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February 15, 2017

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 2016**

Dear Mr. Berchtold,

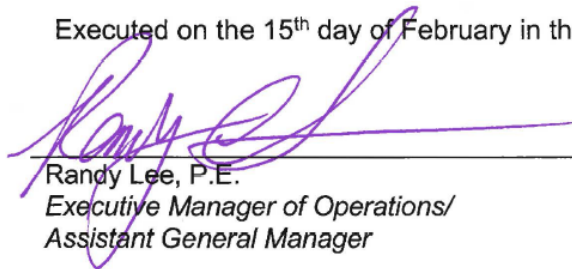
Inland Empire Utilities Agency and Chino Basin Watermaster hereby submit the *Quarterly Monitoring Report* for the fourth quarter of 2016 (4Q16), October 1 through December 31, 2016, for the *Chino Basin Recycled Water Groundwater Recharge Program*. This document is submitted pursuant to requirements in Order No. R8-2007-0039. All required monitoring and reporting for the quarter are presented in the attached report. During 4Q16, the Groundwater Recharge Program was in compliance with all monitoring and reporting requirements as specified in the Order, with the exception of three exceedances of the 2-week average for total nitrogen (TN) at RP3 Basin and an exceedance of the 4-quarter running average for odor (secondary MCL).

Chino Basin Watermaster hereby certifies that, during the period of October 1 through December 31, 2016, 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, Declez, Ely, Hickory, RP3, San Sevaime, Turner, and Victoria Basins. In point of fact, there are no domestic or municipal production wells in the buffer zones of the aforementioned recharge sites.

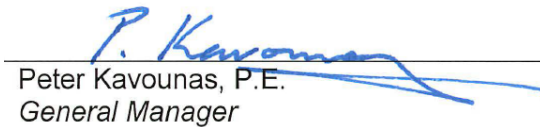
DECLARATION

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

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



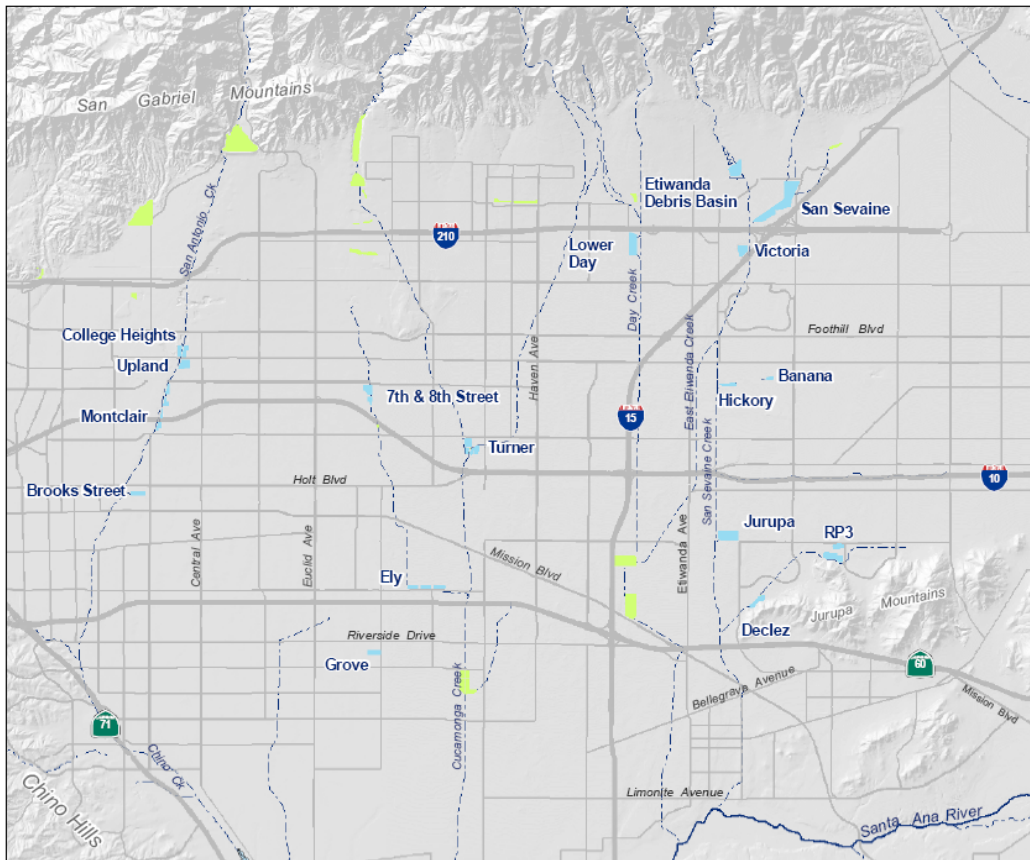
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Chino Basin Recycled Water Groundwater Recharge Program

Quarterly Monitoring Report October 1 through December 31, 2016



Prepared by:



February 15, 2017

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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 Groundwater Management Zone. The locations of recharge basins in the Chino Basin Groundwater Recharge Program are shown 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 2016 (4Q16).

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 California Department of Public Health). 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. Title 22, Division 4, Chapter 3. Article 5.1 §60320.100

On June 18, 2014, the DDW adopted new regulations pertaining to Groundwater Replenishment Reuse Projects (GRRP), which can be found in Title 22 California Code of Regulations, Division 4, Chapter 3. Article 5.1 “Indirect Potable Reuse: Groundwater Replenishment - Surface Application” found in Sections §60320.100 through 60320.130. Pursuant to the new GRRP regulations, additional monitoring and reporting began in 3Q15.

E. 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’s (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 4Q16 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) or at locations specified in alternative monitoring plans (Table 2-5b, and discussed in further detail in Section 2.B). During 4Q16, there were three exceedances of the TN limit at RP3 basin based on alternative monitoring plan compliance sampling. The TN exceedances will be discussed in Section 2.B.

In the GRRP regulations adopted by the DDW on June 18, 2014, the new TN limit for recycled water recharge is 10 mg/L. In anticipation of the adoption of these new GRRP regulations, IEUA submitted a letter to the DDW and the Regional Board on March 12, 2014, requesting the higher TN limit in the proposed regulations be adopted for the Chino Basin Recycled Water Groundwater Recharge Program. Per the request of the Regional Board, additional data was submitted to support the increased TN limit. IEUA has yet to receive approval of the new limit and continues to report based on the 5 mg/L limit.

Recycled Water Specifications A.1 through A.4 of the Order are numerical limits based on the EPA’s primary maximum contaminant levels (MCLs), secondary MCLs, and Action Levels. Recycled Water Specification A.15 is a numerical limit for oil and grease. The corresponding monitoring data used to

determine compliance with these specifications in 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 all constituents with MCLs or Action Levels is based on a 4-quarter running average (Recycled Water Specifications A.1 through A.4). Table 2-3 summarizes the 4-quarter running average concentration data for each parameter from 1Q16 through 4Q16, and lists the corresponding limits for compliance.

There were no exceedances for the parameters analyzed during 4Q16, this includes 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. The 4-quarter running average for 4Q16 was 47 Units, causing the threshold odor compliance metric to exceed the secondary MCL. 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 2-9a), threshold odor did not exceed 3 Units at any of the monitoring wells during 4Q16.

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 4Q16 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 4Q16.

B. Recycled Water: Basin and Lysimeter Samples

Total organic carbon (TOC) and nitrogen species sampling and analyses are performed weekly at lysimeters at some basins when recycled water is delivered, for the determination of compliance with Recycled Water Specifications A.7 and A.9 of the Order. 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 4Q16 are summarized in Table 2-5a. The table includes lysimeter data for Banana, Brooks, Hickory, and Declez Basins. During 4Q16, there were no exceedances of TOC at the compliance lysimeters at the abovementioned basins. Currently the only lysimeter-based compliance point for TN for the program is the Brooks Basin 25-foot lysimeter (BRK-LYS-25). This lysimeter is only sampled monthly due to slow travel times to the lysimeter. There were no exceedances of TN during 4Q16, at this compliance lysimeter.

Recycled water deliveries were initiated at Declez Basin on December 23, 2015. The TOC and TN monitoring results are included in this report in Table 2-5a. For the duration of the start-up period, no compliance point for TOC and TN has been selected. Recommendations for the compliance point will be included in the start-up period report. An update of the start-up period status can be found in Section 3 of this report.

As indicated in Recycled Water Compliance Determination B.5 and B.6 of the Order, alternative monitoring plans to the lysimeter-based compliance sampling for TOC and TN under Recycled Water Specifications A.7 and A.9 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.

An alternative monitoring plan has also been implemented at the Brooks Basin 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. 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.

As discussed in the 1Q16 report, due to the inability to collect adequate sample volume from the BNA-LYS-25 lysimeters, the TOC and TN compliance monitoring for Banana Basin has been relocated to BH-1/2 to be collected on a monthly basis. The notification for the change in compliance location was sent as an email to the DDW and Regional Board on January 12, 2016. IEUA did not receive any questions or comments in response to the notification e-mail from either regulatory agency.

During 4Q16, there were no exceedances of TOC at the basins that have implemented alternative monitoring plans. In October 2016, there were three exceedances for the 2-week average TN limit of 5 mg/L at RP3 Basin based on a 31% TN reduction factor. The DDW and the Regional Board were both notified via e-mail as required.

Table 2-6 is a compliance summary table for RWC, TOC average, and TN compliance. It includes the following: when the basin started receiving recycled water, when the startup period was completed, the RWC limit, the current RWC, the current TOC average limit (based on Recycled Water Specification A.10), the calculated monthly TOC averages, compliance with the TN limit, and recharged water monitoring plans for TOC and TN.

C. Diluent Water

For 4Q16, diluent water quality sampling of stormwater was conducted during the months of October, November, and December 2016. Table 2-7 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 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 4Q16, the Deer Creek sample exceeded the “maximum level to trigger source water evaluation” for aluminum. IEUA will continue to monitor stormwater and local runoff samples and is currently evaluating aluminum concentrations by location.

D. Groundwater Monitoring Wells

Monitoring is conducted at groundwater monitoring wells quarterly and annually to evaluate groundwater 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 that recharged water has on downgradient water supplies. The wells in the monitoring well networks for Hickory and Banana, Turner, 8th Street, Ely, Brooks, RP3, San Sevaire, Victoria, and Declez Basins are summarized in Table 2-8, and presented on Figures 2-1 through 2-7, respectively. Groundwater quality samples are collected and tested quarterly for all constituents listed in Table 1 of Section V in the MRP R8-2007-0039, and annually for constituents specified in the Phase II Findings of Fact, Attachment A in the permit (Bullet 27 in the Conditions Section). The groundwater constituents analyzed from the monitoring wells during quarterly monitoring are presented in Table 2-9a.

Any 4Q16 sample which exceeded primary or secondary MCLs are shown in the table in bold italic font. The DDW is notified within 48 hours of receiving the results for primary MCL exceedances or coliform presence at active municipal drinking water wells. Exceedances of primary MCLs and coliform presence at non-drinking water monitoring wells and all secondary MCL exceedances will only be reported in the quarterly reports. Of note are the analyses for the following wells and constituents:

Turbidity exceeding the secondary MCL of 5 NTU was observed in one monitoring well, namely: VCT-1/1. The secondary MCL of 50 µg/L for manganese was exceeded at Ely MW1.

TDS and EC were higher than their secondary MCLs of 500 mg/L and 900 µmhos/cm, respectively, in Alcoa MW3. VCT-1/1 slightly exceeded the secondary MCL for TDS. The wells near the RP3 Basins are located in areas where the TDS and EC concentrations in groundwater are historically elevated. The TDS concentration at the mound monitoring well VCT-1/1, is characteristic of the recycled water concentration and indicates a high percentage of recycled water at this well. The distribution of TDS concentrations observed at wells in the Chino Basin is summarized in Watermaster’s State of the Basin Reports.

Some monitoring wells at the Banana & Hickory, RP3, 8th Street, Brooks, and Ely Basins monitoring well networks have nitrate as nitrogen (NO₃-N) concentrations above the primary MCL of 10 mg/L. The NO₃-N levels range from 10 to 30 mg/L and are characteristic of groundwater quality in these areas of

the Chino Basin. The distribution of NO₃-N concentrations observed at wells in the Chino Basin is summarized in Watermaster's State of the Basin Reports. No notifications were made to the DDW as these high NO₃-N concentrations are comparable to the ambient NO₃-N concentration in groundwater for each monitoring well's respective groundwater management zone within the Chino Basin.

The current State of the Basin Report, which is the "Chino Basin Optimum Basin Management Program 2014 State of the Basin Report" published in June 2015 was prepared by Wildermuth Environmental for the Chino Basin Watermaster.

The new GRRP regulations require two downgradient monitoring wells to be monitored quarterly for Priority Pollutants, and that the wells are located (A) no less than two weeks but no more than six months of travel through the unsaturated zone affected by the project, and (B) at least 30 days upgradient of the nearest drinking water well be monitored quarterly for Priority Toxic Pollutants. The table below shows the monitoring wells that meet the (A) and (B) criteria specified above. The priority pollutants analysis results for these downgradient monitoring wells are summarized in Table 2-9b.

Basins	Monitoring Well (A)	Monitoring Well (B)
8 th Street	8TH-1/2	8TH-2/1
Banana & Hickory	BH-1/2	Reliant Energy – East Well
Brooks	BRK-1/1	BRK-2/1
Ely	Ely MW1	Ely MW2
RP3	RP3-1/1	Southridge JHS
Turner	T-1/2	T-2/2
Victoria & San Sevaine	SS-1/1 & VCT-1/1	VCT-2/1
Declez	DCZ-1/1	Pending Design & Construction

3. Recharge Operations

IEUA's Groundwater Recharge Coordinator recorded the daily volumes of water routed to all basins. The 8th Street, Banana, Brooks, Declez, Ely, Hickory, RP3, 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 4Q16 at the basins that have initiated recharge using recycled water.

As mentioned in the 4Q15 report, recycled water deliveries were initiated at Declez Basin on December 23, 2015. DDW staff was contacted on June 23, 2016 informing them of IEUA's intent to extend the start-up period for Declez Basin for an additional four months beyond the initial 180-day period in order to gather more data. The request to extend the start-up period was due to winter rain events that resulted in the lysimeter EC data showing significant influence for stormwater. Recycled water deliveries to the Declez Basin were stopped on September 8, 2016 after it was deemed that enough data was collected for the start-up period evaluation.

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 4Q16 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, Declez, Ely, Hickory, RP3, San Sevaïne, 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 DDW 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 Regional Board to be included under IEUA/Watermaster 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 (1Q16 through 4Q16), no imported water was injected into the groundwater basin. Table 6-1 summarizes the monthly volumes and TIN/TDS of injected and recovered water. The table also includes the mass balance of TIN/TDS from the injection-recovery cycles.

Table 2-1a
Recycled Water Monitoring: RP-1 & RP-4 Effluent Water Quality for October 2016
(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	µhmo/cm	mg/L	mg/L	mpn/100mL	NTU	mg/L	mg/L	mg/L	mg/L	unit	µhmo/cm	mg/L	mg/L	mpn/100mL
Limits	2;5;10	16 ⁵		5 ⁶		6<pH<9				2.2;23;240	2;5;10	16 ⁵		5 ⁶		6<pH<9				2.2;23;240
10/01/16	0.6	5.2				7.1	848			<2	0.3	3.3				7.2	711			<2
10/02/16	0.5	5.4	7.0	7.0	7.0	7.2	799	482	140	<2	0.4	3.5	4.2	5.1	4.2	7.2	710	428	134	<2
10/03/16	0.6	5.5	6.8		6.8	7.1	794			<2	0.4	3.6	3.9		3.9	7.3	815			<2
10/04/16	0.5	5.3	7.3		7.3	7.1	799			<2	0.4	3.3	5.1		5.1	7.2	764			<2
10/05/16	0.5	5.2	7.1		7.1	7.1	804			<2	0.4	3.3	6.5		6.5	7.2	744			<2
10/06/16	0.5	5.2	6.2		6.2	7.1	813			<2	0.4	3.4	7.5		7.5	7.1	756			<2
10/07/16	0.5	5.5				7.1	821			<2	0.4	3.2				7.0	756			<2
10/08/16	0.6	5.8				7.1	827			<2	0.5	3.4				7.0	746			<2
10/09/16	0.6	5.6	5.9	5.9	5.9	7.1	843	506		<2	0.5	3.5	6.4	7.8	6.4	7.0	741	440		<2
10/10/16	0.5	5.4	10.3		10.3	7.0	787			<2	0.4	3.6	4.5		4.5	7.1	733			<2
10/11/16	0.6	5.5	9.8		9.8	7.1	795			<2	0.4	3.7	4.0		4.0	7.1	729			<2
10/12/16	0.7	5.5	6.1		6.1	7.1	809			<2	0.3	3.4	5.1		5.1	7.1	766			<2
10/13/16	0.7	5.4	5.3		5.3	7.0	840			<2	0.4	3.5	6.4		6.4	7.0	761			<2
10/14/16	0.7	5.4				7.1	834			<2	0.4	3.3				7.1	762			<2
10/15/16	0.6	5.5				7.1	793			<2	0.4	3.4				7.1	743			<2
10/16/16	0.5	5.5	5.4	5.4	5.4	7.1	787	480		<2	0.4	3.5	5.9	6.5	5.9	7.2	743	438		<2
10/17/16	0.6	5.7	5.6		5.6	7.1	800			<2	0.4	3.6	4.8		4.8	7.2	758			<2
10/18/16	0.7	5.5	6.4		6.4	7.1	804			<2	0.4	3.8	4.9		4.9	7.2	736			<2
10/19/16	0.6	5.0	6.2		6.2	7.1	800			<2	0.4	3.4	5.4		5.4	7.2	700			<2
10/20/16	0.6	4.9	6.3		6.3	7.2	808			<2	0.4	3.2	5.9		5.9	7.2	802			<2
10/21/16	0.6	4.8				7.1	827			<2	0.4	3.0				7.1	758			<2
10/22/16	0.6	4.9				7.2	845			<2	0.3	3.0				7.2	752			<2
10/23/16	0.6	5.2	6.4	6.4	6.4	7.1	828	490		<2	0.4	3.3	4.4	5.6	4.4	7.2	762	436		<2
10/24/16	0.5	5.4	6.0		6.0	7.1	791			<2	0.4	3.6	4.2		4.2	7.2	767			<2
10/25/16	0.6	5.0	7.1		7.1	7.1	804			<2	0.4	3.6	4.8		4.8	7.1	760			<2
10/26/16	0.5	5.0	5.8		5.8	7.1	817			<2	0.4	3.6	5.3		5.3	7.1	779			<2
10/27/16	0.5	5.0	6.3		6.3	7.1	816			<2	0.4	3.5	5.7		5.7	7.1	735			<2
10/28/16	0.5	4.7				7.1	808			<2	0.4	3.2				7.1	761			<2
10/29/16	0.5	4.8				7.1	812			<2	0.4	3.2				7.1	755			<2
10/30/16	0.6	5.0	6.4	6.4	6.4	7.1	795	480		<2	0.4	3.4	5.0	5.7	5.0	7.1	759	432		<2
10/31/16	0.9	5.4	6.8		6.8	7.1	814			<2	0.4	3.6	4.9		4.9	7.1	732			<2
Avg	0.6	5.3	6.7	6.2	6.7	7.1	812	488	140	<2	0.4	3.4	5.2	6.1	5.2	7.1	751	435	134	<2
Min	0.5	4.7	5.3	5.4	5.3	7.0	787	480	140	<2	0.3	3.0	3.9	5.1	3.9	7.0	700	428	134	<2
Max	0.9	5.8	10.3	7.0	10.3	7.2	848	506	140	<2	0.5	3.8	7.5	7.8	7.5	7.3	815	440	134	<2

Note:

Bolded characters signify an exceedance of a permit limitation

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

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

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

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

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

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

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

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

Table 2-1b
Recycled Water Monitoring: RP-1 & RP-4 Effluent Water Quality for November 2016
(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
11/01/16	0.6	5.3	6.5		6.5	7.1	822			<2	0.4	3.7	5.6		5.6	7.1	733			<2
11/02/16	0.6	5.2	6.9		6.9	7.1	838			<2	0.4	3.6	6.2		6.2	7.1	761			<2
11/03/16	0.7	5.1	6.4		6.4	7.1	849			2	0.4	3.5	7.0		7.0	7.1	758			<2
11/04/16	0.6	5.0				7.1	845			<2	0.4	3.3				7.1	756			<2
11/05/16	0.6	5.0				7.1	848			2	0.5	3.4				7.1	763			<2
11/06/16	0.6	5.5	6.4	6.4	6.4	7.1	825	462	147	<2	0.5	3.6	5.7	6.7	5.7	7.1	750	432	136	<2
11/07/16	0.6	5.4	6.7		6.7	7.1	807			<2	0.5	3.8	4.7		4.7	7.1	751			<2
11/08/16	0.6	5.5	6.7		6.7	7.1	827			<2	0.4	3.6	4.3		4.3	7.1	749			<2
11/09/16	0.6	5.4	7.0		7.0	7.0	845			<2	0.4	3.7	5.4		5.4	7.1	706			<2
11/10/16	0.7	5.6	6.4		6.4	7.0	863			4	0.4	3.6	6.1		6.1	7.1	718			<2
11/11/16	0.7	5.3				7.0	874			<2	0.4	3.4				7.1	723			<2
11/12/16	0.6	5.2				7.1	853			<2	0.3	3.5				7.1	732			<2
11/13/16	0.6	5.5	6.7	6.7	6.7	7.1	830	474		<2	0.3	3.7	4.7	5.4	4.7	7.1	745	426		<2
11/14/16	0.6	5.6	5.6		5.6	7.1	822			<2	0.3	4.1	4.0		4.0	7.1	740			<2
11/15/16	0.6	5.3	5.8		5.8	7.1	835			<2	0.3	3.8	4.4		4.4	7.1	718			<2
11/16/16	0.6	5.2	6.7		6.7	7.1	835			<2	0.3	3.7	5.4		5.4	7.1	731			<2
11/17/16	0.6	5.0	6.7		6.7	7.1	850			<2	0.3	4.9	6.1		6.1	7.1	710			2
11/18/16	0.5	4.9				7.1	836			<2	0.3	3.4				7.0	721			<2
11/19/16	0.5	5.0				7.1	820			<2	0.4	3.6				7.0	723			<2
11/20/16	0.6	5.3	7.2	7.2	7.2	7.1	804	462		2	0.4	3.8	4.8	5.3	4.8	7.1	723	428		<2
11/21/16	0.6	5.4	6.4		6.4	7.1	789			<2	0.5	3.9	4.1		4.1	7.0	708			<2
11/22/16	0.6	5.6	5.7		5.7	7.1	819			<2	0.4	3.9	4.3		4.3	7.0	738			<2
11/23/16	0.6	5.0				7.1	857			<2	0.4	3.4				7.0	754			<2
11/24/16	0.7	5.0				7.1	886			<2	0.4	3.5				7.0	779			<2
11/25/16	0.6	5.0				7.1	858			2	0.4	3.8				7.0	805			<2
11/26/16	0.6	5.1				7.0	862			<2	0.4	3.9				7.0	831			<2
11/27/16	0.6	5.5	6.5	6.5	6.5	7.0	850	486		<2	0.4	4.1	4.6	5.7	4.6	7.0	830	470		<2
11/28/16	0.7	5.4	5.4		5.4	7.0	865			<2	0.4	3.9	4.5		4.5	7.0	817			<2
11/29/16	0.6	5.3	4.7		4.7	7.1	891			2	0.4	3.9	4.7		4.7	7.0	774			<2
11/30/16	0.6	5.4	5.0		5.0	7.0	889			<2	0.4	4.0	5.7		5.7	7.0	774			<2
Avg	0.6	5.3	6.3	6.7	6.3	7.1	843	471	147	<2	0.4	3.7	5.1	5.8	5.1	7.1	751	439	136	<2
Min	0.5	4.9	4.7	6.4	4.7	7.0	789	462	147	<2	0.3	3.3	4.0	5.3	4.0	7.0	706	426	136	<2
Max	0.7	5.6	7.2	7.2	7.2	7.1	891	486	147	4	0.5	4.9	7.0	6.7	7.0	7.1	831	470	136	2

Note:

Bolded characters signify an exceedance of a permit limitation

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

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

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

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

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

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

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

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

Table 2-1c
Recycled Water Monitoring: RP-1 & RP-4 Effluent Water Quality for December 2016
(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
12/01/16	0.6	5.1	5.9		5.9	7.0	921			<2	0.4	3.8	6.2		6.2	6.9	822			<2
12/02/16	0.6	4.8				7.1	888			<2	0.4	3.6				7.1	828			<2
12/03/16	0.5	4.9				7.0	871			<2	0.4	3.8				7.0	837			<2
12/04/16	0.5	5.2	6.6	6.6	6.6	7.0	870	494	153	<2	0.4	3.9	5.8	6.3	5.8	7.0	867	476	143	<2
12/05/16	0.6	5.3	4.7		4.7	7.0	890			<2	0.4	4.1	4.2		4.2	7.0	842			<2
12/06/16	0.5	5.2	6.5		6.5	7.0	877			<2	0.3	4.2	4.4		4.4	7.0	815			<2
12/07/16	0.5	5.6	6.6		6.6	7.0	902			<2	0.3	4.2	5.2		5.2	6.9	820			<2
12/08/16	0.5	5.2	6.9		6.9	7.0	887			<2	0.3	4.1	5.6		5.6	6.9	801			<2
12/09/16	0.5	5.2				7.0	882			<2	0.3	3.8				6.9	790			<2
12/10/16	0.5	5.2				7.1	884			<2	0.4	4.0				6.9	786			<2
12/11/16	0.5	5.3	7.7	7.7	7.7	7.1	867	500		<2	0.4	4.0	4.8	5.7	4.8	6.9	791	468		<2
12/12/16	0.5	5.7	6.9		6.9	7.1	857			8	0.4	4.4	4.2		4.2	6.9	789			<2
12/13/16	0.5	5.5	7.0		7.0	7.0	876			<2	0.4	4.4	4.4		4.4	7.0	788			<2
12/14/16	0.4	5.6	6.2		6.2	7.0	868			1	0.4	4.2	5.0		5.0	6.9	797			<1
12/15/16	0.4	5.2	6.1		6.1	7.0	879			<1	0.4	4.2	5.3		5.3	6.9	813			<1
12/16/16	0.4	5.0				7.1	852			<1	0.4	4.2				7.0	785			<1
12/17/16	0.4	5.1				7.0	813			<1	0.4	4.4				7.0	781			<1
12/18/16	0.4	5.4	7.4	7.4	7.4	7.0	840	474		<1	0.4	4.6	5.2	6.3	5.2	7.0	826	480		<1
12/19/16	0.5	5.6	6.7		6.7	7.0	864			<1	0.4	4.6	4.9		4.9	7.0	798			<1
12/20/16	0.5	5.5	6.5		6.5	7.0	876			<1	0.4	4.6	4.9		4.9	6.9	855			<1
12/21/16	0.5	5.8	5.5		5.5	7.0	889			<1	0.4	4.7	4.8		4.8	6.8	850			<1
12/22/16	0.5	5.5	5.4		5.4	6.9	876			<1	0.4	4.6	5.0		5.0	6.8	838			<1
12/23/16	0.5	5.3				6.9	863			<1	0.3	4.5				6.8	841			<1
12/24/16	0.5	4.8				6.9	815			<1	0.4	4.6				6.8	828			<1
12/25/16	0.5	5.0	5.8	5.8	5.8	6.9	789	470		9.8	0.3	4.3	3.5	3.5	3.5	6.8	822	468		<1
12/26/16	0.5	5.3	6.4		6.4	7.0	805			<1	0.3	4.5	4.8		4.8	7.0	881			<1
12/27/16	0.5	5.6	5.9		5.9	7.0	828			<1	0.3	4.9	4.5		4.5	7.1	862			<1
12/28/16	0.5	6.0	4.7		4.7	6.9	868			1	0.3	5.0	4.0		4.0	7.1	852			<1
12/29/16	0.5	6.0	4.4		4.4	6.9	885			<1	0.4	4.8	4.1		4.1	7.0	870			<1
12/30/16	0.5	5.7				6.9	890			1	0.4	4.6				6.9	841			<1
12/31/16	0.5	5.4				6.9	899			<1	0.4	4.4				6.9	849			<1
Avg	0.5	5.4	6.2	6.9	6.2	7.0	867	485	153	<2	0.4	4.3	4.8	5.5	4.8	6.9	825	473	143	<1
Min	0.4	4.8	4.4	5.8	4.4	6.9	789	470	153	<1	0.3	3.6	3.5	3.5	3.5	6.8	781	468	143	<1
Max	0.6	6.0	7.7	7.7	7.7	7.1	921	500	153	10	0.4	5.0	6.2	6.3	6.2	7.1	881	480	143	<2

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

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

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

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

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

⁴ Monthly average for coliform is based on "non-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.
Jan-16	7.3	5.7	504	515
Feb-16	6.5	5.6	495	510
Mar-16	5.9	5.6	521	509
Apr-16	5.8	5.6	514	508
May-16	5.7	5.6	514	507
Jun-16	5.3	5.7	519	508
Jul-16	6.2	5.7	514	509
Aug-16	6.5	5.9	502	509
Sep-16	6.4	6.0	492	507
Oct-16	5.8	6.1	491	506
Nov-16	5.5	6.1	489	505
Dec-16	5.8	6.0	495	504
Avg	6.0	5.8	504	508
Min	5.3	5.6	489	504
Max	7.3	6.1	521	515
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	1Q16	2Q16	3Q16	4Q16	4Q Run. Avg. ¹	Limit	Unit	Method
Inorganic Chemicals								
Aluminum	32	40	36	42	37	1000	µg/L	EPA 200.8
Antimony	<1	<1	<1	<1	<1	6	µg/L	EPA 200.8
Arsenic	<2	<2	<2	<2	<2	10	µg/L	EPA 200.8
Asbestos	<0.4	<0.2	<0.2	NR	<0.4	7	MFL	EPA 100.2
Barium	11	13	11	15	13	1000	µg/L	EPA 200.8
Beryllium	<0.5	<0.5	<0.5	<0.5	<0.5	4	µg/L	EPA 200.8
Cadmium	<0.25	<0.25	<0.25	<0.25	<0.25	5	µg/L	EPA 200.8
Chromium	2.0	1.0	0.6	1.3	1.2	50	µg/L	EPA 200.8
Chromium VI	0.20	0.25	0.26	0.28	0.25	10	µg/L	EPA 218.6
Cyanide	<20	<20	<20	NA	<20	150	µg/L	SM 4500-CN E
Fluoride	0.3	0.2	0.2	0.3	0.3	2	mg/L	SM 4500-F C
Mercury	<0.05	<0.05	<0.05	<0.05	<0.05	2	µg/L	EPA 245.2
Nickel	3	3	2	2	2	100	µg/L	EPA 200.8
Perchlorate	<4	<4	<4	<4	<4	6	µg/L	EPA 314/331.0
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 524.2/624
Carbon Tetrachloride	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	µg/L	EPA 524.2/624
1,2-Dichlorobenzene	<0.5	<0.5	<0.5	<0.5	<0.5	600	µg/L	EPA 524.2/624
1,4-Dichlorobenzene	<0.5	<0.5	<0.5	<0.5	<0.5	5	µg/L	EPA 524.2/624
1,1-Dichloroethane	<0.5	<0.5	<0.5	<0.5	<0.5	5	µg/L	EPA 524.2/624
1,2-Dichloroethane	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	µg/L	EPA 524.2/624
1,1-Dichloroethylene	<0.5	<0.5	<0.5	<0.5	<0.5	6	µg/L	EPA 524.2/624
cis-1,2-Dichloroethylene	<0.5	<0.5	<0.5	<0.5	<0.5	6	µg/L	EPA 524.2/624
trans-1,2-Dichloroethylene	<0.5	<0.5	<0.5	<0.5	<0.5	10	µg/L	EPA 524.2/624
Dichloromethane	<0.5	<0.5	<0.5	<0.5	<0.5	5	µg/L	EPA 524.2/624
1,2-Dichloropropane	<0.5	<0.5	<0.5	<0.5	<0.5	5	µg/L	EPA 524.2/624
1,3-Dichloropropene	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	µg/L	EPA 524.2/624
Ethylbenzene	<0.5	<0.5	<0.5	<0.5	<0.5	300	µg/L	EPA 524.2/624
Monochlorobenzene	<0.5	<0.5	<0.5	<0.5	<0.5	70	µg/L	EPA 524.2/624
Methyl-tert-butyl ether	<0.5	<0.5	<0.5	<0.5	<0.5	13	µg/L	EPA 524.2/624
Styrene	<0.5	<0.5	<0.5	<0.5	<0.5	100	µg/L	EPA 524.2/624
1,1,2,2-Tetrachloroethane	<0.5	<0.5	<0.5	<0.5	<0.5	1	µg/L	EPA 524.2/624
Tetrachloroethylene	<0.5	<0.5	<0.5	<0.5	<0.5	5	µg/L	EPA 524.2/624
Toluene	<0.5	<0.5	<0.5	<0.5	<0.5	150	µg/L	EPA 524.2/624
1,2,4-Trichlorobenzene	<0.5	<0.5	<0.5	<0.5	<0.5	5	µg/L	EPA 524.2/624
1,1,1-Trichloroethane	<0.5	<0.5	<0.5	<0.5	<0.5	200	µg/L	EPA 524.2/624
1,1,2-Trichloroethane	<0.5	<0.5	<0.5	<0.5	<0.5	5	µg/L	EPA 524.2/624
Trichloroethylene	<0.5	<0.5	<0.5	<0.5	<0.5	5	µg/L	EPA 524.2/624
Trichlorofluoromethane	<0.5	<0.5	<0.5	<0.5	<0.5	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	<0.05	<0.1	<0.1	2	µg/L	EPA 505
Atrazine	<0.05	<0.05	<0.05	<0.05	<0.5	1	µg/L	EPA 525.2
Bentazon	<0.5	<0.5	<0.5	<0.5	<0.5	18	µg/L	EPA 515.4
Benzo(a)pyrene	<0.02	<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	4	5	6	6	5	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	1Q16	2Q16	3Q16	4Q16	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	0.023	<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	0.07	<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	4.5	4.3	3.8	4.7	4.3	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	0.27	<0.31	<0.29	<0.26	<0.31	5	pCi/L	EPA 903.0
Gross Alpha Particle Activity	<3	<3	<3	4	<3	15	pCi/L	EPA 900.0/SM7110C
Tritium	<350	<324	<289	<269	<350	20,000	pCi/L	EPA 906
Strontium-90	<0.76	<0.64	<0.54	<0.68	<0.76	8	pCi/L	EPA 905
Gross Beta Particle Activity	11	14	17	16	15	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	32	40	36	42	37	200	µg/L	EPA 200.8
Copper	4.5	4.3	3.8	4.7	4.3	1000	µg/L	EPA 200.8
Corrosivity ³	-0.2 (Non-Cor.)	-0.4 (Non-Cor.)	-0.4 (Non-Cor.)	-0.4 (Non-Cor.)	Non-Cor.	Non-Cor.	SI	SM 2330B
Foaming Agents (MBAS) ³	<0.1	<0.1	<0.1	<0.1	<0.1	0.5	mg/L	S5540C/EPA 425.1
Iron ³	NR	70	NR	NR	46	300	µg/L	EPA 200.7
Manganese	14	16	11	10	13	50	µg/L	EPA 200.8
Methyl-tert-butyl ether (MTBE) ³	<0.5	<0.5	<0.5	<0.5	<0.5	5	µg/L	EPA 524.2
Odor--Threshold ³	8	40	40	100	47	3	TON	SM 2150B
Silver	<0.25	<0.25	<0.25	<0.25	<0.25	100	µg/L	EPA 200.8
Thiobencarb	<0.5	<0.2	<0.2	<0.5	<0.5	1	µg/L	EPA 525.2
Zinc	30	30	29	27	29	5000	µg/L	EPA 200.8
Miscellaneous Regulated Constituents								
Oil & Grease ⁴	<1	<1	<1	<1	<1	1	mg/L	EPA 1664
Disinfection Byproducts								
Bromate	<1	3	1	1	2	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 DCZ2-LYS-25 DCZ2-LYS-25 RP3-LYS-25 <==TTHMs RP3-LYS-25 DCZ2-LYS-25 DCZ2-LYS-25 RP3-LYS-25 <==HAA5								
Lysimeter Compliance Point Data	1Q16	2Q16	3Q16	4Q16				
Total Trihalomethanes (TTHMs)	<2	<2	<2	109	29	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

RM: Reduced monitoring for asbestos from quarterly to every 3 years in accordance with new groundwater recharge regulations

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	4Q16	Unit	Method	Constituent	4Q16	Unit	Method
Metals				Pesticides			
Chromium (III) ¹	1.2	µg/L	EPA 200.8	Aldrin	<0.01	µg/L	EPA 505/608
Volatile Organic Chemicals (VOCs)				BHC, alpha isomer	<0.1	µg/L	EPA 525/608
Acrolein	NR	µg/L	EPA 624	BHC, beta isomer	<0.1	µg/L	EPA 525/608
Acrylonitrile	NR	µg/L	EPA 624	BHC, delta isomer	<0.1	µg/L	EPA 525/608
Bromoform	<0.5	µg/L	EPA 524.2/624	4,4'-DDT	<0.1	µg/L	EPA 525/608
Chlorodibromomethane	6.2	µg/L	EPA 524.2/624	4,4'-DDE	<0.1	µg/L	EPA 525/608
Chloroethane	<0.5	µg/L	EPA 524.2/624	4,4'-DDD	<0.1	µg/L	EPA 525/608
2-Chloroethylvinylether	NR	µg/L	EPA 524.2/624	Dieldrin	<0.01	µg/L	EPA 505/608
Chloroform	111	µg/L	EPA 524.2/624	Endosulfan I	<0.1	µg/L	EPA 525/608
Dichlorobromomethane	25.9	µg/L	EPA 524.2/624	Endosulfan II	<0.1	µg/L	EPA 525/608
Methyl Bromide	<0.5	µg/L	EPA 524.2/624	Endosulfan Sulfate	<0.1	µg/L	EPA 525/608
Methyl Chloride	<0.5	µg/L	EPA 524.2/624	Unregulated Chemicals			
Acid Extractibles				Endrin Aldehyde	<0.1	µg/L	EPA 525/608
2-Chlorophenol	NR	µg/L	EPA 625	Ethyl tertiary butyl ether	<0.5	µg/L	EPA 524.2
2,4-Dichlorophenol	NR	µg/L	EPA 625	Tertiary amyl methyl ether	<0.5	µg/L	EPA 524.2
2,4-Dimethylphenol	NR	µg/L	EPA 625	Chemicals w/ State Notification Levels (NLS)			
2-Methyl-4,6-dinitrophenol	NR	µg/L	EPA 625	Boron	0.2	mg/L	EPA 200.7
2,4-Dinitrophenol	NR	µg/L	EPA 625	n-butylbenzene	<0.5	µg/L	EPA 524.2
2-Nitrophenol	NR	µg/L	EPA 625	sec-butylbenzene	<0.5	µg/L	EPA 524.2
4-Nitrophenol	NR	µg/L	EPA 625	tert-butylbenzene	<0.5	µg/L	EPA 524.2
4-Chloro-3-methylphenol	NR	µg/L	EPA 625	Carbon disulfide	<0.5	µg/L	EPA 524.2
Phenol	NR	µg/L	EPA 625	Chlorate	550	µg/L	EPA 300.0
2,4,6-Trichlorophenol	NR	µg/L	EPA 625	2-Chlorotoluene	<0.5	µg/L	EPA 524.2
Base/Neutral Extractibles				4-Chlorotoluene	<0.5	µg/L	EPA 524.2
Acenaphthene	NR	µg/L	EPA 625	Diazinon	<0.1	µg/L	EPA 525.2
Acenaphthylene	NR	µg/L	EPA 625	Dichlorodifluoromethane (Freon 12)	<0.5	µg/L	EPA 524.2
Anthracene	NR	µg/L	EPA 625	1,4 - Dioxane	1.1	µg/L	EPA 522
Benzidine	NR	µg/L	EPA 625	Ethylene glycol	<4	mg/L	EPA 8015B
Benzo(a)anthracene	NR	µg/L	EPA 625	Formaldehyde	48	µg/L	EPA 556
Benzo(b)fluoranthene	NR	µg/L	EPA 625	HMX	<0.4	µg/L	EPA 8330B
Benzo(g,h,i)perylene	NR	µg/L	EPA 625	Isopropylbenzene	<0.5	µg/L	EPA 524.2
Benzo(k)fluoranthene	NR	µg/L	EPA 625	Methyl isobutyl ketone (MIBK)	<2	µg/L	EPA 524.2
Bis(2-chloroethoxy)methane	NR	µg/L	EPA 625	N-Nitrosodiethylamine (NDEA)	<2	ng/L	EPA 521
Bis(2-chloroethyl)ether	NR	µg/L	EPA 625	N-nitrosodimethylamine (NDMA)	7.8	ng/L	EPA 521
Bis(2-chloroisopropyl)ether	NR	µg/L	EPA 625	Propachlor	<0.05	µg/L	EPA 525.2
4-Bromophenyl phenyl ether	NR	µg/L	EPA 625	N-propylbenzene	<0.5	µg/L	EPA 524.2
Butyl benzyl phthalate	NR	µg/L	EPA 625	RDX	<0.4	µg/L	EPA 8330B
2-Chloronaphthalene	NR	µg/L	EPA 625	Tertiary butyl alcohol	<2	µg/L	EPA 524.2
4-Chlorophenyl phenyl ether	NR	µg/L	EPA 625	1,2,3-Trichloropropane (1,2,3-TCP)	<0.5	µg/L	CASRL 524M-TCP
Chrysene	NR	µg/L	EPA 625	1,2,4-trimethylbenzene	<0.5	µg/L	EPA 524.2
Dibenzo(a,h)anthracene	NR	µg/L	EPA 625	1,3,5-trimethylbenzene	<0.5	µg/L	EPA 524.2
1,3-Dichlorobenzene	NR	µg/L	EPA 625	2,4,6-Trinitrotoluene	<0.4	µg/L	EPA 8330B
3,3-Dichlorobenzidine	NR	µg/L	EPA 625	Vanadium	5	µg/L	EPA 200.8
Diethyl phthalate	NR	µg/L	EPA 625	Endocrine Disrupting Chemicals, Pharmaceuticals and Other Chemicals ²			
Dimethyl phthalate	NR	µg/L	EPA 625	Acetaminophen	18	ng/L	LC-MS-MS
Di-n-butyl phthalate	NR	µg/L	EPA 625	Bis Phenol A (BPA)	<10	ng/L	LC-MS-MS
2,4-Dinitrotoluene	NR	µg/L	EPA 625	Caffeine	<5	ng/L	LC-MS-MS
2,6-Dinitrotoluene	NR	µg/L	EPA 625	Carbamazepine	83	ng/L	LC-MS-MS
Di-n-octyl phthalate	NR	µg/L	EPA 625	DEET	57	ng/L	LC-MS-MS
Azobenzene	NR	µg/L	EPA 625	Estradiol	<5	ng/L	LC-MS-MS
Fluoranthene	NR	µg/L	EPA 625	Estrone	<5	ng/L	LC-MS-MS
Fluorene	NR	µg/L	EPA 625	Ethinyl Estradiol - 17 alpha	<5	ng/L	LC-MS-MS
Hexachlorobutadiene	NR	µg/L	EPA 625	Fluoxetine	<10	ng/L	LC-MS-MS
Hexachlorocyclopentadiene	NR	µg/L	EPA 625	Gemfibrozil	<5	ng/L	LC-MS-MS
Hexachloroethane	NR	µg/L	EPA 625	Ibuprofen	<10	ng/L	LC-MS-MS
Indeno(1,2,3-cd)pyrene	NR	µg/L	EPA 625	Iopromide	210	ng/L	LC-MS-MS
Isophorone	NR	µg/L	EPA 625	Progesterone	<5	ng/L	LC-MS-MS
Naphthalene	NR	µg/L	EPA 625	Sucralose	66000	ng/L	LC-MS-MS
Nitrobenzene	NR	µg/L	EPA 625	Sulfamethoxazole	<5	ng/L	LC-MS-MS
N-Nitroso-di-n-propylamine	NR	µg/L	EPA 625	Testosterone	<5	ng/L	LC-MS-MS
N-Nitrosodiphenylamine	NR	µg/L	EPA 625	Triclosan	<10	ng/L	LC-MS-MS
Phenanthrene	NR	µg/L	EPA 625	Trimethoprim	<5	ng/L	LC-MS-MS
Pyrene	NR	µg/L	EPA 625	Warfarin	<5	ng/L	LC-MS-MS

¹ Trivalent chromium is measured as total chromium

*Pursuant to the GRRP regulations, recharge water may be monitored in lieu of recycled water. 1,2,3-TCP was sampled at RP3-LYS-25 during 1Q16 to meet the notification level.

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	10/05/16	4.33	4.7	4.2	3.8	0.9	0.07	811
BNA-LYS-00	0	10/12/16	4.28	5.0	4.3	4.3	0.7	<0.01	781
BNA-LYS-00	0	10/19/16	4.01	6.2	5.2	5.2	1.0	<0.01	791
BNA-LYS-00	0	10/26/16	8.02	6.1	3.8	3.3	2.8	0.09	570
BNA-LYS-00	0	11/02/16	5.05	5.8	4.6	4.5	1.3	<0.01	687
BNA-LYS-00	0	11/09/16	5.82	6.4	3.5	3.5	2.9	<0.01	692
BNA-LYS-00	0	11/16/16	5.09	5.5	4.1	4.1	1.4	<0.01	704
BNA-LYS-00	0	11/23/16	6.15	4.3	3.3	2.9	1.4	0.05	553
BNA-LYS-00	0	11/30/16	5.27	5.0	4.0	3.8	1.2	<0.01	626
BNA-LYS-00	0	12/07/16	7.26	3.7	2.2	1.9	1.8	0.05	555
BNA-LYS-00	0	12/14/16	6.56	3.6	2.2	1.9	1.7	0.08	560
BNA-LYS-00	0	12/21/16	4.50	2.4	1.4	0.9	1.5	0.06	237
BNA-LYS-00	0	12/28/16	3.76	1.6	1.0	0.6	1.0	0.05	102

Brooks 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
BRK-LYS-00	0	10/28/16	6.39	3.6	0.4	0.3	3.3	0.11	543
BRK-LYS-00	0	11/30/16	5.64	5.1	2.6	2.5	2.6	0.07	577
BRK-LYS-00	0	12/07/16	5.67	4.6	2.5	2.4	2.2	0.08	567
BRK-LYS-25**	25	10/28/16	3.28	<0.6	<0.2	0.1	<0.5	<0.01	724
BRK-LYS-25**	25	11/30/16	3.12	0.6	<0.2	0.1	0.5	<0.01	695
BRK-LYS-25**	25	12/07/16	3.31	0.7	<0.2	0.1	0.6	<0.01	595

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
HKYE-LYS-00	0	10/05/16	6.20	5.3	2.2	1.9	3.4	0.05	805
HKYE-LYS-00	0	10/12/16	6.95	3.1	0.6	0.1	3.0	<0.01	782
HKYE-LYS-00	0	10/19/16	5.35	5.2	3.6	3.2	2.0	0.06	797
HKYE-LYS-00	0	10/26/16	6.23	5.9	3.0	2.9	3.0	0.11	759
HKYE-LYS-00	0	11/02/16	5.65	4.6	2.7	1.6	3.0	0.21	780
HKYE-LYS-00	0	11/09/16	11.1	11.3	0.6	0.4	10.9	0.15	777
HKYE-LYS-00	0	11/16/16	6.74	3.0	<0.2	0.1	2.9	<0.01	750
HKYE-LYS-00	0	11/23/16	6.95	4.9	2.2	2.0	2.9	<0.01	745
HKYE-LYS-00	0	11/30/16	5.97	3.5	1.5	1.3	2.2	0.08	691
HKYE-LYS-00	0	12/07/16	6.81	2.8	0.8	0.6	2.2	0.06	631
HKYE-LYS-00	0	12/14/16	7.33	3.0	1.3	0.5	2.5	0.05	663
HKYE-LYS-00	0	12/21/16	5.15	3.0	1.4	0.8	2.2	0.07	181
HKYE-LYS-00	0	12/28/16	3.97	1.4	0.9	0.5	0.9	<0.01	144

Declez 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
DCZ2-LYS-00	0	10/04/16	13.6	3.7	0.7	0.7	3.0	<0.01	562
DCZ2-LYS-00	0	10/07/16		3.5	0.7	0.6	2.9	0.06	528
DCZ2-LYS-05	5	10/04/16	2.24	3.6	3.6	3.6	<0.5	<0.01	978
DCZ2-LYS-05	5	10/07/16		4.5	3.6	3.6	0.9	<0.01	881
DCZ2-LYS-10	10	10/04/16	2.57	2.4	1.8	1.8	0.6	<0.01	910
DCZ2-LYS-10	10	10/07/16		2.6	1.9	1.9	0.7	<0.01	795
DCZ2-LYS-25	25	10/04/16	2.40	<0.6	<0.2	<0.1	<0.5	<0.01	926
DCZ2-LYS-25	25	10/07/16		<0.6	<0.2	<0.1	<0.5	<0.01	818
DCZ2-LYS-35	35	10/04/16	1.03	2.2	2.2	2.2	<0.5	<0.01	460
DCZ2-LYS-35	35	10/07/16		2.6	2.6	2.6	<0.5	<0.01	425

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.

** Brooks Basin is part of an alternative monitoring plan; the Brooks Basin 25 foot bgs lysimeter is only used for compliance with TN. Compliance with TOC at Brooks

Basin is measured at BRK-1/1 (see Table 2-5b)

Notes: Banana & Hickory Basins compliance point for TN is located at BH-1/2. Declez Basin lysimeter data is not being analyzed for compliance, but are currently being monitored for the basin start-up period.

TOC & TN compliance is based on two consecutive sample results.

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)	TN - 2 sample avg.
Limit ==>			16 mg/L	16 mg/L		5 mg/L
10/05/16	4.43	8.1	1.33	0.66	1.1	1.1
10/12/16	4.61	9.3	1.38	0.69	1.2	1.1
10/19/16	4.69	6.7	1.41	0.70	0.9	1.0
10/25/16	3.49	8.4	1.05	0.52	1.1	1.0
11/01/16	3.44	7.2	1.03	0.52	0.9	1.0
11/08/16	4.72	5.4	1.42	0.71	0.7	0.8
11/15/16	4.33	5.8	1.30	0.65	0.7	0.7
11/22/16	3.64	6.3	1.09	0.55	0.8	0.8
11/29/16	3.51	5.6	1.05	0.53	0.7	0.8
12/06/16	4.46	6.5	1.34	0.67	0.8	0.8
12/13/16	4.48	7.2	1.34	0.67	0.9	0.9
12/20/16	4.31	6.1	1.29	0.65	0.8	0.9
12/27/16	4.27	5.2	1.28	0.64	0.7	0.7

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)	TN - 2 sample avg.
Limit ==>			16 mg/L		5 mg/L
10/03/16	5.40	8.2	1.30	3.9	3.8
10/10/16	5.62	7.8	1.35	3.7	3.8
10/17/16	5.48	6.0	1.32	2.9	3.3
10/24/16	5.19	7.7	1.25	3.7	3.3
10/31/16	5.00	7.4	1.20	3.6	3.6
11/07/16	5.46	8.1	1.31	3.9	3.7
11/14/16	5.47	7.8	1.31	3.7	3.8
11/21/16	5.34	8.0	1.28	3.8	3.8
11/28/16	5.52	7.6	1.32	3.6	3.7
12/05/16	5.18	7.9	1.24	3.8	3.7
12/12/16	5.26	8.7	1.26	4.2	4.0
12/19/16	5.43	8.7	1.30	4.2	4.2
12/26/16	5.02	5.8	1.20	2.8	3.5

RP3 Basin					
Date	RW Blend*	RW Blend*	RP3	RP3	
mg/L==>	TOC	TN	TOC (88% reduction)	TN (31% reduction)	TN - 2 sample avg.
Limit ==>			16 mg/L		5 mg/L
10/05/16	4.43	8.1	0.53	5.6	5.7
10/12/16	4.61	9.3	0.55	6.4	6.0
10/19/16	4.69	6.7	0.56	4.6	5.5
10/25/16	3.49	8.4	0.42	5.8	5.2
11/01/16	3.44	7.2	0.41	5.0	5.4
11/08/16	4.72	5.4	0.57	3.7	4.4
11/15/16	4.33	5.8	0.52	4.0	3.8
11/22/16	3.64	6.3	0.44	4.3	4.2
11/29/16	3.51	5.6	0.42	3.9	4.1
12/06/16	4.46	6.5	0.54	4.5	4.2
12/13/16	4.48	7.2	0.54	4.9	4.7
12/20/16	4.31	6.1	0.52	4.2	4.6
12/27/16	4.27	5.2	0.51	3.6	3.9

8th Street Basin					
Date	RW Blend*	RW Blend*	8th Street	8th Street	
mg/L==>	TOC	TN	TOC (59% reduction)	TN (75% reduction)	TN - 2 sample avg.
Limit ==>			16 mg/L	5 mg/L	5 mg/L
10/05/16	4.43	8.1	1.82	2.0	2.1
10/12/16	4.61	9.3	1.89	2.3	2.2
10/19/16	4.69	6.7	1.92	1.7	2.0
10/25/16	3.49	8.4	1.43	2.1	1.9
11/01/16	3.44	7.2	1.41	1.8	2.0
11/08/16	4.72	5.4	1.94	1.4	1.6
11/15/16	4.33	5.8	1.78	1.4	1.4
11/22/16	3.64	6.3	1.49	1.6	1.5
11/29/16	3.51	5.6	1.44	1.4	1.5
12/06/16	4.46	6.5	1.83	1.6	1.5
12/13/16	4.48	7.2	1.84	1.8	1.7
12/20/16	4.31	6.1	1.77	1.5	1.7
12/27/16	4.27	5.2	1.75	1.3	1.4

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

Note: TOC & TN compliance is based on two consecutive sample results.

Table 2-5b
Alternative Monitoring Plans

San Seavaine 5 Basin					
Date	RW Blend*	RW Blend*	San Seavaine 5	San Seavaine 5	
mg/L==>	TOC	TN	TOC (78% reduction)	TN (69% reduction)	TN - 2 sample avg.
Limit ==>			16 mg/L	5 mg/L	5 mg/L
10/05/16	4.43	8.1	0.97	2.5	2.6
10/12/16	4.61	9.3	1.01	2.9	2.7
10/19/16	4.69	6.7	1.03	2.1	2.5
10/25/16	3.49	8.4	0.77	2.6	2.3
11/01/16	3.44	7.2	0.76	2.2	2.4
11/08/16	4.72	5.4	1.04	1.7	2.0
11/15/16	4.33	5.8	0.95	1.8	1.7
11/22/16	3.64	6.3	0.80	2.0	1.9
11/29/16	3.51	5.6	0.77	1.7	1.8
12/06/16	4.46	6.5	0.98	2.0	1.9
12/13/16	4.48	7.2	0.99	2.2	2.1
12/20/16	4.31	6.1	0.95	1.9	2.0
12/27/16	4.27	5.2	0.94	1.6	1.7

Victoria Basin					
Date	RW Blend*	RW Blend*	Victoria	Victoria	
mg/L==>	TOC	TN	TOC (78% reduction)	TN (82% reduction)	TN - 2 sample avg.
Limit ==>			16 mg/L	5 mg/L	5 mg/L
10/05/16	4.43	8.1	0.97	1.5	1.5
10/12/16	4.61	9.3	1.01	1.7	1.6
10/19/16	4.69	6.7	1.03	1.2	1.4
10/25/16	3.49	8.4	0.77	1.5	1.4
11/01/16	3.44	7.2	0.76	1.3	1.4
11/08/16	4.72	5.4	1.04	1.0	1.1
11/15/16	4.33	5.8	0.95	1.0	1.0
11/22/16	3.64	6.3	0.80	1.1	1.1
11/29/16	3.51	5.6	0.77	1.0	1.1
12/06/16	4.46	6.5	0.98	1.2	1.1
12/13/16	4.48	7.2	0.99	1.3	1.2
12/20/16	4.31	6.1	0.95	1.1	1.2
12/27/16	4.27	5.2	0.94	0.9	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	
10/28/16	6.39	3.6	543	
11/30/16	5.64	5.1	577	
12/07/16	5.67	4.6	567	
Date	BRK-LYS-25	BRK-LYS-25	BRK-LYS-25	BRK-LYS-25
mg/L==>	TOC	TN* (Limit = 5 mg/L)	TN - 2 sample avg.	EC
10/28/16	3.28	0.1	0.5	724
11/30/16	3.12	0.6	0.6	695
12/07/16	3.31	0.7	0.7	595
Date	BRK-1/1	BRK-1/1	BRK-1/1	BRK-1/1
mg/L==>	TOC* (Limit = 16 mg/L)	TN	EC	CI
10/25/16	0.50	1.9	742	
11/15/16	0.46	1.0	732	94
12/22/16	0.55	0.7	701	

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

Banana & Hickory Basin				
Date	BH-1/2	BH-1/2*	BH-1/2	
mg/L==>	TOC (Limit = 16 mg/L)	TN (Limit = 5 mg/L)	TN - 2 sample avg.	EC
10/05/16	0.45	3.4	3.6	761
10/12/16	0.41	3.5	3.5	726
10/19/16	0.40	3.4	3.4	736
10/26/16	0.65	4.0	4.0	746
11/02/16	0.39	3.7	3.7	739
11/09/16	0.43	4.2	4.2	757
11/16/16	0.42	3.5	3.5	722
11/23/16	0.48	3.5	3.5	749
11/30/16	0.44	3.6	3.6	665
12/07/16	0.49	3.5	3.5	667
12/14/16	0.56	3.5	3.5	692
12/21/16	0.42	3.4	3.4	694
12/28/16	0.41	3.6	3.6	752

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

Also compliance point for Banana Basin starting 1Q16, since BNA-LYS-25 is no longer operational.

Note: TOC & TN compliance is based on two consecutive sample results.

Table 2-6
RWC, TOC Average, and TN Compliance Summary

Basin	SUP Start Date	SUP End Date	SUP Report Submittal	RWC Limit	Mos. in Operation (Feb 2017)	RWC (Feb 2017)	TOC _{Avg} Limit	Oct 2016 TOC _{Avg}	Nov 2016 TOC _{Avg}	Dec 2016 TOC _{Avg}	4Q16 TN Limit Compliance	Recharged Water Monitoring Plan
8 th Street	Sep-07	Dec-10	05/23/11	28%	114	23%	2.2	1.8	1.6	1.8	Met	Alternative monitoring: RW Blend with TOC reduction of 59% and TN reduction of 75%
Banana	Jul-05	Jan-06	10/27/06	36%	152	36%	1.4	0.5	0.4	0.5	Met	Alternative monitoring: Monthly BH-1/2 monitoring for TOC and TN
Brooks	Aug-08	Dec-09	07/29/10	42%	115	18%	2.8	0.5	0.5	0.6	Met	Alternative monitoring: monthly lysimeter monitoring at 0- and 25-foot bgs & BRK-1/1 for EC, TOC, TN. 25-foot lysimeter compliance point for TN and BRK-1/1 for TOC. BRK-1/1 analyzed monthly for chloride to verify presence of RW.
Declez	Dec-15	Sep-16	TBD	TBD	15	10%	5.0	1.0	1.0	1.0	Met	TBD
Ely	RW initiated Sep-99	NA	NA	29%	222	22%	2.3	1.3	1.3	1.3	Met	Alternative monitoring: RP-1 RW sample with TOC reduction of 76% and TN reduction of 52%
Hickory	Sep-05	Feb-06	02/15/07	36%	150	24%	2.1	0.5	0.4	0.5	Met	Alternative monitoring: Monthly BH-1/2 monitoring for TOC and TN
RP3	Jun-09	Jun-10	12/15/10	50%	105	17%	2.9	0.5	0.5	0.5	3 Exceedances	Alternative monitoring: RW Blend with TOC reduction of 76% and TN reduction of 31%
San Sevaïne 5	Jul-10	Aug-11	02/08/12	27%	92	9%	5.6	0.9	0.9	1.0	Met	Alternative monitoring: RW Blend with TOC reduction of 78% and TN reduction of 69%
Turner 1&2	Dec-06	May-07	07/03/08	24%	140	19%	2.6	1.3	1.2	1.3	Met	Alternative monitoring: RW Blend with TOC reduction of 70% in cells 1 & 2 and 85% in cells 3 & 4; TN reduction of 87% in all cells
Turner 3&4	Dec-06	May-07	07/03/08	45%	140	24%	2.1	0.6	0.6	0.7	Met	
Victoria	Sep-10	Jul-11	02/08/12	50%	90	30%	1.7	0.9	0.9	1.0	Met	Alternative monitoring: RW Blend with TOC reduction of 78% and TN reduction of 82%

SUP - Start-Up Period

Table 2-7
Diluent Water Monitoring*: Stormwater

Constituent	Cucamonga Creek @ Turner 1&2 10/24/16	San Antonio Channel @ Montclair Basin 11/21/16	W. Cucamonga Creek @ Ely Basin 11/21/16	Day Creek @ Lower Day Basin 11/21/16	Deer Creek @ Turner 3&4 12/21/16	Max Level to Trigger Source Water Evaluation	Unit	Method
NO ₂ -N	0.15	0.23	0.08	0.07	<0.02	1	mg/L	EPA 300.0
NO ₃ -N	2.9	2.0	1.2	0.6	0.9	10	mg/L	EPA 300.0
TDS	180	126	92	270	92	420	mg/L	SM 2540C
Total Coliform	1600000	16000000	110000	800000	NS	NA	npn/100mr	SM 9221B
Oil & Grease	<2	<2	<2	<2	2	NA	mg/L	EPA 1664A
Inorganic Chemicals								
Aluminum	798	645	430	133	2727	1000	µg/L	EPA 200.7
Antimony	3	2	3	<1	<1	6	µg/L	EPA 200.8
Arsenic	2	<2	<2	<2	<2	10	µg/L	EPA 200.8
Asbestos	<2.1	<0.2	<0.2	<0.4	<6.9	7	MFL	EPA 100.2
Barium	40	29	30	35	43	1000	µg/L	EPA 200.7
Beryllium	<0.5	<0.5	<0.5	<0.5	<0.5	4	µg/L	EPA 200.7
Cadmium	<0.25	<0.25	<0.25	<0.25	<0.25	5	µg/L	EPA 200.7
Chromium	3.6	1.8	2.7	1.1	2.8	50	µg/L	EPA 200.7
Chromium VI	1.4	0.2	1.1	0.1	0.2	10	µg/L	EPA 218.6
Cyanide	<20	<20	<20	<20	<20	150	µg/L	ASTM D7284
Fluoride	0.3	0.2	0.2	0.1	<0.1	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	5	3	3	3	2	100	µg/L	EPA 200.7
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	NA	<0.5	<0.5	<0.5	<0.5	1	µg/L	EPA 524.2
Carbon Tetrachloride	NA	<0.5	<0.5	<0.5	<0.5	0.5	µg/L	EPA 524.2
1,2-Dichlorobenzene	NA	<0.5	<0.5	<0.5	<0.5	600	µg/L	EPA 524.2
1,4-Dichlorobenzene	NA	<0.5	<0.5	<0.5	<0.5	5	µg/L	EPA 524.2
1,1-Dichloroethane	NA	<0.5	<0.5	<0.5	<0.5	5	µg/L	EPA 524.2
1,2-Dichloroethane	NA	<0.5	<0.5	<0.5	<0.5	0.5	µg/L	EPA 524.2
1,1-Dichloroethylene	NA	<0.5	<0.5	<0.5	<0.5	6	µg/L	EPA 524.2
cis-1,2-Dichloroethylene	NA	<0.5	<0.5	<0.5	<0.5	6	µg/L	EPA 524.2
trans-1,2-Dichloroethylene	NA	<0.5	<0.5	<0.5	<0.5	10	µg/L	EPA 524.2
Dichloromethane	NA	<0.5	<0.5	<0.5	<0.5	5	µg/L	EPA 524.2
1,2-Dichloropropane	NA	<0.5	<0.5	<0.5	<0.5	5	µg/L	EPA 524.2
1,3-Dichloropropane	NA	<0.5	<0.5	<0.5	<0.5	0.5	µg/L	EPA 524.2
Ethylbenzene	NA	<0.5	<0.5	<0.5	<0.5	300	µg/L	EPA 524.2
Chlorobenzene	NA	<0.5	<0.5	<0.5	<0.5	70	µg/L	EPA 524.2
Methyl Tert-butyl ether (MTBE)	NA	<0.5	<0.5	<0.5	<0.5	13	µg/L	EPA 524.2
Styrene	NA	<0.5	<0.5	<0.5	<0.5	100	µg/L	EPA 524.2
1,1,2,2-Tetrachloroethane	NA	<0.5	<0.5	<0.5	<0.5	1	µg/L	EPA 524.2
Tetrachloroethylene	NA	<0.5	<0.5	<0.5	<0.5	5	µg/L	EPA 524.2
Toluene	NA	<0.5	<0.5	0.8	<0.5	150	µg/L	EPA 524.2
1,2,4-Trichlorobenzene	NA	<0.5	<0.5	<0.5	<0.5	5	µg/L	EPA 524.2
1,1,1-Trichloroethane	NA	<0.5	<0.5	<0.5	<0.5	200	µg/L	EPA 524.2
1,1,2-Trichloroethane	NA	<0.5	<0.5	<0.5	<0.5	5	µg/L	EPA 524.2
Trichloroethylene	NA	<0.5	<0.5	<0.5	<0.5	5	µg/L	EPA 524.2
Trichlorofluoromethane	NA	<0.5	<0.5	<0.5	<0.5	150	µg/L	EPA 524.2
1,1,2-Trichloro-1,2,2-Trifluoroethane	NA	<0.5	<0.5	<0.5	<0.5	1200	µg/L	EPA 524.2
Vinyl Chloride	NA	<0.5	<0.5	<0.5	<0.5	0.5	µg/L	EPA 524.2
Total Xylenes	NA	<1	<1	<1	<1	1750	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	0.6	<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	2.5	0.6	1.2	<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
Ethylene Dibromide	<0.01	<0.01	<0.01	<0.01	<0.01	0.05	µg/L	EPA 504.1
Glyphosate	21	7	6	<6	<6	700	µg/L	EPA 547
Heptachlor	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	µg/L	EPA 505
Heptachlor Epoxide	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	µg/L	EPA 505
Hexachlorobenzene	<0.05	<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

Table 2-7
Diluent Water Monitoring*: Stormwater

Constituent	Cucamonga Creek @ Turner 1&2 10/24/16	San Antonio Channel @ Montclair Basin 11/21/16	W. Cucamonga Creek @ Ely Basin 11/21/16	Day Creek @ Lower Day Basin 11/21/16	Deer Creek @ Turner 3&4 12/21/16	Max Level to Trigger Source Water Evaluation	Unit	Method
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	0.08	0.09	0.19	<0.04	0.06	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)	<2.09	<2.27	<2.17	<2.05	<2.08	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
Disinfection Byproducts								
Total Trihalomethanes (TTHMs)	NA	<2	<2	<2	<2	80	µg/L	EPA 524.2/624
Total Haloacetic Acids (HAA5)	4	<2	<2	6	<2	60	µg/L	SM 6251B
Bromate	7	<1	<1	8	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
Action Level Chemicals								
Copper	22.7	15.6	19.4	7.9	8.8	1300	µg/L	EPA 200.7
Lead	2.7	11.3	2.6	0.5	1.6	15	µg/L	EPA 200.8
Radionuclides								
Combined Radium-226 & Radium 228	<0.484	<0.449	<0.442	<0.547	<0.139	5	pCi/L	EPA 903.0
Gross Alpha Particle Activity	<3	<3	<3	<3	<3	15	pCi/L	EPA 900.0/SM7110C
Tritium	<341	<320	457	<316	<294	20,000	pCi/L	EPA 906.0
Strontium-90	<1.62	<1.32	<1.49	<1.11	<0.511	8	pCi/L	EPA 905.0
Gross Beta Particle Activity	9.6	8.1	6.6	6.3	3.6	50	pCi/L	EPA 900.0
Uranium	<0.7	<0.7	<0.7	<0.7	<0.7	20	pCi/L	EPA 200.8
Unregulated Chemicals								
Ethyl tertiary butyl ether	NA	<0.5	<0.5	<0.5	<0.5	-	µg/L	EPA 524.2
Tertiary amyl methyl ether	NA	<0.5	<0.5	<0.5	<0.5	-	µg/L	EPA 524.2
Chemicals w/ State Notification Levels								
Boron	<0.1	<0.1	<0.1	<0.1	<0.1	-	mg/L	EPA 200.7
n-butylbenzene	NA	<0.5	<0.5	<0.5	<0.5	-	µg/L	EPA 524.2
sec-butylbenzene	NA	<0.5	<0.5	<0.5	<0.5	-	µg/L	EPA 524.2
tert-butylbenzene	NA	<0.5	<0.5	<0.5	<0.5	-	µg/L	EPA 524.2
Carbon disulfide	NA	<0.5	<0.5	<0.5	<0.5	-	µg/L	EPA 524.2
Chlorate	190	170	12	340	120	-	µg/L	EPA 300.0
2-Chlorotoluene	NA	<0.5	<0.5	<0.5	<0.5	-	µg/L	EPA 524.2
4-Chlorotoluene	NA	<0.5	<0.5	<0.5	<0.5	-	µg/L	EPA 524.2
Diazinon	<0.1	<0.1	<0.1	<0.1	<0.1	-	µg/L	EPA 525.2
Dichlorodifluoromethane (Freon 12)	NA	<0.5	<0.5	<0.5	<0.5	-	µg/L	EPA 524.2
1,4 - Dioxane	<1	<1	<1	<1	<1	-	µg/L	EPA 522
Formaldehyde	22	23	16	18	<5	-	µg/L	EPA 556
HMX	<0.1	<0.1	<0.1	<0.1	<0.1	-	µg/L	LC-MS-MS
Isopropylbenzene	NA	<0.5	<0.5	<0.5	<0.5	-	µg/L	EPA 524.2
Methyl isobutyl ketone (MIBK)	NA	<2	<2	<2	<2	-	µg/L	EPA 524.2
N-Nitrosodiethylamine (NDEA)	<2	<2	<2	<2	<2	-	ng/l	EPA 521
N-nitrosodimethylamine (NDMA)	<2	<2	<2	<2	<2	-	ng/l	EPA 521
Propachlor	<0.05	<0.05	<0.05	<0.05	<0.05	-	µg/L	EPA 525.2
N-propylbenzene	NA	<0.5	<0.5	<0.5	<0.5	-	µg/L	EPA 524.2
RDX	<0.1	<0.1	<0.1	<0.1	<0.1	-	µg/L	LC-MS-MS
Tertiary butyl alcohol	NA	<2	<2	<2	<2	-	µg/L	EPA 524.2 MOD
1,2,3-Trichloropropane (1,2,3-TCP)	<0.005	<0.005	<0.005	<0.005	<0.005	-	µg/L	CASRL 524M-TCP
1,2,4 -trimethylbenzene	NA	<0.5	<0.5	<0.5	<0.5	-	µg/L	EPA 524.2
1,3,5-trimethylbenzene	NA	<0.5	<0.5	<0.5	<0.5	-	µg/L	EPA 524.2
2,4,6-Trinitrotoluene	<0.1	<0.1	<0.1	<0.1	<0.1	-	µg/L	LC-MS-MS
Vanadium	11	6	5	4	7	-	µg/L	EPA 200.8
Secondary Maximum Contaminant Level Chemicals								
Aluminum	798	645	430	133	2727	-	µg/L	EPA 200.7
Corrosivity	-0.4	-2.2	-1.2	-0.7	-2.0	-	SI	SM 2330B
Foaming Agents (MBAS)	0.3	0.2	0.5	0.1	<0.1	-	mg/L	SM 5540C/EPA 425.1
Iron	1074	<15	<15	<15	2637	-	µg/L	EPA 200.7
Manganese	32	77	22	196	44	-	µg/L	EPA 200.7
Odor--Threshold	17	100	2	200	67	-	TON	SM 2150B
Silver	<0.25	<0.25	<0.25	<0.25	<0.25	-	µg/L	EPA 200.7
Thiobencarb	<0.2	<0.2	<0.2	<0.2	<0.2	-	µg/L	EPA 525.2
Zinc	108	89	114	43	29	-	µg/L	EPA 200.7

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

NA: Not analyzed due to instrument failure; sample was not recollected during the monitoring period.

NS: Not sampled

Bold signifies an exceedance of the maximum level to trigger a source water evaluation. Explained in further detail in the report text.

Table 2-8
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	Inactive	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
	1904001	City of Pomona P-34	2550 downgradient	363-367, 380-400, 419-427	20	Active	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
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 2-9a
Groundwater Monitoring Well Results (Quarterly)

	Sample Location	Date	TOC (mg/L)	Total Coliform (MPN/100mL)	pH	EC (µmho/cm)	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)	TDS (mg/L)	Cl (mg/L)	Hardness (mg CaCO ₃ /L)	Na (mg/L)	SO ₄ (mg/L)	Nitrogen, Total (mg/L)	NO ₂ -N (mg/L)	NO ₃ -N (mg/L)	Dissolved Oxygen (mg/L)
Banana & Hickory	Fontana Water Co. - F37a*	10/31/16	0.13	<1.1	8.1	556	<25	<3	1.6	0.2	<0.05	<15	<1	<0.5	2	1.85	<0.2	0.40	13	340	23	212	18	27	12.8	<0.02	12.8	4.7
	California Speedway - Infield Well	10/18/16	0.14	<1.1	7.8	601	<25	<3	1.6	0.0	<0.05	274	2	<0.5	2	<0.25	<0.2	0.20	1	372	30	246	22	62	7.0	<0.02	7.0	6.4
	California Speedway 2	10/10/16	<0.10	1.1	8.2	469	<25	<3	1.1	0.0	<0.05	<15	<1	<0.5	2	<0.25	<0.2	0.10	2	274	19	176	18	24	6.3	<0.02	5.8	4.3
	Reliant Energy - East Well	11/08/16	<0.10	<1.1	7.7	411	<25	<3	1.2	-0.2	<0.05	<15	<1	<0.5	2	<0.25	<0.2	0.30	<1	238	16	136	17	16	5.9	<0.02	5.9	4.9
	BH-1/2*	11/02/16	0.39	<1.1	8.4	739	<25	5	1.1	0.2	<0.05	<15	3	<0.5	<1	0.39	<0.2	1.9	<1	456	104	258	27	50	3.4	<0.02	3.4	5.6
Turner	Ontario Well No. 25	11/01/16	0.26	23.0	7.8	501	<25	<3	0.7	0.1	<0.05	<15	<1	<0.5	<1	<0.25	<0.2	0.35	<1	302	26	186	22	17	5.0	<0.02	5.0	4.6
	Ontario Well No. 29	11/01/16	<0.10	2.2	8.2	374	<25	5	0.7	0.1	<0.05	<15	<1	<0.5	2	<0.25	<0.2	0.20	<1	218	10	122	20	16	2.7	<0.02	2.7	5.0
	Ontario Well No. 38	11/01/16	<0.10	12.0	8.2	387	<25	5	0.5	0.2	<0.05	<15	<1	<0.5	<1	<0.25	<0.2	0.20	<1	222	8	140	16	9	2.2	<0.02	2.2	4.8
	T-1/2*	11/03/16	1.10	<1.1	7.3	580	<25	<3	1.5	-0.2	<0.05	<15	14	<0.5	2	<0.25	<0.2	0.50	<1	344	82	175	34	26	<0.6	<0.02	<0.1	1.7
	T-2/2*	11/03/16	1.30	<1.1	7.4	550	<25	<3	1.4	-0.2	<0.05	<15	<1	<0.5	1	<0.25	<0.2	0.30	1	324	58	171	31	37	1.6	<0.02	1.6	3.1
RP3	Fontana Water Co. - F23a	10/31/16	0.16	1.1	8.2	494	<25	<3	0.8	0.1	<0.05	<15	<1	<0.5	2	<0.25	<0.2	0.40	1	294	25	176	18	24	9.3	<0.02	8.7	4.9
	Alcoa MW1*	11/08/16	0.19	<1.1	7.7	680	<25	<3	0.9	0.2	<0.05	<15	<1	<0.5	<1	<0.25	<0.2	0.70	1	418	46	231	25	38	14.4	<0.02	14.4	4.5
	Alcoa MW3*	11/08/16	0.23	1.1	7.4	962	<25	<3	1.1	-0.2	<0.05	<15	<1	<0.5	<1	<0.25	<0.2	0.35	<1	622	90	379	46	49	18.5	<0.02	18.5	4.7
	RP3-1/1*	11/01/16	1.03	2.2	7.5	845	<25	5	1.8	-0.1	<0.05	<15	21	<0.5	2	<0.25	<0.2	0.30	<1	492	109	248	58	50	4.3	<0.02	4.3	1.1
8th Street	8TH-1/2*	11/10/16	0.15	<1.1	7.8	354	<25	5	0.6	-0.2	<0.05	<15	9	<0.5	2	<0.25	<0.2	1.2	2	228	36	130	14	15	0.9	<0.02	0.9	5.2
	8TH-2/1*	11/10/16	0.57	<1.1	7.7	519	<25	<3	<0.5	0.1	<0.05	<15	<1	<0.5	2	<0.25	<0.2	0.50	<1	340	18	217	15	30	14.1	<0.02	14.1	5.4
Brooks	Pomona Well No. 10	10/26/16	0.22	<1.1	7.9	563	<25	<3	0.7	0.3	<0.05	<15	<1	<0.5	2	<0.25	<0.2	0.15	<1	332	50	230	11	40	7.2	<0.02	7.2	5.9
	Pomona Well No. 34	10/26/16	0.25	<1.1	7.8	602	<25	<3	0.8	0.3	<0.05	<15	<1	<0.5	1	<0.25	<0.2	0.20	1	372	32	249	12	44	14.9	<0.02	14.9	7.2
	BRK-1/1*	11/15/16	0.46	<1.1	7.6	732	<25	10	1.4	0.1	<0.05	<15	4	<0.5	1	<0.25	<0.2	4.5	<1	426	94	251	35	39	0.6	<0.02	0.6	4.9
	BRK-2/2*	11/14/16	<0.10	6.9	8.4	303	<25	<3	1.1	0.0	<0.05	<15	<1	<0.5	2	<0.25	<0.2	0.60	<1	170	4	70	32	23	2.8	<0.02	2.8	2.3
Ely	Ely Basin MW1 Philadelphia St.*	11/07/16	0.55	<1.1	7.4	628	<25	5	1.0	0.0	<0.05	59	53	<0.5	1	<0.25	<0.2	4.3	1	350	76	200	30	40	<0.6	<0.02	0.2	1.1
	Ely Basin MW2 Walnut St.*	11/09/16	0.41	<1.1	7.5	840	<25	<3	1.0	0.2	<0.05	<15	3	<0.5	1	<0.25	<0.2	0.25	1	484	73	327	29	47	11.8	<0.02	11.8	13.4
	Riverside Well (43840-CWW)*	10/26/16	0.24	<1.1	7.8	618	<25	<3	0.8	0.3	<0.05	<15	<1	<0.5	2	<0.25	<0.2	0.20	26	364	30	244	20	35	11.1	<0.02	11.1	6.0
	Bishop of SB Corp. - DOM	10/26/16	0.34	<1.1	7.6	838	<25	<3	1.0	0.3	<0.05	18	<1	<0.5	2	<0.25	<0.2	0.30	233	500	41	347	22	64	21.0	<0.02	21.0	6.2
Victoria & San Seavine	SS-1/1*	11/10/16	<0.10	23.0	7.6	297	<25	<3	<0.5	-0.8	<0.05	<15	<1	<0.5	1	<0.25	<0.2	1.9	<1	202	15	101	15	22	3.4	<0.02	3.4	6.6
	VCT-1/1*	11/10/16	0.52	<1.1	7.4	672	<25	10	0.9	-0.4	<0.05	<15	2	<0.5	1	0.88	<0.2	7.4	1	508	109	264	23	39	1.5	<0.02	1.5	6.5
	VCT-2/2*	11/17/16	0.13	<1.1	7.7	341	<25	<3	<0.5	-0.3	<0.05	<15	<1	<0.5	2	<0.25	<0.2	0.35	2	218	12	115	20	11	4.2	<0.02	4.2	7.8
	CVWD Well No. 39	10/11/16	<0.10	<1.1	7.9	317	<25	<3	3.8	-0.3	<0.05	<15	<1	<0.5	<1	<0.25	<0.2	0.20	<1	202	9	99	21	12	2.5	<0.02	2.5	7.9
	CVWD Well No. 43	10/11/16	<0.10	<1.1	7.6	371	<25	5	1.4	-0.2	<0.05	<15	<1	<0.5	<1	<0.25	<0.2	0.35	1	234	8	135	19	14	3.0	<0.02	3.0	5.4
	Unitex 91090	10/27/16	0.13	<1.1	7.9	423	<25	<3	0.6	-0.1	<0.05	32	<1	<0.5	<1	<0.25	<0.2	0.35	1	260	27	160	13	29	2.0	<0.02	2.0	6.0
Declez	JCSD Well No. 13	10/17/16	0.21	<1.1	7.8	697	<25	<3	1.1	0.1	<0.05	<15	<1	<0.5	2	<0.25	<0.2	0.20	<1	478	84	234	29	35	8.7	<0.02	8.7	3.7
	JCSD Well No. 19	10/17/16	<0.10	<1.1	7.8	560	<25	<3	5.2	0.0	<0.05	<15	<1	<0.5	2	<0.25	<0.2	0.15	4	384	75	188	28	15	5.6	<0.02	5.6	4.8
	DCZ-1/1*	11/02/16	0.56	<1.1	8.0	422	<25	5	0.9	0.1	<0.05	<15	2	<0.5	<1	0.25	<0.2	5.2	<1	246	22	130	24	25	2.5	<0.02	2.5	1.5
	Primary Maximum Contaminant Level						1000		1300					13			70									1	10	
	Secondary Maximum Contaminant Level				6.5-8.5	900	200	15	1000		0.5	300	50	5	3	100	1	5	5000	500	250			250				

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

* Total dissolved metals reported for these wells. The remaining wells report total recoverable metals values. Please note Fontana Water Co. Well No. 37A is a municipal well that has not been in production since May 2005 and is currently only used for monitoring.

Table 2-9b
Groundwater Monitoring Well Results - Priority Pollutants (Quarterly)

Constituent	8TH-1/2	8TH-2/1	BRK-1/1	BRK-2/2	Unit	Method
EPA Priority Pollutants - Metals						
Antimony	<1	<1	<1	<1	µg/L	EPA 200.8
Arsenic	<2	<2	<2	3	µg/L	EPA 200.8
Beryllium	<0.5	<0.5	<0.5	<0.5	µg/L	EPA 200.8
Cadmium	<0.25	<0.25	<0.25	<0.25	µg/L	EPA 200.8
Chromium	2.5	3.2	0.5	9.9	µg/L	EPA 200.8
Copper	0.6	<0.5	1.4	1.1	µg/L	EPA 200.8
Lead	<0.5	<0.5	<0.5	<0.5	µg/L	EPA 200.8
Mercury	<0.05	<0.05	<0.05	<0.05	µg/L	EPA 245.2
Nickel	97	3	39	17	µg/L	EPA 200.8
Selenium	<2	<2	<2	<2	µg/L	EPA 200.8
Thallium	<1	<1	<1	<1	µg/L	EPA 200.8
Zinc	2	<1	<1	<1	µg/L	EPA 200.8
EPA Priority Pollutants - Volatile Organics						
1,1,1-Trichloroethane	<1	<1	<1	<1	µg/L	EPA 524.2/EPA 624
1,1,2,2-Tetrachloroethane	<0.5	<0.5	<0.5	<0.5	µg/L	EPA 524.2/EPA 624
1,1,2-Trichloroethane	<1	<1	<1	<1	µg/L	EPA 524.2/EPA 624
1,1-Dichloroethane	<0.5	<0.5	<0.5	<0.5	µg/L	EPA 524.2/EPA 624
1,1-Dichloroethene	<1	<1	<1	<1	µg/L	EPA 524.2/EPA 624
1,2-Dichlorobenzene	<1	<1	<1	<1	µg/L	EPA 524.2/EPA 624
1,2-Dichloroethane	<0.5	<0.5	<0.5	<0.5	µg/L	EPA 524.2/EPA 624
1,2-Dichloropropane	<0.5	<0.5	<0.5	<0.5	µg/L	EPA 524.2/EPA 624
1,3-Dichlorobenzene	<1	<1	<1	<1	µg/L	EPA 524.2/EPA 624
1,4-Dichlorobenzene	<1	<1	<1	<1	µg/L	EPA 524.2/EPA 624
2-Chloroethyl vinyl ether	<1	<1	<1	<1	µg/L	EPA 524.2/EPA 624
Benzene	<1	<1	<1	<1	µg/L	EPA 524.2/EPA 624
Bromodichloromethane	<1	<1	<1	<1	µg/L	EPA 524.2/EPA 624
Bromoform	<1	<1	<1	<1	µg/L	EPA 524.2/EPA 624
Bromomethane	<1	<1	<1	<1	µg/L	EPA 524.2/EPA 624
Carbon tetrachloride	<0.5	<0.5	<0.5	<0.5	µg/L	EPA 524.2/EPA 624
Chlorobenzene	<1	<1	<1	<1	µg/L	EPA 524.2/EPA 624
Chloroethane	<1	<1	<1	<1	µg/L	EPA 524.2/EPA 624
Chloroform	3	<1	1	<1	µg/L	EPA 524.2/EPA 624
Chloromethane	<1	<1	<1	<1	µg/L	EPA 524.2/EPA 624
cis-1,3-Dichloropropene	<0.5	<0.5	<0.5	<0.5	µg/L	EPA 524.2/EPA 624
Dibromochloromethane	<1	<1	<1	<1	µg/L	EPA 524.2/EPA 624
Ethylbenzene	<1	<1	<1	<1	µg/L	EPA 524.2/EPA 624
Methylene chloride	<1	<1	<1	<1	µg/L	EPA 524.2/EPA 624
Tetrachloroethene	<1	<1	<1	<1	µg/L	EPA 524.2/EPA 624
Toluene	<1	<1	<1	<1	µg/L	EPA 524.2/EPA 624
trans-1,2-Dichloroethene	<0.5	<0.5	<0.5	<0.5	µg/L	EPA 524.2/EPA 624
trans-1,3-Dichloropropene	<0.5	<0.5	<0.5	<0.5	µg/L	EPA 524.2/EPA 624
Trichloroethene	<1	<1	<1	<1	µg/L	EPA 524.2/EPA 624
Trichlorofluoromethane	<2	<2	<2	<2	µg/L	EPA 524.2/EPA 624
Vinyl chloride	<0.5	<0.5	<0.5	<0.5	µg/L	EPA 524.2/EPA 624
Acrolein	<1	<1	<1	<1	µg/L	EPA 624
Acrylonitrile	<2	<2	<2	<2	µg/L	EPA 624

Table 2-9b
Groundwater Monitoring Well Results - Priority Pollutants (Quarterly)

Constituent	8TH-1/2	8TH-2/1	BRK-1/1	BRK-2/2	Unit	Method
EPA Priority Pollutants - Base/Neutral and Acid Extractibles						
1,2,4-Trichlorobenzene	<1	<1	<1	<1	µg/L	EPA 625
1,2-Dichlorobenzene	<1	<1	<1	<1	µg/L	EPA 625
1,3-Dichlorobenzene	<1	<1	<1	<1	µg/L	EPA 625
1,4-Dichlorobenzene	<1	<1	<1	<1	µg/L	EPA 625
2,4,6-Trichlorophenol	<1	<1	<1	<1	µg/L	EPA 625
2,4-Dichlorophenol	<2	<2	<2	<2	µg/L	EPA 625
2,4-Dimethylphenol	<1	<1	<1	<1	µg/L	EPA 625
2,4-Dinitrophenol	<3	<3	<3	<3	µg/L	EPA 625
2,4-Dinitrotoluene	<1	<1	<1	<1	µg/L	EPA 625
2,6-Dinitrotoluene	<2	<2	<2	<2	µg/L	EPA 625
2-Chloronaphthalene	<1	<1	<1	<1	µg/L	EPA 625
2-Chlorophenol	<1	<1	<1	<1	µg/L	EPA 625
2-Methyl-4,6-dinitrophenol	<2	<2	<2	<2	µg/L	EPA 625
2-Nitrophenol	<1	<1	<1	<1	µg/L	EPA 625
3,3-Dichlorobenzidine	<5	<5	<5	<5	µg/L	EPA 625
4-Bromophenyl phenyl ether	<1	<1	<1	<1	µg/L	EPA 625
4-Chloro-3-methylphenol	<1	<1	<1	<1	µg/L	EPA 625
4-Chlorophenyl phenyl ether	<1	<1	<1	<1	µg/L	EPA 625
4-Nitrophenol	<3	<3	<3	<3	µg/L	EPA 625
Acenaphthene	<1	<1	<1	<1	µg/L	EPA 625
Acenaphthylene	<1	<1	<1	<1	µg/L	EPA 625
Anthracene	<1	<1	<1	<1	µg/L	EPA 625
Azobenzene	<1	<1	<1	<1	µg/L	EPA 625
Benazidine	<5	<5	<5	<5	µg/L	EPA 625
Benzo(a)anthracene	<5	<5	<5	<5	µg/L	EPA 625
Benzo(a)pyrene	<1	<1	<1	<1	µg/L	EPA 625
Benzo(b)fluoranthene	<1	<1	<1	<1	µg/L	EPA 625
Benzo(g,h,i)perylene	<2	<2	<2	<2	µg/L	EPA 625
Benzo(k)fluoranthene	<1	<1	<1	<1	µg/L	EPA 625
Bis(2-chloroethoxy)methane	<2	<2	<2	<2	µg/L	EPA 625
Bis(2-chloroethyl)ether	<1	<1	<1	<1	µg/L	EPA 625
Bis(2-chloroisopropyl)ether	<1	<1	<1	<1	µg/L	EPA 625
Bis(2-ethylhexyl)phthalate	<2	<2	<2	<2	µg/L	EPA 625
Butyl benzyl phthalate	<1	<1	<1	<1	µg/L	EPA 625
Chrysene	<1	<1	<1	<1	µg/L	EPA 625
Dibenzo(a,h)anthracene	<1	<1	<1	<1	µg/L	EPA 625
Diethyl phthalate	<2	<2	<2	<2	µg/L	EPA 625
Dimethyl phthalate	<1	<1	<1	<1	µg/L	EPA 625
Di-n-butyl phthalate	<1	<1	<1	<1	µg/L	EPA 625
Di-n-octyl phthalate	<1	<1	<1	<1	µg/L	EPA 625
Fluoranthene	<1	<1	<1	<1	µg/L	EPA 625
Fluorene	<1	<1	<1	<1	µg/L	EPA 625
Hexachlorobenzene	<1	<1	<1	<1	µg/L	EPA 625
Hexachlorobutadiene	<1	<1	<1	<1	µg/L	EPA 625
Hexachlorocyclopentadiene	<5	<5	<5	<5	µg/L	EPA 625
Hexachloroethane	<1	<1	<1	<1	µg/L	EPA 625
Indeno(1,2,3-cd)pyrene	<2	<2	<2	<2	µg/L	EPA 625
Isophorone	<1	<1	<1	<1	µg/L	EPA 625

Table 2-9b
Groundwater Monitoring Well Results - Priority Pollutants (Quarterly)

Constituent	8TH-1/2	8TH-2/1	BRK-1/1	BRK-2/2	Unit	Method
EPA Priority Pollutants - Base/Neutral and Acid Extractibles (cont'd)						
Naphthalene	<1	<1	<1	<1	µg/L	EPA 625
Nitrobenzene	<1	<1	<1	<1	µg/L	EPA 625
N-Nitrosodimethylamine	<1	<1	<1	<1	µg/L	EPA 625
N-Nitroso-di-n-propylamine	<1	<1	<1	<1	µg/L	EPA 625
N-Nitrosodiphenylamine	<1	<1	<1	<1	µg/L	EPA 625
Pentachlorophenol	<2	<2	<2	<2	µg/L	EPA 625
Phenanthrene	<1	<1	<1	<1	µg/L	EPA 625
Phenol	<1	<1	<1	<1	µg/L	EPA 625
Pyrene	<1	<1	<1	<1	µg/L	EPA 625
EPA Priority Pollutants - Pesticides						
4,4-DDD	<0.1	<0.1	<0.1	<0.1	µg/L	EPA 525.2/EPA 608
4,4-DDE	<0.1	<0.1	<0.1	<0.1	µg/L	EPA 525.2/EPA 608
4,4-DDT	<0.1	<0.1	<0.1	<0.1	µg/L	EPA 525.2/EPA 608
Aldrin	<0.01	<0.01	<0.01	<0.01	µg/L	EPA 505/EPA 608
Alpha-BHC	<0.1	<0.1	<0.1	<0.1	µg/L	EPA 525.2/EPA 608
Beta-BHC	<0.1	<0.1	<0.1	<0.1	µg/L	EPA 525.2/EPA 608
Delta-BHC	<0.1	<0.1	<0.1	<0.1	µg/L	EPA 525.2/EPA 608
Dieldrin	<0.01	<0.01	<0.01	<0.01	µg/L	EPA 505/EPA 608
Endosulfan I	<0.1	<0.1	<0.1	<0.1	µg/L	EPA 525.2/EPA 608
Endosulfan II	<0.1	<0.1	<0.1	<0.1	µg/L	EPA 525.2/EPA 608
Endosulfan Sulfate	<0.1	<0.1	<0.1	<0.1	µg/L	EPA 525.2/EPA 608
Endrin	<0.2	<0.2	<0.2	<0.2	µg/L	EPA 505/EPA 608
Endrin aldehyde	<0.1	<0.1	<0.1	<0.1	µg/L	EPA 525.2/EPA 608
Gamma-BHC	<0.01	<0.01	<0.01	<0.01	µg/L	EPA 505/EPA 608
Heptachlor	<0.01	<0.01	<0.01	<0.01	µg/L	EPA 505/EPA 608
Heptachlor epoxide	<0.01	<0.01	<0.01	<0.01	µg/L	EPA 505/EPA 608
Chlordane	<0.1	<0.1	<0.1	<0.1	µg/L	EPA 505/EPA 608
PCB-1016	<0.08	<0.08	<0.08	<0.08	µg/L	EPA 505/EPA 608
PCB-1221	<0.1	<0.1	<0.1	<0.1	µg/L	EPA 505/EPA 608
PCB-1232	<0.1	<0.1	<0.1	<0.1	µg/L	EPA 505/EPA 608
PCB-1242	<0.1	<0.1	<0.1	<0.1	µg/L	EPA 505/EPA 608
PCB-1248	<0.1	<0.1	<0.1	<0.1	µg/L	EPA 505/EPA 608
PCB-1254	<0.1	<0.1	<0.1	<0.1	µg/L	EPA 505/EPA 608
PCB-1260	<0.1	<0.1	<0.1	<0.1	µg/L	EPA 505/EPA 608
Toxaphene	<0.1	<0.1	<0.1	<0.1	µg/L	EPA 505/EPA 608

Table 2-9b
Groundwater Monitoring Well Results - Priority Pollutants (Quarterly)

Constituent	BH-1/2	Ely Basin MW-1	Ely Basin MW-2	Reliant Energy - East Well	Unit	Method
EPA Priority Pollutants - Metals						
Antimony	<1	<1	<1	<1	µg/L	EPA 200.8
Arsenic	<2	<2	<2	<2	µg/L	EPA 200.8
Beryllium	<0.5	<0.5	<0.5	<0.5	µg/L	EPA 200.8
Cadmium	<0.25	<0.25	<0.25	<0.25	µg/L	EPA 200.8
Chromium	1.2	0.6	3.9	4.8	µg/L	EPA 200.8
Copper	1.1	1.0	1.0	1.2	µg/L	EPA 200.8
Lead	<0.5	<0.5	<0.5	0.5	µg/L	EPA 200.8
Mercury	<0.05	<0.05	<0.05	<0.05	µg/L	EPA 245.2
Nickel	61	4	3	1	µg/L	EPA 200.8
Selenium	<2	<2	<2	<2	µg/L	EPA 200.8
Thallium	<1	<1	<1	<1	µg/L	EPA 200.8
Zinc	<1	1	1	<1	µg/L	EPA 200.8
EPA Priority Pollutants - Volatile Organics						
1,1,1-Trichloroethane	<1	<1	<1	<1	µg/L	EPA 524.2/EPA 624
1,1,2,2-Tetrachloroethane	<0.5	<0.5	<0.5	<0.5	µg/L	EPA 524.2/EPA 624
1,1,2-Trichloroethane	<1	<1	<1	<1	µg/L	EPA 524.2/EPA 624
1,1-Dichloroethane	<0.5	<0.5	<0.5	<0.5	µg/L	EPA 524.2/EPA 624
1,1-Dichloroethene	<1	<1	<1	<1	µg/L	EPA 524.2/EPA 624
1,2-Dichlorobenzene	<1	<1	<1	<1	µg/L	EPA 524.2/EPA 624
1,2-Dichloroethane	<0.5	<0.5	<0.5	<0.5	µg/L	EPA 524.2/EPA 624
1,2-Dichloropropane	<0.5	<0.5	<0.5	<0.5	µg/L	EPA 524.2/EPA 624
1,3-Dichlorobenzene	<1	<1	<1	<1	µg/L	EPA 524.2/EPA 624
1,4-Dichlorobenzene	<1	<1	<1	<1	µg/L	EPA 524.2/EPA 624
2-Chloroethyl vinyl ether	<1	<1	<1	<1	µg/L	EPA 524.2/EPA 624
Benzene	<1	<1	<1	<1	µg/L	EPA 524.2/EPA 624
Bromodichloromethane	<1	<1	3	<1	µg/L	EPA 524.2/EPA 624
Bromoform	<1	<1	<1	<1	µg/L	EPA 524.2/EPA 624
Bromomethane	<1	<1	<1	<1	µg/L	EPA 524.2/EPA 624
Carbon tetrachloride	<0.5	<0.5	<0.5	<0.5	µg/L	EPA 524.2/EPA 624
Chlorobenzene	<1	<1	<1	<1	µg/L	EPA 524.2/EPA 624
Chloroethane	<1	<1	<1	<1	µg/L	EPA 524.2/EPA 624
Chloroform	36	<1	16	<1	µg/L	EPA 524.2/EPA 624
Chloromethane	<1	<1	<1	<1	µg/L	EPA 524.2/EPA 624
cis-1,3-Dichloropropene	<0.5	<0.5	<0.5	<0.5	µg/L	EPA 524.2/EPA 624
Dibromochloromethane	<1	<1	<1	<1	µg/L	EPA 524.2/EPA 624
Ethylbenzene	<1	<1	<1	<1	µg/L	EPA 524.2/EPA 624
Methylene chloride	<1	<1	<1	<1	µg/L	EPA 524.2/EPA 624
Tetrachloroethene	<1	<1	<1	<1	µg/L	EPA 524.2/EPA 624
Toluene	<1	<1	<1	<1	µg/L	EPA 524.2/EPA 624
trans-1,2-Dichloroethene	<0.5	<0.5	<0.5	<0.5	µg/L	EPA 524.2/EPA 624
trans-1,3-Dichloropropene	<0.5	<0.5	<0.5	<0.5	µg/L	EPA 524.2/EPA 624
Trichloroethene	<1	<1	<1	<1	µg/L	EPA 524.2/EPA 624
Trichlorofluoromethane	<2	<2	<2	<2	µg/L	EPA 524.2/EPA 624
Vinyl chloride	<0.5	<0.5	<0.5	<0.5	µg/L	EPA 524.2/EPA 624
Acrolein	<1	<1	<1	<1	µg/L	EPA 624
Acrylonitrile	<2	<2	<2	<2	µg/L	EPA 624

Table 2-9b
Groundwater Monitoring Well Results - Priority Pollutants (Quarterly)

Constituent	BH-1/2	Ely Basin MW-1	Ely Basin MW-2	Reliant Energy - East Well	Unit	Method
EPA Priority Pollutants - Base/Neutral and Acid Extractibles						
1,2,4-Trichlorobenzene	<1	<1	<1	<1	µg/L	EPA 625
1,2-Dichlorobenzene	<1	<1	<1	<1	µg/L	EPA 625
1,3-Dichlorobenzene	<1	<1	<1	<1	µg/L	EPA 625
1,4-Dichlorobenzene	<1	<1	<1	<1	µg/L	EPA 625
2,4,6-Trichlorophenol	<1	<1	<1	<1	µg/L	EPA 625
2,4-Dichlorophenol	<2	<2	<2	<2	µg/L	EPA 625
2,4-Dimethylphenol	<1	<1	<1	<1	µg/L	EPA 625
2,4-Dinitrophenol	<3	<3	<3	<3	µg/L	EPA 625
2,4-Dinitrotoluene	<1	<1	<1	<1	µg/L	EPA 625
2,6-Dinitrotoluene	<2	<2	<2	<2	µg/L	EPA 625
2-Chloronaphthalene	<1	<1	<1	<1	µg/L	EPA 625
2-Chlorophenol	<1	<1	<1	<1	µg/L	EPA 625
2-Methyl-4,6-dinitrophenol	<2	<2	<2	<2	µg/L	EPA 625
2-Nitrophenol	<1	<1	<1	<1	µg/L	EPA 625
3,3-Dichlorobenzidine	<5	<5	<5	<5	µg/L	EPA 625
4-Bromophenyl phenyl ether	<1	<1	<1	<1	µg/L	EPA 625
4-Chloro-3-methylphenol	<1	<1	<1	<1	µg/L	EPA 625
4-Chlorophenyl phenyl ether	<1	<1	<1	<1	µg/L	EPA 625
4-Nitrophenol	<3	<3	<3	<3	µg/L	EPA 625
Acenaphthene	<1	<1	<1	<1	µg/L	EPA 625
Acenaphthylene	<1	<1	<1	<1	µg/L	EPA 625
Anthracene	<1	<1	<1	<1	µg/L	EPA 625
Azobenzene	<1	<1	<1	<1	µg/L	EPA 625
Benzidine	<5	<5	<5	<5	µg/L	EPA 625
Benzo(a)anthracene	<5	<5	<5	<5	µg/L	EPA 625
Benzo(a)pyrene	<1	<1	<1	<1	µg/L	EPA 625
Benzo(b)fluoranthene	<1	<1	<1	<1	µg/L	EPA 625
Benzo(g,h,i)perylene	<2	<2	<2	<2	µg/L	EPA 625
Benzo(k)fluoranthene	<1	<1	<1	<1	µg/L	EPA 625
Bis(2-chloroethoxy)methane	<2	<2	<2	<2	µg/L	EPA 625
Bis(2-chloroethyl)ether	<1	<1	<1	<1	µg/L	EPA 625
Bis(2-chloroisopropyl)ether	<1	<1	<1	<1	µg/L	EPA 625
Bis(2-ethylhexyl)phthalate	<2	<2	<2	<2	µg/L	EPA 625
Butyl benzyl phthalate	<1	<1	<1	<1	µg/L	EPA 625
Chrysene	<1	<1	<1	<1	µg/L	EPA 625
Dibenzo(a,h)anthracene	<1	<1	<1	<1	µg/L	EPA 625
Diethyl phthalate	<2	<2	<2	<2	µg/L	EPA 625
Dimethyl phthalate	<1	<1	<1	<1	µg/L	EPA 625
Di-n-butyl phthalate	<1	<1	<1	<1	µg/L	EPA 625
Di-n-octyl phthalate	<1	<1	<1	<1	µg/L	EPA 625
Fluoranthene	<1	<1	<1	<1	µg/L	EPA 625
Fluorene	<1	<1	<1	<1	µg/L	EPA 625
Hexachlorobenzene	<1	<1	<1	<1	µg/L	EPA 625
Hexachlorobutadiene	<1	<1	<1	<1	µg/L	EPA 625
Hexachlorocyclopentadiene	<5	<5	<5	<5	µg/L	EPA 625
Hexachloroethane	<1	<1	<1	<1	µg/L	EPA 625
Indeno(1,2,3-cd)pyrene	<2	<2	<2	<2	µg/L	EPA 625
Isophorone	<1	<1	<1	<1	µg/L	EPA 625

Table 2-9b
Groundwater Monitoring Well Results - Priority Pollutants (Quarterly)

Constituent	BH-1/2	Ely Basin MW-1	Ely Basin MW-2	Reliant Energy - East Well	Unit	Method
EPA Priority Pollutants - Base/Neutral and Acid Extractibles (cont'd)						
Naphthalene	<1	<1	<1	<1	µg/L	EPA 625
Nitrobenzene	<1	<1	<1	<1	µg/L	EPA 625
N-Nitrosodimethylamine	<1	<1	<1	<1	µg/L	EPA 625
N-Nitroso-di-n-propylamine	<1	<1	<1	<1	µg/L	EPA 625
N-Nitrosodiphenylamine	<1	<1	<1	<1	µg/L	EPA 625
Pentachlorophenol	<2	<2	<2	<2	µg/L	EPA 625
Phenanthrene	<1	<1	<1	<1	µg/L	EPA 625
Phenol	<1	<1	<1	<1	µg/L	EPA 625
Pyrene	<1	<1	<1	<1	µg/L	EPA 625
EPA Priority Pollutants - Pesticides						
4,4-DDD	<0.1	<0.1	<0.1	<0.1	µg/L	EPA 608
4,4-DDE	<0.1	<0.1	<0.1	<0.1	µg/L	EPA 608
4,4-DDT	<0.1	<0.1	<0.1	<0.1	µg/L	EPA 608
Aldrin	<0.01	<0.01	<0.01	<0.01	µg/L	EPA 608
Alpha-BHC	<0.1	<0.1	<0.1	<0.1	µg/L	EPA 608
Beta-BHC	<0.1	<0.1	<0.1	<0.1	µg/L	EPA 608
Delta-BHC	<0.1	<0.1	<0.1	<0.1	µg/L	EPA 608
Dieldrin	<0.01	<0.01	<0.01	<0.01	µg/L	EPA 608
Endosulfan I	<0.1	<0.1	<0.1	<0.1	µg/L	EPA 608
Endosulfan II	<0.1	<0.1	<0.1	<0.1	µg/L	EPA 608
Endosulfan Sulfate	<0.1	<0.1	<0.1	<0.1	µg/L	EPA 608
Endrin	<0.2	<0.2	<0.2	<0.2	µg/L	EPA 608
Endrin aldehyde	<0.1	<0.1	<0.1	<0.1	µg/L	EPA 608
Gamma-BHC	<0.01	<0.01	<0.01	<0.01	µg/L	EPA 608
Heptachlor	<0.01	<0.01	<0.01	<0.01	µg/L	EPA 608
Heptachlor epoxide	<0.01	<0.01	<0.01	<0.01	µg/L	EPA 608
Chlordane	<0.1	<0.1	<0.1	<0.1	µg/L	EPA 608
PCB-1016	<0.08	<0.08	<0.08	<0.08	µg/L	EPA 608
PCB-1221	<0.1	<0.1	<0.1	<0.1	µg/L	EPA 608
PCB-1232	<0.1	<0.1	<0.1	<0.1	µg/L	EPA 608
PCB-1242	<0.1	<0.1	<0.1	<0.1	µg/L	EPA 608
PCB-1248	<0.1	<0.1	<0.1	<0.1	µg/L	EPA 608
PCB-1254	<0.1	<0.1	<0.1	<0.1	µg/L	EPA 608
PCB-1260	<0.1	<0.1	<0.1	<0.1	µg/L	EPA 608
Toxaphene	<0.1	<0.1	<0.1	<0.1	µg/L	EPA 608

Table 2-9b
Groundwater Monitoring Well Results - Priority Pollutants (Quarterly)

Constituent	RP3-1/1	T-1/2	T-2/2	Unit	Method
EPA Priority Pollutants - Metals					
Antimony	<1	<1	<1	µg/L	EPA 200.8
Arsenic	<2	<2	<2	µg/L	EPA 200.8
Beryllium	<0.5	<0.5	<0.5	µg/L	EPA 200.8
Cadmium	<0.25	<0.25	<0.25	µg/L	EPA 200.8
Chromium	0.5	<0.5	0.9	µg/L	EPA 200.8
Copper	1.8	1.5	1.4	µg/L	EPA 200.8
Lead	<0.5	<0.5	<0.5	µg/L	EPA 200.8
Mercury	<0.05	<0.05	<0.05	µg/L	EPA 245.2
Nickel	11	23	20	µg/L	EPA 200.8
Selenium	<2	<2	<2	µg/L	EPA 200.8
Thallium	<1	<1	<1	µg/L	EPA 200.8
Zinc	<1	<1	1	µg/L	EPA 200.8
EPA Priority Pollutants - Volatile Organics					
1,1,1-Trichloroethane	<1	<1	<1	µg/L	EPA 524.2/EPA 624
1,1,2,2-Tetrachloroethane	<0.5	<0.5	<0.5	µg/L	EPA 524.2/EPA 624
1,1,2-Trichloroethane	<1	<1	<1	µg/L	EPA 524.2/EPA 624
1,1-Dichloroethane	<0.5	<0.5	<0.5	µg/L	EPA 524.2/EPA 624
1,1-Dichloroethene	<1	<1	<1	µg/L	EPA 524.2/EPA 624
1,2-Dichlorobenzene	<1	<1	<1	µg/L	EPA 524.2/EPA 624
1,2-Dichloroethane	<0.5	<0.5	<0.5	µg/L	EPA 524.2/EPA 624
1,2-Dichloropropane	<0.5	<0.5	<0.5	µg/L	EPA 524.2/EPA 624
1,3-Dichlorobenzene	<1	<1	<1	µg/L	EPA 524.2/EPA 624
1,4-Dichlorobenzene	<1	<1	<1	µg/L	EPA 524.2/EPA 624
2-Chloroethyl vinyl ether	<1	<1	<1	µg/L	EPA 524.2/EPA 624
Benzene	<1	<1	<1	µg/L	EPA 524.2/EPA 624
Bromodichloromethane	1	<1	1	µg/L	EPA 524.2/EPA 624
Bromoform	<1	<1	<1	µg/L	EPA 524.2/EPA 624
Bromomethane	<1	<1	<1	µg/L	EPA 524.2/EPA 624
Carbon tetrachloride	<0.5	<0.5	<0.5	µg/L	EPA 524.2/EPA 624
Chlorobenzene	<1	<1	<1	µg/L	EPA 524.2/EPA 624
Chloroethane	<1	<1	<1	µg/L	EPA 524.2/EPA 624
Chloroform	7	<1	9	µg/L	EPA 524.2/EPA 624
Chloromethane	<1	<1	<1	µg/L	EPA 524.2/EPA 624
cis-1,3-Dichloropropene	<0.5	<0.5	<0.5	µg/L	EPA 524.2/EPA 624
Dibromochloromethane	<1	<1	<1	µg/L	EPA 524.2/EPA 624
Ethylbenzene	<1	<1	<1	µg/L	EPA 524.2/EPA 624
Methylene chloride	<1	<1	<1	µg/L	EPA 524.2/EPA 624
Tetrachloroethene	<1	<1	<1	µg/L	EPA 524.2/EPA 624
Toluene	<1	<1	<1	µg/L	EPA 524.2/EPA 624
trans-1,2-Dichloroethene	<0.5	<0.5	<0.5	µg/L	EPA 524.2/EPA 624
trans-1,3-Dichloropropene	<0.5	<0.5	<0.5	µg/L	EPA 524.2/EPA 624
Trichloroethene	<1	<1	<1	µg/L	EPA 524.2/EPA 624
Trichlorofluoromethane	<2	<2	<2	µg/L	EPA 524.2/EPA 624
Vinyl chloride	<0.5	<0.5	<0.5	µg/L	EPA 524.2/EPA 624
Acrolein	<1	<1	<1	µg/L	EPA 624
Acrylonitrile	<2	<2	<2	µg/L	EPA 624

Table 2-9b
Groundwater Monitoring Well Results - Priority Pollutants (Quarterly)

Constituent	RP3-1/1	T-1/2	T-2/2	Unit	Method
EPA Priority Pollutants - Base/Neutral and Acid Extractibles					
1,2,4-Trichlorobenzene	<1	<1	<1	µg/L	EPA 625
1,2-Dichlorobenzene	<1	<1	<1	µg/L	EPA 625
1,3-Dichlorobenzene	<1	<1	<1	µg/L	EPA 625
1,4-Dichlorobenzene	<1	<1	<1	µg/L	EPA 625
2,4,6-Trichlorophenol	<1	<1	<1	µg/L	EPA 625
2,4-Dichlorophenol	<2	<2	<2	µg/L	EPA 625
2,4-Dimethylphenol	<1	<1	<1	µg/L	EPA 625
2,4-Dinitrophenol	<3	<3	<3	µg/L	EPA 625
2,4-Dinitrotoluene	<1	<1	<1	µg/L	EPA 625
2,6-Dinitrotoluene	<2	<2	<2	µg/L	EPA 625
2-Chloronaphthalene	<1	<1	<1	µg/L	EPA 625
2-Chlorophenol	<1	<1	<1	µg/L	EPA 625
2-Methyl-4,6-dinitrophenol	<2	<2	<2	µg/L	EPA 625
2-Nitrophenol	<1	<1	<1	µg/L	EPA 625
3,3-Dichlorobenzidine	<5	<5	<5	µg/L	EPA 625
4-Bromophenyl phenyl ether	<1	<1	<1	µg/L	EPA 625
4-Chloro-3-methylphenol	<1	<1	<1	µg/L	EPA 625
4-Chlorophenyl phenyl ether	<1	<1	<1	µg/L	EPA 625
4-Nitrophenol	<3	<3	<3	µg/L	EPA 625
Acenaphthene	<1	<1	<1	µg/L	EPA 625
Acenaphthylene	<1	<1	<1	µg/L	EPA 625
Anthracene	<1	<1	<1	µg/L	EPA 625
Azobenzene	<1	<1	<1	µg/L	EPA 625
Benzidine	<5	<5	<5	µg/L	EPA 625
Benzo(a)anthracene	<5	<5	<5	µg/L	EPA 625
Benzo(a)pyrene	<1	<1	<1	µg/L	EPA 625
Benzo(b)fluoranthene	<1	<1	<1	µg/L	EPA 625
Benzo(g,h,i)perylene	<2	<2	<2	µg/L	EPA 625
Benzo(k)fluoranthene	<1	<1	<1	µg/L	EPA 625
Bis(2-chloroethoxy)methane	<2	<2	<2	µg/L	EPA 625
Bis(2-chloroethyl)ether	<1	<1	<1	µg/L	EPA 625
Bis(2-chloroisopropyl)ether	<1	<1	<1	µg/L	EPA 625
Bis(2-ethylhexyl)phthalate	<2	<2	<2	µg/L	EPA 625
Butyl benzyl phthalate	<1	<1	<1	µg/L	EPA 625
Chrysene	<1	<1	<1	µg/L	EPA 625
Dibenzo(a,h)anthracene	<1	<1	<1	µg/L	EPA 625
Diethyl phthalate	<2	<2	<2	µg/L	EPA 625
Dimethyl phthalate	<1	<1	<1	µg/L	EPA 625
Di-n-butyl phthalate	<1	<1	<1	µg/L	EPA 625
Di-n-octyl phthalate	<1	<1	<1	µg/L	EPA 625
Fluoranthene	<1	<1	<1	µg/L	EPA 625
Fluorene	<1	<1	<1	µg/L	EPA 625
Hexachlorobenzene	<1	<1	<1	µg/L	EPA 625
Hexachlorobutadiene	<1	<1	<1	µg/L	EPA 625
Hexachlorocyclopentadiene	<5	<5	<5	µg/L	EPA 625
Hexachloroethane	<1	<1	<1	µg/L	EPA 625
Indeno(1,2,3-cd)pyrene	<2	<2	<2	µg/L	EPA 625
Isophorone	<1	<1	<1	µg/L	EPA 625

Table 2-9b
Groundwater Monitoring Well Results - Priority Pollutants (Quarterly)

Constituent	RP3-1/1	T-1/2	T-2/2	Unit	Method
EPA Priority Pollutants - Base/Neutral and Acid Extractibles (cont'd)					
Naphthalene	<1	<1	<1	µg/L	EPA 625
Nitrobenzene	<1	<1	<1	µg/L	EPA 625
N-Nitrosodimethylamine	<1	<1	<1	µg/L	EPA 625
N-Nitroso-di-n-propylamine	<1	<1	<1	µg/L	EPA 625
N-Nitrosodiphenylamine	<1	<1	<1	µg/L	EPA 625
Pentachlorophenol	<2	<2	<2	µg/L	EPA 625
Phenanthrene	<1	<1	<1	µg/L	EPA 625
Phenol	<1	<1	<1	µg/L	EPA 625
Pyrene	<1	<1	<1	µg/L	EPA 625
EPA Priority Pollutants - Pesticides					
4,4-DDD	<0.1	<0.1	<0.1	µg/L	EPA 608
4,4-DDE	<0.1	<0.1	<0.1	µg/L	EPA 608
4,4-DDT	<0.1	<0.1	<0.1	µg/L	EPA 608
Aldrin	<0.01	<0.01	<0.01	µg/L	EPA 608
Alpha-BHC	<0.1	<0.1	<0.1	µg/L	EPA 608
Beta-BHC	<0.1	<0.1	<0.1	µg/L	EPA 608
Delta-BHC	<0.1	<0.1	<0.1	µg/L	EPA 608
Dieldrin	<0.01	<0.01	<0.01	µg/L	EPA 608
Endosulfan I	<0.1	<0.1	<0.1	µg/L	EPA 608
Endosulfan II	<0.1	<0.1	<0.1	µg/L	EPA 608
Endosulfan Sulfate	<0.1	<0.1	<0.1	µg/L	EPA 608
Endrin	<0.2	<0.2	<0.2	µg/L	EPA 608
Endrin aldehyde	<0.1	<0.1	<0.1	µg/L	EPA 608
Gamma-BHC	<0.01	<0.01	<0.01	µg/L	EPA 608
Heptachlor	<0.01	<0.01	<0.01	µg/L	EPA 608
Heptachlor epoxide	<0.01	<0.01	<0.01	µg/L	EPA 608
Chlordane	<0.1	<0.1	<0.1	µg/L	EPA 608
PCB-1016	<0.08	<0.08	<0.08	µg/L	EPA 608
PCB-1221	<0.1	<0.1	<0.1	µg/L	EPA 608
PCB-1232	<0.1	<0.1	<0.1	µg/L	EPA 608
PCB-1242	<0.1	<0.1	<0.1	µg/L	EPA 608
PCB-1248	<0.1	<0.1	<0.1	µg/L	EPA 608
PCB-1254	<0.1	<0.1	<0.1	µg/L	EPA 608
PCB-1260	<0.1	<0.1	<0.1	µg/L	EPA 608
Toxaphene	<0.1	<0.1	<0.1	µg/L	EPA 608

Table 2-9b
Groundwater Monitoring Well Results - Priority Pollutants (Quarterly)

Constituent	SS-1/1	VCT-1/1	VCT-2/2	DCZ-1/1	Unit	Method
EPA Priority Pollutants - Metals						
Antimony	<1	<1	<1	<1	µg/L	EPA 200.8
Arsenic	<2	<2	<2	<2	µg/L	EPA 200.8
Beryllium	<0.5	<0.5	<0.5	<0.5	µg/L	EPA 200.8
Cadmium	<0.25	<0.25	<0.25	<0.25	µg/L	EPA 200.8
Chromium	1.0	1.5	2.1	<0.5	µg/L	EPA 200.8
Copper	<0.5	0.9	<0.5	0.9	µg/L	EPA 200.8
Lead	<0.5	<0.5	<0.5	<0.5	µg/L	EPA 200.8
Mercury	<0.05	<0.05	<0.05	<0.05	µg/L	EPA 245.2
Nickel	<1	20	<1	111	µg/L	EPA 200.8
Selenium	<2	<2	<2	<2	µg/L	EPA 200.8
Thallium	<1	<1	<1	<1	µg/L	EPA 200.8
Zinc	<1	1	2	<1	µg/L	EPA 200.8
EPA Priority Pollutants - Volatile Organics						
1,1,1-Trichloroethane	<1	<1	<1	<1	µg/L	EPA 524.2/EPA 624
1,1,2,2-Tetrachloroethane	<0.5	<0.5	<0.5	<0.5	µg/L	EPA 524.2/EPA 624
1,1,2-Trichloroethane	<1	<1	<1	<1	µg/L	EPA 524.2/EPA 624
1,1-Dichloroethane	<0.5	<0.5	<0.5	<0.5	µg/L	EPA 524.2/EPA 624
1,1-Dichloroethene	<1	<1	<1	<1	µg/L	EPA 524.2/EPA 624
1,2-Dichlorobenzene	<1	<1	<1	<1	µg/L	EPA 524.2/EPA 624
1,2-Dichloroethane	<0.5	<0.5	<0.5	<0.5	µg/L	EPA 524.2/EPA 624
1,2-Dichloropropane	<0.5	<0.5	<0.5	<0.5	µg/L	EPA 524.2/EPA 624
1,3-Dichlorobenzene	<1	<1	<1	<1	µg/L	EPA 524.2/EPA 624
1,4-Dichlorobenzene	<1	<1	<1	<1	µg/L	EPA 524.2/EPA 624
2-Chloroethyl vinyl ether	<1	<1	<1	<1	µg/L	EPA 524.2/EPA 624
Benzene	<1	<1	<1	<1	µg/L	EPA 524.2/EPA 624
Bromodichloromethane	<1	3	<1	<1	µg/L	EPA 524.2/EPA 624
Bromoform	<1	<1	<1	<1	µg/L	EPA 524.2/EPA 624
Bromomethane	<1	<1	<1	<1	µg/L	EPA 524.2/EPA 624
Carbon tetrachloride	<0.5	<0.5	<0.5	<0.5	µg/L	EPA 524.2/EPA 624
Chlorobenzene	<1	<1	<1	<1	µg/L	EPA 524.2/EPA 624
Chloroethane	<1	<1	<1	<1	µg/L	EPA 524.2/EPA 624
Chloroform	<1	15	<1	<1	µg/L	EPA 524.2/EPA 624
Chloromethane	<1	<1	<1	<1	µg/L	EPA 524.2/EPA 624
cis-1,3-Dichloropropene	<0.5	<0.5	<0.5	<0.5	µg/L	EPA 524.2/EPA 624
Dibromochloromethane	<1	<1	<1	<1	µg/L	EPA 524.2/EPA 624
Ethylbenzene	<1	<1	<1	<1	µg/L	EPA 524.2/EPA 624
Methylene chloride	<1	<1	<1	<1	µg/L	EPA 524.2/EPA 624
Tetrachloroethene	<1	<1	<1	<1	µg/L	EPA 524.2/EPA 624
Toluene	<1	<1	<1	<1	µg/L	EPA 524.2/EPA 624
trans-1,2-Dichloroethene	<0.5	<0.5	<0.5	<0.5	µg/L	EPA 524.2/EPA 624
trans-1,3-Dichloropropene	<0.5	<0.5	<0.5	<0.5	µg/L	EPA 524.2/EPA 624
Trichloroethene	<1	<1	<1	<1	µg/L	EPA 524.2/EPA 624
Trichlorofluoromethane	<2	<2	<2	<2	µg/L	EPA 524.2/EPA 624
Vinyl chloride	<0.5	<0.5	<0.5	<0.5	µg/L	EPA 524.2/EPA 624
Acrolein	<1	<1	<1	<1	µg/L	EPA 624
Acrylonitrile	<2	<2	<2	<2	µg/L	EPA 624

Table 2-9b
Groundwater Monitoring Well Results - Priority Pollutants (Quarterly)

Constituent	SS-1/1	VCT-1/1	VCT-2/2	DCZ-1/1	Unit	Method
EPA Priority Pollutants - Base/Neutral and Acid Extractibles						
1,2,4-Trichlorobenzene	<1	<1	<1	<1	µg/L	EPA 625
1,2-Dichlorobenzene	<1	<1	<1	<1	µg/L	EPA 625
1,3-Dichlorobenzene	<1	<1	<1	<1	µg/L	EPA 625
1,4-Dichlorobenzene	<1	<1	<1	<1	µg/L	EPA 625
2,4,6-Trichlorophenol	<1	<1	<1	<1	µg/L	EPA 625
2,4-Dichlorophenol	<2	<2	<2	<2	µg/L	EPA 625
2,4-Dimethylphenol	<1	<1	<1	<1	µg/L	EPA 625
2,4-Dinitrophenol	<3	<3	<3	<3	µg/L	EPA 625
2,4-Dinitrotoluene	<1	<1	<1	<1	µg/L	EPA 625
2,6-Dinitrotoluene	<2	<2	<2	<2	µg/L	EPA 625
2-Chloronaphthalene	<1	<1	<1	<1	µg/L	EPA 625
2-Chlorophenol	<1	<1	<1	<1	µg/L	EPA 625
2-Methyl-4,6-dinitrophenol	<2	<2	<2	<2	µg/L	EPA 625
2-Nitrophenol	<1	<1	<1	<1	µg/L	EPA 625
3,3-Dichlorobenzidine	<5	<5	<5	<5	µg/L	EPA 625
4-Bromophenyl phenyl ether	<1	<1	<1	<1	µg/L	EPA 625
4-Chloro-3-methylphenol	<1	<1	<1	<1	µg/L	EPA 625
4-Chlorophenyl phenyl ether	<1	<1	<1	<1	µg/L	EPA 625
4-Nitrophenol	<3	<3	<3	<3	µg/L	EPA 625
Acenaphthene	<1	<1	<1	<1	µg/L	EPA 625
Acenaphthylene	<1	<1	<1	<1	µg/L	EPA 625
Anthracene	<1	<1	<1	<1	µg/L	EPA 625
Azobenzene	<1	<1	<1	<1	µg/L	EPA 625
Benzidine	<5	<5	<5	<5	µg/L	EPA 625
Benzo(a)anthracene	<5	<5	<5	<5	µg/L	EPA 625
Benzo(a)pyrene	<1	<1	<1	<1	µg/L	EPA 625
Benzo(b)fluoranthene	<1	<1	<1	<1	µg/L	EPA 625
Benzo(g,h,i)perylene	<2	<2	<2	<2	µg/L	EPA 625
Benzo(k)fluoranthene	<1	<1	<1	<1	µg/L	EPA 625
Bis(2-chloroethoxy)methane	<2	<2	<2	<2	µg/L	EPA 625
Bis(2-chloroethyl)ether	<1	<1	<1	<1	µg/L	EPA 625
Bis(2-chloroisopropyl)ether	<1	<1	<1	<1	µg/L	EPA 625
Bis(2-ethylhexyl)phthalate	<2	<2	<2	<2	µg/L	EPA 625
Butyl benzyl phthalate	<1	<1	<1	<1	µg/L	EPA 625
Chrysene	<1	<1	<1	<1	µg/L	EPA 625
Dibenzo(a,h)anthracene	<1	<1	<1	<1	µg/L	EPA 625
Diethyl phthalate	<2	<2	<2	<2	µg/L	EPA 625
Dimethyl phthalate	<1	<1	<1	<1	µg/L	EPA 625
Di-n-butyl phthalate	<1	<1	<1	<1	µg/L	EPA 625
Di-n-octyl phthalate	<1	<1	<1	<1	µg/L	EPA 625
Fluoranthene	<1	<1	<1	<1	µg/L	EPA 625
Fluorene	<1	<1	<1	<1	µg/L	EPA 625
Hexachlorobenzene	<1	<1	<1	<1	µg/L	EPA 625
Hexachlorobutadiene	<1	<1	<1	<1	µg/L	EPA 625
Hexachlorocyclopentadiene	<5	<5	<5	<5	µg/L	EPA 625
Hexachloroethane	<1	<1	<1	<1	µg/L	EPA 625
Indeno(1,2,3-cd)pyrene	<2	<2	<2	<2	µg/L	EPA 625
Isophorone	<1	<1	<1	<1	µg/L	EPA 625

Table 2-9b
Groundwater Monitoring Well Results - Priority Pollutants (Quarterly)

Constituent	SS-1/1	VCT-1/1	VCT-2/2	DCZ-1/1	Unit	Method
EPA Priority Pollutants - Base/Neutral and Acid Extractibles (cont'd)						
Naphthalene	<1	<1	<1	<1	µg/L	EPA 625
Nitrobenzene	<1	<1	<1	<1	µg/L	EPA 625
N-Nitrosodimethylamine	<1	<1	<1	<1	µg/L	EPA 625
N-Nitroso-di-n-propylamine	<1	<1	<1	<1	µg/L	EPA 625
N-Nitrosodiphenylamine	<1	<1	<1	<1	µg/L	EPA 625
Pentachlorophenol	<2	<2	<2	<2	µg/L	EPA 625
Phenanthrene	<1	<1	<1	<1	µg/L	EPA 625
Phenol	<1	<1	<1	<1	µg/L	EPA 625
Pyrene	<1	<1	<1	<1	µg/L	EPA 625
EPA Priority Pollutants - Pesticides						
4,4-DDD	<0.1	<0.1	<0.1	<0.1	µg/L	EPA 608
4,4-DDE	<0.1	<0.1	<0.1	<0.1	µg/L	EPA 608
4,4-DDT	<0.1	<0.1	<0.1	<0.1	µg/L	EPA 608
Aldrin	<0.01	<0.01	<0.01	<0.01	µg/L	EPA 608
Alpha-BHC	<0.1	<0.1	<0.1	<0.1	µg/L	EPA 608
Beta-BHC	<0.1	<0.1	<0.1	<0.1	µg/L	EPA 608
Delta-BHC	<0.1	<0.1	<0.1	<0.1	µg/L	EPA 608
Dieldrin	<0.01	<0.01	<0.01	<0.01	µg/L	EPA 608
Endosulfan I	<0.1	<0.1	<0.1	<0.1	µg/L	EPA 608
Endosulfan II	<0.1	<0.1	<0.1	<0.1	µg/L	EPA 608
Endosulfan Sulfate	<0.1	<0.1	<0.1	<0.1	µg/L	EPA 608
Endrin	<0.2	<0.2	<0.2	<0.2	µg/L	EPA 608
Endrin aldehyde	<0.1	<0.1	<0.1	<0.1	µg/L	EPA 608
Gamma-BHC	<0.01	<0.01	<0.01	<0.01	µg/L	EPA 608
Heptachlor	<0.01	<0.01	<0.01	<0.01	µg/L	EPA 608
Heptachlor epoxide	<0.01	<0.01	<0.01	<0.01	µg/L	EPA 608
Chlordane	<0.1	<0.1	<0.1	<0.1	µg/L	EPA 608
PCB-1016	<0.08	<0.08	<0.08	<0.08	µg/L	EPA 608
PCB-1221	<0.1	<0.1	<0.1	<0.1	µg/L	EPA 608
PCB-1232	<0.1	<0.1	<0.1	<0.1	µg/L	EPA 608
PCB-1242	<0.1	<0.1	<0.1	<0.1	µg/L	EPA 608
PCB-1248	<0.1	<0.1	<0.1	<0.1	µg/L	EPA 608
PCB-1254	<0.1	<0.1	<0.1	<0.1	µg/L	EPA 608
PCB-1260	<0.1	<0.1	<0.1	<0.1	µg/L	EPA 608
Toxaphene	<0.1	<0.1	<0.1	<0.1	µg/L	EPA 608

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

	Diluent Water																				Recycled Water									
	Imported Water										Local Runoff / Storm Flow																			
Date	7th & 8th St.	Banana	Brooks	Declez	Ely	Hickory	RP3	San Sevaïne	Turner	Victoria	7th & 8th St.	Banana	Brooks	Declez	Ely	Hickory	RP3	San Sevaïne	Turner	Victoria	7th & 8th St.	Banana	Brooks	Declez	Ely	Hickory	RP3	San Sevaïne	Turner	Victoria
Jan-16	0	0	0	0	0	0	0	0	0	0	249	71	54	158	337	35	239	244	350	87	59	75	254	78	61	23	390	0	102	0
Feb-16	0	0	0	0	0	0	0	0	0	0	93	7	22	34	59	5	54	33	91	10	206	110	211	153	89	27	358	0	198	0
Mar-16	0	0	0	0	0	0	0	0	0	0	200	38	91	92	177	22	208	88	212	79	161	74	116	126	47	0	173	0	161	0
1Q16 Total	0	0	0	0	0	0	0	0	0	0	542	116	167	284	574	62	501	365	654	175	426	259	582	357	198	49	921	0	461	0
Apr-16	0	0	0	0	0	0	0	0	0	0	34	0	13	20	24	21	49	29	68	1	195	97	192	133	127	43	247	0	128	0
May-16	0	0	0	0	0	0	0	0	0	0	72	15	1	12	197	0	48	1	70	2	204	113	278	228	119	52	375	0	156	0
Jun-16	0	0	0	0	0	0	0	0	0	0	5	0	0	3	1	0	11	0	25	1	296	157	0	201	210	18	245	0	159	0
2Q16 Total	0	0	0	0	0	0	0	0	0	0	111	15	14	35	222	21	108	31	163	3	695	366	470	562	456	113	867	0	444	0
Jul-16	0	0	0	0	0	0	0	183	113	0	4	0	0	0	2	0	19	0	19	0	259	0	0	201	2	0	99	0	15	0
Aug-16	0	0	0	0	0	0	0	98	89	0	8	0	0	0	0	0	33	0	22	0	268	0	0	261	0	0	289	0	1	0
Sep-16	0	53	0	551	0	0	0	127	232	0	5	0	31	0	3	0	9	0	18	0	248	0	31	52	3	0	551	0	0	53
3Q16 Total	0	53	0	551	0	0	0	408	434	0	17	0	31	0	5	0	61	0	60	0	775	0	31	514	5	0	939	0	15	53
Oct-16	0	142	170	0	0	0	0	170	233	0	35	0	17	0	47	0	105	16	38	10	285	0	0	0	0	0	384	0	7	142
Nov-16	0	0	0	0	0	0	0	14	16	7	82	21	39	55	86	9	65	12	68	24	228	48	116	0	0	3	688	0	12	218
Dec-16	0	0	0	0	0	0	0	0	0	0	362	71	194	217	523	85	336	193	555	185	124	1	13	0	0	0	531	0	71	106
4Q16 Total	0	142	170	0	0	0	0	184	250	7	479	92	250	272	657	95	507	221	661	218	637	48	130	0	0	3	1603	0	89	467

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)
1Q16	Jan-16	0.0	0.7	320	31	16.5	380	(1,060)	(18,831)	(501,758)
	Feb-16	0.0	0.7	320	37	16.5	380	(1,097)	(19,574)	(518,873)
	Mar-16	0.0	0.7	320	35	16.5	380	(1,131)	(20,282)	(535,201)
2Q16	Apr-16	0.0	0.7	320	1	16.5	380	(1,132)	(20,299)	(535,600)
	May-16	0.0	0.7	320	8	16.5	380	(1,140)	(20,459)	(539,294)
	Jun-16	0.0	0.7	320	58	16.5	380	(1,198)	(21,631)	(566,305)
3Q16	Jul-16	0.0	0.7	320	9	16.5	380	(1,207)	(21,810)	(570,440)
	Aug-16	0.0	0.7	320	0	16.5	380	(1,207)	(21,812)	(570,491)
	Sep-16	0.0	0.7	320	0	16.5	380	(1,207)	(21,818)	(570,627)
4Q16	Oct-16	0.0	0.7	320	0	16.5	380	(1,207)	(21,819)	(570,660)
	Nov-16	0.0	0.7	320	0	16.5	380	(1,207)	(21,822)	(570,712)
	Dec-16	0.0	0.7	320	0	16.5	380	(1,207)	(21,823)	(570,749)

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)
1Q16	Jan-16	0.0	0.7	320	0	12.0	370	(162)	(25,345)	(280,150)
	Feb-16	0.0	0.7	320	0	12.0	370	(162)	(25,346)	(280,182)
	Mar-16	0.0	0.7	320	0	12.0	370	(162)	(25,346)	(280,182)
2Q16	Apr-16	0.0	0.7	320	4	12.0	370	(166)	(25,401)	(281,871)
	May-16	0.0	0.7	320	0	12.0	370	(166)	(25,401)	(281,871)
	Jun-16	0.0	0.7	320	0	12.0	370	(166)	(25,401)	(281,871)
3Q16	Jul-16	0.0	0.7	320	0	12.0	370	(166)	(25,401)	(281,871)
	Aug-16	0.0	0.7	320	0	12.0	370	(166)	(25,401)	(281,871)
	Sep-16	0.0	0.7	320	5	12.0	370	(170)	(25,472)	(284,053)
4Q16	Oct-16	0.0	0.7	320	0	12.0	370	(170)	(25,472)	(284,053)
	Nov-16	0.0	0.7	320	0	12.0	370	(170)	(25,472)	(284,053)
	Dec-16	0.0	0.7	320	13	12.0	370	(183)	(25,663)	(289,964)

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)
1Q16	Jan-16	0.0	0.7	320	0	17.4	300	(3,653)	(43,135)	(829,642)
	Feb-16	0.0	0.7	320	0	17.4	300	(3,653)	(43,135)	(829,642)
	Mar-16	0.0	0.7	320	0	17.4	300	(3,653)	(43,135)	(829,642)
2Q16	Apr-16	0.0	0.7	320	0	17.4	300	(3,653)	(43,135)	(829,642)
	May-16	0.0	0.7	320	0	17.4	300	(3,653)	(43,135)	(829,642)
	Jun-16	0.0	0.7	320	0	17.4	300	(3,653)	(43,135)	(829,642)
3Q16	Jul-16	0.0	0.7	320	0	17.4	300	(3,653)	(43,135)	(829,642)
	Aug-16	0.0	0.7	320	0	17.4	300	(3,653)	(43,135)	(829,642)
	Sep-16	0.0	0.7	320	0	17.4	300	(3,653)	(43,135)	(829,642)
4Q16	Oct-16	0.0	0.7	320	0	17.4	300	(3,653)	(43,135)	(829,642)
	Nov-16	0.0	0.7	320	0	17.4	300	(3,653)	(43,135)	(829,642)
	Dec-16	0.0	0.7	320	0	17.4	300	(3,653)	(43,135)	(829,642)

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

Data pending update from MVWD

Cells shaded in grey reflect most recent lab values.

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

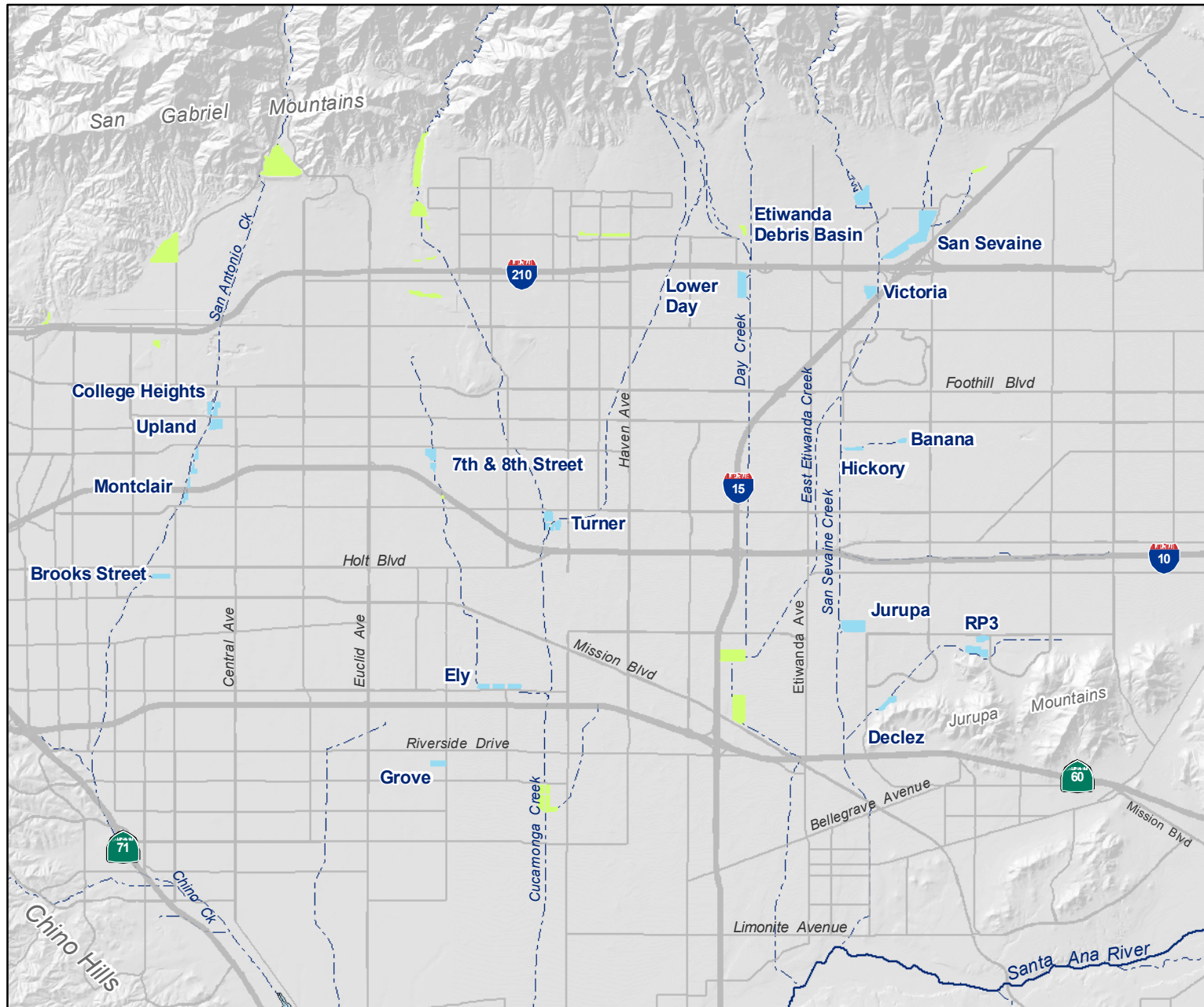
ASR Well No. 33										
	Date	Injection			Recovery			Mass Balance		
		Volume (AF)	TIN (mg/L)	TDS (mg/L)	Volume (AF)	TIN (mg/L)	TDS (mg/L)	Storage (AF)	TIN (kg)	TDS (kg)
1Q16	Jan-16	0.0	0.7	320	0	12.6	340	(2,161)	(45,305)	(859,825)
	Feb-16	0.0	0.7	320	48	12.6	340	(2,209)	(46,051)	(879,959)
	Mar-16	0.0	0.7	320	18	12.6	340	(2,227)	(46,331)	(887,534)
2Q16	Apr-16	0.0	0.7	320	278	12.6	340	(2,505)	(50,650)	(1,004,104)
	May-16	0.0	0.7	320	287	12.6	340	(2,793)	(55,114)	(1,124,601)
	Jun-16	0.0	0.7	320	205	12.6	340	(2,998)	(58,304)	(1,210,716)
3Q16	Jul-16	0.0	0.7	320	192	12.6	340	(3,190)	(61,293)	(1,291,386)
	Aug-16	0.0	0.7	320	77	12.6	340	(3,267)	(62,486)	(1,323,591)
	Sep-16	0.0	0.7	320	74	12.6	340	(3,341)	(63,630)	(1,354,487)
4Q16	Oct-16	0.0	0.7	320	11	12.6	340	(3,352)	(63,806)	(1,359,235)
	Nov-16	0.0	0.7	320	5	12.6	340	(3,358)	(63,891)	(1,361,517)
	Dec-16	0.0	0.7	320	6	12.6	340	(3,363)	(63,977)	(1,363,853)

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

Data pending update from MVWD

Cells shaded in grey reflect most recent lab values.

Total Project (All Wells)					
	Date		Mass Balance		
			Storage (AF)	TIN (kg)	TDS (kg)
1Q16	Jan-16		(7,037)	(132,617)	(2,471,375)
	Feb-16		(7,121)	(134,106)	(2,508,656)
	Mar-16		(7,174)	(135,095)	(2,532,559)
2Q16	Apr-16		(7,457)	(139,485)	(2,651,216)
	May-16		(7,752)	(144,109)	(2,775,407)
	Jun-16		(8,015)	(148,471)	(2,888,534)
3Q16	Jul-16		(8,216)	(151,639)	(2,973,339)
	Aug-16		(8,293)	(152,834)	(3,005,595)
	Sep-16		(8,371)	(154,055)	(3,038,809)
4Q16	Oct-16		(8,383)	(154,233)	(3,043,590)
	Nov-16		(8,388)	(154,319)	(3,045,923)
	Dec-16		(8,407)	(154,599)	(3,054,208)



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

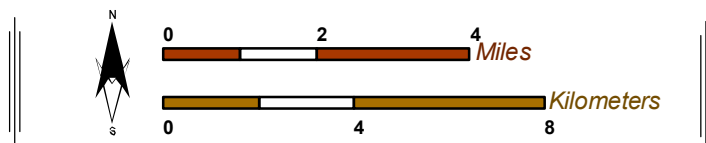
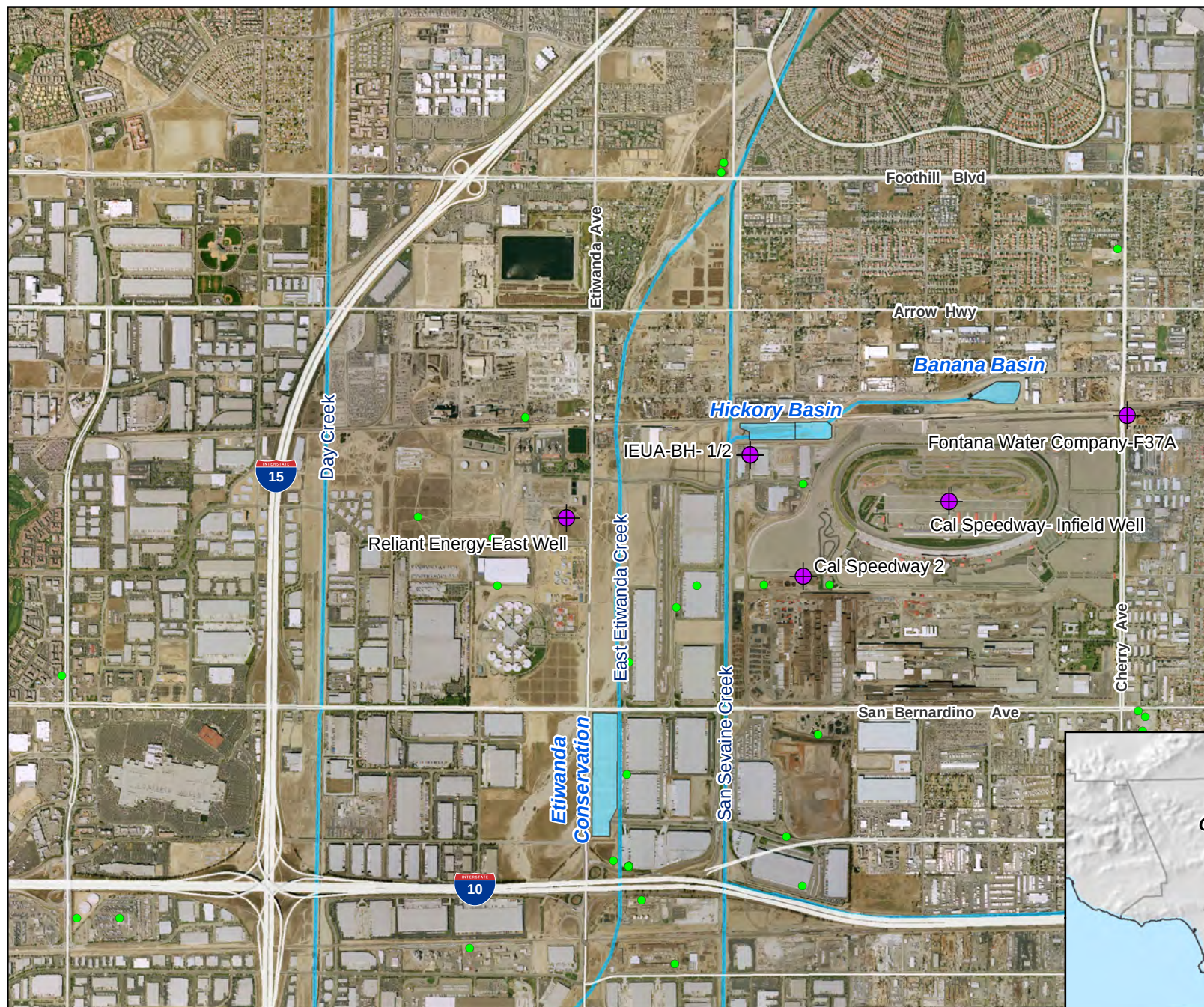
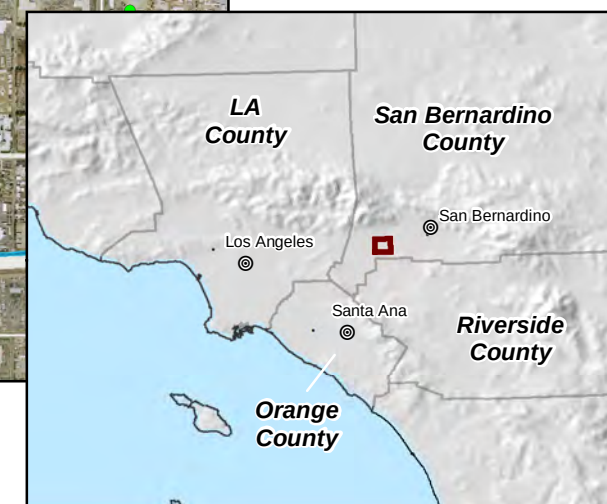


Figure 1-1



Main Map Features

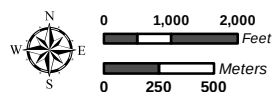
-  Existing Monitoring Well
-  "Other Wells"
-  Rivers/Streams/Creeks
-  Recharge Basins

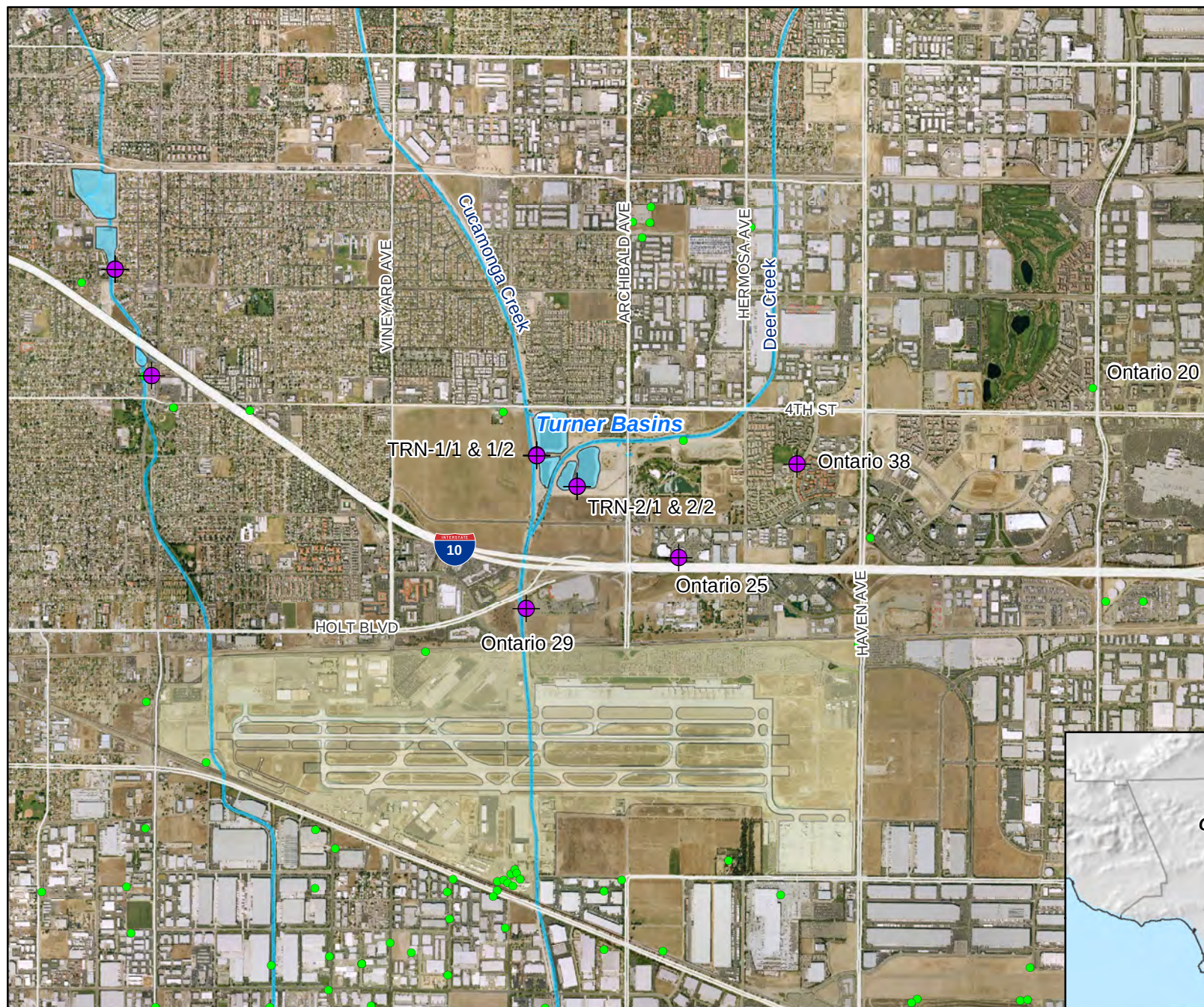


Monitoring Well Network Hickory and Banana Basins

Figure 2-1

Recycled Water Recharge Program





Main Map Features

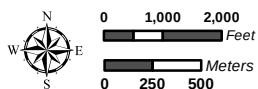
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-  "Other Wells"
-  Rivers/Streams/Creeks
-  Recharge Basins

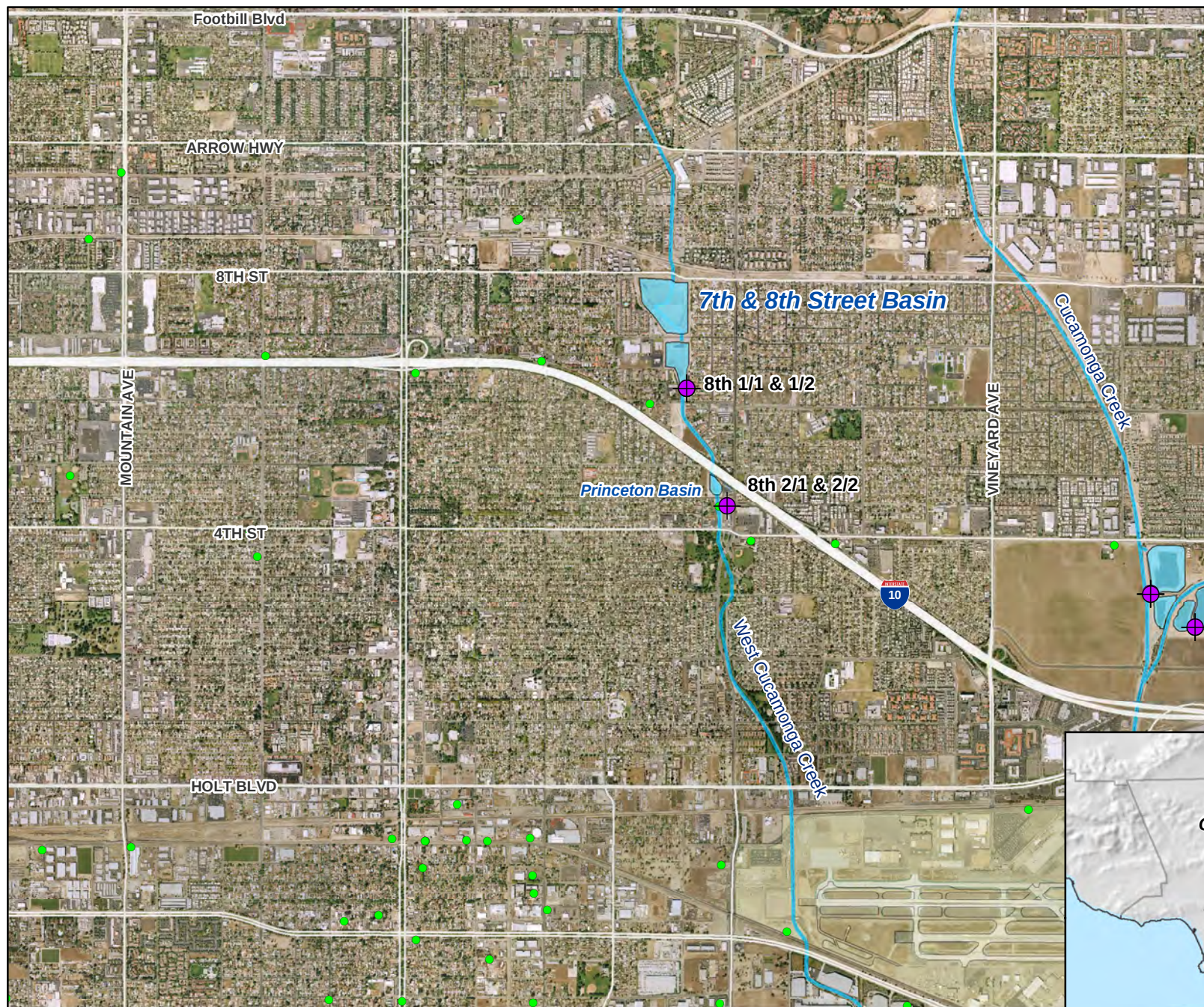


Monitoring Well Network
Turner Basins

Figure 2-2

Recycled Water Recharge Program





Main Map Features

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



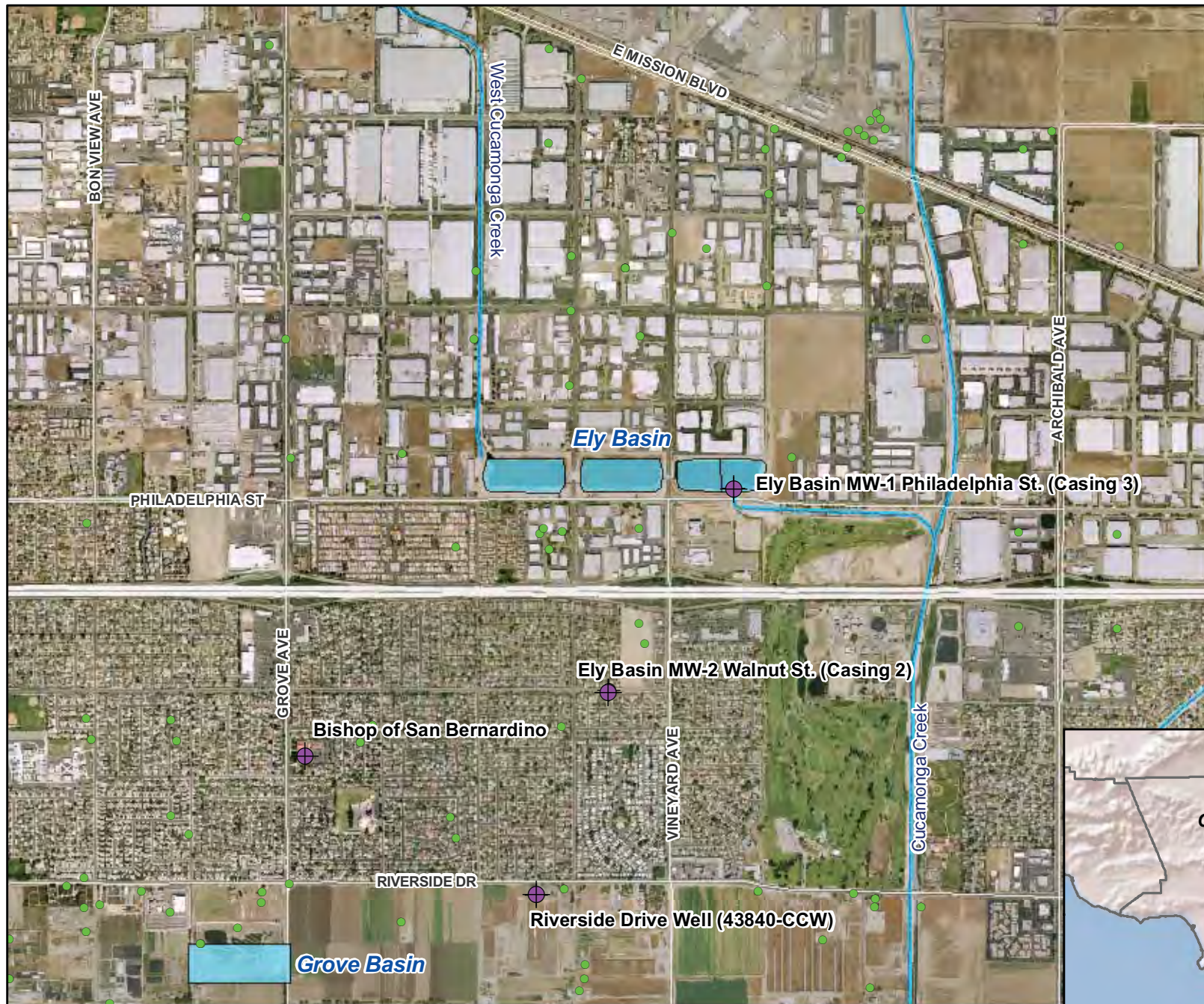
Monitoring Well Network

7th and 8th Street Basin

Figure 2-3

Recycled Water Recharge Program





Main Map Features

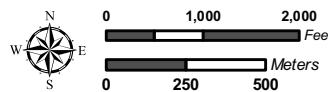
-  Existing Monitoring Well
-  "Other Wells"
-  Rivers/Streams/Creeks
-  Recharge Basins

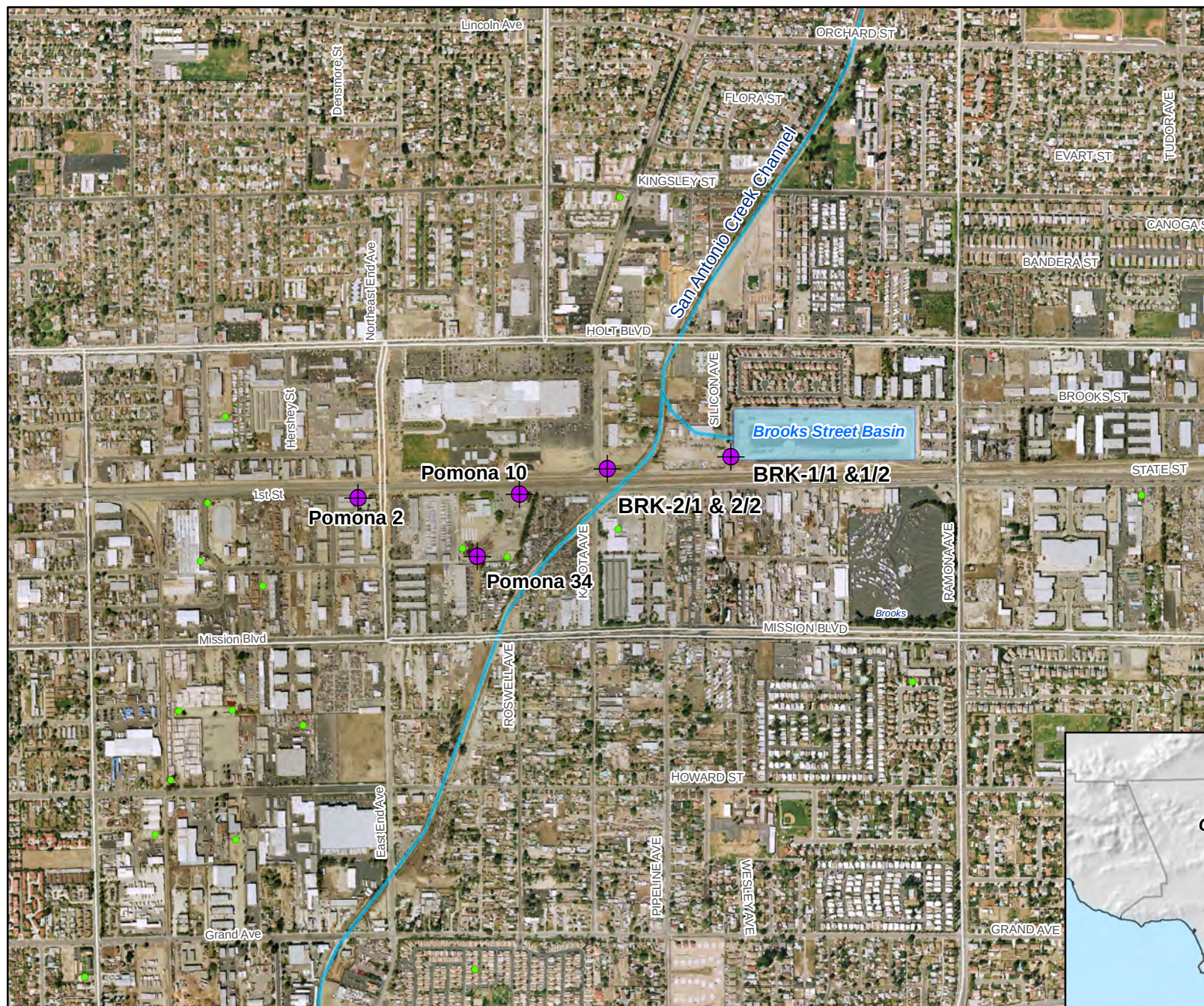


Monitoring Well Network
Ely Basins

Figure 2-4

Recycled Water Recharge Program





Main Map Features

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



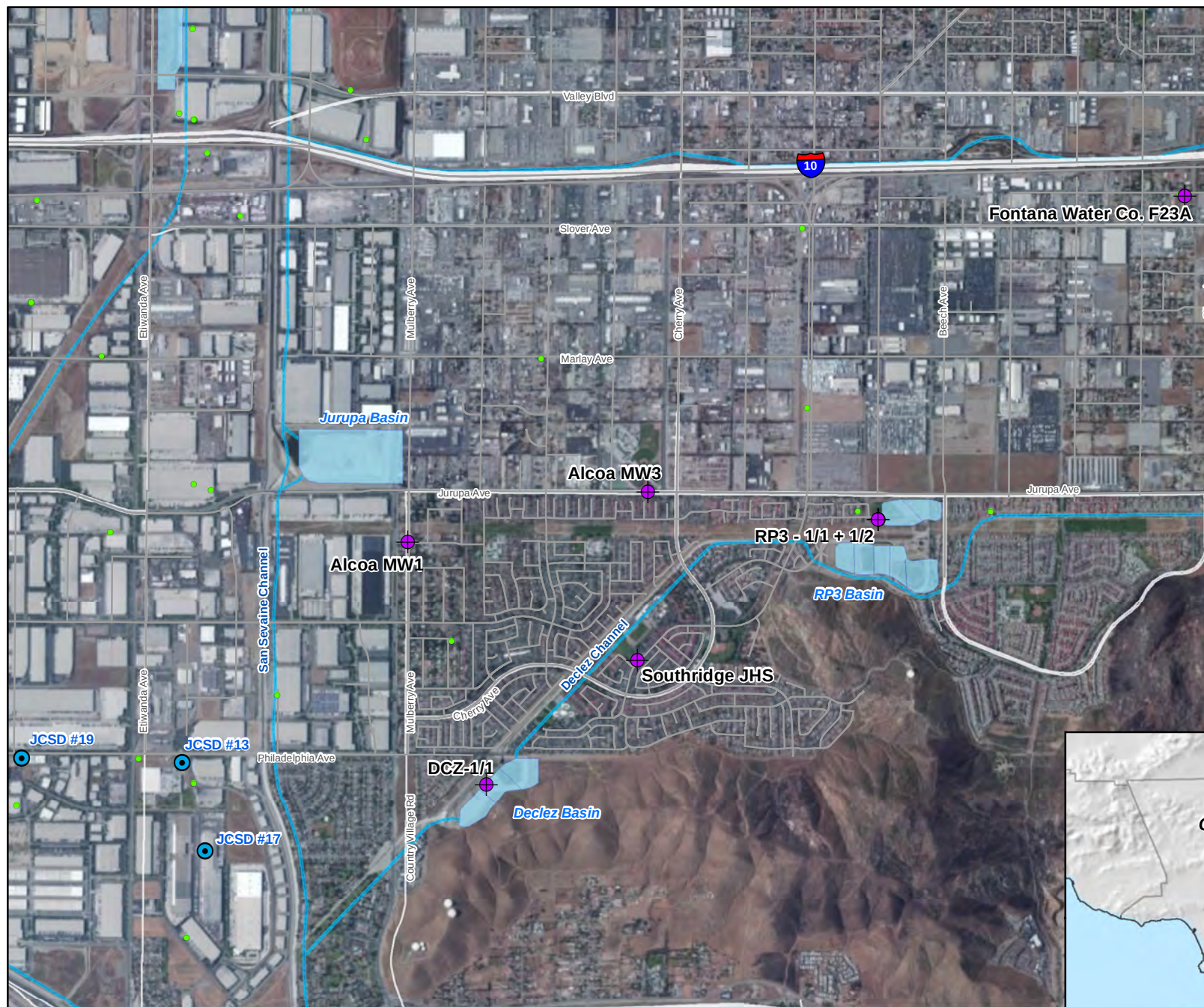
Monitoring Well Network

Brooks Street Basin

Figure 2-5

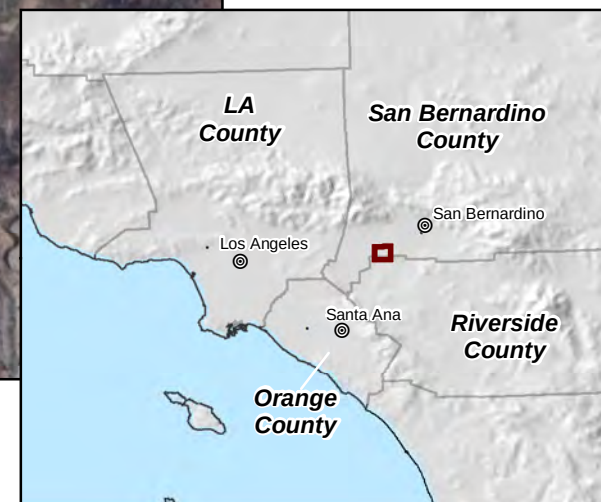
Recycled Water Recharge Program





Main Map Features

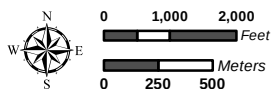
-  JCSD Wells
-  "Other Wells"
-  Existing Monitoring Well
-  Rivers/Streams/Creeks
-  Recharge Basins

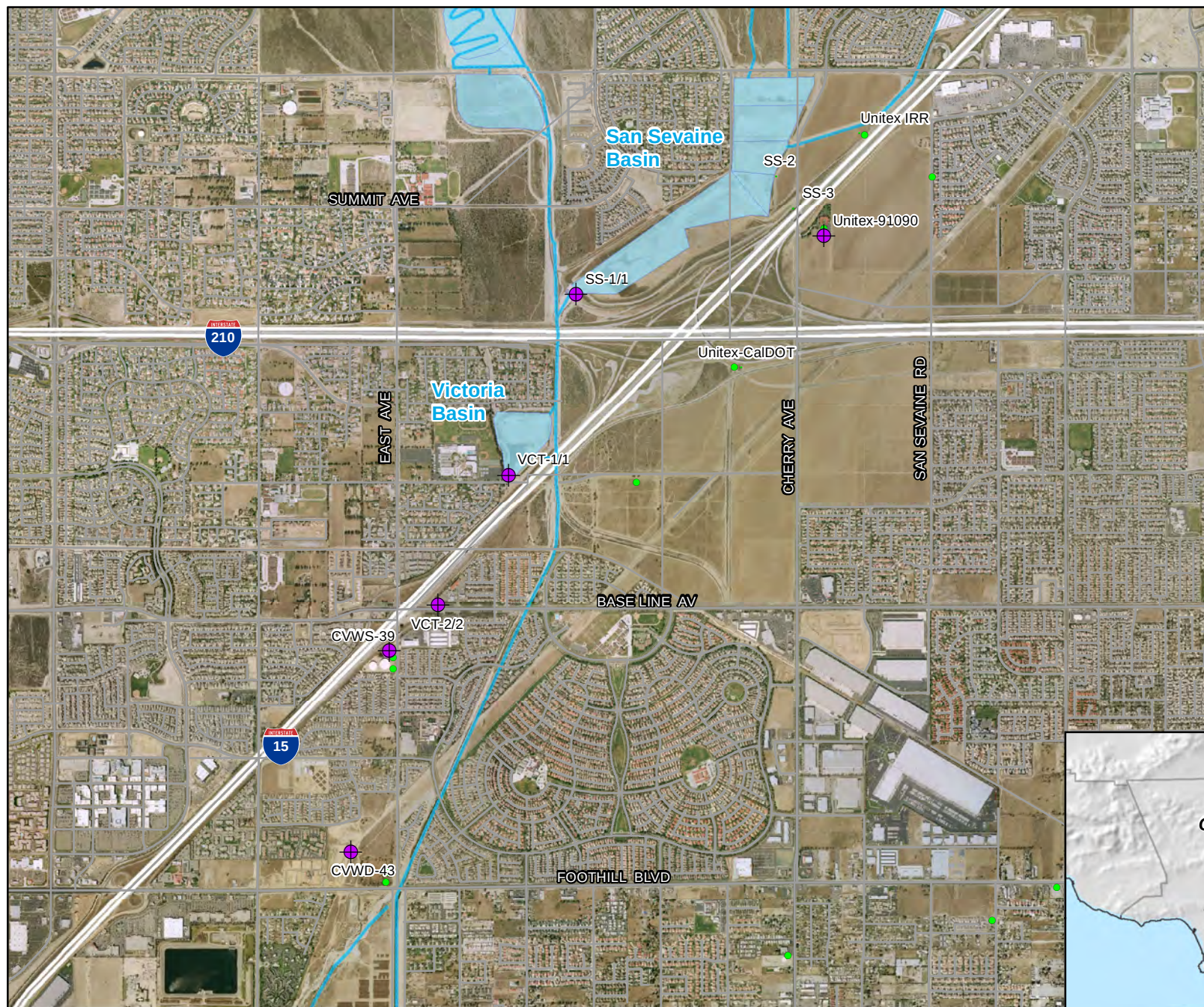


Monitoring Well Network
Declez and RP3 Basins

Figure 2-6

Recycled Water Recharge Program





Main Map Features

Legend

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



Monitoring Well Network
San Seivaine and Victoria Basin

Figure 2-7

Recycled Water Recharge Program

