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May 15, 2018

Regional Water Quality Control Board, Santa Ana Region

**Attention: Ms. Hope Smythe**

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

**Subject: Chino Basin Recycled Water Groundwater Recharge Program:  
Quarterly Monitoring Report for January through March 2018**

Dear Ms. Smythe,

Inland Empire Utilities Agency and Chino Basin Watermaster hereby submit the *Quarterly Monitoring Report* for the first quarter of 2018 (1Q18), January 1 through March 31, 2018, 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 1Q18, the Groundwater Recharge Program was in compliance with all monitoring and reporting requirements as specified in the Order, with the exception of an exceedance of the 4-quarter running average for odor (secondary MCL).

Chino Basin Watermaster hereby certifies that, during the period of January 1 through March 31, 2018, 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, Decluz, 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 15<sup>th</sup> day of May in the Cities of Chino and Rancho Cucamonga.



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Randy Lee, P.E.  
Executive Manager of Operations/  
Assistant General Manager

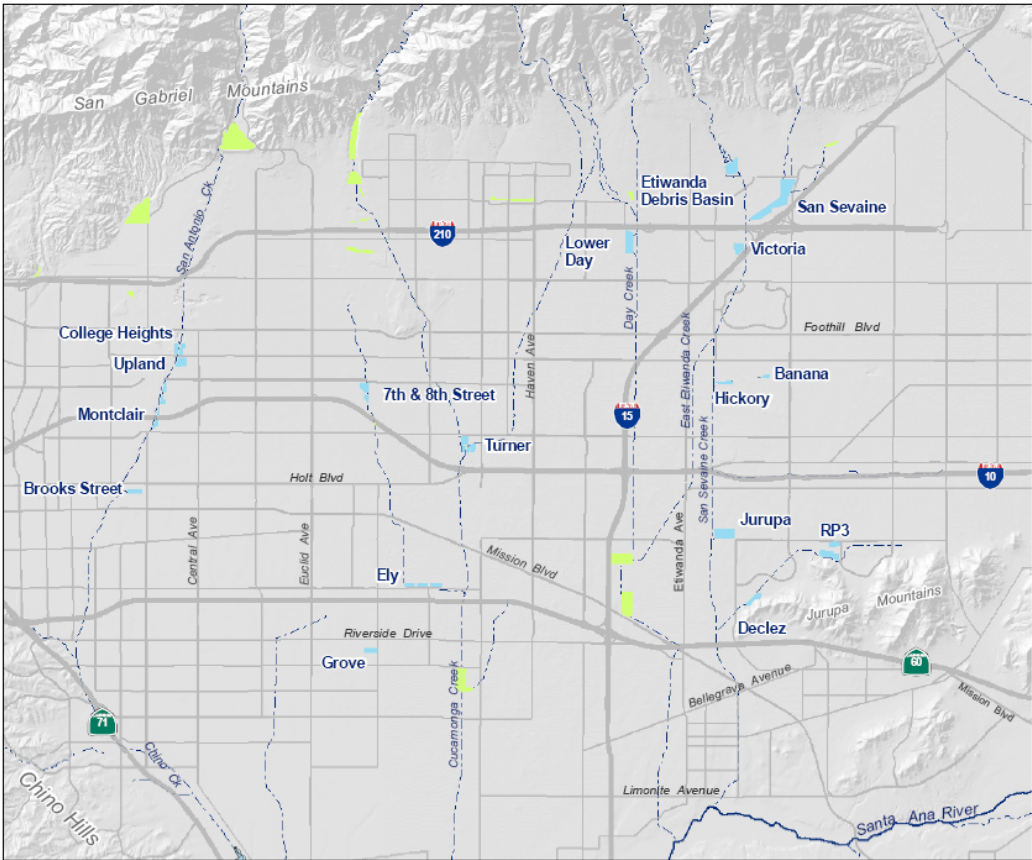


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Peter Kavounas, P.E.  
General Manager

# Chino Basin Recycled Water Groundwater Recharge Program

## Quarterly Monitoring Report January 1 through March 31, 2018



*Prepared by:*



May 15, 2018

## Table of Contents

<b>1. Introduction .....</b>	<b>1</b>
<i>A. Order No. R8-2007-0039 .....</i>	<i>1</i>
<i>B. Order No. R8-2009-0057 .....</i>	<i>1</i>
<i>C. Revised Monitoring &amp; Reporting Program No. R8-2007-0039 .....</i>	<i>1</i>
<i>D. Title 22, Division 4, Chapter 3. Article 5.1 §60320.100.....</i>	<i>2</i>
<i>E. Outline of the Quarterly Report .....</i>	<i>2</i>
<b>2. Monitoring Results.....</b>	<b>2</b>
<i>A. Recycled Water: RP-1 and RP-4 .....</i>	<i>2</i>
<i>B. Recycled Water: Basin and Lysimeter Samples.....</i>	<i>3</i>
<i>C. Recycled Water: Alternative Monitoring Plans for TOC and TN.....</i>	<i>4</i>
<i>D. Diluent Water.....</i>	<i>5</i>
<i>E. Groundwater Monitoring Wells.....</i>	<i>5</i>
<b>3. Recharge Operations .....</b>	<b>6</b>
<b>4. Operational Problems &amp; Preventive or Corrective Actions .....</b>	<b>7</b>
<b>5. Certification of Non-Pumping in the Buffer Zones.....</b>	<b>7</b>
<b>6. MVWD ASR Project .....</b>	<b>7</b>

### LIST OF TABLES

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

### LIST OF FIGURES

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

## 1. Introduction

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

### A. Order No. R8-2007-0039

On June 29, 2007, the Santa Ana Regional Water Quality Control Board (Regional Board) adopted Order No. R8-2007-0039 (Order) which prescribes the requirements for recycled water use for groundwater recharge in 13 recharge sites within the Chino-North 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 first quarter of 2018 (1Q18).

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 10<sup>th</sup> day.

- 2) Groundwater Monitoring Program Requirement V.1. was modified by adding a sentence to the paragraph that allows IEUA to analyze the groundwater samples collected on a quarterly basis from non-active municipal drinking water wells for dissolved metals, instead of total recoverable metals.
- 3) Reporting Requirement VI.B.3.b. 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 described in the MRP. Tables 2-1 through 2-4 include all of the requisite 1Q18 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 1Q18, there were no exceedances of the TN 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



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average concentration data for each parameter from 2Q17 through 1Q18, and lists the corresponding limits for compliance.

There were no exceedances for the parameters analyzed during 1Q18, 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 1Q18 was 15 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 the nearest downgradient monitoring wells during 1Q18. Please note that there was no odor results for 1Q18 due to the sample collected on March 14, 2018 exceeding the holding time requirement. The 4-quarter running average is based on the previous four quarters of data and two samples will be collected during 2Q18.

Although NRG turnout is a suitable sampling location for most constituents, it is not appropriate for Total Trihalomethanes (TTHMs), Total Haloacetic Acids (HAA5), and 1,2,3-Trichloropropane (1,2,3-TCP). Compliance samples for these compounds are taken from lysimeters or monitoring wells at basins actively receiving recycled water. At these locations, the samples better represent the compounds present in the recycled water prior to reaching the groundwater table, as the concentrations of these constituents change through the recharge process. Once a quarter, a representative sample is collected from a selected compliance lysimeter/monitoring well and analyzed for these compounds. For the 1Q18 sampling for these three compounds, IEUA chose the monitoring well, BH-1/2, instead of a lysimeter as the compliance point, due to the lysimeters being influenced by stormwater during 1Q18. The BH-1/2 monitoring well was selected as the compliance point because the basin received consistent recycled water recharge and recycled water was present 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 1Q18.

## **B. Recycled Water: Basin and Lysimeter Samples**

Total organic carbon (TOC) and nitrogen species sampling and analyses are performed weekly or monthly at lysimeters at some basins when recycled water is being 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 1Q18 are summarized in Table 2-5a. The table includes lysimeter data for Banana, Brooks, and Hickory Basins. Most compliance sampling for TOC and TN of the recycled water at each basin is analyzed using alternative monitoring plans (Section 2.C), and not lysimeter data. Currently, the only lysimeter monitoring data used to assess TN and TOC compliance is the TN sampling at 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 1Q18, at this compliance lysimeter.

Recycled water deliveries were initiated at Declez Basin on December 23, 2015. Recommendations for the TOC and TN compliance point will be included in the start-up period report. An update of the start-up period report status can be found in Section 3 of this report.

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### C. Recycled Water: Alternative Monitoring Plans for TOC and TN

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
- 8<sup>th</sup> Street Basin: TOC reduction of 88 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. Some of these correction factors and locations for the compliance sampling have been modified since the basin's startup reports. These changes are described below.

In June 2015, the DDW issued a letter that approved the request for 50% RWC for most of the GWR basins, with the exception of RP3, San Sevaine 5, and Turner Basins. The letter stated that based on the data that was provided: "For most of the recharge basins, the data does show an increasing amount of EC and chloride in the mound monitoring wells over time, indicating that recycled water is reaching the mound. Corresponding TOC data from the mound monitoring wells also show a consistent TOC level of less than 1.0 mg/L when recycled water is present; therefore, increasing the RWC limit to 50 percent for some basins is justified."

Starting 1Q17, the TOC reduction factor was amended to align with the DDW's evaluation and allowance for a 50% RWC at 8th Street Basin. Mound monitoring well data (2008-2016) was used to calculate percent reduction in place of the available lysimeter data used in the start-up period report.

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.

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



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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 1Q18, there were no exceedances of TOC and TN at the basins that have implemented alternative monitoring plans.

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.

#### **D. Diluent Water**

In addition to recycled water recharge, the two other water sources are imported water and stormwater / local runoff; these two types of water are considered diluent water. Imported water and stormwater / local runoff must be sampled quarterly in accordance with the DDW-approved Diluent Water Monitoring Plan.

Details on the methods used to measure daily diluent water flow and diluent water monitoring schedule can be found in the Diluent Water Monitoring Plan. The quarterly sampling schedule for stormwater and local runoff is presented in Table 4-2 of the plan. Stormwater is sampled during the rainy season (1<sup>st</sup> and 4<sup>th</sup> quarters) and local runoff is sampled during the dry season (2<sup>nd</sup> and 3<sup>rd</sup> 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. For 1Q18, diluent water quality sampling of stormwater was conducted during the months of February and March 2018. Table 2-7a lists the results of the stormwater sampling and analyses.

State Water Project water was delivered as diluent water to multiple basins during 1Q18. Table 2-7b lists the results from Metropolitan Water District's general mineral and physical analysis of source water from Silverwood Lake for the calendar months that imported water deliveries occurred.

#### **E. 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, 8<sup>th</sup> Street, Ely, Brooks, RP3, San Sevaine, 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 1Q18 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 are not reported to the DDW but are 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 eight monitoring wells, namely: T-2/1, 8TH-1/1, BRK-1/1, BRK-2/2, Riverside Well (Ely), SS-1/1, VCT-1/1 and DCZ-1/1. The secondary MCL for color of 15 units was exceeded at 8TH-1/1, BRK-1/1, BRK-2/2, and DCZ-1/1.

TDS and EC were higher than their secondary MCLs of 500 mg/L and 900 µmhos/cm, respectively, in Southridge JHS, ALCOA MW3, and Ely MW2. The wells south of the Ely Basins and near the RP3 Basins are located in areas where the TDS and EC concentrations in groundwater are historically elevated. 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 RP3, 8th Street, Brooks, Ely, and Declez Basins monitoring well networks have nitrate as nitrogen (NO<sub>3</sub>-N) concentrations above the primary MCL of 10 mg/L. The NO<sub>3</sub>-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 NO<sub>3</sub>-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 NO<sub>3</sub>-N concentrations are comparable to the ambient NO<sub>3</sub>-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 2016 State of the Basin Report” published in June 2017 was prepared by Wildermuth Environmental for the CBWM. The 2016 State of the Basin report can be downloaded from CBWM’s website, [www.cbwm.org](http://www.cbwm.org).

The 2014 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 <sup>th</sup> 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	DCZ-2

### 3. Recharge Operations

IEUA’s Groundwater Recharge Coordinator records the daily volumes of water routed to all basins. The 8<sup>th</sup> 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 1Q18 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

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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. The Declez Start-Up Period report will be submitted in 2Q18.

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

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

The upgradient well for Banana & Hickory Basins, Fontana Water Company F37A, is slated to be abandoned by the Fontana Water Company and has not been sampled since 3Q17. Fontana Water Company F7A was selected during 1Q18 as the new upgradient well.

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

Watermaster has certified that there was no reported pumping of groundwater in 1Q18 for domestic or municipal use from the buffer zones that extend 500 feet and 6 months underground travel time from the 8<sup>th</sup> Street, Banana, Brooks, Declez, Ely, Hickory, RP3, San Sevaine, Turner, and Victoria Basins. In fact, there are no domestic or municipal production wells within the buffer zones of these aforementioned recharge sites.

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

If a proposed well falls within an abutting parcel, SBCDEHS will review the well location using maps of the basins and buffer zones. If the well falls too near the buffer zone boundary for SBCDEHS to determine the relationship of the proposed well location to the buffer boundary, SBCDEHS will defer to IEUA for a prompt field review of the proposed well location. The field review may include contacting and having the well applicant identify the exact location of the proposed well casing. To conduct a detailed field review, SBCDEHS will contact and provide the IEUA Groundwater Recharge Coordinator with a copy of the well permit application and a timeline for the completion of IEUA's review. Following the review, IEUA will notify SBCDEHS of its findings in writing. IEUA will also notify the 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 September 2017, MVWD restarted injection activities for the first time since September 2011. The injection activities continued throughout 1Q18. Table 6-1 summarizes the monthly volumes and TIN/TDS of injected and recovered water. The table also includes the mass balance of TIN/TDS from the injection-recovery cycles.

Table 2-1a  
 Recycled Water Monitoring: RP-1 & RP-4 Effluent Water Quality for January 2018  
 (Recycled Water Quality Specifications A.5, A.7, A.8, & A.9)

Unit	RP-1 Effluent										RP-4 Effluent									
	Turbidity <sup>1,2,7</sup>	TOC	NO <sub>3</sub> -N	TN	TIN <sup>3</sup>	pH <sup>7</sup>	EC <sup>7</sup>	TDS <sup>3</sup>	Hardness	Coliform <sup>1,2,4</sup>	Turbidity <sup>1,2,7</sup>	TOC	NO <sub>3</sub> -N	TN	TIN <sup>3</sup>	pH <sup>7</sup>	EC	TDS <sup>3</sup>	Hardness	Coliform <sup>1,2,4</sup>
Limits	2;5;10	16 <sup>5</sup>		5 <sup>6</sup>		6<pH<9				2.2;23;240	2;5;10	16 <sup>5</sup>		5 <sup>6</sup>		6<pH<9				2.2;23;240
01/01/18	0.6	5.5	5.7	5.7	5.7	6.9	629	432		<1	0.4	4.2	1.8	2.7	1.8	6.7	701	420		<1
01/02/18	0.6	5.6	6.3		6.3	6.9	603			<1	0.4	4.2	2.1		2.1	6.7	710			<1
01/03/18	0.6	6.1	5.5		5.5	6.9	611			1	0.5	4.4	1.8		1.8	6.6	705			<1
01/04/18	0.6	5.9	5.4		5.4	7.0	601			<1	0.5	4.3	2.1		2.1	6.7	704			<1
01/05/18	0.5	5.5				7.0	601			<1	0.5	4.3				6.9	715			<1
01/06/18	0.5	5.4				7.0	589			<1	0.5	4.2				6.9	745			<1
01/07/18	0.5	5.4	6.3	6.3	6.3	7.0	571	458	141	<1	0.5	4.1	2.4	2.9	2.4	6.9	724	402	125	<1
01/08/18	0.5	5.6	4.3		4.3	7.0	586			<1	0.6	4.1	2.6		2.6	6.9	730			<1
01/09/18	0.6	5.8	5.7		5.7	6.9	619			<1	0.6	4.1	3.3		3.3	6.9	687			<1
01/10/18	0.6	5.6	5.7		5.7	6.8	595			<1	0.4	3.2	3.9		3.9	6.9	665			<1
01/11/18	0.6	5.9	3.4		3.4	6.9	640			1	0.4	4.2	4.1		4.1	6.8	682			<1
01/12/18	0.5	6.3				6.9	637			<1	0.4	4.6				6.9	682			<1
01/13/18	0.5	5.3				7.0	642			<1	0.4	3.9				6.9	701			<1
01/14/18	0.6	5.2	7.3	7.3	7.3	7.1	637	450		<1	0.4	2.3	3.7	4.3	3.7	6.9	718	428		<1
01/15/18	0.5	5.9	6.7		6.7	7.1	629			<1	0.4	4.2	3.6		3.6	6.9	721			1
01/16/18	0.6	6.1	5.6		5.6	7.2	643			<1	0.3	4.1	3.4		3.4	6.9	708			<1
01/17/18	0.6	6.1	4.9		4.9	7.2	661			<1	0.3	4.4	4.2		4.2	6.8	721			<1
01/18/18	0.6	6.0	6.6		6.6	7.4	664			<1	0.4	4.3	3.7		3.7	6.8	681			<1
01/19/18	0.7	6.0				7.4	667			<1	0.3	4.2				6.8	691			<1
01/20/18	0.6	5.7				7.5	669			<1	0.3	4.1				6.8	709			<1
01/21/18	0.6	5.6	8.7	8.7	8.7	7.6	672	462		<1	0.3	4.1	3.3	3.9	3.3	6.8	708	428		<1
01/22/18	0.6	5.8	7.2		7.2	7.6	660			<1	0.4	4.1	3.4			6.8	709			<1
01/23/18	0.6	5.8	6.1		6.1	7.5	637			1	0.4	4.0	3.8		3.8	6.8	728			<1
01/24/18	0.6	5.6	6.0		6.0	7.4	640			<1	0.4	2.9	4.0		4.0	6.8	728			<1
01/25/18	0.6	5.3	6.4		6.4	7.1	639			<1	0.4	3.3	4.0		4.0	6.8	762			<1
01/26/18	0.6	5.5				7.0	651			<1	0.4	4.7				6.8	742			<1
01/27/18	0.6	5.6				7.0	671			<1	0.4	3.8				6.8	753			<1
01/28/18	0.6	5.6	7.6	7.6	7.6	7.0	637	464		<1	0.4	2.9	3.4	3.4	3.4	6.9	754	434		<1
01/29/18	0.8	5.7	6.0		6.0	6.9	643			<1	0.4	2.9	2.7		2.7	6.9	754			<1
01/30/18	0.6	5.7	4.7		4.7	6.8	702			<1	0.5	2.7	2.7		2.7	6.8	784			<1
01/31/18	0.6	5.3	5.6		5.6	6.9	685			<1	0.5	3.0	3.3		3.3	6.8	721			<1
Avg	0.6	5.7	6.0	7.1	6.0	7.1	636	453	141	<1	0.4	3.9	3.2	3.4	3.2	6.8	718	422	125	<1
Min	0.5	5.2	3.4	5.7	3.4	6.8	571	432	141	<1	0.3	2.3	1.8	2.7	1.8	6.6	665	402	125	<1
Max	0.8	6.3	8.7	8.7	8.7	7.6	702	464	141	1	0.6	4.7	4.2	4.3	4.2	6.9	784	434	125	1

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

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

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

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

<sup>3</sup> TDS and TIN limits are based on the 12-month running average of the combined effluent from all plants, which are presented in Table 2-2.

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

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

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

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

Table 2-1b  
 Recycled Water Monitoring: RP-1 & RP-4 Effluent Water Quality for February 2018  
 (Recycled Water Quality Specifications A.5, A.7, A.8, & A.9)

Unit	RP-1 Effluent										RP-4 Effluent									
	Turbidity <sup>1,2,7</sup> NTU	TOC mg/L	NO <sub>3</sub> -N mg/L	TN mg/L	TIN <sup>3</sup> mg/L	pH <sup>7</sup> unit	EC <sup>7</sup> µhmo/cm	TDS <sup>3</sup> mg/L	Hardness mg/L	Coliform <sup>1,2,4</sup> mpn/100mL	Turbidity <sup>1,2,7</sup> NTU	TOC mg/L	NO <sub>3</sub> -N mg/L	TN mg/L	TIN <sup>3</sup> mg/L	pH <sup>7</sup> unit	EC µhmo/cm	TDS <sup>3</sup> mg/L	Hardness mg/L	Coliform <sup>1,2,4</sup> mpn/100mL
Limits	2;5;10	16 <sup>5</sup>		5 <sup>6</sup>		6<pH<9				2.2;23;240	2;5;10	16 <sup>5</sup>		5 <sup>6</sup>		6<pH<9				2.2;23;240
02/01/18	0.5	5.6	5.7		5.7	6.9	688			<1	0.5	2.9	3.6		3.6	6.8	756			<1
02/02/18	0.5	5.8				6.9	688			<1	0.5	3.7				6.9	758			<1
02/03/18	0.5	6.0				6.9	709			<1	0.5	4.0				6.9	762			<1
02/04/18	0.5	5.4	6.6	6.6	6.6	6.9	679	456	140	1	0.5	3.0	2.3	2.3	2.3	6.9	766	436	134	<1
02/05/18	0.6	5.8	6.5		6.5	6.9	671			<1	0.5	4.2	0.8		1.0	6.9	787			<1
02/06/18	0.6	5.8	5.0		5.0	6.9	702			<1	0.5	3.9	0.8		0.8	6.9	812			<1
02/07/18	0.5	5.7	5.1		5.1	6.8	714			1	0.4	2.7	2.7		2.7	6.9	762			<1
02/08/18	0.5	5.3	6.7		6.7	6.8	713			<1	0.3	3.5	4.1		4.1	6.8	751			<1
02/09/18	0.5	5.6				6.8	729			1	0.4	4.3				6.8	754			<1
02/10/18	0.4	5.6				6.8	749			1	0.4	3.9				6.9	758			<1
02/11/18	0.4	4.8	6.6	6.6	6.6	6.8	702	464		<1	0.4	3.4	4.1	4.8	4.1	6.9	782	442		<1
02/12/18	0.4	4.9	5.9		5.9	6.8	696			<1	0.4	4.1	4.0		4.0	6.9	759			<1
02/13/18	0.5	5.1	5.0		5.0	6.9	704			<1	0.4	3.3	4.1		4.1	6.8	793			<1
02/14/18	0.5	5.2	4.4		4.4	6.8	719			<1	0.4	3.3	4.8		4.8	6.8	778			<1
02/15/18	0.5	5.4	2.9		2.9	6.8	736	468		1	0.4	3.7	4.9		4.9	6.8	782			<1
02/16/18	0.5	5.6				6.9	739			<1	0.4	4.3				6.8	783			<1
02/17/18	0.5	5.5				6.9	730			<1	0.4	4.3				6.8	809			<1
02/18/18	0.5	5.4				6.9	706			<1	0.4	4.2				6.8	805			<1
02/19/18	0.5	4.8	4.0		4.0	7.0	704			<1	0.4	3.5	4.2		4.2	6.9	813			<1
02/20/18	0.5	4.8	3.9	3.9	3.9	6.9	725			<1	0.4	3.5	4.3	4.3	4.3	6.9	788			<1
02/21/18	0.5	5.8	3.9		3.9	6.8	747	502		<1	0.3	4.1	5.0		5.0	6.9	770	440		<1
02/22/18	0.5	4.5	4.1		4.1	6.8	834			<1	0.4	3.8	5.4		5.4	6.8	820			<1
02/23/18	0.4	5.4				6.8	795			<1	0.4	4.3				6.8	796			<1
02/24/18	0.4	5.4				6.8	750			<1	0.4	4.6				6.8	812			<1
02/25/18	0.4	5.2	5.2	5.2	5.2	6.8	730	476		<1	0.4	3.8	4.3	5.0	4.3	6.8	848	468		<1
02/26/18	0.5	5.3	5.8		5.8	6.8	716			<1	0.4	4.0	4.1		4.1	6.8	831			1
02/27/18	0.5	5.6	5.5		5.5	6.8	721			<1	0.4	3.8	4.8		4.8	6.8	789			<1
02/28/18	0.5	5.5	4.9		4.9	6.8	731			<1	0.4	3.6	5.5		5.5	6.8	843			<1
Avg	0.5	5.4	5.1	5.6	5.1	6.8	722	473	140	<1	0.4	3.7	3.9	4.1	3.9	6.8	788	447	134	<1
Min	0.4	4.5	2.9	3.9	2.9	6.8	671	456	140	<1	0.3	2.7	0.8	2.3	0.8	6.8	751	436	134	<1
Max	0.6	6.0	6.7	6.6	6.7	7.0	834	502	140	1	0.5	4.6	5.5	5.0	5.5	6.9	848	468	134	1

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

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

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

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

<sup>3</sup> TDS and TIN limits are based on the 12-month running average of the combined effluent from all plants, which are presented in Table 2-2.

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

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

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

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

Table 2-1c  
 Recycled Water Monitoring: RP-1 & RP-4 Effluent Water Quality for March 2018  
 (Recycled Water Quality Specifications A.5, A.7, A.8, & A.9)

Unit	RP-1 Effluent										RP-4 Effluent									
	Turbidity <sup>1,2,7</sup> NTU	TOC mg/L	NO <sub>3</sub> -N mg/L	TN mg/L	TIN <sup>3</sup> mg/L	pH <sup>7</sup> unit	EC <sup>7</sup> µhmo/cm	TDS <sup>3</sup> mg/L	Hardness mg/L	Coliform <sup>1,2,4</sup> mpn/100mL	Turbidity <sup>1,2,7</sup> NTU	TOC mg/L	NO <sub>3</sub> -N mg/L	TN mg/L	TIN <sup>3</sup> mg/L	pH <sup>7</sup> unit	EC µhmo/cm	TDS <sup>3</sup> mg/L	Hardness mg/L	Coliform <sup>1,2,4</sup> mpn/100mL
Limits	2;5;10	16 <sup>5</sup>		5 <sup>6</sup>		6<pH<9				2.2;23;240	2;5;10	16 <sup>5</sup>		5 <sup>6</sup>		6<pH<9				2.2;23;240
03/01/18	0.5	5.4	6.0		6.0	6.8	741			<1	0.4	3.8	5.9		5.9	6.8	843			<1
03/02/18	0.5	6.0				6.8	743			<1	0.4	4.5				6.7	787			<1
03/03/18	0.5	5.8				6.8	735			<1	0.4	4.2				6.7	805			<1
03/04/18	0.5	5.6	5.9	5.9	5.9	6.8	726	508	138	<1	0.5	4.1	4.3	4.3	4.3	6.8	816	464	140	<1
03/05/18	0.5	6.0	5.9		5.9	6.9	698			<1	0.5	3.9	4.2		4.2	6.8	857			<1
03/06/18	0.6	6.4	5.4		5.4	6.9	693			<1	0.5	3.8	4.7		4.7	6.8	841			<1
03/07/18	0.6	6.2	4.7		4.7	6.9	689			<1	0.5	3.4	4.6		4.6	6.8	852			<1
03/08/18	0.6	6.2	5.3		5.3	6.9	686			<1	0.5	3.5	5.5		5.5	6.8	816			<1
03/09/18	0.6	5.8				6.8	677			1	0.5	4.5				6.8	790			<1
03/10/18	0.6	6.0				6.9	674			<1	0.5	4.7				6.8	784			<1
03/11/18	0.5	5.4	4.7	4.7	4.7	6.8	651	456		<1	0.5	4.0	4.9		4.9	6.9				<1
03/12/18	0.5	6.0	4.4		4.4	6.8	654			<1	0.5	3.8	3.0		3.0	6.9	788			<1
03/13/18	0.5	6.1	4.1		4.1	6.8	670			<1	0.4	3.3	3.9		3.9	6.9				<1
03/14/18	0.5	6.1	4.2		4.2	6.8	668			<1	0.4	3.7	4.3	4.3	4.3	6.9	776	468		<1
03/15/18	0.5	5.7	4.5		4.5	6.8	669			<1	0.4	3.6	5.9		5.9	6.9	803			<1
03/16/18	0.5	6.2				6.8	670			<1	0.4	4.4				6.8	822			<1
03/17/18	0.5	5.8				6.8	673			<1	0.4	4.4				6.8	827			<1
03/18/18	0.4	5.2	4.2	4.2	4.2	6.7	663	476		<1	0.5	3.9	3.9	4.5	3.9	6.8	839	480		<1
03/19/18	0.5	5.6	4.0		4.0	6.7	695			<1	0.6	3.7	3.9		3.9	6.8	814			<1
03/20/18	0.6	6.6	2.6		2.6	6.7	711			<1	0.6	4.2	3.4		3.4	6.8	808			1
03/21/18	0.6	6.0	3.5		3.5	6.8	704			1	0.5	4.2	3.4		3.4	6.8	810			<1
03/22/18	0.6	6.0	4.4		4.4	6.8	691			<1	0.5	3.9	4.1		4.1	6.8	804			<1
03/23/18	0.6	5.9				6.8	671			<1	0.5	5.8				6.8	789			<1
03/24/18	0.6	6.0				6.8	682			<1	0.5	4.3				6.8	800			<1
03/25/18	0.5	5.4	3.5	3.5	3.5	6.8	680	486		1	0.5	3.6	4.3	4.3	4.3	6.8	810	472		<1
03/26/18	0.5	6.1	4.1		4.1	6.8	682			<1	0.5	3.8	4.7		4.7	6.8	802			<1
03/27/18	0.5	5.9	3.5		3.5	6.8	704			<1	0.5	3.6	5.0		5.0	6.9	798			<1
03/28/18	0.5	6.3	3.2		3.2	6.8	717			<1	0.5	3.7	4.9		4.9	6.8	804			<1
03/29/18	0.5	5.6	4.1		4.1	6.9	750			<1	0.4	3.8	5.4		5.4	6.8	792			<1
03/30/18	0.5	6.1				6.9	740			1	0.4	4.4				6.9	793			<1
03/31/18	0.6	6.0				6.9	730			<1	0.4	3.8				6.9	790			<1
Avg	0.5	5.9	4.4	4.6	4.4	6.8	695	482	138	<1	0.5	4.0	4.5	4.4	4.5	6.8	809	471	140	<1
Min	0.4	5.2	2.6	3.5	2.6	6.7	651	456	138	<1	0.4	3.3	3.0	4.3	3.0	6.7	776	464	140	<1
Max	0.6	6.6	6.0	5.9	6.0	6.9	750	508	138	1	0.6	5.8	5.9	4.5	5.9	6.9	857	480	140	1

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

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

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

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

<sup>3</sup> TDS and TIN limits are based on the 12-month running average of the combined effluent from all plants, which are presented in Table 2-2.

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

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

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

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



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

Date	TIN		TDS	
	Monthly	12-Mo. Run Avg.	Monthly	12-Mo. Run Avg.
Apr-17	5.8	6.0	468	495
May-17	5.7	6.0	464	491
Jun-17	5.5	6.0	461	486
Jul-17	6.8	6.0	447	480
Aug-17	6.0	6.0	446	476
Sep-17	5.7	5.9	440	471
Oct-17	6.1	6.0	428	466
Nov-17	6.5	6.0	455	463
Dec-17	6.8	6.0	444	459
Jan-18	5.3	6.0	464	456
Feb-18	5.3	5.9	488	456
Mar-18	4.4	5.8	504	459
Avg	5.8	6.0	459	471
Min	4.4	5.8	428	456
Max	6.8	6.0	504	495
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	2Q17	3Q17	4Q17	1Q18	4Q Run. Avg. <sup>1</sup>	Limit	Unit	Method
Inorganic Chemicals								
Aluminum	68	79	63	62	68	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	<0.2	NA	<0.18	<0.78	<0.78	7	MFL	EPA 100.2
Barium	15	11	9	7	10	1000	µg/L	EPA 200.8
Beryllium	<0.5	<0.5	<0.5	<0.5	<0.5	4	µg/L	EPA 200.8
Cadmium	<0.25	<0.25	<0.25	<0.25	<0.25	5	µg/L	EPA 200.8
Chromium	0.8	1.0	1.0	1.3	1.0	50	µg/L	EPA 200.8
Chromium VI <sup>2</sup>	0.24	0.25	0.19	0.18	0.22	10	µg/L	EPA 218.6
Cyanide	<20	<20	<0.02	<0.02	<20	150	µg/L	SM 4500-CN E
Fluoride	0.2	0.2	0.2	0.1	0.2	2	mg/L	SM 4500-F C
Mercury	<0.05	<0.05	<0.5	<0.5	<0.28	2	µg/L	EPA 245.2
Nickel	3	3	3	2	3	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 <sup>3</sup>	µg/L	EPA 524.2/624
o-Xylene	<0.5	<0.5	<0.5	<0.5	<0.5	1750 <sup>3</sup>	µg/L	EPA 524.2/624
1,2,3-Trichloropropane (added 7/17) <sup>4</sup>	0.01	<0.005	0.012	0.01	0.008	0.005	µg/L	CASRL 524M-TCP
Non-Volatile Synthetic Organic Chemicals (SOCs)								
Alachlor (Alanex)	<0.1	<0.1	<0.1	<0.1	<0.1	2	µg/L	EPA 505
Atrazine	<0.05	<0.05	<0.05	<0.05	<0.05	1	µg/L	EPA 525.2
Bentazon	<0.5	<0.5	<0.5	<0.5	<0.5	18	µg/L	EPA 515.4
Benzo(a)pyrene	<0.02	<0.02	<0.02	<0.02	<0.02	0.2	µg/L	EPA 525.2
Carbofuran	<0.5	<0.5	<0.5	<0.5	<0.5	18	µg/L	EPA 531.2
Chlordane	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	µg/L	EPA 505
2,4-D	<0.1	<0.1	<0.1	<0.1	<0.1	70	µg/L	EPA 515.4
Dalapon	6	6	5	7	6	200	µg/L	EPA 515.4
Dibromochloropropane	<0.01	0.02	0.04	<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	2Q17	3Q17	4Q17	1Q18	4Q Run. Avg. <sup>1</sup>	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	<25	<25	700	µg/L	EPA 547
Heptachlor	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	µg/L	EPA 505
Heptachlor Epoxide	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	µg/L	EPA 505
Hexachlorobenzene	<0.05	<0.05	<0.05	<0.05	<0.05	1	µg/L	EPA 525.2
Hexachlorocyclopentadiene	<0.05	0.06	<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	<0.1	<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	<2.45	<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	5.6	4.8	5.8	6.0	5.5	1300	µg/L	EPA 200.8
Lead	<0.5	<0.5	<0.5	<0.5	<0.5	15	µg/L	EPA 200.8
Radionuclides								
Combined Radium-226 and Radium 228	<0.44	<0.34	<0.39	<0.39	<0.44	5	pCi/L	EPA 903.0
Gross Alpha Particle Activity	5	<3	<3	<3	<3	15	pCi/L	EPA 900.0/SM7110C
Tritium	<577	<326	<398	<347	<577	20,000	pCi/L	EPA 906
Strontium-90	<0.70	<1.48	<1.17	<1.05	<1.48	8	pCi/L	EPA 905
Gross Beta Particle Activity	13	14	15	15	14	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	68	79	63	62	68	200	µg/L	EPA 200.8
Copper	5.6	4.8	5.8	6.0	5.5	1000	µg/L	EPA 200.8
Corrosivity <sup>5</sup>	-0.6 (Non-Cor.)	-0.5 (Non-Cor.)	-0.7 (Non-Cor.)	-0.3 (Non-Cor.)	Non-Cor.	Non-Cor.	SI	SM 2330B
Foaming Agents (MBAS) <sup>5</sup>	<0.1	<0.1	<0.1	0.13	<0.1	0.5	mg/L	S5540C/EPA 425.1
Iron <sup>5</sup>	NR	68	NR	NR	46	300	µg/L	EPA 200.7
Manganese	8	15	15	23	15	50	µg/L	EPA 200.8
Methyl-tert-butyl ether (MTBE) <sup>5</sup>	<0.5	<0.5	<0.5	<0.5	<0.5	5	µg/L	EPA 524.2
Odor--Threshold <sup>5</sup>	40	2	2	NA	15	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	31	31	30	30	5000	µg/L	EPA 200.8
Miscellaneous Regulated Constituents								
Oil & Grease <sup>6</sup>	<1	<1	<1	<1	<1	1	mg/L	EPA 1664
Disinfection Byproducts								
Bromate	1	1	<1	<1	1	10	µg/L	EPA 300.1/317
Chlorite	<0.01	<0.01	<0.01	<0.01	<0.01	1	mg/L	EPA 300.0
Alternative Compliance Point Data	RP3-LYS-25	BRK-LYS-25	BRK-LYS-25	BH-1/2	<==TTHMs			
	RP3-LYS-25	BRK-LYS-25	BRK-LYS-25	BH-1/2	<==HAA5			
	RP3-LYS-25	BRK-LYS-25	BRK-LYS-25	BH-1/2	<==1,2,3-TCP			
Total Trihalomethanes (TTHMs)	50	<2	<2	18	18	80	µg/L	EPA 524.2/624
Total Haloacetic Acids (HAA5)	<2	<2	<2 <sup>7</sup>	<2	4	60	µg/L	S6251B
1,2,3-Trichloropropane (added 7/17) <sup>4</sup>	<0.005	<0.005	<0.005 <sup>7</sup>	<0.005	<0.005	0.005	µg/L	CASRL 524M-TCP

NR: Not required this quarter

NA: Not Analyzed; Missed hold time for odor Two samples will be collected in 2Q18

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

<sup>2</sup> As of September 11, 2017 the MCL for hexavalent chromium that was established in 2014 is no longer in effect; the State Board does plan on establishing a new MCL in the near future.

<sup>3</sup> The sum of m,p-Xylene and o-Xylene is used to calculate compliance for the Total Xylenes limit

<sup>4</sup> 1,2,3-Trichloropropane compliance is based on a 4-quarter running average of lysimeter samples collected prior to reaching the groundwater table

<sup>5</sup> 4-quarter running average is calculated based on the four most recent results. Monitoring is required annually. However, if monitoring takes place more frequently than required, those results will be reported.

<sup>6</sup> Oil & Grease compliance determination not based on 4-quarter running average

<sup>7</sup> Makeup sample collected on 2/6/18 for HAA5 and 1,2,3-TCP, for a quality control failure at the contract lab during 4Q17.

**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	1Q18	Unit	Method	Constituent	1Q18	Unit	Method
Metals				Pesticides			
Chromium (III) <sup>1</sup>	1.3	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	8.3	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	68	µg/L	EPA 524.2/624	Endosulfan I	<0.1	µg/L	EPA 525/608
Dichlorobromomethane	25	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	0.3	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	190	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	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	49	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)	4.1	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	1,2,4-trimethylbenzene	<0.5	µg/L	EPA 524.2
Chrysene	NR	µg/L	EPA 625	1,3,5-trimethylbenzene	<0.5	µg/L	EPA 524.2
Dibenzo(a,h)anthracene	NR	µg/L	EPA 625	2,4,6-Trinitrotoluene	<0.4	µg/L	EPA 8330B
1,3-Dichlorobenzene	NR	µg/L	EPA 625	Vanadium	<5	µg/L	EPA 200.8
3,3-Dichlorobenzidine	NR	µg/L	EPA 625	Endocrine Disrupting Chemicals, Pharmaceuticals and Other Chemicals <sup>2</sup>			
Diethyl phthalate	NR	µg/L	EPA 625	Acetaminophen	<5	ng/L	LC-MS-MS
Dimethyl phthalate	NR	µg/L	EPA 625	Bis Phenol A (BPA)	<10	ng/L	LC-MS-MS
Di-n-butyl phthalate	NR	µg/L	EPA 625	Caffeine	<5	ng/L	LC-MS-MS
2,4-Dinitrotoluene	NR	µg/L	EPA 625	Carbamazepine	<5	ng/L	LC-MS-MS
2,6-Dinitrotoluene	NR	µg/L	EPA 625	DEET	13	ng/L	LC-MS-MS
Di-n-octyl phthalate	NR	µg/L	EPA 625	Estradiol	<5	ng/L	LC-MS-MS
Azobenzene	NR	µg/L	EPA 625	Estrone	<5	ng/L	LC-MS-MS
Fluoranthene	NR	µg/L	EPA 625	Ethinyl Estradiol - 17 alpha	<5	ng/L	LC-MS-MS
Fluorene	NR	µg/L	EPA 625	Fluoxetine	<10	ng/L	LC-MS-MS
Hexachlorobutadiene	NR	µg/L	EPA 625	Gemfibrozil	<5	ng/L	LC-MS-MS
Hexachlorocyclopentadiene	NR	µg/L	EPA 625	Ibuprofen	<10	ng/L	LC-MS-MS
Hexachloroethane	NR	µg/L	EPA 625	Iopromide	360	ng/L	LC-MS-MS
Indeno(1,2,3-cd)pyrene	NR	µg/L	EPA 625	Primidone	<20	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	57000	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	56	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

<sup>1</sup> Trivalent chromium is measured as total chromium

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 <sub>3</sub> -N	TKN+NO <sub>2</sub> -N	NO <sub>2</sub> -N	EC	
Unit==>	feet	mm/dd/yy	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	µmho/cm
BNA-LYS-00	0	01/05/18	3.77	2.4	1.8	1.7	0.7	<0.01		516
BNA-LYS-00	0	01/12/18	9.40	29.7	1.1	0.6	29.1	0.06		117
BNA-LYS-00	0	01/19/18	4.00	2.4	1.6	1.5	0.9	<0.01		427
BNA-LYS-00	0	01/25/18	4.80	3.2	2.2	2.1	1.1	<0.01		871
BNA-LYS-00	0	02/02/18	4.05	2.2	2.2	2.2	<0.5	<0.01		609
BNA-LYS-00	0	02/08/18	5.70	5.1	3.5	3.5	1.6	<0.01		738
BNA-LYS-00	0	02/16/18	5.00	5.2	4.3	4.3	0.9	<0.01		790
BNA-LYS-00	0	02/23/18	6.45	4.9	3.3	3.3	1.6	<0.01		822
BNA-LYS-00	0	03/02/18	6.74	5.6	2.9	2.9	2.7	<0.01		672
BNA-LYS-00	0	03/08/18	7.72	6.5	3.6	3.4	3.1	0.05		724
BNA-LYS-00	0	03/16/18	6.53	2.9	1.8	1.5	1.4	<0.01		415
BNA-LYS-00	0	03/23/18	7.58	3.7	1.8	1.5	2.2	0.07		245
BNA-LYS-00	0	03/28/18	5.46	2.9	2.3	2.1	0.8	<0.01		419

Brooks Basin										
Site	Depth, bgs	Date	TOC (Limit = 16 mg/L)	TN* (Limit = 5 mg/L)	TIN	NO <sub>3</sub> -N	TKN+NO <sub>2</sub> -N	NO <sub>2</sub> -N	EC	
Unit==>	feet	mm/dd/yy	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	µmho/cm
BRK-LYS-00	0	01/26/18	6.05	4.8	3.7	3.4	1.4	0.07		685
BRK-LYS-00	0	02/28/18	6.15	4.7	3.8	3.5	1.2	<0.01		685
BRK-LYS-00	0	03/21/18	6.06	4.4	3.2	2.9	1.5	0.12		562
BRK-LYS-25**	25	01/26/18	2.60	<0.6	<0.2	0.1	<0.5	<0.01		701
BRK-LYS-25**	25	02/28/18	2.80	<0.6	<0.2	<0.1	<0.5	<0.01		693
BRK-LYS-25**	25	03/21/18	2.61	<0.6	<0.2	0.1	<0.5	<0.01		673

Hickory East Basin										
Site	Depth, bgs	Date	TOC (Limit = 16 mg/L)	TN*	TIN	NO <sub>3</sub> -N	TKN+NO <sub>2</sub> -N	NO <sub>2</sub> -N	EC	
Unit==>	feet	mm/dd/yy	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	µmho/cm
HKYE-LYS-00	0	01/05/18	3.78	2.2	1.6	1.6	0.6	<0.01		524
HKYE-LYS-00	0	01/12/18	6.44	3.0	1.2	0.8	2.2	0.08		187
HKYE-LYS-00	0	01/19/18	3.63	1.8	1.8	1.8	<0.5	<0.01		541
HKYE-LYS-00	0	01/25/18	4.71	2.7	2.0	1.9	0.8	<0.01		756
HKYE-LYS-00	0	02/02/18	5.00	3.8	3.9	3.1	0.7	<0.01		695
HKYE-LYS-00	0	02/08/18	6.30	4.5	3.0	2.9	1.6	<0.01		710
HKYE-LYS-00	0	02/16/18	7.70	5.5	3.6	3.6	1.9	<0.01		749
HKYE-LYS-00	0	02/23/18	5.30	4.7	3.6	3.6	1.1	<0.01		840
HKYE-LYS-00	0	03/02/18	6.46	4.7	3.1	3.1	1.6	<0.01		676
HKYE-LYS-00	0	03/08/18	9.37	7.8	2.4	2.4	5.4	<0.01		819
HKYE-LYS-00	0	03/16/18	7.67	3.9	2.8	2.5	1.4	<0.01		612
HKYE-LYS-00	0	03/23/18	7.18	2.7	1.1	0.7	2.0	<0.01		444
HKYE-LYS-00	0	03/28/18	13.5	4.2	1.9	1.2	3.0	0.06		457

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.

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

NA: Not analyzed

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
01/02/18	4.51	4.1	1.35	0.68	0.5	0.6	
01/09/18	3.97	3.6	1.19	0.60	0.5	0.5	
01/16/18	4.26	4.2	1.28	0.64	0.5	0.5	
01/24/18	4.55	4.7	1.37	0.68	0.6	0.6	
01/30/18	4.15	3.6	1.25	0.62	0.5	0.5	
02/06/18	6.20	4.0	1.86	0.93	0.5	0.5	
02/13/18	4.30	5.0	1.29	0.65	0.7	0.6	
02/20/18	4.30	4.8	1.29	0.65	0.6	0.6	
02/27/18	4.50	5.6	1.35	0.68	0.7	0.7	
03/06/18	5.77	5.6	1.73	0.87	0.7	0.7	
03/14/18	3.77	3.9	1.13	0.57	0.5	0.6	
03/20/18	4.66	4.8	1.40	0.70	0.6	0.6	
03/27/18	4.71	5.2	1.41	0.71	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			
01/02/18	5.52	5.7	1.32	2.7	3.0	
01/08/18	5.40	6.3	1.30	3.0	2.9	
01/15/18	5.25	7.3	1.26	3.5	3.3	
01/22/18	5.65	8.7	1.36	4.2	3.8	
01/29/18	5.60	7.6	1.34	3.6	3.9	
02/05/18	5.35	6.6	1.28	3.2	3.4	
02/12/18	4.85	6.6	1.16	3.2	3.2	
02/21/18	4.85	4.5	1.16	2.2	2.7	
02/26/18	5.20	5.8	1.25	2.8	2.5	
03/05/18	5.65	6.4	1.36	3.1	2.9	
03/12/18	5.40	5.8	1.30	2.8	2.9	
03/19/18	5.25	4.9	1.26	2.4	2.6	
03/26/18	5.37	4.4	1.29	2.1	2.2	

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			
01/02/18	4.51	4.1	0.54	2.8	3.2	
01/09/18	3.97	3.6	0.48	2.5	2.7	
01/16/18	4.26	4.2	0.51	2.9	2.7	
01/24/18	4.55	4.7	0.55	3.2	3.1	
01/30/18	4.15	3.6	0.50	2.5	2.9	
02/06/18	6.20	4.0	0.74	2.8	2.6	
02/13/18	4.30	5.0	0.52	3.5	3.1	
02/20/18	4.30	4.8	0.52	3.3	3.4	
02/27/18	4.50	5.6	0.54	3.9	3.6	
03/06/18	5.77	5.6	0.69	3.9	3.9	
03/14/18	3.77	3.9	0.45	2.7	3.3	
03/20/18	4.66	4.8	0.56	3.3	3.3	
03/27/18	4.71	5.2	0.57	3.6	3.5	

8th Street Basin						
Date	RW Blend*	RW Blend*	8th Street	8th Street		
mg/L==>	TOC	TN	TOC (88% reduction)**	TN (75% reduction)	TN - 2 sample avg.	
Limit ==>			16 mg/L	5 mg/L	5 mg/L	
01/02/18	4.51	4.1	0.54	1.0	1.2	
01/09/18	3.97	3.6	0.48	0.9	1.0	
01/16/18	4.26	4.2	0.51	1.1	1.0	
01/24/18	4.55	4.7	0.55	1.2	1.1	
01/30/18	4.15	3.6	0.50	0.9	1.0	
02/06/18	6.20	4.0	0.74	1.0	1.0	
02/13/18	4.30	5.0	0.52	1.3	1.1	
02/20/18	4.30	4.8	0.52	1.2	1.2	
02/27/18	4.50	5.6	0.54	1.4	1.3	
03/06/18	5.77	5.6	0.69	1.4	1.4	
03/14/18	3.77	3.9	0.45	1.0	1.2	
03/20/18	4.66	4.8	0.56	1.2	1.2	
03/27/18	4.71	5.2	0.57	1.3	1.3	

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

\*\*Reduction factor amended to align with the DDW's evaluation and allowance for a 50% RWC at 8th Street Basin; using mound monitoring well data (2008-2016) to calculate percent reduction in place of the available lysimeter data used in the start-up period report.

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



Table 2-5b  
Alternative Monitoring Plans

San Sevaine 5 Basin					
Date	RW Blend*	RW Blend*	San Sevaine 5		San Sevaine 5
mg/L==>	TOC	TN	TOC (78% reduction)	TN (69% reduction)	TN - 2 sample avg.
Limit==>			16 mg/L	5 mg/L	5 mg/L
01/02/18	4.51	4.1	0.99	1.3	1.5
01/09/18	3.97	3.6	0.87	1.1	1.2
01/16/18	4.26	4.2	0.94	1.3	1.2
01/24/18	4.55	4.7	1.00	1.5	1.4
01/30/18	4.15	3.6	0.91	1.1	1.3
02/06/18	6.20	4.0	1.36	1.2	1.2
02/13/18	4.30	5.0	0.95	1.6	1.4
02/20/18	4.30	4.8	0.95	1.5	1.5
02/27/18	4.50	5.6	0.99	1.7	1.6
03/06/18	5.77	5.6	1.27	1.7	1.7
03/14/18	3.77	3.9	0.83	1.2	1.5
03/20/18	4.66	4.8	1.03	1.5	1.5
03/27/18	4.71	5.2	1.04	1.6	1.6

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
01/02/18	4.51	4.1	0.99	0.7	0.8
01/09/18	3.97	3.6	0.87	0.6	0.7
01/16/18	4.26	4.2	0.94	0.8	0.7
01/24/18	4.55	4.7	1.00	0.8	0.8
01/30/18	4.15	3.6	0.91	0.6	0.7
02/06/18	6.20	4.0	1.36	0.7	0.7
02/13/18	4.30	5.0	0.95	0.9	0.8
02/20/18	4.30	4.8	0.95	0.9	0.9
02/27/18	4.50	5.6	0.99	1.0	0.9
03/06/18	5.77	5.6	1.27	1.0	1.0
03/14/18	3.77	3.9	0.83	0.7	0.9
03/20/18	4.66	4.8	1.03	0.9	0.9
03/27/18	4.71	5.2	1.04	0.9	0.9

\*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
	TOC (mg/L)	TN (mg/L)	EC (µmhos/cm)	
01/26/18	6.05	4.8	685	
02/28/18	6.15	4.7	685	
03/21/18	6.06	4.4	562	

Date	BRK-LYS-25	BRK-LYS-25	BRK-LYS-25
	TOC (mg/L)	TN* (mg/L)	TN - 2 sample avg. EC (µmhos/cm)
Limit==>			5 mg/L
01/26/18	2.60	<0.6	<0.6 701
02/28/18	2.80	<0.6	<0.6 693
03/21/18	2.61	<0.6	<0.6 673

Date	BRK-1/1	BRK-1/1	BRK-1/1	BRK-1/1
	TOC* (mg/L)	TN (mg/L)	EC (µmhos/cm)	Cl
Limit==>			16 mg/L	
01/25/18	0.15	0.7	562	--
02/22/18	0.15	0.7	681	91

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

NA: Not analyzed

Banana & Hickory Basin				
Date	BH-1/2	BH-1/2*	BH-1/2	
mg/L==>	TOC	TN	TN - 2 sample avg. EC (µmhos/cm)	
Limit==>	16 mg/L		5 mg/L	
01/05/18	0.32	2.7	2.8 698	
01/12/18	0.62	2.7	2.7 700	
01/19/18	0.24	2.9	2.8 675	
01/26/18	0.15	2.6	2.8 719	
02/02/18	<0.10	2.7	2.7 696	
02/06/18	0.15	2.7	2.7 706	
02/16/18	0.15	2.6	2.7 709	
02/23/18	0.15	0.2	1.4 711	
03/02/18	0.50	2.5	1.4 739	
03/09/18	<0.10	2.6	2.6 674	
03/16/18	<0.10	2.6	2.6 691	
03/21/18	<0.10	2.5	2.6 670	
03/30/18	<0.10	2.7	2.6 682	

\*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 in 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 (Mar 2018)	RWC <sub>AVG</sub> (Mar 2018)	TOC <sub>AVG</sub> Limit* (mg/L)	Jan 2018 TOC <sub>AVG</sub> (mg/L)	Feb 2018 TOC <sub>AVG</sub> (mg/L)	Mar 2018 TOC <sub>AVG</sub> (mg/L)	1Q18 TN Limit Compliance	Recharged Water Monitoring Plan
8 <sup>th</sup> Street	Sep-07	Dec-10	05/23/11	50%	127	22%	2.3	0.5	0.6	0.6	Met	Alternative monitoring: RW Blend with TOC reduction of 88% (at mound monitoring well) and TN reduction of 75%
Banana	Jul-05	Jan-06	10/27/06	50%	153	37%	1.4	0.3	0.1	0.2	Met	Alternative monitoring: Monthly BH-1/2 monitoring for TOC and TN
Brooks	Aug-08	Dec-09	07/29/10	50%	116	18%	2.8	0.2	0.2	NA	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	28	5%	10.0	-	-	-	Met	TBD
Ely	RW initiated Sep-99	NA	NA	50%	223	22%	2.3	1.3	1.2	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	50%	151	22%	2.3	0.3	0.1	0.2	Met	Alternative monitoring: Monthly BH-1/2 monitoring for TOC and TN
RP3	Jun-09	Jun-10	12/15/10	50%	106	17%	2.9	0.5	0.6	0.6	Met	Alternative monitoring: RW Blend with TOC reduction of 76% and TN reduction of 31%
San Sevaine 5	Jul-10	Aug-11	02/08/12	27%	93	6%	8.3	0.9	1.1	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%	136	23%	2.2	1.3	1.4	1.4	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%	136	23%	2.2	0.6	0.7	0.7	Met	
Victoria	Sep-10	Jul-11	02/08/12	50%	91	29%	1.7	0.9	1.1	1.0	Met	Alternative monitoring: RW Blend with TOC reduction of 78% and TN reduction of 82%

SUP - Start-Up Period      NA - Not Analyzed

\*TOC<sub>AVG</sub> limit is 0.5 mg/L divided by the RWC<sub>AVG</sub>. Compliance is determined by checking that monthly TOC<sub>AVG</sub> does not exceed the TOC<sub>AVG</sub> limit. If the TOC<sub>AVG</sub> limit is exceeded, the monthly TOC<sub>AVG</sub> will be shown in bold font.

Table 2-7a  
Diluent Water Monitoring\*: Stormwater

Constituent	Cucamonga Creek	Day Creek	Deer Creek	San Antonio Creek	West Cucamonga	Max Level to	Unit	Method
	@ Turner 1&2 02/27/18	@ Lower Day 02/27/18	@ Turner 3&4 02/27/18	@ Montclair Basin 02/13/18	Creek @ 8th St Basin 03/22/18	Trigger Source Water Evaluation		
NO <sub>2</sub> -N	0.06	<0.02	<0.02	<0.02	<0.02	1	mg/L	EPA 300.0
NO <sub>3</sub> -N	2.5	1.1	1.7	0.2	1.3	10	mg/L	EPA 300.0
TDS	228	58	191	114	43	1000	mg/L	SM 2540C
Total Coliform	900	1600	500	500	1600	-	nprn/100rr	SM 9221B
Oil & Grease	2	<2	<2	<2	<2	-	mg/L	EPA 1664A
Inorganic Chemicals								
Aluminum	129	920	166	273	806	1000	µg/L	EPA 200.7
Antimony	<1	<1	1	2	2	6	µg/L	EPA 200.8
Arsenic	<2	<2	<2	<2	<2	10	µg/L	EPA 200.8
Asbestos	<0.78	<3.89	<1.94	<1	<6.48	7	MFL	EPA 100.2
Barium	28	20	21	43	23	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	1.20	<0.25	5	µg/L	EPA 200.7
Chromium	1.4	1.8	1.1	24.2	2.3	50	µg/L	EPA 200.7
Chromium VI	1.1	0.5	0.7	0.1	0.6	10	µg/L	EPA 218.6
Cyanide	<20	<20	<20	<20	<20	150	µg/L	ASTM D7284
Fluoride	0.2	0.1	0.2	0.2	<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	2	2	9	62	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	<0.5	<0.5	<0.5	<0.5	<0.5	1	µg/L	EPA 524.2
Carbon Tetrachloride	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	µg/L	EPA 524.2
1,2-Dichlorobenzene	<0.5	<0.5	<0.5	<0.5	<0.5	600	µg/L	EPA 524.2
1,4-Dichlorobenzene	<0.5	<0.5	<0.5	<0.5	<0.5	5	µg/L	EPA 524.2
1,1-Dichloroethane	<0.5	<0.5	<0.5	<0.5	<0.5	5	µg/L	EPA 524.2
1,2-Dichloroethane	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	µg/L	EPA 524.2
1,1-Dichloroethylene	<0.5	<0.5	<0.5	<0.5	<0.5	6	µg/L	EPA 524.2
cis-1,2-Dichloroethylene	<0.5	<0.5	<0.5	<0.5	<0.5	6	µg/L	EPA 524.2
trans-1,2-Dichloroethylene	<0.5	<0.5	<0.5	<0.5	<0.5	10	µg/L	EPA 524.2
Dichloromethane	<0.5	<0.5	<0.5	<0.5	<0.5	5	µg/L	EPA 524.2
1,2-Dichloropropane	<0.5	<0.5	<0.5	<0.5	<0.5	5	µg/L	EPA 524.2
1,3-Dichloropropene	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	µg/L	EPA 524.2
Ethylbenzene	<0.5	<0.5	<0.5	<0.5	<0.5	300	µg/L	EPA 524.2
Chlorobenzene	<0.5	<0.5	<0.5	<0.5	<0.5	70	µg/L	EPA 524.2
Methyl Tert-butyl ether (MTBE)	<0.5	<0.5	<0.5	<0.5	<0.5	13	µg/L	EPA 524.2
Styrene	<0.5	<0.5	<0.5	<0.5	<0.5	100	µg/L	EPA 524.2
1,1,2,2-Tetrachloroethane	<0.5	<0.5	<0.5	<0.5	<0.5	1	µg/L	EPA 524.2
Tetrachloroethylene	<0.5	<0.5	<0.5	<0.5	<0.5	5	µg/L	EPA 524.2
Toluene	<0.5	<0.5	<0.5	<0.5	<0.5	150	µg/L	EPA 524.2
1,2,4-Trichlorobenzene	<0.5	<0.5	<0.5	<0.5	<0.5	5	µg/L	EPA 524.2
1,1,1-Trichloroethane	<0.5	<0.5	<0.5	<0.5	<0.5	200	µg/L	EPA 524.2
1,1,2-Trichloroethane	<0.5	<0.5	<0.5	<0.5	<0.5	5	µg/L	EPA 524.2
Trichloroethylene	<0.5	<0.5	<0.5	<0.5	<0.5	5	µg/L	EPA 524.2
Trichlorofluoromethane	<0.5	<0.5	<0.5	<0.5	<0.5	150	µg/L	EPA 524.2
1,1,2-Trichloro-1,2,2-Trifluoroethane	<0.5	<0.5	<0.5	<0.5	<0.5	1200	µg/L	EPA 524.2
Vinyl Chloride	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	µg/L	EPA 524.2
Total Xylenes	<1	<1	<1	<1	<1	1750	µg/L	EPA 524.2
1,2,3-Trichloropropane	<0.005	<0.005	<0.005	<0.005	<0.005	0.005	µg/L	CASRL 524M-TCP
Non-Volatile Synthetic Organic Chemicals (SOCs)								
Alachlor (Alanex)	<0.1	<0.1	<0.1	<0.1	<0.1	2	µg/L	EPA 505
Atrazine	<0.05	<0.05	<0.05	<0.05	<0.05	1	µg/L	EPA 525.2
Bentazon	<0.5	<0.5	<0.5	<0.5	<0.5	18	µg/L	EPA 515.4
Benzo(a)pyrene	<0.02	<0.02	<0.02	<0.02	<0.02	0.2	µg/L	EPA 525.2
Carbofuran	<0.5	<0.5	<0.5	<0.5	<0.5	18	µg/L	EPA 531.2
Chlordane	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	µg/L	EPA 505
2,4-D	<0.1	<0.1	<0.1	<0.1	<0.1	70	µg/L	EPA 515.4
Dalapon	<1	<1	<1	<1	<1	200	µg/L	EPA 515.4
Dibromochloropropane	<0.01	<0.01	<0.01	<0.01	<0.01	0.2	µg/L	EPA 504.1
Di(2-ethylhexyl)adipate	<0.6	<0.6	<0.6	<0.6	<0.6	400	µg/L	EPA 525.2
Di(2-ethylhexyl)phthalate	<0.6	1.0	1.2	<0.6	2.3	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	9	16	12	7	<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 2-7a  
Diluent Water Monitoring\*: Stormwater

Constituent	Cucamonga Creek	Day Creek	Deer Creek	San Antonio Creek	West Cucamonga	Max Level to		Method
	@ Turner 1&2 02/27/18	@ Lower Day 02/27/18	@ Turner 3&4 02/27/18	@ Montclair Basin 02/13/18	Creek @ 8th St Basin 03/22/18	Trigger Source Evaluation	Unit	
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	0.11	0.07	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	0.40	<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)	<2.00	<2.03	<2.02	<1.98	<2.20	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)	<2	<2	<2	<2	<2	80	µg/L	EPA 524.2/624
Total Haloacetic Acids (HAA5)	7	<2	9	<2	2	60	µg/L	SM 6251B
Bromate	10	<1	7	<1	6	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	11.4	9.7	10.6	28.1	13.3	1300	µg/L	EPA 200.7
Lead	0.5	1.4	0.7	2.4	3.6	15	µg/L	EPA 200.8
Radionuclides								
Combined Radium-226 & Radium 228	<0.224	0.290	<0.434	<0.403	<0.873	5	pCi/L	EPA 903.0
Gross Alpha Particle Activity	<3	<3	<3	<3	<3	15	pCi/L	EPA 900.0/SM7110C
Tritium	<317	<315	<331	<320	<233	20,000	pCi/L	EPA 906.0
Strontium-90	<1.2	<1.23	<1.11	<1.06	<1.21	8	pCi/L	EPA 905.0
Gross Beta Particle Activity	4	4	<3	<3	4	50	pCi/L	EPA 900.0
Uranium	1	<1	<1	<1	<1	20	pCi/L	EPA 200.8
Unregulated Chemicals								
Ethyl tertiary butyl ether	<0.5	<0.5	<0.5	<0.5	<0.5	-	µg/L	EPA 524.2
Tertiary amyl methyl ether	<0.5	<0.5	<0.5	<0.5	<0.5	-	µg/L	EPA 524.2
Chemicals w/ State Notification Levels								
Boron	<0.1	<0.1	<0.1	<0.1	<0.1	-	mg/L	EPA 200.7
n-butylbenzene	<0.5	<0.5	<0.5	<0.5	<0.5	-	µg/L	EPA 524.2
sec-butylbenzene	<0.5	<0.5	<0.5	<0.5	<0.5	-	µg/L	EPA 524.2
tert-butylbenzene	<0.5	<0.5	<0.5	<0.5	<0.5	-	µg/L	EPA 524.2
Carbon disulfide	<0.5	<0.5	<0.5	<0.5	<0.5	-	µg/L	EPA 524.2
Chlorate	270	51	190	<10	100	-	µg/L	EPA 300.0
2-Chlorotoluene	<0.5	<0.5	<0.5	<0.5	<0.5	-	µg/L	EPA 524.2
4-Chlorotoluene	<0.5	<0.5	<0.5	<0.5	<0.5	-	µg/L	EPA 524.2
Diazinon	<0.1	<0.1	<0.1	<0.1	<0.1	-	µg/L	EPA 525.2
Dichlorodifluoromethane (Freon 12)	<0.5	<0.5	<0.5	<0.5	<0.5	-	µg/L	EPA 524.2
1,4 - Dioxane	<1	<1	<1	<1	<1	-	µg/L	EPA 522
Formaldehyde	14	20	16	<5	13	-	µg/L	EPA 556
HMX	<0.1	<0.1	<0.1	<0.1	<0.1	-	µg/L	LC-MS-MS
Isopropylbenzene	<0.5	<0.5	<0.5	<0.5	<0.5	-	µg/L	EPA 524.2
Methyl isobutyl ketone (MIBK)	<2	<2	<2	<2	<2	-	µg/L	EPA 524.2
N-Nitrosodiethylamine (NDEA)	<2	<2	<2	<2	<2	-	ng/l	EPA 521
N-nitrosodimethylamine (NDMA)	<2	<2	<2	<2	3	-	ng/l	EPA 521
Propachlor	<0.05	<0.05	<0.05	<0.05	<0.05	-	µg/L	EPA 525.2
N-propylbenzene	<0.5	<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	70	12	<2	10	11	-	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	<0.5	<0.5	<0.5	<0.5	<0.5	-	µg/L	EPA 524.2
1,3,5-trimethylbenzene	<0.5	<0.5	<0.5	<0.5	<0.5	-	µg/L	EPA 524.2
2,4,6-Trinitrotoluene	<0.1	<0.1	<0.1	<0.1	<0.1	-	µg/L	LC-MS-MS
Vanadium	6	<1	6	<1	<1	-	µg/L	EPA 200.8
Secondary Maximum Contaminant Level Chemicals								
Aluminum	129	920	166	273	806	-	µg/L	EPA 200.7
Corrosivity	1.8	0.6	-0.8	-0.4	-2.0	-	SI	SM 2330B
Foaming Agents (MBAS)	0.2	0.2	0.4	0.2	0.2	-	mg/L	SM 5540C/EPA 425.1
Iron	132	745	160	699	998	-	µg/L	EPA 200.7
Manganese	4	24	5	31	23	-	µg/L	EPA 200.7
Odor--Threshold	2	8	2	8	8	-	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	18	55	23	140	60	-	µg/L	EPA 200.7

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

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

Table 2-7b  
 Diluent Water Monitoring: State Water Project - Silverwood Lake

Constituent	Jan-18	Feb-18	Mar-18	Apr-18	May-18	Jun-18	Jul-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18	Unit
Silica	11.6												mg/L
Calcium	17												mg/L
Magnesium	9												mg/L
Sodium	34												mg/L
Potassium	2.2												mg/L
Carbonate	0												mg/L
Bicarbonate	93												mg/L
Sulfate	24												mg/L
Chloride	50												mg/L
Nitrate	2.6												mg/L
Fluoride	<0.1												mg/L
Total Dissolved Solids	197												mg/L
Total Hardness as CaCO <sub>3</sub>	74												mg/L
Total Alkalinity as CaCO <sub>3</sub>	76												mg/L
Free Carbon Dioxide	1.0												mg/L
pH	8.20												unit
Specific Conductance	340												µmho/cm
Color	10												CU
Turbidity	0.7												NTU
Temperature	11												°C
Bromide	0.16												mg/L
Total Organic Carbon	3.97												mg/L

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	600490	Fontana Water Company - F7a***	3330 upgradient	590-1000	18	Active	Municipal
	600660	California Speedway - Infield Well	2070 downgradient	NA	NA	Active	Industrial
	3601365	California Speedway 2	2780 downgradient	451-455, 491-603, & 664-780	20	Active	Industrial
	3600371	Reliant Energy - East Well	4070 downgradient	434-467, 500-513, 553-580, 593-652, & 825-847	20	Active	Industrial
	3602267	City Of Ontario - 20	14500 downgradient	NA	20	Active	Municipal
	601001	Inland Empire Utilities Agency - BH-1/1	340 downgradient	365-405	4	Active	Monitoring
	601002	Inland Empire Utilities Agency - BH-1/2	340 downgradient	435-475	4	Active	Monitoring
Turner Basins	3600010	City Of Ontario - 25	2530 crossgradient	370-903	20	Inactive	Municipal
	600453	City Of Ontario - 29	2810 downgradient	400-1095	18	Active	Municipal
	600585	City of Ontario - 38*	4600 crossgradient	500-1010	16	Active	Municipal
	600997	Inland Empire Utilities Agency - TRN-1/1	50 downgradient	340-360	4	Active	Monitoring
	600998	Inland Empire Utilities Agency - TRN-1/2	50 downgradient	380-400	4	Active	Monitoring
	600999	Inland Empire Utilities Agency - TRN-2/1	50 downgradient	350-370	4	Active	Monitoring
	601000	Inland Empire Utilities Agency - TRN-2/2	50 downgradient	392-412	4	Active	Monitoring
Deeletz 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
	1903156	City of Pomona P-30	2160 crossgradient	565-875	20	Inactive	Municipal
	1903016	City of Pomona P-2	3455 downgradient	NA	NA	Active	Municipal
	1901725	City of Pomona P-17	4500 downgradient	454-536	20	Inactive	Municipal
	601050	Inland Empire Utilities Agency - BRK-1/1	144 downgradient	310-350	4	Active	Monitoring
	601051	Inland Empire Utilities Agency - BRK-1/2	144 downgradient	520-560	4	Active	Monitoring
	601048	Inland Empire Utilities Agency - BRK-2/1	1305 downgradient	320-360	4	Active	Monitoring
	601049	Inland Empire Utilities Agency - BRK-2/2	1305 downgradient	560-600	4	Active	Monitoring
San Sevaine Basins	600905	Cucamonga Valley Water District No. 39	8300-13170 downgradient	750-870, 940-960, 970-1060, & 1080-1130,	20	Active	Municipal
	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
	--	Inland Empire Utilities Agency - SS-2/1 and 2/2	~39-116 downgradient	650-690	4	NA	Monitoring
	--	Inland Empire Utilities Agency - SS-3/1 and 3/2	~750 downgradient	650-690	4	NA	Monitoring
	600576	Unitex IRR	~ 1338 downgradient	NA	NA	NA	Private Irrigation
	600462	Unitex 91090	~1601 downgradient	NA	NA	Active	Private Domestic
600369	Unitex CalDOT	~ 2850 downgradient	400-684	NA	NA	Irrigation	
Victoria Basin	600905	Cucamonga Valley Water District No. 39	4329 downgradient	750-870, 940-960, 970-1060, & 1080-1130,	20	Active	Municipal
	601033	Cucamonga Valley Water District No. 43**	8300 downgradient	650-800	32-42	Active	Municipal
	601117	Inland Empire Utilities Agency - VCT-1/1 and 1/2	~39-116 downgradient	570-610	4	Active	Monitoring
	--	Inland Empire Utilities Agency - VCT-1/1 and 1/2	~ 2000 downgradient	570-610	4	Active	Monitoring
Ely Basin	601003	Ely Basin MW-1, Philadelphia Well (Casing 3)	100 downgradient	280 - 300	2	Active	Monitoring
	601004	Ely Basin MW-2, Walnut Well (Casing 2)	3050 downgradient	290 - 310	4	Active	Monitoring
	3600975	Riverside Drive Well (43840-CWW)	6046 downgradient	NA	NA	Active	Private Irrigation
	600134	Bishop Of San Bernardino Corp. - DOM	6500 downgradient	NA	NA	Active	Private Domestic

Notes:

- NA = Data not available
- CBWM ID = Chino Basin Water Master well identification number
- bgs = below ground surface
- \* = Ontario Well No. 38 replaced Ontario Well No. 19, which is inactive
- \*\* = Cucamonga Valley Water District No. 43 replaced CVWD Well Nos. 35 & 36, which are inactive.
- \*\*\* = Fontana Water Company Well 7A replaced Fontana Water Company Well 37A (1Q18)





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

Constituent	8TH-1/1	8TH-1/2	8TH-2/1	8TH-2/2	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	1.9	1.7	2.4	3.2	µg/L	EPA 200.8
Copper	0.6	<0.5	<0.5	<0.5	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	49	221	4	8	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	<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	7	7	<1	2	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-1/1	8TH-1/2	8TH-2/1	8TH-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
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	8TH-1/1	8TH-1/2	8TH-2/1	8TH-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	<0.01	<0.01	<0.01	<0.01	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
EPA Priority Pollutants - Miscellaneous						
Cyanide	<0.02	<0.02	<0.02	<0.02	mg/L	EPA OIA-1677
2,3,7,8-TCDD	ND	ND	ND	ND	µg/L	EPA 1613B

ND = non-detect

NA = not analyzed

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

Constituent	BRK-1/1	BRK-1/2	BRK-2/1	BRK-2/2	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	<0.5	5.5	8.6	3.1	µg/L	EPA 200.8
Copper	1.3	<0.5	0.8	<0.5	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	64	2	29	542	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	<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	4	<1	<1	2	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	BRK-1/1	BRK-1/2	BRK-2/1	BRK-2/2	Unit	Method
EPA Priority Pollutants - Base/Neutral and Acid Extractibles						
1,2,4-Trichlorobenzene	<1	<1	<1	NA	µg/L	EPA 625
1,2-Dichlorobenzene	<1	<1	<1	NA	µg/L	EPA 625
1,3-Dichlorobenzene	<1	<1	<1	NA	µg/L	EPA 625
1,4-Dichlorobenzene	<1	<1	<1	NA	µg/L	EPA 625
2,4,6-Trichlorophenol	<1	<1	<1	NA	µg/L	EPA 625
2,4-Dichlorophenol	<2	<2	<2	NA	µg/L	EPA 625
2,4-Dimethylphenol	<1	<1	<1	NA	µg/L	EPA 625
2,4-Dinitrophenol	<3	<3	<3	NA	µg/L	EPA 625
2,4-Dinitrotoluene	<1	<1	<1	NA	µg/L	EPA 625
2,6-Dinitrotoluene	<2	<2	<2	NA	µg/L	EPA 625
2-Chloronaphthalene	<1	<1	<1	NA	µg/L	EPA 625
2-Chlorophenol	<1	<1	<1	NA	µg/L	EPA 625
2-Methyl-4,6-dinitrophenol	<2	<2	<2	NA	µg/L	EPA 625
2-Nitrophenol	<1	<1	<1	NA	µg/L	EPA 625
3,3-Dichlorobenzidine	<5	<5	<5	NA	µg/L	EPA 625
4-Bromophenyl phenyl ether	<1	<1	<1	NA	µg/L	EPA 625
4-Chloro-3-methylphenol	<1	<1	<1	NA	µg/L	EPA 625
4-Chlorophenyl phenyl ether	<1	<1	<1	NA	µg/L	EPA 625
4-Nitrophenol	<3	<3	<3	NA	µg/L	EPA 625
Acenaphthene	<1	<1	<1	NA	µg/L	EPA 625
Acenaphthylene	<1	<1	<1	NA	µg/L	EPA 625
Anthracene	<1	<1	<1	NA	µg/L	EPA 625
Azobenzene	<1	<1	<1	NA	µg/L	EPA 625
Benzidine	<5	<5	<5	NA	µg/L	EPA 625
Benzo(a)anthracene	<5	<5	<5	NA	µg/L	EPA 625
Benzo(a)pyrene	<1	<1	<1	NA	µg/L	EPA 625
Benzo(b)fluoranthene	<1	<1	<1	NA	µg/L	EPA 625
Benzo(g,h,i)perylene	<2	<2	<2	NA	µg/L	EPA 625
Benzo(k)fluoranthene	<1	<1	<1	NA	µg/L	EPA 625
Bis(2-chloroethoxy)methane	<2	<2	<2	NA	µg/L	EPA 625
Bis(2-chloroethyl)ether	<1	<1	<1	NA	µg/L	EPA 625
Bis(2-chloroisopropyl)ether	<1	<1	<1	NA	µg/L	EPA 625
Bis(2-ethylhexyl)phthalate	<2	<2	<2	NA	µg/L	EPA 625
Butyl benzyl phthalate	<1	<1	<1	NA	µg/L	EPA 625
Chrysene	<1	<1	<1	NA	µg/L	EPA 625
Dibenzo(a,h)anthracene	<1	<1	<1	NA	µg/L	EPA 625
Diethyl phthalate	<2	<2	<2	NA	µg/L	EPA 625
Dimethyl phthalate	<1	<1	<1	NA	µg/L	EPA 625
Di-n-butyl phthalate	<1	<1	<1	NA	µg/L	EPA 625
Di-n-octyl phthalate	<1	<1	<1	NA	µg/L	EPA 625
Fluoranthene	<1	<1	<1	NA	µg/L	EPA 625
Fluorene	<1	<1	<1	NA	µg/L	EPA 625
Hexachlorobenzene	<1	<1	<1	NA	µg/L	EPA 625
Hexachlorobutadiene	<1	<1	<1	NA	µg/L	EPA 625
Hexachlorocyclopentadiene	<5	<5	<5	NA	µg/L	EPA 625
Hexachloroethane	<1	<1	<1	NA	µg/L	EPA 625
Indeno(1,2,3-cd)pyrene	<2	<2	<2	NA	µg/L	EPA 625
Isophorone	<1	<1	<1	NA	µg/L	EPA 625

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

Constituent	BRK-1/1	BRK-1/2	BRK-2/1	BRK-2/2	Unit	Method
EPA Priority Pollutants - Base/Neutral and Acid Extractibles (cont'd)						
Naphthalene	<1	<1	<1	NA	µg/L	EPA 625
Nitrobenzene	<1	<1	<1	NA	µg/L	EPA 625
N-Nitrosodimethylamine	<1	<1	<1	NA	µg/L	EPA 625
N-Nitroso-di-n-propylamine	<1	<1	<1	NA	µg/L	EPA 625
N-Nitrosodiphenylamine	<1	<1	<1	NA	µg/L	EPA 625
Pentachlorophenol	<2	<2	<2	NA	µg/L	EPA 625
Phenanthrene	<1	<1	<1	NA	µg/L	EPA 625
Phenol	<1	<1	<1	NA	µg/L	EPA 625
Pyrene	<1	<1	<1	NA	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	<0.01	<0.01	<0.01	<0.01	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
Cyanide	<0.02	<0.02	<0.02	<0.02	mg/L	EPA OIA-1677
2,3,7,8-TCDD	ND	ND	ND	ND	µg/L	EPA 1613B

ND = non-detect

NA = not analyzed



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	5.3	<0.5	3.6	3.4	µg/L	EPA 200.8
Copper	1.0	0.9	1.0	0.8	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	26	4	7	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
1,1,1,2-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	23	1	7	<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 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	<0.01	<0.01	<0.01	<0.01	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
EPA Priority Pollutants - Miscellaneous						
Cyanide	<0.02	<0.02	<0.02	<0.02	mg/L	EPA OIA-1677
2,3,7,8-TCDD	ND	ND	ND	ND	µg/L	EPA 1613B

ND = non-detect

NA = not analyzed

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

Constituent	RP3-1/1	Southridge JHS	T-1/2	T-2/2	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	0.6	3.4	0.7	<0.5	µg/L	EPA 200.8
Copper	2.0	5.2	1.8	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	57	5	17	4	µg/L	EPA 200.8
Selenium	<2	3	<2	<2	µg/L	EPA 200.8
Thallium	<1	<1	<1	<1	µg/L	EPA 200.8
Zinc	<1	3	<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
1,1,1,2-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	29	<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	RP3-1/1	Southridge JHS	T-1/2	T-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
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	2	<1	µg/L	EPA 625

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

Constituent	RP3-1/1	Southridge JHS	T-1/2	T-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	<0.01	<0.01	<0.01	<0.01	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
EPA Priority Pollutants - Miscellaneous						
Cyanide	<0.02	<0.02	<0.02	<0.02	mg/L	EPA OIA-1677
2,3,7,8-TCDD	ND	ND	ND	ND	µg/L	EPA 1613B

ND = non-detect

NA = not analyzed

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	0.6	0.9	3.0	2.0	µg/L	EPA 200.8
Copper	<0.5	0.7	0.5	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	1	8	2	335	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	4	<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
1,1,1,2-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	<1	7	<1	2	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 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	<0.01	<0.01	<0.01	<0.01	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
EPA Priority Pollutants - Miscellaneous						
Cyanide	<0.02	<0.02	<0.02	<0.02	mg/L	EPA OIA-1677
2,3,7,8-TCDD	ND	ND	ND	ND	µg/L	EPA 1613B

ND = non-detect

NA = not analyzed

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

Date	Diluent Water																				Recycled Water									
	Imported Water										Local Runoff / Storm Flow																			
	7th & 8th St.	Banana	Brooks	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
Apr-17	0	0	16	0	0	0	0	0	0	0	57	0	0	3	9	0	24	1	32	0	0	0	8	0	190	0	34	0	99	317
May-17	0	0	0	0	0	0	0	0	0	0	16	0	1	24	37	0	5	16	22	13	0	0	38	0	250	0	2	0	125	312
Jun-17	18	0	2	99	0	0	386	526	274	121	19	0	0	3	0	0	8	0	11	0	198	0	30	0	149	0	51	0	10	201
<b>2Q17 Total</b>	<b>18</b>	<b>0</b>	<b>18</b>	<b>99</b>	<b>0</b>	<b>0</b>	<b>386</b>	<b>526</b>	<b>274</b>	<b>121</b>	<b>92</b>	<b>0</b>	<b>1</b>	<b>30</b>	<b>46</b>	<b>0</b>	<b>38</b>	<b>17</b>	<b>66</b>	<b>13</b>	<b>198</b>	<b>0</b>	<b>76</b>	<b>0</b>	<b>588</b>	<b>0</b>	<b>87</b>	<b>0</b>	<b>233</b>	<b>830</b>
Jul-17	0	0	94	0	0	527	246	567	220	235	105	0	0	7	37	0	5	0	13	0	1	0	228	0	34	168	225	0	156	140
Aug-17	1122	0	96	0	0	420	418	117	79	20	20	2	0	70	126	0	15	48	24	4	196	131	55	0	27	20	208	0	57	239
Sep-17	511	134	3	20	0	263	200	151	0	130	5	2	1	6	0	10	15	0	18	0	131	161	169	0	216	119	223	0	122	167
<b>3Q17 Total</b>	<b>1633</b>	<b>134</b>	<b>192</b>	<b>20</b>	<b>0</b>	<b>1211</b>	<b>864</b>	<b>834</b>	<b>299</b>	<b>386</b>	<b>129</b>	<b>4</b>	<b>1</b>	<b>83</b>	<b>163</b>	<b>10</b>	<b>36</b>	<b>48</b>	<b>54</b>	<b>4</b>	<b>327</b>	<b>292</b>	<b>452</b>	<b>0</b>	<b>276</b>	<b>307</b>	<b>655</b>	<b>0</b>	<b>334</b>	<b>545</b>
Oct-17	361	126	0	0	9	160	171	525	0	156	51	2	1	6	48	10	4	0	4	0	217	252	104	0	91	178	301	0	248	45
Nov-17	0	0	0	0	0	0	0	55	0	0	3	0	3	6	0	15	0	0	7	0	102	470	154	0	37	172	289	0	149	41
Dec-17	0	140	0	0	0	69	64	1121	0	4	3	2	1	6	0	8	1	0	2	0	215	256	124	0	222	107	409	0	158	100
<b>4Q17 Total</b>	<b>361</b>	<b>266</b>	<b>0</b>	<b>0</b>	<b>9</b>	<b>230</b>	<b>234</b>	<b>1700</b>	<b>0</b>	<b>160</b>	<b>57</b>	<b>4</b>	<b>5</b>	<b>18</b>	<b>48</b>	<b>33</b>	<b>5</b>	<b>0</b>	<b>13</b>	<b>0</b>	<b>533</b>	<b>977</b>	<b>381</b>	<b>0</b>	<b>350</b>	<b>458</b>	<b>999</b>	<b>0</b>	<b>556</b>	<b>187</b>
Jan-18	0	95	5	0	0	40	63	906	0	36	121	115	28	136	255	85	92	104	153	57	100	128	96	0	31	86	226	0	26	7
Feb-18	0	0	0	0	0	0	0	0	0	0	85	11	9	48	91	16	19	21	94	9	82	209	107	0	184	136	233	0	13	34
Mar-18	0	0	0	0	0	0	0	0	0	0	142	60	43	223	266	59	103	127	315	40	9	89	13	0	0	17	104	0	54	25
<b>1Q18 Total</b>	<b>0</b>	<b>95</b>	<b>5</b>	<b>0</b>	<b>0</b>	<b>40</b>	<b>63</b>	<b>906</b>	<b>0</b>	<b>36</b>	<b>348</b>	<b>186</b>	<b>80</b>	<b>408</b>	<b>611</b>	<b>160</b>	<b>214</b>	<b>253</b>	<b>562</b>	<b>106</b>	<b>191</b>	<b>426</b>	<b>216</b>	<b>0</b>	<b>215</b>	<b>239</b>	<b>563</b>	<b>0</b>	<b>94</b>	<b>66</b>

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)
2017	Apr-17	0.0	0.7	320	7	10.0	380	(1,215)	(20,955)	(574,260)
	May-17	0.0	0.7	320	16	11.3	380	(1,231)	(21,183)	(581,892)
	Jun-17	0.0	0.7	320	28	11.0	380	(1,259)	(21,566)	(595,131)
3017	Jul-17	0.0	<0.4	94	34	11.5	380	(1,294)	(22,053)	(611,210)
	Aug-17	0.0	<0.4	94	53	12.8	380	(1,347)	(22,894)	(636,173)
	Sep-17	0.0	<0.4	94	55	13.0	380	(1,402)	(23,781)	(662,120)
4017	Oct-17	0.0	<0.4	160	57	12.8	380	(1,459)	(24,680)	(688,794)
	Nov-17	0.0	<0.4	160	10	13.0	380	(1,469)	(24,847)	(693,674)
	Dec-17	0.0	<0.4	160	0	13.0	380	(1,469)	(24,847)	(693,674)
1018	Jan-18	0.0	0.6	230	0	13.0	380	(1,469)	(24,847)	(693,674)
	Feb-18	0.0	0.6	230	5	13.0	380	(1,474)	(24,921)	(695,836)
	Mar-18	0.0	0.6	230	4	13.0	380	(1,478)	(24,982)	(697,605)

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)
2017	Apr-17	0.0	0.7	320	0	12.0	370	(183)	(25,664)	(289,991)
	May-17	0.0	0.7	320	0	12.0	370	(183)	(25,664)	(289,991)
	Jun-17	0.0	0.7	320	9	16.0	320	(193)	(25,850)	(293,714)
3017	Jul-17	0.0	<0.4	94	0	18.0	320	(193)	(25,850)	(293,714)
	Aug-17	0.0	<0.4	94	5	19.0	320	(198)	(25,971)	(295,759)
	Sep-17	44.5	<0.4	94	4	12.0	320	(157)	(26,003)	(292,043)
4017	Oct-17	139.2	<0.4	160	0	12.0	320	(18)	(25,935)	(264,567)
	Nov-17	135.7	<0.4	160	0	12.0	320	118	(25,868)	(237,782)
	Dec-17	139.7	<0.4	160	0	12.0	320	258	(25,799)	(210,208)
1018	Jan-18	138.1	0.6	230	0	12.0	320	396	(25,697)	(171,015)
	Feb-18	124.5	0.6	230	0	12.0	320	520	(25,610)	(135,830)
	Mar-18	142.6	0.6	230	0	12.0	320	662	(25,504)	(95,383)

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)
2017	Apr-17	0.0	0.7	320	0	6.8	320	(3,654)	(43,137)	(829,745)
	May-17	0.0	0.7	320	0	15.0	320	(3,654)	(43,137)	(829,745)
	Jun-17	0.0	0.7	320	0	17.0	320	(3,654)	(43,137)	(829,745)
3017	Jul-17	0.0	<0.4	94	0	17.0	320	(3,654)	(43,137)	(829,745)
	Aug-17	0.0	<0.4	94	0	18.0	320	(3,654)	(43,137)	(829,745)
	Sep-17	0.0	<0.4	94	0	13.0	320	(3,654)	(43,137)	(829,745)
4017	Oct-17	0.0	<0.4	160	0	6.5	320	(3,654)	(43,137)	(829,745)
	Nov-17	0.0	<0.4	160	0	6.5	320	(3,654)	(43,137)	(829,745)
	Dec-17	0.0	<0.4	160	0	6.5	320	(3,654)	(43,137)	(829,745)
1018	Jan-18	0.0	0.6	230	0	6.5	320	(3,654)	(43,137)	(829,745)
	Feb-18	71.2	0.6	230	0	6.5	320	(3,582)	(43,085)	(809,531)
	Mar-18	126.4	0.6	230	0	6.5	320	(3,456)	(42,991)	(773,678)

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

Cells shaded in grey reflect most recent lab values.

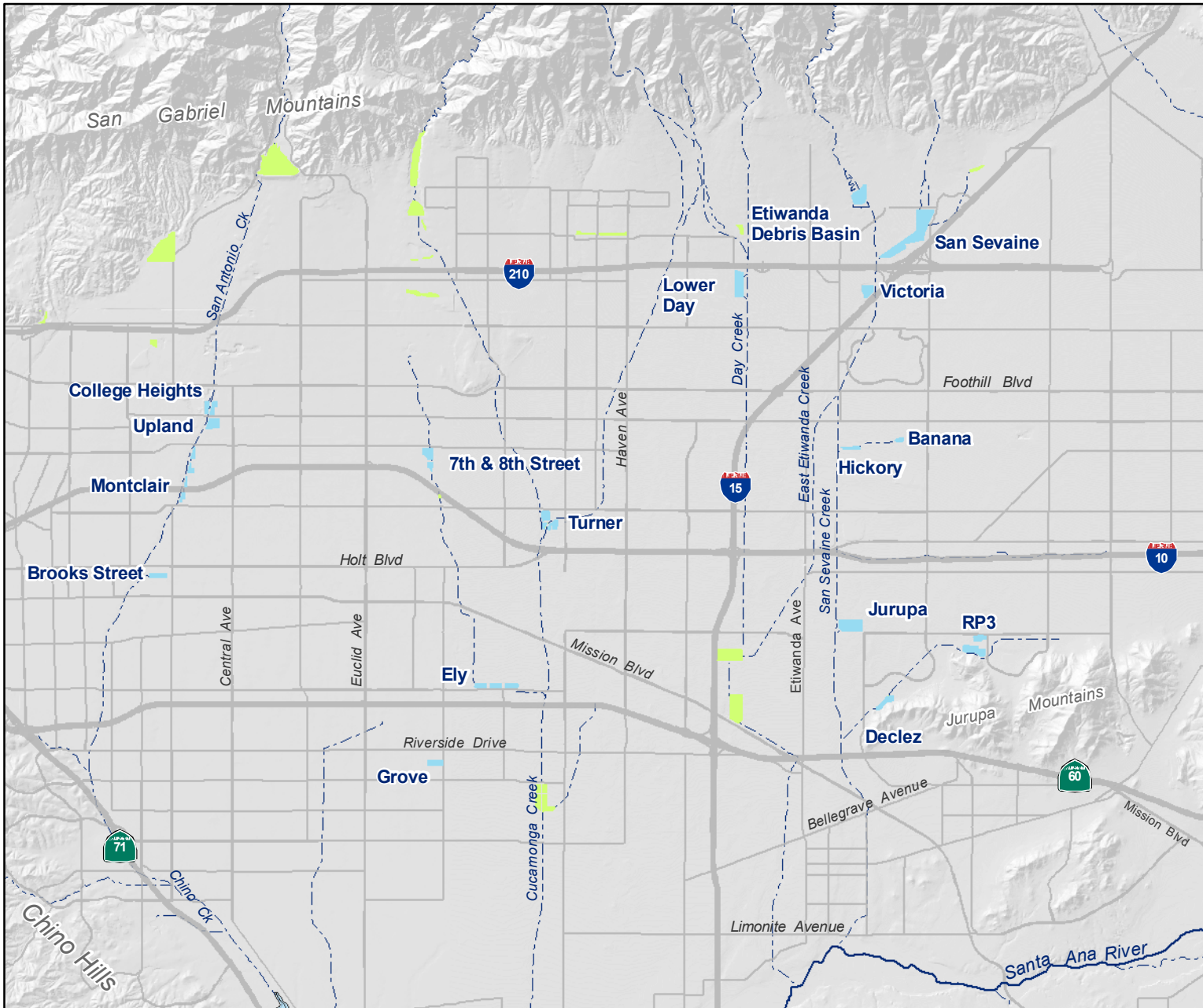
Table 6-1  
 MVWD ASR Project - TIN/TDS Mass Balance

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)
2017	Apr-17	0.0	0.7	320	155	16.0	320	(3,526)	(73,216)	(1,424,032)
	May-17	0.0	0.7	320	283	16.0	320	(3,809)	(78,794)	(1,535,585)
	Jun-17	0.0	0.7	320	66	16.0	320	(3,875)	(80,103)	(1,561,770)
3Q17	Jul-17	0.0	<0.4	94	0	18.0	320	(3,875)	(80,103)	(1,561,770)
	Aug-17	0.0	<0.4	94	0	18.0	320	(3,875)	(80,103)	(1,561,770)
	Sep-17	110.0	<0.4	94	0	18.0	320	(3,765)	(80,049)	(1,549,014)
4Q17	Oct-17	138.4	<0.4	160	0	18.0	320	(3,627)	(79,980)	(1,521,696)
	Nov-17	131.8	<0.4	160	0	18.0	320	(3,495)	(79,915)	(1,495,681)
	Dec-17	136.8	<0.4	160	0	18.0	320	(3,358)	(79,848)	(1,468,679)
1Q18	Jan-18	110.3	0.6	230	0	18.0	320	(3,248)	(79,766)	(1,437,380)
	Feb-18	120.5	0.6	230	0	18.0	320	(3,127)	(79,677)	(1,403,198)
	Mar-18	93.8	0.6	230	0	18.0	320	(3,034)	(79,607)	(1,376,580)

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

Cells shaded in grey reflect most recent lab values.

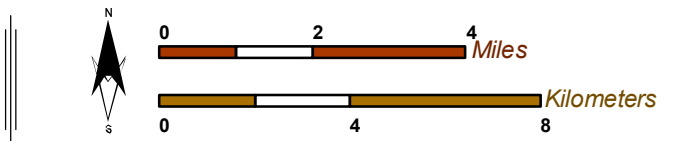
Total Project (All Wells)				
	Date	Storage (AF)	TIN (kg)	TDS (kg)
2017	Apr-17	(8,578)	(162,972)	(3,118,028)
	May-17	(8,877)	(168,778)	(3,237,213)
	Jun-17	(8,981)	(170,656)	(3,280,359)
3Q17	Jul-17	(9,015)	(171,143)	(3,296,438)
	Aug-17	(9,074)	(172,105)	(3,323,446)
	Sep-17	(8,978)	(172,971)	(3,332,922)
4Q17	Oct-17	(8,757)	(173,732)	(3,304,802)
	Nov-17	(8,500)	(173,767)	(3,256,882)
	Dec-17	(8,224)	(173,631)	(3,202,306)
1Q18	Jan-18	(7,975)	(173,447)	(3,131,814)
	Feb-18	(7,664)	(173,292)	(3,044,395)
	Mar-18	(7,305)	(173,084)	(2,943,247)



- ### Main Map Features
- Recharge Basins in the Recycled Water Groundwater Recharge Program
  - Non-Program Basins
  - Rivers and Streams

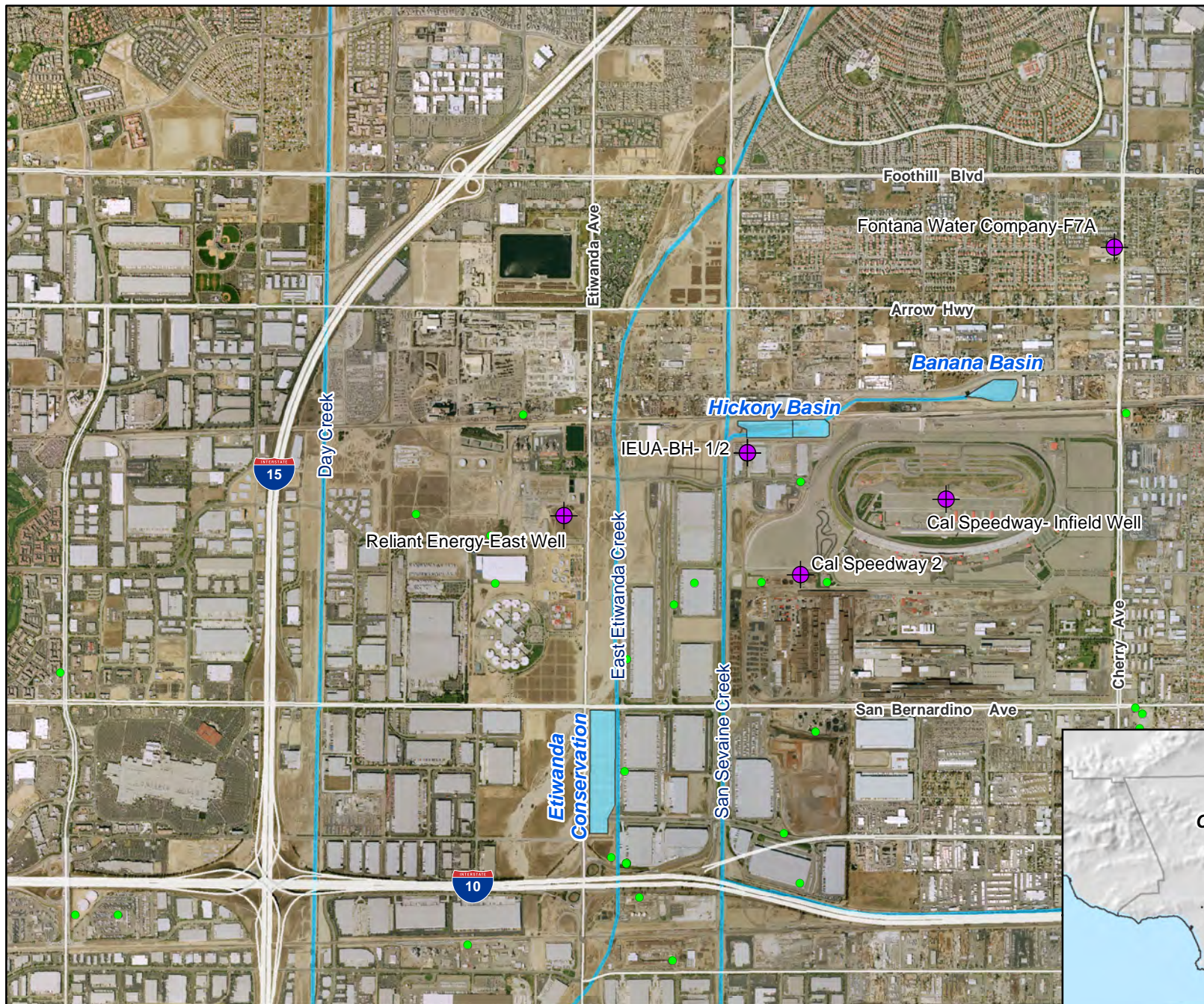


**Chino Basin Recycled Water Groundwater Recharge Program**  
Basin Locations







**Figure 1-1**





### Main Map Features

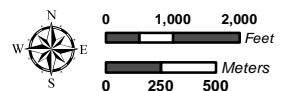
-  Existing Monitoring Well
-  "Other Wells"
-  Rivers/Streams/Creeks
-  Recharge Basins



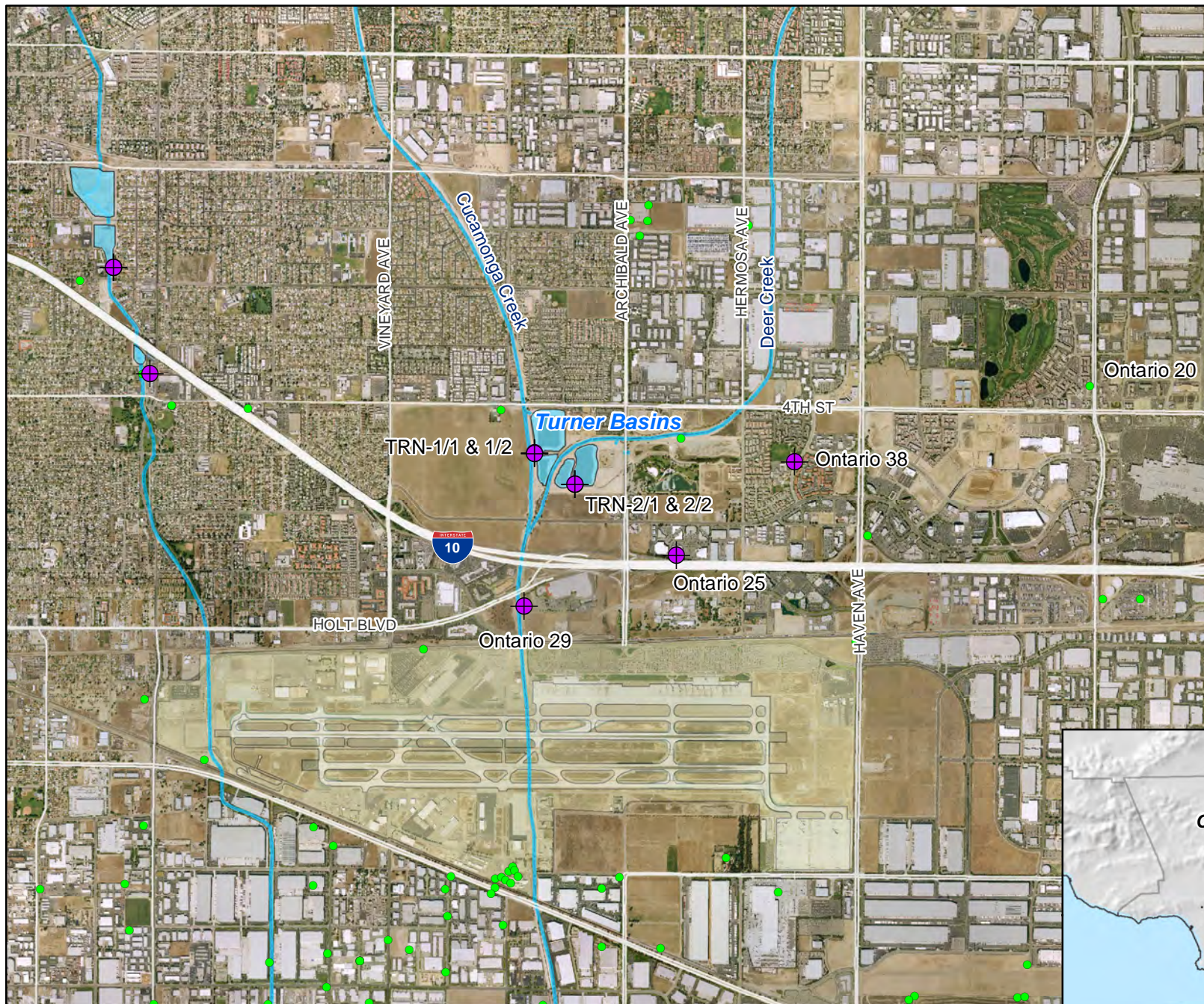
**Monitoring Well Network**  
Hickory and Banana Basins

**Figure 2-1**





Recycled Water Recharge Program







### Main Map Features

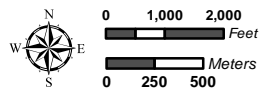
-  Existing Monitoring Well
-  "Other Wells"
-  Rivers/Streams/Creeks
-  Recharge Basins



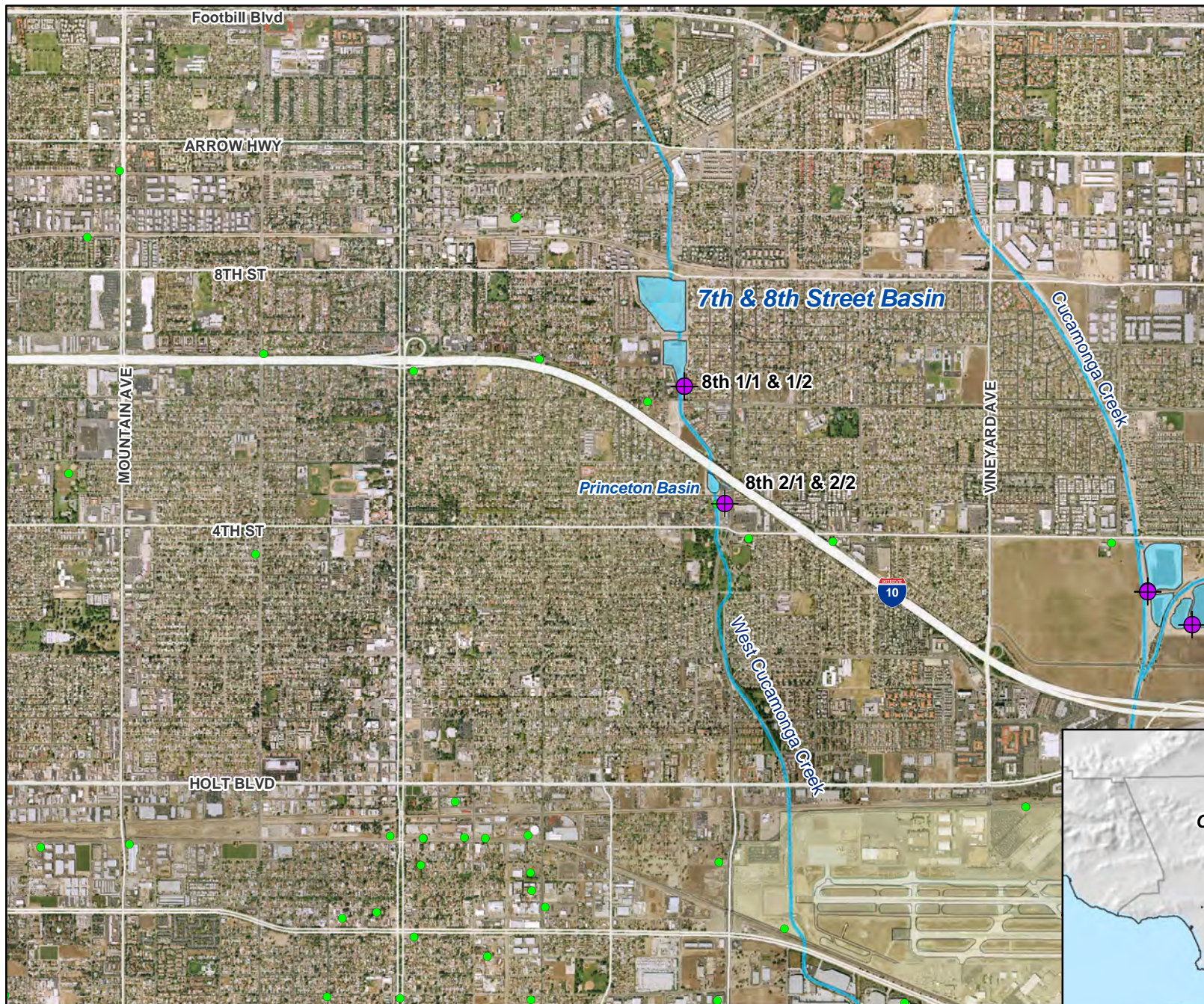
**Monitoring Well Network**  
Turner Basins

**Figure 2-2**





Recycled Water Recharge Program







**Main Map Features**

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



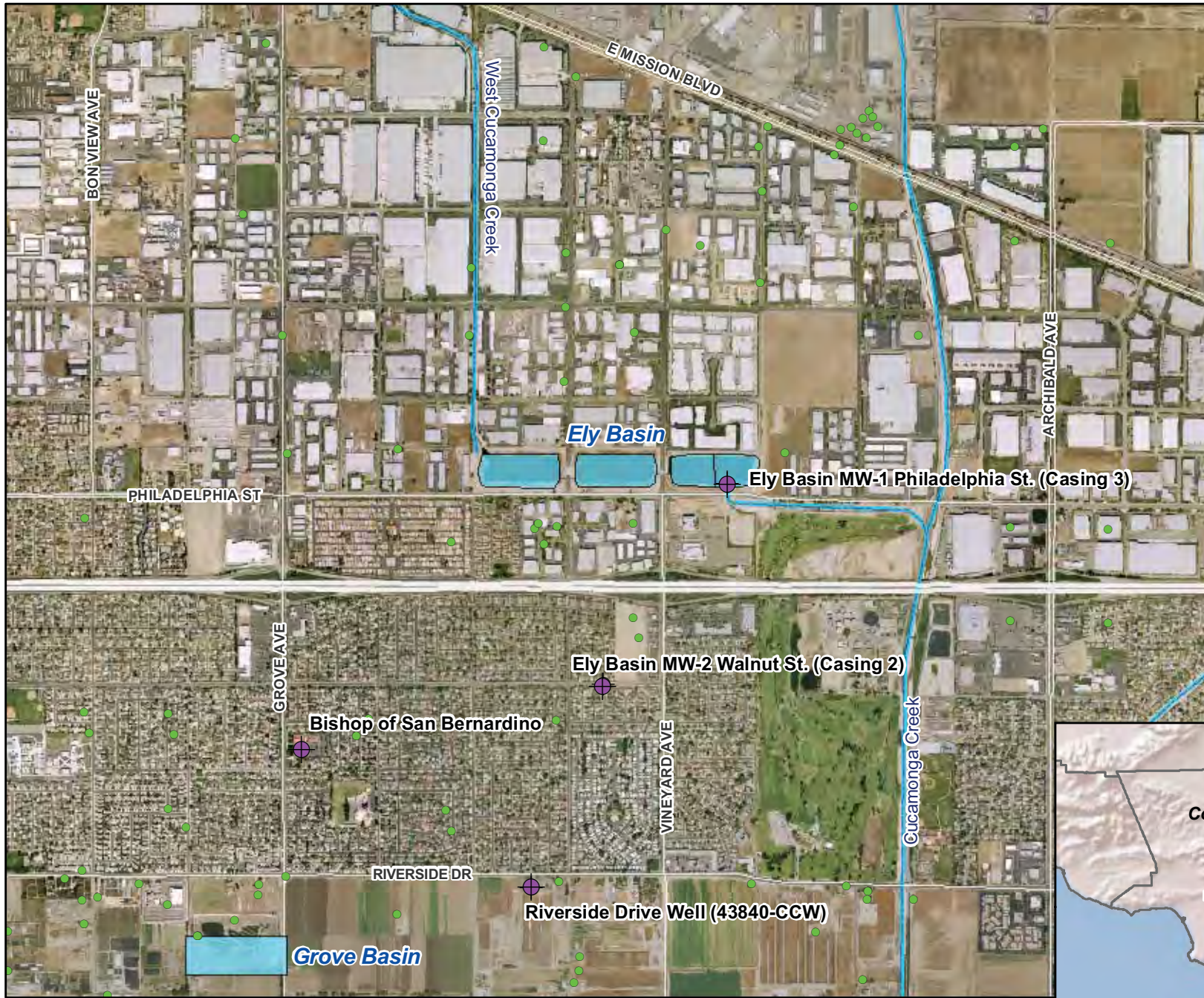
**Monitoring Well Network**  
7th and 8th Street Basin

**Figure 2-3**





Recycled Water Recharge Program







**Main Map Features**

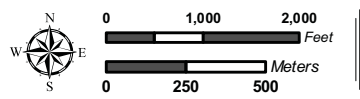
-  Existing Monitoring Well
-  "Other Wells"
-  Rivers/Streams/Creeks
-  Recharge Basins



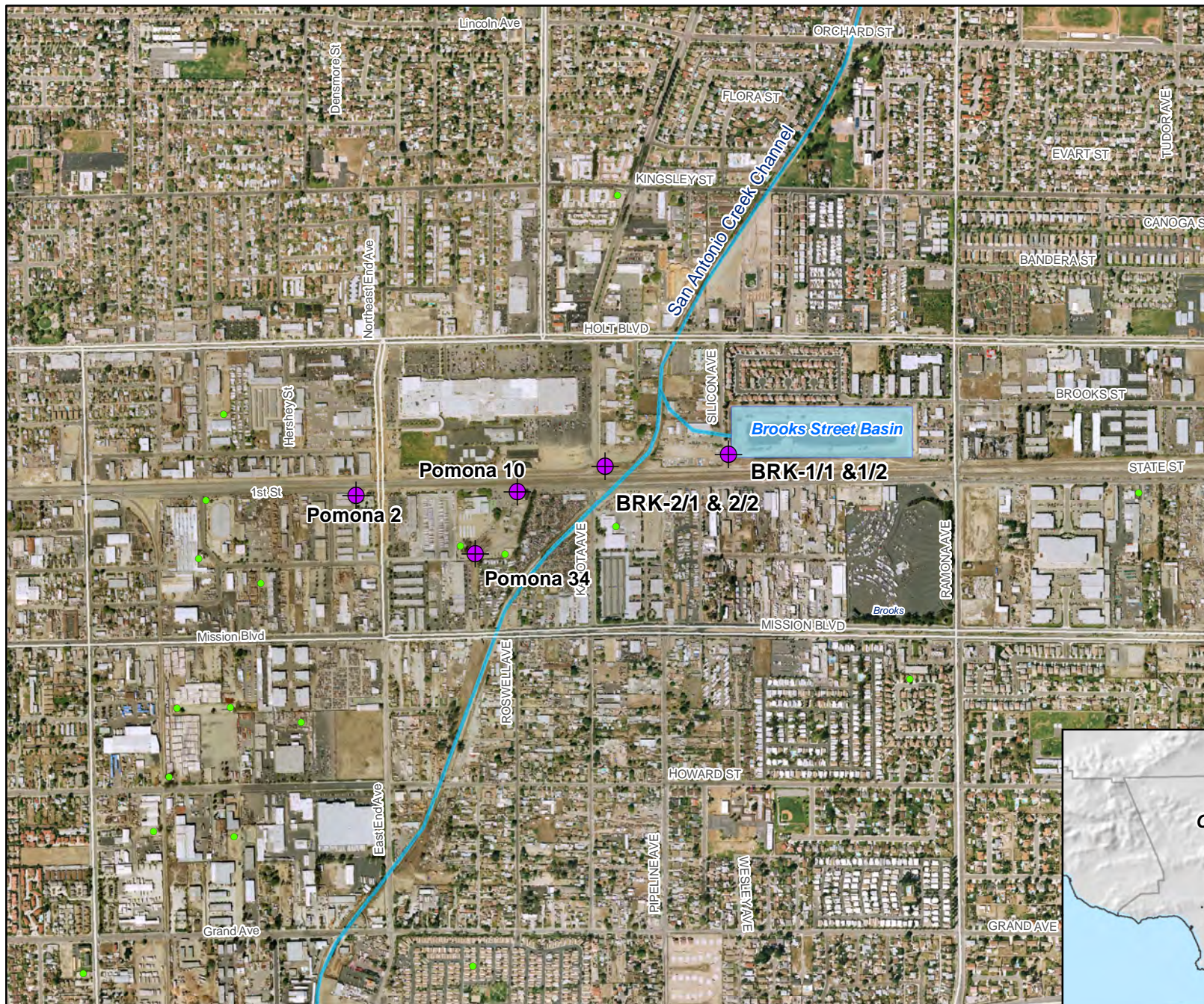
**Monitoring Well Network**  
Ely Basins

**Figure 2-4**





Recycled Water Recharge Program







### Main Map Features

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



### Monitoring Well Network

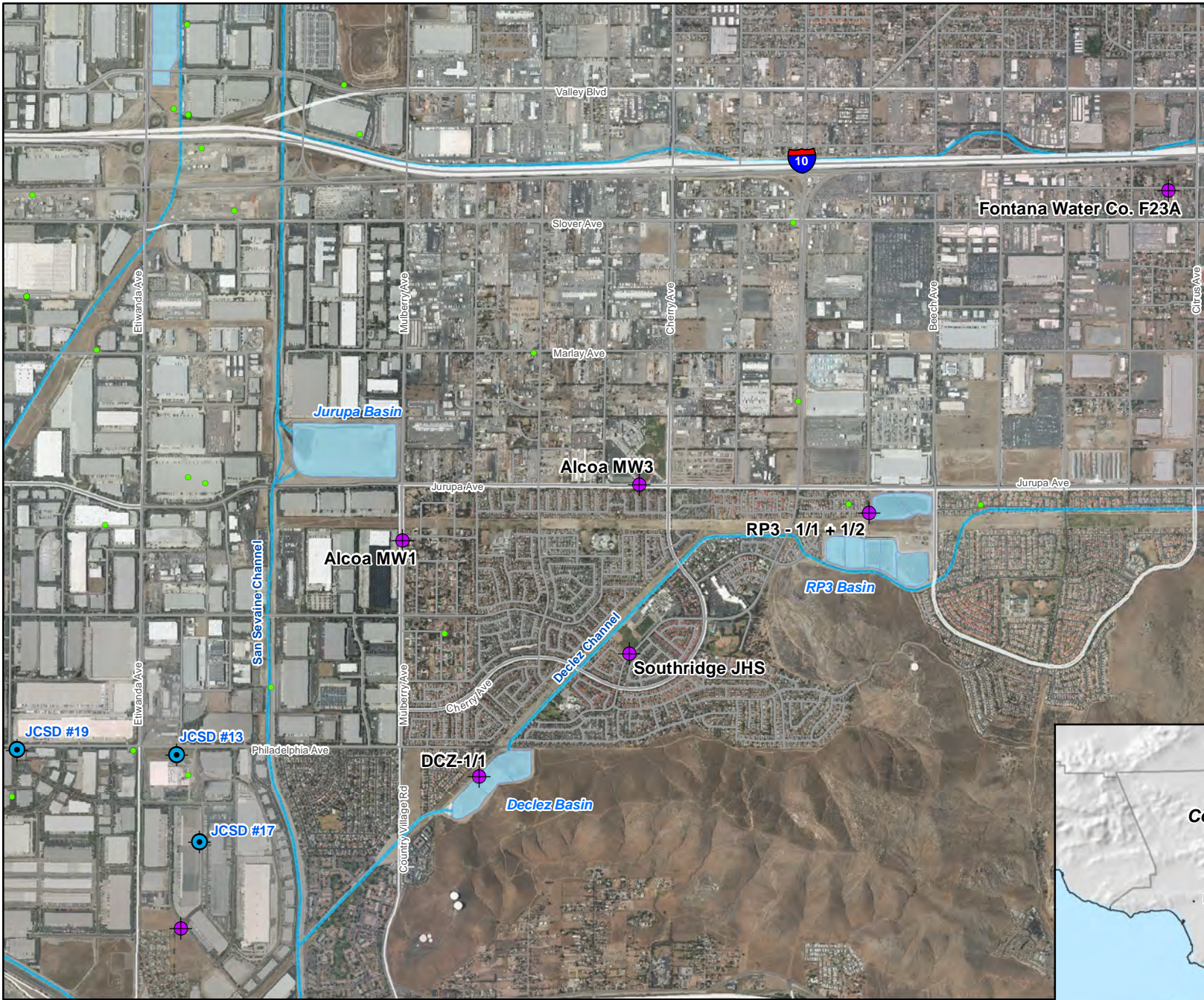
Brooks Street Basin

**Figure 2-5**

Recycled Water Recharge Program







**Main Map Features**

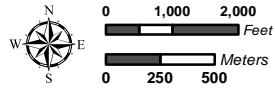
- JCSD Wells
- "Other Wells"
- ⊕ Existing Monitoring Well
- Rivers/Streams/Creeks
- Recharge Basins



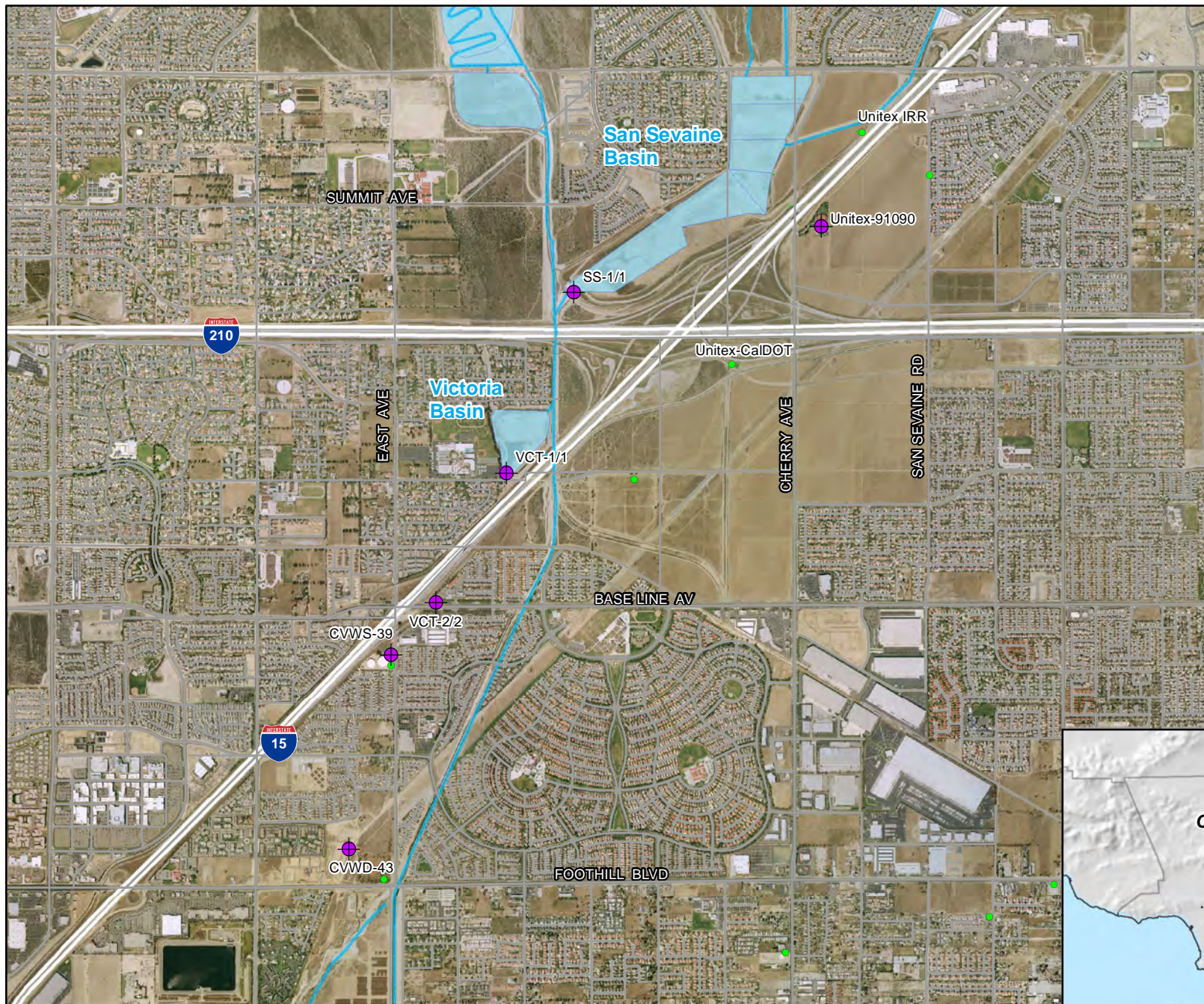
**Monitoring Well Network**  
Declez and RP3 Basins

**Figure 2-6**

Recycled Water Recharge Program







### Main Map Features

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



**Monitoring Well Network**  
San Sevaime and Victoria Basin

**Figure 2-7**

Recycled Water Recharge Program

