Sylvie Lee, P.E.
Manager of Planning & Environmental Compliance

Peter Kavounas, P.E.
General Manager

May 15, 2014

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 2014

Dear Mr. Berchtold,

Inland Empire Utilities Agency and Chino Basin Watermaster hereby submit the *Quarterly Monitoring Report* for the first quarter of 2014 (1Q14), January 1 through March 31, 2014, 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 1Q14, 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 the 4-quarter running average for odor (secondary MCL).

Chino Basin Watermaster hereby certifies that, during the period of January 1 through March 31, 2014, 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 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 May 2014 in the Cities of Chino and Rancho Cucamonga.

Sylvie Lee, P.E.
Manager of Planning & Environmental Compliance

Peter Kavounas, P.E.
General Manager

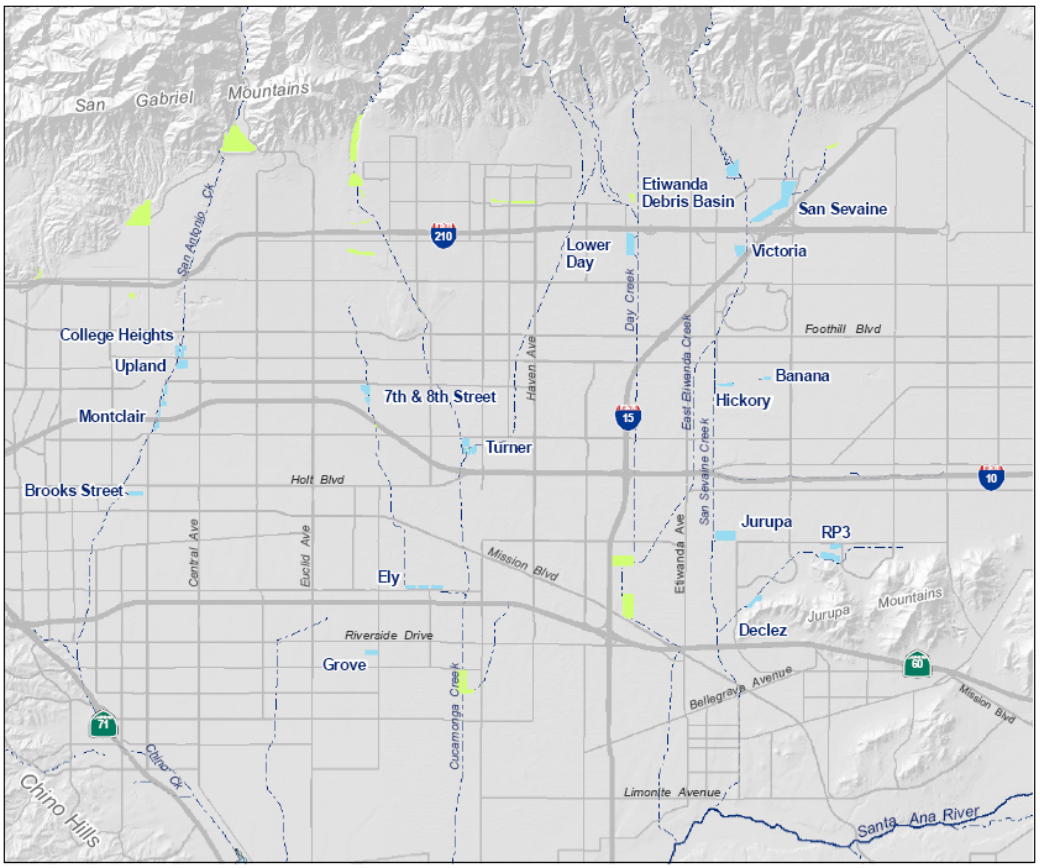
Inland Empire Utilities Agency
P.O. Box 9020
Chino Hills, CA 91708
909.993.1740

Chino Basin Watermaster
9641 San Bernardino Road
Rancho Cucamonga, CA 91730
909.484.3888

Chino Basin Recycled Water Groundwater Recharge Program

Quarterly Monitoring Report

January 1 through March 31, 2014



Prepared by:

Inland Empire Utilities Agency
A MUNICIPAL WATER DISTRICT

May 15, 2014

Table of Contents

LIST OF TABLES

LIST OF FIGURES

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. The locations of the 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 2014 (1Q14).

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 1Q14 data.

Recycled Water Specifications A.5 through A.9 in the Order 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 October 2013, the average of two consecutive TN sample results for the Banana Basin compliance lysimeter exceeded the 5 mg/L limit. The CDPH and the Regional Board were both notified via e-mail regarding the exceedance. Recycled water deliveries were voluntarily suspended on November 14, 2013. A letter was sent to the CDPH and the Regional Board on December 11, 2013 requesting the relocation of the Banana Basin TN compliance point to the groundwater mound monitoring well, namely BH-1/2. This is the approved TN compliance point for Hickory Basin from a Regional Board letter dated July 29, 2013. At time of reporting, IEUA has not yet received correspondence in acceptance of the proposal to relocate the Banana Basin TN compliance point. On March 26, 2014, recycled water deliveries to Banana Basin were resumed once TN results fell below 5 mg/L for at least one week. No recycled water was delivered prior to this date during the 1Q14 reporting period.

In the Order, compliance for constituents with primary 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). IEUA selected the turnout to NRG California South, LP (formerly Reliant Energy) to be representative of the system blend of recycled water used for recharge. The 4-quarter running average concentration data for 2Q13 through 1Q14 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 primary MCLs or secondary MCLs, only oil & grease does not require the 4-quarter running average for compliance determination. During 1Q14, 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, with the exception of odor; and oil and grease.

Odor has a secondary MCL of 3 Units in Recycled Water Specification A.3. During 3Q13 and 4Q13 the threshold odor was found to be 8 Units and 17 Units, respectively. This results in a 4-quarter running average value of 8 Units, causing the threshold odor to exceed the secondary MCL. This result will continue to impact the 4-quarter running average for 2Q14. The odor has been identified by Eaton Analytical (contract laboratory) as chlorine. Recycled water used for groundwater recharge must meet disinfected tertiary recycled water standards in accordance to Title 22. Sodium hypochlorite is used as the disinfection agent at the RP-1 and RP-4 water recycling facilities; hence, the smell of chlorine is prominent in recycled water and is therefore unavoidable. Order No. R8-2007-0039 allows compliance for secondary MCLs to be determined at the mound monitoring well. Based on the mound monitoring well data (Table 2-8a), threshold odor did not exceed 3 Units at any of the monitoring wells during 1Q14.

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 NRG California South, LP (formerly Reliant Energy) to be representative of the system blend of recycled water used for recharge. Although NRG turnout is a suitable sampling location 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 1Q14 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 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, for compliance determination of Recycled Water Specifications A.7, A.10, and A.11. EC is also measured and reported to assist in identifying the presence of recycled water at various depths in the vadose zone. Basin and lysimeter water quality results from 1Q14 are summarized in Table 2-5a. The table includes lysimeter data for 8th Street, Banana, Brooks, Hickory, RP3, San Sevaine, and Victoria Basins.

As indicated in Recycled Water Compliance Determination B.6 in the Order, some basins have implemented alternative monitoring plans for TOC and TN compliance for Recycled Water Specifications A.7, A.10, and A.11. Alternative TOC and TN monitoring plans have been approved for Turner, Ely, 8th Street, and Victoria Basins include sampling of recycled water at the NRG turnout and apply a correction factor for Soil Aquifer Treatment (SAT). 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
- 8th Street Basin: TOC reduction of 59 percent and TN reduction of 75 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.

On July 29, 2013, the Regional Board approved the relocation of Hickory Basin TN compliance point from HKYE-LYS-25 to groundwater mound monitoring well, BH-1/2. The TN monitoring data for BH-1/2 can be found in Table 2-5b.

C. Diluent Water

For 1Q14, diluent water quality sampling of stormwater was conducted February 2014 at Turner 1 & 2, Turner 3 & 4, and Ely Basins and March 2014 at Lower Day and Montclair Basins. Table 2-6 lists the results of the local runoff sampling and analyses. Details on the methods used to measure daily diluent water flow and diluent water monitoring schedule can be found in the CDPH-approved Diluent Water Monitoring Plan. 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 (1st and 4th quarters) and local runoff is sampled during the dry season (2nd and 3rd 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 1Q14, 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 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 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, 8th 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 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 1Q14 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 two monitoring wells, namely: BRK-2/1 and VCT-1/1. Additionally, pH exceeding the secondary MCL of 8.5 was observed at Ontario Well No. 20 and Ontario Well No. 38 with field readings of 8.6 at both sites.

TDS and EC were higher than their secondary MCLs of 500 mg/L and 900 µmhos/cm, respectively, in Alcoa MW3 and Ely MW2 (Walnut). Bishop of San Bernardino Corporation well slightly exceeded the TDS secondary MCL. The wells south of the Ely Basins and near the RP3 Basins are located in areas where the TDS and EC concentrations in groundwater are elevated; in the RP3 Basins area, TDS is about 750 mg/L and EC is about 1,000 µmhos/cm, and south of the Ely Basins, TDS is about 500 mg/L and EC is about 750 µmhos/cm.

Color exceeded the secondary MCL of 15 units in monitoring well BRK-2/1. Dissolved manganese was above the secondary MCL of 50 µg/L at RP3-1/2. Recycled water manganese concentrations are generally less than 20 µg/L. Historical stormwater manganese analyses have been observed to fall within the range of 5 to 150 µg/L.

Some monitoring wells in the Banana & Hickory, RP3, Brooks, and Ely monitoring networks 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. No notifications were made to the CDPH as these areas have been previously identified to have monitoring wells with high NO_3-N concentrations.

3. Recharge Operations

IEUA's Groundwater Recharge Coordinator recorded the daily volumes of water routed to all basins. The 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 1Q14 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.

The RP3 Basins' second closest downgradient monitoring well, Southridge JHS, pump experienced an electrical short during 2Q13. No samples were analyzed during 2Q13, 3Q13, 4Q13, and 1Q14. The well will be sampled once the pump is repaired. IEUA issued a request for proposal to repair the well in 1Q14. The well pump was removed in early April 2014 and found to have internal corrosion and frayed external wiring. A new pump and motor are being ordered. Downhole videotaping indicates the well is constructed of 6-inch internal diameter louvered well screen from 100 to 200 feet and from 220 to 360 feet below the top of casing. The upper screen is above the April 7, 2014 water table of 198.4 feet below the top of the casing. The lower louvers below the water table have significant biofouling and scale. IEUA is developing a well rehabilitation schedule to be implemented prior to installing the new pump.

5. Certification of Non-Pumping in the Buffer Zones

Watermaster has certified that there was no reported pumping of groundwater in 1Q14 for domestic or municipal use from the buffer zones that extend 500 feet and 6 months underground travel time from the 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 the 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 should 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 significant volume of imported water has been injected since September 2011. During the last four quarters (2Q13 through 1Q14), a total of 1 acre-foot of imported water was injected into the groundwater basin during facility tours for demonstration purposes. 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 2014
(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
01/01/14	0.6	6.3	9.2		9.2	7.0	786			2	0.6	4.4	3.8		3.8	7.0	810			<2
01/02/14	0.6	5.9	8.9		8.9	7.0	771			2	0.8	4.5	4.0		4.0	7.0	825			<2
01/03/14	0.7	5.8				7.0	776			<2	0.7	4.2				7.0	815			<2
01/04/14	0.7	5.8				7.0	770			<2	0.6	4.2				7.0	815			<2
01/05/14	0.6	6.1	9.8	9.8	9.8	7.1	769	506	157	<2	0.6	4.3	4.0	4.9	4.1	7.0	815	490	152	<2
01/06/14	0.7	6.0	8.7		8.7	7.0	770			2	0.6	4.2	3.8		3.8	7.0	810			<2
01/07/14	0.7	6.1	7.5		7.5	7.1	768			<2	0.6	4.2	4.4		4.4	7.0	815			<2
01/08/14	0.6	6.2	8.1		8.1	7.1	794			<2	0.6	4.2	4.9		4.9	7.0	795			<2
01/09/14	0.6	5.8	7.5		7.5	7.1	818			<2	0.6	4.1	5.2		5.2	7.0	790			<2
01/10/14	0.6	5.8				7.1	822			<2	0.6	4.0				7.0	790			<2
01/11/14	0.6	5.8				7.2	828			<2	0.6	4.1				7.0	795			<2
01/12/14	0.6	6.3	6.5	6.5	6.5	7.2	833	504		2	0.6	4.3	4.4	4.4	4.4	7.0	800	488		<2
01/13/14	0.7	6.0	6.7		6.7	7.2	839			<2	0.7	4.3	6.3		6.3	7.1	825			<2
01/14/14	0.6	6.0	6.8		6.8	7.2	821			<2	0.7	4.3	5.0		5.0	7.1	810			<2
01/15/14	0.6	6.1	6.9		6.9	7.1	784			2	0.7	4.5	5.4		5.4	7.1	805			<2
01/16/14	0.6	5.6	6.8		6.8	7.2	774			<2	0.7	4.1	6.0		6.0	7.1	795			<2
01/17/14	0.6	5.6				7.2	768			<2	0.8	4.0				7.0	795			<2
01/18/14	0.6	5.7				7.2	776			<2	0.8	4.1				7.0	785			<2
01/19/14	0.6	5.8	6.5	6.5	6.5	7.2	765	488		<2	0.8	4.3	4.4	4.4	4.4	7.0	785	476		<2
01/20/14	0.6	5.7	6.3		6.3	7.2	755			<2	0.8	4.2	4.5		4.5	7.1	790			<2
01/21/14	0.8	6.0	6.2		6.2	7.2	786			2	0.8	4.2	4.3		4.3	7.0	795			<2
01/22/14	0.6	6.0	6.5		6.5	7.2	822			<2	0.8	4.2	4.9		4.9	7.0	800			<2
01/23/14	0.5	5.7	7.1		7.1	7.2	819			<2	0.9	4.1	5.2		5.2	7.0	775			<2
01/24/14	0.5	5.7				7.2	824			<2	0.9	4.0				6.9	775			<2
01/25/14	0.5	5.7				7.1	831			<2	0.9	4.0				6.9	785			<2
01/26/14	0.6	6.2	7.6	7.6	7.6	7.2	821	512		<2	0.9	4.3	4.2	4.2	4.2	7.0	795	478		<2
01/27/14	0.6	5.9	6.3		6.3	7.1	816			<2	0.9	4.3	4.2		4.2	7.0	805			<2
01/28/14	0.6	5.8	6.1		6.1	7.2	824			2	0.9	4.1	4.2		4.2	6.9	820			<2
01/29/14	0.6	5.8	6.3		6.3	7.2	831			<2	0.9	4.0	5.0		5.0	6.9	825			<2
01/30/14	0.6	5.5	7.2		7.2	7.1	837			2	0.8	4.1	5.3		5.3	6.9	815			<2
01/31/14	0.6	5.4				7.2	832			<2	1.0	3.9				7.0	820			<2
Avg	0.6	5.9	7.3	7.6	7.3	7.1	801	503	157	<2	0.7	4.2	4.7	4.5	4.7	7.0	802	483	152	<2
Min	0.5	5.4	6.1	6.5	6.1	7.0	755	488	157	<2	0.6	3.9	3.8	4.2	3.8	6.9	775	476	152	<2
Max	0.8	6.3	9.8	9.8	9.8	7.2	839	512	157	2	1.0	4.5	6.3	4.9	6.3	7.1	825	490	152	<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 2014
(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
02/01/14	0.6	5.4				7.1	845			<2	1.0	3.9				6.9	820			<2
02/02/14	0.6	5.7	7.3	7.3	7.3	7.1	833	498	149	<2	0.9	4.1	5.4	5.4	5.4	6.9	820	492	136	<2
02/03/14	0.8	5.6	7.0		7.0	7.1	816			<2	0.9	4.1	4.5		4.5	7.0	810			<2
02/04/14	0.7	5.7	6.7		6.7	7.2	811			<2	0.8	4.2	6.3		6.3	7.0	805			<2
02/05/14	0.7	6.0	6.9		6.9	7.1	820			2	0.9	4.1	4.0		4.0	6.9	800			<2
02/06/14	0.7	5.8	7.7		7.7	7.1	813			<2	0.9	4.2	6.2		6.2	6.9	800			<2
02/07/14	0.7	5.6				7.1	806			<2	0.9	4.0				6.9	795			<2
02/08/14	0.7	5.6				7.1	812			<2	0.9	4.0				6.9	805			<2
02/09/14	0.7	6.1				7.1	815	496		4	0.8	4.2	6.2	6.2	6.2	6.9	805	480		<2
02/10/14	0.7	6.0	7.3		7.3	7.1	814			2	0.8	4.2	5.5		5.5	7.0	810			<2
02/11/14	0.7	5.9	7.0		7.0	7.2	822			<2	0.8	4.1	4.6		4.6	7.0	785			<2
02/12/14	0.6	5.9	8.0		8.0	7.1	826			4	0.7	4.2	4.7		4.7	7.0	775			2
02/13/14	0.6	6.0	7.4		7.4	7.1	829			2	0.6	4.2	4.8		4.8	6.9	770			<2
02/14/14	0.6	5.5				7.1	834			<2	0.5	3.7				6.9	770			<2
02/15/14	0.6	5.4				7.1	841			<2	0.5	3.7				6.9	775			<2
02/16/14	0.6	5.3				7.1	839			<2	0.6	3.8				6.9	780			<2
02/17/14	0.5	5.7	7.2	7.2	7.2	7.1	831	536		<2	0.6	4.0	3.5		3.5	7.0	780	500		<2
02/18/14	0.6	5.9	7.1		7.1	7.1	830			<2	0.6	4.2	3.2		3.2	7.0	795			<2
02/19/14	0.6	5.9	8.5		8.5	7.1	838			2	0.6	4.0	4.2	4.2	4.2	7.0	795			<2
02/20/14	0.6	5.6	8.1	8.1	8.1	7.1	830			<2	0.6	3.9	4.7		4.7	7.0	790	478		<2
02/21/14	0.7	5.6				7.1	840			<2	0.6	3.8				6.9	780			<2
02/22/14	0.6	5.7				7.1	848			<2	0.6	3.8				7.0	780			<2
02/23/14	0.5	6.0	8.2	8.2	8.2	7.1	841	510		<2	0.6	4.4	3.7	3.8	3.8	7.0	780	482		<2
02/24/14	0.5	5.7	7.1		7.1	7.2	830			<2	0.7	4.2	3.2		3.2	7.0	795			<2
02/25/14	0.6	5.8	7.5		7.5	7.2	838			2	0.7	4.4	2.8		3.8	6.9	800			<2
02/26/14	0.6	5.8	7.4		7.4	7.2	834			<2	0.6	4.3	3.9		5.4	6.9	795			<2
02/27/14	0.6	5.6	7.5		7.5	7.2	824			<2	0.7	4.2	5.1		5.1	6.9	805			<2
02/28/14	0.4	5.2				7.1	837			2	0.7	4.0				7.0	800			<2
Avg	0.6	5.7	7.4	7.7	7.4	7.1	829	510	149	<2	0.7	4.1	4.6	4.9	4.7	7.0	794	486	136	<2
Min	0.4	5.2	6.7	7.2	6.7	7.1	806	496	149	<2	0.5	3.7	2.8	3.8	3.2	6.9	770	478	136	<2
Max	0.8	6.1	8.5	8.2	8.5	7.2	848	536	149	4	1.0	4.4	6.3	6.2	6.3	7.0	820	500	136	2

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

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

[1] Turbidity and coliform must meet water quality standards for disinfected tertiary treated recycled water, as specified in NPDES No. 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 2014
(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
03/01/14	0.5	5.2				7.0	877			<2	0.6	4.0				7.0	765			<2
03/02/14	0.5	5.8	7.2	7.2	7.2	7.1	876	478	152	<2	0.6	4.2	5.5	6.5	5.5	7.0	765	448	146	<2
03/03/14	0.5	6.0	8.2		8.2	7.2	890			<2	0.7	4.6	4.5		4.5	7.1	770			<2
03/04/14	0.5	6.0	8.9		8.9	7.2	838			4	0.8	4.6	4.5		4.5	7.1	785			<2
03/05/14	0.4	6.4	8.9		8.9	7.2	791			<2	0.8	4.5	6.2		6.2	7.1	785			<2
03/06/14	0.4	5.8	8.9		8.9	7.2	821			2	0.7	4.1	5.3		5.3	7.0	775			<2
03/07/14	0.5	5.8				7.2	834			<2	0.7	4.0				7.1	760			<2
03/08/14	0.6	5.7				7.2	840			<2	0.7	3.9				7.1	760			<2
03/09/14	0.6	6.2	7.7	7.7	7.7	7.2	844	496		<2	0.6	4.1	5.0	6.0	5.0	7.1	760	456		<2
03/10/14	0.7	6.1	7.6		7.6	7.2	845			<2	0.6	4.1	4.2		4.2	7.1	770			<2
03/11/14	0.6	6.0	7.9		7.9	7.2	854			2	0.9	4.7	5.0		5.0	7.1	790			<2
03/12/14	0.6	6.1	8.0		8.0	7.3	855			<2	0.7	4.4	4.8		4.8	7.1	795			<2
03/13/14	0.5	5.7	7.2		7.2	7.3	850			2	0.7	4.0	6.4		6.4	7.1	765			<2
03/14/14	0.6	5.6				7.3	842			<2	0.6	4.6				7.1	750			<2
03/15/14	0.5	5.6				7.3	837			<2	0.6	3.7				7.1	745			<2
03/16/14	0.5	6.1	3.9	3.9	3.9	7.3	839	490		<2	0.5	3.9	7.9	8.5	7.9	7.1	735	450		<2
03/17/14	0.5	5.9	4.9		4.9	7.2	825			<2	0.5	3.9	6.1		6.1	7.1	725			<2
03/18/14	0.6	6.1	4.3		4.4	7.1	838			<2	0.4	4.0	7.2		7.2	7.2	740			<2
03/19/14	0.6	6.4	5.3		5.3	7.1	834			<2	0.4	4.2	6.5		6.5	7.1	745			<2
03/20/14	0.8	6.1	5.4		5.4	7.1	824			<2	0.4	4.0	5.6		5.6	7.1	735			<2
03/21/14	0.5	5.7				7.1	834			<2	0.4	3.9				7.1	725			<2
03/22/14	0.5	5.8				7.1	830			<2	0.4	3.9				7.1	730			<2
03/23/14	0.5	6.1	6.7	6.7	6.7	7.1	828	468		<2	0.4	4.3	5.6	6.2	5.6	7.1	735	448		<2
03/24/14	0.5	6.0	7.3		7.3	7.1	820			<2	0.4	4.3	5.4		5.4	7.1	750			<2
03/25/14	0.5	6.0	7.2		7.2	7.1	814			2	0.3	4.3	4.8		4.8	7.1	740			<2
03/26/14	0.5	6.4	6.4		6.4	7.1	822			<2	0.5	4.5	5.7		5.7	7.2	740			<2
03/27/14	0.5	6.2	7.3		7.6	7.1	827			<2	0.3	4.4	5.6		5.6	7.1	750			<2
03/28/14	0.6	6.2				7.0	836			<2	0.2	4.3				7.1	765			<2
03/29/14	0.6	6.1				7.1	850			2	0.2	4.2				7.0	760			<2
03/30/14	0.6	6.4	5.6	5.6	5.6	7.1	841	478		2	0.2	4.5	3.7	4.7	3.7	7.1	745	458		<2
03/31/14	0.6	6.5	6.4		6.4	7.1	832			<2	0.2	4.4	4.4		4.4	7.1	735			<2
Avg	0.6	6.0	6.9	6.2	6.9	7.2	838	482	152	<2	0.5	4.2	5.5	6.4	5.5	7.1	755	452	146	<2
Min	0.4	5.2	3.9	3.9	3.9	7.0	791	468	152	<2	0.2	3.7	3.7	4.7	3.7	7.0	725	448	146	<2
Max	0.8	6.5	8.9	7.7	8.9	7.3	890	496	152	4	0.9	4.7	7.9	8.5	7.9	7.2	795	458	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.**
Apr-13	6.4	5.8	501	486
May-13	6.4	5.8	503	487
Jun-13	5.8	5.8	502	488
Jul-13	5.6	5.8	496	490
Aug-13	6.9	6.0	496	493
Sep-13	7.3	6.2	499	495
Oct-13	7.4	6.4	496	496
Nov-13	6.7	6.4	507	497
Dec-13	7.6	6.6	511	499
Jan-14	5.9	6.6	510	500
Feb-14	6.1	6.5	509	502
Mar-14	5.5	6.5	497	502
Avg	6.5	6.2	502	495
Min	5.5	5.8	496	486
Max	7.6	6.6	511	502
Limit		8.0		550

Date source: IEUA NPDES monthly self-monitoring report (MRP No. R8-2009-0021).
TDS is calculated using the flow-weighted averages based on discharged effluent flows and recycled water flows.
TIN is calculated using the flow-weighted averages based on discharged effluent flows only.
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	2Q13	3Q13	4Q13	1Q14	4Q Run. Avg.[1]	Limit	Unit	Method
Inorganic Chemicals								
Aluminum	30	36	30	230	81	1000	µg/L	EPA 200.8
Antimony	<1	<1	<1	<1	<1	6	µg/L	EPA 200.8
Arsenic	<2	<2	<2	<2	<2	10	µg/L	EPA 200.8
Asbestos	<0.7	<0.8	<1.9	<0.2	<1.9	7	MFL	EPA 100.2
Barium	10	7	10	8	9	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	3.1	1.4	0.9	1.5	50	µg/L	EPA 200.8
Cyanide	6	<5	<5	<5	<5	150	µg/L	SM 4500-CN E
Fluoride	0.2	0.2	0.2	0.2	0.2	2	mg/L	SM 4500-F C
Mercury	<0.05	<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 314/331.0
Selenium	<2	2	3	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	1.0	<0.5	<1	<0.5	<1	1	µg/L	EPA 524.2/624
Carbon Tetrachloride	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	µg/L	EPA 524.2/624
1,2-Dichlorobenzene	<0.5	<0.5	<1	<0.5	<1	600	µg/L	EPA 524.2/624
1,4-Dichlorobenzene	<0.5	<0.5	<1	<0.5	<1	5	µg/L	EPA 524.2/624
1,1-Dichloroethane	<0.5	<0.5	<0.5	<0.5	<0.5	5	µg/L	EPA 524.2/624
1,2-Dichloroethane	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	µg/L	EPA 524.2/624
1,1-Dichloroethylene	<0.5	<0.5	<1	<0.5	<1	6	µg/L	EPA 524.2/624
cis-1,2-Dichloroethylene	<0.5	<0.5	<0.5	<0.5	<0.5	6	µg/L	EPA 524.2/624
trans-1,2-Dichloroethylene	<0.5	<0.5	<0.5	<0.5	<0.5	10	µg/L	EPA 524.2/624
Dichloromethane	<0.5	<0.5	<1	<0.5	<1	5	µg/L	EPA 524.2/624
1,2-Dichloropropane	<0.5	<0.5	<0.5	<0.5	<0.5	5	µg/L	EPA 524.2/624
1,3-Dichloropropene	<0.5	<0.5	<1	<0.5	<1	0.5	µg/L	EPA 524.2/624
Ethylbenzene	<0.5	<0.5	<1	<0.5	<1	300	µg/L	EPA 524.2/624
Monochlorobenzene	<0.5	<0.5	<1	<0.5	<1	70	µg/L	EPA 524.2/624
Methyl-tert-butyl ether	<0.5	<0.5	<0.5	<0.5	<0.5	13	µg/L	EPA 524.2/624
Styrene	<0.5	<0.5	<0.5	<0.5	<0.5	100	µg/L	EPA 524.2/624
1,1,2,2-Tetrachloroethane	<0.5	<0.5	<0.5	<0.5	<0.5	1	µg/L	EPA 524.2/624
Tetrachloroethylene	<0.5	<0.5	<1	<0.5	<1	5	µg/L	EPA 524.2/624
Toluene	<0.5	<0.5	<1	<0.5	<1	150	µg/L	EPA 524.2/624
1,2,4-Trichlorobenzene	<0.5	<0.5	<0.5	<0.5	<0.5	5	µg/L	EPA 524.2/624
1,1,1-Trichloroethane	<0.5	<0.5	<1	<0.5	<1	200	µg/L	EPA 524.2/624
1,1,2-Trichloroethane	<0.5	<0.5	<1	<0.5	<1	5	µg/L	EPA 524.2/624
Trichloroethylene	<0.5	<0.5	<1	<0.5	<1	5	µg/L	EPA 524.2/624
Trichlorofluoromethane	<0.5	<0.5	<2	<0.5	<2	150	µg/L	EPA 524.2/624
1,1,2-Trichloro-1,2,2-Trifluoroethane	<0.5	<0.5	<0.5	<0.5	<0.5	1200	µg/L	EPA 524.2/624
Vinyl Chloride	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	µg/L	EPA 524.2/624
m,p-Xylene	<0.5	<0.5	<0.5	<0.5	<0.5	1750[2]	µg/L	EPA 524.2/624
o-Xylene	<0.5	<0.5	<0.5	<0.5	<0.5		µg/L	EPA 524.2/624
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	NA	<0.5	<0.5	<0.5	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	NA	<0.2	<0.2	<0.2	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	4	4	<1	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	NA	<0.5	<0.5	<0.6	400	µg/L	EPA 525.2
Di(2-ethylhexyl)phthalate	<0.6	NA	<0.5	<0.5	<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	2Q13	3Q13	4Q13	1Q14	4Q Run. Avg.[1]	Limit	Unit	Method
Ethylene Dibromide	<0.01	<0.01	<0.01	<0.01	<0.01	0.05	µg/L	EPA 504.1
Glyphosate	<6	<6	<6	<6	<6	700	µg/L	EPA 547
Heptachlor	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	µg/L	EPA 505
Heptachlor Epoxide	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	µg/L	EPA 505
Hexachlorobenzene	<0.05	NA	<0.5	<0.5	<0.5	1	µg/L	EPA 525.2
Hexachlorocyclopentadiene	<0.05	NA	<0.5	<0.5	<0.5	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	NA	<0.5	<0.5	<0.5	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	NA	<0.5	<0.5	<0.5	4	µg/L	EPA 525.2
Thiobencarb	<0.2	NA	<0.5	<0.5	<0.5	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	2.6	2.9	1.9	2.4	2.5	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	<0.31	<0.25	<0.12	<0.45	<0.45	5	pCi/L	EPA 903.0
Gross Alpha Particle Activity	<2	5	<1	<3	<3	15	pCi/L	EPA 900.0/SM7110C
Tritium	<251	<215	<203	<233	<251	20,000	pCi/L	EPA 906
Strontium-90	<0.80	<0.65	<0.33	<0.49	<0.80	8	pCi/L	EPA 905
Gross Beta Particle Activity	12	11	10	10	11	50	pCi/L	EPA 900.0
Uranium	<0.7	<0.7	<0.7	<0.7	<0.7	20	pCi/L	EPA 200.8
Secondary Maximum Contaminant Level Chemicals								
Aluminum	30	36	30	230	81	200	µg/L	EPA 200.8
Copper	2.6	2.9	1.9	2.4	2.4	1000	µg/L	EPA 200.8
Corrosivity [3]	NR	-0.3 (Non-Cor.)	NR	0.9 (Non-Cor.)	Non-Cor.	Non-Cor.	SI	SM 2330B
Foaming Agents (MBAS) [3]	0.08	0.06	0.08	0.09	0.08	0.5	mg/L	S5540C/EPA 425.1
Iron [3]	NR	41	NR	NR	109	300	µg/L	EPA 200.7
Manganese	33	10	16	19	20	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	8	17	2	**8**	3	TON	SM 2150B
Silver	<0.25	<0.25	<0.25	<0.25	<0.25	100	µg/L	EPA 200.8
Thiobencarb	<0.2	NA	<0.5	<0.5	<0.5	1	µg/L	EPA 525.2
Zinc	26	25	19	24	23	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 2Q13	BRK-LYS-25 3Q13	BRK-LYS-25 4Q13	BRK-LYS-25 1Q14				
Total Trihalomethanes (TTHMs)	<4	<2	2	<2	<4	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 NA: Not Analyzed. Two samples were collected during 4Q13 and the average reported

[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	1Q14	Unit	Method
Metals			
Chromium (III) [1]	0.9	µg/L	EPA 200.8
Volatile Organic Chemicals (VOCs)			
Acrolein	NR	µg/L	EPA 624
Acrylonitrile	NR	µg/L	EPA 624
Bromoform	0.6	µg/L	EPA 524.2/624
Chlorodibromomethane	8	µg/L	EPA 524.2/624
Chloroethane	<0.5	µg/L	EPA 524.2/624
2-Chloroethylvinylether	NR	µg/L	EPA 524.2/624
Chloroform	27	µg/L	EPA 524.2/624
Dichlorobromomethane	20	µg/L	EPA 524.2/624
Methyl Bromide	<1	µg/L	EPA 524.2/624
Methyl Chloride	<0.5	µg/L	EPA 524.2/624
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	1Q14	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	0.18	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)	2.1	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
Sucralose	NR	ng/L	LC-MS-MS
Sulfamethoxazole	NR	ng/L	LC-MS-MS
Testosterone	NR	ng/L	LC-MS-MS
Triclosan	NR	ng/L	LC-MS-MS
Trimethoprim	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	01/08/14	6.39	5.0	3.8	3.8	1.2	<0.01	710
8TH-LYS-00	0	02/12/14	7.51	5.1	4.2	3.8	1.3	0.11	680
8TH-LYS-00	0	03/20/14	5.83	1.1	<0.2	<0.1	1.1	<0.01	135
8TH-LYS-35	35	01/08/14	2.94	<0.6	<0.2	<0.1	<0.5	<0.01	700
8TH-LYS-35	35	02/12/14	2.70	<0.6	0.3	0.3	<0.5	<0.01	685
8TH-LYS-35	35	03/20/14	2.40	<0.6	<0.2	<0.1	<0.5	0.09	675

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	01/22/14	5.06	6.3	6.4	6.2	<0.5	0.13	845
BNA-LYS-00	0	02/05/14	2.41	0.6	0.6	0.6	<0.5	0.02	580
BNA-LYS-00	0	02/11/14	7.91	3.4	2.5	1.7	1.7	0.15	250
BNA-LYS-00	0	03/05/14	5.56	3.4	2.4	1.4	2.0	0.59	79
BNA-LYS-00	0	03/12/14	7.02	1.1	0.4	0.4	0.7	<0.01	86
BNA-LYS-25**	25	01/02/14	0.78	7.7	7.7	7.7	<0.5	<0.01	795
BNA-LYS-25**	25	01/08/14	0.93	9.2	8.6	8.6	0.6	<0.01	800
BNA-LYS-25**	25	01/15/14	0.80	7.5	7.5	7.5	<0.5	<0.01	795
BNA-LYS-25**	25	01/22/14	0.83	7.6	7.6	7.6	<0.5	0.02	795
BNA-LYS-25**	25	01/29/14	0.69	7.7	7.7	7.7	<0.5	<0.01	790
BNA-LYS-25**	25	02/05/14	0.74	7.7	7.7	7.7	<0.5	<0.01	775
BNA-LYS-25**	25	02/11/14	0.82	7.4	7.4	7.4	<0.5	<0.01	725
BNA-LYS-25**	25	02/19/14	0.75	6.0	6.0	6.0	<0.5	<0.01	670
BNA-LYS-25**	25	02/25/14	0.75	5.5	5.5	5.5	<0.5	<0.01	649
BNA-LYS-25**	25	03/05/14	1.47	8.6	8.0	7.9	0.7	0.10	855
BNA-LYS-25**	25	03/12/14	0.61	3.5	3.7	3.5	<0.5	<0.01	480
BNA-LYS-25**	25	03/19/14	0.75	4.1	4.1	4.1	<0.5	0.03	505

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	01/08/14	4.83	6.0	4.6	4.3	1.7	0.05	780
BRK-LYS-00	0	02/12/14	4.83	5.5	4.8	4.6	0.9	0.11	790
BRK-LYS-00	0	03/20/14	4.36	4.9	4.4	4.2	0.7	0.10	685
BRK-LYS-25**	25	01/08/14	3.06	0.8	<0.2	<0.1	0.8	<0.01	840
BRK-LYS-25**	25	02/12/14	3.64	<0.6	0.5	0.3	<0.5	<0.01	760
BRK-LYS-25**	25	03/20/14	2.68	<0.6	0.4	0.3	<0.5	0.09	755

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	01/02/14	4.54	6.6	5.7	5.7	0.9	<0.01	820
HKYE-LYS-00	0	01/08/14	4.97	8.3	7.4	7.4	0.9	<0.01	820
HKYE-LYS-00	0	01/15/14	4.44	6.4	5.7	5.7	0.7	<0.01	825
HKYE-LYS-00	0	01/22/14	4.86	4.7	4.7	4.5	<0.5	0.20	790
HKYE-LYS-00	0	02/12/14	7.89	4.0	2.5	1.7	2.3	0.22	230
HKYE-LYS-00	0	02/19/14	4.78	5.9	5.1	5.1	0.8	0.03	815
HKYE-LYS-00	0	03/05/14	6.50	2.4	2.1	1.4	1.0	<0.01	175
HKYE-LYS-00	0	03/19/14	4.65	8.1	7.3	7.3	0.8	0.02	775
HKYE-LYS-00	0	03/26/14	4.70	6.7	6.0	6.0	0.7	<0.01	760
HKYE-LYS-25**	25	01/02/14	2.24	7.1	6.2	6.2	0.9	<0.01	770
HKYE-LYS-25**	25	01/08/14			6.4	6.4		<0.01	810
HKYE-LYS-25**	25	01/15/14			7.4	7.3		<0.01	830
HKYE-LYS-25**	25	01/22/14	1.46		8.4	8.1		<0.01	845
HKYE-LYS-25**	25	01/29/14				8.1		<0.01	845
HKYE-LYS-25**	25	02/05/14				8.2		<0.01	850
HKYE-LYS-25**	25	02/12/14				8.0		0.11	850
HKYE-LYS-25**	25	02/27/14	1.79						835
HKYE-LYS-25**	25	03/05/14	1.55	6.0	5.2	5.1	0.9	<0.01	785
HKYE-LYS-25**	25	03/12/14	1.30	6.5	6.5	6.5	<0.5	<0.01	835
HKYE-LYS-25**	25	03/19/14	1.12			6.9		0.02	815
HKYE-LYS-25**	25	03/26/14	1.55	5.9	5.9	5.9	<0.5	<0.01	725

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

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	01/08/14	6.05	6.6	4.9	4.9	1.7	0.04	845
RP31-LYS-00	0	01/22/14	6.55	4.6	3.8	3.5	1.1	0.06	825
RP31-LYS-00	0	01/29/14	3.02	<0.6	0.2	0.2	<0.5	0.02	560
RP31-LYS-00	0	02/05/14	11.8	2.1	0.8	0.5	1.6	0.08	455
RP31-LYS-00	0	02/11/14	3.52	1.5	0.5	0.4	1.1	0.05	545
RP31-LYS-00	0	02/19/14	3.50	0.8	0.3	0.3	0.5	0.02	555
RP31-LYS-00	0	02/26/14	3.54						565
RP31-LYS-00	0	03/06/14	6.95						200
RP31-LYS-00	0	03/12/14	7.32						225
RP31-LYS-00	0	03/19/14	3.92	2.1	1.7	1.4	0.7	0.05	535
RP31-LYS-00	0	03/26/14	2.97	0.8	0.8	0.8	<0.5	0.02	545
RP31-LYS-35**	35	01/08/14	1.29	2.0	1.5	1.5	0.5	<0.01	750
RP31-LYS-35**	35	01/22/14	1.13	2.5	2.5	2.5	<0.5	<0.01	715
RP31-LYS-35**	35	01/29/14	1.06	2.5	2.5	2.5	<0.5	<0.01	570
RP31-LYS-35**	35	02/05/14	1.08	2.7	2.7	2.7	<0.5	<0.01	735
RP31-LYS-35**	35	02/11/14	1.28	3.7	3.7	3.7	<0.5	0.02	720
RP31-LYS-35**	35	02/19/14	0.99	3.9	3.9	3.9	<0.5	<0.01	725
RP31-LYS-35**	35	02/26/14	0.97						695
RP31-LYS-35**	35	03/06/14	1.18						690
RP31-LYS-35**	35	03/12/14	1.11						675
RP31-LYS-35**	35	03/19/14	1.16	3.0	3.0	3.0	<0.5	0.03	680
RP31-LYS-35**	35	03/26/14	1.07	3.0	3.0	3.0	<0.5	<0.01	670

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	02/12/14	5.16	6.8	5.9	5.9	0.9	<0.01	805
SS5-LYS-20	20	01/08/14	1.81	<0.6	0.3	0.3	<0.5	<0.01	860
SS5-LYS-20	20	02/12/14	2.19	<0.6	0.2	0.2	<0.5	<0.01	890
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	01/08/14	5.19	7.0	5.4	5.4	1.6	<0.01	825
VCT-LYS-00	0	02/12/14	4.96	6.3	5.5	5.4	0.9	0.10	810
VCT-LYS-00	0	03/20/14	5.24	5.0	4.5	4.3	0.7	0.12	610
VCT-LYS-35	35	01/08/14	1.51	5.0	5.0	5.0	<0.5	<0.01	800
VCT-LYS-35	35	02/12/14	1.55	5.2	5.2	5.2	<0.5	<0.01	790
VCT-LYS-35	35	03/20/14	1.36	3.8	3.8	3.8	<0.5	<0.01	865

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.

** Compliance lysimeter for their respective basin. Some are part of alternative monitoring plan. Monitoring frequency may vary from weekly to monthly.

Table 2-5b
Alternative Monitoring Plans

Turner Basin					
Date	RW Blend*	RW Blend*	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)
01/02/14	4.67	5.5	1.40	0.70	0.7
01/08/14	4.30	8.8	1.29	0.65	1.1
01/15/14	4.03	6.7	1.21	0.60	0.9
01/22/14	4.29	6.3	1.29	0.64	0.8
01/29/14	4.01	6.1	1.20	0.60	0.8
02/05/14	4.49	7.5	1.35	0.67	1.0
02/12/14	4.70	6.5	1.41	0.71	0.8
02/19/14	4.41	6.5	1.32	0.66	0.8
02/25/14	4.18	5.2	1.25	0.63	0.7
03/05/14	3.92	7.1	1.18	0.59	0.9
03/12/14	4.24	4.8	1.27	0.64	0.6
03/19/14	4.53	7.5	1.36	0.68	1.0
03/26/14	5.10	7.7	1.53	0.77	1.0

Ely Basin				
Date	RP-1 RW	RP-1 RW	Ely 3 East	Ely 3 East
mg/L==>	TOC	TN	TOC (76% reduction)	TN (52% reduction)
01/06/14	6.14	11.0	1.47	5.3
01/13/14	6.32	7.0	1.52	3.4
01/20/14	5.80	7.3	1.39	3.5
01/27/14	6.20	7.6	1.49	3.6
02/03/14	5.68	7.9	1.36	3.8
02/18/14	5.69	8.2	1.37	3.9
02/21/14	5.65	8.1	1.36	3.9
02/24/14	5.96	8.2	1.43	3.9
03/03/14	5.78	7.7	1.39	3.7
03/10/14	6.20	8.4	1.49	4.0
03/17/14	6.09	4.8	1.46	2.3
03/24/14	6.12	7.4	1.47	3.6
03/31/14	6.35	7.0	1.52	3.4

Brooks Basin				
Date	BRK-LYS-00	BRK-LYS-00	BRK-LYS-00	BRK-LYS-00
mg/L==>	TOC	TN	EC	
01/08/14	4.83	6.0	780	
02/12/14	4.83	5.5	790	
03/20/14	4.36	4.9	685	
Date	BRK-LYS-25	BRK-LYS-25	BRK-LYS-25	BRK-LYS-25
mg/L==>	TOC	TN**	EC	
01/08/14	3.06	<0.1	840	
02/12/14	3.64	<0.1	760	
03/20/14	2.68	0.4	755	
Date	BRK-1/1	BRK-1/1	BRK-1/1	BRK-1/1
mg/L==>	TOC**	TN	EC	Cl
01/02/14	1.09	1.0	470	65
02/19/14	0.43	1.5	495	68
03/13/14	0.43	1.7	500	78

RP3 Basin			
Date	RP3-LYS-35	RP3-LYS-35	RP3-LYS-35
mg/L==>	TOC	TN	EC
01/08/14	1.29	2.0	750
02/11/14	1.28	3.7	720
03/19/14	1.16	3.0	680

*Recycled water blend from RP-1 & RP-4 sampled at NRG Energy (formerly Reliant Energy)
**BRK-LYS-25 is the compliance point for TN and BRK-1/1 is the compliance point for TOC.

Table 2-5b
Alternative Monitoring Plans

8th Street Basin				
Date	RW Blend*	RW Blend*	8th Street	8th Street
mg/L==>	TOC	TN	TOC (59% reduction)	TN (75% reduction)
01/02/14	4.67	5.5	1.91	1.4
01/08/14	4.30	8.8	1.76	2.2
01/15/14	4.03	6.7	1.65	1.7
01/22/14	4.29	6.3	1.76	1.6
01/29/14	4.01	6.1	1.64	1.5
02/05/14	4.49	7.5	1.84	1.9
02/12/14	4.70	6.5	1.93	1.6
02/19/14	4.41	6.5	1.81	1.6
02/25/14	4.18	5.2	1.71	1.3
03/05/14	3.92	7.1	1.61	1.8
03/12/14	4.24	4.8	1.74	1.2
03/19/14	4.53	7.5	1.86	1.9
03/26/14	5.10	7.7	2.09	1.9

San Sevaine 5 Basin				
Date	RW Blend*	RW Blend*	San Sevaine 5	San Sevaine 5
mg/L==>	TOC	TN	TOC (78% reduction)	TN (69% reduction)
01/02/14	4.67	5.5	1.03	1.7
01/08/14	4.30	8.8	0.95	2.7
01/15/14	4.03	6.7	0.89	2.1
01/22/14	4.29	6.3	0.94	2.0
01/29/14	4.01	6.1	0.88	1.9
02/05/14	4.49	7.5	0.99	2.3
02/12/14	4.70	6.5	1.03	2.0
02/19/14	4.41	6.5	0.97	2.0
02/25/14	4.18	5.2	0.92	1.6
03/05/14	3.92	7.1	0.86	2.2
03/12/14	4.24	4.8	0.93	1.5
03/19/14	4.53	7.5	1.00	2.3
03/26/14	5.10	7.7	1.12	2.4

Victoria Basin				
Date	RW Blend*	RW Blend*	Victoria	Victoria
mg/L==>	TOC	TN	TOC (78% reduction)	TN (82% reduction)
01/02/14	4.67	5.5	1.03	1.0
01/08/14	4.30	8.8	0.95	1.6
01/15/14	4.03	6.7	0.89	1.2
01/22/14	4.29	6.3	0.94	1.1
01/29/14	4.01	6.1	0.88	1.1
02/05/14	4.49	7.5	0.99	1.4
02/12/14	4.70	6.5	1.03	1.2
02/19/14	4.41	6.5	0.97	1.2
02/25/14	4.18	5.2	0.92	0.9
03/05/14	3.92	7.1	0.86	1.3
03/12/14	4.24	4.8	0.93	0.9
03/19/14	4.53	7.5	1.00	1.4
03/26/14	5.10	7.7	1.12	1.4

Hickory Basin		
Date	BH-1/2**	BH-1/2
mg/L==>	TN	EC
01/02/14	2.3	480
02/20/14	3.2	500
02/26/14	2.1	495
03/18/14	2.5	495

*Recycled water blend from RP-1 & RP-4 sampled at NRG California South, LP (formerly Reliant Energy)

**TN compliance point for Hickory Basin (approved by RWQCB 07/29/13)

Table 2-6
Diluent Water Monitoring*: Stormwater

Constituent	Cucamonga Creek @ Turner Basins 1 & 2 02/27/14	Deer Creek @ Turner Basins 3 & 4 02/27/14	W. Cucamonga Creek @ Ely Basins 02/27/14	Day Creek @ Lower Day Basin 03/03/14	San Antonio Creek @ Montclair Basin 03/03/14	Unit	Method
NO_2-N	0.13	<0.02	<0.02	<0.02	<0.02	mg/L	EPA 300.0
NO_3-N	2.2	1.2	1.2	0.5	0.6	mg/L	EPA 300.0
TDS	166	148	81	180	310	mg/L	SM 2540C
Total Coliform	90000	30000	30000	5000	30000	mpn/100ml	SM 9221B
Oil & Grease	<1	<1	2	<1	<1	mg/L	EPA 1664A
Inorganic Chemicals							
Aluminum	359	299	680	2150	116	µg/L	EPA 200.7
Antimony	2	1	3	<1	1	µg/L	EPA 200.8
Arsenic	<2	<2	<2	<2	<2	µg/L	EPA 200.8
Asbestos	<6.7	<4.0	<6.7	<6.7	<4.0	MFL	EPA 100.2
Barium	32	22	33	31	49	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	<0.25	<0.25	µg/L	EPA 200.7
Chromium	2.3	1.6	3.2	1.6	1.3	µg/L	EPA 200.7
Cyanide	<5	<5	<5	<5	<5	µg/L	ASTM D7284
Fluoride	0.1	0.2	0.7	0.2	0.1	mg/L	SM 4500-F C
Mercury	<0.05	<0.05	<0.05	<0.05	<0.05	µg/L	EPA 245.2
Nickel	3	2	3	2	3	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	<0.5	<0.5	<0.5	<0.5	<0.5	µg/L	EPA 525.2
Bentazon	<0.5	<0.5	<0.5	<0.5	<0.5	µg/L	EPA 515.4
Benzo(a)pyrene	<0.2	<0.2	<0.2	<0.2	<0.2	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	<0.1	<0.1	0.2	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	<0.5	<0.5	<0.5	<0.5	<0.5	µg/L	EPA 525.2
Di(2-ethylhexyl)phthalate	3.9	1.2	4.0	<0.5	<0.5	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	17	11	30	<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 Basins 1 & 2 02/27/14	Deer Creek @ Turner Basins 3 & 4 02/27/14	W. Cucamonga Creek @ Ely Basins 02/27/14	Day Creek @ Lower Day Basin 03/03/14	San Antonio Creek @ Montclair Basin 03/03/14	Unit	Method
Heptachlor Epoxide	<0.01	<0.01	<0.01	<0.01	<0.01	µg/L	EPA 505
Hexachlorobenzene	<0.5	<0.5	<0.5	<0.5	<0.5	µg/L	EPA 525.2
Hexachlorocyclopentadiene	<0.5	<0.5	<0.5	<0.5	<0.5	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	<0.5	<0.5	<0.5	<0.5	<0.5	µg/L	EPA 525.2
Oxamyl	<0.5	<0.5	<0.5	<0.5	<0.5	µg/L	EPA 531.2
Pentachlorophenol	<0.04	<.04	0.09	<0.04	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	<0.5	<0.5	<0.5	<0.5	<0.5	µg/L	EPA 525.2
Thiobencarb	<0.5	<0.5	<0.5	<0.5	<0.5	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)	<1.98	<1.99	<2.01	<2.05	<1.97	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)	14	19	<2	<2	<2	µg/L	SM 6251B
Bromate	<5	27	<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	15.6	11.8	22.7	2.8	7.3	µg/L	EPA 200.7
Lead	1.4	0.8	4.4	1.7	0.5	µg/L	EPA 200.8
Radionuclides							
Combined Radium-226 & Radium 228	<0.964	<0.860	<0.721	<0.435	<0.732	pCi/L	EPA 903.0
Gross Alpha Particle Activity	<3	<3	<3	8	<3	pCi/L	EPA 900.0/SM7110C
Tritium	<242	33.4	<225	<234	<230	pCi/L	EPA 906.0
Strontium-90	<0.883	<0.642	<0.949	<0.662	<0.507	pCi/L	EPA 905.0
Gross Beta Particle Activity	<3	<3	<3	6	<3	pCi/L	EPA 900.0
Uranium	<0.7	<0.7	<0.7	2.5	2.2	pCi/L	EPA 200.8
Unregulated Chemicals							
Chromium VI	0.79	0.38	0.88	0.10	0.26	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	<2	<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	7	5	4	3	1	µg/L	EPA 200.8
Secondary Maximum Contaminant Level Chemicals							
Aluminum	359	299	680	2150	116	µg/L	EPA 200.7
Corrosivity	1.4	0.8	-0.8	1.1	-0.6	SI	SM 2330B
Foaming Agents (MBAS)	0.44	0.23	0.22	<0.05	0.08	mg/L	SM 5540C/EPA 425.1
Iron	432	341	860	1172	207	µg/L	EPA 200.7
Manganese	12	11	22	36	34	µg/L	EPA 200.7
Odor--Threshold	1	1	1	1	1	TON	SM 2150B
Silver	6.61	<0.25	<0.25	<0.25	<0.25	µg/L	EPA 200.7
Thiobencarb	<0.5	<0.5	<0.5	<0.5	<0.5	µg/L	EPA 525.2
Zinc	68	37	89	13	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	01/28/14	0.15	<1.1	8.0	495	316	<25	<3	0.5	0.5	<0.05	<15	<1	<0.5	1	<0.25	<0.2	0.30	2	22	224	19	23	<0.1	0.07	***11.2***	11.3	<0.5	160	1.25
	California Speedway - Infield Well	02/03/14	0.25	<1.1	8.2	682	466	<25	<3	1.0	0.4	<0.05	69	2	<0.5	<1	<0.25	<0.2	0.49	1	30	328	25	117	<0.1	<0.02	9.5	9.5	<0.5	162	1.96
	California Speedway 2	01/28/14	<0.10	<1.1	8.0	405	264	<25	<3	<0.5	0.2	<0.05	<15	<1	<0.5	1	<0.25	<0.2	0.06	<1	13	174	18	17	<0.1	0.08	5.4	5.5	<0.5	150	1.16
	Reliant Energy - East Well	01/29/14	<0.10	<1.1	8.4	345	228	<25	<3	1.0	0.1	<0.05	<15	<1	<0.5	<1	<0.25	<0.2	0.17	<1	11	146	18	13	<0.1	0.08	5.4	5.5	<0.5	130	1.41
	Ontario Well No. 20	01/30/14	<0.10	<1.1	***8.6***	355	226	<25	<3	<0.5	0.4	<0.05	<15	<1	<0.5	1	<0.25	<0.2	0.11	1	8	171	14	6	<0.1	0.10	2.2	2.3	<0.5	166	1.44
	BH-1/2*	01/02/14	1.13	<1.1	8.4	480	298	<25	5	<0.5	0.4	<0.05	<15	16	<0.5	1	<0.25	<0.2	2.64	1	56	207	26	29	<0.1	<0.02	2.3	2.3	<0.5	127	1.69
Turner	Ontario Well No. 25	01/30/14	<0.10	<1.1	8.4	425	268	<25	<3	<0.5	0.3	<0.05	<15	<1	<0.5	1	<0.25	<0.2	0.08	<1	16	183	22	16	<0.1	0.08	4.5	4.6	<0.5	169	1.46
	Ontario Well No. 29	01/30/14	<0.10	<1.1	8.4	320	206	<25	<3	<0.5	0.2	<0.05	43	2	<0.5	1	<0.25	<0.2	0.33	<1	7	136	21	12	<0.1	0.09	1.3	1.4	<0.5	147	1.49
	Ontario Well No. 38	01/30/14	<0.10	<1.1	***8.6***	320	212	<25	<3	<0.5	0.3	<0.05	<15	<1	<0.5	1	<0.25	<0.2	0.07	<1	6	141	18	8	<0.1	0.09	1.5	1.6	<0.5	148	1.31
	T-1/2*	01/06/14	0.54	<1.1	8.4	385	248	<25	5	<0.5	0.1	<0.05	<15	<1	<0.5	1	<0.25	<0.2	0.25	<1	28	168	21	17	<0.1	0.10	0.2	1.4	1.1	146	1.21
	T-2/1*	01/20/14	0.53	<1.1	8.3	560		<25	<3	0.6		<0.05	<15	<1	<0.5	2	<0.25	<0.2		<1					<0.1				<0.5		1.07
	T-2/1	02/04/14				550	342				0.1								1.11		72	217	30	23		<0.02	1.3			143	
	T-2/2*	01/20/14	0.48	<1.1	8.3	533		<25	<3	0.7		<0.05	<15	<1	<0.5	2	<0.25	<0.2		<1					<0.1				<0.5		1.19
	T-2/2	02/04/14				525	344				0.0								0.31		78	203	31	27		<0.02	0.7			109	
RP3	Fontana Water Co. - F23a	01/28/14	<0.10	<1.1	8.2	440	292	<25	<3	<0.5	0.4	<0.05	<15	<1	<0.5	2	<0.25	<0.2	0.20	<1	27	192	19	22	<0.1	0.06	8.3	8.4	<0.5	130	1.29
	Alcoa MW1*	01/14/14	0.35	<1.1	8.2	600	402	<25	<3	<0.5	0.3	<0.05	<15	1	<0.5	1	<0.25	<0.2	0.68	<1	48	249	28	30	<0.1	<0.02	***15.1***	15.1	<0.5	141	1.69
	Alcoa MW3*	01/14/14	0.36	<1.1	8.1	***925***	***598***	<25	<3	<0.5	0.3	<0.05	<15	1	<0.5	1	<0.25	<0.2	0.32	<1	80	394	46	53	<0.1	0.11	***21.9***	22.0	<0.5	226	1.61
	RP3-1/1*	01/21/14	0.84	<1.1	8.3	640	408	<25	5	1.0	0.1	<0.05	<15	19	<0.5	2	<0.25	<0.2	1.50	<1	80	219	50	33	<0.1	0.06	4.2	4.3	<0.5	148	0.61
	RP3-1/1	02/26/14	0.61			650																				0.08	4.1	4.2	<0.5		
	RP3-1/1	03/26/14	<0.10			655																									
	RP3-1/2*	01/21/14	1.03	5	8.2	635	402	<25	5	1	0.1	<0.05	<15	***195***	<0.5	2	<0.25	<0.2	0.46	1	83	218	47	35	<0.1	0.27	2.4	2.7	<0.5	153	0.86
8th Street	Ontario Well No. 35	01/30/14	<0.10	<1.1	8.5	340	234	<25	<3	<0.5	0.2	<0.05	<15	<1	<0.5	1	<0.25	<0.2	0.08	<1	7	136	22	21	<0.1	0.09	2.8	2.9	<0.5	138	1.66
	8TH-1/1*	01/06/14	0.49	<1.1	8.2	520	350	<25	<3	<0.5	0.0	<0.05	<15	<1	<0.5	1	<0.25	<0.2	0.13	2	60	246	13	35	<0.1	0.07	2.7	3.4	0.6	127	1.33
	8TH-1/2*	01/06/14	0.34	<1.1	8.3	330	228	<25	5	<0.5	-0.1	<0.05	<15	3	<0.5	1	<0.25	<0.2	0.93	<1	40	139	15	16	<0.1	0.06	1.2	1.3	<0.5	97	1.26
	8TH-2/1*	01/09/14	0.25	<1.1	8.3	405	266	<25	<3	<0.5	0.1	<0.05	<15	<1	<0.5	1	<0.25	<0.2	0.44	<1	15	196	14	13	<0.1	<0.02	5.1	5.1	<0.5	157	1.30
	8TH-2/2*	01/09/14	0.24	23	8.3	365	250	<25	<3	<0.5	-0.1	<0.05	<15	<1	<0.5	<1	<0.25	<0.2	0.32	<1	22	160	16	22	<0.1	<0.02	5.1	5.1	<0.5	111	1.37
Brooks	Pomona Well No. 10	01/15/14	0.19	<1.1	8.1	510	316	<25	<3	4.9	0.6	<0.05	<15	<1	<0.5	1	<0.25	<0.2	0.10	4	39	244	12	40	<0.1	0.06	7.6	7.7	<0.5	143	2.10
	Pomona Well No. 2	01/15/14	0.27	<1.1	8.3	560	352	<25	<3	0.9	0.6	<0.05	<15	<1	<0.5	1	<0.25	<0.2	0.10	2	40	272	13	51	<0.1	0.06	8.7	8.8	<0.5	147	1.56
	Pomona Well No. 34	01/15/14	0.18	<1.1	8.2	545	348	<25	<3	<0.5	0.6	0.05	<15	<1	<0.5	1	<0.25	<0.2	0.09	<1	30	268	12	42	<0.1	0.07	***13.9***	14.0	<0.5	146	1.59
	BRK-1/1*	01/02/14	1.09	<1.1	8.3	470	292	<25	<3	<0.5	0.1	<0.05	<15	2	<0.5	1	<0.25	<0.2	1.28	1	65	215	18	24	<0.1	<0.02	1.0	1.0	<0.5	115	1.62
	BRK-1/2*	01/02/14	0.20	<1.1	8.3	595	390	<25	<3	<0.5	0.4	<0.05	<15	<1	<0.5	1	<0.25	<0.2	0.37	1	24	288	16	47	<0.1	0.10	***20.0***	20.1	<0.5	150	1.56
	BRK-2/1*	01/09/14	0.46	<1.1	8.3	560	360	<25	***20***	<0.5	0.2	<0.05	<15	4	<0.5	<1	<0.25	<0.2	***26.4***	<1	39	279	11	44	<0.1	<0.02	9.8	9.8	<0.5	161	1.43
	BRK-2/2*	01/09/14	0.14	<1.1	8.5	330	220	<25	<3	<0.5	0.4	<0.05	<15	<1	<0.5	<1	<0.25	<0.2	0.70	<1	6	108	34	19	<0.1	0.06	5.8	5.9	<0.5	124	1.26
Ely	Ely Basin MW1 Philadelphia St.*	01/07/14	0.57		8.5	360	240	<25	5	<0.5	0.2	<0.05	23	25	<0.5	2	<0.25	<0.2	2.22	<1	45	191	105	13	<0.1	<0.02	1.0	1.0	<0.5	95	0.78
	Ely Basin MW1 Philadelphia St.	01/15/14		1																											
	Ely Basin MW2 Walnut St.*	02/04/14	1.78	23	8.1	***1470***	***996***	<25	<3	1.4	0.6	0.14	<15	38	<0.5	2	<0.25	<0.2	1.43	3	133	722	43	81	<0.1	0.17	***41.3***	41.5	<0.5	359	1.71
	Riverside Well (43840-CWW)	01/20/14	0.24	<1.1	8.4	563		<25	<3	0.6		0.06	<15	1	<0.5	2	<0.25	<0.2		36					<0.1				<0.5		1.57
	Riverside Well (43840-CWW)	01/22/14				535	344				0.5								0.07		25	238	21	32		0.07	9.8			178	
	Bishop of SB Corp. - DOM	02/03/14	0.32	<1.1	8.4	735	***672***	<25	<3	0.6	0.7	0.07	<15	<1	<0.5	<1	<0.25	<0.2	0.20	<1	34	344	24	59	<0.1	0.11	***18.0***	18.1	<0.5	216	1.37
Declez**	JCSD Well No. 13	01/23/14	0.32	<1.1	8.3	740	***528***	<25	<3	0.6	0.4	0.05	<15	<1	<0.5	1	<0.25	<0.2	0.05	5	120	298	29	27	<0.1	<0.02	7.3	7.3	<0.5	131	1.34
	JCSD Well No. 17	01/23/14	0.25	<1.1	8.2	610	412	<25	<3	0.8	0.5	<0.05	<15	2	<0.5	1	<0.25	<0.2	0.10	<1	59	239	28	45	<0.1	0.03	***13.5***	13.5	<0.5	122	1.31
	JCSD Well No. 19	01/23/14	<0.10	<1.1	8.2	355	236	<25	<3	1.0	0.3	<0.05	<15	<1	<0.5	1	<0.25	<0.2	0.06	<1	13	135	26	14	<0.1	0.08	3.7	3.8	<0.5	141	1.27
	DCZ-1/1*	01/15/14	0.77	<1.1	***8.6***	350	236	<25	5	0.6	0.3	<0.05	<15	2	<0.5	1	<0.25	<0.2	3.55	<1	13	133	27	13	<0.1	0.09	1.7	1.8	<0.5	145	1.01
Victoria & San Sevaine	SS-1/1*	01/16/14	0.11	<1.1	8.2	270	214	<25	<3	<0.5	-0.6	<0.05	<15	<1	<0.5	<1	<0.25	<0.2	2.70	<1	13	108	16	24	<0.1	0.08	2.4	2.5	<0.5	86	1.80
	VCT-1/1*	01/16/14	0.50	<1.1	8.2	450	302	<25	10	<0.5	-0.2	<0.05	<15	2	<0.5	<1	<0.25	<0.2	***19.5***	2	62	184	20	19	<0.1	<0.02	1.1	1.1	<0.5	106	1.64
	VCT-2/2*	01/23/14	0.36	1	8.5	269	198	<25	<3	<0.5	0.1	<0.05	<15	<1		1	<0.25	<0.2	2.40	6	7	97	23	11	<0.1	0.08	2.2	2.3	<0.5	120	1.54
	VCT-2/2	03/13/14													<0.5																
	CVWD Well No. 39	01/29/14	<0.10	<1.1	8.4	275	182	<25	<3	1.4	0.1	<0.05	33	<1	<0.5	<1	<0.25	<0.2	0.30	2	6	107	16	8	<0.1	0.08	2.6	2.7	<0.5	119	1.78
	CVWD Well No. 43	01/29/14	<0.10	<1.1	7.7	330	220	<25	<3	1.9	0.2	<0.05	28	1	<0.5	<1	<0.25	<0.2	0.42	4	6	134	19	17	<0.1	0.09	1.2	1.3	<0.5	145	3.72
	Unitex 91090	01/14/14	0.22	1.1	8.3	345	230	<25	<3	<0.5	0.2	<0.05	<15	<1	<0.5	1	<0.25	<0.2	0.07	2	27	130	24	27	<0.1	<0.02	1.6	1.6	<0.5	111	1.63
	Primary Maximum Contaminant Level							1000		1300					13			70									1	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
Apr-13	0	0	0	0	0	0	0	0	0	24	0	0	1	0	40	5	0	1	152	55	231	79	71	386	41	0	98
May-13	0	0	0	0	0	0	0	0	0	43	3	17	23	6	50	4	0	5	221	39	152	259	0	262	26	0	93
Jun-13	0	0	0	0	0	0	0	0	0	12	0	0	4	1	20	0	0	1	271	35	120	209	116	239	2	0	82
2Q13 Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**79**	**3**	**17**	**28**	**7**	**110**	**9**	**0**	**7**	**644**	**128**	**503**	**547**	**186**	**887**	**69**	**0**	**272**
Jul-13	0	0	0	0	0	0	0	0	0	13	0	1	6	4	72	0	0	2	186	15	169	157	201	74	0	0	74
Aug-13	0	0	0	0	0	0	0	0	0	13	0	1	4	0	68	0	0	2	118	12	197	334	11	216	0	0	42
Sep-13	0	0	0	0	0	0	0	0	0	11	0	28	6	0	58	0	24	2	150	0	182	457	0	353	154	107	46
3Q13 Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**37**	**0**	**30**	**17**	**4**	**198**	**0**	**24**	**6**	**455**	**27**	**547**	**948**	**212**	**643**	**154**	**107**	**162**
Oct-13	0	0	0	0	0	0	0	0	0	48	0	23	15	1	54	11	20	7	239	385	108	358	1	164	69	117	0
Nov-13	0	0	0	0	0	0	0	0	0	49	22	4	21	59	60	39	17	12	249	102	94	421	339	4	9	89	0
Dec-13	0	0	0	0	0	0	0	0	0	45	6	8	24	8	73	5	77	10	121	0	104	413	108	251	0	259	118
4Q13 Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**142**	**28**	**35**	**60**	**68**	**186**	**56**	**113**	**29**	**609**	**487**	**306**	**1192**	**447**	**420**	**78**	**465**	**118**
Jan-14	0	8	0	0	3	86	0	0	0	27	9	3	8	9	44	0	61	2	118	0	109	211	86	72	12	241	158
Feb-14	0	16	0	0	1	66	0	0	0	59	39	47	294	19	131	69	156	37	78	0	102	194	67	0	16	191	191
Mar-14	16	0	0	0	0	160	0	0	0	45	9	12	63	13	103	20	113	99	26	85	130	108	224	0	0	67	142
1Q14 Total	**16**	**24**	**0**	**0**	**4**	**312**	**0**	**0**	**0**	**131**	**57**	**61**	**364**	**41**	**277**	**88**	**331**	**137**	**222**	**85**	**341**	**512**	**376**	**72**	**27**	**498**	**491**

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)
2Q13	Apr-13	0.0	0.9	300	70	14.0	370	(504)	(11,398)	(269,820)
	May-13	0.0	0.9	300	38	14.0	370	(542)	(12,051)	(287,087)
	Jun-13	0.0	0.9	300	24	14.0	370	(565)	(12,461)	(297,919)
3Q13	Jul-13	0.0	<0.4	300	0	14.0	370	(565)	(12,461)	(297,919)
	Aug-13	0.0	<0.4	300	0	14.0	370	(565)	(12,461)	(297,919)
	Sep-13	0.0	<0.4	300	0	14.0	370	(565)	(12,462)	(297,932)
4Q13	Oct-13	0.0	<0.4	320	0	14.0	370	(565)	(12,462)	(297,932)
	Nov-13	0.0	<0.4	320	0	14.0	370	(565)	(12,462)	(297,932)
	Dec-13	0.0	<0.4	320	0	14.0	370	(566)	(12,463)	(297,960)
1Q14	Jan-14	0.0	0.7	320	0	14.0	370	(566)	(12,463)	(297,960)
	Feb-14	0.0	0.7	320	0	14.0	370	(566)	(12,463)	(297,960)
	Mar-14	0.0	0.7	320	0	14.0	370	(566)	(12,463)	(297,960)

	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)
2Q13	Apr-13	0.0	0.9	300	0	3.5	310	557	(2,779)	92,226
	May-13	0.2	0.9	300	0	3.5	310	557	(2,780)	92,223
	Jun-13	0.0	0.9	300	0	3.5	310	557	(2,781)	92,131
3Q13	Jul-13	0.0	<0.4	300	3	3.5	310	554	(2,792)	91,129
	Aug-13	0.0	<0.4	300	2	3.5	310	552	(2,801)	90,292
	Sep-13	0.0	<0.4	300	1	3.5	310	551	(2,805)	89,986
4Q13	Oct-13	0.0	<0.4	320	0	3.5	310	551	(2,805)	89,978
	Nov-13	0.0	<0.4	320	0	3.5	310	551	(2,805)	89,978
	Dec-13	0.0	<0.4	320	0	3.5	310	551	(2,805)	89,978
1Q14	Jan-14	0.0	0.7	320	0	3.5	310	551	(2,806)	89,837
	Feb-14	0.8	0.7	320	9	3.5	310	542	(2,846)	86,550
	Mar-14	0.0	0.7	320	0	3.5	310	542	(2,846)	86,550

	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)
2Q13	Apr-13	0.0	0.9	300	250	3.5	340	(1,691)	(2,749)	(184,399)
	May-13	0.0	0.9	300	201	3.5	340	(1,893)	(3,617)	(268,723)
	Jun-13	0.0	0.9	300	262	3.5	340	(2,154)	(4,747)	(378,465)
3Q13	Jul-13	0.0	<0.4	300	272	3.5	340	(2,426)	(5,921)	(492,574)
	Aug-13	0.0	<0.4	300	273	3.5	340	(2,699)	(7,099)	(606,963)
	Sep-13	0.0	<0.4	300	241	3.5	340	(2,940)	(8,139)	(708,040)
4Q13	Oct-13	0.0	<0.4	320	278	3.5	340	(3,218)	(9,339)	(824,556)
	Nov-13	0.0	<0.4	320	202	3.5	340	(3,419)	(10,209)	(909,132)
	Dec-13	0.0	<0.4	320	104	3.5	340	(3,524)	(10,659)	(952,833)
1Q14	Jan-14	0.0	0.7	320	82	3.5	340	(3,606)	(11,015)	(987,407)
	Feb-14	0.0	0.7	320	0	3.5	340	(3,606)	(11,015)	(987,407)
	Mar-14	0.0	0.7	320	0	3.5	340	(3,606)	(11,015)	(987,407)

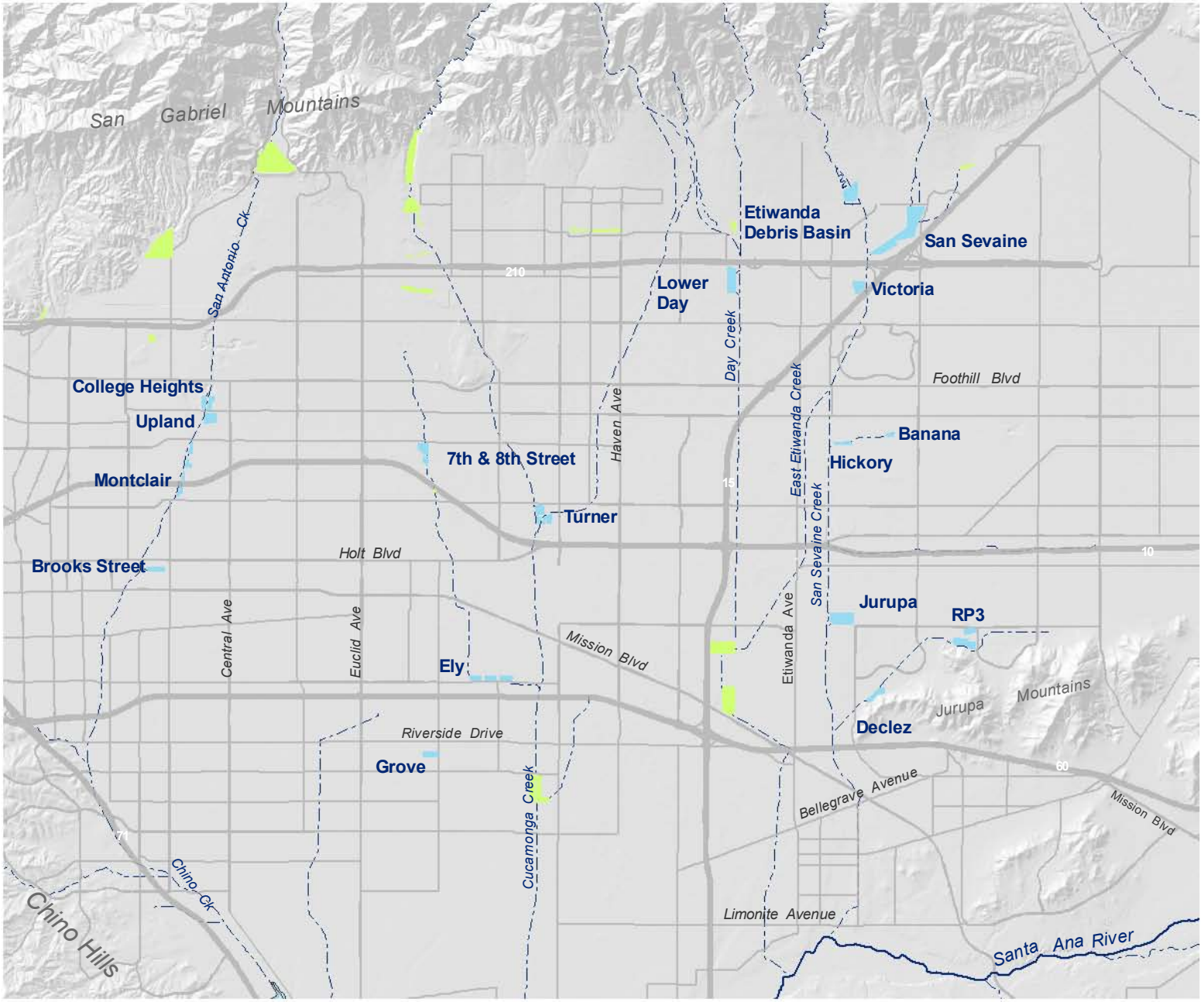
The injected water is WFA-treated water, which meets CCR Title 22 drinking water standards.

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

	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)
2Q13	Apr-13	0.0	0.9	300	24	3.5	370	(664)	(2,998)	(315,415)
	May-13	0.0	0.9	300	81	3.5	370	(745)	(3,350)	(352,607)
	Jun-13	0.0	0.9	300	55	3.5	370	(800)	(3,588)	(377,711)
3Q13	Jul-13	0.0	<0.4	300	137	3.5	370	(937)	(4,178)	(440,094)
	Aug-13	0.0	<0.4	300	8	3.5	370	(945)	(4,210)	(443,527)
	Sep-13	0.0	<0.4	300	11	3.5	370	(956)	(4,257)	(448,511)
4Q13	Oct-13	0.0	<0.4	320	0	3.5	370	(956)	(4,257)	(448,511)
	Nov-13	0.0	<0.4	320	38	3.5	370	(994)	(4,422)	(465,947)
	Dec-13	0.0	<0.4	320	28	3.5	370	(1,022)	(4,544)	(478,792)
1Q14	Jan-14	0.0	0.7	320	0	3.5	370	(1,022)	(4,544)	(478,792)
	Feb-14	0.0	0.7	320	0	3.5	370	(1,022)	(4,544)	(478,792)
	Mar-14	0.0	0.7	320	0	3.5	370	(1,022)	(4,544)	(478,792)

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

	Total Project (All Wells)			
			Mass Balance	
	Date	Storage (AF)	TIN (kg)	TDS (kg)
2Q13	Apr-13	(2,302)	(19,924)	(677,408)
	May-13	(2,623)	(21,798)	(816,194)
	Jun-13	(2,963)	(23,576)	(961,964)
3Q13	Jul-13	(3,375)	(25,352)	(1,139,457)
	Aug-13	(3,657)	(26,571)	(1,258,117)
	Sep-13	(3,910)	(27,663)	(1,364,497)
4Q13	Oct-13	(4,188)	(28,862)	(1,481,021)
	Nov-13	(4,427)	(29,898)	(1,583,033)
	Dec-13	(4,560)	(30,470)	(1,639,606)
1Q14	Jan-14	(4,643)	(30,828)	(1,674,322)
	Feb-14	(4,651)	(30,867)	(1,677,609)
	Mar-14	(4,651)	(30,867)	(1,677,609)



0 2 4 Miles

0 4 8 Kilometers

Main Map Features

Recharge Basins in the Recycled Water Groundwater Recharge Program

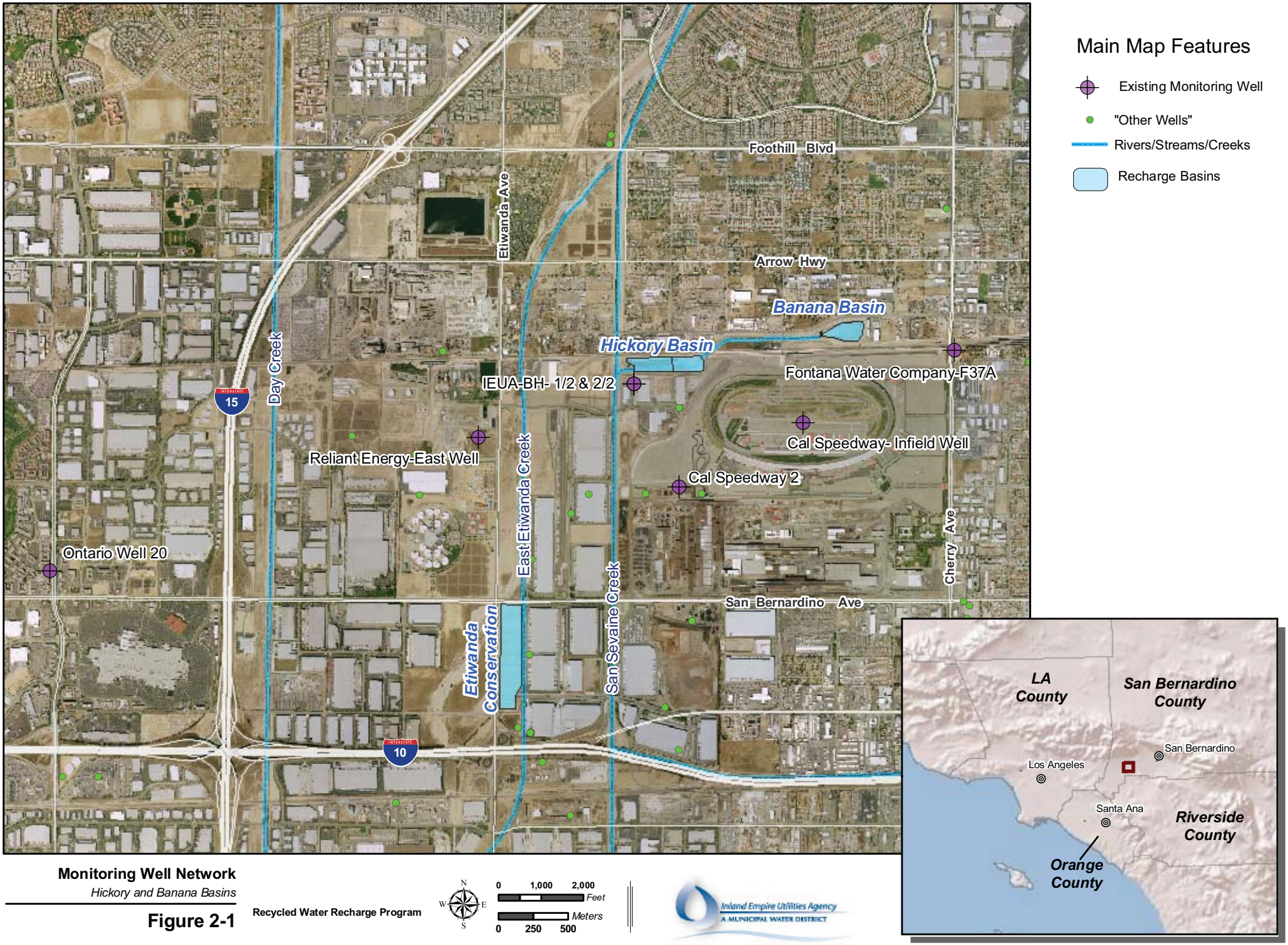
Non-Program Basins

Rivers and Streams

Chino Basin Recycled Water Groundwater Recharge Program

Basin Locations

Figure 1-1

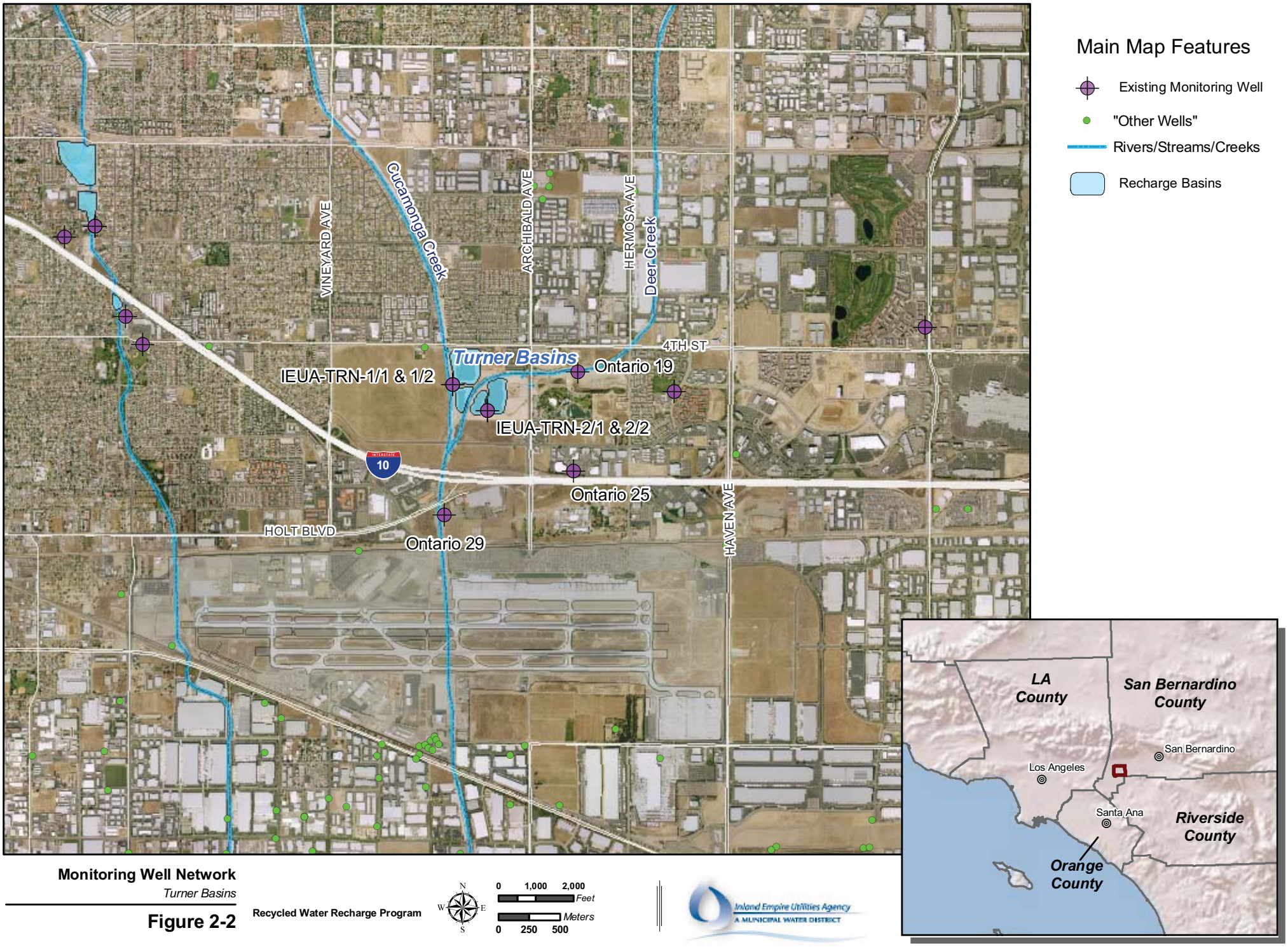


Monitoring Well Network

Hickory and Banana Basins

Figure 2-1

Recycled Water Recharge Program



Monitoring Well Network

Turner Basins

Figure 2-2

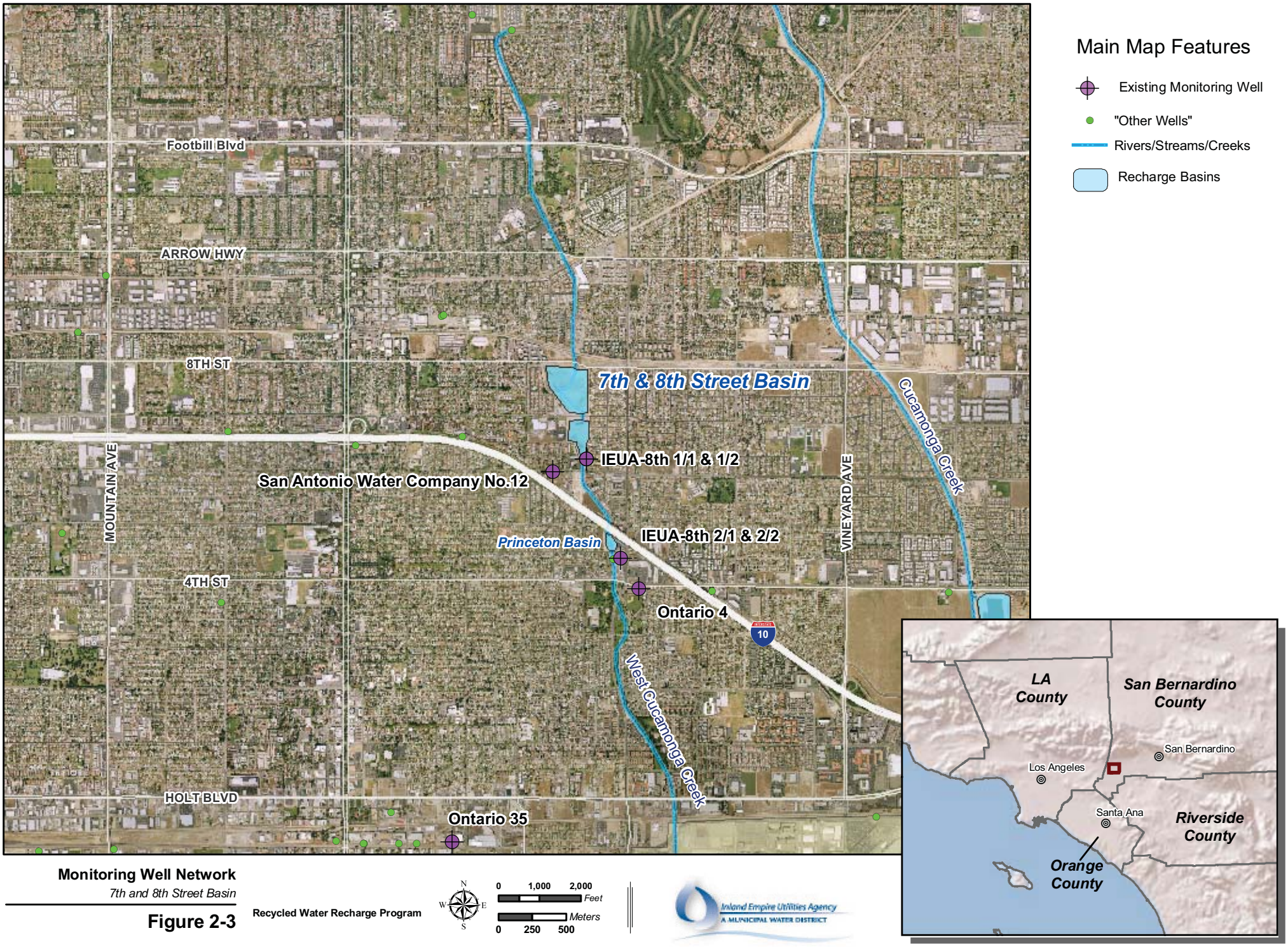
Recycled Water Recharge Program

N W E S

0 1,000 2,000 Feet

0 250 500 Meters

Inland Empire Utilities Agency
A MUNICIPAL WATER DISTRICT

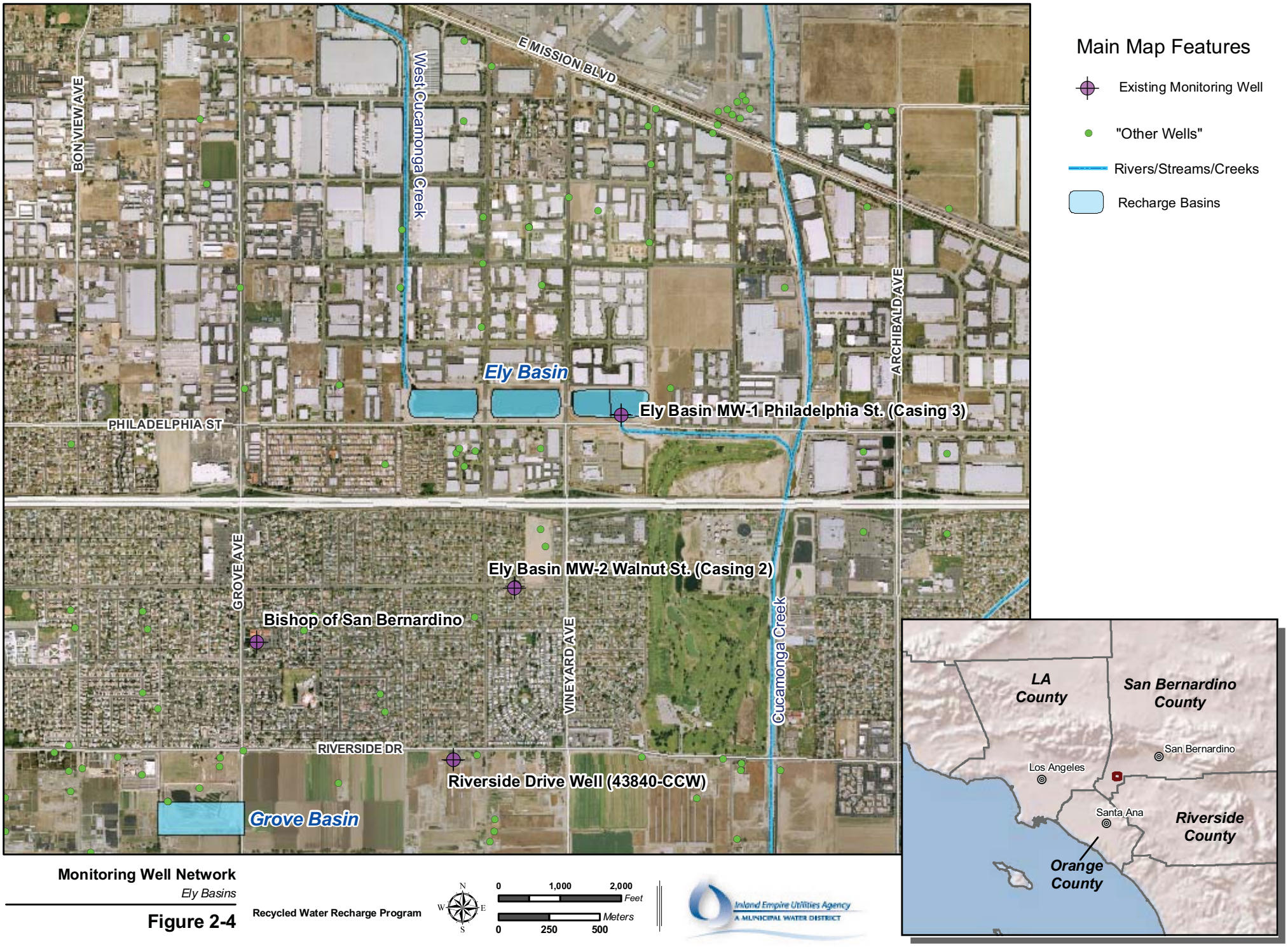


Monitoring Well Network

7th and 8th Street Basin

Figure 2-3

Recycled Water Recharge Program



Monitoring Well Network

Ely Basins

Figure 2-4

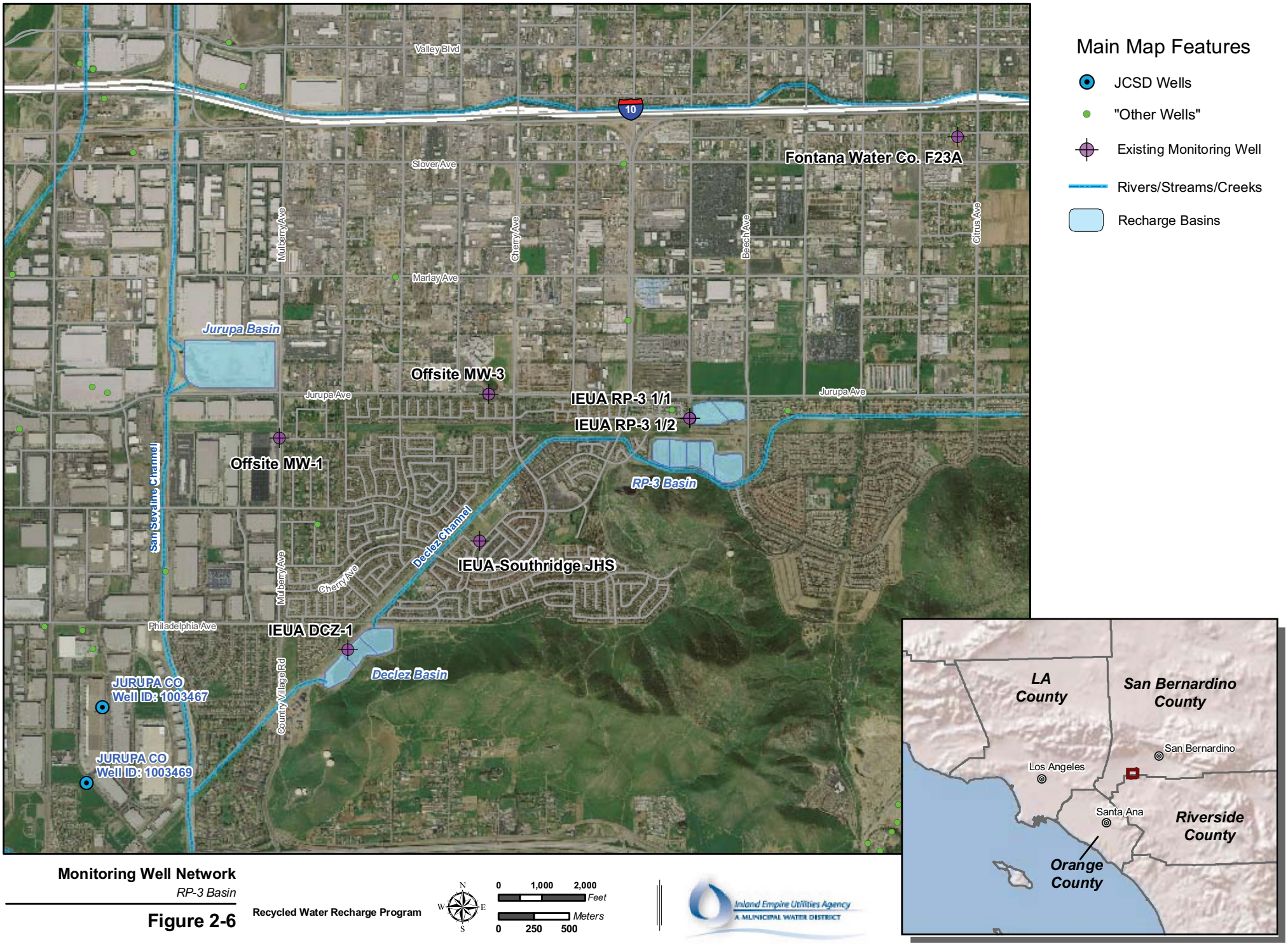
Recycled Water Recharge Program

Monitoring Well Network

Brooks Street Basin

Figure 2-5

Recycled Water Recharge Program

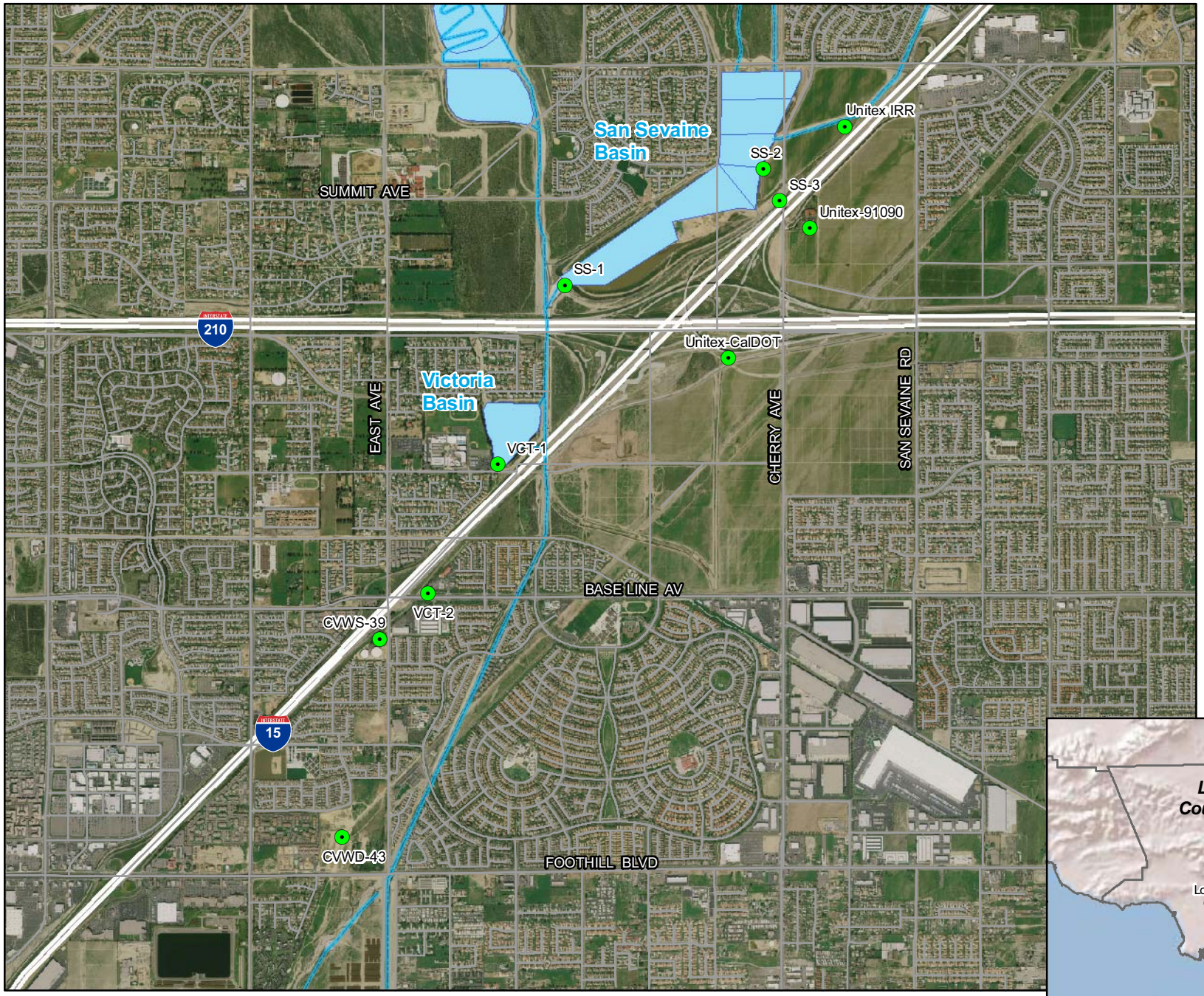


Monitoring Well Network

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

Inland Empire Utilities Agency
A MUNICIPAL WATER DISTRICT

20071106