



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

**Peter Kavounas, P.E.**  
General Manager

February 15, 2022

Regional Water Quality Control Board, Santa Ana Region

**Attention: Ms. Jayne Joy**

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

**Subject: Chino Basin Recycled Water Groundwater Recharge Program:  
Quarterly Monitoring Report for October through December 2021**

Dear Ms. Joy,

Inland Empire Utilities Agency and Chino Basin Watermaster hereby submit the *Quarterly Monitoring Report* for the fourth quarter of 2021 (4Q21), October 1 through December 31, 2021, 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 4Q21, the Groundwater Recharge Program was in compliance with all monitoring and reporting requirements as specified in the Order, with the exception of exceedances of the maximum contaminant level (MCL) for 1,2,3-Trichloropropane (1,2,3-TCP), and notification level for Perfluorooctanoic acid (PFOA)..

Chino Basin Watermaster hereby certifies that, during the period of October 1 through December 31, 2021, there was no reported pumping for drinking water purposes in the buffer zones extending 500 feet laterally and 6 months underground travel time from each of the recharge sites using recycled water, namely 7th & 8th Street, Banana, Brooks, Declez, Ely, Hickory, RP3, San Sevaime, Turner, and Victoria Basins. In point of fact, there are no domestic or municipal production wells in the buffer zones of the aforementioned recharge sites.

#### **DECLARATION**

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

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

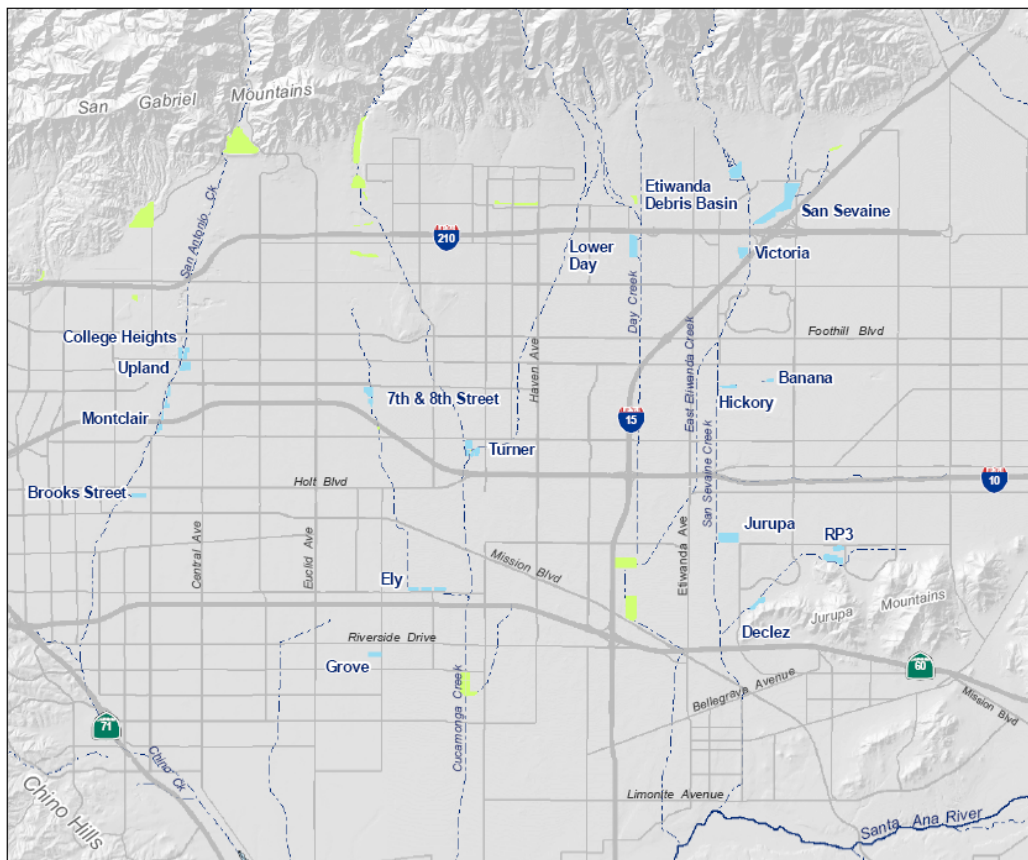
**Randy Lee** Digitally signed by Randy Lee  
Date: 2022.02.10 15:59:00  
-08'00'

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

  
Peter Kavounas, P.E.  
General Manager

# Chino Basin Recycled Water Groundwater Recharge Program

## Quarterly Monitoring Report October 1 through December 31, 2021



*Prepared by:*



February 15, 2022

---

## 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>8</i>
<i>C. Recycled Water: Alternative Monitoring Plans for TOC and TN.....</i>	<i>8</i>
<i>D. Diluent Water.....</i>	<i>10</i>
<i>E. Groundwater Monitoring Wells.....</i>	<i>10</i>
<b>3. Recharge Operations .....</b>	<b>11</b>
<b>4. Operational Problems &amp; Preventive or Corrective Actions .....</b>	<b>11</b>
<b>5. Certification of Non-Pumping in the Buffer Zones .....</b>	<b>12</b>
<b>6. MVWD ASR Project .....</b>	<b>12</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)
2-3a 2-3b	Recycled Water Monitoring: Recycled Water Quality Specifications A.1, A.2, A.3, & A.15
2-4a 2-4b	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: Local Runoff / Stormwater
2-7b	Diluent Water Monitoring: State Water Project – Silverwood Lake
2-8	Summary of Wells in Groundwater Monitoring Networks
2-9	Groundwater Monitoring Well Results (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 Sevine & 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 Program (OBMP).

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

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

As a provision of this Order, IEUA and Watermaster must also comply with Monitoring and Reporting Program No. R8-2007-0039 (MRP). The MRP includes the water quality monitoring requirements of the Chino Basin Recycled Water Groundwater Recharge Program and the requirement for the submittal of quarterly and annual reports. This document is the quarterly report for the fourth quarter of 2021 (4Q21).

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.

The DDW GRRP regulations require that all GRRPs permitted prior to June 18, 2014 submit a report to the DDW and Regional Board to assess compliance of the existing permit in alignment with the GRRP requirements. The IEUA submitted the Compliance Assessment Report (CAR) for the Chino Basin Recycled Water Groundwater Recharge Project dated June 18, 2015 and a revised CAR dated December 12, 2018. On July 25, 2019, the DDW sent a letter to IEUA with their comments on the CAR. The DDW granted a deadline extension for IEUA to submit responses in an October 21, 2019 email. IEUA responded to the DDW comment letter on November 27, 2019.

#### **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 4Q21 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. The monitoring data in Table 2-1 is 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.C). During 4Q21, there were no exceedances of the TN limit. Table 2-2 shows the agency-wide monthly and 12-month running average concentrations for Total Inorganic Nitrogen (TIN) and Total Dissolved Solids (TDS). TDS and TIN were not exceeded during 4Q21.



Recycled Water Specifications A.1 through A.4 of the Order are numerical limits based on the Federal and State primary maximum contaminant levels (MCLs), secondary MCLs, and Action Levels. Recycled Water Specification A.15 is a numerical limit for oil and grease.

Table 2-3a shows the results for the DDW approved sample location representative of the recycled water blend from RP-1 and RP-4 used for recharge located at the RP-4 1299 Pressure Zone Pump Station (RW Blend). Table 2-3b shows results for the RP-1 001B effluent. During the CAR review, DDW identified that 001B effluent must be sampled and reported independently of the RW Blend.

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 2-3a (RW Blend) and Table 2-3b (RP-1 001B effluent) summarize the 4-quarter running average concentration for each parameter from 1Q21 through 4Q21 and lists the corresponding compliance limits.

Although the RW Blend sample from the RP-4 1299 Pump Station is a suitable sample location for most constituents in recycled water, it is not appropriate for Total Trihalomethanes (TTHMs) and Total Haloacetic Acids (HAA5). 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 4Q21 sampling for these compounds, IEUA chose the 25-foot below ground surface lysimeter at the Declez Basin (DCZ2-LYS-25) as the compliance point. The Declez Basin lysimeter was selected as the compliance point because the basin received consistent recycled water recharge and recycled water was present at the 25-foot depth based on electrical conductivity (EC) measurements.

Tables 2-4a (RW Blend) and 2-4b (RP-1 001B Effluent) summarize the quarterly monitoring results of recycled water for constituents with no MCLs or Action Levels; this includes priority pollutants, chemicals of emerging concern (CECs), and chemicals with state notification levels.

Note that in Tables 2-4a and 2-4b there is a section named “Health-based and performance indicator CECs for Surface Application”, which includes CECs listed as monitoring requirements in the State Water Resources Control Board’s (State Water Board) amendment to the Policy for Water Quality Control for Recycled Water (Recycled Water Policy) adopted on December 11, 2018, and effective as of April 8, 2019. The amendment included updates to the CECs monitoring list based on the 2018 Science Advisory Panel recommendations.

There were no exceedances for the parameters analyzed during 4Q21 in the following categories: primary MCLs for inorganic chemicals; volatile organic compounds (VOCs), *with the exception of 1,2,3-Trichloropropane (1,2,3-TCP)*; non-volatile synthetic organic chemicals (SOCs); radionuclides; disinfection byproducts; action levels for lead and copper; notification level chemicals (NLs), *with the exception of Perfluorooctanoic acid (PFOA)*; and secondary MCLs for required constituents. 1,2,3-TCP and PFOA exceedances are detailed below:

#### 1,2,3-TCP

In September 2019, 1,2,3-TCP was detected above the MCL of 0.005 µg/L at both the RW Blend and 001B Effluent recycled water locations and accelerated weekly sampling for 1,2,3-TCP continued through 2Q20 until 1,2,3-TCP was found to be below the MCL. During 2Q21, 1,2,3-TCP was detected again above the MCL at both the RW Blend and 001B Effluent. A confirmation sample was collected within 72 hours of notification of the first results, and in accordance with §60320.112(d)(2), weekly sampling began on 06/18/21. The 1,2,3-TCP results from 2Q21 through 4Q21 are shown below:

Sample	Date	RW Blend (µg/L)	4-week avg (µg/L)
Original	06/01/21	0.013	--
Confirmation	06/09/21	0.012	--
Week 1	06/18/21	0.006	--
Week 2	06/23/21	0.011	--
Week 3	06/29/21	0.011	--
Week 4	07/06/21	<0.005	0.007
Week 5	07/13/21	0.011	0.008
Week 6	07/20/21	<0.005	0.006
Week 7	07/27/21	0.016	0.007
Week 8	08/03/21	0.006	0.008
Week 9	08/10/21	<0.005	0.005
Week 10	08/17/21	0.009	0.008
Week 11	08/24/21	0.010	0.006
Week 12	08/31/21	0.010	0.007
Week 13	09/07/21	0.010	0.010
Week 14	09/14/21	0.012	0.010
Week 15	09/21/21	0.013	0.011
Week 16	09/28/21	0.018	0.013
Week 17	10/05/21	0.016	0.015
Week 18	10/12/21	<0.005	0.012
Week 19	10/19/21	<0.005	0.008
Week 20	10/26/21	0.007	0.006
Week 21	11/02/21	0.010	0.004
Week 22	11/09/21	0.014	0.008
Week 23	11/16/21	0.006	0.009
Week 24	11/23/21	0.005	0.009
Week 25	11/30/21	0.007	0.008
Week 26	12/07/21	0.010	0.007
Week 27	12/14/21	0.014	0.009
Week 28	12/21/21	0.015	0.012
Week 29	12/28/21	0.028	0.017

Sample	Date	001B Eff (µg/L)	4-week avg (µg/L)
Original	06/01/21	0.015	--
Confirmation	06/09/21	0.018	--
Week 1	06/18/21	0.008	--
Week 2	06/23/21	0.010	--
Week 3	06/29/21	0.015	--
Week 4	07/06/21	0.008	0.010
Week 5	07/13/21	0.014	0.012
Week 6	07/20/21	0.016	0.014
Week 7	07/27/21	0.018	0.014
Week 8	08/03/21	0.017	0.016
Week 9	08/10/21	<0.005	0.013
Week 10	08/17/21	0.014	0.012
Week 11	08/24/21	0.015	0.011
Week 12	08/31/21	0.018	0.012
Week 13	09/07/21	0.015	0.015
Week 14	09/14/21	0.017	0.016
Week 15	09/21/21	0.018	0.017
Week 16	09/28/21	0.018	0.017
Week 17	10/05/21	0.022	0.018
Week 18	10/12/21	<0.005	0.014
Week 19	10/19/21	0.005	0.011
Week 20	10/26/21	0.006	0.008
Week 21	11/02/21	0.011	0.006
Week 22	11/09/21	0.011	0.008
Week 23	11/16/21	0.011	0.010
Week 24	11/23/21	<0.005	0.008
Week 25	11/30/21	0.006	0.007
Week 26	12/07/21	0.009	0.006
Week 27	12/14/21	0.011	0.006
Week 28	12/21/21	0.013	0.010
Week 29	12/28/21	0.014	0.012

- In accordance with §60320.112(d)(2), “the GRRP shall initiate weekly monitoring for the contaminant until the running four-week average no longer exceeds the contaminant’s MCL.”
- §60320.112(d)(2)(A) states that “If the running four-week average exceeds the contaminant’s MCL, a project sponsor shall describe the reason(s) for the exceedance and provide a schedule for completion of corrective actions in a report submitted to the Department and Regional Board no later than 45 days following the quarter in which the exceedance occurred.”
- During a meeting with the DDW and Regional Board on July 15, 2021, Faraz Asad (DDW) requested that a revised corrective action report from the one submitted to the DDW and Regional Board on February 13, 2020 be prepared and submitted. IEUA continues to exceed the MCL after accelerated



monitoring was implemented and the corrective actions report was submitted to the DDW and the Regional Board on Thursday, August 12, 2021.

- IEUA has been actively executing the proposed corrective actions, which includes monitoring well evaluation, lysimeter evaluation, source control evaluation, analysis method evaluation, and a disinfection byproduct investigation. IEUA has contracted with Trussell Technologies on October 5, 2021 to assist with the investigation of 1,2,3-TCP and possible mitigation measures. As of January 2022, the project team has identified the potential strategies to carry out the 1,2,3-TCP investigation.

### PFOA

In August 2019, the NL for PFOA was lowered from 14 ng/L to 5.1 ng/L and the NL for Perfluorooctanesulfonic acid (PFOS) was lowered from 13 ng/L to 6.5 ng/L. PFOS concentrations have never exceeded the NL in the recycled water. However, since the NLs were lowered during 3Q19, PFOA concentrations in the recycled water have exceeded the NL at both the RW Blend and 001B Effluent sample locations. No confirmation sample was collected within 72 hours of notification of the first results in exceedance, and in accordance with §60320.120(b) weekly sampling began on 10/24/19.

- §60320.120(b)(1) states that “If the running four-week average exceeds the contaminant’s NL, a project sponsor shall describe the reason(s) for the exceedance and provide a schedule for completion of corrective actions in a report submitted to the Regional Board no later than 45 days following the quarter in which the exceedance occurred, with a copy concurrently provided to the Department.” IEUA continued to exceed the four-week average after accelerated monitoring was implemented and the corrective actions report was submitted to the DDW and the Regional Board on February 13, 2020.
- IEUA completed the sixteen consecutive weeks of sampling the RW Blend and 001B Effluent per §60320.120(b)(2) during 1Q20 and notified the DDW and the Regional Board after the final results were received. Notifications of exceedance were emailed to the Regional Board and DDW on February 25, 2020 for the RW Blend and on March 5, 2020 for the 001B Effluent.
- In a March 5, 2020 email, DDW stated that IEUA needs to continue with weekly samples for PFOA in the recycled water. Weekly sampling was reinitiated during the third week of March 2020.
- At time of reporting, IEUA is awaiting the reevaluation of the request to reduce the PFOA monitoring frequency from weekly to monthly. During an August 5, 2021 meeting, the DDW and the Regional Board requested additional information and a revised PFOA corrective action report, which was submitted to both regulatory agencies on November 3, 2021.

The PFOA results from 3Q19 to 4Q21 are shown below:

Sample	Date	RW Blend (ng/L)	4-week avg (ng/L)
Original	09/18/19	6.5	--
Confirmation	--	--	--
Week 1	10/24/19	7.8	--
Week 2	10/29/19	11	--
Week 3	11/12/19	13	--
Week 4	11/12/19	13	11
Week 5	11/19/19	11	12
Week 6	11/26/19	12	12
Week 7	12/03/19	10	12
Week 8	12/10/19	11	11

Sample	Date	001B Eff (ng/L)	4-week avg (ng/L)
Original	08/28/19	6.2	--
Confirmation	--	--	--
Week 1	10/24/19	6.9	--
Week 2	10/29/19	6.3	--
Week 3	11/06/19	8.6	--
Week 4	11/12/19	7.8	7.4
Week 5	11/19/19	7.7	7.6
Week 6	11/26/19	7.3	7.9
Week 7	12/03/19	9.0	8.0
Week 8	12/10/19	11	8.8

Sample	Date	RW Blend (ng/L)	4-week avg (ng/L)
Week 9	12/17/19	10	11
Week 10	12/26/19	8.7	9.9
Week 11	12/31/19	9.5	9.8
Week 12	01/09/20	9.1	9.3
Week 13	01/14/20	12	9.8
Week 14	01/21/20	10	10
Week 15	01/28/20	11	11
Week 16	02/04/20	14	12
Continued	03/19/20	13	12
Continued	03/26/20	12	13
Continued	04/02/20	14	13
Continued	04/07/20	13	13
Continued	04/14/20	12	13
Continued	04/21/20	14	13
Continued	04/28/20	12	13
Continued	05/05/20	18	13
Continued	05/12/20	14	14
Continued	05/19/20	8.9	15
Continued	05/26/20	10	13
Continued	06/02/20	12	13
Continued	06/09/20	12	11
Continued	06/16/20	10	11
Continued	06/23/20	12	11
Continued	06/30/20	12	12
Continued	07/07/20	12	12
Continued	07/14/20	9.1	12
Continued	07/21/20	8.6	10
Continued	07/28/20	10	9.9
Continued	08/04/20	7.8	8.9
Continued	08/11/20	8.7	8.8
Continued	08/18/20	8.3	8.7
Continued	08/25/20	8.6	8.4
Continued	09/01/20	11	9.2
Continued	09/08/20	12	10
Continued	09/15/20	13	11
Continued	09/22/20	8.7	11
Continued	09/29/20	8.7	11
Continued	10/06/20	13	11
Continued	10/13/20	15	12
Continued	10/20/20	11	13

Sample	Date	001B Eff (ng/L)	4-week avg (ng/L)
Week 9	12/17/19	7.0	8.6
Week 10	12/24/19	6.4	8.4
Week 11	12/31/19	6.0	7.6
Week 12	01/09/20	6.1	6.4
Week 13	01/14/20	5.6	6.0
Week 14	01/21/20	5.0	5.9
Week 15	02/06/20	18	8.7
Week 16	02/20/20	7.2	9.0
Continued	03/17/20	8.6	9.7
Continued	03/24/20	7.4	10
Continued	03/31/20	7.2	7.6
Continued	04/07/20	8.4	7.9
Continued	04/14/20	7.6	7.7
Continued	04/21/20	8.1	7.8
Continued	04/28/20	7.8	8.0
Continued	05/05/20	8.5	8.0
Continued	05/12/20	7.3	7.9
Continued	05/19/20	7.5	7.8
Continued	05/26/20	6.8	7.5
Continued	06/02/20	7.1	7.2
Continued	06/09/20	6.9	7.1
Continued	06/16/20	7.2	7.0
Continued	06/23/20	7.2	7.1
Continued	06/30/20	8.2	7.4
Continued	07/07/20	7.2	7.5
Continued	07/14/20	6.4	7.3
Continued	07/21/20	7.8	7.4
Continued	07/28/20	9.0	7.6
Continued	08/04/20	7.0	7.6
Continued	08/11/20	7.5	7.8
Continued	08/18/20	5.9	7.4
Continued	08/25/20	7.5	7.0
Continued	09/01/20	7.7	7.2
Continued	09/08/20	6.7	7.0
Continued	09/15/20	7.2	7.3
Continued	09/22/20	7.0	7.2
Continued	09/29/20	8.0	7.2
Continued	10/06/20	6.8	7.3
Continued	10/13/20	9.3	7.8
Continued	10/20/20	8.4	8.1

Sample	Date	RW Blend (ng/L)	4-week avg (ng/L)
Continued	10/28/20	12	13
Continued	11/03/20	14	13
Continued	11/11/20	8.5	11
Continued	11/17/20	12	12
Continued	11/24/20	12	12
Continued	12/01/20	13	11
Continued	12/08/20	18	14
Continued	12/15/20	13	14
Continued	12/22/20	12	14
Continued	12/29/20	19	16
Continued	01/05/21	12	14
Continued	01/12/21	9.4	13
Continued	01/26/21	14	14
Continued	02/02/21	14	12
Continued	02/09/21	16	13
Continued	02/16/21	15	15
Continued	02/23/21	12	14
Continued	03/02/21	14	14
Continued	03/09/21	12	13
Continued	03/16/21	13	13
Continued	04/06/21	12	11
Continued	04/20/21	14	11
Continued	04/13/21	8.1	11
Continued	04/27/21	11	11
Continued	05/03/21	11	11
Continued	05/11/21	10	10
Continued	05/18/21	12	11
Continued	05/25/21	12	11
Continued	06/01/21	13	12
Continued	06/08/21	7.4	11
Continued	06/15/21	13	11
Continued	06/22/21	11	11
Continued	06/29/21	11	11
Continued	07/06/21	12	12
Continued	07/13/21	14	12
Continued	07/20/21	7.4	11
Continued	07/27/21	10	11
Continued	08/03/21	8.0	10
Continued	08/10/21	9.1	8.6
Continued	08/17/21	9.5	9.2

Sample	Date	001B Eff (ng/L)	4-week avg (ng/L)
Continued	10/27/20	8.5	8.3
Continued	11/03/20	8.4	8.7
Continued	11/11/20	7.7	8.3
Continued	11/24/20	8.7	8.3
Continued	12/01/20	7.7	8.1
Continued	12/08/20	8.2	8.1
Continued	12/15/20	6.5	7.8
Continued	12/22/20	6.9	7.3
Continued	12/29/20	8.9	7.6
Continued	01/05/21	6.7	7.3
Continued	01/12/21	5.5	7.0
Continued	01/26/21	7.1	7.1
Continued	02/02/21	6.4	6.4
Continued	02/09/21	8.2	6.8
Continued	02/16/21	8.5	7.6
Continued	02/23/21	7.2	7.6
Continued	03/02/21	6.1	7.5
Continued	03/09/21	7.6	7.4
Continued	03/16/21	7.4	7.1
Continued	03/23/21	7.3	7.1
Continued	04/06/21	7.8	7.5
Continued	04/20/21	8.8	7.8
Continued	04/13/21	8.1	8.0
Continued	04/27/21	7.3	8.0
Continued	05/03/21	8.0	8.1
Continued	05/11/21	7.9	7.8
Continued	05/18/21	8.6	8.0
Continued	05/25/21	8.2	8.2
Continued	06/01/21	7.5	8.1
Continued	06/08/21	7.6	8.0
Continued	06/15/21	8.3	7.9
Continued	06/22/21	8.4	8.0
Continued	06/29/21	8.2	8.1
Continued	07/06/21	7.4	8.1
Continued	07/13/21	7.5	7.9
Continued	07/20/21	6.5	7.4
Continued	07/27/21	8.1	7.4
Continued	08/03/21	7.6	7.4
Continued	08/10/21	8.6	7.7
Continued	08/17/21	7.0	7.8

Sample	Date	RW Blend (ng/L)	4-week avg (ng/L)
Continued	08/24/21	10	9.2
Continued	08/31/21	9.5	10
Continued	09/07/21	7.9	9.2
Continued	09/14/21	12	10
Continued	09/21/21	10	10
Continued	09/28/21	7.4	9.3
Continued	10/05/21	7.3	9.2
Continued	10/12/21	7.8	8.1
Continued	10/19/21	10	8.1
Continued	10/26/21	12	9.3
Continued	11/02/21	8.1	9.5
Continued	11/09/21	7.5	9.4
Continued	11/17/21	6.7	8.6
Continued	11/23/21	9.5	8.0
Continued	11/30/21	9.3	8.3
Continued	12/07/21	6.1	7.9
Continued	12/14/21	11	9.0
Continued	12/21/21	11	9.4
Continued	12/28/21	11	9.8

Sample	Date	001B Eff (ng/L)	4-week avg (ng/L)
Continued	08/24/21	6.2	7.4
Continued	08/31/21	6.8	7.2
Continued	09/07/21	6.4	6.6
Continued	09/14/21	7.9	6.8
Continued	09/21/21	7.0	7.0
Continued	09/28/21	7.2	7.1
Continued	10/05/21	7.2	7.3
Continued	10/12/21	7.0	7.1
Continued	10/19/21	7.6	7.3
Continued	10/26/21	7.8	7.4
Continued	11/02/21	7.1	7.4
Continued	11/09/21	6.9	7.4
Continued	11/17/21	7.1	7.2
Continued	11/23/21	6.8	7.0
Continued	11/30/21	6.4	6.8
Continued	12/07/21	5.6	6.5
Continued	12/14/21	5.5	6.1
Continued	12/21/21	5.7	5.8
Continued	12/28/21	6.9	5.9

## 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 4Q21 are summarized in Table 2-5a. The table includes surface water and lysimeter data at the 25-foot depth for Brooks and Declez Basin. 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 compliance is at Brooks (TN only) and Declez Basins. There were no exceedances of TN and TOC limits at Brooks and Declez Basins based on sampling at the surface lysimeter and/or the lysimeter at 25-ft bgs. Please note that as part of the Compliance Assessment Report comments, the DDW has requested that the TN limit of 10 mg/L be met at the recycled water and not using lysimeter data or an alternative monitoring reduction factor. The recycled water monitoring has met the TN compliance for 4Q21 as demonstrated in Table 2-1.

## 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 established upon development of a soil-aquifer treatment factor using recharge demonstration studies. The alternative monitoring plans can be determined in the basin Start-up Period Reports or First Year Operations Reports. The alternative TOC and TN monitoring plans approved by the Regional Board and DDW include alternative monitoring locations that include: sampling at a recycled water distribution turnout with the application of a correction factor; monitoring at one basin

lysimeter; and/or monitoring at a basin monitoring well. The following are the alternative monitoring plans for each basin:

- Banana Basin: Sampling at the RW Blend with a correction factor of 80 percent for TOC and 47 percent for TN
- Hickory Basin: Sampling at the RW Blend with a correction factor of 81 percent for TOC and 27 percent for TN
- Turner Basins 1 & 2: Sampling at the RW Blend with a correction factor of 70 percent for TOC and 87 percent for TN
- Turner Basins 3 & 4: Sampling at the RW Blend with a correction factor of 85 percent for TOC and 87 percent for TN
- Ely Basins: Sampling 001B Effluent with a correction factor of 76 percent for TOC and 52 percent for TN
- RP3 Basin: Sampling at the RW Blend with a correction factor of 88 percent for TOC and 31 percent for TN
- 7<sup>th</sup> & 8<sup>th</sup> Street Basin: Sampling at the RW Blend with a correction factor of 88 percent for TOC and 75 percent for TN
- Victoria Basin: Sampling at the RW Blend with a correction factor of 78 percent for TOC and 82 percent for TN
- Brooks Basin: Sampling at the 25-foot lysimeter is the compliance point for TN, and sampling at well BRK-1/1 is the compliance point for TOC
- Declez Basin: Sampling at the RW Blend with a correction factor of 62 percent for TOC and 91 percent for TN

During 4Q21, there were no exceedances of TOC and TN at the basins that have implemented alternative monitoring plans.

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. As part of the CAR review, the DDW identified that the TN limit could not be met using a reduction factor we had previously established for alternative monitoring. The DDW clarified that the 10 mg/L TN limit from the GRRP regulations would need to be met at the recycled water. However, due to ongoing work with the Regional Board, the alternative monitoring using the reduction factor will continue to be reported for the Regional Board.

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.

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 San Sevaire 5 (no longer being recharged with recycled water) 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.”

## D. Diluent Water

In addition to recycled water recharge, the two other recharge 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 4Q21, diluent water quality sampling of four storm water sites were conducted during the month of December 2021. Table 2-7a lists the results of the local runoff and stormwater sampling and analyses. The maximum level to trigger a source water evaluation has been exceeded the primary MCL for aluminum; secondary MCLs for aluminum, iron, and manganese; and the notification level for PFOA. IEUA has submitted a preliminary evaluation of potential source for all the contaminants where concentrations exceed the maximum level to trigger a source evaluation as part of the CAR and is awaiting a response from DDW regarding the need to complete a source water evaluation.

State Water Project water was delivered as diluent water during 4Q21 to Turner Basins 1&2. Table 2-7b lists the results from Metropolitan Water District's (MWD) general mineral and physical analysis of source water from Silverwood Lake.

## 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, Declez, RP3, 7<sup>th</sup> & 8<sup>th</sup> Street, Brooks, San Sevaine, Victoria, and Ely 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 2-9.

Any 4Q21 sample which exceeded primary or secondary MCLs are shown in Table 2-9 in magenta (primary MCL) and green (secondary MCL) 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. In 4Q21, the following constituents were detected above the MCLs:

### Primary MCL Exceedance

- NO<sub>3</sub>-N samples collected from monitoring wells at RP3, Brooks, and Ely Basins were detected above the primary MCL of 10 mg/L. The NO<sub>3</sub>-N concentrations at these wells range from 10 to 23 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.

#### Secondary MCL Exceedances

- The secondary MCL for turbidity of 5 NTU was exceeded at the following four monitoring wells in the 4Q21 monitoring period: 8TH-1/1, 8TH-1/2, 8TH-2/2, and SSV-2.
- The secondary MCL for manganese of 50 µg/L was exceeded at RP3-1/1.
- The secondary MCL for pH was exceeded at Pomona Well No. 10.
- TDS and EC were higher than their secondary MCLs of 500 mg/L and 900 µmhos/cm, respectively, in ALCOA MW3 and Southridge JHS. The wells 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.

The current State of the Basin Report, which is the "Chino Basin Optimum Basin Management Program 2020 State of the Basin Report" published in June 2021 was prepared by West Yost Associates for the CBWM. The 2020 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 Toxic 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.

Basins	Monitoring Well (A)	Monitoring Well (B)
7 <sup>th</sup> & 8 <sup>th</sup> Street	8TH-1/2	8TH-2/1
Banana & Hickory	BH-1/2	Reliant Energy – East Well (currently out of service)
Brooks	BRK-1/1	BRK-2/1
Ely	Ely MW1 (currently out of service)	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 GWR staff records the daily volumes of water routed to the recharge basins. The 7<sup>th</sup> & 8<sup>th</sup> Street, Banana, Brooks, Declez, Hickory, Ely, RP3, San Sevaine, Turner, and Victoria Basins received recycled water this quarter. Table 3-1 lists the volumes of recycled water and diluent water (local runoff, stormwater, and/or imported water) captured during the most recent four quarters at the basins that have initiated recharge using recycled water.

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

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

Several monitoring wells were not sampled during 4Q21: Ely MW1 well is damaged and requires replacement; Ontario Well 25 was taken out of service indefinitely by the DDW; Ontario Well 29 was not operational during 4Q21; Pomona Well 34 was having issues that were not resolved during 4Q21; and JCSD 17 is out of service due to water quality issues.

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

Watermaster has certified that there was no reported pumping of groundwater in 4Q21 for domestic or municipal use from the buffer zones that extend 500 feet and 6 months underground travel time from the 7<sup>th</sup> & 8<sup>th</sup> Street, Banana, Brooks, 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 June 2019, MVWD restarted injection activities for the first time since May 2018. The injection activities continued through 4Q19. 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 for the last year.

Table 2-1a  
Recycled Water Monitoring: RP-1 & RP-4 Effluent Water Quality for October 2021  
(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>		10 / 5 <sup>6</sup>		6<pH<9				2.2;23;240	2.5;10	16 <sup>5</sup>		10 / 5 <sup>6</sup>		6<pH<9				2.2;23;240
10/01/21	0.5	6.6				7.0	791			<1	0.5	4.9				7.1	748			<1
10/02/21	0.5	6.7				7.1	801			<1	0.5	5.4				7.1	754			<1
10/03/21	0.5	7.0	4.4	4.4	4.4	7.0	780	470	140	1	0.5	5.2	4.2	4.2	4.3	7.1	761	446	131	<1
10/04/21	0.5	6.6				7.0	773			1	0.6	5.2				7.2	755			<1
10/05/21	0.5	7.0				7.0	780			<1	0.6	5.4				7.2	753			<1
10/06/21	0.6	7.3	4.0			7.0	831			<1	0.5	5.3	5.5			7.2	747			<1
10/07/21	0.6	6.9				7.1	833			<1	0.5	5.2				7.2	741			<1
10/08/21	0.6	6.1				7.1	824			<1	0.5	4.6				7.2	745			<1
10/09/21	0.6	6.5				7.1	854			<1	0.5	4.6				7.2	751			<1
10/10/21	0.6	6.0	3.9	3.9	4.0	7.1	832	472		<1	0.5	4.9	4.4	4.6	4.5	7.2	760	456		<1
10/11/21	0.7	6.8				7.0	810			1	0.5	5.4				7.2	742			<1
10/12/21	0.7	7.0				7.1	852			<1	0.5	5.4				7.2	767			<1
10/13/21	0.7	6.9	2.9		2.9	7.1	876			<1	0.5	5.3	5.0		5.1	7.2	762			<1
10/14/21	0.6	6.8				7.1	881			<1	0.5	5.1				7.1	766			<1
10/15/21	0.5	6.1				7.1	889			<1	0.5	5.7				7.2	771			<1
10/16/21	0.5	6.4				7.1	903			<1	0.5	4.8				7.2	772			<1
10/17/21	0.5	6.9	3.5	3.5	3.5	7.1	877	466		<1	0.5	5.0	4.3	4.6	4.3	7.2	774	464		<1
10/18/21	0.5	6.8				7.1	857			<1	0.5	5.4				7.1	770			<1
10/19/21	0.6	6.8				7.0	857			<1	0.5	5.4				7.1	774			<1
10/20/21	0.5	6.7	2.8		2.8	7.0	849			<1	0.4	5.4	5.6		5.6	7.0	771			<1
10/21/21	0.5	6.9				7.0	855			<1	0.4	5.5				7.0	774			<1
10/22/21	0.6	6.4				7.0	855			<1	0.4	5.2				7.0	776			<1
10/23/21	0.6	6.5				7.1	898			2	0.4	5.2				7.1	759			<1
10/24/21	0.7	7.2	2.1	2.1	2.1	7.1	885	454		<1	0.4	5.7	3.9	4.7	4.0	7.1	764	444		<1
10/25/21	0.9	7.5				7.0	806			<1	0.4	6.1				7.1	761			<1
10/26/21	0.8	6.9				7.0	745			3	0.4	5.7				7.1	768			<1
10/27/21	0.6	7.3	2.7		2.7	7.0	760			2	0.4	5.7	4.2		4.2	7.0	767			<1
10/28/21	0.6	7.3				7.0	767			<1	0.4	5.8				7.0	771			<1
10/29/21	0.5	6.2				6.9	786			<1	0.4	5.4				7.1	768			<1
10/30/21	0.5	7.4				7.0	774			<1	0.3	5.2				7.1	769			<1
10/31/21	0.5	7.4	3.0	3.0	3.0	7.0	757	450		<1	0.3	5.7	3.4	3.7	3.4	7.1	771	462		<1
Avg	0.6	6.8	3.3	3.4	3.2	7.0	827	462	140	<1	0.5	5.3	4.5	4.4	4.4	7.1	762	454	131	<1
Min	0.5	6.0	2.1	2.1	2.1	6.9	745	450	140	<1	0.3	4.6	3.4	3.7	3.4	7.0	741	444	131	<1
Max	0.9	7.5	4.4	4.4	4.4	7.1	903	472	140	3	0.6	6.1	5.6	4.7	5.6	7.2	776	464	131	<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> DDW limit is 10 mg/L, TN compliance met in RW / RWQCB limit is 5 mg/L, TN compliance met at a point prior to reaching the regional groundwater table, including lysimeters, or reduction factors

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

Table 2-1b  
Recycled Water Monitoring: RP-1 & RP-4 Effluent Water Quality for November 2021  
(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	NTU	mg/L	mg/L	mg/L	mg/L	unit	µhmo/cm	mg/L	mg/L	mpn/100mL	NTU	mg/L	mg/L	mg/L	mg/L	unit	µhmo/cm	mg/L	mg/L	mpn/100mL
	2.5;10	16 <sup>5</sup>		10 / 5 <sup>6</sup>		6<pH<9				2.2;23;240	2.5;10	16 <sup>5</sup>		10 / 5 <sup>6</sup>		6<pH<9				2.2;23;240
11/01/21	0.7	7.9				7.0	758			<1	0.3	5.8				7.1	775			<1
11/02/21	0.7	7.7				7.0	788			<1	0.3	5.9				7.1	782			<1
11/03/21	0.7	8.0	2.3		2.3	7.0	816			<1	0.4	6.0	6.8		6.9	7.1	790			<1
11/04/21	0.7	8.0				7.0	820			<1	0.4	6.2				7.0	796			<1
11/05/21	0.7	7.1				6.9	845			<1	0.4	5.3				7.1	781			<1
11/06/21	0.7	7.1				7.0	806			1	0.4	5.3				7.1	779			<1
11/07/21	0.8	8.1	3.2	3.2	3.2	7.0	785	470	146	<1	0.4	6.0	4.3	4.6	4.3	7.2	782	416	137	<1
11/08/21	0.9	8.3				7.0	764			<1	0.4	6.2				7.2	779			<1
11/09/21	0.9	8.2				6.9	763			1	0.4	5.9				7.2	782			<1
11/10/21	0.8	7.9	4.1		4.1	7.0	773			<1	0.4	5.9	4.3		4.4	7.1	777			<1
11/11/21	0.7	8.4				7.0	772			<1	0.4	5.4				7.1	778			<1
11/12/21	0.7	8.1				7.0	775			<1	0.4	5.8				7.1	779			<1
11/13/21	0.8	7.9				7.0	783			<1	0.4	5.6				7.1	783			<1
11/14/21	1.0	8.8	4.3	4.3	4.3	7.0	763	480		<1	0.4	6.0	3.2	3.7	3.2	7.1	778	456		<1
11/15/21	1.1	9.0				6.9	772			2	0.5	5.8				7.1	778			<1
11/16/21	1.0	8.7				7.0	752			<1	0.5	5.6				7.2	797			<1
11/17/21	1.0	8.8	4.1		4.1	7.0	754			1	0.5	5.7	3.7		3.8	7.1	793			<1
11/18/21	0.9	8.5				7.0	755			<1	0.5	5.3				7.1	791			<1
11/19/21	0.8	8.8				7.0	758			<1	0.4	5.5				7.2	818			<1
11/20/21	0.8	7.6				7.0	769			<1	0.4	5.0				7.2	783			<1
11/21/21	0.8	8.4	4.1	4.1	4.1	7.0	756	452		<1	0.4	5.7	3.2	3.5	3.2	7.2	779	432		<1
11/22/21	0.8	8.6				7.0	764			<1	0.4	5.6				7.2	779			<1
11/23/21	0.8	8.1				6.9	764			<1	0.4	5.4				7.2	779			<1
11/24/21	0.7	7.7				6.9	776			<1	0.4	5.0				7.2	781			<1
11/25/21	0.7	7.8				7.0	759			<1	0.4	0.0				7.3				<1
11/26/21	0.6	7.2				6.9	747			<1	0.4	5.0				7.2	790			<1
11/27/21	0.6	7.7				6.9	766			<1	0.4	6.2				7.1	807			1
11/28/21	0.6	8.1	5.7	5.7	6.0	6.9	757	462		<1	0.4	5.8	3.5	4.4	3.6	7.2	814	472		<1
11/29/21	0.6	8.5				6.8	734			<1	0.4	6.1				7.2	812			<1
11/30/21	0.7	8.8				6.9	742			<1	0.4	6.1				7.2	805			<1
Avg	0.8	8.1	4.0	4.3	4.0	7.0	771	466	146	<1	0.4	5.5	4.1	4.0	4.2	7.2	788	444	137	<1
Min	0.6	7.1	2.3	3.2	2.3	6.8	734	452	146	<1	0.3	0.0	3.2	3.5	3.2	7.0	775	416	137	<1
Max	1.1	9.0	5.7	5.7	6.0	7.0	845	480	146	2	0.5	6.2	6.8	4.6	6.9	7.3	818	472	137	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> DDW limit is 10 mg/L, TN compliance met in RW / RWQCB limit is 5 mg/L, TN compliance met at a point prior to reaching the regional groundwater table, including lysimeters, or reduction factors

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

Table 2-1c  
Recycled Water Monitoring: RP-1 & RP-4 Effluent Water Quality for December 2021  
(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	NTU	mg/L	mg/L	mg/L	mg/L	unit	µhmo/cm	mg/L	mg/L	mpn/100mL	NTU	mg/L	mg/L	mg/L	mg/L	unit	µhmo/cm	mg/L	mg/L	mpn/100mL
	2.5;10	16 <sup>5</sup>		10 / 5 <sup>6</sup>		6<pH<9				2.2;23;240	2.5;10	16 <sup>5</sup>		10 / 5 <sup>6</sup>		6<pH<9				2.2;23;240
12/01/21	0.7	8.8	0.2		0.2	6.9	757			<1	0.4	5.8	4.8		4.8	7.1	799			<1
12/02/21	0.7	8.9				6.8	770			<1	0.4	5.2				7.1	799			<1
12/03/21	0.8	7.5				6.9	764			<1	0.4	5.0				7.1	795			<1
12/04/21	0.9	7.8				6.9	777			1	0.4	5.1				7.1	789			<1
12/05/21	0.8	7.6	4.1	4.1	4.1	6.9	786	494	155	<1	0.4	5.3	3.8	4.4	3.9	7.1	790	484	135	<1
12/06/21	0.8	7.5				6.9	779			1	0.4	5.4				7.1	793			<1
12/07/21	0.8	7.8				6.9	762			<1	0.5	5.4				7.1	788			<1
12/08/21	0.8	7.6	3.8		3.8	7.0	744			<1	0.5	5.2	4.2		4.2	7.1	780			<1
12/09/21	0.8	7.4				7.0	744			1	0.5	5.2				7.1	772			<1
12/10/21	0.8	7.3				7.0	745			<1	0.4	5.1				7.1	772			<1
12/11/21	0.8	7.2				7.0	756			<1	0.4	5.1				7.1	762			<1
12/12/21	0.7	7.2	4.0	4.0	4.0	6.9	758	460		<1	0.4	5.0	3.7	4.2	3.7	7.1	764	460		<1
12/13/21	0.7	7.3				6.9	714			<1	0.4	5.3				7.1	758			<1
12/14/21	0.7	7.2				6.9	705			1	0.6	5.3				7.1	775			<1
12/15/21	0.6	6.7	3.3		3.3	6.8	660			1	0.4	4.9	4.7		4.7	7.0	721			<1
12/16/21	0.6	7.0				6.8	712			<1	0.4	5.2				7.0	747			<1
12/17/21	0.6	6.8				6.9	743			<1	0.4	5.1				7.0	762			<1
12/18/21	0.6	6.9				6.8	763			<1	0.4	5.1				7.1	773			<1
12/19/21	0.7	6.9	3.8	3.8	3.8	6.8	751	484		<1	0.4	5.2	4.0	4.0	4.0	7.1	775	438		<1
12/20/21	0.7	7.2				6.8	740			<1	0.4	5.5				7.1	779			<1
12/21/21	0.7	7.0				6.8	753			<1	0.4	5.4				7.1	787			<1
12/22/21	0.7	6.7	3.6		3.6	6.8	762			<1	0.4	5.1	3.7		3.7	7.1	794			<1
12/23/21	0.7	7.0				6.8	735			<1	0.5	5.2				7.0	791			<1
12/24/21	0.6	5.8				6.7	616			<1	0.5	5.2				7.0	705			<1
12/25/21	0.6	6.1				6.7	613			4.1	0.5	5.1				7.0	719			<1
12/26/21	0.6	6.6				6.8	642			<1	0.5	5.4				7.0	758			<1
12/27/21	0.8	7.6	4.6			6.8	673			<1	0.5	5.9	3.0			7.0	777			<1
12/28/21	0.8	7.4				6.8	684			<1	0.5	5.7				7.0	771			<1
12/29/21	0.9	7.6	3.8	3.8	3.8	6.9	692	460		<1	0.5	5.6	3.8	4.0	3.8	7.0	778	440		<1
12/30/21	0.8	7.3				6.9	685			1	0.5	5.4				7.0	751			<1
12/31/21	0.7	7.1				6.9	681			<1	0.4	5.4				7.0	733			<1
Avg	0.7	7.2	3.5	3.9	3.3	6.9	725	475	155	<1	0.4	5.3	4.0	4.2	4.1	7.1	770	456	135	<1
Min	0.6	5.8	0.2	3.8	0.2	6.7	613	460	155	<1	0.4	4.9	3.0	4.0	3.7	7.0	705	438	135	<1
Max	0.9	8.9	4.6	4.1	4.1	7.0	786	494	155	4	0.6	5.9	4.8	4.4	4.8	7.1	799	484	135	<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> DDW limit is 10 mg/L, TN compliance met in RW / RWQCB limit is 5 mg/L, TN compliance met at a point prior to reaching the regional groundwater table, including lysimeters, or reduction factors

<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)

	TIN		TDS	
Date	Monthly	12-Mo. Run Avg.	Monthly	12-Mo. Run Avg.
Jan-21	4.4	4.3	491	486
Feb-21	3.6	4.2	498	488
Mar-21	3.6	4.2	506	489
Apr-21	4.6	4.3	493	488
May-21	5.3	4.3	500	488
Jun-21	4.9	4.4	498	489
Jul-21	4.7	4.4	498	490
Aug-21	4.1	4.3	497	491
Sep-21	4.3	4.4	486	492
Oct-21	3.6	4.3	483	492
Nov-21	4.4	4.3	486	493
Dec-21	4.1	4.3	493	494
Avg	4.3	4.3	494	490
Min	3.6	4.2	483	486
Max	5.3	4.4	506	494
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 2-3a  
Recycled Water Monitoring - RW Blend (RP1/RP-4): Primary & Secondary Maximum Contaminant Levels  
(Recycled Water Quality Specifications A.1, A.2, A.3, A.4 & A.15)

Constituent	1Q21	2Q21	3Q21	4Q21	4Q Run. Avg. <sup>1</sup>	Limit	Unit	Method
Inorganic Chemicals								
Aluminum	184	67	107	82	110	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	NR	NR	NR	NR	<2	7	MFL	EPA 100.2
Barium	26	21	19	15	20	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	<0.5	<2	<2	<2	<2	50	µg/L	EPA 200.8
Chromium VI <sup>2</sup>	0.3	0.4	0.3	0.3	0.32	10	µg/L	EPA 218.6
Cyanide	<20	<20	<20	<20	<20	150	µg/L	OIA-1677, DW
Fluoride	0.2	0.2	0.2	0.2	0.2	2	mg/L	SM 4500-F C
Mercury	<0.5	<0.5	<0.5	<0.5	<0.5	2	µg/L	EPA 245.1
Nickel	3	3	3	2	3	100	µg/L	EPA 200.8
Perchlorate	<4	<4	<2	<2	<3	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
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-Dichloropropane	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	µg/L	EPA 524.2
Ethylbenzene	<0.5	<0.5	<0.5	<0.5	<0.5	300	µg/L	EPA 524.2
Monochlorobenzene	<0.5	<0.5	<0.5	<0.5	<0.5	70	µg/L	EPA 524.2
Methyl-tert-butyl ether	<0.5	<0.5	<0.5	<0.5	<0.5	13	µg/L	EPA 524.2
Styrene	<0.5	<0.5	<0.5	<0.5	<0.5	100	µg/L	EPA 524.2
1,1,2,2-Tetrachloroethane	<0.5	<0.5	<0.5	<0.5	<0.5	1	µg/L	EPA 524.2
Tetrachloroethylene	<0.5	<0.5	<0.5	<0.5	<0.5	5	µg/L	EPA 524.2
Toluene	<0.5	0.6	0.6	0.6	0.6	150	µg/L	EPA 524.2
1,2,4-Trichlorobenzene	<0.5	<0.5	<0.5	<0.5	<0.5	5	µg/L	EPA 524.2
1,1,1-Trichloroethane	<0.5	<0.5	<0.5	<0.5	<0.5	200	µg/L	EPA 524.2
1,1,2-Trichloroethane	<0.5	<0.5	<0.5	<0.5	<0.5	5	µg/L	EPA 524.2
Trichloroethylene	<0.5	<0.5	<0.5	<0.5	<0.5	5	µg/L	EPA 524.2
Trichlorofluoromethane	<0.5	<0.5	<0.5	<0.5	<0.5	150	µg/L	EPA 524.2
1,1,2-Trichloro-1,2,2-Trifluoroethane	<0.5	<0.5	<0.5	<0.5	<0.5	1200	µg/L	EPA 524.2
Vinyl Chloride	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	µg/L	EPA 524.2
m,p-Xylene	<0.5	<0.5	<0.5	<0.5	<0.5	1750 <sup>3</sup>	µg/L	EPA 524.2
o-Xylene	<0.5	<0.5	<0.5	<0.5	<0.5		µg/L	EPA 524.2
1,2,3-Trichloropropane (added 7/2017)	<0.005	see 2Q21 text	see 3Q21 text	see 4Q21 text	<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	<0.5	<0.5	<0.5	<0.5	1	µg/L	EPA 525.2
Bentazon	<0.5	<0.5	<0.5	<0.5	<0.5	18	µg/L	EPA 515.4
Benzo(a)pyrene	<0.02	<0.1	<0.1	<0.1	<0.1	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	7	5	<1	4	4	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	<0.5	<0.5	<0.5	<0.6	400	µg/L	EPA 525.2
Di(2-ethylhexyl)phthalate	<0.6	<0.5	<0.5	<0.5	<0.6	4	µg/L	EPA 525.2
Dinoseb	<0.2	<0.2	<0.2	<0.2	<0.2	7	µg/L	EPA 515.4
Diquat	<0.4	<0.4	<0.4	<0.4	<0.4	20	µg/L	EPA 549.2
Endothall	<5	<5	<5	<5	<5	100	µg/L	EPA 548.1
Endrin	<0.01	<0.01	<0.01	<0.01	<0.01	2	µg/L	EPA 505

Table 2-3a  
Recycled Water Monitoring - RW Blend (RP1/RP-4): Primary & Secondary Maximum Contaminant Levels  
(Recycled Water Quality Specifications A.1, A.2, A.3, A.4 & A.15)

Constituent	1Q21	2Q21	3Q21	4Q21	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	<6	<6	700	µg/L	EPA 547
Heptachlor	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	µg/L	EPA 505
Heptachlor Epoxide	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	µg/L	EPA 505
Hexachlorobenzene	<0.05	<0.5	<0.5	<0.5	<0.5	1	µg/L	EPA 525.2
Hexachlorocyclopentadiene	<0.05	<0.5	<0.5	<0.5	<0.5	50	µg/L	EPA 525.2
Lindane	<0.01	<0.01	<0.01	<0.01	<0.01	0.2	µg/L	EPA 505
Methoxychlor	<0.05	<0.05	<0.05	<0.05	<0.05	30	µg/L	EPA 505
Molinate	<0.1	<0.5	<0.5	<0.5	<0.5	20	µg/L	EPA 525.2
Oxamyl	<0.5	<0.5	<0.5	<0.5	<0.5	50	µg/L	EPA 531.2
Pentachlorophenol	<0.04	<0.04	<0.04	<0.04	<0.04	1	µg/L	EPA 515.4
Picloram	<0.1	<0.1	<0.1	<0.1	<0.1	500	µg/L	EPA 515.4
PCB 1016	<0.08	<0.08	<0.08	<0.08	<0.08	0.5	µg/L	EPA 505
PCB 1221	<0.1	<0.1	<0.1	<0.1	<0.1	0.5	µg/L	EPA 505
PCB 1232	<0.1	<0.1	<0.1	<0.1	<0.1	0.5	µg/L	EPA 505
PCB 1242	<0.1	<0.1	<0.1	<0.1	<0.1	0.5	µg/L	EPA 505
PCB 1248	<0.1	<0.1	<0.1	<0.1	<0.1	0.5	µg/L	EPA 505
PCB 1254	<0.1	<0.1	<0.1	<0.1	<0.1	0.5	µg/L	EPA 505
PCB 1260	<0.1	<0.1	<0.1	<0.1	<0.1	0.5	µg/L	EPA 505
Simazine	<0.05	<0.5	<0.5	<0.5	<0.5	4	µg/L	EPA 525.2
Thiobencarb	<0.2	<0.5	<0.5	<0.5	<0.5	70	µg/L	EPA 525.2
Toxaphene	<0.5	<0.5	<0.5	<0.5	<0.5	3	µg/L	EPA 505
2,3,7,8-TCDD (Dioxin)	<5	<5	<5	<5	<5	30	pg/L	EPA 1613
2,4,5-TP (Silvex)	<0.2	<0.2	<0.2	<0.2	<0.2	50	µg/L	EPA 515.4
Action Level Chemicals								
Copper	7.0	5.0	2.9	2.9	4.5	1300	µg/L	EPA 200.8
Lead	<0.5	<0.5	<0.5	1.0	<0.6	15	µg/L	EPA 200.8
Radionuclides								
Combined Radium-226 and Radium 228	<3	<3	<3	<3	<3	5	pCi/L	EPA 903.0
Gross Alpha Particle Activity	<3	<3	<3	<3	<3	15	pCi/L	EPA 900.0/SM7110C
Tritium	<341	<365	<500	<1000	<1000	20,000	pCi/L	EPA 906
Strontium-90	<1	<3	<0.364	<0.94	<3	8	pCi/L	EPA 905
Gross Beta Particle Activity	13	18	14	12	14	50	pCi/L	EPA 900.0
Uranium	<0.7	<0.7	<1	<1	<1	20	pCi/L	EPA 200.8
Secondary Maximum Contaminant Level Chemicals								
Aluminum	184	67	107	82	110	200	µg/L	EPA 200.8
Copper	7.0	5.0	2.9	2.9	4.5	1000	µg/L	EPA 200.8
Corrosivity	0.4 (Non-Cor.)	0.4 (Non-Cor.)	0.3 (Non-Cor.)	-0.6 (Non-Cor.)	Non-Cor.	Non-Cor.	SI	SM 2330B
Foaming Agents (MBAS) <sup>4</sup>	<0.1	<0.1	<0.1	<0.1	<0.1	0.5	mg/L	S5540C/EPA 425.1
Iron <sup>4</sup>	<15	59	81	87	73	300	µg/L	EPA 200.7
Manganese	18	9	16	11	14	50	µg/L	EPA 200.8
Methyl-tert-butyl ether (MTBE)	<0.5	<0.5	<0.5	<0.5	<0.5	5	µg/L	EPA 524.2
Odor--Threshold	NR	1.4	2	2	2	3	TON	SM 2150B
Silver	<0.25	<0.25	<0.25	<0.25	<0.25	100	µg/L	EPA 200.8
Thiobencarb	<0.2	<0.5	<0.2	<0.5	<0.5	1	µg/L	EPA 525.2
Zinc	67	51	41	30	47	5000	µg/L	EPA 200.8
Miscellaneous Regulated Constituents								
Oil & Grease <sup>5</sup>	3	<1	<1	1	--	1	mg/L	EPA 1664
Disinfection Byproducts								
Bromate	<1	<1	<1	<1	<1	10	µg/L	EPA 300.1/317
Chlorite	0.02	<0.01	<0.01	<0.01	<0.01	1	mg/L	EPA 300.0
Alternative Compliance Point Data	SS2-LYS-25	DCZ2-LYS-25	DCZ2-LYS-25	DCZ2-LYS-25	<==TTHMs			
	SS2-LYS-25	DCZ2-LYS-25	DCZ2-LYS-25	DCZ2-LYS-25	<==HAA5			
	1Q21	2Q21	3Q21	4Q21				
Total Trihalomethanes (TTHMs)	<2	36	<2	<2	<11	80	µg/L	EPA 524.2
Total Haloacetic Acids (HAA5)	<2	<2	<2	<2	<2	60	µg/L	S6251B

NR: Not required this quarter

NA: Not analyzed

<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> 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>5</sup> Oil & Grease compliance determination not based on 4-quarter running average

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

Table 2-3b  
Recycled Water Monitoring - RP-1 (001B Effluent): Primary & Secondary Maximum Contaminant Levels  
(Recycled Water Quality Specifications A.1, A.2, A.3, A.4 & A.15)

Constituent	1Q21	2Q21	3Q21	4Q21	4Q Run. Avg. <sup>1</sup>	Limit	Unit	Method
Inorganic Chemicals								
Aluminum	141	41	131	150	116	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	NR	NR	NR	NR	<0.2	7	MFL	EPA 100.2
Barium	18	16	14	20	17	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	<0.5	<0.5	0.6	1.0	0.7	50	µg/L	EPA 200.8
Chromium VI <sup>2</sup>	0.2	0.3	0.3	0.2	0.2	10	µg/L	EPA 218.6
Cyanide	<20	<20	<20	<20	<20	150	µg/L	OIA-1677, DW
Fluoride	0.2	0.2	0.2	0.2	0.2	2	mg/L	SM 4500-F C
Mercury	<0.025	<0.025	<0.025	<0.025	<0.025	2	µg/L	EPA 245.1
Nickel	3	4	4	4	4	100	µg/L	EPA 200.8
Perchlorate	<4	<4	<2	<2	<3	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
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-Dichloropropane	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	µg/L	EPA 524.2
Ethylbenzene	<0.5	<0.5	<0.5	<0.5	<0.5	300	µg/L	EPA 524.2
Monochlorobenzene	<0.5	<0.5	<0.5	<0.5	<0.5	70	µg/L	EPA 524.2
Methyl-tert-butyl ether	<0.5	<0.5	<0.5	<0.5	<0.5	13	µg/L	EPA 524.2
Styrene	<0.5	<0.5	<0.5	<0.5	<0.5	100	µg/L	EPA 524.2
1,1,2,2-Tetrachloroethane	<0.5	<0.5	<0.5	<0.5	<0.5	1	µg/L	EPA 524.2
Tetrachloroethylene	<0.5	<0.5	<0.5	<0.5	<0.5	5	µg/L	EPA 524.2
Toluene	<0.5	1.0	<0.5	1.6	0.9	150	µg/L	EPA 524.2
1,2,4-Trichlorobenzene	1.0	<0.5	<0.5	<0.5	<0.6	5	µg/L	EPA 524.2
1,1,1-Trichloroethane	<0.5	<0.5	<0.5	<0.5	<0.5	200	µg/L	EPA 524.2
1,1,2-Trichloroethane	<0.5	<0.5	<0.5	<0.5	<0.5	5	µg/L	EPA 524.2
Trichloroethylene	<0.5	<0.5	<0.5	<0.5	<0.5	5	µg/L	EPA 524.2
Trichlorofluoromethane	<0.5	<0.5	<0.5	<0.5	<0.5	150	µg/L	EPA 524.2
1,1,2-Trichloro-1,2,2-Trifluoroethane	<0.5	<0.5	<0.5	<0.5	<0.5	1200	µg/L	EPA 524.2
Vinyl Chloride	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	µg/L	EPA 524.2
m,p-Xylene	<0.5	<0.5	<0.5	<0.5	<0.5	1750 <sup>3</sup>	µg/L	EPA 524.2
o-Xylene	<0.5	<0.5	<0.5	<0.5	<0.5		µg/L	EPA 524.2
1,2,3-Trichloropropane (added 7/2017)	<0.005	see 2Q21 text	see 3Q21 text	see 4Q21 text	<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	<0.5	<0.05	<0.5	<0.5	1	µg/L	EPA 525.2
Bentazon	<0.5	<0.5	<0.5	<0.5	<0.5	18	µg/L	EPA 515.4
Benzo(a)pyrene	<0.02	<0.1	<0.02	<0.1	<0.1	0.2	µg/L	EPA 525.2
Carbofuran	<0.5	<0.5	<0.5	<0.5	<0.5	18	µg/L	EPA 531.2
Chlordane	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	µg/L	EPA 505
2,4-D	<0.1	<0.1	<0.1	<0.1	<0.1	70	µg/L	EPA 515.4
Dalapon	4	4	5	4	4	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	<0.5	<0.6	<0.5	<0.6	400	µg/L	EPA 525.2
Di(2-ethylhexyl)phthalate	<0.6	<0.5	<0.6	<0.5	<0.6	4	µg/L	EPA 525.2
Dinoseb	<0.2	<0.2	<0.2	<0.2	<0.2	7	µg/L	EPA 515.4
Diquat	<0.4	<0.4	<0.4	<0.4	<0.4	20	µg/L	EPA 549.2
Endothall	<5	<5	<5	<5	<5	100	µg/L	EPA 548.1
Endrin	<0.01	<0.01	<0.01	<0.01	<0.01	2	µg/L	EPA 505

Table 2-3b  
Recycled Water Monitoring - RP-1 (001B Effluent): Primary & Secondary Maximum Contaminant Levels  
(Recycled Water Quality Specifications A.1, A.2, A.3, A.4 & A.15)

Constituent	1Q21	2Q21	3Q21	4Q21	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	<6	<6	700	µg/L	EPA 547
Heptachlor	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	µg/L	EPA 505
Heptachlor Epoxide	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	µg/L	EPA 505
Hexachlorobenzene	<0.05	<0.5	<0.05	<0.5	<0.5	1	µg/L	EPA 525.2
Hexachlorocyclopentadiene	<0.05	<0.5	<0.05	<0.5	<0.5	50	µg/L	EPA 525.2
Lindane	<0.01	<0.01	<0.01	<0.01	<0.01	0.2	µg/L	EPA 505
Methoxychlor	<0.05	<0.05	<0.05	<0.05	<0.05	30	µg/L	EPA 505
Molinate	<0.1	<0.5	<0.1	<0.5	<0.5	20	µg/L	EPA 525.2
Oxamyl	<0.5	<0.5	<0.5	<0.5	<0.5	50	µg/L	EPA 531.2
Pentachlorophenol	<0.04	<0.04	<0.04	<0.04	<0.04	1	µg/L	EPA 515.4
Picloram	<0.1	<0.1	<0.1	<0.1	<0.1	500	µg/L	EPA 515.4
PCB 1016	<0.08	<0.08	<0.08	<0.08	<0.08	0.5	µg/L	EPA 505
PCB 1221	<0.1	<0.1	<0.1	<0.1	<0.1	0.5	µg/L	EPA 505
PCB 1232	<0.1	<0.1	<0.1	<0.1	<0.1	0.5	µg/L	EPA 505
PCB 1242	<0.1	<0.1	<0.1	<0.1	<0.1	0.5	µg/L	EPA 505
PCB 1248	<0.1	<0.1	<0.1	<0.1	<0.1	0.5	µg/L	EPA 505
PCB 1254	<0.1	<0.1	<0.1	<0.1	<0.1	0.5	µg/L	EPA 505
PCB 1260	<0.1	<0.1	<0.1	<0.1	<0.1	0.5	µg/L	EPA 505
Simazine	<0.05	<0.5	<0.05	<0.5	<0.5	4	µg/L	EPA 525.2
Thiobencarb	<0.2	<0.5	<0.2	<0.5	<0.5	70	µg/L	EPA 525.2
Toxaphene	<0.5	<0.5	<0.5	<0.5	<0.5	3	µg/L	EPA 505
2,3,7,8-TCDD (Dioxin)	<5	<5	<5	<5	<5	30	pg/L	EPA 1613
2,4,5-TP (Silvex)	<0.2	<0.2	<0.2	<0.2	<0.2	50	µg/L	EPA 515.4
Action Level Chemicals								
Copper	3.3	7.1	4.8	2.6	4.5	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	<3	<3	<3	<3	<3	5	pCi/L	EPA 903.0
Gross Alpha Particle Activity	<3	<3	<3	<3	<3	15	pCi/L	EPA 900.0/SM7110C
Tritium	<353	<365	<500	<1000	<1000	20,000	pCi/L	EPA 906
Strontium-90	<1	<3	<0.396	<0.429	<3	8	pCi/L	EPA 905
Gross Beta Particle Activity	15	18	32	14	20	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	141	41	131	150	116	200	µg/L	EPA 200.8
Copper	3.3	7.1	4.8	2.6	4.5	1000	µg/L	EPA 200.8
Corrosivity	0.3 (Non-Cor.)	-0.1 (Non-Cor.)	-0.2 (Non-Cor.)	-0.4 (Non-Cor.)	Non-Cor.	Non-Cor.	SI	SM 2330B
Foaming Agents (MBAS) <sup>4</sup>	<0.1	<0.1	0.1	<0.1	<0.1	0.5	mg/L	S5540C/EPA 425.1
Iron <sup>4</sup>	<150	<150	<150	<150	47	300	µg/L	EPA 200.7
Manganese	11	14	7	9	10	50	µg/L	EPA 200.8
Methyl-tert-butyl ether (MTBE)	<0.5	<0.5	<0.5	<0.5	<0.5	5	µg/L	EPA 524.2
Odor--Threshold	NR	1.4	3	8	4	3	TON	SM 2150B
Silver	<0.25	<0.25	<0.25	<0.25	<0.25	100	µg/L	EPA 200.8
Thiobencarb	<0.2	<0.5	<0.2	<0.5	<0.5	1	µg/L	EPA 525.2
Zinc	26	39	40	38	36	5000	µg/L	EPA 200.8
Miscellaneous Regulated Constituents								
Oil & Grease <sup>5</sup>	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

NR: Not required this quarter

NA: Not analyzed

<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> 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>5</sup> Oil & Grease compliance determination not based on 4-quarter running average

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

Table 2-4a

Recycled Water Monitoring - RW Blend (RP1/RP-4): Remaining Priority Pollutants, EDCs & Pharmaceuticals, and Unregulated Chemicals  
(Monitoring & Reporting Program)

Constituent	4Q21	Unit	Method	Constituent	4Q21	Unit	Method
Volatile Organic Chemicals (VOCs)				Base/Neutral Extractibles			
Acrolein	<2	µg/L	EPA 624	N-Nitrosodiphenylamine	NR	µg/L	EPA 625
Acrylonitrile	<0.25	µg/L	EPA 624	Phenanthrene	NR	µg/L	EPA 625
Bromoform	<0.5	µg/L	EPA 524.2/624	Pyrene	NR	µg/L	EPA 625
Chlorodibromomethane	4.0	µg/L	EPA 524.2/624	Pesticides			
Chloroethane	<0.5	µg/L	EPA 524.2/624	Aldrin	<0.01	µg/L	EPA 505/525/608
2-Chloroethylvinylether	NR	µg/L	EPA 524.2/624	BHC, alpha isomer	NR	µg/L	EPA 525/608
Chloroform	74	µg/L	EPA 524.2/624	BHC, beta isomer	NR	µg/L	EPA 525/608
Dichlorobromomethane	24	µg/L	EPA 524.2/624	BHC, delta isomer	NR	µg/L	EPA 525/608
Methyl Bromide	<0.5	µg/L	EPA 524.2/624	4,4'-DDT	NR	µg/L	EPA 525/608
Methyl Chloride	<0.5	µg/L	EPA 524.2/624	4,4'-DDE	NR	µg/L	EPA 525/608
Acid Extractibles				4,4'-DDD	NR	µg/L	EPA 525/608
2-Chlorophenol	NR	µg/L	EPA 625	Dieldrin	<0.01	µg/L	EPA 505/525/608
2,4-Dichlorophenol	NR	µg/L	EPA 625	Endosulfan I	NR	µg/L	EPA 525/608
2,4-Dimethylphenol	NR	µg/L	EPA 625	Endosulfan II	NR	µg/L	EPA 525/608
2-Methyl-4,6-dinitrophenol	NR	µg/L	EPA 625	Endosulfan Sulfate	NR	µg/L	EPA 525/608
2,4-Dinitrophenol	NR	µg/L	EPA 625	Chemicals w/ State Notification Levels (NLs)			
2-Nitrophenol	NR	µg/L	EPA 625	Boron	0.3	mg/L	EPA 200.7
4-Nitrophenol	NR	µg/L	EPA 625	n-butylbenzene	<0.5	µg/L	EPA 524.2
4-Chloro-3-methylphenol	NR	µg/L	EPA 625	sec-butylbenzene	<0.5	µg/L	EPA 524.2
Phenol	NR	µg/L	EPA 625	tert-butylbenzene	<0.5	µg/L	EPA 524.2
2,4,6-Trichlorophenol	NR	µg/L	EPA 625	Carbon disulfide	<0.5	µg/L	EPA 524.2
Base/Neutral Extractibles				Chlorate* (RW Blend / DCZ-LYS-25)	503 / <10	µg/L	EPA 300.0
Acenaphthene	NR	µg/L	EPA 625	2-Chlorotoluene	<0.5	µg/L	EPA 524.2
Acenaphthylene	NR	µg/L	EPA 625	4-Chlorotoluene	<0.5	µg/L	EPA 524.2
Anthracene	NR	µg/L	EPA 625	Diazinon	<0.5	µg/L	EPA 525.2
Benzidine	NR	µg/L	EPA 625	Dichlorodifluoromethane (Freon 12)	<0.5	µg/L	EPA 524.2
Benzo(a)anthracene	NR	µg/L	EPA 625	1,4 - Dioxane	<1	µg/L	EPA 522
Benzo(b)fluoranthene	NR	µg/L	EPA 625	Ethylene glycol	<5	mg/L	EPA 8015B
Benzo(g,h,i)perylene	NR	µg/L	EPA 625	Formaldehyde	23	µg/L	EPA 556
Benzo(k)fluoranthene	NR	µg/L	EPA 625	HMX	<0.2	µg/L	EPA 8330B
Bis(2-chloroethoxy)methane	NR	µg/L	EPA 625	Isopropylbenzene	<0.5	µg/L	EPA 524.2
Bis(2-chloroethyl)ether	NR	µg/L	EPA 625	Manganese	11	µg/L	EPA 200.8
Bis(2-chloroisopropyl)ether	NR	µg/L	EPA 625	Methyl isobutyl ketone (MIBK)	<2	µg/L	EPA 524.2
4-Bromophenyl phenyl ether	NR	µg/L	EPA 625	Naphthalene	<0.3	µg/L	EPA 525.2/524.2
Butyl benzyl phthalate	NR	µg/L	EPA 625	N-Nitrosodiethylamine (NDEA)	<2	ng/L	EPA 521
2-Chloronaphthalene	NR	µg/L	EPA 625	N-Nitrosodimethylamine (NDMA)	2.1	ng/L	EPA 521
4-Chlorophenyl phenyl ether	NR	µg/L	EPA 625	N-Nitrosodi-n-propylamine (NDPA)	<2	ng/L	EPA 521
Chrysene	NR	µg/L	EPA 625	Perfluorooctanesulfonic acid (PFOS)	<2.0	ng/L	EPA 537.1
Dibenzo(a,h)anthracene	NR	µg/L	EPA 625	Perfluorooctanoic acid (PFOA)**	see report text	ng/L	EPA 537.1
1,3-Dichlorobenzene	NR	µg/L	EPA 625	Perfluorobutanesulfonic acid (PFBS)	<2.0	ng/L	EPA 537.1
3,3-Dichlorobenzidine	NR	µg/L	EPA 625	Propachlor	<0.5	µg/L	EPA 525.2
Diethyl phthalate	NR	µg/L	EPA 625	N-propylbenzene	<0.5	µg/L	EPA 524.2
Dimethyl phthalate	NR	µg/L	EPA 625	RDX	<0.2	µg/L	EPA 8330B
Di-n-butyl phthalate	NR	µg/L	EPA 625	Tertiary butyl alcohol	<2	µg/L	EPA 524.2
2,4-Dinitrotoluene	NR	µg/L	EPA 625	1,2,4-trimethylbenzene	<0.5	µg/L	EPA 524.2
2,6-Dinitrotoluene	NR	µg/L	EPA 625	1,3,5-trimethylbenzene	<0.5	µg/L	EPA 524.2
Di-n-octyl phthalate	NR	µg/L	EPA 625	2,4,6-Trinitrotoluene	<0.1	µg/L	EPA 8330B
Azobenzene	NR	µg/L	EPA 625	Vanadium	5	µg/L	EPA 200.8
Fluoranthene	NR	µg/L	EPA 625	Health-based and performance indicator CECs for Surface Application			
Fluorene	NR	µg/L	EPA 625	1,4 - Dioxane	<1	µg/L	EPA 522
Hexachlorobutadiene	NR	µg/L	EPA 625	N-nitrosodimethylamine (NDMA)	2.1	ng/L	EPA 521
Hexachlorocyclopentadiene	NR	µg/L	EPA 625	N-Nitrosomorpholine	5.2	ng/L	EPA 521
Hexachloroethane	NR	µg/L	EPA 625	Perfluorooctanesulfonic acid (PFOS)	<2.0	ng/L	EPA 537.1
Indeno(1,2,3-cd)pyrene	NR	µg/L	EPA 625	Perfluorooctanoic acid (PFOA)	see report text	ng/L	EPA 537.1
Isophorone	NR	µg/L	EPA 625	Gemfibrozil	<5	ng/L	LC-MS-MS
Naphthalene	NR	µg/L	EPA 625	Iohexol	5500	ng/L	LC-MS-MS
Nitrobenzene	NR	µg/L	EPA 625	Sucralose	87000	ng/L	LC-MS-MS
N-Nitroso-di-n-propylamine	NR	µg/L	EPA 625	Sulfamethoxazole	<5	ng/L	LC-MS-MS
				ER-α (RW Blend / RP3-1/1)	<0.5 / <0.5	ng/L	Trussell Tech
				AhR (method pending approval)	--	ng/L	Trussell Tech

NR: Not Required (Annual Requirement, Phase II FOF, Attachment A, Page 26, Item 19)

\*Pursuant to the GRRP regulations, recharge water may be monitored in lieu of recycled water.

\*\*PFOA is being analyzed weekly for the exceedance of the NL and is reported in Section 2A of this report

**Table 2-4b**  
**Recycled Water Monitoring - RP-1 (001B Effluent): Remaining Priority Pollutants, EDCs & Pharmaceuticals, and Unregulated Chemicals**  
**(Monitoring & Reporting Program)**

Constituent	4Q21	Unit	Method	Constituent	4Q21	Unit	Method
Volatile Organic Chemicals (VOCs)				Base/Neutral Extractibles			
Acrolein	<2	µg/L	EPA 624	N-Nitrosodiphenylamine	NR	µg/L	EPA 625
Acrylonitrile	<0.25	µg/L	EPA 624	Phenanthrene	NR	µg/L	EPA 625
Bromoform	<0.5	µg/L	EPA 524.2/624	Pyrene	NR	µg/L	EPA 625
Chlorodibromomethane	2.8	µg/L	EPA 524.2/624	Pesticides			
Chloroethane	<0.5	µg/L	EPA 524.2/624	Aldrin	<0.01	µg/L	EPA 505/608
2-Chloroethylvinylether	NR	µg/L	EPA 524.2/624	BHC, alpha isomer	NR	µg/L	EPA 525/608
Chloroform	76	µg/L	EPA 524.2/624	BHC, beta isomer	NR	µg/L	EPA 525/608
Dichlorobromomethane	19	µg/L	EPA 524.2/624	BHC, delta isomer	NR	µg/L	EPA 525/608
Methyl Bromide	<0.5	µg/L	EPA 524.2/624	4,4'-DDT	NR	µg/L	EPA 525/608
Methyl Chloride	<0.5	µg/L	EPA 524.2/624	4,4'-DDE	NR	µg/L	EPA 525/608
Acid Extractibles				4,4'-DDD	NR	µg/L	EPA 525/608
2-Chlorophenol	NR	µg/L	EPA 625	Dieldrin	<0.01	µg/L	EPA 505/608
2,4-Dichlorophenol	NR	µg/L	EPA 625	Endosulfan I	NR	µg/L	EPA 525/608
2,4-Dimethylphenol	NR	µg/L	EPA 625	Endosulfan II	NR	µg/L	EPA 525/608
2-Methyl-4,6-dinitrophenol	NR	µg/L	EPA 625	Endosulfan Sulfate	NR	µg/L	EPA 525/608
2,4-Dinitrophenol	NR	µg/L	EPA 625	Chemicals w/ State Notification Levels (NLs)			
2-Nitrophenol	NR	µg/L	EPA 625	Boron	0.3	mg/L	EPA 200.7
4-Nitrophenol	NR	µg/L	EPA 625	n-butylbenzene	<0.5	µg/L	EPA 524.2
4-Chloro-3-methylphenol	NR	µg/L	EPA 625	sec-butylbenzene	<0.5	µg/L	EPA 524.2
Phenol	NR	µg/L	EPA 625	tert-butylbenzene	<0.5	µg/L	EPA 524.2
2,4,6-Trichlorophenol	NR	µg/L	EPA 625	Carbon disulfide	<0.5	µg/L	EPA 524.2
Base/Neutral Extractibles				Chlorate* (001B Eff / DCZ-LYS-25)	306 / <10	µg/L	EPA 300.0
Acenaphthene	NR	µg/L	EPA 625	2-Chlorotoluene	<0.5	µg/L	EPA 524.2
Acenaphthylene	NR	µg/L	EPA 625	4-Chlorotoluene	<0.5	µg/L	EPA 524.2
Anthracene	NR	µg/L	EPA 625	Diazinon	<0.5	µg/L	EPA 525.2
Benzidine	NR	µg/L	EPA 625	Dichlorodifluoromethane (Freon 12)	<0.5	µg/L	EPA 524.2
Benzo(a)anthracene	NR	µg/L	EPA 625	1,4 - Dioxane	<1	µg/L	EPA 522
Benzo(b)fluoranthene	NR	µg/L	EPA 625	Ethylene glycol	<5	mg/L	EPA 8015B
Benzo(g,h,i)perylene	NR	µg/L	EPA 625	Formaldehyde	28	µg/L	EPA 556
Benzo(k)fluoranthene	NR	µg/L	EPA 625	HMX	<0.2	µg/L	EPA 8330B
Bis(2-chloroethoxy)methane	NR	µg/L	EPA 625	Isopropylbenzene	<0.5	µg/L	EPA 524.2
Bis(2-chloroethyl)ether	NR	µg/L	EPA 625	Manganese	9	µg/L	EPA 200.8
Bis(2-chloroisopropyl)ether	NR	µg/L	EPA 625	Methyl isobutyl ketone (MIBK)	<2	µg/L	EPA 524.2
4-Bromophenyl phenyl ether	NR	µg/L	EPA 625	Naphthalene	<0.5	µg/L	EPA 524.2
Butyl benzyl phthalate	NR	µg/L	EPA 625	N-Nitrosodiethylamine (NDEA)	<2	ng/L	EPA 521
2-Chloronaphthalene	NR	µg/L	EPA 625	N-Nitrosodimethylamine (NDMA)	3.5	ng/L	EPA 521
4-Chlorophenyl phenyl ether	NR	µg/L	EPA 625	N-Nitrosodi-n-propylamine (NDPA)	<2	ng/L	EPA 521
Chrysene	NR	µg/L	EPA 625	Perfluorooctanesulfonic acid (PFOS)	<2.0	ng/L	EPA 537.1
Dibenzo(a,h)anthracene	NR	µg/L	EPA 625	Perfluorooctanoic acid (PFOA) **	see report text	ng/L	EPA 537.1
1,3-Dichlorobenzene	NR	µg/L	EPA 625	Perfluorobutanesulfonic acid (PFBS)	<2.0	ng/L	EPA 537.1
3,3-Dichlorobenzidine	NR	µg/L	EPA 625	Propachlor	<0.5	µg/L	EPA 525.2
Diethyl phthalate	NR	µg/L	EPA 625	N-propylbenzene	<0.5	µg/L	EPA 524.2
Dimethyl phthalate	NR	µg/L	EPA 625	RDX	<0.2	µg/L	EPA 8330B
Di-n-butyl phthalate	NR	µg/L	EPA 625	Tertiary butyl alcohol	<2	µg/L	EPA 524.2
2,4-Dinitrotoluene	NR	µg/L	EPA 625	1,2,4-trimethylbenzene	<0.5	µg/L	EPA 524.2
2,6-Dinitrotoluene	NR	µg/L	EPA 625	1,3,5-trimethylbenzene	<0.5	µg/L	EPA 524.2
Di-n-octyl phthalate	NR	µg/L	EPA 625	2,4,6-Trinitrotoluene	<0.1	µg/L	EPA 8330B
Azobenzene	NR	µg/L	EPA 625	Vanadium	4	µg/L	EPA 200.8
Fluoranthene	NR	µg/L	EPA 625	Health-based and performance indicator CECs for Surface Application			
Fluorene	NR	µg/L	EPA 625	1,4 - Dioxane	<1	µg/L	EPA 522
Hexachlorobutadiene	NR	µg/L	EPA 625	N-nitrosodimethylamine (NDMA)	3.5	ng/L	EPA 521
Hexachlorocyclopentadiene	NR	µg/L	EPA 625	N-Nitrosomorpholine	11	ng/L	EPA 521
Hexachloroethane	NR	µg/L	EPA 625	Perfluorooctanesulfonic acid (PFOS)	<2.0	ng/L	EPA 537.1
Indeno(1,2,3-cd)pyrene	NR	µg/L	EPA 625	Perfluorooctanoic acid (PFOA)	see report text	ng/L	EPA 537.1
Isophorone	NR	µg/L	EPA 625	Gemfibrozil	5.1	ng/L	LC-MS-MS
Naphthalene	NR	µg/L	EPA 625	Iohexol	<20	ng/L	LC-MS-MS
Nitrobenzene	NR	µg/L	EPA 625	Sucralose	85000	ng/L	LC-MS-MS
N-Nitroso-di-n-propylamine	NR	µg/L	EPA 625	Sulfamethoxazole	<5	ng/L	LC-MS-MS
				ER-α (001B Eff / RP3-1/1)	<0.5 / <0.5	ng/L	Trussell Tech
				AhR (method pending approval)	--	ng/L	Trussell Tech

NR: Not Required (Annual Requirement, Phase II FOF, Attachment A, Page 26, Item 19)

\*Pursuant to the GRRP regulations, recharge water may be monitored in lieu of recycled water.

\*\*PFOA is being analyzed weekly for the exceedance of the NL and is reported in Section 2A of this report



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

Brooks 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	µmho/cm
BRK-LYS-00	0	10/28/21	7.45	3.2	1.6	1.5	1.7	0.07	763
BRK-LYS-00	0	11/30/21	7.60	2.2	1.3	1.3	0.9	<0.01	775
BRK-LYS-00	0	12/28/21	6.60	1.9	1.3	1.0	0.9	<0.01	524
BRK-LYS-25	25	10/28/21	3.45	<0.6	<0.2	<0.1	0.5	<0.01	745
BRK-LYS-25	25	11/30/21	3.75	<0.6	<0.2	0.1	<0.5	<0.01	780
BRK-LYS-25	25	12/28/21	3.20	<0.6	<0.2	<0.1	<0.5	<0.01	757
Declez 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	µmho/cm
DCZ2-LYS-00	0	10/14/21	13.3	3.9	2.4	2.3	1.6	0.09	341
DCZ2-LYS-00	0	10/28/21	8.40	3.0	1.6	1.6	1.4	<0.01	671
DCZ2-LYS-00	0	11/11/21	8.10	3.0	1.4	1.4	1.6	<0.01	693
DCZ2-LYS-00	0	11/23/21	8.54	2.8	1.6	1.6	1.2	<0.01	697
DCZ2-LYS-00	0	12/07/21	8.30	4.2	3.0	3.0	1.2	<0.01	771
DCZ2-LYS-00	0	12/22/21	6.48	1.9	0.8	0.4	1.5	<0.01	105
DCZ2-LYS-25	25	10/14/21	3.50	1.0	1.0	1.0	<0.5	<0.01	287
DCZ2-LYS-25	25	10/28/21	3.50	<0.6	<0.2	<0.1	<0.5	<0.01	748
DCZ2-LYS-25	25	11/11/21	3.90	0.7	<0.2	0.1	0.6	<0.01	750
DCZ2-LYS-25	25	11/23/21	3.65	<0.6	0.2	0.2	<0.5	<0.01	742
DCZ2-LYS-25	25	12/07/21	3.50	0.7	<0.2	<0.1	0.7	<0.01	747
DCZ2-LYS-25	25	12/22/21	3.20	<0.6	0.2	0.2	<0.5	<0.01	758

\* 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. (applies to Regional Board only)

Table 2-5b  
Alternative Monitoring Plans

Banana Basin						
Date	RW Blend*	RW Blend*	RW Blend*	Banana	Banana	
mg/L==>	TOC	TN	TN - 2 sample avg.	TOC (80% reduction)	TN (47% reduction)	TN - 2 sample avg.
Limit ==>			10 mg/L (DDW)	16 mg/L		5 mg/L
10/05/21	6.40	4.4	4.3	1.28	2.3	2.3
10/12/21	5.55	4.5	4.5	1.11	2.4	2.4
10/19/21	5.75	4.0	4.2	1.15	2.1	2.2
10/26/21	5.90	4.4	4.2	1.18	2.4	2.2
11/02/21	6.40	3.7	4.1	1.28	2.0	2.2
11/09/21	6.95	4.6	4.2	1.39	2.5	2.2
11/16/21	4.95	4.4	4.5	0.99	2.3	2.4
11/23/21	6.05	4.3	4.3	1.21	2.3	2.3
11/30/21	6.20	5.8	5.1	1.24	3.1	2.7
12/07/21	6.50	4.8	5.3	1.30	2.6	2.8
12/14/21	5.25	4.6	4.7	1.05	2.4	2.5
12/21/21	5.05	4.6	4.6	1.01	2.4	2.4
12/28/21	5.20	3.4	4.0	1.04	1.8	2.1

Hickory Basin						
Date	RW Blend*	RW Blend*	RW Blend*	Hickory	Hickory	
mg/L==>	TOC	TN	TN - 2 sample avg.	TOC (81% reduction)	TN (27% reduction)	TN - 2 sample avg.
Limit ==>			10 mg/L (DDW)	16 mg/L		5 mg/L (RWQCB)
10/05/21	6.40	4.4	4.3	1.22	3.2	3.2
10/12/21	5.55	4.5	4.5	1.05	3.3	3.3
10/19/21	5.75	4.0	4.2	1.09	2.9	3.1
10/26/21	5.90	4.4	4.2	1.12	3.2	3.1
11/02/21	6.40	3.7	4.1	1.22	2.7	3.0
11/09/21	6.95	4.6	4.2	1.32	3.4	3.1
11/16/21	4.95	4.4	4.5	0.94	3.2	3.3
11/23/21	6.05	4.3	4.3	1.15	3.1	3.2
11/30/21	6.20	5.8	5.1	1.18	4.3	3.7
12/07/21	6.50	4.8	5.3	1.24	3.5	3.9
12/14/21	5.25	4.6	4.7	1.00	3.3	3.4
12/21/21	5.05	4.6	4.6	0.96	3.4	3.4
12/28/21	5.20	3.4	4.0	0.99	2.5	2.9

Turner Basin						
Date	RW Blend*	RW Blend*	Turner 1 & 2	Turner 3 & 4	Turner 1 & 2 Turner 3 & 4	
mg/L==>	TOC	TN - 2 sample avg.	TOC (70% reduction)	TOC (85% reduction)	TN (87% reduction)	TN - 2 sample avg.
Limit ==>		10 mg/L (DDW)	16 mg/L	16 mg/L		5 mg/L (RWQCB)
10/05/21	6.40	4.4	1.92	0.96	0.6	0.5
10/12/21	5.55	4.5	1.67	0.83	0.6	0.6
10/19/21	5.75	4.2	1.73	0.86	0.6	0.6
10/26/21	5.90	4.2	1.77	0.89	0.5	0.5
11/02/21	6.40	4.1	1.92	0.96	0.5	0.5
11/09/21	6.95	4.2	2.09	1.04	0.5	0.5
11/16/21	4.95	4.5	1.49	0.74	0.6	0.6
11/23/21	6.05	4.3	1.82	0.91	0.6	0.6
11/30/21	6.20	5.1	1.86	0.93	0.7	0.6
12/07/21	6.50	5.3	1.95	0.98	0.7	0.7
12/14/21	5.25	4.7	1.58	0.79	0.6	0.7
12/21/21	5.05	4.6	1.52	0.76	0.6	0.6
12/28/21	5.20	4.0	1.56	0.78	0.5	0.5

Ely Basin						
Date	RP-1 RW	RP-1 RW	RP-1 RW	Ely 3 East	Ely 3 East	
mg/L==>	TOC	TN	TN - 2 sample avg.	TOC (76% reduction)	TN (52% reduction)	TN - 2 sample avg.
Limit ==>			10 mg/L (DDW)	16 mg/L		5 mg/L (RWQCB)
10/04/21	7.00	5.2	4.8	1.68	2.5	2.4
10/11/21	5.95	5.0	5.1	1.43	2.4	2.4
10/18/21	6.90	4.3	4.7	1.66	2.1	2.2
10/25/21	7.15	3.7	4.0	1.72	1.8	1.9
11/01/21	7.35	3.7	3.7	1.76	1.8	1.8
11/08/21	8.05	4.1	3.9	1.93	2.0	1.9
11/15/21	8.80	5.4	4.8	2.11	2.6	2.3
11/22/21	8.35	5.3	5.3	2.00	2.5	2.6
11/29/21	8.10	6.5	5.9	1.94	3.1	2.8
12/06/21	7.55	5.4	6.0	1.81	2.6	2.9
12/13/21	7.20	5.2	5.3	1.73	2.5	2.5
12/20/21	6.85	4.6	4.9	1.64	2.2	2.3
12/30/21	7.60	4.9	4.7	1.82	2.3	2.3

\*The recycled water blend of RP-1 & RP-4 effluent is sampled at the RP-4 1299 Pump Station

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

Blue font shows an exceedance TN limit of 5 mg/L for the Regional Board (current permit). However the DDW compliance point is at the recycled water with a TN limit of 10 mg/L (CAR comment letter). WEI is currently conducting a study to demonstrate that the 10 mg/L TN limit for the recycled water will not negatively impact Chino Basin. These changes will be incorporated into the our future GWR permit.

Table 2-5b  
Alternative Monitoring Plans

RP3 Basin						
Date	RW Blend*	RW Blend*	RW Blend*	RP3	RP3	
mg/L==>	TOC	TN	TN - 2 sample avg.	TOC (88% reduction)	TN (31% reduction)	TN - 2 sample avg.
Limit ==>			10 mg/L (DDW)	16 mg/L		5 mg/L (RWQCB)
10/05/21	6.40	4.4	4.3	0.77	3.0	3.0
10/12/21	5.55	4.5	4.5	0.67	3.1	3.1
10/19/21	5.75	4.0	4.2	0.69	2.7	2.9
10/26/21	5.90	4.4	4.2	0.71	3.1	2.9
11/02/21	6.40	3.7	4.1	0.77	2.6	2.8
11/09/21	6.95	4.6	4.2	0.83	3.2	2.9
11/16/21	4.95	4.4	4.5	0.59	3.0	3.1
11/23/21	6.05	4.3	4.3	0.73	2.9	3.0
11/30/21	6.20	5.8	5.1	0.74	4.0	3.5
12/07/21	6.50	4.8	5.3	0.78	3.3	3.7
12/14/21	5.25	4.6	4.7	0.63	3.2	3.2
12/21/21	5.05	4.6	4.6	0.61	3.2	3.2
12/28/21	5.20	3.4	4.0	0.62	2.4	2.8

7th & 8th Street Basin						
Date	RW Blend*	RW Blend*	RW Blend*	8th Street	8th Street	
mg/L==>	TOC	TN	TN - 2 sample avg.	TOC (88% reduction)**	TN (75% reduction)	TN - 2 sample avg.
Limit ==>			10 mg/L (DDW)	16 mg/L	5 mg/L	5 mg/L (RWQCB)
10/05/21	6.40	4.4	4.3	0.77	1.1	1.1
10/12/21	5.55	4.5	4.5	0.67	1.1	1.1
10/19/21	5.75	4.0	4.2	0.69	1.0	1.1
10/26/21	5.90	4.4	4.2	0.71	1.1	1.1
11/02/21	6.40	3.7	4.1	0.77	0.9	1.0
11/09/21	6.95	4.6	4.2	0.83	1.2	1.0
11/16/21	4.95	4.4	4.5	0.59	1.1	1.1
11/23/21	6.05	4.3	4.3	0.73	1.1	1.1
11/30/21	6.20	5.8	5.1	0.74	1.5	1.3
12/07/21	6.50	4.8	5.3	0.78	1.2	1.3
12/14/21	5.25	4.6	4.7	0.63	1.1	1.2
12/21/21	5.05	4.6	4.6	0.61	1.2	1.1
12/28/21	5.20	3.4	4.0	0.62	0.9	1.0

Victoria Basin						
Date	RW Blend*	RW Blend*	RW Blend*	Victoria	Victoria	
mg/L==>	TOC	TN	TN - 2 sample avg.	TOC (78% reduction)	TN (82% reduction)	TN - 2 sample avg.
Limit ==>			10 mg/L (DDW)	16 mg/L	5 mg/L	5 mg/L (RWQCB)
10/05/21	6.40	4.4	4.3	1.41	0.8	0.8
10/12/21	5.55	4.5	4.5	1.22	0.8	0.8
10/19/21	5.75	4.0	4.2	1.27	0.7	0.8
10/26/21	5.90	4.4	4.2	1.30	0.8	0.8
11/02/21	6.40	3.7	4.1	1.41	0.7	0.7
11/09/21	6.95	4.6	4.2	1.53	0.8	0.8
11/16/21	4.95	4.4	4.5	1.09	0.8	0.8
11/23/21	6.05	4.3	4.3	1.33	0.8	0.8
11/30/21	6.20	5.8	5.1	1.36	1.0	0.9
12/07/21	6.50	4.8	5.3	1.43	0.9	1.0
12/14/21	5.25	4.6	4.7	1.16	0.8	0.8
12/21/21	5.05	4.6	4.6	1.11	0.8	0.8
12/28/21	5.20	3.4	4.0	1.14	0.6	0.7

Declez Basin						
Date	RW Blend*	RW Blend*	RW Blend*	Declez	Declez	
mg/L==>	TOC	TN	TN - 2 sample avg.	TOC (62% reduction)	TN (91% reduction)	TN - 2 sample avg.
Limit ==>			10 mg/L (DDW)	16 mg/L	5 mg/L	5 mg/L (RWQCB)
10/05/21	6.40	4.4	4.3	2.43	0.4	0.4
10/12/21	5.55	4.5	4.5	2.11	0.4	0.4
10/19/21	5.75	4.0	4.2	2.19	0.4	0.4
10/26/21	5.90	4.4	4.2	2.24	0.4	0.4
11/02/21	6.40	3.7	4.1	2.43	0.3	0.4
11/09/21	6.95	4.6	4.2	2.64	0.4	0.4
11/16/21	4.95	4.4	4.5	1.88	0.4	0.4
11/23/21	6.05	4.3	4.3	2.30	0.4	0.4
11/30/21	6.20	5.8	5.1	2.36	0.5	0.5
12/07/21	6.50	4.8	5.3	2.47	0.4	0.4
12/14/21	5.25	4.6	4.7	2.00	0.4	0.4
12/21/21	5.05	4.6	4.6	1.92	0.4	0.4
12/28/21	5.20	3.4	4.0	1.98	0.3	0.3

\*The recycled water blend of RP-1 & RP-4 effluent is sampled at the RP-4 1299 Pump Station

\*\*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.

Blue font shows an exceedance TN limit of 5 mg/L for the Regional Board (current permit). However the DDW compliance point is at the recycled water with a TN limit of 10 mg/L (CAR comment letter). WEI is currently conducting a study to demonstrate that the 10 mg/L TN limit for the recycled water will not negatively impact Chino Basin. These changes will be incorporated into the our future GWR permit.

Table 2-5b  
Alternative Monitoring Plans

Brooks Basin				
Date	BRK-LYS-00	BRK-LYS-00	BRK-LYS-00	
	TOC (mg/L)	TN (mg/L)	EC (µmhos/cm)	
10/28/21	7.45	3.2	763	
11/30/21	7.60	2.2	775	
12/28/21	6.60	1.9	524	

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	
10/28/21	3.5	0.5	0.5	745
11/30/21	3.8	0.1	0.3	780
12/28/21	3.2	0.0	0.1	757

Date	BRK-1/1	BRK-1/1
	TOC* (mg/L)	TN (mg/L)
Limit==>	16 mg/L	
10/28/21	0.3	5.1
11/29/21	0.4	5.0
12/28/21	<0.3	4.3

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

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 (Dec 2021)	RWC <sub>Avg</sub> (Dec 2021)	TOC <sub>Avg</sub> Limit* (mg/L)	Oct 2021 TOC <sub>Avg</sub> (mg/L)	Nov 2021 TOC <sub>Avg</sub> (mg/L)	Dec 2021 TOC <sub>Avg</sub> (mg/L)	4Q21 TN Limit** Compliance	Recharged Water Monitoring Plan
7 <sup>th</sup> & 8 <sup>th</sup> Street	Sep-07	Dec-10	05/23/11	50%	172	24%	2.1	0.7	0.7	0.7	Met	Alternative monitoring: <u>Weekly</u> RW Blend with TOC reduction of 88% and TN reduction of 75%
Banana	Jul-05	Jan-06	10/27/06	50%	198	34%	1.5	1.2	1.2	1.1	Met	Alternative monitoring: <u>Weekly</u> RW Blend with TOC reduction of 80% and TN reduction of 47%
Brooks	Aug-08	Dec-09	07/29/10	50%	161	14%	3.6	0.3	0.4	<0.3	Met	Alternative monitoring: <u>Monthly</u> lysimeter monitoring at 0- and 25-feet bgs & BRK-1/1 for EC, TOC, TN. 25-foot lysimeter compliance point for TN and BRK-1/1 for TOC. <u>Monthly</u> BRK-1/1 analyzed for chloride to verify presence of RW (monitoring ceased 3Q18 since RW presence has been verified).
Declez	Dec-15	Sep-16	05/21/18	initial 20%	73	8%	6.3	2.2	2.3	2.1	Met	Alternative monitoring: <u>Weekly</u> RW Blend with TOC reduction of 62% and TN reduction of 91%
Ely	RW initiated Sep-99	NA	NA	50%	268	25%	2.0	1.6	2.0	1.8	Met	Alternative monitoring: <u>Weekly</u> RP-1 RW sample with TOC reduction of 76% and TN reduction of 52%
Hickory	Sep-05	Feb-06	02/15/07	50%	196	19%	2.6	1.1	1.2	1.0	Met	Alternative monitoring: <u>Weekly</u> RW Blend with TOC reduction of 81% and TN reduction of 27%
RP3	Jun-09	Jun-10	12/15/10	50%	151	22%	2.3	0.7	0.7	0.7	Met	Alternative monitoring: <u>Weekly</u> RW Blend with TOC reduction of 88% and TN reduction of 31%
San Sevaine 1-3	Aug-20	--	--	--	17	--	--	--	--	--	--	San Sevaine 1-3 Basins are still currently in their Start-up Period
Turner 1&2	Dec-06	May-07	07/03/08	24%	181	23%	2.2	1.8	1.8	1.7	Met	Alternative monitoring: <u>Weekly</u> RW Blend with TOC reduction of 70%; TN reduction of 87%
Turner 3&4	Dec-06	May-07	07/03/08	45%	181	26%	1.9	0.9	0.9	0.8	Met	Alternative monitoring: <u>Weekly</u> RW Blend with TOC reduction of 85%; TN reduction of 87%
Victoria	Sep-10	Jul-11	02/08/12	50%	136	27%	1.9	1.3	1.3	1.2	Met	Alternative monitoring: <u>Weekly</u> RW Blend with TOC reduction of 78% and TN reduction of 82%

SUP - Start-Up Period

\*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.

\*\*TN limit is 5 mg/L on a two-sample average.

Table 2-7a  
Diluent Water Monitoring\*: [Local Runoff/ Stormwater](#)

	Stormwater Declez Channel @ RP3 Basins 12/14/21	Stormwater Etiwanda Creek @ Etiwanda Debris Basin 12/15/21	Stormwater San Sevaine Creek @ San Sevaine 1 Basin 12/15/21	Stormwater West Fontana Channel @ Banana Basin 12/14/21	Max Level to Trigger Source Water Evaluation	Unit	Method
Constituent							
NO <sub>2</sub> -N	<0.05	<0.05	<0.05	<0.05	1	mg/L	EPA 300.0
NO <sub>3</sub> -N	0.4	0.9	1.2	0.4	10	mg/L	EPA 300.0
TDS	58	228	124	212	1000	mg/L	SM 2540C
Total Coliform	NA	220	<1.1	<1.1	-	mpn/100ml	SM 9221B
Oil & Grease	3	3	<1	<1	-	mg/L	EPA 1664A
<b>Inorganic Chemicals</b>							
Aluminum	2767	<25	1535	2227	1000	µg/L	EPA 200.7
Antimony	1	<1	<1	2	6	µg/L	EPA 200.8
Arsenic	<2	<2	<2	<2	10	µg/L	EPA 200.8
Asbestos	<11	**	<2.1	<11	7	MFL	EPA 100.2
Barium	47	37	31	48	1000	µg/L	EPA 200.7
Beryllium	<0.5	<0.5	<0.5	<0.5	4	µg/L	EPA 200.7
Cadmium	<0.25	<0.25	<0.25	0.29	5	µg/L	EPA 200.7
Chromium	11	<2	3	12	50	µg/L	EPA 200.7
Chromium VI	0.5	0.1	0.3	0.7	10	µg/L	EPA 218.6
Cyanide	<20	<20	<20	<20	150	µg/L	ASTM D7284/OIA-1677
Fluoride	<0.1	0.3	<0.1	<0.1	2	mg/L	SM 4500-F C
Mercury	<0.5	<0.5	<0.5	<0.5	2	µg/L	EPA 245.2
Nickel	4	2	2	4	100	µg/L	EPA 200.7
Perchlorate	<2	<2	<2	<2	6	µg/L	EPA 314
Selenium	<2	<2	<2	<2	50	µg/L	EPA 200.8
Thallium	<1	<1	<1	<1	2	µg/L	EPA 200.8
<b>Volatile Organic Chemicals (VOCs)</b>							
Benzene	<0.5	<0.5	<0.5	<0.5	1	µg/L	EPA 524.2
Carbon Tetrachloride	<0.5	<0.5	<0.5	<0.5	0.5	µg/L	EPA 524.2
1,2-Dichlorobenzene	<0.5	<0.5	<0.5	<0.5	600	µg/L	EPA 524.2
1,4-Dichlorobenzene	<0.5	<0.5	<0.5	<0.5	5	µg/L	EPA 524.2
1,1-Dichloroethane	<0.5	<0.5	<0.5	<0.5	5	µg/L	EPA 524.2
1,2-Dichloroethane	<0.5	<0.5	<0.5	<0.5	0.5	µg/L	EPA 524.2
1,1-Dichloroethylene	<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	6	µg/L	EPA 524.2
trans-1,2-Dichloroethylene	<0.5	<0.5	<0.5	<0.5	10	µg/L	EPA 524.2
Dichloromethane	<0.5	<0.5	<0.5	<0.5	5	µg/L	EPA 524.2
1,2-Dichloropropane	<0.5	<0.5	<0.5	<0.5	5	µg/L	EPA 524.2
1,3-Dichloropropane	<0.5	<0.5	<0.5	<0.5	0.5	µg/L	EPA 524.2
Ethylbenzene	<0.5	<0.5	<0.5	<0.5	300	µg/L	EPA 524.2
Chlorobenzene	<0.5	<0.5	<0.5	<0.5	70	µg/L	EPA 524.2
Methyl Tert-butyl ether (MTBE)	<0.5	<0.5	<0.5	<0.5	13	µg/L	EPA 524.2
Styrene	<0.5	<0.5	<0.5	<0.5	100	µg/L	EPA 524.2
1,1,2,2-Tetrachloroethane	<0.5	<0.5	<0.5	<0.5	1	µg/L	EPA 524.2
Tetrachloroethylene	<0.5	<0.5	<0.5	<0.5	5	µg/L	EPA 524.2
Toluene	<0.5	<0.5	<0.5	<0.5	150	µg/L	EPA 524.2
1,2,4-Trichlorobenzene	<0.5	<0.5	<0.5	<0.5	5	µg/L	EPA 524.2
1,1,1-Trichloroethane	<0.5	<0.5	<0.5	<0.5	200	µg/L	EPA 524.2
1,1,2-Trichloroethane	<0.5	<0.5	<0.5	<0.5	5	µg/L	EPA 524.2
Trichloroethylene	<0.5	<0.5	<0.5	<0.5	5	µg/L	EPA 524.2
Trichlorofluoromethane	<0.5	<0.5	<0.5	<0.5	150	µg/L	EPA 524.2
1,1,2-Trichloro-1,2,2-Trifluoroethane	<0.5	<0.5	<0.5	<0.5	1200	µg/L	EPA 524.2
Vinyl Chloride	<0.5	<0.5	<0.5	<0.5	0.5	µg/L	EPA 524.2
Total Xylenes	<0.5	<0.5	<0.5	<0.5	1750	µg/L	EPA 524.2
1,2,3-Trichloropropane	<0.005	<0.005	<0.005	<0.005	0.005	µg/L	CASRL 524M-TCP
<b>Non-Volatile Synthetic Organic Chemicals (SOCs)</b>							
Alachlor (Alanex)	<0.1	<0.1	<0.1	<0.1	2	µg/L	EPA 505
Atrazine	<0.5	<0.5	<0.5	<0.5	1	µg/L	EPA 525.2
Bentazon	<0.5	<0.5	<0.5	<0.5	18	µg/L	EPA 515.4
Benzo(a)pyrene	<0.1	<0.1	<0.1	0.1	0.2	µg/L	EPA 525.2
Carbofuran	<0.5	<0.5	<0.5	<0.5	18	µg/L	EPA 531.2
Chlordane	<0.1	<0.1	<0.1	<0.1	0.1	µg/L	EPA 505
2,4-D	<0.1	<0.1	0.6	<0.1	70	µg/L	EPA 515.4
Dalapon	<1	<1	<1	<1	200	µg/L	EPA 515.4
Dibromochloropropane	<0.01	<0.01	<0.01	<0.01	0.2	µg/L	EPA 504.1
Di(2-ethylhexyl)adipate	<0.5	<0.5	<0.5	<0.5	400	µg/L	EPA 525.2
Di(2-ethylhexyl)phthalate	2.5	<0.5	<0.5	1.9	4	µg/L	EPA 525.2
Dinoseb	<0.2	<0.2	<0.2	<0.2	7	µg/L	EPA 515.4
Diquat	<0.4	<0.4	<0.4	<0.4	20	µg/L	EPA 549.2
Endothall	<5	<5	<5	<5	100	µg/L	EPA 548.1
Endrin	<0.01	<0.01	<0.01	<0.01	2	µg/L	EPA 505
Ethylene Dibromide	<0.01	<0.01	<0.01	<0.01	0.05	µg/L	EPA 504.1
Glyphosate	<6	<6	11	10	700	µg/L	EPA 547
Heptachlor	<0.01	<0.01	<0.01	<0.01	0.01	µg/L	EPA 505
Heptachlor Epoxide	<0.01	<0.01	<0.01	<0.01	0.01	µg/L	EPA 505
Hexachlorobenzene	<0.5	<0.5	<0.5	<0.5	1	µg/L	EPA 525.2
Hexachlorocyclopentadiene	<0.5	<0.5	<0.5	<0.5	50	µg/L	EPA 525.2
Lindane	<0.01	<0.01	<0.01	<0.01	0.2	µg/L	EPA 505

Table 2-7a  
Diluent Water Monitoring\*: [Local Runoff/ Stormwater](#)

Constituent	Stormwater Declez Channel @ RP3 Basins 12/14/21	Stormwater Etiwanda Creek @ Etiwanda Debris Basin 12/15/21	Stormwater San Sevaine Creek @ San Sevaine 1 Basin 12/15/21	Stormwater West Fontana Channel @ Banana Basin 12/14/21	Max Level to Trigger Source Water Evaluation	Unit	Method
Methoxychlor	<0.05	<0.05	<0.05	<0.05	30	µg/L	EPA 505
Molinate	<0.5	<0.5	<0.5	<0.5	20	µg/L	EPA 525.2
Oxamyl	<0.5	<0.5	<0.5	<0.5	50	µg/L	EPA 531.2
Pentachlorophenol	0.15	<0.04	<0.04	0.39	1	µg/L	EPA 515.4
Picloram	<0.1	<0.1	<0.1	<0.1	500	µg/L	EPA 515.4
PCB 1016	<0.08	<0.08	<0.08	<0.08	0.5	µg/L	EPA 505
PCB 1221	<0.1	<0.1	<0.1	<0.1	0.5	µg/L	EPA 505
PCB 1232	<0.1	<0.1	<0.1	<0.1	0.5	µg/L	EPA 505
PCB 1242	<0.1	<0.1	<0.1	<0.1	0.5	µg/L	EPA 505
PCB 1248	<0.1	<0.1	<0.1	<0.1	0.5	µg/L	EPA 505
PCB 1254	<0.1	<0.1	<0.1	<0.1	0.5	µg/L	EPA 505
PCB 1260	<0.1	<0.1	<0.1	<0.1	0.5	µg/L	EPA 505
Simazine	<0.5	<0.5	<0.5	<0.5	4	µg/L	EPA 525.2
Thiobencarb	<0.5	<0.5	<0.5	<0.5	70	µg/L	EPA 525.2
Toxaphene	<0.5	<0.5	<0.5	<0.5	3	µg/L	EPA 505
2,3,7,8-TCDD (Dioxin)	<4	<5	<4	<4	30	pg/L	EPA 1613
2,4,5-TP (Silvex)	<0.2	<0.2	<0.2	<0.2	50	µg/L	EPA 515.4
Disinfection Byproducts							
Total Trihalomethanes (TTHMs)	<2	<2	<2	<2	80	µg/L	EPA 524.2/624
Total Haloacetic Acids (HAA5)	<2	<2	9	<2	60	µg/L	SM 6251B
Bromate	<1	<1	9	<1	10	µg/L	EPA 300.1/317
Chlorite	<0.01	<0.01	<0.01	<0.01	1	mg/L	EPA 300.0
Action Level Chemicals							
Copper	13	2	7	50	1300	µg/L	EPA 200.7
Lead	5.3	<0.5	1.2	13.8	15	µg/L	EPA 200.8
Radionuclides							
Combined Radium-226 & Radium 228	<3	<3	<3	<3	5	pCi/L	EPA 903.0
Gross Alpha Particle Activity	<3	<3	<3	<3	15	pCi/L	EPA 900.0/SM7110C
Tritium	<1000	**	<1000	<1000	20,000	pCi/L	SM 906.0
Strontium-90	<0.616	<0.604	<0.516	<0.703	8	pCi/L	EPA 905.0
Gross Beta Particle Activity	<3	3	3	<3	50	pCi/L	EPA 900.0
Uranium	<1	1.1	<1	<1	20	pCi/L	EPA 200.8
Chemicals w/ State Notification Levels							
Boron	<0.1	<0.1	<0.1	0.1	1	mg/L	EPA 200.7
n-butylbenzene	<0.5	<0.5	<0.5	<0.5	260	µg/L	EPA 524.2
sec-butylbenzene	<0.5	<0.5	<0.5	<0.5	260	µg/L	EPA 524.2
tert-butylbenzene	<0.5	<0.5	<0.5	<0.5	260	µg/L	EPA 524.2
Carbon disulfide	<0.5	<0.5	<0.5	<0.5	160	µg/L	EPA 524.2
Chlorate	0.01	<0.01	0.22	0.03	800	µg/L	EPA 300.0
2-Chlorotoluene	<0.5	<0.5	<0.5	<0.5	140	µg/L	EPA 524.2
4-Chlorotoluene	<0.5	<0.5	<0.5	<0.5	140	µg/L	EPA 524.2
Diazinon	<0.5	<0.5	<0.5	<0.5	1.2	µg/L	EPA 525.2
Dichlorodifluoromethane (Freon 12)	<0.5	<0.5	<0.5	<0.5	1000	µg/L	EPA 524.2
1,4 - Dioxane	<1	<1	<1	<1	1	µg/L	EPA 522
Ethylene glycol	<5	<5	<5	<5	14	mg/L	EPA 8015B/504.1
Formaldehyde	20	<5	15	26	100	µg/L	EPA 556
HMX	<0.1	<0.1	<0.1	<0.1	350	µg/L	EPA 8330B
Isopropylbenzene	<0.5	<0.5	<0.5	<0.5	770	µg/L	EPA 524.2
Manganese	113	2	31	118	500	µg/L	EPA 200.8
Methyl isobutyl ketone (MIBK)	<2	<2	<2	<2	120	µg/L	EPA 524.2
Naphthalene	<0.5	<0.5	<0.5	<0.5	17	µg/L	EPA 524.2
N-Nitrosodiethylamine (NDEA)	<2	<2	<2	<2	10	ng/L	EPA 521
N-nitrosodimethylamine (NDMA)	<2	<2	<2	<2	10	ng/L	EPA 521
N-Nitrosodi-n-propylamine (NDPA)	<2	<2	<2	<2	10	ng/L	EPA 521
PFOS	3.0	<2.0	4.6	3.4	6.5	ng/L	EPA 537.1
PFOA	4.4	<2.0	<b>9.7</b>	4.1	5.1	ng/L	EPA 537.1
Propachlor	<0.5	<0.5	<0.5	<0.5	90	µg/L	EPA 525.2
N-propylbenzene	<0.5	<0.5	<0.5	<0.5	200	µg/L	EPA 524.2
RDX	<0.1	<0.1	<0.1	<0.1	0.3	µg/L	EPA 8330B
Tertiary butyl alcohol	<2	<2	<2	<2	12	µg/L	EPA 524.2
1,2,4 -trimethylbenzene	<0.5	<0.5	<0.5	<0.5	330	µg/L	EPA 524.2
1,3,5-trimethylbenzene	<0.5	<0.5	<0.5	<0.5	330	µg/L	EPA 524.2
2,4,6-Trinitrotoluene	<0.1	<0.1	<0.1	<0.1	1	µg/L	EPA 8330B
Vanadium	9	<5	5	9	50	µg/L	EPA 200.8
Secondary Maximum Contaminant Level Chemicals							
Aluminum	<b>2767</b>	<25	<b>1535</b>	<b>2227</b>	200	µg/L	EPA 200.7
Corrosivity	-0.7	0.2	-1.4	0.2	Non-Cor.	SI	SM 2330B
Foaming Agents (MBAS)	<0.1	<0.1	<0.1	0.1	0.5	mg/L	SM 5540C/EPA 425.1
Iron	<b>3651</b>	20	<b>1832</b>	<b>3690</b>	300	µg/L	EPA 200.7
Manganese	<b>113</b>	2	31	<b>118</b>	50	µg/L	EPA 200.7
Odor-- Threshold	3	4	6	4	--	TON	SM 2150B
Silver	<0.25	<0.25	<0.25	<0.25	100	µg/L	EPA 200.7
Thiobencarb	<0.5	<0.5	<0.5	<0.5	1	µg/L	EPA 525.2
Zinc	82	<2	18	130	5000	µg/L	EPA 200.7

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

\*\* Asbestos and Tritium were not analyzed in time for reporting by Eurofins Eaton Analytical

NA: Not analyzed, sampling error

**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-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	Unit
Silica	9.9	8.2	6.8	7.9	5.6	Not Sampled Due to Inaccessible Sample Location	8.0	9.5	14.4	14.9	14.2	10.9	mg/L
Calcium	21	20	20	21	25		26	26	24	25	26	24	mg/L
Magnesium	12	12	12	10	12		10	9	7	6	6	6	mg/L
Sodium	59	59	62	47	72		70	68	68	66	65	66	mg/L
Potassium	3.0	3.0	3.0	2.5	2.9		2.8	2.6	2.3	2.0	2.2	2.1	mg/L
Carbonate	0	0	0	0	1		0	0	0	0	0	0	mg/L
Bicarbonate	102	102	102	98	105		109	109	100	96	95	96	mg/L
Sulfate	30	31	33	38	51		53	55	58	58	54	54	mg/L
Chloride	81	83	86	59	89		82	76	66	64	65	65	mg/L
Nitrate	0.8	0.7	1.1	2.1	1.5		1.7	1.6	0.9	1.4	1.6	1.6	mg/L
Fluoride	0.1	0.1	0.1	<0.1	0.1		0.1	0.1	0.2	0.2	0.2	0.2	mg/L
Total Dissolved Solids	268	268	275	237	313		308	303	291	286	282	278	mg/L
Total Hardness as CaCO <sub>3</sub>	98	100	102	91	109		105	106	100	86	93	89	mg/L
Total Alkalinity as CaCO <sub>3</sub>	84	84	84	80	88		89	89	82	79	78	79	mg/L
Free Carbon Dioxide	1.4	1.4	1.6	1.1	0.7		1.1	1.3	1.1	1.3	1.4	1.5	mg/L
pH	8.08	8.09	8.02	8.16	8.39		8.23	8.13	8.20	8.08	8.04	8.02	unit
Specific Conductance	496	504	516	422	569		559	544	512	489	490	484	µmho/cm
Color	10	--	--	10	--		5	--	--	5	--	--	CU
Turbidity	0.6	0.6	0.4	1.1	0.8		0.8	0.7	1.9	0.8	1.6	0.9	NTU
Temperature	9	9	10	12	15		20	22	23	21	17	12	°C
Bromide	0.26	0.26	0.28	0.18	0.30		0.27	0.26	0.23	0.22	0.23	0.23	mg/L
Total Organic Carbon	3.41	3.40	3.12	3.45	3.05		2.66	2.65	3.44	3.04	2.88	2.66	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
	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
Declerz 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 - DCZ-2	4,100 downgradient	240-270	4	Active	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 Sevaline Basins	600905	Cucamonga Valley Water District No. 39	8300-13170 downgradient	750-870, 940-960, 970-1060, & 1080-1130,	20	Active	Municipal
	601115	Inland Empire Utilities Agency - SS-1/1	~39-116 downgradient	640-680	4	Active	Monitoring
	--	Inland Empire Utilities Agency - SSV-2	200 downgradient	370-395	4	Active	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 2-9  
Groundwater Monitoring Well Results (Quarterly)

	Sample Location	Date	TOC (mg/L)	Total Coliform (MPN/100mL)	pH	EC (µmho/cm)	Al (µg/L)	Color (units)	Cu (µg/L)	Corrosivity Index (SI)	Foaming Agents (mg/L)	Fe (µg/L)	Mn (µg/L)	MTBE (µg/L)	Odor Threshold (TON)	Ag (µg/L)	Thiobencarb (µg/L)	Turbidity (NTU)	Zn (µg/L)	TDS (mg/L)	Cl (mg/L)	Hardness (mg CaCO <sub>3</sub> /L)	Na (mg/L)	SO <sub>4</sub> (mg/L)	Nitrogen, Total (mg/L)	NO <sub>2</sub> -N (mg/L)	NO <sub>3</sub> -N (mg/L)	Dissolved Oxygen (mg/L)
Banana & Hickory	Fontana Water Co. - F7a	10/18/21	<0.10	<1.1	7.3	404	<20	<3	<3	-0.2	<0.1	<20	<2	<0.5	<1	<0.5	<0.2	0.2	<20	256	12	169	16	14	7.0	<0.05	7.0	8.6
	California Speedway - Infield Well	10/19/21	<0.10	<1.1	7.7	589	<20	5	<3	0.4	<0.1	20	<2	<0.5	<1	<0.5	<0.2	0.2	<20	362	39	243	22	47	8.9	<0.05	8.9	8.2
	California Speedway 2	12/02/21	<0.10	3	7.6	357	<20	5	<3	0.1	<0.1	27	<2	<0.5	<1	<0.5	<0.2	0.5	<20	236	8	152	17	9	2.9	<0.05	2.9	ND
	BH-1/2*	11/11/21	<0.10	<1.1	8.0	486	<20	10	<3	0.5	<0.1	<20	<2	<0.5	<1	<0.5	<0.2	0.3	<20	294	55	184	22	27	1.0	<0.05	1.0	8.2
Turner	Ontario Well No. 38	12/01/21	<0.10	4	8.1	321	<20	<3	<3	0.5	<0.1	<20	<2	<0.5	<1	<0.5	<0.2	0.1	<20	204	6	127	19	7	1.6	<0.05	1.6	ND
	T-1/2*	11/01/21	0.61	<1.1	7.7	335	<20	<3	<3	-0.3	<0.1	<20	<2	<0.5	<1	<0.5	<0.2	0.2	<20	216	36	90	33	13	<0.6	<0.05	<0.1	2.0
	T-2/2*	11/01/21	0.70	<1.1	7.7	533	<20	5	<3	-0.1	<0.1	<20	<2	<0.5	<1	<0.5	<0.2	0.3	<20	314	72	140	48	26	2.3	<0.05	2.3	3.0
RP3	Alcoa MW1*	11/09/21	<0.10	24	7.3	698	<20	5	<3	0.0	<0.1	<20	<2	<0.5	<1	<0.5	<0.2	0.4	<20	470	54	267	28	46	16.7	<0.05	16.7	7.2
	Alcoa MW3*	11/09/21	<0.10	<1.1	7.4	963	<20	5	<3	0.3	<0.1	<20	<2	<0.5	<1	<0.5	<0.2	<0.1	<20	670	125	359	42	51	14.7	<0.05	14.7	8.1
	Fontana Water Co. - F23a	10/18/21	<0.10	<1.1	7.2	363	<20	5	<3	-0.4	<0.1	<20	<2	<0.5	<1	<0.5	<0.2	0.2	<20	222	12	142	18	17	5.1	<0.05	5.1	8.0
	Southridge JHS	10/27/21	<0.10	<1.1	7.3	917	<20	5	<3	0.2	<0.1	<20	<2	<0.5	<1	<0.5	<0.2	1.5	<20	600	83	346	54	68	16.5	<0.05	16.5	5.6
	RP3-1/1*	11/17/21	<0.10	<1.1	7.1	835	<20	5	<3	-0.3	<0.1	<20	76	<0.5	<1	<0.5	<0.2	1.6	<20	484	120	211	89	48	2.9	<0.05	2.9	8.3
7th & 8th Street	8TH-1/1*	11/08/21	0.41	<1.1	7.7	438	<20	15	<3	-0.1	<0.1	<20	<2	<0.5	<1	<0.5	<0.2	9.6	<20	316	74	161	10	15	1.4	<0.05	1.4	8.1
	8TH-1/2*	11/08/21	<0.10	<1.1	7.7	509	<20	20	<3	0.1	<0.1	<20	34	<0.5	<1	<0.5	<0.2	30.9	<20	332	67	203	17	26	1.3	<0.05	1.3	4.0
	8TH-2/1*	11/02/21	<0.10	<1.1	8.1	489	<20	10	<3	0.7	<0.1	<20	7	<0.5	<1	<0.5	<0.2	3.0	<20	300	24	208	14	17	9.3	<0.05	9.3	5.7
	8TH-2/2*	11/02/21	0.35	<1.1	7.7	476	<20	15	<3	0.1	<0.1	<20	11	<0.5	<1	<0.5	<0.2	7.2	<20	298	51	195	18	32	3.7	<0.05	3.7	7.7
	Ontario Well No. 35	12/01/21	<0.10	<1.1	7.9	350	<20	<3	<3	0.3	<0.1	<20	<2	<0.5	<1	<0.5	<0.2	<0.1	<20	238	7	132	22	19	3.0	<0.05	3.0	ND
Brooks	Pomona Well No. 10	11/30/21	<0.10	<1.1	8.6	557	<20	5	<3	1.1	<0.1	<20	<2	<0.5	<1	<0.5	<0.2	<0.1	<20	370	43	243	12	37	8.0	<0.05	8.0	2.5
	BRK-1/1*	10/28/21	0.31	<1.1	7.6	569	<20	10	<3	0.1	<0.1	<20	2	<0.5	<1	<0.5	<0.2	5.4	<20	342	67	210	29	39	5.1	<0.05	5.1	7.9
	BRK-1/2*	10/28/21	0.31	<1.1	7.8	634	<20	<3	<3	0.5	<0.1	<20	<2	<0.5	<1	<0.5	<0.2	<0.1	<20	404	26	282	14	53	23.3	<0.05	23.3	9.1
	BRK-2/1*	11/03/21	<0.10	<1.1	7.7	630	<20	5	<3	0.4	<0.1	<20	<2	<0.5	<1	<0.5	<0.2	4.3	<20	380	60	297	12	37	8.5	<0.05	8.5	8.4
	BRK-2/2*	11/03/21	<0.10	<1.1	7.9	435	<20	<3	<3	0.2	<0.1	<20	<2	<0.5	<1	<0.5	<0.2	0.2	<20	276	11	141	31	25	11.4	<0.05	11.4	6.2
Ely	Ely Basin MW2 Walnut St.*	11/10/21	0.35	37	7.6	741	<20	5	<3	0.4	<0.1	<20	5	<0.5	<1	<0.5	<0.2	0.2	<20	450	59	306	30	40	9.0	<0.05	9.0	8.3
	Riverside Well (43840-CWW)*	10/11/21	<0.10	<1.1	7.7	669	<20	<3	<3	0.4	<0.1	<20	7	<0.5	<1	<0.5	<0.2	0.3	25	360	34	239	20	30	10.4	<0.05	10.4	6.9
	Bishop of SB Corp. - DOM	10/11/21	<0.10	<1.1	7.4	808	<20	<3	<3	0.4	<0.1	<20	<2	<0.5	<1	<0.5	<0.2	<0.1	26	494	33	383	24	49	17.0	<0.05	17.0	7.0
Victoria & San Seavaine	SS-1/1*	10/19/21	<0.10	<1.1	7.3	324	<20	5	<3	-0.7	<0.1	<20	<2	<0.5	<1	<0.5	<0.2	2.2	<20	214	33	126	17	19	2.6	<0.05	2.6	7.6
	SSV-2*	10/26/21	0.65	<1.1	7.4	725	<20	5	<3	0.0	<0.1	<20	12	<0.5	<1	<0.5	<0.2	15.0	<20	470	106	271	44	41	2.7	<0.05	2.7	5.8
	VCT-1/1*	10/21/21	0.50	<1.1	7.3	509	<20	5	<3	-0.3	<0.1	<20	<2	<0.5	<1	<0.5	<0.2	4.1	<20	336	72	208	21	29	0.8	<0.05	0.2	2.3
	VCT-2/2	10/21/21	<0.10	<1.1	7.7	355	<20	5	<3	0.0	<0.1	<20	<2	<0.5	<1	<0.5	<0.2	0.2	<20	244	27	140	17	10	<0.6	<0.05	0.1	8.5
	CWWD Well No. 39	10/12/21	<0.10	<1.1	7.1	765	<20	5	<3	-0.1	<0.1	<20	<2	<0.5	<1	1.10	<0.2	3.3	<20	200	8	102	20	3	<0.6	<0.05	0.1	7.9
	CWWD Well No. 43	10/12/21	<0.10	<1.1	7.7	657	<20	5	<3	0.0	<0.1	<20	<2	<0.5	<1	<0.5	<0.2	0.1	<20	232	11	134	18	13	3.3	<0.05	3.3	7.8
	Unisex 91090*	10/26/21	<0.10	23	7.6	398	<20	<3	<3	-0.1	<0.1	<20	<2	<0.5	<1	<0.5	<0.2	<0.1	<20	256	36	158	17	21	1.9	<0.05	1.9	7.7
Declez	JCSD Well No. 13	10/14/21	<0.10	<1.1	7.6	680	<20	<3	<3	0.3	<0.1	<20	<2	<0.5	<1	<0.5	<0.2	<0.1	<20	428	86	257	28	30	7.4	<0.05	7.4	7.1
	JCSD Well No. 19	10/14/21	<0.10	<1.1	7.0	333	<20	<3	<3	-0.7	<0.1	<20	<2	<0.5	<1	<0.5	<0.2	0.2	<20	224	9	110	26	11	2.8	<0.05	2.8	7.6
	DCZ-1/1*	11/10/21	1.13	<1.1	7.8	562	<20	10	<3	0.3	<0.1	<20	20	<0.5	<1	<0.5	<0.2	3.9	<20	358	78	194	30	28	<0.6	<0.05	0.4	7.5
	DCZ-2*	10/27/21	0.47	<1.1	7.9	550	<20	<3	<3	0.4	<0.1	<20	<2	<0.5	<1	<0.5	<0.2	0.2	184	338	51	184	36	34	9.8	<0.05	9.8	7.5
	Detection Limit		0.3	1			20	3	3.0		0.10	20	2	1	1	0.50	0.20	0.1	20		1	3	1	1	0.6	0.05	0.1	
	Primary Maximum Contaminant Level						1000		1300					13			70									1	10	
	Secondary Maximum Contaminant Level				6.5-8.5	900	200	15	1000		0.5	300	50	5	3	100	1	5	5000	500	250			250				

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

ND: No Data due to DO meter being broken

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 Sevaine	Turner	Victoria	7th & 8th St.	Banana	Brooks	Declez	Ely	Hickory	RP3	San Sevaine	Turner	Victoria	7th & 8th St.	Banana	Brooks	Declez	Ely	Hickory	RP3	San Sevaine	Turner	Victoria
Jan-21	0	0	0	0	0	0	0	0	25	0	137	88	57	152	301	0	488	143	295	59	0	38	83	1	45	0	488	135	45	32
Feb-21	0	0	0	0	0	0	0	0	76	0	30	1	5	3	38	0	380	24	24	6	0	38	76	0	0	0	380	224	88	85
Mar-21	0	0	0	0	0	0	0	0	0	0	94	52	41	137	114	0	357	61	171	7	26	38	25	3	106	0	357	205	55	36
<b>1Q21 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>102</b>	<b>0</b>	<b>261</b>	<b>141</b>	<b>102</b>	<b>292</b>	<b>453</b>	<b>0</b>	<b>1225</b>	<b>228</b>	<b>490</b>	<b>72</b>	<b>26</b>	<b>114</b>	<b>183</b>	<b>4</b>	<b>150</b>	<b>0</b>	<b>1225</b>	<b>565</b>	<b>188</b>	<b>152</b>
Apr-21	0	0	0	0	0	0	0	0	0	0	11	2	0	7	51	0	492	0	27	0	100	127	171	33	112	0	492	287	29	0
May-21	0	0	0	0	0	0	0	0	0	0	9	0	0	5	127	0	521	0	67	0	0	102	55	153	137	0	521	258	49	0
Jun-21	0	0	0	0	0	0	0	0	2	0	6	0	0	6	153	0	472	0	136	0	0	98	56	153	190	0	472	339	4	0
<b>2Q21 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>27</b>	<b>2</b>	<b>0</b>	<b>18</b>	<b>332</b>	<b>0</b>	<b>1485</b>	<b>0</b>	<b>231</b>	<b>0</b>	<b>100</b>	<b>326</b>	<b>282</b>	<b>338</b>	<b>438</b>	<b>0</b>	<b>1485</b>	<b>884</b>	<b>82</b>	<b>0</b>
Jul-21	0	0	0	0	0	0	0	0	108	0	9	9	5	52	23	0	395	6	41	2	0	89	126	74	195	0	395	329	0	0
Aug-21	0	0	0	0	0	0	0	0	69	0	6	0	0	2	51	218	521	0	20	1	1	79	105	114	6	218	521	343	0	0
Sep-21	0	0	0	0	0	0	0	0	33	0	18	0	0	3	9	298	615	0	53	2	300	97	101	144	44	298	615	147	20	26
<b>3Q21 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>210</b>	<b>0</b>	<b>34</b>	<b>9</b>	<b>5</b>	<b>57</b>	<b>82</b>	<b>516</b>	<b>1531</b>	<b>6</b>	<b>114</b>	<b>6</b>	<b>301</b>	<b>265</b>	<b>332</b>	<b>332</b>	<b>245</b>	<b>516</b>	<b>1531</b>	<b>820</b>	<b>20</b>	<b>26</b>
Oct-21	0	0	0	0	0	0	0	0	27	0	31	5	14	24	10	51	565	7	39	2	299	52	75	105	106	51	565	261	211	255
Nov-21	0	0	0	0	0	0	0	0	33	0	6	0	5	7	2	36	567	0	45	0	400	48	44	51	4	36	567	286	137	100
Dec-21	0	0	0	0	0	0	0	0	13	0	458	109	134	207	1073	8	283	793	625	314	118	2	27	0	0	8	283	133	33	96
<b>4Q21 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>73</b>	<b>0</b>	<b>496</b>	<b>114</b>	<b>153</b>	<b>239</b>	<b>1085</b>	<b>95</b>	<b>1415</b>	<b>800</b>	<b>709</b>	<b>315</b>	<b>817</b>	<b>102</b>	<b>147</b>	<b>156</b>	<b>110</b>	<b>95</b>	<b>1415</b>	<b>681</b>	<b>381</b>	<b>451</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)
1Q21	Jan-21	0.0	0.2	140	0	13.0	380	(1,783)	(32,888)	(880,997)
	Feb-21	0.0	0.2	140	0	13.0	380	(1,784)	(32,890)	(881,035)
	Mar-21	0.0	0.2	140	0	13.0	380	(1,784)	(32,891)	(881,072)
2Q21	Apr-21	0.0	0.2	140	0	13.0	380	(1,784)	(32,891)	(881,072)
	May-21	0.0	0.2	140	0	13.0	380	(1,784)	(32,891)	(881,072)
	Jun-21	0.0	0.2	140	31	13.0	380	(1,815)	(33,394)	(895,783)
3Q21	Jul-21	0.0	0.2	140	0	13.0	380	(1,815)	(33,396)	(895,843)
	Aug-21	0.0	0.2	140	0	13.0	380	(1,815)	(33,399)	(895,923)
	Sep-21	0.0	0.2	140	0	13.0	380	(1,816)	(33,404)	(896,054)
4Q21	Oct-21	0.0	0.2	140	0	13.0	380	(1,816)	(33,406)	(896,139)
	Nov-21	0.0	0.2	140	0	13.0	380	(1,816)	(33,409)	(896,204)
	Dec-21	0.0	0.2	140	11	13.0	380	(1,827)	(33,583)	(901,314)

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)
1Q21	Jan-21	0.0	0.2	140	0	12.0	320	739	(40,823)	(251,729)
	Feb-21	0.0	0.2	140	0	12.0	320	739	(40,823)	(251,729)
	Mar-21	0.0	0.2	140	0	12.0	320	739	(40,823)	(251,729)
2Q21	Apr-21	0.0	0.2	140	0	12.0	320	739	(40,823)	(251,729)
	May-21	0.0	0.2	140	0	12.0	320	739	(40,823)	(251,729)
	Jun-21	0.0	0.2	140	0	12.0	320	738	(40,825)	(251,796)
3Q21	Jul-21	0.0	0.2	140	0	12.0	320	738	(40,825)	(251,796)
	Aug-21	0.0	0.2	140	0	12.0	320	738	(40,825)	(251,796)
	Sep-21	0.0	0.2	140	1	12.0	320	737	(40,847)	(252,365)
4Q21	Oct-21	0.0	0.2	140	1	12.0	320	736	(40,859)	(252,689)
	Nov-21	0.0	0.2	140	0	12.0	320	736	(40,861)	(252,736)
	Dec-21	0.0	0.2	140	0	12.0	320	736	(40,861)	(252,736)

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)
1Q21	Jan-21	0.0	0.2	140	0	12.0	320	(3,066)	(45,143)	(712,136)
	Feb-21	0.0	0.2	140	0	12.0	320	(3,066)	(45,143)	(712,136)
	Mar-21	0.0	0.2	140	0	12.0	320	(3,066)	(45,143)	(712,136)
2Q21	Apr-21	0.0	0.2	140	0	12.0	320	(3,066)	(45,143)	(712,136)
	May-21	0.0	0.2	140	0	12.0	320	(3,066)	(45,143)	(712,136)
	Jun-21	0.0	0.2	140	0	12.0	320	(3,066)	(45,143)	(712,136)
3Q21	Jul-21	0.0	0.2	140	0	12.0	320	(3,066)	(45,143)	(712,136)
	Aug-21	0.0	0.2	140	0	12.0	320	(3,066)	(45,143)	(712,136)
	Sep-21	0.0	0.2	140	0	12.0	320	(3,066)	(45,143)	(712,136)
4Q21	Oct-21	0.0	0.2	140	0	12.0	320	(3,066)	(45,143)	(712,136)
	Nov-21	0.0	0.2	140	0	12.0	320	(3,066)	(45,143)	(712,136)
	Dec-21	0.0	0.2	140	0	12.0	320	(3,066)	(45,143)	(712,136)

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

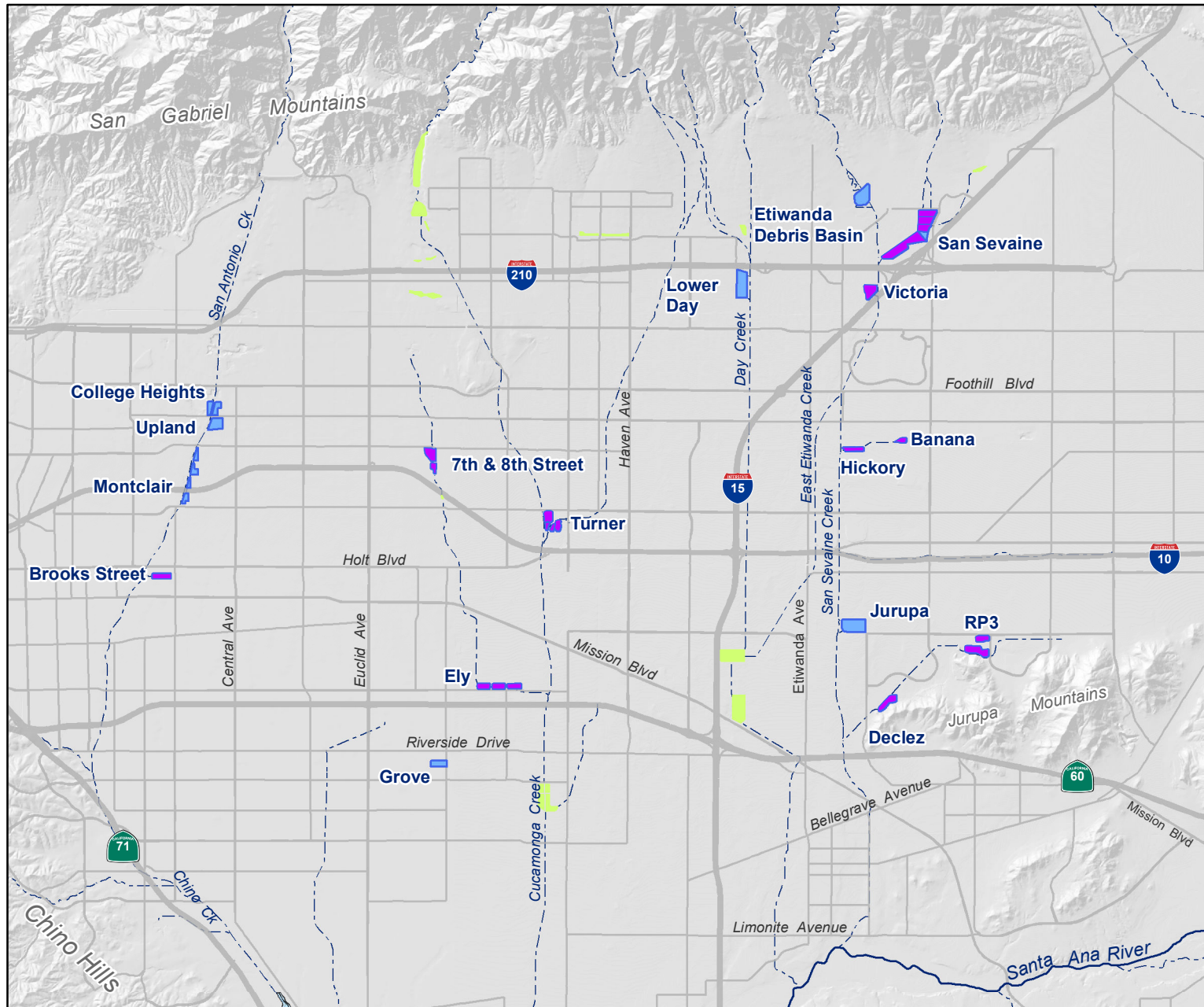
ASR Well No. 33										
	Date	Injection			Recovery			Mass Balance		
		Volume (AF)	TIN (mg/L)	TDS (mg/L)	Volume (AF)	TIN (mg/L)	TDS (mg/L)	Storage (AF)	TIN (kg)	TDS (kg)
1Q21	Jan-21	0.0	0.2	140	0	12.0	320	(2,061)	(79,680)	(1,153,682)
	Feb-21	0.0	0.2	140	0	12.0	320	(2,061)	(79,680)	(1,153,682)
	Mar-21	0.0	0.2	140	0	12.0	320	(2,061)	(79,680)	(1,153,682)
2Q21	Apr-21	0.0	0.2	140	0	12.0	320	(2,061)	(79,680)	(1,153,682)
	May-21	0.0	0.2	140	0	12.0	320	(2,061)	(79,680)	(1,153,682)
	Jun-21	0.0	0.2	140	0	12.0	320	(2,061)	(79,680)	(1,153,682)
3Q21	Jul-21	0.0	0.2	140	0	12.0	320	(2,061)	(79,680)	(1,153,682)
	Aug-21	0.0	0.2	140	0	12.0	320	(2,061)	(79,680)	(1,153,682)
	Sep-21	0.0	0.2	140	0	12.0	320	(2,061)	(79,680)	(1,153,682)
4Q21	Oct-21	0.0	0.2	140	0	12.0	320	(2,061)	(79,680)	(1,153,682)
	Nov-21	0.0	0.2	140	0	12.0	320	(2,061)	(79,680)	(1,153,682)
	Dec-21	0.0	0.2	140	0	12.0	320	(2,061)	(79,681)	(1,153,705)

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

Cells shaded in grey reflect most recent lab values.

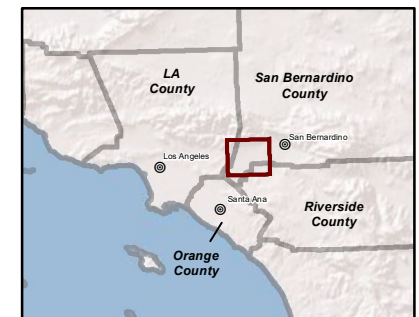
Total Project (All Wells)					
	Date		Mass Balance		
			Storage (AF)	TIN (kg)	TDS (kg)
1Q21	Jan-21		(6,172)	(198,534)	(2,998,544)
	Feb-21		(6,172)	(198,536)	(2,998,581)
	Mar-21		(6,172)	(198,537)	(2,998,619)
2Q21	Apr-21		(6,172)	(198,537)	(2,998,619)
	May-21		(6,172)	(198,537)	(2,998,619)
	Jun-21		(6,204)	(199,043)	(3,013,396)
3Q21	Jul-21		(6,204)	(199,045)	(3,013,457)
	Aug-21		(6,204)	(199,048)	(3,013,537)
	Sep-21		(6,206)	(199,073)	(3,014,237)
4Q21	Oct-21		(6,207)	(199,088)	(3,014,645)
	Nov-21		(6,207)	(199,092)	(3,014,758)
	Dec-21		(6,218)	(199,268)	(3,019,891)





### Main Map Features

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



### Chino Basin Recycled Water Groundwater Recharge Program

Basin Locations

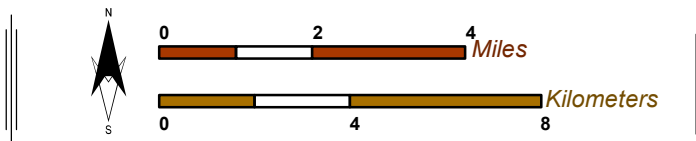
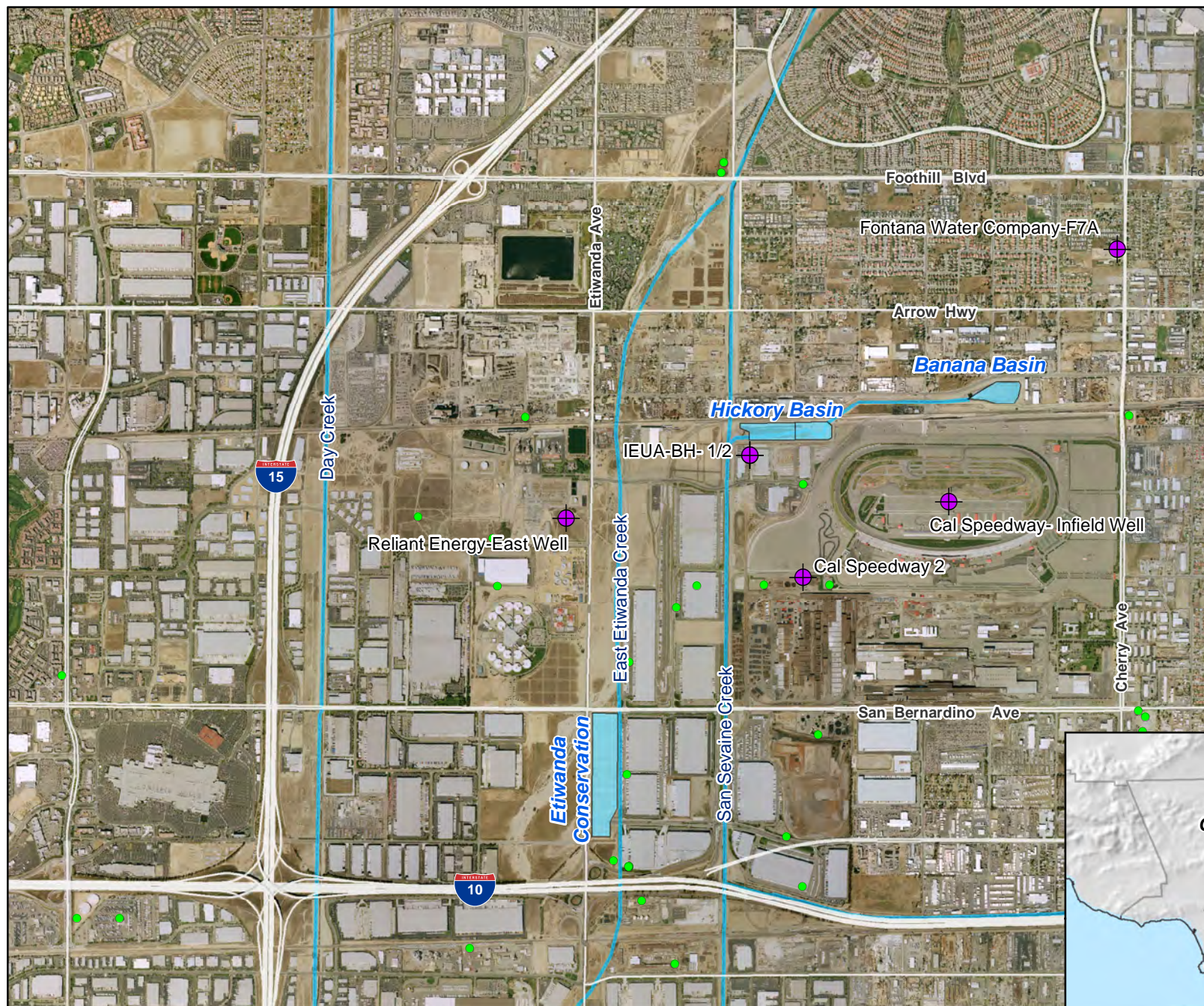






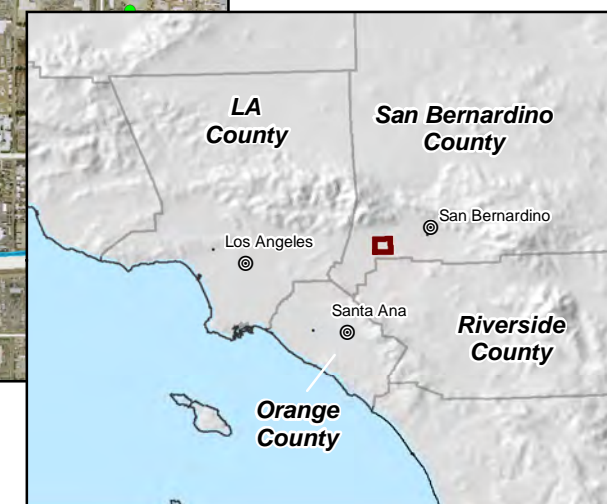
Figure 1-1





## Main Map Features

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



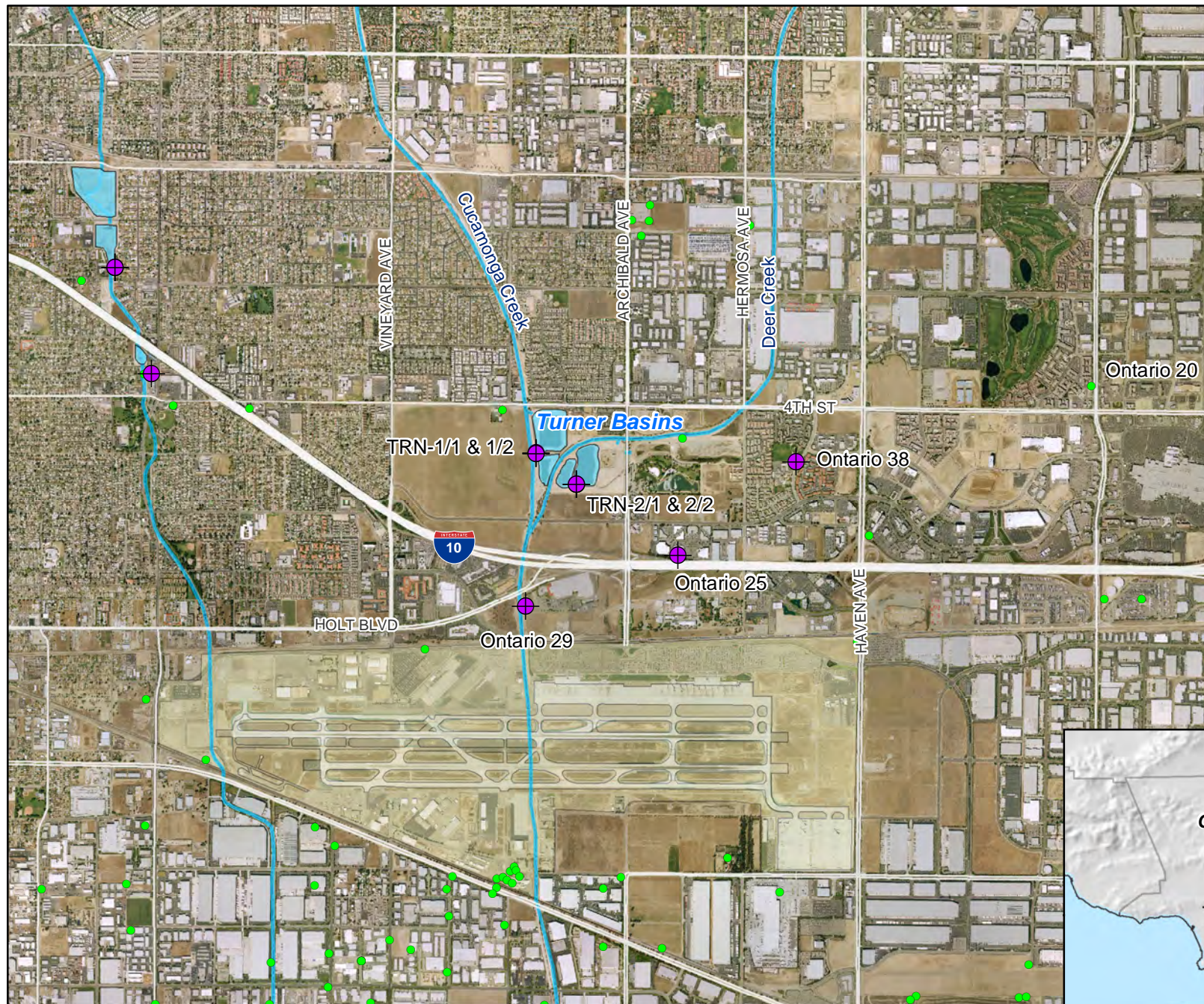
## Monitoring Well Network Hickory and Banana Basins

**Figure 2-1**





Recycled Water Recharge Program







## Main Map Features

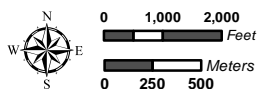
-  Existing Monitoring Well
-  "Other Wells"
-  Rivers/Streams/Creeks
-  Recharge Basins



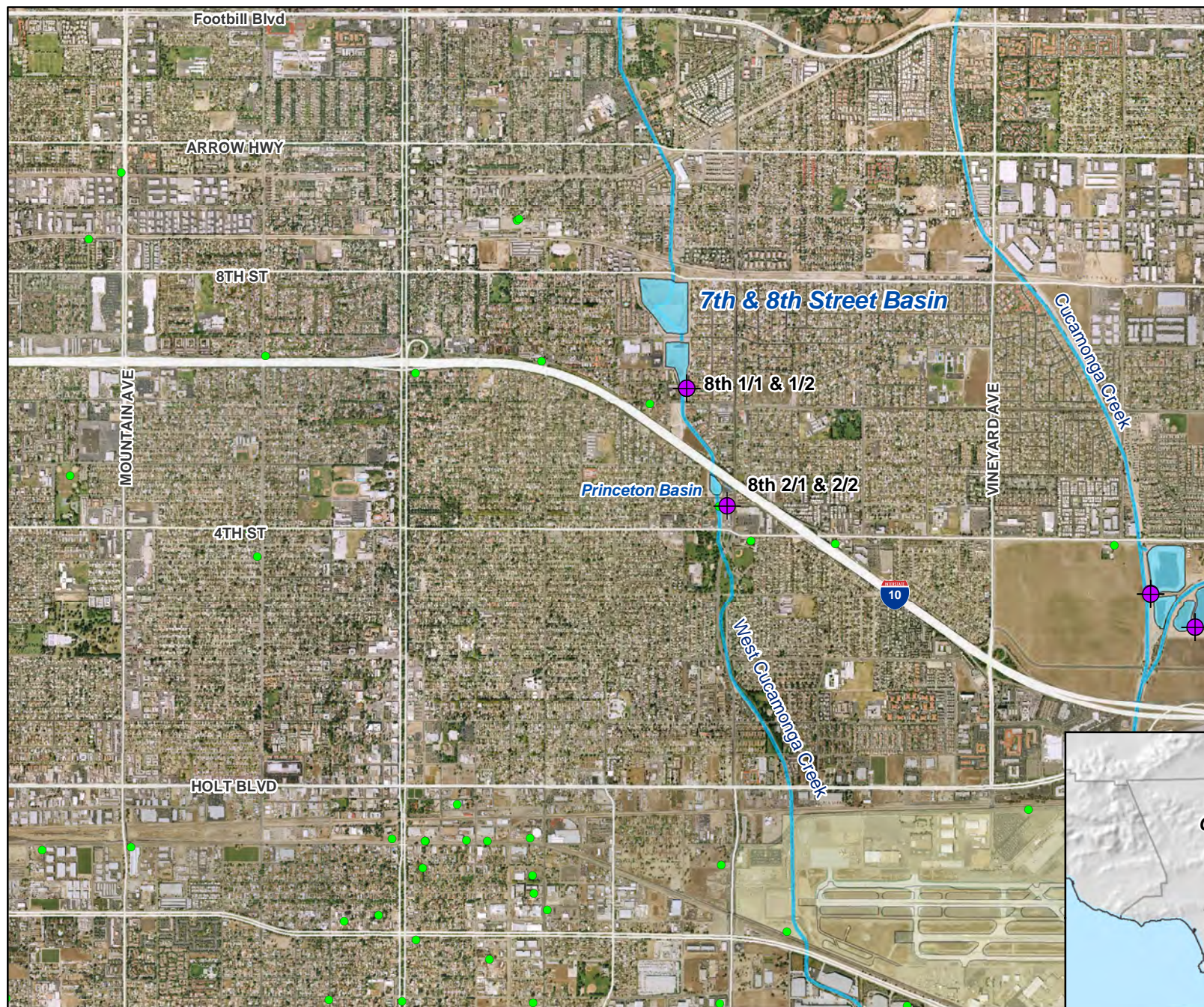
**Monitoring Well Network**  
Turner Basins

**Figure 2-2**





Recycled Water Recharge Program







## Main Map Features

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

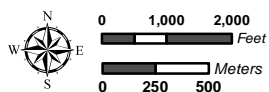


## Monitoring Well Network

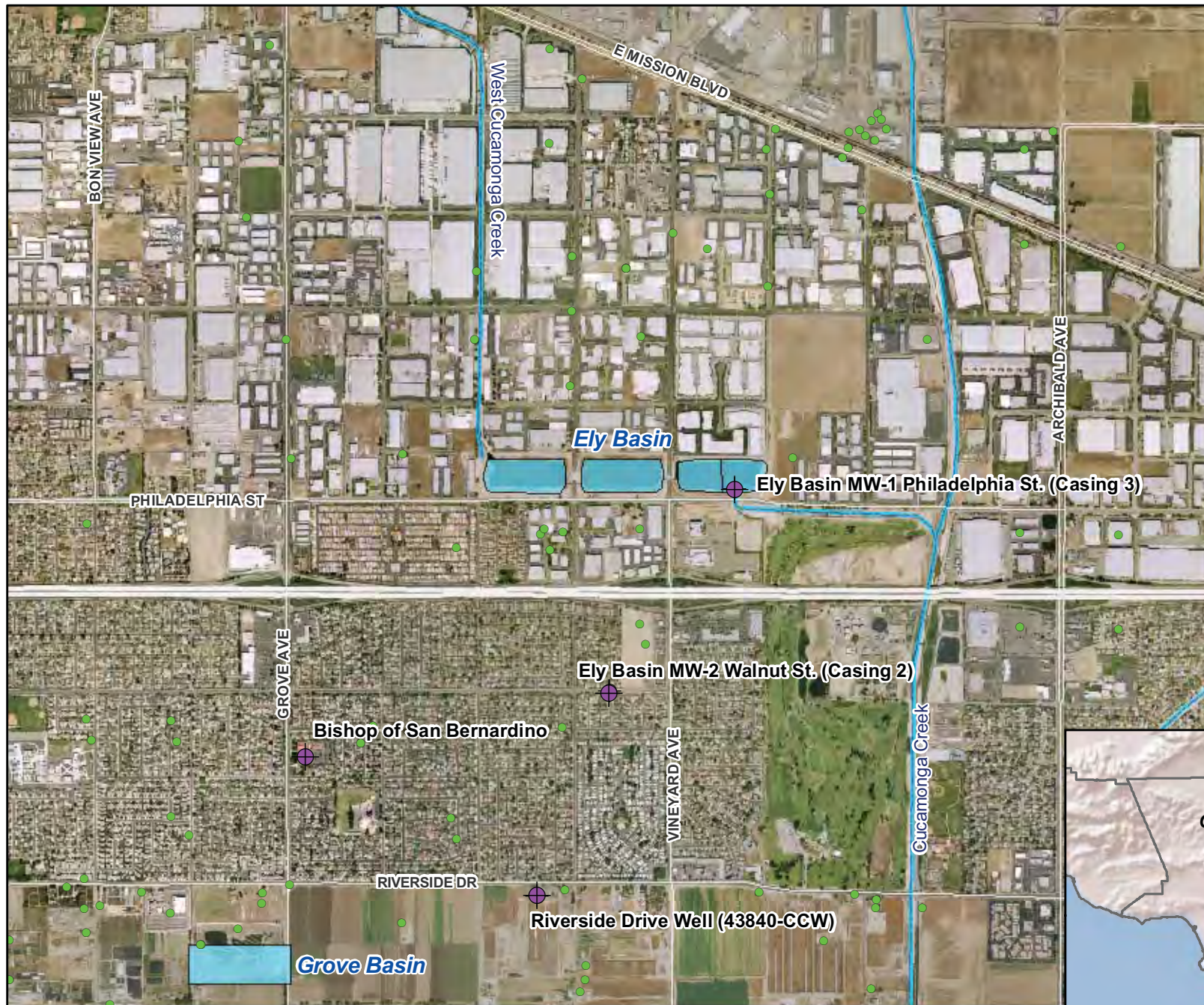
7th and 8th Street Basin

**Figure 2-3**





Recycled Water Recharge Program







### Main Map Features

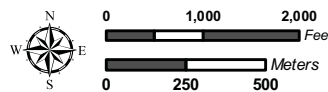
-  Existing Monitoring Well
-  "Other Wells"
-  Rivers/Streams/Creeks
-  Recharge Basins



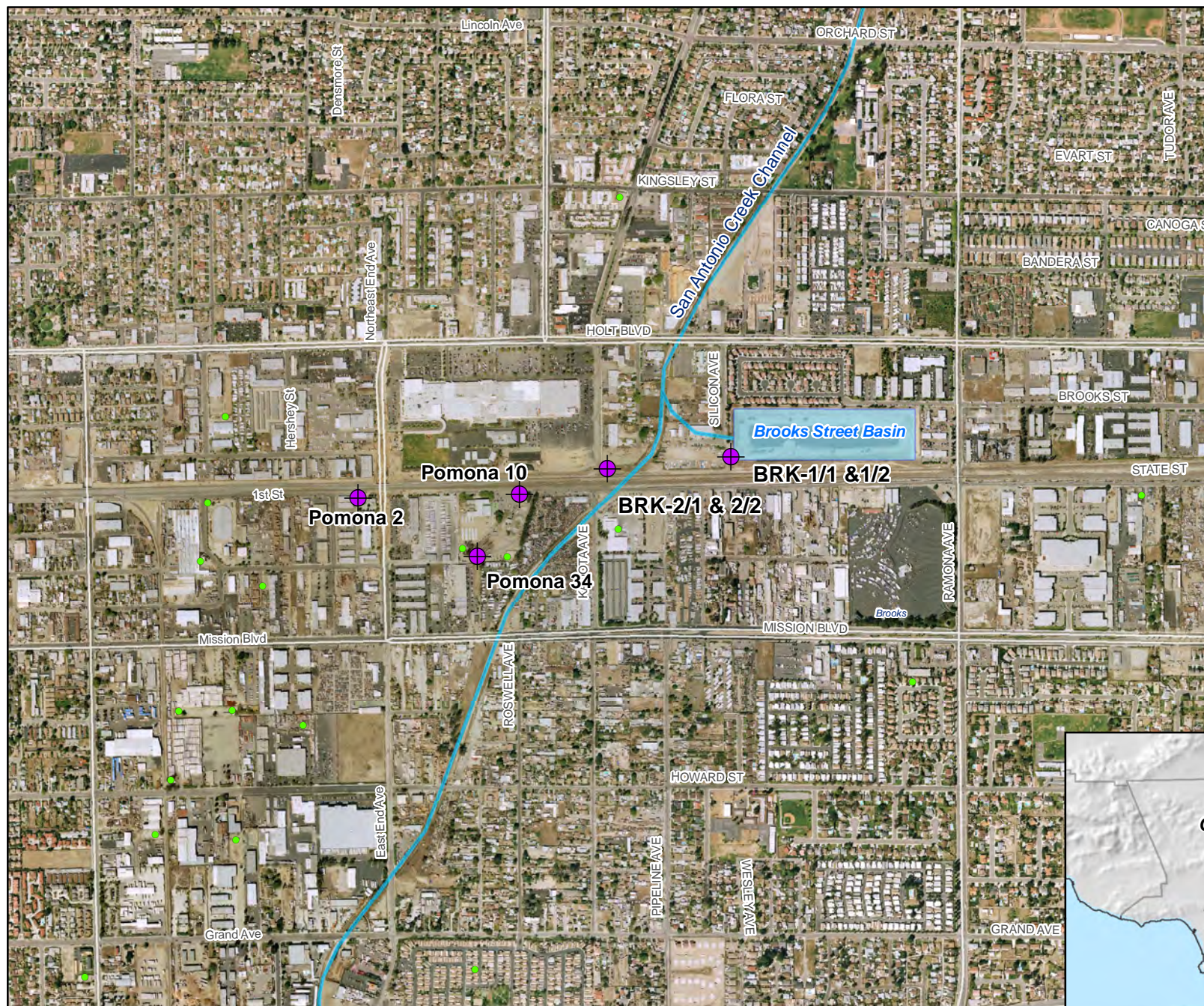
**Monitoring Well Network**  
*Ely Basins*

**Figure 2-4**





Recycled Water Recharge Program







## Main Map Features

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



## Monitoring Well Network

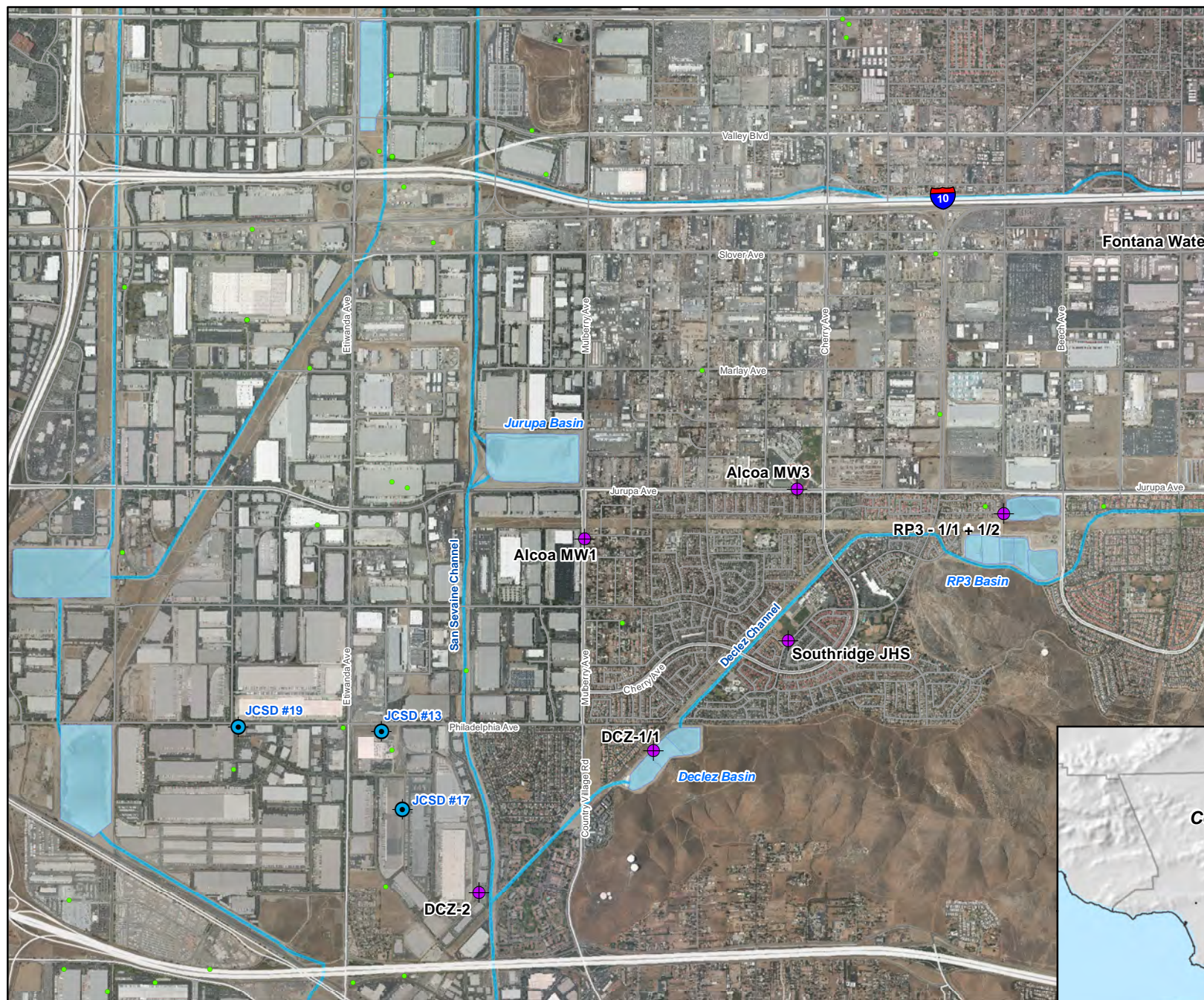
Brooks Street Basin

**Figure 2-5**






Recycled Water Recharge Program







## Main Map Features

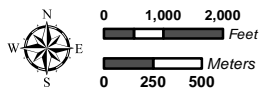
-  JCSD Wells
-  "Other Wells"
-  Existing Monitoring Well
-  Rivers/Streams/Creeks
-  Recharge Basins



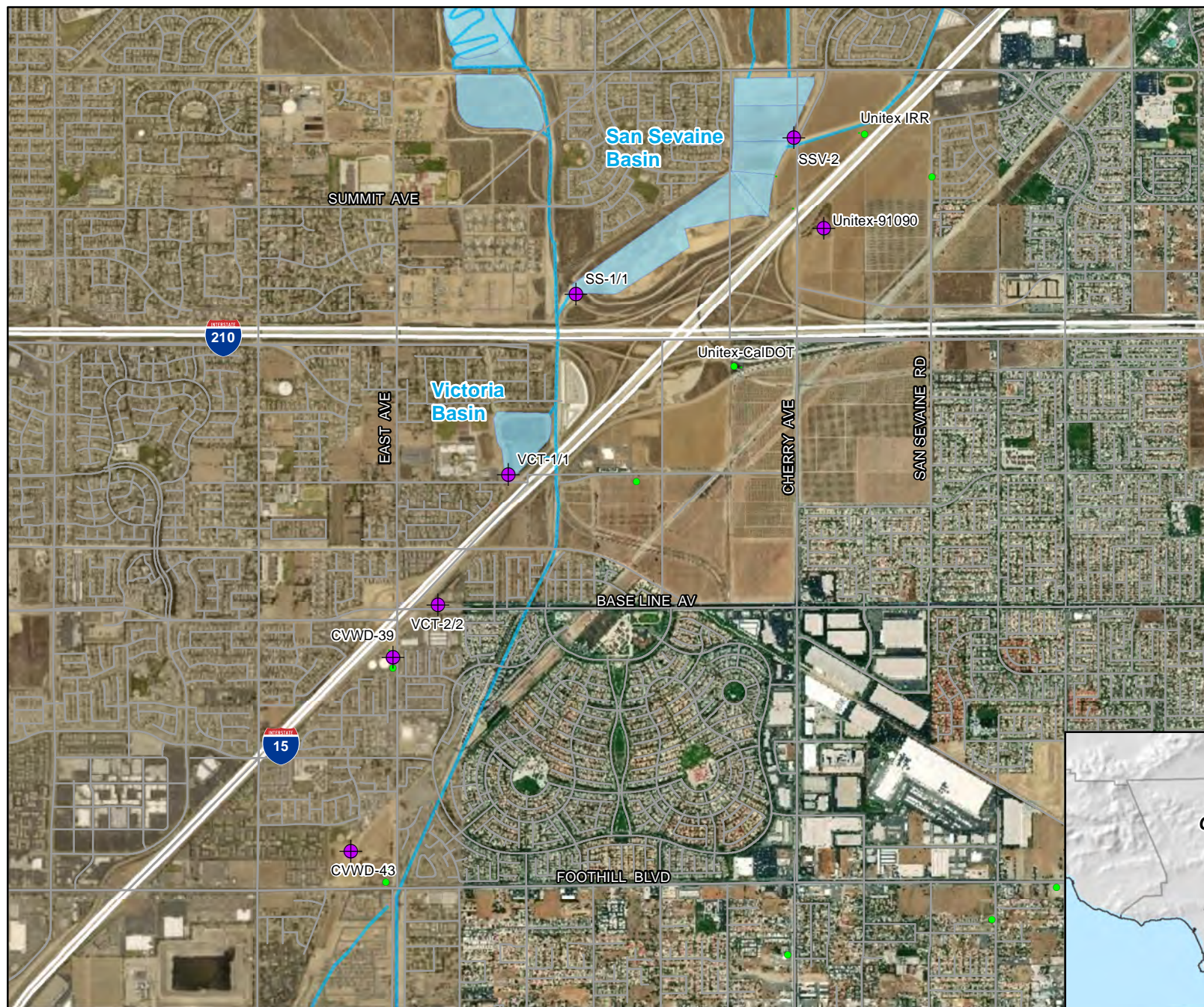
**Monitoring Well Network**  
Declez and RP3 Basins

**Figure 2-6**

Recycled Water Recharge Program







## Main Map Features

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



## Monitoring Well Network

San Sevaïne and Victoria Basin

**Figure 2-7**

Recycled Water Recharge Program

