12	6.81	3.7	2.0	1.5	2.2	0.39	740
VCT-LYS-00	0	11/13/12	7.29	3.8	2.2	2.0	1.8	0.17	760
VCT-LYS-00	0	12/12/12	5.34	4.3	2.0	1.8	2.5	0.15	645
VCT-LYS-35	35	10/25/12	0.97	3.1	2.6	2.3	0.8	0.26	855
VCT-LYS-35	35	11/13/12	0.89	3.1	3.1	2.9	<0.5	0.23	875

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

* 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)
10/04/12	3.74	6.5	1.12	0.56	0.8
10/09/12	3.59	6.2	1.08	0.54	0.8
10/18/12	3.99	5.2	1.20	0.60	0.7
10/25/12	3.31	10.1	0.99	0.50	1.3
11/01/12	3.16	8.3	0.95	0.47	1.1
11/06/12	3.37	5.9	1.01	0.51	0.8
11/13/12	3.91	6.4	1.17	0.59	0.8
11/20/12	4.00	8.4	1.20	0.60	1.1
11/27/12	4.35	7.0	1.31	0.65	0.9
12/04/12	2.91	4.9	0.87	0.44	0.6
12/12/12	3.08	6.0	0.92	0.46	0.8
12/19/12	3.21	4.7	0.96	0.48	0.6
12/26/12	3.15	2.2	0.95	0.47	0.3

Ely Basin				
Date	Recycled Water*	Recycled Water*	Ely 3 East	Ely 3 East
mg/L==>	TOC	TN	TOC (76% reduction)	TN (52% reduction)
10/04/12	3.74	6.5	0.90	3.1
10/09/12	3.59	6.2	0.86	3.0
10/18/12	3.99	5.2	0.96	2.5
10/25/12	3.31	10.1	0.79	4.9
11/01/12	3.16	8.3	0.76	4.0
11/06/12	3.37	5.9	0.81	2.8
11/13/12	3.91	6.4	0.94	3.1
11/20/12	4.00	8.4	0.96	4.0
11/27/12	4.35	7.0	1.04	3.4
12/04/12	2.91	4.9	0.70	2.4
12/12/12	3.08	6.0	0.74	2.9
12/19/12	3.21	4.7	0.77	2.3
12/26/12	3.15	2.2	0.76	1.1

Brooks Basin				
Date	BRK-LYS-00	BRK-LYS-00	BRK-LYS-00	BRK-LYS-00
mg/L==>	TOC	TN	EC	
10/25/12	10.02	4.3	670	
11/13/12	12.26	6.3	685	
12/12/12	8.95	4.6	650	
Date	BRK-LYS-25	BRK-LYS-25	BRK-LYS-25	BRK-LYS-25
mg/L==>	TOC	TN**	EC	
12/12/12	3.26	1.8	905	
Date	BRK-1/1	BRK-1/1	BRK-1/1	BRK-1/1
mg/L==>	TOC**	TN	EC	Cl
10/17/12	0.49	2.8	480	104
10/25/12	0.46	2.1	465	54
11/13/12	0.50	1.4	455	57
12/12/12	0.29	2.4	460	

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

RP3 Basin			
Date	RP3-LYS-35	RP3-LYS-35	RP3-LYS-35
mg/L==>	TOC	TN	EC
10/25/12	0.90	3.5	615
11/13/12	1.02	2.2	630
12/12/12	1.04	3.2	645

Table 2-5b
Alternative Monitoring Plans

San Sevaine 5 Basin				
Date	Recycled Water*	Recycled Water*	San Sevaine 5	San Sevaine 5
mg/L==>	TOC	TN	TOC (78% reduction)	TN (69% reduction)
10/04/12	3.74	6.5	0.82	2.0
10/09/12	3.59	6.2	0.79	1.9
10/18/12	3.99	5.2	0.88	1.6
10/25/12	3.31	10.1	0.73	3.1
11/01/12	3.16	8.3	0.70	2.6
11/06/12	3.37	5.9	0.74	1.8
11/13/12	3.91	6.4	0.86	2.0
11/20/12	4.00	8.4	0.88	2.6
11/27/12	4.35	7.0	0.96	2.2
12/04/12	2.91	4.9	0.64	1.5
12/12/12	3.08	6.0	0.68	1.9
12/19/12	3.21	4.7	0.71	1.5
12/26/12	3.15	2.2	0.69	0.7

Victoria Basin				
Date	Recycled Water*	Recycled Water*	Victoria	Victoria
mg/L==>	TOC	TN	TOC (78% reduction)	TN (82% reduction)
10/04/12	3.74	6.5	0.82	1.2
10/09/12	3.59	6.2	0.79	1.1
10/18/12	3.99	5.2	0.88	0.9
10/25/12	3.31	10.1	0.73	1.8
11/01/12	3.16	8.3	0.70	1.5
11/06/12	3.37	5.9	0.74	1.1
11/13/12	3.91	6.4	0.86	1.2
11/20/12	4.00	8.4	0.88	1.5
11/27/12	4.35	7.0	0.96	1.3
12/04/12	2.91	4.9	0.64	0.9
12/12/12	3.08	6.0	0.68	1.1
12/19/12	3.21	4.7	0.71	0.8
12/26/12	3.15	2.2	0.69	0.4

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

Table 2-6
Diluent Water Monitoring*: Stormwater

Constituent	San Antonio Creek @ Montclair Basin 12/04/12	W. Cucamonga Crk. @ Ely Basin 12/04/12	Day Creek @ Lower Day Basin 12/05/12	Cuca. & Deer Crk. @ Turner 1&2 Basins 12/06/12	Deer Creek @ Turner 3&4 Basins 12/06/12	Unit	Method
NO_2-N	0.19	0.13	0.18	0.12	0.12	mg/L	EPA 300.0
NO_3-N	0.6	<0.1	0.6	22.8	0.4	mg/L	EPA 300.0
TDS	108	154	70	250	298	mg/L	SM 2540C
Total Coliform	>23.0	>23.0	>2300	>23.0	>23.0	mpn/100ml	SM 9221B
Oil & Grease	<1	<1	<1	<1	<1	mg/L	EPA 1664A
Inorganic Chemicals							
Aluminum	130	1363	71	40	80	µg/L	EPA 200.7
Antimony	1	2	<1	<1	<1	µg/L	EPA 200.8
Arsenic	<2	8	<2	<2	<2	µg/L	EPA 200.8
Asbestos	<6.12	<6.76	<1.84	<6.12	<6.12	MFL	EPA 100.2
Barium	22	70	17	32	36	µg/L	EPA 200.7
Beryllium	<0.5	<0.5	<0.5	<0.5	<0.5	µg/L	EPA 200.7
Cadmium	<0.25	0.61	<0.25	<0.25	<0.25	µg/L	EPA 200.7
Chromium	1.1	4.5	0.9	0.8	1.4	µg/L	EPA 200.7
Cyanide	<0.005	<0.005	<0.005	<0.005	<0.005	mg/L	SM 4500-CN E
Fluoride	0.3	0.1	0.1	0.4	0.2	mg/L	SM 4500-F C
Mercury	0.18	0.13	<0.05	0.28	<0.05	µg/L	EPA 245.2
Nickel	2	6	1	1	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	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	0.2	<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	<0.6	<0.6	<0.6	0.7	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	<6	70	<6	<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	San Antonio Creek @ Montclair Basin 12/04/12	W. Cucamonga Crk. @ Ely Basin 12/04/12	Day Creek @ Lower Day Basin 12/05/12	Cuca. & Deer Crk. @ Turner 1&2 Basins 12/06/12	Deer Creek @ Turner 3&4 Basins 12/06/12	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	<0.04	0.09	<0.04	<0.04	<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	<0.05	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 300.1/317
Chlorite	<0.01	<0.01	<0.01	<0.01	<0.01	mg/L	EPA 300.0
Action Level Chemicals							
Copper	6.6	45.9	4.0	1.5	4.9	µg/L	EPA 200.7
Lead	0.9	11.8	<0.5	<0.5	<0.5	µg/L	EPA 200.8
Radionuclides							
Combined Radium-226 & Radium 228	0.380	<0.373	<0.223	<0.562	<0.624	pCi/L	EPA 903.0
Gross Alpha Particle Activity	4	<3	<3	<3	<3	pCi/L	EPA 900.0/SM7110C
Tritium	<256	<254	<385	<291	<292	pCi/L	EPA 906.0
Strontium-90	<1.37	<1.43	<0.36	<0.41	<0.45	pCi/L	EPA 905.0
Gross Beta Particle Activity	<3	6	<3	4	<3	pCi/L	EPA 900.0
Uranium	<0.7	<0.7	<0.7	1.8	<0.7	pCi/L	EPA 200.8
Unregulated Chemicals							
Chromium VI	0.11	<0.02	0.23	0.46	0.71	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)	<2	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
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	3	8	1	5	8	µg/L	EPA 200.8
Secondary Maximum Contaminant Level Chemicals							
Aluminum	130	1363	71	40	80	µg/L	EPA 200.7
Corrosivity	-1.1	-2.0	-1.5	-2.7	2.2	SI	SM 2330B
Foaming Agents (MBAS)	0.11	<0.05	<0.05	0.05	0.08	mg/L	SM 5540C/EPA 425.1
Iron	238	2227	94	64	95	µg/L	EPA 200.7
Manganese	12	125	5	2	4	µg/L	EPA 200.7
Odor--Threshold	17	67	40	67	67	TON	SM 2150B
Silver	<0.25	0.27	<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	25	175	18	4	28	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
Hickory and Banana Basins	600660	California Speedway - Infield Well	2070 downgradient	NA	NA	Active	Industrial
Hickory and Banana Basins	3601365	California Speedway 2	2780 downgradient	451-455, 491-603, & 664-780	20	Active	Industrial
Hickory and Banana Basins	3600371	Reliant Energy - East Well	4070 downgradient	434-467, 500-513, 553-580, 593-652, & 825-847	20	Active	Industrial
Hickory and Banana Basins	3602267	City Of Ontario - 20	14500 downgradient	NA	20	Active	Municipal
Hickory and Banana Basins	601001	Inland Empire Utilities Agency - BH-1/1	340 downgradient	365-405	4	Active	Monitoring
Hickory and Banana Basins	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
Turner Basins	600453	City Of Ontario - 29	2810 downgradient	400-1095	18	Active	Municipal
Turner Basins	600585	City of Ontario - 38*	4600 crossgradient	500-1010	16	Active	Municipal
Turner Basins	600997	Inland Empire Utilities Agency - TRN-1/1	50 downgradient	340-360	4	Active	Monitoring
Turner Basins	600998	Inland Empire Utilities Agency - TRN-1/2	50 downgradient	380-400	4	Active	Monitoring
Turner Basins	600999	Inland Empire Utilities Agency - TRN-2/1	50 downgradient	350-370	4	Active	Monitoring
Turner Basins	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
Declez Basin	300207	Jurupa Community Services District - 17	5240 downgradient	259-290, & 300-400	NA	Active	Municipal
Declez Basin	300200	Jurupa Community Services District - 13	5730 downgradient	220-446	16-34	Active	Municipal
Declez Basin	300484	Inland Empire Utilities Agency - DCZ-1	50 downgradient	155-175	4	Active	Monitoring
Declez Basin	--	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
RP-3 Basins	600477	Inland Empire Utilities Agency - Southridge JHS	5500 downgradient	NA	NA	Active	Monitoring
RP-3 Basins	600848	Alcoa - Offsite MW1	9480 downgradient	NA	NA	Active	Monitoring
RP-3 Basins	600850	Alcoa - Offsite MW3	4725 downgradient	NA	NA	Active	Monitoring
RP-3 Basins	601040	Inland Empire Utilities Agency - RP3-1/1	100 downgradient	215-235	4	Active	Monitoring
RP-3 Basins	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
7th & 8th Street Basins	3601772	City of Ontario No. 4	3429 downgradient	526-910	16-20	Inactive	Municipal
7th & 8th Street Basins	--	City of Ontario No. 51	3402 downgradient	Not Yet Constructed	NA	NA	Municipal
7th & 8th Street Basins	600493	City of Ontario No. 35	9695 downgradient	580-1020	18-36	Active	Municipal
7th & 8th Street Basins	601036	Inland Empire Utilities Agency - 8TH-1/1	150 downgradient	495-535	4	Active	Monitoring
7th & 8th Street Basins	601037	Inland Empire Utilities Agency - 8TH-1/2	150 downgradient	595-645	4	Active	Monitoring
7th & 8th Street Basins	601038	Inland Empire Utilities Agency - 8TH-2/1	2460 downgradient	465-505	4	Active	Monitoring
7th & 8th Street Basins	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
Brooks Basins	1901713	City of Pomona P-04	2620 downgradient	254-338, & 403-452	NA	Inactive	Municipal
Brooks Basins	1903156	City of Pomona P-30	2160 crossgradient	565-875	20	Inactive	Municipal
Brooks Basins	1903016	City of Pomona P-2	3455 downgradient	NA	NA	Active	Municipal
Brooks Basins	1901725	City of Pomona P-17	4500 downgradient	454-536	20	Inactive	Municipal
Brooks Basins	601050	Inland Empire Utilities Agency - BRK-1/1	144 downgradient	310-350	4	Active	Monitoring
Brooks Basins	601051	Inland Empire Utilities Agency - BRK-1/2	144 downgradient	520-560	4	Active	Monitoring
Brooks Basins	601048	Inland Empire Utilities Agency - BRK-2/1	1305 downgradient	320-360	4	Active	Monitoring
Brooks Basins	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
San Sevaine Basins	601115	Inland Empire Utilities Agency - SS-1/1 and 1/2	~39-116 downgradient	640-680	4	Active	Monitoring
San Sevaine Basins	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
Victoria Basin	601033	Cucamonga Valley Water District No. 43**	8300 downgradient	650-800	32-42	Active	Municipal
Victoria Basin	601117	Inland Empire Utilities Agency - VCT-1/1 and 1/2	~39-116 downgradient	570-610	4	Active	Monitoring
Victoria Basin	--	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
Ely Basin	601004	Ely Basin MW-2, Walnut Well (Casing 2)	3050 downgradient	290 - 310	4	Active	Monitoring
Ely Basin	3600975	Riverside Drive Well (43840-CWW)	6046 downgradient	NA	NA	Active	Private Irrigation
Ely Basin	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 *	10/24/12	0.10	<1.1	7.1	490	234	<25	<3	1.4	0.4	<0.05	33	<1	<0.5	<1	<0.25	<0.2	0.29	10	21	225	20	21	<0.1	0.23	10.3	10.5	<0.5	165	7.1
	California Speedway - Infield Well	10/24/12	0.16	<1.1	7.9	580	374	<25	<3	0.8	0.3	<0.05	<15	<1	<0.5	1	<0.25	<0.2	0.62	2	23	260	22	69	<0.1	0.22	9.5	9.7	<0.5	161	7.4
	California Speedway 2	10/24/12	<0.10	<1.1	7.9	405	266	<25	<3	1.2	0.2	<0.05	<15	<1	<0.5	1	<0.25	<0.2	0.07	<1	15	174	21	14	<0.1	0.25	5.0	5.3	<0.5	158	7.6
	Reliant Energy - East Well	10/24/12	<0.10	<1.1	7.7	330	226	<25	<3	1.0	0.1	<0.05	21	<1	<0.5	<1	<0.25	<0.2	0.09	<1	10	145	21	13	<0.1	0.25	5.0	5.3	<0.5	133	8.1
	Ontario Well No. 20	10/17/12	<0.10	<1.1	8.2	354	226	<25	<3	0.5	0.8	<0.05	<15	<1	<0.5	1	<0.25	<0.2	0.26	<1	16	170	14	12	<0.1	<0.02	4.4	4.4	<0.5	171	4.6
	BH-1/2 *	10/23/12	0.31	<1.1	8.0	480	310	<25	10	<0.5	0.4	<0.05	<15	4	<0.5	<1	<0.25	<0.2	5.08	4	61	196	25	28	<0.1	0.17	1.9	2.1	<0.5	130	7.2
Turner	Ontario Well No. 25	10/17/12	0.15	<1.1	7.8	462	292	<25	<3	<0.5	0.4	<0.05	<15	<1	<0.5	1	<0.25	<0.2	0.07	<1	47	195	24	32	<0.1	<0.02	7.8	7.8	<0.5	177	4.5
	Ontario Well No. 29	10/17/12	0.12	<1.1	7.8	381	243	<25	3	0.7	0.3	<0.05	70	2	<0.5	1	<0.25	<0.2	0.61	<1	45	157	26	36	<0.1	<0.02	6.0	6.0	<0.5	147	5.2
	Ontario Well No. 38	10/17/12	0.13	<1.1	8.0	360	216	<25	<3	<0.5	0.5	<0.05	<15	<1	<0.5	<1	<0.25	<0.2	0.09	<1	16	153	18	17	<0.1	<0.02	3.8	3.8	<0.5	161	4.4
	T-1/2 *	10/3/12	0.75	<1.1	7.4	400	252	<25	<3	<0.5	0.0	<0.05	<15	<1	<0.5	<1	<0.25	<0.2	0.39	2	33	169	21	24	<0.1	0.17	0.8	1.0	<0.5	128	7.0
	T-2/1 *	10/3/12	0.77	<1.1	7.4	481	304	<25	3	0.6	0.0	<0.05	<15	<1	<0.5	<1	<0.25	<0.2	2.51	1	57	186	28	28	<0.1	0.15	0.7	0.9	<0.5	126	5.1
	T-2/2*	10/3/12	0.71	<1.1	7.0	490	306	<25	3	<0.5	0.1	<0.05	<15	<1	<0.5	<1	<0.25	<0.2	0.28	2	57	196	28	30	<0.1	0.16	1.3	2.1	0.6	126	7.1
RP3	Southridge JHS *	10/16/12	0.41	2	7.3	930	628	<25	3	0.8	0.8	<0.05	<15	2	<0.5	1	<0.25	<0.2	4.69	9	102	372	57	77	<0.1	<0.02	15.3	15.3	<0.5	221	4.6
	Alcoa MW1 *	10/10/12	0.16	<1.1	7.6	780	582	<25	<3	<0.5	0.3	<0.05	<15	<1	<0.5	<1	<0.25	<0.2	0.23	1	127	316	32	21	<0.1	<0.02	12.1	12.1	<0.5	129	7.7
	Alcoa MW3 *	10/10/12	0.31	<1.1	7.3	755	526	<25	<3	<0.5	0.3	<0.05	<15	<1	<0.5	<1	<0.25	<0.2	0.14	2	58	312	39	47	<0.1	0.02	16.9	16.9	<0.5	189	7.1
	RP3-1/1 *	10/10/12	0.82	<1.1	7.4	500	312	<25	<3	0.7	0.3	<0.05	<15	46	<0.5	2	<0.25	<0.2	1.83	2	57	156	45	27	<0.1	<0.02	2.3	2.3	<0.5	134	1.6
	RP3-1/2 *	10/10/12	1.31	<1.1	7.4	485	294	<25	3	0.5	0.0	<0.05	<15	160	<0.5	3	<0.25	<0.2	2.22	2	55	154	42	26	<0.1	0.03	0.4	<0.6	<0.5	138	0.7
7th & 8th St.	Ontario Well No. 35	10/17/12	<0.10	1	7.7	385	242	<25	<3	0.5	0.2	<0.05	<15	<1	<0.5	1	<0.25	<0.2	0.07	<1	16	167	19	41	<0.1	<0.02	7.1	7.1	<0.5	156	4.1
	8TH-1/1 *	10/11/12	0.32	<1.1	7.7	370	278	<25	5	<0.5	0.0	<0.05	<15	24	<0.5	1	<0.25	<0.2	64.9	21	38	119	41	20	<0.1	0.05	2.1	2.2	<0.5	115	5.9
	8TH-1/2 *	10/11/12	0.13	<1.1	7.5	302	218	<25	<3	<0.5	-0.2	<0.05	<15	1	<0.5	<1	<0.25	<0.2	1.35	1	31	120	14	11	<0.1	0.06	1.8	1.9	<0.5	92	7.8
	8TH-2/1 *	10/4/12	1.44	<1.1	7.3	400	294	<25	<3	<0.5	0.3	<0.05	<15	<1	<0.5	1	<0.25	<0.2	0.22	3	13	182	13	13	<0.1	0.23	4.1	4.3	<0.5	161	6.3
	8TH-2/2 *	10/4/12	0.25	<1.1	7.2	415	256	<25	<3	<0.5	0.0	<0.05	<15	<1	<0.5	1	<0.25	<0.2	0.77	2	14	174	16	25	<0.1	0.22	6.6	6.8	<0.5	131	7.0
Brooks	Pomona Well No. 10	10/8/12	0.21	<1.1	7.5	530	348	<25	<3	<0.5	0.5	<0.05	<15	<1	<0.5	1	<0.25	<0.2	0.10	2	38	249	12	39	<0.1	0.18	7.3	8.1	<0.6	143	5.9
	Pomona Well No. 2	10/8/12	0.19	<1.1	7.7	590	400	<25	<3	65.6	0.4	<0.05	<15	<1	<0.5	1	<0.25	<0.2	0.17	2	40	285	13	54	<0.1	0.19	9.9	10.1	<0.5	155	5.7
	Pomona Well No. 34	10/8/12	0.20	<1.1	7.7	540	368	<25	<3	<0.5	0.4	<0.05	<15	<1	<0.5	1	<0.25	<0.2	0.06	<1	31	268	13	40	<0.1	0.19	13.7	13.9	<0.5	146	5.7
	BRK-1/1 *	10/17/12	0.49	<1.1	7.8	480	296	<25	15	0.7	0.3	<0.05	<15	2	<0.5	<1	<0.25	<0.2	12.9	2	104	211	17	51	0.1	0.30	2.5	2.8	<0.5	134	6.6
	BRK-1/1	10/25/12	0.46			465															54				<0.1	0.18	1.2	2.1	0.7		
	BRK-1/1	11/13/12	0.50			455															57				<0.1	0.18	1.2	1.4	<0.5		
	BRK-1/1	12/12/12	0.29			460															55				<0.1	0.15	1.3	2.4	0.9		
	BRK-1/2 *	10/17/12	0.20	<1.1	7.9	600	400	<25	<3	<0.5	0.6	<0.05	<15	<1	<0.5	<1	<0.25	<0.2	0.10	<1	25	279	16	47	<0.1	0.18	20.1	20.3	<0.5	150	9.1
	BRK-2/1 *	10/17/12	0.36	<1.1	7.5	515	342	<25	60	<0.5	0.1	<0.05	<15	7	<0.5	1	<0.25	<0.2	30.4	1	117	236	10	59	<0.1	0.30	6.0	6.3	<0.5	132	7.8
	BRK-2/2 *	10/17/12	0.13	<1.1	8.1	351	226	<25	<3	0.8	0.4	<0.05	<15	<1	<0.5	<1	<0.25	<0.2	0.45	2	12	104	35	36	<0.1	0.41	12.4	12.8	<0.5	128	6.6
Ely	Ely Basin MW1 Philadelphia St. *	10/22/12	0.43	<1.1	7.8	355	226	<25	10	<0.5	0.0	<0.05	<15	51	<0.5	2	<0.25	<0.2	4.74	<1	36	127	26	16	<0.1	0.17	0.3	1.3	0.8	119	0.8
	Ely Basin MW2 Walnut St. *	10/22/12	0.47	<1.1	7.4	890	584	<25	<3	<0.5	0.4	<0.05	<15	<1	<0.5	2	<0.25	<0.2	0.21	5	72	411	30	55	<0.1	0.18	21.9	22.1	<0.5	245	6.3
	Riverside Well (43840-CWW)	10/8/12	0.21	<1.1	7.5	565	356	<25	<3	<0.5	0.3	<0.05	<15	<1	<0.5	<1	<0.25	<0.2	0.34	20	28	257	23	34	<0.1	0.23	10.7	10.9	<0.5	178	4.9
	Bishop of SB Corp. - DOM	10/8/12	0.39	<1.1	8.0	685	430	<25	35	4.0	0.5	<0.05	7980	160	<0.5	3	<0.25	<0.2	52.7	5	35	318	23	58	0.9	0.44	13.5	14.9	1.0	195	5.5
	Bishop of SB Corp. - DOM	10/25/12						112		1.6			1170	30			<0.25		7.03	4											
Declez**	JCSD Well No. 13	10/18/12	0.20	<1.1	7.9	690	482	<25	<3	0.7	0.5	<0.05	<15	<1	<0.5	1	<0.25	<0.2	0.07	2	116	280	31	25	0.3	0.18	5.6	5.8	<0.5	132	4.7
	JCSD Well No. 17	10/18/12	0.22	<1.1	7.9	590	402	<25	<3	0.8	0.5	<0.05	<15	<1	<0.5	2	<0.25	<0.2	0.07	<1	70	233	30	35	<0.1	0.14	8.9	9.0	<0.5	130	4.4
	JCSD Well No. 19	10/18/12	0.12	<1.1	8.1	361	242	<25	<3	0.6	0.3	<0.05	<15	<1	<0.5	1	<0.25	<0.2	0.08	<1	16	141	27	15	<0.1	0.21	3.9	4.7	0.6	144	7.0
	DCZ-1/1 *	10/23/12	0.69	<1.1	8.1	320	210	<25	3	<0.5	0.3	<0.05	<15	2	<0.5	1	<0.25	<0.2	1.22	5	18	117	28	12	<0.1	0.23	1.6	1.8	<0.5	131	2.3
Victoria & San Sevaine	SS-1/1 *	10/18/12	0.27	<1.1	7.7	282	202	<25	10	0.6	-0.7	<0.05	21	3	<0.5	2	<0.25	<0.2	1.85	7	14	115	17	26	<0.1	0.17	2.5	2.7	<0.5	89	6.0
	VCT-1/1 *	10/18/12	0.34	<1.1	7.7	365	264	<25	25	<0.5	-0.4	<0.05	<15	2	<0.5	1	<0.25	<0.2	44.4	9	46	165	18	15	<0.1	0.15	1.3	1.5	<0.5	95	6.1
	VCT-2/2 *	10/23/12	0.36	1	8.6	310	210	<25	10	<0.5	0.4	<0.05	<15	1	<0.5	2	<0.25	<0.2	21.9	2	8	102	33	10	<0.1	0.27	1.5	1.8	<0.5	140	4.9
	CVWD Well No. 39	10/9/12	0.12	<1.1	7.7	285	226	<25	<3	1.2	-0.1	<0.05	25	<1	<0.5	<1	<0.25	<0.2	0.12	1	7	110	20	8	<0.1	0.13	2.7	2.8	<0.5	119	6.2
	CVWD Well No. 43	10/9/12	0.13	<1.1	7.8	335	224	<25	<3	1.1	0.3	<0.05	63	1	<0.5	<1	<0.25	<0.2	0.29	2	11	135	20	15	<0.1	0.13	2.5	2.6	<0.5	141	2.6
	Unitex 91090	10/9/12	0.16	1.1	7.7	405	254	<25	<3	<0.5	0.1	<0.05	<15	<1	<0.5	<1	<0.25	<0.2	0.08	2	32	178	14	27	<0.1	0.06	1.7	1.8	<0.5	122	6.0
	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 wells. The remaining wells report total recoverable metals values. Please note Fontana Water Co. Well No. 37A is a municipal well that has not been in production since May 2005 and is currently only used for monitoring.

** 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
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**
Apr-12	0	0	0	0	0	0	0	0	0	223	35	64	135	30	219	75	346	96	34	51	32	0	66	147	4	15	18
May-12	0	0	0	0	0	0	0	0	0	25	0	1	3	0	62	0	54	20	255	45	125	0	40	375	3	56	271
Jun-12	0	0	0	0	0	0	0	0	0	21	0	0	12	2	60	0	44	3	188	79	161	0	2	181	54	65	222
2Q12 Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**269**	**35**	**66**	**150**	**32**	**341**	**75**	**445**	**119**	**477**	**175**	**318**	**0**	**108**	**703**	**61**	**136**	**511**
Jul-12	0	0	0	0	0	0	0	0	0	20	0	1	7	22	50	0	108	3	137	41	33	0	57	12	122	51	94
Aug-12	0	0	0	0	0	0	0	0	0	21	0	2	7	50	12	1	72	5	0	2	39	0	44	0	84	35	118
Sep-12	0	0	0	0	0	0	0	0	0	33	0	2	5	29	4	0	62	1	124	188	51	0	0	0	39	24	55
3Q12 Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**73**	**0**	**5**	**18**	**101**	**65**	**1**	**242**	**9**	**261**	**231**	**123**	**0**	**101**	**12**	**245**	**110**	**266**
Oct-12	0	0	0	0	0	0	0	0	0	29	11	0	5	51	18	1	83	1	309	103	0	0	0	0	63	9	131
Nov-12	0	0	0	0	0	0	0	0	0	66	5	0	9	13	100	14	91	11	248	120	0	80	179	154	66	5	72
Dec-12	0	0	0	0	0	0	0	0	0	278	49	0	335	6	351	79	337	41	103	15	0	67	139	230	1	5	25
4Q12 Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**373**	**66**	**0**	**349**	**70**	**470**	**94**	**511**	**53**	**660**	**237**	**0**	**148**	**318**	**384**	**130**	**19**	**228**

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)
1Q12	Jan-12	0.0	0.40	140	0	14.0	360	(301)	(7,887)	(173,225)
	Feb-12	0.0	0.40	140	0	14.0	360	(301)	(7,888)	(173,269)
	Mar-12	0.0	0.40	140	0	14.0	360	(301)	(7,891)	(173,327)
2Q12	Apr-12	0.0	0.40	140	2	14.0	360	(303)	(7,929)	(174,304)
	May-12	0.0	0.40	140	25	14.0	360	(328)	(8,358)	(185,358)
	Jun-12	0.0	0.40	140	0	14.0	360	(328)	(8,360)	(185,403)
3Q12	Jul-12	0.0	0.40	140	0	14.0	360	(328)	(8,362)	(185,456)
	Aug-12	0.0	0.40	140	1	14.0	360	(329)	(8,374)	(185,758)
	Sep-12	0.0	0.40	140	0	14.0	360	(329)	(8,376)	(185,798)
4Q12	Oct-12	0.0	0.40	140	33	14.0	360	(362)	(8,954)	(200,662)
	Nov-12	0.0	0.40	140	8	14.0	360	(370)	(9,087)	(204,086)
	Dec-12	0.0	0.40	140	0	14.0	360	(370)	(9,089)	(204,140)

	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)
1Q12	Jan-12	0.0	0.40	140	0	3.5	310	751	(1,955)	166,280
	Feb-12	0.0	0.40	140	0	3.5	310	751	(1,955)	166,280
	Mar-12	0.0	0.40	140	0	3.5	310	750	(1,955)	166,261
2Q12	Apr-12	0.0	0.40	140	0	3.5	310	750	(1,955)	166,261
	May-12	0.0	0.40	140	0	3.5	310	750	(1,955)	166,261
	Jun-12	0.0	0.40	140	1	3.5	310	749	(1,960)	165,817
3Q12	Jul-12	0.0	0.40	140	2	3.5	310	748	(1,967)	165,209
	Aug-12	0.0	0.40	140	0	3.5	310	747	(1,968)	165,091
	Sep-12	0.0	0.40	140	0	3.5	310	747	(1,968)	165,091
4Q12	Oct-12	0.0	0.40	140	14	3.5	310	733	(2,028)	159,740
	Nov-12	0.0	0.40	140	177	3.5	310	557	(2,779)	92,226
	Dec-12	0.0	0.40	140	0	3.5	310	557	(2,779)	92,226

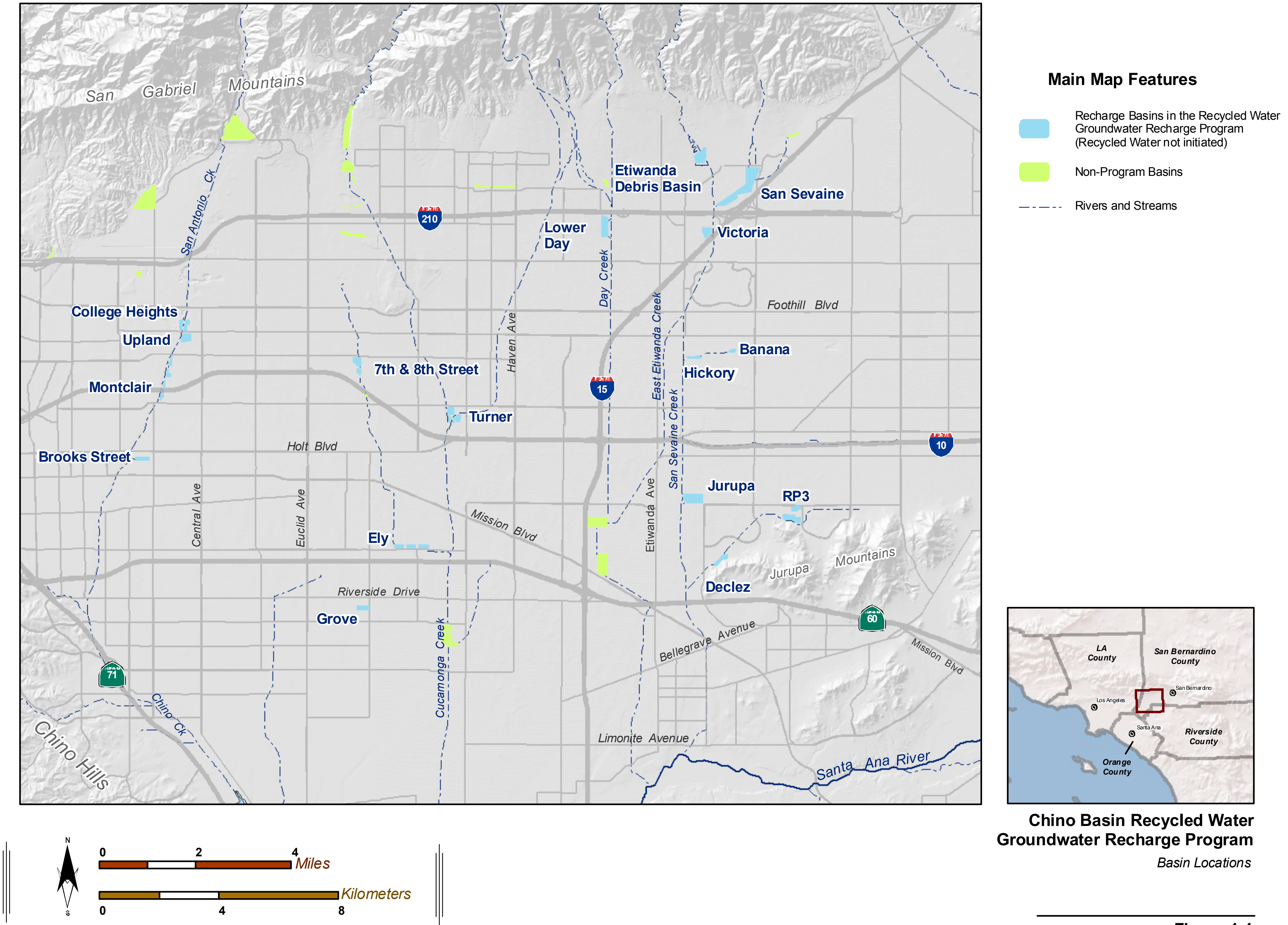
	ASR Well No. 32									
	Date	Injection			Recovery			Mass Balance		
		Volume (AF)	TIN (mg/L)	TDS (mg/L)	Volume (AF)	TIN (mg/L)	TDS (mg/L)	Storage (AF)	TIN (kg)	TDS (kg)
1Q12	Jan-12	0.0	0.40	140	0	3.5	340	(1,220)	(714)	13,238
	Feb-12	0.0	0.40	140	27	3.5	340	(1,248)	(833)	1,707
	Mar-12	0.0	0.40	140	52	3.5	340	(1,300)	(1,057)	(20,055)
2Q12	Apr-12	0.0	0.40	140	30	3.5	340	(1,330)	(1,189)	(32,831)
	May-12	0.0	0.40	140	0	3.5	340	(1,330)	(1,189)	(32,831)
	Jun-12	0.0	0.40	140	0	3.5	340	(1,330)	(1,189)	(32,831)
3Q12	Jul-12	0.0	0.40	140	0	3.5	340	(1,330)	(1,190)	(32,990)
	Aug-12	0.0	0.40	140	0	3.5	340	(1,330)	(1,190)	(32,990)
	Sep-12	0.0	0.40	140	85	3.5	340	(1,416)	(1,558)	(68,743)
4Q12	Oct-12	0.0	0.40	140	0	3.5	340	(1,416)	(1,559)	(68,789)
	Nov-12	0.0	0.40	140	17	3.5	340	(1,433)	(1,632)	(75,945)
	Dec-12	0.0	0.40	140	9	3.5	340	(1,442)	(1,670)	(79,573)

	ASR Well No. 33									
	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)
1Q12	Jan-12	0.0	0.40	140	1	3.5	370	(19)	(213)	(20,910)
	Feb-12	0.0	0.40	140	0	3.5	370	(19)	(213)	(20,910)
	Mar-12	0.0	0.40	140	0	3.5	370	(19)	(213)	(20,910)
2Q12	Apr-12	0.0	0.40	140	23	3.5	370	(41)	(310)	(31,244)
	May-12	0.0	0.40	140	204	3.5	370	(245)	(1,191)	(124,332)
	Jun-12	0.0	0.40	140	0	3.5	370	(245)	(1,191)	(124,332)
3Q12	Jul-12	0.0	0.40	140	0	3.5	370	(245)	(1,191)	(124,332)
	Aug-12	0.0	0.40	140	9	3.5	370	(254)	(1,228)	(128,299)
	Sep-12	0.0	0.40	140	123	3.5	370	(377)	(1,761)	(184,583)
4Q12	Oct-12	0.0	0.40	140	146	3.5	370	(523)	(2,392)	(251,261)
	Nov-12	0.0	0.40	140	79	3.5	370	(603)	(2,735)	(287,535)
	Dec-12	0.0	0.40	140	37	3.5	370	(640)	(2,895)	(304,511)

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

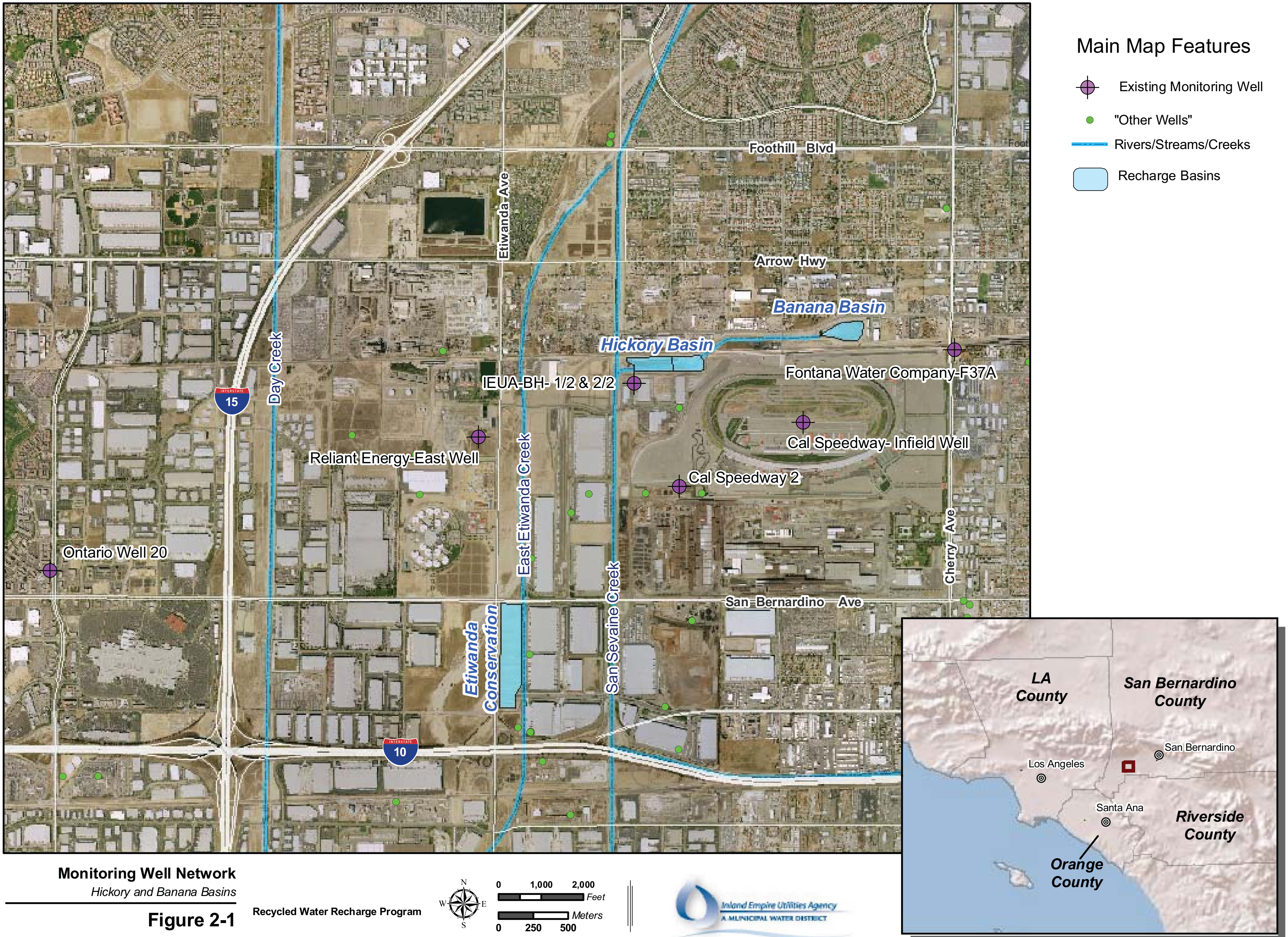
	Total Project (All Wells)				
	Date		Mass Balance		
			Storage (AF)	TIN (kg)	TDS (kg)
1Q12	Jan-12		(789)	(10,768)	(14,618)
	Feb-12		(817)	(10,889)	(26,192)
	Mar-12		(869)	(11,115)	(48,031)
2Q12	Apr-12		(924)	(11,382)	(72,118)
	May-12		(1,153)	(12,693)	(176,260)
	Jun-12		(1,154)	(12,700)	(176,748)
3Q12	Jul-12		(1,156)	(12,710)	(177,569)
	Aug-12		(1,166)	(12,761)	(181,956)
	Sep-12		(1,374)	(13,663)	(274,034)
4Q12	Oct-12		(1,568)	(14,931)	(360,973)
	Nov-12		(1,849)	(16,233)	(475,340)
	Dec-12		(1,895)	(16,433)	(495,997)



Chino Basin Recycled Water Groundwater Recharge Program

Basin Locations

Figure 1-1



Monitoring Well Network

Hickory and Banana Basins

Figure 2-1

Recycled Water Recharge Program

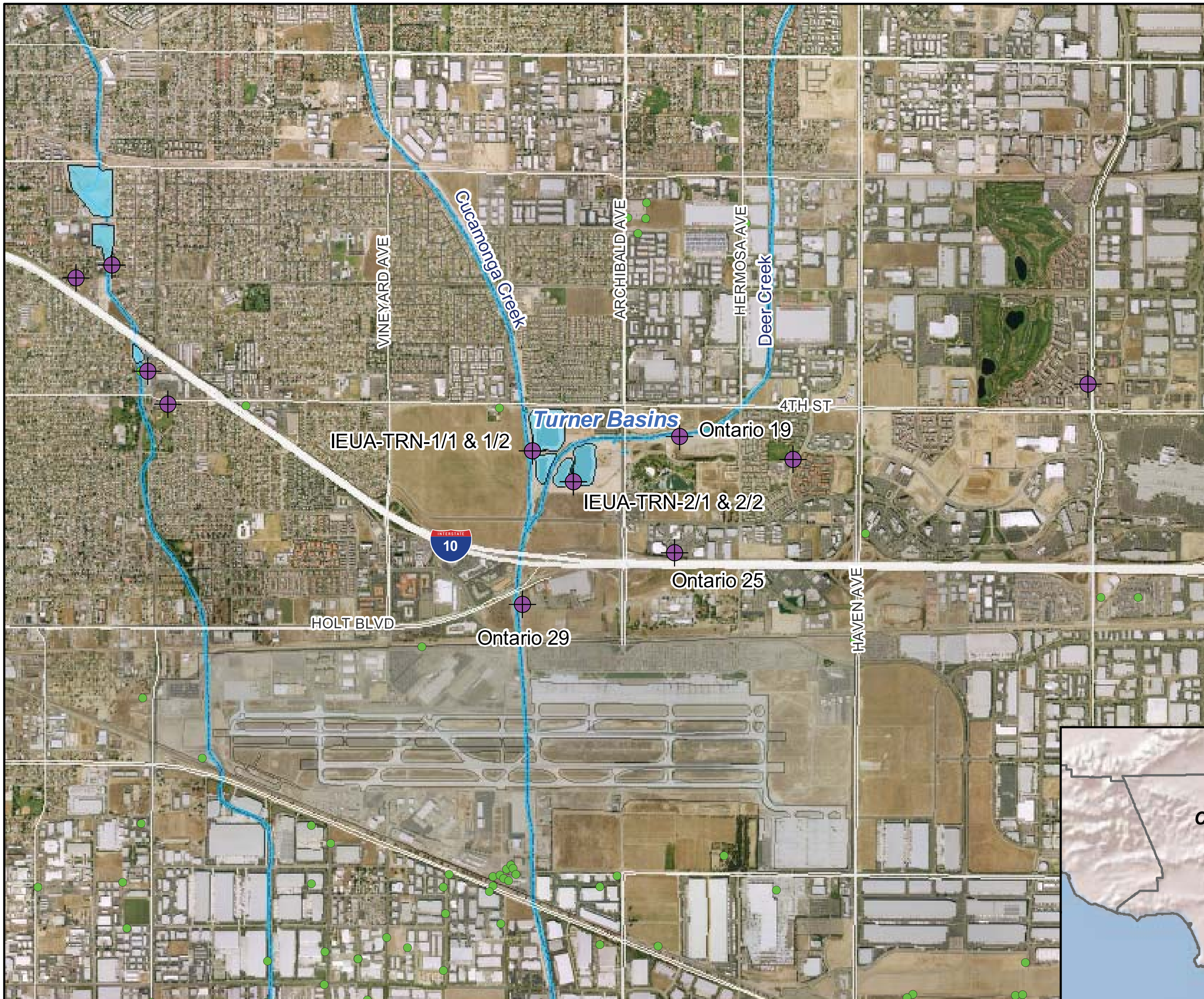
N S E W

0 1,000 2,000 Feet

0 250 500 Meters

Inland Empire Utilities Agency
A MUNICIPAL WATER DISTRICT

20071106



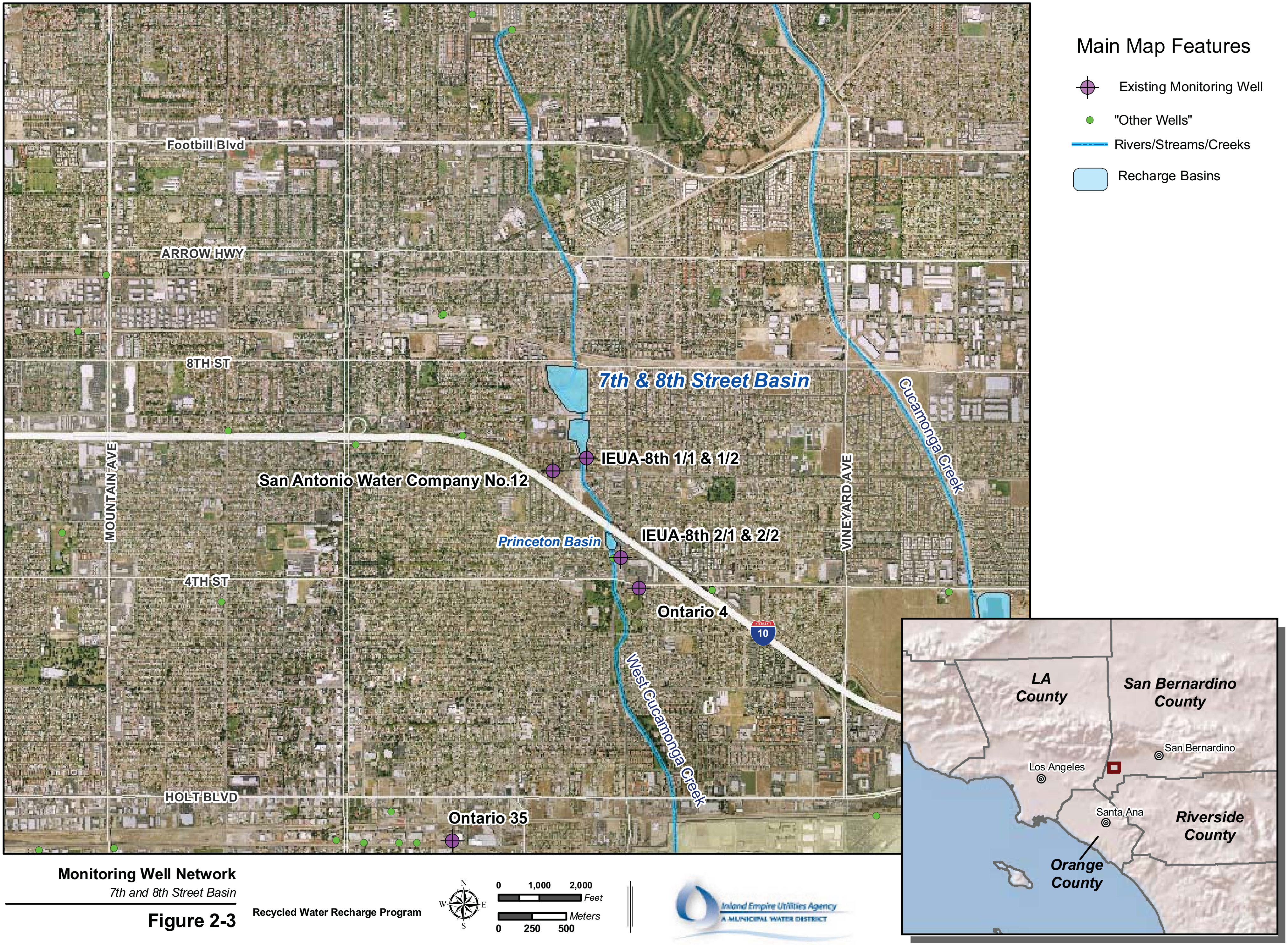
Monitoring Well Network
Turner Basins

Figure 2-2

Recycled Water Recharge Program

0 1,000 2,000 *Feet*
0 250 500 *Meters*

Inland Empire Utilities Agency
A MUNICIPAL WATER DISTRICT

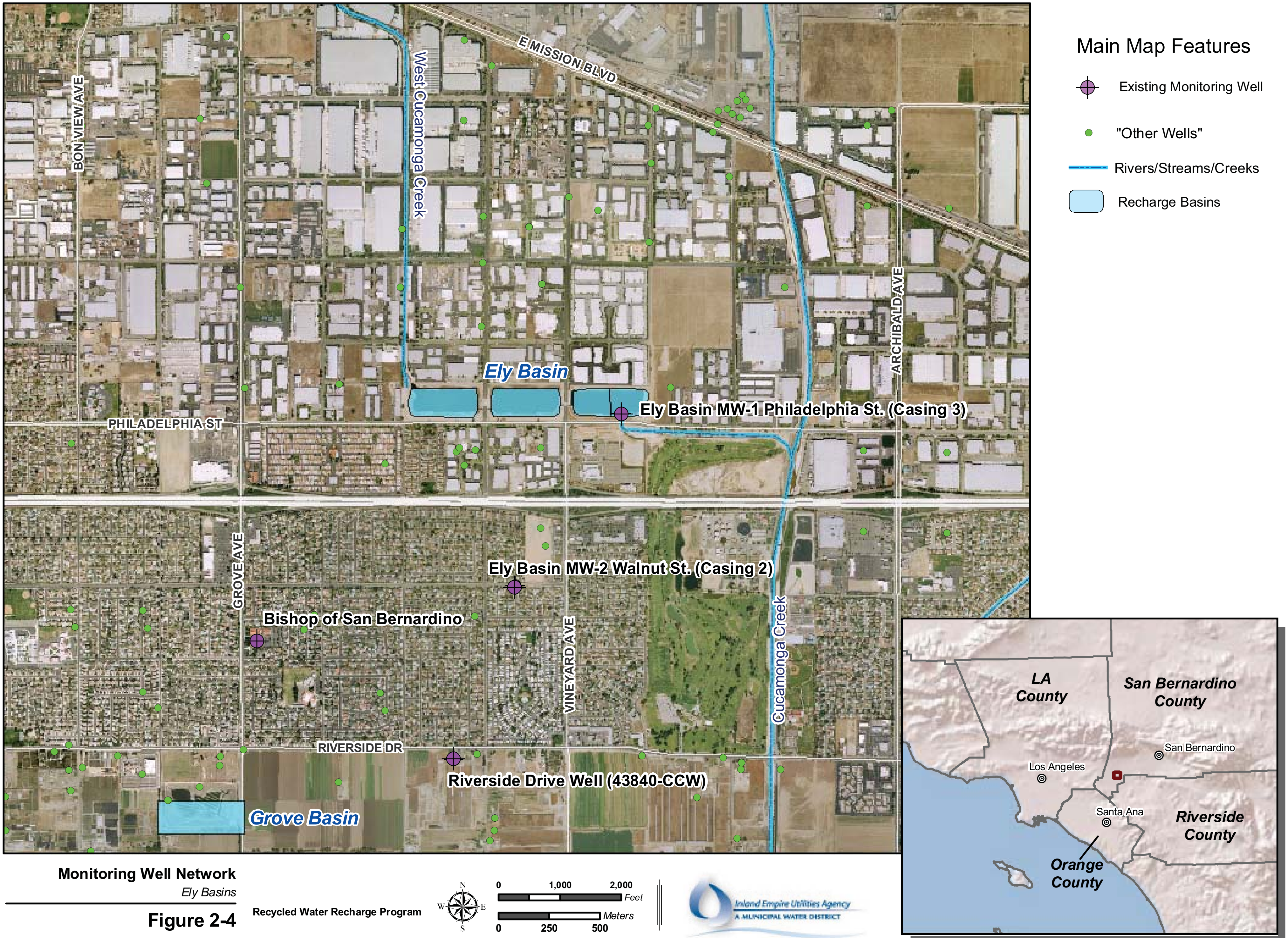


Monitoring Well Network

7th and 8th Street Basin

Figure 2-3

Recycled Water Recharge Program

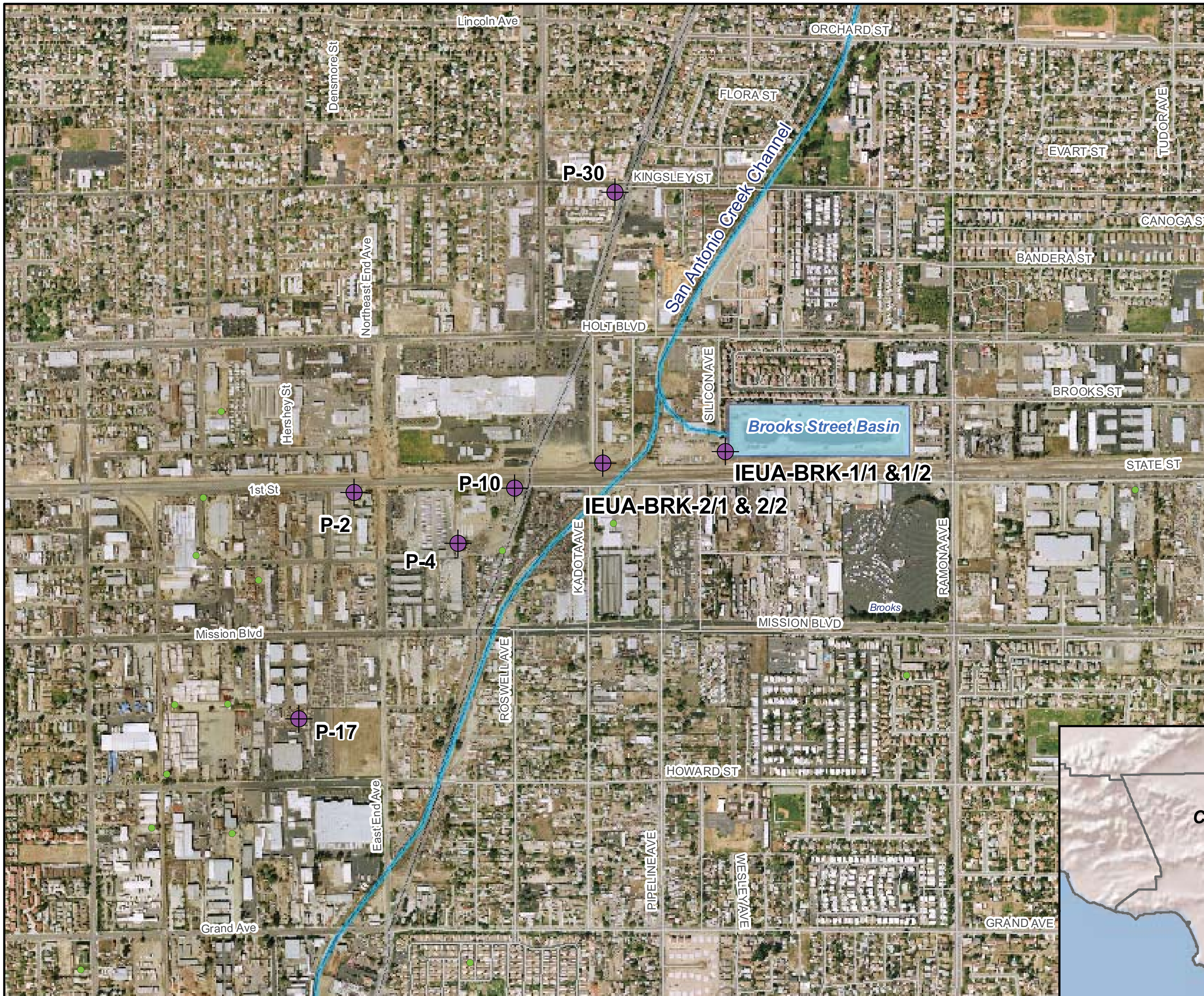


Monitoring Well Network

Ely Basins

Figure 2-4

Recycled Water Recharge Program



Monitoring Well Network

Brooks Street Basin

Figure 2-5

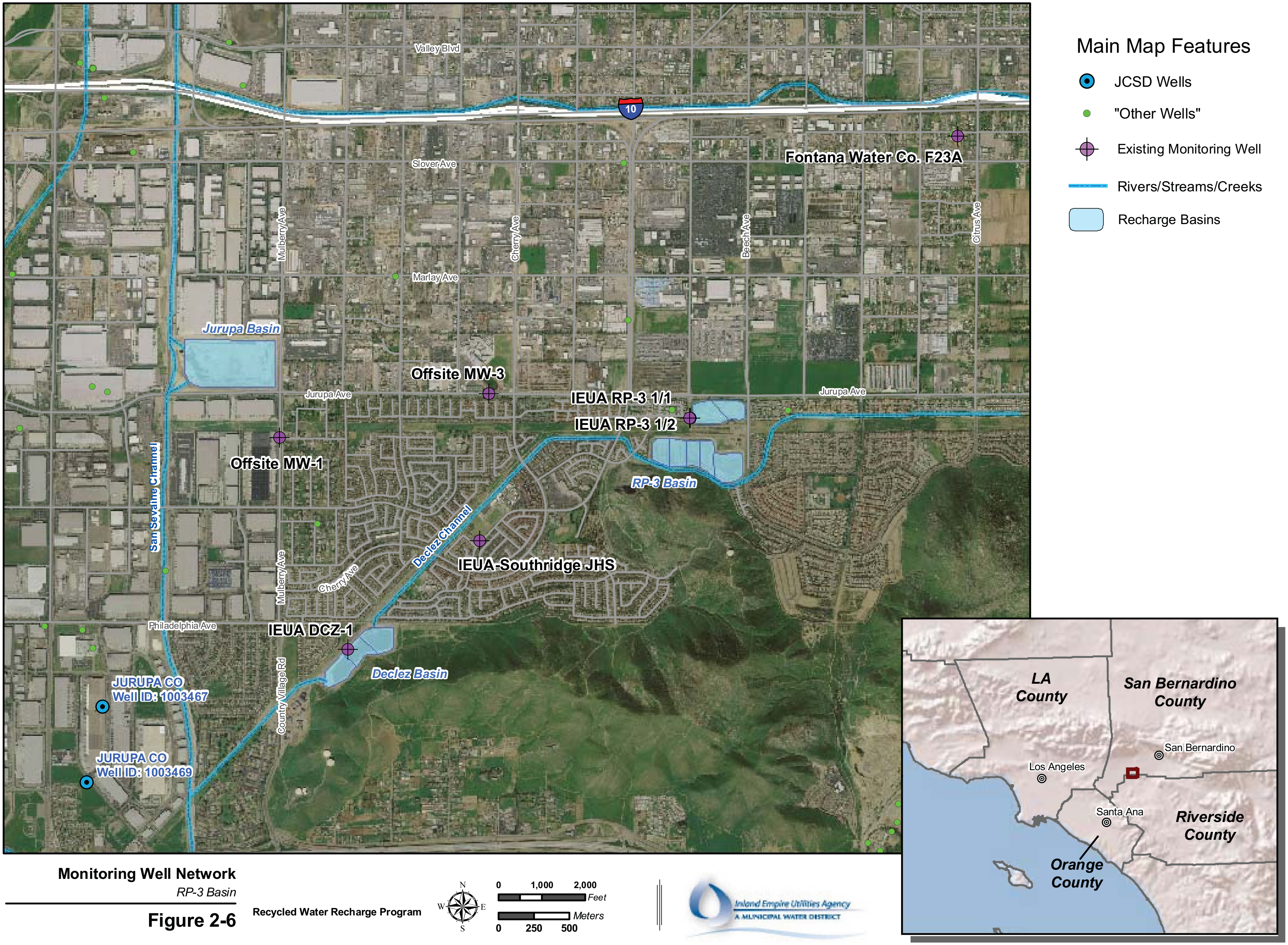
Recycled Water Recharge Program

0 1,000 Feet

0 300 Meters

Inland Empire Utilities Agency
A MUNICIPAL WATER DISTRICT

20071106

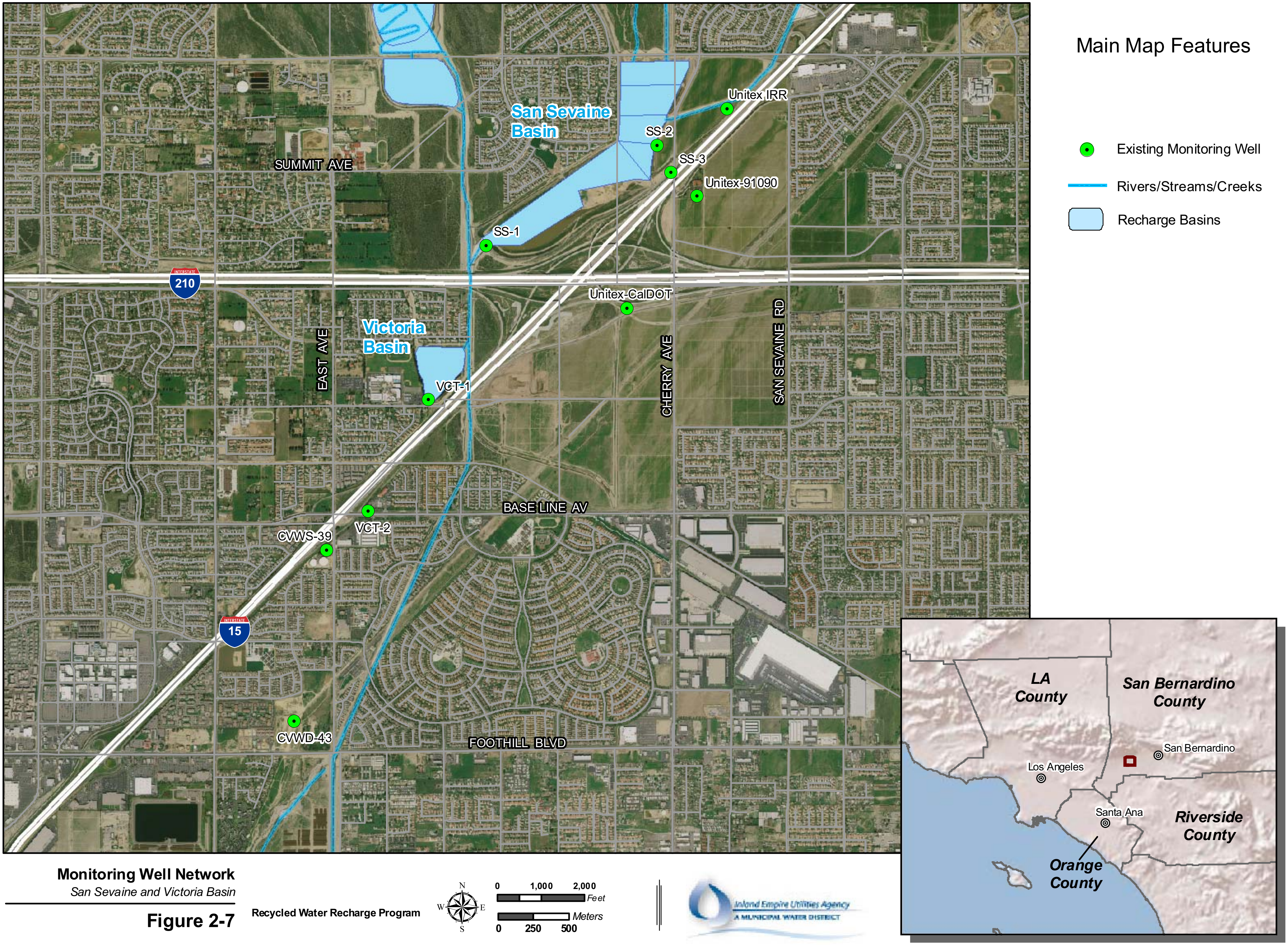


Monitoring Well Network

RP-3 Basin

Figure 2-6

Recycled Water Recharge Program



Monitoring Well Network

San Sevaine and Victoria Basin

Figure 2-7

Recycled Water Recharge Program

Inland Empire Utilities Agency
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20071106