



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

Peter Kavounas, P.E.
General Manager

November 15, 2014

Regional Water Quality Control Board, Santa Ana Region

Attention: Mr. Kurt Berchtold

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

**Subject: Chino Basin Recycled Water Groundwater Recharge Program
Quarterly Monitoring Report for July through September 2014**

Dear Mr. Berchtold,

Inland Empire Utilities Agency and Chino Basin Watermaster hereby submit the *Quarterly Monitoring Report* for the third quarter of 2014 (3Q14), July 1 through September 30, 2014, for the *Chino Basin Recycled Water Groundwater Recharge Program*. This document is submitted pursuant to requirements in Order No. R8-2007-0039. All required monitoring and reporting for the quarter are presented in the attached report. During 3Q14, the Groundwater Recharge Program was in compliance with all monitoring and reporting requirements as specified in the Order, with the exception of an exceedance of the 4-quarter running average for odor (secondary MCL).

Chino Basin Watermaster hereby certifies that, during the period of July 1 through September 30, 2014, there was no reported pumping for drinking water purposes in the buffer zones extending 500 feet laterally and 6 months underground travel time from each of the recharge sites using recycled water, namely 8th Street, Banana, Brooks, Ely, Hickory, RP3, San Sevaine, Turner, and Victoria Basins. In point of fact, there are no domestic or municipal production wells in the buffer zones of the aforementioned recharge sites.

DECLARATION

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

Executed on the 15th day of November 2014 in the Cities of Chino and Rancho Cucamonga.



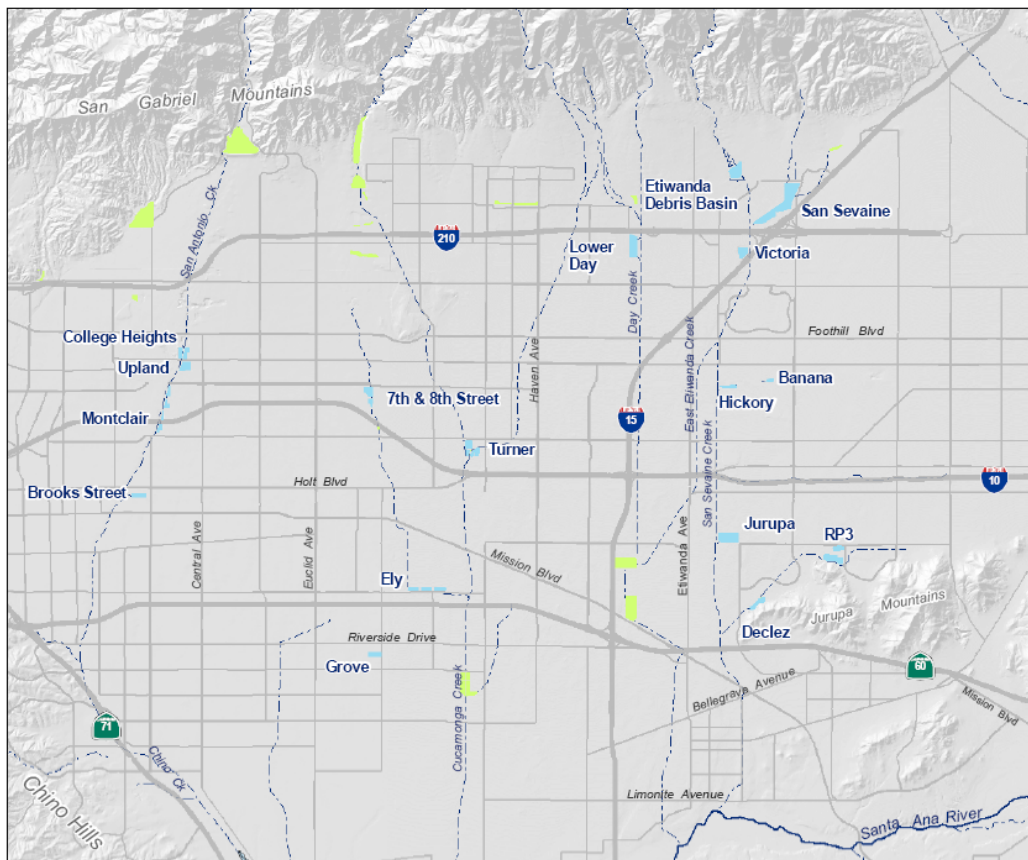
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Chino Basin Recycled Water Groundwater Recharge Program

Quarterly Monitoring Report July 1 through September 30, 2014



Prepared by:



November 15, 2014

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1. Introduction

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

A. Order No. R8-2007-0039

On June 29, 2007, the Santa Ana Regional Water Quality Control Board (Regional Board) adopted Order No. R8-2007-0039 (Order) which prescribes the requirements for recycled water use for groundwater recharge in 13 recharge sites within the Chino North Management Zone. The locations of the Chino Basin Groundwater Recharge Program Basins are presented in Figure 1-1.

As a provision of this Order, IEUA and Watermaster must also comply with Monitoring and Reporting Program No. R8-2007-0039 (MRP). The MRP includes the water quality monitoring requirements of the Chino Basin Recycled Water Groundwater Recharge Program and the requirement for the submittal of quarterly and annual reports. This document is the quarterly report for the third quarter of 2014 (3Q14).

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

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

B. Order No. R8-2009-0057

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

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

On October 27, 2010, the Regional Board revised Monitoring and Reporting Program No. R8-2007-0039 (MRP) based on requests for modifications from IEUA and approved by the State Water Resources Control Board – Division of Drinking Water (DDW, formerly CDPH). The following changes were made to the MRP:

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

- 2) Groundwater Monitoring Program Requirement V.1. was modified by adding a sentence to the paragraph that allows IEUA to analyze the groundwater samples collected on a quarterly basis from non-active municipal drinking water wells for dissolved metals, instead of total recoverable metals.
- 3) Reporting Requirement VI.B.3.b. was modified and footnote No. 18 was 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 3Q14 data.

Recycled Water Specifications A.5 through A.9 in the Order are the narrative limits established in the permit. The corresponding monitoring data used to determine compliance with the Order are presented in Tables 2-1 and 2-2. This data is typically collected from samples of RP-1 and RP-4 effluent, however recycled water compliance with the total nitrogen (TN) limit of 5 mg/L (Specification A.7) can also be met at the lysimeters (Table 2-5a), at the monitoring well (Hickory Basin only, Table 2-5b), or as part of an alternative monitoring plan (discussed in further detail in Section 2.B). During 3Q14, there were no exceedances of the narrative limits.

Recycled Water Specifications A.1 through A.3 and A.15 of the Order are the numerical limits, based on primary maximum contaminant levels (MCLs) and secondary MCLs. The corresponding monitoring data used to determine compliance with the Order are presented in Table 2-3. Due to the volume of samples required for laboratory analyses, IEUA selected, and DDW approved, a sampling point along the recycled water distribution pipeline as the compliance point for the numerical limits. IEUA selected the turnout to NRG California South, LP (formerly Reliant Energy) as representative of the system blend of recycled water used for recharge.

In the Order, compliance for most constituents with MCLs is based on 4-quarter running averages (Specifications A.1 through A.3). The exception is oil & grease, which must be less than 1 mg/L in all samples (Specification A.15). Table 2-3 summarizes the 4-quarter running average concentration data for each parameter from 4Q13 through 3Q14, and lists the corresponding limits for compliance. During 3Q14, there were no exceedances in the following categories: primary MCLs for inorganic chemicals, volatile organic compounds (VOCs), non-volatile synthetic organic chemicals (SOCs), radionuclides, and disinfection byproducts; action levels for lead and copper; secondary MCLs for required constituents, with the exception of odor; and oil and grease.

Odor has a secondary MCL of 3 Units in Recycled Water Specification A.3. During 4Q13 and 3Q14 the threshold odor was found to be 17 Units and 8 Units, respectively. This results in a 4-quarter running

average value of 7 Units, causing the threshold odor compliance metric to exceed the secondary MCL. This result will continue to impact the 4-quarter running average for 4Q14. The odor has been identified by Eaton Analytical (contract laboratory) as chlorine. Recycled water used for groundwater recharge must meet disinfected tertiary recycled water standards in accordance to Title 22. Sodium hypochlorite is used as the disinfection agent at the RP-1 and RP-4 water recycling facilities; hence, the smell of chlorine is prominent in recycled water and is therefore unavoidable. Order No. R8-2007-0039 allows compliance for secondary MCLs to be determined at the mound monitoring well. Based on the mound monitoring well data (Table 2-8a), threshold odor did not exceed 3 Units at any of the monitoring wells during 3Q14.

Although NRG turnout is a suitable sampling location for most constituents, it is not appropriate for disinfection byproducts (DBPs), more specifically, Total Trihalomethanes (TTHMs) and Total Haloacetic Acids (HAA5). Compliance samples for these DBPs are taken from lysimeters at basins actively receiving recycled water. At these locations, the samples better represent the DBPs present in the recycled water prior to reaching the groundwater table. Once a quarter, a single representative sample is collected from a selected compliance lysimeter and analyzed for DBPs. For the 3Q14 sampling for DBPs, IEUA chose the 25-foot below ground surface lysimeter at the RP3 Basin (RP3-LYS-25) as the compliance point. The RP3 Basin lysimeter was selected as the compliance point because the basin received consistent recycled water recharge and recycled water was present at the 25-foot depth based on electrical conductivity (EC) measurements.

For constituents with no specified limits, quarterly monitoring data are summarized in Table 2-4. All required constituents were analyzed in 3Q14.

B. Recycled Water: Basin and Lysimeter Samples

Total organic carbon (TOC) and nitrogen species sampling and analysis are performed weekly during periods when recycled water is delivered, for compliance determination of Recycled Water Specifications A.7, A.10, and A.11. EC is also measured and reported to assist in identifying the presence of recycled water at various depths in the vadose zone. Basin and lysimeter water quality results from 3Q14 are summarized in Table 2-5a. The table includes lysimeter data for Banana, Brooks, and Hickory Basins. During 3Q14, there were no exceedances of TOC and TN at the compliance lysimeters at the abovementioned basins.

As indicated in Recycled Water Compliance Determination B.6 of the Order, alternative monitoring programs for TOC and TN compliance under Specifications A.7, A.10 and A.11 can be developed based on start-up period findings. The alternative monitoring plans can be found in the Start-Up Period Report for each basin. The alternative TOC and TN monitoring plans approved by the Regional Board and DDW for Turner, RP3, Ely, 8th Street San Sevaine, and Victoria Basins include alternative monitoring locations (RP1 effluent for Ely Basin, and recycled water at the NRG turnout for all other basins), and the application of correction factors for soil aquifer treatment (SAT). The following correction factors were determined from each basin's start-up period findings:

- Turner 1 & 2: TOC reduction of 70 percent and TN reduction of 87 percent
- Turner 3 & 4: TOC reduction of 85 percent and TN reduction of 87 percent
- Ely Basins: TOC reduction of 76 percent and TN reduction of 52 percent
- RP3 Basin: TOC reduction of 88 percent and TN reduction of 31 percent
- 8th Street Basin: TOC reduction of 59 percent and TN reduction of 75 percent
- San Sevaine 5: TOC reduction of 78 percent and TN reduction of 69 percent
- Victoria: TOC reduction of 78 percent and TN reduction of 82 percent

The TOC and TN values calculated based on the alternative monitoring locations and the application of these correction factors listed above are summarized in Table 2-5b.

The Brooks Basin has also implemented an alternative monitoring plan 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. If sufficient SAT is demonstrated, 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 Basin alternative monitoring data are summarized in Table 2-5b.

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

During 3Q14, there were no exceedances of TOC and TN at any of the basins that have implemented alternative monitoring plans.

C. Diluent Water

For 3Q14, diluent water quality sampling of local runoff was conducted in September 2014 at Declez and Jurupa Basins. Table 2-6 lists the results of the local runoff sampling and analyses. Details on the methods used to measure daily diluent water flow and diluent water monitoring schedule can be found in the DDW-approved Diluent Water Monitoring Plan. The quarterly sampling schedule for stormwater and local runoff is presented in Table 4-2 of the plan. Stormwater is sampled during the rainy season (1st and 4th quarters) and local runoff is sampled during the dry season (2nd and 3rd quarters). Samples are collected at about half the locations during each seasonal quarter, alternating between even and odd years. Table 5-1 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. During 3Q14, diluent water samples did not exceed the “maximum level to trigger source water evaluation” for any of the constituents listed in Appendix A of the Diluent Water Monitoring Plan.

D. Groundwater Monitoring Wells

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. The wells in the monitoring well networks for Hickory and Banana, Turner, 8th Street, Ely, Brooks, RP3, and San Sevaïne and Victoria Basins are summarized in Table 2-7, and presented on Figures 2-1 through 2-7, respectively. The groundwater constituents analyzed from the monitoring wells during quarterly monitoring are presented in Table 2-8. Any 3Q14 analyses results which exceeded primary or secondary MCLs are shown in the tables in bold italic font. Of note are the analyses for the following wells and constituents:

Turbidity exceeding the secondary MCL of 5 NTU was observed in two monitoring wells, namely: Southridge JHS and 8TH-1/1.

TDS and EC were higher than their secondary MCLs of 500 mg/L and 900 µmhos/cm, respectively, in Southridge JHS and Ely MW2 (Walnut). Alcoa MW 3 slightly exceeded the TDS secondary MCL. The wells south of the Ely Basins and near the RP3 Basins are located in areas where the TDS and EC concentrations in groundwater are elevated. South of the Ely Basins, TDS is about 500 mg/L and EC is

about 750 µmhos/cm. In the RP3 Basins area, TDS is about 750 mg/L and EC is about 1,000 µmhos/cm. TDS concentrations in monitoring well network for the basins listed above are documented in the CBWM's State of the Basin reports.

Dissolved manganese was above the secondary MCL of 50 µg/L at RP3-1/2. Recycled water manganese concentrations are generally less than 20 µg/L. Historical stormwater manganese analyses performed at the IEUA laboratory have been observed to fall within the range of 10 to 180 µg/L.

Some monitoring wells in the Banana & Hickory, RP3, Brooks, and Ely monitoring networks have NO₃-N concentrations above the primary MCL of 10 mg/L. These higher levels of NO₃-N are characteristic of groundwater quality in the local area, where historically the NO₃-N concentrations range from 10-30 mg/L, as reported in CBWM's State of the Basin reports. No notifications were made to the DDW as these areas have been previously identified to have monitoring wells with high NO₃-N concentrations. NO₃-N concentrations in monitoring well network for the basins listed above are documented in the CBWM's State of the Basin reports.

Total coliform was detected at Fontana Water Company Well F37A, Southridge JHS, RP3-1/2, Ontario Well 35, Ely Basin MW2, Bishop of San Bernardino Corporation, and Unitex 91090. The highest total coliform result of 23 MPN/100 mL was found at the Fontana Water Company Well F37A during 3Q14. The total coliform found at these well locations did not come from recycled water, as the total coliform levels found in the recycled water are usually non-detect. In accordance with the MRP, notification to the DDW of coliform presence must be made within 48 hours of receiving the results. On August 14, 2014, IEUA notified the DDW of coliform presence at the abovementioned municipal drinking water wells for 3Q14, namely Fontana Water Company F37A and Ontario Well 35. IEUA will continue to notify the DDW for coliform presence, unless it is deemed that reporting these findings in the quarterly report is sufficient.

3. Recharge Operations

IEUA's Groundwater Recharge Coordinator recorded the daily volumes of water routed to all basins. The 8th Street, Banana, Brooks, Hickory, RP3, San Sevaire, 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 3Q14 at the basins that have initiated recharge using recycled water.

4. Operational Problems & Preventive or Corrective Actions

No operational problems were encountered this quarter, therefore no corrective actions were necessary for the following: Regional Water Recycling Facilities - RP-1 & RP-4 and recharge operations.

5. Certification of Non-Pumping in the Buffer Zones

Watermaster has certified that there was no reported pumping of groundwater in 3Q14 for domestic or municipal use from the buffer zones that extend 500 feet and 6 months underground travel time from the 8th Street, Banana, Brooks, Ely, Hickory, RP3, San Sevaire, Turner, and Victoria Basins. In fact, there are no domestic or municipal production wells within the buffer zones of these aforementioned recharge sites.

IEUA continues to work with the San Bernardino County Department of Environmental Health Services (SBCDEHS) to prevent the drilling and construction of new drinking water wells within the buffer zones. SBCDEHS has initiated control over production well permitting within the buffer zones of all recharge sites through the use of buffer zone maps that utilize the same land coordinate system (Township/Range/Section/40-acre Parcel) that is used in the permitting process. SBCDEHS reviews new well permit applications, in part, by checking the proposed location of a new drinking water well

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

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

6. MVWD ASR Project

Reporting for the Monte Vista Water District (MVWD) Aquifer Storage and Recovery (ASR) project was allowed by the RWQCB to be included under IEUA/CBWM Phase I Groundwater Recharge Order No. R8-2005-0033 and subsequent permit updates. In April 2007, MVWD, Watermaster, and IEUA entered into an agreement to report the MVWD ASR project groundwater injection/recovery volumes and TIN/TDS mass balance in the recharge program quarterly reports. Initial injection began in June 2007. In May 2008, MVWD discontinued groundwater injection at the ASR wells for an extended period of time. In June 2011, MVWD groundwater injection activities resumed at four ASR wells. MVWD continued injection of imported water through September 2011. No significant volume of imported water has been injected since September 2011. During the last four quarters (4Q13 through 3Q14), a total of 0.8 acre-feet of imported water was injected into the groundwater basin during facility tours for demonstration purposes. Table 6-1 summarizes the monthly volumes and TIN/TDS of injected and recovered water. The table also includes the mass balance of TIN/TDS from the injection-recovery cycles.

Table 2-1a
Recycled Water Monitoring: RP-1 & RP-4 Effluent Water Quality for July 2014
(Recycled Water Quality Specifications A.5, A.7, A.8, & A.9)

Unit	RP-1 Effluent										RP-4 Effluent									
	Turbidity ^{1,2,7}	TOC	NO ₃ -N	TN	TIN ³	pH ⁷	EC ⁷	TDS ³	Hardness	Coliform ^{1,2,4}	Turbidity ^{1,2,7}	TOC	NO ₃ -N	TN	TIN ³	pH ⁷	EC	TDS ³	Hardness	Coliform ^{1,2,4}
	NTU	mg/L	mg/L	mg/L	mg/L	unit	µmho/cm	mg/L	mg/L	mpn/100mL	NTU	mg/L	mg/L	mg/L	mg/L	unit	µmho/cm	mg/L	mg/L	mpn/100mL
Limits	2;5;10	16 ⁵		5 ⁶		6<pH<9				2.2;23;240	2;5;10	16 ⁵		5 ⁶		6<pH<9				2.2;23;240
07/01/14	0.6	5.9	3.7		4.1	7.3	815			2	0.4	4.2	3.5		3.6	7.0	730			<2
07/02/14	0.7	5.7	3.6		3.7	7.3	813			<2	0.4	4.1	3.5		3.5	7.0	745			<2
07/03/14	0.7	5.5				7.3	804			<2	0.4	4.0				7.0	755			<2
07/04/14	0.7	5.5				7.4	855			<2	0.5	4.1				7.0	750			<2
07/05/14	0.6	5.5				7.3	852			<2	0.4	4.1				7.0	745			<2
07/06/14	0.6	5.7	4.5	4.6	4.6	7.3	855	500	160	<2	0.4	4.4	4.3	5.6	4.3	7.0	755	454	152	<2
07/07/14	0.6	6.0	4.2		4.3	7.3	842			<2	0.3	4.4	4.1		4.2	7.0	765			<2
07/08/14	0.7	5.7	3.7		3.8	7.3	841			<2	0.4	4.3	3.8		3.9	7.0	755			<2
07/09/14	0.7	5.4	4.2		4.3	7.3	841			<2	0.3	4.0	3.9		4.0	7.0	750			<2
07/10/14	0.7	5.2	3.9		3.9	7.3	847			<2	0.3	3.9	4.6		4.6	7.0	750			<2
07/11/14	0.6	5.4				7.4	875			<2	0.3	4.1				7.0	750			<2
07/12/14	0.6	5.3				7.4	850			<2	0.3	4.1				7.0	800			<2
07/13/14	0.6	5.2	3.8		3.9	7.4	860	490		<2	0.3	4.1	3.3		3.4	7.0	755	446		<2
07/14/14	0.6	5.4	3.4		3.5	7.3	838			<2	0.3	4.0	3.6		3.7	7.0	740			<2
07/15/14	0.6	5.4	3.3		3.4	7.3	815			<2	0.3	3.9	4.2		4.2	7.0	745			<2
07/16/14	0.6	6.0	2.8	2.9	2.9	7.2	797			<2	0.3	4.6	4.3	5.0	4.4	7.1	740			<2
07/17/14	0.6	5.6	2.5		2.6	7.2	804			<2	0.3	4.1	4.7		4.9	7.0	745			<2
07/18/14	0.7	5.6				7.2	806			<2	0.4	4.0				7.0	755			<2
07/19/14	0.7	5.8				7.2	812			<2	0.3	3.9				7.0	750			<2
07/20/14	0.7	6.2	3.4	3.5	3.5	7.2	835	474		<2	0.3	4.4	4.1	4.5	4.5	7.0	745	452		<2
07/21/14	0.7	5.1	3.6		3.7	7.1	827			<2	0.3	3.8	3.6		3.7	7.0	725			<2
07/22/14	0.6	5.5	3.0		3.1	7.0	826			<2	0.3	3.8	3.2		3.3	7.0	734			<2
07/23/14	0.8	5.2	2.9		3.0	7.1	824			<2	0.4	3.8	3.9		4.0	7.0	735			<2
07/24/14	0.7	5.1	2.2		2.3	7.1	815			<2	0.3	3.6	4.2		4.3	7.0	730			<2
07/25/14	0.6	5.0				7.1	803			<2	0.3	3.6				7.0	730			<2
07/26/14	0.7	5.0				7.2	840			<2	0.3	3.7				7.0	735			<2
07/27/14	0.7	5.3	2.9	3.0	3.0	7.3	848	490		<2	0.3	3.8	3.2	3.7	3.3	7.0	735	450		<2
07/28/14	0.8	5.3	3.5		3.6	7.2	855			<2	0.2	3.9	3.6		3.7	7.0	740			<2
07/29/14	0.7	5.3	3.4		3.5	7.2	866			<2	0.4	3.9	4.1		4.2	7.0	758			<2
07/30/14	0.7	5.3	2.7		2.8	7.2	865			<2	0.4	3.9	4.4		4.5	7.0	755			<2
07/31/14	0.7	5.4	2.2		2.9	7.2	876			<2	0.3	4.0	4.3		4.4	7.0	745			<2
Avg	0.7	5.5	3.3	3.5	3.5	7.2	836	489	160	<2	0.3	4.0	3.9	4.7	4.0	7.0	747	451	152	<2
Min	0.6	5.0	2.2	2.9	2.3	7.0	797	474	160	<2	0.2	3.6	3.2	3.7	3.3	7.0	725	446	152	<2
Max	0.8	6.2	4.5	4.6	4.6	7.4	876	500	160	2	0.5	4.6	4.7	5.6	4.9	7.1	800	454	152	<2

Note:

Bolded characters signify an exceedance of a permit limitation

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

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

² Turbidity limits: 2 NTU average daily; 5 NTU no more than 5% of day; 10 NTU at any time. Coliform limits: 2.2 MPN/100mL 7-day median; 23 MPN/100mL in no more than 1 sample per month; 240 MPN/100mL at any time.

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

⁴ Monthly average for coliform is based on "non-detect" values equal to 2. Determination of "less than" is dependent on the number of "non-detect" occurrences more than half the days in the month.

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

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

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

Table 2-1b
Recycled Water Monitoring: RP-1 & RP-4 Effluent Water Quality for August 2014
(Recycled Water Quality Specifications A.5, A.7, A.8, & A.9)

Unit	RP-1 Effluent										RP-4 Effluent									
	Turbidity ^{1,2,7}	TOC	NO ₃ -N	TN	TIN ³	pH ⁷	EC ⁷	TDS ³	Hardness	Coliform ^{1,2,4}	Turbidity ^{1,2,7}	TOC	NO ₃ -N	TN	TIN ³	pH ⁷	EC	TDS ³	Hardness	Coliform ^{1,2,4}
	NTU	mg/L	mg/L	mg/L	mg/L	unit	µmho/cm	mg/L	mg/L	mpn/100mL	NTU	mg/L	mg/L	mg/L	mg/L	unit	µmho/cm	mg/L	mg/L	mpn/100mL
Limits	2;5;10	16 ⁵		5 ⁶		6<pH<9				2.2;23;240	2;5;10	16 ⁵		5 ⁶		6<pH<9				2.2;23;240
08/01/14	0.7	5.2				7.2	865			<2	0.4	3.8				7.0	740			<2
08/02/14	0.7	5.1				7.2	875			<2	0.3	4.0				6.9	750			<2
08/03/14	0.6	5.7	3.2	3.3	3.3	7.2	877	504	163	<2	0.3	4.2	3.7	3.8	3.8	6.9	765	440	147	<2
08/04/14	0.6	5.2	3.6		3.7	7.2	872			<2	0.3	4.0	3.9		4.0	6.9	780			<2
08/05/14	0.6	5.5	3.3		3.4	7.2	810			2	0.2	4.4	4.3		4.4	6.9	800			<2
08/06/14	0.6	5.6	1.9		2.0	7.2	830			<2	0.2	4.3	5.7		5.8	6.9	810			<2
08/07/14	0.5	5.1	2.8		2.9	7.2	837			2	0.2	4.3	6.4		6.5	6.8	815			<2
08/08/14	0.6	5.6				7.3	825			<2	0.2	4.3				6.8	810			<2
08/09/14	0.6	5.4				7.3	839			<2	0.6	4.7				6.8	810			<2
08/10/14	0.6	5.4	2.9	3.1	3.1	7.3	833	502		<2	0.4	4.9	4.6	5.2	4.7	6.9	810	450		<2
08/11/14	0.6	5.5	2.5		2.6	7.2	814			<2	0.3	5.1	5.1		5.2	6.9	800			<2
08/12/14	0.6	5.4	2.1		2.2	7.2	823			<2	0.4	5.2	6.8		6.9	7.0	815			QC
08/13/14	0.6	5.3	2.4		2.5	7.2	822			<2	0.4	5.4	7.6		7.8	7.2	840			<2
08/14/14	0.6	5.1	2.7		2.8	7.2	828			<2	0.5	5.5	8.1		8.2	7.1	850			<2
08/15/14	0.6	5.2				7.2	833			<2	0.5	5.1				7.1	830			<2
08/16/14	0.7	5.5				7.2	843			<2	0.5	4.7				7.1	805			<2
08/17/14	0.6	5.4	2.7	2.8	2.8	7.3	848	520		<2	0.5	4.6	7.8	8.5	7.9	7.2	800	470		<2
08/18/14	0.6	5.5	2.7		2.8	7.2	824			<2	0.5	4.5	6.5		6.6	7.2	785			<2
08/19/14	0.7	6.3	3.3		3.4	7.1	837			<2	0.4	4.5	5.8		5.9	7.2	780			<2
08/20/14	0.6	5.7	3.9		4.0	6.9	850			<2	0.4	4.5	6.1		6.2	7.2	765			<2
08/21/14	0.6	5.5	4.6		4.7	6.9	842			<2	0.4	4.4	6.3		6.4	7.2	760			<2
08/22/14	0.6	5.4				6.9	837			<2	0.3	4.4				7.2	775			<2
08/23/14	0.7	5.6				7.0	868			<2	0.2	4.4				7.2	785			<2
08/24/14	0.7	5.9	3.1	3.2	3.2	7.0	864	506		<2	0.2	4.5	4.3	4.5	4.5	7.3	785	452		<2
08/25/14	0.7	6.0	3.3		3.4	7.0	846			<2	0.2	4.6	4.2		4.3	7.3	780			<2
08/26/14	0.8	6.1	3.2		3.3	7.0	855			<2	0.3	4.7	4.5		4.6	7.3	785			<2
08/27/14	0.7	6.0	3.3		3.9	7.0	853			<2	0.3	4.8	4.9		5.0	7.3	790			<2
08/28/14	0.8	5.9	2.2		2.3	7.0	843			<2	0.4	4.5	4.9		5.0	7.3	790			<2
08/29/14	0.7	5.7				7.0	836			<2	0.4	4.1				7.2	785			<2
08/30/14	0.7	5.6				7.0	859			<2	0.5	4.0				7.3	790			<2
08/31/14	0.7	5.3				7.0	846			<2	0.4	4.0				7.3	785			<2
Avg	0.6	5.5	3.0	3.1	3.1	7.1	843	508	163	<2	0.4	4.5	5.6	5.5	5.7	7.1	793	453	147	<2
Min	0.5	5.1	1.9	2.8	2.0	6.9	810	502	163	<2	0.2	3.8	3.7	3.8	3.8	6.8	740	440	147	<2
Max	0.8	6.3	4.6	3.3	4.7	7.3	877	520	163	2	0.6	5.5	8.1	8.5	8.2	7.3	850	470	147	<2

Note:

Bolded characters signify an exceedance of a permit limitation

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

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

² Turbidity limits: 2 NTU average daily; 5 NTU no more than 5% of day; 10 NTU at any time. Coliform limits: 2.2 MPN/100mL 7-day median; 23 MPN/100mL in no more than 1 sample per month; 240 MPN/100mL at any time.

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

⁴ Monthly average for coliform is based on "non-detect" values equal to 2. Determination of "less than" is dependent on the number of "non-detect" occurrences more than half the days in the month.

⁵ TOC shall not exceed 16 mg/L for more than two consecutive samples and an average of the last 4 sample results. TOC compliance can be met at a point prior to the regional groundwater, including lysimeters.

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

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

Table 2-1c
Recycled Water Monitoring: RP-1 & RP-4 Effluent Water Quality for September 2014
(Recycled Water Quality Specifications A.5, A.7, A.8, & A.9)

Unit	RP-1 Effluent										RP-4 Effluent									
	Turbidity ^{1,2,7}	TOC	NO ₃ -N	TN	TIN ³	pH ⁷	EC ⁷	TDS ³	Hardness	Coliform ^{1,2,4}	Turbidity ^{1,2,7}	TOC	NO ₃ -N	TN	TIN ³	pH ⁷	EC	TDS ³	Hardness	Coliform ^{1,2,4}
	NTU	mg/L	mg/L	mg/L	mg/L	unit	µmho/cm	mg/L	mg/L	mpn/100mL	NTU	mg/L	mg/L	mg/L	mg/L	unit	µmho/cm	mg/L	mg/L	mpn/100mL
Limits	2;5;10	16 ⁵		5 ⁶		6<pH<9				2.2;23;240	2;5;10	16 ⁵		5 ⁶		6<pH<9				2.2;23;240
09/01/14	0.7	5.8	3.2	3.3	3.3	6.9	845	504		<2	0.4	4.2	4.4	4.5	4.5	7.3	780	472		<2
09/02/14	0.7	5.7	3.4		3.5	7.0	844			<2	0.5	4.3	3.8		3.9	7.3	785			<2
09/03/14	0.7	5.6	3.5		3.6	7.0	845			<2	0.5	4.2	4.4		4.5	7.2	790			<2
09/04/14	0.7	5.6				7.0	838			<2	0.4	4.1				7.1	780			<2
09/05/14	0.6	5.4				6.9	848			<2	0.5	4.1				7.0	795			<2
09/06/14	0.6	5.4				7.0	847			<2	0.4	4.1				7.0	805			<2
09/07/14	0.6	5.7	3.6		3.7	7.0	846			<2	0.4	4.3	6.2		6.3	7.0	810			<2
09/08/14	0.6	5.6	3.5	3.6	3.6	7.0	832	516	162	<2	0.5	4.3	6.2	6.3	6.5	7.0	810	598	153	<2
09/09/14	0.7	5.4	4.1		4.3	7.0	842	534		<2	0.5	4.5	8.1		8.2	7.0	825	540		<2
09/10/14	0.7	5.3	4.1		4.2	7.0	843	508		<2	0.5	4.6	9.6		9.8	7.0	832	536		<2
09/11/14	0.7	5.5	3.9		4.1	7.0	837			2	0.5	4.6	11.6		11.7	7.1	840			<2
09/12/14	0.7	5.3	3.1		3.4	7.0	849	508		<2	0.6	4.8	13.2		13.7	7.0	845	528		<2
09/13/14	0.7	5.6				7.0	864			<2	0.6	4.9				7.0	845			<2
09/14/14	0.7	5.5	2.7	2.8	2.8	7.0	852	486		<2	0.7	5.1	12.5	12.6	12.7	7.1	840	534		<2
09/15/14	0.7	5.4	2.8		2.9	7.0	857	490		<2	0.8	4.8	10.4		10.5	7.1	830	508		<2
09/16/14	0.7	5.5	2.2		2.2	7.0	876	496		<2	0.8	4.7	9.3		9.3	7.1	830	508		<2
09/17/14	0.6	5.4	3.0		3.0	7.0	875	494		<2	1.0	4.6	9.8		9.8	7.2	805	530		<2
09/18/14	0.6	5.3				7.1	899			<2	0.8	4.9				7.4	831			<2
09/19/14	0.6	5.2				7.0	895			<2	1.0	4.9				7.4	805			<2
09/20/14	0.6	5.1				7.1	895			<2	1.2	5.0				7.4	800			<2
09/21/14	0.5	5.1	4.0	4.2	4.2	7.1	895	510		<2	1.1	5.2	5.8	6.4	5.9	7.4	795	482		<2
09/22/14	0.6	5.6	3.7		3.8	7.0	891			<2	1.0	5.2	4.7		4.8	7.4	805			<2
09/23/14	0.6	5.2	3.5		3.6	7.0	884			<2	1.0	5.0	4.9		5.0	7.4	795			<2
09/24/14	0.6	5.1	4.0		4.2	7.0	877			<2	0.9	4.6	5.2		5.3	7.3	797			<2
09/25/14	0.6	5.0	3.5		3.7	6.9	875			<2	0.8	4.3	3.6		3.7	7.3	782			<2
09/26/14	0.5	5.2				6.9	866			<2	0.8	4.5				7.3	815			<2
09/27/14	0.5	5.3				6.9	868			<2	0.7	4.5				7.3	815			<2
09/28/14	0.5	5.2	5.3	5.5	5.5	7.0	871	522		<2	0.7	4.6	2.3	2.5	2.5	7.3	915	490		<2
09/29/14	0.5	5.2	4.9		5.1	7.0	870			<2	0.7	4.6	2.2		2.3	7.3	835			<2
09/30/14	0.6	5.2	6.0		6.2	6.9	882			<2	0.7	4.7	2.8		3.0	7.3	860			<2
Avg	0.6	5.4	3.7	3.9	3.9	7.0	864	506	162	<2	0.7	4.6	6.7	6.5	6.9	7.2	817	521	153	<2
Min	0.5	5.0	2.2	2.8	2.2	6.9	832	486	162	<2	0.4	4.1	2.2	2.5	2.3	7.0	780	472	153	<2
Max	0.7	5.8	6.0	5.5	6.2	7.1	899	534	162	2	1.2	5.2	13.2	12.6	13.7	7.4	915	598	153	<2

Note:

Bolded characters signify an exceedance of a permit limitation

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

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

² Turbidity limits: 2 NTU average daily; 5 NTU no more than 5% of day; 10 NTU at any time. Coliform limits: 2.2 MPN/100mL 7-day median; 23 MPN/100mL in no more than 1 sample per month; 240 MPN/100mL at any time.

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

⁴ Monthly average for coliform is based on "non-detected" values equal to 2. Determination of "less than" is dependent on the number of "non-detected" occurrences more than half the days in the month.

⁵ TOC shall not exceed 16 mg/L for more than two consecutive samples and an average of the last 4 sample results. TOC compliance can be met at a point prior to the regional groundwater, including lysimeters.

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

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

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

	TIN		TDS	
Date	Monthly	12-Mo. Run Avg.	Monthly	12-Mo. Run Avg.
Oct-13	7.4	6.4	496	496
Nov-13	6.7	6.4	507	497
Dec-13	7.6	6.6	511	499
Jan-14	5.9	6.6	510	500
Feb-14	6.1	6.5	509	502
Mar-14	5.5	6.5	497	502
Apr-14	5.2	6.4	517	504
May-14	5.2	6.3	524	505
Jun-14	4.4	6.1	506	506
Jul-14	3.5	6.0	494	505
Aug-14	3.5	5.7	508	506
Sep-14	4.1	5.4	524	508
Avg	5.4	6.2	508	503
Min	3.5	5.4	494	496
Max	7.6	6.6	524	508
Limit		8.0		550

Date source: IEUA NPDES monthly self-monitoring report (MRP No. R8-2009-0021).

Per the Regional Board, TDS is calculated using the flow-weighted averages based on discharged effluent flows and recycled water flows; TIN is calculated using the flow-weighted averages based on discharged effluent flows only.

The data reported above will supersede any information submitted for previous quarters. Agency-wide TIN & TDS were in compliance with permit limits at all times.

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

Constituent	4Q13	1Q14	2Q14	3Q14	4Q Run. Avg. ¹	Limit	Unit	Method
Inorganic Chemicals								
Aluminum	30	230	41	28	82	1000	µg/L	EPA 200.8
Antimony	<1	<1	<1	<1	<1	6	µg/L	EPA 200.8
Arsenic	<2	<2	<2	<2	<2	10	µg/L	EPA 200.8
Asbestos	<1.9	<0.2	<0.2	<0.4	<1.9	7	MFL	EPA 100.2
Barium	10	8	7	13	10	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	1.4	0.9	1.9	0.8	1.2	50	µg/L	EPA 200.8
Cyanide	<5	<5	<5	<5	<5	150	µg/L	SM 4500-CN E
Fluoride	0.2	0.2	0.2	0.2	0.2	2	mg/L	SM 4500-F C
Mercury	<0.05	<0.05	<0.05	<0.05	<0.05	2	µg/L	EPA 245.2
Nickel	3	2	2	2	2	100	µg/L	EPA 200.8
Perchlorate	<4	<4	<4	<4	<4	6	µg/L	EPA 314/331.0
Selenium	3	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	<1	<0.5	<0.5	<0.5	<1	1	µg/L	EPA 524.2/624
Carbon Tetrachloride	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	µg/L	EPA 524.2/624
1,2-Dichlorobenzene	<1	<0.5	<0.5	<0.5	<1	600	µg/L	EPA 524.2/624
1,4-Dichlorobenzene	<1	<0.5	<0.5	<0.5	<1	5	µg/L	EPA 524.2/624
1,1-Dichloroethane	<0.5	<0.5	<0.5	<0.5	<0.5	5	µg/L	EPA 524.2/624
1,2-Dichloroethane	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	µg/L	EPA 524.2/624
1,1-Dichloroethylene	<1	<0.5	<0.5	<0.5	<1	6	µg/L	EPA 524.2/624
cis-1,2-Dichloroethylene	<0.5	<0.5	<0.5	<0.5	<0.5	6	µg/L	EPA 524.2/624
trans-1,2-Dichloroethylene	<0.5	<0.5	<0.5	<0.5	<0.5	10	µg/L	EPA 524.2/624
Dichloromethane	<1	<0.5	<0.5	<0.5	<1	5	µg/L	EPA 524.2/624
1,2-Dichloropropane	<0.5	<0.5	<0.5	<0.5	<0.5	5	µg/L	EPA 524.2/624
1,3-Dichloropropene	<1	<0.5	<0.5	<0.5	<1	0.5	µg/L	EPA 524.2/624
Ethylbenzene	<1	<0.5	<0.5	<0.5	<1	300	µg/L	EPA 524.2/624
Monochlorobenzene	<1	<0.5	<0.5	<0.5	<1	70	µg/L	EPA 524.2/624
Methyl-tert-butyl ether	<0.5	<0.5	<0.5	<0.5	<0.5	13	µg/L	EPA 524.2/624
Styrene	<0.5	<0.5	<0.5	<0.5	<0.5	100	µg/L	EPA 524.2/624
1,1,2,2-Tetrachloroethane	<0.5	<0.5	<0.5	<0.5	<0.5	1	µg/L	EPA 524.2/624
Tetrachloroethylene	<1	<0.5	<0.5	<0.5	<1	5	µg/L	EPA 524.2/624
Toluene	<1	<0.5	<0.5	<0.5	<1	150	µg/L	EPA 524.2/624
1,2,4-Trichlorobenzene	<0.5	<0.5	<0.5	<0.5	<0.5	5	µg/L	EPA 524.2/624
1,1,1-Trichloroethane	<1	<0.5	<0.5	<0.5	<1	200	µg/L	EPA 524.2/624
1,1,2-Trichloroethane	<1	<0.5	<0.5	<0.5	<1	5	µg/L	EPA 524.2/624
Trichloroethylene	<1	<0.5	<0.5	<0.5	<1	5	µg/L	EPA 524.2/624
Trichlorofluoromethane	<2	<0.5	<0.5	<0.5	<2	150	µg/L	EPA 524.2/624
1,1,2-Trichloro-1,2,2-Trifluoroethane	<0.5	<0.5	<0.5	<0.5	<0.5	1200	µg/L	EPA 524.2/624
Vinyl Chloride	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	µg/L	EPA 524.2/624
m,p-Xylene	<0.5	<0.5	<0.5	<0.5	<0.5	1750 ²	µg/L	EPA 524.2/624
o-Xylene	<0.5	<0.5	<0.5	<0.5	<0.5		µg/L	EPA 524.2/624
Non-Volatile Synthetic Organic Chemicals (SOCs)								
Alachlor (Alanex)	<0.1	<0.1	<0.1	<0.1	<0.1	2	µg/L	EPA 505
Atrazine	<0.5	<0.5	<0.5	<0.5	<0.5	1	µg/L	EPA 525.2
Bentazon	<0.5	<0.5	<0.5	<0.5	<0.5	18	µg/L	EPA 515.4
Benzo(a)pyrene	<0.2	<0.2	<0.2	<0.2	<0.2	0.2	µg/L	EPA 525.2
Carbofuran	<0.5	<0.5	<0.5	<0.5	<0.5	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	4	<1	3	5	3	200	µg/L	EPA 515.4
Dibromochloropropane	<0.01	<0.01	<0.01	<0.01	<0.01	0.2	µg/L	EPA 504.1
Di(2-ethylhexyl)adipate	<0.5	<0.5	<0.5	<0.5	<0.5	400	µg/L	EPA 525.2
Di(2-ethylhexyl)phthalate	<0.5	<0.5	<0.5	<0.5	<0.5	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	4Q13	1Q14	2Q14	3Q14	4Q Run. Avg. ¹	Limit	Unit	Method
Ethylene Dibromide	<0.01	<0.01	<0.01	<0.01	<0.01	0.05	µg/L	EPA 504.1
Glyphosate	<6	<6	<6	<6	<6	700	µg/L	EPA 547
Heptachlor	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	µg/L	EPA 505
Heptachlor Epoxide	<0.01	<0.01	0.01	<0.01	<0.01	0.01	µg/L	EPA 505
Hexachlorobenzene	<0.5	<0.5	<0.5	<0.5	<0.5	1	µg/L	EPA 525.2
Hexachlorocyclopentadiene	<0.5	<0.5	<0.5	<0.5	<0.5	50	µg/L	EPA 525.2
Lindane	<0.01	<0.01	<0.01	<0.01	<0.01	0.2	µg/L	EPA 505
Methoxychlor	<0.05	<0.05	<0.05	<0.05	<0.05	30	µg/L	EPA 505
Molinate	<0.5	<0.5	<0.5	<0.5	<0.5	20	µg/L	EPA 525.2
Oxamyl	<0.5	<0.5	<0.5	<0.5	<0.5	50	µg/L	EPA 531.2
Pentachlorophenol	<0.04	<0.04	<0.04	<0.04	<0.04	1	µg/L	EPA 515.4
Picloram	<0.1	<0.1	<0.1	<0.1	<0.1	500	µg/L	EPA 515.4
PCB 1016	<0.08	<0.08	<0.08	<0.08	<0.08	0.5	µg/L	EPA 505
PCB 1221	<0.1	<0.1	<0.1	<0.1	<0.1	0.5	µg/L	EPA 505
PCB 1232	<0.1	<0.1	<0.1	<0.1	<0.1	0.5	µg/L	EPA 505
PCB 1242	<0.1	<0.1	<0.1	<0.1	<0.1	0.5	µg/L	EPA 505
PCB 1248	<0.1	<0.1	<0.1	<0.1	<0.1	0.5	µg/L	EPA 505
PCB 1254	<0.1	<0.1	<0.1	<0.1	<0.1	0.5	µg/L	EPA 505
PCB 1260	<0.1	<0.1	<0.1	<0.1	<0.1	0.5	µg/L	EPA 505
Simazine	<0.5	<0.5	<0.5	<0.5	<0.5	4	µg/L	EPA 525.2
Thiobencarb	<0.5	<0.5	<0.5	<0.5	<0.5	70	µg/L	EPA 525.2
Toxaphene	<0.5	<0.5	<0.5	<0.5	<0.5	3	µg/L	EPA 505
2,3,7,8-TCDD (Dioxin)	<5	<5	<5	<5	<5	30	pg/L	EPA 1613
2,4,5-TP (Silvex)	<0.2	<0.2	<0.2	<0.2	<0.2	50	µg/L	EPA 515.4
Action Level Chemicals								
Copper	1.9	2.4	2.5	3.7	2.6	1300	µg/L	EPA 200.8
Lead	<0.5	<0.5	<0.5	<0.5	<0.5	15	µg/L	EPA 200.8
Radionuclides								
Combined Radium-226 and Radium 228	<0.12	<0.45	<0.06	<0.44	<0.45	5	pCi/L	EPA 903.0
Gross Alpha Particle Activity	<1	<3	<3	<3	<3	15	pCi/L	EPA 900.0/SM7110C
Tritium	<203	<233	<221	<447	<447	20,000	pCi/L	EPA 906
Strontium-90	<0.33	<0.49	<0.28	<0.28	<0.49	8	pCi/L	EPA 905
Gross Beta Particle Activity	10	10	13	13	11	50	pCi/L	EPA 900.0
Uranium	<0.7	<0.7	<0.7	<0.7	<0.7	20	pCi/L	EPA 200.8
Secondary Maximum Contaminant Level Chemicals								
Aluminum	30	230	41	28	82	200	µg/L	EPA 200.8
Copper	1.9	2.4	2.5	3.7	2.6	1000	µg/L	EPA 200.8
Corrosivity ³	NR	0.9 (Non-Cor.)	NR	NR	Non-Cor.	Non-Cor.	SI	SM 2330B
Foaming Agents (MBAS) ³	0.08	0.09	0.05	<0.05	0.07	0.5	mg/L	S5540C/EPA 425.1
Iron ³	NR	NR	NR	NR	109	300	µg/L	EPA 200.7
Manganese	16	19	6	6	12	50	µg/L	EPA 200.8
Methyl-tert-butyl ether (MTBE) ³	<0.5	<0.5	<0.5	<0.5	<0.5	5	µg/L	EPA 524.2
Odor--Threshold ³	17	2	2	8	7	3	TON	SM 2150B
Silver	<0.25	<0.25	<0.25	<0.25	<0.25	100	µg/L	EPA 200.8
Thiobencarb	<0.5	<0.5	<0.5	<0.5	<0.5	1	µg/L	EPA 525.2
Zinc	19	24	32	19	23	5000	µg/L	EPA 200.8
Miscellaneous Regulated Constituents								
Oil & Grease ⁴	<1	<1	<1	NA	<1	1	mg/L	EPA 1664
Disinfection Byproducts								
Bromate	<5	<5	<5	<1	<5	10	µg/L	EPA 300.1/317
Chlorite	<0.01	<0.01	<0.01	<0.01	<0.01	1	mg/L	EPA 300.0
BRK-LYS-25 BRK-LYS-25 HKYE-LYS-25 RP3-LYS-25								
Lysimeter Compliance Point Data	4Q13	1Q14	2Q14	3Q14				
Total Trihalomethanes (TTHMs)	2	<2	70	4	20	80	µg/L	EPA 524.2/624
Total Haloacetic Acids (HAA5)	<2	<2	<2	<2	<2	60	µg/L	S6251B

NR: Not required this quarter

NA: Not Analyzed. Two samples were collected during 4Q14 and the average reported

¹ 4-quarter running average is calculated based on ND values equal to half the detection limit. The reported 4-quarter running average value, if less than DL, will be based on highest DL found in the data set.

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

³ 4-quarter running average is calculated based on the four most recent results. Monitoring is required annually. However, if monitoring takes place more frequently than required, those results will be reported.

⁴ Oil & Grease compliance determination not based on 4-quarter running average

Bold signifies an exceedance of a limit in the Order. Explained in further detail in the report text.

Table 2-4
Recycled Water Monitoring: Remaining Priority Pollutants, EDCs & Pharmaceuticals, and Unregulated Chemicals
(Monitoring & Reporting Program)

Constituent	3Q14	Unit	Method	Constituent	3Q14	Unit	Method
Metals				Pesticides			
Chromium (III) ¹	0.8	µg/L	EPA 200.8	Aldrin	NR	µg/L	EPA 608
Volatile Organic Chemicals (VOCs)				BHC, alpha isomer	NR	µg/L	EPA 608
Acrolein	NR	µg/L	EPA 624	BHC, beta isomer	NR	µg/L	EPA 608
Acrylonitrile	NR	µg/L	EPA 624	BHC, delta isomer	NR	µg/L	EPA 608
Bromoform	1.3	µg/L	EPA 524.2/624	4,4'-DDT	NR	µg/L	EPA 608
Chlorodibromomethane	16.6	µg/L	EPA 524.2/624	4,4'-DDE	NR	µg/L	EPA 608
Chloroethane	<0.5	µg/L	EPA 524.2/624	4,4'-DDD	NR	µg/L	EPA 608
2-Chloroethylvinylether	NR	µg/L	EPA 524.2/624	Dieldrin	NR	µg/L	EPA 608
Chloroform	112	µg/L	EPA 524.2/624	Endosulfan I	NR	µg/L	EPA 608
Dichlorobromomethane	50	µg/L	EPA 524.2/624	Endosulfan II	NR	µg/L	EPA 608
Methyl Bromide	<1	µg/L	EPA 524.2/624	Endosulfan Sulfate	NR	µg/L	EPA 608
Methyl Chloride	<0.5	µg/L	EPA 524.2/624	Unregulated Chemicals			
Acid Extractables				Endrin Aldehyde	NR	µg/L	EPA 608
2-Chlorophenol	NR	µg/L	EPA 625	Chromium VI	0.22	µg/L	EPA 218.6
2,4-Dichlorophenol	NR	µg/L	EPA 625	Ethyl tertiary butyl ether	<0.5	µg/L	EPA 524.2
2,4-Dimethylphenol	NR	µg/L	EPA 625	Tertiary amyl methyl ether	<0.5	µg/L	EPA 524.2
2-Methyl-4,6-dinitrophenol	NR	µg/L	EPA 625	Chemicals w/ State Notification Levels ²			
2,4-Dinitrophenol	NR	µg/L	EPA 625	Boron	0.3	mg/L	EPA 200.7
2-Nitrophenol	NR	µg/L	EPA 625	n-butylbenzene	<0.5	µg/L	EPA 524.2
4-Nitrophenol	NR	µg/L	EPA 625	sec-butylbenzene	<0.5	µg/L	EPA 524.2
4-Chloro-3-methylphenol	NR	µg/L	EPA 625	tert-butylbenzene	<0.5	µg/L	EPA 524.2
Phenol	NR	µg/L	EPA 625	Carbon disulfide	<0.5	µg/L	EPA 524.2
2,4,6-Trichlorophenol	NR	µg/L	EPA 625	Chlorate	NR	µg/L	EPA 300.0
Base/Neutral Extractables				2-Chlorotoluene	<0.5	µg/L	EPA 524.2
Acenaphthene	NR	µg/L	EPA 625	4-Chlorotoluene	<0.5	µg/L	EPA 524.2
Acenaphthylene	NR	µg/L	EPA 625	Diazinon	NR	µg/L	EPA 525.2
Anthracene	NR	µg/L	EPA 625	Dichlorodifluoromethane (Freon 12)	<0.5	µg/L	EPA 524.2
Benzidine	NR	µg/L	EPA 625	1,4 - Dioxane	<1	µg/L	EPA 522
Benzo(a)anthracene	NR	µg/L	EPA 625	Ethylene glycol	NR	mg/L	EPA 8015B
Benzo(b)fluoranthene	NR	µg/L	EPA 625	Formaldehyde	NR	µg/L	EPA 556
Benzo(g,h,i)perylene	NR	µg/L	EPA 625	HMX	NR	µg/L	EPA 8330B
Benzo(k)fluoranthene	NR	µg/L	EPA 625	Isopropylbenzene	<0.5	µg/L	EPA 524.2
Bis(2-chloroethoxy)methane	NR	µg/L	EPA 625	Methyl isobutyl ketone (MIBK)	<2	µg/L	EPA 524.2
Bis(2-chloroethyl)ether	NR	µg/L	EPA 625	N-Nitrosodiethylamine (NDEA)	NR	ng/L	EPA 521
Bis(2-chloroisopropyl)ether	NR	µg/L	EPA 625	N-nitrosodimethylamine (NDMA)	<2	ng/L	EPA 521
4-Bromophenyl phenyl ether	NR	µg/L	EPA 625	Propachlor	NR	µg/L	EPA 525.2
Butyl benzyl phthalate	NR	µg/L	EPA 625	N-propylbenzene	<0.5	µg/L	EPA 524.2
2-Chloronaphthalene	NR	µg/L	EPA 625	RDX	NR	µg/L	EPA 8330B
4-Chlorophenyl phenyl ether	NR	µg/L	EPA 625	Tertiary butyl alcohol	<2	µg/L	EPA 524.2
Chrysene	NR	µg/L	EPA 625	1,2,3-Trichloropropane (1,2,3-TCP)	<0.5	µg/L	EPA 524.2
Dibenzo(a,h)anthracene	NR	µg/L	EPA 625	1,2,4-trimethylbenzene	<0.5	µg/L	EPA 524.2
1,3-Dichlorobenzene	NR	µg/L	EPA 625	1,3,5-trimethylbenzene	<0.5	µg/L	EPA 524.2
3,3-Dichlorobenzidine	NR	µg/L	EPA 625	2,4,6-Trinitrotoluene	NR	µg/L	EPA 8330B
Diethyl phthalate	NR	µg/L	EPA 625	Vanadium	3	µg/L	EPA 200.8
Dimethyl phthalate	NR	µg/L	EPA 625	Endocrine Disrupting Chemicals, Pharmaceuticals and Other Chemicals ²			
Di-n-butyl phthalate	NR	µg/L	EPA 625	Acetaminophen	NR	ng/L	LC-MS-MS
2,4-Dinitrotoluene	NR	µg/L	EPA 625	Bis Phenol A (BPA)	NR	ng/L	LC-MS-MS
2,6-Dinitrotoluene	NR	µg/L	EPA 625	Caffeine	NR	ng/L	LC-MS-MS
Di-n-octyl phthalate	NR	µg/L	EPA 625	Carbamazepine	NR	ng/L	LC-MS-MS
Azobenzene	NR	µg/L	EPA 625	DEET	NR	ng/L	LC-MS-MS
Fluoranthene	NR	µg/L	EPA 625	Estradiol	NR	ng/L	LC-MS-MS
Fluorene	NR	µg/L	EPA 625	Estrone	NR	ng/L	LC-MS-MS
Hexachlorobutadiene	NR	µg/L	EPA 625	Ethinyl Estradiol - 17 alpha	NR	ng/L	LC-MS-MS
Hexachlorocyclopentadiene	NR	µg/L	EPA 625	Fluoxetine	NR	ng/L	LC-MS-MS
Hexachloroethane	NR	µg/L	EPA 625	Gemfibrozil	NR	ng/L	LC-MS-MS
Indeno(1,2,3-cd)pyrene	NR	µg/L	EPA 625	Ibuprofen	NR	ng/L	LC-MS-MS
Isophorone	NR	µg/L	EPA 625	Iopromide	NR	ng/L	LC-MS-MS
Naphthalene	NR	µg/L	EPA 625	Progesterone	NR	ng/L	LC-MS-MS
Nitrobenzene	NR	µg/L	EPA 625	Sucralose	NR	ng/L	LC-MS-MS
N-Nitroso-di-n-propylamine	NR	µg/L	EPA 625	Sulfamethoxazole	NR	ng/L	LC-MS-MS
N-Nitrosodiphenylamine	NR	µg/L	EPA 625	Testosterone	NR	ng/L	LC-MS-MS
Phenanthrene	NR	µg/L	EPA 625	Triclosan	NR	ng/L	LC-MS-MS
Pyrene	NR	µg/L	EPA 625	Trimethoprim	NR	ng/L	LC-MS-MS

¹ Trivalent chromium is measured as total chromium

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

NR: Not Required (Annual Requirement)

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

Banana Basin									
Site	Depth, bgs	Date	TOC (Limit = 16 mg/L)	TN* (Limit = 5 mg/L)	TIN	NO ₃ -N	TKN+NO ₂ -N	NO ₂ -N	EC
Unit==>	feet	mm/dd/yy	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	µmho/cm
BNA-LYS-00	0	08/06/14	5.22	5.5	4.4	4.2	1.3	0.13	825
BNA-LYS-00	0	08/13/14	5.56	5.4	4.7	4.4	1.0	0.15	800
BNA-LYS-00	0	08/20/14	5.07	5.5	4.5	4.3	1.2	0.21	795
BNA-LYS-00	0	08/27/14	21.7	0.7	<0.2	<0.1	0.7	0.03	125
BNA-LYS-00	0	09/24/14	5.24	4.8	5.2	4.7	<0.5	0.14	820
BNA-LYS-25**	25	07/02/14	1.00	4.0	4.1	4.0	<0.5	<0.01	760
BNA-LYS-25**	25	07/09/14	0.95	3.8	3.8	3.7	<0.5	0.12	745
BNA-LYS-25**	25	07/17/14	0.87	4.6	4.0	3.9	0.7	0.10	724
BNA-LYS-25**	25	07/23/14	0.81	4.0	4.0	3.9	<0.5	0.10	732
BNA-LYS-25**	25	07/31/14	0.82	4.0	4.0	3.8	<0.5	0.16	735
BNA-LYS-25**	25	08/06/14	0.92	4.3	4.3	4.2	<0.5	0.12	750
BNA-LYS-25**	25	08/13/14	1.09	4.2	4.2	4.0	<0.5	0.15	775
BNA-LYS-25**	25	08/20/14	0.91	4.1	4.2	4.0	<0.5	0.12	775
BNA-LYS-25**	25	08/27/14	1.54	3.8	3.8	3.7	<0.5	0.11	775
BNA-LYS-25**	25	09/04/14	0.86	3.9	3.9	3.8	<0.5	0.14	765
BNA-LYS-25**	25	09/10/14	1.24	3.7	3.7	3.6	<0.5	0.10	765
BNA-LYS-25**	25	09/17/14	0.85	3.6	3.6	3.6	<0.5	0.03	775
BNA-LYS-25**	25	09/24/14	0.95	3.9	4.2	3.8	<0.5	0.13	760

Brooks Basin									
Site	Depth, bgs	Date	TOC	TN* (Limit = 5 mg/L)	TIN	NO ₃ -N	TKN+NO ₂ -N	NO ₂ -N	EC
Unit==>	feet	mm/dd/yy	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	µmho/cm
BRK-LYS-00	0	07/09/14	5.49	1.8	1.4	1.1	0.7	0.16	720
BRK-LYS-00	0	08/13/14	5.04	1.3	1.5	1.0	<0.5	0.25	740
BRK-LYS-00	0	09/08/14	5.54	2.5	2.1	1.3	1.2	0.22	755
BRK-LYS-25**	25	07/09/14	2.51	<0.6	0.2	<0.1	<0.5	0.11	745
BRK-LYS-25**	25	08/13/14	2.48	<0.6	0.4	0.1	<0.5	0.15	785
BRK-LYS-25**	25	09/08/14	2.74	<0.6	0.3	<0.1	<0.5	0.17	805

Hickory East Basin									
Site	Depth, bgs	Date	TOC (Limit = 16 mg/L)	TN*	TIN	NO ₃ -N	TKN+NO ₂ -N	NO ₂ -N	EC
Unit==>	feet	mm/dd/yy	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	µmho/cm
HKEYE-LYS-00	0	07/01/14	4.59	3.8	3.0	2.9	0.9	0.10	760
HKEYE-LYS-00	0	07/09/14	3.99	0.8	0.9	0.6	<0.5	0.15	750
HKEYE-LYS-00	0	07/17/14	3.86	4.1	3.0	2.9	1.2	0.10	755
HKEYE-LYS-00	0	07/23/14	3.76	3.2	3.2	3.1	<0.5	0.10	758
HKEYE-LYS-00	0	07/31/14	4.08	2.4	1.6	1.3	1.1	0.15	735
HKEYE-LYS-00	0	08/06/14	4.05	3.5	2.5	2.2	1.3	0.15	775
HKEYE-LYS-00	0	08/13/14	15.6	3.8	0.4	0.1	3.7	0.22	875
HKEYE-LYS-00	0	08/20/14	4.67	7.3	6.2	6.1	1.2	0.12	785
HKEYE-LYS-00	0	08/27/14	5.42	3.4	3.7	3.3	<0.5	0.12	805
HKEYE-LYS-00	0	09/04/14	4.89	3.2	3.2	3.1	<0.5	0.12	820
HKEYE-LYS-00	0	09/10/14	5.12	4.4	4.7	4.3	<0.5	0.11	825
HKEYE-LYS-00	0	09/17/14	5.20	6.3	4.9	4.9	1.4	0.03	835
HKEYE-LYS-00	0	09/24/14	5.15	1.8	2.0	1.4	<0.5	0.43	790
HKEYE-LYS-25**	25	07/01/14	1.95	3.5	3.5	3.4	<0.5	0.08	785
HKEYE-LYS-25**	25	07/09/14	1.56	3.3	3.3	3.2	<0.5	0.10	755
HKEYE-LYS-25**	25	07/17/14	1.46	3.4	3.7	3.3	<0.5	0.10	783
HKEYE-LYS-25**	25	07/23/14	1.34	3.2	3.2	3.1	<0.5	0.08	760
HKEYE-LYS-25**	25	07/31/14	1.15	3.0	3.0	2.9	<0.5	0.11	750
HKEYE-LYS-25**	25	08/06/14	1.66	2.9	3.0	2.8	<0.5	0.12	720
HKEYE-LYS-25**	25	08/13/14	1.52	3.3	3.4	3.1	<0.5	0.16	750
HKEYE-LYS-25**	25	08/20/14	1.58	3.5	3.6	3.4	<0.5	0.13	745
HKEYE-LYS-25**	25	08/27/14	1.60			3.4		0.13	760
HKEYE-LYS-25**	25	09/04/14	1.25	3.7	3.7	3.6	<0.5	0.13	780
HKEYE-LYS-25**	25	09/10/14	1.77	3.3	3.3	3.2	<0.5	0.12	810
HKEYE-LYS-25**	25	09/17/14	1.68	4.8	5.0	4.8	<0.5	0.02	835
HKEYE-LYS-25**	25	09/24/14	1.97***	5.0	5.0	4.9	<0.5	0.13	802

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

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

** Compliance lysimeter for their respective basin (Specifications A.7, A.10, and A.11 of the Order). The Brooks Basin and Hickory Basin lysimeters are part of alternative monitoring plans; the Brooks Basin lysimeter is only used for compliance with TN, and the Hickory Basin lysimeter is only used for compliance with TOC. Compliance with TOC at Brooks Basin, TN at Hickory Basin, and both constituents at other basins is measured at alternative points (see Table 2-5b)

*** Sample was re-analyzed due to original outlying value. However analysis was completed one day past holding time.

Table 2-5b
Alternative Monitoring Plans

Turner Basin					
Date	RW Blend*	RW Blend*	Turner 1 & 2	Turner 3 & 4	Turner 1 & 2 Turner 3 & 4
mg/L==>	TOC	TN	TOC (70% reduction)	TOC (85% reduction)	TN (87% reduction)
Limit ==>			16 mg/L	16 mg/L	5 mg/L
07/02/14	4.09	4.8	1.23	0.61	0.6
07/09/14	3.77	4.4	1.13	0.57	0.6
07/17/14	3.71	5.9	1.11	0.56	0.8
07/23/14	3.72	3.8	1.12	0.56	0.5
07/31/14	3.93	5.3	1.18	0.59	0.7
08/06/14	4.72	6.2	1.42	0.71	0.8
08/13/14	5.02	5.7	1.51	0.75	0.7
08/20/14	4.48	6.3	1.34	0.67	0.8
08/27/14	5.22	4.8	1.57	0.78	0.6
09/04/14	5.29	3.9	1.59	0.79	0.5
09/10/14	5.10	6.6	1.53	0.77	0.9
09/17/14	5.04	5.4	1.51	0.76	0.7
09/24/14	4.57	5.8	1.37	0.69	0.8

Ely Basin				
Date	RP-1 RW	RP-1 RW	Ely 3 East	Ely 3 East
mg/L==>	TOC	TN	TOC (76% reduction)	TN (52% reduction)
Limit ==>			16 mg/L	5 mg/L
07/07/14	5.68	5.7	1.36	2.7
07/17/14	5.98	3.7	1.44	1.8
07/21/14	6.24	4.2	1.50	2.0
07/28/14	5.28	4.4	1.27	2.1
08/04/14	5.72	3.3	1.37	1.6
08/11/14	5.35	3.0	1.28	1.5
08/18/14	5.40	3.5	1.30	1.7
08/25/14	5.89	3.2	1.41	1.6
09/02/14	5.82	3.3	1.40	1.6
09/09/14	5.57	4.7	1.34	2.3
09/15/14	5.49	2.8	1.32	1.4
09/22/14	5.14	4.2	1.23	2.0
09/29/14	5.21	5.5	1.25	2.6

RP3 Basin				
Date	RW Blend*	RW Blend*	RP3	RP3
mg/L==>	TOC	TN	TOC (88% reduction)	TN (31% reduction)
Limit ==>			16 mg/L	5 mg/L
07/02/14	4.09	4.8	0.49	3.3
07/09/14	3.77	4.4	0.45	3.0
07/17/14	3.71	5.9	0.45	4.1
07/23/14	3.72	3.8	0.45	2.6
07/31/14	3.93	5.3	0.47	3.7
08/06/14	4.72	6.2	0.57	4.3
08/13/14	5.02	5.7	0.60	4.0
08/20/14	4.48	6.3	0.54	4.4
08/27/14	5.22	4.8	0.63	3.3
09/04/14	5.29	3.9	0.63	2.7
09/10/14	5.10	6.6	0.61	4.6
09/17/14	5.04	5.4	0.60	3.7
09/24/14	4.57	5.8	0.55	4.0

8th Street Basin				
Date	RW Blend*	RW Blend*	8th Street	8th Street
mg/L==>	TOC	TN	TOC (59% reduction)	TN (75% reduction)
Limit ==>			16 mg/L	5 mg/L
07/02/14	4.09	4.8	1.68	1.2
07/09/14	3.77	4.4	1.55	1.1
07/17/14	3.71	5.9	1.52	1.5
07/23/14	3.72	3.8	1.53	0.9
07/31/14	3.93	5.3	1.61	1.3
08/06/14	4.72	6.2	1.94	1.5
08/13/14	5.02	5.7	2.06	1.4
08/20/14	4.48	6.3	1.84	1.6
08/27/14	5.22	4.8	2.14	1.2
09/04/14	5.29	3.9	2.17	1.0
09/10/14	5.10	6.6	2.09	1.7
09/17/14	5.04	5.4	2.07	1.4
09/24/14	4.57	5.8	1.87	1.5

*The recycled water blend of RP-1 & RP-4 effluent is sampled at the NRG Energy (formerly Reliant Energy) turnout point

Table 2-5b
Alternative Monitoring Plans

San Sevaine 5 Basin				
Date	RW Blend*	RW Blend*	San Sevaine 5	San Sevaine 5
mg/L==>	TOC	TN	TOC (78% reduction)	TN (69% reduction)
Limit ==>			16 mg/L	5 mg/L
07/02/14	4.09	4.8	0.90	1.5
07/09/14	3.77	4.4	0.83	1.4
07/17/14	3.71	5.9	0.82	1.8
07/23/14	3.72	3.8	0.82	1.2
07/31/14	3.93	5.3	0.86	1.7
08/06/14	4.72	6.2	1.04	1.9
08/13/14	5.02	5.7	1.10	1.8
08/20/14	4.48	6.3	0.99	2.0
08/27/14	5.22	4.8	1.15	1.5
09/04/14	5.29	3.9	1.16	1.2
09/10/14	5.10	6.6	1.12	2.0
09/17/14	5.04	5.4	1.11	1.7
09/24/14	4.57	5.8	1.01	1.8

Victoria Basin				
Date	RW Blend*	RW Blend*	Victoria	Victoria
mg/L==>	TOC	TN	TOC (78% reduction)	TN (82% reduction)
Limit ==>			16 mg/L	5 mg/L
07/02/14	4.09	4.8	0.90	0.9
07/09/14	3.77	4.4	0.83	0.8
07/17/14	3.71	5.9	0.82	1.1
07/23/14	3.72	3.8	0.82	0.7
07/31/14	3.93	5.3	0.86	1.0
08/06/14	4.72	6.2	1.04	1.1
08/13/14	5.02	5.7	1.10	1.0
08/20/14	4.48	6.3	0.99	1.1
08/27/14	5.22	4.8	1.15	0.9
09/04/14	5.29	3.9	1.16	0.7
09/10/14	5.10	6.6	1.12	1.2
09/17/14	5.04	5.4	1.11	1.0
09/24/14	4.57	5.8	1.01	1.0

*The recycled water blend of RP-1 & RP-4 effluent is sampled at the NRG Energy (formerly Reliant Energy) turnout point

Brooks Basin				
Date	BRK-LYS-00	BRK-LYS-00	BRK-LYS-00	BRK-LYS-00
mg/L==>	TOC	TN	EC	
07/09/14	5.49	1.8	720	
08/13/14	5.04	1.3	740	
09/08/14	5.54	2.5	755	
Date	BRK-LYS-25	BRK-LYS-25	BRK-LYS-25	BRK-LYS-25
mg/L==>	TOC	TN* (Limit = 5 mg/L)	EC	
07/09/14	2.51	<0.1	745	
08/13/14	2.48	<0.1	785	
09/08/14	2.74	0.2	805	
Date	BRK-1/1	BRK-1/1	BRK-1/1	BRK-1/1
mg/L==>	TOC* (Limit = 16 mg/L)	TN	EC	Cl
07/01/14	0.86	4.0	560	85
08/19/14	0.59	2.1	590	87
09/09/14	0.58	2.9	605	

Hickory Basin		
Date	BH-1/2**	BH-1/2
mg/L==>	TN (Limit - 5 mg/L)	EC
07/28/14	2.2	495
08/27/14	2.0	500
09/17/14	1.9	500

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

**BH-1/2 was approved to be the TN compliance point for Hickory Basin by the RWQCB on 7/29/13

Table 2-6
Diluent Water Monitoring*: Local Runoff

Constituent	Declez Channel @ Declez Basin 09/03/14 & 0916/14	San Sevaine Creek @ Jurupa Basin** 09/04/14	Unit	Method
NO ₂ -N	0.14	0.12	mg/L	EPA 300.0
NO ₃ -N	0.5	1.3	mg/L	EPA 300.0
TDS	270	408	mg/L	SM 2540C
Total Coliform	1200	5000	mpn/100ml	SM 9221B
Oil & Grease	<1	<1	mg/L	EPA 1664A
Inorganic Chemicals				
Aluminum	145	86	µg/L	EPA 200.7
Antimony	1	<1	µg/L	EPA 200.8
Arsenic	<2	<2	µg/L	EPA 200.8
Asbestos	<2.0	<0.4	MFL	EPA 100.2
Barium	32	28	µg/L	EPA 200.7
Beryllium	<0.5	<0.5	µg/L	EPA 200.7
Cadmium	<0.25	<0.25	µg/L	EPA 200.7
Chromium	2.2	1.7	µg/L	EPA 200.7
Cyanide	<5	<5	µg/L	ASTM D7284
Fluoride	0.3	0.2	mg/L	SM 4500-F C
Mercury	<0.05	<0.05	µg/L	EPA 245.2
Nickel	2	2	µg/L	EPA 200.7
Perchlorate	<4	<4	µg/L	EPA 314
Selenium	<2	<2	µg/L	EPA 200.8
Thallium	<1	<1	µg/L	EPA 200.8
Volatile Organic Chemicals (VOCs)				
Benzene	<0.5	<0.5	µg/L	EPA 524.2
Carbon Tetrachloride	<0.5	<0.5	µg/L	EPA 524.2
1,2-Dichlorobenzene	<0.5	<0.5	µg/L	EPA 524.2
1,4-Dichlorobenzene	<0.5	<0.5	µg/L	EPA 524.2
1,1-Dichloroethane	<0.5	<0.5	µg/L	EPA 524.2
1,2-Dichloroethane	<0.5	<0.5	µg/L	EPA 524.2
1,1-Dichloroethylene	<0.5	<0.5	µg/L	EPA 524.2
cis-1,2-Dichloroethylene	<0.5	<0.5	µg/L	EPA 524.2
trans-1,2-Dichloroethylene	<0.5	<0.5	µg/L	EPA 524.2
Dichloromethane	<0.5	<0.5	µg/L	EPA 524.2
1,2-Dichloropropane	<0.5	<0.5	µg/L	EPA 524.2
1,3-Dichloropropene	<0.5	<0.5	µg/L	EPA 524.2
Ethylbenzene	<0.5	<0.5	µg/L	EPA 524.2
Chlorobenzene	<0.5	<0.5	µg/L	EPA 524.2
Methyl Tert-butyl ether (MTBE)	<0.5	<0.5	µg/L	EPA 524.2
Styrene	<0.5	<0.5	µg/L	EPA 524.2
1,1,2,2-Tetrachloroethane	<0.5	<0.5	µg/L	EPA 524.2
Tetrachloroethylene	<0.5	<0.5	µg/L	EPA 524.2
Toluene	<0.5	<0.5	µg/L	EPA 524.2
1,2,4-Trichlorobenzene	<0.5	<0.5	µg/L	EPA 524.2
1,1,1-Trichloroethane	<0.5	<0.5	µg/L	EPA 524.2
1,1,2-Trichloroethane	<0.5	<0.5	µg/L	EPA 524.2
Trichloroethylene	<0.5	<0.5	µg/L	EPA 524.2
Trichlorofluoromethane	<0.5	<0.5	µg/L	EPA 524.2
1,1,2-Trichloro-1,2,2-Trifluoroethane	<0.5	<0.5	µg/L	EPA 524.2
Vinyl Chloride	<0.5	<0.5	µg/L	EPA 524.2
Total Xylenes	<1	<1	µg/L	EPA 524.2
Non-Volatile Synthetic Organic Chemicals (SOCs)				
Alachlor (Alanex)	<0.1	<0.1	µg/L	EPA 505
Atrazine	<0.5	<0.5	µg/L	EPA 525.2
Bentazon	<0.5	<0.5	µg/L	EPA 515.4
Benzo(a)pyrene	<0.2	<0.2	µg/L	EPA 525.2
Carbofuran	<0.5	<0.5	µg/L	EPA 531.2
Chlordane	<0.1	<0.1	µg/L	EPA 505
2,4-D	0.2	<0.1	µg/L	EPA 515.4
Dalapon	<1	5	µg/L	EPA 515.4
Dibromochloropropane	<0.01	<0.01	µg/L	EPA 504.1
Di(2-ethylhexyl)adipate	<0.5	<0.5	µg/L	EPA 525.2
Di(2-ethylhexyl)phthalate	<0.5	<0.5	µg/L	EPA 525.2
Dinoseb	<0.2	<0.2	µg/L	EPA 515.4
Diquat	<0.4	<0.4	µg/L	EPA 549.2
Endothall	<5	<5	µg/L	EPA 548.1
Endrin	<0.01	<0.01	µg/L	EPA 505
Ethylene Dibromide	<0.01	<0.01	µg/L	EPA 504.1
Glyphosate	<6	<6	µg/L	EPA 547
Heptachlor	<0.01	<0.01	µg/L	EPA 505

Table 2-6
Diluent Water Monitoring*: Local Runoff

Constituent	Declez Channel @ Declez Basin 09/03/14 & 0916/14	San Sevaine Creek @ Jurupa Basin** 09/04/14	Unit	Method
Heptachlor Epoxide	<0.01	<0.01	µg/L	EPA 505
Hexachlorobenzene	<0.5	<0.5	µg/L	EPA 525.2
Hexachlorocyclopentadiene	<0.5	<0.5	µg/L	EPA 525.2
Lindane	<0.01	<0.01	µg/L	EPA 505
Methoxychlor	<0.05	<0.05	µg/L	EPA 505
Molinate	<0.5	<0.5	µg/L	EPA 525.2
Oxamyl	<0.5	<0.5	µg/L	EPA 531.2
Pentachlorophenol	<0.04	<0.04	µg/L	EPA 515.4
Picloram	<0.1	<0.1	µg/L	EPA 515.4
PCB 1016	<0.08	<0.08	µg/L	EPA 505
PCB 1221	<0.1	<0.1	µg/L	EPA 505
PCB 1232	<0.1	<0.1	µg/L	EPA 505
PCB 1242	<0.1	<0.1	µg/L	EPA 505
PCB 1248	<0.1	<0.1	µg/L	EPA 505
PCB 1254	<0.1	<0.1	µg/L	EPA 505
PCB 1260	<0.1	<0.1	µg/L	EPA 505
Simazine	<0.5	<0.5	µg/L	EPA 525.2
Thiobencarb	<0.5	<0.5	µg/L	EPA 525.2
Toxaphene	<0.5	<0.5	µg/L	EPA 505
2,3,7,8-TCDD (Dioxin)	<2.02	<1.95	pg/L	EPA 1613
2,4,5-TP (Silvex)	<0.2	<0.2	µg/L	EPA 515.4
Disinfection Byproducts				
Total Trihalomethanes (TTHMs)	<2	17	µg/L	EPA 524.2/624
Total Haloacetic Acids (HAA5)	8	180	µg/L	SM 6251B
Bromate	3	<1	µg/L	EPA 300.1/317
Chlorite	<0.01	<0.01	mg/L	EPA 300.0
Action Level Chemicals				
Copper	9.6	7.7	µg/L	EPA 200.7
Lead	<0.5	<0.5	µg/L	EPA 200.8
Radionuclides				
Combined Radium-226 & Radium 228	<0.490	<0.496	pCi/L	EPA 903.0
Gross Alpha Particle Activity	4	<3	pCi/L	EPA 900.0/SM7110C
Tritium	<1000	<444	pCi/L	EPA 906.0
Strontium-90	0.445	<0.323	pCi/L	EPA 905.0
Gross Beta Particle Activity	7.9	7.3	pCi/L	EPA 900.0
Uranium	1.1	0.8	pCi/L	EPA 200.8
Unregulated Chemicals				
Chromium VI	1.1	0.3	µg/L	EPA 218.6
Ethyl tertiary butyl ether	<0.5	<0.5	µg/L	EPA 524.2
Tertiary amyl methyl ether	<0.5	<0.5	µg/L	EPA 524.2
Chemicals w/ State Notification Levels				
Boron	<0.1	0.2	mg/L	EPA 200.7
n-butylbenzene	<0.5	<0.5	µg/L	EPA 524.2
sec-butylbenzene	<0.5	<0.5	µg/L	EPA 524.2
tert-butylbenzene	<0.5	<0.5	µg/L	EPA 524.2
Carbon disulfide	<0.5	<0.5	µg/L	EPA 524.2
2-Chlorotoluene	<0.5	<0.5	µg/L	EPA 524.2
4-Chlorotoluene	<0.5	<0.5	µg/L	EPA 524.2
Dichlorodifluoromethane (Freon 12)	<0.5	<0.5	µg/L	EPA 524.2
1,4 - Dioxane	<1	<1	µg/L	EPA 522
Isopropylbenzene	<0.5	<0.5	µg/L	EPA 524.2
Methyl isobutyl ketone (MIBK)	<2	<2	µg/L	EPA 524.2
N-nitrosodimethylamine (NDMA)	<2	5	ng/l	EPA 521
N-propylbenzene	<0.5	<0.5	µg/L	EPA 524.2
1,2,3-Trichloropropane (1,2,3-TCP)	<0.5	<0.5	µg/L	EPA 524.2
1,2,4 -trimethylbenzene	<0.5	<0.5	µg/L	EPA 524.2
1,3,5-trimethylbenzene	<0.5	<0.5	µg/L	EPA 524.2
Vanadium	9	6	µg/L	EPA 200.8
Secondary Maximum Contaminant Level Chemicals				
Aluminum	145	86	µg/L	EPA 200.7
Corrosivity	2.0	2.0	SI	SM 2330B
Foaming Agents (MBAS)	0.12	0.06	mg/L	SM 5540C/EPA 425.1
Iron	217	121	µg/L	EPA 200.7
Manganese	6	10	µg/L	EPA 200.7
Odor--Threshold	8	2	TON	SM 2150B
Silver	<0.25	<0.25	µg/L	EPA 200.7
Thiobencarb	<0.5	<0.5	µg/L	EPA 525.2
Zinc	16	29	µg/L	EPA 200.7

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

**Sample was collected when recycled water was in the channel.

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
Brooks Basins	601039	Inland Empire Utilities Agency - 8TH-2/2	2460 downgradient	576-616	4	Active	Monitoring
	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 Seavine 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 2-8
Groundwater Monitoring Well Results (Quarterly)

	Sample Location	Date	TOC (mg/L)	Total Coliform (MPN/100mL)	pH	EC (µmho/cm)	TDS (mg/L)	Al (µg/L)	Color (units)	Cu (µg/L)	Corrosivity Index (SI)	Foaming Agents (mg/L)	Fe (µg/L)	Mn (µg/L)	MTBE (µg/L)	Odor Threshold (TON)	Ag (µg/L)	Thiobencarb (µg/L)	Turbidity (NTU)	Zn (µg/L)	Cl (mg/L)	Hardness (mg CaCO ₃ /L)	Na (mg/L)	SO ₄ (mg/L)	NH ₃ -N (mg/L)	NO ₂ -N (mg/L)	NO ₃ -N (mg/L)	Nitrogen, Total (mg/L)	TKN (mg/L)	Alkalinity (mg CaCO ₃ /L)	Dissolved Oxygen (mg/L)
Banana & Hickory	Fontana Water Co. - F37a	07/16/14	0.38	23	7.9	500	334	<25	<3	0.7	0.6	<0.05	<15	<1	<0.5	2	<0.25	<0.2	0.53	2	24	243	20	24	<0.1	0.09	11.5	11.6	<0.5	160	6.60
	California Speedway - Infield Well	08/06/14	0.40	<1.1	8.2	605	404	<25	<3	0.9	0.4	<0.05	<15	<1	<0.5	1	<0.25	<0.2	0.18	<1	31	295	24	85	<0.1	0.09	9.3	9.4	<0.5	161	4.92
	California Speedway 2	08/12/14	0.16	<1.1	7.4	411	268	<25	<3	1.2	0.2	<0.05	20	<1	<0.5	1	<0.25	<0.2	0.06	210	17	192	20	20	<0.1	0.08	6.0	6.1	<0.5	157	5.20
	Reliant Energy - East Well	08/12/14	0.14	<1.1	7.6	370	252	<25	<3	1.7	0.1	0.05	<15	<1	<0.5	1	2.33	<0.2	0.17	1	17	165	19	15	<0.1	0.07	7.9	14.0	6.0	126	4.89
	Ontario Well No. 20	07/14/14	0.22	<1.1	8.0	360	230	<25	<3	<0.5	0.7	<0.05	<15	<1	<0.5	1	<0.25		0.85	<1	10	181	14	6	<0.1	0.10	2.1	2.2	<0.5	169	5.19
	BH-1/2*	07/28/14	0.46	<1.1	8.1	495	334	<25	<3	<0.5	0.3	<0.05	<15	1	<0.5	2	<0.25	<0.2	2.60	1	66	198	26	29	<0.1	0.08	2.1	2.2	<0.5	122	6.00
Turner	Ontario Well No. 25	07/14/14	0.32	<1.1	7.7	435	284	<25	<3	<0.5	0.5	<0.05	<15	<1	<0.5	1	<0.25		0.06	<1	17	193	24	16	<0.1	0.17	4.4	4.6	<0.5	173	5.38
	Ontario Well No. 29	07/31/14	0.24	<1.1	8.1	325	218	<25	<3	0.7	0.2	<0.05	35	1	<0.5	1	<0.25	<0.2	0.24	<1	9	143	23	12	<0.1	0.08	1.2	1.3	<0.5	151	4.77
	Ontario Well No. 38	07/31/14	0.17	<1.1	8.4	305	190	<25	<3	0.6	0.4	<0.05	<15	<1	<0.5	1	<0.25	<0.2	0.11	2	5	137	21	7	<0.1	0.08	1.4	1.5	<0.5	145	5.85
	T-1/2*	07/10/14	1.25	<1.1	7.5	610	422	<25	<3	0.7	0.2	<0.05	<15	2	<0.5	2	<0.25	<0.2	0.44	1	87	263	27	28	<0.1	0.10	1.7	1.8	<0.5	144	2.46
	T-2/1*	07/10/14	0.84	<1.1	7.5	700	450	<25	<3	0.9	0.2	<0.05	<15	<1	<0.5	2	<0.25	<0.2	1.42	2	106	294	40	40	<0.1	<0.02	3.1	3.1	<0.5	138	1.98
	T-2/2*	08/13/14	0.72	<1.1	7.3	690	450	<25	<3	1.9	0.1	<0.05	<15	<1	<0.5	1	<0.25	<0.2	0.41	3	112	279	35	46	<0.1	0.13	3.9	4.0	<0.5	131	2.79
RP3	Southridge JHS*	08/18/14	0.82	1.1	7.2	929	602	<25	15	1.7	0.2	<0.05	<15	19	<0.5	1	<0.25	<0.2	8.80	1	93	372	56	76	<0.1	0.13	16.3	16.4	<0.5	213	3.91
	Fontana Water Co. - F23a	07/16/14	0.22	<1.1	8.1	380	230	<25	<3	<0.5	0.4	<0.05	<15	<1	<0.5	1	<0.25	<0.2	0.13	<1	19	167	19	19	<0.1	0.18	5.3	5.5	<0.5	135	5.94
	Alcoa MW1*	08/06/14	0.38	<1.1	8.2	630	448	<25	<3	0.9	0.3	<0.05	<15	<1	<0.5	1	<0.25	<0.2	0.55	8	75	271	29	27	0.3	0.10	13.6	13.7	<0.5	136	6.01
	Alcoa MW3*	07/21/14	0.46	<1.1	7.5	775	554	<25	<3	1.0	0.2	<0.05	31	1	<0.5	1	<0.25	<0.2	0.22	12	59	330	39	48	<0.1	0.09	16.9	17.0	<0.5	204	5.24
	RP3-1/1*	07/10/14	0.98	<1.1	7.4	695	430	<25	<3	1.3	0.2	<0.05	<15	22	<0.5	2	<0.25	<0.2	2.13	2	96	268	55	40	<0.1	0.11	3.2	3.3	<0.5	152	0.74
	RP3-1/2*	07/10/14	1.10	1.1	7.1	585	366	<25	<3	40	-0.3	<0.05	<15	391	<0.5	2	<0.25	<0.2	1.21	20	90	218	45	34	<0.1	0.21	1.4	1.6	<0.5	116	3.40
8th Street	Ontario Well No. 35	07/31/14	0.17	2.2	8.2	350	220	<25	<3	1.2	0.2	<0.05	<15	<1	<0.5	1	<0.25	<0.2	0.10	<1	11	154	23	21	<0.1	0.08	3.1	3.2	<0.5	143	3.23
	8TH-1/1*	08/19/14	0.60	<1.1	7.4	565	408	<25	20	0.5	0.0	<0.05	<15	4	<0.5	1	<0.25	<0.2	12.4	4	90	255	13	27	<0.1	0.09	3.0	3.1	<0.5	109	5.27
	8TH-1/2*	08/19/14	0.33	<1.1	7.6	335	232	<25	<3	0.5	-0.1	<0.05	<15	4	<0.5	<1	<0.25	<0.2	0.88	1	36	139	15	17	<0.1	0.06	1.6	1.7	<0.5	95	5.47
	8TH-2/1*	07/02/14	0.50	<1.1	7.4	405	232	<25	<3	<0.5	0.2	<0.05	<15	<1	<0.5	1	<0.25	<0.2	0.16	<1	17	208	14	14	0.2	0.13	6.0	6.1	<0.5	158	5.50
	8TH-2/2*	07/29/14	0.28		8.0	370	246	<25	<3	<0.5	0.0	<0.05	<15	<1	<0.5	1	<0.25	<0.2	0.52	4	20	169	15	24	<0.1	0.06	5.3	5.4	<0.5	112	5.87
Brooks	Pomona Well No. 10	07/22/14	0.31	<1.1	8.1	505	332	<25	<3	<0.5	0.5	<0.05	<15	<1	<0.5	<1	<0.25	<0.2	0.09	<1	36	252	13	38	<0.1	0.08	6.8	6.9	<0.5	141	4.67
	Pomona Well No. 2	07/22/14	0.38	<1.1	8.1	555	348	<25	<3	1.3	0.6	<0.05	<15	<1	<0.5	<1	<0.25	<0.2	0.12	3	39	282	14	50	<0.1	0.08	8.1	8.2	<0.5	148	5.17
	Pomona Well No. 34	07/22/14	0.33	<1.1	8.1	545	360	<25	<3	1.9	0.5	<0.05	<15	<1	<0.5	<1	<0.25	<0.2	0.08	4	30	271	13	41	<0.1	0.07	13.0	13.1	<0.5	146	4.93
	BRK-1/1*	07/01/14	0.86	<1.1	7.5	560	378	<25	<3	<0.5	0.1	<0.05	<15	1	<0.5	<1	<0.25	<0.2	0.78	<1	85	254	20	29	<0.1	<0.02	3.4	4.0	0.6	121	5.02
	BRK-1/2*	07/01/14	0.43	<1.1	7.5	585	396	<25	<3	<0.5	0.4	0.07	<15	<1	<0.5	<1	<0.25	<0.2	0.18	<1	24	286	16	46	<0.1	0.15	20.0	20.2	<0.5	149	5.32
	BRK-2/1*	07/28/14	0.49	<1.1	7.9	580	364	<25	5	0.6	0.5	<0.05	52	3	<0.5	2	<0.25	<0.2	3.40	15	37	295	11	44	<0.1	0.08	8.8	8.9	<0.5	171	4.78
	BRK-2/2*	07/28/14	0.27	<1.1	7.8	319	208	<25	<3	<0.5	0.4	<0.05	<15	<1	<0.5	2	<0.25	<0.2	0.28	2	7	99	34	20	<0.1	0.07	5.2	5.3	<0.5	121	4.48
Ely	Ely Basin MW1 Philadelphia St.*	08/05/14	0.92	<1.1	8.1	660	404	<25	<3	1.1	0.2	<0.05	<15	13	<0.5	1	<0.25	<0.2	1.40	2	111	267	37	36	0.5	0.14	1.7	1.8	<0.5	118	0.54
	Ely Basin MW2 Walnut St.*	08/11/14	0.68	23	7.1	1115	696	<25	<3	1.3	0.6	0.05	<15	4	<0.5	2	<0.25	<0.2	0.49	3	64	561	42	79	<0.1	0.13	26.5	26.6	<0.5	345	3.05
	Riverside Well (43840-CWW)	07/22/14	0.38	<1.1	8.1	580	380	<25	<3	<0.5	0.6	<0.05	34	<1	<0.5	1	<0.25	<0.2	0.29	20	29	276	23	34	<0.1	0.08	11.3	11.4	<0.5	185	4.20
	Bishop of SB Corp. - DOM	07/22/14	0.38	2.2	8.2	740	440	<25	<3	<0.5	0.9	0.07	39	2	<0.5	1	<0.25	<0.2	0.63	2	35	370	24	58	<0.1	0.09	17.6	17.7	<0.5	221	4.52
Victoria & San Sevaline	SS-1/1*	08/04/14	0.36	<1.1	7.7	265	180	<25	<3	0.7	-0.5	<0.05	<15	4	<0.5	1	<0.25	<0.2	1.50	7	15										

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

Date	Diluent Water																		Recycled Water								
	Imported Water									Local Runoff / Storm Flow																	
	7th & 8th St.	Banana	Brooks	Ely	Hickory	RP3	San Savaine	Turner	Victoria	7th & 8th St.	Banana	Brooks	Ely	Hickory	RP3	San Savaine	Turner	Victoria	7th & 8th St.	Banana	Brooks	Ely	Hickory	RP3	San Savaine	Turner	Victoria
Oct-13	0	0	0	0	0	0	0	0	0	48	0	23	15	1	54	11	20	7	239	385	108	358	1	218	69	117	0
Nov-13	0	0	0	0	0	0	0	0	0	49	22	4	21	59	60	39	17	12	249	102	94	421	339	64	9	89	0
Dec-13	0	0	0	0	0	0	0	0	0	45	6	8	24	8	73	5	77	10	121	0	104	413	108	324	0	259	118
4Q13 Total	0	0	0	0	0	0	0	0	0	142	28	35	60	68	186	56	113	29	609	487	306	1192	447	606	78	465	118
Jan-14	0	8	0	0	3	86	0	0	0	27	9	3	8	9	44	0	61	2	118	0	109	211	86	92	12	241	158
Feb-14	0	16	0	0	1	66	0	0	0	59	39	47	294	19	131	69	156	37	78	0	102	194	67	131	16	191	191
Mar-14	22	0	0	0	0	160	0	0	0	45	9	12	63	13	103	20	113	99	26	85	130	108	224	103	0	67	142
1Q14 Total	22	24	0	0	4	312	0	0	0	131	57	62	364	41	277	88	331	137	222	85	341	512	376	325	27	498	491
Apr-14	0	0	0	0	10	38	0	0	0	79	2	14	83	23	47	17	61	15	21	88	65	218	379	96	2	105	250
May-14	0	0	0	0	0	0	0	0	0	26	0	0	9	33	3	0	44	2	65	194	0	241	292	3	12	304	214
Jun-14	0	0	0	0	0	0	0	0	0	24	0	19	15	2	6	0	35	2	52	190	48	186	212	178	0	86	144
2Q14 Total	0	0	0	0	10	38	0	0	0	129	2	33	107	57	56	17	140	18	137	472	113	645	883	278	13	495	607
Jul-14	0	0	0	0	0	0	0	0	0	0	0	0	16	0	9	0	11	2	8	0	72	101	118	184	0	0	91
Aug-14	0	0	0	0	0	0	0	0	0	0	0	7	16	0	23	6	76	5	8	82	141	8	82	192	0	205	107
Sep-14	0	0	0	0	0	0	0	0	0	0	0	1	15	0	40	1	54	2	32	72	157	121	236	243	1	128	155
3Q14 Total	0	0	0	0	0	0	0	0	0	0	0	9	46	0	72	7	142	9	48	153	369	231	436	619	1	333	353

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)
4Q13	Oct-13	0.0	<0.4	320	0	14.0	370	(565)	(12,462)	(297,932)
	Nov-13	0.0	<0.4	320	0	14.0	370	(565)	(12,462)	(297,932)
	Dec-13	0.0	<0.4	320	0	14.0	370	(566)	(12,463)	(297,960)
1Q14	Jan-14	0.0	0.7	320	0	14.0	370	(566)	(12,463)	(297,960)
	Feb-14	0.0	0.7	320	0	14.0	370	(566)	(12,463)	(297,960)
	Mar-14	0.0	0.7	320	0	14.0	370	(566)	(12,463)	(297,960)
2Q14	Apr-14	0.0	0.7	320	0	14.0	370	(566)	(12,463)	(297,960)
	May-14	0.0	0.7	320	15	14.0	370	(580)	(12,718)	(304,697)
	Jun-14	0.0	0.7	320	18	14.0	370	(598)	(13,022)	(312,739)
3Q14	Jul-14	0.0	0.7	320	25	14.0	370	(623)	(13,460)	(324,306)
	Aug-14	0.0	0.7	320	14	14.0	370	(637)	(13,703)	(330,751)
	Sep-14	0.0	0.7	320	0	14.0	370	(637)	(13,703)	(330,751)

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)
4Q13	Oct-13	0.0	<0.4	320	0	3.5	310	551	(2,805)	89,978
	Nov-13	0.0	<0.4	320	0	3.5	310	551	(2,805)	89,978
	Dec-13	0.0	<0.4	320	0	3.5	310	551	(2,805)	89,978
1Q14	Jan-14	0.0	0.7	320	0	3.5	310	551	(2,806)	89,837
	Feb-14	0.8	0.7	320	9	3.5	310	542	(2,846)	86,550
	Mar-14	0.0	0.7	320	0	3.5	310	542	(2,846)	86,550
2Q14	Apr-14	0.0	0.7	320	0	3.5	310	542	(2,846)	86,550
	May-14	0.0	0.7	320	0	3.5	310	542	(2,846)	86,550
	Jun-14	0.0	0.7	320	187	3.5	310	356	(3,639)	15,211
3Q14	Jul-14	0.0	0.7	320	274	3.5	310	81	(4,806)	(89,601)
	Aug-14	0.0	0.7	320	241	3.5	310	(160)	(5,832)	(181,778)
	Sep-14	0.0	0.7	320	2	3.5	310	(161)	(5,839)	(182,425)

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)
4Q13	Oct-13	0.0	<0.4	320	278	3.5	340	(3,218)	(9,339)	(824,556)
	Nov-13	0.0	<0.4	320	202	3.5	340	(3,419)	(10,209)	(909,132)
	Dec-13	0.0	<0.4	320	104	3.5	340	(3,524)	(10,659)	(952,833)
1Q14	Jan-14	0.0	0.7	320	82	3.5	340	(3,606)	(11,015)	(987,407)
	Feb-14	0.0	0.7	320	0	3.5	340	(3,606)	(11,015)	(987,407)
	Mar-14	0.0	0.7	320	0	3.5	340	(3,606)	(11,015)	(987,407)
2Q14	Apr-14	0.0	0.7	320	0	3.5	340	(3,606)	(11,015)	(987,407)
	May-14	0.0	0.7	320	0	3.5	340	(3,606)	(11,015)	(987,407)
	Jun-14	0.0	0.7	320	37	3.5	340	(3,643)	(11,173)	(1,002,771)
3Q14	Jul-14	0.0	0.7	320	0	3.5	340	(3,643)	(11,173)	(1,002,771)
	Aug-14	0.0	0.7	320	0	3.5	340	(3,643)	(11,173)	(1,002,771)
	Sep-14	0.0	0.7	320	0	3.5	340	(3,643)	(11,173)	(1,002,771)

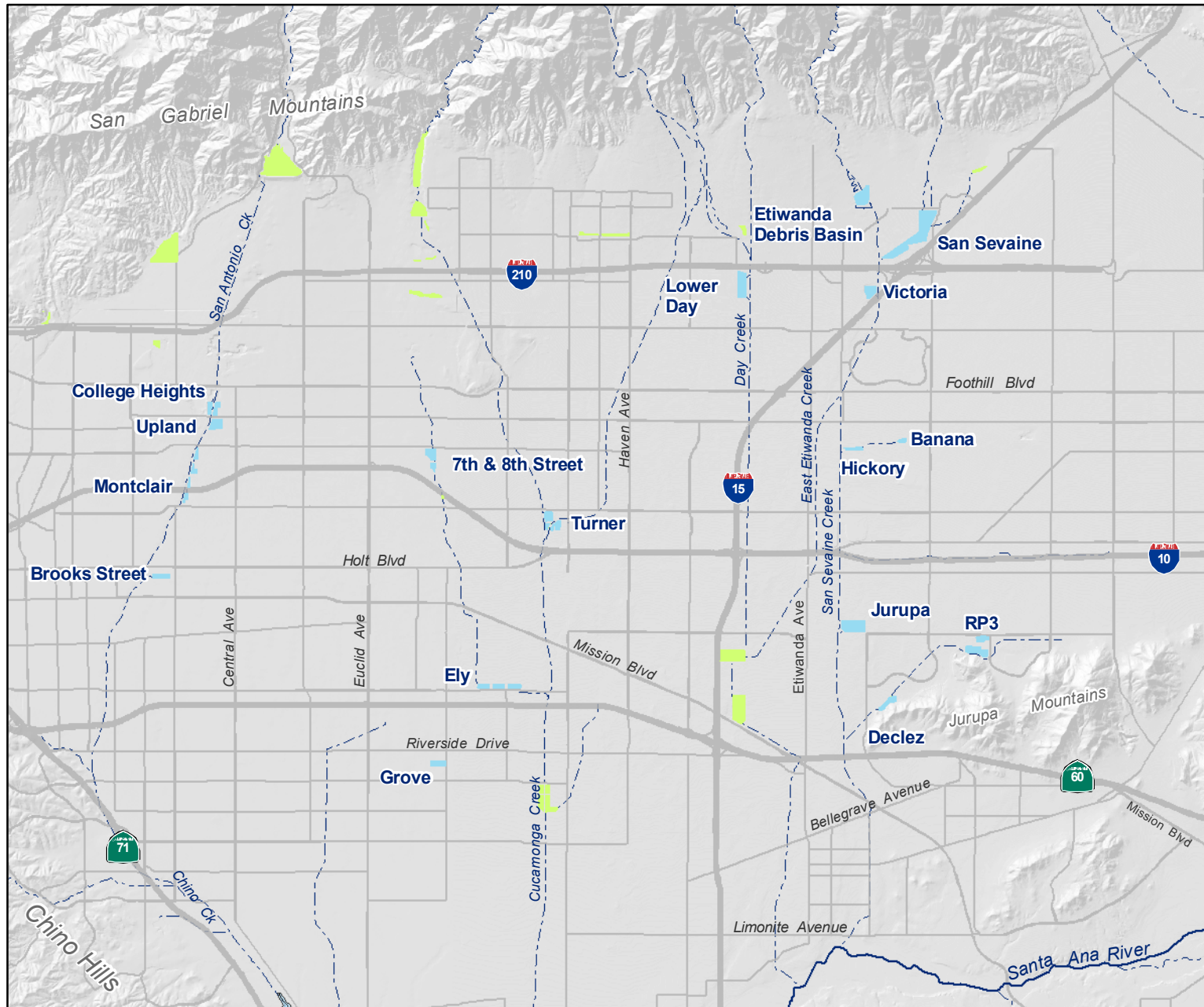
The injected water is WFA-treated water, which meets CCR Title 22 drinking water standards.

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

ASR Well No. 33										
	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)
4Q13	Oct-13	0.0	<0.4	320	0	3.5	370	(956)	(4,257)	(448,511)
	Nov-13	0.0	<0.4	320	38	3.5	370	(994)	(4,422)	(465,947)
	Dec-13	0.0	<0.4	320	28	3.5	370	(1,022)	(4,544)	(478,792)
1Q14	Jan-14	0.0	0.7	320	0	3.5	370	(1,022)	(4,544)	(478,792)
	Feb-14	0.0	0.7	320	0	3.5	370	(1,022)	(4,544)	(478,792)
	Mar-14	0.0	0.7	320	0	3.5	370	(1,022)	(4,544)	(478,792)
2Q14	Apr-14	0.0	0.7	320	31	3.5	370	(1,053)	(4,680)	(493,152)
	May-14	0.0	0.7	320	48	3.5	370	(1,101)	(4,885)	(514,897)
	Jun-14	0.0	0.7	320	0	3.5	370	(1,101)	(4,885)	(514,897)
3Q14	Jul-14	0.0	0.7	320	155	3.5	370	(1,256)	(5,553)	(585,446)
	Aug-14	0.0	0.7	320	0	3.5	370	(1,256)	(5,553)	(585,446)
	Sep-14	0.0	0.7	320	0	3.5	370	(1,256)	(5,553)	(585,446)

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

Total Project (All Wells)					
	Date		Mass Balance		
			Storage (AF)	TIN (kg)	TDS (kg)
4Q13	Oct-13		(4,188)	(28,862)	(1,481,021)
	Nov-13		(4,427)	(29,898)	(1,583,033)
	Dec-13		(4,560)	(30,470)	(1,639,606)
1Q14	Jan-14		(4,643)	(30,828)	(1,674,322)
	Feb-14		(4,651)	(30,867)	(1,677,609)
	Mar-14		(4,651)	(30,867)	(1,677,609)
2Q14	Apr-14		(4,683)	(31,003)	(1,691,969)
	May-14		(4,745)	(31,464)	(1,720,451)
	Jun-14		(4,986)	(32,720)	(1,815,197)
3Q14	Jul-14		(5,440)	(34,992)	(2,002,124)
	Aug-14		(5,695)	(36,261)	(2,100,746)
	Sep-14		(5,697)	(36,268)	(2,101,393)



Main Map Features

-  Recharge Basins in the Recycled Water Groundwater Recharge Program
-  Non-Program Basins
-  Rivers and Streams



Chino Basin Recycled Water Groundwater Recharge Program

Basin Locations

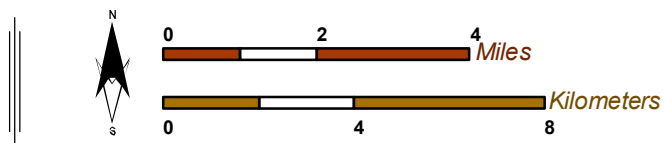
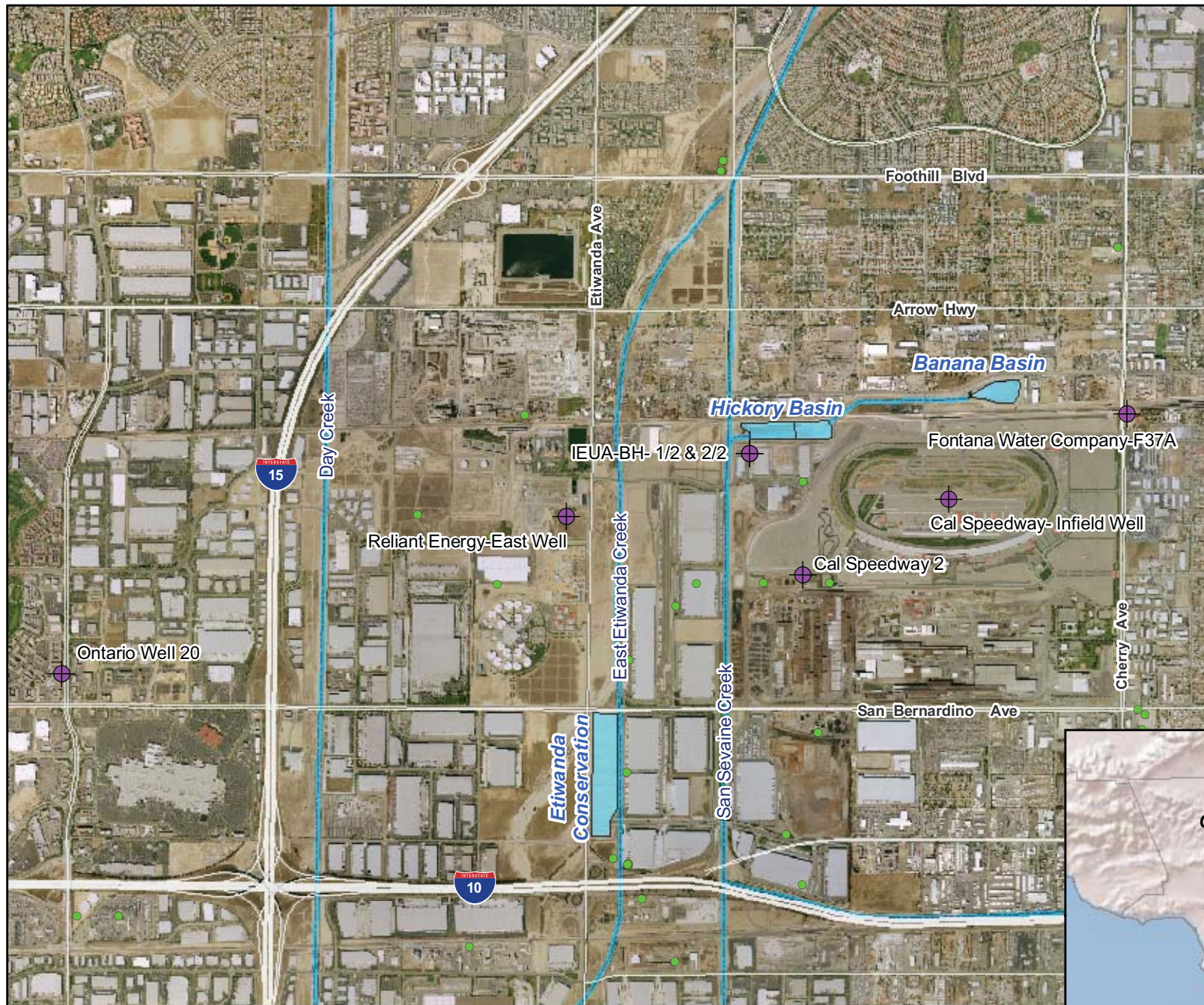


Figure 1-1



Main Map Features

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

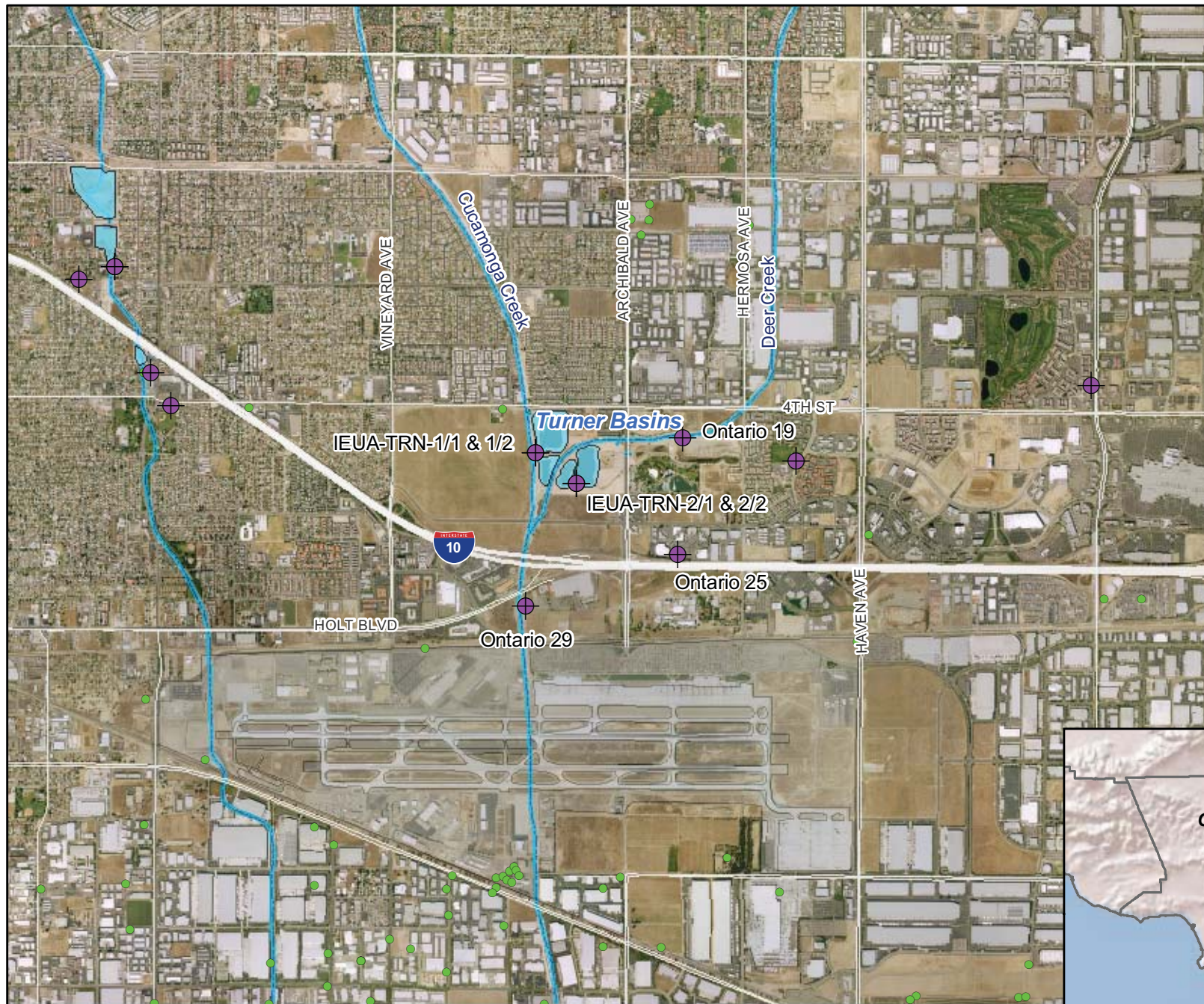


Monitoring Well Network
Hickory and Banana Basins

Figure 2-1

Recycled Water Recharge Program





Main Map Features

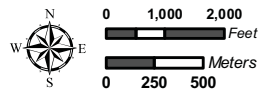
-  Existing Monitoring Well
-  "Other Wells"
-  Rivers/Streams/Creeks
-  Recharge Basins

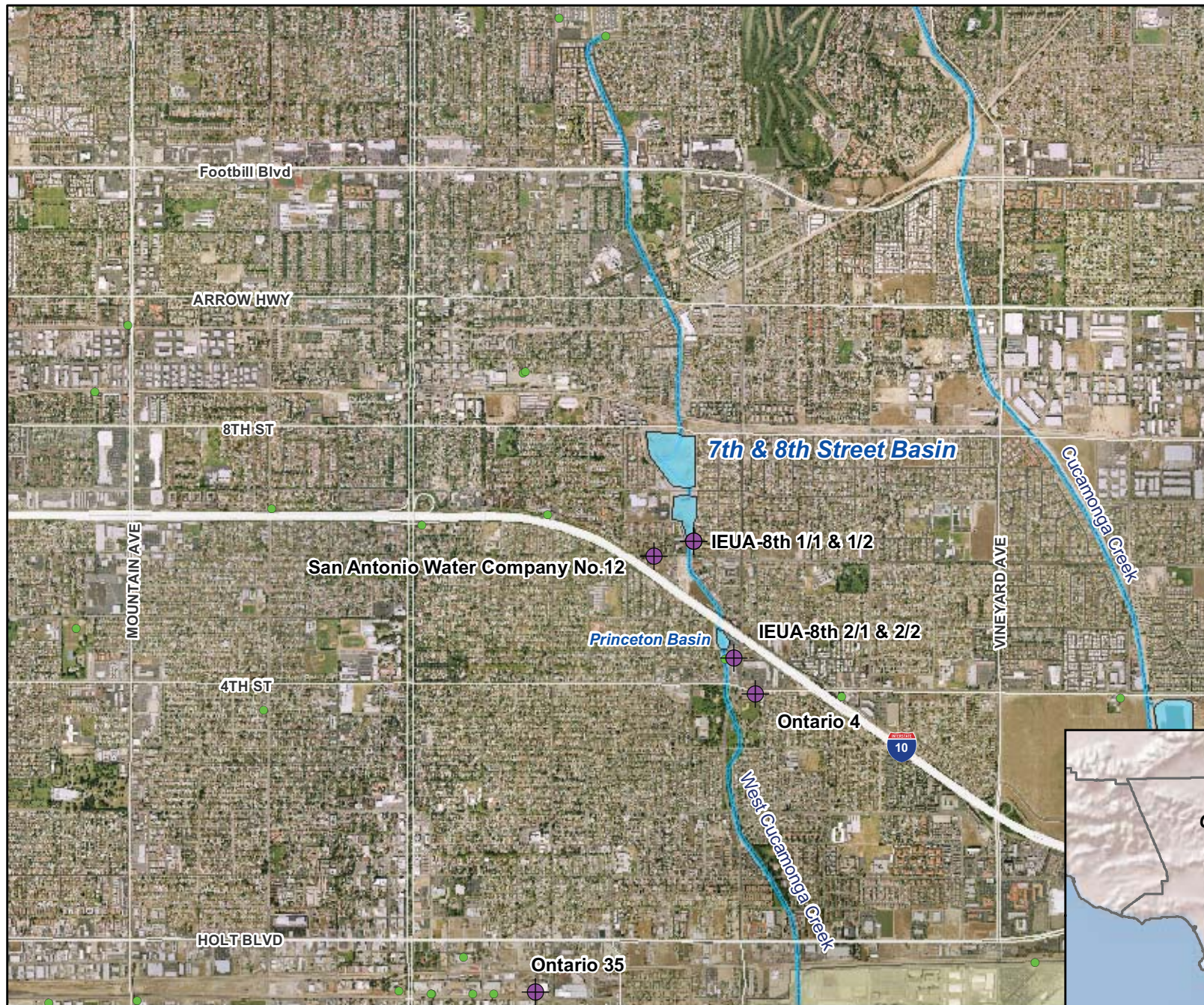


Monitoring Well Network
Turner Basins

Figure 2-2

Recycled Water Recharge Program





Main Map Features

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

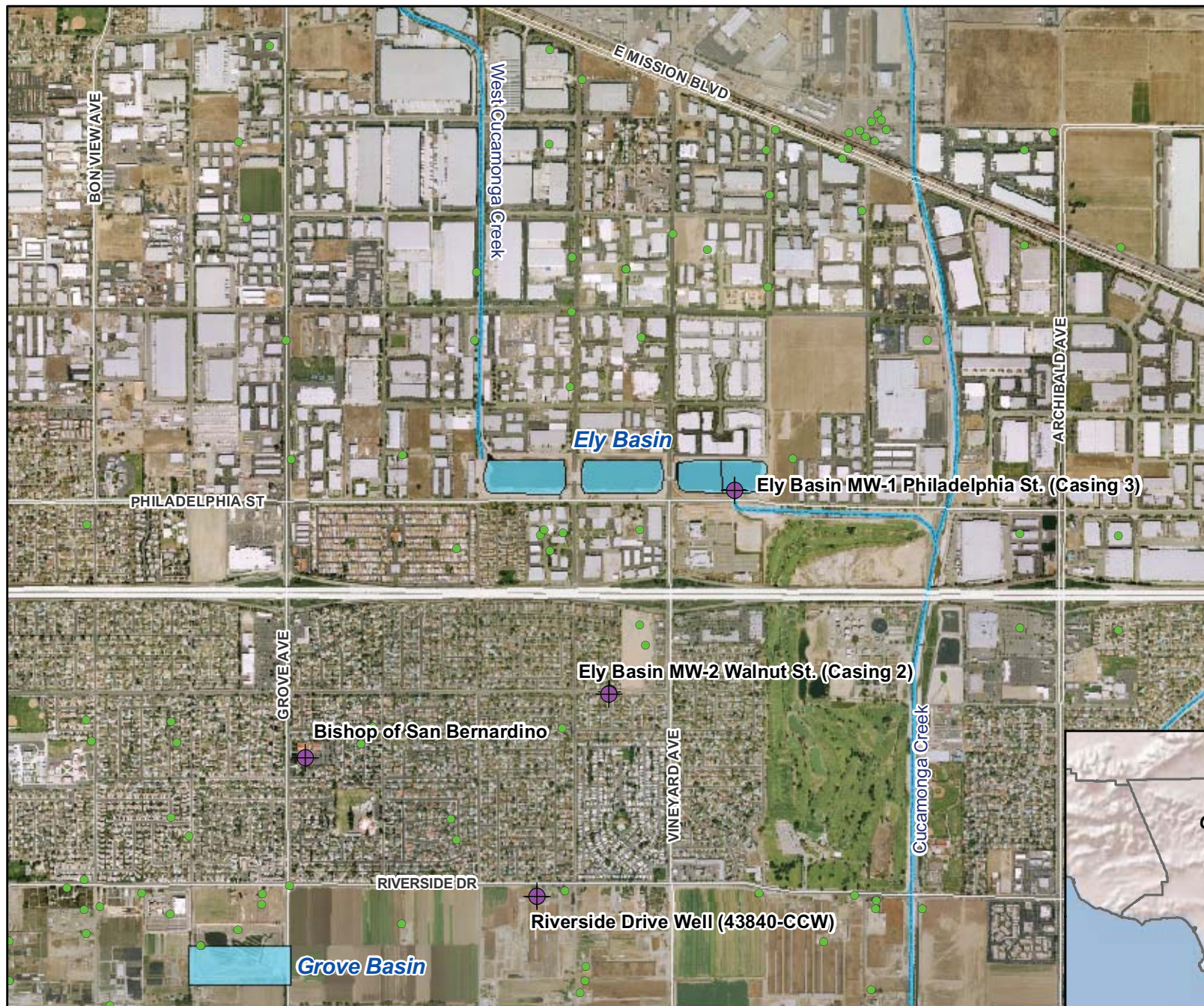


Monitoring Well Network
7th and 8th Street Basin

Figure 2-3

Recycled Water Recharge Program





Main Map Features

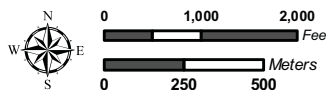
-  Existing Monitoring Well
-  "Other Wells"
-  Rivers/Streams/Creeks
-  Recharge Basins

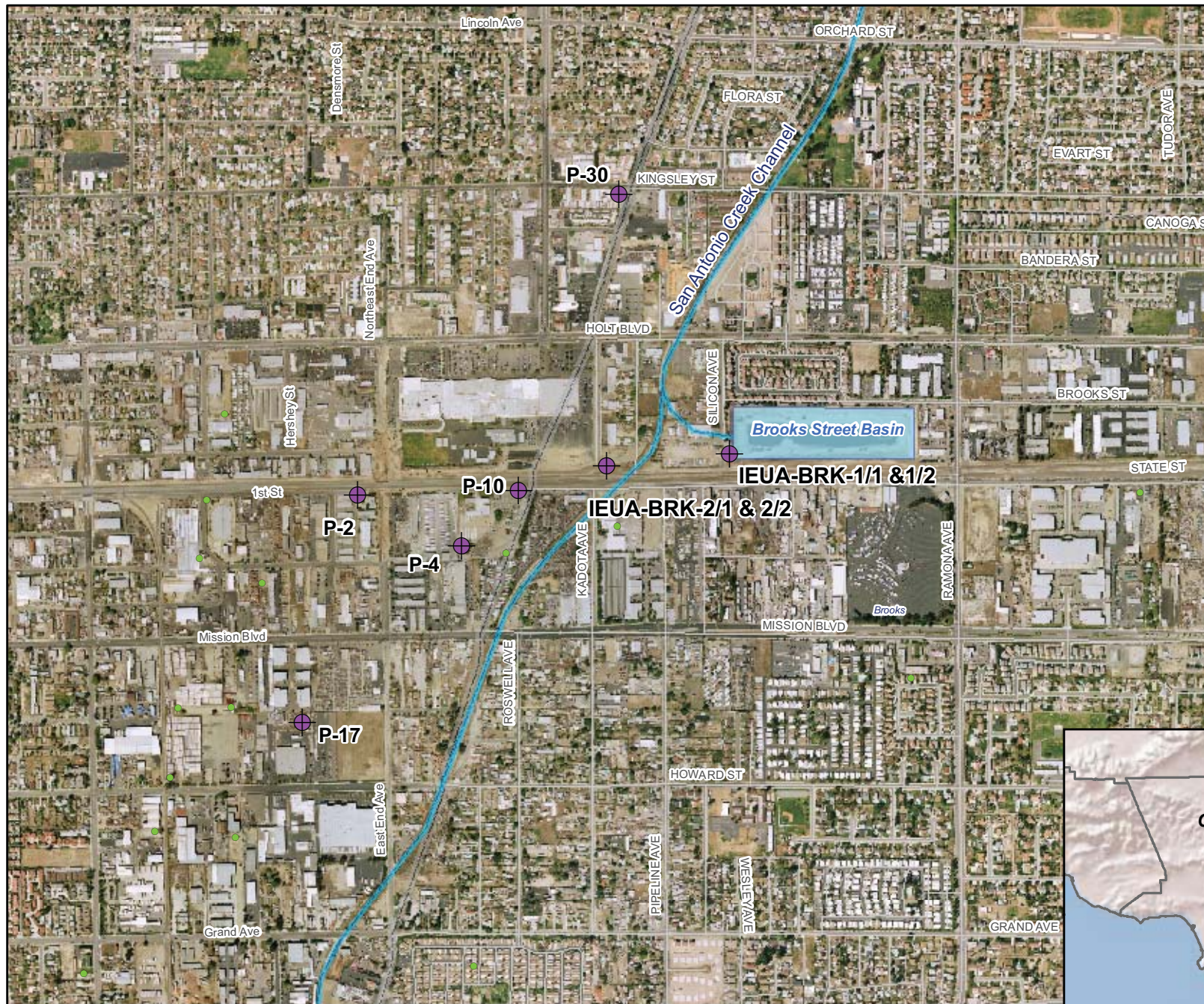


Monitoring Well Network
Ely Basins

Figure 2-4

Recycled Water Recharge Program





Main Map Features

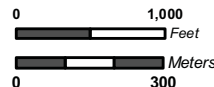
-  Existing Monitoring Well
-  "Other" Wells
-  Rivers/Streams/Creeks
-  Recharge Basins
-  County Boundary

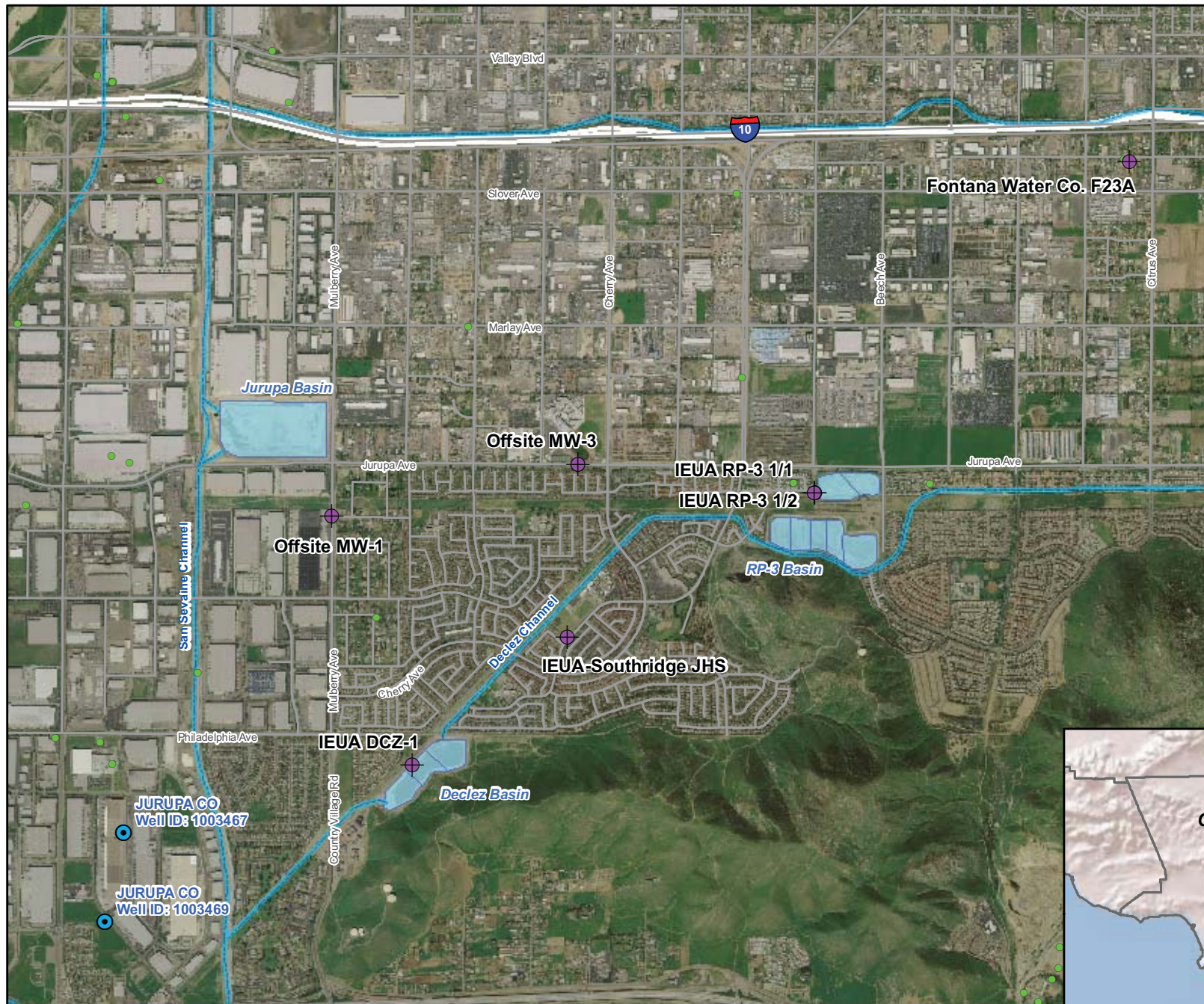


Monitoring Well Network
Brooks Street Basin

Figure 2-5

Recycled Water Recharge Program





Main Map Features

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

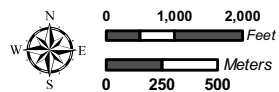


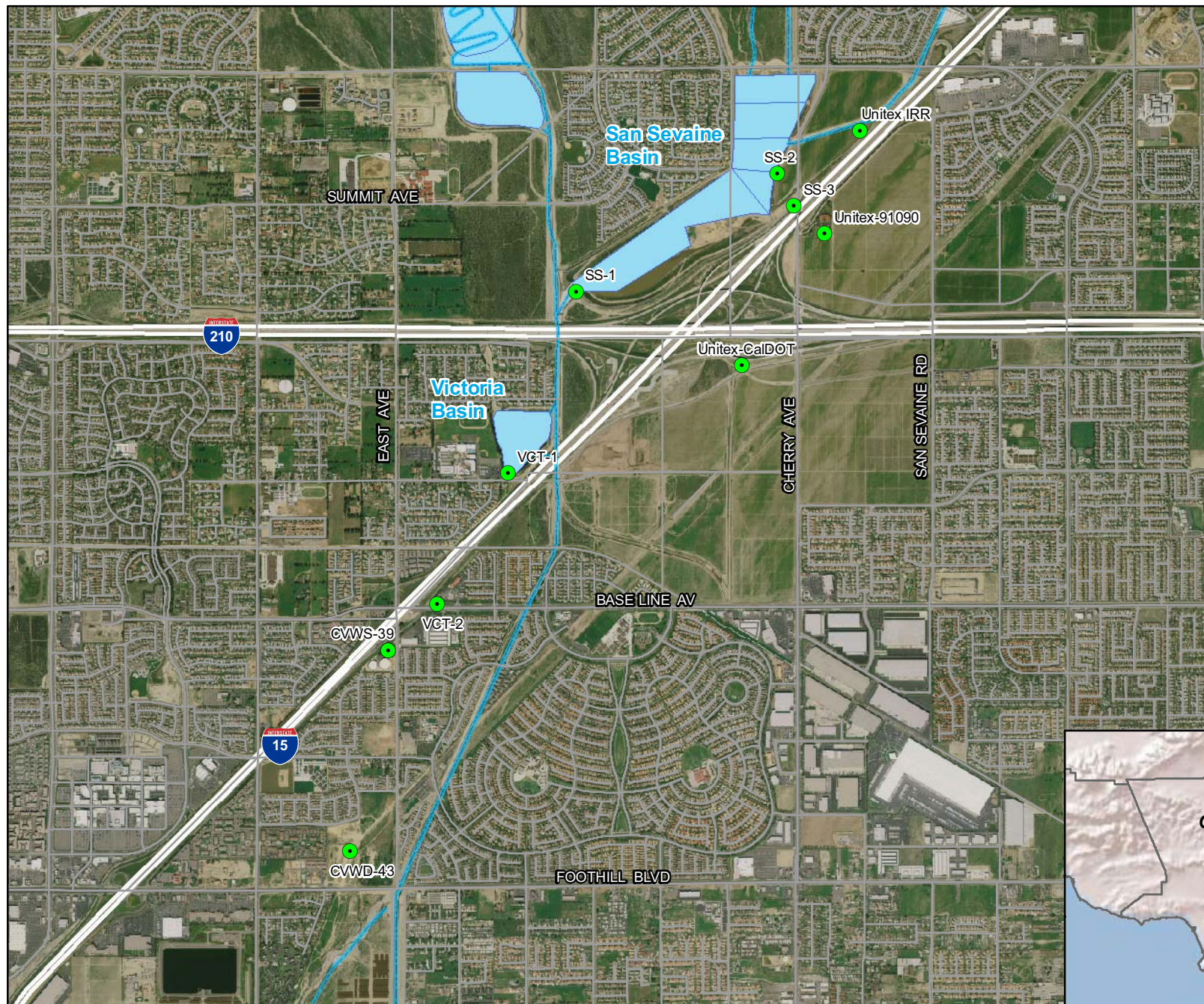
Monitoring Well Network

RP-3 Basin

Figure 2-6

Recycled Water Recharge Program





Main Map Features

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



Monitoring Well Network
San Seivaine and Victoria Basin

Figure 2-7

Recycled Water Recharge Program

