

Inland Empire Utilities Agency  
A MUNICIPAL WATER DISTRICT



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Patrick Sheilds  
Executive Manager of Operations

Ken Jeske  
Interim CEO

February 15, 2012

Regional Water Quality Control Board, Santa Ana Region

**Attention: Mr. Kurt Berchtold**

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

**Subject: Chino Basin Recycled Water Groundwater Recharge Program  
Quarterly Monitoring Report for October through December 2011**

Dear Mr. Berchtold,

Inland Empire Utilities Agency and Chino Basin Watermaster hereby submit the *Quarterly Monitoring Report* for the fourth quarter of 2011 (4Q11), October 1 through December 31, 2011, 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 4Q11, the Groundwater Recharge Program was in compliance with all monitoring and reporting requirements as specified in the Order, with the exception of two exceedances of total nitrogen 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, 2011, there was no reported pumping for drinking water purposes in the buffer zones extending 500 feet laterally and 6 months underground travel time from each of the recharge sites using recycled water, namely 7th & 8th Street, Banana, Brooks, Ely, Hickory, RP3, San Sevaine, Turner, and Victoria Basins. In point of fact, there are no production wells in the buffer zones of the aforementioned recharge sites.

**DECLARATION**

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

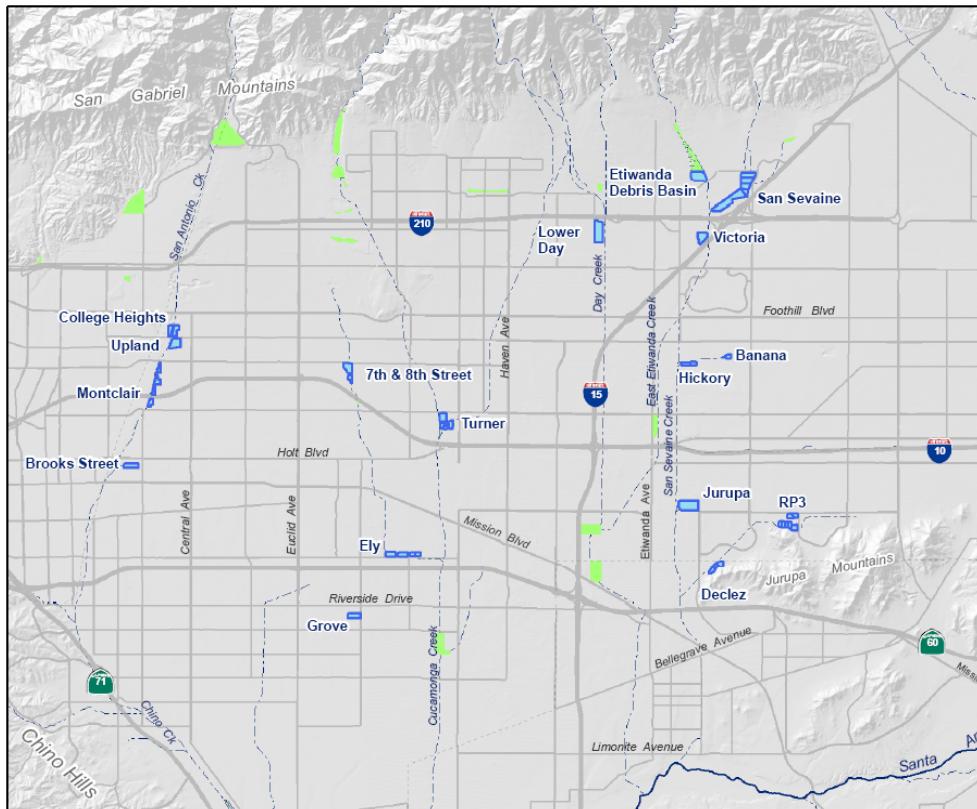
Executed on the 15<sup>th</sup> day of February 2012 in the Cities of Chino and Rancho Cucamonga.

  
for  
Patrick Sheilds  
Executive Manager of Operations

  
Ken Jeske  
Interim Chief Executive Officer

# Chino Basin Recycled Water Groundwater Recharge Program

## Quarterly Monitoring Report October 1 through December 31, 2011



*Prepared by:*



February 15, 2012

## Table of Contents

<b>1. Introduction .....</b>	<b>1</b>
A. Order No. R8-2007-0039 .....	1
B. Order No. R8-2009-0057 .....	1
C. Revised Monitoring & Reporting Program No. R8-2001-0039 .....	1
D. Outline of the Quarterly Report .....	2
<b>2. Monitoring Results.....</b>	<b>2</b>
A. Recycled Water: RP-1 and RP-4 .....	2
B. Recycled Water: Basin and Lysimeter Samples.....	3
C. Diluent Water.....	4
D. Groundwater Monitoring Wells .....	4
<b>3. Recharge Operations .....</b>	<b>5</b>
<b>4. Operational Problems &amp; Preventive or Corrective Actions .....</b>	<b>5</b>
<b>5. Certification of Non-Pumping in the Buffer Zones .....</b>	<b>5</b>
<b>6. MVWD ASR Project .....</b>	<b>5</b>

## **LIST OF TABLES**

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

## **LIST OF FIGURES**

1-1	Basin Locations
2-1	Monitoring Well Network: Hickory and Banana Basins
2-2	Monitoring Well Network: Turner Basins
2-3	Monitoring Well Network: 7th & 8th Street Basins
2-4	Monitoring Well Network: Ely Basin
2-5	Monitoring Well Network: Brooks Basin
2-6	Monitoring Well Network: RP3 Basins
2-7	Monitoring Well Network: San Sevaine & Victoria Basins

## **1. Introduction**

Inland Empire Utilities Agency (IEUA), Chino Basin Watermaster (Watermaster), Chino Basin Water Conservation District, and San Bernardino County Flood Control District are partners in the implementation of the Chino Basin Recycled Water Groundwater Recharge Program. This is 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 2011 (4Q11).

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

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

### **B. Order No. R8-2009-0057**

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

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

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

- 1) Sampling Requirements A.3, A.4, and A.5 were modified by specifying that samples shall be collected on a representative day instead of the 10<sup>th</sup> 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 4Q11 data.

Recycled Water Specifications A.5 through A.9 are the narrative limits established in the permit. Corresponding monitoring data are presented in Tables 2-1 and 2-2. Recycled water compliance for the total nitrogen (TN) limit of 5 mg/L is met at the lysimeters.

In December 2011, two exceedances of TN occurred at the Hickory Basin East 25-foot depth lysimeter during two consecutive weeks of sampling. On December 30, 2011, the CDPH and the Regional Board were both given verbal notification regarding the two TN exceedances and the subsequent cessation of recycled water deliveries until the reason for the diminished effectiveness of Soil-Aquifer Treatment (SAT) for TN could be evaluated. SAT efficiency for TOC was not impacted. Upon investigation of the probable causes, it was deduced that colder weather and the recent basin cleaning activities during 3Q11 may have temporarily disrupted the nitrogen-reducing bacterial population in the Hickory Basin soils. This can result from the removal of the main carbon source in the soil, which lessens bacterial activity creating aerobic soil conditions less favorable to TN-reducing bacterial populations. The most viable solution for resuming recycled water recharge at Hickory basin was to allow naturally-occurring carbon sources to be carried back into the basin by local runoff and stormwater, which would also allow for dilution of a recycled water TN. During the current quarter (1Q12), rain has added stormwater to Hickory Basin and the SAT effectiveness for TN removal continues to be evaluated with periodic recycled water deliveries.

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 1Q11 through 4Q11 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 4Q11, there were no exceedances in the following categories: primary MCLs for inorganic chemicals, volatile organic compounds (VOCs),

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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, DBPs have been able to break down and samples better represent of 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 4Q11 sampling for DBPs, IEUA chose the 15-foot below ground surface lysimeter at the Banana Basin as the compliance point. The Banana Basin lysimeter was selected as the 4Q11 compliance point because the basin received consistent recycled water recharge and recycled water was present at the 15-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 4Q11 are summarized in Table 2-5a. The table includes lysimeter data for 7<sup>th</sup> & 8<sup>th</sup> Street, Banana, Brooks, Hickory, RP3, San Sevaine, and Victoria Basins.

The Turner and Ely Basins have implemented alternative monitoring plans which include the sampling of recycled water at the GenOn Energy turnout and the application of TOC and TN correction factors for SAT at the basins. These correction factors were determined from each basin's start-up period findings. The correction factors reduce the TOC results by 70 percent for recycled water delivered to Turner cells 1 & 2, 85 percent for recycled water delivered to Turner cells 3 & 4, and 76 percent for recycled water delivered to Ely Basin. The correction factors reduce TN results by 87 percent for recycled water delivered to all four Turner cells and 52 percent for recycled water delivered to Ely Basin. Turner Basin TOC and TN values calculated based on the correction factors provided in the alternative monitoring plan are summarized in Table 2-5b. Ely Basin did not receive recycled water during 4Q11.

The Brooks and RP3 Basins have implemented alternative monitoring plans based on start-up period findings. The Brooks Basin alternative monitoring plan includes monthly sampling of the Brooks Basin surface water, 25-foot lysimeter, and monitoring well BRK-1/1 for EC, TOC, and TN to be conducted as long as recycled water has been recharged in the prior 180 days. Additionally, chloride will be analyzed for BRK-1/1 and used to verify the presence of recycled water. The 25-foot lysimeter will be the compliance point for TN and the monitoring well will be the compliance point for TOC. The RP3 alternative monitoring plan includes monthly sampling of the 35-foot deep lysimeter for EC, TOC, and TN. The monitoring schedule would be conducted during the initial year of recycled water recharge at the RP3 Basin. If sufficient SAT is demonstrated in this initial year, the alternative monitoring plan proposes compliance monitoring from samples collected from the recycled water distribution pipeline and applying a performance-based TOC correction factor determined from past lysimeter monitoring. Brooks and RP3 Basins alternative monitoring data are summarized in Table 2-5b.

## C. Diluent Water

For 4Q11, diluent water quality sampling of stormwater was conducted on November 7, 2011 at Declez and San Sevaine Basins and on December 12, 2011 at Victoria and Banana Basins. Table 2-6a lists the results of the stormwater sampling and analyses. Details on the methods used to measure daily diluent water flow and diluent water monitoring schedule can be found in the CDPH-approved Diluent Water Monitoring Plan. The quarterly sampling schedule for stormwater and local runoff is presented in Table 4-2 of the plan. Stormwater is sampled during the rainy season and local runoff is sampled during the dry season. Samples are collected at about half the locations during each seasonal quarter, alternating between even and odd years. Table 5-2 of the plan summarizes the sample type and reporting frequency for the parameters listed in Tables I, II, III, and IV of the Diluent Water Monitoring requirement III.3 of the MRP.

State Water Project water was delivered as diluent water to the RP3 Basin during 4Q11. Table 2-6b lists the results from Metropolitan Water District's general mineral and physical analysis of source water from Silverwood Lake.

## D. Groundwater Monitoring Wells

During 4Q11, groundwater quality within the vicinity of Banana and Hickory Basins was monitored by sampling a network of six wells. The groundwater quality within the vicinity of Turner Basin was monitored by sampling a network of five wells. The groundwater quality within the vicinity of the RP3 Basin was monitored by sampling a network of five wells. The groundwater quality within the vicinity of the 7<sup>th</sup> & 8<sup>th</sup> Street Basin was monitored by sampling a network of five wells. The groundwater quality within the vicinity of the Brooks Basin was monitored by sampling a network of six wells. The groundwater quality within the vicinity of the Ely Basin was monitored by sampling a network of four wells. The groundwater quality within the vicinity of the San Sevaine and Victoria Basins were monitored by sampling a network of five wells. The wells in the monitoring well networks for Hickory and Banana, Turner, 7<sup>th</sup> & 8<sup>th</sup> Street, Ely, Brooks, RP3, and San Sevaine & Victoria Basins are summarized in Table 2-7, and presented on Figures 2-1 through 2-7, respectively. The groundwater constituents analyzed from the monitoring wells during quarterly and annual monitoring are presented in Table 2-8a and Table 2-8b.

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 4Q11 analyses results which exceeded primary or secondary MCLs are shown in the tables in bold font. Of note are the analyses for the following wells and constituents:

Turbidity exceeding the secondary MCL was observed in several monitoring wells, namely: BH-1/2, Ely Walnut well, BRK-2/1, VCT-1/1 and VCT-2/2. In subsequent quarters, additional well purging will be performed at the three other wells where turbidity levels continue to be elevated. However, additional purging may still not resolve turbidity issues. During 4Q11, manganese was above secondary standards at RP3 Basin's well, RP3-1/.

TDS and EC are slightly higher than the secondary MCLs in the RP3 basin area wells (Alcoa MW3 and Southridge JHS) and the Ely Basin area well (Walnut). The wells south of Ely and near RP3 are located in an area with historically high EC levels (>1,000 µmhos/cm). Many of the monitoring wells in the 8th Street, Brooks, Ely, RP3, and Declez monitoring networks also have NO<sub>3</sub>-N concentrations above the primary MCL. These higher levels are characteristic of groundwater quality in the local area where historically the NO<sub>3</sub>-N concentrations ranges from 10-30 mg/L. TDS and NO<sub>3</sub>-N concentrations in the area of the RP3 and Declez monitoring well network are documented in the CBWM 2008 State of the Basin report.

### **3. Recharge Operations**

IEUA's Groundwater Recharge Coordinator recorded the daily volumes of water routed to all basins. The 7<sup>th</sup> & 8<sup>th</sup> Street, Banana, Ely, Hickory, RP3, San Sevaine, Turner, and Victoria Basins received recycled water this quarter. Table 3-1 lists the volumes of recycled water and diluent water (local runoff, stormwater, and/or imported water) captured during 4Q11 at the basins that have initiated recharge using recycled water.

### **4. Operational Problems & Preventive or Corrective Actions**

No operational problems were encountered this quarter, therefore no corrective actions were necessary for the following: Regional Water Recycling Facilities - RP-1 & RP-4. As previously discussed in Section 2 of this report, recycled water recharge operations at Hickory Basin were temporarily suspended in late December 2012 due to two consecutive TN results above 5 mg/L.

### **5. Certification of Non-Pumping in the Buffer Zones**

Watermaster has certified that there was no reported pumping of groundwater in 4Q11 for domestic or municipal use from the buffer zones that extend 500 feet and 6 months underground travel time from the 7<sup>th</sup> & 8<sup>th</sup> Street, Banana, Brooks, Ely, Hickory, RP3, San Sevaine, Turner, and Victoria Basins. In fact, there are no production wells within the buffer zones of these aforementioned recharge sites.

IEUA continues to work with the San Bernardino County Department of Environmental Health Services (SBCDEHS) to prevent the drilling and construction of new drinking water wells within the buffer zones. SBCDEHS has initiated control over production well permitting within the buffer zones of all recharge sites through the use of buffer zone maps that utilize the same land coordinate system (Township/Range/Section/40-acre Parcel) that is used in the permitting process. SBCDEHS reviews new well permit applications, in part, by checking the proposed location of a new drinking water well against recharge basin location maps and parcel lists, both provided by IEUA. The maps and lists show township/range/section parcels (40-acre parcels) that abut recharge basins and their 500-foot buffers.

If a well falls within an abutting parcel, SBCDEHS will review the proposed well location using maps of the basins and buffer zones. If the well falls too near the buffer zone boundary for SBCDEHS to determine the relationship of the proposed well location to the buffer boundary, SBCDEHS will defer to IEUA for a prompt field review of the proposed well location. The field review may include contacting and having the well applicant to identify the exact location of the proposed well casing. To conduct a detailed field review, SBCDEHS will contact and provide IEUA Groundwater Recharge Coordinator with a copy of the well permit application and a timeline for the completion of IEUA's review. Following the review, IEUA will notify SBCDEHS of its findings in writing. IEUA will also notify the California Department of Public Health and the Regional Board of well permit applications that it recommends be declined due to well locations determined to fall with a 500-foot buffer zone.

### **6. MVWD ASR Project**

Reporting for the Monte Vista Water District (MVWD) Aquifer Storage and Recovery (ASR) project was allowed by the RWQCB to be included under IEUA/CBWM Phase I Groundwater Recharge Order No. R8-2005-0033 and subsequent permit updates. In April 2007, MVWD, Watermaster, and IEUA entered into an agreement to report the MVWD ASR project groundwater injection/recovery volumes and TIN/TDS mass balance in the recharge program quarterly reports. Initial injection began in June 2007. In May 2008, MVWD discontinued groundwater injection at the ASR wells for an extended period of time. In June 2011, MVWD groundwater injection activities resumed at four ASR wells. MVWD continued injection of imported water through September 2011. Table 6-1 summarizes the

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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 2011  
(Recycled Water Quality Specifications A.5, A.7, A.8, & A.9)

Unit Limits	RP-1 Effluent										RP-4 Effluent									
	Turbidity <sup>1,2,7</sup>	TOC	NO <sub>3</sub> -N	TN	TIN <sup>3</sup>	pH <sup>7</sup>	EC <sup>7</sup>	TDS <sup>3</sup>	Hardness	Coliform <sup>1,2,4</sup>	Turbidity <sup>1,2,7</sup>	TOC	NO <sub>3</sub> -N	TN	TIN <sup>3</sup>	pH <sup>7</sup>	EC	TDS <sup>3</sup>	Hardness	Coliform <sup>1,2,4</sup>
	NTU 2;5;10	mg/L 16 <sup>5</sup>	mg/L 5 <sup>6</sup>	mg/L 5 <sup>6</sup>	mg/L 6<pH<9	unit μhmo/cm	mg/L 2.2;23;240	mg/L 2.2;23;240	mg/L 2.2;23;240	mpn/100mL 2.2;23;240	NTU 2;5;10	mg/L 16 <sup>5</sup>	mg/L 5 <sup>6</sup>	mg/L 5 <sup>6</sup>	mg/L 6<pH<9	unit μhmo/cm	mg/L 2.2;23;240	mg/L 2.2;23;240	mg/L 2.2;23;240	mpn/100mL 2.2;23;240
10/01/11	0.9	5.7			7.1	783			<2		0.4	3.8			7.2	665			<2	
10/02/11	1.0	5.9	3.9	3.9	3.9	7.2	784		<2		0.4	4.0	4.2	5.2	4.2	7.2	660			<2
10/03/11	1.0	6.2				7.2	766		<2		0.5	4.0			7.2	665				<2
10/04/11	1.1	6.4				7.1	785		<2		0.5	3.9			7.3	655				<2
10/05/11	0.7	6.0				7.1	835	428	136	<2	0.6	3.9			7.3	650	392	130		<2
10/06/11	0.7	6.1				7.1	866		4		0.5	3.8			7.2	654				<2
10/07/11	0.8	5.8				7.2	571		<2		0.6	3.8			7.2	660				<2
10/08/11	0.8	5.7				7.2	432		<2		0.5	3.9			7.3	655				<2
10/09/11	1.0	6.1	5.8	5.8	5.8	7.2	631		<2		0.5	3.8	3.3	4.0	3.4	7.4	655			<2
10/10/11	1.4	7.7				7.1	744		<2		0.5	3.9			7.4	660				<2
10/11/11	1.3	6.3				7.1	669		<2		0.4	3.8			7.5	660				<2
10/12/11	1.1	5.9	5.8		6.1	7.1	763	453	149	<2	0.4	3.8			7.4	670	413			<2
10/13/11	1.1	5.6				7.0	760		<2		0.5	3.6			7.4	655				<2
10/14/11	0.7	5.2				7.0	756		<2		0.5	3.7			7.3	665				<2
10/15/11	0.6	5.1				7.1	759		<2		0.5	3.6			7.3	665				<2
10/16/11	0.5	5.0	7.3	7.3	7.3	7.1	820		<2		0.5	3.7	4.4	5.4	4.4	7.3	660			<2
10/17/11	0.5	5.2				7.1	823		<2		0.5	3.6			7.4	665				<2
10/18/11	0.5	5.2				7.2	800		<2		0.4	3.8			7.4	665				<2
10/19/11	0.5	5.3	7.6	7.6	7.6	7.1	785	416	2		0.6	3.7			7.4	670	412			<2
10/20/11	0.6	5.6				7.1	717		<2		0.5	3.6			7.4	660				<2
10/21/11	0.6	5.3				7.2	720		<2		0.4	3.4			7.4	665				<2
10/22/11	0.8	5.6				7.2	721		<2		0.4	3.5			7.4	670				<2
10/23/11	0.8	5.5	5.5	5.5	5.5	7.2	712		<2		0.4	3.6	4.3	4.7	4.3	7.4	650			<2
10/24/11	0.9	5.7				7.2	675		<2		0.5	3.7			7.4	665				<2
10/25/11	0.7	5.3				7.2	675		<2		0.5	3.6			7.4	665				<2
10/26/11	0.8	5.1				7.2	678	426	144	<2	0.5	3.5			7.4	665	406			<2
10/27/11	0.8	5.0				7.2	678		<2		0.6	3.3			7.2	662				<2
10/28/11	0.9	5.4				7.1	685		<2		0.6	3.2			7.1	670				<2
10/29/11	0.9	5.0				7.2	691		<2		0.5	3.3			7.1	665				<2
10/30/11	0.9	5.1	5.9	5.9	5.9	7.2	678		<2		0.5	3.3	4.3	5.2	4.3	7.1	660			<2
10/31/11	0.9	5.2				7.2	670		<2		0.6	3.4			7.1	670				<2
Avg	0.8	5.6	6.0	6.0	6.0	7.1	724	431	143	<2	0.5	3.7	4.1	4.9	4.1	7.3	662	406	130	<2
Min	0.5	5.0	3.9	3.9	3.9	7.0	432	416	136	<2	0.4	3.2	3.3	4.0	3.4	7.1	650	392	130	<2
Max	1.4	7.7	7.6	7.6	7.6	7.2	866	453	149	4	0.6	4.0	4.4	5.4	4.4	7.5	670	413	130	<2

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

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

<sup>1</sup> 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.

<sup>2</sup> 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.

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

<sup>4</sup> 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.

<sup>5</sup> TOC shall not exceed 16 mg/L for more than two consecutive samples and an average of the last 4 sample results.

<sup>6</sup> TN compliance can be met at a point prior to the regional groundwater, including lysimeters.

<sup>7</sup> 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 2011  
(Recycled Water Quality Specifications A.5, A.7, A.8, & A.9)

Unit Limits	RP-1 Effluent										RP-4 Effluent									
	Turbidity <sup>1,2,7</sup>	TOC	NO <sub>3</sub> -N	TN	TIN <sup>3</sup>	pH <sup>7</sup>	EC <sup>7</sup>	TDS <sup>3</sup>	Hardness	Coliform <sup>1,2,4</sup>	Turbidity <sup>1,2,7</sup>	TOC	NO <sub>3</sub> -N	TN	TIN <sup>3</sup>	pH <sup>7</sup>	EC	TDS <sup>3</sup>	Hardness	Coliform <sup>1,2,4</sup>
	NTU 2;5;10	mg/L 16 <sup>5</sup>	mg/L 5 <sup>6</sup>	mg/L 5 <sup>6</sup>	mg/L 6<pH<9	unit μhmo/cm	mg/L 2.2;23;240	mg/L 2.2;23;240	mg/L 2.2;23;240	mpn/100mL 2.2;23;240	NTU 2;5;10	mg/L 16 <sup>5</sup>	mg/L 5 <sup>6</sup>	mg/L 5 <sup>6</sup>	mg/L 6<pH<9	unit μhmo/cm	mg/L 2.2;23;240	mg/L 2.2;23;240	mg/L 2.2;23;240	mpn/100mL 2.2;23;240
11/01/11	0.9	5.3			7.4	683			<2		0.6	3.4				7.1	660			<2
11/02/11	0.9	5.0			7.5	694	428	152	<2		0.5	3.4				7.2	650	398	147	<2
11/03/11	0.9	4.8			7.4	679			<2		0.5	3.2				7.1	685			<2
11/04/11	0.6	5.1			7.4	679			<2		0.5	3.1				7.2	685			<2
11/05/11	0.6	4.9			7.4	665			<2		0.5	3.2				7.1	675			<2
11/06/11	0.6	4.9	5.4	5.4	5.4	7.4	667		<2		0.6	3.2	6.0	6.0	6.0	7.1	680			<2
11/07/11	0.7	5.2			7.4	675			<2		0.6	3.3				7.1	680			<2
11/08/11	0.8	5.6			7.4	666			<2		0.5	3.2				7.2	685			<2
11/09/11	0.8	5.9			7.3	683	448		<2		0.5	3.2				7.2	675	408		<2
11/10/11	0.7	5.9			7.3	682			<2		0.6	3.2				7.2	660			<2
11/11/11	0.9	6.2			7.2	675			<2		0.7	3.2				7.1	660			<2
11/12/11	0.8	6.3			7.1	682			<2		0.6	3.2				7.2	665			<2
11/13/11	1.0	6.4	4.4	4.4	4.4	7.2	682		<2		0.6	3.4	5.1	5.1	5.1	7.2	665			<2
11/14/11	0.9	6.5			7.2	681			<2		0.6	3.3				7.2	670			<2
11/15/11	1.1	6.5			7.2	683			<2		0.6	3.3				7.2	675			<2
11/16/11	1.0	6.6			7.2	700	444	139	2		0.7	3.2				7.2	665	390		<2
11/17/11	1.0	6.1			7.2	698			<2		0.7	3.2				7.2	655			<2
11/18/11	0.8	5.7			7.4	681			<2		0.8	3.3				7.2	660			<2
11/19/11	0.7	5.6			7.4	665			<2		0.7	3.3				7.2	660			<2
11/20/11	0.5	5.4	5.2	5.3	5.3	7.6	657		<2		0.8	3.4	4.5	5.6	4.5	7.2	690			<2
11/21/11	0.5	5.5			7.4	637			2		0.8	3.5				7.2	665			<2
11/22/11	0.6	5.4			7.1	633	412		4		0.6	3.4				7.2	655	386		<2
11/23/11	0.7	5.2			7.2	673			<2		0.7	3.2				7.1	655			<2
11/24/11	0.7	5.4			7.2	705			<2		0.6	4.4				7.0	665			<2
11/25/11	0.6	5.3			7.2	713			<2		0.7	3.4				7.1	665			<2
11/26/11	0.8	5.4			7.1	715			<2		0.9	3.7				7.1	675			<2
11/27/11	0.8	5.7	8.0	8.0	8.0	7.1	702		<2		1.0	3.9	3.9	4.5	3.9	7.0	670			<2
11/28/11	0.8	5.8			7.1	691			2		0.9	3.9				7.0	665			<2
11/29/11	0.9	6.5			7.1	443			<2		0.9	3.9				7.1	660			<2
11/30/11	1.0	6.1			7.1	435	408		2		0.9	3.8				7.1	655	372		<2
Avg	0.8	5.7	5.8	5.8	5.8	7.3	664	428	146	<2	0.7	3.4	4.9	5.3	4.9	7.1	668	391	147	<2
Min	0.5	4.8	4.4	4.4	4.4	7.1	435	408	139	<2	0.5	3.1	3.9	4.5	3.9	7.0	650	372	147	<2
Max	1.1	6.6	8.0	8.0	8.0	7.6	715	448	152	4	1.0	4.4	6.0	6.0	6.0	7.2	690	408	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.

<sup>1</sup> 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.

<sup>2</sup> 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.

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

<sup>4</sup> 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.

<sup>5</sup> 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.

<sup>6</sup> TN compliance can be met at a point prior to the regional groundwater, including lysimeters.

<sup>7</sup> 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 2011  
(Recycled Water Quality Specifications A.5, A.7, A.8, & A.9)

Unit Limits	RP-1 Effluent										RP-4 Effluent									
	Turbidity <sup>1,2,7</sup>	TOC	NO <sub>3</sub> -N	TN	TIN <sup>3</sup>	pH <sup>7</sup>	EC <sup>7</sup>	TDS <sup>3</sup>	Hardness	Coliform <sup>1,2,4</sup>	Turbidity <sup>1,2,7</sup>	TOC	NO <sub>3</sub> -N	TN	TIN <sup>3</sup>	pH <sup>7</sup>	EC	TDS <sup>3</sup>	Hardness	Coliform <sup>1,2,4</sup>
	NTU 2;5;10	mg/L 16 <sup>5</sup>	mg/L 5 <sup>6</sup>	mg/L 5 <sup>6</sup>	mg/L 6<pH<9	unit μho/cm	mg/L 2.2;23;240	mg/L 2.2;23;240	mg/L 2.2;23;240	mpn/100mL 2.2;23;240	NTU 2;5;10	mg/L 16 <sup>5</sup>	mg/L 5 <sup>6</sup>	mg/L 5 <sup>6</sup>	mg/L 6<pH<9	unit μho/cm	mg/L 2.2;23;240	mg/L 2.2;23;240	mg/L 2.2;23;240	mpn/100mL 2.2;23;240
12/01/11	1.0	5.6			7.1	699			<2		0.8	3.7				7.2	650			<2
12/02/11	1.0	5.3			7.1	701			<2		0.9	3.6				7.1	665			<2
12/03/11	0.9	5.3			7.2	693			<2		0.7	3.6				7.1	665			<2
12/04/11	0.9	5.6	7.4	7.4	7.4	7.2	678		2		0.9	3.9	4.2	5.4	4.2	7.0	655			<2
12/05/11	1.1	5.8			7.2	664			<2		1.0	4.0				7.1	660			<2
12/06/11	1.1	5.8			7.2	676			2		0.7	3.9				7.1	675			<2
12/07/11	1.1	5.6	7.8		7.8	7.2	691	424	136	2	0.7	3.8				7.1	665	400	132	<2
12/08/11	1.0	5.5			7.2	679			<2		0.7	3.8				7.0	698			<2
12/09/11	0.7	5.4			7.2	682			<2		0.7	3.8				7.0	670			<2
12/10/11	0.5	5.2			7.1	679			<2		0.6	3.8				7.0	665			<2
12/11/11	0.5	5.6	7.3	7.3	7.3	7.2	669		<2		0.6	3.9	4.3	5.5	4.3	7.0	655			<2
12/12/11	0.6	5.8	7.8		7.8	7.2	668		<2		0.7	3.9	4.2		4.2	7.0	655			<2
12/13/11	0.5	5.6	7.6		7.6	7.2	666		<2		0.6	3.9	5.7		5.7	7.0	665			<2
12/14/11	0.6	5.8	7.9		7.9	7.2	688	418		2	0.5	3.8	6.0		6.0	7.0	660	396		<2
12/15/11	0.6	5.8			7.1	721			<2		0.5	3.6				7.0	660			<2
12/16/11	0.6	5.7			7.1	704			<2		0.5	3.6				7.1	655			<2
12/17/11	0.7	6.3			7.1	710			<2		0.4	3.6				7.1	655			<2
12/18/11	0.8	7.1	7.7	7.7	7.7	7.0	721		<2		0.4	3.7	5.8	6.6	5.8	7.0	660			<2
12/19/11	0.8	7.2	7.2		7.2	7.0	750		4		0.5	3.9	5.5		5.5	7.1	670			<2
12/20/11	0.8	6.6	5.9		5.9	7.0	752		2		0.4	3.8	5.0		5.0	7.0	670			<2
12/21/11	0.8	6.2	7.1		7.1	7.1	735	442	132	2	0.5	3.8				7.0	670	398		<2
12/22/11	0.7	6.3			7.1	714			<2		0.5	3.7				7.1	655			<2
12/23/11	0.8	5.6			7.1	713			<2		0.5	3.5				7.1	665			<2
12/24/11	0.9	5.6			7.1	722			<2		0.5	3.6				7.1	670			<2
12/25/11	0.8	5.5			7.1	704			<2		0.5	3.6				7.1	670			<2
12/26/11	0.8	5.7			7.1	696			<2		0.6	3.7				7.0	680			<2
12/27/11	1.0	6.3			7.1	712			<2		0.6	4.0				7.0	680			<2
12/28/11	1.1	6.1	6.3	6.3	6.3	7.1	719	438		<2		0.6	3.9	0.0		7.0	685	406		<2
12/29/11	1.0	6.0			7.1	722			<2		0.6	3.8				7.0	680			<2
12/30/11	1.0	5.8			7.1	722			<2		0.5	3.7				7.0	665			<2
12/31/11	1.0	5.7			7.1	727			<2		0.5	3.7				7.0	670			<2
Avg	0.8	5.8	7.3	7.2	7.3	7.1	703	431	134	<2	0.6	3.8	5.1	4.4	5.1	7.0	667	400	132	<2
Min	0.5	5.2	5.9	6.3	5.9	7.0	664	418	132	<2	0.4	3.5	4.2	0.0	4.2	7.0	650	396	132	<2
Max	1.1	7.2	7.9	7.7	7.9	7.2	752	442	136	4	1.0	4.0	6.0	6.6	6.0	7.2	698	406	132	<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.

<sup>1</sup> 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.

<sup>2</sup> 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.

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

<sup>4</sup> 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.

<sup>5</sup> 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.

<sup>6</sup> TN compliance can be met at a point prior to the regional groundwater, including lysimeters.

<sup>7</sup> 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)**

Date	TIN		TDS	
	Monthly	12-Mo. Run Avg.	Monthly	12-Mo. Run Avg.
Jan-11	6.4	5.4	474	477
Feb-11	6.9	5.4	455	474
Mar-11	6.4	5.4	468	473
Apr-11	6.5	5.5	460	472
May-11	6.0	5.6	462	471
Jun-11	5.7	5.6	464	470
Jul-11	4.3	5.5	454	468
Aug-11	4.4	5.5	457	467
Sep-11	5.8	5.7	457	465
Oct-11	5.2	5.7	457	463
Nov-11	5.9	5.7	453	461
Dec-11	6.3	5.8	454	460
Avg	5.8	5.6	460	468
Min	4.3	5.4	453	460
Max	6.9	5.8	474	477
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	1Q11	2Q11	3Q11	4Q11	4Q Run.			Method
					Avg. <sup>1</sup>	Limit	Unit	
Inorganic Chemicals								
Aluminum	<25	35	<25	27	<25	1000	µg/L	EPA 200.8
Antimony	<1	<1	<1	<1	<1	6	µg/L	EPA 200.8
Arsenic	<2	<2	<2	<2	<2	10	µg/L	EPA 200.8
Asbestos	<3.6	<2	<2	<0.8	<3.6	7	MFL	EPA 100.2
Barium	5	6	7	8	6	1000	µg/L	EPA 200.8
Beryllium	<0.5	<0.5	<0.5	<0.5	<0.5	4	µg/L	EPA 200.8
Cadmium	<0.25	<0.25	<0.25	<0.25	<0.25	5	µg/L	EPA 200.8
Chromium	1.7	0.8	1.4	2.7	1.6	50	µg/L	EPA 200.8
Cyanide	<5	<5	<5	<5	<5	150	µg/L	SM 4500-CN E
Fluoride	0.2	0.2	0.1	0.3	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	2	3	2	3	2	100	µg/L	EPA 200.8
Perchlorate	<4	<4	<4	<4	<4	6	µg/L	EPA 314
Selenium	<2	<2	<2	<2	<2	50	µg/L	EPA 200.8
Thallium	<1	<1	<1	<1	<1	2	µg/L	EPA 200.8
Volatile Organic Chemicals (VOCs)								
Benzene	<0.5	<0.5	<0.5	<0.5	<0.5	1	µg/L	EPA 524.2
Carbon Tetrachloride	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	µg/L	EPA 524.2
1,2-Dichlorobenzene	<0.5	<0.5	<0.5	<0.5	<0.5	600	µg/L	EPA 524.2
1,4-Dichlorobenzene	<0.5	<0.5	<0.5	<0.5	<0.5	5	µg/L	EPA 524.2
1,1-Dichloroethane	<0.5	<0.5	<0.5	<0.5	<0.5	5	µg/L	EPA 524.2
1,2-Dichloroethane	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	µg/L	EPA 524.2
1,1-Dichloroethylene	<1	<1	<1	<0.5	<1	6	µg/L	EPA 524.2
cis-1,2-Dichloroethylene	<0.5	<0.5	<0.5	<0.5	<0.5	6	µg/L	EPA 524.2
trans-1,2-Dichloroethylene	<0.5	<0.5	<0.5	<0.5	<0.5	10	µg/L	EPA 524.2
Dichloromethane	<0.5	<0.5	<0.5	<0.5	<0.5	5	µg/L	EPA 524.2
1,2-Dichloropropane	<0.5	<0.5	<0.5	<0.5	<0.5	5	µg/L	EPA 524.2
1,3-Dichloropropene	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	µg/L	EPA 524.2
Ethylbenzene	<0.5	<0.5	<0.5	<0.5	<0.5	300	µg/L	EPA 524.2
Monochlorobenzene	<0.5	<0.5	<0.5	<0.5	<0.5	70	µg/L	EPA 524.2
Methyl-tert-butyl ether	<0.5	<0.5	<0.5	<0.5	<0.5	13	µg/L	EPA 524.2
Styrene	<0.5	<0.5	<0.5	<0.5	<0.5	100	µg/L	EPA 524.2
1,1,2,2-Tetrachloroethane	<0.5	<0.5	<0.5	<0.5	<0.5	1	µg/L	EPA 524.2
Tetrachloroethylene	<0.5	<0.5	<0.5	<0.5	<0.5	5	µg/L	EPA 524.2
Toluene	<0.5	<0.5	<0.5	<0.5	<0.5	150	µg/L	EPA 524.2
1,2,4-Trichlorobenzene	<0.5	<0.5	<0.5	<0.5	<0.5	5	µg/L	EPA 524.2
1,1,1-Trichloroethane	<0.5	<0.5	<0.5	<0.5	<0.5	200	µg/L	EPA 524.2
1,1,2-Trichloroethane	<0.5	<0.5	<0.5	<0.5	<0.5	5	µg/L	EPA 524.2
Trichloroethylene	<0.5	<0.5	<0.5	<0.5	<0.5	5	µg/L	EPA 524.2
Trichlorofluoromethane	<0.5	<0.5	<0.5	<0.5	<0.5	150	µg/L	EPA 524.2
1,1,2-Trichloro-1,2,2-Trifluoroethane	<0.5	<0.5	<0.5	<0.5	<0.5	1200	µg/L	EPA 524.2
Vinyl Chloride	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	µg/L	EPA 524.2
m,p-Xylene	<0.5	<0.5	<0.5	<0.5	<0.5	1750 <sup>2</sup>	µg/L	EPA 524.2
o-Xylene	<0.5	<0.5	<0.5	<0.5	<0.5		µg/L	EPA 524.2
Non-Volatile Synthetic Organic Chemicals (SOCs)								
Alachlor (Alanex)	<0.1	<0.1	<0.1	<0.1	<0.1	2	µg/L	EPA 505
Atrazine	<0.05	<0.05	<0.05	<0.05	<0.05	1	µg/L	EPA 525.2
Bentazon	<0.5	<0.5	<0.5	<0.5	<0.5	18	µg/L	EPA 515.4
Benzo(a)pyrene	<0.02	<0.02	<0.02	<0.02	<0.02	0.2	µg/L	EPA 525.2
Carbofuran	<0.5	<0.5	<0.5	<0.5	<0.5	18	µg/L	EPA 531.2
Chlordane	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	µg/L	EPA 505
2,4-D	<0.1	<0.1	<0.1	<0.1	<0.1	70	µg/L	EPA 515.4
Dalapon	<1	<1	<1	<1	<1	200	µg/L	EPA 515.4
Dibromochloropropane	<0.01	<0.01	<0.01	<0.01	<0.01	0.2	µg/L	EPA 504.1
Di(2-ethylhexyl)adipate	<0.6	<0.6	<0.6	<0.6	<0.6	400	µg/L	EPA 525.2
Di(2-ethylhexyl)phthalate	<0.6	<0.6	<0.6	<0.6	<0.6	4	µg/L	EPA 525.2
Dinoseb	<0.2	<0.2	<0.2	<0.2	<0.2	7	µg/L	EPA 515.4
Diquat	<0.4	<0.4	<0.4	<0.4	<0.4	20	µg/L	EPA 549.2
Endothall	<5	<5	<5	<5	<5	100	µg/L	EPA 548.1
Endrin	<0.01	<0.01	<0.01	<0.01	<0.01	2	µg/L	EPA 505

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

Constituent	1Q11	2Q11	3Q11	4Q11	4Q Run.			Method
					Avg. <sup>1</sup>	Limit	Unit	
Ethylene Dibromide	<0.01	<0.01	<0.01	<0.01	<0.01	0.05	µg/L	EPA 504.1
Glyphosate	<6	<25	<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	<0.01	<0.01	<0.01	<0.01	0.01	µg/L	EPA 505
Hexachlorobenzene	<0.05	<0.05	<0.05	<0.05	<0.05	1	µg/L	EPA 525.2
Hexachlorocyclopentadiene	<0.05	<0.05	<0.05	<0.05	<0.05	50	µg/L	EPA 525.2
Lindane	<0.01	<0.01	<0.01	<0.01	<0.01	0.2	µg/L	EPA 505
Methoxychlor	<0.05	<0.05	<0.05	<0.05	<0.05	30	µg/L	EPA 505
Molinate	<0.1	<0.1	<0.1	<0.1	<0.1	20	µg/L	EPA 525.2
Oxamyl	<0.5	<0.5	<0.5	<0.5	<0.5	50	µg/L	EPA 531.2
Pentachlorophenol	<0.04	<0.04	<0.04	<0.04	<0.04	1	µg/L	EPA 515.4
Picloram	<0.1	<0.1	<0.1	<0.1	<0.1	500	µg/L	EPA 515.4
PCB 1016	<0.08	<0.08	<0.08	<0.08	<0.08	0.5	µg/L	EPA 505
PCB 1221	<0.1	<0.1	<0.1	<0.1	<0.1	0.5	µg/L	EPA 505
PCB 1232	<0.1	<0.1	<0.1	<0.1	<0.1	0.5	µg/L	EPA 505
PCB 1242	<0.1	<0.1	<0.1	<0.1	<0.1	0.5	µg/L	EPA 505
PCB 1248	<0.1	<0.1	<0.1	<0.1	<0.1	0.5	µg/L	EPA 505
PCB 1254	<0.1	<0.1	<0.1	<0.1	<0.1	0.5	µg/L	EPA 505
PCB 1260	<0.1	<0.1	<0.1	<0.1	<0.1	0.5	µg/L	EPA 505
Simazine	<0.05	<0.05	<0.05	<0.05	<0.05	4	µg/L	EPA 525.2
Thiobencarb	<0.2	<0.2	<0.2	<0.2	<0.2	70	µg/L	EPA 525.2
Toxaphene	<0.5	<0.5	<0.5	<0.5	<0.5	3	µg/L	EPA 505
2,3,7,8-TCDD (Dioxin)	<5	<5	<5	<5	<5	30	pg/L	EPA 1613
2,4,5-TP (Silvex)	<0.2	<0.2	<0.2	<0.2	<0.2	50	µg/L	EPA 515.4
Action Level Chemicals								
Copper	3.0	2.8	2.4	2.6	2.7	1300	µg/L	EPA 200.8
Lead	<0.5	<0.5	<0.5	<0.5	<0.5	15	µg/L	EPA 200.8
Radionuclides								
Combined Radium-226 and Radium 228	<0.43	<0.48	<0.41	<0.38	<0.48	5	pCi/L	EPA 903.0
Gross Alpha Particle Activity	<3	<2.4	<3	<3	<3	15	pCi/L	EPA 900.0/SM7110C
Tritium	<201	<386	<236	<228	<386	20,000	pCi/L	EPA 906
Strontium-90	<0.75	<0.79	<0.49	<0.62	<0.79	8	pCi/L	EPA 905
Gross Beta Particle Activity	10	8	10	13	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	<25	35	<25	27	<25	200	µg/L	EPA 200.8
Copper	3.0	2.8	2.4	2.6	2.7	1000	µg/L	EPA 200.8
Corrosivity <sup>3</sup>	-0.2 (Non-Cor.)	-0.4 (Non-Cor.)	-0.2 (Non-Cor.)	-0.4 (Non-Cor.)	Non-Cor.	Non-Cor.	SI	SM 2330B
Foaming Agents (MBAS) <sup>3</sup>	0.07	0.06	<0.05	0.06	0.05	0.5	mg/L	S5540C/EPA 425.1
Iron <sup>3</sup>	NR	NR	NR	51	62	300	µg/L	EPA 200.7
Manganese	14	10	8	16	12	50	µg/L	EPA 200.8
Methyl-tert-butyl ether (MTBE) <sup>3</sup>	<0.5	<0.5	<0.5	<0.5	<0.5	5	µg/L	EPA 524.2
Odor-Threshold <sup>3</sup>	1	3	3	1	2	3	TON	SM 2150B
Silver	<0.25	<0.25	<0.25	<0.25	<0.25	100	µg/L	EPA 200.8
Thiobencarb	<0.2	<0.2	<0.2	<0.2	<0.2	1	µg/L	EPA 525.2
Zinc	24	25	24	27	25	5000	µg/L	EPA 200.8
Miscellaneous Regulated Constituents								
Oil & Grease <sup>4</sup>	<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	RP3-35	VCT-30	BNA-15	BNA-15				
Total Trihalomethanes (TTHMs)	2	<2	80	79	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

<sup>1</sup> 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.

<sup>2</sup> The sum of m,p-Xylene and o-Xylene is used to calculate compliance for the Total Xylenes limit

<sup>3</sup> 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.

<sup>4</sup> 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	4Q11	Unit	Method	
Metals				
Chromium (III) <sup>1</sup>	2.7	µg/L	EPA 200.8	
Volatile Organic Chemicals (VOCs)				
Acrolein	<2	µg/L	EPA 624	
Acrylonitrile	<2	µg/L	EPA 624	
Bromoform	<0.5	µg/L	EPA 524.2	
Chlorodibromomethane	2.3	µg/L	EPA 524.2	
Chloroethane	<0.5	µg/L	EPA 524.2	
2-Chloroethylvinylether	<1	µg/L	EPA 624	
Chloroform	71.3	µg/L	EPA 524.2	
Dichlorobromomethane	16.3	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	<1	µg/L	EPA 625	
2,4-Dichlorophenol	<2	µg/L	EPA 625	
2,4-Dimethylphenol	<1	µg/L	EPA 625	
2-Methyl-4,6-dinitrophenol	<2	µg/L	EPA 625	
2,4-Dinitrophenol	<3	µg/L	EPA 625	
2-Nitrophenol	<1	µg/L	EPA 625	
4-Nitrophenol	<3	µg/L	EPA 625	
4-Chloro-3-methylphenol	<1	µg/L	EPA 625	
Phenol	<1	µg/L	EPA 625	
2,4,6-Trichlorophenol	<1	µg/L	EPA 625	
Base/Neutral Extractibles				
Acenaphthene	<1	µg/L	EPA 625	
Acenaphthylene	<1	µg/L	EPA 625	
Anthracene	<1	µg/L	EPA 625	
Benzidine	<5	µg/L	EPA 625	
Benzo(a)anthracene	<5	µg/L	EPA 625	
Benzo(b)fluoranthene	<1	µg/L	EPA 625	
Benzo(g,h,i)perylene	<2	µg/L	EPA 625	
Benzo(k)fluoranthene	<1	µg/L	EPA 625	
Bis(2-chloroethoxy)methane	<2	µg/L	EPA 625	
Bis(2-chloroethyl)ether	<1	µg/L	EPA 625	
Bis(2-chloroisopropyl)ether	<1	µg/L	EPA 625	
4-Bromophenyl phenyl ether	<1	µg/L	EPA 625	
Butyl benzyl phthalate	<1	µg/L	EPA 625	
2-Chloronaphthalene	<1	µg/L	EPA 625	
4-Chlorophenyl phenyl ether	<1	µg/L	EPA 625	
Chrysene	<1	µg/L	EPA 625	
Dibenzo(a,h)anthracene	<1	µg/L	EPA 625	
1,3-Dichlorobenzene	<1	µg/L	EPA 625	
3,3-Dichlorobenzidine	<5	µg/L	EPA 625	
Diethyl phthalate	<2	µg/L	EPA 625	
Dimethyl phthalate	<1	µg/L	EPA 625	
Di-n-butyl phthalate	<1	µg/L	EPA 625	
2,4-Dinitrotoluene	<1	µg/L	EPA 625	
2,6-Dinitrotoluene	<2	µg/L	EPA 625	
Di-n-octyl phthalate	<1	µg/L	EPA 625	
Azobenzene	<1	µg/L	EPA 625	
Fluoranthene	<1	µg/L	EPA 625	
Fluorene	<1	µg/L	EPA 625	
Hexachlorobutadiene	<1	µg/L	EPA 625	
Hexachlorocyclopentadiene	<5	µg/L	EPA 625	
Hexachloroethane	<1	µg/L	EPA 625	
Indeno(1,2,3-cd)pyrene	<2	µg/L	EPA 625	
Isophorone	<1	µg/L	EPA 625	
Naphthalene	<1	µg/L	EPA 625	
Nitrobenzene	<1	µg/L	EPA 625	
N-Nitroso-di-n-propylamine	<1	µg/L	EPA 625	
N-Nitrosodiphenylamine	<1	µg/L	EPA 625	
Phenanthrene	<1	µg/L	EPA 625	
Pyrene	<1	µg/L	EPA 625	
Pesticides				
Aldrin	<0.005	µg/L	EPA 608	
BHC, alpha isomer	<0.01	µg/L	EPA 608	
BHC, beta isomer	<0.005	µg/L	EPA 608	
BHC, delta isomer	<0.007	µg/L	EPA 608	
4,4'-DDT	<0.01	µg/L	EPA 608	
4,4'-DDE	<0.01	µg/L	EPA 608	
4,4'-DDD	<0.01	µg/L	EPA 608	
Dieldrin	<0.01	µg/L	EPA 608	
Endosulfan I	<0.01	µg/L	EPA 608	
Endosulfan II	<0.01	µg/L	EPA 608	
Endosulfan Sulfate	<0.01	µg/L	EPA 608	
Unregulated Chemicals				
Endrin Aldehyde	<0.016	µg/L	EPA 608	
Chromium VI	0.20	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 <sup>2</sup>				
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	190	µg/L	EPA 300.0	
2-Chlorotoluene	<0.5	µg/L	EPA 524.2	
4-Chlorotoluene	<0.5	µg/L	EPA 524.2	
Diazinon	<0.1	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	<4	mg/L	EPA 8015B	
Formaldehyde	31	µg/L	EPA 556	
HMX	<0.4	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)	<2	µg/L	EPA 521	
N-nitrosodimethylamine (NDMA)	<2	ng/L	EPA 521	
Propachlor	<0.05	µg/L	EPA 525.2	
N-propylbenzene	<0.5	µg/L	EPA 524.2	
RDX	<0.4	µg/L	EPA 8330B	
Tertiary butyl alcohol	NA	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	<0.4	µg/L	EPA 8330B	
Vanadium	2	µg/L	EPA 200.8	
Endocrine Disrupting Chemicals, Pharmaceuticals and Other Chemicals <sup>2</sup>				
Acetominophen	<1	ng/L	LC-MS-MS	
Bis Phenol A (BPA)	<10	ng/L	LC-MS-MS	
Caffeine	<3	ng/L	LC-MS-MS	
Carbamazepine	67	ng/L	LC-MS-MS	
Diazepam	<1	ng/L	LC-MS-MS	
Estradiol	<1	ng/L	LC-MS-MS	
Estrone	<1	ng/L	LC-MS-MS	
Ethynodiol Diacetate - 17 alpha	<5	ng/L	LC-MS-MS	
Fluoxetine	17	ng/L	LC-MS-MS	
Gemfibrozil	<1	ng/L	LC-MS-MS	
Ibuprofen	<1	ng/L	LC-MS-MS	
Iopromide	89	ng/L	LC-MS-MS	
Progesterone	<1	ng/L	LC-MS-MS	
Testosterone	<1	ng/L	LC-MS-MS	
Sulfamethoxazole	4.1	ng/L	LC-MS-MS	
Trimethoprim	<1	ng/L	LC-MS-MS	
Triclosan	<5	ng/L	LC-MS-MS	
EDTA	<0.1	mg/L	Dionex-MWH	

<sup>1</sup> Trivalent chromium is measured as total chromium<sup>2</sup> Chemicals with State Notification Levels, Nitrosamines, and EDC, Pharmaceuticals & Other Chemicals

NA: Tertiary butyl alcohol was not analyzed during 4Q11; it is required annually and was analyzed the previous 3 quarters of 2011.

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

8th Street Basin									
Site	Depth, bgs	Date	TOC	TN *	TIN	NO <sub>3</sub> -N	TKN+NO <sub>2</sub> -N	NO <sub>2</sub> -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	12/01/11	6.73	2.2	<0.2	<0.1	2.2	0.04	90
8TH-LYS-00	0	12/20/11	9.05	2.3	0.3	0.2	2.1	0.06	95
8TH-LYS-35	35	12/01/11	2.37	<0.6	<0.2	<0.1	<0.5	<0.01	345
8TH-LYS-35	35	12/20/11	2.32	<0.6	0.3	0.3	<0.5	<0.01	365

Banana Basin									
Site	Depth, bgs	Date	TOC	TN *	TIN	NO <sub>3</sub> -N	TKN+NO <sub>2</sub> -N	NO <sub>2</sub> -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	10/04/11	4.23	4.7	3.9	3.9	0.8	<0.01	690
BNA-LYS-00	0	10/13/11	4.63	6.1	5.1	5.1	1.0	<0.01	715
BNA-LYS-00	0	10/20/11	4.06	7.0	6.1	6.1	0.9	<0.01	685
BNA-LYS-00	0	10/26/11	3.67	5.6	5.1	5.1	0.5	<0.01	675
BNA-LYS-00	0	11/01/11	3.89	5.6	5.6	5.6	<0.5	<0.01	680
BNA-LYS-00	0	11/09/11	9.31	5.9	4.5	4.4	1.5	0.04	500
BNA-LYS-00	0	11/16/11	3.56	5.1	5.1	5.1	<0.5	<0.01	680
BNA-LYS-00	0	11/22/11	6.21	2.4	1.5	1.2	1.2	0.04	160
BNA-LYS-00	0	11/30/11	4.48	6.5	5.6	5.5	1.0	<0.01	670
BNA-LYS-00	0	12/06/11	4.66	6.0	5.2	5.2	0.8	<0.01	685
BNA-LYS-00	0	12/14/11	9.57	5.5	4.0	3.2	2.3	0.12	380
BNA-LYS-00	0	12/20/11	3.91	7.0	5.9	5.9	1.1	<0.01	650
BNA-LYS-00	0	12/28/11	4.00	6.6	5.8	5.8	0.8	<0.01	690
BNA-LYS-15	15	11/16/11	1.22				0.7		
BNA-LYS-15	15	11/22/11	1.24						
BNA-LYS-15	15	11/30/11	1.20			3.8		<0.01	625
BNA-LYS-25	25	10/04/11	0.97	4.1	4.1	4.1	<0.5	<0.01	670
BNA-LYS-25	25	10/13/11	0.84	3.6	3.6	3.6	<0.5	<0.01	620
BNA-LYS-25	25	10/20/11	0.85	3.4	3.4	3.4	<0.5	<0.01	625
BNA-LYS-25	25	10/26/11	0.74	3.5	3.5	3.5	<0.5	<0.01	635
BNA-LYS-25	25	11/01/11	0.92						
BNA-LYS-25	25	12/06/11	0.82		4.7	4.7		<0.01	605
BNA-LYS-25	25	12/14/11	0.78	4.5	4.5	4.5	<0.5	<0.01	610
BNA-LYS-25	25	12/20/11	0.79	4.7	4.7	4.7	<0.5	<0.01	615
BNA-LYS-25	25	12/28/11	0.77	5.0	5.0	5.0	<0.5	<0.01	615

Brooks Basin									
Site	Depth, bgs	Date	TOC	TN *	TIN	NO <sub>3</sub> -N	TKN+NO <sub>2</sub> -N	NO <sub>2</sub> -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	10/26/11	4.51			0.8	1.0	<0.01	385
BRK-LYS-00	0	11/30/11	4.71	3.3	2.4	2.0	1.3	<0.01	440
BRK-LYS-00	0	12/20/11	4.96	4.1	3.2	2.9	1.2	0.02	470
BRK-LYS-25	25	10/26/11	2.19			<0.1	<0.5	<0.01	465
BRK-LYS-25	25	11/30/11	2.36			0.2		<0.01	465
BRK-LYS-25	25	12/20/11	2.32	<0.6	<0.2	<0.1	<0.5	<0.01	460

Hickory East Basin									
Site	Depth, bgs	Date	TOC	TN *	TIN	NO <sub>3</sub> -N	TKN+NO <sub>2</sub> -N	NO <sub>2</sub> -N	EC
Unit==>	feet	mm/dd/yy	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	μmho/cm
HKYE-LYS-00	0	10/04/11	4.77	2.0	0.8	0.5	1.5	<0.01	350
HKYE-LYS-00	0	10/13/11	5.01	6.2	4.8	4.8	1.4	<0.01	655
HKYE-LYS-00	0	11/09/11	3.39	6.4	5.7	5.7	0.7	<0.01	690
HKYE-LYS-00	0	11/16/11	3.48	5.4	4.7	4.7	0.7	<0.01	675
HKYE-LYS-00	0	11/22/11	4.40	5.0	3.7	3.7	1.3	0.02	535
HKYE-LYS-00	0	11/30/11	3.66	4.4	3.4	3.4	1.0	<0.01	685
HKYE-LYS-00	0	12/06/11	4.52	6.6	5.7	5.7	0.9	<0.01	690
HKYE-LYS-00	0	12/14/11	4.23	6.1	5.5	5.5	0.6	<0.01	645
HKYE-LYS-00	0	12/20/11	3.72	6.9	5.6	5.6	1.3	<0.01	640
HKYE-LYS-00	0	12/28/11	3.87	6.0	5.3	5.3	0.7	<0.01	685
HKYE-LYS-25	25	10/04/11	1.25				<0.5		
HKYE-LYS-25	25	10/13/11	1.06			0.6		<0.01	335
HKYE-LYS-25	25	11/22/11	1.04						
HKYE-LYS-25	25	12/06/11	1.34		3.3	3.3		<0.01	620
HKYE-LYS-25	25	12/14/11	1.30						
HKYE-LYS-25	25	12/20/11	1.10	6.9	6.7	6.3	0.6	<0.01	930
HKYE-LYS-25	25	12/28/11	1.56	5.8	5.8	5.8	<0.5	<0.01	695

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

RP3 Basin									
Site	Depth, bgs	Date	TOC	TN *	TIN	NO <sub>3</sub> -N	TKN+NO <sub>2</sub> -N	NO <sub>2</sub> -N	EC
Unit==>	feet	mm/dd/yy	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	µmho/cm
RP31-LYS-00	0	10/04/11	7.50	3.4	1.9	1.4	2.0	0.07	610
RP31-LYS-00	0	11/22/11	6.28	2.9	1.7	1.5	1.4	0.02	340
RP31-LYS-00	0	12/20/11	8.16	3.3	2.2	1.5	1.8	0.07	245
RP31-LYS-35	35	10/04/11	1.21	<0.6	0.3	0.3	<0.5	<0.01	425
RP31-LYS-35	35	11/22/11	0.92	<0.6	0.3	0.3	<0.5	<0.01	425
RP31-LYS-35	35	12/20/11	1.00	<0.6	0.2	0.2	<0.5	<0.01	425

San Sevaine Basin									
Site	Depth, bgs	Date	TOC	TN *	TIN	NO <sub>3</sub> -N	TKN+NO <sub>2</sub> -N	NO <sub>2</sub> -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	12/28/11	8.95	8.5	6.2	5.9	2.6	0.06	255
SS5-LYS-10	10	12/28/11	2.54	0.7	0.7	0.7	<0.5	<0.01	1080
SS5-LYS-15	15	12/28/11	1.63	<0.6	<0.2	0.1	<0.5	<0.01	1390
SS5-LYS-20	20	12/28/11	18.6						720
SS5-LYS-35	25	12/28/11	21.5						1380

Victoria Basin									
Site	Depth, bgs	Date	TOC	TN *	TIN	NO <sub>3</sub> -N	TKN+NO <sub>2</sub> -N	NO <sub>2</sub> -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	11/22/11	9.54	3.8	1.4	1.3	2.5	<0.01	160
VCT-LYS-00	0	11/30/11	5.96	3.6	2.1	2.1	1.5	<0.01	430
VCT-LYS-00	0	12/06/11	5.57	6.1	4.4	4.3	1.8	0.07	585
VCT-LYS-00	0	12/14/11	6.20	5.8	3.5	3.3	2.5	0.15	580
VCT-LYS-00	0	12/20/11	6.25	5.5	3.0	2.8	2.7	0.03	530
VCT-LYS-00	0	12/28/11	7.00	5.8	2.4	2.3	3.5	0.05	485
VCT-LYS-05	5	11/22/11	6.51						
VCT-LYS-05	5	11/30/11	2.78			0.6		0.02	415
VCT-LYS-05	5	12/14/11	3.75						540
VCT-LYS-05	5	12/20/11	2.71						575
VCT-LYS-10	10	12/20/11	2.65						
VCT-LYS-10	10	12/28/11	2.19						685
VCT-LYS-20	20	12/14/11	1.75						
VCT-LYS-20	20	12/20/11	1.46						
VCT-LYS-20	20	12/28/11	1.36						550
VCT-LYS-25	25	11/22/11	10.2						
VCT-LYS-25	25	11/30/11	1.92			<0.1		<0.01	850
VCT-LYS-25	25	12/06/11	2.41						830
VCT-LYS-25	25	12/14/11	1.89	<0.6	<0.2	0.1	<0.5	<0.01	810
VCT-LYS-25	25	12/20/11	1.63	<0.6	0.2	0.2	<0.5	<0.01	780
VCT-LYS-25	25	12/28/11	1.52	<0.6	0.3	0.3	<0.5	<0.01	790
VCT-LYS-30	30	12/20/11	3.35						
VCT-LYS-30	30	12/28/11	2.35						690
VCT-LYS-35	35	11/22/11	3.71						
VCT-LYS-35	35	11/30/11	1.53			<0.1		<0.01	495
VCT-LYS-35	35	12/06/11	1.75						495
VCT-LYS-35	35	12/14/11	1.33	<0.6	<0.2	<0.1	<0.5	<0.01	475
VCT-LYS-35	35	12/20/11	1.33	<0.6	0.2	0.2	<0.5	<0.01	455
VCT-LYS-35	35	12/28/11	1.13	0.6	0.6	0.6	<0.5	<0.01	450

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

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

Table 2-5b  
Alternative Monitoring Plans

Turner Basin					
Date	Recycled Water*	Recycled Water*	Turner 1 & 2	Turner 3 & 4	Turner 1 & 2 Turner 3 & 4
mg/L==>	TOC	TN	TOC (70% reduction)	TOC (85% reduction)	TN (87% reduction)
10/04/11	3.83	5.2	1.15	0.57	0.7
10/13/11	4.74	6.7	1.42	0.71	0.9
10/20/11	3.89	7.9	1.17	0.58	1.0
10/26/11	3.77	7.5	1.13	0.57	1.0
11/01/11	3.42	6.5	1.03	0.51	0.8
11/09/11	3.07	4.5	0.92	0.46	0.6
11/16/11	3.42	6.0	1.03	0.51	0.8
11/22/11	3.23	3.9	0.97	0.48	0.5
11/30/11	3.85	6.5	1.16	0.58	0.8
12/06/11	4.47	7.2	1.34	0.67	0.9
12/14/11	3.85	7.7	1.16	0.58	1.0
12/20/11	3.51	6.4	1.05	0.53	0.8
12/28/11	4.44	7.2	1.33	0.67	0.9

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

Brooks Basin				
Date	BRK-LYS-00	BRK-LYS-00	BRK-LYS-00	BRK-LYS-00
mg/L==>	TOC	TN	EC	
10/26/11	4.51	1.8	385	
11/30/11	4.71	3.3	440	
12/20/11	4.96	4.1	470	
Date	BRK-LYS-25	BRK-LYS-25	BRK-LYS-25	BRK-LYS-25
mg/L==>	TOC	TN**	EC	
10/26/11	2.19	<0.6	465	
11/30/11	2.36	<0.6	465	
12/20/11	2.32	<0.6	460	
Date	BRK-1/1	BRK-1/1	BRK-1/1	BRK-1/1
mg/L==>	TOC**	TN	EC	CI
10/26/11	0.69	<0.6	575	77
11/30/11	0.42	<0.6	580	85
12/20/11	0.65	<0.6	585	82

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

NA: Not analyzed

RP3 Basin			
Date	RP3-LYS-35	RP3-LYS-35	RP3-LYS-35
mg/L==>	TOC	TN	EC
10/04/11	1.21	<0.6	425
11/22/11	0.92	<0.6	425
12/20/11	1.00	<0.6	425

**Table 2-6a**  
**Diluent Water Monitoring\*: Stormwater**

Constituent	Declez Channel @ Declez Basin	San Sevaine Creek @ San Sevaine 1 - 5	Etiwanda Creek @ Victoria Basin	W. Fontana Channel @ Banana Basin	Unit	Method
	11/07/11	11/07/11	12/12/11	12/12/11		
NO <sub>2</sub> -N	0.15	0.06	0.09	0.07	mg/L	EPA 300.0
NO <sub>3</sub> -N	0.9	1.2	1.8	0.4	mg/L	EPA 300.0
TDS	88	102	102	36	mg/L	SM 2540C
Total Coliform	2300	690	23	23	mpn/100ml	SM 9221B
Oil & Grease	<2	<2	<2	<2	mg/L	EPA 1664A
Inorganic Chemicals						
Aluminum	1505	248	6910	934	µg/L	EPA 200.7
Antimony	2	2	1	<1	µg/L	EPA 200.8
Arsenic	<2	<2	<2	<2	µg/L	EPA 200.8
Asbestos	<6.63	<6.63	<6.63	<6.63	MFL	EPA 100.2
Barium	35	23	131	18	µg/L	EPA 200.7
Beryllium	<0.5	<0.5	<0.5	<0.5	µg/L	EPA 200.7
Cadmium	<0.25	<0.25	<0.25	<0.25	µg/L	EPA 200.7
Chromium	4.8	2.3	9.0	6.6	µg/L	EPA 200.7
Cyanide	<0.005	<0.005	<0.005	<0.005	mg/L	SM 4500-CN E
Fluoride	0.3	0.8	<0.1	<0.1	mg/L	SM 4500-F C
Mercury	<0.05	<0.05	<0.05	<0.05	µg/L	EPA 245.2
Nickel	4	3	6	3	µg/L	EPA 200.7
Perchlorate	<4	<4	<4	<4	µg/L	EPA 314
Selenium	<2	<2	<2	<2	µg/L	EPA 200.8
Thallium	<1	<1	<1	<1	µg/L	EPA 200.8
Volatile Organic Chemicals (VOCs)						
Benzene	<0.5	<0.5	<0.5	<0.5	µg/L	EPA 524.2
Carbon Tetrachloride	<0.5	<0.5	<0.5	<0.5	µg/L	EPA 524.2
1,2-Dichlorobenzene	<0.5	<0.5	<0.5	<0.5	µg/L	EPA 524.2
1,4-Dichlorobenzene	<0.5	<0.5	<0.5	<0.5	µg/L	EPA 524.2
1,1-Dichloroethane	<0.5	<0.5	<0.5	<0.5	µg/L	EPA 524.2
1,2-Dichloroethane	<0.5	<0.5	<0.5	<0.5	µg/L	EPA 524.2
1,1-Dichloroethylene	<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	µg/L	EPA 524.2
trans-1,2-Dichloroethylene	<0.5	<0.5	<0.5	<0.5	µg/L	EPA 524.2
Dichloromethane	<0.5	<0.5	<0.5	<0.5	µg/L	EPA 524.2
1,2-Dichloropropane	<0.5	<0.5	<0.5	<0.5	µg/L	EPA 524.2
1,3-Dichloropropene	<0.5	<0.5	<0.5	<0.5	µg/L	EPA 524.2
Ethylbenzene	<0.5	<0.5	<0.5	<0.5	µg/L	EPA 524.2
Chlorobenzene	<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	µg/L	EPA 524.2
Styrene	<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	µg/L	EPA 524.2
Tetrachloroethylene	<0.5	<0.5	<0.5	<0.5	µg/L	EPA 524.2
Toluene	<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	µg/L	EPA 524.2
1,1,1-Trichloroethane	<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	µg/L	EPA 524.2
Trichloroethylene	<0.5	<0.5	<0.5	<0.5	µg/L	EPA 524.2
Trichlorofluoromethane	<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	µg/L	EPA 524.2
Vinyl Chloride	<0.5	<0.5	<0.5	<0.5	µg/L	EPA 524.2
Total Xylenes	<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	µg/L	EPA 505
Atrazine	<0.05	<0.05	<0.05	<0.05	µg/L	EPA 525.2
Bentazon	<0.5	<0.5	<0.5	<0.5	µg/L	EPA 515.4
Benzo(a)pyrene	<0.02	<0.02	<0.02	<0.02	µg/L	EPA 525.2
Carbofuran	<0.5	<0.5	<0.5	<0.5	µg/L	EPA 531.2
Chlordane	<0.1	<0.1	<0.1	<0.1	µg/L	EPA 505
2,4-D	<0.1	<0.1	<0.1	<0.1	µg/L	EPA 515.4
Dalapon	<1	<1	<1	<1	µg/L	EPA 515.4
Dibromochloropropane	<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	µg/L	EPA 525.2
Di(2-ethylhexyl)phthalate	1.1	1.3	<0.6	3.1	µg/L	EPA 525.2
Dinoseb	<0.2	<0.2	<0.2	<0.2	µg/L	EPA 515.4
Diquat	<0.4	<0.4	<0.4	<0.4	µg/L	EPA 549.2
Endothall	<5	<5	<5	<5	µg/L	EPA 548.1
Endrin	<0.01	<0.01	<0.01	<0.01	µg/L	EPA 505
Ethylene Dibromide	<0.01	<0.01	<0.01	<0.01	µg/L	EPA 504.1
Glyphosate	9	<6	270	<6	µg/L	EPA 547
Heptachlor	<0.01	<0.01	<0.01	<0.01	µg/L	EPA 505

Table 2-6a  
Diluent Water Monitoring\*: Stormwater

Constituent	Declez Channel @ Declez Basin	San Sevaine Creek @ San Sevaine 1 - 5	Etiwanda Creek @ Victoria Basin	W. Fontana Channel @ Banana Basin	Unit	Method
	11/07/11	11/07/11	12/12/11	12/12/11		
Heptachlor Epoxide	<0.01	<0.01	<0.01	<0.01	µg/L	EPA 505
Hexachlorobenzene	<0.05	<0.05	<0.05	<0.05	µg/L	EPA 525.2
Hexachlorocyclopentadiene	<0.05	<0.05	<0.05	<0.05	µg/L	EPA 525.2
Lindane	<0.01	<0.01	<0.01	<0.01	µg/L	EPA 505
Methoxychlor	<0.05	<0.05	<0.05	<0.05	µg/L	EPA 505
Molinate	<0.1	<0.1	<0.1	<0.1	µg/L	EPA 525.2
Oxamyl	<0.5	<0.5	<0.5	<0.5	µg/L	EPA 531.2
Pentachlorophenol	<0.04	<0.04	<0.04	<0.04	µg/L	EPA 515.4
Picloram	<0.1	<0.1	<0.1	<0.1	µg/L	EPA 515.4
PCB 1016	<0.08	<0.08	<0.08	<0.08	µg/L	EPA 505
PCB 1221	<0.1	<0.1	<0.1	<0.1	µg/L	EPA 505
PCB 1232	<0.1	<0.1	<0.1	<0.1	µg/L	EPA 505
PCB 1242	<0.1	<0.1	<0.1	<0.1	µg/L	EPA 505
PCB 1248	<0.1	<0.1	<0.1	<0.1	µg/L	EPA 505
PCB 1254	<0.1	<0.1	<0.1	<0.1	µg/L	EPA 505
PCB 1260	<0.1	<0.1	<0.1	<0.1	µg/L	EPA 505
Simazine	<0.05	<0.05	<0.05	<0.05	µg/L	EPA 525.2
Thiobencarb	<0.2	<0.2	<0.2	<0.2	µg/L	EPA 525.2
Toxaphene	<0.5	<0.5	<0.5	<0.5	µg/L	EPA 505
2,3,7,8-TCDD (Dioxin)	<5	<5	<5	<5	pg/L	EPA 1613
2,4,5-TP (Silvex)	<0.2	<0.2	<0.2	<0.2	µg/L	EPA 515.4
Disinfection Byproducts						
Total Trihalomethanes (TTHMs)	<2	<2	<2	<2	µg/L	EPA 524.2/624
Total Haloacetic Acids (HAA5)	<2	<2	<2	<2	µg/L	SM 6251B
Bromate	<5	<5	<5	<5	µg/L	EPA 300.1
Chlorite	<0.01	<0.01	<0.01	<0.01	mg/L	EPA 300.0
Action Level Chemicals						
Copper	14.9	12.7	21.5	10.0	µg/L	EPA 200.7
Lead	7.1	0.7	9.1	5.3	µg/L	EPA 200.8
Radionuclides						
Combined Radium-226 and Radium 222	<0.750	<0.621	0.940	<0.276	pCi/L	EPA 903.0
Gross Alpha Particle Activity	<3	<3	4	<3	pCi/L	EPA 900.0
Tritium	<210	<205	<241	<241	pCi/L	EPA 906.0
Strontium-90	<0.422	<0.407	<0.535	<0.554	pCi/L	EPA 905.0
Gross Beta Particle Activity	5	7	11	<3	pCi/L	EPA 900.0
Uranium	<0.7	<0.7	<0.7	<0.7	pCi/L	EPA 200.8
Unregulated Chemicals						
Chromium VI	0.30	0.84	0.70	3.40	µg/L	EPA 218.6
Ethyl tertiary butyl ether	<0.5	<0.5	<0.5	<0.5	µg/L	EPA 524.2
Tertiary amyl methyl ether	<2	<2	<2	<2	µg/L	EPA 524.2
Chemicals w/ State Notification Levels						
Boron	<0.1	<0.1	<0.1	<0.1	mg/L	EPA 200.7
n-butylbenzene	<0.5	<0.5	<0.5	<0.5	µg/L	EPA 524.2
sec-butylbenzene	<0.5	<0.5	<0.5	<0.5	µg/L	EPA 524.2
tert-butylbenzene	<0.5	<0.5	<0.5	<0.5	µg/L	EPA 524.2
Carbon disulfide	<0.5	<0.5	<0.5	<0.5	µg/L	EPA 524.2
2-Chlorotoluene	<0.5	<0.5	<0.5	<0.5	µg/L	EPA 524.2
4-Chlorotoluene	<0.5	<0.5	<0.5	<0.5	µg/L	EPA 524.2
Dichlorodifluoromethane (Freon 12)	<0.5	<0.5	<0.5	<0.5	µg/L	EPA 524.2
1,4 - Dioxane	<1	<1	<1	<1	µg/L	EPA 522
Isopropylbenzene	<0.5	<0.5	<0.5	<0.5	µg/L	EPA 524.2
Methyl isobutyl ketone (MIBK)	<2	<2	<2	<2	µg/L	EPA 524.2
N-nitrosodimethylamine (NDMA)	3	<2	65	<2	ng/l	EPA 521
N-propylbenzene	<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	µg/L	EPA 524.2
1,2,4 -trimethylbenzene	<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	µg/L	EPA 524.2
Vanadium	8	2	19	4	µg/L	EPA 200.8
Secondary Maximum Contaminant Level Chemicals						
Aluminum	1505	248	6910	934	µg/L	EPA 200.7
Corrosivity	-1.3	-1.3	-1.1	-0.9	SI	SM 2330B
Foaming Agents (MBAS)	0.30	0.26	0.11	0.16	mg/L	SM 5540C/EPA 425.1
Iron	1966	242	7686	1241	µg/L	EPA 200.7
Manganese	88	9	152	42	µg/L	EPA 200.7
Odor--Threshold	2	1	4	4	TON	SM 2150B
Silver	0.52	<0.25	<0.25	<0.25	µg/L	EPA 200.7
Thiobencarb	<0.2	<0.2	<0.2	<0.2	µg/L	EPA 525.2
Zinc	71	15	186	172	µg/L	EPA 200.7

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

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

Constituent	Oct-11	Nov-11	Dec-11	Unit
Silica	12.0	12.6	10.1	mg/L
Calcium	14	14	15	mg/L
Magnesium	7	8	7	mg/L
Sodium	23	21	23	mg/L
Potassium	1.6	1.5	1.5	mg/L
Carbonate	0	0	0	mg/L
Bicarbonate	73	79	73	mg/L
Sulfate	15	14	18	mg/L
Chloride	26	23	25	mg/L
Nitrate	1.1	1.3	1.9	mg/L
Fluoride	<0.1	<0.1	<0.14	mg/L
Total Dissolved Solids	136	135	138	mg/L
Total Hardness as CaCO <sub>3</sub>	66	67	67	mg/L
Total Alkalinity as CaCO <sub>3</sub>	60	65	60	mg/L
Free Carbon Dioxide	1.4	1.5	1.1	mg/L
pH	7.94	7.95	8.04	unit
Specific Conductance	241	238	240	µmho/cm
Color	7	--	--	CU
Turbidity	1.4	1.6	1.3	NTU
Temperature	23	19	11	°C
Bromide	0.08	0.07	0.08	mg/L
Total Organic Carbon	2.72	2.66	2.45	mg/L

Table 2-7  
Summary of Wells in Groundwater Monitoring Networks

BASIN	CBWM_ID	OWNER/LOCAL NAME	SEPARATION DISTANCE (feet)	SCREENED INTERVAL(S) (feet bgs)	CASING DIAMETER (inches)	STATUS	TYPE	
Hickory and Banana Basins	3600573	Fontana Water Company - F37a	2240 upgradient	378-810	20	Active	Municipal	
	600660	California Speedway - Infield Well	2070 downgradient	NA	NA	Active	Industrial	
	3601365	California Speedway 2	2780 downgradient	451-455, 491-603, & 664-780	20	Active	Industrial	
	3600371	Reliant Energy - East Well	4070 downgradient	434-467, 500-513, 553-580, 593-652, & 825-847	20	Active	Industrial	
	3602267	City Of Ontario - 20	14500 downgradient	NA	20	Active	Municipal	
	601001	Inland Empire Utilities Agency - BH-1/1	340 downgradient	365-405	4	Active	Monitoring	
	601002	Inland Empire Utilities Agency - BH-1/2	340 downgradient	435-475	4	Active	Monitoring	
Turner Basins	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 number

bgs = below ground surface

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

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

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

Sample Location	Date	Water Quality Parameters												Regulatory & Treatment Indicators																	
		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 <sub>3</sub> /L)	Na (mg/L)	SO <sub>4</sub> (mg/L)	NH <sub>3</sub> -N (mg/L)	NO <sub>2</sub> -N (mg/L)	Nitrogen, Total (mg/L)	TKN (mg/L)	Alkalinity (mg CaCO <sub>3</sub> /L)	Dissolved Oxygen (mg/L)		
Banana & Hickory	Fontana Water Co. - F37a	10/12/11	<0.1	<1.1	8.5	480	298	37	<3	1.6	0.4	<0.05	61	5	<0.5	1	<0.25	<0.2	0.3	4	17	215	19	19	<0.1	<0.02	9.8	9.8	<0.5	169	5.9
	California Speedway - Infield Well	10/12/11	0.19	<1.1	8.7	565	354	<25	<3	1.0	0.7	<0.05	<15	3	<0.5	1	<0.25	<0.2	0.2	1	21	273	23	66	<0.1	<0.02	10.0	10.0	<0.5	160	7.6
	California Speedway 2	10/12/11	<0.1	<1.1	8.6	390	244	<25	<3	1.5	0.3	<0.05	<15	3	<0.5	<1	<0.25	<0.2	0.1	18	11	181	20	13	<0.1	<0.02	4.8	4.8	<0.5	162	6.8
	Reliant Energy - East Well	10/12/11	<0.1	<1.1	7.6	360	236	<25	<3	1.1	0.1	<0.05	38	5	<0.5	1	<0.25	<0.2	0.4	<1	13	157	24	16	<0.1	<0.02	4.7	4.7	<0.5	132	6.5
	Ontario Well No. 20	10/17/11	<0.1	<1.1	7.8	360	222	<25	<3	0.7	0.4	<0.05	<15	1	<0.5	<1	<0.25	<0.2	0.1	<1	7	167	14	6	<0.1	<0.02	2.0	2.0	<0.5	170	8.2
	BH-1/2	11/1/11	0.50	<1.1	8.8	530	340	<25	15	<0.5	0.3	<0.05	<15	4	<0.5	1	<0.25	<0.2	7.5	<1	68	215	23	51	<0.1	<0.02	4.4	4.4	<0.5	123	6.1
Turner	Ontario Well No. 25	10/17/11	0.11	<1.1	7.7	460	292	<25	<3	<0.5	0.3	<0.05	<15	1	<0.5	<1	<0.25	0.1	<1	20	197	24	17	<0.1	<0.02	4.1	4.1	<0.5	178	7.0	
	Ontario Well No. 25	11/29/11																<0.2										9.2			
	Ontario Well No. 38	10/17/11	<0.1	<1.1	7.9	320	204	<25	<3	<0.5	0.4	<0.05	<15	<1	<0.5	1	<0.25	<0.2	0.1	<1	5	129	20	8	<0.1	<0.02	1.3	1.3	<0.5	152	8.0
	T-1/2	10/24/11	0.38	<1.1	6.1	370	242	<25	<3	<0.5	0.1	<0.05	<15	1	<0.5	1	<0.25	<0.2	0.5	<1	18	165	19	5	<0.1	<0.02	<0.1	<0.6	<0.5	166	11.0
	T-2/1	10/24/11	0.51	<1.1	7.0	460	280	<25	3	<0.5	0.0	<0.05	<15	<1	<0.5	1	<0.25	<0.2	2.1	<1	46	177	24	16	<0.1	<0.02	0.5	0.6	<0.5	150	11.8
	T-2/2	10/24/11	0.37	<1.1	5.8	380	244	<25	<3	<0.5	-0.2	<0.05	<15	<1	<0.5	1	<0.25	<0.2	0.4	<1	43	146	22	15	<0.1	<0.02	1.1	1.1	<0.5	105	13.6
RP3	Southridge JHS	11/16/11	0.40	<1.1	8.2	1000	648	<25	<3	1.0	0.3	<0.05	<15	2	<0.5	1	<0.25	<0.2	0.5	6	107	398	60	80	<0.1	0.10	14.5	14.6	<0.5	228	6.7
	Alcoa MW1	10/10/11	0.56	16	9.8	655	442	<25	<3	<0.5	0.4	<0.05	<15	2	<0.5	1	<0.25	<0.2	0.1	1	59	283	30	35	<0.1	<0.02	13.8	13.8	<0.5	153	12.9
	Alcoa MW3	10/10/11	0.72	<1.1	11.1	1050	702	<25	<3	0.5	0.3	<0.05	<15	5	<0.5	1	<0.25	<0.2	1.6	16	113	413	45	53	<0.1	<0.02	21.7	21.7	<0.5	230	11.6
	RP3-1/1	10/26/11	0.63	<1.1	7.4	600	368	<25	<3	0.8	0.2	<0.05	<15	19	<0.5	1	<0.25	<0.2	0.6	<1	50	206	51	31	<0.1	<0.02	2.9	2.9	<0.5	196	1.6
	RP3-1/2	11/2/11	1.12	6.9	8.5	555	352	<25	5	3.5	0.6	<0.05	<15	106	<0.5	1	<0.25	<0.2	3.3	4	51	188	48	30	<0.1	0.04	1.8	1.8	<0.5	180	1.0
	Ontario Well No. 35	10/17/11	<0.1	<1.1	7.8	375	250	<25	<3	<0.5	0.3	<0.05	<15	<1	<0.5	<1	<0.25	<0.2	0.1	<1	7	162	20	20	<0.1	<0.02	3.1	3.1	<0.5	157	6.0
7th & 8th St.	8TH-1/1	12/8/11	0.33	<1.1	7.2	390	286	<25	5	<0.5	0.2	<0.05	<15	14	<0.5	1	<0.25	<0.2	1.9	<1	72	161	11	13	<0.1	0.06	0.7	0.8	<0.5	131	7.7
	8TH-1/2	11/14/11	0.30	<1.1	8.3	290	200	<25	<3	<0.5	-0.4	<0.05	<15	<1	<0.5	1	<0.25	<0.2	0.4	1	28	119	15	10	<0.1	<0.02	1.9	1.9	<0.5	85	6.4
	8TH-2/1	12/7/11	0.14	<1.1	8.6	350	246	<25	<3	<0.5	-0.1	<0.05	<15	<1	<0.5	1	<0.25	<0.2	0.3	<1	8	168	12	11	<0.1	<0.02	5.4	5.4	<0.5	140	7.9
	8TH-2/2	12/7/11	0.13	<1.1	8.6	445	304	<25	<3	<0.5	-0.1	<0.05	<15	<1	<0.5	1	<0.25	<0.2	0.3	<1	16	195	18	27	<0.1	<0.02	10.0	10.0	<0.5	141	5.9
	Pomona Well No. 10	10/17/11	0.18	<1.1	7.8	545	372	<25	<3	0.6	0.5	<0.05	<15	<1	<0.5	<1	<0.25	<0.2	0.8	1	37	261	13	41	<0.1	<0.02	9.3	9.3	<0.5	149	16.3
	Pomona Well No. 2	10/17/11	0.15	<1.1	7.8	630	424	<25	<3	0.8	0.6	<0.05	41	1	<0.5	1	<0.25	<0.2	0.1	2	37	291	13	57	<0.1	<0.02	13.1	13.1	<0.5	166	16.5
Brooks	Pomona Well No. 34	10/17/11	0.12	<1.1	7.9	570	384	<25	<3	1.0	0.6	<0.05	<15	<1	<0.5	1	<0.25	<0.2	0.1	3	28	264	12	41	<0.1	<0.02	15.4	15.4	<0.5	152	16.0
	BRK-1/1	10/26/11	0.69	8.7	575							<0.05			<1						77									4.5	
	BRK-1/1	11/30/11	0.42	<1.1		580	366	<25		0.5	0.3		<15	5	<0.5		<0.25	<0.2	12.0	<1	85	251	16	30	<0.1	<0.02	0.3	0.6	<0.5	137	
	BRK-1/1	12/20/11	0.65			585														82											
	BRK-1/2	11/30/11	<0.1	<1.1	8.9	590	386	<25	<3	<0.5	0.4	<0.05	<15	<1	<0.5	<1	<0.25	<0.2	0.1	<1	22	277	15	47	<0.1	<0.02	19.9	19.9	<0.5	145	5.1
	BRK-2/1	11/30/11	0.31	<1.1	8.6	515	320	<25	50	<0.5	0.3	<0.05	<15	12	<0.5	1	<0.25	<0.2	31.2	<1	66	248	11	29	<0.1	<0.02	0.9	0.9	<0.5	133	5.5
Ely	BRK-2/2	11/30/11	<0.1	<1.1	9.3	350	216	<25	<3	<0.5	0.4	<0.05	<15	<1	<0.5	1	<0.25	<0.2	0.3	<1	12	109	36	20	<0.1	<0.02	5.8	5.8	<0.5	126	5.7
	Ely Basin MW1 Philadelphia St.	12/8/11	0.32	<1.1	7.0	405	260	<25	15	<0.5	-0.4	<0.05	<15	36	<0.5	1	<0.25	<0.2	2.4	<1	43	143	27	16	<0.1	<0.02	0.7	0.7	<0.5	32	1.2
	Ely Basin MW2 Walnut St.	12/14/11	0.55	<1.1	7.1	1190	784	<25	60	<0.5	0.5	<0.05	<15	6	<0.5	2	<0.25	<0.2	9.9	<1	121	644	34	64	<0.1	<0.02	39.2	39.2	<0.5	255	8.4
	Riverside Well (43840-CWW)	10/19/11	0.39	<1.1	8.9	505	322	<25	<3	0.7	0.6	<0.05	62	3	<0.5	<1	<0.25	<0.2	0.1	10	20	228	22	29	<0.1	0.05	7.8	7.9	<0.5	170	6.1
Declez**	Bishop of SB Corp. - DOM	10/19/11	0.23	3.6	7.6	785	488	<25	<3	1.4	0.6	<0.05	92	7	<0.5	1	<0.25	<0.2	0.8	2	37	364	25	61	<0.1	<0.02	18.3	18.3	<0.5	221	7.0
	JCSD Well No. 13	11/3/11	0.27	<1.1	8.5	750	480	<25	<3	0.6	0.5	<0.05	<15	<1	<0.5	<1	<0.25	<0.2	0.1	2	119	306	30	25	<0.1	<0.02	6.1	6.1	<0.5	131	6.5
	JCSD Well No. 17	11/3/11	0.13	<1.1	7.7	560	344	<25	<3	0.8	0.3	<0.05	<15	<1	<0.5	<1	<0.25	<0.2	0.3	<1	62	217	29	37	<0.1	<0.02	10.3	10.3	<0.5	116	8.7
	JCSD Well No. 19	11/3/11	<0.1	<1.1	8.2	315	200	<25	<3	50.7	0.3	<0.05	27	<1	<0.5	<1	<0.25	<0.2	0.6	3	12	117	30	14	<0.1	<0.02	2.5	2.5	<0.5	136	6.8
Victoria & San Sevaine	DCZ-1/1	10/31/11	0.82	<1.1	9.0	370	228	<25	5	0.6	0.3	<0.05	<15	3	<0.5	<1	<0.25	<0.2	3.0	<1	21	28	14	<0.1	<0.02	1.2	1.2	<0.5	137	10.9	
	SS-1/1	12/12/11	0.21	<1.1	6.6	295	208	<25	<3	<0.5	-0.6	<0.05	<15	2	<0.5	<1	<0.25	<0.2	0.4	3	16	117	17	30	<0.1	<0.02	2.3	2.3	<0.5	94	8

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

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

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

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

<b>Constituent</b>	Ely Basin MW-1 12/08/11	Ely Basin MW-2 12/14/11	SS-1/1 12/12/11	VCT-1/1 11/30/11	VCT-2/2 12/13/11	<b>MCL</b>	<b>Unit</b>	<b>Method</b>
	Inorganic Chemicals							
Asbestos	<0.2	<0.2	<0.2	<0.2	<4	7	MFL	EPA 100.2
Cyanide	<0.005	<0.005	<0.005	<0.005	<0.005	150	mg/L	SM 4500-CN E
Perchlorate	<4	<4	<4	<4	<4	6	µg/L	EPA 314
Mercury	<0.05	<0.05	NA	<0.05	<0.05	2	µg/L	EPA 245.2
Fluoride	0.3	0.3	0.1	0.1	0.1	2	mg/L	SM 4500-F C
Aluminum, Dissolved	<25	<25	<25	<25	<25	1000	µg/L	EPA 200.8
Antimony, Dissolved	<1	<1	<1	<1	<1	6	µg/L	EPA 200.8
Arsenic, Dissolved	<2	<2	<2	<2	<2	10	µg/L	EPA 200.8
Barium, Dissolved	41	156	45	66	22	1000	µg/L	EPA 200.8
Beryllium, Dissolved	<0.5	<0.5	<0.5	<0.5	<0.5	4	µg/L	EPA 200.8
Cadmium, Dissolved	<0.25	<0.25	<0.25	<0.25	<0.25	5	µg/L	EPA 200.8
Chromium, Dissolved	1.6	11.0	1.2	1.2	5.6	50	µg/L	EPA 200.8
Copper, Dissolved	<0.5	<0.5	<0.5	<0.5	0.8	1300	µg/L	EPA 200.8
Iron, Dissolved	<15	<15	<15	<15	<15	300 (sec.)	µg/L	EPA 200.8
Nickel, Dissolved	2	8	4	12	17	100	µg/L	EPA 200.8
Manganese, Dissolved	36	6	2	6	10	50 (sec.)	µg/L	EPA 200.8
Selenium, Dissolved	<2	<2	<2	<2	<2	50	µg/L	EPA 200.8
Silver, Dissolved	<0.25	<0.25	<0.25	<0.25	<0.25	100 (sec.)	µg/L	EPA 200.8
Thallium, Dissolved	<1	<1	<1	<1	<1	2	µg/L	EPA 200.8
Zinc, Dissolved	<1	<1	3	2	1	5000 (sec.)	µg/L	EPA 200.8
Volatile Organic Chemicals (VOCs)								
Benzene	<0.5	<0.5	<0.5	<0.5	<0.5	1	µg/L	EPA 524.2
Carbon Tetrachloride	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	µg/L	EPA 524.2
1,2-Dichlorobenzene	<0.5	<0.5	<0.5	<0.5	<0.5	600	µg/L	EPA 524.2
1,4-Dichlorobenzene	<0.5	<0.5	<0.5	<0.5	<0.5	5	µg/L	EPA 524.2
1,1-Dichloroethane	<0.5	<0.5	<0.5	<0.5	<0.5	5	µg/L	EPA 524.2
1,2-Dichloroethane	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	µg/L	EPA 524.2
1,1-Dichloroethylene	<1	<1	<1	<1	<1	6	µg/L	EPA 524.2
cis-1,2-Dichloroethylene	<0.5	<0.5	<0.5	<0.5	<0.5	6	µg/L	EPA 524.2
trans-1,2-Dichloroethylene	<0.5	<0.5	<0.5	<0.5	<0.5	10	µg/L	EPA 524.2
Dichloromethane	<0.5	<0.5	<0.5	<0.5	<0.5	5	µg/L	EPA 524.2
1,2-Dichloropropane	<0.5	<0.5	<0.5	<0.5	<0.5	5	µg/L	EPA 524.2
1,3-Dichloropropene	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	µg/L	EPA 524.2
Ethylbenzene	<0.5	<0.5	<0.5	<0.5	<0.5	300	µg/L	EPA 524.2
Chlorobenzene	<0.5	<0.5	<0.5	<0.5	<0.5	70	µg/L	EPA 524.2
Methyl Tert-butyl ether (MTBE)	<0.5	<0.5	<0.5	<0.5	<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
Total Xylenes	<1	<1	<1	<1	<1	1750	µg/L	EPA 524.2

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

Constituent	Ely Basin MW-1 12/08/11	Ely Basin MW-2 12/14/11	SS-1/1 12/12/11	VCT-1/1 11/30/11	VCT-2/2 12/13/11	MCL	Unit	Method
Non-Volatile Synthetic Organic Chemicals (SOCs)								
Alachlor (Alanex)	<0.05	<0.05	<0.05	<0.05	<0.05	2	µg/L	EPA 525.2
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	NA	<0.1	<0.1	<0.1	<0.1	0.1	µg/L	EPA 505
2,4-D	<0.1	<0.1	<0.1	<0.1	<0.1	70	µg/L	EPA 515.4
Dalapon	<1	<1	<1	<1	<1	200	µg/L	EPA 515.4
Dibromochloropropane	<0.01	<0.01	<0.01	<0.01	<0.01	0.2	µg/L	EPA 504.1
Di(2-ethylhexyl)adipate	<0.6	<0.6	<0.6	<0.6	<0.6	400	µg/L	EPA 525.2
Di(2-ethylhexyl)phthalate	1.5	<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	NA	<0.01	<0.01	<0.01	<0.01	2	µg/L	EPA 505
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	NA	<0.01	<0.01	<0.01	<0.01	0.01	µg/L	EPA 505
Hexachlorobenzene	NA	<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	NA	<0.01	<0.01	<0.01	<0.01	0.2	µg/L	EPA 505
Methoxychlor	NA	<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	NA	<0.08	<0.08	<0.08	<0.08	0.5	µg/L	EPA 505
PCB 1221	NA	<0.1	<0.1	<0.1	<0.1	0.5	µg/L	EPA 505
PCB 1232	NA	<0.1	<0.1	<0.1	<0.1	0.5	µg/L	EPA 505
PCB 1242	NA	<0.1	<0.1	<0.1	<0.1	0.5	µg/L	EPA 505
PCB 1248	NA	<0.1	<0.1	<0.1	<0.1	0.5	µg/L	EPA 505
PCB 1254	NA	<0.1	<0.1	<0.1	<0.1	0.5	µg/L	EPA 505
PCB 1260	NA	<0.1	<0.1	<0.1	<0.1	0.5	µg/L	EPA 505
Simazine	0.42	0.15	<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	NA	<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
Notification Level Chemicals								
Copper, Dissolved	<0.5	<0.5	<0.5	<0.5	0.8	1300	µg/L	EPA 200.8
Lead, Dissolved	<0.5	<0.5	<0.5	<0.5	<0.5	15	µg/L	EPA 200.8
Radionuclides								
Combined Radium-226 and Radium 228	<0.309	<0.273	<0.276	0.46	<0.352	5	pCi/l	EPA 903.0
Gross Alpha Particle Activity	<3	NA	<3	<3	<3	15	pCi/l	EPA 900.0
Tritium	<230	<227	<226	<241	<226	20,000	pCi/l	EPA 906
Strontium-90	<0.381	0.578	0.752	<0.612	<0.536	8	pCi/l	EPA 905
Gross Beta Particle Activity	<3	NA	<3	<3	<3	50	pCi/l	EPA 900.0
Uranium	<0.7	11	<0.7	<0.7	<0.7	20	pCi/l	EPA 200.8

NA: Not Analyzed. EPA Method 505 compounds will be reported in the 1Q12 report.

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

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

<b>Constituent</b>	8TH-1/1	8TH-1/2	8TH-2/1	8TH-2/2	<b>MCL</b>	<b>Unit</b>	<b>Method</b>
	12/08/11	11/14/11	12/07/11	12/07/11			
Inorganic Chemicals							
Asbestos	<0.2	<0.2	<0.2	<0.2	7	MFL	EPA 100.2
Cyanide	<0.005	<0.005	<0.005	<0.005	150	mg/L	SM 4500-CN E
Perchlorate	<4	<4	<4	<4	6	µg/L	EPA 314
Mercury	<0.05	<0.05	<0.05	<0.05	2	µg/L	EPA 245.2
Fluoride	0.3	0.4	0.4	0.4	2	mg/L	SM 4500-F C
Aluminum, Dissolved	<25	<25	<25	<25	1000	µg/L	EPA 200.8
Antimony, Dissolved	<1	<1	<1	<1	6	µg/L	EPA 200.8
Arsenic, Dissolved	<2	<2	<2	<2	10	µg/L	EPA 200.8
Barium, Dissolved	37	26	33	40	1000	µg/L	EPA 200.8
Beryllium, Dissolved	<0.5	<0.5	<0.5	<0.5	4	µg/L	EPA 200.8
Cadmium, Dissolved	<0.25	<0.25	<0.25	<0.25	5	µg/L	EPA 200.8
Chromium, Dissolved	1.8	1.1	1.1	5.0	50	µg/L	EPA 200.8
Copper, Dissolved	<0.5	<0.5	<0.5	<0.5	1300	µg/L	EPA 200.8
Iron, Dissolved	<15	<15	<15	<15	300 (sec.)	µg/L	EPA 200.8
Nickel, Dissolved	113	1	2	4	100	µg/L	EPA 200.8
Manganese, Dissolved	14	<1	<1	<1	50 (sec.)	µg/L	EPA 200.8
Selenium, Dissolved	<2	<2	<2	<2	50	µg/L	EPA 200.8
Silver, Dissolved	<0.25	<0.25	<0.25	<0.25	100 (sec.)	µg/L	EPA 200.8
Thallium, Dissolved	<1	<1	<1	<1	2	µg/L	EPA 200.8
Zinc, Dissolved	<1	1	<1	<1	5000 (sec.)	µg/L	EPA 200.8
Volatile Organic Chemicals (VOCs)							
Benzene	<0.5	<0.5	<0.5	<0.5	1	µg/L	EPA 524.2
Carbon Tetrachloride	<0.5	<0.5	<0.5	<0.5	0.5	µg/L	EPA 524.2
1,2-Dichlorobenzene	<0.5	<0.5	<0.5	<0.5	600	µg/L	EPA 524.2
1,4-Dichlorobenzene	<0.5	<0.5	<0.5	<0.5	5	µg/L	EPA 524.2
1,1-Dichloroethane	<0.5	<0.5	<0.5	<0.5	5	µg/L	EPA 524.2
1,2-Dichloroethane	<0.5	<0.5	<0.5	<0.5	0.5	µg/L	EPA 524.2
1,1-Dichloroethylene	<1	<1	<1	<1	6	µg/L	EPA 524.2
cis-1,2-Dichloroethylene	<0.5	<0.5	<0.5	<0.5	6	µg/L	EPA 524.2
trans-1,2-Dichloroethylene	<0.5	<0.5	<0.5	<0.5	10	µg/L	EPA 524.2
Dichloromethane	<0.5	<0.5	<0.5	<0.5	5	µg/L	EPA 524.2
1,2-Dichloropropane	<0.5	<0.5	<0.5	<0.5	5	µg/L	EPA 524.2
1,3-Dichloropropene	<0.5	<0.5	<0.5	<0.5	0.5	µg/L	EPA 524.2
Ethylbenzene	<0.5	<0.5	<0.5	<0.5	300	µg/L	EPA 524.2
Chlorobenzene	<0.5	<0.5	<0.5	<0.5	70	µg/L	EPA 524.2
Methyl Tert-butyl ether (MTBE)	<0.5	<0.5	<0.5	<0.5	13	µg/L	EPA 524.2
Styrene	<0.5	<0.5	<0.5	<0.5	100	µg/L	EPA 524.2
1,1,2,2-Tetrachloroethane	<0.5	<0.5	<0.5	<0.5	1	µg/L	EPA 524.2
Tetrachloroethylene	<0.5	<0.5	<0.5	<0.5	5	µg/L	EPA 524.2
Toluene	<0.5	<0.5	<0.5	<0.5	150	µg/L	EPA 524.2
1,2,4-Trichlorobenzene	<0.5	<0.5	<0.5	<0.5	5	µg/L	EPA 524.2
1,1,1-Trichloroethane	<0.5	<0.5	<0.5	<0.5	200	µg/L	EPA 524.2
1,1,2-Trichloroethane	<0.5	<0.5	<0.5	<0.5	5	µg/L	EPA 524.2
Trichloroethylene	<0.5	<0.5	<0.5	<0.5	5	µg/L	EPA 524.2
Trichlorofluoromethane	<0.5	<0.5	<0.5	<0.5	150	µg/L	EPA 524.2
1,1,2-Trichloro-1,2,2-Trifluoroethane	<0.5	<0.5	<0.5	<0.5	1200	µg/L	EPA 524.2
Vinyl Chloride	<0.5	<0.5	<0.5	<0.5	0.5	µg/L	EPA 524.2
Total Xylenes	<1	<1	<1	<1	1750	µg/L	EPA 524.2

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

Constituent	8TH-1/1	8TH-1/2	8TH-2/1	8TH-2/2	MCL	Unit	Method
	12/08/11	11/14/11	12/07/11	12/07/11			
Non-Volatile Synthetic Organic Chemicals (SOCs)							
Alachlor (Alanex)	<0.05	<0.05	<0.05	<0.05	2	µg/L	EPA 525.2
Atrazine	<0.05	<0.05	<0.05	<0.05	1	µg/L	EPA 525.2
Bentazon	<0.5	<0.5	<0.5	<0.5	18	µg/L	EPA 515.4
Benzo(a)pyrene	<0.02	<0.02	<0.02	<0.02	0.2	µg/L	EPA 525.2
Carbofuran	<0.5	<0.5	<0.5	<0.5	18	µg/L	EPA 531.2
Chlordane	NA	<0.1	<0.1	<0.1	0.1	µg/L	EPA 505
2,4-D	<0.1	<0.1	<0.1	<0.1	70	µg/L	EPA 515.4
Dalapon	<1	<1	<1	<1	200	µg/L	EPA 515.4
Dibromochloropropane	<0.01	<0.01	<0.01	0.08	0.2	µg/L	EPA 504.1
Di(2-ethylhexyl)adipate	<0.6	<0.6	<0.6	<0.6	400	µg/L	EPA 525.2
Di(2-ethylhexyl)phthalate	<0.6	0.8	<0.6	<0.6	4	µg/L	EPA 525.2
Dinoseb	<0.2	<0.2	<0.2	<0.2	7	µg/L	EPA 515.4
Diquat	<0.4	<0.4	<0.4	<0.4	20	µg/L	EPA 549.2
Endothall	<5	<5	<5	<5	100	µg/L	EPA 548.1
Endrin	NA	<0.01	<0.01	<0.01	2	µg/L	EPA 505
Ethylene Dibromide	<0.01	<0.01	<0.01	<0.01	0.05	µg/L	EPA 504.1
Glyphosate	<6	<6	<6	<6	700	µg/L	EPA 547
Heptachlor	NA	<0.01	<0.01	<0.01	0.01	µg/L	EPA 505
Heptachlor Epoxide	NA	<0.01	<0.01	<0.01	0.01	µg/L	EPA 505
Hexachlorobenzene	<0.05	<0.05	<0.05	<0.05	1	µg/L	EPA 525.2
Hexachlorocyclopentadiene	<0.05	<0.05	<0.05	<0.05	50	µg/L	EPA 525.2
Lindane	NA	<0.01	<0.01	<0.01	0.2	µg/L	EPA 505
Methoxychlor	NA	<0.05	<0.05	<0.05	30	µg/L	EPA 505
Molinate	<0.1	<0.1	<0.1	<0.1	20	µg/L	EPA 525.2
Oxamyl	<0.5	<0.5	<0.5	<0.5	50	µg/L	EPA 531.2
Pentachlorophenol	<0.04	<0.04	<0.04	<0.04	1	µg/L	EPA 515.4
Picloram	<0.1	<0.1	<0.1	<0.1	500	µg/L	EPA 515.4
PCB 1016	NA	<0.08	<0.08	<0.08	0.5	µg/L	EPA 505
PCB 1221	NA	<0.1	<0.1	<0.1	0.5	µg/L	EPA 505
PCB 1232	NA	<0.1	<0.1	<0.1	0.5	µg/L	EPA 505
PCB 1242	NA	<0.1	<0.1	<0.1	0.5	µg/L	EPA 505
PCB 1248	NA	<0.1	<0.1	<0.1	0.5	µg/L	EPA 505
PCB 1254	NA	<0.1	<0.1	<0.1	0.5	µg/L	EPA 505
PCB 1260	NA	<0.1	<0.1	<0.1	0.5	µg/L	EPA 505
Simazine	0.26	<0.05	0.07	<0.05	4	µg/L	EPA 525.2
Thiobencarb	<0.2	<0.2	<0.2	<0.2	70	µg/L	EPA 525.2
Toxaphene	NA	<0.5	<0.5	<0.5	3	µg/L	EPA 505
2,3,7,8-TCDD (Dioxin)	<5	<5	<5	<5	30	pg/L	EPA 1613
2,4,5-TP (Silvex)	<0.2	<0.2	<0.2	<0.2	50	µg/L	EPA 515.4
Notification Level Chemicals							
Copper, Dissolved	<0.5	<0.5	<0.5	<0.5	1300	µg/L	EPA 200.8
Lead, Dissolved	<0.5	<0.5	<0.5	<0.5	15	µg/L	EPA 200.8
Radionuclides							
Combined Radium-226 and Radium 228	<0.509	<0.604	<0.409	<0.385	5	pCi/l	EPA 903.0
Gross Alpha Particle Activity	<3	<3	<3	4	15	pCi/l	EPA 900.0
Tritium	<231	<459	<229	<230	20,000	pCi/l	EPA 906
Strontium-90	<0.327	<1.94	<0.262	<0.369	8	pCi/l	EPA 905
Gross Beta Particle Activity	<3	<3	<3	<3	50	pCi/l	EPA 900.0
Uranium	<0.7	<0.7	1.0	1.4	20	pCi/l	EPA 200.8

NA: Not Analyzed

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

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

<b>Constituent</b>	BRK-1/1	BRK-1/2	BRK-2/1	BRK-2/2	<b>MCL</b>	<b>Unit</b>	<b>Method</b>
	11/30/11	11/30/11	11/30/11	11/30/11			
Inorganic Chemicals							
Asbestos	<0.2	<0.2	<0.2	<0.2	7	MFL	EPA 100.2
Cyanide	<0.005	<0.005	<0.005	<0.005	150	mg/L	SM 4500-CN E
Perchlorate	<4	<b>12</b>	<4	<4	6	µg/L	EPA 314
Mercury	<0.05	<0.05	<0.05	<0.05	2	µg/L	EPA 245.2
Fluoride	0.3	0.2	0.2	0.2	2	mg/L	SM 4500-F C
Aluminum, Dissolved	<25	<25	<25	<25	1000	µg/L	EPA 200.8
Antimony, Dissolved	<1	<1	<1	<1	6	µg/L	EPA 200.8
Arsenic, Dissolved	<2	<2	<2	3	10	µg/L	EPA 200.8
Barium, Dissolved	31	70	33	48	1000	µg/L	EPA 200.8
Beryllium, Dissolved	<0.5	<0.5	<0.5	<0.5	4	µg/L	EPA 200.8
Cadmium, Dissolved	<0.25	<0.25	<0.25	<0.25	5	µg/L	EPA 200.8
Chromium, Dissolved	0.6	5.4	9.8	7.2	50	µg/L	EPA 200.8
Copper, Dissolved	<0.5	<0.5	<0.5	<0.5	1300	µg/L	EPA 200.8
Iron, Dissolved	<15	<15	<15	<15	300 (sec.)	µg/L	EPA 200.8
Nickel, Dissolved	25	3	<b>158</b>	12	100	µg/L	EPA 200.8
Manganese, Dissolved	5	<1	12	<1	50 (sec.)	µg/L	EPA 200.8
Selenium, Dissolved	<2	<2	<2	<2	50	µg/L	EPA 200.8
Silver, Dissolved	<0.25	<0.25	<0.25	<0.25	100 (sec.)	µg/L	EPA 200.8
Thallium, Dissolved	<1	<1	<1	<1	2	µg/L	EPA 200.8
Zinc, Dissolved	<1	<1	<1	<1	5000 (sec.)	µg/L	EPA 200.8
Volatile Organic Chemicals (VOCs)							
Benzene	<0.5	<0.5	<0.5	<0.5	1	µg/L	EPA 524.2
Carbon Tetrachloride	<0.5	<0.5	<0.5	<0.5	0.5	µg/L	EPA 524.2
1,2-Dichlorobenzene	<0.5	<0.5	<0.5	<0.5	600	µg/L	EPA 524.2
1,4-Dichlorobenzene	<0.5	<0.5	<0.5	<0.5	5	µg/L	EPA 524.2
1,1-Dichloroethane	<0.5	<0.5	<0.5	<0.5	5	µg/L	EPA 524.2
1,2-Dichloroethane	<0.5	<0.5	<0.5	<0.5	0.5	µg/L	EPA 524.2
1,1-Dichloroethylene	<1	<1	<1	<1	6	µg/L	EPA 524.2
cis-1,2-Dichloroethylene	<0.5	<0.5	<0.5	<0.5	6	µg/L	EPA 524.2
trans-1,2-Dichloroethylene	<0.5	<0.5	<0.5	<0.5	10	µg/L	EPA 524.2
Dichloromethane	<0.5	<0.5	<0.5	<0.5	5	µg/L	EPA 524.2
1,2-Dichloropropane	<0.5	<0.5	<0.5	<0.5	5	µg/L	EPA 524.2
1,3-Dichloropropene	<0.5	<0.5	<0.5	<0.5	0.5	µg/L	EPA 524.2
Ethylbenzene	<0.5	<0.5	<0.5	<0.5	300	µg/L	EPA 524.2
Chlorobenzene	<0.5	<0.5	<0.5	<0.5	70	µg/L	EPA 524.2
Methyl Tert-butyl ether (MTBE)	<0.5	<0.5	<0.5	<0.5	13	µg/L	EPA 524.2
Styrene	<0.5	<0.5	<0.5	<0.5	100	µg/L	EPA 524.2
1,1,2,2-Tetrachloroethane	<0.5	<0.5	<0.5	<0.5	1	µg/L	EPA 524.2
Tetrachloroethylene	<0.5	<0.5	<0.5	<0.5	5	µg/L	EPA 524.2
Toluene	<0.5	<0.5	<0.5	<0.5	150	µg/L	EPA 524.2
1,2,4-Trichlorobenzene	<0.5	<0.5	<0.5	<0.5	5	µg/L	EPA 524.2
1,1,1-Trichloroethane	<0.5	<0.5	<0.5	<0.5	200	µg/L	EPA 524.2
1,1,2-Trichloroethane	<0.5	<0.5	<0.5	<0.5	5	µg/L	EPA 524.2
Trichloroethylene	<0.5	<0.5	<0.5	<0.5	5	µg/L	EPA 524.2
Trichlorofluoromethane	<0.5	<0.5	<0.5	<0.5	150	µg/L	EPA 524.2
1,1,2-Trichloro-1,2,2-Trifluoroethane	<0.5	<0.5	<0.5	<0.5	1200	µg/L	EPA 524.2
Vinyl Chloride	<0.5	<0.5	<0.5	<0.5	0.5	µg/L	EPA 524.2
Total Xylenes	<1	<1	<1	<1	1750	µg/L	EPA 524.2

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

<b>Constituent</b>	BRK-1/1	BRK-1/2	BRK-2/1	BRK-2/2	<b>MCL</b>	<b>Unit</b>	<b>Method</b>
	11/30/11	11/30/11	11/30/11	11/30/11			
Non-Volatile Synthetic Organic Chemicals (SOCs)							
Alachlor (Alanex)	<0.05	<0.05	<0.05	<0.05	2	µg/L	EPA 525.2
Atrazine	<0.05	<0.05	<0.05	<0.05	1	µg/L	EPA 525.2
Bentazon	<0.5	<0.5	<0.5	<0.5	18	µg/L	EPA 515.4
Benzo(a)pyrene	<0.02	<0.02	<0.02	<0.02	0.2	µg/L	EPA 525.2
Carbofuran	<0.5	<0.5	<0.5	<0.5	18	µg/L	EPA 531.2
Chlordane	<0.1	<0.1	<0.1	<0.1	0.1	µg/L	EPA 505
2,4-D	<0.1	<0.1	<0.1	<0.1	70	µg/L	EPA 515.4
Dalapon	<1	<1	<1	<1	200	µg/L	EPA 515.4
Dibromochloropropane	<0.01	0.05	<0.01	<0.01	0.2	µg/L	EPA 504.1
Di(2-ethylhexyl)adipate	<0.6	<0.6	<0.6	<0.6	400	µg/L	EPA 525.2
Di(2-ethylhexyl)phthalate	<0.6	<0.6	<0.6	0.9	4	µg/L	EPA 525.2
Dinoseb	<0.2	<0.2	<0.2	<0.2	7	µg/L	EPA 515.4
Diquat	<0.4	<0.4	<0.4	<0.4	20	µg/L	EPA 549.2
Endothall	<5	<5	<5	<5	100	µg/L	EPA 548.1
Endrin	<0.01	<0.01	<0.01	<0.01	2	µg/L	EPA 505
Ethylene Dibromide	<0.01	<0.01	<0.01	<0.01	0.05	µg/L	EPA 504.1
Glyphosate	<6	<6	<6	<6	700	µg/L	EPA 547
Heptachlor	<0.01	<0.01	<0.01	<0.01	0.01	µg/L	EPA 505
Heptachlor Epoxide	<0.01	<0.01	<0.01	<0.01	0.01	µg/L	EPA 505
Hexachlorobenzene	<0.05	<0.05	<0.05	<0.05	1	µg/L	EPA 525.2
Hexachlorocyclopentadiene	<0.05	<0.05	<0.05	<0.05	50	µg/L	EPA 525.2
Lindane	<0.01	<0.01	<0.01	<0.01	0.2	µg/L	EPA 505
Methoxychlor	<0.05	<0.05	<0.05	<0.05	30	µg/L	EPA 505
Molinate	<0.1	<0.1	<0.1	<0.1	20	µg/L	EPA 525.2
Oxamyl	<0.5	<0.5	<0.5	<0.5	50	µg/L	EPA 531.2
Pentachlorophenol	<0.04	<0.04	<0.04	<0.04	1	µg/L	EPA 515.4
Picloram	<0.1	<0.1	<0.1	<0.1	500	µg/L	EPA 515.4
PCB 1016	<0.08	<0.08	<0.08	<0.08	0.5	µg/L	EPA 505
PCB 1221	<0.1	<0.1	<0.1	<0.1	0.5	µg/L	EPA 505
PCB 1232	<0.1	<0.1	<0.1	<0.1	0.5	µg/L	EPA 505
PCB 1242	<0.1	<0.1	<0.1	<0.1	0.5	µg/L	EPA 505
PCB 1248	<0.1	<0.1	<0.1	<0.1	0.5	µg/L	EPA 505
PCB 1254	<0.1	<0.1	<0.1	<0.1	0.5	µg/L	EPA 505
PCB 1260	<0.1	<0.1	<0.1	<0.1	0.5	µg/L	EPA 505
Simazine	0.06	<0.05	<0.05	<0.05	4	µg/L	EPA 525.2
Thiobencarb	<0.2	<0.2	<0.2	<0.2	70	µg/L	EPA 525.2
Toxaphene	<0.5	<0.5	<0.5	<0.5	3	µg/L	EPA 505
2,3,7,8-TCDD (Dioxin)	<5	<5	<5	<5	30	pg/L	EPA 1613
2,4,5-TP (Silvex)	<0.2	<0.2	<0.2	<0.2	50	µg/L	EPA 515.4
Notification Level Chemicals							
Copper, Dissolved	<0.5	<0.5	<0.5	<0.5	1300	µg/L	EPA 200.8
Lead, Dissolved	<0.5	<0.5	<0.5	<0.5	15	µg/L	EPA 200.8
Radionuclides							
Combined Radium-226 and Radium 228	<0.512	<0.637	<0.572	<0.481	5	pCi/l	EPA 903.0
Gross Alpha Particle Activity	<3	<3	6	<3	15	pCi/l	EPA 900.0
Tritium	<241	<242	<242	<242	20,000	pCi/l	EPA 906
Strontium-90	<0.564	<0.64	<0.548	<0.734	8	pCi/l	EPA 905
Gross Beta Particle Activity	<3	<3	<3	<3	50	pCi/l	EPA 900.0
Uranium	1.6	1.5	1.4	0.9	20	pCi/l	EPA 200.8

NA: Not Analyzed

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

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

Date	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-11	0	0	0	0	0	0	0	0	0	110	10	112	104	12	224	13	191	13	166	0	0	0	50	103	72	0	86
Feb-11	0	0	0	0	0	0	0	0	0	277	41	164	323	79	281	143	178	72	83	0	0	43	46	131	0	0	67
Mar-11	0	0	0	0	0	0	0	0	0	250	26	142	236	70	488	133	155	155	23	0	0	0	0	126	0	0	39
<b>1Q11 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>637</b>	<b>76</b>	<b>419</b>	<b>663</b>	<b>160</b>	<b>992</b>	<b>288</b>	<b>524</b>	<b>240</b>	<b>273</b>	<b>0</b>	<b>0</b>	<b>43</b>	<b>96</b>	<b>359</b>	<b>72</b>	<b>0</b>	<b>192</b>
Apr-11	0	0	0	0	0	0	0	0	0	24	0	1	3	0	86	0	333	-56*	181	0	174	107	52	237	0	0	0
May-11	218	0	0	0	2	299	538	0	69	33	0	10	13	0	60	7	181	6	243	0	162	155	84	176	36	0	141
Jun-11	325	0	0	83	8	547	1169	0	0	21	0	1	8	0	26	0	78	3	202	0	223	206	74	184	34	0	61
<b>2Q11 Total</b>	<b>543</b>	<b>0</b>	<b>0</b>	<b>83</b>	<b>10</b>	<b>846</b>	<b>1707</b>	<b>0</b>	<b>69</b>	<b>78</b>	<b>0</b>	<b>12</b>	<b>24</b>	<b>1</b>	<b>172</b>	<b>7</b>	<b>592</b>	<b>-47*</b>	<b>626</b>	<b>0</b>	<b>559</b>	<b>468</b>	<b>210</b>	<b>596</b>	<b>71</b>	<b>0</b>	<b>201</b>
Jul-11	191	0	236	285	0	787	1011	0	0	10	31	2	18	0	80	0	16	4	88	0	0	176	14	252	113	0	62
Aug-11	222	0	183	275	68	287	11	55	123	11	0	2	16	4	31	0	25	1	46	135	0	141	0	15	90	7	52
Sep-11	160	0	142	325	447	567	221	145	209	8	0	12	19	32	47	0	43	0	2	395	0	6	20	30	0	186	0
<b>3Q11 Total</b>	<b>572</b>	<b>0</b>	<b>561</b>	<b>885</b>	<b>515</b>	<b>1641</b>	<b>1242</b>	<b>199</b>	<b>332</b>	<b>30</b>	<b>31</b>	<b>16</b>	<b>53</b>	<b>36</b>	<b>157</b>	<b>0</b>	<b>85</b>	<b>5</b>	<b>136</b>	<b>530</b>	<b>0</b>	<b>323</b>	<b>35</b>	<b>297</b>	<b>203</b>	<b>193</b>	<b>114</b>
Oct-11	0	0	0	0	0	83	0	0	0	44	20	18	215	17	138	39	63	30	0	404	80	0	35	182	0	223	0
Nov-11	0	0	0	0	0	0	0	0	0	138	30	50	211	11	123	32	147	25	0	161	36	0	202	97	0	137	15
Dec-11	0	0	0	0	0	0	0	0	0	77	18	16	36	1	79	21	157	9	0	245	98	0	226	164	0	113	25
<b>4Q11 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>83</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>258</b>	<b>67</b>	<b>84</b>	<b>463</b>	<b>29</b>	<b>339</b>	<b>92</b>	<b>368</b>	<b>65</b>	<b>0</b>	<b>810</b>	<b>214</b>	<b>0</b>	<b>463</b>	<b>443</b>	<b>0</b>	<b>473</b>	<b>40</b>

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

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

ASR Well No. 4									
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)
1Q11	Jan-11	0.0		38			(903)	(2,931)	(85,748)
	Feb-11	0.0		25			(928)	(2,931)	(85,748)
	Mar-11	0.0		35			(963)	(2,931)	(85,748)
2Q11	Apr-11	0.0		78			(201)	(2,645)	(60,049)
	May-11	0.0		86			(287)	(2,645)	(60,049)
	Jun-11	25.8	0.59	170	45		(307)	(2,626)	(54,640)
3Q11	Jul-11	27.7	0.40	140	39		(319)	(2,613)	(49,851)
	Aug-11	20.9	0.40	140	58		(356)	(2,602)	(46,238)
	Sep-11	55.6	0.40	140	0		(300)	(2,575)	(36,638)
4Q11	Oct-11	0.0		0			(300)	(2,575)	(36,638)
	Nov-11	0.0		0			(300)	(2,575)	(36,638)
	Dec-11	0.0		0			(301)	(2,575)	(36,638)

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)
1Q11	Jan-11	0.0		0			603	(722)	213,038
	Feb-11	0.0		0			603	(722)	213,038
	Mar-11	0.0		3			599	(722)	213,038
2Q11	Apr-11	0.0		0			612	(722)	213,038
	May-11	0.0		0			612	(722)	213,038
	Jun-11	79.7	0.59	170	0		692	(663)	229,761
3Q11	Jul-11	139.8	0.40	140	0		831	(594)	253,909
	Aug-11	135.0	0.40	140	0		966	(528)	277,216
	Sep-11	134.6	0.40	140	0		1,101	(461)	300,463
4Q11	Oct-11	0.0		272			829	(461)	300,463
	Nov-11	0.0		79			751	(461)	300,463
	Dec-11	0.0		0			751	(461)	300,463

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)
1Q11	Jan-11	0.0		0			(1,417)	284	92,736
	Feb-11	0.0		0			(1,417)	284	92,736
	Mar-11	0.0		0			(1,417)	284	92,736
2Q11	Apr-11	0.0		0			(1,417)	284	92,736
	May-11	0.0		0			(1,417)	284	92,736
	Jun-11	79.7	0.59	170	0		(1,337)	342	109,450
3Q11	Jul-11	137.4	0.40	140	0		(1,200)	410	133,186
	Aug-11	95.0	0.40	140	82		(1,186)	456	149,594
	Sep-11	139.9	0.40	140	0		(1,047)	353	116,889
4Q11	Oct-11	0.0		145			(1,192)	353	116,889
	Nov-11	0.0		28			(1,220)	353	116,889
	Dec-11	0.0		0			(1,220)	353	116,889

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)
2Q11	Apr-11	0.0		19			0	0	0
	May-11	0.0		1			(1)	0	0
	Jun-11	0.3	0.59	170	9		(10)	0	61
3Q11	Jul-11	0.0	0.40	140	0		(10)	0	61
	Aug-11	0.1	0.40	140	4		(14)	0	78
	Sep-11	12.6	0.40	140	0		(1)	6	2,246
4Q11	Oct-11	0.0		0			(1)	6	2,246
	Nov-11	0.0		16			(17)	6	2,246
	Dec-11	0.0		1			(18)	6	2,246

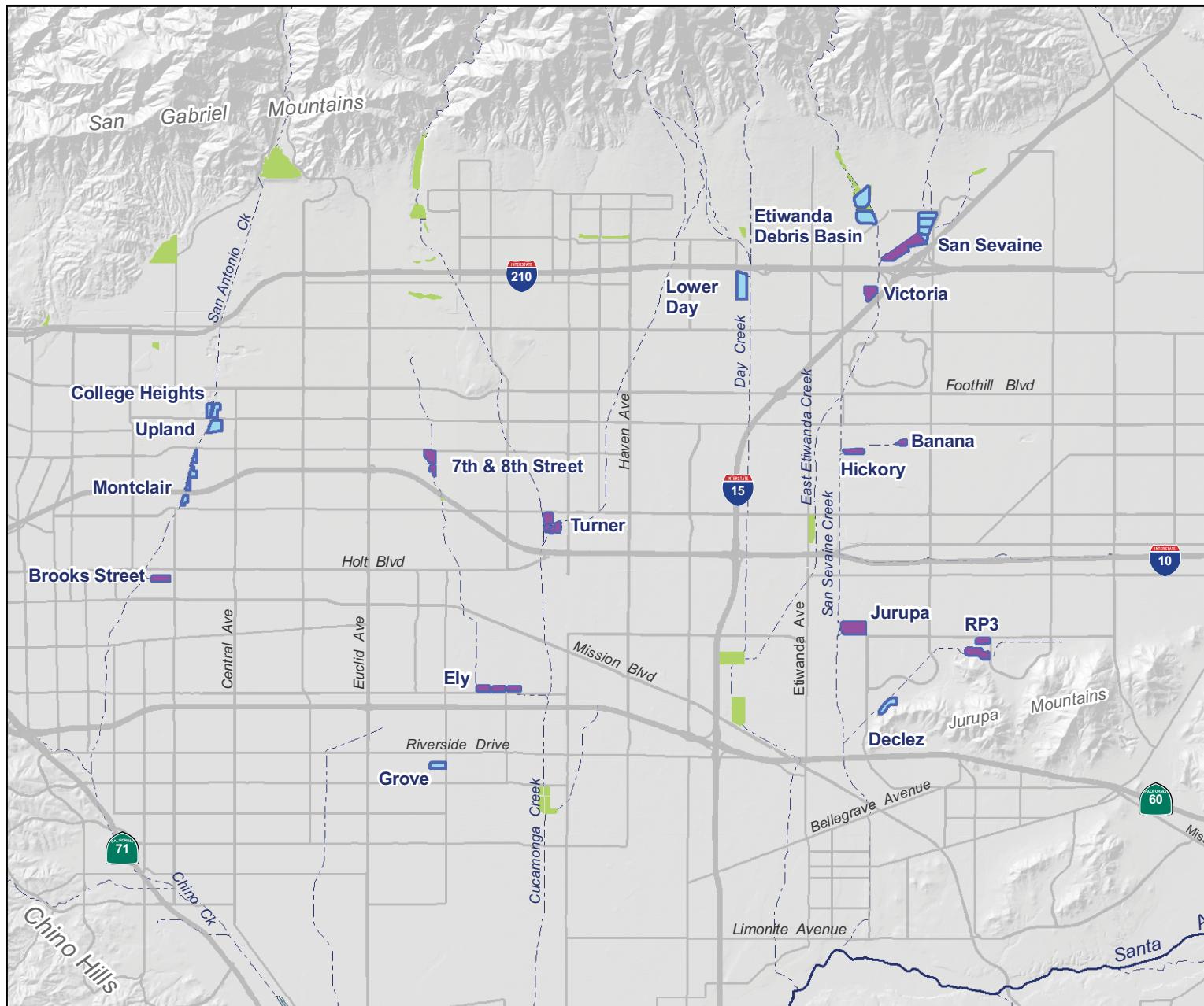
The injected water is WFA-treated water, which meets CCR Title 22 drinking water standards.

During 2Q11, WFA-treated water was sampled for TDS and TIN ( $\text{NO}_3\text{-N} + \text{NO}_2\text{-N}$ , assuming no  $\text{NH}_3\text{-N}$  in drinking water) on 04/19/11.

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

		Total Project (All Wells)		
		Mass Balance		
	Date	Storage (AF)	TIN (kg)	TDS (kg)
1Q11	Jan-11		(1,717)	(3,369)
	Feb-11		(1,742)	(3,369)
	Mar-11		(1,781)	(3,369)
2Q11	Apr-11		(1,006)	(3,083)
	May-11		(1,094)	(3,083)
	Jun-11		(963)	(2,948)
3Q11	Jul-11		(697)	(2,797)
	Aug-11		(589)	(2,674)
	Sep-11		(247)	(2,677)
4Q11	Oct-11		(664)	(2,677)
	Nov-11		(787)	(2,677)
	Dec-11		(788)	(2,677)

Well 4	TIN	TDS	Est. Prod	Well 30	TIN	TDS	Est. Prod
5/7/08	4.1	360	20%	6/5/08	2.0	310	20%
5/9/08	6.9	370	40%	6/26/08	4.9	310	40%
5/12/08	6.9	370	60%				
5/27/08	12	390	80%				
6/6/08	14	360	100%				



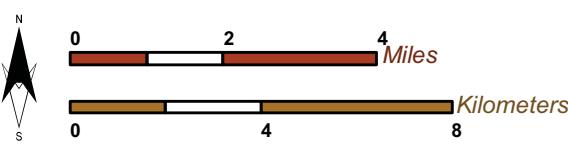
### Main Map Features

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

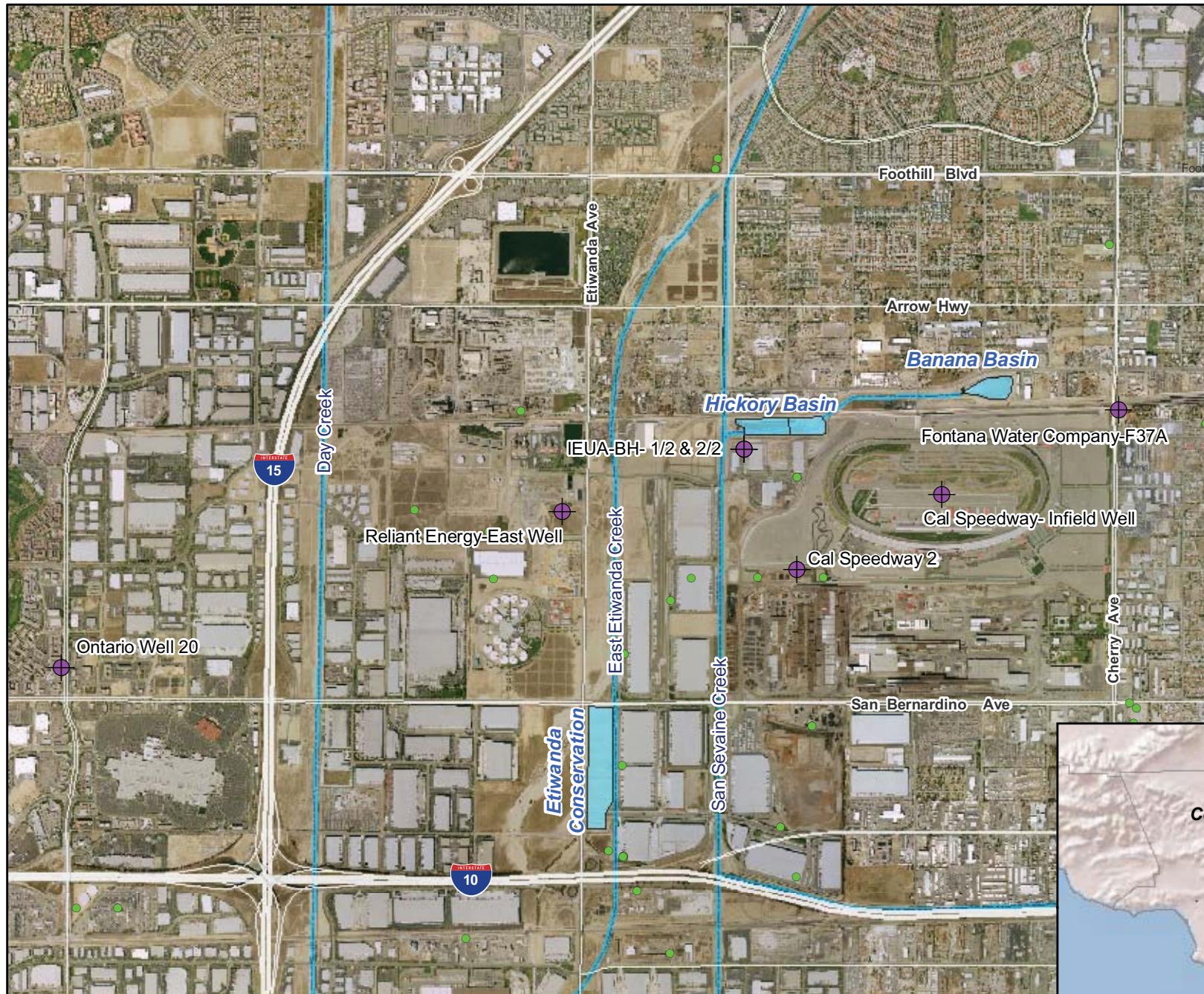


**Chino Basin Recycled Water Groundwater Recharge Programs**

Basin Locations

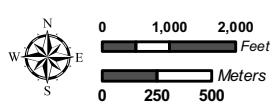


**Figure 1-1**



**Monitoring Well Network**  
Hickory and Banana Basins

Recycled Water Recharge Program

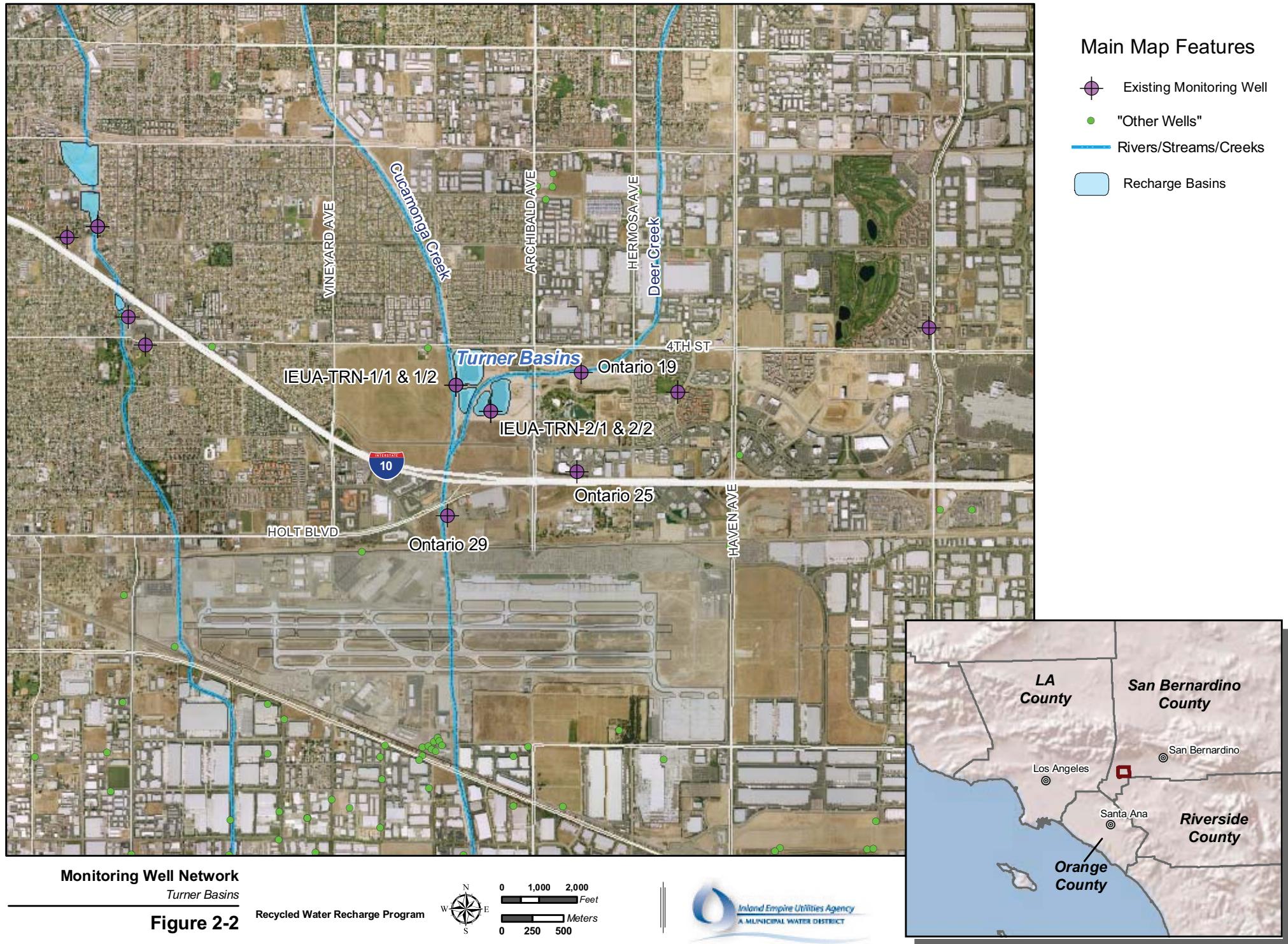


### Main Map Features

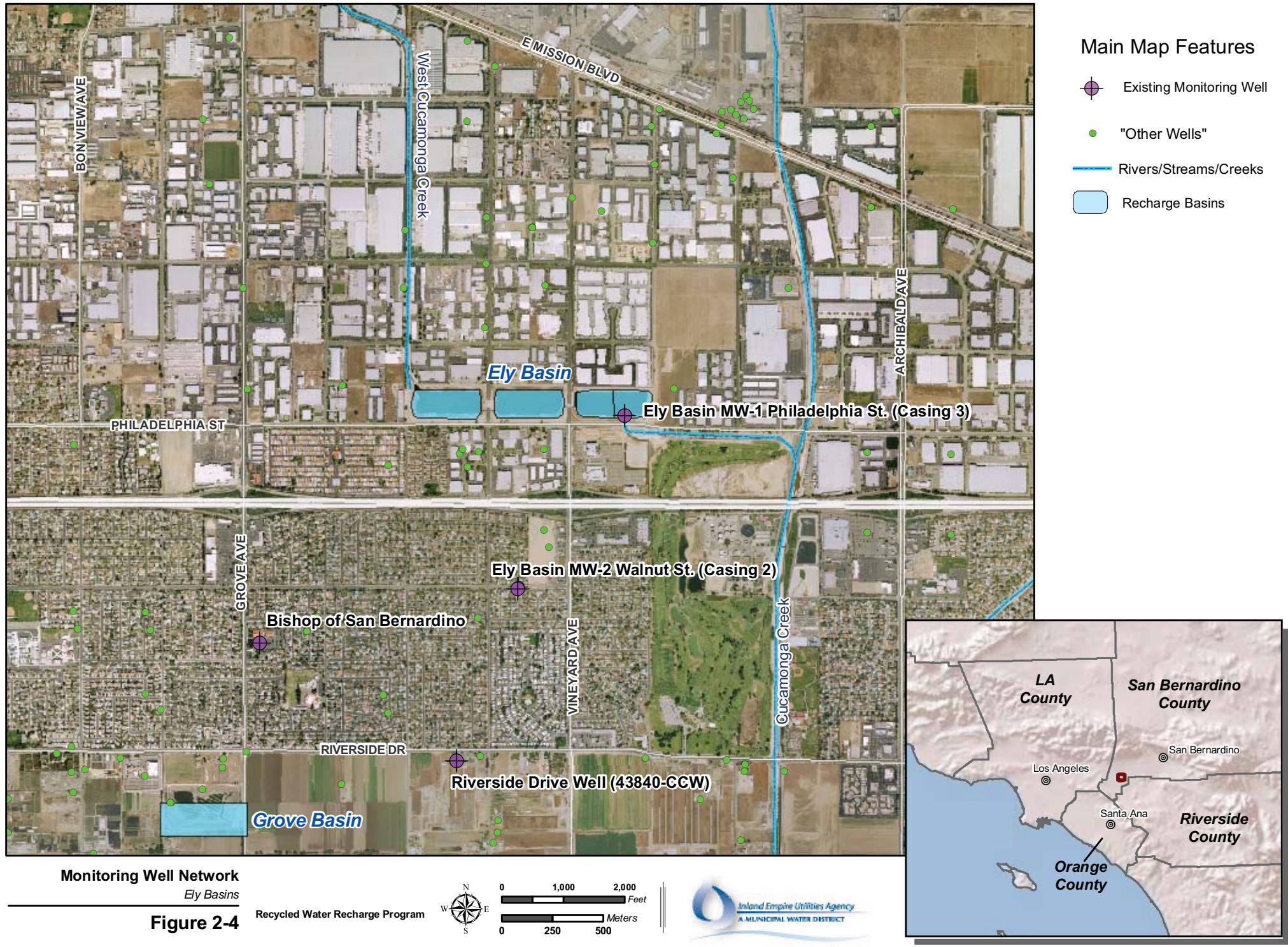
- Existing Monitoring Well
- "Other Wells"
- Rivers/Streams/Creeks
- Recharge Basins

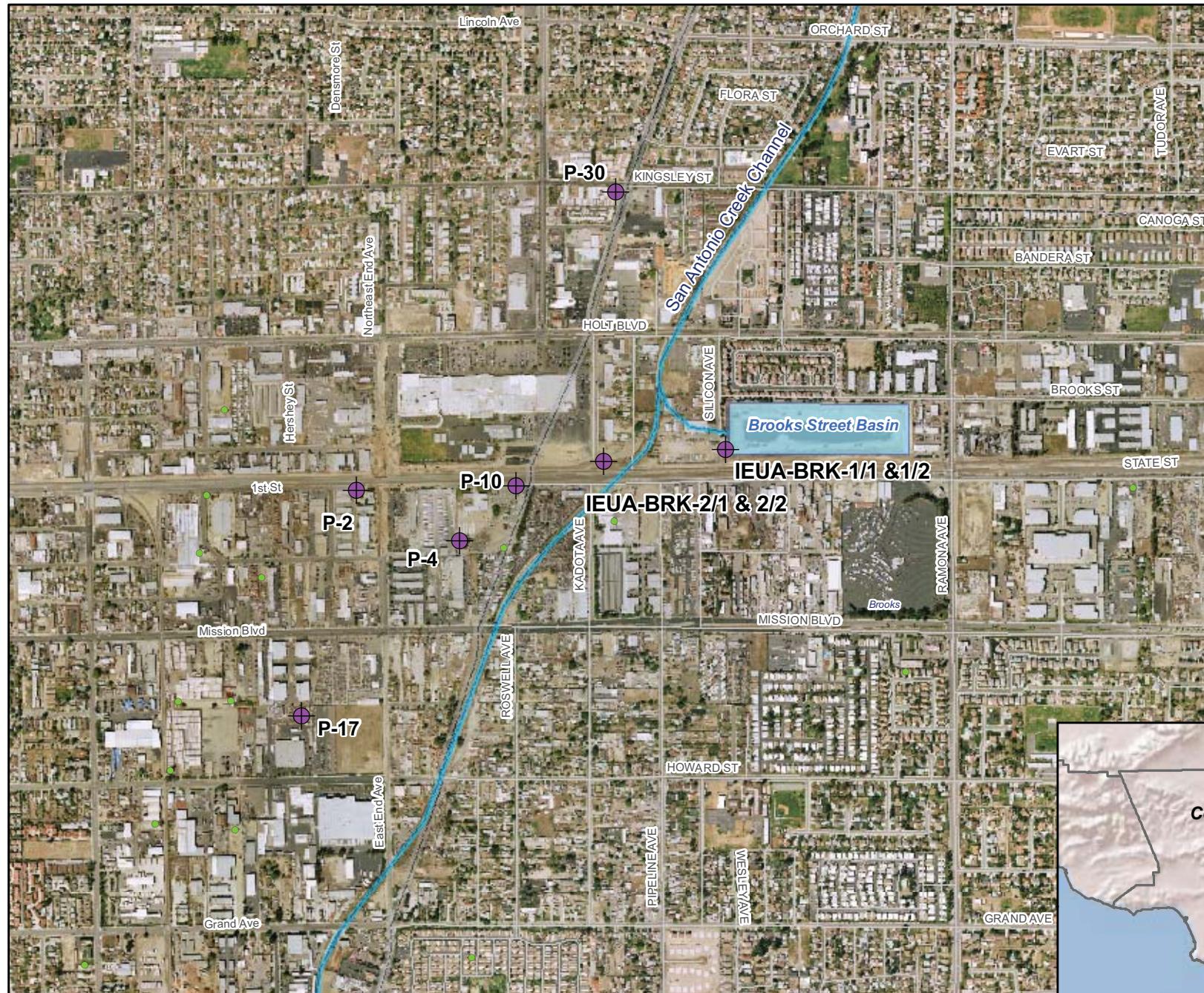


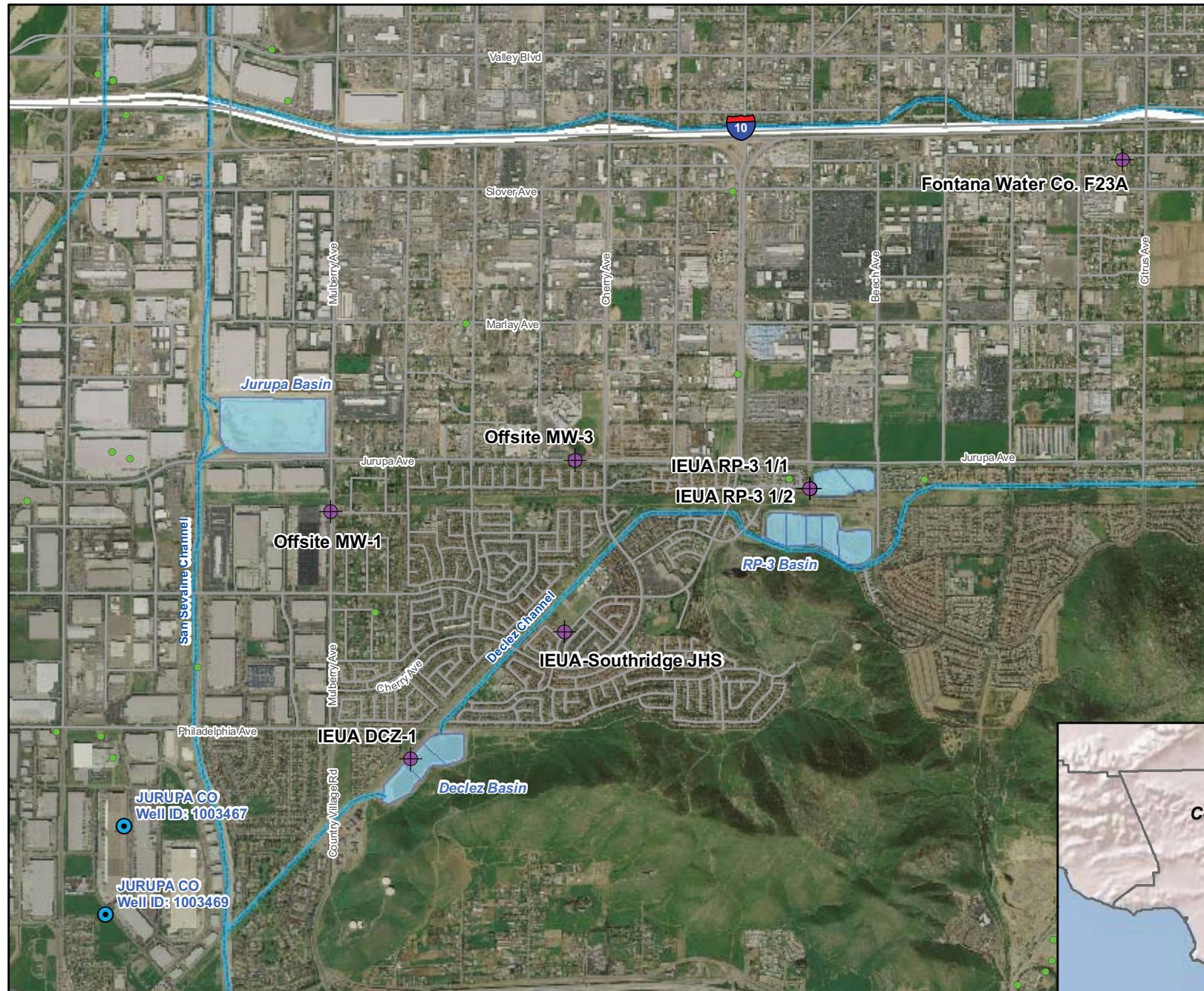
**Figure 2-1**











Monitoring Well Network

RP-3 Basin

Recycled Water Recharge Program

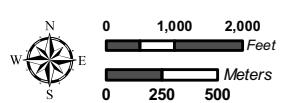
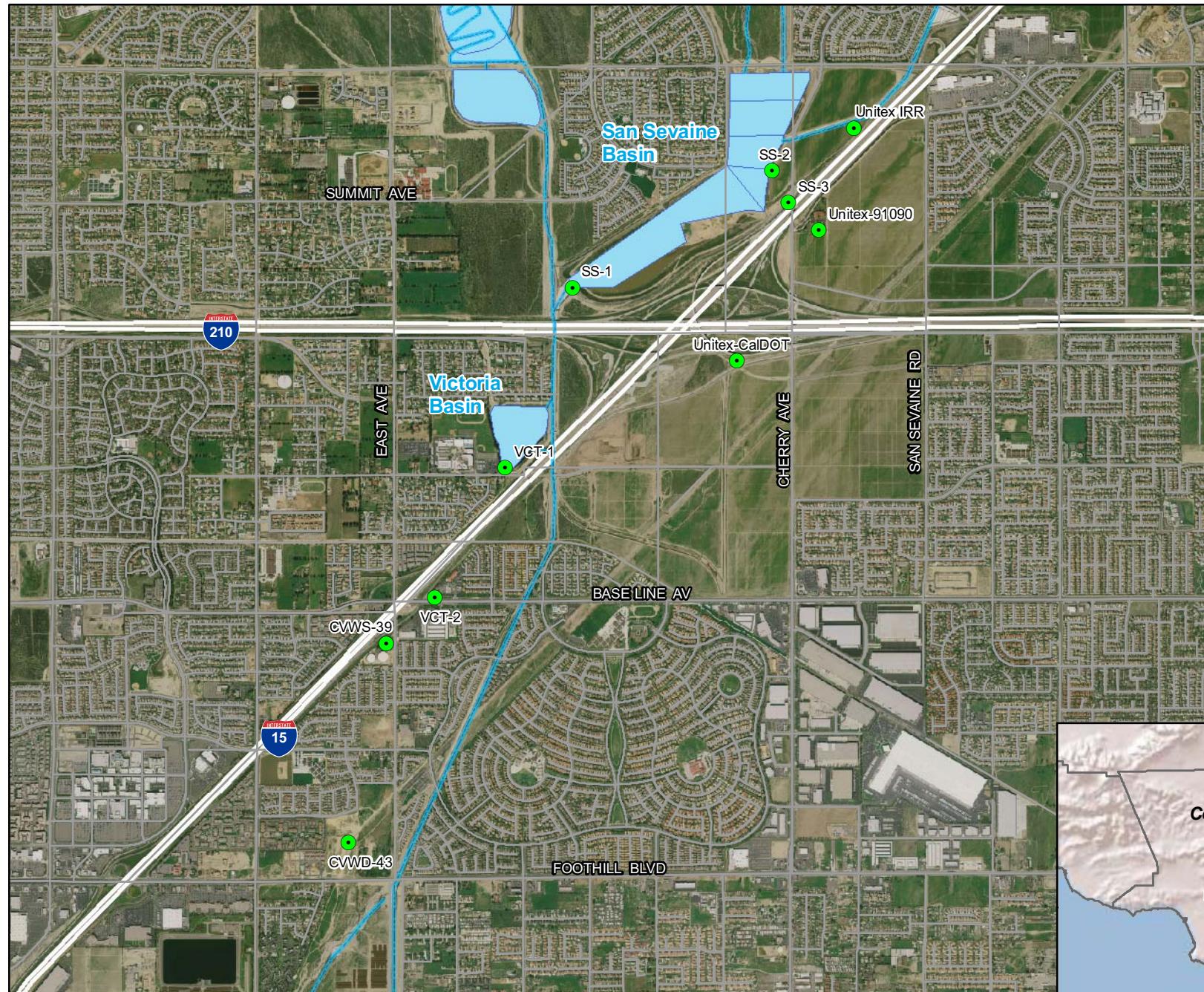


Figure 2-6

## Main Map Features

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





## 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

