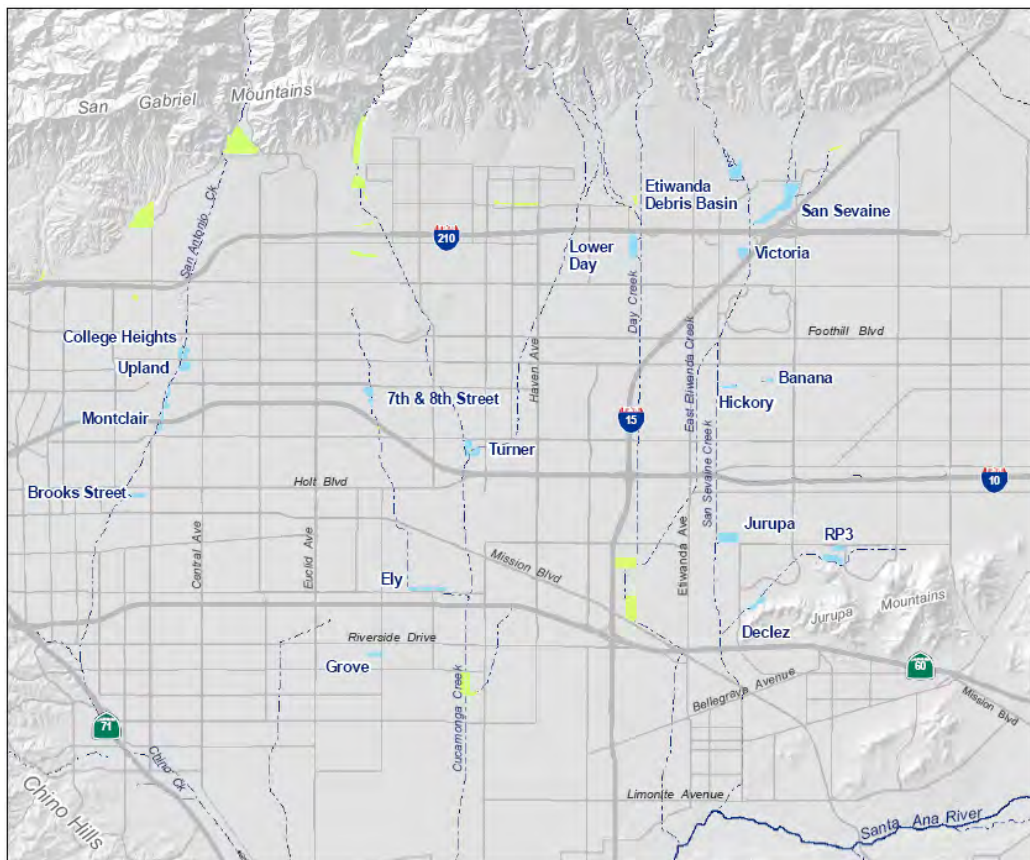


# Chino Basin Recycled Water Groundwater Recharge Program

## 2020 Annual Report



May 1, 2021



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

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

May 1, 2021

Regional Water Quality Control Board, Santa Ana Region

**Attention: Ms. Hope Smythe**

3737 Main Street, Suite 500

Riverside, California 92501-3348

**Subject: Transmittal of the Annual Report for 2020  
Chino Basin Recycled Water Groundwater Recharge Program**

Dear Ms. Smythe:

The Inland Empire Utilities Agency (IEUA) and the Chino Basin Watermaster (CBWM) hereby submit the *2020 Annual Report* for the *Recycled Water Groundwater Recharge Program*. The recycled water groundwater recharge program is being implemented by IEUA and CBWM and its annual reporting is pursuant to requirements of the following orders:

- California Regional Water Quality Control Board, Santa Ana Region. Order No. R8-2007-0039. Water Recycling Requirements for IEUA and CBWM. Chino Basin Recycled Water Groundwater Recharge Program: Phase I and Phase II Projects, San Bernardino County, June 29, 2007.
- California Regional Water Quality Control Board, Santa Ana Region. Order No. R8-2009-0057 Amending Order No. R8-2007-0039 for IEUA and CBWM. Chino Basin Recycled Water Groundwater Recharge Program: Phase I and Phase II Projects, San Bernardino County, October 23, 2009.

## **ACTIVITIES, FINDINGS, AND CONCLUSIONS**

The following bullets summarize the principal activities, findings, and conclusions of the *Recycled Water Groundwater Recharge Program* for 2020:

- The 2020 calendar year include annual program recharge of 26,497.8 acre-feet (AF), which includes 7,351.0 AF of storm water and dry weather flows (including well pump to waste recharge); 15,509.3 AF of recycled water; and 3,637.5 AF of imported water.
- During 2020, recycled water quality monitoring was conducted in accordance with Monitoring and Reporting Program No. R8-2007-0039. No primary or secondary regulated maximum contaminant limits (MCLs) or notification levels (NLs) were exceeded during 2020 with the exception of the primary MCL for 1,2,3-trichloropropane (1,2,3-TCP), secondary MCL for odor, and NL for perfluorooctanoic acid (PFOA).
- No corrective actions were necessary for RP-1 and RP-4. No unit process changes occurred during 2020.

- In-aquifer blending of recycled water, diluent water, and native groundwater is evident at monitoring wells near 8<sup>th</sup> Street, Banana, Hickory, Brooks, Ely, Turner, Victoria, and RP3 Basins. For 8<sup>th</sup> Street, Banana, Hickory, and Brooks Basins, blending was observed to be occurring both in the groundwater mound and downgradient. Evidence includes variations in water chemistry, variations in water levels, and recharge ratios of water sources.
- At the end of 2020, the volume-based 120-month running average recycled water contributions (RWCs), inclusive of groundwater underflow, by basin were: 8<sup>th</sup> Street - 23%; Banana - 35%; Brooks - 14%; Declez 8%, Ely - 25%, Hickory - 19%, RP3 - 20%; San Sevaine - 7%; Turner Basin Cells 1&2 - 24%; Turner Basin Cells 3&4 – 25%; and Victoria - 28%. These basins are all in compliance with their maximum RWC limits.
- CBWM has verified in the Recycled Water Groundwater Recharge Quarterly Monitoring Reports that there was no reported pumping of groundwater in 2020 for domestic or municipal use from zones that extend 500 feet and 6-months underground travel time from the 8<sup>th</sup> Street, Banana, Brooks, Declez, Ely, Hickory, Turner, RP3, San Sevaine, and Victoria recharge sites.
- Sufficient data exist to estimate approximate arrival times of recycled water at several monitoring wells based on observed trends in EC, TDS, and chloride concentration at the following monitoring wells 8TH-1/1 (22 months) 8TH-2/2 (123 months) for 8th Street Basin; BRK-1/1 (5 months), BRK-1/2 (17 months) and BRK-2/1 (28 months) for Brooks Basin; Philadelphia Well (13 months) for Ely Basin, BH-1/2 (2 months) for Hickory Basin; California Speedway Infield Well (29 months) and Speedway 2 (83 months) for Banana Basin; T-1/2 (3.2 months) for Turner Cell 1; T-2/2 (13 months) and Ontario Well No. 25 (48 months) for Turner Cell 4; VCT-1/1 (7.5 months) for Victoria Basin, DCZ-1/1 (23 months), and RP3-1 (3.3 months) for RP3 Basin Cell 1. Other monitoring wells have not yet shown definitive variations in EC, TDS, and chloride that would signal arrival of recycled water at these well sites.
- Comparison of the pre-recharge groundwater elevation contour map (Fall 2003) with the most recent groundwater elevation contour map (Spring 2018) indicates that for areas near the recharge basins, there were minor regional changes in groundwater elevation, but the recharge program has not significantly changed groundwater flow directions. The 2020 groundwater elevations measured in the program monitoring wells have generally changed less than the contour interval (25 feet) used in the past regional groundwater elevation maps. The only significant differences in groundwater flow direction between the 2003 and 2018 maps is 1) the mound at 8<sup>th</sup> Street, which between 2012 and 2016 had a more westward direction as opposed to a south-southwest direction in 2003 and 2) a large mound at the Turner basin that is now sustained and larger than the 25-foot contour interval. For 8<sup>th</sup> Street basin, the difference may indicate the 8<sup>th</sup> Street Basin downgradient monitoring well location (8TH-2) is not appropriately located to characterize downgradient recharge water quality. Other differences include a deeper and larger area pumping depression has developed in the vicinity of the Chino Desalter well field (area of hydraulic control) and a smaller pumping depression has developed in Pomona west of Brooks Basin. Some changes in the contouring style/methodology are evident between the 2003 and 2018 maps. For example, the groundwater contours in the area north of Victoria and San Sevaine basins have not been interpreted since the 2008 contour map.

## 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 fines and imprisonment.

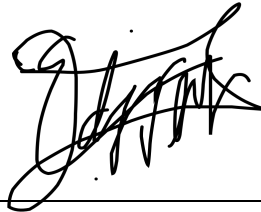
Executed on the 1<sup>st</sup> day of May 2021 in the Cities of Chino and Rancho Cucamonga.

Randy Lee

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-07'00'

Randy Lee, P.E.

*Executive Manager of Operations/  
Assistant General Manager*



FOR Peter Kavounas, P.E.

*General Manager*



# Chino Basin Recycled Water Groundwater Recharge Program

## 2020

## Annual Report

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Randy Lee, P.E.

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May 1, 2021

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## 1 INTRODUCTION

This is the 2020 Annual Report for the Chino Basin Recycled Water Groundwater Recharge Program. Inland Empire Utilities Agency (IEUA), Chino Basin Watermaster (CBWM), 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. The recharge program is part of a comprehensive 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 storm water, imported water and recycled water. Figure 1-1 is a location map of the recharge basin locations used in the Recycled Water Groundwater Recharge Program. Recharge operations for 8<sup>th</sup> Street, Banana, Brooks, Ely, Hickory, RP3, Turner, San Sevaïne, and Victoria Basins have previously been summarized in the four 2020 quarterly monitoring reports to the Regional Board Water Quality Control Board (Regional Board) for these basins where recharge of recycled water has been initiated.

In calendar year 2020, 26,497.8 acre-feet (AF) of water was recharged in the Chino Basin, this includes: 7,351.0 AF of storm water and dry weather flows (including pump to waste recharge), 15,509.3 AF of recycled water, and 3,637.5 AF of imported water. The reported recharge volumes for supplemental water (imported and recycled) include the application of a reduction factor to the metered volumes to account for evaporative losses.

### 1.1 Requirements of Order No. R8-2007-0039

This Recycled Water Groundwater Recharge Program is subject to requirements in the following documents issued by the California Regional Water Quality Control Board Santa Ana Region:

- Order No. R8-2007-0039 Water Recycling Requirements for IEUA and CBWM, Chino Basin Recycled Water Groundwater Recharge Program, Phase I and Phase II Projects, San Bernardino County, June 29, 2007;
- Monitoring and Reporting Program No. R8-2007-0039 for IEUA and CBWM, Chino Basin Recycled Water Groundwater Recharge Program Phase I and Phase II Projects, San Bernardino County, June 29, 2007;
- Order No. R8-2009-0057 Amending Order No. R8-2007-0039 for IEUA and CBWM, Chino Basin Recycled Water Groundwater Recharge Program: Phase I and Phase II Projects, San Bernardino County, October 23, 2009; and
- Revised Monitoring and Reporting Program No. R8-2007-0039 for IEUA and CBWM. Chino Basin Recycled Water Groundwater Recharge Program: Phase I and Phase II Projects, San Bernardino County, October 27, 2010.

On June 18, 2014, the State Water Resources Control Board – Division of Drinking Water (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 Monitoring and Reporting Program (MRP) in the Order No. R8-2007-0039 describes the requirements for the Annual Reports. The following is an excerpt from Section VI of the MRP:

3. The annual report shall include the following:
  - a. A list of the analytical methods employed for each test and associated laboratory quality assurance/quality control procedures. The report shall restate, for the record, the laboratories used by the users to monitor compliance with this Order and their status of certification. Upon request by Regional Board staff, the users shall also provide a summary of performance.
  - b. A mass balance to ensure that blending is occurring in the aquifer at each recharge basin. Recharge water groundwater flow paths shall be determined annually from groundwater elevation contours and compared to the flow and transport model's flow paths, travel of recharge waters, including leading edge of the recharged water plume, any anticipated changes. The flow and transport model shall be updated to match as closely as possible the actual flow patterns observed within the aquifer if the flow paths have significantly changed.
  - c. A summary of corrective actions taken as a result of violations, suspensions of recharge, detections of monitored constituents and any observed trends, information on the travel of the recycled water (estimated location of the leading edge), description of any changes in operation of any unit processes or facilities, and description of any anticipated changes, including any impacts on other unit processes.
  - d. A summary of calibration records for equipment, such as pH meters, flow meters, turbidity meters, and lysimeters.
  - e. All downgradient public drinking water systems. A summary discussion on whether domestic drinking water wells extracted water within the buffer zone defined by the area less than 500 feet and 6 months underground travel time from the recharge basins, including the actions/measures that were undertaken to prevent reoccurrence. If there were none, a statement to that effect shall be written.
  - f. A summary of the results and recommendations of any tracer testing conducted during the past year.
4. At least one year after the blended recharged water has reached at least one groundwater monitoring well, the users shall submit a report to the CDHS and Regional Board evaluating the compliance with the minimum underground retention time, distance to the nearest point of extraction, blending, and the maximum RWC requirements. The annual report shall include water quality data on turbidity, coliform, total nitrogen, dissolved oxygen, regulated contaminants, TOC, and non-regulated contaminants compliance.

## 1.2 Organization of the Annual Report

The annual report contains two main sections: Section 2: Recycled Water Quality Monitoring and Section 3: Groundwater Recharge Monitoring. Supporting documents for these sections are included in the 2020 quarterly monitoring reports or are provided as appendices to this report. Section 2 discusses compliance with recycled water production specifications and other water quality requirements. Section 3 discusses the blending and movement of recycled water in the groundwater basin.



## 2 RECYCLED WATER QUALITY MONITORING

### 2.1 Recycled Water Quality Specifications

During 2020, recycled water quality monitoring was conducted in accordance with the required frequency for all parameters as specified in MRP No. R8-2007-0039. All monitoring and compliance data for the year can be found in the quarterly monitoring reports submitted to the Regional Board (IEUA 2020a, 2020b, 2020c, 2021).

#### 2.1.1 *Detections and Compliance with Narrative Limits*

Recycled Water Specifications A.5 through A.9 are narrative limits in the permit. The 2020 recycled water quality monitoring data and associated limits for specifications A.5 through A.9 are shown in Tables 2-1 and 2-2 of the quarterly monitoring reports.

The monitoring and compliance for the parameters in Table 2-1 of the quarterly monitoring reports is based on the analysis of the two separate recycled water sources, Regional Plant No. 1 (RP-1) and Regional Plant No. 4 (RP-4) sampled at the NPDES-permitted monitoring locations (M-001B/REC-001 and REC-002) at their respective facilities. In accordance with MRP No. R8-2007-0039, the required monitoring frequency for turbidity and pH is continuous; total inorganic nitrogen (TIN), total nitrogen (TN), and total organic carbon (TOC) is weekly; and total dissolved solids (TDS) is monthly. Compliance with the TN limit of 5 mg/L can also be met at the lysimeters (Table 2-5a of quarterly reports) or at locations specified in alternative monitoring plans (Table 2-5b of quarterly reports). None of the narrative limits for turbidity, TDS, TIN, pH, or TOC were exceeded during 2020.

Table 2-2 of the quarterly report presents IEUA's Agency-wide 12-month running average for TDS and TIN as required by the NPDES permit. During 2020, there were no exceedances of the agency-wide 12-month running average for TDS and TIN.

#### 2.1.2 *Detections and Compliance with Regulated and Non-regulated Contaminants*

Recycled Water Specifications A.1 through A.3 and A.15 of Order No. R8-2007-0039 are limits based primary maximum contaminant levels (MCLs), secondary MCLs, and Action Levels established by the Environmental Protection Agency (EPA). The monitoring for compliance of these parameters is based on the analysis of a sample collected at a recycled water sampling point along the distribution pipeline. The sample point was the RP-4 1299 Pressure Zone Pump Station, as it represents a mixture of recycled water from both RP-1 and RP-4 (RW Blend). During the Compliance Assessment Report (CAR) review, DDW identified that 001B effluent must be sampled and reported independently of the RW Blend.

The 2020 recycled water quality monitoring data and associated limits for Recycled Water Specifications A.1 through A.3 are shown in Table 2-3a (RW Blend) and Table 2-3b (001B Effluent) of the quarterly monitoring reports. Compliance determination for these constituents is based on 4-quarter running averages. In accordance with MRP No. R8-2007-0039, the required monitoring frequency for constituents with primary MCLs is quarterly and constituents with

secondary MCLs is annually. During 2020, the 4-quarter running average concentrations for constituents with primary MCLs, secondary MCLs, and action levels did not exceed compliance limits, with the exception of the 1,2,3-Trichloropropane, and odor (see Section 2.5).

Non-regulated contaminants include the remaining priority pollutants, endocrine disrupting chemicals & pharmaceuticals, and unregulated chemicals. These constituents do not have associated limits; however, they require annual monitoring in accordance with MRP No. R8-2007-0039 (Table II. Recycled Water Monitoring). Several non-regulated contaminants are sampled and reported more frequently than the required annual frequency due to having the same analysis methods used to monitor compounds with primary MCLs. Additionally, in accordance with Title 22, Division 4, Chapter 3. Article 5.1 §60320.120(b) the monitoring frequency of recycled water for chemicals with State notification levels (NLs) increased from annually to quarterly. The non-regulated contaminants monitoring data for recycled water can be found in Table 2-4a (RW Blend) and Table 2-4b (001B Effluent) of the quarterly monitoring report.

The compliance sampling point for Total Trihalomethanes (TTHMs) and Total Haloacetic Acids (HAA5) not at the RW Blend. Lysimeter compliance sampling for these parameters is performed at groundwater recharge basins actively receiving recycled water prior to sampling. Compliance for TTHMs and HAA5 were consistently met throughout 2020 at the selected compliance lysimeters.

## 2.2 Groundwater Quality Monitoring

Groundwater quality data is collected at designated monitoring wells, and at the nearest down gradient potable water supply well near recharge basins utilizing recycled water. Location maps for wells monitored for the recharge program are presented on Figures 2-1 through 2-7 for Hickory & Banana, Turner, 7th & 8th Street, Ely, Brooks, Declez & RP3, and San Sevaine & Victoria Basins, 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. At the monitoring wells specified in Condition No. 19 in the Phase I Findings of Fact (FOF) of Order No. R8-2005-0033 and Condition No. 25 in the Phase II FOF of Order No. R8-2007-0039, groundwater quality samples are collected and tested annually for constituents specified in Condition No. 27 of the Phase II FOF.

The 2014 GRRP regulations require two downgradient monitoring wells to be monitored quarterly for Priority Pollutants, and that the wells are located (A) no less than two weeks but no more than six months of travel through the unsaturated zone affected by the project, and (B) at least 30 days upgradient of the nearest drinking water well be monitored quarterly for Priority Toxic Pollutants.

All quarterly groundwater quality data collected at the monitoring wells is reported in Table 2-9a and 2-9b of the quarterly monitoring reports. Annual monitoring well data for 2020 can be found in Table 2-9c in the 2Q20 report.

Groundwater quality monitoring results can be used to assess background or baseline conditions, to estimate the time of arrival of recharge waters and the percentage of recycled water at a

monitoring well, and to access the impacts of recharged water on down-gradient groundwater supplies. Section 3.2 and Section 3.4 of this report describe how the groundwater quality monitoring results are used for these purposes in more detail. Section 2.5 of this report describes any exceedances of a primary or secondary MCL, or the presence of total coliform in groundwater samples during 2020, and the notification to the DDW.

## 2.3 Laboratory Certifications and Test Methods

Water quality samples collected for the recycled water recharge program are analyzed by either the IEUA or Eurofins Eaton Analytical (EEA) laboratories. Both laboratories are DDW Environmental Laboratory Accreditation Program (ELAP) certified, pursuant to the California Environmental Laboratory Improvement Act. The IEUA laboratory certification is valid through October 2021 and the EEA laboratory certification is valid through January 2022.

To ensure the quality and reliability of test measurements and results, specific programs and procedures have been developed by both the IEUA and EEA. The 2020 Annual Laboratory QA/QC Data Summary Report was also submitted to the Regional Board as an attachment in IEUA's 2020 Annual NPDES Report.

## 2.4 Calibration Summary

The field parameters of temperature, pH, conductivity, dissolved oxygen, oxidation/reduction potential were recorded during monitoring well sampling using a QED MP20 Multiparameter Meter. This instrument utilizes a flow-cell to allow water to flow through the meter chamber without exposure to the atmosphere. Field analytical instruments used throughout this project were maintained and calibrated each day of use. Calibration was conducted according to instructions provided by the instrument manufacturer.

## 2.5 Violations, Suspensions, and Corrective Actions

There were no exceedances for the parameters analyzed during 2020 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)*; secondary MCLs for required constituents, *with the exception of odor*; and oil and grease. 1,2,3-TCP, PFOA, odor, and oil and grease exceedances are detailed below:

### 1,2,3-TCP

During 3Q19, recycled water monitoring initiated at the new RW Blend and 001B Effluent sample points and 1,2,3-TCP was detected above the MCL of 0.005 µg/L. A confirmation sample was collected within 72 hours of notification of the first results, and in accordance with Title 22 California Code of Regulations, Division 4, Chapter 3, Article 5.1 (GRRP regulations) §60320.112(d)(2), weekly sampling began on 10/24/19.

- 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.” 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 §60320.112(d)(2)(B) during 1Q20 and notified the DDW and the Regional Board within 48 hours after the final results were received. Notifications of exceedance were emailed to the Regional Board and DDW on February 20, 2020 for the RW Blend and on January 22, 2020 for the 001B Effluent.
- In a March 5, 2020 email, DDW stated that IEUA needs to continue with weekly samples for 1,2,3-TCP in the recycled water. Weekly sampling was reinitiated during the third week of March 2020. However, based on the 2Q20 data, accelerated monitoring returned back to quarterly due to a minimum of three consecutive 4-sample averages of less than the MCL of 0.005 µg/L.

The 1,2,3-TCP results from 3Q19 through 2Q20 are shown below:

Sample	Date	RW Blend (µg/L)	4-sample avg (µg/L)	Sample	Date	001B Eff (µg/L)	4-sample avg (µg/L)
Original	09/18/19	0.012	<0.005	Original	09/04/19	0.016	--
Confirmation	10/02/19	0.010	0.005	Confirmation	09/26/19	0.014	--
Week 1	10/24/19	0.008	0.007	Week 1	10/02/19	0.017	0.012
Week 2	10/29/19	0.016	0.011	Week 2	10/08/19	0.018	0.013
Week 3	11/06/19	0.009	0.011	Week 3	10/16/19	0.018	0.017
Week 4	11/12/19	0.012	0.011	Week 4	10/24/19	0.013	0.016
Week 5	11/19/19	<0.005	0.009	Week 5	10/29/19	0.018	0.016
Week 6	11/26/19	<0.005	0.005	Week 6	11/06/19	0.006	0.014
Week 7	12/03/19	0.010	0.005	Week 7	11/12/19	0.013	0.012
Week 8	12/10/19	0.012	0.005	Week 8	11/19/19	0.007	0.011
Week 9	12/17/19	0.015	0.009	Week 9	11/26/19	<0.005	0.006
Week 10	12/26/19	0.016	0.013	Week 10	12/03/19	0.007	0.007
Week 11	12/31/19	0.018	0.016	Week 11	12/10/19	0.009	0.006
Week 12	01/07/20	0.017	0.017	Week 12	12/17/19	0.009	0.006
Week 13	01/14/20	0.018	0.017	Week 13	12/24/19	0.012	0.009
Week 14	01/21/20	0.017	0.018	Week 14	12/31/19	0.011	0.010
Week 15	01/28/20	0.016	0.017	Week 15	01/07/20	0.012	0.011

Sample	Date	RW Blend (µg/L)	4-sample avg (µg/L)
Week 16	02/04/20	<0.005	0.013
--	03/19/20	0.008	0.010
--	03/26/20	0.007	0.008
--	04/02/20	<0.005	0.005
--	04/07/20	0.006	0.006
--	04/14/20	0.009	0.006
--	04/21/20	0.005	0.006
--	04/28/20	0.005	0.006
--	05/05/20	<0.005	0.005
--	05/12/20	<0.005	<0.005
--	05/19/20	<0.005	<0.005
--	05/26/20	<0.005	<0.005

Sample	Date	001B Eff (µg/L)	4-sample avg (µg/L)
Week 16	01/14/20	0.011	0.011
--	03/18/20	<0.005	0.008
--	03/24/20	<0.005	0.006
--	04/02/20	<0.005	<0.005
--	04/07/20	<0.005	<0.005
--	04/14/20	0.005	<0.005
--	04/21/20	<0.005	<0.005

### 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, we are awaiting feedback from the DDW and the Regional Board regarding the corrective actions report.

The PFOA results from 3Q19 to 4Q20 are shown below:

Sample	Date	RW Blend (ng/L)	4-sample avg (ng/L)
Original	09/18/19	6.5	12
Confirmation	--	--	--
Week 1	10/24/19	7.8	10
Week 2	10/29/19	11	9.8
Week 3	11/12/19	13	9.6
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
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

Sample	Date	001B Eff (ng/L)	4-sample avg (ng/L)
Original	08/28/19	6.2	--
Confirmation	--	--	--
Week 1	10/24/19	6.9	--
Week 2	10/29/19	6.3	7.6
Week 3	11/06/19	8.6	7.0
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
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



Sample	Date	RW Blend (ng/L)	4-sample avg (ng/L)
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
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

Sample	Date	001B Eff (ng/L)	4-sample avg (ng/L)
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
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

### Odor

Odor has a secondary MCL of 3 Units in Recycled Water Specification A.3. During every quarter of 2020, the 4-quarter running average threshold odor value exceeded the secondary MCL. The odor has been identified by Eurofins Eaton Analytical (contract laboratory) as chlorine. Recycled water used for groundwater recharge must meet disinfected tertiary recycled water standards in accordance to Title 22. Sodium hypochlorite is used as the disinfection agent at the RP-1 and RP-4 water recycling facilities; hence, the smell of chlorine is prominent in recycled water and is therefore unavoidable. Order No. R8-2007-0039 allows compliance for secondary MCLs to be determined at the mound monitoring well. Based on the mound monitoring well data (Table 2-9a in the quarterly reports), threshold odor does not exceed 3 Units at any of the monitoring wells.

### Oil & Grease

Oil and grease, which has a narrative limit in Recycled Water Specification A.15 of 1 mg/L, was exceeded during 3Q20 and 4Q20 with the RW Blend value of 4 mg/L. Oil and grease is not considered a primary or secondary MCL. At this point in time there is no source to which this exceedance can be attributed. IEUA will continue monitoring to see if additional evaluation necessary or if this is a single anomalous data point.

During 2020, there were exceedances of limits for constituents sampled at groundwater monitoring wells adjacent to recharge basins receiving recycled water. These exceedances were primarily for secondary MCLs, and some for primary MCLs, and total coliform presence. 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 reported in the quarterly reports.

As required in MRP R8-2007-0039 Section V.2 the DDW were notified when necessary. The following describes the exceedances that were detected during 2020 groundwater sampling, and any DDW notifications (no DDW notifications were made during 2020):

- Turbidity exceeding the secondary MCL of 5 NTU was observed at several wells, namely: ALCOA MW1, 8TH-1/1, 8TH-1/2, 8TH-2/2, BRK-2/1, DCZ-1/1, RP3-1/1, Southridge Junior High School (JHS), SSV-2, T-2/1, and VCT-1/1.
- The secondary MCL for iron of 300 µg/L was exceeded at Bishop of San Bernardino Corporation well and Ontario Well No. 35.
- The secondary MCL of 15 units for color was exceeded at 8TH-2/2, BRK-2/1, DCZ-1/1, Southridge JHS, SSV-2, and VCT-1/1.
- The secondary MCL of 250 µg/L for chloride at Alcoa MW1.
- The secondary MCL of 300 µg/L for iron at BRK-2/1.
- The secondary MCL of 50 µg/L for manganese at RP3-1/1.
- The secondary MCL for odor of 3 TON was exceeded at Alcoa MW1 and Ely MW2
- TDS and electrical conductivity (EC) were higher than their secondary MCLs of 500 mg/L and 900 µmhos/cm, respectively, in the RP3 basin area wells (Alcoa MW1, Alcoa MW3 and Southridge JHS) and Ely MW2 (Walnut). Bishop of San Bernardino Corporation exceeded the TDS secondary MCL only. The wells south of the Ely Basins and near the RP3 Basins are 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 CBWM's State of the Basin Reports.
- Some monitoring wells, including potable supply wells, in the Banana-Hickory, RP3, Brooks, and Ely Basins monitoring networks have NO<sub>3</sub>-N concentrations above the primary MCL of 10 mg/L. These higher levels are characteristic of groundwater quality in the local area where historically the NO<sub>3</sub>-N concentrations range from 10-30 mg/L. The distribution of NO<sub>3</sub>-N concentrations observed at wells in the Chino Basin are summarized in CBWM'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.

- Total coliform was detected at various wells during 2020. In accordance with the MRP, notification to the DDW of coliform presence in active municipal drinking water wells must be made within 48 hours of receiving the results. There were no notifications made to the DDW for coliform presence 2020, as none of wells that showed coliform presence were active municipal drinking water wells.

Groundwater quality samples are collected and tested annually for constituents specified in the Phase II Findings of Fact, Attachment A in the permit (Bullet 27 in the Conditions Section). The annual groundwater monitoring well sampling occurred during 2Q20. The groundwater constituents analyzed from the monitoring wells during annual monitoring are presented in Table 2-9c, which is included in this annual report.

During the annual sampling event, the nickel concentrations at 8TH-1/2, 8TH-2/2, BRK-2/1, DCZ-2, and RP3-1/1 was above the primary MCL of 100 µg/L. Results from 2019, showed no concentrations of nickel above the MCL, therefore IEUA will continue to monitor nickel to see if concentrations remain high in 2021. The next annual well monitoring will take place in 3Q21.

## **2.6 Unit Process Changes and Anticipated Impact on Water Quality**

No unit process changes occurred during the 2020 calendar year, therefore there was no impact on water quality.

## **2.7 Summary of Chemical Usage**

The summary of treatment chemicals used on a monthly basis at RP-1 and RP-4 during the 2020 calendar year is presented in Table 2-1.

### 3 GROUNDWATER RECHARGE MONITORING

#### 3.1 Summary of Recharge Operations

Groundwater recharge using recycled water has been initiated in 8<sup>th</sup> Street, Banana, Brooks, Declez, Ely, Hickory, RP3, Turner, San Sevaine, and Victoria Basins. During 2020, IEUA's recycled water recharge totaled 15,509.3 AF. The table below summarizes the volume of recycled water recharged during 2020 at each basin, and the percent of the total recycled water recharged in the year. The table shows the distribution of recharge amongst the recharge sites.

Basin	2020 Recycled Water Recharge (AF)	Percent of 2020 Recycled Water Recharge
8 <sup>TH</sup>	1,004.5	6%
Banana	577.5	4%
Brooks	839.7	5%
Declez	969.9	6%
Ely	2,129.9	14%
Hickory	571.1	4%
RP3	6,547.9	42%
San Sevaine	1,229.0	8%
Turner 1&2	5.0	0%
Turner 3&4	295.6	2%
Victoria	1,339.2	9%
Total	15,509.3	100%

The 2020 calendar year include annual program recharge of 26,497.8 acre-feet (AF), which includes 7,351.0 AF of storm water and dry weather flows (including well pump to waste recharge); 15,509.3 AF of recycled water; and 3,637.5 AF of imported water. Appendix A of this report contains the monthly groundwater recharge summaries for all sites in the recycled water groundwater recharge program. Monthly recharge volumes, including diluent and recycled water volumes are presented in the quarterly monitoring reports (IEUA, 2020a, 2020b, 2020c, and 2021), but are repeated in this section's discussion of RWC (recycled water contribution) management plans. The recharge numbers have been reduced from the metered volume delivered by an evaporation losses factor calculated by CBWM on all supplemental water recharge (imported water and recycled water).

#### 3.2 In-Aquifer Blending of Recycled Water

Section VI.B.3.b of the MRP requires the annual report include:

[A mass balance to ensure that blending is occurring in the aquifer at each recharge basin.](#)

In-aquifer blending of recycled water recharge is shown two ways. The first is the mass balance of relative volumes of the recharge water sources - recycled water and diluent water, including storm water / local runoff, groundwater underflow, and imported water - presented in the RWC

Management Plans. The second is by comparison of relative concentrations of water quality parameters that have distinct concentrations in both the background (or baseline) groundwater and the recycled water used for recharge, such as EC, TDS, and chloride.

While both these methods are appropriate, they should be used together as evidence of in-aquifer blending. They are appropriate as the velocity of the horizontal groundwater flow away from the recharge site is slower than the velocity of the vertical recharge percolation. This velocity difference results in the development of the groundwater mound of recharged water beneath a recharge site. In-aquifer blending occurs as the accumulating water sources comprising the mound dissipate away from the basin. As discussed in section 3.2.2, blending is evidenced by water quality concentration changes in the monitoring wells located down gradient from the recharge sites. Location maps for wells monitored for the recharge program are presented on Figures 2-1 through 2-7. As discussed in section 3.2.1, the volume-based percentage of recycled water recharged expresses the reasonably anticipated blending as recharge moves towards distant monitoring wells. Actual blending, however, will likely be greater (expressed as a lower percentage of recycled water) as the recharged water blends with groundwater.

### 3.2.1 Evidence of Blending Based on Volume

Each basin's 120-month running average RWC (a volume-based percentage) expresses a reasonably anticipated, long-term blend as all recharged waters sources move and mix towards distant monitoring wells. The 2020 monthly recharge volumes by water type are presented in Appendix A and in the historical recharge column of the RWC Management Plans (Appendix B). RWC management plans and calculation of a 120-month running average RWC are discussed in more detail in Section 3.3. The running average RWC calculation is equal to:

$$\text{Recycled Water 120-Month Total Volume} / (\text{Recycled Water} + \text{Diluent Water 120-Month Total Volume})$$

As documented in Appendix B, the (volume-based) running average RWC at the end of December 2020 for basins having initiated recycled water recharge are listed below:

Basin	RWC Limit	120-Mo. Running Avg. RWC
8 <sup>th</sup> Street	50%	23%
Banana	50%	35%
Brooks	50%	14%
Ely	50%	25%
Declez	20%	8%
Hickory	50%	19%
RP3	50%	20%
San Sevaine	27%	7%
Turner 1&2	24%	24%
Turner 3&4	45%	25%
Victoria	50%	28%

Recycled water and diluent water are typically recharged in distinct batches. However, there can be blending of local runoff with recycled water as it is delivered to the basins, or as storm water enters a basin already containing some recycled water. Variations in the delivery period of diluent water and recycled water provide for level of blending. Dilution with groundwater is accounted for by the utilization of groundwater underflow in the calculation of running average RWC.

To be conservative, the start of including groundwater underflow as a diluent water source in the RWC calculation is either 1) October 2009 (the date the permit amendment was adopted allowing for its use) or 2) the first month of a basin's recycled water recharge (if after October 2009). The underflow estimation method was documented in Appendix G of the 2009 Annual Report for the Recycled Water Groundwater Recharge Program (IEUA and CBWM, 2010a). Underflow for each basin was calculated using the Darcy flow equation with input parameters originating from CBWM's calibrated groundwater flow model. For basins that share the flow path of groundwater underflow, the underflow volume is used for both basins as the travel time between these basins exceeds that required for drinking water wells, and thus any upstream blend has become groundwater again upon reaching the downstream basin. Conservatively, the underflow calculation was made using only the upper-most sediments (upper model layer), and thus does not include potential mixing of recycled water recharge with groundwater in the deeper sediments (lower model layer). Modeled Chino Basin groundwater flow vectors from 2014 were reviewed and support the underflow estimates made using 2009 flow vectors.

In a letter dated June 18, 2015, the DDW approved the request to increase the maximum average RWC limit to 50% at all the basins except for Turner Basins and San Sevaine Basin. The determination for Turner Basin was based upon EC and chloride data at the mound monitoring well that suggested only the recent arrival of recycled water at the mound monitoring well in the latter half of 2014 and would require additional data to confirm that evidence of blending has occurred. For San Sevaine Basin, recycled water arrival at the mound monitoring well based on EC and chloride data are inconclusive to determine its arrival. Recycled water recharge at San Sevaine 5 was suspended in 2014 due to poor infiltration rates and resulting maintenance issues.

### ***3.2.2 Evidence of Blending Based on Water Quality***

Time-series graphs of EC, TDS, and chloride were prepared for monitoring wells adjacent to the recharge sites to help identify occurrence of blending within the aquifer. The graphs depicting trends in EC, TDS, and chloride are presented in Appendix C. The graphed data are tabulated in prior quarterly monitoring reports. The method is employed as a simple approximate mass balance method as an illustration that blending is occurring. It is not intended to provide a precise blend, but to show changes occurring. The method includes an assumption that the recharge of stormwater and the rare imported water are of similar EC and chloride as the groundwater. In general, background (or baseline) groundwater concentrations of EC, TDS, and chloride are much lower than recycled water used for recharge. That blending occurs can be gauged based on how these concentrations change with time and for how long the change persists. The degree of blending can be estimated based on the proportional relationship of the recycled water EC (and chloride) and the background groundwater EC (and chloride).



For the wells showing EC (and chloride) increases associated with recycled water recharge, Table 3-1 provides an estimated range of the peak percent blend of recycled water observed at a given well in the past year based on the peak EC and Cl concentrations. The mass-balance blend percentages in Table 3-1 are estimated by taking the concentration difference between the annual peak monitoring well groundwater concentration and the groundwater background (or baseline) then dividing by the difference between the recycled water concentration and the groundwater background (or baseline). The background groundwater EC in Table 3-1 is the approximate well water concentration prior to recycled water recharge. The recycled water EC in Table 3-1 is the current calendar year average concentration of the blended RP-1 and RP-4 recycled water.

### **8<sup>th</sup> Street Basin Area**

For the 8th Street Basin Area, in the shallower monitoring well (8TH-1/1) there was an increase in chloride concentrations from 2009 to 2010 indicating the arrival of recycled water that was recharged in 2007 and 2008. This represents an approximate 22-month travel time for recharge in the north portion of 8th Street Basin to percolate to the water table and travel to 8TH-1/1. In 2015, the 8TH-1/1 monitoring well groundwater EC, TDS, and chloride concentrations were the highest since the initiation of recycled water recharge at the 8<sup>th</sup> Street Basin. As presented in Table 3-1, the highest percent blend of recycled water in the groundwater mound at 8TH-1/1 during 2019 was approximately 53% to 60% based on chloride and EC concentrations. After the 2015 peak, recycled water blend at the well has decreased through 2020.

In the deeper casing (8TH-1/2), there were slight increases in the EC, TDS, and chloride concentrations from mid-2011 to 2020 after trending downward from when the well was constructed in 2007 through 2011. The 2011 increases suggest recycled water recharge after start up in 2007 and 2008 may have started to arrive in the deeper casing after a travel time of roughly 46 months. From 2011 through 2020, 8TH-1/2 groundwater EC, TDS, and chloride concentrations continued a gradual rise, suggesting that the movement of recycled water downward at this location may be blending with underflow at a generally steady rate. As the TDS and EC data are within historical, pre-recycled water recharge concentrations, continued monitoring of these two water quality parameters at the deeper casing is needed to identify with certainty the arrival and blending of recycled water at this depth. The highest chloride concentration in 2020 at 8TH-1/2 was 68 mg/L which was greater than the lowest potential background concentration of 20 mg/L. However, recycled water arrival would be confirmed should EC and TDS continue to rise significantly above the 2011 baseline concentrations (460  $\mu$ mhos/cm and 300 mg/L, respectively) at this location and depth. As presented in Table 3-1, the highest percent blend of recycled water in the groundwater mound at 8TH-1/2 during 2020 if confirmed would be approximately 47% to 57% based on EC and chloride concentrations.

Between 2007 and 2018, the shallower casing of monitoring well 8TH-2 (8TH-2/1) shows cyclical seasonal variations and a trend of decreasing EC, TDS, and chloride concentrations that make the arrival of recycled water somewhat difficult to evaluate. 8TH-2 is located approximately 2,500 feet south and downgradient of 8TH-1. Arrival of recycled water at 8TH-2/1 would likely be observed as a longer-term increase in the cyclical annual peaks of EC, TDS, and chloride. In 2016 and 2017, two EC and TDS peaks were greater than their historical high (about 50 mg/L higher for TDS), but returned to background levels in 2018. Although inconclusive, this may suggest an 8.5 to 9-year minimal travel time to this well casing. However, the values returned to within

background range throughout late 2017 and 2018. Chloride has remained in the historical range, but concentrations have shown a modest upward trend beginning in the second quarter of 2019.

Between 2007 and 2018, there was insufficient indication from 8TH-2/2 data to identify a recycled water component in the groundwater in relation to the recharge operations at 8th Street Basin. Water quality monitoring of the deeper well casing of 8TH-2 was suspended in the third quarter of 2015 and resumed in the second quarter of 2017. Between 2017 and 2019, chloride concentrations trended upwards to a historical high (62 mg/L), but have since gradually decreased. This trend may suggest the arrival of recycled water after 123 months. The EC and TDS trends would also be expected to increase with the arrival of recycled water. EC concentrations illustrate an increasing trend generally in step with the upward chloride trend between 2017 and 2019 but have also since begun a gradual decrease. As presented in Table 3-1, the highest percent blend of recycled water in the groundwater mound at 8TH-2/2 during 2020 if confirmed would be approximately 24% to 44% based on EC and chloride concentrations.

### **Banana & Hickory Basins Area**

Beginning in early 2008 and plateauing in mid-2009, the deeper casing of monitoring well BH-1 (BH-1/2) located adjacent to Hickory Basin demonstrated significant changes in EC, TDS, and chloride (a 110-mg/L difference in TDS). These changes are attributed to the initiation and continued recharge of recycled water at Hickory and Banana Basins. In 2010 through 2014, generally consistent EC, TDS, and chloride concentrations of the groundwater at BH-1/2 were observed and suggest a stabilized RWC with historical operations at Hickory and Banana Basins. Through 2015 and into 2016, EC, TDS, and chloride data again increased to historically high levels (another 130 mg/L increase in TDS). In 2020, concentrations remained fairly stable but slightly lower than the peak of 2016. As presented in Table 3-1 in 2020, the highest percent blend of recycled water the groundwater mound at BH-1/2 based on EC and chloride variations reached approximately 62% to 76%.

Since initiation of recycled water recharge in 2005, the California Speedway Infield Well, south of Banana Basin, showed gradual increases in EC, TDS, and chloride concentrations through 2018 (194-mg/L TDS and 48 mg/L chloride differences). The gradual increase is to be expected with gradual blending as groundwater moves away from the basin (compare with the slightly higher TDS variation at the basin area mound of BH-1). Minimum travel time from Banana Basin to the California Speedway Infield Well based on Infield Well data is approximately 29 months. As presented in Table 3-1 based on EC and chloride variations, in 2020 the highest percent blend of recycled water in the groundwater at the California Speedway Infield Well reached approximately 48 to 82%.

For downgradient well California Speedway No. 2, EC, TDS, and chloride concentrations generally remained the same from 2005 through mid-2012. In April 2012, a slight increasing trend in concentration trend began and continued through 2020. While small, the change supports a recycled water arrived at this well in April 2012, an approximately 6.5-year travel time. As presented in Table 3-1 based on EC and chloride variations, in 2020 the highest percent blend of recycled water in the groundwater at the California Speedway Well No. 2 reached approximately 14% to 34%.

For downgradient well Reliant East, the EC, TDS, and chloride data do not suggest a definitive arrival of recycled water recharge despite slight increases in the monitored parameters observed

in 2015 and 2016. Continued observation of the Reliant well would be needed to evaluate whether it is being impacted by recycled water recharge. Unfortunately, the NRG facility closed in 2018 and the well is no longer operational. Should a new owner maintain the well, sampling would be continued.

Ontario Well No. 20 was taken out of service in 2015 and is no longer monitored. Fontana Water Company 37A (located 2,240 feet up gradient of Banana basin) was taken out of service in 2016 and was replaced with Fontana Water Company 7A in 2018. This well is not expected to show a recycled water component. However, EC and TDS concentrations had gradually increased in well 37A between 2005 and 2017. Well 7A has had stable chloride, EC, and TDS trends since monitoring began in 2018.

### **Brooks Basin Area**

For the Brooks Basin area, monitoring wells are located at the basin (BRK-1) and down gradient of the basin (BRK-2). Water quality monitoring of the deeper casing (BRK-1/2 and BRK-2/2) was suspended in the second quarter of 2015 and resumed in second quarter 2017. Monitoring was resumed at these deeper wells to track a peak change in the parameters being sampled.

Brooks Basin recycled water recharge began in September 2008. EC, TDS, and chloride concentrations at BRK-1/1 show seasonal increases and decreases through its history, likely related to recharge activity. From 2013 to 2017, concentration increases of 150 mg/L for TDS and 60 mg/L for chloride were observed and attributed to the presence of recycled water at BRK-1/1. As presented in Table 3-1 based on EC and chloride variations, the highest percent blend of recycled water in the groundwater mound at the recharge basin during 2020 was approximately 58% to 69% at BRK-1/1. The historical data shows that blending occurs in the aquifer beneath Brooks Basin. In the deeper casing (BRK-1/2), a notable yet gradual increases in EC, TDS, and chloride began in January 2010 and continued through 2020. Concentration increases of 108 mg/L for TDS and 10 mg/L for chloride have been observed and are attributed to the presence of recycled water at BRK-1/2. As presented in Table 3-1 based on EC and chloride variations, the percent blend of recycled water at BRK-1/2 has been approximately 10% to 56%.

The chloride concentrations at BRK-2/1 show a 35-mg/L stepped increase in 2011 that returned to background levels in 2013. In 2015, chloride concentrations in BRK-2/1 increased sharply to historical highs (approximately 20 mg/L higher than the prior high in 2012) and remained just above 80 mg/L through 2018. Chloride concentrations returned to background levels in 2019 before sharply increasing again in 2020. These chloride pulses mimic similar chloride increase at mound well BRK-1/1 but delayed. These pulses are interpreted to indicate the arrival of recycled water at BRK-2/1.

For downgradient well BRK-2/2, the EC, TDS, and chloride data are relatively stable from 2007 to 2018 and begin a slight increase in 2019. While these trends do not definitively suggest an arrival of recycled water recharge, continued observation of the BRK-2/2 is needed to evaluate whether it is being impacted by recycled water recharge.

### **Ely Basin Area**

Groundwater in the area directly south of Ely Basin (south of the 60 Freeway) is on the northern perimeter of a portion of the Chino Groundwater Basin with high TDS and nitrate concentrations. Groundwater in this area has TDS concentrations between 500 and 1,000 mg/L, as is typical of

the Chino Basin areas with a long irrigation history (CBWM & IEUA, 2003). Recycled water has been recharged at Ely Basin since 1999. Quarterly sampling of the Ely area monitoring wells began in 2007, when the site was incorporated in the program's recharge permit.

For Ely Basin, monitoring wells are located at the basin (Philadelphia well) and downgradient (Walnut well and Riverside well). Historical recycled water recharge is estimated to have traveled to and beyond the three monitoring wells directly downgradient of Ely basin due to the basin's recharge history and the wells proximity to the basin (0.0 miles, 0.5 mile and 1.0 mile for the Philadelphia, Walnut, and Riverside wells, respectively).

The late 2014 sample results at the Philadelphia well show EC and chloride at historical high levels nearly equal to that of recycled water. Due to drought conditions in 2014, recycled water was the predominant recharge source water at Ely basin, nearly 2,000 AF more than the volume recharged in 2013. From 2015 to 2018, the EC, TDS and chloride concentrations at the Philadelphia well decreased slightly but remained well above pre-2014 levels. During 2018, the highest percent blend of recycled water in the recharge mound groundwater at the Philadelphia well reached approximately 85% to 100%. In 2019, the Philadelphia well remained out of service. In 2020, an evaluation indicated the well casing is damaged, thus requiring a new well to be installed. IEUA has budgeted for a new well installation in its 2020/21 budget.

At the downgradient Walnut and Riverside wells, the high background concentrations of EC, TDS, and chloride make it difficult to identify the arrival of lower concentration storm water and recycled water. The EC, TDS, and chloride concentrations at the Walnut well have historically been at 1.5 to 2 times the concentrations found in recycled water. It is thus difficult to attribute variations in concentration with recharge activity at Ely Basin. A more definitive indicator of the arrival of recycled water to the Walnut well that could help estimate travel time would be similar trends of EC, TDS, and chloride concentrations observed at the Philadelphia well in 2014 to 2018.

Further down gradient of the Walnut well, the EC, TDS, and chloride of groundwater at the Riverside well are relatively stable but exhibited a gradual increase in concentration between 2007 and 2014 followed by a slight decrease in 2015. These concentrations have been fairly stable from 2016 to 2020. The results do not indicate any direct seasonal changes from recycled water or diluent water recharge at Ely Basin.

### **Turner Basin Area**

The Turner Basin area monitoring well T-1/2 (at Turner 1) has historical and temporal variations in EC, TDS, and chloride (100 to 200 mg/L for TDS) that can be attributed to cycles of recycled water recharge. For the 5 years after the Turner 1 recycled water start-up period (2006-2007), recycled water deliveries had been limited, and thus EC, TDS, and chloride concentrations decreased towards background levels. However, with the drought conditions of 2014-2018, a larger volume of recycled water was delivered in this period than prior years. The rapid fluctuations in TDS, EC, and chloride concentrations at T-1 indicate recharge water moves quickly away from the Turner 1 basin. As presented in Table 3-1 based on EC and chloride variations, the highest percent blend of recycled water in the groundwater mound at Turner 1 during 2020 was approximately 60% to 80% at T-1/2.

At monitoring well T-2/2 (adjacent to Turner 4), the EC, TDS, and chloride concentrations are delayed several months from past recharge activities. The slower and smaller relative

concentration changes (compared to T-1/2) suggests that recharge from Turner 4 is more laterally distributed when it reaches the groundwater table. This is consistent with the slower recharge rates observed at Turner 4. In 2019, concentrations of EC, TDS, and chloride concentration increased at well T-2/2 adjacent to Turner 4 following recharge in late-2018. As presented in Table 3-1 based on EC and chloride variations, the highest percent blend of recycled water in the groundwater mound at the Turner 4 basin during 2020 was approximately 63% to 64%. The T-1/2 and T-2/2 EC, TDS, and chloride data periodically indicate blend ratios of near 100% when recharge is near 100% recycled water, at other times these data show recycled water blending in the aquifer beneath the Turner Basins is occurring with groundwater and other source waters.

Downgradient from the Turner Basins, Ontario Well No. 25 showed a slight increase in EC (75  $\mu$ mhos/cm), TDS (40 mg/L), and chloride (10 mg/L) above background levels that suggest recycled water arrival in July 2010. Between mid 2010 through 2016, the EC, TDS and chloride concentrations in Ontario Well No. 25 have remained relatively constant. Declines towards background concentrations were observed by the end of 2017 and 2018. Estimated travel time based on these water quality data is approximately 48 months. Unfortunately, Ontario Well No. 25 was taken offline after the first quarter of 2019 and has not returned to service.

Downgradient Ontario Well No. 29 in January 2009 through 2010 showed a slight stepped increase in TDS and chloride concentration similar in magnitude to the gradual rise at Ontario Well No. 25. However, the increases at Ontario Well No. 29 are within the range of background data. These changes are not definitive changes that would correlate with groundwater recharge using recycled water. Ontario Well No. 29 was not sampled from October 2010 to October 2012 because the well was out of commission. The 2013 through 2020 data are lower than the wells' peak values in 2010 and are within background concentrations. Additional data from future monitoring are required to assess the occurrence of recycled water at Ontario Well No. 29.

### **RP3 Basin Area**

For the RP3 Basins area, the initiation of recycled water recharge occurred in June 2009. The 2009 through 2012 variations in water quality concentrations from the RP3-1 monitoring wells were difficult to draw conclusions from regarding the percent recycled water. The variations were likely due to purging of higher TDS and chloride water from the soil and groundwater beneath the basin. Following a good storm season of diluent water and after taking the basin offline for cleaning, the summer-2012 EC, TDS, and chloride concentrations for RP3-1 reached historical lows. Use of the 2012 low concentrations as the baseline conditions has since been used to estimate the blend of recycled water beneath the RP3 basins. As presented in Table 3-1 based on EC and chloride variations, the percent blend of recycled water in the groundwater during 2020 at well RP3-1/1 was 98% to 100%. Due to their similarities in water quality, sampling of the deeper casing RP3-1/2 was discontinued in 2015.

Downgradient well ALCOA MW-3 has higher EC, TDS, and chloride concentrations than ALCOA MW-1. ALCOA MW-3 and -1 are approximately 4,600 feet and 9,200 feet distant from RP3 Basins, respectively. In 2020, ALCOA MW-3 groundwater continued to show fluctuating EC, TDS, and chloride concentrations, though these fluctuations were generally smoother and of smaller magnitude than previous years. This behavior continues to suggest higher salt content water moving past the well site. From 2017 through 2020, the peaks of the EC, TDS, and chloride appear to have stepped above the prior range of variation. These higher concentrations exceed



that of recycled water and is thus not an indication of the arrival of recycled water at this location. More data is required to evaluate the arrival of recycled water at ALCOA MW-3.

Downgradient well ALCOA MW-1 shows seasonal (summer through early fall) spikes in EC, TDS, and chloride from 2011 through 2020. These spikes of high concentrations are greater in magnitude than their respective concentrations in recycled water, and thus are likely due to higher salt content water moving past the well. EC, TDS, and chloride concentrations show an acute increase to historical highs during the summer and early fall of 2020. Though concentrations fell during two subsequent samplings, levels remain well above historical background values. Determining the source of this spike will require further observation. The background concentrations at ALCOA MW-1 are similar to that of recycled water. More data is required to correlate the arrival of recycled water recharge at ALCOA MW-1.

The Southridge Junior JHS well is located approximately 5,200 feet down gradient of the RP3 Basins. The Southridge JHS well water quality data showed a slight but gradual decrease in EC, TDS, and chloride concentrations since quarterly sampling began in 2009 through 2013 and then relatively stable values through 2020. The TDS, EC and chloride background concentrations (2009 through 2013 data) at the Southridge JHS well are slightly higher than that of recycled water. As such, recharge mixing of groundwater, recycled water, stormwater and imported water arriving at this well location would appear as a lowering of concentrations. Alternatively, it could increase as higher salinity upgradient groundwater moves southward. The slight variations in the water quality data do not suggest that a blend of recycled water recharge has reached the downgradient Southridge JHS well from the RP3 recharge site.

### **Declez Basin Area**

Recycled water recharge at Declez Basin began in December 2015 and was voluntarily suspended in September 2016 after its Start-Up Period. Recycled water recharge resumed in April 2018 after completion of a downgradient monitoring well DCZ-2. The spiked nature of the DCZ-1/1 data appear to be similar to the fluctuations observed at the upstream ALCOA monitoring wells and not like the smooth data of the Southridge JHS well. Regardless, the DCZ-1/1 groundwater EC, TDS, and chloride concentrations are significantly lower than these upstream monitoring wells. In December 2017, increased TDS, EC, and chloride concentrations at DCZ-1/1 are preliminarily interpreted as arrival of recycled water at DCZ-1/1 (a 23-month travel time). Additional long-term monitoring will be needed to verify the travel time and impact of recycled water recharge at this location. As presented in Table 3-1 based on EC and chloride variations, the highest percent blend of recycled water in the groundwater at DCZ-1/1 during 2020 was estimated at approximately 54% to 75%.

### **San Sevaine Basin Area**

Monitoring of San Sevaine Basin area wells began in late 2009. Initiation of recycled water recharge began at San Sevaine 5 in July 2010 and was suspended voluntarily in September 2014 to develop plans to mitigate poor infiltration rates and midgefly control. The solution was to build a pipeline to the San Sevaine 1, 2, and 3 basins, which facilitated the resumption of recycled water delivery in August, 2020. The Unitex 91090 monitoring well continues to show relatively



stable concentrations of EC, TDS, and chloride, indicating that recycled water has yet to arrive at the Unitex monitoring well.

Beginning in 2019, SS-1 data began displaying a gradual increase in EC and TDS concentrations with a larger increase in chloride. These values appeared to plateau during 2020, with all three indicators decreasing in the last sampling event. SSV-2, a new mound monitoring well, was installed in mid-2018 for the start-up period of recycled water delivery to San Sevaine basin 2. Initial EC, TDS, and chloride concentrations measured since Fall, 2018 are generally stable and in line with baseline values measured at Unitex 91090, though exhibit more fluctuation over a short sample window. A sharp increase in EC, TDS, and chloride concentrations were observed in the last two sampling events. This spike likely indicates the arrival of recycled water at the monitoring well. However, more data is needed to identify peak arrival before any attempt to characterize blending. Parameters at SS-1 and SSV-2 will continue to be monitored closely in 2021.

### **Victoria Basins Area**

Monitoring of Victoria Basin area wells began in February 2010 and initiation of recycled water recharge began at Victoria Basin in September 2010. Victoria Basin mound monitoring well VCT-1/1 showed a steady increase in EC, TDS, and chloride concentrations beginning in May 2011 that continued into early 2016. These values stabilize in mid to late 2016 at values typical of recycled water. Parameters followed a declining trend through mid-2019 and then experienced a brief rebound in mid-2020 before continuing to decline to mid-2019 levels. Mound monitoring well VCT-1/1 water quality data support a travel time of approximately 7.5 months. As presented in Table 3-1 based on EC and chloride variations, the percent blend of recycled water in the groundwater mound at Victoria Basin during 2020 was 60% to 72% at VCT-1/1. Downgradient wells VCT-2 and CVWD No. 39 have not shown any EC, TDS, or chloride variations that would indicate arrival of recycled water.

## **3.3 RWC Management Plan**

The RWC Management Plan is a necessary tool to demonstrate how IEUA and CBWM will meet the maximum RWC limits established during the start-up period of a recharge site. A basin's volume-based RWC must be in compliance with its RWC limit. Volume-based RWC is a calculation of the percent recycled water infiltrated compared to all recharge and is based on a 120-month rolling average. Appendix B contains the RWC Management Plans for 8<sup>th</sup> Street, Banana, Brooks, Ely, Hickory, RP3, San Sevaine, Turner Basin 1&2, Turner Basin 3&4, Victoria, and Declez Basins. While the plans contain calculations for up to 120 months of historical data, the tabulated and graphed RWC Management Plans (Appendix B) show only the previous 5 years (60 months) of historical recharge and 10 years (120 months) of forecast (planned) data. Historical data not contained in the current report appendices are contained in prior annual reports.

The RWC Management Plans include two parts. Part 1 displays the historical operation of the basin for the previous 5 years. Part 2 is the planned optimal operation for the next 10 years (120 months). The historical portion of a basin's RWC Management Plan shows actual diluent water (storm water and imported water) and actual recycled water recharge volumes. The planned section includes projections of average stormwater diluent water recharge and maximized

recycled water recharge deliveries. Storm water projections are updated annually and represent a basin's historical monthly stormwater recharge average. For a conservative approach to the RWC forecast, future recharge of imported water is not used in the RWC Plan.

In 2009, IEUA and CBWM received a permit amendment from the RWQCB Order No. R8-2009-0057 that allowed a change from a 60-month to a 120-month RWC averaging period and for the inclusion of a fraction of groundwater underflow as a diluent water source in the RWC calculation. The RWC Management Plans included underflow beginning in October 2009 for basins that had already receiving recycled water at the time the permit amendment was issued allowing accounting of underflow. For basins that started recycled water recharge after the 2009 permit amendment, the use of underflow in the RWC calculation begins upon the month of recycled water recharge initiation. IEUA reviewed 2014 groundwater flow data, similar to that reviewed in 2009 when the underflow estimates were made and determined the underflow estimates are still valid. For basins that share the flow path of groundwater underflow, the underflow volume is used for both basins as the travel time between these basins exceeds that required for drinking water wells, and thus any upstream blend has become groundwater again upon reaching the downstream basin. Victoria and San Sevaine Basins share a common underflow as do RP3 and Declez Basins.

Forecasts for recycled water are made by determining a basin's optimal monthly capacity and then subtracting the average monthly stormwater. Thus, the RWC Plan includes the maximum possible recharge and is thus a conservatively high estimate of future RWC. The conservative calculations do not include months of no recharge during future basin maintenance. Should the forecasted recycled water volume cause a basin RWC prediction to exceed its RWC limit, the basin capacity number is sequentially reduced until the RWC limit is no longer exceeded. Turner 1, Turner 4, Declez, and San Sevaine are basins whose RWC Plans include a recycled water recharge capacity less than the basin's maximum capacity. These basins each have an RWC limit of less than 50%. No basins are forecasted to exceed their RWC limit with the forecasted estimates of average diluent water.

Table 3-2 lists the volume-based RWC calculation at the end of each year for each recharge basin for 2009 to 2020. The recharge sites are all in compliance with their maximum RWC limits. Based on future projections of diluent recharge, the RWC Management Plans show that recycled water deliveries for each basin can continue to be made and remain in compliance with their RWC limits.

### 3.4 Buffer Zone/Travel Time Compliance

Section VI.B.3.e of the M&RP requires the annual report to include the following:

A summary discussion on whether domestic drinking water wells extracted water within the buffer zone defined by the area less than 500 feet and 6 months underground travel time from the recharge basins, including the actions/measures that were undertaken to prevent reoccurrence. If there were none, a statement to that effect shall be written.

As stated in the cover letters of the 2020 quarterly monitoring reports, CBWM has certified that there was no reported pumping of groundwater in 2020 for domestic or municipal use from the zones that extend 500 feet and 6 months underground travel time from the 8<sup>th</sup> Street, Banana, Brooks, Ely, Hickory, RP3, San Sevaine, Turner, and Victoria Basins. In fact, there are no domestic or municipal production wells in the buffer zones of these recharge sites.

### **3.4.1 Recharge Water Arrival Times**

As documented in prior annual reports and the basin start-up period reports, sufficient data exist to estimate arrival times of recycled water at monitoring wells: 8TH-1/1 and 8TH-1/2 for 8<sup>th</sup> Street Basin; BRK-1/1, BRK-1/2, and BRK-2/1 for Brooks Basin; BH-1/2 for Hickory Basin; California Speedway Infield Well for Banana Basin; T-1/2 and T-2/2 for Turner 1 and Turner 4 Basins, respectively; Ontario Well No. 25 for Turner 4 Basin; VCT-1/1 for Victoria Basin, RP3-1/1 and RP3-1/2 for RP3 Basins, and DCZ-1/1 for Declez Basin. The evaluations of arrival time are based on the water chemistry data presented in Appendix C and basin operations data. Arrival times can be determined from notable increases in EC, TDS, and/or chloride concentrations above background, excluding variations in these parameter concentrations unrelated to recharge.

#### **8<sup>th</sup> Street Basin Area**

Travel time from 8<sup>th</sup> Street Basin through the vadose zone and along groundwater flow paths to monitoring well 8TH-1/1 is estimated by steadily increasing concentrations of EC, TDS, and chloride beginning in July 2009 and continuing through 2016. Recharge of recycled water began at 8<sup>th</sup> Street Basin on September 7, 2007; thus, the travel-time estimate for 8TH-1/1 is approximately 660 days (22 months). Downgradient monitoring well 8TH-2 does not yet show conclusive indication of recycled water arrival. Water quality sampling of the deeper casing of 8TH-2 (8TH-2/2) was suspended in mid-2015 but added back into the program in second quarter of 2017. Sampling of 8TH-2/2 will continue until a long-term trend of influence from recharge activity is identified. From 2018 through 2019, chloride concentrations increased to greater than background concentrations before beginning a slight decline in late-2019. This increase in chloride coincided with a slight increase in EC levels, though there was no discernible increase in TDS. It is still too early to determine whether recycled water has arrived, but it is worth highlighting that there is a minimum ten-year travel time to this well. Parameters at this well will continue to be monitored closely in 2021.

#### **Banana & Hickory Basins Area**

Travel time from Hickory Basin through the vadose zone and along groundwater flow paths to monitoring well BH-1/2 was documented at approximately 59 days (IEUA and CBWM, 2009). The California Speedway Infield Well began a gradual increase in EC, TDS, and chloride in late 2007. Travel time from Banana Basin to California Speedway Infield Well is estimated at 890 days (29 months) based on a stepped increase in EC, TDS, and chloride concentrations between data collected on October 9, 2007 and January 7, 2008 (IEUA and CBWM, 2009). The modeled travel time to the California Speedway Infield Well was 682 days (22 months) (CH2MHill, 2003).

Travel time from the Banana - Hickory Basins to California Speedway No. 2 is estimated at 83 months (6.9 years) based on a gradual increased trend in EC, TDS, and chloride concentrations that began in July 2012 and has continued through 2020. As presented in the 2015 Annual Report, these parameters were relatively stable from 2006 to 2012 (IEUA and CBWM, 2016). Speedway No. 2 is located about one half mile south of Hickory Basin. Based on the groundwater flow direction, the increased trend in EC, TDS, and chloride concentrations was due to the arrival of recharged recycled water from Banana Basin. A travel time estimate was not modeled for Speedway No. 2 in the Phase I Title 22 Engineering report (CH2MHill, 2003). The

upgradient monitoring well FWC-37A (removed from service in 2017) showed a gradual increasing trend in chloride (10 mg/L), EC, and TDS (40 mg/L) from 2006 through mid-2014, which leveled off through mid-2017. As an upgradient well, these increases are a local trend not associated with recycled water recharge activities at Banana and Hickory Basins. The trend at Speedway No. 2 is however interpreted as a recycled water arrival due to its relatively stable concentrations during that period of 2006 to 2012. Take out of service in 2017, the downgradient monitoring well, Reliant East, has not yet shown definitive variations in EC, TDS, and chloride that would signal arrival of recycled water. The Reliant East well owner closed their power generating station and the well is no longer available for sampling. The fate of the well will be evaluated by a future site owner.

### **Brooks Basin Area**

Travel time from Brooks Basin through the vadose zone to the shallow casing of mound monitoring well BRK-1/1 located at the basin is approximately 150 days (5 months) based on trends in EC, TDS, and chloride data documented from 2009 data (IEUA and CBWM, 2010b). The chloride increased from background concentration to over 80 mg/L in January, February, and March 2009 are indicative of the arrival of recycled water. Evaluation of 2010 through 2015 EC, TDS, and chloride data indicate recycled water arrived at the deeper casing (BRK-1/2) in January 2010 for a travel time of approximately 526 days (17 months).

At the downgradient monitoring well BRK-2, an increase in chloride concentration at BRK-2/1 was observed from 2011 through 2012, again in 2015 through 2018, and once more in 2020, which could suggest brief arrivals of recycled water. Similar peak increases in chloride concentration were observed in BRK-1/1 prior to increases in chloride concentration in BRK-2/1. The BRK-1/1 chloride trend is added to the BRK-2/1 trend for comparison (Appendix C). The first two increases in chloride concentration at BRK-1/1 and BRK-2/1 both returned to background levels in about 2 and 4 years respectively. The initial peak increase in chloride concentration at BRK-2/2 suggested a recycled water travel time of 28 months (2.3 years). Chloride, EC and TDS data at BRK-2/2 continue to be within the range of the background concentration.

### **Ely Basin Area**

Groundwater in the Ely Basin area has high background TDS and nitrate concentrations from a history of irrigation. Due to the variations of TDS, EC, and chloride concentrations at the Philadelphia, Walnut, and Riverside Wells unrelated to recharge, arrival times are difficult to determine. Recycled water recharge began in 1999 and thus it is estimated that recycled water has already arrived and traveled beyond these wells. For the Philadelphia Well, peak EC, TDS, and chloride concentrations observed in late 2014 correlate with peak recycled water deliveries to Ely basin 13 month prior and thus indicated a 13-month travel time to the Philadelphia well. In 2019, the well pump became stuck in the well and was not operational. In 2020, an evaluation indicated the well casing is damaged, thus requiring a new well to be installed. IEUA is in contract to have a new well installed during the 2021 calendar year.

### **Turner Basin Area**

Travel time from Turner Basins through the vadose zone to the groundwater is approximately 10 to 12 months for both Turner well sites. The initial rise in EC, TDS, and chloride concentrations at T-1/2 suggested a 3-month travel time; however, the decline in EC, TDS, and chloride

concentration during the summer of 2008 following a suspension in recycled water recharge in the Turner Basins suggested a longer travel time of approximately 10 months. At T-2/2, the EC, TDS, and chloride concentrations increased significantly from background concentrations in the summer of 2007 and indicated an (initial) 11-month travel time. Both monitoring wells have two casings, with the shallower being designated /1 and the deeper being designated /2. T-1/1 is not currently sampled as it was constructed above the water table for future mound sampling needs, T-2-1 sampling was suspended in 2015 due to sampling results very similar to T-2-2. Original modeling (CH2MHill, 2003) for the Turner recharge site predicted a 109-day (9-month) travel time to each of these wells. Decrease in EC, TDS, and chloride concentrations at T-1/2 indicate that recycled water recharged during the start-up period migrated away from this location after the high-volume recharge start-up period ended in 2007.

The travel time from Turner Basins to downgradient Ontario Well No. 25 is approximately 1,475 days (48 months) (IEUA and CBWM, 2011). Downgradient monitoring well, Ontario Well No. 29, has not yet shown variations in EC, TDS, and chloride that could signal arrival of recycled water at these well sites. Data collected in 2020 from Well 29 are consistent with the prior data interpretations. No data was obtained from Well 25 due to it being out of service since mid-2019.

### **RP3 Basin Area**

Travel time from RP3 Basin (cell 1) through the vadose zone to the shallower casing of mound monitoring well RP3-1/1 (located at on the west side of cell 1) was initially interpreted in the 2009 Annual Report (IEUA and CBWM, 2010a) to be approximately 14 days based on observation of EC changes. However, 2009 through 2010 data and RP3 Basin Start-Up Period Report (IEUA & CBWM, 2010d) findings indicate the earlier data did not represent the arrival of recycled water but was instead evidence of vadose zone flushing (IEUA and CBWM, 2010c). The EC and water level trends support a travel time estimate of approximately 99 days. While the background EC prior to recycled water recharge was 1,000 to 1,100  $\mu\text{mhos/cm}$ , initiation of storm water recharge operations at cell 1 in February 2009 appears to have pushed the higher EC water from the vadose zone raising the well water EC to 1,400  $\mu\text{mhos/cm}$ . Recycled water recharge began on June 2, 2009 and a 400- $\mu\text{mhos/cm}$  decrease in EC was observed in this mound monitoring well by August 25, 2009. The approximately 99-day travel time to the well is corroborated by the hydrograph of well casing RP3-1/1 (Appendix D), which shows an approximately +90-day delay between the mid-September 2010 recharge low and the mid-December 2010 water level low. Arrival of recycled water was also observed as chloride concentration increased in both the shallow (RP3-1/1) and the deep (RP3-1/2) casings in the summer of 2010, approximately 12 months after initiation of the recycled water recharge in the basin. The longer time to observe a chloride response is likely due to the purged of the vadose zone.

With the exception of ALCOA MW-1, data collected in 2020 are consistent with the prior data interpretations for the RP3 region monitoring wells. The water quality data from downgradient monitoring well ALCOA MW-1 (about 9,200 feet from RP3) illustrates a prominent increase in EC, TDS, and chloride concentrations to historical highs during the summer and early fall of 2020. Though concentrations fell during two subsequent samplings, levels remain well above historical background values. Further observation and investigation may be required to better determine the source of this spike. ALCOA MW-3 (about 4,600 feet from RP3) show gradual increasing trends in chloride concentrations. These increases in chloride concentrations are not indicators



of recycled water arrival at both wells, as they are located at different distances and flow directions from RP3. The Southridge well water quality data have been on a downward trend throughout its entire sampling history from 2009 through 2020, and do not indicate arrival of recycled water recharge.

### **Declez Area**

Travel time to the Declez basin mound monitoring well is approximately 23 months as evidenced by a stepped increase in EC, TDS, and chloride above historical background levels beginning in approximately December 2017 following initial recycled water deliveries in January 2016. Downgradient monitoring well DCZ-2 has yet to receive recycled water based on its EC, TDS, and chloride water quality trends.

### **San Sevaine & Victoria Basins Area**

San Sevaine Basins lie directly upgradient of Victoria Basin, and thus these two sites are considered together. Travel time from recharge at San Sevaine 5 to the water table is complicated by recharge activities at the other San Sevaine basins. The hydrograph of SS-1 is complimented with recharge of both basin 5 (storm water and previously recycled water) and the combined basins 1, 2, and 3 (recycled water, stormwater, and imported water). The basins within the San Sevaine site appear to have different impacts on the timing on changes in SS-1 well water levels (varying from 2 to 4 months), making the timing of water quality impacts from San Sevaine recharge complicated and warranting further data collection.

The San Sevaine 5 mound monitoring well showed a spike in chloride in the second half of 2019, which dropped in subsequent sampling in 2020 but remained above baseline levels. This spike coincided with a more sustained increase in EC and, to a lesser extent, TDS. These trends will continue to be monitored in 2021 to see if their duration matches the limited historical recycled water deliver to basin 5. Due to operational and maintenance limitations, recharge of recycled water was discontinued in San Sevaine 5 in 2014.

The Start-Up Protocol began for San Sevaine 2 in 2018, and recycled water deliveries began in August, 2020. A new mound monitoring well, SSV-2, was installed adjacent to San Sevaine 2 as part of the Start-Up Protocol and has been regularly sampled since September, 2018. Data collected during the start-up period from SSV-2 were generally stable and in line with those observed at Unitex 91090. However, a sharp increase in EC, TDS, and chloride concentrations were measured in the two most recent sampling events at SSV-2. Though this spike likely represents the arrival of recycled water at the monitoring well, more observation is needed to identify peak arrival and better characterize the arrival time. There is currently insufficient data from the San Sevaine area monitoring wells to establish travel times of recharge from the mound to cross gradient well Unitex 91090.

For Victoria Basin, mound monitoring well VCT-1/1 water quality data (EC, TDS, and chloride) support a travel time of approximately 7.5 months based on the initiation of recycled water recharge on September 2, 2010 and the beginning of a steady rise in EC, TDS, and chloride (starting with the May 19, 2011 sample) through 2016. No indication of recycled water arrival has yet to be observed at wells VCT-2 and CVWD-39.

### 3.4.2 Leading Edge of Recycled Water in Aquifer

The leading edges of groundwater containing a component of recycled water were evaluated for the various recharge sites using monitoring well data. Such data include groundwater elevations changes and changes in EC, TDS, and/or chloride concentrations. Water quality data were discussed in Section 3.2 and Section 3.4.1. Appendix D contains basin-specific water level hydrographs, with discussion in Section 3.5.2 of water level mounding due to recycled water recharge. Location maps for wells monitored for the recharge program are presented in Figures 2-1 through 2-7. Evaluation of basin-specific water chemistry and water level data indicate recycled water recharge has passed the first monitoring wells located downgradient of 8<sup>th</sup> Street, Banana, Brooks, Ely, Hickory, Turner Basins, Victoria, and RP3 Basins. Several production wells used for monitoring near the recharge basins show water quality changes from background concentrations that would be associated with recycled water recharge; specifically, California Speedway Infield Well and Speedway 2 for Banana & Hickory Basins and Ontario Well No. 25 for Turner 4. CBWM certifies on a quarterly basis that no pumping for drinking water purposes took place in the buffer zones extending 500 feet laterally and 6 months of underground travel time from each of the recharge sites using recycled water and further specifies there are no domestic or municipal production wells in the buffer zones of these recharge sites.

### 3.4.3 Tracer Test Results

No tracer tests were conducted in 2020, nor are any planned for the current program.

## 3.5 Groundwater Elevations

Section VI.B.3.b of the M&RP requires the annual report to include a discussion of groundwater elevations and flow paths:

Recharge water groundwater flow paths shall be determined annually from groundwater elevation contours and compared to the flow and transport model's flow paths, travel of recharge waters, including leading edge of the recharged water plume, any anticipated changes. The flow and transport model shall be updated to match as closely as possible the actual flow patterns observed within the aquifer if the flow paths have significantly changed.

### 3.5.1 Current Groundwater Elevations

Groundwater elevations from the recharge program monitoring wells and many other wells are used by CBWM to periodically prepare groundwater elevation contours of the Chino groundwater basin. Groundwater contour maps were prepared for 1997, 2000, 2003, 2006, 2008, 2010, 2012, 2014, 2016, and 2018. These groundwater elevation maps from the CBWM's *Biennial State of the Basin Reports* are presented in Appendix E. The Spring 2018 elevation contour map will be used for discussion in this report. At the time of this report preparation, a spring 2021 map was not available from CBWM for discussion within this report.

A comparison of the pre-recharge elevation contour map (Fall 2003) with the most recent post program start-up groundwater contour map (Spring 2018) indicates several things. First, regional changes in groundwater elevation near the recharge basins are present, but trends from enhanced recharge (apart from 8<sup>th</sup> and Turner basins) are not generally evident using the 25-foot contour interval of the maps, indicating that the recharge program has not significantly impacted regional groundwater flow directions. A significant difference in groundwater flow direction between the 2003 and 2018 maps are the mound at 8<sup>th</sup> Street, which between 2012 and 2018

had a more westward direction as opposed to a south-southwest direction in 2013. This difference may indicate the 8<sup>th</sup> Street Basin downgradient monitoring well location (8TH-2) is not appropriately located to characterize downgradient recharge water quality. Recharge mounds at basins (such as that around the Turner basin) are evident on the regional map and by well hydrographs of monitoring wells (Appendix D). In general, these seasonal mounds are within the 25-foot contour interval of the maps. Since 2008, a deeper and larger area pumping depression has developed around the Chino Desalter (hydraulic control) well field as noted by the 550-foot elevation contour wrapping to the west to indicate recharge flow from the Santa Ana River. Also, during this time, the regional pumping depression in the Pomona area west of Brooks Basin has become smaller and narrower. There are some changes in the contouring style/methodology between the 2003 and 2018 maps. For example, the groundwater contours in the area north of Victoria and San Sevaine Basins were interpreted for the 2003 map but were not interpreted for the 2010 through 2018 maps.

### **3.5.2 Water Level Trends in Monitoring Wells**

Appendix D contains groundwater elevation hydrographs for wells constructed for the monitoring program. Location maps for wells monitored for the recharge program are presented on Figures 2-1 through 2-7. Plotted on each hydrograph is the daily volume of water captured at the nearest recharge site. These hydrographs can be used to identify local increases in groundwater elevations and their correlation with local recharge. Generally, the hydrographs are from mound monitoring wells at recharge basins or the closest monitoring well downgradient of the recharge basin.

#### **8<sup>th</sup> Street Basin Area**

The hydrographs of the 8<sup>th</sup> Street Basin mound monitoring well (8TH-1) show relatively stable long-term groundwater elevations from 2008 through 2020, that seasonally fluctuate between 640 to 680 feet above mean sea level (MSL). There is an approximate 4-month delay, but a strong correlation between basin recharge and groundwater elevations in both 8TH-1/1 and 8TH-1/2, indicating relatively rapid recharge of surface water to the underlying aquifer. The hydrograph for downgradient well 8TH-2 shows about a 10-foot increasing water level trend between 2008 and 2013, which then stabilizes at approximately 635 feet MSL between 2014 through 2020. Short duration downward spikes in the 8TH-2 hydrograph are indicative of nearby groundwater pumping activities.

#### **Brooks Basin Area**

BRK-1/1 water levels have remained within a 30-foot range through their history, ranging from 607 and 632 feet MSL. The hydrographs for the Brooks Basin mound monitoring well (BRK-1/1) show relatively small (no more than 2-foot) seasonal water level fluctuations and depict more annual trends. Groundwater levels at the mound well generally decreased from 2008 through 2009, stabilized from 2010 through 2013, decreased from 2014 through mid-2016, stabilized from mid-2016 through 2018, and rose through 2020. The downward trends are perhaps due to brief drought conditions and a decrease in stormwater recharge or other nearby groundwater stresses.

At the deeper casing, BRK-1/2 groundwater elevations typically follow the long-term trend of BRK-1/1 but 20-feet lower and with increased seasonal fluctuations from nearby pumping. BRK-1/2 water levels range between 585 and 615 feet MSL.



The hydrographs of downgradient (intermediate) monitoring well BRK-2 show similar groundwater elevation trends as BRK-1/2, suggesting water levels of these two casings are influenced more by regional groundwater changes than by Brooks basin recharge. BRK-2 casings have larger seasonal fluctuations and pumping influences than BRK-1/2, as BRK-2 is closer to the pumping centers in the City of Pomona.

### **Banana & Hickory Basins Area**

The hydrograph for the Banana and Hickory Basins mound monitoring well (BH-1) shows seasonal water level fluctuations between approximately 680 and 690 feet MSL and generally stable through the 15 years of data shown. From 2008 through 2020, the BH-1/2 hydrograph shows relatively stable water levels with 5 to 10-foot seasonal fluctuations. The peak and trough seasonal fluctuations appear delayed between 3 and 4 months from peak recharge activities. Impacts on water elevations due to recharge at Hickory and Banana Basins are muted and delayed due to the over 400-foot depth to the water table at this location.

### **Ely Basin Area**

Ely Basin has received recycled water recharge since 1999, 6 years prior to the currently permitted regional recharge program. In 2011, IEUA installed a transducer in MW-1 (aka the Philadelphia well) and began recording water levels. Since 2011, the long-term water-level trend near Ely Basins is stable but fluctuates +/- 5 to 20 feet in response to recharge. In January 2015, the water level transducer malfunctioned and several months of water level data were lost. In late 2018, the well pump was discovered to be damaged and will be permanently out of service. A new transducer will be installed in the well to be drilled in the same vicinity during the 2021 calendar year.

### **Turner Basin Area**

The hydrographs for the two Turner Basin monitoring wells, T-1/2 and T-2/2, show general long term increases in water levels. For these two sites, between 2008 and 2020 the annual winter highs and summer lows show 10 to 20-foot differences, suggesting recharge at Turner Basins has a positive local impact on regional water levels. Between 2010 and 2018, the hydrographs have had about a 2 to 3-foot per year increase in the annual low groundwater elevation. That trend ended in 2019. The peak water levels are delayed about 1 to 2 months from periods of higher volume recharge.

### **RP3 Basin Area**

The hydrographs of the RP3 Basin mound monitoring well, RP3-1, shows a good correlation with recharge activity at the basin. In 2008 and 2009, the water elevation varied by no more than 2 to 3 feet with recharge activity. However, recharge volume started to increase in June 2009 at RP3 basins when recycled water and storm water were delivered from Jurupa Basin to RP3 Basins. For 2009 through 2011, water levels at RP3-1 rose approximately 20 feet. A similarly dramatic decrease in groundwater elevation occurred in late 2012 when the RP3 basin was offline for maintenance. In 2013, water levels rebounded 5 to 10 feet upwards with renewed recharge. Water levels at RP3 fell about 12 feet through most of 2014 due in part to the low rainfall and stormwater recharge in that year. In mid-2015, IEUA completed the Wineville pipeline extension to RP3 and began delivering recycled water at an increased rate to all cells at the RP3 site. This resulted in water levels in both the shallow and deep RP3-1 casings rising and falling up to 15 feet as

recharge activity increased and decreased. In 2018, water levels remained about 10 feet higher than pre-recycled water recharge. The groundwater level fluctuations in 2019 can be attributed to the suspension of basin recharge for basin maintenance purposes, and the dramatic rise in water levels carrying through 2020 correspond to the resumption of normal recharge operations at the basin.

### **Declez Basin Area**

The long-term water level trend at the Declez recharge mound well site has been relatively stable between 2008 and 2020, fluctuating between 698 and 722 feet MSL. The data generally shows 10 to 15 feet seasonal variations, with the water level responding within days of stormwater recharge. Recycled water recharge was initiated at Declez basin during its start-up period of December 2015 through September 2016. With that initiation, the seasonal water level highs increased by about 5 feet. Recycled water delivery to Declez Basin stopped in September 2016 and resumed in April 2018 upon completion of downgradient monitoring well DCZ-2. The DCZ-2 hydrograph does not yet have sufficient water level data to estimate the influence of Declez basin recharge at that well site.

### **San Sevaine Basins Area**

Monitoring well SS-1 was installed in spring 2010 for monitoring recycled water recharge at San Sevaine 5. The recharge history of San Sevaine 5 alone does not correlate well with SS-1 water levels. However, imported water recharge in San Sevaine Basins 1 and 2 during 2011 and 2017 does appear to correlate with SS-1 water level changes beneath San Sevaine 5. The hydrograph for San Sevaine 5 includes recharge for both San Sevaine 5 and the combined San Sevaine 1, 2, and 3. Between 2010 and April 2011, the hydrograph for the San Sevaine 5 basin mound monitoring well (SS-1) shows a water level decrease of 5 feet, but began recovering steeply in July 2011 approximately 2 months after the initiation of imported water recharge in San Sevaine 1 and 2 in May 2011. Thus, it appears to be an approximately 2-month delay to the well for recharge at San Sevaine 1 and 2 and an approximately 4-month delay for recharge at San Sevaine 5. Similarly, between 2013 and mid-2017, the SS-1 water levels showed a steady decline, due in part to the low rainfall and low stormwater recharge in the 2015 winter. A small upward change in water level began in June 2017 following imported water recharge in late 2016. A similar water level increase continued through mid-2018 following the 2017 imported water charge in San Sevaine 1 and 2. Recycled water recharge at San Sevaine 5 has not occurred since May 2014 due to low basin infiltration rates and operating constraints. Recycled Water recharge will resume at the San Sevaine 1, 2, and/or 3 basins in mid-2020. To allow this to occur, the nearby Unitex Well was removed from potable service on June 1, 2019. December 2019 marked the initial operation of the San Sevaine 5 pump station for delivery of stormwater to the upper most San Sevaine basins.

Well SSV-2 was installed in late 2018 at basin 2 and its initial hydrography is included in this annual report. Water elevation history is too limited to correlate with the San Sevaine recharge history at this time.

### **Victoria Basin Area**

The hydrograph for the Victoria Basin mound monitoring well (VCT-1/1) shows seasonal variations of up to 30 feet between the summer low and winter high levels. Longer-term (2014

through 2020) water level fluctuations trend upward when looking at the summer and winter extremes. The water level peaks are generally 6 to 9 months delayed from times of higher volume recharge.

The hydrograph for the Victoria Basin downgradient (intermediate) monitoring well (VCT-2/2) shows a relative stability within the elevations 745 to 765 feet MSL from 2010 through 2020. Seasonally, the hydrograph shows 5- to 8-foot water level fluctuations. The existing water level data set does not correlate definitively with recharge activities at the Victoria Basin. While water level and recharge volumes rise and fall annually, comparison of a longer duration data set is required to determine their correlation with certainty. Water level data for 2014 and early 2015 were not available due to Caltrans construction activities at the wellsite, which resulted in the ground and the well casing being lowered. Data collection was resumed in November, 2015 and show water levels a few feet lower than the previous year. The transducer failed in mid-2016 and was replaced.

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## TABLES

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**Table 2-1**  
**Summary of Treatment Chemical Usage at RP-1 and RP-4**

	RP-1 (Flow)		RP-1 (Tertiary)		RP-4		
	Ferric Chloride	Sodium Hypochlorite	Aluminum Sulfate	Sodium Hypochlorite	Ferric Chloride	Aluminum Sulfate	Sodium Hypochlorite
	Gal.	Gal.	lbs.	Gal.	Gal.	Gal.	Gal.
<i>Jan-20</i>	19,700	0	4,600	101,700	3,461	1,213	29,539
<i>Feb-20</i>	16,100	0	4,200	93,700	3,080	1,075	28,831
<i>Mar-20</i>	13,900	0	4,450	104,700	2,974	1,360	28,827
<i>Apr-20</i>	4,400	0	3,600	106,900	2,369	1,314	26,823
<i>May-20</i>	10,800	0	1,650	101,600	2,535	1,281	27,227
<i>Jun-20</i>	11,100	0	1,475	101,600	2,289	1,318	29,267
<i>Jul-20</i>	10,600	0	5,700	111,300	2,977	1,316	32,273
<i>Aug-20</i>	12,500	0	4,150	116,300	4,489	1,436	32,650
<i>Sep-20</i>	11,700	0	3,700	115,600	4,463	1,631	32,443
<i>Oct-20</i>	11,500	1,605	3,800	114,400	4,948	1,593	27,097
<i>Nov-20</i>	7,500	969	4,500	106,100	4,405	1,312	30,431
<i>Dec-20</i>	7,400	0	5,400	97,000	1,861	1,801	30,604
<b>Total</b>	137,200	2,574	47,225	1,270,900	39,851	16,652	356,012

Table 2-9c  
Groundwater Monitoring Well Results (Annual)

Constituent	8TH-1/1	8TH-1/2	8TH-2/1	8TH-2/2	MCL	Unit	Method
<b>Inorganic Chemicals</b>							
Asbestos	<0.2	<1.85	<0.2	<3.7	7	MFL	EPA 100.2
Cyanide	<20	<20	<20	<20	150	µg/L	EPA OIA-1677
Perchlorate	<4	<4	<4	<4	6	µg/L	EPA 314
Mercury	<0.5	<0.5	<0.5	<0.5	2	µg/L	EPA 245.2
Fluoride	0.4	0.4	0.4	0.4	2	mg/L	SM 4500-F C
Aluminum, Dissolved	<25	<25	<25	<25	1000	µg/L	EPA 200.8
Antimony, Dissolved	<1	<1	<1	<1	6	µg/L	EPA 200.8
Arsenic, Dissolved	<1	<1	<1	<1	10	µg/L	EPA 200.8
Barium, Dissolved	38	40	49	43	1000	µg/L	EPA 200.8
Beryllium, Dissolved	<1	<1	<1	<1	4	µg/L	EPA 200.8
Cadmium, Dissolved	<0.5	<0.5	<0.5	<0.5	5	µg/L	EPA 200.8
Chromium, Dissolved	1.0	2.9	2.2	3.9	50	µg/L	EPA 200.8
Copper, Dissolved	<0.5	0.6	0.5	0.6	1300	µg/L	EPA 200.8
Iron, Dissolved	<15	<15	<15	<15	300 (sec.)	µg/L	EPA 200.8
Nickel, Dissolved	26	<b>446</b>	6	<b>299</b>	100	µg/L	EPA 200.8
Manganese, Dissolved	2	19	<1	18	50 (sec.)	µg/L	EPA 200.8
Selenium, Dissolved	<2	<2	<2	<2	50	µg/L	EPA 200.8
Silver, Dissolved	<0.25	<0.25	<0.25	<0.25	100 (sec.)	µg/L	EPA 200.8
Thallium, Dissolved	<1	<1	<1	<1	2	µg/L	EPA 200.8
Zinc, Dissolved	1	<1	<1	<1	5000 (sec.)	µg/L	EPA 200.8
<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-Dichloropropene	<0.5	<0.5	<0.5	<0.5	0.5	µg/L	EPA 524.2
Ethylbenzene	<0.5	<0.5	<0.5	<0.5	300	µg/L	EPA 524.2
Chlorobenzene	<0.5	<0.5	<0.5	<0.5	70	µg/L	EPA 524.2
Methyl Tert-butyl ether (MTBE)	<0.5	<0.5	<0.5	<0.5	13	µg/L	EPA 524.2
Styrene	<0.5	<0.5	<0.5	<0.5	100	µg/L	EPA 524.2
1,1,2,2-Tetrachloroethane	<0.5	<0.5	<0.5	<0.5	1	µg/L	EPA 524.2
Tetrachloroethylene	<0.5	<0.5	<0.5	<0.5	5	µg/L	EPA 524.2
Toluene	<0.5	<0.5	<0.5	<0.5	150	µg/L	EPA 524.2
1,2,4-Trichlorobenzene	<0.5	<0.5	<0.5	<0.5	5	µg/L	EPA 524.2
1,1,1-Trichloroethane	<0.5	<0.5	<0.5	<0.5	200	µg/L	EPA 524.2
1,1,2-Trichloroethane	<0.5	<0.5	<0.5	<0.5	5	µg/L	EPA 524.2
Trichloroethylene	<0.5	<0.5	<0.5	<0.5	5	µg/L	EPA 524.2
Trichlorofluoromethane	<0.5	<0.5	<0.5	<0.5	150	µg/L	EPA 524.2
1,1,2-Trichloro-1,2,2-Trifluoroethane	<0.5	<0.5	<0.5	<0.5	1200	µg/L	EPA 524.2
Vinyl Chloride	<0.5	<0.5	<0.5	<0.5	0.5	µg/L	EPA 524.2
Total Xylenes	<1	<1	<1	<1	1750	µg/L	EPA 524.2
1,2,3-Trichloropropane	<0.5	<0.5	<0.5	<0.5	0.005	µg/L	EPA 524.2



Table 2-9c  
Groundwater Monitoring Well Results (Annual)

Constituent	8TH-1/1	8TH-1/2	8TH-2/1	8TH-2/2	MCL	Unit	Method
Non-Volatile Synthetic Organic Chemicals (SOCs)							
Alachlor (Alanex)	<0.05	<0.05	<0.05	<0.05	2	µg/L	EPA 525.2
Atrazine	<0.05	<0.05	<0.05	<0.05	1	µg/L	EPA 525.2
Bentazon	<0.5	<0.5	<0.5	<0.5	18	µg/L	EPA 515.4
Benzo(a)pyrene	<0.02	<0.02	<0.02	<0.02	0.2	µg/L	EPA 525.2
Carbofuran	<0.5	<0.5	<0.5	<0.5	18	µg/L	EPA 531.2
Chlordane	<0.1	<0.1	<0.1	<0.1	0.1	µg/L	EPA 505
2,4-D	<0.1	<0.1	<0.1	<0.1	70	µg/L	EPA 515.4
Dalapon	<1	<1	<1	<1	200	µg/L	EPA 515.4
Dibromochloropropane	<0.01	<0.01	<0.01	<0.01	0.2	µg/L	EPA 504.1
Di(2-ethylhexyl)adipate	<0.6	<0.6	<0.6	<0.6	400	µg/L	EPA 525.2
Di(2-ethylhexyl)phthalate	<0.6	<0.6	<0.6	<0.6	4	µg/L	EPA 525.2
Dinoseb	<0.2	<0.2	<0.2	<0.2	7	µg/L	EPA 515.4
Diquat	<0.4	<0.4	<0.4	<0.4	20	µg/L	EPA 549.2
Endothall	<5	<5	<5	<5	100	µg/L	EPA 548.1
Endrin	<0.01	<0.01	<0.01	<0.01	2	µg/L	EPA 505
Ethylene Dibromide	<0.01	<0.01	<0.01	<0.01	0.05	µg/L	EPA 504.1
Glyphosate	<6	<6	<6	<6	700	µg/L	EPA 547
Heptachlor	<0.01	<0.01	<0.01	<0.01	0.01	µg/L	EPA 505
Heptachlor Epoxide	<0.01	<0.01	<0.01	<0.01	0.01	µg/L	EPA 505
Hexachlorobenzene	<0.05	<0.05	<0.05	<0.05	1	µg/L	EPA 525.2
Hexachlorocyclopentadiene	<0.05	<0.05	<0.05	<0.05	50	µg/L	EPA 525.2
Lindane	<0.01	<0.01	<0.01	<0.01	0.2	µg/L	EPA 505
Methoxychlor	<0.05	<0.05	<0.05	<0.05	30	µg/L	EPA 505
Molinate	<0.1	<0.1	<0.1	<0.1	20	µg/L	EPA 525.2
Oxamyl	<0.5	<0.5	<0.5	<0.5	50	µg/L	EPA 531.2
Pentachlorophenol	<0.04	<0.04	<0.04	<0.04	1	µg/L	EPA 515.4
Picloram	<0.1	<0.1	<0.1	<0.1	500	µg/L	EPA 515.4
PCB 1016	<0.08	<0.08	<0.08	<0.08	0.5	µg/L	EPA 505
PCB 1221	<0.1	<0.1	<0.1	<0.1	0.5	µg/L	EPA 505
PCB 1232	<0.1	<0.1	<0.1	<0.1	0.5	µg/L	EPA 505
PCB 1242	<0.1	<0.1	<0.1	<0.1	0.5	µg/L	EPA 505
PCB 1248	<0.1	<0.1	<0.1	<0.1	0.5	µg/L	EPA 505
PCB 1254	<0.1	<0.1	<0.1	<0.1	0.5	µg/L	EPA 505
PCB 1260	<0.1	<0.1	<0.1	<0.1	0.5	µg/L	EPA 505
Simazine	<0.05	<0.05	<0.05	<0.05	4	µg/L	EPA 525.2
Thiobencarb	<0.2	<0.2	<0.2	<0.2	70	µg/L	EPA 525.2
Toxaphene	<0.5	<0.5	<0.5	<0.5	3	µg/L	EPA 505
2,3,7,8-TCDD (Dioxin)	<5	<5	<5	<5	30	pg/L	EPA 1613
2,4,5-TP (Silvex)	<0.2	<0.2	<0.2	<0.2	50	µg/L	EPA 515.4
Notification Level Chemicals							
Copper, Dissolved	<0.5	0.6	0.5	0.6	1300	µg/L	EPA 200.8
Lead, Dissolved	<0.5	<0.5	<0.5	<0.5	15	µg/L	EPA 200.8
Radionuclides							
Combined Radium-226 and Radium 228	<1	<1	<1	<1	5,000	pCi/l	EPA 903.0
Gross Alpha Particle Activity	<3	4	<3	<3	15	pCi/l	EPA 900.0
Tritium	<393	<332	<342	<339	20,000	pCi/l	EPA 906
Strontium-90	<3	<3	<3	<3	8	pCi/l	EPA 905
Gross Beta Particle Activity	<3	<3	<3	<3	50	pCi/l	EPA 900.0
Uranium	1.0	<0.7	1.9	<0.7	20	pCi/l	EPA 200.8

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

Table 2-9c  
Groundwater Monitoring Well Results (Annual)

Constituent	BRK-1/1	BRK-1/2	BRK-2/1	BRK-2/2	MCL	Unit	Method
<b>Inorganic Chemicals</b>							
Asbestos	<0.2	<0.2	<6.87	<0.2	7	MFL	EPA 100.2
Cyanide	<20	<20	<20	<20	150	µg/L	EPA OIA-1677
Perchlorate	<4	<4	<4	<4	6	µg/L	EPA 314
Mercury	<0.5	<0.5	<0.5	<0.5	2	µg/L	EPA 245.2
Fluoride	0.4	0.2	0.3	0.2	2	mg/L	SM 4500-F C
Aluminum, Dissolved	<25	<25	<25	<25	1000	µg/L	EPA 200.8
Antimony, Dissolved	<1	<1	<1	<1	6	µg/L	EPA 200.8
Arsenic, Dissolved	<1	<1	<1	<1	10	µg/L	EPA 200.8
Barium, Dissolved	31	73	46	89	1000	µg/L	EPA 200.8
Beryllium, Dissolved	<1	<1	<1	<1	4	µg/L	EPA 200.8
Cadmium, Dissolved	<0.5	<0.5	<0.5	<0.5	5	µg/L	EPA 200.8
Chromium, Dissolved	1.1	5.1	12.0	5.4	50	µg/L	EPA 200.8
Copper, Dissolved	1.0	<0.5	0.8	0.8	1300	µg/L	EPA 200.8
Iron, Dissolved	<15	<15	<15	<15	300 (sec.)	µg/L	EPA 200.8
Nickel, Dissolved	42	6	391	36	100	µg/L	EPA 200.8
Manganese, Dissolved	3	<1	10	<1	50 (sec.)	µg/L	EPA 200.8
Selenium, Dissolved	<2	<2	<2	<2	50	µg/L	EPA 200.8
Silver, Dissolved	<0.25	<0.25	<0.25	<0.25	100 (sec.)	µg/L	EPA 200.8
Thallium, Dissolved	<1	<1	<1	<1	2	µg/L	EPA 200.8
Zinc, Dissolved	<1	<1	<1	<1	5000 (sec.)	µg/L	EPA 200.8
<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-Dichloropropene	<0.5	<0.5	<0.5	<0.5	0.5	µg/L	EPA 524.2
Ethylbenzene	<0.5	<0.5	<0.5	<0.5	300	µg/L	EPA 524.2
Chlorobenzene	<0.5	<0.5	<0.5	<0.5	70	µg/L	EPA 524.2
Methyl Tert-butyl ether (MTBE)	<0.5	<0.5	<0.5	<0.5	13	µg/L	EPA 524.2
Styrene	<0.5	<0.5	<0.5	<0.5	100	µg/L	EPA 524.2
1,1,2,2-Tetrachloroethane	<0.5	<0.5	<0.5	<0.5	1	µg/L	EPA 524.2
Tetrachloroethylene	<0.5	<0.5	2.6	0.9	5	µg/L	EPA 524.2
Toluene	<0.5	<0.5	<0.5	<0.5	150	µg/L	EPA 524.2
1,2,4-Trichlorobenzene	<0.5	<0.5	<0.5	<0.5	5	µg/L	EPA 524.2
1,1,1-Trichloroethane	<0.5	<0.5	<0.5	<0.5	200	µg/L	EPA 524.2
1,1,2-Trichloroethane	<0.5	<0.5	<0.5	<0.5	5	µg/L	EPA 524.2
Trichloroethylene	<0.5	<0.5	<0.5	<0.5	5	µg/L	EPA 524.2
Trichlorofluoromethane	<0.5	<0.5	<0.5	<0.5	150	µg/L	EPA 524.2
1,1,2-Trichloro-1,2,2-Trifluoroethane	<0.5	<0.5	<0.5	<0.5	1200	µg/L	EPA 524.2
Vinyl Chloride	<0.5	<0.5	<0.5	<0.5	0.5	µg/L	EPA 524.2
Total Xylenes	<1	<1	<1	<1	1750	µg/L	EPA 524.2
1,2,3-Trichloropropane	<0.5	<0.5	<0.5	<0.5	0.005	µg/L	EPA 524.2

Table 2-9c  
Groundwater Monitoring Well Results (Annual)

Constituent	BRK-1/1	BRK-1/2	BRK-2/1	BRK-2/2	MCL	Unit	Method
Non-Volatile Synthetic Organic Chemicals (SOCs)							
Alachlor (Alanex)	<0.05	<0.05	<0.05	<0.05	2	µg/L	EPA 525.2
Atrazine	<0.05	<0.05	<0.05	<0.05	1	µg/L	EPA 525.2
Bentazon	<0.5	<0.5	<0.5	<0.5	18	µg/L	EPA 515.4
Benzo(a)pyrene	<0.02	<0.02	<0.02	<0.02	0.2	µg/L	EPA 525.2
Carbofuran	<0.5	<0.5	<0.5	<0.5	18	µg/L	EPA 531.2
Chlordane	<0.1	<0.1	<0.1	<0.1	0.1	µg/L	EPA 505
2,4-D	<0.1	<0.1	<0.1	<0.1	70	µg/L	EPA 515.4
Dalapon	<1	<1	<1	<1	200	µg/L	EPA 515.4
Dibromochloropropane	<0.01	<0.01	<0.01	<0.01	0.2	µg/L	EPA 504.1
Di(2-ethylhexyl)adipate	<0.6	<0.6	<0.6	<0.6	400	µg/L	EPA 525.2
Di(2-ethylhexyl)phthalate	<0.6	<0.6	<0.6	<0.6	4	µg/L	EPA 525.2
Dinoseb	<0.2	<0.2	<0.2	<0.2	7	µg/L	EPA 515.4
Diquat	<0.4	<0.4	<0.4	<0.4	20	µg/L	EPA 549.2
Endothall	<5	<5	<5	<5	100	µg/L	EPA 548.1
Endrin	<0.01	<0.01	<0.01	<0.01	2	µg/L	EPA 505
Ethylene Dibromide	<0.01	<0.01	<0.01	<0.01	0.05	µg/L	EPA 504.1
Glyphosate	<6	<6	<6	<6	700	µg/L	EPA 547
Heptachlor	<0.01	<0.01	<0.01	<0.01	0.01	µg/L	EPA 505
Heptachlor Epoxide	<0.01	<0.01	<0.01	<0.01	0.01	µg/L	EPA 505
Hexachlorobenzene	<0.05	<0.05	<0.05	<0.05	1	µg/L	EPA 525.2
Hexachlorocyclopentadiene	<0.05	<0.05	<0.05	<0.05	50	µg/L	EPA 525.2
Lindane	<0.01	<0.01	<0.01	<0.01	0.2	µg/L	EPA 505
Methoxychlor	<0.05	<0.05	<0.05	<0.05	30	µg/L	EPA 505
Molinate	<0.1	<0.1	<0.1	<0.1	20	µg/L	EPA 525.2
Oxamyl	<0.5	<0.5	<0.5	<0.5	50	µg/L	EPA 531.2
Pentachlorophenol	<0.04	<0.04	<0.04	<0.04	1	µg/L	EPA 515.4
Picloram	<0.1	<0.1	<0.1	<0.1	500	µg/L	EPA 515.4
PCB 1016	<0.08	<0.08	<0.08	<0.08	0.5	µg/L	EPA 505
PCB 1221	<0.1	<0.1	<0.1	<0.1	0.5	µg/L	EPA 505
PCB 1232	<0.1	<0.1	<0.1	<0.1	0.5	µg/L	EPA 505
PCB 1242	<0.1	<0.1	<0.1	<0.1	0.5	µg/L	EPA 505
PCB 1248	<0.1	<0.1	<0.1	<0.1	0.5	µg/L	EPA 505
PCB 1254	<0.1	<0.1	<0.1	<0.1	0.5	µg/L	EPA 505
PCB 1260	<0.1	<0.1	<0.1	<0.1	0.5	µg/L	EPA 505
Simazine	<0.05	<0.05	<0.05	<0.05	4	µg/L	EPA 525.2
Thiobencarb	<0.2	<0.2	<0.2	<0.2	70	µg/L	EPA 525.2
Toxaphene	<0.5	<0.5	<0.5	<0.5	3	µg/L	EPA 505
2,3,7,8-TCDD (Dioxin)	<5	<5	<5	<5	30	pg/L	EPA 1613
2,4,5-TP (Silvex)	<0.2	<0.2	<0.2	<0.2	50	µg/L	EPA 515.4
Notification Level Chemicals							
Copper, Dissolved	1.0	<0.5	0.8	0.8	1300	µg/L	EPA 200.8
Lead, Dissolved	<0.5	<0.5	<0.5	<0.5	15	µg/L	EPA 200.8
Radionuclides							
Combined Radium-226 and Radium 228	<1	<1	<1	<1	5,000	pCi/l	EPA 903.0
Gross Alpha Particle Activity	<3	10	8	<3	15	pCi/l	EPA 900.0
Tritium	<383	<364	<372	<395	20,000	pCi/l	EPA 906
Strontium-90	<3	<3	<3	<3	8	pCi/l	EPA 905
Gross Beta Particle Activity	<3	<3	<3	<3	50	pCi/l	EPA 900.0
Uranium	1.1	1.5	1.9	1.2	20	pCi/l	EPA 200.8

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

Table 2-9c  
Groundwater Monitoring Well Results (Annual)

Constituent	BH-1/2	Ely MW2	DCZ-1/1	DCZ-2	MCL	Unit	Method
<b>Inorganic Chemicals</b>							
Asbestos	<0.2	<0.2	<0.43	<0.2	7	MFL	EPA 100.2
Cyanide	<20	<20	<20	<20	150	µg/L	EPA OIA-1677
Perchlorate	<4	<4	<4	<4	6	µg/L	EPA 314
Mercury	<0.5	<0.5	<0.5	<0.5	2	µg/L	EPA 245.2
Fluoride	0.2	0.6	0.3	0.2	2	mg/L	SM 4500-F C
Aluminum, Dissolved	<25	<25	<25	<25	1000	µg/L	EPA 200.8
Antimony, Dissolved	<1	<1	<1	<1	6	µg/L	EPA 200.8
Arsenic, Dissolved	<1	<1	<1	<1	10	µg/L	EPA 200.8
Barium, Dissolved	101	127	83	48	1000	µg/L	EPA 200.8
Beryllium, Dissolved	<1	<1	<1	<1	4	µg/L	EPA 200.8
Cadmium, Dissolved	<0.5	<0.5	<0.5	<0.5	5	µg/L	EPA 200.8
Chromium, Dissolved	1.3	4.6	2.3	3.4	50	µg/L	EPA 200.8
Copper, Dissolved	0.7	1.2	1.2	1.2	1300	µg/L	EPA 200.8
Iron, Dissolved	<15	<15	<15	<15	300 (sec.)	µg/L	EPA 200.8
Nickel, Dissolved	37	10	148	6	100	µg/L	EPA 200.8
Manganese, Dissolved	<1	4	5	<1	50 (sec.)	µg/L	EPA 200.8
Selenium, Dissolved	<2	<2	<2	<2	50	µg/L	EPA 200.8
Silver, Dissolved	<0.25	<0.25	<0.25	<0.25	100 (sec.)	µg/L	EPA 200.8
Thallium, Dissolved	<1	<1	<1	<1	2	µg/L	EPA 200.8
Zinc, Dissolved	<1	1	<1	198	5000 (sec.)	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-Dichloropropene	<0.5	<0.5	<0.5	<0.5	0.5	µg/L	EPA 524.2
Ethylbenzene	<0.5	<0.5	<0.5	<0.5	300	µg/L	EPA 524.2
Chlorobenzene	<0.5	<0.5	<0.5	<0.5	70	µg/L	EPA 524.2
Methyl Tert-butyl ether (MTBE)	<0.5	<0.5	<0.5	<0.5	13	µg/L	EPA 524.2
Styrene	<0.5	<0.5	<0.5	<0.5	100	µg/L	EPA 524.2
1,1,2,2-Tetrachloroethane	<0.5	<0.5	<0.5	<0.5	1	µg/L	EPA 524.2
Tetrachloroethylene	<0.5	<0.5	<0.5	<0.5	5	µg/L	EPA 524.2
Toluene	<0.5	<0.5	<0.5	<0.5	150	µg/L	EPA 524.2
1,2,4-Trichlorobenzene	<0.5	<0.5	<0.5	<0.5	5	µg/L	EPA 524.2
1,1,1-Trichloroethane	<0.5	<0.5	<0.5	<0.5	200	µg/L	EPA 524.2
1,1,2-Trichloroethane	<0.5	<0.5	<0.5	<0.5	5	µg/L	EPA 524.2
Trichloroethylene	<0.5	<0.5	<0.5	<0.5	5	µg/L	EPA 524.2
Trichlorofluoromethane	<0.5	<0.5	<0.5	<0.5	150	µg/L	EPA 524.2
1,1,2-Trichloro-1,2,2-Trifluoroethane	<0.5	<0.5	<0.5	<0.5	1200	µg/L	EPA 524.2
Vinyl Chloride	<0.5	<0.5	<0.5	<0.5	0.5	µg/L	EPA 524.2
Total Xylenes	<1	<1	<1	<1	1750	µg/L	EPA 524.2
1,2,3-Trichloropropane	<0.5	<0.5	<0.5	<0.5	0.005	µg/L	EPA 524.2

Table 2-9c  
Groundwater Monitoring Well Results (Annual)

Constituent	BH-1/2	Ely MW2	DCZ-1/1	DCZ-2	MCL	Unit	Method
Non-Volatile Synthetic Organic Chemicals (SOCs)							
Alachlor (Alanex)	<0.05	<0.05	<0.05	<0.05	2	µg/L	EPA 525.2
Atrazine	<0.05	<0.05	<0.05	<0.05	1	µg/L	EPA 525.2
Bentazon	<0.5	<0.5	<0.5	<0.5	18	µg/L	EPA 515.4
Benzo(a)pyrene	<0.02	<0.02	<0.02	<0.02	0.2	µg/L	EPA 525.2
Carbofuran	<0.5	<0.5	<0.5	<0.5	18	µg/L	EPA 531.2
Chlordane	<0.1	<0.1	<0.1	<0.1	0.1	µg/L	EPA 505
2,4-D	<0.1	<0.1	<0.1	<0.1	70	µg/L	EPA 515.4
Dalapon	<1	<1	<1	<1	200	µg/L	EPA 515.4
Dibromochloropropane	<0.01	<0.01	<0.01	<0.01	0.2	µg/L	EPA 504.1
Di(2-ethylhexyl)adipate	<0.6	<0.6	<0.6	<0.6	400	µg/L	EPA 525.2
Di(2-ethylhexyl)phthalate	<0.6	<0.6	<0.6	<0.6	4	µg/L	EPA 525.2
Dinoseb	<0.2	<0.2	<0.2	<0.2	7	µg/L	EPA 515.4
Diquat	<0.4	<0.4	<0.4	<0.4	20	µg/L	EPA 549.2
Endothall	<5	<5	<5	<5	100	µg/L	EPA 548.1
Endrin	<0.01	<0.01	<0.01	<0.01	2	µg/L	EPA 505
Ethylene Dibromide	<0.01	<0.01	<0.01	<0.01	0.05	µg/L	EPA 504.1
Glyphosate	<6	<6	<6	<6	700	µg/L	EPA 547
Heptachlor	<0.01	<0.01	<0.01	<0.01	0.01	µg/L	EPA 505
Heptachlor Epoxide	<0.01	<0.01	<0.01	<0.01	0.01	µg/L	EPA 505
Hexachlorobenzene	<0.05	<0.05	<0.05	<0.05	1	µg/L	EPA 525.2
Hexachlorocyclopentadiene	<0.05	<0.05	<0.05	<0.05	50	µg/L	EPA 525.2
Lindane	<0.01	<0.01	<0.01	<0.01	0.2	µg/L	EPA 505
Methoxychlor	<0.05	<0.05	<0.05	<0.05	30	µg/L	EPA 505
Molinate	<0.1	<0.1	<0.1	<0.1	20	µg/L	EPA 525.2
Oxamyl	<0.5	<0.5	<0.5	<0.5	50	µg/L	EPA 531.2
Pentachlorophenol	<0.04	<0.04	<0.04	<0.04	1	µg/L	EPA 515.4
Picloram	<0.1	<0.1	<0.1	<0.1	500	µg/L	EPA 515.4
PCB 1016	<0.08	<0.08	<0.08	<0.08	0.5	µg/L	EPA 505
PCB 1221	<0.1	<0.1	<0.1	<0.1	0.5	µg/L	EPA 505
PCB 1232	<0.1	<0.1	<0.1	<0.1	0.5	µg/L	EPA 505
PCB 1242	<0.1	<0.1	<0.1	<0.1	0.5	µg/L	EPA 505
PCB 1248	<0.1	<0.1	<0.1	<0.1	0.5	µg/L	EPA 505
PCB 1254	<0.1	<0.1	<0.1	<0.1	0.5	µg/L	EPA 505
PCB 1260	<0.1	<0.1	<0.1	<0.1	0.5	µg/L	EPA 505
Simazine	<0.05	<0.05	<0.05	<0.05	4	µg/L	EPA 525.2
Thiobencarb	<0.2	<0.2	<0.2	<0.2	70	µg/L	EPA 525.2
Toxaphene	<0.5	<0.5	<0.5	<0.5	3	µg/L	EPA 505
2,3,7,8-TCDD (Dioxin)	<5	<5	<5	<5	30	pg/L	EPA 1613
2,4,5-TP (Silvex)	<0.2	<0.2	<0.2	<0.2	50	µg/L	EPA 515.4
Notification Level Chemicals							
Copper, Dissolved	0.7	1.2	1.2	1.2	1300	µg/L	EPA 200.8
Lead, Dissolved	<0.5	<0.5	<0.5	<0.5	15	µg/L	EPA 200.8
Radionuclides							
Combined Radium-226 and Radium 228	<1	<1	<1	<1	5,000	pCi/l	EPA 903.0
Gross Alpha Particle Activity	<3	7	11	9	15	pCi/l	EPA 900.0
Tritium	<372	<361	<392	<381	20,000	pCi/l	EPA 906
Strontium-90	<3	<3	<3	<3	8	pCi/l	EPA 905
Gross Beta Particle Activity	<3	<3	4	<3	50	pCi/l	EPA 900.0
Uranium	0.7	8.2	2.0	1.5	20	pCi/l	EPA 200.8

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

Table 2-9c  
Groundwater Monitoring Well Results (Annual)

Constituent	Southridge					MCL	Unit	Method
	RP3-1/1	JHS	T-1/2	T-2/1	T-2/2			
Inorganic Chemicals								
Asbestos	<0.2	<0.2	<0.2	<0.2	<0.2	7	MFL	EPA 100.2
Cyanide	<20	<20	<20	<20	<20	150	µg/L	EPA OIA-1677
Perchlorate	<4	<4	<4	<4	<4	6	µg/L	EPA 314
Mercury	<0.5	<0.5	<0.5	<0.5	<0.5	2	µg/L	EPA 245.2
Fluoride	0.2	0.2	0.3	0.4	0.3	2	mg/L	SM 4500-F C
Aluminum, Dissolved	<25	<25	<25	<25	<25	1000	µg/L	EPA 200.8
Antimony, Dissolved	<1	<1	<1	<1	<1	6	µg/L	EPA 200.8
Arsenic, Dissolved	<1	<1	<1	<1	<1	10	µg/L	EPA 200.8
Barium, Dissolved	97	163	74	80	61	1000	µg/L	EPA 200.8
Beryllium, Dissolved	<1	<1	<1	<1	<1	4	µg/L	EPA 200.8
Cadmium, Dissolved	<0.5	<0.5	<0.5	<0.5	<0.5	5	µg/L	EPA 200.8
Chromium, Dissolved	1.9	1.8	0.9	0.7	<0.5	50	µg/L	EPA 200.8
Copper, Dissolved	2.9	2.8	1.4	1.9	1.7	1300	µg/L	EPA 200.8
Iron, Dissolved	<15	<15	<15	<15	<15	300 (sec.)	µg/L	EPA 200.8
Nickel, Dissolved	136	14	8	11	7	100	µg/L	EPA 200.8
Manganese, Dissolved	6	11	<1	<1	<1	50 (sec.)	µg/L	EPA 200.8
Selenium, Dissolved	<2	3	<2	<2	<2	50	µg/L	EPA 200.8
Silver, Dissolved	<0.25	<0.25	<0.25	<0.25	<0.25	100 (sec.)	µg/L	EPA 200.8
Thallium, Dissolved	<1	<1	<1	<1	<1	2	µg/L	EPA 200.8
Zinc, Dissolved	1	13	<1	<1	<1	5000 (sec.)	µg/L	EPA 200.8
Volatile Organic Chemicals (VOCs)								
Benzene	<0.5	<0.5	<0.5	<0.5	<0.5	1	µg/L	EPA 524.2
Carbon Tetrachloride	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	µg/L	EPA 524.2
1,2-Dichlorobenzene	<0.5	<0.5	<0.5	<0.5	<0.5	600	µg/L	EPA 524.2
1,4-Dichlorobenzene	<0.5	<0.5	<0.5	<0.5	<0.5	5	µg/L	EPA 524.2
1,1-Dichloroethane	<0.5	<0.5	<0.5	<0.5	<0.5	5	µg/L	EPA 524.2
1,2-Dichloroethane	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	µg/L	EPA 524.2
1,1-Dichloroethylene	<0.5	<0.5	<0.5	<0.5	<0.5	6	µg/L	EPA 524.2
cis-1,2-Dichloroethylene	<0.5	<0.5	<0.5	<0.5	<0.5	6	µg/L	EPA 524.2
trans-1,2-Dichloroethylene	<0.5	<0.5	<0.5	<0.5	<0.5	10	µg/L	EPA 524.2
Dichloromethane	<0.5	<0.5	<0.5	<0.5	<0.5	5	µg/L	EPA 524.2
1,2-Dichloropropane	<0.5	<0.5	<0.5	<0.5	<0.5	5	µg/L	EPA 524.2
1,3-Dichloropropene	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	µg/L	EPA 524.2
Ethylbenzene	<0.5	<0.5	<0.5	<0.5	<0.5	300	µg/L	EPA 524.2
Chlorobenzene	<0.5	<0.5	<0.5	<0.5	<0.5	70	µg/L	EPA 524.2
Methyl Tert-butyl ether (MTBE)	<0.5	<0.5	<0.5	<0.5	<0.5	13	µg/L	EPA 524.2
Styrene	<0.5	<0.5	<0.5	<0.5	<0.5	100	µg/L	EPA 524.2
1,1,2,2-Tetrachloroethane	<0.5	<0.5	<0.5	<0.5	<0.5	1	µg/L	EPA 524.2
Tetrachloroethylene	<0.5	<0.5	<0.5	<0.5	<0.5	5	µg/L	EPA 524.2
Toluene	<0.5	<0.5	<0.5	<0.5	<0.5	150	µg/L	EPA 524.2
1,2,4-Trichlorobenzene	<0.5	<0.5	<0.5	<0.5	<0.5	5	µg/L	EPA 524.2
1,1,1-Trichloroethane	<0.5	<0.5	<0.5	<0.5	<0.5	200	µg/L	EPA 524.2
1,1,2-Trichloroethane	<0.5	<0.5	<0.5	<0.5	<0.5	5	µg/L	EPA 524.2
Trichloroethylene	<0.5	<0.5	<0.5	<0.5	<0.5	5	µg/L	EPA 524.2
Trichlorofluoromethane	<0.5	<0.5	<0.5	<0.5	<0.5	150	µg/L	EPA 524.2
1,1,2-Trichloro-1,2,2-Trifluoroethane	<0.5	<0.5	<0.5	<0.5	<0.5	1200	µg/L	EPA 524.2
Vinyl Chloride	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	µg/L	EPA 524.2
Total Xylenes	<1	<1	<1	<1	<1	1750	µg/L	EPA 524.2
1,2,3-Trichloropropane	<0.5	<0.5	<0.5	<0.5	<0.5	0.005	µg/L	EPA 524.2

Table 2-9c  
Groundwater Monitoring Well Results (Annual)

Constituent	Southridge					MCL	Unit	Method
	RP3-1/1	JHS	T-1/2	T-2/1	T-2/2			
Non-Volatile Synthetic Organic Chemicals (SOCs)								
Alachlor (Alanex)	<0.05	<0.05	<0.05	<0.05	<0.05	2	µg/L	EPA 525.2
Atrazine	<0.05	<0.05	<0.05	<0.05	<0.05	1	µg/L	EPA 525.2
Bentazon	<0.5	<0.5	<0.5	<0.5	<0.5	18	µg/L	EPA 515.4
Benzo(a)pyrene	<0.02	<0.02	<0.02	<0.02	<0.02	0.2	µg/L	EPA 525.2
Carbofuran	<0.5	<0.5	<0.5	<0.5	<0.5	18	µg/L	EPA531.2
Chlordane	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	µg/L	EPA 505
2,4-D	<0.1	<0.1	<0.1	<0.1	<0.1	70	µg/L	EPA 515.4
Dalapon	<1	<1	<1	<1	<1	200	µg/L	EPA 515.4
Dibromochloropropane	<0.01	<0.01	<0.01	<0.01	<0.01	0.2	µg/L	EPA 504.1
Di(2-ethylhexyl)adipate	<0.6	<0.6	<0.6	<0.6	<0.6	400	µg/L	EPA 525.2
Di(2-ethylhexyl)phthalate	<0.6	<0.6	<0.6	<0.6	<0.6	4	µg/L	EPA 525.2
Dinoseb	<0.2	<0.2	<0.2	<0.2	<0.2	7	µg/L	EPA 515.4
Diquat	<0.4	<0.4	<0.4	<0.4	<0.4	20	µg/L	EPA 549.2
Endothall	<5	<5	<5	<5	<5	100	µg/L	EPA 548.1
Endrin	<0.01	<0.01	<0.01	<0.01	<0.01	2	µg/L	EPA 505
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	<0.05	<0.05	<0.05	<0.05	1	µg/L	EPA 525.2
Hexachlorocyclopentadiene	<0.05	<0.05	<0.05	<0.05	<0.05	50	µg/L	EPA 525.2
Lindane	<0.01	<0.01	<0.01	<0.01	<0.01	0.2	µg/L	EPA 505
Methoxychlor	<0.05	<0.05	<0.05	<0.05	<0.05	30	µg/L	EPA 505
Molinate	<0.1	<0.1	<0.1	<0.1	<0.1	20	µg/L	EPA 525.2
Oxamyl	<0.5	<0.5	<0.5	<0.5	<0.5	50	µg/L	EPA 531.2
Pentachlorophenol	<0.04	<0.04	<0.04	<0.04	<0.04	1	µg/L	EPA 515.4
Picloram	<0.1	<0.1	<0.1	<0.1	<0.1	500	µg/L	EPA 515.4
PCB 1016	<0.08	<0.08	<0.08	<0.08	<0.08	0.5	µg/L	EPA 505
PCB 1221	<0.1	<0.1	<0.1	<0.1	<0.1	0.5	µg/L	EPA 505
PCB 1232	<0.1	<0.1	<0.1	<0.1	<0.1	0.5	µg/L	EPA 505
PCB 1242	<0.1	<0.1	<0.1	<0.1	<0.1	0.5	µg/L	EPA 505
PCB 1248	<0.1	<0.1	<0.1	<0.1	<0.1	0.5	µg/L	EPA 505
PCB 1254	<0.1	<0.1	<0.1	<0.1	<0.1	0.5	µg/L	EPA 505
PCB 1260	<0.1	<0.1	<0.1	<0.1	<0.1	0.5	µg/L	EPA 505
Simazine	<0.05	<0.05	<0.05	<0.05	<0.05	4	µg/L	EPA 525.2
Thiobencarb	<0.2	<0.2	<0.2	<0.2	<0.2	70	µg/L	EPA 525.2
Toxaphene	<0.5	<0.5	<0.5	<0.5	<0.5	3	µg/L	EPA 505
2,3,7,8-TCDD (Dioxin)	<5	<5	<5	<5	<5	30	pg/L	EPA 1613
2,4,5-TP (Silvex)	<0.2	<0.2	<0.2	<0.2	<0.2	50	µg/L	EPA 515.4
Notification Level Chemicals								
Copper, Dissolved	2.9	2.8	1.4	1.9	1.7	1300	µg/L	EPA 200.8
Lead, Dissolved	<0.5	<0.5	<0.5	<0.5	<0.5	15	µg/L	EPA 200.8
Radionuclides								
Combined Radium-226 and Radium 228	<1	<1	<1	<1	<1	5,000	pCi/l	EPA 903.0
Gross Alpha Particle Activity	3	6	7	4	<3	15	pCi/l	EPA 900.0
Tritium	<343	<387	<366	<349	<346	20,000	pCi/l	EPA 906
Strontium-90	<3	<3	<3	<3	<3	8	pCi/l	EPA 905
Gross Beta Particle Activity	<3	7	<3	<3	<3	50	pCi/l	EPA 900.0
Uranium	1.0	5.8	0.8	<0.7	<0.7	20	pCi/l	EPA 200.8

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



Table 2-9c  
Groundwater Monitoring Well Results (Annual)

Constituent	SS-1/1	SSV-2	VCT-1/1	VCT-2/2	MCL	Unit	Method
<b>Inorganic Chemicals</b>							
Asbestos	<0.2	<5.4	<0.2	<0.2	7	MFL	EPA 100.2
Cyanide	<20	<20	<20	<20	150	µg/L	EPA OIA-1677
Perchlorate	<4	<4	<4	<4	6	µg/L	EPA 314
Mercury	<0.5	<0.5	<0.5	<0.5	2	µg/L	EPA 245.2
Fluoride	0.2	0.2	0.2	0.2	2	mg/L	SM 4500-F C
Aluminum, Dissolved	<25	<25	<25	<25	1000	µg/L	EPA 200.8
Antimony, Dissolved	<1	<1	<1	<1	6	µg/L	EPA 200.8
Arsenic, Dissolved	<1	<1	<1	<1	10	µg/L	EPA 200.8
Barium, Dissolved	61	37	116	66	1000	µg/L	EPA 200.8
Beryllium, Dissolved	<1	<1	<1	<1	4	µg/L	EPA 200.8
Cadmium, Dissolved	<0.5	<0.5	<0.5	<0.5	5	µg/L	EPA 200.8
Chromium, Dissolved	0.9	0.7	0.7	2.4	50	µg/L	EPA 200.8
Copper, Dissolved	0.8	0.8	0.8	0.9	1300	µg/L	EPA 200.8
Iron, Dissolved	<15	<15	<15	<15	300 (sec.)	µg/L	EPA 200.8
Nickel, Dissolved	4	12	5	6	100	µg/L	EPA 200.8
Manganese, Dissolved	<1	5	<1	1.69	50 (sec.)	µg/L	EPA 200.8
Selenium, Dissolved	<2	<2	<2	<2	50	µg/L	EPA 200.8
Silver, Dissolved	0.39	<0.25	<0.25	<0.25	100 (sec.)	µg/L	EPA 200.8
Thallium, Dissolved	<1	<1	<1	<1	2	µg/L	EPA 200.8
Zinc, Dissolved	1	2	1	4	5000 (sec.)	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-Dichloropropene	<0.5	<0.5	<0.5	<0.5	0.5	µg/L	EPA 524.2
Ethylbenzene	<0.5	<0.5	<0.5	<0.5	300	µg/L	EPA 524.2
Chlorobenzene	<0.5	<0.5	<0.5	<0.5	70	µg/L	EPA 524.2
Methyl Tert-butyl ether (MTBE)	<0.5	<0.5	<0.5	<0.5	13	µg/L	EPA 524.2
Styrene	<0.5	<0.5	<0.5	<0.5	100	µg/L	EPA 524.2
1,1,2,2-Tetrachloroethane	<0.5	<0.5	<0.5	<0.5	1	µg/L	EPA 524.2
Tetrachloroethylene	<0.5	<0.5	<0.5	<0.5	5	µg/L	EPA 524.2
Toluene	<0.5	<0.5	<0.5	<0.5	150	µg/L	EPA 524.2
1,2,4-Trichlorobenzene	<0.5	<0.5	<0.5	<0.5	5	µg/L	EPA 524.2
1,1,1-Trichloroethane	<0.5	<0.5	<0.5	<0.5	200	µg/L	EPA 524.2
1,1,2-Trichloroethane	<0.5	<0.5	<0.5	<0.5	5	µg/L	EPA 524.2
Trichloroethylene	<0.5	<0.5	<0.5	<0.5	5	µg/L	EPA 524.2
Trichlorofluoromethane	<0.5	<0.5	<0.5	<0.5	150	µg/L	EPA 524.2
1,1,2-Trichloro-1,2,2-Trifluoroethane	<0.5	<0.5	<0.5	<0.5	1200	µg/L	EPA 524.2
Vinyl Chloride	<0.5	<0.5	<0.5	<0.5	0.5	µg/L	EPA 524.2
Total Xylenes	<1	<1	<1	<1	1750	µg/L	EPA 524.2
1,2,3-Trichloropropane	<0.5	<0.5	<0.5	<0.5	0.005	µg/L	EPA 524.2

Table 2-9c  
Groundwater Monitoring Well Results (Annual)

Constituent	SS-1/1	SSV-2	VCT-1/1	VCT-2/2	MCL	Unit	Method
Non-Volatile Synthetic Organic Chemicals (SOCs)							
Alachlor (Alanex)	<0.05	<0.05	<0.05	<0.05	2	µg/L	EPA 525.2
Atrazine	<0.05	<0.05	<0.05	<0.05	1	µg/L	EPA 525.2
Bentazon	<0.5	<0.5	<0.5	<0.5	18	µg/L	EPA 515.4
Benzo(a)pyrene	<0.02	<0.02	<0.02	<0.02	0.2	µg/L	EPA 525.2
Carbofuran	<0.5	<0.5	<0.5	<0.5	18	µg/L	EPA531.2
Chlordane	<0.1	<0.1	<0.1	<0.1	0.1	µg/L	EPA 505
2,4-D	<0.1	<0.1	<0.1	<0.1	70	µg/L	EPA 515.4
Dalapon	<1	<1	<1	<1	200	µg/L	EPA 515.4
Dibromochloropropane	<0.01	<0.01	<0.01	<0.01	0.2	µg/L	EPA 504.1
Di(2-ethylhexyl)adipate	<0.6	<0.6	<0.6	<0.6	400	µg/L	EPA 525.2
Di(2-ethylhexyl)phthalate	<0.6	<0.6	<0.6	<0.6	4	µg/L	EPA 525.2
Dinoseb	<0.2	<0.2	<0.2	<0.2	7	µg/L	EPA 515.4
Diquat	<0.4	<0.4	<0.4	<0.4	20	µg/L	EPA 549.2
Endothall	<5	<5	<5	<5	100	µg/L	EPA 548.1
Endrin	<0.01	<0.01	<0.01	<0.01	2	µg/L	EPA 505
Ethylene Dibromide	<0.01	<0.01	<0.01	<0.01	0.05	µg/L	EPA 504.1
Glyphosate	<6	<6	<6	<6	700	µg/L	EPA 547
Heptachlor	<0.01	<0.01	<0.01	<0.01	0.01	µg/L	EPA 505
Heptachlor Epoxide	<0.01	<0.01	<0.01	<0.01	0.01	µg/L	EPA 505
Hexachlorobenzene	<0.05	<0.05	<0.05	<0.05	1	µg/L	EPA 525.2
Hexachlorocyclopentadiene	<0.05	<0.05	<0.05	<0.05	50	µg/L	EPA 525.2
Lindane	<0.01	<0.01	<0.01	<0.01	0.2	µg/L	EPA 505
Methoxychlor	<0.05	<0.05	<0.05	<0.05	30	µg/L	EPA 505
Molinate	<0.1	<0.1	<0.1	<0.1	20	µg/L	EPA 525.2
Oxamyl	<0.5	<0.5	<0.5	<0.5	50	µg/L	EPA 531.2
Pentachlorophenol	<0.04	<0.04	<0.04	<0.04	1	µg/L	EPA 515.4
Picloram	<0.1	<0.1	<0.1	<0.1	500	µg/L	EPA 515.4
PCB 1016	<0.08	<0.08	<0.08	<0.08	0.5	µg/L	EPA 505
PCB 1221	<0.1	<0.1	<0.1	<0.1	0.5	µg/L	EPA 505
PCB 1232	<0.1	<0.1	<0.1	<0.1	0.5	µg/L	EPA 505
PCB 1242	<0.1	<0.1	<0.1	<0.1	0.5	µg/L	EPA 505
PCB 1248	<0.1	<0.1	<0.1	<0.1	0.5	µg/L	EPA 505
PCB 1254	<0.1	<0.1	<0.1	<0.1	0.5	µg/L	EPA 505
PCB 1260	<0.1	<0.1	<0.1	<0.1	0.5	µg/L	EPA 505
Simazine	<0.05	<0.05	<0.05	<0.05	4	µg/L	EPA 525.2
Thiobencarb	<0.2	<0.2	<0.2	<0.2	70	µg/L	EPA 525.2
Toxaphene	<0.5	<0.5	<0.5	<0.5	3	µg/L	EPA 505
2,3,7,8-TCDD (Dioxin)	<5	<5	<5	<5	30	pg/L	EPA 1613
2,4,5-TP (Silvex)	<0.2	<0.2	<0.2	<0.2	50	µg/L	EPA 515.4
Notification Level Chemicals							
Copper, Dissolved	0.8	0.8	0.8	0.9	1300	µg/L	EPA 200.8
Lead, Dissolved	<0.5	<0.5	<0.5	<0.5	15	µg/L	EPA 200.8
Radionuclides							
Combined Radium-226 and Radium 228	<1	<1	<1	<1	5,000	pCi/l	EPA 903.0
Gross Alpha Particle Activity	<3	4	3	<3	15	pCi/l	EPA 900.0
Tritium	<363	<357	<387	<355	20,000	pCi/l	EPA 906
Strontium-90	<3	<3	<3	<3	8	pCi/l	EPA 905
Gross Beta Particle Activity	<3	4	<3	<3	50	pCi/l	EPA 900.0
Uranium	<0.7	<0.7	<0.7	<0.7	20	pCi/l	EPA 200.8

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

**Table 3-1**  
**Evidence of Recycled Water Blending Based on Water Quality at**  
**Monitoring Wells Based on EC and Chloride in 2020**

Basin	Well	Well Position	Recycled Water EC (µmhos/cm)	Groundwater Background EC (µmhos/cm)	Peak EC at Well (µmhos/cm)	Mass-Balance Blend (max) (% Recycled Water)	Recycled Water Cl (mg/L)	Groundwater Background Cl (mg/L)	Peak Cl at Well (mg/L)	Mass-Balance Blend (max) (% Recycled Water)
8th Street	8TH-1/1	Mound	732	200	494	55%	110	9	59	50%
	8TH-1/2	Mound	732	255	477	47%	110	13	68	57%
	8TH-2/1	Downgradient	Inconclusive evidence of recycled water				Inconclusive evidence of recycled water			
	8TH-2/2	Downgradient	732	400	481	24%	110	20	60	44%
Banana & Hickory	BH-1/2	Mound	732	360	591	62%	110	10	86	76%
	California Speedway Infield	Downgradient	732	440	678	82%	110	10	58	48%
	California Speedway No. 2	Downgradient	732	365	489	34%	110	10	24	14%
	Reliant East Well	Downgradient	Inconclusive evidence of recycled water				Inconclusive evidence of recycled water			
	Fontana Water Co. 37A and 7A	Upgradient	Inconclusive evidence of recycled water				Inconclusive evidence of recycled water			
	Ontario No. 20	Downgradient	In 2015, Well went out of service and is no longer monitored.				In 2015, Well went out of service and is no longer monitored.			
Brooks	BRK-1/1	Mound	732	367	580	58%	110	11	79	69%
	BRK-1/2	Mound	732	535	645	56%	110	16	25	10%
	BRK-2/1	Downgradient	Inconclusive evidence of recycled water				Inconclusive evidence of recycled water			
	BRK-2/2	Downgradient	Inconclusive evidence of recycled water				Inconclusive evidence of recycled water			
Ely	Philadelphia Well	Mound	732	245	not sampled	--	110	34	not sampled	--
	Walnut Well	Downgradient	Well impacted by regionally high TDS concentration				Well impacted by regionally high TDS concentration			
	Riverside Well	Downgradient	Inconclusive evidence of recycled water				Inconclusive evidence of recycled water			
Turner	T-1/2	Mound	732	390	662	80%	110	21	74	60%
	T-2/2	Downgradient	732	350	596	64%	110	9	73	63%
	Ontario No. 25	Downgradient	732	380	not sampled	--	110	11	not sampled	--
	Ontario No. 29	Downgradient	Inconclusive evidence of recycled water				Inconclusive evidence of recycled water			
RP-3	RP3-1/1	Mound	732	475	742	100%	110	20	108	98%
	Alcoa MW3	Downgradient	Inconclusive evidence of recycled water				Inconclusive evidence of recycled water			
	Alcoa MW1	Downgradient	Inconclusive evidence of recycled water				Inconclusive evidence of recycled water			
	IEUA Southridge JHS	Downgradient	Inconclusive evidence of recycled water				Inconclusive evidence of recycled water			
San Sevaline & Victoria	SS-1	Mound	Inconclusive evidence of recycled water				Inconclusive evidence of recycled water			
	SSV-2	Mound	Inconclusive evidence of recycled water				Inconclusive evidence of recycled water			
	Unitex 91090	Cross gradient	Inconclusive evidence of recycled water				Inconclusive evidence of recycled water			
	VCT-1/1	Mound	732	330	571	60%	110	38	90	72%
	VCT-2/2	Downgradient	Inconclusive evidence of recycled water				Inconclusive evidence of recycled water			
	CVWD No. 39	Downgradient	Inconclusive evidence of recycled water				Inconclusive evidence of recycled water			
Declez	DCZ-1	Mound	732	400	578	54%	110	22	88	75%
	DCZ-2	Downgradient	Inconclusive evidence of recycled water				Inconclusive evidence of recycled water			
	JCSD Well No. 13	Downgradient	Inconclusive evidence of recycled water				Inconclusive evidence of recycled water			
	JCSD Well No. 19	Downgradient	Inconclusive evidence of recycled water				Inconclusive evidence of recycled water			

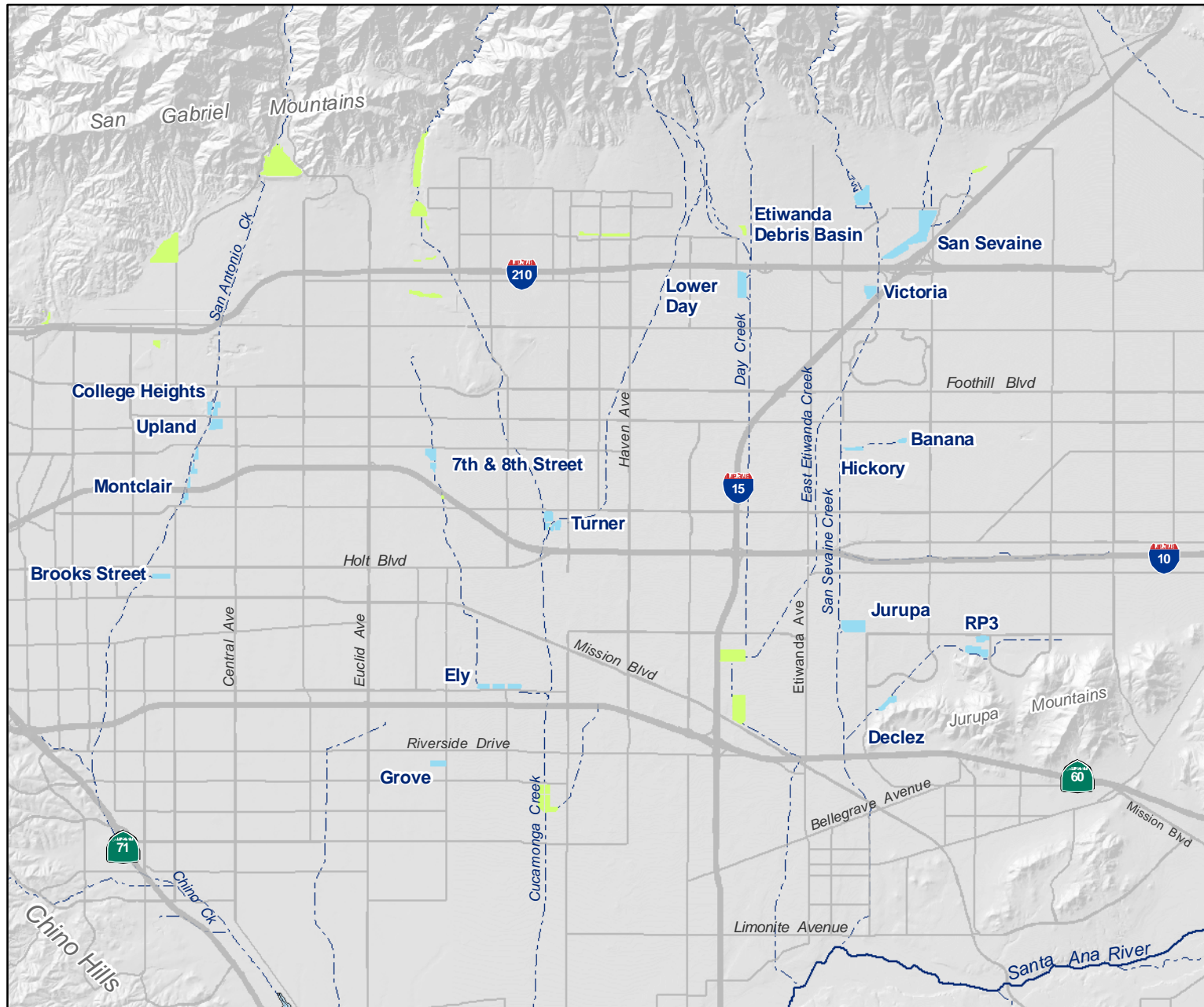
**Table 3-2**  
**Volume-Based RWC Actuals by Basin**  
**(10-Year History)**

Basin	Owner	RW Start Up	Start-Up Limit	Approved Limit <sup>(1)</sup>	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
8th Street	SBCFCD	2007-10	28%	50%	23%	21%	21%	24%	22%	21%	23%	22%	22%	23%	23%
Banana	SBCFCD	2005	36%	50%	29%	32%	34%	34%	34%	37%	36%	36%	36%	35%	35%
Brooks	CBWCD	2008-09	42%	50%	22%	18%	16%	18%	18%	17%	18%	18%	17%	15%	14%
Declez	SBCFCD	2015-16	20%	20%	0%	0%	1%	1%	1%	2%	10%	7%	7%	7%	8%
Ely	CBWCD	2006	29%	50%	12%	11%	11%	19%	21%	22%	22%	22%	23%	22%	25%
Hickory	SBCFCD	2005	36%	50%	25%	22%	22%	23%	26%	27%	24%	22%	22%	19%	19%
RP3	IEUA	2009-10	50%	50%	14%	12%	12%	14%	13%	14%	17%	17%	16%	17%	20%
San Sevine	SBCFCD	2010-11	27%	27%	1%	3%	4%	5%	5%	6%	8%	7%	6%	5%	7%
Turner 1&2	SBCFCD	2006-07	24%	24%	8%	7%	6%	7%	11%	15%	19%	22%	23%	23%	24%
Turner 3&4	SBCFCD	2006-07	45%	45%	19%	21%	22%	23%	25%	28%	24%	23%	25%	24%	25%
Victoria	SBCFCD	2010-11	50%	50%	13%	19%	24%	23%	28%	30%	29%	30%	28%	27%	28%




(1) In a letter dated June 18, 2015, the DDW approved IEUA's request to increase the maximum average RWC limit to 50% at all the basins except for Turner Basins and San Sevine Basin which DDW stated required additional data for consideration of approval.

## FIGURES

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### Main Map Features

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



### Chino Basin Recycled Water Groundwater Recharge Program

Basin Locations

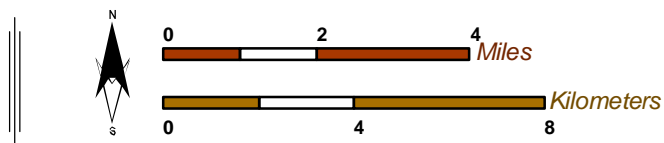
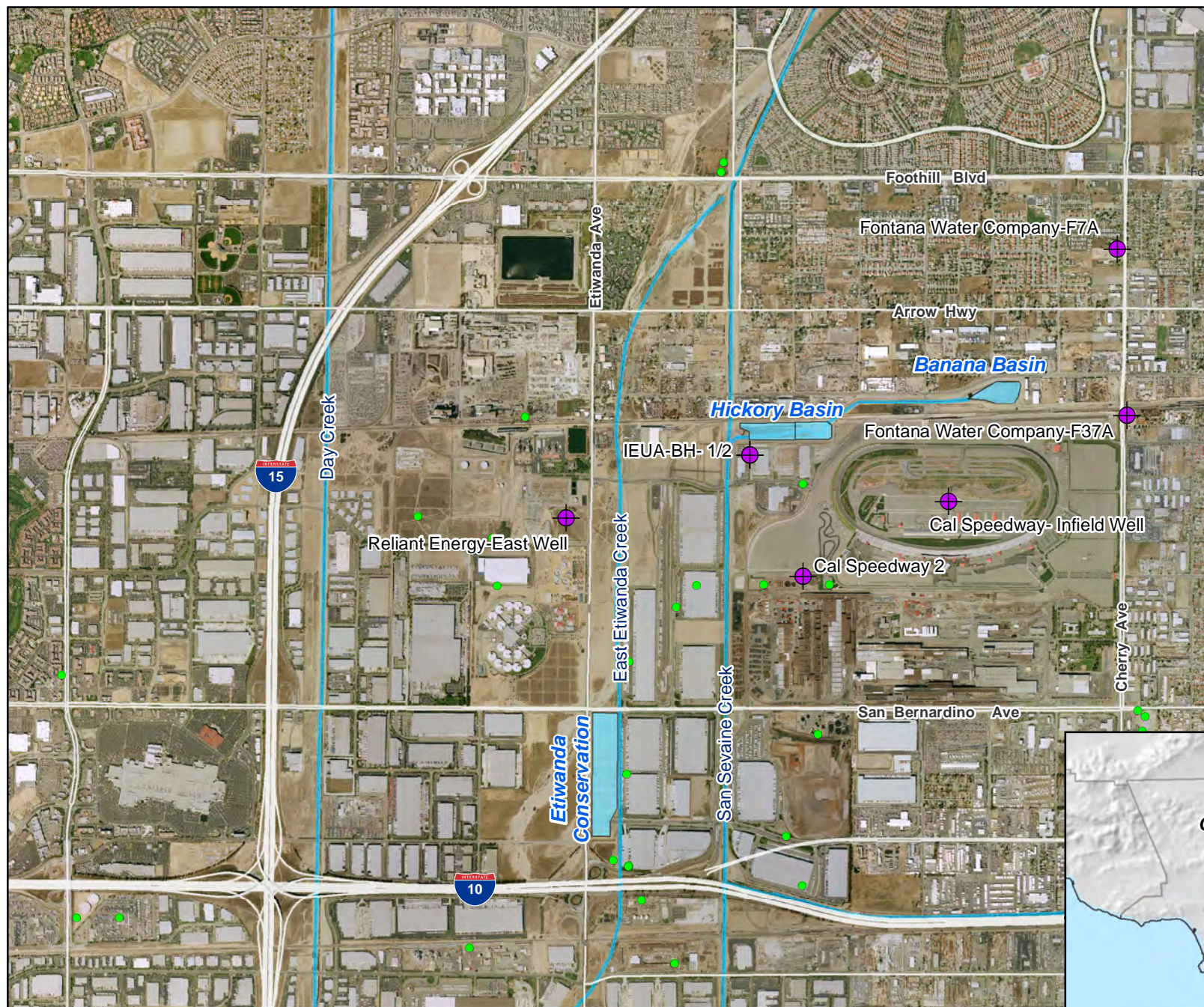






Figure 1-1





## Main Map Features

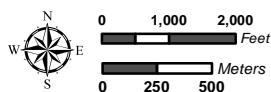
-  Existing Monitoring Well
-  "Other Wells"
-  Rivers/Streams/Creeks
-  Recharge Basins



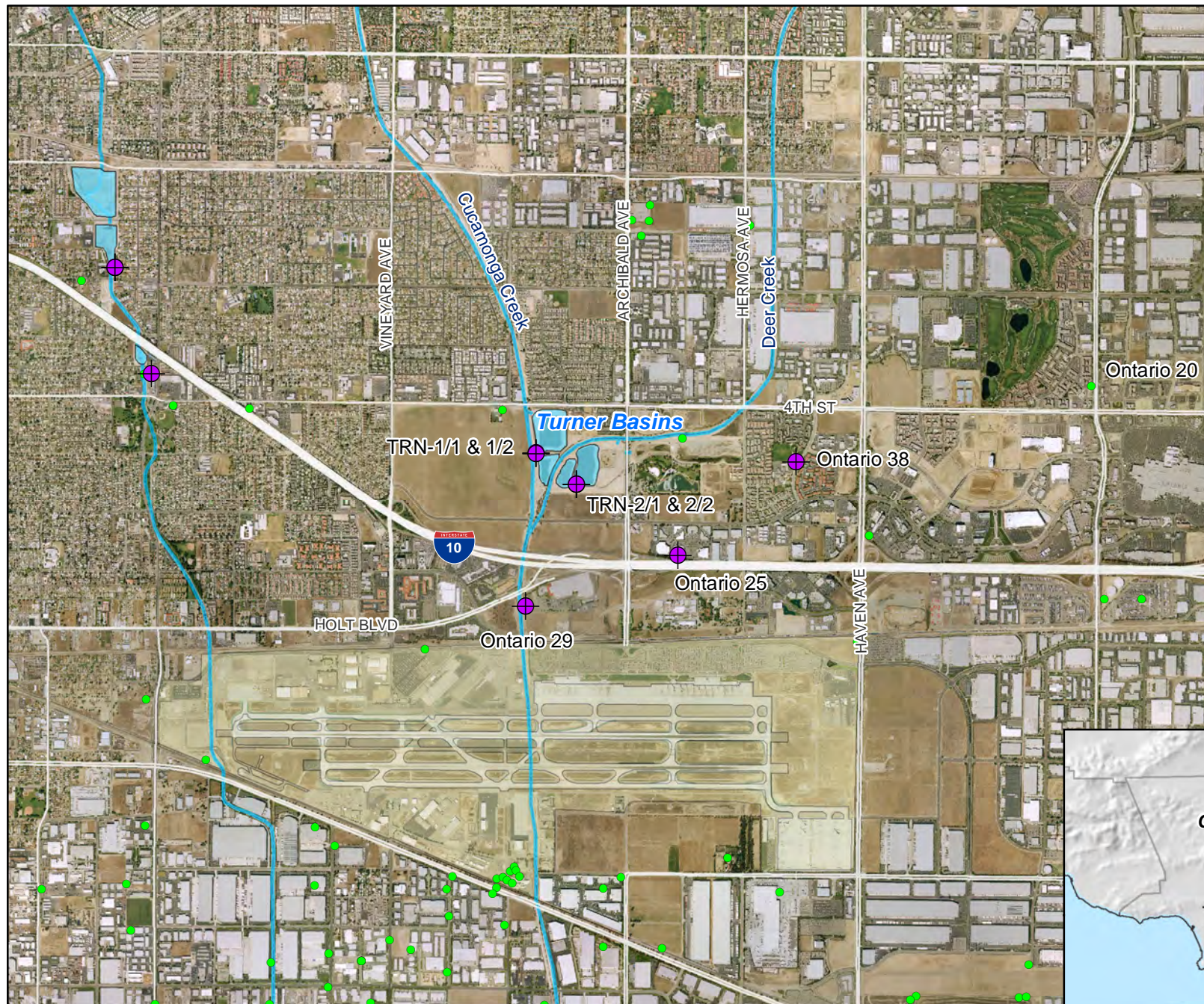
## Monitoring Well Network Hickory and Banana Basins

**Figure 2-1**





Recycled Water Recharge Program







## Main Map Features

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



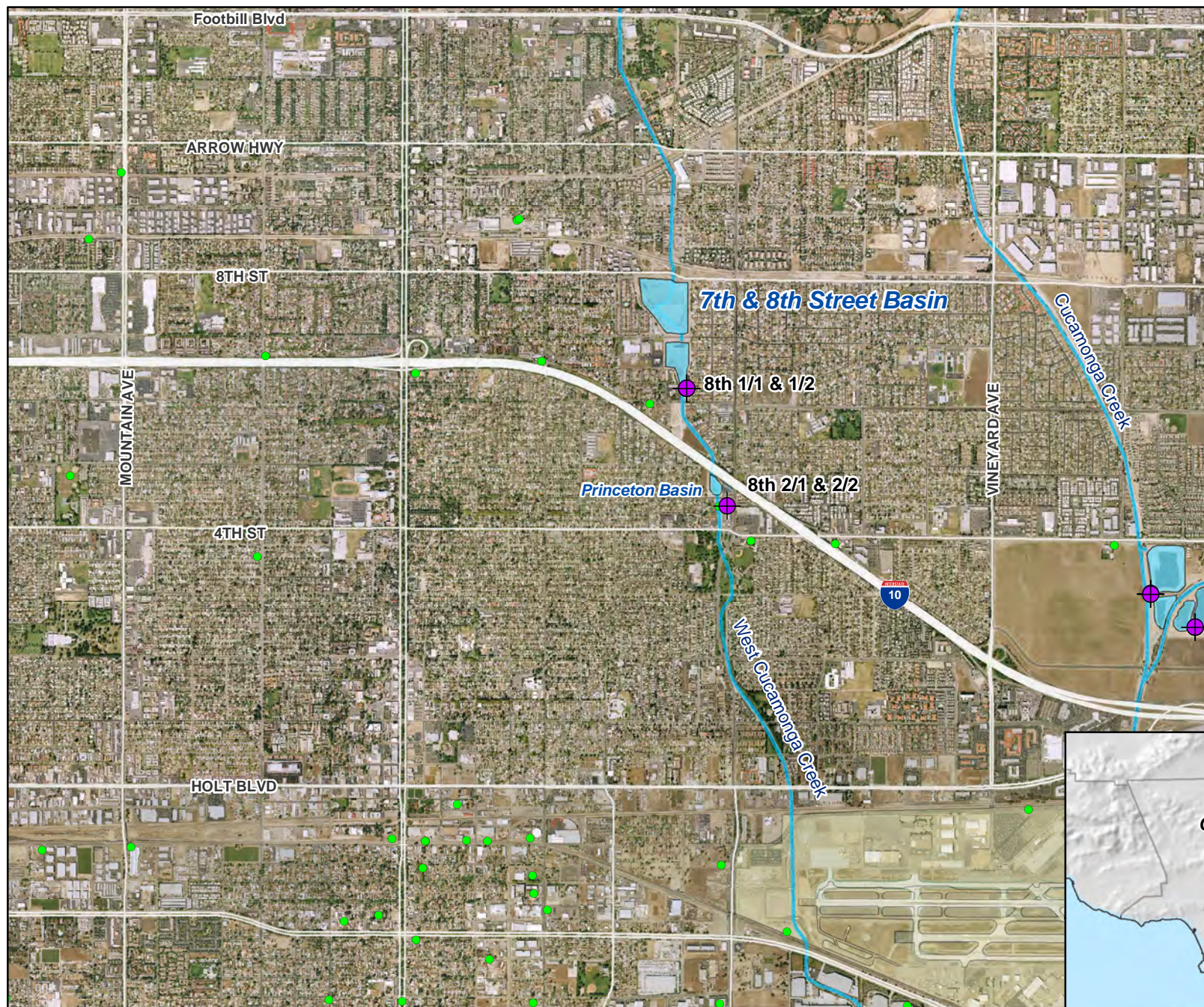
**Monitoring Well Network**  
Turner Basins

**Figure 2-2**





Recycled Water Recharge Program







## Main Map Features

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

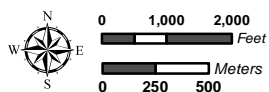


## Monitoring Well Network

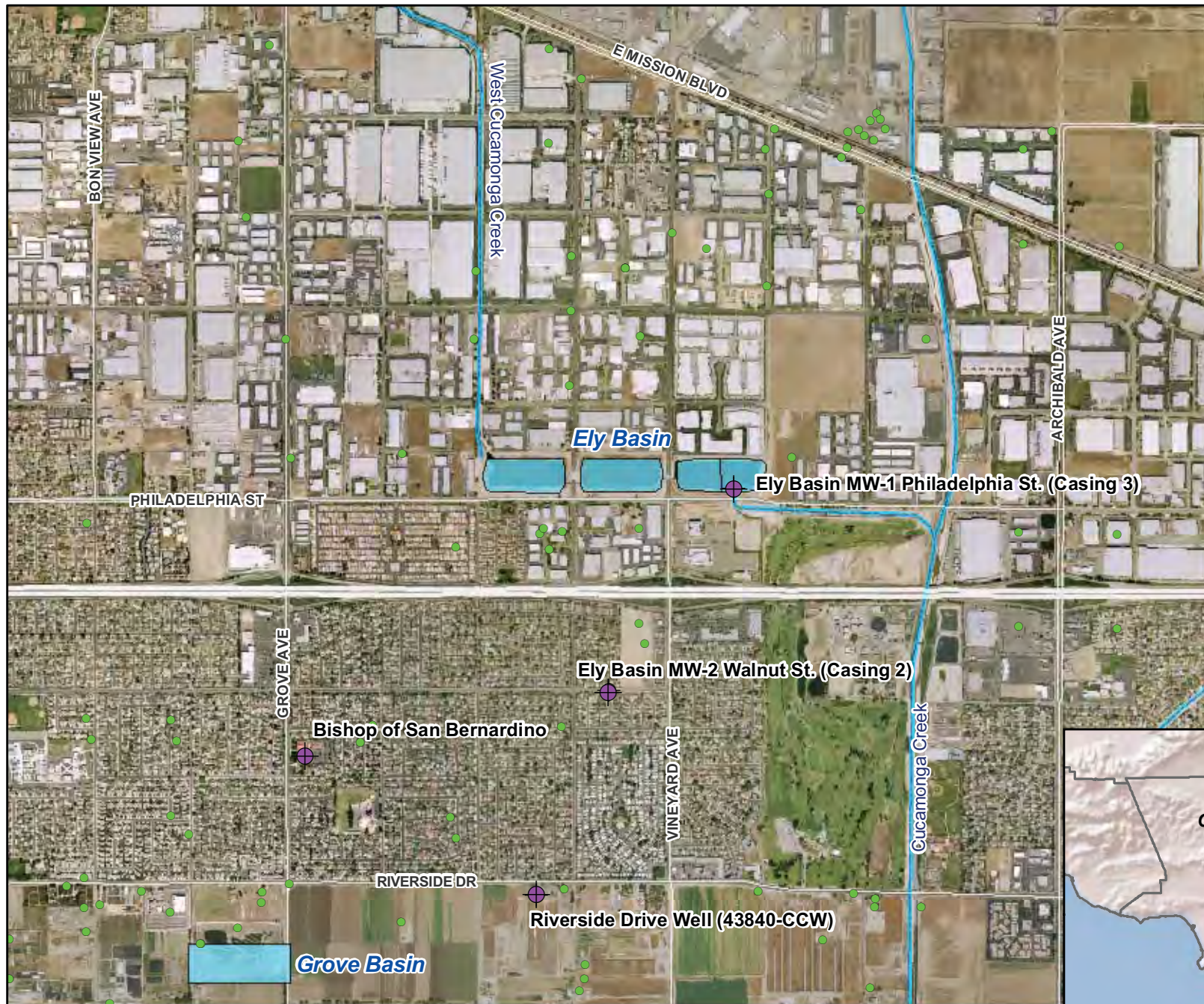
7th and 8th Street Basin

**Figure 2-3**





Recycled Water Recharge Program







### Main Map Features

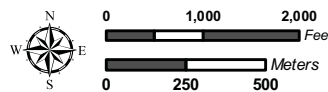
-  Existing Monitoring Well
-  "Other Wells"
-  Rivers/Streams/Creeks
-  Recharge Basins



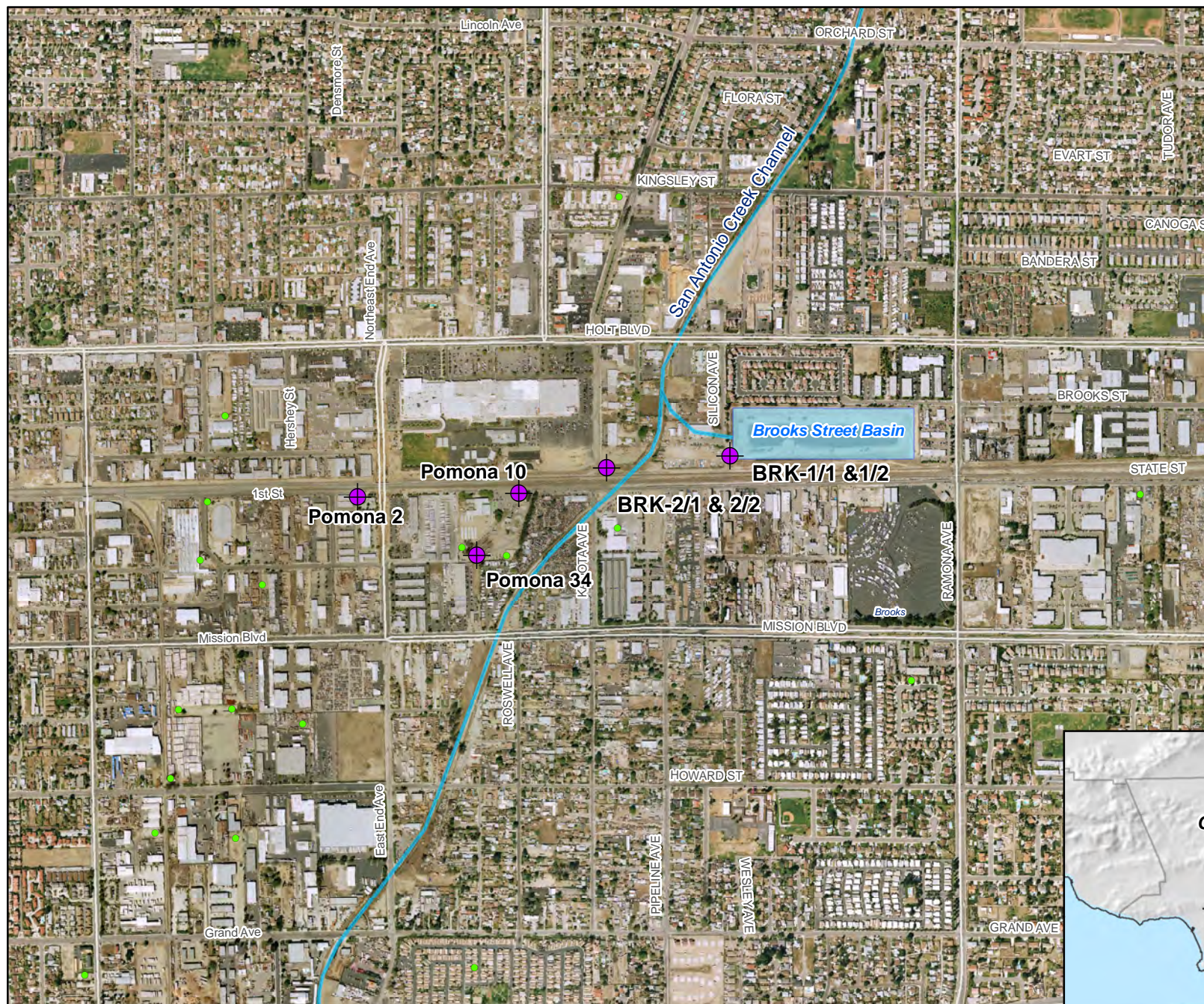
**Monitoring Well Network**  
*Ely Basins*

**Figure 2-4**





Recycled Water Recharge Program







## Main Map Features

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



## Monitoring Well Network

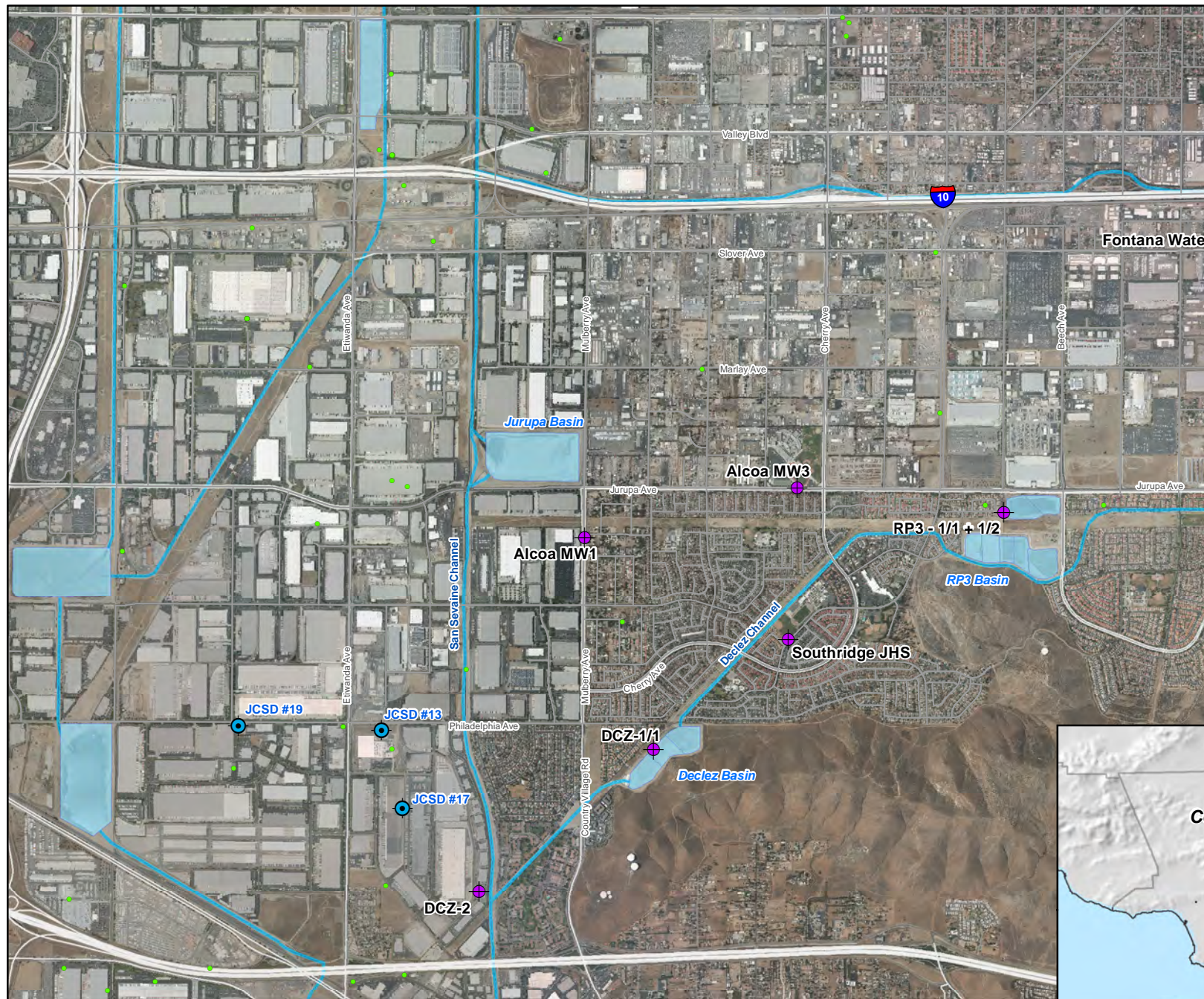
Brooks Street Basin

**Figure 2-5**






Recycled Water Recharge Program







## Main Map Features

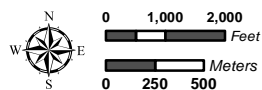
-  JCSD Wells
-  "Other Wells"
-  Existing Monitoring Well
-  Rivers/Streams/Creeks
-  Recharge Basins



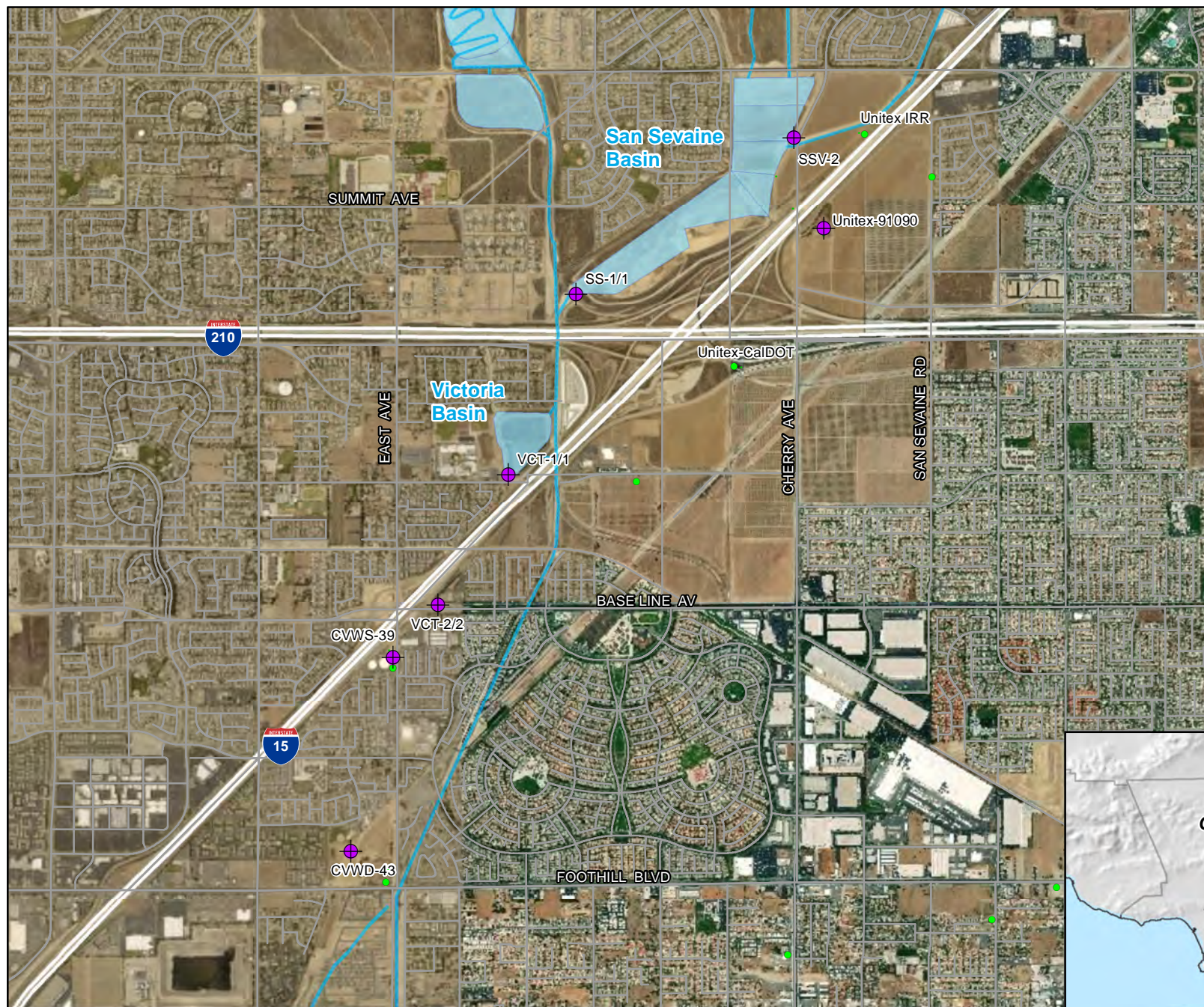
**Monitoring Well Network**  
Declez and RP3 Basins

**Figure 2-6**

Recycled Water Recharge Program

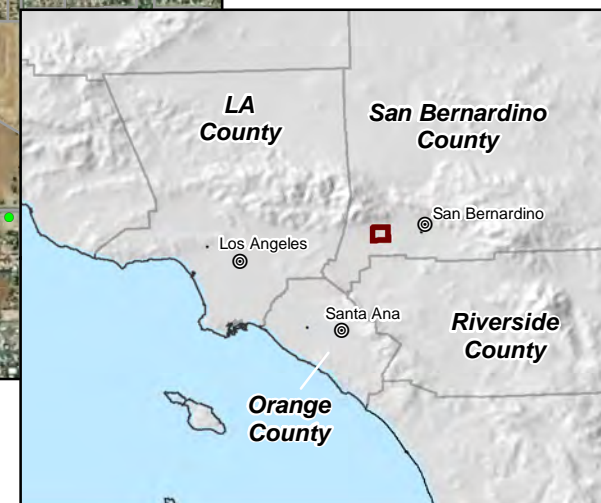






## Main Map Features

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

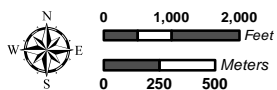


## Monitoring Well Network

San Sevaime and Victoria Basin

**Figure 2-7**

Recycled Water Recharge Program



## APPENDIX A

### MONTHLY GROUNDWATER RECHARGE SUMMARIES

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# SUMMARY OF CHINO BASIN GROUNDWATER RECHARGE OPERATIONS

Water Delivered\* and Evaporation\*\* (AF) - January 2020

Drainage System	SW/LR	Imported		Recycled Water		Management
Basin	Delivered	Delivered	Evaporation	Delivered	Evaporation	Zone Subtotals
San Antonio Channel Drainage System						MZ-1 391.4 AF***
College Heights	0.0	80.0	( 1.2)	N	N	
Upland	3.0	125.0	( 1.9)	N	N	
Montclair 1, 2, 3 & 4	18.6	92.7	( 1.4)	N	N	
Brooks	3.6	0.0	0.0	5.4	( 0.1)	
West Cucamonga Channel Drainage System						MZ-2 434.9 AF***
8th Street	5.0	0.0	0.0	63.6	( 1.0)	
7th Street	0.0	0.0	0.0	5.0	( 0.1)	
Ely 1, 2, & 3	5.3	0.0	0.0	114.2	( 1.7)	
Minor Drainage						
Grove	51.4	N	N	N	N	
Cucamonga and Deer Creek Channel Drainage Systems						
Turner 1 & 2	17.4	0.0	0.0	0.0	0.0	
Turner 3 & 4	21.8	0.0	0.0	0.0	0.0	
Day Creek Channel Drainage System						
Lower Day	1.0	44.9	( 0.7)	X	0.0	
Etiwanda Channel Drainage System						
Etiwanda Debris	0.0	26.1	( 0.4)	X	0.0	
Victoria	0.0	0.0	0.0	35.5	( 0.5)	
San Sevaine Channel Drainage System (MZ-2)						
San Sevaine 1, 2, 3, & 4	24.3	52.9	( 0.8)	0.0	0.0	
San Sevaine 5	7.1	0.0	0.0	X	X	
West Fontana Channel System						
Hickory	1.2	3.1	0.0	36.1	( 0.5)	
Banana	0.0	0.0	0.0	45.8	( 0.7)	
San Sevaine Channel Drainage System (MZ-3)						
Jurupa	6.5	20.0	( 0.3)	0.0	0.0	
Declez Channel Drainage System						
RP3 Cells 1,3, & 4	0.0	47.0	( 0.7)	353.7	( 5.3)	
RP3 Cell 2	6.6	0.0	0.0	17.0	( 0.3)	
Declez	8.9	0.0	0.0	71.7	( 1.1)	
Non-Replenishment Recharge**						
MZ1: Upland (Montclair)	(1.8)					
MZ1: Upland (Upland)	(3.0)					
MZ2: Turner 4 (CVWD)	(2.8)					
MZ3: None						
Month Total = 1,395.1 AF	174.1	491.7	( 7.4)	748.0	( 11.3)	January
All Sources	SW/LR	Imported		Recycled Water		
Fiscal Year Delivery (with evaporation) Since July 1, 2019 = 29,618.0 AF	4,480.8	17,705.1	(140.4)	7,821.7	(249.2)	Fiscal Year to Date
Calendar Year Delivery (with evaporation) Since January 1, 2020 = 1,395.1 AF	174.1	491.7	(7.4)	748.0	(11.3)	Calendar Year to Date
		484.3		736.7		

SW : Storm Water, LR : Local Runoff (& reported Pump-to-Waste\*\*), IW : Imported Water (MWD or other), RW : Recycled Water

X : Turnouts not available - to be installed during future projects.

N : No turnout planned for installation.

\* : Water volume delivered to a recharge basin. Data are preliminary based on the data available at the time of this report preparation.

\*\* : Evaporation losses applied per Watermaster (4.2% April through October and 1.5% November through March).

\*\*\* : Management Zone Subtotals have deducted from them evaporation and any Non-Replenishment Recharge (recharge originating from well water pumped to waste discharges and water recharged for storage agreements).

# SUMMARY OF CHINO BASIN GROUNDWATER RECHARGE OPERATIONS

Water Delivered\* and Evaporation\*\* (AF) - February 2020

Drainage System	SW/LR	Imported		Recycled Water		Management
Basin	Delivered	Delivered	Evaporation	Delivered	Evaporation	Zone Subtotals
San Antonio Channel Drainage System						MZ-1 137.4 AF***
College Heights	0.0	0.0	0.0	N	N	
Upland	1.5	0.0	0.0	N	N	
Montclair 1, 2, 3 & 4	2.7	0.0	0.0	N	N	
Brooks	0.0	0.0	0.0	54.2	( 0.8)	
West Cucamonga Channel Drainage System						MZ-2 623.5 AF***
8th Street	18.7	0.0	0.0	64.8	( 1.0)	
7th Street	0.0	0.0	0.0	0.0	0.0	
Ely 1, 2, & 3	2.9	0.0	0.0	276.5	( 4.1)	
Minor Drainage						
Grove	0.0	N	N	N	N	
Cucamonga and Deer Creek Channel Drainage Systems						
Turner 1 & 2	220.4	0.0	0.0	0.0	0.0	
Turner 3 & 4	32.0	0.0	0.0	0.0	0.0	
Day Creek Channel Drainage System						
Lower Day	5.2	0.0	0.0	X	0.0	
Etiwanda Channel Drainage System						
Etiwanda Debris	0.0	0.0	0.0	X	0.0	
Victoria	0.0	0.0	0.0	68.9	( 1.0)	
San Sevaine Channel Drainage System (MZ-2)						
San Sevaine 1, 2, 3, & 4	0.4	0.0	0.0	0.0	0.0	
San Sevaine 5	7.9	0.0	0.0	X	X	
West Fontana Channel System						
Hickory	1.2	0.0	0.0	14.9	( 0.2)	
Banana	0.0	0.0	0.0	23.9	( 0.4)	
San Sevaine Channel Drainage System (MZ-3)						
Jurupa	9.0	0.0	0.0	0.0	0.0	
Declez Channel Drainage System						
RP3 Cells 1,3, & 4	0.0	0.0	0.0	455.7	( 6.8)	
RP3 Cell 2	0.1	0.0	0.0	0.0	0.0	
Declez	18.5	0.0	0.0	49.1	( 0.7)	
Non-Replenishment Recharge**						
MZ1: Upland (Montclair)	(2.7)					
MZ1: Upland (Upland)	(1.5)					
MZ2: None						
MZ3: None						

SW : Storm Water, LR : Local Runoff (& reported Pump-to-Waste\*\*), IW : Imported Water (MWD or other), RW : Recycled Water

X : Turnouts not available - to be installed during future projects.

N : No turnout planned for installation.

\* : Water volume delivered to a recharge basin. Data are preliminary based on the data available at the time of this report preparation.

\*\* : Evaporation losses applied per Watermaster (4.2% April through October and 1.5% November through March).

\*\*\* : Management Zone Subtotals have deducted from them evaporation and any Non-Replenishment Recharge (recharge originating from well water pumped to waste discharges and water recharged for storage agreements.

# SUMMARY OF CHINO BASIN GROUNDWATER RECHARGE OPERATIONS

Water Delivered\* and Evaporation\*\* (AF) - March 2020

Drainage System	SW/LR	Imported		Recycled Water		Management
Basin	Delivered	Delivered	Evaporation	Delivered	Evaporation	Zone Subtotals
San Antonio Channel Drainage System						MZ-1 774.1 AF***
College Heights	2.4	0.0	0.0	N	N	
Upland	88.5	0.0	0.0	N	N	
Montclair 1, 2, 3 & 4	300.7	0.0	0.0	N	N	
Brooks	159.0	0.0	0.0	69.0	( 1.0)	
West Cucamonga Channel Drainage System						MZ-2 1,646.1 AF***
8th Street	109.6	0.0	0.0	0.0	0.0	
7th Street	50.6	0.0	0.0	0.0	0.0	
Ely 1, 2, & 3	582.0	0.0	0.0	107.3	( 1.6)	
Minor Drainage						
Grove	78.5	N	N	N	N	
Cucamonga and Deer Creek Channel Drainage Systems						
Turner 1 & 2	191.9	0.0	0.0	0.0	0.0	
Turner 3 & 4	103.7	0.0	0.0	0.0	0.0	
Day Creek Channel Drainage System						
Lower Day	53.7	0.0	0.0	X	0.0	
Etiwanda Channel Drainage System						
Etiwanda Debris	0.0	0.0	0.0	X	0.0	
Victoria	78.4	0.0	0.0	86.5	( 1.3)	
San Sevaine Channel Drainage System (MZ-2)						
San Sevaine 1, 2, 3, & 4	82.6	0.0	0.0	0.0	0.0	
San Sevaine 5	171.2	0.0	0.0	X	X	
West Fontana Channel System						
Hickory	40.2	0.0	0.0	74.1	( 1.1)	
Banana	80.8	0.0	0.0	39.0	( 0.6)	
San Sevaine Channel Drainage System (MZ-3)						
Jurupa	17.4	0.0	0.0	0.0	0.0	
Declez Channel Drainage System						
RP3 Cells 1,3, & 4	107.9	0.0	0.0	522.8	( 7.8)	
RP3 Cell 2	84.8	0.0	0.0	99.8	( 1.5)	
Declez	163.4	0.0	0.0	26.8	( 0.4)	
Non-Replenishment Recharge**						
MZ1: Montclair (Upland)	( 3.0)					
MZ1: Upland (Upland)	( 1.7)					
MZ2: None	0.0					
MZ3: None	0.0					
		0.0	0.0	1,025.3	( 15.3)	March
Month Total = 3,552.6 AF	2,542.6	0.0		1,010.0		
All Sources	SW/LR	Imported		Recycled Water		
Fiscal Year Delivery (with evaporation)	7,339.7	17,705.1	(140.4)	9,855.0	(279.5)	Fiscal Year to Date
Since July 1, 2019 = 34,479.9 AF		17,564.7		9,575.5		
Calendar Year Delivery (with evaporation)	3,033.0	491.7	(7.4)	2,781.3	(41.6)	Calendar Year to Date
Since January 1, 2020 = 6,257.0 AF		484.3		2,739.7		

SW : Storm Water, LR : Local Runoff (& reported Pump-to-Waste\*\*), IW : Imported Water (MWD or other), RW : Recycled Water

X : Turnouts not available - to be installed during future projects.

N : No turnout planned for installation.

\* : Water volume delivered to a recharge basin. Data are preliminary based on the data available at the time of this report preparation.

\*\* : Evaporation losses applied per Watermaster (4.2% April through October and 1.5% November through March).

\*\*\* : Management Zone Subtotals have deducted from them evaporation and any Non-Replenishment Recharge (recharge originating from well water pumped to waste discharges and water recharged for storage agreements.

# SUMMARY OF CHINO BASIN GROUNDWATER RECHARGE OPERATIONS

Water Delivered\* and Evaporation\*\* (AF) - April 2020

Drainage System	SW/LR	Imported		Recycled Water		Management
Basin	Delivered	Delivered	Evaporation	Delivered	Evaporation	Zone Subtotals
San Antonio Channel Drainage System						MZ-1 837.2 AF***
College Heights	0.0	0.0	0.0	N	N	
Upland	96.5	0.0	0.0	N	N	
Montclair 1, 2, 3 & 4	284.6	154.6	( 6.5)	N	N	
Brooks	166.9	0.0	0.0	15.7	( 0.7)	
West Cucamonga Channel Drainage System						MZ-2 1,668.5 AF***
8th Street	35.8	0.0	0.0	11.4	( 0.5)	
7th Street	84.0	0.0	0.0	0.0	0.0	
Ely 1, 2, & 3	394.5	0.0	0.0	141.0	( 5.9)	
Minor Drainage						
Grove	28.4	N	N	N	N	
Cucamonga and Deer Creek Channel Drainage Systems						
Turner 1 & 2	158.7	0.0	0.0	0.0	0.0	
Turner 3 & 4	85.4	0.0	0.0	0.0	0.0	
Day Creek Channel Drainage System						
Lower Day	79.4	0.0	0.0	X	0.0	
Etiwanda Channel Drainage System						
Etiwanda Debris	162.2	0.0	0.0	X	0.0	
Victoria	91.0	0.0	0.0	95.6	( 4.0)	
San Sevaine Channel Drainage System (MZ-2)						
San Sevaine 1, 2, 3, & 4	133.7	0.0	0.0	0.0	0.0	
San Sevaine 5	228.8	0.0	0.0	X	X	
West Fontana Channel System						
Hickory	60.9	0.0	0.0	19.6	( 0.8)	
Banana	57.3	0.0	0.0	18.1	( 0.8)	
San Sevaine Channel Drainage System (MZ-3)						
Jurupa	50.6	0.0	0.0	0.0	0.0	
Declez Channel Drainage System						
RP3 Cells 1,3, & 4	139.0	0.0	0.0	384.6	( 16.2)	
RP3 Cell 2	61.6	0.0	0.0	94.9	( 4.0)	
Declez	94.9	0.0	0.0	38.6	( 1.6)	
Non-Replenishment Recharge**						
MZ1: Montclair (Upland)	( 3.0)					
MZ1: Upland (Upland)	( 1.6)					
MZ2: None	0.0					
MZ3: None	0.0					
Month Total = 3,422.7 AF	2,489.6	154.6	( 6.5)	819.5	( 34.5)	April
All Sources	SW/LR	Imported		Recycled Water		
Fiscal Year Delivery (with evaporation) Since July 1, 2019 = 37,902.6 AF	9,829.3	17,859.7	(146.9)	10,674.5	(314.0)	Fiscal Year to Date
Calendar Year Delivery (with evaporation) Since January 1, 2020 = 9,679.7 AF	5,522.6	646.3	(13.9)	3,600.8	(76.1)	Calendar Year to Date
		632.4		3,524.7		

SW : Storm Water, LR : Local Runoff (& reported Pump-to-Waste\*\*), IW : Imported Water (MWD or other), RW : Recycled Water

X : Turnouts not available - to be installed during future projects.

N : No turnout planned for installation.

\* : Water volume delivered to a recharge basin. Data are preliminary based on the data available at the time of this report preparation.

\*\* : Evaporation losses applied per Watermaster (4.2% April through October and 1.5% November through March).

\*\*\* : Management Zone Subtotals have deducted from them evaporation and any Non-Replenishment Recharge (recharge originating from well water pumped to waste discharges and water recharged for storage agreements).

# SUMMARY OF CHINO BASIN GROUNDWATER RECHARGE OPERATIONS

Water Delivered\* and Evaporation\*\* (AF) - May 2020

Drainage System	SW/LR	Imported		Recycled Water		Management
Basin	Delivered	Delivered	Evaporation	Delivered	Evaporation	Zone Subtotals
San Antonio Channel Drainage System						MZ-1 690.6 AF***
College Heights	0.0	0.0	0.0	N	N	
Upland	20.7	0.0	0.0	N	N	
Montclair 1, 2, 3 & 4	6.3	472.6	( 19.8)	N	N	
Brooks	8.1	0.0	0.0	118.9	( 5.0)	
West Cucamonga Channel Drainage System						MZ-2 674.3 AF***
8th Street	9.3	0.0	0.0	60.4	( 2.5)	
7th Street	0.0	0.0	0.0	27.1	( 1.1)	
Ely 1, 2, & 3	38.1	0.0	0.0	489.0	( 20.5)	
Minor Drainage						
Grove	0.0	N	N	N	N	
Cucamonga and Deer Creek Channel Drainage Systems						
Turner 1 & 2	9.3	0.0	0.0	0.0	0.0	
Turner 3 & 4	13.3	0.0	0.0	0.0	0.0	
Day Creek Channel Drainage System						
Lower Day	0.0	0.0	0.0	X	0.0	
Etiwanda Channel Drainage System						
Etiwanda Debris	0.0	0.0	0.0	X	0.0	
Victoria	3.3	0.0	0.0	68.9	( 2.9)	
San Sevaïne Channel Drainage System (MZ-2)						
San Sevaïne 1, 2, 3, & 4	1.0	0.0	0.0	0.0	0.0	
San Sevaïne 5	1.9	0.0	0.0	X	X	
West Fontana Channel System						
Hickory	1.0	0.0	0.0	75.1	( 3.2)	
Banana	0.0	0.0	0.0	36.6	( 1.5)	
San Sevaïne Channel Drainage System (MZ-3)						
Jurupa	0.7	0.0	0.0	0.0	0.0	
Declez Channel Drainage System						
RP3 Cells 1,3, & 4	0.0	0.0	0.0	279.0	( 11.7)	
RP3 Cell 2	0.8	0.0	0.0	32.0	( 1.3)	
Declez	11.6	0.0	0.0	78.9	( 3.3)	
Non-Replenishment Recharge**, Basin (Discharger)						
MZ1: Montclair (Upland)	( 2.8)					
MZ1: Upland (Upland)	( 1.6)					
MZ2: none	0.0					
MZ3: none	0.0					
Month Total = 1,786.7 AF	121.0	472.6	( 19.8)	1,265.9	( 53.0)	May
All Sources	SW/LR	Imported		Recycled Water		
Fiscal Year Delivery (with evaporation)	9,950.3	18,332.3	(166.7)	11,940.4	(367.0)	Fiscal Year to Date
Since July 1, 2019 = 39,689.3 AF		18,165.6		11,573.4		
Calendar Year Delivery (with evaporation)	5,643.6	1,118.9	(33.7)	4,866.7	(129.1)	Calendar Year to Date
Since January 1, 2020 = 11,466.4 AF		1,085.2		4,737.6		

SW : Storm Water, LR : Local Runoff (& reported Pump-to-Waste\*\*), IW : Imported Water (MWD or other), RW : Recycled Water

X : Turnouts not available - to be installed during future projects.

N : No turnout planned for installation.

\* : Water volume delivered to a recharge basin. Data are preliminary based on the data available at the time of this report preparation.

\*\* : Evaporation losses applied per Watermaster (4.2% April through October and 1.5% November through March).

\*\*\* : Management Zone Subtotals have deducted from them evaporation and any Non-Replenishment Recharge (recharge originating from well water pumped to waste discharges and water recharged for storage agreements.

# SUMMARY OF CHINO BASIN GROUNDWATER RECHARGE OPERATIONS

Water Delivered\* and Evaporation\*\* (AF) - June 2020

Drainage System	SW/LR	Imported		Recycled Water		Management
Basin	Delivered	Delivered	Evaporation	Delivered	Evaporation	Zone Subtotals
San Antonio Channel Drainage System						MZ-1 692.1 AF***
College Heights	0.0	0.0	0.0	N	N	
Upland	1.5	0.0	0.0	N	N	
Montclair 1, 2, 3 & 4	2.6	444.1	( 18.7)	N	N	
Brooks	0.0	0.0	0.0	106.7	( 4.5)	
West Cucamonga Channel Drainage System						MZ-2 674.0 AF***
8th Street	3.0	0.0	0.0	168.6	( 7.1)	
7th Street	0.0	0.0	0.0	0.0	0.0	
Ely 1, 2, & 3	0.0	0.0	0.0	432.8	( 18.2)	
Minor Drainage						
Grove	0.0	N	N	N	N	
Cucamonga and Deer Creek Channel Drainage Systems						
Turner 1 & 2	1.5	0.0	0.0	0.0	0.0	
Turner 3 & 4	0.0	0.0	0.0	0.0	0.0	
Day Creek Channel Drainage System						
Lower Day	0.0	0.0	0.0	X	0.0	
Etiwanda Channel Drainage System						
Etiwanda Debris	0.0	0.0	0.0	X	0.0	
Victoria	0.0	0.0	0.0	141.4	( 5.9)	
San Sevaïne Channel Drainage System (MZ-2)						
San Sevaïne 1, 2, 3, & 4	0.0	0.0	0.0	0.0	0.0	
San Sevaïne 5	0.0	0.0	0.0	X	X	
West Fontana Channel System						
Hickory	0.0	0.0	0.0	127.8	( 5.4)	
Banana	0.0	0.0	0.0	0.0	0.0	
San Sevaïne Channel Drainage System (MZ-3)						
Jurupa	0.0	0.0	0.0	0.0	0.0	
Declez Channel Drainage System						
RP3 Cells 1,3, & 4	0.0	0.0	0.0	301.8	( 12.7)	
RP3 Cell 2	1.1	0.0	0.0	41.0	( 1.7)	
Declez	10.9	0.0	0.0	120.2	( 5.0)	
Non-Replenishment Recharge**						
MZ1: Montclair (Upland)	( 2.6)					
MZ1: Upland (Upland)	( 1.5)					
MZ2: none						
MZ3: none						
Month Total = 1,821.7 AF	16.5	444.1	( 18.7)	1,440.3	( 60.5)	June
		425.4		1,379.8		
All Sources	SW/LR	Imported		Recycled Water		
Fiscal Year Delivery (with evaporation)	9,966.8	18,776.4	(185.4)	13,380.7	(427.5)	Fiscal Year to Date
Since July 1, 2019 = 41,511.0 AF		18,591.0		12,953.2		
Calendar Year Delivery (with evaporation)	5,660.1	1,563.0	(52.4)	6,307.0	(189.6)	Calendar Year to Date
Since January 1, 2020 = 13,288.1 AF		1,510.6		6,117.4		

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N : No turnout planned for installation.

\* : Water volume delivered to a recharge basin. Data are preliminary based on the data available at the time of this report preparation.

\*\* : Evaporation losses applied per Watermaster (4.2% April through October and 1.5% November through March).

\*\*\* : Management Zone Subtotals have deducted from them evaporation and any Non-Replenishment Recharge (recharge originating from well water pumped to waste discharges and water recharged for storage agreements.

# SUMMARY OF CHINO BASIN GROUNDWATER RECHARGE OPERATIONS

Water Delivered\* and Evaporation\*\* (AF) - July 2020

Drainage System	SW/LR	Imported		Recycled Water		Management
Basin	Delivered	Delivered	Evaporation	Delivered	Evaporation	Zone Subtotals
San Antonio Channel Drainage System						MZ-1 444.0 AF***
College Heights	0.0	0.0	0.0	N	N	
Upland	1.6	0.0	0.0	N	N	
Montclair 1, 2, 3 & 4	2.7	110.3	( 4.6)	N	N	
Brooks	0.0	0.0	0.0	156.2	( 6.6)	
West Cucamonga Channel Drainage System						MZ-2 470.1 AF***
8th Street	3.1	0.0	0.0	143.1	( 6.0)	
7th Street	0.0	0.0	0.0	50.6	( 2.1)	
Ely 1, 2, & 3	0.0	0.0	0.0	237.1	( 10.0)	
Minor Drainage						
Grove	0.0	N	N	N	N	
Cucamonga and Deer Creek Channel Drainage Systems						
Turner 1 & 2	0.0	0.0	0.0	0.0	0.0	
Turner 3 & 4	0.0	0.0	0.0	0.0	0.0	
Day Creek Channel Drainage System						
Lower Day	0.0	0.0	0.0	X	0.0	
Etiwanda Channel Drainage System						
Etiwanda Debris	0.0	0.0	0.0	X	0.0	
Victoria	0.0	0.0	0.0	196.3	( 8.2)	
San Sevaine Channel Drainage System (MZ-2)						
San Sevaine 1, 2, 3, & 4	0.0	0.0	0.0	0.0	0.0	
San Sevaine 5	0.0	0.0	0.0	X	X	
West Fontana Channel System						
Hickory	0.8	0.0	0.0	56.5	( 2.4)	
Banana	0.0	0.0	0.0	0.0	0.0	
San Sevaine Channel Drainage System (MZ-3)						
Jurupa	0.2	0.0	0.0	0.0	0.0	
Declez Channel Drainage System						
RP3 Cells 1,3, & 4	0.0	0.0	0.0	364.2	( 15.3)	
RP3 Cell 2	2.6	0.0	0.0	4.9	( 0.2)	
Declez	4.0	0.0	0.0	120.6	( 5.1)	
Non-Replenishment Recharge**						
MZ1: Upland (Upland)	( 1.6)					
MZ1: Montclair (Upland)	( 2.7)					
MZ2:						
MZ3:						
		110.3	( 4.6)	1,329.5	( 55.9)	July
Month Total = 1,390.0 AF	10.7	105.7		1,273.6		
All Sources	SW/LR	Imported		Recycled Water		
Fiscal Year Delivery (with evaporation)	10.7	110.3	(4.6)	1,329.5	(55.9)	Fiscal Year to Date
Since July 1, 2020 = 1,390.0 AF		105.7		1,273.6		
Calendar Year Delivery (with evaporation)	5,670.8	1,673.3	(57.0)	7,636.5	(245.5)	Calendar Year to Date
Since January 1, 2020 = 14,678.1 AF		1,616.3		7,391.0		

SW : Storm Water, LR : Local Runoff (& reported Pump-to-Waste\*\*), IW : Imported Water (MWD or other), RW : Recycled Water

X : Turnouts not available - to be installed during future projects.

N : No turnout planned for installation.

\* : Water volume delivered to a recharge basin. Data are preliminary based on the data available at the time of this report preparation.

\*\* : Evaporation losses applied per Watermaster (4.2% April through October and 1.5% November through March).

\*\*\* : Management Zone Subtotals have deducted from them evaporation and any Non-Replenishment Recharge (recharge originating from well water pumped to waste discharges and water recharged for storage agreements.



# SUMMARY OF CHINO BASIN GROUNDWATER RECHARGE OPERATIONS

Water Delivered\* and Evaporation\*\* (AF) - August 2020

Drainage System	SW/LR	Imported		Recycled Water		Management
Basin	Delivered	Delivered	Evaporation	Delivered	Evaporation	Zone Subtotals
San Antonio Channel Drainage System						MZ-1 237.5 AF***
College Heights	0.0	0.0	0.0	N	N	
Upland	1.6	0.0	0.0	N	N	
Montclair 1, 2, 3 & 4	2.6	0.0	0.0	N	N	
Brooks	0.0	0.0	0.0	126.5	( 5.3)	
West Cucamonga Channel Drainage System						MZ-2 535.2 AF***
8th Street	3.1	0.0	0.0	109.2	( 4.6)	
7th Street	0.0	0.0	0.0	9.0	( 0.4)	
Ely 1, 2, & 3	64.7	0.0	0.0	23.7	( 1.0)	
Minor Drainage						
Grove	0.0	N	N	N	N	
Cucamonga and Deer Creek Channel Drainage Systems						
Turner 1 & 2	0.0	0.0	0.0	0.0	0.0	
Turner 3 & 4	0.0	0.0	0.0	0.0	0.0	
Day Creek Channel Drainage System						
Lower Day	0.0	0.0	0.0	X	0.0	
Etiwanda Channel Drainage System						
Etiwanda Debris	0.0	0.0	0.0	X	0.0	
Victoria	0.0	0.0	0.0	176.4	( 7.4)	
San Sevaine Channel Drainage System (MZ-2)						
San Sevaine 1, 2, 3, & 4	0.0	0.0	0.0	278.3	( 11.7)	
San Sevaine 5	0.0	0.0	0.0	X	X	
West Fontana Channel System						
Hickory	1.6	0.0	0.0	76.9	( 3.2)	
Banana	0.0	0.0	0.0	0.0	0.0	
San Sevaine Channel Drainage System (MZ-3)						
Jurupa	3.3	0.0	0.0	0.0	0.0	
Declez Channel Drainage System						
RP3 Cells 1,3, & 4	0.0	0.0	0.0	553.2	( 23.2)	
RP3 Cell 2	4.2	0.0	0.0	0.0	0.0	
Declez	3.8	0.0	0.0	89.1	( 3.7)	
Non-Replenishment Recharge**						
MZ1: Upland (Upland Basin)	(1.6)					
MZ1: Upland (Montclair Basin)	(2.6)					
MZ2: Ontario (Ely)	(63.1)					
MZ3: None						
Month Total = 1,399.3 AF	17.6	0.0	0.0	1,442.3	( 60.6)	August
All Sources	SW/LR	Imported		Recycled Water		
Fiscal Year Delivery (with evaporation)	28.3	110.3	(4.6)	2,771.8	(116.5)	Fiscal Year to Date
Since July 1, 2020 = 2,789.3 AF		105.7		2,655.3		
Calendar Year Delivery (with evaporation)	5,688.4	1,673.3	(57.0)	9,078.8	(306.1)	Calendar Year to Date
Since January 1, 2020 = 16,077.4 AF		1,616.3		8,772.7		

SW : Storm Water, LR : Local Runoff (& reported Pump-to-Waste\*\*), IW : Imported Water (MWD or other), RW : Recycled Water

X : Turnouts not available - to be installed during future projects.

N : No turnout planned for installation.

\* : Water volume delivered to a recharge basin. Data are preliminary based on the data available at the time of this report preparation.

\*\* : Evaporation losses applied per Watermaster (4.2% April through October and 1.5% November through March).

\*\*\* : Management Zone Subtotals have deducted from them evaporation and any Non-Replenishment Recharge (recharge originating from well water pumped to waste discharges and water recharged for storage agreements).

SUMMARY OF CHINO BASIN GROUNDWATER RECHARGE OPERATIONS						
Water Delivered* and Evaporation** (AF) September 2020						
Drainage System	SW/LR	Imported		Recycled Water		Management
Basin	Delivered	Delivered	Evaporation	Delivered	Evaporation	Zone Subtotals
San Antonio Channel Drainage System						MZ-1 263.4 AF***
College Heights	0.0	0.0	0.0	N	N	
Upland	1.6	0.0	0.0	N	N	
Montclair 1, 2, 3 & 4	2.1	0.0	0.0	N	N	
Brooks	2.3	0.0	0.0	131.2	( 5.5)	
West Cucamonga Channel Drainage System						MZ-2 461.9 AF***
8th Street	3.0	0.0	0.0	98.0	( 4.1)	
7th Street	0.0	0.0	0.0	42.6	( 1.8)	
Ely 1, 2, & 3	3.0	0.0	0.0	0.8	0.0	
Minor Drainage						
Grove	0.0	N	N	N	N	MZ-2 461.9 AF***
Cucamonga and Deer Creek Channel Drainage Systems						
Turner 1 & 2	0.0	0.0	0.0	0.0	0.0	
Turner 3 & 4	0.0	0.0	0.0	0.0	0.0	
Day Creek Channel Drainage System						
Lower Day	0.0	0.0	0.0	X	0.0	MZ-3 857.9 AF***
Etiwanda Channel Drainage System						
Etiwanda Debris	0.0	0.0	0.0	X	0.0	
Victoria	0.0	0.0	0.0	183.4	( 7.7)	
San Sevaine Channel Drainage System (MZ-2)						
San Sevaine 1, 2, 3, & 4	0.0	0.0	0.0	209.8	( 8.8)	MZ-3 857.9 AF***
San Sevaine 5	0.0	0.0	0.0	X	X	
West Fontana Channel System						
Hickory	0.0	0.0	0.0	85.0	( 3.6)	
Banana	0.0	0.0	0.0	0.0	0.0	
San Sevaine Channel Drainage System (MZ-3)						MZ-3 857.9 AF***
Jurupa	2.3	0.0	0.0	0.0	0.0	
Declez Channel Drainage System						
RP3 Cells 1,3, & 4	0.7	0.0	0.0	630.1	( 26.5)	
RP3 Cell 2	6.0	0.0	0.0	133.7	( 5.6)	
Declez	3.0	0.0	0.0	119.2	( 5.0)	September
Non-Replenishment Recharge**						
MZ1: Upland (Upland & Montclair Basin)	( 3.7)					
MZ1: MVWD (Brooks Basin)	( 2.3)					
MZ2: None						
MZ3: None						
Month Total = 1,583.2 AF	18.0	0.0	0.0	1,633.8	( 68.6)	
All Sources	SW/LR	Imported		Recycled Water		Fiscal Year to Date
Fiscal Year Delivery (with evaporation)	46.3	110.3	(4.6)	4,405.6	(185.1)	
Since July 1, 2020 = 4,372.5 AF		105.7	4,220.5	Calendar Year to Date		
Calendar Year Delivery (with evaporation)	5,706.4	1,673.3	(57.0)		10,712.6	(374.7)
Since January 1, 2020 = 17,660.6 AF		1,616.3	10,337.9			
SW : Storm Water, LR : Local Runoff (& reported Pump-to-Waste**), IW : Imported Water (MWD or other), RW : Recycled Water						
X : Turnouts not available - to be installed during future projects.						
N : No turnout planned for installation.						
* : Water volume delivered to a recharge basin. Data are preliminary based on the data available at the time of this report preparation.						
** : Evaporation losses applied per Watermaster (4.2% April through October and 1.5% November through March).						
*** : Management Zone Subtotals have deducted from them evaporation and any Non-Replenishment Recharge (recharge originating from well water pumped to waste discharges and water recharged for storage agreements.						
Printed: Nov. 12, 20						
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# SUMMARY OF CHINO BASIN GROUNDWATER RECHARGE OPERATIONS

Water Delivered\* and Evaporation\*\* (AF) - October 2020

Drainage System	SW/LR	Imported		Recycled Water		Management
Basin	Delivered	Delivered	Evaporation	Delivered	Evaporation	Zone Subtotals
San Antonio Channel Drainage System						MZ-1 206.7 AF***
College Heights	0.0	0.0	0.0	N	N	
Upland	2.2	0.0	0.0	N	N	
Montclair 1, 2, 3 & 4	1.8	0.0	0.0	N	N	
Brooks	2.4	0.0	0.0	88.8	( 3.7)	
West Cucamonga Channel Drainage System						MZ-2 646.0 AF***
8th Street	7.1	0.0	0.0	94.7	( 4.0)	
7th Street	0.8	0.0	0.0	24.0	( 1.0)	
Ely 1, 2, & 3	58.7	0.0	0.0	160.8	( 6.8)	
Minor Drainage						
Grove	0.0	N	N	N	N	
Cucamonga and Deer Creek Channel Drainage Systems						
Turner 1 & 2	0.5	9.2	( 0.4)	5.2	( 0.2)	
Turner 3 & 4	0.5	0.0	0.0	5.8	( 0.2)	
Day Creek Channel Drainage System						
Lower Day	0.0	0.0	0.0	X	0.0	
Etiwanda Channel Drainage System						
Etiwanda Debris	0.0	0.0	0.0	X	0.0	
Victoria	0.0	0.0	0.0	190.7	( 8.0)	
San Sevaine Channel Drainage System (MZ-2)						
San Sevaine 1, 2, 3, & 4	0.0	0.0	0.0	271.7	( 11.4)	
San Sevaine 5	0.0	0.0	0.0	X	X	
West Fontana Channel System						
Hickory	0.0	0.0	0.0	26.6	( 1.1)	
Banana	0.0	0.0	0.0	173.2	( 7.3)	
San Sevaine Channel Drainage System (MZ-3)						
Jurupa	3.1	0.0	0.0	0.0	0.0	
Declez Channel Drainage System						
RP3 Cells 1,3, & 4	0.0	0.0	0.0	490.1	( 20.6)	
RP3 Cell 2	5.7	0.0	0.0	348.5	( 14.6)	
Declez	3.4	0.0	0.0	149.5	( 6.3)	
Non-Replenishment Recharge**						
MZ1: Upland (Upland & Montclair Basins)	( 4.0)					
MZ1: MVWD (Brooks Basin)	( 2.4)					
MZ2: Ontario (Ely)	( 55.6)					
MZ3: None						
Month Total = 1,977.4 AF	24.2	9.2	( 0.4)	2,029.6	( 85.2)	October
		8.8		1,944.4		
All Sources	SW/LR	Imported		Recycled Water		
Fiscal Year Delivery (with evaporation)	70.5	119.5	(5.0)	6,435.2	(270.3)	Fiscal Year to Date
Since July 1, 2020 = 6,349.9 AF		114.5		6,164.9		
Calendar Year Delivery (with evaporation)	5,730.6	1,682.5	(57.4)	12,742.2	(459.9)	Calendar Year to Date
Since January 1, 2020 = 19,638.0 AF		1,625.1		12,282.3		

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N : No turnout planned for installation.

\* : Water volume delivered to a recharge basin. Data are preliminary based on the data available at the time of this report preparation.

\*\* : Evaporation losses applied per Watermaster (4.2% April through October and 1.5% November through March).

\*\*\* : Management Zone Subtotals have deducted from them evaporation and any Non-Replenishment Recharge (recharge originating from well water pumped to waste discharges and water recharged for storage agreements.

# SUMMARY OF CHINO BASIN GROUNDWATER RECHARGE OPERATIONS

Water Delivered\* and Evaporation\*\* (AF) - November 2020

Drainage System	SW/LR	Imported		Recycled Water		Management
Basin	Delivered	Delivered	Evaporation	Delivered	Evaporation	Zone Subtotals
San Antonio Channel Drainage System						MZ-1 1,500.5 AF***
College Heights	0.6	330.2	( 5.0)	N	N	
Upland	10.5	363.6	( 5.5)	N	N	
Montclair 1, 2, 3 & 4	14.1	684.1	( 10.3)	N	N	
Brooks	10.8	0.0	0.0	0.0	0.0	
West Cucamonga Channel Drainage System						MZ-2 877.3 AF***
8th Street	37.3	0.0	0.0	49.5	( 0.7)	
7th Street	7.2	0.0	0.0	21.2	( 0.3)	
Ely 1, 2, & 3	87.0	0.0	0.0	58.7	( 0.9)	
Minor Drainage						
Grove	0.1	N	N	N	N	
Cucamonga and Deer Creek Channel Drainage Systems						
Turner 1 & 2	5.3	119.9	( 1.8)	0.0	0.0	
Turner 3 & 4	7.2	0.0	0.0	164.0	( 2.5)	
Day Creek Channel Drainage System						
Lower Day	9.1	0.0	0.0	X	0.0	
Etiwanda Channel Drainage System						
Etiwanda Debris	0.0	0.0	0.0	X	0.0	
Victoria	32.0	0.0	0.0	106.7	( 1.6)	
San Sevaine Channel Drainage System (MZ-2)						
San Sevaine 1, 2, 3, & 4	52.2	0.0	0.0	294.1	( 4.4)	
San Sevaine 5	2.6	0.0	0.0	X	X	
West Fontana Channel System						
Hickory	1.4	0.0	0.0	0.0	0.0	
Banana	11.8	0.0	0.0	139.4	( 2.1)	
San Sevaine Channel Drainage System (MZ-3)						
Jurupa	4.7	0.0	0.0	0.0	0.0	
Declez Channel Drainage System						
RP3 Cells 1,3, & 4	0.0	0.0	0.0	726.3	( 10.9)	
RP3 Cell 2	7.7	0.0	0.0	86.8	( 1.3)	
Declez	46.8	0.0	0.0	101.8	( 1.5)	
Non-Replenishment Recharge** Agency (GWR Basins)						
MZ1: Upland (Upland Basins)	( 5.5)					
MZ1: Upland (Montclair Basin)	( 1.3)					
MZ2: Ontario (Ely)	( 51.8)					
MZ3: None						
Month Total = 3,487.3 AF	289.8	1,497.8	( 22.6)	1,748.5	( 26.2)	November
		1,475.2		1,722.3		
All Sources	SW/LR	Imported		Recycled Water		
Fiscal Year Delivery (with evaporation)	360.3	1,617.3	(23.0)	8,183.7	(296.5)	Fiscal Year to Date
Since July 1, 2020 = 9,841.8 AF		1,594.3		7,887.2		
Calendar Year Delivery (with evaporation)	6,020.4	3,180.3	(80.0)	14,490.7	(486.1)	Calendar Year to Date
Since January 1, 2020 = 23,125.3 AF		3,100.3		14,004.6		

SW : Storm Water, LR : Local Runoff (& reported Pump-to-Waste\*\*), IW : Imported Water (MWD or other), RW : Recycled Water

X : Turnouts not available - to be installed during future projects.

N : No turnout planned for installation.

\* : Water volume delivered to a recharge basin. Data are preliminary based on the data available at the time of this report preparation.

\*\* : Evaporation losses applied per Watermaster (4.2% April through October and 1.5% November through March).

\*\*\* : Management Zone Subtotals have deducted from them evaporation and any Non-Replenishment Recharge (recharge originating from well water pumped to waste discharges and water recharged for storage agreements.

# SUMMARY OF CHINO BASIN GROUNDWATER RECHARGE OPERATIONS

Water Delivered\* and Evaporation\*\* (AF) - December 2020

Drainage System	SW/LR	Imported		Recycled Water		Management
Basin	Delivered	Delivered	Evaporation	Delivered	Evaporation	Zone Subtotals
San Antonio Channel Drainage System						MZ-1 820.6 AF***
College Heights	0.2	186.1	( 2.8)	N	N	
Upland	57.8	68.5	( 1.0)	N	N	
Montclair 1, 2, 3 & 4	147.4	280.0	( 4.2)	N	N	
Brooks	42.7	0.0	0.0	0.3	0.0	
West Cucamonga Channel Drainage System						MZ-2 1,077.0 AF***
8th Street	33.8	0.0	0.0	0.0	0.0	
7th Street	24.4	0.0	0.0	0.0	0.0	
Ely 1, 2, & 3	68.5	0.0	0.0	161.1	( 2.4)	
Minor Drainage						
Grove	62.9	N	N	N	N	
Cucamonga and Deer Creek Channel Drainage Systems						
Turner 1 & 2	71.9	10.8	( 0.2)	0.0	0.0	
Turner 3 & 4	34.9	0.0	0.0	130.5	( 2.0)	
Day Creek Channel Drainage System						
Lower Day	31.8	0.0	0.0	X	0.0	
Etiwanda Channel Drainage System						
Etiwanda Debris	0.0	0.0	0.0	X	0.0	
Victoria	43.6	0.0	0.0	38.0	( 0.6)	
San Sevaine Channel Drainage System (MZ-2)						
San Sevaine 1, 2, 3, & 4	77.0	0.0	0.0	214.6	( 3.2)	
San Sevaine 5	84.4	0.0	0.0	X	X	
West Fontana Channel System						
Hickory	55.4	0.0	0.0	0.0	0.0	
Banana	62.5	0.0	0.0	116.6	( 1.7)	
San Sevaine Channel Drainage System (MZ-3)						
Jurupa	7.7	0.0	0.0	0.0	0.0	
Declez Channel Drainage System						
RP3 Cells 1,3, & 4	18.4	0.0	0.0	710.5	( 10.7)	
RP3 Cell 2	22.4	0.0	0.0	117.3	( 1.8)	
Declez	155.1	0.0	0.0	38.7	( 0.6)	
Non-Replenishment Recharge**						
MZ1: Upland (Upland)	( 5.7)					
MZ1: Upland (Montclair)	( 1.1)					
MZ2: Ontario (Ely)	( 5.8)					
MZ3: None						

SW : Storm Water, LR : Local Runoff (& reported Pump-to-Waste\*\*), IW : Imported Water (MWD or other), RW : Recycled Water

X : Turnouts not available - to be installed during future projects.

N : No turnout planned for installation.

\* : Water volume delivered to a recharge basin. Data are preliminary based on the data available at the time of this report preparation.

\*\* : Evaporation losses applied per Watermaster (4.2% April through October and 1.5% November through March).

\*\*\* : Management Zone Subtotals have deducted from them evaporation and any Non-Replenishment Recharge (recharge originating from well water pumped to waste discharges and water recharged for storage agreements.

## APPENDIX B

### RWC MANAGEMENT PLANS

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# RWC Management Plan for 8th Street Basins

(120-month averaging period)

Calculation of Recycled Water Contribution (RWC) from Historical Diluent Water (DW) and Recycled Water (RW) Deliveries

Date	No. Mos. Since Initial RW Delivery	SW (AF)	MWD (AF)	Underflow (AF)	DW Total (AF)	DW 120-Month Total (AF)	RW (AF)	RW 120-Month Total (AF)	DW + RW 120-Month Total (AF)	RWC	Period
2014/15	Jul '14	82	25	0	310	335	28,716	8	8,677	37,393	23%
	Aug '14	83	15	0	310	325	29,041	8	8,685	37,727	23%
	Sep '14	84	14	0	310	324	29,366	32	8,717	38,083	23%
	Oct '14	85	0	0	310	310	29,676	0	8,717	38,393	23%
	Nov '14	86	146	0	310	456	30,132	0	8,717	38,849	22%
	Dec '14	87	353	0	310	663	30,795	0	8,717	39,512	22%
	Jan '15	88	110	0	310	420	31,216	0	8,717	39,933	22%
	Feb '15	89	42	0	310	352	31,568	0	8,717	40,285	22%
	Mar '15	90	42	0	310	352	31,920	0	8,717	40,637	21%
	Apr '15	91	25	0	310	335	32,255	0	8,717	40,972	21%
	May '15	92	57	0	310	367	32,622	0	8,717	41,340	21%
	Jun '15	93	12	0	310	322	32,945	0	8,717	41,662	21%
2015/16	Jul '15	94	44	0	310	354	33,299	0	8,717	42,016	21%
	Aug '15	95	4	0	310	314	33,613	23	8,740	42,353	21%
	Sep '15	96	76	0	310	386	33,939	60	8,800	42,739	21%
	Oct '15	97	39	0	310	349	34,156	13	8,813	42,969	21%
	Nov '15	98	19	0	310	329	34,425	95	8,908	43,333	21%
	Dec '15	99	86	0	310	396	34,761	159	9,067	43,828	21%
	Jan '16	100	249	0	310	559	35,204	59	9,126	44,331	21%
	Feb '16	101	93	0	310	403	35,365	206	9,332	44,697	21%
	Mar '16	102	200	0	310	510	35,550	160	9,492	45,042	21%
	Apr '16	103	34	0	310	344	35,664	195	9,687	45,351	21%
	May '16	104	72	0	310	382	35,996	204	9,891	45,887	22%
	Jun '16	105	5	0	310	315	36,296	296	10,187	46,484	22%
2016/17	Jul '16	106	4	0	310	314	36,599	259	10,446	47,045	22%
	Aug '16	107	8	0	310	318	36,911	268	10,714	47,625	22%
	Sep '16	108	5	0	310	315	37,204	248	10,962	48,166	23%
	Oct '16	109	35	0	310	345	37,509	285	11,247	48,756	23%
	Nov '16	110	82	0	310	392	37,859	228	11,475	49,334	23%
	Dec '16	111	363	0	310	673	38,453	121	11,596	50,049	23%
	Jan '17	112	323	0	310	633	39,027	0	11,596	50,623	23%
	Feb '17	113	100	0	310	410	39,270	34	11,630	50,900	23%
	Mar '17	114	22	0	310	332	39,564	176	11,806	51,370	23%
	Apr '17	115	57	0	310	367	39,842	280	12,086	51,928	23%
	May '17	116	16	0	310	326	40,126	184	12,270	52,396	23%
	Jun '17	117	19	18	310	347	40,431	198	12,468	52,900	24%
2017/18	Jul '17	118	105	0	310	415	40,831	1	12,469	53,300	23%
	Aug '17	119	20	584	310	914	41,729	196	12,665	54,394	23%
	Sep '17	120	3	287	310	600	42,312	131	12,668	54,980	23%
	Oct '17	121	51	200	310	561	42,831	204	12,763	55,594	23%
	Nov '17	122	3	0	310	313	43,063	100	12,702	55,765	23%
	Dec '17	123	3	0	310	313	43,153	212	12,913	56,066	23%
	Jan '18	124	121	0	310	432	43,249	99	13,011	56,260	23%
	Feb '18	125	85	0	310	395	43,546	81	12,935	56,481	23%
	Mar '18	126	142	0	310	453	43,978	9	12,779	56,757	23%
	Apr '18	127	12	0	310	322	44,289	0	12,689	56,978	22%
	May '18	128	7	0	310	317	44,516	6	12,538	57,054	22%
	Jun '18	129	6	59	310	375	44,876	0	12,452	57,328	22%
2018/2019	Jul '18	130	6	58	310	374	45,222	93	12,321	57,543	21%
	Aug '18	131	6	0	310	316	45,523	147	12,340	57,863	21%
	Sep '18	132	6	0	310	316	45,824	249	12,589	58,413	22%
	Oct '18	133	68	0	310	378	46,187	188	12,777	58,963	22%
	Nov '18	134	115	0	310	426	46,475	283	13,060	59,535	22%
	Dec '18	135	164	0	310	474	46,597	251	13,311	59,908	22%
	Jan '19	136	280	0	310	590	47,152	245	13,556	60,708	22%
	Feb '19	137	319	0	310	629	47,324	0	13,556	60,879	22%
	Mar '19	138	275	0	310	585	47,888	277	13,833	61,721	22%
	Apr '19	139	11	0	310	321	48,194	364	14,197	62,391	23%
	May '19	140	135	0	310	445	48,623	333	14,530	63,153	23%
	Jun '19	141	6	0	310	316	48,940	434	14,963	63,903	23%
2019/20	Jul '19	142	6	0	310	316	49,237	280	15,243	64,480	24%
	Aug '19	143	4	0	310	314	49,518	71	15,290	64,808	24%
	Sep '19	144	3	572	310	886	50,386	128	15,418	65,803	23%
	Oct '19	145	3	250	310	563	50,565	58	15,476	66,040	23%
	Nov '19	146	111	126	310	547	50,709	54	15,396	66,105	23%
	Dec '19	147	180	0	310	490	50,586	0	15,303	65,889	23%
	Jan '20	148	5	0	310	315	50,204	68	15,269	65,472	23%
	Feb '20	149	19	0	310	329	49,745	64	15,333	65,078	24%
	Mar '20	150	160	0	310	470	49,833	0	15,219	65,051	23%
	Apr '20	151	120	0	310	430	49,746	11	15,129	64,876	23%
	May '20	152	9	0	310	320	49,722	84	15,014	64,736	23%
	Jun '20	153	3	0	310	313	49,692	162	14,874	64,565	23%

HISTORICAL





# RWC Management Plan for 8th Street Basins

(120-month averaging period)

Calculation of Recycled Water Contribution (RWC) from Historical Diluent Water (DW) and Recycled Water (RW) Deliveries

Date		No. Mos. Since Initial RW Delivery	SW (AF)	MWD (AF)	Underflow (AF)	DW Total (AF)	DW 120- Month Total (AF)	RW (AF)	RW 120- Month Total (AF)	DW + RW 120-Month Total (AF)	RWC	Period
2020/21	Jul '20	154	3	0	310	313	49,665	186	14,841	64,506	23%	A C T U A L
	Aug '20	155	3	0	310	313	49,640	113	14,849	64,488	23%	
	Sep '20	156	3	0	310	313	49,607	135	14,806	64,413	23%	
	Oct '20	157	8	0	310	318	49,526	114	14,632	64,158	23%	
	Nov '20	158	45	0	310	355	49,383	70	14,539	63,922	23%	
	Dec '20	159	58	0	310	368	48,942	0	14,519	63,461	23%	
	Jan '21	160	137	0	310	448	48,970	0	14,352	63,321	23%	
	Feb '21	161	30	0.0	310	341	48,724	0	14,269	62,993	23%	
	Mar '21	162	131		310	441	48,605	120	14,366	62,971	23%	
	Apr '21	163	77		310	387	48,658	170	14,355	63,013	23%	
	May '21	164	44		310	354	48,451	210	14,322	62,773	23%	
	Jun '21	165	16		310	326	48,121	230	14,350	62,471	23%	
2021/2022	Jul '21	166	21		310	331	47,941	230	14,492	62,433	23%	P L A N N E D
	Aug '21	167	13		310	323	47,722	240	14,686	62,407	24%	
	Sep '21	168	21		310	331	47,575	230	14,914	62,488	24%	
	Oct '21	169	45		310	355	47,577	210	15,124	62,700	24%	
	Nov '21	170	86		310	396	47,525	160	15,284	62,808	24%	
	Dec '21	171	195		310	505	47,644	60	15,344	62,987	24%	
	Jan '22	172	151		310	461	47,738	100	15,417	63,154	24%	
	Feb '22	173	169		310	479	47,753	80	15,497	63,249	25%	
	Mar '22	174	131		310	441	47,603	120	15,617	63,219	25%	
	Apr '22	175	77		310	387	47,457	170	15,753	63,209	25%	
	May '22	176	44		310	354	47,476	210	15,707	63,182	25%	
	Jun '22	177	16		310	326	47,471	230	15,749	63,219	25%	
2022/2023	Jul '22	178	21		310	331	47,472	230	15,842	63,313	25%	P L A N N E D
	Aug '22	179	13		310	323	47,464	240	16,082	63,545	25%	
	Sep '22	180	21		310	331	47,452	230	16,188	63,639	25%	
	Oct '22	181	45		310	355	47,468	210	16,089	63,556	25%	
	Nov '22	182	86		310	396	47,488	160	16,001	63,488	25%	
	Dec '22	183	195		310	505	47,405	60	15,958	63,362	25%	
	Jan '23	184	151		310	461	47,486	100	15,828	63,313	25%	
	Feb '23	185	169		310	479	47,565	80	15,682	63,246	25%	
	Mar '23	186	131		310	441	47,631	120	15,562	63,192	25%	
	Apr '23	187	77		310	387	47,684	170	15,580	63,263	25%	
	May '23	188	44		310	354	47,685	210	15,569	63,253	25%	
	Jun '23	189	16		310	326	47,689	230	15,528	63,216	25%	
2023/2024	Jul '23	190	21		310	331	47,697	230	15,572	63,268	25%	P L A N N E D
	Aug '23	191	13		310	323	47,697	240	15,694	63,390	25%	
	Sep '23	192	21		310	331	47,707	230	15,774	63,480	25%	
	Oct '23	193	45		310	355	47,704	210	15,745	63,448	25%	
	Nov '23	194	86		310	396	47,741	160	15,656	63,396	25%	
	Dec '23	195	195		310	505	47,890	60	15,595	63,484	25%	
	Jan '24	196	151		310	461	48,014	100	15,587	63,600	25%	
	Feb '24	197	169		310	479	48,124	80	15,579	63,702	24%	
	Mar '24	198	131		310	441	48,203	120	15,673	63,876	25%	
	Apr '24	199	77		310	387	48,201	170	15,822	64,023	25%	
	May '24	200	44		310	354	48,219	210	15,967	64,186	25%	
	Jun '24	201	16		310	326	48,211	230	16,145	64,356	25%	
2024/2025	Jul '24	202	21		310	331	48,207	230	16,367	64,574	25%	P L A N N E D
	Aug '24	203	13		310	323	48,205	240	16,599	64,804	26%	
	Sep '24	204	21		310	331	48,212	230	16,797	65,009	26%	
	Oct '24	205	45		310	355	48,257	210	17,007	65,264	26%	
	Nov '24	206	86		310	396	48,197	160	17,167	65,364	26%	
	Dec '24	207	195		310	505	48,039	60	17,227	65,266	26%	
	Jan '25	208	151		310	461	48,080	100	17,327	65,407	26%	
	Feb '25	209	169		310	479	48,207	80	17,407	65,614	27%	
	Mar '25	210	131		310	441	48,296	120	17,527	65,823	27%	
	Apr '25	211	77		310	387	48,348	170	17,697	66,045	27%	
	May '25	212	44		310	354	48,335	210	17,907	66,242	27%	
	Jun '25	213	16		310	326	48,339	230	18,137	66,476	27%	
2025/26	Jul '25	214	21		310	331	48,316	230	18,367	66,683	28%	P L A N N E D
	Aug '25	215	13		310	323	48,325	240	18,584	66,909	28%	
	Sep '25	216	21		310	331	48,270	230	18,754	67,024	28%	
	Oct '25	217	45		310	355	48,276	210	18,951	67,227	28%	
	Nov '25	218	86		310	396	48,343	160	19,016	67,359	28%	
	Dec '25	219	195		310	505	48,452	60	18,917	67,369	28%	
	Jan '26	220	151		310	461	48,354	100	18,958	67,312	28%	
	Feb '26	221	169		310	479	48,430	80	18,832	67,262	28%	
	Mar '26	222	131		310	441	48,361	120	18,792	67,153	28%	
	Apr '26	223	77		310	387	48,404	170	18,767	67,171	28%	
May '26	224	44		310	354	48,376	210	18,773	67,149	28%		
Jun '26	225	16		310	326	48,387	230	18,707	67,094	28%		



## RWC Management Plan for 8th Street Basins

(120-month averaging period)

Calculation of Recycled Water Contribution (RWC) from Historical Diluent Water (DW) and Recycled Water (RW) Deliveries

Date	No. Mos. Since Initial RW Delivery	SW (AF)	MWD (AF)	Underflow (AF)	DW Total (AF)	DW 120-Month Total (AF)	RW (AF)	RW 120-Month Total (AF)	DW + RW 120-Month Total (AF)	RWC	Period
2026/27	Jul '26	226	21		310	331	48,404	230	18,678	67,082	28%
	Aug '26	227	13		310	323	48,409	240	18,650	67,059	28%
	Sep '26	228	21		310	331	48,425	230	18,632	67,057	28%
	Oct '26	229	45		310	355	48,435	210	18,557	66,992	28%
	Nov '26	230	86		310	396	48,439	160	18,489	66,928	28%
	Dec '26	231	195		310	505	48,271	60	18,428	66,699	28%
	Jan '27	232	151		310	461	48,099	100	18,528	66,627	28%
	Feb '27	233	169		310	479	48,168	80	18,574	66,742	28%
	Mar '27	234	131		310	441	48,277	120	18,518	66,795	28%
	Apr '27	235	77		310	387	48,297	170	18,408	66,705	28%
2027/28	May '27	236	44		310	354	48,325	210	18,434	66,759	28%
	Jun '27	237	16		310	326	48,304	230	18,466	66,770	28%
	Jul '27	238	21		310	331	48,220	230	18,695	66,915	28%
	Aug '27	239	13		310	323	47,629	240	18,739	66,368	28%
	Sep '27	240	21		310	331	47,360	230	18,838	66,198	28%
	Oct '27	241	45		310	355	47,154	210	18,844	65,998	29%
	Nov '27	242	86		310	396	47,237	160	18,904	66,141	29%
	Dec '27	243	195		310	505	47,429	60	18,752	66,182	28%
	Jan '28	244	151		310	461	47,459	100	18,754	66,213	28%
	Feb '28	245	169		310	479	47,543	80	18,753	66,296	28%
2028/29	Mar '28	246	131		310	441	47,532	120	18,864	66,396	28%
	Apr '28	247	77		310	387	47,597	170	19,034	66,631	29%
	May '28	248	44		310	354	47,634	210	19,238	66,872	29%
	Jun '28	249	16		310	326	47,585	230	19,468	67,053	29%
	Jul '28	250	21		310	331	47,542	230	19,605	67,146	29%
	Aug '28	251	13		310	323	47,548	240	19,698	67,246	29%
	Sep '28	252	21		310	331	47,563	230	19,679	67,242	29%
	Oct '28	253	45		310	355	47,540	210	19,701	67,241	29%
	Nov '28	254	86		310	396	47,511	160	19,578	67,088	29%
	Dec '28	255	195		310	505	47,542	60	19,387	66,929	29%
2029/30	Jan '29	256	151		310	461	47,413	100	19,242	66,655	29%
	Feb '29	257	169		310	479	47,263	80	19,322	66,585	29%
	Mar '29	258	131		310	441	47,119	120	19,165	66,284	29%
	Apr '29	259	77		310	387	47,185	170	18,971	66,156	29%
	May '29	260	44		310	354	47,094	210	18,848	65,942	29%
	Jun '29	261	16		310	326	47,104	230	18,644	65,748	28%
	Jul '29	262	21		310	331	47,119	230	18,595	65,713	28%
	Aug '29	263	13		310	323	47,128	240	18,764	65,892	28%
	Sep '29	264	21		310	331	46,573	230	18,866	65,440	29%
	Oct '29	265	45		310	355	46,365	210	19,018	65,383	29%
	Nov '29	266	86		310	396	46,214	160	19,125	65,339	29%
	Dec '29	267	195		310	505	46,229	60	19,185	65,414	29%
	Jan '30	268	151		310	461	46,375	100	19,217	65,592	29%
	Feb '30	269	169		310	479	46,526	80	19,233	65,759	29%
	Mar '30	270	131		310	441	46,497	120	19,353	65,850	29%
	Apr '30	271	77		310	387	46,454	170	19,512	65,966	30%
	May '30	272	44		310	354	46,488	210	19,638	66,127	30%
	Jun '30	273	16		310	326	48,168	230	19,707	67,875	29%

### Notes:

DW = Diluent Water; Total DW is the sum of Stormwater & Local Runoff (SW), Imported Water from the State Water Project (MWD), and groundwater underflow.

RW = Recycled Water

RWC = 120-month running total of recycled water / 120-month running total of all diluent and recycled water.

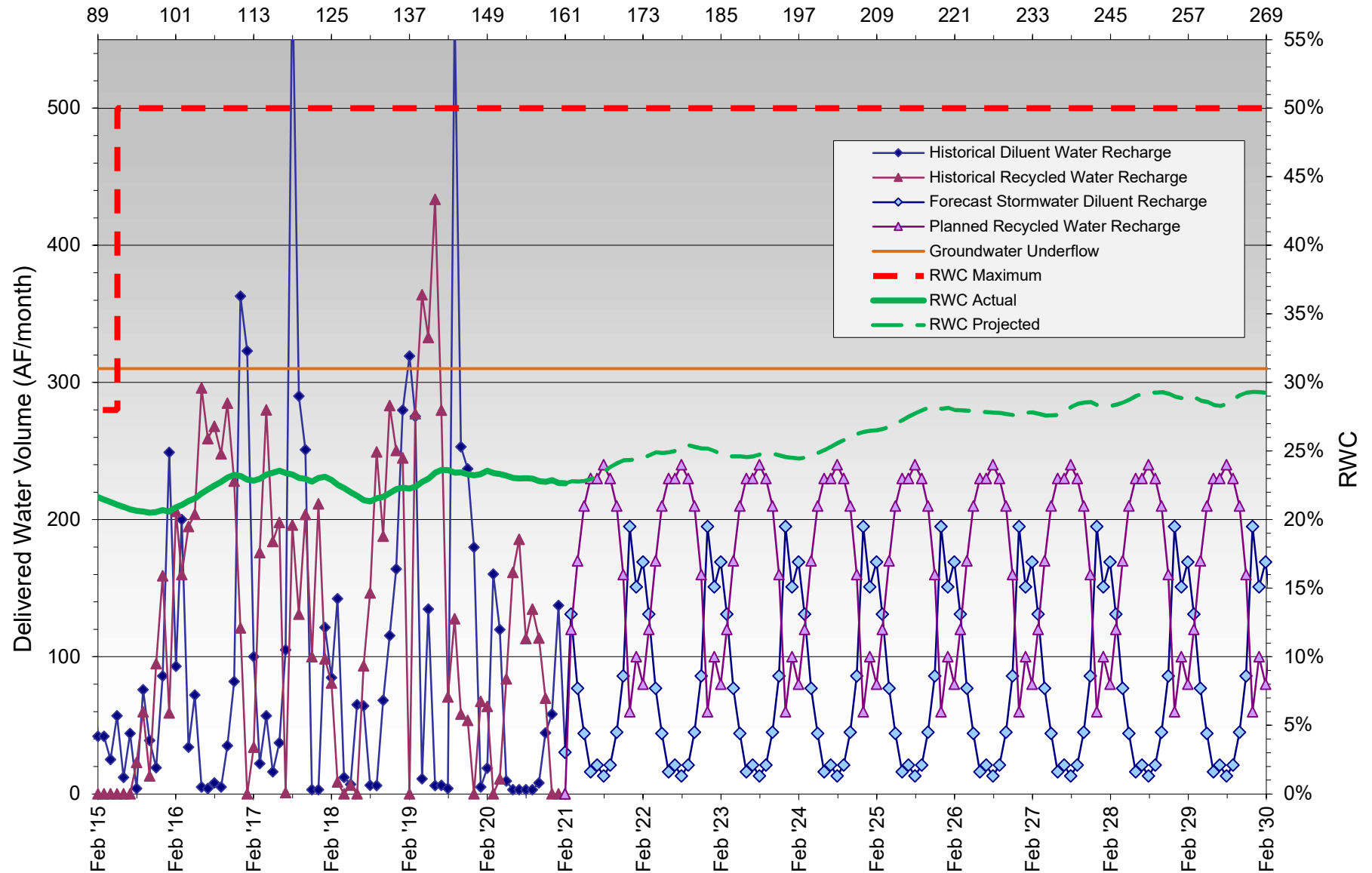
While an RWC calculation is provided starting on the first month of RW recharge, 120 months of data may not be available until 10 years of recharge operations.

RWC maximum = 0.5 mg/L / the Running Average of Total Organic Carbon (TOC) determined from a recharge site's start-up period



# RWC Management Plan - 8th Street Basins

Months Since Initial Recycled Water Delivery



HISTORICAL RECHARGE

PLANNED RECHARGE



# RWC Management Plan for Banana Basin

(120-month averaging period)

Calculation of Recycled Water Contribution (RWC) from Historical Diluent Water (DW) and Recycled Water (RW) Deliveries

Date	No. Mos. Since Initial RW Delivery	SW (AF)	MWD (AF)	Underflow (AF)	DW Total (AF)	DW 120-Month Total (AF)	RW (AF)	RW 120-Month Total (AF)	DW + RW 120-Month Total (AF)	RWC	Period
2014/15	Jul '14	108	0	0	151	151	12,252	0	6,260	18,512	34%
	Aug '14	109	0	0	151	151	12,403	82	6,342	18,745	34%
	Sep '14	110	0	0	151	151	12,554	72	6,414	18,968	34%
	Oct '14	111	0	0	151	151	12,643	206	6,620	19,263	34%
	Nov '14	112	7	0	151	158	12,784	173	6,793	19,577	35%
	Dec '14	113	145	0	151	296	13,055	67	6,860	19,915	34%
	Jan '15	114	24	0	151	175	13,137	144	7,004	20,141	35%
	Feb '15	115	16	0	151	167	13,193	47	7,051	20,244	35%
	Mar '15	116	2	0	151	153	13,322	80	7,131	20,453	35%
	Apr '15	117	3	0	151	154	13,457	90	7,221	20,678	35%
	May '15	118	0	0	151	151	13,594	161	7,382	20,976	35%
	Jun '15	119	0	0	151	151	13,745	26	7,408	21,153	35%
2015/16	Jul '15	120	0	0	151	151	13,704	54	7,442	21,146	35%
	Aug '15	121	0	0	151	151	13,855	156	7,344	21,200	35%
	Sep '15	122	40	0	151	191	14,046	376	7,592	21,638	35%
	Oct '15	123	105	0	151	256	14,274	349	7,915	22,189	36%
	Nov '15	124	30	0	151	181	14,455	262	8,169	22,625	36%
	Dec '15	125	59	0	151	210	14,647	283	8,442	23,089	37%
	Jan '16	126	71	0	151	222	14,863	75	8,467	23,330	36%
	Feb '16	127	7	0	151	158	14,999	110	8,522	23,521	36%
	Mar '16	128	38	0	151	189	15,133	74	8,596	23,729	36%
	Apr '16	129	0	0	151	151	15,249	97	8,693	23,941	36%
	May '16	130	15	0	151	166	15,358	113	8,806	24,164	36%
	Jun '16	131	0	0	151	151	15,509	157	8,916	24,425	37%
2016/2017	Jul '16	132	0	0	151	151	15,661	183	9,034	24,695	37%
	Aug '16	133	0	0	151	151	15,812	49	8,998	24,810	36%
	Sep '16	134	0	0	151	151	15,963	97	8,717	24,681	35%
	Oct '16	135	6	0	151	157	16,046	115	8,783	24,829	35%
	Nov '16	136	21	0	151	172	15,984	55	8,831	24,815	36%
	Dec '16	137	71	0	151	222	16,005	1	8,782	24,787	35%
	Jan '17	138	50	0	151	201	15,875	0	8,782	24,657	36%
	Feb '17	139	18	0	151	169	15,971	0	8,782	24,753	35%
	Mar '17	140	0	0	151	151	16,069	0	8,782	24,851	35%
	Apr '17	141	0	0	151	151	16,191	0	8,778	24,969	35%
	May '17	142	0	0	151	151	16,306	0	8,772	25,078	35%
	Jun '17	143	0	0	151	151	16,457	0	8,772	25,229	35%
2017/2018	Jul '17	144	0	0	151	151	16,608	0	8,772	25,380	35%
	Aug '17	145	2	0	151	153	16,761	131	8,903	25,664	35%
	Sep '17	146	2	134	151	287	17,045	161	9,064	26,109	35%
	Oct '17	147	3	121	151	274	17,318	241	9,305	26,623	35%
	Nov '17	148	0	0	151	151	17,434	463	9,768	27,202	36%
	Dec '17	149	2	138	151	291	17,703	252	10,020	27,723	36%
	Jan '18	150	115	93	151	359	17,932	126	10,146	28,079	36%
	Feb '18	151	11	0	151	163	18,020	206	10,352	28,372	36%
	Mar '18	152	60	0	151	212	18,232	88	10,440	28,671	36%
	Apr '18	153	0	0	151	151	18,383	172	10,565	28,948	36%
	May '18	154	0	0	151	152	18,532	161	10,688	29,220	37%
	Jun '18	155	0	0	151	151	18,675	129	10,746	29,420	37%
2018/2019	Jul '18	156	2	0	151	154	18,798	147	10,892	29,690	37%
	Aug '18	157	0	0	151	151	18,904	16	10,908	29,812	37%
	Sep '18	158	0	0	151	151	19,021	91	10,999	30,020	37%
	Oct '18	159	12	0	151	163	19,148	0	10,999	30,147	36%
	Nov '18	160	23	0	151	174	19,272	30	11,029	30,302	36%
	Dec '18	161	12	0	151	164	19,349	0	11,029	30,378	36%
	Jan '19	162	27	0	151	179	19,523	13	11,003	30,525	36%
	Feb '19	163	42	0	151	194	19,621	0	11,003	30,624	36%
	Mar '19	164	14	0	151	165	19,786	0	11,003	30,789	36%
	Apr '19	165	0	0	151	151	19,937	0	11,003	30,940	36%
	May '19	166	0	0	151	151	20,089	1	11,003	31,092	35%
	Jun '19	167	0	0	151	151	20,240	0	11,003	31,243	35%
2019/2020	Jul '19	168	0	0	151	151	20,391	33	11,036	31,428	35%
	Aug '19	169	0	0	151	151	20,543	100	11,137	31,679	35%
	Sep '19	170	0	0	151	151	20,694	227	11,364	32,057	35%
	Oct '19	171	0	0	151	151	20,679	242	11,476	32,155	36%
	Nov '19	172	53	0	151	204	20,732	92	11,387	32,119	35%
	Dec '19	173	57	0	151	208	20,713	24	11,344	32,057	35%
	Jan '20	174	0	0	151	151	20,613	45	11,314	31,927	35%
	Feb '20	175	0	0	151	151	20,470	24	11,338	31,808	36%
	Mar '20	176	81	0	151	232	20,534	38	11,376	31,910	36%
	Apr '20	177	57	0	151	209	20,525	17	11,253	31,779	35%
	May '20	178	0	0	151	151	20,525	35	11,111	31,637	35%
	Jun '20	179	0	0	151	151	20,525	0	10,982	31,508	35%

HISTORICAL



## RWC Management Plan for Banana Basin

(120-month averaging period)

Calculation of Recycled Water Contribution (RWC) from Historical Diluent Water (DW) and Recycled Water (RW) Deliveries

Date	No. Mos. Since Initial RW Delivery	SW (AF)	MWD (AF)	Underflow (AF)	DW Total (AF)	DW 120- Month Total (AF)	RW (AF)	RW 120- Month Total (AF)	DW + RW 120-Month Total (AF)	RWC	Period
2020/2021	Jul '20	180	0	0	151	151	20,525	0	10,905	31,431	35%
	Aug '20	181	0	0	151	151	20,525	0	10,851	31,377	35%
	Sep '20	182	0	0	151	151	20,525	0	10,792	31,318	34%
	Oct '20	183	0	0	151	151	20,520	166	10,910	31,431	35%
	Nov '20	184	12	0	151	163	20,516	137	11,019	31,535	35%
	Dec '20	185	63	0	151	214	20,528	115	11,134	31,661	35%
	Jan '21	186	88	0	151	239	20,605	38	11,171	31,777	35%
	Feb '21	187	1	0	151	152	20,580	37	11,209	31,789	35%
	Mar '21	188	23		151	174	20,603	100	11,309	31,912	35%
	Apr '21	189	15		151	166	20,618	110	11,419	32,037	36%
	May '21	190	8		151	159	20,626	120	11,539	32,165	36%
	Jun '21	191	1		151	152	20,627	120	11,659	32,286	36%
2021/2022	Jul '21	192	4		151	155	20,600	120	11,779	32,379	36%
	Aug '21	193	3		151	154	20,603	120	11,764	32,367	36%
	Sep '21	194	5		151	156	20,608	120	11,489	32,097	36%
	Oct '21	195	16		151	167	20,604	110	11,195	31,799	35%
	Nov '21	196	19		151	170	20,593	110	11,144	31,737	35%
	Dec '21	197	48		151	199	20,623	80	10,979	31,602	35%
	Jan '22	198	46		151	197	20,621	80	10,898	31,519	35%
	Feb '22	199	38		151	189	20,638	90	10,821	31,459	34%
	Mar '22	200	23		151	174	20,617	100	10,849	31,466	34%
	Apr '22	201	15		151	166	20,597	110	10,908	31,505	35%
	May '22	202	8		151	159	20,605	120	10,983	31,588	35%
	Jun '22	203	1		151	152	20,606	120	11,024	31,630	35%
2022/2023	Jul '22	204	4		151	155	20,610	120	11,103	31,713	35%
	Aug '22	205	3		151	154	20,613	120	11,221	31,834	35%
	Sep '22	206	5		151	156	20,618	120	11,153	31,771	35%
	Oct '22	207	16		151	167	20,623	110	11,160	31,783	35%
	Nov '22	208	19		151	170	20,637	110	11,150	31,787	35%
	Dec '22	209	48		151	199	20,636	80	11,215	31,851	35%
	Jan '23	210	46		151	197	20,664	80	11,267	31,931	35%
	Feb '23	211	38		151	189	20,682	90	11,355	32,037	35%
	Mar '23	212	23		151	174	20,697	100	11,413	32,110	36%
	Apr '23	213	15		151	166	20,712	110	11,468	32,180	36%
	May '23	214	8		151	159	20,717	120	11,549	32,266	36%
	Jun '23	215	1		151	152	20,718	120	11,634	32,352	36%
2023/2024	Jul '23	216	4		151	155	20,722	120	11,739	32,461	36%
	Aug '23	217	3		151	154	20,725	120	11,847	32,572	36%
	Sep '23	218	5		151	156	20,730	120	11,967	32,697	37%
	Oct '23	219	16		151	167	20,746	110	11,692	32,438	36%
	Nov '23	220	19		151	170	20,743	110	11,700	32,443	36%
	Dec '23	221	48		151	199	20,785	80	11,780	32,565	36%
	Jan '24	222	46		151	197	20,814	80	11,860	32,674	36%
	Feb '24	223	38		151	189	20,797	90	11,950	32,747	36%
	Mar '24	224	23		151	174	20,811	100	11,965	32,776	37%
	Apr '24	225	15		151	166	20,824	110	11,987	32,811	37%
	May '24	226	8		151	159	20,832	120	11,913	32,745	36%
	Jun '24	227	1		151	152	20,833	120	11,843	32,676	36%
2024/2025	Jul '24	228	4		151	155	20,837	120	11,963	32,800	36%
	Aug '24	229	3		151	154	20,840	120	12,001	32,841	37%
	Sep '24	230	5		151	156	20,845	120	12,049	32,894	37%
	Oct '24	231	16		151	167	20,861	110	11,953	32,814	36%
	Nov '24	232	19		151	170	20,873	110	11,890	32,763	36%
	Dec '24	233	48		151	199	20,776	80	11,903	32,679	36%
	Jan '25	234	46		151	197	20,798	80	11,839	32,637	36%
	Feb '25	235	38		151	189	20,820	90	11,882	32,702	36%
	Mar '25	236	23		151	174	20,841	100	11,902	32,743	36%
	Apr '25	237	15		151	166	20,853	110	11,922	32,775	36%
	May '25	238	8		151	159	20,861	120	11,881	32,742	36%
	Jun '25	239	1		151	152	20,862	120	11,975	32,837	36%
2025/2026	Jul '25	240	4		151	155	20,866	120	12,041	32,907	37%
	Aug '25	241	3		151	154	20,869	120	12,005	32,874	37%
	Sep '25	242	5		151	156	20,834	120	11,749	32,583	36%
	Oct '25	243	16		151	167	20,745	110	11,510	32,255	36%
	Nov '25	244	19		151	170	20,734	110	11,358	32,092	35%
	Dec '25	245	48		151	199	20,723	80	11,155	31,878	35%
	Jan '26	246	46		151	197	20,698	80	11,160	31,858	35%
	Feb '26	247	38		151	189	20,729	90	11,140	31,869	35%
	Mar '26	248	23		151	174	20,714	100	11,166	31,880	35%
	Apr '26	249	15		151	166	20,729	110	11,179	31,908	35%
	May '26	250	8		151	159	20,722	120	11,186	31,908	35%
	Jun '26	251	1		151	152	20,723	120	11,149	31,872	35%

A C T U A L

P L A N N E D



# RWC Management Plan for Banana Basin

(120-month averaging period)

Calculation of Recycled Water Contribution (RWC) from Historical Diluent Water (DW) and Recycled Water (RW) Deliveries

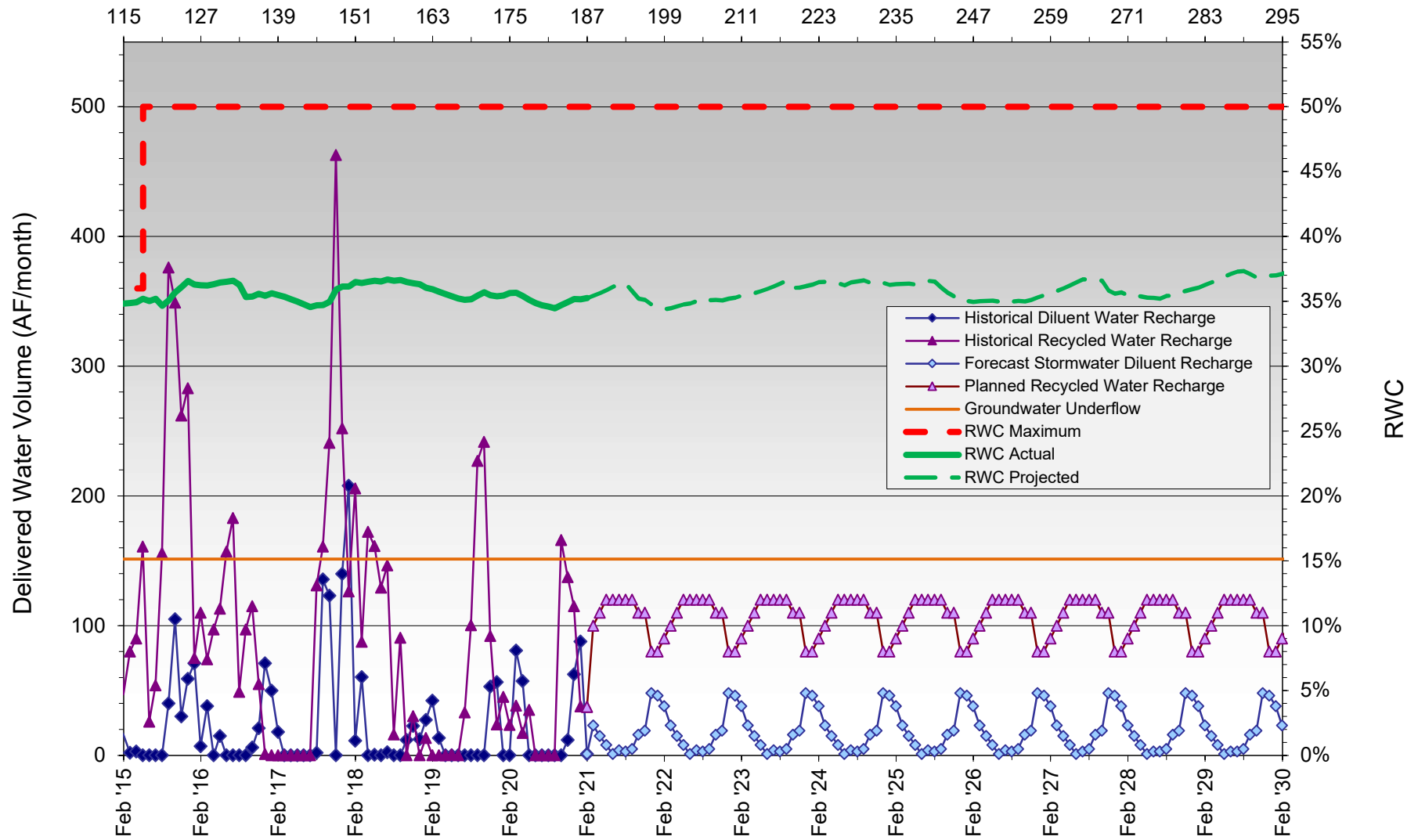
Date		No. Mos. Since Initial RW Delivery	SW (AF)	MWD (AF)	Underflow (AF)	DW Total (AF)	DW 120-Month Total (AF)	RW (AF)	RW 120-Month Total (AF)	DW + RW 120-Month Total (AF)	RWC	Period
2026/2027	Jul '26	252	4		151	155	20,727	120	11,086	31,813	35%	P L A N N E D
	Aug '26	253	3		151	154	20,730	120	11,157	31,887	35%	
	Sep '26	254	5		151	156	20,735	120	11,180	31,915	35%	
	Oct '26	255	16		151	167	20,745	110	11,175	31,920	35%	
	Nov '26	256	19		151	170	20,743	110	11,230	31,973	35%	
	Dec '26	257	48		151	199	20,720	80	11,309	32,029	35%	
	Jan '27	258	46		151	197	20,716	80	11,389	32,105	35%	
	Feb '27	259	38		151	189	20,736	90	11,479	32,215	36%	
	Mar '27	260	23		151	174	20,759	100	11,579	32,338	36%	
	Apr '27	261	15		151	166	20,774	110	11,689	32,463	36%	
	May '27	262	8		151	159	20,782	120	11,809	32,591	36%	
	Jun '27	263	1		151	152	20,783	120	11,929	32,712	36%	
2027/28	Jul '27	264	3		151	154	20,786	120	12,049	32,835	37%	
	Aug '27	265	5		151	156	20,789	120	12,038	32,827	37%	
	Sep '27	266	16		151	167	20,669	120	11,997	32,666	37%	
	Oct '27	267	19		151	170	20,565	110	11,866	32,431	37%	
	Nov '27	268	48		151	199	20,613	110	11,513	32,126	36%	
	Dec '27	269	46		151	197	20,519	80	11,341	31,860	36%	
	Jan '28	270	38		151	189	20,350	80	11,294	31,644	36%	
	Feb '28	271	23		151	174	20,361	90	11,179	31,540	35%	
	Mar '28	272	15		151	166	20,316	100	11,191	31,507	36%	
	Apr '28	273	8		151	159	20,324	110	11,129	31,453	35%	
	May '28	274	1		151	152	20,325	120	11,087	31,412	35%	
	Jun '28	275	3		151	154	20,328	120	11,078	31,406	35%	
2028/29	Jul '28	276	3		151	154	20,328	120	11,051	31,380	35%	
	Aug '28	277	5		151	156	20,333	120	11,155	31,488	35%	
	Sep '28	278	16		151	167	20,349	120	11,185	31,534	35%	
	Oct '28	279	19		151	170	20,356	110	11,295	31,651	36%	
	Nov '28	280	48		151	199	20,382	110	11,374	31,756	36%	
	Dec '28	281	46		151	197	20,415	80	11,454	31,870	36%	
	Jan '29	282	38		151	189	20,426	80	11,521	31,947	36%	
	Feb '29	283	23		151	174	20,407	90	11,611	32,018	36%	
	Mar '29	284	15		151	166	20,408	100	11,711	32,119	36%	
	Apr '29	285	8		151	159	20,416	110	11,821	32,237	37%	
	May '29	286	1		151	152	20,417	120	11,940	32,358	37%	
	Jun '29	287	3		151	154	20,420	120	12,060	32,481	37%	
2029/30	Jul '29	288	3		151	154	20,423	120	12,147	32,570	37%	
	Aug '29	289	5		151	156	20,428	120	12,167	32,595	37%	
	Sep '29	290	16		151	167	20,444	120	12,060	32,504	37%	
	Oct '29	291	19		151	170	20,463	110	11,928	32,392	37%	
	Nov '29	292	48		151	199	20,458	110	11,946	32,405	37%	
	Dec '29	293	46		151	197	20,448	80	12,003	32,450	37%	
	Jan '30	294	38		151	189	20,486	80	12,037	32,523	37%	
	Feb '30	295	23		151	174	20,509	90	12,104	32,613	37%	
	Mar '30	296	15		151	166	20,443	100	12,166	32,609	37%	
	Apr '30	297	8		151	159	20,394	110	12,258	32,652	38%	
	May '30	298	1		151	152	20,395	120	12,343	32,738	38%	
	Jun '30	299	3		151	154	20,398	120	12,463	32,861	38%	
Notes: DW = Diluent Water; Total DW is the sum of Stormwater & Local Runoff (SW), Imported Water from the State Water Project (MWD), and groundwater underflow. RW = Recycled Water RWC = 120-month running total of recycled water / 120-month running total of all diluent and recycled water. While an RWC calculation is provided starting on the first month of RW recharge, 120 months of data may not be available until 10 years of recharge operations. RWC maximum = 0.5 mg/L / the Running Average of Total Organic Carbon (TOC) determined from a recharge site's start-up period												





# RWC Management Plan for Banana Basin

Months Since Initial Recycled Water Delivery



HISTORICAL RECHARGE

PLANNED RECHARGE



# RWC Management Plan for Brooks Street Basins

(120-month averaging period)

Calculation of Recycled Water Contribution (RWC) from Historical Diluent Water (DW) and Recycled Water (RW) Deliveries

Date	No. Mos. Since Initial RW Delivery	SW (AF)	MWD (AF)	Underflow (AF)	DW Total (AF)	DW 120-Month Total (AF)	RW (AF)	RW 120-Month Total (AF)	DW + RW 120-Month Total (AF)	RWC	Period
2014/15	Jul '14	71	7	0	509	516	38,691	72	8,394	47,085	18%
	Aug '14	72	1	0	509	510	39,201	141	8,535	47,736	18%
	Sep '14	73	1	0	509	510	39,711	157	8,692	48,403	18%
	Oct '14	74	6	0	509	515	40,226	56	8,748	48,974	18%
	Nov '14	75	28	0	509	537	40,764	37	8,785	49,549	18%
	Dec '14	76	95	0	509	604	41,368	0	8,785	50,153	18%
	Jan '15	77	19	0	509	528	41,896	10	8,795	50,691	17%
	Feb '15	78	27	0	509	536	42,432	92	8,887	51,319	17%
	Mar '15	79	13	0	509	522	42,955	69	8,956	51,911	17%
	Apr '15	80	10	0	509	519	43,474	101	9,057	52,531	17%
	May '15	81	21	0	509	530	44,004	120	9,177	53,181	17%
	Jun '15	82	0	0	509	509	44,513	156	9,333	53,846	17%
2015/16	Jul '15	83	0	0	509	509	44,990	63	9,396	54,386	17%
	Aug '15	84	0	0	509	509	45,324	0	9,396	54,720	17%
	Sep '15	85	1	0	509	510	45,148	0	9,396	54,544	17%
	Oct '15	86	0	0	509	509	45,530	0	9,396	54,926	17%
	Nov '15	87	1	0	509	510	45,650	0	9,396	55,046	17%
	Dec '15	88	0	0	509	509	45,796	101	9,497	55,293	17%
	Jan '16	89	54	0	509	563	46,103	254	9,751	55,854	17%
	Feb '16	90	91	0	509	600	46,310	116	9,867	56,177	18%
	Mar '16	91	91	0	509	600	46,696	211	10,078	56,774	18%
	Apr '16	92	13	0	509	522	46,956	192	10,270	57,226	18%
	May '16	93	1	0	509	510	47,166	278	10,548	57,714	18%
	Jun '16	94	0	0	509	509	47,304	0	10,548	57,852	18%
2016/17	Jul '16	95	0	0	509	509	47,607	0	10,548	58,155	18%
	Aug '16	96	0	0	509	509	47,965	0	10,548	58,513	18%
	Sep '16	97	31	0	509	540	48,163	145	10,693	58,856	18%
	Oct '16	98	17	170	509	696	48,552	19	10,712	59,264	18%
	Nov '16	99	39	0	509	548	48,813	116	10,828	59,641	18%
	Dec '16	100	196	0	509	705	49,256	13	10,841	60,097	18%
	Jan '17	101	254	0	509	763	49,907	0	10,841	60,748	18%
	Feb '17	102	142	0	509	651	50,429	0	10,841	61,270	18%
	Mar '17	103	1	0	509	510	50,936	16	10,857	61,793	18%
	Apr '17	104	0	16	509	525	51,359	8	10,865	62,224	17%
	May '17	105	1	0	509	510	51,865	38	10,903	62,768	17%
	Jun '17	106	0	2	509	511	52,374	30	10,933	63,307	17%
2017/18	Jul '17	107	0	94	509	603	52,977	228	11,161	64,138	17%
	Aug '17	108	0	96	509	605	53,582	55	11,216	64,798	17%
	Sep '17	109	1	3	509	513	54,070	169	11,385	65,455	17%
	Oct '17	110	1	0	509	510	54,546	99	11,484	66,030	17%
	Nov '17	111	3	0	509	512	55,034	151	11,636	66,670	17%
	Dec '17	112	1	0	509	510	55,502	122	11,758	67,260	17%
	Jan '18	113	28	5	509	542	55,762	95	11,852	67,614	18%
	Feb '18	114	9	0	509	518	56,230	106	11,958	68,188	18%
	Mar '18	115	43	0	509	552	56,774	13	11,971	68,744	17%
	Apr '18	116	2	0	509	511	57,281	36	12,007	69,288	17%
	May '18	117	3	0	509	513	57,751	85	12,092	69,843	17%
	Jun '18	118	2	0	509	511	58,259	109	12,201	70,459	17%
2018/19	Jul '18	119	0	0	509	509	58,765	45	12,246	71,011	17%
	Aug '18	120	0	0	509	509	59,258	18	12,147	71,405	17%
	Sep '18	121	0	0	509	509	59,767	0	12,061	71,828	17%
	Oct '18	122	3	0	509	512	60,280	0	11,895	72,175	16%
	Nov '18	123	22	0	509	531	60,788	183	11,975	72,763	16%
	Dec '18	124	43	0	509	552	61,178	257	12,144	73,322	17%
	Jan '19	125	260	0	509	769	61,922	66	11,933	73,855	16%
	Feb '19	126	283	0	509	792	62,506	0	11,913	74,419	16%
	Mar '19	127	149	0	509	658	63,134	77	11,831	74,965	16%
	Apr '19	128	3	0	509	512	63,645	254	11,789	75,434	16%
	May '19	129	61	0	509	571	64,199	189	11,864	76,062	16%
	Jun '19	130	0	0	509	509	64,708	291	11,976	76,684	16%
2019/20	Jul '19	131	0	111	509	621	65,328	177	12,147	77,474	16%
	Aug '19	132	0	39	509	548	65,876	56	12,195	78,071	16%
	Sep '19	133	1	0	509	510	66,386	36	12,231	78,617	16%
	Oct '19	134	0	0	509	509	66,373	176	12,223	78,596	16%
	Nov '19	135	70	0	509	579	66,439	64	12,042	78,481	15%
	Dec '19	136	160	0	509	669	66,470	31	11,928	78,398	15%
	Jan '20	137	4	0	509	513	66,222	5	11,860	78,082	15%
	Feb '20	138	0	0	509	509	66,007	53	11,859	77,867	15%
	Mar '20	139	159	0	509	668	66,139	68	11,747	77,887	15%
	Apr '20	140	167	0	509	676	66,283	15	11,527	77,810	15%
	May '20	141	8	0	509	517	66,289	114	11,285	77,574	15%
	Jun '20	142	0	0	509	509	66,288	102	11,179	77,468	14%

HISTORICAL



# RWC Management Plan for Brooks Street Basins

(120-month averaging period)

Calculation of Recycled Water Contribution (RWC) from Historical Diluent Water (DW) and Recycled Water (RW) Deliveries

Calculation of Recycled Water Contribution (RW) from Historical Diluent Water (DW) and Recycled Water (RW) Deliveries												
Date		No. Mos. Since Initial RW Delivery	SW (AF)	MWD (AF)	Underflow (AF)	DW Total (AF)	DW 120-Month Total (AF)	RW (AF)	RW 120-Month Total (AF)	DW + RW 120-Month Total (AF)	RWC	Period
2020/21	Jul '20	143	0	0	509	509	66,287	150	11,182	77,469	14%	A C T U A L
	Aug '20	144	0	0	509	509	66,269	121	11,028	77,297	14%	
	Sep '20	145	2	0	509	512	66,271	126	11,013	77,283	14%	
	Oct '20	146	2	0	509	512	66,249	85	10,968	77,217	14%	
	Nov '20	147	11	0	509	520	66,216	0	10,881	77,097	14%	
	Dec '20	148	43	0	509	552	65,977	0	10,847	76,824	14%	
	Jan '21	149	57	0	509	566	65,921	82	10,929	76,850	14%	
	Feb '21	150	5	0	509	514	65,762	75	11,004	76,766	14%	
	Mar '21	151	68		509	577	65,688	80	11,084	76,772	14%	P L A N N E D
	Apr '21	152	37		509	546	65,724	110	11,020	76,744	14%	
	May '21	153	14		509	523	65,728	140	10,998	76,726	14%	
	Jun '21	154	2		509	511	65,729	150	10,925	76,654	14%	
2021/22	Jul '21	155	3		509	512	65,495	150	11,075	76,569	14%	
	Aug '21	156	4		509	513	65,313	150	11,225	76,538	15%	
	Sep '21	157	8		509	517	65,168	140	11,365	76,532	15%	
	Oct '21	158	10		509	519	65,160	140	11,425	76,584	15%	
	Nov '21	159	26		509	535	65,136	120	11,509	76,644	15%	
	Dec '21	160	77		509	586	65,197	70	11,481	76,677	15%	
	Jan '22	161	92		509	601	65,244	60	11,399	76,642	15%	
	Feb '22	162	96		509	605	65,290	50	11,372	76,661	15%	
	Mar '22	163	68		509	577	65,255	80	11,367	76,621	15%	
	Apr '22	164	37		509	546	65,228	110	11,445	76,672	15%	
	May '22	165	14		509	523	65,241	140	11,460	76,700	15%	
	Jun '22	166	2		509	511	65,243	150	11,449	76,691	15%	
2022/23	Jul '22	167	3		509	512	65,245	150	11,566	76,810	15%	
	Aug '22	168	4		509	513	65,247	150	11,677	76,923	15%	
	Sep '22	169	8		509	517	65,253	140	11,766	77,018	15%	
	Oct '22	170	10		509	519	65,263	140	11,906	77,168	15%	
	Nov '22	171	26		509	535	65,289	120	12,026	77,314	16%	
	Dec '22	172	77		509	586	65,366	70	12,096	77,461	16%	
	Jan '23	173	92		509	601	65,423	60	11,814	77,236	15%	
	Feb '23	174	96		509	605	65,493	50	11,565	77,057	15%	
	Mar '23	175	68		509	577	65,529	80	11,407	76,935	15%	
	Apr '23	176	37		509	546	65,566	110	11,286	76,851	15%	
	May '23	177	14		509	523	65,563	140	11,274	76,836	15%	
	Jun '23	178	2		509	511	65,564	150	11,304	76,867	15%	
2023/24	Jul '23	179	3		509	512	65,566	150	11,285	76,850	15%	
	Aug '23	180	4		509	513	65,569	150	11,238	76,806	15%	
	Sep '23	181	8		509	517	65,549	140	11,196	76,744	15%	
	Oct '23	182	10		509	519	65,536	140	11,228	76,763	15%	
	Nov '23	183	26		509	535	65,558	120	11,254	76,811	15%	
	Dec '23	184	77		509	586	65,627	70	11,220	76,846	15%	
	Jan '24	185	92		509	601	65,716	60	11,171	76,886	15%	
	Feb '24	186	96		509	605	65,765	50	11,119	76,883	14%	
	Mar '24	187	68		509	577	65,821	80	11,069	76,889	14%	
	Apr '24	188	37		509	546	65,844	110	11,114	76,957	14%	
	May '24	189	14		509	523	65,858	140	11,254	77,111	15%	
	Jun '24	190	2		509	511	65,841	150	11,356	77,196	15%	
2024/25	Jul '24	191	3		509	512	65,837	150	11,434	77,270	15%	
	Aug '24	192	4		509	513	65,840	150	11,443	77,282	15%	
	Sep '24	193	8		509	517	65,847	140	11,426	77,272	15%	
	Oct '24	194	10		509	519	65,851	140	11,510	77,360	15%	
	Nov '24	195	26		509	535	65,849	120	11,593	77,441	15%	
	Dec '24	196	77		509	586	65,831	70	11,663	77,493	15%	
	Jan '25	197	92		509	601	65,904	60	11,713	77,616	15%	
	Feb '25	198	96		509	605	65,973	50	11,671	77,643	15%	
	Mar '25	199	68		509	577	66,028	80	11,682	77,709	15%	
	Apr '25	200	37		509	546	66,055	110	11,691	77,745	15%	
	May '25	201	14		509	523	66,048	140	11,711	77,758	15%	
	Jun '25	202	2		509	511	66,050	150	11,705	77,754	15%	
2025/26	Jul '25	203	3		509	512	66,053	150	11,792	77,844	15%	
	Aug '25	204	4		509	513	66,057	150	11,942	77,998	15%	
	Sep '25	205	8		509	517	66,064	140	12,082	78,145	15%	
	Oct '25	206	10		509	519	66,074	140	12,222	78,295	16%	
	Nov '25	207	26		509	535	66,099	120	12,342	78,440	16%	
	Dec '25	208	77		509	586	66,176	70	12,311	78,486	16%	
	Jan '26	209	92		509	601	66,214	60	12,117	78,330	15%	
	Feb '26	210	96		509	605	66,219	50	12,051	78,269	15%	
	Mar '26	211	68		509	577	66,196	80	11,920	78,115	15%	
	Apr '26	212	37		509	546	66,220	110	11,838	78,057	15%	
	May '26	213	14		509	523	66,233	140	11,700	77,932	15%	
	Jun '26	214	2		509	511	66,235	150	11,850	78,084	15%	



# RWC Management Plan for Brooks Street Basins

(120-month averaging period)

Calculation of Recycled Water Contribution (RWC) from Historical Diluent Water (DW) and Recycled Water (RW) Deliveries

Date	No. Mos. Since Initial RW Delivery	SW (AF)	MWD (AF)	Underflow (AF)	DW Total (AF)	DW 120-Month Total (AF)	RW (AF)	RW 120-Month Total (AF)	DW + RW 120-Month Total (AF)	RWC	Period
2026/27	Jul '26	215	3		509	512	66,238	150	12,000	78,237	15%
	Aug '26	216	4		509	513	66,242	150	12,150	78,391	15%
	Sep '26	217	8		509	517	66,219	140	12,145	78,363	15%
	Oct '26	218	10		509	519	66,042	140	12,266	78,307	16%
	Nov '26	219	26		509	535	66,029	120	12,270	78,298	16%
	Dec '26	220	77		509	586	65,910	70	12,327	78,236	16%
	Jan '27	221	92		509	601	65,748	60	12,387	78,134	16%
	Feb '27	222	96		509	605	65,702	50	12,437	78,138	16%
	Mar '27	223	68		509	577	65,769	80	12,501	78,269	16%
	Apr '27	224	37		509	546	65,790	110	12,603	78,392	16%
	May '27	225	14		509	523	65,803	140	12,705	78,507	16%
	Jun '27	226	2		509	511	65,803	150	12,825	78,627	16%
2027/28	Jul '27	227	3		509	512	65,712	150	12,747	78,459	16%
	Aug '27	228	4		509	513	65,620	150	12,842	78,462	16%
	Sep '27	229	8		509	517	65,624	140	12,813	78,437	16%
	Oct '27	230	10		509	519	65,633	140	12,853	78,486	16%
	Nov '27	231	26		509	535	65,656	120	12,822	78,478	16%
	Dec '27	232	77		509	586	65,732	70	12,770	78,502	16%
	Jan '28	233	92		509	601	65,792	60	12,735	78,527	16%
	Feb '28	234	96		509	605	65,878	50	12,680	78,558	16%
	Mar '28	235	68		509	577	65,903	80	12,747	78,650	16%
	Apr '28	236	37		509	546	65,938	110	12,821	78,759	16%
	May '28	237	14		509	523	65,949	140	12,876	78,824	16%
	Jun '28	238	2		509	511	65,949	150	12,917	78,866	16%
2028/29	Jul '28	239	3		509	512	65,952	150	13,022	78,974	16%
	Aug '28	240	4		509	513	65,956	150	13,154	79,110	17%
	Sep '28	241	8		509	517	65,964	140	13,294	79,258	17%
	Oct '28	242	10		509	519	65,971	140	13,434	79,404	17%
	Nov '28	243	26		509	535	65,975	120	13,370	79,345	17%
	Dec '28	244	77		509	586	66,009	70	13,183	79,193	17%
	Jan '29	245	92		509	601	65,842	60	13,177	79,019	17%
	Feb '29	246	96		509	605	65,655	50	13,227	78,882	17%
	Mar '29	247	68		509	577	65,574	80	13,231	78,804	17%
	Apr '29	248	37		509	546	65,608	110	13,086	78,694	17%
	May '29	249	14		509	523	65,560	140	13,037	78,597	17%
	Jun '29	250	2		509	511	65,562	150	12,897	78,459	16%
2029/30	Jul '29	251	3		509	512	65,454	150	12,870	78,324	16%
	Aug '29	252	4		509	513	65,419	150	12,964	78,382	17%
	Sep '29	253	8		509	517	65,426	140	13,067	78,494	17%
	Oct '29	254	10		509	519	65,436	140	13,031	78,468	17%
	Nov '29	255	26		509	535	65,392	120	13,087	78,479	17%
	Dec '29	256	77		509	586	65,309	70	13,126	78,435	17%
	Jan '30	257	92		509	601	65,398	60	13,181	78,579	17%
	Feb '30	258	96		509	605	65,494	50	13,178	78,671	17%
	Mar '30	259	68		509	577	65,403	80	13,190	78,592	17%
	Apr '30	260	37		509	546	65,273	110	13,285	78,557	17%
	May '30	261	14		509	523	65,279	140	13,311	78,589	17%
	Jun '30	262	2		509	511	65,281	150	13,358	78,639	17%

## Notes:

DW = Diluent Water; Total DW is the sum of Stormwater & Local Runoff (SW), Imported Water from the State Water Project (MWD), and groundwater underflow.

RW = Recycled Water

RWC = 120-month running total of recycled water / 120-month running total of all diluent and recycled water.

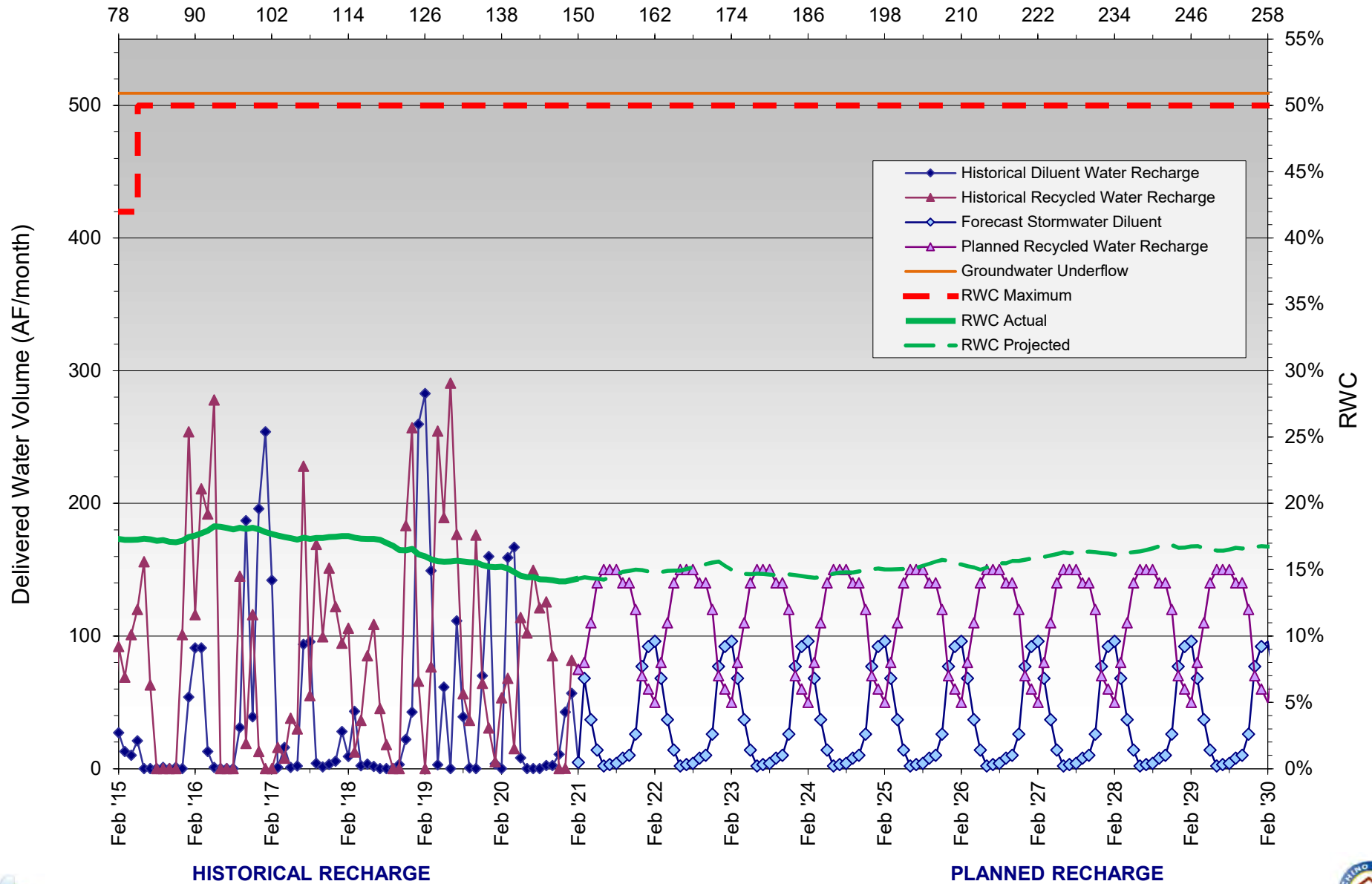
While an RWC calculation is provided starting on the first month of RW recharge, 120 months of data may not be available until 10 years of recharge operations.

RWC maximum = 0.5 mg/L / the Running Average of Total Organic Carbon (TOC) determined from a recharge site's start-up period



# RWC Management Plan - Brooks Street Basin

Months Since Initial Recycled Water Delivery



# RWC Management Plan for Declez Basin

(120-month averaging period)

Calculation of Recycled Water Contribution (RWC) from Historical Diluent Water (DW) and Recycled Water (RW) Deliveries

Date	No. Mos. Since Initial RW Delivery	SW (AF)	MWD (AF)	Underflow (AF)	DW (AF)	DW 120-Month Total (AF)	RW (AF)	RW 120-Month Total (AF)	DW + RW 120-Month Total (AF)	RWC	Period
2014/15	Jul '14	-17	2	0	0	2	6,383	0	65	6,448	1%
	Aug '14	-16	72	0	0	72	6,455	0	65	6,520	1%
	Sep '14	-15	30	0	0	30	6,485	0	65	6,550	1%
	Oct '14	-14	3	0	0	3	6,488	0	65	6,553	1%
	Nov '14	-13	100	0	0	100	6,588	0	65	6,653	1%
	Dec '14	-12	315	0	0	315	6,903	0	65	6,968	1%
	Jan '15	-11	47	0	0	47	6,950	0	65	7,015	1%
	Feb '15	-10	106	0	0	106	7,056	0	65	7,121	1%
	Mar '15	-9	15	0	0	15	7,071	0	65	7,136	1%
	Apr '15	-8	41	0	0	41	7,112	0	65	7,177	1%
2015/16	May '15	-7	99	0	0	99	7,211	0	65	7,276	1%
	Jun '15	-6	3	0	0	3	7,214	0	65	7,279	1%
	Jul '15	-5	49	0	0	49	7,252	0	65	7,317	1%
	Aug '15	-4	3	0	0	3	7,245	0	65	7,310	1%
	Sep '15	-3	147	0	0	147	7,362	0	65	7,427	1%
	Oct '15	-2	36	0	0	36	7,283	0	65	7,348	1%
	Nov '15	-1	4	0	0	4	7,257	0	65	7,322	1%
	Dec '15	0	49	0	904	953	8,180	50	115	8,295	1%
	Jan '16	1	158	0	904	1,062	9,207	78	193	9,400	2%
	Feb '16	2	34	0	904	938	10,035	153	346	10,381	3%
2016/17	Mar '16	3	92	0	904	996	10,840	126	472	11,312	4%
	Apr '16	4	20	0	904	924	11,662	133	605	12,267	5%
	May '16	5	12	0	904	916	12,520	228	833	13,353	6%
	Jun '16	6	3	0	904	907	13,411	201	1,034	14,445	7%
	Jul '16	7	0	0	904	904	14,300	201	1,235	15,535	8%
	Aug '16	8	0	0	904	904	15,184	261	1,496	16,680	9%
	Sep '16	9	1	0	904	905	16,071	52	1,548	17,619	9%
	Oct '16	10	47	0	904	951	16,988	0	1,548	18,536	8%
	Nov '16	11	55	0	904	959	17,915	0	1,548	19,463	8%
	Dec '16	12	217	0	904	1,121	18,946	0	1,548	20,494	8%
2017/18	Jan '17	13	167	0	904	1,071	19,934	0	1,548	21,482	7%
	Feb '17	14	70	0	904	974	20,761	0	1,548	22,309	7%
	Mar '17	15	20	0	904	924	21,663	0	1,548	23,211	7%
	Apr '17	16	3	0	904	907	22,482	0	1,548	24,030	6%
	May '17	17	24	0	904	928	23,392	0	1,548	24,940	6%
	Jun '17	18	3	99	904	1,006	24,398	0	1,548	25,946	6%
	Jul '17	19	7	45	904	956	25,353	0	1,548	26,901	6%
	Aug '17	20	70	0	904	974	26,321	0	1,548	27,869	6%
	Sep '17	21	6	20	904	930	27,218	0	1,548	28,766	5%
	Oct '17	22	6	66	904	976	28,180	0	1,548	29,728	5%
2018/19	Nov '17	23	6	0	904	910	28,982	0	1,548	30,530	5%
	Dec '17	24	6	0	904	910	29,815	0	1,548	31,363	5%
	Jan '18	25	136	0	904	1,040	30,599	0	1,548	32,147	5%
	Feb '18	26	49	0	904	952	31,405	0	1,548	32,953	5%
	Mar '18	27	223	0	904	1,127	32,505	0	1,548	34,053	5%
	Apr '18	28	18	0	904	922	33,414	56	1,604	35,018	5%
	May '18	29	30	0	904	933	34,311	294	1,898	36,209	5%
	Jun '18	30	17	0	904	921	35,218	238	2,136	37,354	6%
	Jul '18	31	11	0	904	915	36,114	266	2,402	38,516	6%
	Aug '18	32	9	0	904	913	37,023	275	2,677	39,700	7%
2019/20	Sep '18	33	11	0	904	915	37,931	258	2,935	40,866	7%
	Oct '18	34	61	0	904	964	38,881	167	3,102	41,983	7%
	Nov '18	35	170	0	904	1,074	39,882	57	3,160	43,042	7%
	Dec '18	36	61	0	904	965	40,640	104	3,263	43,903	7%
	Jan '19	37	113	0	904	1,016	41,630	46	3,309	44,939	7%
	Feb '19	38	131	0	904	1,035	42,441	0	3,309	45,750	7%
	Mar '19	39	75	0	904	978	43,368	74	3,383	46,751	7%
	Apr '19	40	22	0	904	925	44,288	101	3,484	47,773	7%
	May '19	41	63	0	904	967	45,249	97	3,581	48,831	7%
	Jun '19	42	18	0	904	922	46,151	174	3,755	49,906	8%
2019/20	Jul '19	43	16	0	904	920	47,050	97	3,852	50,901	8%
	Aug '19	44	11	0	904	915	47,947	28	3,880	51,827	7%
	Sep '19	45	12	0	904	916	48,857	25	3,905	52,762	7%
	Oct '19	46	9	0	904	913	49,755	157	4,062	53,817	8%
	Nov '19	47	136	0	904	1,040	50,757	86	4,147	54,904	8%
	Dec '19	48	151	0	904	1,055	51,638	0	4,147	55,786	7%
	Jan '20	49	9	0	904	913	52,478	71	4,218	56,696	7%
	Feb '20	50	19	0	904	922	53,159	48	4,266	57,426	7%
	Mar '20	51	163	0	904	1,067	54,172	26	4,293	58,464	7%
	Apr '20	52	95	0	904	999	55,048	37	4,330	59,378	7%
2019/20	May '20	53	12	0	904	915	55,958	76	4,405	60,363	7%
	Jun '20	54	11	0	904	915	56,866	115	4,520	61,387	7%

S T A R T - U P  
H I S T O R I C A L





# RWC Management Plan for Declez Basin

(120-month averaging period)

Calculation of Recycled Water Contribution (RWC) from Historical Diluent Water (DW) and Recycled Water (RW) Deliveries

Date		No. Mos. Since Initial RW Delivery	SW (AF)	MWD (AF)	Underflow (AF)	DW (AF)	DW 120- Month Total (AF)	RW (AF)	RW 120- Month Total (AF)	DW + RW 120-Month Total (AF)	RWC	Period
2020/21	Jul '20	55	4	0	904	908	57,771	116	4,636	62,407	7%	A C T U A L
	Aug '20	56	4	0	904	908	58,671	85	4,721	63,392	7%	
	Sep '20	57	3	0	904	907	59,575	114	4,835	64,411	8%	
	Oct '20	58	3	0	904	907	60,437	143	4,979	65,416	8%	
	Nov '20	59	47	0	904	951	61,293	100	5,079	66,372	8%	
	Dec '20	60	155	0	904	1,059	62,039	38	5,117	67,156	8%	
	Jan '21	61	152	0	904	1,056	63,043	1	5,118	68,161	8%	
	Feb '21	62	3	0	904	907	63,753	16	5,134	68,888	7%	
	Mar '21	63	81		904	985	64,600	100	5,234	69,834	7%	
	Apr '21	64	58		904	962	65,560	140	5,374	70,934	8%	
	May '21	65	24		904	928	66,473	160	5,534	72,008	8%	
	Jun '21	66	7		904	911	67,375	180	5,714	73,089	8%	
2021/22	Jul '21	67	17		904	921	68,215	170	5,884	74,099	8%	
	Aug '21	68	13		904	917	69,129	170	6,054	75,183	8%	
	Sep '21	69	25		904	929	70,052	170	6,224	76,276	8%	
	Oct '21	70	46		904	949	70,927	150	6,374	77,301	8%	
	Nov '21	71	61		904	964	71,771	130	6,504	78,276	8%	
	Dec '21	72	147		904	1,050	72,766	60	6,564	79,330	8%	
	Jan '22	73	86		904	990	73,669	100	6,599	80,268	8%	
	Feb '22	74	117		904	1,021	74,644	80	6,679	81,323	8%	
	Mar '22	75	81		904	985	75,444	100	6,779	82,223	8%	
	Apr '22	76	58		904	962	76,273	140	6,919	83,192	8%	
	May '22	77	24		904	928	77,194	160	7,079	84,273	8%	
	Jun '22	78	7		904	911	78,103	180	7,259	85,363	9%	
2022/23	Jul '22	79	17		904	921	79,023	170	7,429	86,453	9%	P L A N N E D
	Aug '22	80	13		904	917	79,930	170	7,599	87,529	9%	
	Sep '22	81	25		904	929	80,844	170	7,769	88,613	9%	
	Oct '22	82	46		904	949	81,659	150	7,919	89,578	9%	
	Nov '22	83	61		904	964	82,603	130	8,049	90,652	9%	
	Dec '22	84	147		904	1,050	83,485	60	8,109	91,594	9%	
	Jan '23	85	86		904	990	84,427	100	8,209	92,636	9%	
	Feb '23	86	117		904	1,021	85,390	80	8,289	93,679	9%	
	Mar '23	87	81		904	985	86,313	100	8,389	94,703	9%	
	Apr '23	88	58		904	962	87,271	140	8,529	95,800	9%	
	May '23	89	24		904	928	88,193	160	8,689	96,882	9%	
	Jun '23	90	7		904	911	89,100	180	8,869	97,969	9%	
2023/24	Jul '23	91	17		904	921	90,015	170	9,039	99,054	9%	
	Aug '23	92	13		904	917	90,928	170	9,209	100,138	9%	
	Sep '23	93	25		904	929	91,855	170	9,379	101,234	9%	
	Oct '23	94	46		904	949	92,786	150	9,529	102,316	9%	
	Nov '23	95	61		904	964	93,699	130	9,659	103,358	9%	
	Dec '23	96	147		904	1,050	94,683	60	9,719	104,402	9%	
	Jan '24	97	86		904	990	95,572	100	9,819	105,391	9%	
	Feb '24	98	117		904	1,021	96,416	80	9,899	106,315	9%	
	Mar '24	99	81		904	985	97,228	100	9,999	107,228	9%	
	Apr '24	100	58		904	962	98,075	140	10,139	108,214	9%	
	May '24	101	24		904	928	99,002	160	10,299	109,301	9%	
	Jun '24	102	7		904	911	99,910	180	10,479	110,390	9%	
2024/25	Jul '24	103	17		904	921	100,829	170	10,649	111,479	10%	
	Aug '24	104	13		904	917	101,674	170	10,819	112,493	10%	
	Sep '24	105	25		904	929	102,573	170	10,989	113,562	10%	
	Oct '24	106	46		904	949	103,519	150	11,139	114,658	10%	
	Nov '24	107	61		904	964	104,384	130	11,269	115,653	10%	
	Dec '24	108	147		904	1,050	105,119	60	11,329	116,448	10%	
	Jan '25	109	86		904	990	106,062	100	11,429	117,491	10%	
	Feb '25	110	117		904	1,021	106,977	80	11,509	118,486	10%	
	Mar '25	111	81		904	985	107,946	100	11,609	119,556	10%	
	Apr '25	112	58		904	962	108,867	140	11,749	120,616	10%	
	May '25	113	24		904	928	109,696	160	11,909	121,605	10%	
	Jun '25	114	7		904	911	110,604	180	12,089	122,693	10%	
2025/26	Jul '25	115	17		904	921	111,476	170	12,259	123,735	10%	
	Aug '25	116	13		904	917	112,389	170	12,429	124,819	10%	
	Sep '25	117	25		904	929	113,171	170	12,599	125,770	10%	
	Oct '25	118	46		904	949	114,084	150	12,749	126,834	10%	
	Nov '25	119	61		904	964	115,045	130	12,879	127,924	10%	
	Dec '25	120	147		904	1,050	115,142	60	12,889	128,032	10%	
	Jan '26	121	86		904	990	115,071	100	12,911	127,982	10%	
	Feb '26	122	117		904	1,021	115,154	80	12,838	127,992	10%	
	Mar '26	123	81		904	985	115,143	100	12,812	127,955	10%	
	Apr '26	124	58		904	962	115,180	140	12,819	128,000	10%	
	May '26	125	24		904	928	115,192	160	12,751	127,944	10%	
	Jun '26	126	7		904	911	115,196	180	12,730	127,927	10%	



## RWC Management Plan for Declez Basin

(120-month averaging period)

Calculation of Recycled Water Contribution (RWC) from Historical Diluent Water (DW) and Recycled Water (RW) Deliveries

Date	No. Mos. Since Initial RW Delivery	SW (AF)	MWD (AF)	Underflow (AF)	DW (AF)	DW 120-Month Total (AF)	RW (AF)	RW 120-Month Total (AF)	DW + RW 120-Month Total (AF)	RWC	Period
2026/27	Jul '26	127	17		904	921	115,214	170	12,699	127,913	10%
	Aug '26	128	13		904	917	115,227	170	12,608	127,835	10%
	Sep '26	129	25		904	929	115,250	170	12,726	127,977	10%
	Oct '26	130	46		904	949	115,249	150	12,876	128,125	10%
	Nov '26	131	61		904	964	115,255	130	13,006	128,261	10%
	Dec '26	132	147		904	1,050	115,185	60	13,066	128,251	10%
	Jan '27	133	86		904	990	115,104	100	13,166	128,270	10%
	Feb '27	134	117		904	1,021	115,151	80	13,246	128,397	10%
	Mar '27	135	81		904	985	115,212	100	13,346	128,558	10%
	Apr '27	136	58		904	962	115,267	140	13,486	128,753	10%
	May '27	137	24		904	928	115,266	160	13,646	128,913	11%
	Jun '27	138	7		904	911	115,172	180	13,826	128,998	11%
2027/28	Jul '27	139	17		904	921	115,137	170	13,996	129,133	11%
	Aug '27	140	13		904	917	115,080	170	14,166	129,246	11%
	Sep '27	141	25		904	929	115,079	170	14,336	129,415	11%
	Oct '27	142	46		904	949	115,052	150	14,486	129,538	11%
	Nov '27	143	61		904	964	115,106	130	14,616	129,723	11%
	Dec '27	144	147		904	1,050	115,247	60	14,676	129,923	11%
	Jan '28	145	86		904	990	115,197	100	14,776	129,973	11%
	Feb '28	146	117		904	1,021	115,265	80	14,856	130,121	11%
	Mar '28	147	81		904	985	115,123	100	14,956	130,079	11%
	Apr '28	148	58		904	962	115,163	140	15,041	130,204	12%
	May '28	149	24		904	928	115,157	160	14,906	130,064	11%
	Jun '28	150	7		904	911	115,147	180	14,848	129,995	11%
2028/29	Jul '28	151	17		904	921	115,154	170	14,752	129,906	11%
	Aug '28	152	13		904	917	115,157	170	14,647	129,804	11%
	Sep '28	153	25		904	929	115,171	170	14,559	129,730	11%
	Oct '28	154	46		904	949	115,156	150	14,542	129,698	11%
	Nov '28	155	61		904	964	115,047	130	14,615	129,661	11%
	Dec '28	156	147		904	1,050	115,132	60	14,571	129,703	11%
	Jan '29	157	86		904	990	115,106	100	14,625	129,731	11%
	Feb '29	158	117		904	1,021	115,092	80	14,705	129,797	11%
	Mar '29	159	81		904	985	115,098	100	14,731	129,829	11%
	Apr '29	160	58		904	962	115,135	140	14,770	129,905	11%
	May '29	161	24		904	928	115,095	160	14,833	129,928	11%
	Jun '29	162	7		904	911	115,085	180	14,839	129,924	11%
2029/30	Jul '29	163	17		904	921	115,086	170	14,913	129,998	11%
	Aug '29	164	13		904	917	115,088	170	15,055	130,143	12%
	Sep '29	165	25		904	929	115,101	170	15,200	130,300	12%
	Oct '29	166	46		904	949	115,137	150	15,193	130,330	12%
	Nov '29	167	61		904	964	115,061	130	15,237	130,298	12%
	Dec '29	168	147		904	1,050	115,057	60	15,297	130,354	12%
	Jan '30	169	86		904	990	115,134	100	15,327	130,461	12%
	Feb '30	170	117		904	1,021	115,233	80	15,358	130,591	12%
	Mar '30	171	81		904	985	115,150	100	15,432	130,582	12%
	Apr '30	172	58		904	962	115,113	140	15,535	130,648	12%
	May '30	173	24		904	928	115,125	160	15,619	130,744	12%
	Jun '30	174	7		904	911	115,122	180	15,684	130,805	12%

**Notes:**

DW = Diluent Water; Total DW is the sum of Stormwater & Local Runoff (SW), Imported Water from the State Water Project (MWD), and groundwater underflow.

RW = Recycled Water

RWC = 120-month running total of recycled water / 120-month running total of all diluent and recycled water.

While an RWC calculation is provided starting on the first month of RW recharge, 120 months of data may not be available until 10 years of recharge operations.

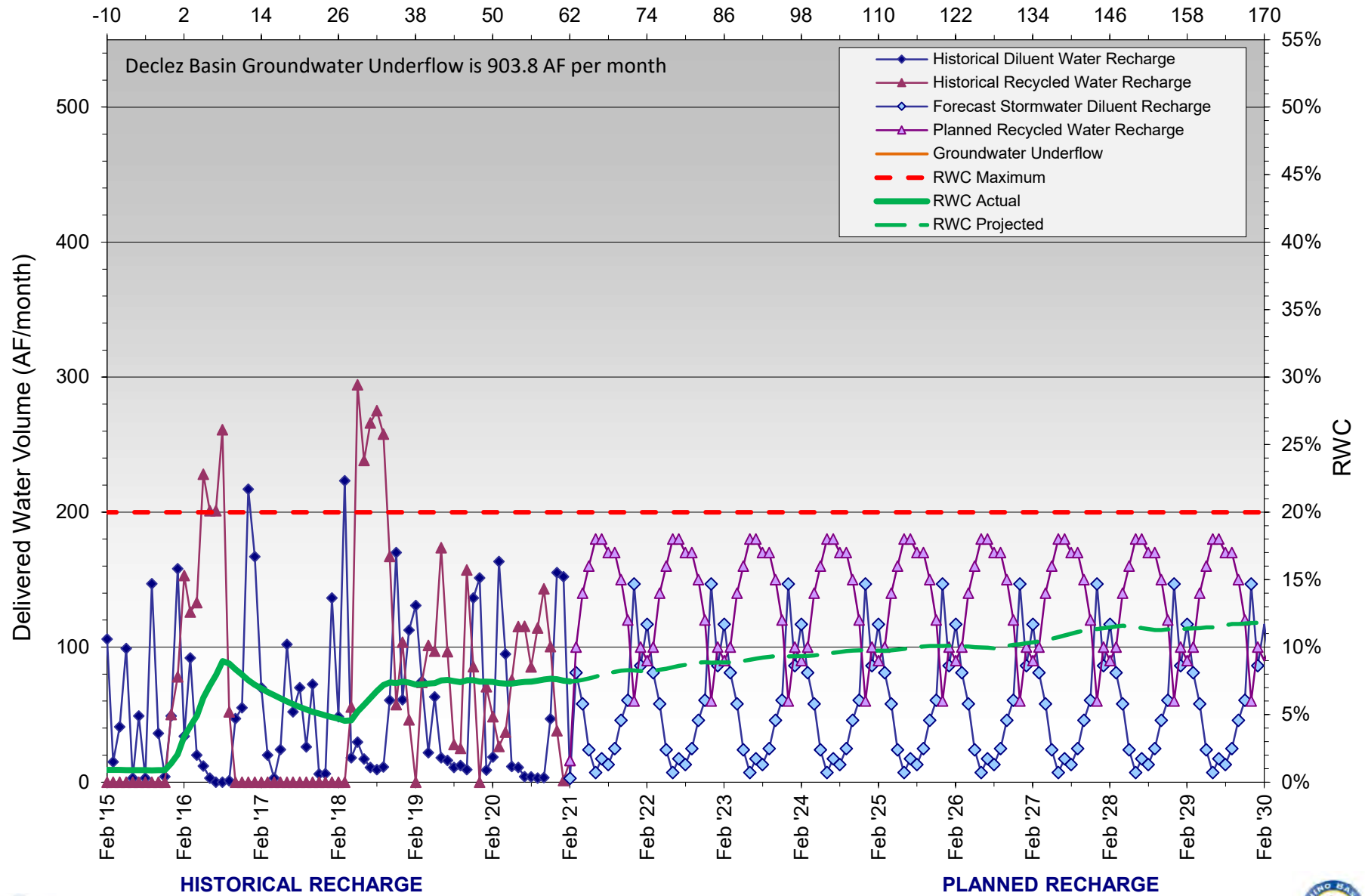
RWC maximum = 0.5 mg/L / the Running Average of Total Organic Carbon (TOC) determined from a recharge site's start-up period

P L A N N E D



# RWC Management Plan - Declez Basin

Months Since Initial Recycled Water Delivery



# RWC Management Plan for Ely Basin

(120-month averaging period)

Calculation of Recycled Water Contribution (RWC) from Historical Diluent Water (DW) and Recycled Water (RW) Deliveries

Date	No. Mos. Since Initial RW Delivery	SW (AF)	MWD (AF)	Underflow (AF)	DW Total (AF)	DW 120-Month Total (AF)	RW (AF)	RW 120-Month Total (AF)	DW + RW 120-Month Total (AF)	RWC	Period
2014/15	Jul '14	178	16	0	286	302	30,761	101	7,865	38,627	20%
	Aug '14	179	16	0	286	302	30,969	8	7,825	38,795	20%
	Sep '14	180	15	0	286	301	31,092	121	7,905	38,997	20%
	Oct '14	181	16	0	286	302	31,064	286	8,168	39,232	21%
	Nov '14	182	170	0	286	456	31,190	70	8,238	39,429	21%
	Dec '14	183	392	0	286	678	31,539	5	8,243	39,782	21%
	Jan '15	184	44	0	286	330	31,539	183	8,426	39,965	21%
	Feb '15	185	72	0	286	358	31,567	222	8,648	40,215	22%
	Mar '15	186	15	0	286	301	31,630	157	8,805	40,435	22%
	Apr '15	187	100	0	286	386	31,841	165	8,970	40,811	22%
	May '15	188	231	0	286	517	32,218	160	9,130	41,349	22%
	Jun '15	189	0	0	286	286	32,502	273	9,403	41,905	22%
2015/16	Jul '15	190	285	0	286	571	33,073	102	9,505	42,578	22%
	Aug '15	191	3	0	286	289	33,362	1	9,506	42,868	22%
	Sep '15	192	215	0	286	501	33,863	31	9,537	43,401	22%
	Oct '15	193	75	0	286	361	34,026	76	9,581	43,607	22%
	Nov '15	194	41	0	286	327	34,338	21	9,602	43,941	22%
	Dec '15	195	92	0	286	378	34,609	128	9,695	44,304	22%
	Jan '16	196	337	0	286	623	35,042	61	9,736	44,778	22%
	Feb '16	197	59	0	286	345	35,120	89	9,750	44,870	22%
	Mar '16	198	177	0	286	463	35,245	47	9,797	45,042	22%
	Apr '16	199	24	0	286	310	35,193	127	9,924	45,117	22%
	May '16	200	197	0	286	483	35,641	119	10,043	45,684	22%
	Jun '16	201	1	0	286	287	35,902	210	10,227	46,129	22%
2016/17	Jul '16	202	2	0	286	288	36,157	113	10,299	46,456	22%
	Aug '16	203	0	0	286	286	36,433	89	10,382	46,815	22%
	Sep '16	204	3	0	286	289	36,682	232	10,531	47,213	22%
	Oct '16	205	47	0	286	333	36,961	233	10,733	47,694	23%
	Nov '16	206	86	0	286	372	37,270	112	10,795	48,065	22%
	Dec '16	207	523	0	286	809	37,994	0	10,753	48,747	22%
	Jan '17	208	317	0	286	603	38,502	0	10,696	49,197	22%
	Feb '17	209	338	0	286	624	38,976	0	10,673	49,649	21%
	Mar '17	210	16	0	286	302	39,261	123	10,751	50,012	21%
	Apr '17	211	9	0	286	295	39,498	190	10,900	50,398	22%
	May '17	212	37	0	286	323	39,807	250	11,110	50,917	22%
	Jun '17	213	0	0	286	286	40,075	149	11,252	51,327	22%
2017/18	Jul '17	214	37	0	286	323	40,372	34	11,286	51,658	22%
	Aug '17	215	126	0	286	412	40,755	27	11,313	52,068	22%
	Sep '17	216	0	0	286	286	41,007	216	11,529	52,536	22%
	Oct '17	217	48	9	286	343	41,316	87	11,616	52,932	22%
	Nov '17	218	0	0	286	286	41,436	36	11,566	53,002	22%
	Dec '17	219	0	0	286	286	41,465	218	11,731	53,197	22%
	Jan '18	220	255	0	286	541	41,214	30	11,762	52,975	22%
	Feb '18	221	91	0	286	377	41,357	181	11,943	53,300	22%
	Mar '18	222	266	0	286	552	41,889	0	11,827	53,716	22%
	Apr '18	223	19	0	286	305	42,164	154	11,865	54,029	22%
	May '18	224	0	0	286	286	42,420	300	12,078	54,498	22%
	Jun '18	225	0	0	286	286	42,688	226	12,201	54,889	22%
2018/19	Jul '18	226	0	0	286	286	42,958	209	12,343	55,301	22%
	Aug '18	227	0	0	286	286	43,236	253	12,596	55,832	23%
	Sep '18	228	0	0	286	286	43,517	336	12,932	56,449	23%
	Oct '18	229	35	0	286	322	43,821	156	12,952	56,774	23%
	Nov '18	230	202	0	286	488	44,196	256	13,121	57,316	23%
	Dec '18	231	222	0	286	508	44,417	26	13,146	57,563	23%
	Jan '19	232	295	0	286	582	44,961	109	13,216	58,177	23%
	Feb '19	233	288	0	286	574	45,125	0	13,207	58,332	23%
	Mar '19	234	68	0	286	354	45,432	0	13,207	58,639	23%
	Apr '19	235	74	0	286	360	45,657	0	13,192	58,849	22%
	May '19	236	70	0	286	356	45,945	44	13,225	59,170	22%
	Jun '19	237	1	0	286	287	46,208	0	13,225	59,433	22%
2019/20	Jul '19	238	0	0	286	286	46,494	0	13,225	59,719	22%
	Aug '19	239	22	0	286	308	46,781	0	13,225	60,006	22%
	Sep '19	240	0	88	286	375	46,954	127	13,328	60,282	22%
	Oct '19	241	3	11	286	300	46,781	242	13,468	60,249	22%
	Nov '19	242	268	0	286	554	46,766	183	13,532	60,298	22%
	Dec '19	243	443	0	286	729	46,967	0	13,532	60,499	22%
	Jan '20	244	5	0	286	291	46,654	113	13,644	60,298	23%
	Feb '20	245	3	0	286	289	46,436	272	13,917	60,352	23%
	Mar '20	246	582	0	286	868	46,914	106	14,022	60,936	23%
	Apr '20	247	395	0	286	681	46,914	135	14,157	61,071	23%
	May '20	248	38	0	286	324	46,854	469	14,626	61,480	24%
	Jun '20	249	0	0	286	286	46,854	415	15,041	61,895	24%

HISTORICAL



# RWC Management Plan for Ely Basin

(120-month averaging period)

Calculation of Recycled Water Contribution (RWC) from Historical Diluent Water (DW) and Recycled Water (RW) Deliveries

Date		No. Mos. Since Initial RW Delivery	SW (AF)	MWD (AF)	Underflow (AF)	DW Total (AF)	DW 120- Month Total (AF)	RW (AF)	RW 120- Month Total (AF)	DW + RW 120-Month Total (AF)	RWC	Period
2020/21	Jul '20	250	0	0	286	286	46,854	227	15,268	62,122	25%	A C T U A L
	Aug '20	251	65	0	286	351	46,919	23	15,290	62,209	25%	
	Sep '20	252	3	0	286	289	46,922	1	15,291	62,213	25%	
	Oct '20	253	59	0	286	345	46,952	154	15,331	62,283	25%	
	Nov '20	254	87	0	286	373	46,912	58	15,269	62,180	25%	
	Dec '20	255	69	0	286	355	46,408	159	15,416	61,824	25%	
	Jan '21	256	301	0	286	587	46,605	44	15,459	62,065	25%	
	Feb '21	257	38	0	286	324	46,320	0	15,416	61,737	25%	
	Mar '21	258	180		286	466	46,264	40	15,456	61,721	25%	P L A N N E D
	Apr '21	259	161		286	447	46,422	60	15,409	61,832	25%	
	May '21	260	91		286	377	46,500	130	15,384	61,885	25%	
	Jun '21	261	26		286	312	46,435	190	15,368	61,804	25%	
2021/22	Jul '21	262	39		286	325	46,171	180	15,372	61,544	25%	
	Aug '21	263	33		286	319	45,913	190	15,421	61,335	25%	
	Sep '21	264	50		286	336	45,619	170	15,585	61,205	25%	
	Oct '21	265	83		286	369	45,487	140	15,725	61,213	26%	
	Nov '21	266	144		286	430	45,420	70	15,795	61,216	26%	
	Dec '21	267	219		286	505	45,603	0	15,795	61,399	26%	
	Jan '22	268	207		286	493	45,721	10	15,741	61,463	26%	
	Feb '22	269	214		286	500	45,840	0	15,735	61,576	26%	
	Mar '22	270	180		286	466	45,773	40	15,775	61,549	26%	
	Apr '22	271	161		286	447	45,799	60	15,835	61,635	26%	
	May '22	272	91		286	377	45,887	130	15,965	61,853	26%	
	Jun '22	273	26		286	312	45,901	190	16,155	62,057	26%	
2022/23	Jul '22	274	39		286	325	45,933	180	16,335	62,269	26%	
	Aug '22	275	33		286	319	45,959	190	16,525	62,485	26%	
	Sep '22	276	50		286	336	46,004	170	16,695	62,700	27%	
	Oct '22	277	83		286	369	46,082	140	16,835	62,918	27%	
	Nov '22	278	144		286	430	46,217	70	16,825	63,043	27%	
	Dec '22	279	219		286	505	46,101	0	16,758	62,860	27%	
	Jan '23	280	207		286	493	46,236	10	16,623	62,860	26%	
	Feb '23	281	214		286	500	46,413	0	16,398	62,812	26%	
	Mar '23	282	180		286	466	46,530	40	16,124	62,655	26%	
	Apr '23	283	161		286	447	46,690	60	16,105	62,796	26%	
	May '23	284	91		286	377	46,758	130	15,976	62,735	25%	
	Jun '23	285	26		286	312	46,780	190	15,957	62,738	25%	
2023/24	Jul '23	286	39		286	325	46,813	180	15,980	62,794	25%	
	Aug '23	287	33		286	319	46,842	190	15,836	62,679	25%	
	Sep '23	288	50		286	336	46,886	170	15,549	62,436	25%	
	Oct '23	289	83		286	369	46,969	140	15,331	62,301	25%	
	Nov '23	290	144		286	430	47,092	70	14,980	62,073	24%	
	Dec '23	291	219		286	505	47,287	0	14,567	61,855	24%	
	Jan '24	292	207		286	493	47,486	10	14,366	61,853	23%	
	Feb '24	293	214		286	500	47,406	0	14,172	61,579	23%	
	Mar '24	294	180		286	466	47,523	40	14,104	61,628	23%	
	Apr '24	295	161		286	447	47,601	60	13,946	61,548	23%	
	May '24	296	91		286	377	47,683	130	13,835	61,519	22%	
	Jun '24	297	26		286	312	47,694	190	13,839	61,534	22%	
2024/25	Jul '24	298	39		286	325	47,717	180	13,918	61,636	23%	
	Aug '24	299	33		286	319	47,734	190	14,100	61,835	23%	
	Sep '24	300	50		286	336	47,769	170	14,149	61,919	23%	
	Oct '24	301	83		286	369	47,836	140	14,003	61,840	23%	
	Nov '24	302	144		286	430	47,810	70	14,003	61,814	23%	
	Dec '24	303	219		286	505	47,637	0	13,998	61,636	23%	
	Jan '25	304	207		286	493	47,800	10	13,825	61,626	22%	
	Feb '25	305	214		286	500	47,942	0	13,603	61,546	22%	
	Mar '25	306	180		286	466	48,107	40	13,486	61,594	22%	
	Apr '25	307	161		286	447	48,168	60	13,381	61,550	22%	
	May '25	308	91		286	377	48,028	130	13,351	61,380	22%	
	Jun '25	309	26		286	312	48,054	190	13,268	61,323	22%	
2025/26	Jul '25	310	39		286	325	47,808	180	13,346	61,155	22%	
	Aug '25	311	33		286	319	47,838	190	13,535	61,374	22%	
	Sep '25	312	50		286	336	47,673	170	13,674	61,348	22%	
	Oct '25	313	83		286	369	47,681	140	13,738	61,420	22%	
	Nov '25	314	144		286	430	47,784	70	13,787	61,572	22%	
	Dec '25	315	219		286	505	47,911	0	13,659	61,571	22%	
	Jan '26	316	207		286	493	47,781	10	13,608	61,390	22%	
	Feb '26	317	214		286	500	47,936	0	13,519	61,456	22%	
	Mar '26	318	180		286	466	47,939	40	13,512	61,452	22%	
	Apr '26	319	161		286	447	48,076	60	13,445	61,522	22%	
	May '26	320	91		286	377	47,970	130	13,456	61,427	22%	
	Jun '26	321	26		286	312	47,995	190	13,436	61,432	22%	



# RWC Management Plan for Ely Basin

(120-month averaging period)

Calculation of Recycled Water Contribution (RWC) from Historical Diluent Water (DW) and Recycled Water (RW) Deliveries

Date	No. Mos. Since Initial RW Delivery	SW (AF)	MWD (AF)	Underflow (AF)	DW Total (AF)	DW 120-Month Total (AF)	RW (AF)	RW 120-Month Total (AF)	DW + RW 120-Month Total (AF)	RWC	Period
2026/27	Jul '26	322	39		286	325	48,032	180	13,503	61,536	22%
	Aug '26	323	33		286	319	48,065	190	13,604	61,670	22%
	Sep '26	324	50		286	336	48,112	170	13,542	61,655	22%
	Oct '26	325	83		286	369	48,148	140	13,449	61,598	22%
	Nov '26	326	144		286	430	48,206	70	13,407	61,614	22%
	Dec '26	327	219		286	505	47,902	0	13,407	61,310	22%
	Jan '27	328	207		286	493	47,792	10	13,417	61,210	22%
	Feb '27	329	214		286	500	47,668	0	13,417	61,086	22%
	Mar '27	330	180		286	466	47,832	40	13,334	61,167	22%
	Apr '27	331	161		286	447	47,984	60	13,204	61,189	22%
	May '27	332	91		286	377	48,038	130	13,084	61,123	21%
	Jun '27	333	26		286	312	48,064	190	13,125	61,190	21%
2027/28	Jul '27	334	39		286	325	47,939	180	13,512	61,452	22%
	Aug '27	335	33		286	319	48,076	190	13,445	61,522	22%
	Sep '27	336	50		286	336	47,970	170	13,456	61,427	22%
	Oct '27	337	83		286	369	47,995	140	13,436	61,432	22%
	Nov '27	338	144		286	430	48,032	70	13,503	61,536	22%
	Dec '27	339	219		286	505	48,065	0	13,604	61,670	22%
	Jan '28	340	207		286	493	48,112	10	13,542	61,655	22%
	Feb '28	341	214		286	500	48,148	0	13,449	61,598	22%
	Mar '28	342	180		286	466	48,206	40	13,407	61,614	22%
	Apr '28	343	161		286	447	47,902	60	13,407	61,310	22%
	May '28	344	91		286	377	47,792	130	13,417	61,210	22%
	Jun '28	345	26		286	312	47,668	190	13,417	61,086	22%
2028/29	Jul '28	346	39		286	325	47,832	180	13,334	61,167	22%
	Aug '28	347	33		286	319	47,984	190	13,204	61,189	22%
	Sep '28	348	50		286	336	48,038	170	13,084	61,123	21%
	Oct '28	349	83		286	369	48,064	140	13,125	61,190	21%
	Nov '28	350	144		286	430	48,066	70	13,271	61,452	22%
	Dec '28	351	219		286	505	47,973	0	13,434	61,522	22%
	Jan '29	352	207		286	493	48,023	10	13,388	61,427	22%
	Feb '29	353	214		286	500	48,050	0	13,441	61,432	22%
	Mar '29	354	180		286	466	48,194	40	13,475	61,536	22%
	Apr '29	355	161		286	447	48,413	60	13,256	61,670	21%
	May '29	356	91		286	377	48,365	130	13,236	61,655	21%
	Jun '29	357	26		286	312	48,488	190	13,055	61,598	21%
2029/30	Jul '29	358	39		286	325	48,403	180	13,095	61,614	21%
	Aug '29	359	33		286	319	48,545	190	13,000	61,310	21%
	Sep '29	360	50		286	336	48,636	170	12,830	61,210	21%
	Oct '29	361	83		286	369	48,662	140	12,794	61,086	21%
	Nov '29	362	144		286	430	48,701	70	12,765	61,167	21%
	Dec '29	363	219		286	505	48,734	0	12,702	61,189	21%
	Jan '30	364	207		286	493	48,784	10	12,537	61,123	21%
	Feb '30	365	214		286	500	48,832	0	12,521	61,190	20%
	Mar '30	366	180		286	466	48,774	40	12,335	61,338	20%
	Apr '30	367	161		286	447	48,770	60	12,309	61,408	20%
	May '30	368	91		286	377	48,682	130	12,210	61,412	20%
	Jun '30	369	26		286	312	48,608	190	12,210	61,491	20%

## Notes:

DW = Diluent Water; Total DW is the sum of Stormwater & Local Runoff (SW), Imported Water from the State Water Project (MWD), and groundwater underflow.

RW = Recycled Water

RWC = 120-month running total of recycled water / 120-month running total of all diluent and recycled water.

While an RWC calculation is provided starting on the first month of RW recharge, 120 months of data may not be available until 10 years of recharge operations.

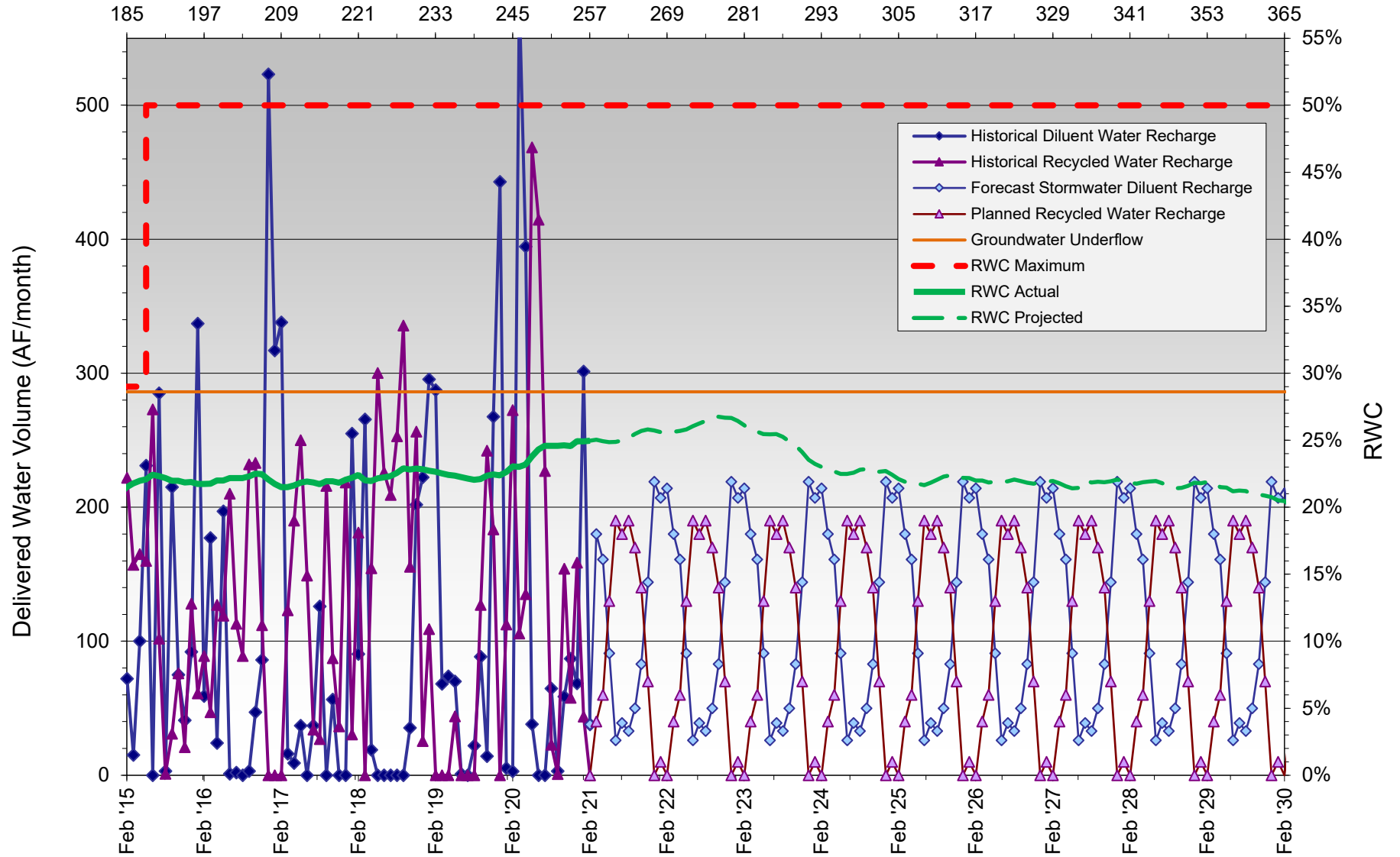
RWC maximum = 0.5 mg/L / the Running Average of Total Organic Carbon (TOC) determined from a recharge site's start-up period





# RWC Management Plan for Ely Basin

Months Since Initial Recycled Water Delivery



HISTORICAL RECHARGE

PLANNED RECHARGE



# RWC Management Plan for Hickory Basin

(120-month averaging period)

Calculation of Recycled Water Contribution (RWC) from Historical Diluent Water (DW) and Recycled Water (RW) Deliveries

Date	No. Mos. Since Initial RW Delivery	SW (AF)	MWD (AF)	Underflow (AF)	DW (AF)	DW 120-Month Total (AF)	RW (AF)	RW 120-Month Total (AF)	DW + RW 120-Month Total (AF)	RWC	Period
2014/15	Jul '14	106	0	0	267	267	21,483	118	7,104	28,587	25%
	Aug '14	107	0	0	267	267	21,749	82	7,186	28,935	25%
	Sep '14	108	0	0	267	267	22,016	236	7,422	29,438	25%
	Oct '14	109	0	0	267	267	22,165	226	7,648	29,813	26%
	Nov '14	110	0	0	267	267	22,429	272	7,920	30,350	26%
	Dec '14	111	185	0	267	452	22,842	46	7,966	30,808	26%
	Jan '15	112	8	0	267	275	22,967	194	8,160	31,127	26%
	Feb '15	113	47	0	267	314	23,153	180	8,340	31,493	26%
	Mar '15	114	0	0	267	267	23,392	115	8,455	31,848	27%
	Apr '15	115	0	0	267	267	23,655	229	8,684	32,339	27%
	May '15	116	3	0	267	270	23,873	139	8,823	32,696	27%
	Jun '15	117	0	0	267	267	23,920	197	9,020	32,941	27%
2015/16	Jul '15	118	0	0	267	267	23,922	39	9,059	32,981	27%
	Aug '15	119	0	0	267	267	23,701	56	9,115	32,816	28%
	Sep '15	120	9	0	267	276	23,846	107	9,083	32,930	28%
	Oct '15	121	14	0	267	281	24,105	73	9,064	33,169	27%
	Nov '15	122	14	0	267	281	24,386	84	9,055	33,441	27%
	Dec '15	123	64	0	267	331	24,709	53	9,077	33,785	27%
	Jan '16	124	35	0	267	302	24,998	23	9,017	34,014	27%
	Feb '16	125	5	0	267	272	25,235	27	8,965	34,199	26%
	Mar '16	126	22	0	267	289	25,497	0	8,965	34,461	26%
	Apr '16	127	21	0	267	288	25,741	43	9,008	34,748	26%
	May '16	128	0	0	267	267	25,924	52	9,060	34,984	26%
	Jun '16	129	0	0	267	267	26,147	18	9,078	35,224	26%
2016/17	Jul '16	130	0	0	267	267	26,284	0	8,895	35,179	25%
	Aug '16	131	0	0	267	267	26,504	49	8,764	35,268	25%
	Sep '16	132	0	0	267	267	26,681	29	8,793	35,474	25%
	Oct '16	133	25	0	267	292	26,930	55	8,704	35,634	24%
	Nov '16	134	9	0	267	276	27,147	3	8,672	35,819	24%
	Dec '16	135	85	0	267	352	27,414	0	8,672	36,086	24%
	Jan '17	136	19	0	267	286	27,683	0	8,672	36,355	24%
	Feb '17	137	4	0	267	271	27,914	0	8,630	36,544	24%
	Mar '17	138	0	0	267	267	28,146	0	8,630	36,776	23%
	Apr '17	139	0	0	267	267	28,362	0	8,567	36,929	23%
	May '17	140	0	0	267	267	28,571	0	8,567	37,138	23%
	Jun '17	141	0	0	267	267	28,748	0	8,567	37,314	23%
2017/2018	Jul '17	142	0	527	267	794	29,448	168	8,594	38,042	23%
	Aug '17	143	0	420	267	687	30,042	20	8,536	38,578	22%
	Sep '17	144	10	263	267	540	30,490	119	8,640	39,130	22%
	Oct '17	145	10	154	267	430	30,847	171	8,788	39,635	22%
	Nov '17	146	15	0	267	282	31,026	170	8,860	39,886	22%
	Dec '17	147	8	68	267	343	31,267	106	8,965	40,232	22%
	Jan '18	148	85	40	267	391	31,533	85	9,050	40,583	22%
	Feb '18	149	16	0	267	283	31,718	134	9,145	40,863	22%
	Mar '18	150	59	0	267	326	32,000	16	9,081	41,081	22%
	Apr '18	151	10	0	267	277	32,212	185	9,260	41,472	22%
	May '18	152	0	0	267	267	32,440	133	9,306	41,746	22%
	Jun '18	153	2	0	267	269	32,685	92	9,399	42,083	22%
2018/2019	Jul '18	154	3	0	267	270	32,936	18	9,416	42,353	22%
	Aug '18	155	2	0	267	268	33,199	122	9,538	42,737	22%
	Sep '18	156	3	0	267	270	33,465	15	9,553	43,018	22%
	Oct '18	157	4	0	267	271	33,733	0	9,553	43,286	22%
	Nov '18	158	37	0	267	303	34,034	10	9,564	43,597	22%
	Dec '18	159	60	0	267	326	34,325	8	9,571	43,896	22%
	Jan '19	160	44	0	267	310	34,635	8	9,579	44,214	22%
	Feb '19	161	91	0	267	357	34,929	0	9,556	44,485	21%
	Mar '19	162	28	0	267	295	35,193	0	9,533	44,726	21%
	Apr '19	163	0	0	267	267	35,451	0	9,533	44,984	21%
	May '19	164	0	0	267	267	35,700	0	9,533	45,233	21%
	Jun '19	165	0	0	267	267	35,964	0	9,533	45,497	21%
2019/2020	Jul '19	166	1	60	267	328	36,283	0	9,533	45,816	21%
	Aug '19	167	6	350	267	623	36,902	64	9,597	46,499	21%
	Sep '19	168	6	344	267	617	37,516	20	9,583	47,099	20%
	Oct '19	169	2	194	267	462	37,681	23	9,417	47,097	20%
	Nov '19	170	14	102	267	383	37,771	11	9,184	46,955	20%
	Dec '19	171	52	3	267	321	37,667	30	9,121	46,788	19%
	Jan '20	172	1	3	267	271	37,457	36	9,137	46,595	20%
	Feb '20	173	1	0	267	268	37,258	15	9,152	46,411	20%
	Mar '20	174	40	0	267	307	37,283	73	9,164	46,447	20%
	Apr '20	175	61	0	267	328	37,298	19	9,127	46,424	20%
	May '20	176	1	0	267	268	37,299	72	9,088	46,386	20%
	Jun '20	177	0	0	267	267	37,299	122	9,160	46,459	20%

HISTORICAL



# RWC Management Plan for Hickory Basin

(120-month averaging period)

Calculation of Recycled Water Contribution (RWC) from Historical Diluent Water (DW) and Recycled Water (RW) Deliveries

Date	No. Mos. Since Initial RW Delivery	SW (AF)	MWD (AF)	Underflow (AF)	DW (AF)	DW 120-Month Total (AF)	RW (AF)	RW 120-Month Total (AF)	DW + RW 120-Month Total (AF)	RWC	Period
2020/2021	Jul '20	178	1	0	267	267	54	9,193	46,493	20%	A C T U A L
	Aug '20	179	2	0	267	268	74	9,239	46,540	20%	
	Sep '20	180	0	0	267	267	81	9,035	46,324	20%	
	Oct '20	181	0	0	267	267	26	8,967	46,243	19%	
	Nov '20	182	1	0	267	268	0	8,916	46,157	19%	
	Dec '20	183	55	0	267	322	0	8,916	46,064	19%	
	Jan '21	184	35	0	267	301	0	8,866	46,036	19%	
	Feb '21	185	0	0	267	267	0	8,829	45,920	19%	
	Mar '21	186	30		267	297	120	8,949	46,000	19%	
	Apr '21	187	24		267	291	130	9,027	46,102	20%	
	May '21	188	16		267	283	130	9,073	46,162	20%	
2021/2022	Jun '21	189	10		267	277	140	9,139	46,230	20%	P L A N N E D
	Jul '21	190	19		267	286	130	9,255	46,365	20%	
	Aug '21	191	18		267	285	130	9,385	46,441	20%	
	Sep '21	192	22		267	289	130	9,495	46,094	21%	
	Oct '21	193	18		267	285	130	9,590	46,190	21%	
	Nov '21	194	23		267	290	130	9,518	46,130	21%	
	Dec '21	195	64		267	331	90	9,382	46,057	20%	
	Jan '22	196	42		267	309	110	9,476	46,144	21%	
	Feb '22	197	48		267	315	100	9,493	46,150	21%	
	Mar '22	198	30		267	297	120	9,534	46,168	21%	
	Apr '22	199	24		267	291	130	9,598	46,226	21%	
	May '22	200	16		267	283	130	9,688	46,332	21%	
	Jun '22	201	10		267	277	140	9,826	46,478	21%	
2022/2023	Jul '22	202	19		267	286	130	9,899	46,548	21%	
	Aug '22	203	18		267	285	130	9,985	46,602	21%	
	Sep '22	204	22		267	289	130	10,115	46,725	22%	
	Oct '22	205	18		267	285	130	10,245	46,822	22%	
	Nov '22	206	23		267	290	130	10,198	46,785	22%	
	Dec '22	207	64		267	331	90	10,144	46,789	22%	
	Jan '23	208	42		267	309	110	10,139	46,826	22%	
	Feb '23	209	48		267	315	100	10,236	46,963	22%	
	Mar '23	210	30		267	297	120	10,209	46,953	22%	
	Apr '23	211	24		267	291	130	10,268	47,036	22%	
	May '23	212	16		267	283	130	10,398	47,176	22%	
	Jun '23	213	10		267	277	140	10,422	47,209	22%	
2023/2024	Jul '23	214	19		267	286	130	10,351	47,153	22%	P L A N N E D
	Aug '23	215	18		267	285	130	10,470	47,290	22%	
	Sep '23	216	22		267	289	130	10,600	47,442	22%	
	Oct '23	217	18		267	285	130	10,729	47,588	23%	
	Nov '23	218	23		267	290	130	10,520	47,343	22%	
	Dec '23	219	64		267	331	90	10,502	47,381	22%	
	Jan '24	220	42		267	309	110	10,526	47,436	22%	
	Feb '24	221	48		267	315	100	10,559	47,497	22%	
	Mar '24	222	30		267	297	120	10,455	47,410	22%	
	Apr '24	223	24		267	291	130	10,206	47,152	22%	
	May '24	224	16		267	283	130	10,044	46,973	21%	
	Jun '24	225	10		267	277	140	9,972	46,909	21%	
2024/2025	Jul '24	226	19		267	286	130	9,984	46,940	21%	P L A N N E D
	Aug '24	227	18		267	285	130	10,032	47,006	21%	
	Sep '24	228	22		267	289	130	9,926	46,922	21%	
	Oct '24	229	18		267	285	130	9,830	46,844	21%	
	Nov '24	230	23		267	290	130	9,688	46,725	21%	
	Dec '24	231	64		267	331	90	9,732	46,648	21%	
	Jan '25	232	42		267	309	110	9,648	46,598	21%	
	Feb '25	233	48		267	315	100	9,568	46,519	21%	
	Mar '25	234	30		267	297	120	9,573	46,554	21%	
	Apr '25	235	24		267	291	130	9,474	46,479	20%	
	May '25	236	16		267	283	130	9,465	46,483	20%	
	Jun '25	237	10		267	277	140	9,408	46,436	20%	
2025/26	Jul '25	238	19		267	286	130	9,499	46,546	20%	P L A N N E D
	Aug '25	239	18		267	285	130	9,573	46,638	21%	
	Sep '25	240	22		267	289	130	9,596	46,674	21%	
	Oct '25	241	18		267	285	130	9,653	46,735	21%	
	Nov '25	242	23		267	290	130	9,699	46,790	21%	
	Dec '25	243	64		267	331	90	9,736	46,827	21%	
	Jan '26	244	42		267	309	110	9,823	46,921	21%	
	Feb '26	245	48		267	315	100	9,896	47,037	21%	
	Mar '26	246	30		267	297	120	10,016	47,165	21%	
	Apr '26	247	24		267	291	130	10,103	47,255	21%	
	May '26	248	16		267	283	130	10,181	47,349	22%	P L A N N E D
	Jun '26	249	10		267	277	140	10,303	47,481	22%	



# RWC Management Plan for Hickory Basin

(120-month averaging period)

Calculation of Recycled Water Contribution (RWC) from Historical Diluent Water (DW) and Recycled Water (RW) Deliveries

Date	No. Mos. Since Initial RW Delivery	SW (AF)	MWD (AF)	Underflow (AF)	DW (AF)	DW 120-Month Total (AF)	RW (AF)	RW 120-Month Total (AF)	DW + RW 120-Month Total (AF)	RWC	Period
2026/27	Jul '26	250	19		267	286	37,197	130	10,433	47,630	22%
	Aug '26	251	18		267	285	37,215	130	10,514	47,729	22%
	Sep '26	252	22		267	289	37,237	130	10,615	47,852	22%
	Oct '26	253	18		267	285	37,230	130	10,690	47,920	22%
	Nov '26	254	23		267	290	37,244	130	10,817	48,061	23%
	Dec '26	255	64		267	331	37,223	90	10,907	48,130	23%
	Jan '27	256	42		267	309	37,246	110	11,017	48,263	23%
	Feb '27	257	48		267	315	37,290	100	11,117	48,407	23%
	Mar '27	258	30		267	297	37,320	120	11,237	48,557	23%
	Apr '27	259	24		267	291	37,344	130	11,367	48,711	23%
	May '27	260	16		267	283	37,360	130	11,497	48,857	24%
	Jun '27	261	10		267	277	37,370	140	11,637	49,007	24%
2027/28	Jul '27	262	19		267	286	36,862	130	11,599	48,461	24%
	Aug '27	263	18		267	285	36,460	130	11,709	48,169	24%
	Sep '27	264	22		267	289	36,209	130	11,720	47,929	24%
	Oct '27	265	18		267	285	36,063	130	11,679	47,742	24%
	Nov '27	266	23		267	290	36,071	130	11,639	47,711	24%
	Dec '27	267	64		267	331	36,059	90	11,624	47,683	24%
	Jan '28	268	42		267	309	35,976	110	11,649	47,625	24%
	Feb '28	269	48		267	315	36,008	100	11,615	47,623	24%
	Mar '28	270	30		267	297	35,979	120	11,719	47,698	25%
	Apr '28	271	24		267	291	35,993	130	11,663	47,657	24%
	May '28	272	16		267	283	36,009	130	11,661	47,670	24%
	Jun '28	273	10		267	277	36,017	140	11,708	47,726	25%
2028/29	Jul '28	274	19		267	286	36,033	130	11,821	47,854	25%
	Aug '28	275	18		267	285	36,050	130	11,829	47,878	25%
	Sep '28	276	22		267	289	36,069	130	11,944	48,012	25%
	Oct '28	277	18		267	285	36,082	130	12,074	48,156	25%
	Nov '28	278	23		267	290	36,069	130	12,193	48,262	25%
	Dec '28	279	64		267	331	36,073	90	12,276	48,349	25%
	Jan '29	280	42		267	309	36,071	110	12,378	48,449	26%
	Feb '29	281	48		267	315	36,029	100	12,478	48,507	26%
	Mar '29	282	30		267	297	36,031	120	12,598	48,629	26%
	Apr '29	283	24		267	291	36,055	130	12,728	48,783	26%
	May '29	284	16		267	283	36,071	130	12,858	48,929	26%
	Jun '29	285	10		267	277	36,081	140	12,998	49,079	26%
2029/30	Jul '29	286	19		267	286	36,038	130	13,128	49,166	27%
	Aug '29	287	18		267	285	35,700	130	13,194	48,893	27%
	Sep '29	288	22		267	289	35,371	130	13,304	48,675	27%
	Oct '29	289	18		267	285	35,194	130	13,411	48,605	28%
	Nov '29	290	23		267	290	35,100	130	13,531	48,631	28%
	Dec '29	291	64		267	331	35,110	90	13,591	48,701	28%
	Jan '30	292	42		267	309	35,148	110	13,666	48,813	28%
	Feb '30	293	48		267	315	35,195	100	13,751	48,945	28%
	Mar '30	294	30		267	297	35,184	120	13,798	48,982	28%
	Apr '30	295	24		267	291	35,148	130	13,909	49,057	28%
	May '30	296	16		267	283	35,163	130	13,967	49,130	28%
	Jun '30	297	10		267	277	35,173	140	13,985	49,157	28%

## Notes:

DW = Diluent Water; Total DW is the sum of Stormwater & Local Runoff (SW), Imported Water from the State Water Project (MWD), and groundwater underflow.

RW = Recycled Water

RWC = 120-month running total of recycled water / 120-month running total of all diluent and recycled water.

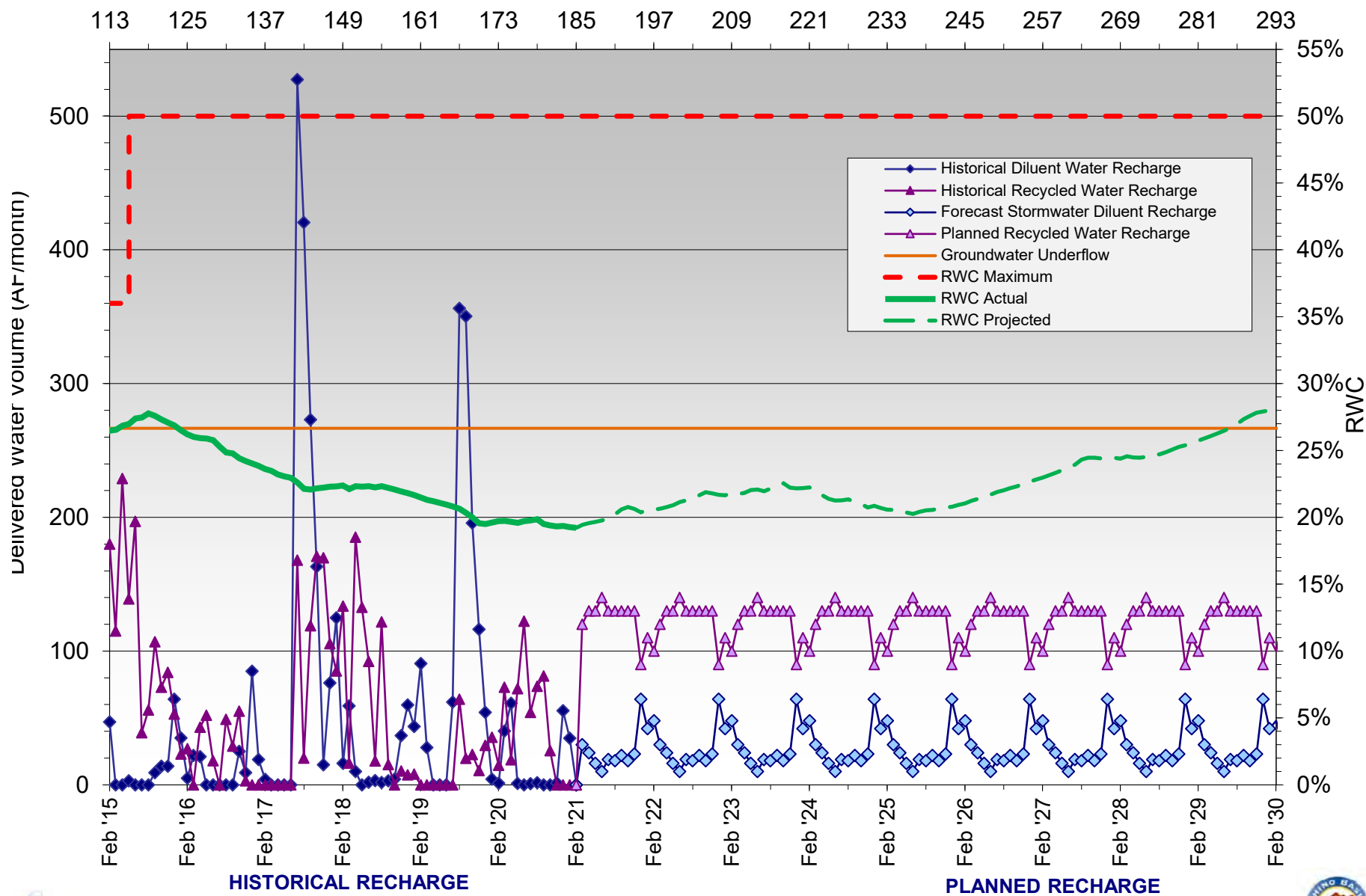
While an RWC calculation is provided starting on the first month of RW recharge, 120 months of data may not be available until 10 years of recharge operations.

RWC maximum = 0.5 mg/L / the Running Average of Total Organic Carbon (TOC) determined from a recharge site's start-up period



# RWC Management Plan for Hickory Basin

Months Since Intital Recycled Water Delivery



# RWC Management Plan for RP3 Basins

(120-month averaging period)

Calculation of Recycled Water Contribution (RWC) from Historical Diluent Water (DW) and Recycled Water (RW) Deliveries

Date	No. Mos. Since Initial RW Delivery	SW (AF)	MWD (AF)	Underflow (AF)	DW Total (AF)	DW 120-Month Total (AF)	RW (AF)	RW 120-Month Total (AF)	DW + RW 120-Month Total (AF)	RWC	Period
2014/15	Jul '14	61	9	0	904	913	64,663	184	9,482	74,145	13%
	Aug '14	62	23	0	904	927	65,589	192	9,674	75,263	13%
	Sep '14	63	40	0	904	944	66,533	243	9,917	76,450	13%
	Oct '14	64	25	0	904	929	67,462	335	10,252	77,714	13%
	Nov '14	65	112	0	904	1,016	68,478	250	10,502	78,980	13%
	Dec '14	66	419	0	904	1,323	69,800	6	10,508	80,308	13%
	Jan '15	67	132	0	904	1,036	70,836	29	10,537	81,373	13%
	Feb '15	68	95	0	904	999	71,835	243	10,780	82,615	13%
	Mar '15	69	69	0	904	973	72,808	325	11,105	83,913	13%
	Apr '15	70	41	0	904	945	73,752	282	11,387	85,139	13%
	May '15	71	121	0	904	1,025	74,777	348	11,735	86,512	14%
	Jun '15	72	12	0	904	916	75,693	531	12,266	87,959	14%
2015/16	Jul '15	73	134	0	904	1,038	76,700	268	12,534	89,234	14%
	Aug '15	74	31	0	904	935	77,603	141	12,675	90,278	14%
	Sep '15	75	123	0	904	1,027	78,570	219	12,894	91,464	14%
	Oct '15	76	86	0	904	990	79,482	363	13,257	92,739	14%
	Nov '15	77	54	0	904	958	80,380	228	13,485	93,865	14%
	Dec '15	78	188	0	904	1,092	81,411	274	13,759	95,170	14%
	Jan '16	79	239	0	904	1,143	82,522	390	14,149	96,671	15%
	Feb '16	80	54	0	904	958	83,415	358	14,507	97,922	15%
	Mar '16	81	208	0	904	1,112	84,366	174	14,681	99,047	15%
	Apr '16	82	50	0	904	954	85,193	247	14,928	100,121	15%
	May '16	83	48	0	904	952	86,108	375	15,303	101,411	15%
	Jun '16	84	11	0	904	915	86,997	245	15,548	102,545	15%
2016/17	Jul '16	85	18	0	904	922	87,904	99	15,647	103,551	15%
	Aug '16	86	32	0	904	936	88,804	289	15,936	104,740	15%
	Sep '16	87	9	0	904	913	89,682	551	16,487	106,169	16%
	Oct '16	88	105	0	904	1,009	90,657	392	16,879	107,536	16%
	Nov '16	89	65	0	904	969	91,590	688	17,567	109,157	16%
	Dec '16	90	336	0	904	1,240	92,804	548	18,115	110,919	16%
	Jan '17	91	588	0	904	1,492	94,274	431	18,546	112,820	16%
	Feb '17	92	235	0	904	1,139	95,394	381	18,927	114,321	17%
	Mar '17	93	11	0	904	915	96,301	760	19,687	115,988	17%
	Apr '17	94	24	0	904	928	97,225	513	20,200	117,425	17%
	May '17	95	5	0	904	909	98,132	655	20,855	118,987	18%
	Jun '17	96	9	386	904	1,299	99,428	463	21,318	120,746	18%
2017/18	Jul '17	97	5	246	904	1,154	100,583	225	21,543	122,126	18%
	Aug '17	98	15	418	904	1,337	101,917	208	21,751	123,668	18%
	Sep '17	99	15	201	904	1,119	103,033	223	21,974	125,007	18%
	Oct '17	100	4	31	904	938	103,962	54	22,028	125,990	17%
	Nov '17	101	0	0	904	904	104,819	31	22,058	126,877	17%
	Dec '17	102	1	0	904	905	105,616	67	22,125	127,741	17%
	Jan '18	103	92	0	904	995	106,446	67	22,192	128,638	17%
	Feb '18	104	19	0	904	923	107,239	12	22,204	129,443	17%
	Mar '18	105	104	0	904	1,007	108,242	10	22,214	130,455	17%
	Apr '18	106	30	0	904	933	109,172	72	22,286	131,458	17%
	May '18	107	15	0	904	919	110,057	70	22,356	132,413	17%
	Jun '18	108	1	0	904	904	110,957	49	22,405	133,362	17%
2018/19	Jul '18	109	41	0	904	944	111,901	155	22,560	134,461	17%
	Aug '18	110	9	0	904	913	112,798	158	22,718	135,516	17%
	Sep '18	111	7	0	904	911	113,693	198	22,916	136,609	17%
	Oct '18	112	12	0	904	916	114,596	158	23,075	137,670	17%
	Nov '18	113	4	0	904	908	115,477	188	23,262	138,739	17%
	Dec '18	114	44	0	904	948	116,269	169	23,431	139,700	17%
	Jan '19	115	97	0	904	1,001	117,258	69	23,499	140,757	17%
	Feb '19	116	125	0	904	1,029	118,013	0	23,499	141,513	17%
	Mar '19	117	37	0	904	941	118,907	0	23,499	142,406	17%
	Apr '19	118	2	0	904	906	119,795	17	23,516	143,311	16%
	May '19	119	21	0	904	924	120,713	0	23,516	144,229	16%
	Jun '19	120	0	0	904	904	121,617	0	23,410	145,027	16%
2019/20	Jul '19	121	3	0	904	907	122,501	330	23,656	146,157	16%
	Aug '19	122	6	0	904	910	123,381	384	23,892	147,273	16%
	Sep '19	123	6	0	904	910	124,255	426	24,098	148,353	16%
	Oct '19	124	13	78	904	995	124,223	532	24,427	148,650	16%
	Nov '19	125	69	148	904	1,120	124,340	671	24,811	149,151	17%
	Dec '19	126	123	107	904	1,133	124,196	793	25,501	149,697	17%
	Jan '20	127	7	46	904	957	123,723	365	25,790	149,513	17%
	Feb '20	128	0	0	904	904	123,353	449	26,126	149,479	17%
	Mar '20	129	193	0	904	1,096	123,442	613	26,527	149,968	18%
	Apr '20	130	201	0	904	1,104	123,514	459	26,915	150,429	18%
	May '20	131	1	0	904	905	123,466	298	26,941	150,407	18%
	Jun '20	132	1	0	904	905	123,425	328	27,008	150,434	18%

HISTORICAL





# RWC Management Plan for RP3 Basins

(120-month averaging period)

Calculation of Recycled Water Contribution (RWC) from Historical Diluent Water (DW) and Recycled Water (RW) Deliveries

Date		No. Mos. Since Initial RW Delivery	SW (AF)	MWD (AF)	Underflow (AF)	DW Total (AF)	DW 120- Month Total (AF)	RW (AF)	RW 120- Month Total (AF)	DW + RW 120-Month Total (AF)	RWC	Period
2020/21	Jul '20	133	3	0	904	906	123,421	354	27,133	150,554	18%	A C T U A L
	Aug '20	134	4	0	904	908	123,419	530	27,482	150,901	18%	
	Sep '20	135	7	0	904	910	123,401	732	28,166	151,566	19%	
	Oct '20	136	6	0	904	909	123,335	803	28,946	152,281	19%	
	Nov '20	137	8	0	904	911	123,197	801	29,554	152,751	19%	
	Dec '20	138	41	0	904	945	122,494	815	30,247	152,741	20%	
	Jan '21	139	171	0	904	1,075	122,430	481	30,625	153,055	20%	
	Feb '21	140	10	0	904	913	122,125	374	30,822	152,947	20%	
	Mar '21	141	117		904	1,021	121,828	450	31,146	152,974	20%	
	Apr '21	142	72		904	976	121,758	500	31,409	153,167	21%	
	May '21	143	35		904	939	121,432	540	31,773	153,205	21%	
	Jun '21	144	17		904	921	120,832	550	32,139	152,971	21%	
	Jul '21	145	31		904	935	119,995	540	32,426	152,422	21%	
	Aug '21	146	22		904	926	119,700	550	32,961	152,661	22%	
2021/22	Sep '21	147	31		904	935	119,116	540	33,471	152,588	22%	
	Oct '21	148	49		904	953	118,945	520	33,809	152,754	22%	
	Nov '21	149	63		904	967	118,886	510	34,222	153,108	22%	
	Dec '21	150	196		904	1,100	119,004	370	34,428	153,432	22%	
	Jan '22	151	163		904	1,067	119,063	410	34,747	153,810	23%	
	Feb '22	152	133		904	1,037	119,020	440	35,027	154,047	23%	
	Mar '22	153	117		904	1,021	118,915	450	35,383	154,298	23%	
	Apr '22	154	72		904	976	118,767	500	35,736	154,503	23%	
	May '22	155	35		904	939	118,741	540	35,901	154,642	23%	
	Jun '22	156	17		904	921	118,698	550	36,270	154,968	23%	
	Jul '22	157	31		904	935	118,679	540	36,798	155,477	24%	
	Aug '22	158	22		904	926	118,689	550	37,348	156,037	24%	
	Sep '22	159	31		904	935	118,716	540	37,888	156,604	24%	
2022/23	Oct '22	160	49		904	953	118,747	520	38,408	157,155	24%	
	Nov '22	161	63		904	967	118,709	510	38,764	157,473	25%	
	Dec '22	162	196		904	1,100	118,544	370	38,914	157,458	25%	
	Jan '23	163	163		904	1,067	118,560	410	38,971	157,531	25%	
	Feb '23	164	133		904	1,037	118,580	440	39,114	157,694	25%	
	Mar '23	165	117		904	1,021	118,619	450	39,289	157,908	25%	
	Apr '23	166	72		904	976	118,651	500	39,403	158,054	25%	
	May '23	167	35		904	939	118,632	540	39,681	158,313	25%	
	Jun '23	168	17		904	921	118,606	550	39,992	158,598	25%	
	Jul '23	169	31		904	935	118,565	540	40,458	159,023	25%	
	Aug '23	170	22		904	926	118,519	550	40,792	159,311	26%	
	Sep '23	171	31		904	935	118,492	540	40,979	159,471	26%	
	Oct '23	172	49		904	953	118,488	520	41,335	159,823	26%	
2023/24	Nov '23	173	63		904	967	118,491	510	41,841	160,332	26%	
	Dec '23	174	196		904	1,100	118,615	370	41,960	160,575	26%	
	Jan '24	175	163		904	1,067	118,649	410	42,298	160,947	26%	
	Feb '24	176	133		904	1,037	118,584	440	42,738	161,323	26%	
	Mar '24	177	117		904	1,021	118,438	450	43,188	161,627	27%	
	Apr '24	178	72		904	976	118,425	500	43,639	162,064	27%	
	May '24	179	35		904	939	118,457	540	44,179	162,636	27%	
	Jun '24	180	17		904	921	118,468	550	44,557	163,025	27%	
	Jul '24	181	31		904	935	118,490	540	44,913	163,403	27%	
	Aug '24	182	22		904	926	118,489	550	45,271	163,760	28%	
	Sep '24	183	31		904	935	118,480	540	45,568	164,048	28%	
	Oct '24	184	49		904	953	118,504	520	45,753	164,257	28%	
	Nov '24	185	63		904	967	118,455	510	46,013	164,468	28%	
	Dec '24	186	196		904	1,100	118,232	370	46,377	164,609	28%	
2024/25	Jan '25	187	163		904	1,067	118,263	410	46,758	165,021	28%	
	Feb '25	188	133		904	1,037	118,301	440	46,955	165,256	28%	
	Mar '25	189	117		904	1,021	118,349	450	47,080	165,429	28%	
	Apr '25	190	72		904	976	118,380	500	47,298	165,678	29%	
	May '25	191	35		904	939	118,294	540	47,490	165,784	29%	
	Jun '25	192	17		904	921	118,299	550	47,509	165,808	29%	
	Jul '25	193	31		904	935	118,196	540	47,781	165,977	29%	
2025/26	Aug '25	194	22		904	926	118,187	550	48,190	166,377	29%	
	Sep '25	195	31		904	935	118,095	540	48,511	166,606	29%	
	Oct '25	196	49		904	953	118,058	520	48,668	166,726	29%	
	Nov '25	197	63		904	967	118,067	510	48,950	167,017	29%	
	Dec '25	198	196		904	1,100	118,075	370	49,046	167,121	29%	
	Jan '26	199	163		904	1,067	117,999	410	49,066	167,065	29%	
	Feb '26	200	133		904	1,037	118,078	440	49,148	167,226	29%	
	Mar '26	201	117		904	1,021	117,987	450	49,424	167,411	30%	
	Apr '26	202	72		904	976	118,009	500	49,677	167,686	30%	
	May '26	203	35		904	939	117,996	540	49,842	167,838	30%	
	Jun '26	204	17		904	921	118,002	550	50,147	168,149	30%	



# RWC Management Plan for RP3 Basins

(120-month averaging period)

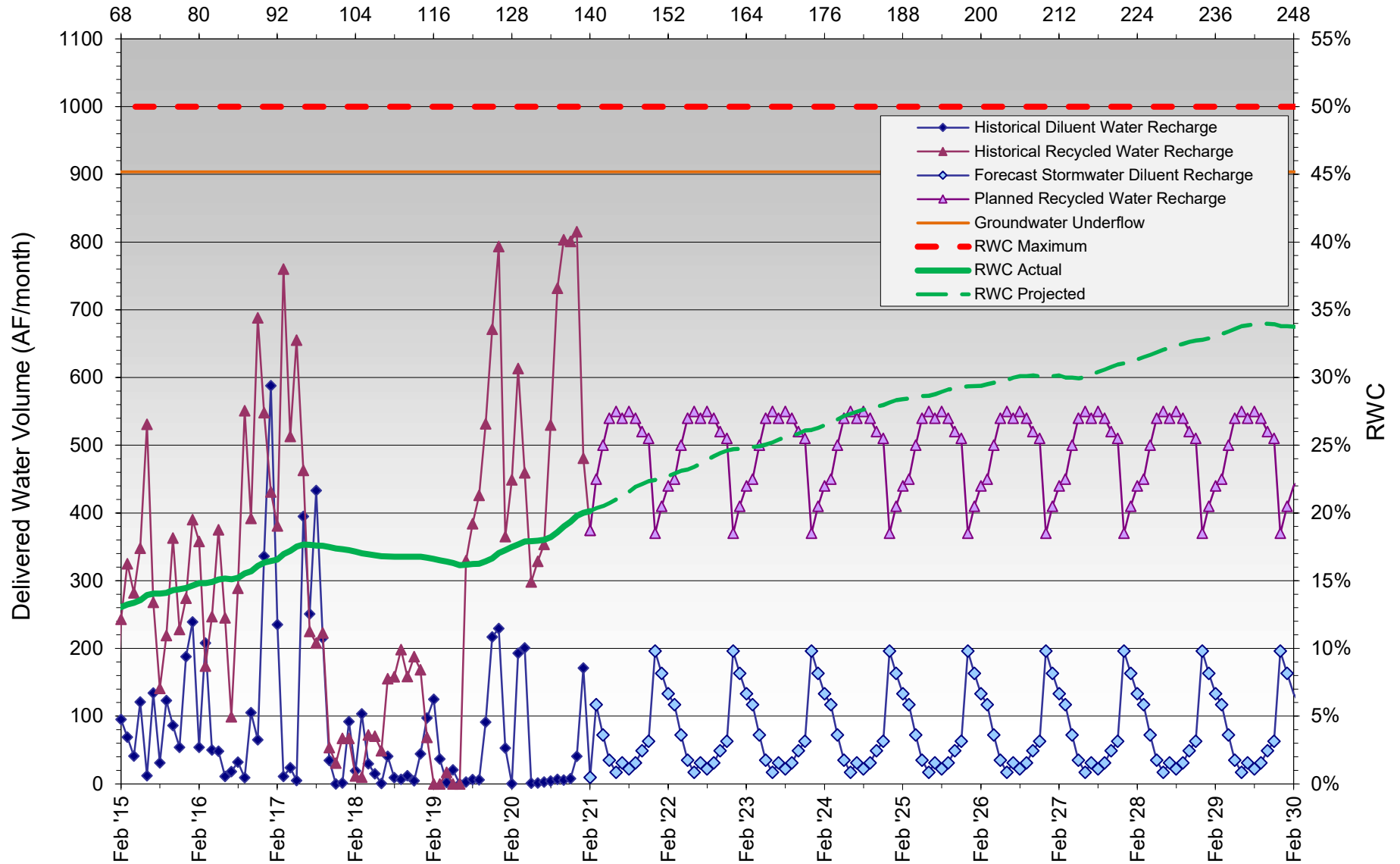
Calculation of Recycled Water Contribution (RWC) from Historical Diluent Water (DW) and Recycled Water (RW) Deliveries

Date	No. Mos. Since Initial RW Delivery	SW (AF)	MWD (AF)	Underflow (AF)	DW Total (AF)	DW 120-Month Total (AF)	RW (AF)	RW 120-Month Total (AF)	DW + RW 120-Month Total (AF)	RWC	Period
2026/27	Jul '26	205	31		904	935	118,015	540	50,588	168,603	30%
	Aug '26	206	22		904	926	118,005	550	50,849	168,854	30%
	Sep '26	207	31		904	935	118,027	540	50,838	168,865	30%
	Oct '26	208	49		904	953	117,971	520	50,966	168,937	30%
	Nov '26	209	63		904	967	117,969	510	50,788	168,757	30%
	Dec '26	210	196		904	1,100	117,829	370	50,610	168,439	30%
	Jan '27	211	163		904	1,067	117,404	410	50,589	167,993	30%
	Feb '27	212	133		904	1,037	117,302	440	50,648	167,950	30%
	Mar '27	213	117		904	1,021	117,408	450	50,338	167,746	30%
	Apr '27	214	72		904	976	117,456	500	50,325	167,781	30%
	May '27	215	35		904	939	117,486	540	50,210	167,696	30%
	Jun '27	216	17		904	921	117,108	550	50,297	167,405	30%
2027/28	Jul '27	217	31		904	935	116,888	540	50,612	167,500	30%
	Aug '27	218	22		904	926	116,477	550	50,954	167,431	30%
	Sep '27	219	31		904	935	116,292	540	51,271	167,564	31%
	Oct '27	220	49		904	953	116,307	520	51,738	168,045	31%
	Nov '27	221	63		904	967	116,370	510	52,217	168,587	31%
	Dec '27	222	196		904	1,100	116,564	370	52,520	169,085	31%
	Jan '28	223	163		904	1,067	116,636	410	52,863	169,499	31%
	Feb '28	224	133		904	1,037	116,750	440	53,292	170,041	31%
	Mar '28	225	117		904	1,021	116,763	450	53,732	170,495	32%
	Apr '28	226	72		904	976	116,805	500	54,160	170,965	32%
	May '28	227	35		904	939	116,826	540	54,630	171,455	32%
	Jun '28	228	17		904	921	116,842	550	55,131	171,972	32%
2028/29	Jul '28	229	31		904	935	116,832	540	55,516	172,348	32%
	Aug '28	230	22		904	926	116,845	550	55,908	172,753	32%
	Sep '28	231	31		904	935	116,869	540	56,249	173,118	32%
	Oct '28	232	49		904	953	116,906	520	56,611	173,517	33%
	Nov '28	233	63		904	967	116,965	510	56,933	173,898	33%
	Dec '28	234	196		904	1,100	117,117	370	57,135	174,251	33%
	Jan '29	235	163		904	1,067	117,182	410	57,476	174,658	33%
	Feb '29	236	133		904	1,037	117,191	440	57,916	175,107	33%
	Mar '29	237	117		904	1,021	117,271	450	58,366	175,637	33%
	Apr '29	238	72		904	976	117,341	500	58,849	176,190	33%
	May '29	239	35		904	939	117,355	540	59,389	176,744	34%
	Jun '29	240	17		904	921	117,372	550	59,939	177,311	34%
2029/30	Jul '29	241	31		904	935	117,401	540	60,149	177,550	34%
	Aug '29	242	22		904	926	117,416	550	60,315	177,732	34%
	Sep '29	243	31		904	935	117,441	540	60,430	177,871	34%
	Oct '29	244	49		904	953	117,399	520	60,418	177,817	34%
	Nov '29	245	63		904	967	117,246	510	60,257	177,502	34%
	Dec '29	246	196		904	1,100	117,212	370	59,833	177,045	34%
	Jan '30	247	163		904	1,067	117,322	410	59,878	177,200	34%
	Feb '30	248	133		904	1,037	117,455	440	59,869	177,324	34%
	Mar '30	249	117		904	1,021	117,379	450	59,706	177,085	34%
	Apr '30	250	72		904	976	117,251	500	59,747	176,997	34%
	May '30	251	35		904	939	117,285	540	59,989	177,274	34%
	Jun '30	252	17		904	921	117,301	550	60,210	177,511	34%
<b>Notes:</b> DW = Diluent Water; Total DW is the sum of Stormwater & Local Runoff (SW), Imported Water from the State Water Project (MWD), and groundwater underflow. RW = Recycled Water RWC = 120-month running total of recycled water / 120-month running total of all diluent and recycled water. While an RWC calculation is provided starting on the first month of RW recharge, 120 months of data may not be available until 10 years of recharge operations. RWC maximum = 0.5 mg/L / the Running Average of Total Organic Carbon (TOC) determined from a recharge site's start-up period											



# RWC Management Plan - RP3 Basin

Months Since Initial Recycled Water Delivery



HISTORICAL RECHARGE

PLANNED RECHARGE



# RWC Management Plan for San Sevaine Basin 1 through 5

(120-month averaging period)

Calculation of Recycled Water Contribution (RWC) from Historical Diluent Water (DW) and Recycled Water (RW) Deliveries

Date	No. Mos. Since Initial RW Delivery	SW (AF)	MWD (AF)	Underflow (AF)	DW Total (AF)	DW 120-Month Total (AF)	RW (AF)	RW 120-Month Total (AF)	DW + RW 120-Month Total (AF)	RWC	Period
2014/15	Jul '14	48	0	0	139	139	31,014	0	1,758	32,772	5%
	Aug '14	49	6	0	139	145	31,159	0	1,758	32,917	5%
	Sep '14	50	1	0	139	140	31,299	1	1,759	33,058	5%
	Oct '14	51	0	0	139	139	31,438	0	1,759	33,197	5%
	Nov '14	52	18	0	139	157	31,595	0	1,759	33,354	5%
	Dec '14	53	247	0	139	386	31,981	0	1,759	33,740	5%
	Jan '15	54	-6	0	139	133	32,114	0	1,759	33,873	5%
	Feb '15	55	39	0	139	178	32,292	0	1,759	34,051	5%
	Mar '15	56	2	0	139	141	32,433	0	1,759	34,192	5%
	Apr '15	57	0	0	139	139	32,572	0	1,759	34,331	5%
2015/16	May '15	58	17	0	139	156	32,334	0	1,759	34,093	5%
	Jun '15	59	0	0	139	139	31,282	0	1,759	33,041	5%
	Jul '15	60	9	0	139	148	30,995	0	1,759	32,754	5%
	Aug '15	61	0	0	139	139	30,921	0	1,759	32,680	5%
	Sep '15	62	53	0	139	192	30,555	0	1,759	32,314	5%
	Oct '15	63	47	0	139	186	30,166	0	1,759	31,925	6%
	Nov '15	64	1	0	139	140	29,164	0	1,759	30,923	6%
	Dec '15	65	80	0	139	219	28,396	0	1,759	30,155	6%
	Jan '16	66	244	0	139	383	27,811	0	1,759	29,570	6%
	Feb '16	67	33	0	139	172	26,859	0	1,759	28,618	6%
2016/17	Mar '16	68	88	0	139	227	26,122	0	1,759	27,881	6%
	Apr '16	69	29	0	139	168	25,103	0	1,759	26,862	7%
	May '16	70	1	0	139	140	23,857	0	1,759	25,616	7%
	Jun '16	71	0	0	139	139	23,047	0	1,759	24,806	7%
	Jul '16	72	0	0	139	139	23,171	0	1,759	24,930	7%
	Aug '16	73	0	0	139	139	22,280	0	1,759	24,039	7%
	Sep '16	74	0	0	139	139	21,413	0	1,759	23,172	8%
	Oct '16	75	16	0	139	155	20,557	0	1,759	22,316	8%
	Nov '16	76	12	14	139	165	20,157	0	1,759	21,916	8%
	Dec '16	77	156	0	139	295	19,433	0	1,759	21,192	8%
2017/18	Jan '17	78	488	0	139	627	19,123	0	1,759	20,882	8%
	Feb '17	79	93	0	278	371	19,152	0	1,759	20,911	8%
	Mar '17	80	3	0	278	281	19,428	0	1,759	21,187	8%
	Apr '17	81	1	0	278	279	19,704	0	1,759	21,463	8%
	May '17	82	16	0	278	294	19,967	0	1,759	21,726	8%
	Jun '17	83	0	526	278	804	20,741	0	1,759	22,500	8%
	Jul '17	84	0	567	278	845	21,585	0	1,759	23,344	8%
	Aug '17	85	48	117	278	443	22,028	0	1,759	23,787	7%
	Sep '17	86	0	151	278	429	22,454	0	1,759	24,213	7%
	Oct '17	87	0	503	278	781	23,229	0	1,759	24,988	7%
2018/19	Nov '17	88	0	54	278	332	23,524	0	1,759	25,283	7%
	Dec '17	89	0	1,104	278	1,382	24,831	0	1,759	26,590	7%
	Jan '18	90	104	893	278	1,275	25,553	0	1,759	27,312	6%
	Feb '18	91	21	0	278	299	25,823	0	1,759	27,582	6%
	Mar '18	92	128	0	278	405	26,228	0	1,759	27,987	6%
	Apr '18	93	0	0	278	278	26,506	0	1,759	28,265	6%
	May '18	94	4	0	278	282	26,741	0	1,759	28,500	6%
	Jun '18	95	0	0	278	278	27,019	0	1,759	28,778	6%
	Jul '18	96	2	0	278	280	27,299	0	1,759	29,058	6%
	Aug '18	97	0	0	278	280	27,577	0	1,759	29,336	6%
2019/20	Sep '18	98	0	0	278	278	27,855	0	1,759	29,614	6%
	Oct '18	99	7	0	278	285	28,140	0	1,759	29,899	6%
	Nov '18	100	31	0	278	309	28,441	0	1,759	30,200	6%
	Dec '18	101	45	0	278	323	28,678	0	1,759	30,437	6%
	Jan '19	102	318	0	278	596	29,258	0	1,759	31,017	6%
	Feb '19	103	429	0	278	706	29,858	0	1,759	31,617	6%
	Mar '19	104	313	0	278	591	30,440	0	1,759	32,199	5%
	Apr '19	105	0	0	278	278	30,718	0	1,759	32,477	5%
	May '19	106	25	0	278	303	31,021	0	1,759	32,780	5%
	Jun '19	107	0	857	278	1,134	32,156	0	1,759	33,915	5%
2019/20	Jul '19	108	0	766	278	1,044	33,200	0	1,759	34,959	5%
	Aug '19	109	0	597	278	875	34,075	0	1,759	35,834	5%
	Sep '19	110	0	117	278	395	34,469	0	1,759	36,228	5%
	Oct '19	111	0	0	278	278	34,691	0	1,759	36,450	5%
	Nov '19	112	155	113	278	546	35,216	0	1,759	36,975	5%
	Dec '19	113	211	32	278	520	35,403	0	1,759	37,162	5%
	Jan '20	114	31	52	278	361	35,474	0	1,759	37,233	5%
	Feb '20	115	8	0	278	286	35,537	0	1,759	37,296	5%
	Mar '20	116	254	0	278	532	36,053	0	1,759	37,812	5%
	Apr '20	117	363	0	278	640	36,640	0	1,759	38,399	5%
2019/20	May '20	118	3	0	278	281	36,921	0	1,759	38,680	5%
	Jun '20	119	0	0	278	278	37,199	0	1,759	38,958	5%

HISTORICAL



# RWC Management Plan for San Sevaine Basin 1 through 5

(120-month averaging period)

Calculation of Recycled Water Contribution (RWC) from Historical Diluent Water (DW) and Recycled Water (RW) Deliveries

Date	No. Mos. Since Initial RW Delivery	SW (AF)	MWD (AF)	Underflow (AF)	DW Total (AF)	DW 120-Month Total (AF)	RW (AF)	RW 120-Month Total (AF)	DW + RW 120-Month Total (AF)	RWC	Period
2020/21	Jul '20	120	0	0	278	278	37,477	0	1,709	39,186	4%
	Aug '20	121	0	0	278	278	37,755	267	1,932	39,687	5%
	Sep '20	122	0	0	278	278	38,033	201	2,091	40,123	5%
	Oct '20	123	0	0	278	278	38,216	260	2,278	40,494	6%
	Nov '20	124	55	0	278	333	38,329	290	2,555	40,883	6%
	Dec '20	125	161	0	278	439	38,052	211	2,734	40,786	7%
	Jan '21	126	143	0	278	421	38,320	133	2,795	41,116	7%
	Feb '21	127	24	0	278	302	38,341	221	3,016	41,357	7%
	Mar '21	128	112		278	390	38,459	60	3,076	41,535	7%
	Apr '21	129	116		278	394	38,714	60	3,136	41,850	7%
	May '21	130	20		278	298	38,328	160	3,260	41,588	8%
	Jun '21	131	2		278	280	37,299	170	3,396	40,696	8%
2021/22	Jul '21	132	1		278	279	36,429	170	3,453	39,882	9%
	Aug '21	133	3		278	281	36,559	170	3,533	40,093	9%
	Sep '21	134	4		278	282	36,497	170	3,703	40,200	9%
	Oct '21	135	19		278	297	36,616	160	3,863	40,479	10%
	Nov '21	136	32		278	310	36,755	140	4,003	40,758	10%
	Dec '21	137	135		278	413	37,009	40	4,043	41,052	10%
	Jan '22	138	146		278	424	37,239	30	3,914	41,153	10%
	Feb '22	139	93		278	371	37,417	80	3,920	41,337	9%
	Mar '22	140	112		278	390	37,507	60	3,964	41,472	10%
	Apr '22	141	116		278	394	37,686	60	4,020	41,707	10%
	May '22	142	20		278	298	37,845	160	4,177	42,023	10%
	Jun '22	143	2		278	280	37,986	170	4,293	42,280	10%
2022/23	Jul '22	144	1		278	279	38,126	170	4,341	42,467	10%
	Aug '22	145	3		278	281	38,267	170	4,427	42,694	10%
	Sep '22	146	4		278	282	38,410	170	4,558	42,968	11%
	Oct '22	147	19		278	297	38,567	160	4,655	43,222	11%
	Nov '22	148	32		278	310	38,724	140	4,729	43,453	11%
	Dec '22	149	135		278	413	38,919	40	4,768	43,687	11%
	Jan '23	150	146		278	424	39,183	30	4,739	43,922	11%
	Feb '23	151	93		278	371	39,406	80	4,800	44,206	11%
	Mar '23	152	112		278	390	39,644	60	4,807	44,451	11%
	Apr '23	153	116		278	394	39,894	60	4,826	44,720	11%
	May '23	154	20		278	298	40,049	160	4,960	45,009	11%
	Jun '23	155	2		278	280	40,190	170	5,128	45,318	11%
2023/24	Jul '23	156	1		278	279	40,330	170	5,298	45,628	12%
	Aug '23	157	3		278	281	40,472	170	5,468	45,940	12%
	Sep '23	158	4		278	282	40,615	170	5,484	46,099	12%
	Oct '23	159	19		278	297	40,762	160	5,575	46,337	12%
	Nov '23	160	32		278	310	40,894	140	5,706	46,600	12%
	Dec '23	161	135		278	413	41,161	40	5,746	46,908	12%
	Jan '24	162	146		278	424	41,446	30	5,764	47,211	12%
	Feb '24	163	93		278	371	41,609	80	5,828	47,438	12%
	Mar '24	164	112		278	390	41,840	60	5,888	47,729	12%
	Apr '24	165	116		278	394	42,078	60	5,946	48,024	12%
	May '24	166	20		278	298	42,237	160	6,094	48,331	13%
	Jun '24	167	2		278	280	42,378	170	6,264	48,642	13%
2024/25	Jul '24	168	1		278	279	42,518	170	6,434	48,952	13%
	Aug '24	169	3		278	281	42,654	170	6,604	49,258	13%
	Sep '24	170	4		278	282	42,796	170	6,773	49,569	14%
	Oct '24	171	19		278	297	42,954	160	6,933	49,887	14%
	Nov '24	172	32		278	310	43,107	140	7,073	50,180	14%
	Dec '24	173	135		278	413	43,134	40	7,113	50,247	14%
	Jan '25	174	146		278	424	43,425	30	7,143	50,568	14%
	Feb '25	175	93		278	371	43,618	80	7,223	50,841	14%
	Mar '25	176	112		278	390	43,867	60	7,283	51,150	14%
	Apr '25	177	116		278	394	44,122	60	7,343	51,465	14%
	May '25	178	20		278	298	44,264	160	7,503	51,767	14%
	Jun '25	179	2		278	280	44,405	170	7,673	52,078	15%
2025/26	Jul '25	180	1		278	279	44,536	170	7,843	52,379	15%
	Aug '25	181	3		278	281	44,677	170	8,013	52,691	15%
	Sep '25	182	4		278	282	44,767	170	8,183	52,951	15%
	Oct '25	183	19		278	297	44,878	160	8,343	53,222	16%
	Nov '25	184	32		278	310	45,048	140	8,483	53,532	16%
	Dec '25	185	135		278	413	45,242	40	8,523	53,765	16%
	Jan '26	186	146		278	424	45,283	30	8,553	53,836	16%
	Feb '26	187	93		278	371	45,482	80	8,633	54,115	16%
	Mar '26	188	112		278	390	45,645	60	8,693	54,338	16%
	Apr '26	189	116		278	394	45,871	60	8,753	54,624	16%
	May '26	190	20		278	298	46,029	160	8,913	54,942	16%
	Jun '26	191	2		278	280	46,170	170	9,083	55,253	16%



# RWC Management Plan for San Sevaïne Basin 1 through 5

(120-month averaging period)

Calculation of Recycled Water Contribution (RWC) from Historical Diluent Water (DW) and Recycled Water (RW) Deliveries

Date	No. Mos. Since Initial RW Delivery	SW (AF)	MWD (AF)	Underflow (AF)	DW Total (AF)	DW 120-Month Total (AF)	RW (AF)	RW 120-Month Total (AF)	DW + RW 120-Month Total (AF)	RWC	Period
2026/27	Jul '26	192	1		278	279	46,310	170	9,253	55,563	17%
	Aug '26	193	3		278	281	46,452	170	9,423	55,875	17%
	Sep '26	194	4		278	282	46,595	170	9,593	56,188	17%
	Oct '26	195	19		278	297	46,737	160	9,753	56,490	17%
	Nov '26	196	32		278	310	46,882	140	9,893	56,775	17%
	Dec '26	197	135		278	413	47,000	40	9,933	56,933	17%
	Jan '27	198	146		278	424	46,797	30	9,963	56,760	18%
	Feb '27	199	93		278	371	46,797	80	10,043	56,840	18%
	Mar '27	200	112		278	390	46,906	60	10,103	57,009	18%
	Apr '27	201	116		278	394	47,021	60	10,163	57,184	18%
	May '27	202	20		278	298	47,025	160	10,323	57,348	18%
	Jun '27	203	2		278	280	46,501	170	10,493	56,994	18%
2027/28	Jul '27	204	1		278	279	45,935	170	10,663	56,598	19%
	Aug '27	205	3		278	281	45,773	170	10,833	56,606	19%
	Sep '27	206	4		278	282	45,626	170	11,003	56,630	19%
	Oct '27	207	19		278	297	45,143	160	11,163	56,306	20%
	Nov '27	208	32		278	310	45,120	140	11,303	56,424	20%
	Dec '27	209	135		278	413	44,151	40	11,343	55,495	20%
	Jan '28	210	146		278	424	43,301	30	11,373	54,674	21%
	Feb '28	211	93		278	371	43,372	80	11,453	54,826	21%
	Mar '28	212	112		278	390	43,357	60	11,513	54,870	21%
	Apr '28	213	116		278	394	43,473	60	11,573	55,046	21%
	May '28	214	20		278	298	43,489	160	11,733	55,222	21%
	Jun '28	215	2		278	280	43,491	170	11,903	55,394	21%
2028/29	Jul '28	216	1		278	279	43,490	170	12,073	55,563	22%
	Aug '28	217	3		278	281	43,493	170	12,243	55,736	22%
	Sep '28	218	4		278	282	43,497	170	12,413	55,910	22%
	Oct '28	219	19		278	297	43,509	160	12,573	56,082	22%
	Nov '28	220	32		278	310	43,510	140	12,713	56,223	23%
	Dec '28	221	135		278	413	43,599	40	12,753	56,353	23%
	Jan '29	222	146		278	424	43,427	30	12,783	56,210	23%
	Feb '29	223	93		278	371	43,092	80	12,863	55,955	23%
	Mar '29	224	112		278	390	42,891	60	12,923	55,814	23%
	Apr '29	225	116		278	394	43,007	60	12,983	55,990	23%
	May '29	226	20		278	298	43,001	160	13,143	56,145	23%
	Jun '29	227	2		278	280	42,147	170	13,313	55,460	24%
2029/30	Jul '29	228	1		278	279	41,382	170	13,483	54,865	25%
	Aug '29	229	3		278	281	40,788	170	13,653	54,441	25%
	Sep '29	230	4		278	282	40,675	170	13,823	54,498	25%
	Oct '29	231	19		278	297	40,694	160	13,983	54,677	26%
	Nov '29	232	32		278	310	40,458	140	14,123	54,581	26%
	Dec '29	233	135		278	413	40,350	40	14,163	54,514	26%
	Jan '30	234	146		278	424	40,413	30	14,193	54,606	26%
	Feb '30	235	93		278	371	40,498	80	14,273	54,771	26%
	Mar '30	236	112		278	390	40,356	60	14,333	54,689	26%
	Apr '30	237	116		278	394	40,109	60	14,393	54,503	26%
	May '30	238	20		278	298	40,126	160	14,553	54,680	27%
	Jun '30	239	2		278	280	40,128	170	14,723	54,852	27%

## Notes:

DW = Diluent Water; Total DW is the sum of Stormwater & Local Runoff (SW), Imported Water from the State Water Project (MWD), and groundwater underflow.

RW = Recycled Water

RWC = 120-month running total of recycled water / 120-month running total of all diluent and recycled water.

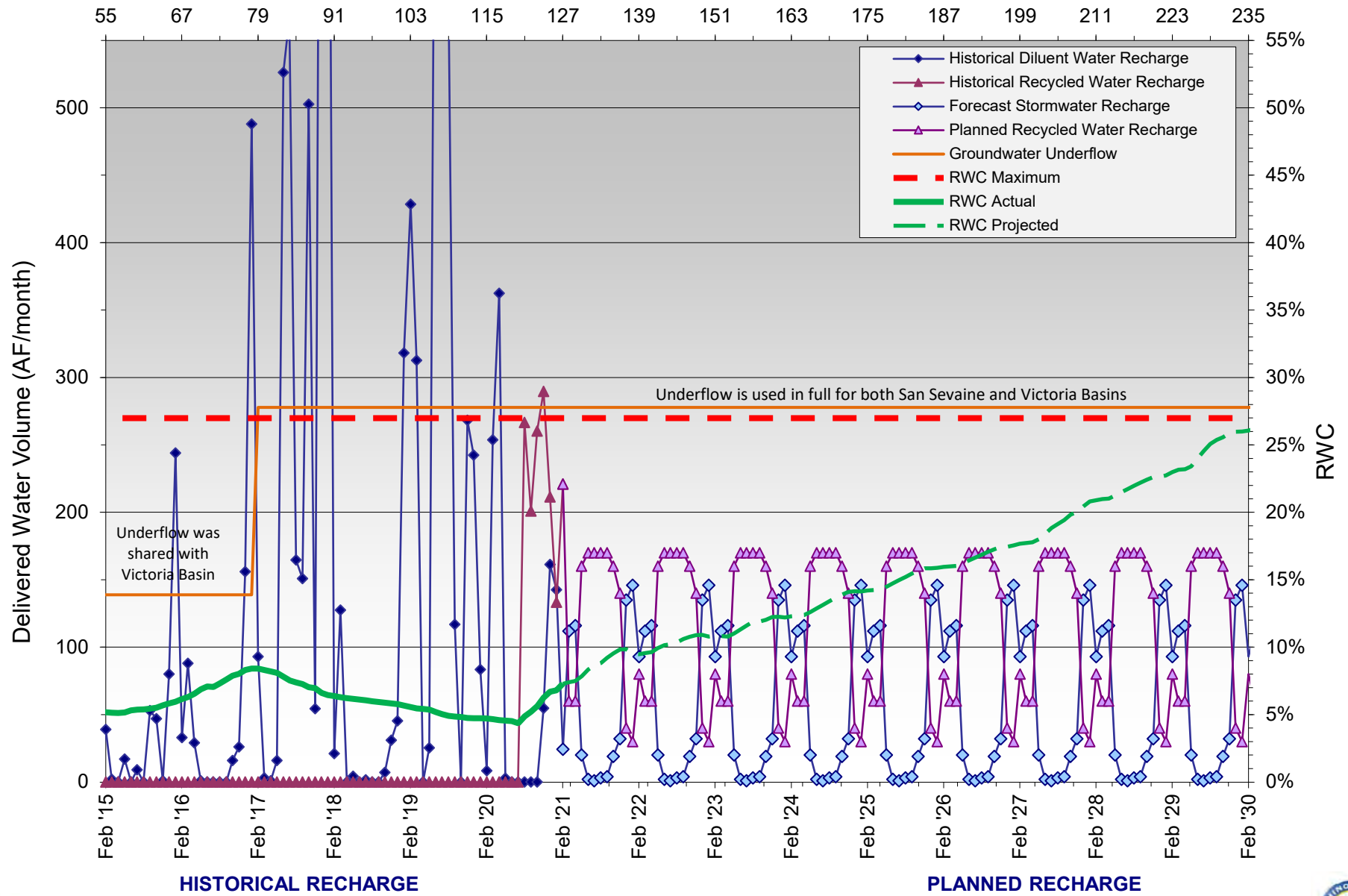
While an RWC calculation is provided starting on the first month of RW recharge, 120 months of data may not be available until 10 years of recharge operations.

RWC maximum = 0.5 mg/L / the Running Average of Total Organic Carbon (TOC) determined from a recharge site's start-up period



# RWC Management Plan - San Sevaine Basins 1 through 5

Months Since Initial Recycled Water Delivery





# RWC Management Plan for Turner Basin Cells 1 & 2

(120-month averaging period)

Calculation of Recycled Water Contribution (RWC) from Historical Diluent Water (DW) and Recycled Water (RW) Deliveries

Date	No. Mos. Since Initial RW Delivery	SW (AF)	MWD (AF)	Underflow (AF)	DW Total (AF)	DW 120-Month Total (AF)	RW (AF)	RW 120-Month Total (AF)	DW + RW 120-Month Total (AF)	RWC	Period
2014/15	Jul '14	96	0	0	67	67	15,328	0	1,579	16,907	9%
	Aug '14	97	76	0	67	143	15,471	205	1,784	17,255	10%
	Sep '14	98	54	0	67	121	15,592	128	1,912	17,505	11%
	Oct '14	99	39	0	67	106	15,638	63	1,975	17,614	11%
	Nov '14	100	108	0	67	175	15,683	58	2,033	17,716	11%
	Dec '14	101	255	0	67	322	15,839	2	2,035	17,875	11%
	Jan '15	102	117	0	67	184	15,927	0	2,035	17,962	11%
	Feb '15	103	93	0	67	160	16,000	60	2,095	18,095	12%
	Mar '15	104	52	0	67	119	16,054	143	2,238	18,292	12%
	Apr '15	105	0	0	67	67	16,121	0	2,238	18,359	12%
	May '15	106	0	0	67	67	16,188	0	2,238	18,426	12%
	Jun '15	107	0	0	67	67	16,255	0	2,238	18,493	12%
2015/16	Jul '15	108	0	0	67	67	16,322	0	2,238	18,560	12%
	Aug '15	109	1	0	67	68	16,390	0	2,238	18,629	12%
	Sep '15	110	120	0	67	187	16,488	145	2,383	18,872	13%
	Oct '15	111	98	0	67	165	16,558	238	2,621	19,180	14%
	Nov '15	112	45	0	67	112	16,492	79	2,700	19,193	14%
	Dec '15	113	105	0	67	172	16,305	224	2,924	19,230	15%
	Jan '16	114	269	0	67	336	16,380	102	3,026	19,406	16%
	Feb '16	115	51	0	67	118	16,346	198	3,224	19,570	16%
	Mar '16	116	165	0	67	232	16,152	161	3,385	19,537	17%
	Apr '16	117	19	0	67	86	15,848	128	3,513	19,362	18%
	May '16	118	38	0	67	105	15,857	156	3,669	19,526	19%
	Jun '16	119	5	0	67	72	15,918	159	3,828	19,746	19%
2016/17	Jul '16	120	4	0	67	71	15,926	89	3,895	19,821	20%
	Aug '16	121	22	0	67	89	15,995	52	3,834	19,829	19%
	Sep '16	122	18	0	67	85	15,974	40	3,760	19,733	19%
	Oct '16	123	38	0	67	105	15,915	104	3,864	19,778	20%
	Nov '16	124	68	16	67	152	16,037	12	3,876	19,913	19%
	Dec '16	125	239	0	67	306	16,313	71	3,843	20,157	19%
	Jan '17	126	233	0	67	300	16,586	0	3,773	20,359	19%
	Feb '17	127	130	0	67	197	16,769	66	3,795	20,563	18%
	Mar '17	128	14	0	67	81	16,824	139	3,877	20,701	19%
	Apr '17	129	9	0	67	76	16,895	110	3,973	20,868	19%
	May '17	130	6	0	67	73	16,957	56	3,950	20,907	19%
	Jun '17	131	3	0	67	70	17,026	90	4,037	21,063	19%
2017/18	Jul '17	132	3	0	67	70	17,092	156	4,193	21,285	20%
	Aug '17	133	3	0	67	70	17,125	43	4,236	21,361	20%
	Sep '17	134	2	0	67	69	17,190	70	4,306	21,496	20%
	Oct '17	135	3	0	67	70	17,198	234	4,540	21,738	21%
	Nov '17	136	3	0	67	70	17,172	147	4,687	21,859	21%
	Dec '17	137	1	0	67	68	17,025	156	4,843	21,868	22%
	Jan '18	138	37	0	67	104	16,819	26	4,869	21,688	22%
	Feb '18	139	19	0	67	87	16,654	0	4,869	21,523	23%
	Mar '18	140	208	0	67	275	16,912	15	4,884	21,796	22%
	Apr '18	141	6	0	67	73	16,972	33	4,917	21,889	22%
	May '18	142	6	0	67	73	16,901	0	4,917	21,819	23%
	Jun '18	143	2	0	67	69	16,960	83	5,001	21,960	23%
2018/19	Jul '18	144	3	0	67	70	17,023	68	5,069	22,091	23%
	Aug '18	145	3	0	67	70	17,090	94	5,162	22,252	23%
	Sep '18	146	7	0	67	74	17,038	20	5,183	22,220	23%
	Oct '18	147	15	0	67	82	17,039	0	5,155	22,194	23%
	Nov '18	148	59	0	67	126	17,084	0	5,125	22,209	23%
	Dec '18	149	55	0	67	122	16,862	0	5,125	21,987	23%
	Jan '19	150	179	0	67	246	17,080	0	5,125	22,204	23%
	Feb '19	151	190	0	67	257	16,992	0	5,125	22,116	23%
	Mar '19	152	114	0	67	181	17,126	0	5,125	22,251	23%
	Apr '19	153	12	0	67	79	17,195	0	5,125	22,319	23%
	May '19	154	134	0	67	201	17,378	0	5,095	22,472	23%
	Jun '19	155	3	0	67	70	17,371	0	5,086	22,456	23%
2019/20	Jul '19	156	4	0	67	72	17,410	0	5,086	22,496	23%
	Aug '19	157	5	0	67	72	17,464	75	5,141	22,605	23%
	Sep '19	158	5	0	67	72	17,508	16	5,139	22,647	23%
	Oct '19	159	5	0	67	72	17,433	0	5,139	22,572	23%
	Nov '19	160	91	0	67	159	17,475	0	5,139	22,614	23%
	Dec '19	161	259	0	67	327	17,333	0	5,139	22,473	23%
	Jan '20	162	17	0	67	85	17,057	0	5,139	22,196	23%
	Feb '20	163	220	0	67	288	16,947	0	5,139	22,086	23%
	Mar '20	164	192	0	67	259	17,105	0	5,139	22,244	23%
	Apr '20	165	159	0	67	226	17,106	0	5,139	22,245	23%
	May '20	166	9	0	67	77	17,077	0	5,139	22,216	23%
	Jun '20	167	2	0	67	69	17,079	0	5,139	22,218	23%

HISTORICAL



# RWC Management Plan for Turner Basin Cells 1 & 2

(120-month averaging period)

Calculation of Recycled Water Contribution (RWC) from Historical Diluent Water (DW) and Recycled Water (RW) Deliveries

Date	No. Mos. Since Initial RW Delivery	SW (AF)	MWD (AF)	Underflow (AF)	DW Total (AF)	DW 120-Month Total (AF)	RW (AF)	RW 120-Month Total (AF)	DW + RW 120-Month Total (AF)	RWC	Period
2020/21	Jul '20	168	0	0	67	67	17,056	0	5,139	22,195	23%
	Aug '20	169	0	0	67	67	17,003	0	5,131	22,134	23%
	Sep '20	170	0	0	67	67	16,946	0	5,131	22,077	23%
	Oct '20	171	1	9	67	77	16,865	5	5,136	22,001	23%
	Nov '20	172	5	118	67	191	16,823	0	5,136	21,960	23%
	Dec '20	173	72	11	67	150	16,541	0	5,136	21,677	24%
	Jan '21	174	189	30	67	286	16,569	0	5,136	21,706	24%
	Feb '21	175	12	0	67	80	16,349	0	5,136	21,485	24%
	Mar '21	176	131		67	198	16,216	0	5,136	21,352	24%
	Apr '21	177	96		67	163	15,979	0	5,136	21,115	24%
	May '21	178	48		67	115	15,846	0	5,136	20,982	24%
	Jun '21	179	16		67	83	15,772	0	5,136	20,908	25%
2021/22	Jul '21	180	11		67	78	15,767	0	5,136	20,903	25%
	Aug '21	181	19		67	86	15,764	0	5,136	20,900	25%
	Sep '21	182	37		67	104	15,799	0	5,136	20,935	25%
	Oct '21	183	44		67	111	15,843	0	5,136	20,979	24%
	Nov '21	184	70		67	137	15,832	0	5,095	20,927	24%
	Dec '21	185	189		67	256	15,933	0	5,035	20,968	24%
	Jan '22	186	152		67	219	15,939	0	5,006	20,945	24%
	Feb '22	187	154		67	221	15,872	0	5,006	20,878	24%
	Mar '22	188	131		67	198	15,708	0	5,006	20,714	24%
	Apr '22	189	96		67	163	15,546	0	5,006	20,552	24%
	May '22	190	48		67	115	15,580	0	5,006	20,586	24%
	Jun '22	191	16		67	83	15,576	0	5,006	20,582	24%
2022/23	Jul '22	192	11		67	78	15,504	0	5,006	20,510	24%
	Aug '22	193	19		67	86	15,487	0	5,006	20,493	24%
	Sep '22	194	37		67	104	15,493	0	5,006	20,499	24%
	Oct '22	195	44		67	111	15,476	0	5,006	20,482	24%
	Nov '22	196	70		67	137	15,485	0	5,006	20,491	24%
	Dec '22	197	189		67	256	15,384	0	5,006	20,390	25%
	Jan '23	198	152		67	219	15,387	0	5,006	20,393	25%
	Feb '23	199	154		67	221	15,425	0	4,980	20,405	24%
	Mar '23	200	131		67	198	15,508	0	4,959	20,467	24%
	Apr '23	201	96		67	163	15,604	0	4,959	20,563	24%
	May '23	202	48		67	115	15,652	0	4,959	20,611	24%
	Jun '23	203	16		67	83	15,668	0	4,959	20,627	24%
2023/24	Jul '23	204	11		67	78	15,679	0	4,959	20,638	24%
	Aug '23	205	19		67	86	15,698	0	4,959	20,657	24%
	Sep '23	206	37		67	104	15,735	0	4,959	20,694	24%
	Oct '23	207	44		67	111	15,779	0	4,959	20,738	24%
	Nov '23	208	70		67	137	15,849	0	4,959	20,808	24%
	Dec '23	209	189		67	256	15,966	100	4,885	20,851	23%
	Jan '24	210	152		67	219	16,073	100	4,883	20,956	23%
	Feb '24	211	154		67	221	16,133	100	4,913	21,046	23%
	Mar '24	212	131		67	198	16,201	100	4,993	21,194	24%
	Apr '24	213	96		67	163	16,236	100	4,988	21,224	24%
	May '24	214	48		67	115	16,263	100	4,952	21,215	23%
	Jun '24	215	16		67	83	16,256	90	5,010	21,266	24%
2024/25	Jul '24	216	11		67	78	16,267	50	5,060	21,327	24%
	Aug '24	217	19		67	86	16,210	30	4,885	21,095	23%
	Sep '24	218	37		67	104	16,193	10	4,767	20,960	23%
	Oct '24	219	44		67	111	16,198	0	4,704	20,902	23%
	Nov '24	220	70		67	137	16,160	0	4,646	20,806	22%
	Dec '24	221	189		67	256	16,094	100	4,744	20,838	23%
	Jan '25	222	152		67	219	16,129	100	4,844	20,973	23%
	Feb '25	223	154		67	221	16,190	100	4,884	21,074	23%
	Mar '25	224	131		67	198	16,269	100	4,841	21,110	23%
	Apr '25	225	96		67	163	16,365	100	4,941	21,306	23%
	May '25	226	48		67	115	16,413	100	5,041	21,454	23%
	Jun '25	227	16		67	83	16,429	90	5,131	21,560	24%
2025/26	Jul '25	228	11		67	78	16,440	50	5,181	21,621	24%
	Aug '25	229	19		67	86	16,458	30	5,211	21,669	24%
	Sep '25	230	37		67	104	16,375	10	5,076	21,451	24%
	Oct '25	231	44		67	111	16,321	0	4,838	21,159	23%
	Nov '25	232	70		67	137	16,346	0	4,759	21,105	23%
	Dec '25	233	189		67	256	16,430	100	4,635	21,065	22%
	Jan '26	234	152		67	219	16,313	100	4,633	20,946	22%
	Feb '26	235	154		67	221	16,416	100	4,535	20,951	22%
	Mar '26	236	131		67	198	16,382	100	4,474	20,856	21%
	Apr '26	237	96		67	163	16,459	100	4,446	20,905	21%
	May '26	238	48		67	115	16,469	100	4,390	20,859	21%
	Jun '26	239	16		67	83	16,480	90	4,321	20,801	21%

A C T U A L

P L A N N E D



# RWC Management Plan for Turner Basin Cells 1 & 2

(120-month averaging period)

Calculation of Recycled Water Contribution (RWC) from Historical Diluent Water (DW) and Recycled Water (RW) Deliveries

Date	No. Mos. Since Initial RW Delivery	SW (AF)	MWD (AF)	Underflow (AF)	DW Total (AF)	DW 120-Month Total (AF)	RW (AF)	RW 120-Month Total (AF)	DW + RW 120-Month Total (AF)	RWC	Period
2026/27	Jul '26	240	11		67	78	16,487	50	4,282	20,769	21%
	Aug '26	241	19		67	86	16,484	30	4,260	20,744	21%
	Sep '26	242	37		67	104	16,503	10	4,230	20,733	20%
	Oct '26	243	44		67	111	16,509	0	4,126	20,635	20%
	Nov '26	244	70		67	137	16,495	0	4,114	20,609	20%
	Dec '26	245	189		67	256	16,445	100	4,143	20,588	20%
	Jan '27	246	152		67	219	16,364	100	4,243	20,607	21%
	Feb '27	247	154		67	221	16,388	100	4,277	20,665	21%
	Mar '27	248	131		67	198	16,505	100	4,238	20,743	20%
	Apr '27	249	96		67	163	16,592	100	4,228	20,820	20%
	May '27	250	48		67	115	16,634	100	4,272	20,906	20%
	Jun '27	251	16		67	83	16,647	90	4,272	20,919	20%
2027/28	Jul '27	252	11		67	78	16,655	50	4,166	20,821	20%
	Aug '27	253	19		67	86	16,671	30	4,153	20,824	20%
	Sep '27	254	37		67	104	16,706	10	4,093	20,799	20%
	Oct '27	255	44		67	111	16,746	0	3,859	20,606	19%
	Nov '27	256	70		67	137	16,813	0	3,712	20,526	18%
	Dec '27	257	189		67	256	17,002	100	3,656	20,658	18%
	Jan '28	258	152		67	219	17,117	100	3,730	20,847	18%
	Feb '28	259	154		67	221	17,251	100	3,830	21,082	18%
	Mar '28	260	131		67	198	17,175	100	3,915	21,090	19%
	Apr '28	261	96		67	163	17,265	100	3,982	21,247	19%
	May '28	262	48		67	115	17,307	100	4,082	21,389	19%
	Jun '28	263	16		67	83	17,321	90	4,089	21,410	19%
2028/29	Jul '28	264	11		67	78	17,329	50	4,071	21,400	19%
	Aug '28	265	19		67	86	17,345	30	4,007	21,352	19%
	Sep '28	266	37		67	104	17,375	10	3,997	21,372	19%
	Oct '28	267	44		67	111	17,405	0	3,997	21,401	19%
	Nov '28	268	70		67	137	17,416	0	3,997	21,412	19%
	Dec '28	269	189		67	256	17,550	100	4,097	21,647	19%
	Jan '29	270	152		67	219	17,523	100	4,197	21,720	19%
	Feb '29	271	154		67	221	17,487	100	4,297	21,784	20%
	Mar '29	272	131		67	198	17,504	100	4,397	21,901	20%
	Apr '29	273	96		67	163	17,588	100	4,497	22,085	20%
	May '29	274	48		67	115	17,502	100	4,597	22,099	21%
	Jun '29	275	16		67	83	17,515	90	4,687	22,202	21%
2029/30	Jul '29	276	11		67	78	17,522	50	4,737	22,259	21%
	Aug '29	277	19		67	86	17,536	30	4,691	22,227	21%
	Sep '29	278	37		67	104	17,568	10	4,685	22,253	21%
	Oct '29	279	44		67	111	17,607	0	4,685	22,292	21%
	Nov '29	280	70		67	137	17,586	0	4,685	22,271	21%
	Dec '29	281	189		67	256	17,516	100	4,785	22,301	21%
	Jan '30	282	152		67	219	17,650	100	4,885	22,535	22%
	Feb '30	283	154		67	221	17,584	100	4,985	22,569	22%
	Mar '30	284	131		67	198	17,523	100	5,085	22,608	22%
	Apr '30	285	96		67	163	17,460	100	5,185	22,645	23%
	May '30	286	48		67	115	17,499	100	5,285	22,784	23%
	Jun '30	287	16		67	83	17,513	90	5,375	22,888	23%

P L A N N E D

## Notes:

DW = Diluent Water; Total DW is the sum of Stormwater & Local Runoff (SW), Imported Water from the State Water Project (MWD), and groundwater underflow.

RW = Recycled Water

RWC = 120-month running total of recycled water / 120-month running total of all diluent and recycled water.

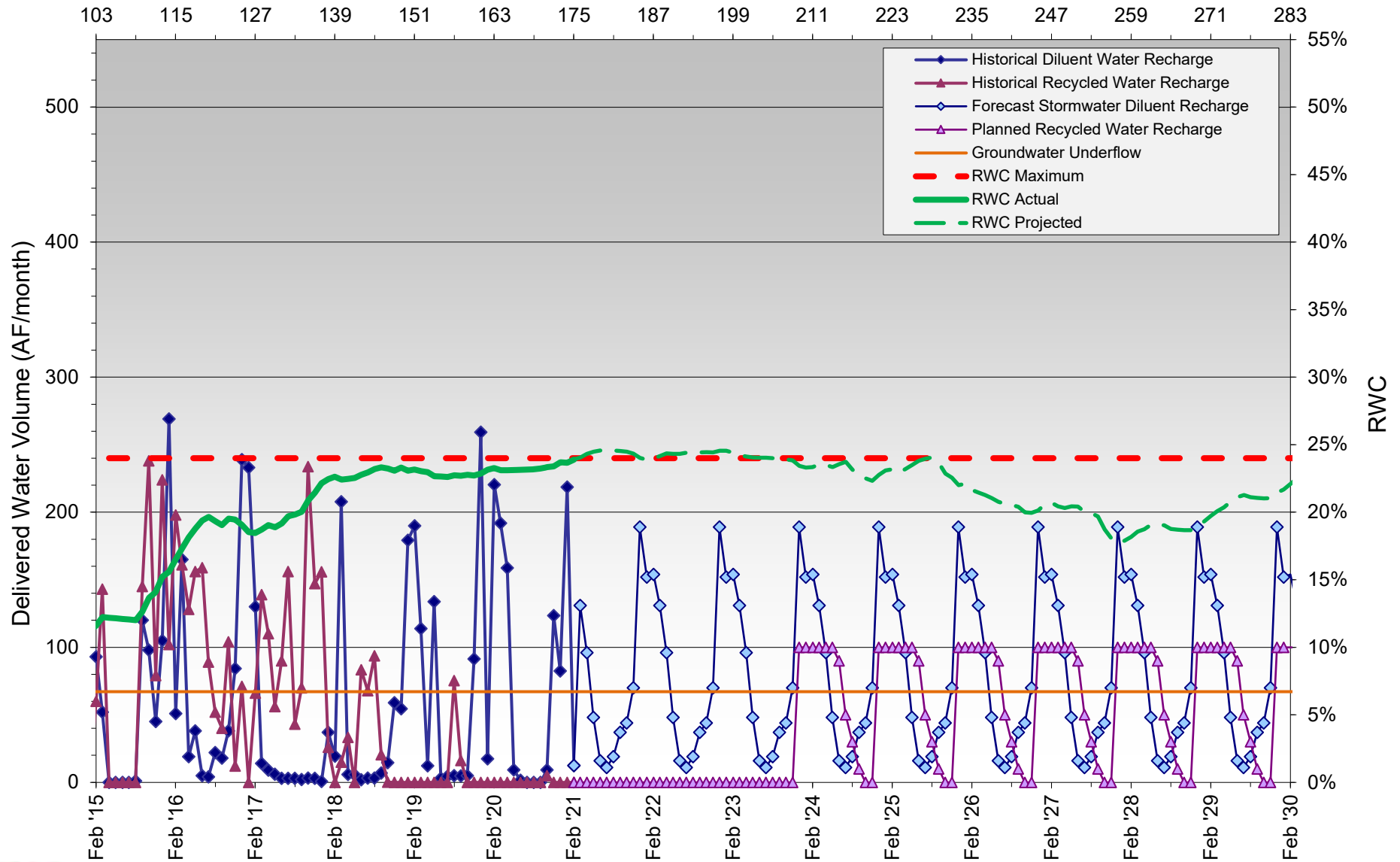
While an RWC calculation is provided starting on the first month of RW recharge, 120 months of data may not be available until 10 years of recharge operations.

RWC maximum = 0.5 mg/L / the Running Average of Total Organic Carbon (TOC) determined from a recharge site's start-up period



# RWC Management Plan for Turner Basin Cells 1 & 2

Months Since Initial Recycled Water Delivery



HISTORICAL RECHARGE

PLANNED RECHARGE



# RWC Management Plan for Turner Basin Cells 3 & 4

(120-month averaging period)

Calculation of Recycled Water Contribution (RWC) from Historical Diluent Water (DW) and Recycled Water (RW) Deliveries

Date	No. Mos. Since Initial RW Delivery	SW (AF)	MWD (AF)	Underflow (AF)	DW Total (AF)	DW 120-Month Total (AF)	RW (AF)	RW 120-Month Total (AF)	DW + RW 120-Month Total (AF)	RWC	Period
2014/15	Jul '14	96	11	0	60	71	9,043	0	3,049	12,091	25%
	Aug '14	97	0	0	60	60	9,102	0	3,049	12,151	25%
	Sep '14	98	0	0	60	60	9,162	0	3,049	12,211	25%
	Oct '14	99	0	0	60	60	9,101	0	3,049	12,150	25%
	Nov '14	100	0	0	60	60	9,033	0	3,049	12,081	25%
	Dec '14	101	348	0	60	408	9,223	0	3,049	12,271	25%
	Jan '15	102	4	0	60	64	9,029	0	3,049	12,078	25%
	Feb '15	103	65	0	60	125	8,922	53	3,102	12,023	26%
	Mar '15	104	71	0	60	131	8,878	155	3,257	12,135	27%
	Apr '15	105	39	0	60	99	8,977	0	3,257	12,233	27%
	May '15	106	0	0	60	60	9,036	0	3,257	12,293	26%
	Jun '15	107	2	0	60	62	9,098	81	3,338	12,435	27%
2015/16	Jul '15	108	87	0	60	147	9,245	85	3,423	12,667	27%
	Aug '15	109	15	0	60	75	9,319	163	3,586	12,905	28%
	Sep '15	110	74	0	60	134	9,453	51	3,637	13,090	28%
	Oct '15	111	64	0	60	124	9,577	65	3,702	13,278	28%
	Nov '15	112	44	0	60	104	9,681	3	3,705	13,385	28%
	Dec '15	113	144	0	60	204	9,760	1	3,706	13,466	28%
	Jan '16	114	82	0	60	142	9,827	0	3,706	13,533	27%
	Feb '16	115	41	0	60	101	9,857	0	3,706	13,563	27%
	Mar '16	116	47	0	60	107	9,792	0	3,706	13,498	27%
	Apr '16	117	49	0	60	109	9,641	0	3,706	13,346	28%
	May '16	118	33	0	60	93	9,661	0	3,706	13,367	28%
	Jun '16	119	20	0	60	80	9,654	0	3,706	13,360	28%
2016/17	Jul '16	120	15	0	60	75	9,699	0	3,568	13,266	27%
	Aug '16	121	1	0	60	61	9,726	0	3,333	13,058	26%
	Sep '16	122	0	0	60	60	9,763	0	3,293	13,056	25%
	Oct '16	123	1	0	60	61	9,759	0	3,293	13,052	25%
	Nov '16	124	0	0	60	60	9,803	0	3,293	13,096	25%
	Dec '16	125	316	0	60	376	10,165	0	3,227	13,392	24%
	Jan '17	126	298	0	60	358	10,513	0	3,196	13,709	23%
	Feb '17	127	171	0	60	231	10,735	8	3,183	13,918	23%
	Mar '17	128	34	0	60	94	10,824	165	3,332	14,156	24%
	Apr '17	129	23	0	60	83	10,904	99	3,423	14,327	24%
	May '17	130	16	0	60	76	10,972	125	3,491	14,463	24%
	Jun '17	131	8	274	60	341	11,303	10	3,501	14,804	24%
2017/18	Jul '17	132	10	220	60	290	11,592	0	3,501	15,093	23%
	Aug '17	133	21	79	60	160	11,742	13	3,514	15,256	23%
	Sep '17	134	16	0	60	76	11,806	51	3,565	15,371	23%
	Oct '17	135	1	0	60	60	11,863	4	3,569	15,432	23%
	Nov '17	136	4	0	60	64	11,861	0	3,569	15,430	23%
	Dec '17	137	2	0	60	61	11,860	0	3,569	15,429	23%
	Jan '18	138	116	0	60	175	11,893	0	3,569	15,462	23%
	Feb '18	139	75	0	60	134	12,018	13	3,582	15,600	23%
	Mar '18	140	107	0	60	167	12,185	38	3,621	15,806	23%
	Apr '18	141	4	0	60	63	12,244	139	3,760	16,004	23%
	May '18	142	35	0	60	95	12,301	164	3,924	16,225	24%
	Jun '18	143	14	0	60	74	12,347	138	4,062	16,409	25%
2018/19	Jul '18	144	13	0	60	73	12,415	25	4,087	16,503	25%
	Aug '18	145	6	0	60	66	12,476	65	4,152	16,628	25%
	Sep '18	146	9	0	60	69	12,531	88	4,240	16,771	25%
	Oct '18	147	28	0	60	88	12,582	87	4,261	16,843	25%
	Nov '18	148	31	0	60	91	12,637	59	4,312	16,949	25%
	Dec '18	149	90	0	60	150	12,737	20	4,332	17,069	25%
	Jan '19	150	154	0	60	214	12,941	0	4,332	17,273	25%
	Feb '19	151	189	0	60	249	13,121	0	4,332	17,454	25%
	Mar '19	152	51	0	60	111	13,222	0	4,332	17,555	25%
	Apr '19	153	5	0	60	65	13,285	0	4,332	17,618	25%
	May '19	154	12	0	60	71	13,355	0	4,332	17,688	24%
	Jun '19	155	3	0	60	63	13,418	0	4,332	17,751	24%
2019/2020	Jul '19	156	0	0	60	60	13,478	0	4,332	17,810	24%
	Aug '19	157	0	0	60	60	13,538	32	4,364	17,902	24%
	Sep '19	158	0	0	60	60	13,597	32	4,397	17,994	24%
	Oct '19	159	0	0	60	60	13,597	0	4,397	17,994	24%
	Nov '19	160	161	0	60	221	13,756	35	4,432	18,188	24%
	Dec '19	161	63	0	60	122	13,720	0	4,369	18,089	24%
	Jan '20	162	22	0	60	82	13,557	0	4,242	17,799	24%
	Feb '20	163	32	0	60	92	13,414	0	4,242	17,656	24%
	Mar '20	164	104	0	60	163	13,404	0	4,198	17,602	24%
	Apr '20	165	85	0	60	145	13,406	0	4,183	17,589	24%
	May '20	166	13	0	60	73	13,393	0	4,113	17,506	23%
	Jun '20	167	0	0	60	60	13,318	0	4,073	17,391	23%

HISTORICAL



# RWC Management Plan for Turner Basin Cells 3 & 4

(120-month averaging period)

Calculation of Recycled Water Contribution (RWC) from Historical Diluent Water (DW) and Recycled Water (RW) Deliveries

Date		No. Mos. Since Initial RW Delivery	SW (AF)	MWD (AF)	Underflow (AF)	DW Total (AF)	DW 120- Month Total (AF)	RW (AF)	RW 120- Month Total (AF)	DW + RW 120-Month Total (AF)	RWC	Period
2020/21	Jul '20	168	0	0	60	60	13,223	0	4,067	17,290	24%	A C T U A L
	Aug '20	169	0	0	60	60	13,139	0	4,045	17,184	24%	
	Sep '20	170	0	0	60	60	13,085	0	4,028	17,113	24%	
	Oct '20	171	1	0	60	60	13,030	6	4,034	17,064	24%	
	Nov '20	172	7	0	60	67	12,998	162	4,195	17,193	24%	
	Dec '20	173	35	0	60	95	12,872	129	4,324	17,196	25%	
	Jan '21	174	107	0	60	166	12,978	45	4,368	17,346	25%	
	Feb '21	175	13	0	60	73	12,941	87	4,455	17,396	26%	
	Mar '21	176	70		60	130	12,962	50	4,505	17,467	26%	
	Apr '21	177	40		60	100	13,002	80	4,585	17,587	26%	
2021/22	May '21	178	20		60	80	13,022	100	4,685	17,707	26%	
	Jun '21	179	16		60	76	13,038	100	4,785	17,823	27%	
	Jul '21	180	17		60	77	13,055	100	4,885	17,940	27%	
	Aug '21	181	13		60	73	13,010	110	4,988	17,998	28%	
	Sep '21	182	17		60	77	12,842	100	4,902	17,744	28%	
2021/22	Oct '21	183	25		60	85	12,804	100	4,779	17,583	27%	
	Nov '21	184	38		60	98	12,776	80	4,763	17,539	27%	
	Dec '21	185	103		60	163	12,810	20	4,731	17,541	27%	
	Jan '22	186	91		60	151	12,815	30	4,689	17,504	27%	
	Feb '22	187	82		60	142	12,788	40	4,632	17,420	27%	
	Mar '22	188	70		60	130	12,732	50	4,647	17,379	27%	
	Apr '22	189	40		60	100	12,684	80	4,712	17,396	27%	
	May '22	190	20		60	80	12,664	100	4,756	17,420	27%	
	Jun '22	191	16		60	76	12,655	100	4,791	17,446	27%	
	2022/23	Jul '22	192	17		60	77	12,647	100	4,840	17,487	28%
Aug '22		193	13		60	73	12,624	110	4,915	17,539	28%	
Sep '22		194	17		60	77	12,610	100	4,991	17,601	28%	
Oct '22		195	25		60	85	12,613	100	5,082	17,695	29%	
Nov '22		196	38		60	98	12,621	80	5,157	17,778	29%	
Dec '22		197	103		60	163	12,677	20	5,172	17,849	29%	
Jan '23		198	91		60	151	12,753	30	5,202	17,955	29%	
Feb '23		199	82		60	142	12,810	40	5,242	18,052	29%	
Mar '23		200	70		60	130	12,866	50	5,292	18,158	29%	
Apr '23		201	40		60	100	12,906	80	5,372	18,278	29%	
2023/24	May '23	202	20		60	80	12,926	100	5,472	18,398	30%	
	Jun '23	203	16		60	76	12,942	100	5,572	18,514	30%	
	Jul '23	204	17		60	77	12,959	100	5,672	18,631	30%	
	Aug '23	205	13		60	73	12,972	110	5,782	18,754	31%	
	Sep '23	206	17		60	77	12,965	100	5,775	18,740	31%	
	Oct '23	207	25		60	85	12,970	100	5,758	18,728	31%	
	Nov '23	208	38		60	98	12,991	80	5,749	18,740	31%	
	Dec '23	209	103		60	163	13,089	20	5,684	18,773	30%	
	Jan '24	210	91		60	151	13,164	30	5,575	18,739	30%	
	Feb '24	211	82		60	142	13,184	40	5,495	18,679	29%	
2024/25	Mar '24	212	70		60	130	13,204	50	5,498	18,702	29%	
	Apr '24	213	40		60	100	13,244	80	5,578	18,822	30%	
	May '24	214	20		60	80	13,241	100	5,510	18,751	29%	
	Jun '24	215	16		60	76	13,245	100	5,556	18,801	30%	
	Jul '24	216	17		60	77	13,251	100	5,656	18,907	30%	
	Aug '24	217	13		60	73	13,264	110	5,766	19,030	30%	
	Sep '24	218	17		60	77	13,281	100	5,866	19,147	31%	
	Oct '24	219	25		60	85	13,306	100	5,966	19,272	31%	
	Nov '24	220	38		60	98	13,344	80	6,046	19,390	31%	
	Dec '24	221	103		60	163	13,099	20	6,066	19,165	32%	
2025/26	Jan '25	222	91		60	151	13,186	30	6,096	19,282	32%	
	Feb '25	223	82		60	142	13,203	40	6,083	19,286	32%	
	Mar '25	224	70		60	130	13,202	50	5,978	19,180	31%	
	Apr '25	225	40		60	100	13,203	80	6,058	19,261	31%	
	May '25	226	20		60	80	13,223	100	6,158	19,381	32%	
	Jun '25	227	16		60	76	13,237	100	6,177	19,414	32%	
	Jul '25	228	17		60	77	13,167	100	6,192	19,359	32%	
	Aug '25	229	13		60	73	13,165	110	6,139	19,304	32%	
	Sep '25	230	17		60	77	13,108	100	6,188	19,296	32%	
	Oct '25	231	25		60	85	13,069	100	6,223	19,292	32%	
2025/26	Nov '25	232	38		60	98	13,063	80	6,300	19,363	33%	
	Dec '25	233	103		60	163	13,022	20	6,319	19,341	33%	
	Jan '26	234	91		60	151	13,031	30	6,349	19,380	33%	
	Feb '26	235	82		60	142	13,072	40	6,389	19,461	33%	
	Mar '26	236	70		60	130	13,095	50	6,439	19,534	33%	
	Apr '26	237	40		60	100	13,086	80	6,519	19,605	33%	
	May '26	238	20		60	80	13,073	100	6,619	19,692	34%	
	Jun '26	239	16		60	76	13,069	100	6,719	19,788	34%	



# RWC Management Plan for Turner Basin Cells 3 & 4

(120-month averaging period)

Calculation of Recycled Water Contribution (RWC) from Historical Diluent Water (DW) and Recycled Water (RW) Deliveries

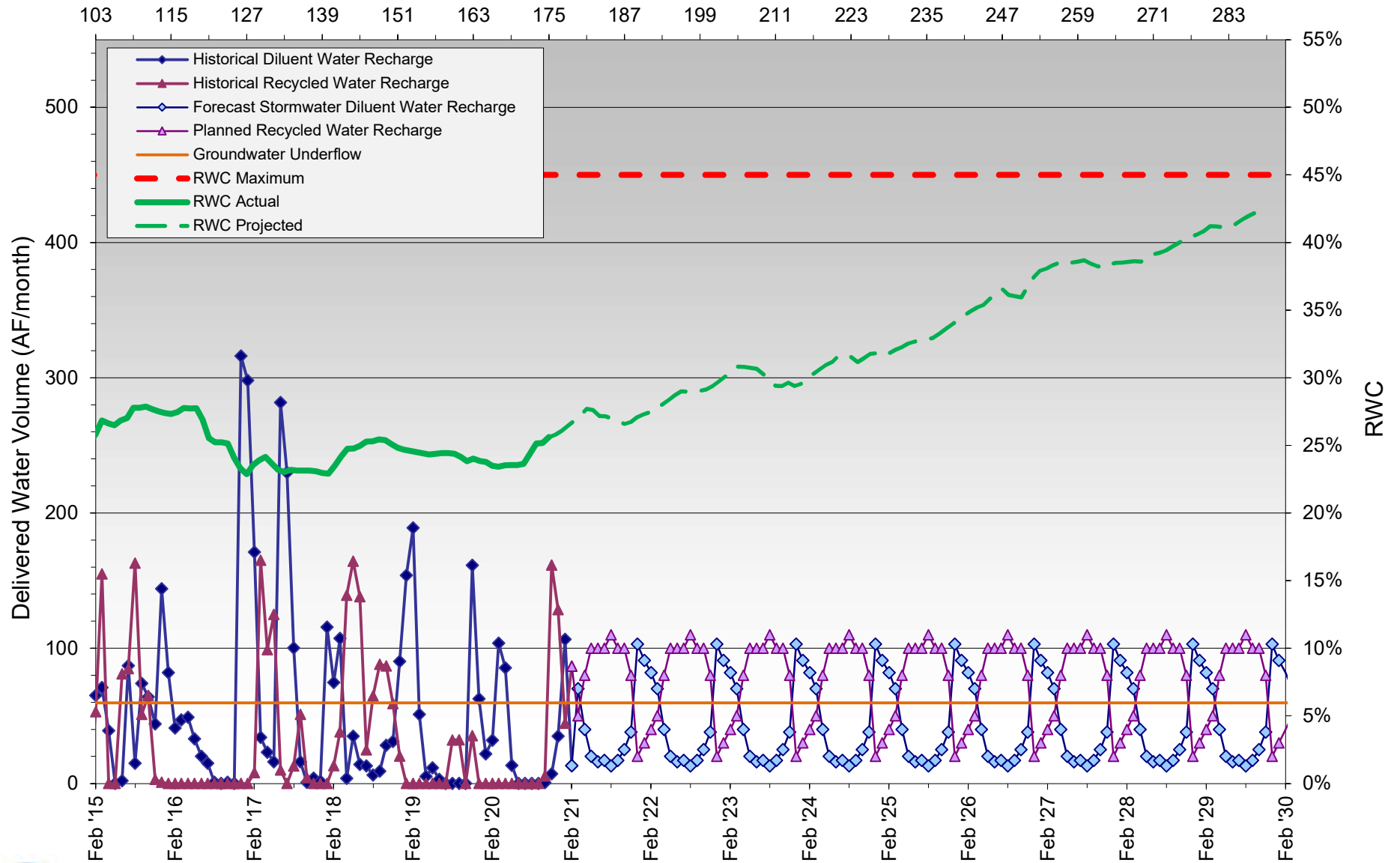
Date	No. Mos. Since Initial RW Delivery	SW (AF)	MWD (AF)	Underflow (AF)	DW Total (AF)	DW 120-Month Total (AF)	RW (AF)	RW 120-Month Total (AF)	DW + RW 120-Month Total (AF)	RWC	Period
2026/27	Jul '26	240	17		60	77	13,071	100	6,819	19,890	34%
	Aug '26	241	13		60	73	13,083	110	6,929	20,012	35%
	Sep '26	242	17		60	77	13,100	100	7,029	20,129	35%
	Oct '26	243	25		60	85	13,124	100	7,129	20,253	35%
	Nov '26	244	38		60	98	13,162	80	7,209	20,371	35%
	Dec '26	245	103		60	163	12,949	20	7,229	20,178	36%
	Jan '27	246	91		60	151	12,742	30	7,259	20,001	36%
	Feb '27	247	82		60	142	12,653	40	7,291	19,944	37%
	Mar '27	248	70		60	130	12,689	50	7,176	19,865	36%
	Apr '27	249	40		60	100	12,706	80	7,157	19,863	36%
	May '27	250	20		60	80	12,710	100	7,132	19,842	36%
	Jun '27	251	16		60	76	12,444	100	7,222	19,666	37%
2027/28	Jul '27	252	17		60	77	12,231	100	7,322	19,553	37%
	Aug '27	253	13		60	73	12,144	110	7,419	19,563	38%
	Sep '27	254	17		60	77	12,145	100	7,468	19,613	38%
	Oct '27	255	25		60	85	12,169	100	7,564	19,733	38%
	Nov '27	256	38		60	98	12,204	80	7,644	19,847	39%
	Dec '27	257	103		60	163	12,305	20	7,664	19,968	38%
	Jan '28	258	91		60	151	12,280	30	7,694	19,974	39%
	Feb '28	259	82		60	142	12,288	40	7,720	20,008	39%
	Mar '28	260	70		60	130	12,250	50	7,732	19,982	39%
	Apr '28	261	40		60	100	12,287	80	7,673	19,960	38%
	May '28	262	20		60	80	12,272	100	7,609	19,880	38%
	Jun '28	263	16		60	76	12,274	100	7,570	19,844	38%
2028/29	Jul '28	264	17		60	77	12,278	100	7,646	19,923	38%
	Aug '28	265	13		60	73	12,285	110	7,691	19,975	39%
	Sep '28	266	17		60	77	12,293	100	7,703	19,995	39%
	Oct '28	267	25		60	85	12,289	100	7,716	20,005	39%
	Nov '28	268	38		60	98	12,296	80	7,737	20,033	39%
	Dec '28	269	103		60	163	12,309	20	7,737	20,045	39%
	Jan '29	270	91		60	151	12,246	30	7,767	20,012	39%
	Feb '29	271	82		60	142	12,139	40	7,807	19,946	39%
	Mar '29	272	70		60	130	12,158	50	7,857	20,014	39%
	Apr '29	273	40		60	100	12,193	80	7,937	20,129	39%
	May '29	274	20		60	80	12,201	100	8,037	20,238	40%
	Jun '29	275	16		60	76	12,214	100	8,137	20,351	40%
2029/30	Jul '29	276	17		60	77	12,231	100	8,237	20,468	40%
	Aug '29	277	13		60	73	12,244	110	8,314	20,559	40%
	Sep '29	278	17		60	77	12,261	100	8,382	20,643	41%
	Oct '29	279	25		60	85	12,286	100	8,482	20,768	41%
	Nov '29	280	38		60	98	12,163	80	8,527	20,690	41%
	Dec '29	281	103		60	163	12,203	20	8,547	20,750	41%
	Jan '30	282	91		60	151	12,273	30	8,577	20,849	41%
	Feb '30	283	82		60	142	12,323	40	8,617	20,939	41%
	Mar '30	284	70		60	130	12,289	50	8,667	20,956	41%
	Apr '30	285	40		60	100	12,243	80	8,747	20,990	42%
	May '30	286	20		60	80	12,250	100	8,847	21,097	42%
	Jun '30	287	16		60	76	12,266	100	8,947	21,213	42%
<b>Notes:</b> DW = Diluent Water; Total DW is the sum of Stormwater & Local Runoff (SW), Imported Water from the State Water Project (MWD), and groundwater underflow. RW = Recycled Water RWC = 120-month running total of recycled water / 120-month running total of all diluent and recycled water. While an RWC calculation is provided starting on the first month of RW recharge, 120 months of data may not be available until 10 years of recharge operations. RWC maximum = 0.5 mg/L / the Running Average of Total Organic Carbon (TOC) determined from a recharge site's start-up period											





# RWC Management Plan - Turner Basin Cells 3 & 4

Months Since Initial Recycled Water Delivery



HISTORICAL RECHARGE

PLANNED RECHARGE



# RWC Management Plan for Victoria Basin

(120-month averaging period)

Calculation of Recycled Water Contribution (RWC) from Historical Diluent Water (DW) and Recycled Water (RW) Deliveries

Date	No. Mos. Since Initial RW Delivery	SW (AF)	MWD (AF)	Underflow (AF)	DW Total (AF)	DW 120-Month Total (AF)	RW (AF)	RW 120-Month Total (AF)	DW + RW 120-Month Total (AF)	RWC	Period
2014/15	Jul '14	46	2	0	139	141	9,577	91	3,750	13,327	28%
	Aug '14	47	5	0	139	144	9,721	107	3,857	13,578	28%
	Sep '14	48	2	0	139	141	9,862	155	4,012	13,874	29%
	Oct '14	49	3	0	139	142	10,004	75	4,087	14,091	29%
	Nov '14	50	57	0	139	196	10,200	4	4,091	14,291	29%
	Dec '14	51	153	0	139	292	10,492	0	4,091	14,583	28%
	Jan '15	52	18	0	139	157	10,649	63	4,154	14,803	28%
	Feb '15	53	40	0	139	179	10,828	57	4,211	15,039	28%
	Mar '15	54	12	0	139	151	10,979	79	4,290	15,269	28%
	Apr '15	55	0	0	139	139	11,059	127	4,417	15,476	29%
	May '15	56	13	0	139	152	11,184	141	4,558	15,742	29%
	Jun '15	57	1	0	139	140	11,312	32	4,590	15,902	29%
2015/16	Jul '15	58	4	0	139	143	11,455	139	4,729	16,184	29%
	Aug '15	59	1	0	139	140	11,595	165	4,894	16,489	30%
	Sep '15	60	37	0	139	176	11,771	136	5,030	16,801	30%
	Oct '15	61	35	0	139	174	11,896	101	5,131	17,027	30%
	Nov '15	62	0	0	139	139	12,035	34	5,165	17,200	30%
	Dec '15	63	86	0	139	225	12,251	60	5,225	17,476	30%
	Jan '16	64	87	0	139	226	12,451	0	5,225	17,676	30%
	Feb '16	65	10	0	139	149	12,557	0	5,225	17,782	29%
	Mar '16	66	79	0	139	218	12,665	0	5,225	17,890	29%
	Apr '16	67	1	0	139	140	12,747	0	5,225	17,972	29%
	May '16	68	2	0	139	141	12,859	0	5,225	18,084	29%
	Jun '16	69	3	0	139	142	12,989	0	5,225	18,214	29%
2016/17	Jul '16	70	0	0	139	139	13,119	0	5,225	18,344	28%
	Aug '16	71	0	0	139	139	13,255	0	5,225	18,480	28%
	Sep '16	72	0	0	139	139	13,391	53	5,278	18,669	28%
	Oct '16	73	10	0	139	149	13,532	142	5,420	18,952	29%
	Nov '16	74	24	7	139	170	13,698	218	5,638	19,336	29%
	Dec '16	75	185	0	139	324	13,933	106	5,744	19,677	29%
	Jan '17	76	327	0	278	605	14,523	0	5,744	20,267	28%
	Feb '17	77	65	0	278	343	14,796	53	5,797	20,593	28%
	Mar '17	78	18	0	278	296	15,084	219	6,016	21,100	29%
	Apr '17	79	0	0	278	278	15,327	317	6,333	21,660	29%
	May '17	80	13	0	278	291	15,611	312	6,645	22,256	30%
	Jun '17	81	0	121	278	399	16,001	201	6,846	22,847	30%
2017/18	Jul '17	82	0	235	278	513	16,515	140	6,986	23,501	30%
	Aug '17	83	4	20	278	302	16,817	239	7,225	24,042	30%
	Sep '17	84	0	130	278	408	17,220	167	7,392	24,612	30%
	Oct '17	85	0	150	278	428	17,639	44	7,436	25,075	30%
	Nov '17	86	0	0	278	278	17,868	40	7,476	25,344	29%
	Dec '17	87	0	4	278	282	18,084	99	7,575	25,659	30%
	Jan '18	88	57	36	278	370	18,275	7	7,581	25,856	29%
	Feb '18	89	9	0	278	287	18,500	33	7,614	26,115	29%
	Mar '18	90	9	0	278	287	18,785	25	7,639	26,424	29%
	Apr '18	91	40	0	278	318	19,096	0	7,639	26,735	29%
	May '18	92	3	0	278	281	19,331	0	7,639	26,970	28%
	Jun '18	93	0	0	278	278	19,606	0	7,639	27,245	28%
2018/19	Jul '18	94	0	0	278	278	19,881	159	7,799	27,679	28%
	Aug '18	95	0	0	278	278	20,156	191	7,989	28,145	28%
	Sep '18	96	0	0	278	278	20,432	159	8,149	28,580	29%
	Oct '18	97	44	0	278	322	20,749	104	8,253	29,003	28%
	Nov '18	98	33	0	278	311	21,025	83	8,336	29,361	28%
	Dec '18	99	46	0	278	324	21,275	98	8,435	29,709	28%
	Jan '19	100	252	0	278	530	21,790	91	8,525	30,315	28%
	Feb '19	101	372	0	278	650	22,345	9	8,534	30,879	28%
	Mar '19	102	223	0	278	501	22,833	76	8,610	31,444	27%
	Apr '19	103	1	0	278	279	23,109	298	8,908	32,017	28%
	May '19	104	46	0	278	324	23,430	251	9,159	32,589	28%
	Jun '19	105	0	0	278	278	23,708	319	9,478	33,186	29%
2019/20	Jul '19	106	0	0	278	278	23,985	160	9,638	33,623	29%
	Aug '19	107	0	344	278	622	24,607	142	9,780	34,387	28%
	Sep '19	108	0	501	278	779	25,386	49	9,829	35,215	28%
	Oct '19	109	0	177	278	455	25,802	116	9,946	35,748	28%
	Nov '19	110	63	63	278	403	26,187	75	10,020	36,207	28%
	Dec '19	111	117	0	278	395	26,492	27	10,047	36,539	27%
	Jan '20	112	0	0	278	278	26,617	35	10,082	36,699	27%
	Feb '20	113	0	0	278	278	26,721	68	10,150	36,871	28%
	Mar '20	114	78	0	278	356	27,077	85	10,235	37,313	27%
	Apr '20	115	91	0	278	369	27,426	92	10,327	37,753	27%
	May '20	116	3	0	278	281	27,708	66	10,393	38,100	27%
	Jun '20	117	0	0	278	278	27,985	136	10,528	38,513	27%

HISTORICAL



# RWC Management Plan for Victoria Basin

(120-month averaging period)

Calculation of Recycled Water Contribution (RWC) from Historical Diluent Water (DW) and Recycled Water (RW) Deliveries

Date	No. Mos. Since Initial RW Delivery	SW (AF)	MWD (AF)	Underflow (AF)	DW Total (AF)	DW 120-Month Total (AF)	RW (AF)	RW 120-Month Total (AF)	DW + RW 120-Month Total (AF)	RWC	Period
2020/21	Jul '20	118	0	0	278	278	28,260	188	10,716	38,976	27%
	Aug '20	119	0	0	278	278	28,536	169	10,885	39,421	28%
	Sep '20	120	0	0	278	278	28,812	176	10,994	39,806	28%
	Oct '20	121	0	0	278	278	28,936	183	11,024	39,960	28%
	Nov '20	122	32	0	278	310	29,073	105	11,012	40,085	27%
	Dec '20	123	44	0	278	322	29,014	37	11,007	40,021	28%
	Jan '21	124	59	0	278	337	29,193	32	10,953	40,146	27%
	Feb '21	125	7	0	278	285	29,267	83	10,969	40,236	27%
	Mar '21	126	49		278	327	29,396	210	11,140	40,536	27%
	Apr '21	127	25		278	303	29,555	230	11,370	40,925	28%
	May '21	128	13		278	291	29,632	240	11,469	41,102	28%
2021/22	Jun '21	129	3		278	281	29,771	250	11,658	41,430	28%
	Jul '21	130	2		278	280	29,909	250	11,846	41,755	28%
	Aug '21	131	2		278	280	29,926	250	12,044	41,970	29%
	Sep '21	132	3		278	281	29,910	250	12,294	42,204	29%
	Oct '21	133	16		278	294	30,035	240	12,534	42,569	29%
	Nov '21	134	25		278	303	30,174	230	12,749	42,923	30%
	Dec '21	135	77		278	355	30,381	180	12,904	43,285	30%
	Jan '22	136	78		278	356	30,587	180	13,084	43,671	30%
	Feb '22	137	67		278	345	30,789	190	13,274	44,063	30%
	Mar '22	138	49		278	327	30,959	210	13,484	44,443	30%
	Apr '22	139	25		278	303	31,027	230	13,696	44,723	31%
	May '22	140	13		278	291	31,159	240	13,665	44,824	30%
	Jun '22	141	3		278	281	31,298	250	13,693	44,991	30%
2022/23	Jul '22	142	2		278	280	31,436	250	13,849	45,285	31%
	Aug '22	143	2		278	280	31,572	250	13,981	45,553	31%
	Sep '22	144	3		278	281	31,713	250	14,176	45,889	31%
	Oct '22	145	16		278	294	31,867	240	14,285	46,152	31%
	Nov '22	146	25		278	303	32,025	230	14,444	46,470	31%
	Dec '22	147	77		278	355	32,222	180	14,603	46,826	31%
	Jan '23	148	78		278	356	32,404	180	14,771	47,176	31%
	Feb '23	149	67		278	345	32,600	190	14,951	47,552	31%
	Mar '23	150	49		278	327	32,782	210	15,104	47,886	32%
	Apr '23	151	25		278	303	32,945	230	15,236	48,181	32%
	May '23	152	13		278	291	33,092	240	15,383	48,475	32%
	Jun '23	153	3		278	281	33,233	250	15,551	48,784	32%
2023/24	Jul '23	154	2		278	280	33,372	250	15,727	49,099	32%
	Aug '23	155	2		278	280	33,511	250	15,935	49,446	32%
	Sep '23	156	3		278	281	33,651	250	16,139	49,790	32%
	Oct '23	157	16		278	294	33,799	240	16,379	50,178	33%
	Nov '23	158	25		278	303	33,951	230	16,609	50,560	33%
	Dec '23	159	77		278	355	34,157	180	16,671	50,828	33%
	Jan '24	160	78		278	356	34,372	180	16,693	51,065	33%
	Feb '24	161	67		278	345	34,541	190	16,692	51,233	33%
	Mar '24	162	49		278	327	34,630	210	16,760	51,390	33%
	Apr '24	163	25		278	303	34,779	230	16,740	51,519	32%
	May '24	164	13		278	291	34,929	240	16,766	51,695	32%
	Jun '24	165	3		278	281	35,069	250	16,872	51,941	32%
2024/25	Jul '24	166	2		278	280	35,208	250	17,031	52,239	33%
	Aug '24	167	2		278	280	35,344	250	17,174	52,519	33%
	Sep '24	168	3		278	281	35,484	250	17,269	52,754	33%
	Oct '24	169	16		278	294	35,636	240	17,434	53,071	33%
	Nov '24	170	25		278	303	35,743	230	17,660	53,404	33%
	Dec '24	171	77		278	355	35,807	180	17,840	53,647	33%
	Jan '25	172	78		278	356	36,006	180	17,957	53,963	33%
	Feb '25	173	67		278	345	36,172	190	18,090	54,262	33%
	Mar '25	174	49		278	327	36,348	210	18,221	54,569	33%
	Apr '25	175	25		278	303	36,512	230	18,324	54,836	33%
	May '25	176	13		278	291	36,651	240	18,423	55,074	33%
	Jun '25	177	3		278	281	36,792	250	18,641	55,433	34%
2025/26	Jul '25	178	2		278	280	36,929	250	18,752	55,681	34%
	Aug '25	179	2		278	280	37,069	250	18,837	55,906	34%
	Sep '25	180	3		278	281	37,174	250	18,951	56,125	34%
	Oct '25	181	16		278	294	37,294	240	19,090	56,384	34%
	Nov '25	182	25		278	303	37,458	230	19,286	56,744	34%
	Dec '25	183	77		278	355	37,588	180	19,406	56,994	34%
	Jan '26	184	78		278	356	37,718	180	19,586	57,304	34%
	Feb '26	185	67		278	345	37,914	190	19,776	57,690	34%
	Mar '26	186	49		278	327	38,023	210	19,986	58,009	34%
	Apr '26	187	25		278	303	38,186	230	20,216	58,403	35%
	May '26	188	13		278	291	38,336	240	20,456	58,793	35%
	Jun '26	189	3		278	281	38,475	250	20,706	59,182	35%



## RWC Management Plan for Victoria Basin

(120-month averaging period)

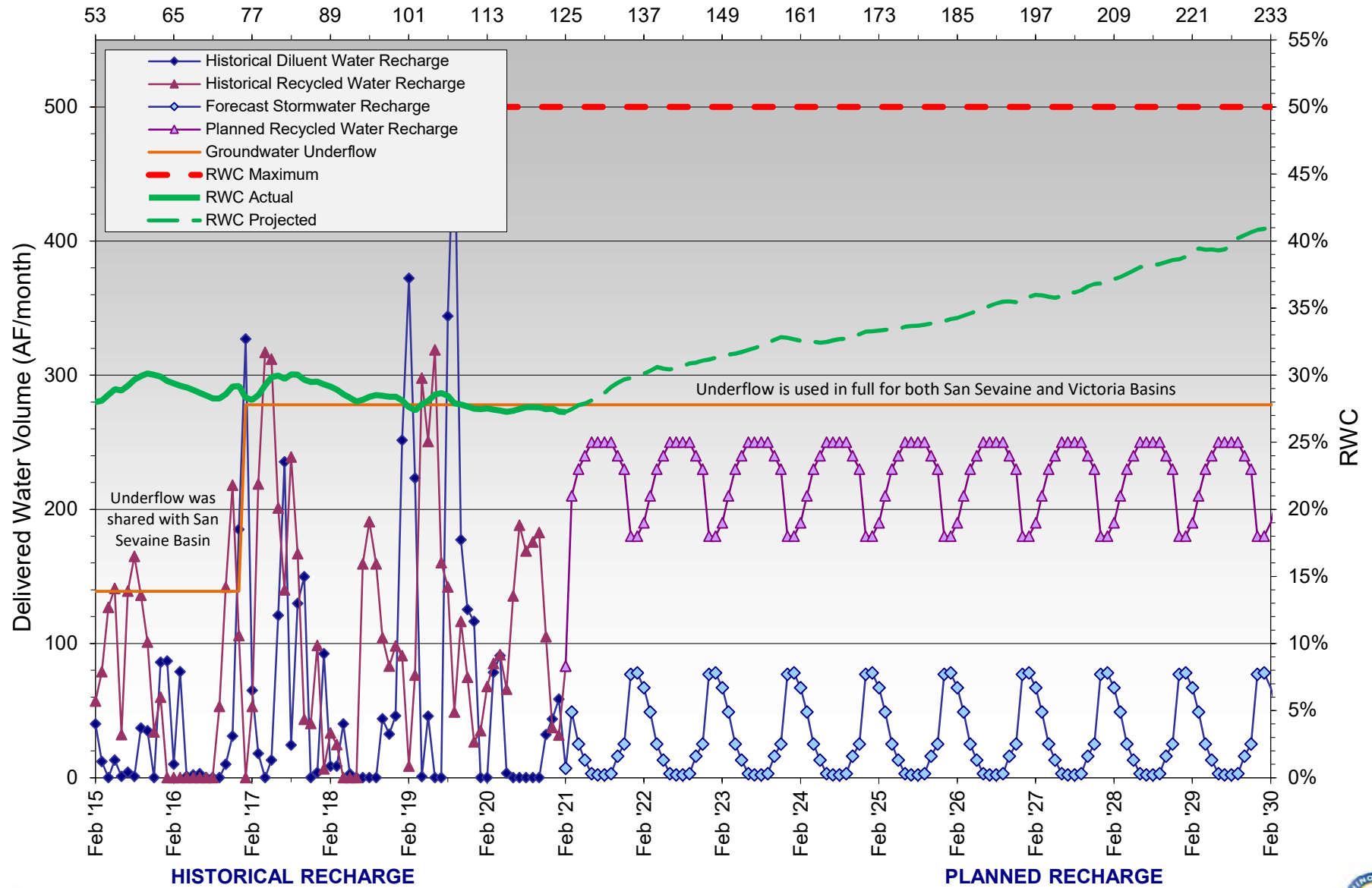
Calculation of Recycled Water Contribution (RWC) from Historical Diluent Water (DW) and Recycled Water (RW) Deliveries

Calculation of Recycled Water Contribution (RWC) from historical Diluent Water (DW) and Recycled Water (RW) Deliveries												
Date		No. Mos. Since Initial RW Delivery	SW (AF)	MWD (AF)	Underflow (AF)	DW Total (AF)	DW 120-Month Total (AF)	RW (AF)	RW 120-Month Total (AF)	DW + RW 120-Month Total (AF)	RWC	Period
2026/27	Jul '26	190	2		278	280	38,616	250	20,956	59,573	35%	P L A N N E D
	Aug '26	191	2		278	280	38,758	250	21,206	59,964	35%	
	Sep '26	192	3		278	281	38,900	250	21,403	60,303	35%	
	Oct '26	193	16		278	294	39,045	240	21,501	60,546	36%	
	Nov '26	194	25		278	303	39,178	230	21,513	60,691	35%	
	Dec '26	195	77		278	355	39,209	180	21,587	60,796	36%	
	Jan '27	196	78		278	356	38,960	180	21,767	60,727	36%	
	Feb '27	197	67		278	345	38,962	190	21,904	60,866	36%	
	Mar '27	198	49		278	327	38,993	210	21,895	60,888	36%	
	Apr '27	199	25		278	303	39,018	230	21,808	60,826	36%	
	May '27	200	13		278	291	39,018	240	21,736	60,754	36%	
	Jun '27	201	3		278	281	38,900	250	21,785	60,685	36%	
2027/28	Jul '27	202	2		278	280	38,666	250	21,895	60,562	36%	
	Aug '27	203	2		278	280	38,644	250	21,906	60,550	36%	
	Sep '27	204	3		278	281	38,517	250	21,989	60,506	36%	
	Oct '27	205	16		278	294	38,383	240	22,186	60,569	37%	
	Nov '27	206	25		278	303	38,408	230	22,375	60,784	37%	
	Dec '27	207	77		278	355	38,482	180	22,457	60,938	37%	
	Jan '28	208	78		278	356	38,467	180	22,630	61,097	37%	
	Feb '28	209	67		278	345	38,526	190	22,787	61,312	37%	
	Mar '28	210	49		278	327	38,566	210	22,972	61,538	37%	
	Apr '28	211	25		278	303	38,551	230	23,202	61,753	38%	
	May '28	212	13		278	291	38,561	240	23,442	62,003	38%	
	Jun '28	213	3		278	281	38,564	250	23,692	62,256	38%	
2028/29	Jul '28	214	2		278	280	38,566	250	23,783	62,349	38%	
	Aug '28	215	2		278	280	38,568	250	23,842	62,410	38%	
	Sep '28	216	3		278	281	38,571	250	23,932	62,504	38%	
	Oct '28	217	16		278	294	38,543	240	24,068	62,611	38%	
	Nov '28	218	25		278	303	38,536	230	24,215	62,751	39%	
	Dec '28	219	77		278	355	38,567	180	24,297	62,864	39%	
	Jan '29	220	78		278	356	38,393	180	24,386	62,779	39%	
	Feb '29	221	67		278	345	38,088	190	24,567	62,655	39%	
	Mar '29	222	49		278	327	37,914	210	24,701	62,615	39%	
	Apr '29	223	25		278	303	37,938	230	24,633	62,571	39%	
	May '29	224	13		278	291	37,905	240	24,622	62,527	39%	
	Jun '29	225	3		278	281	37,908	250	24,553	62,461	39%	
2029/30	Jul '29	226	2		278	280	37,910	250	24,643	62,553	39%	
	Aug '29	227	2		278	280	37,568	250	24,751	62,319	40%	
	Sep '29	228	3		278	281	37,070	250	24,952	62,022	40%	
	Oct '29	229	16		278	294	36,909	240	25,076	61,984	40%	
	Nov '29	230	25		278	303	36,808	230	25,231	62,039	41%	
	Dec '29	231	77		278	355	36,769	180	25,384	62,153	41%	
	Jan '30	232	78		278	356	36,847	180	25,529	62,376	41%	
	Feb '30	233	67		278	345	36,914	190	25,651	62,565	41%	
	Mar '30	234	49		278	327	36,884	210	25,776	62,661	41%	
	Apr '30	235	25		278	303	36,818	230	25,915	62,733	41%	
	May '30	236	13		278	291	36,828	240	26,089	62,917	41%	
	Jun '30	237	3		278	281	36,831	250	26,203	63,034	42%	
Notes:  DW = Diluent Water; Total DW is the sum of Stormwater & Local Runoff (SW), Imported Water from the State Water Project (MWD), and groundwater underflow. RW = Recycled Water RWC = 120-month running total of recycled water / 120-month running total of all diluent and recycled water. While an RWC calculation is provided starting on the first month of RW recharge, 120 months of data may not be available until 10 years of recharge operations. RWC maximum = 0.5 mg/L / the Running Average of Total Organic Carbon (TOC) determined from a recharge site's start-up period												



# RWC Management Plan - Victoria Basin

Months Since Initial Recycled Water Delivery



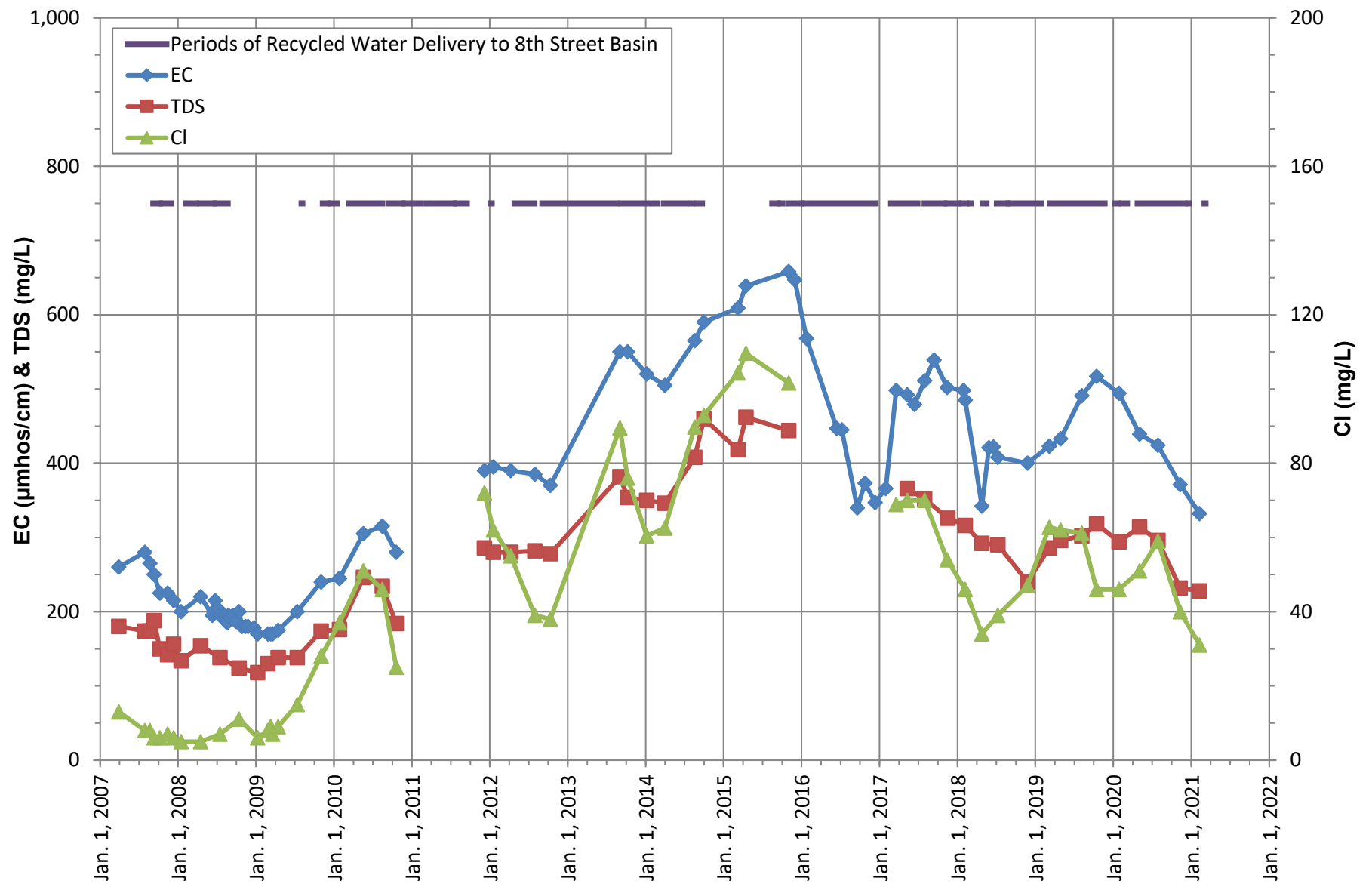


## APPENDIX C

### EVIDENCE FOR BLENDING:

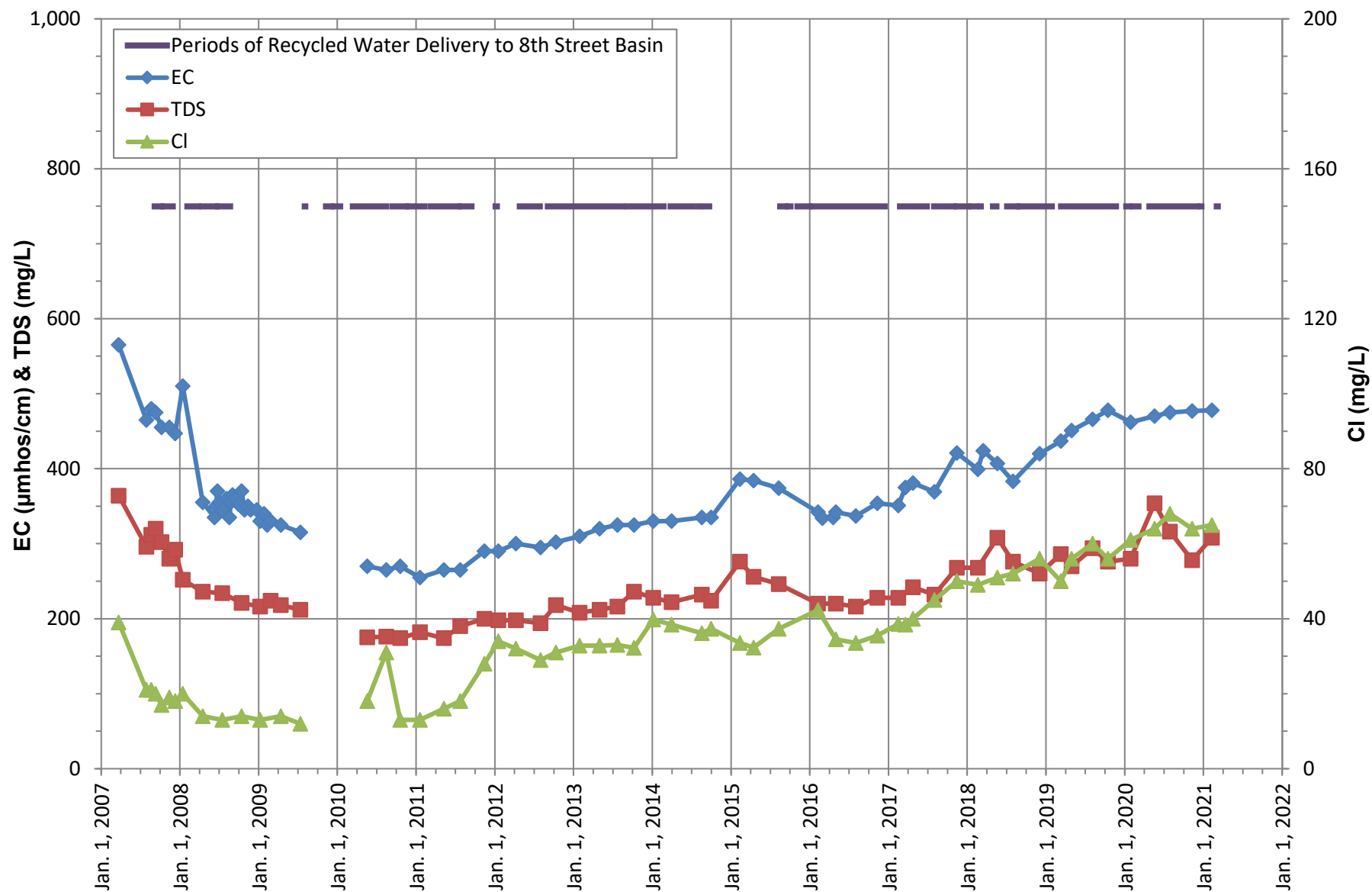
### EC, TDS, CHLORIDE TIME-SERIES GRAPHS

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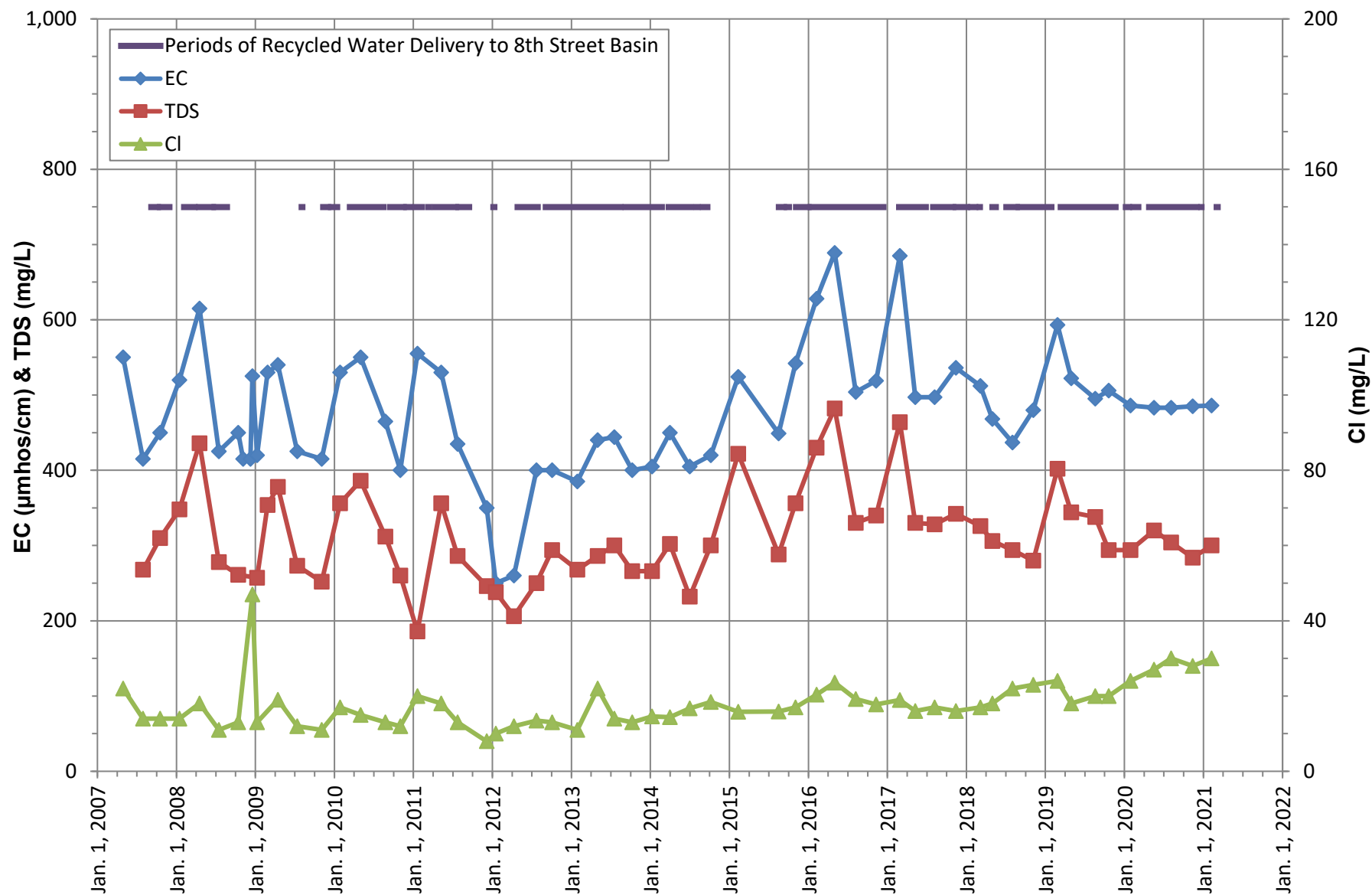
**EC, TDS, CHLORIDE TRENDS  
8TH STREET BASIN  
MW 8TH-1/1**





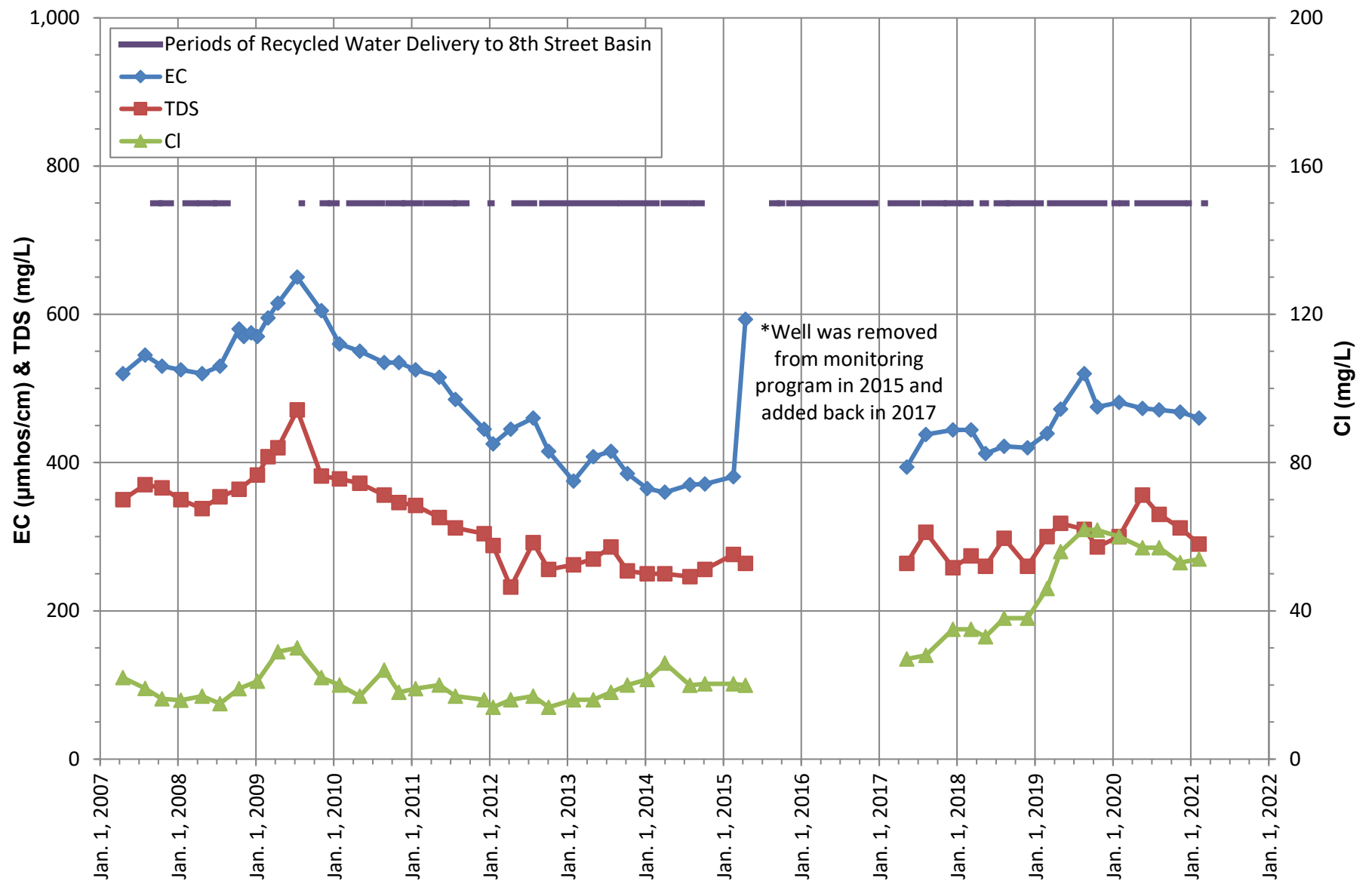
**EC, TDS, CHLORIDE TRENDS  
8TH STREET BASIN  
MW 8TH-1/2**





**EC, TDS, CHLORIDE TRENDS  
8TH STREET BASIN  
MW 8TH-2/1**



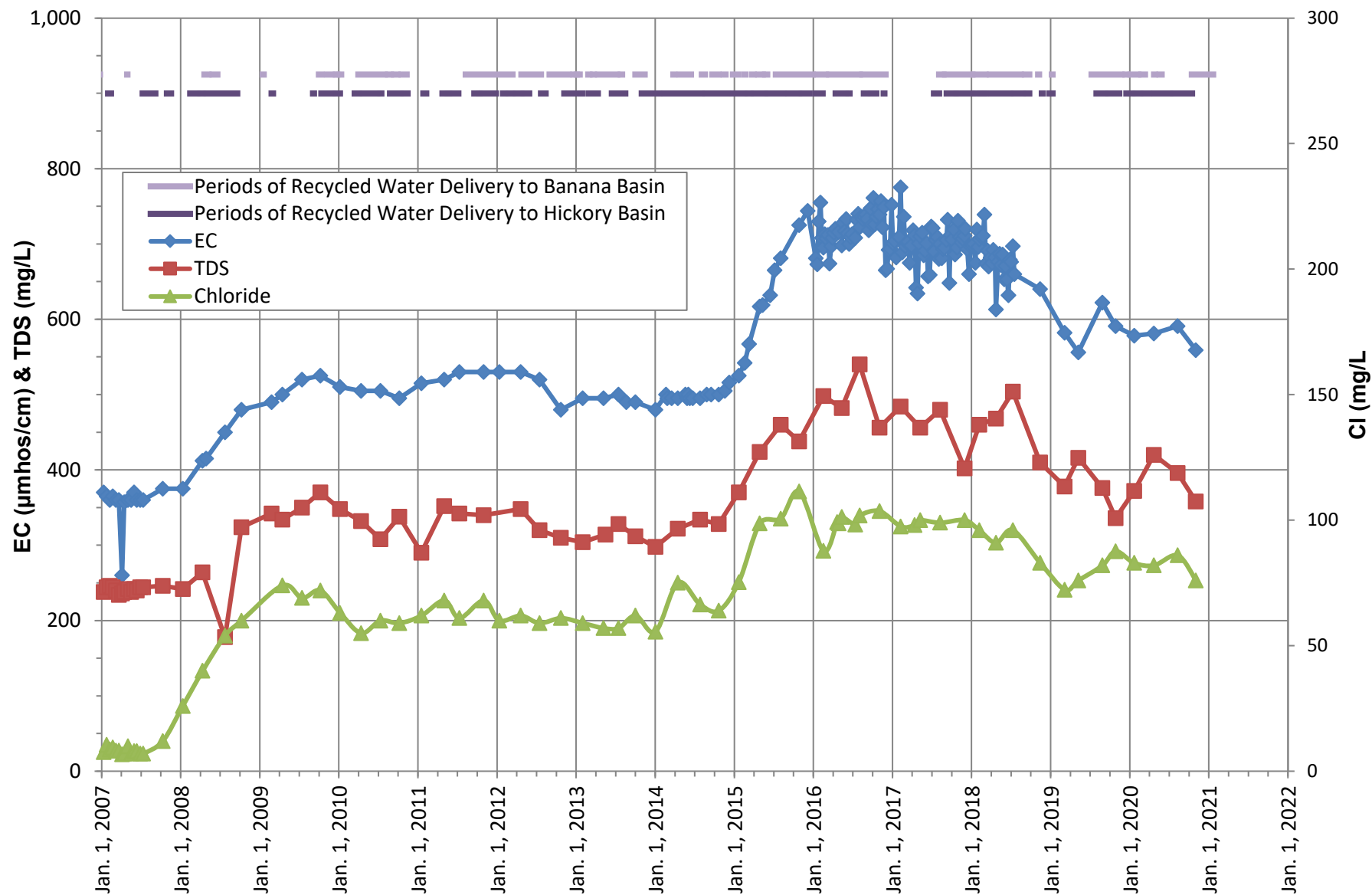


\*Well was removed from monitoring program in 2015 and added back in 2017

**EC, TDS, CHLORIDE TRENDS  
8TH STREET BASIN  
MW 8TH-2/2**

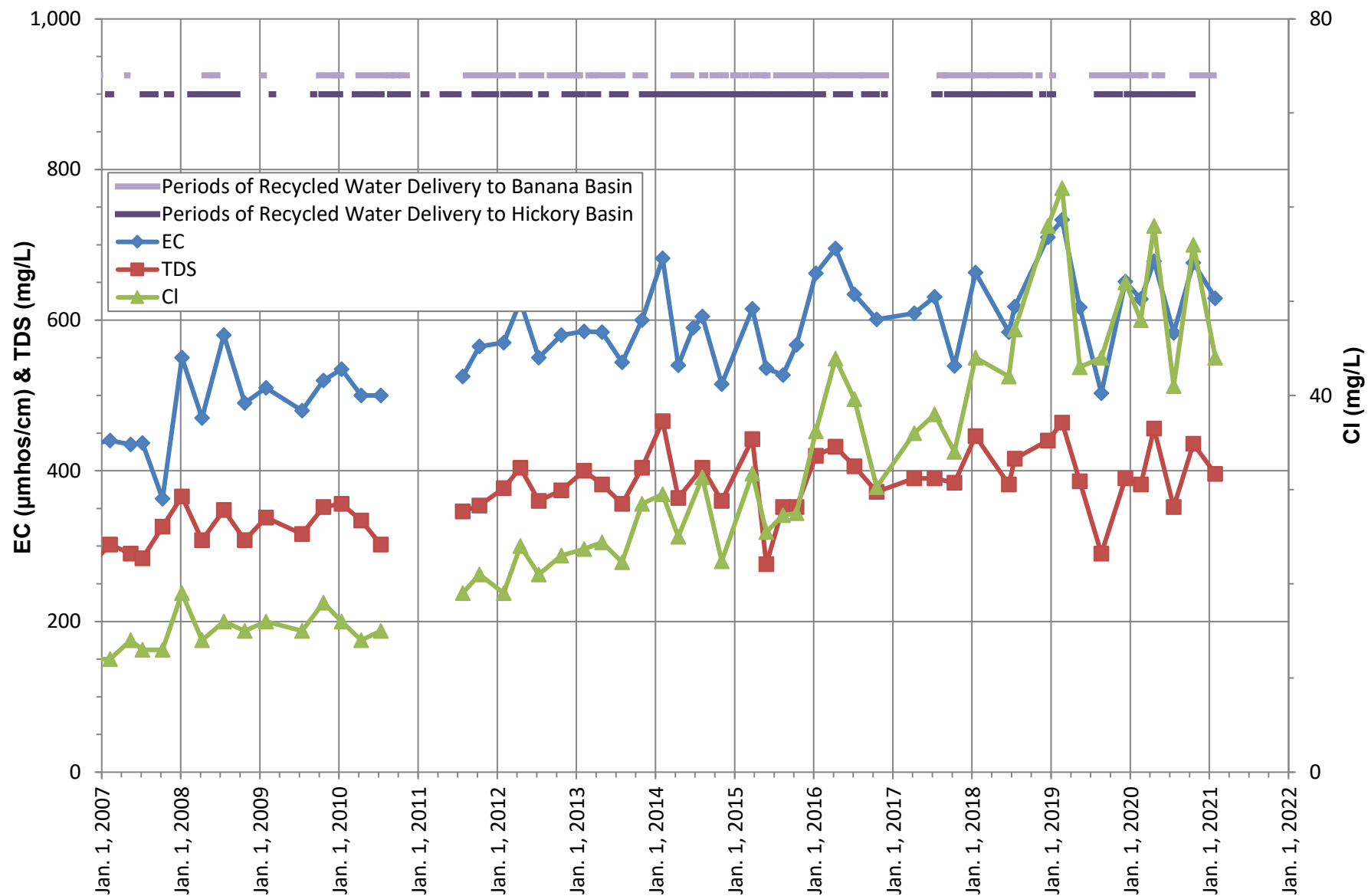






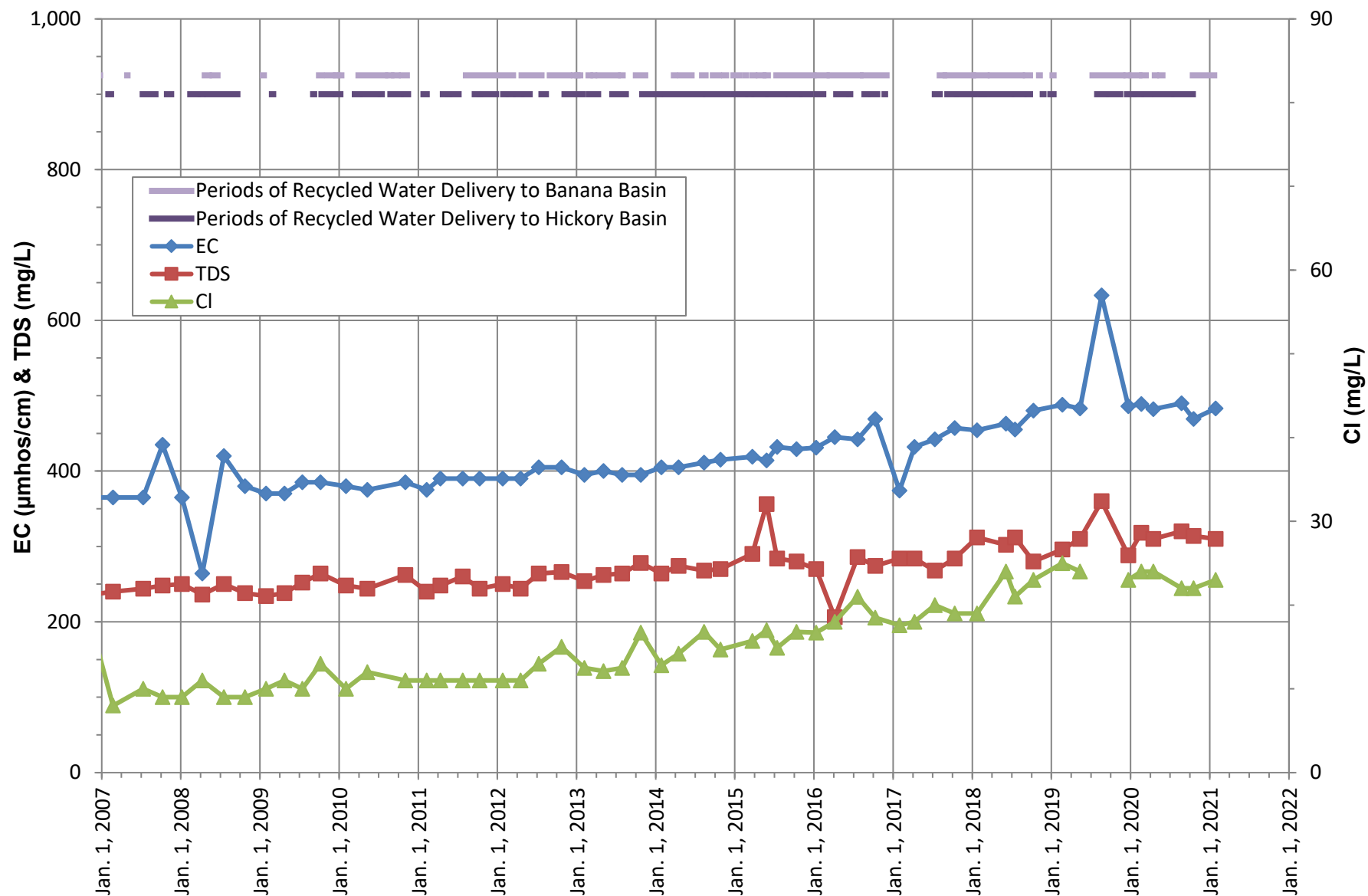
**EC, TDS, CHLORIDE TRENDS  
HICKORY BANANA BASINS  
MW BH-1/2**





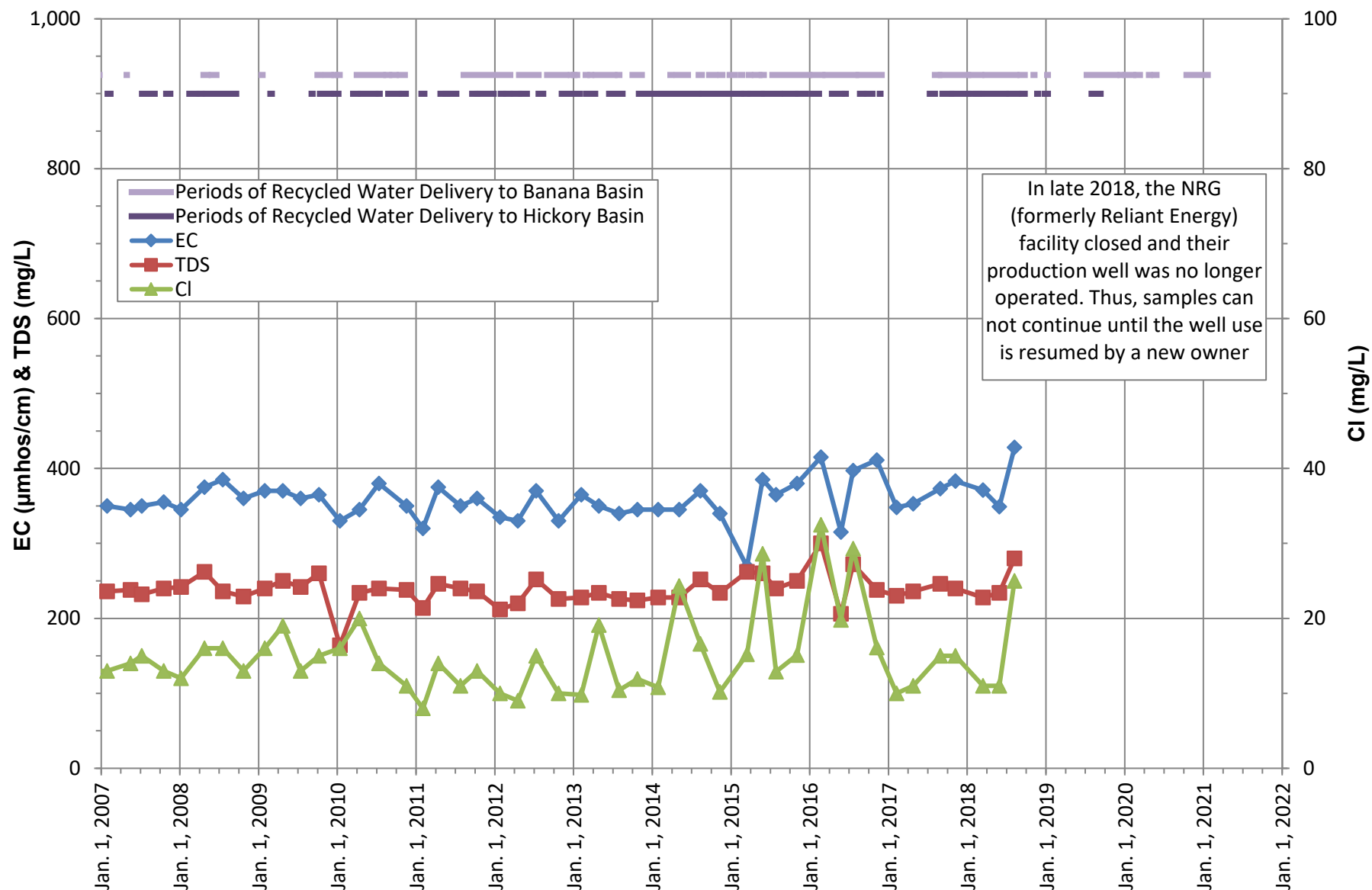
**EC, TDS, CHLORIDE TRENDS  
BANANA-HICKORY BASINS  
CALIFORNIA SPEEDWAY INFIELD WELL**





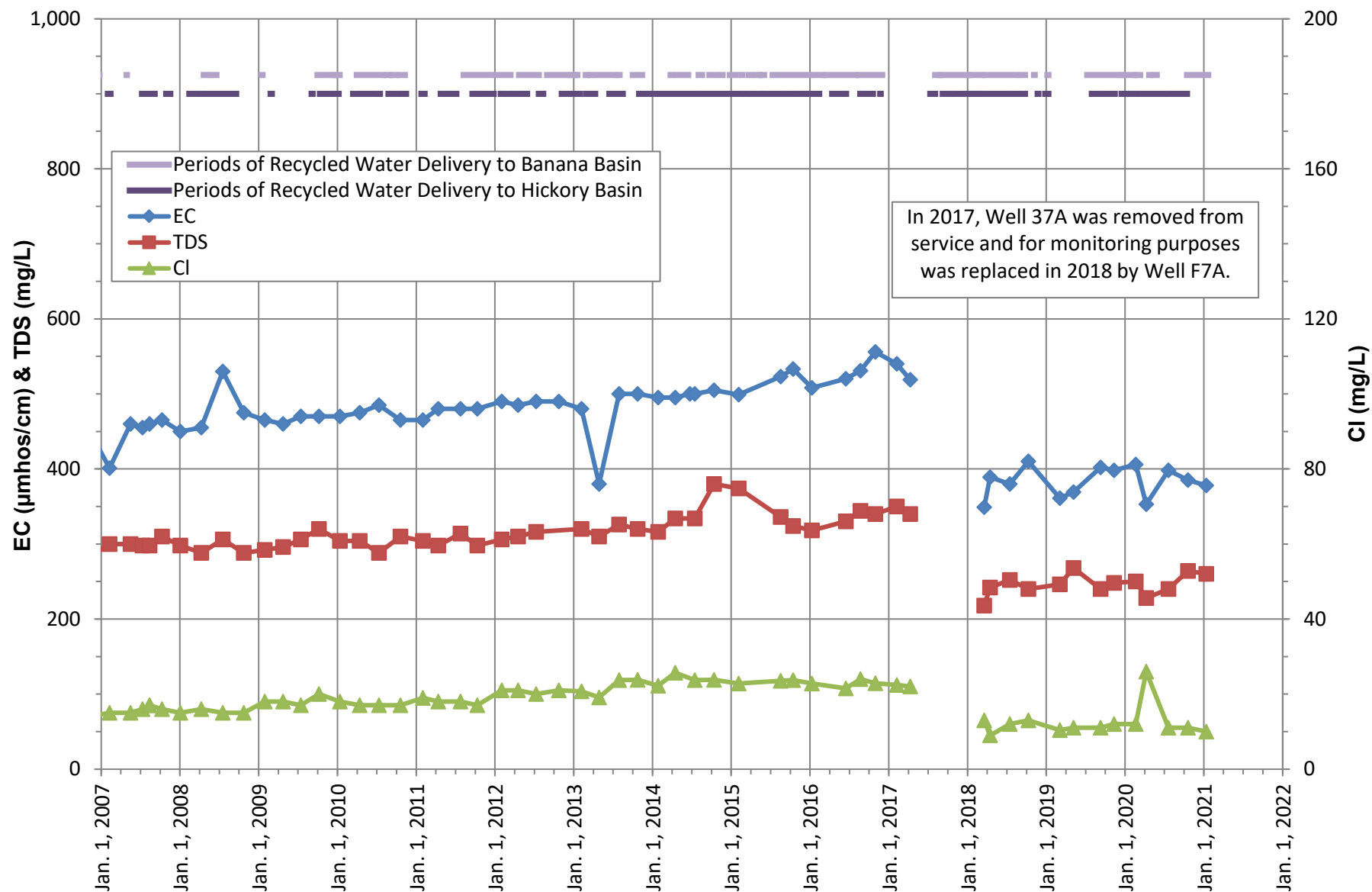
**EC, TDS, CHLORIDE TRENDS  
BANANA-HICKORY BASINS  
CALIFORNIA SPEEDWAY NO. 2**





**EC, TDS, CHLORIDE TRENDS  
BANANA-HICKORY BASINS  
RELIANT EAST WELL**

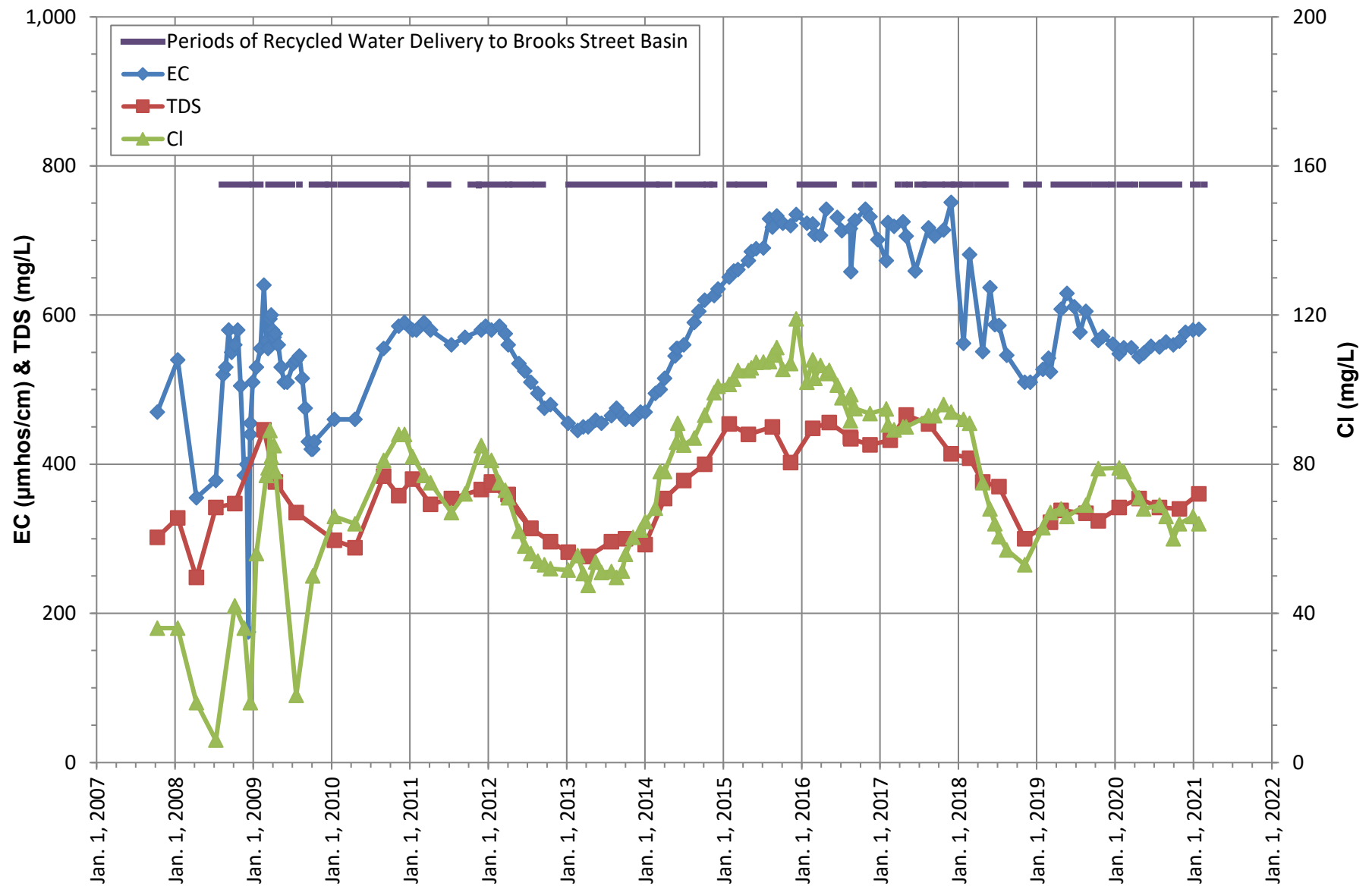




**EC, TDS, CHLORIDE TRENDS  
BANANA-HICKORY BASINS  
FONTANA WATER CO. WELLS 7A AND 37A**

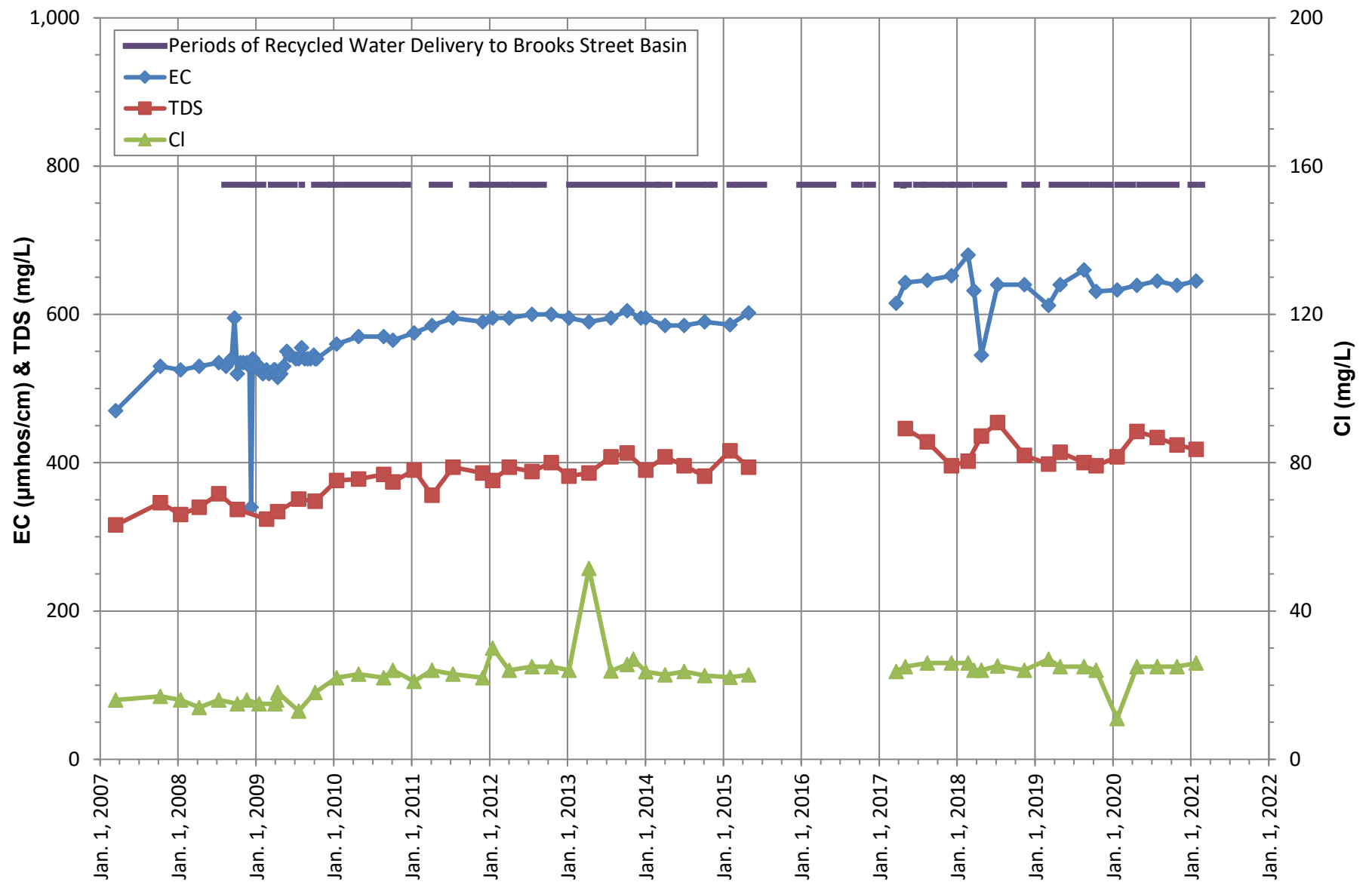






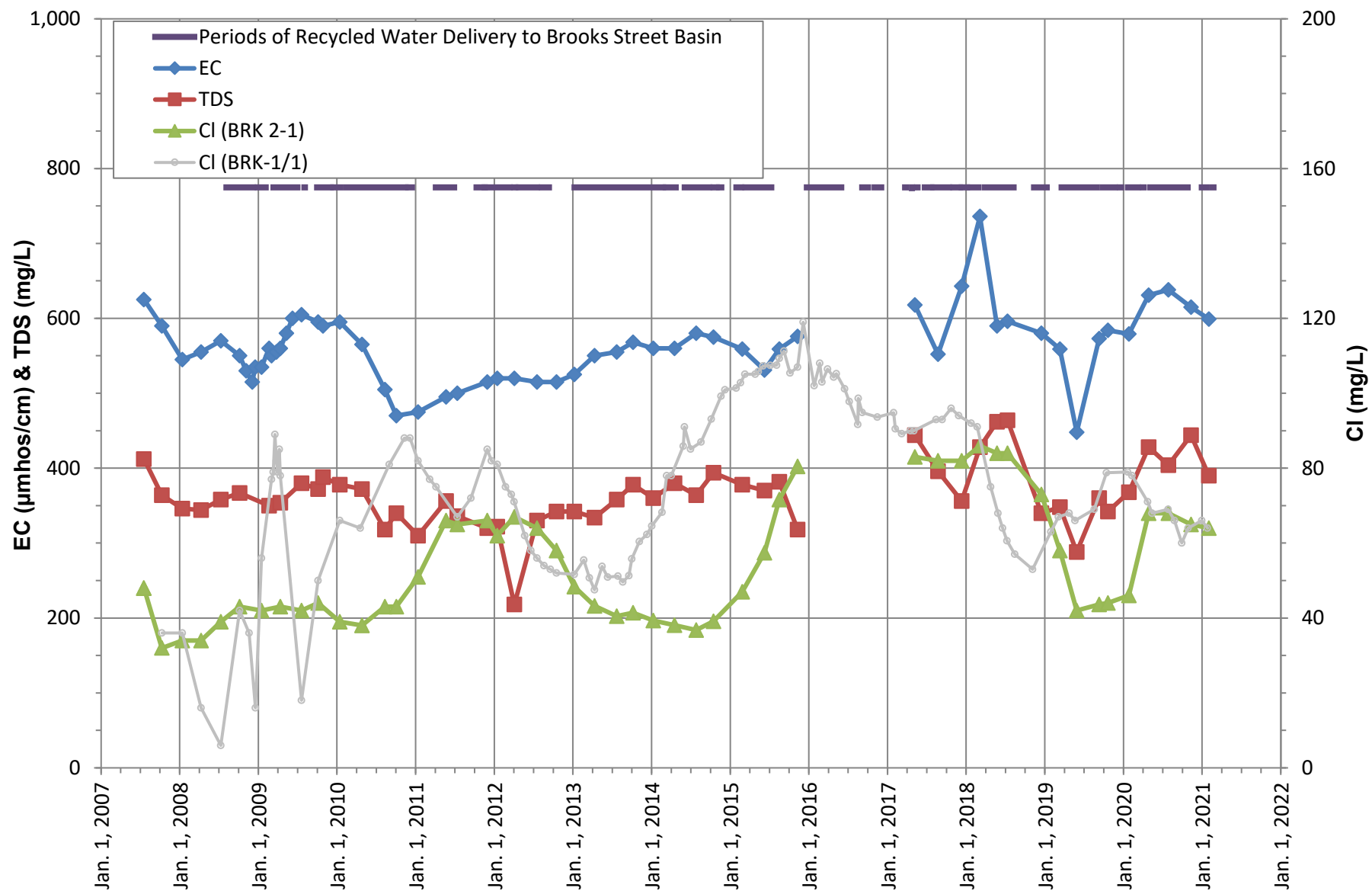
**EC, TDS, CHLORIDE TRENDS  
BROOKS STREET BASIN  
MW BRK-1/1**





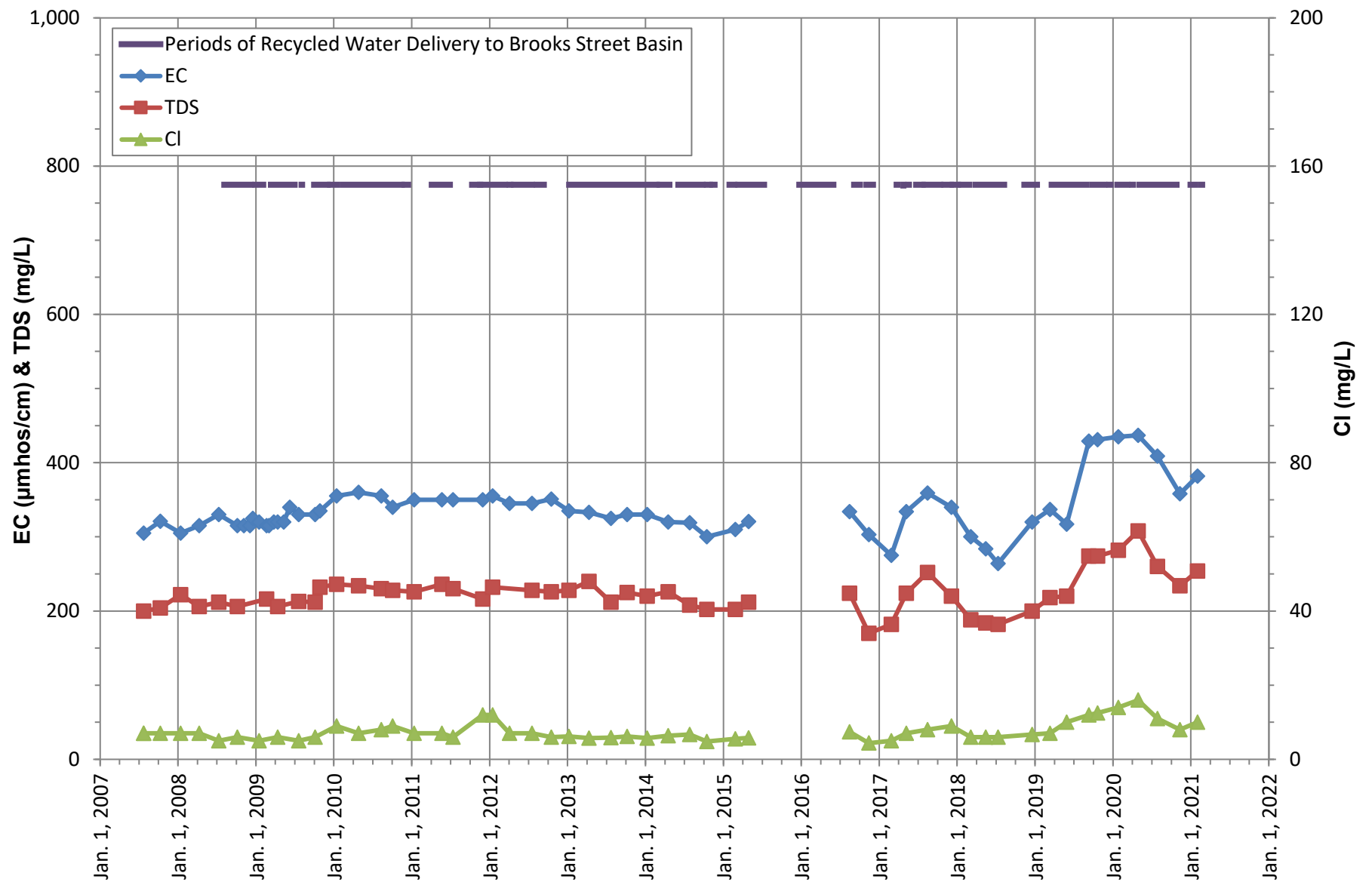
**EC, TDS, CHLORIDE TRENDS  
BROOKS STREET BASIN  
MW BRK-1/2**





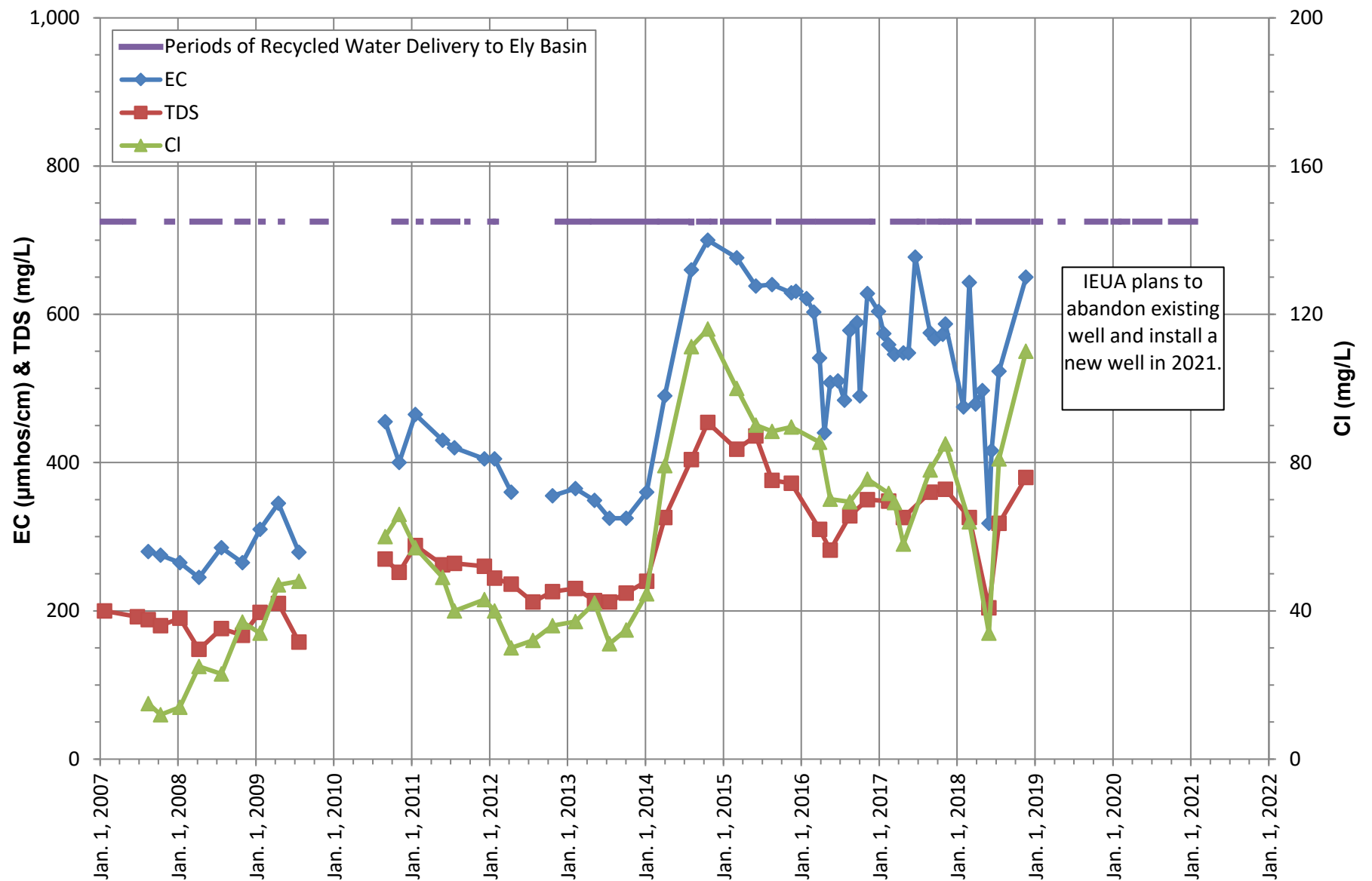
**EC, TDS, CHLORIDE TRENDS  
BROOKS STREET BASIN  
MW BRK-2/1**





**EC, TDS, CHLORIDE TRENDS  
BROOKS STREET BASIN  
MW BRK-2/2**

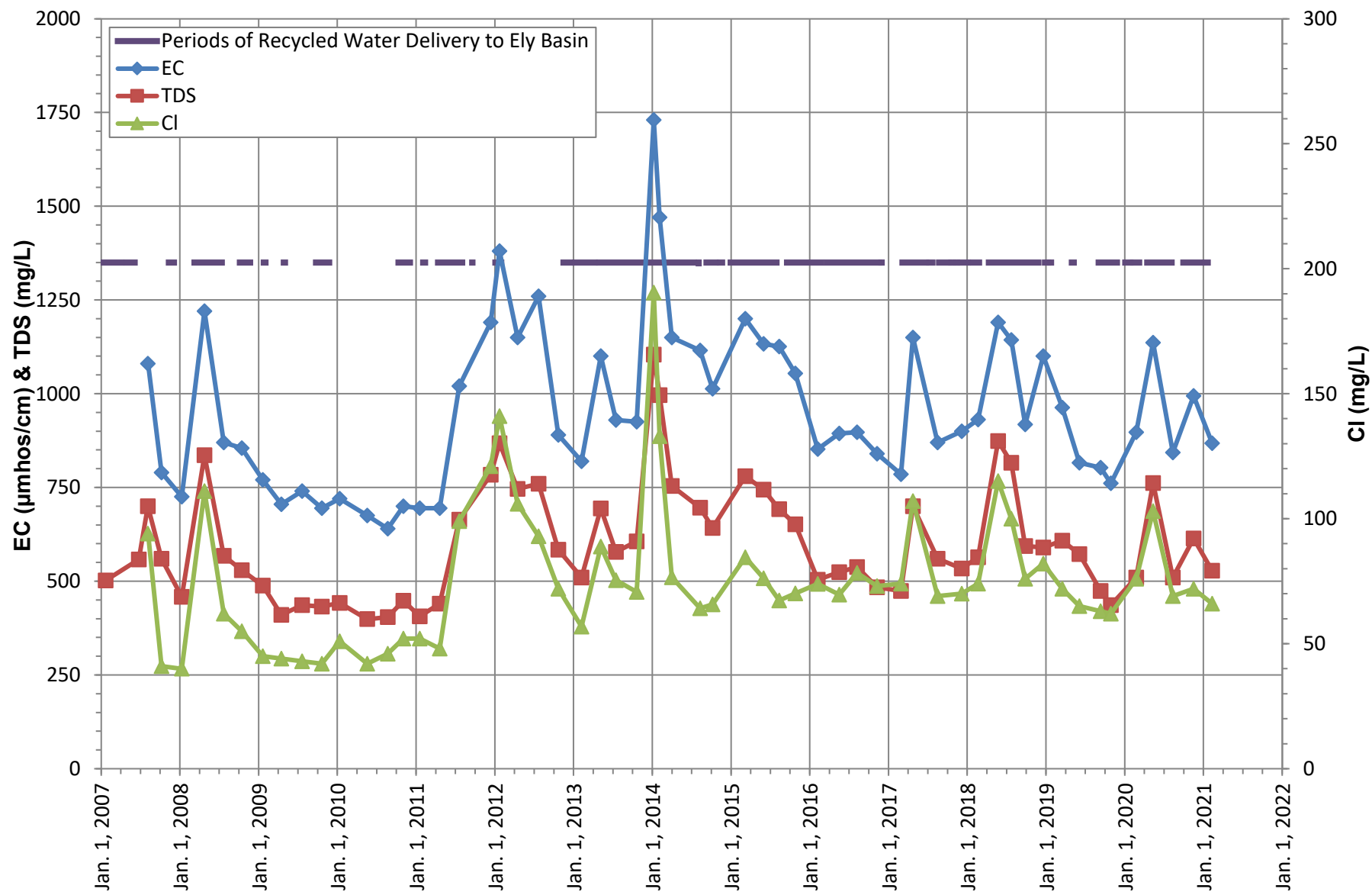




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PHILADELPHIA WELL**

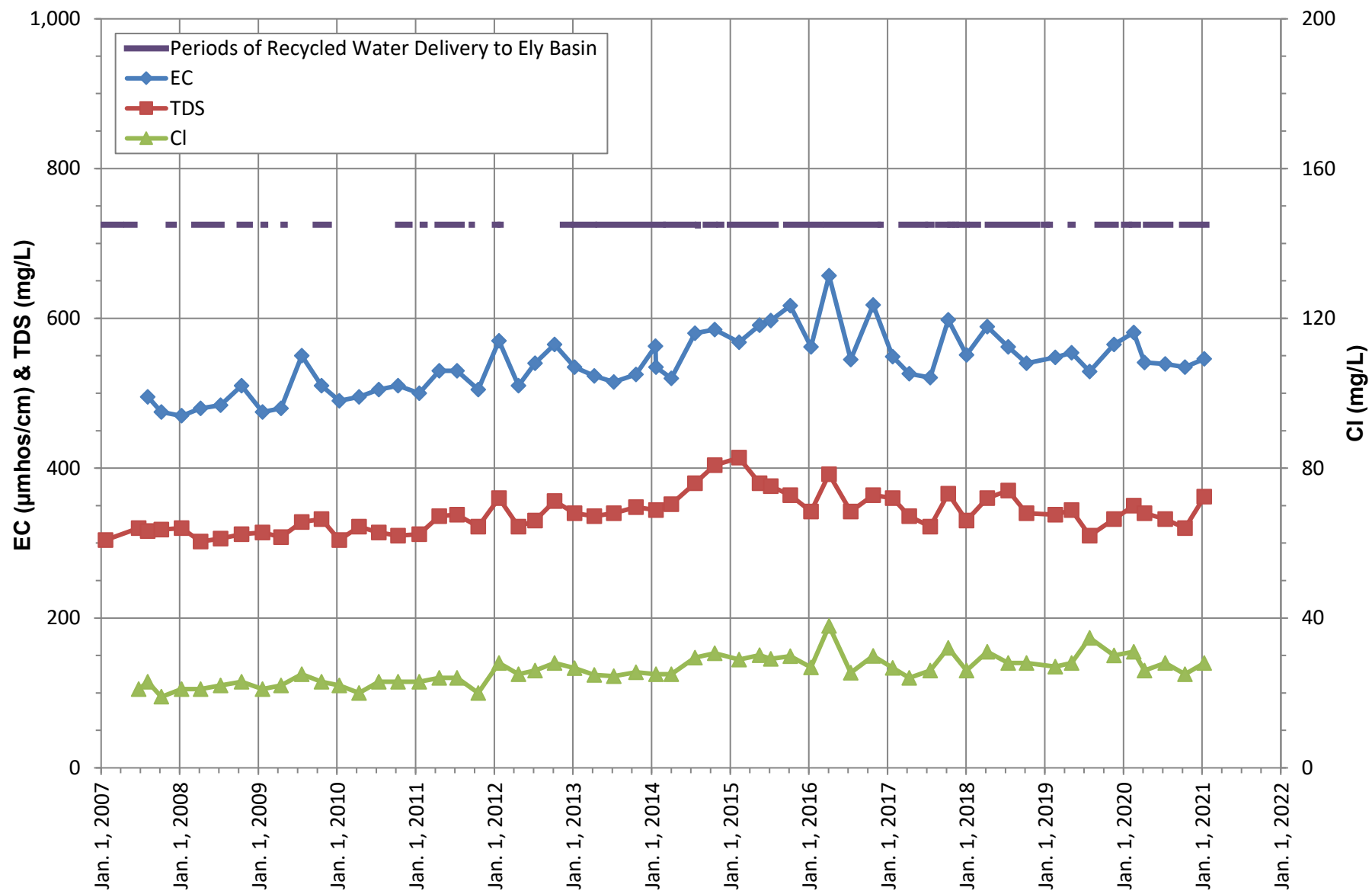






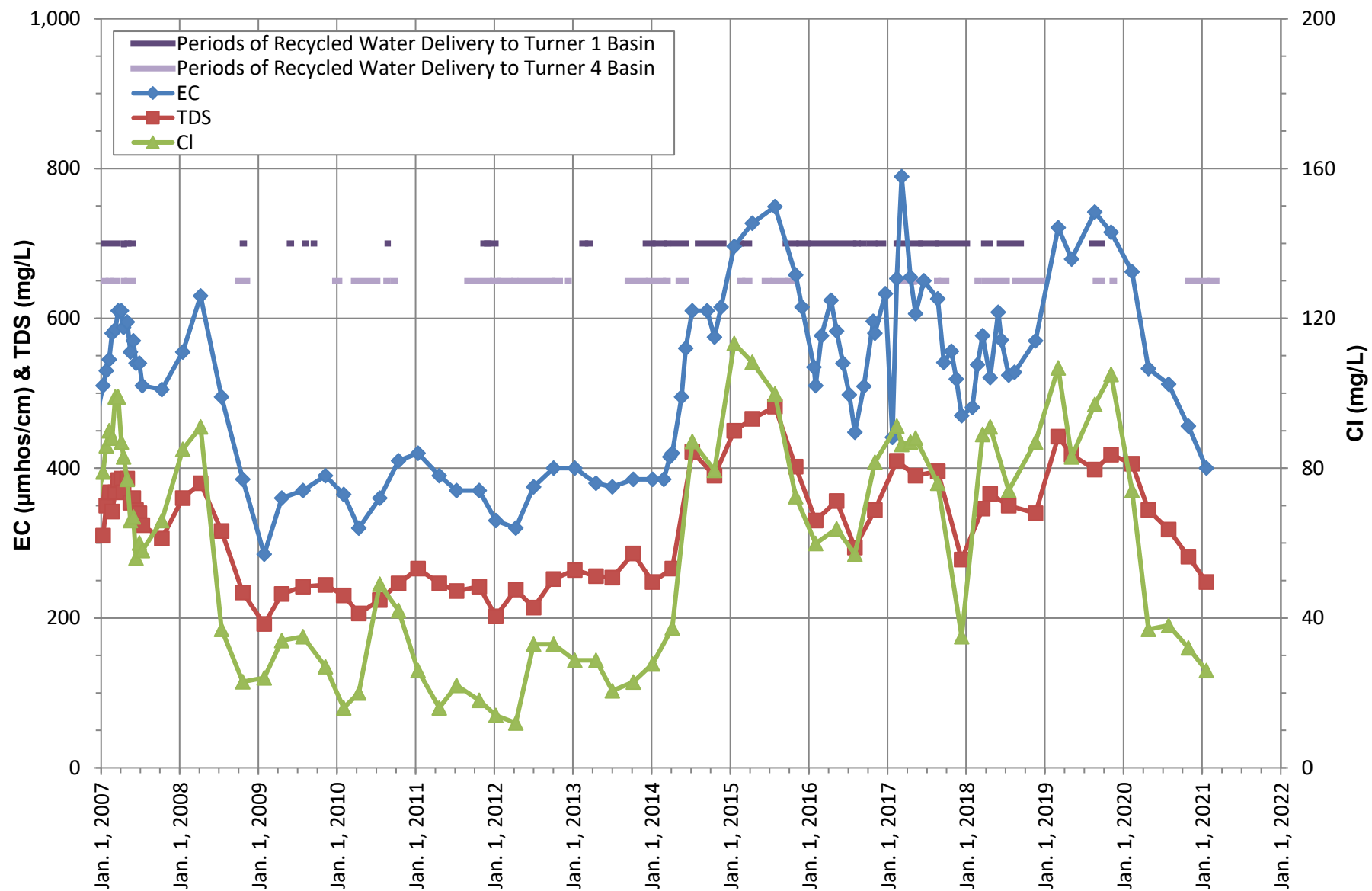
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ELY BASIN  
WALNUT WELL**





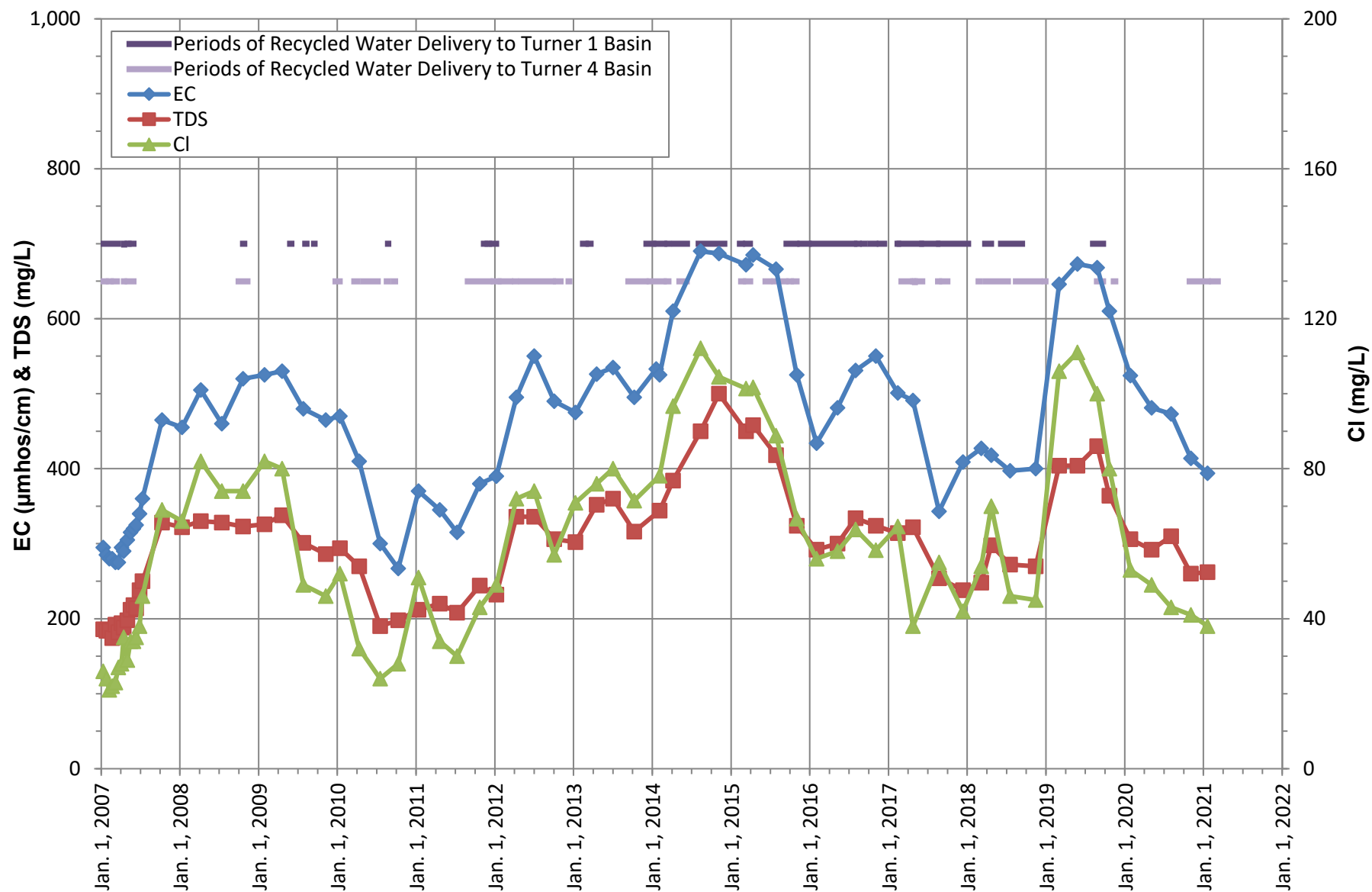
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ELY BASIN  
RIVERSIDE WELL**





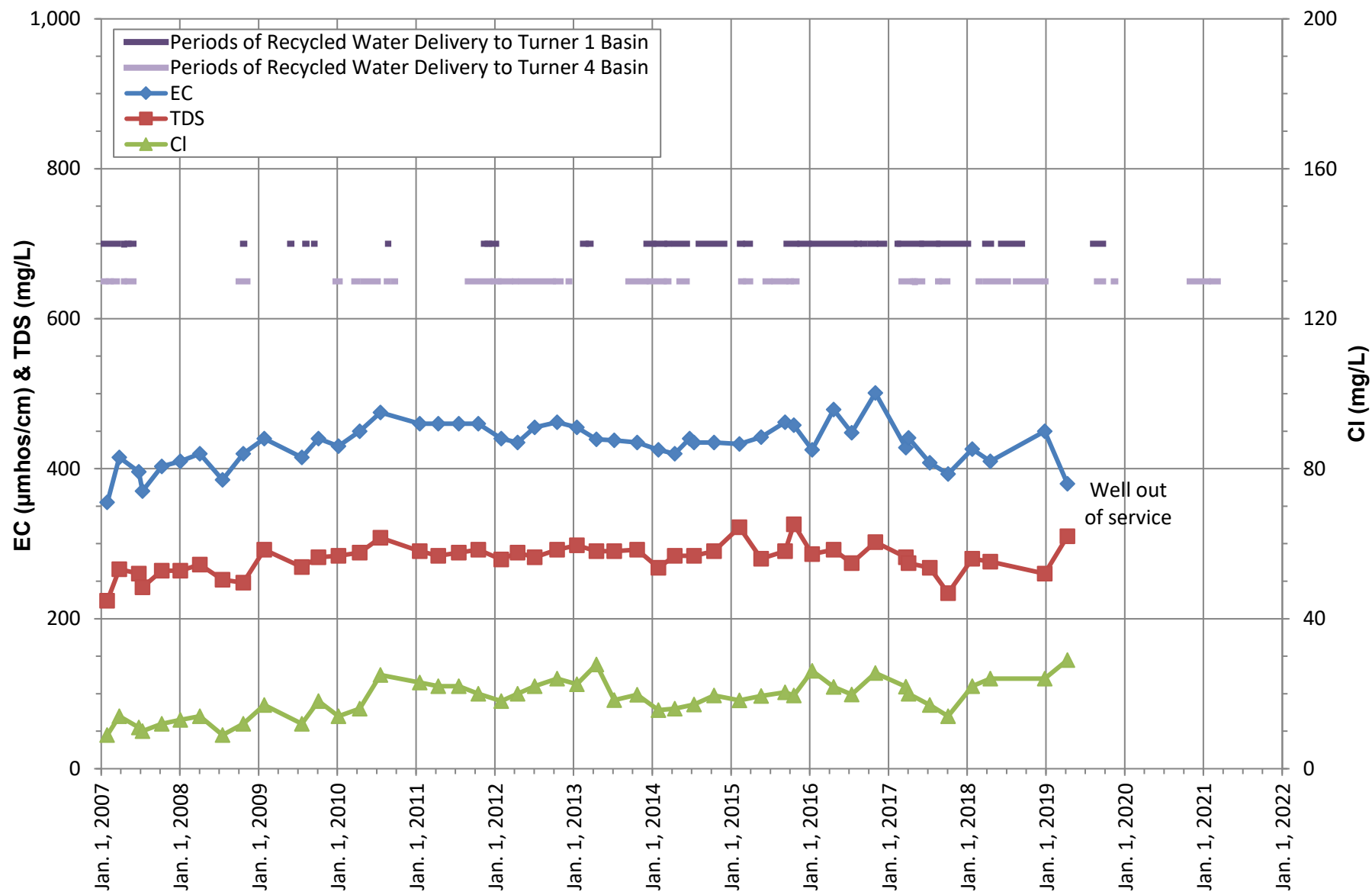
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TURNER BASINS  
MW T-1/2**





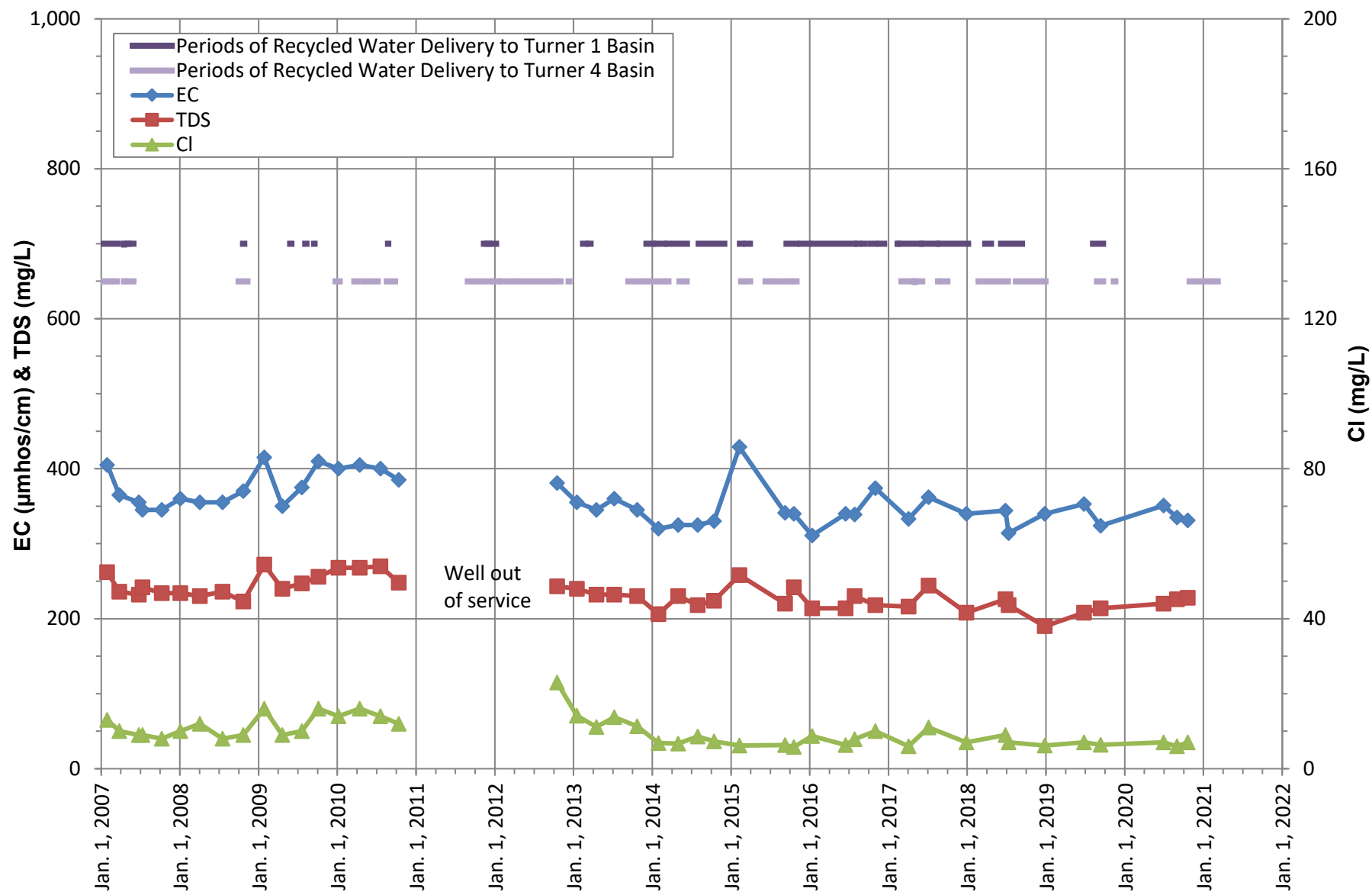
**EC, TDS, CHLORIDE TRENDS  
TURNER BASINS  
MW T-2/2**





**EC, TDS, CHLORIDE TRENDS  
TURNER BASINS  
ONTARIO NO. 25**

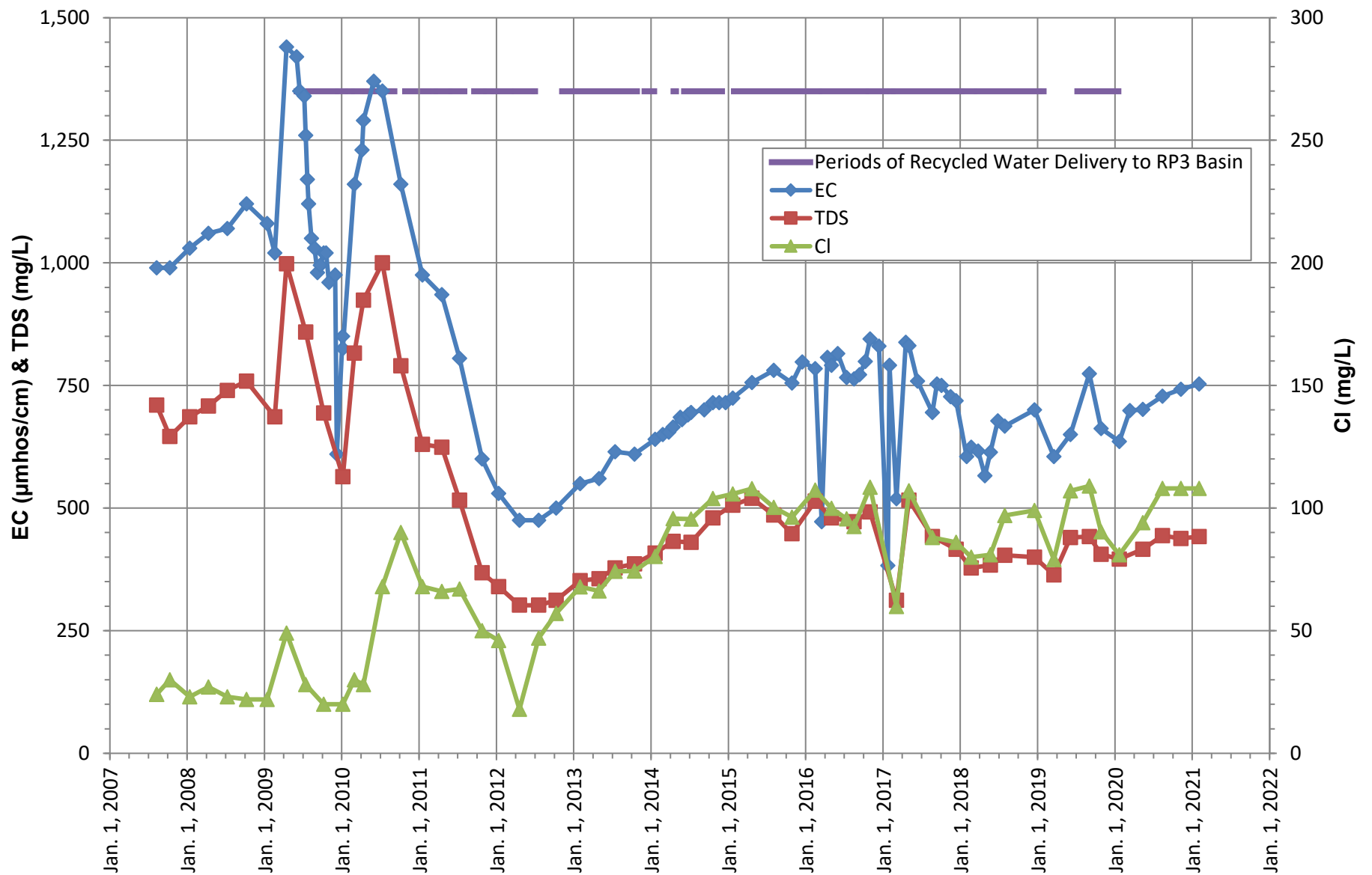




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ONTARIO NO. 29**

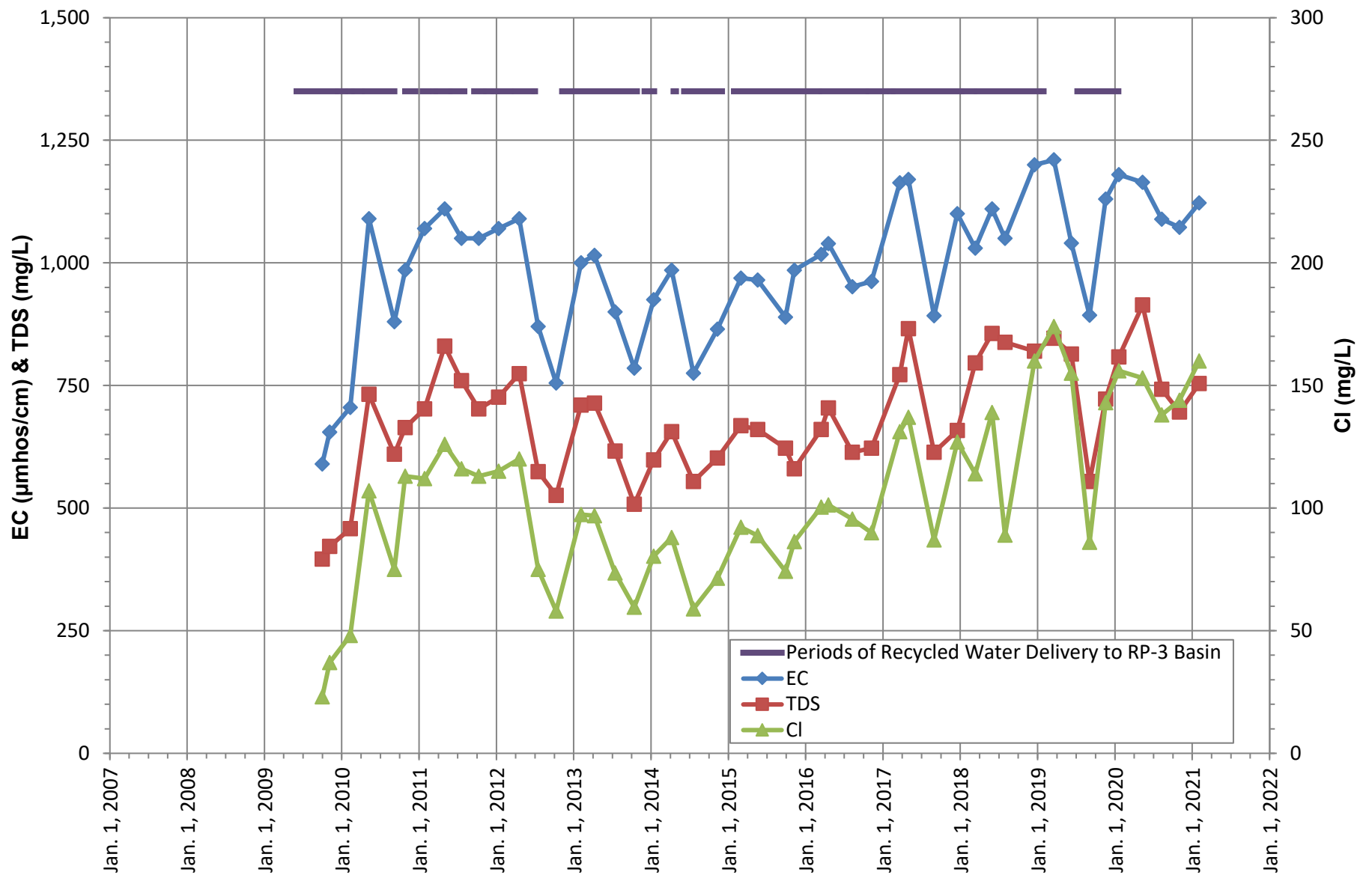






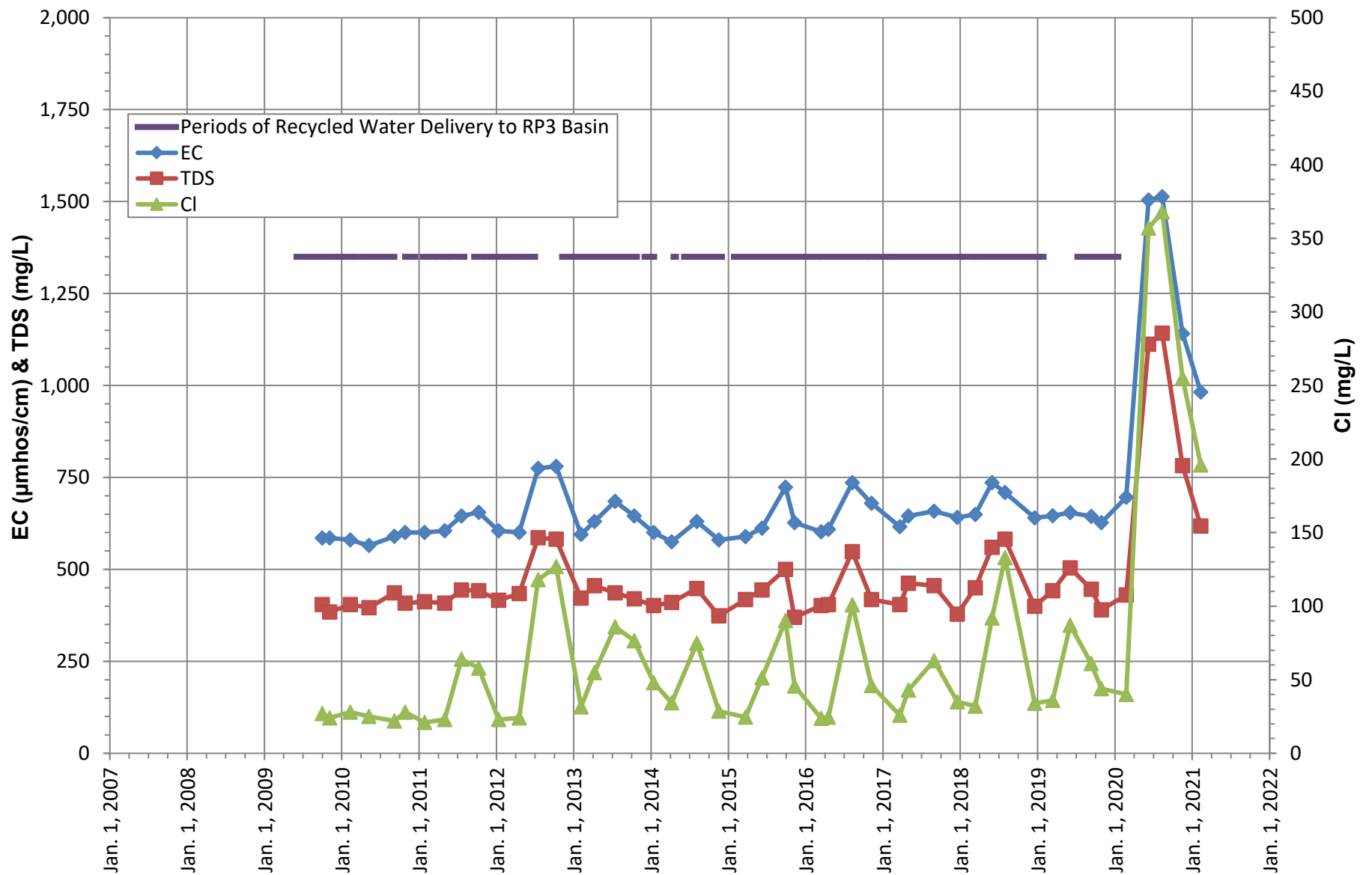
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RP3 BASINS  
RP3-1/1**





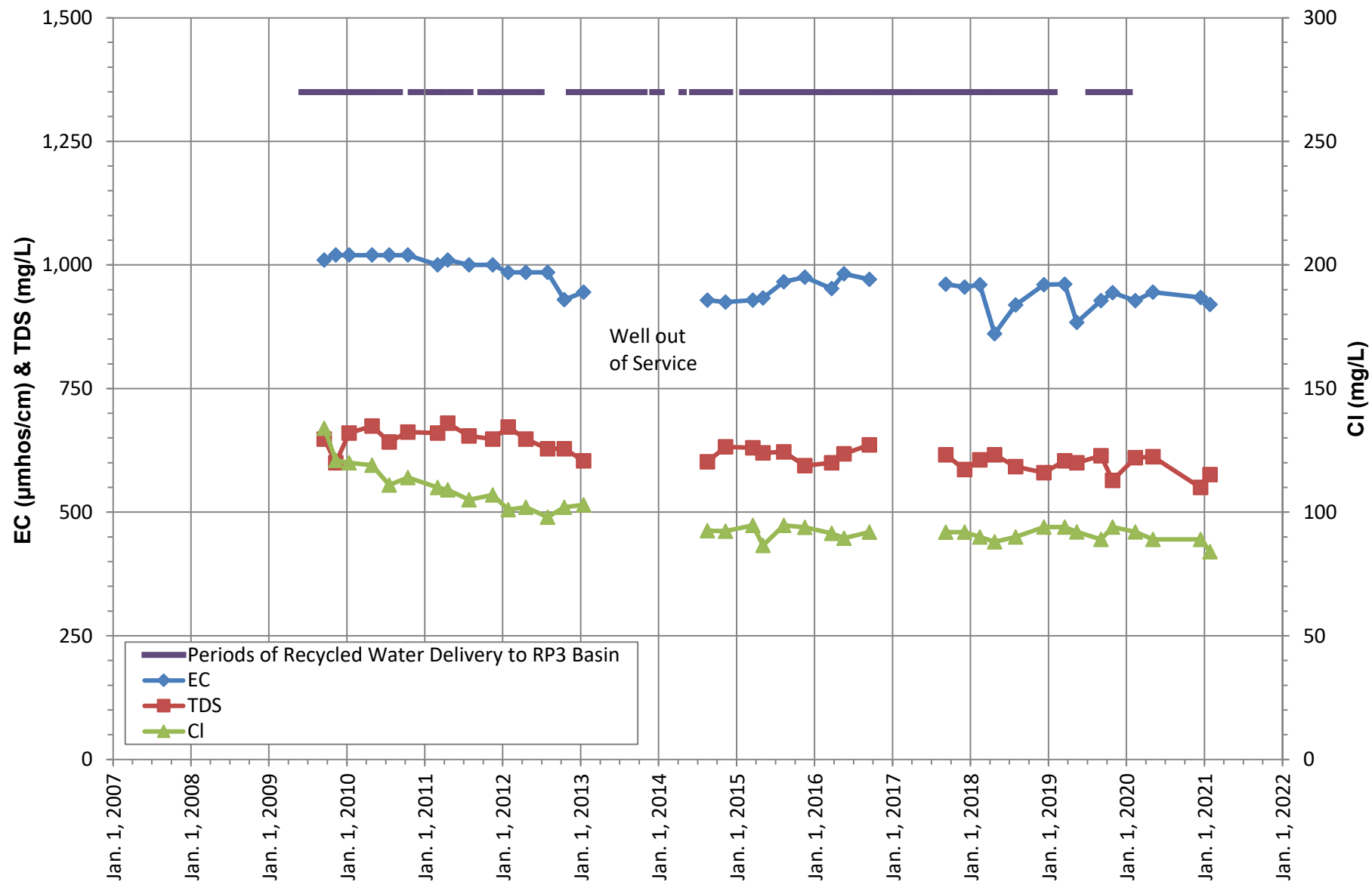
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RP3 BASINS  
ALCOA MW-3**





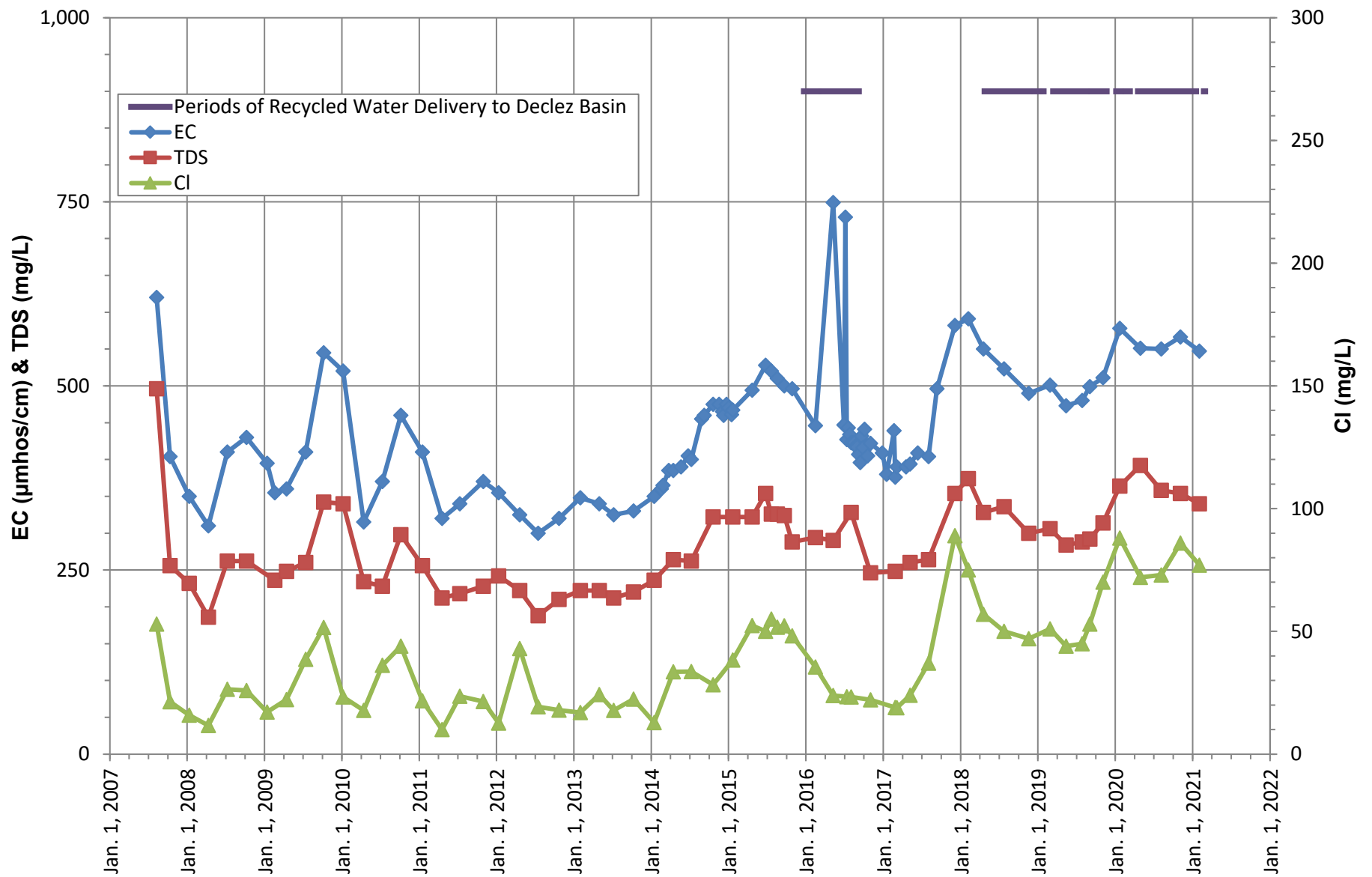
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RP3 BASINS  
ALCOA MW-1**





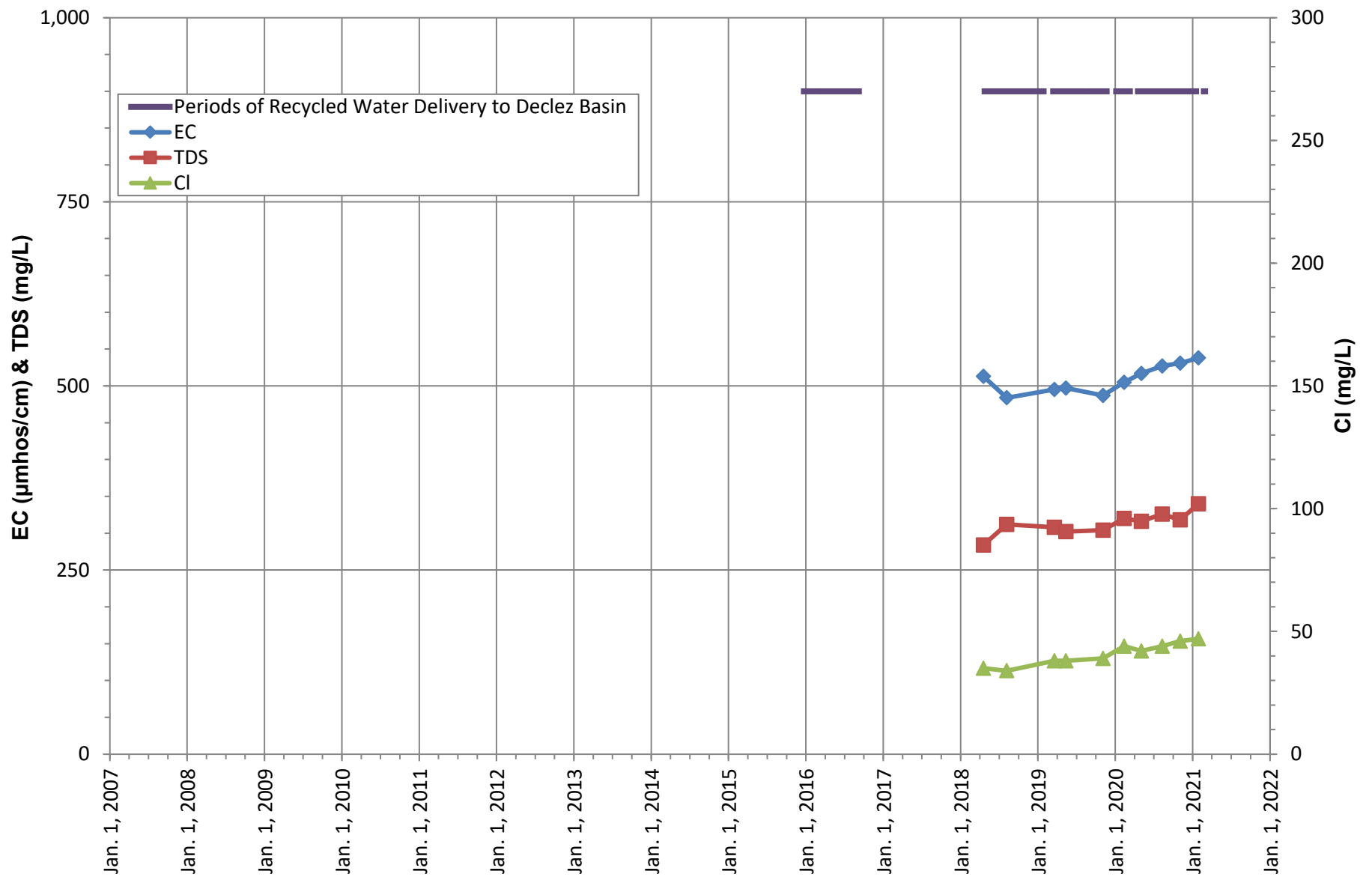
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RP3 BASINS  
Southridge JHS Well**





**EC, TDS, CHLORIDE TRENDS  
DECLEZ BASIN  
DCZ-1/1**

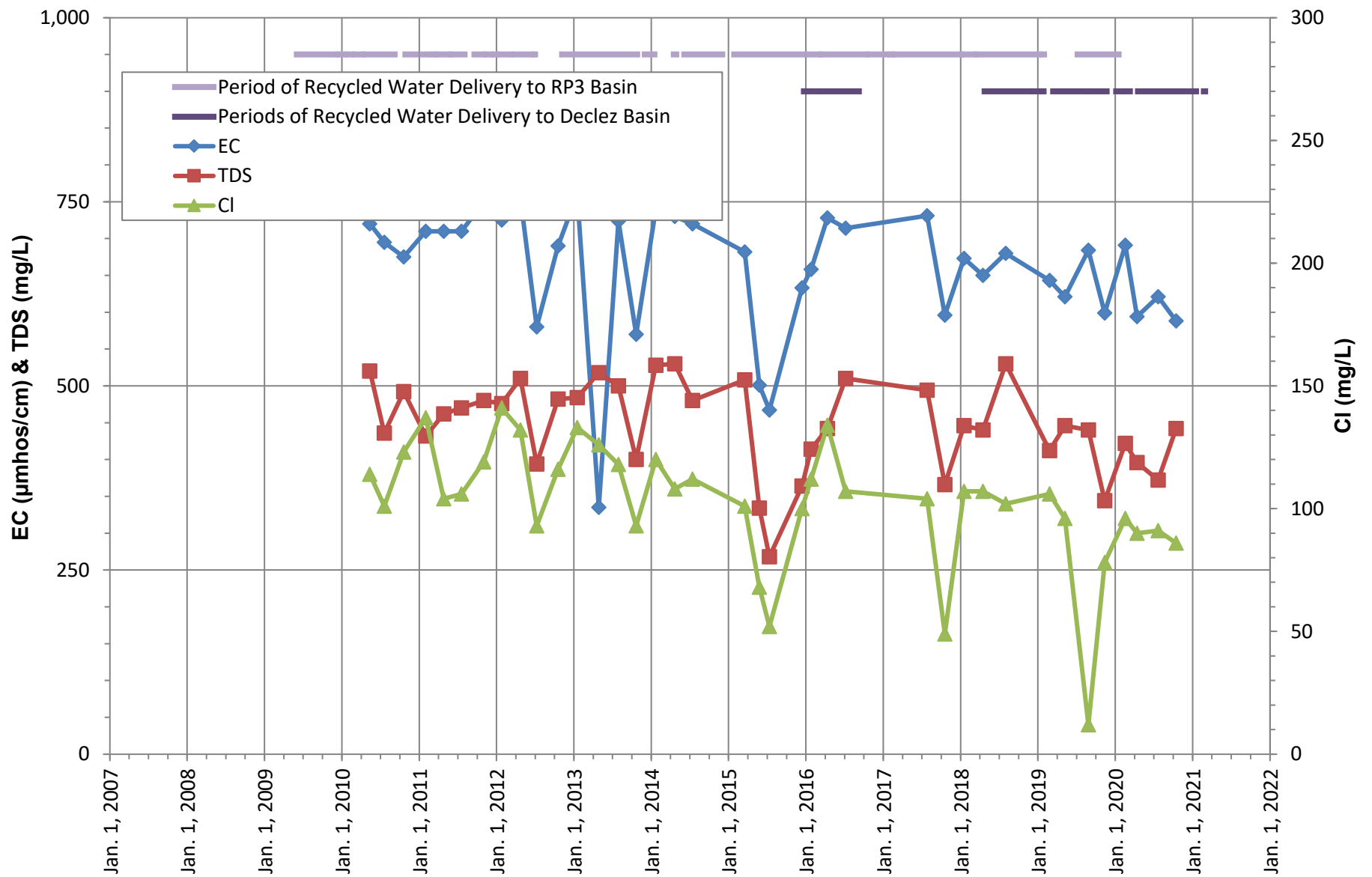




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DECLEZ BASIN  
DCZ-2**

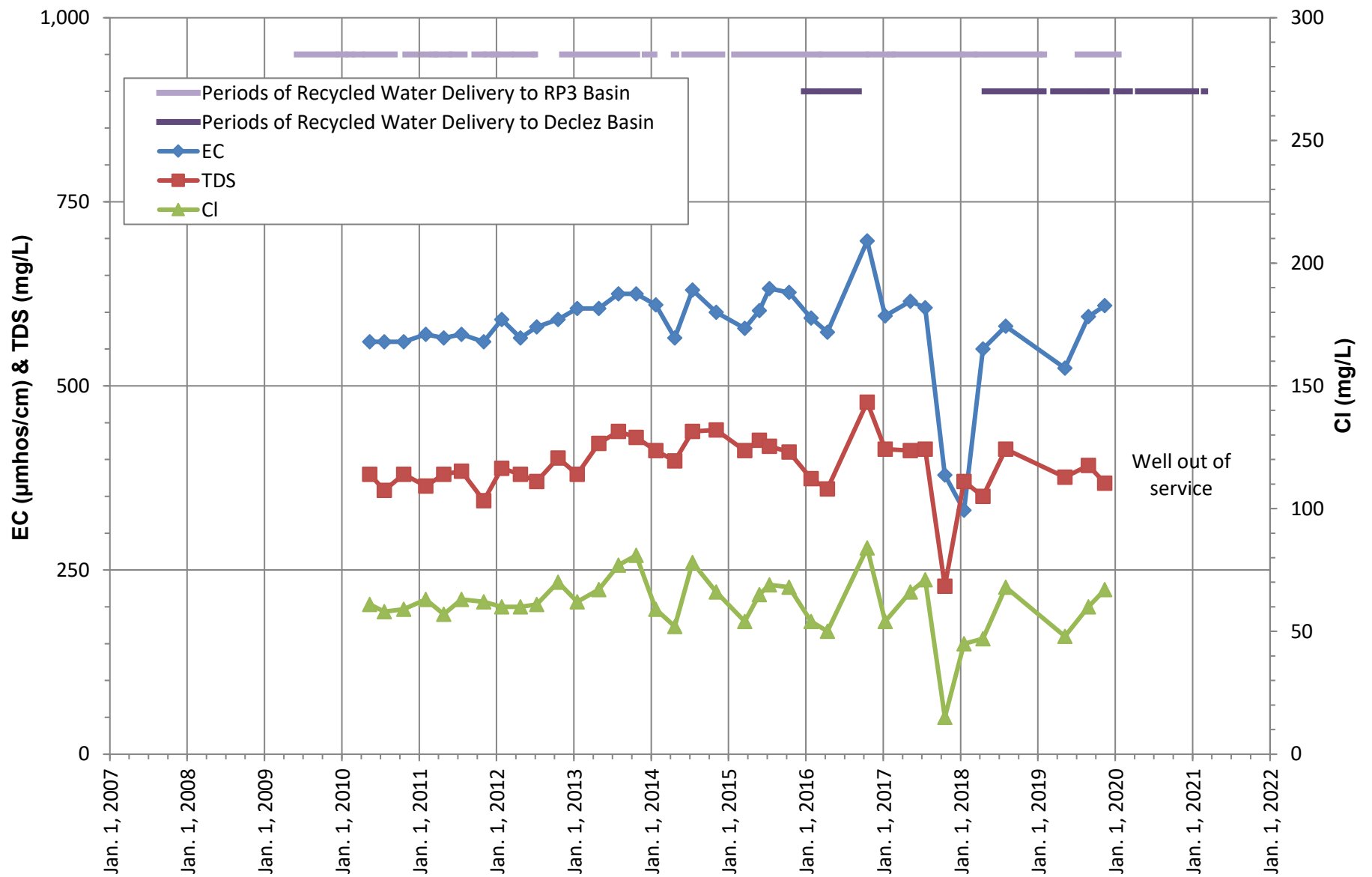






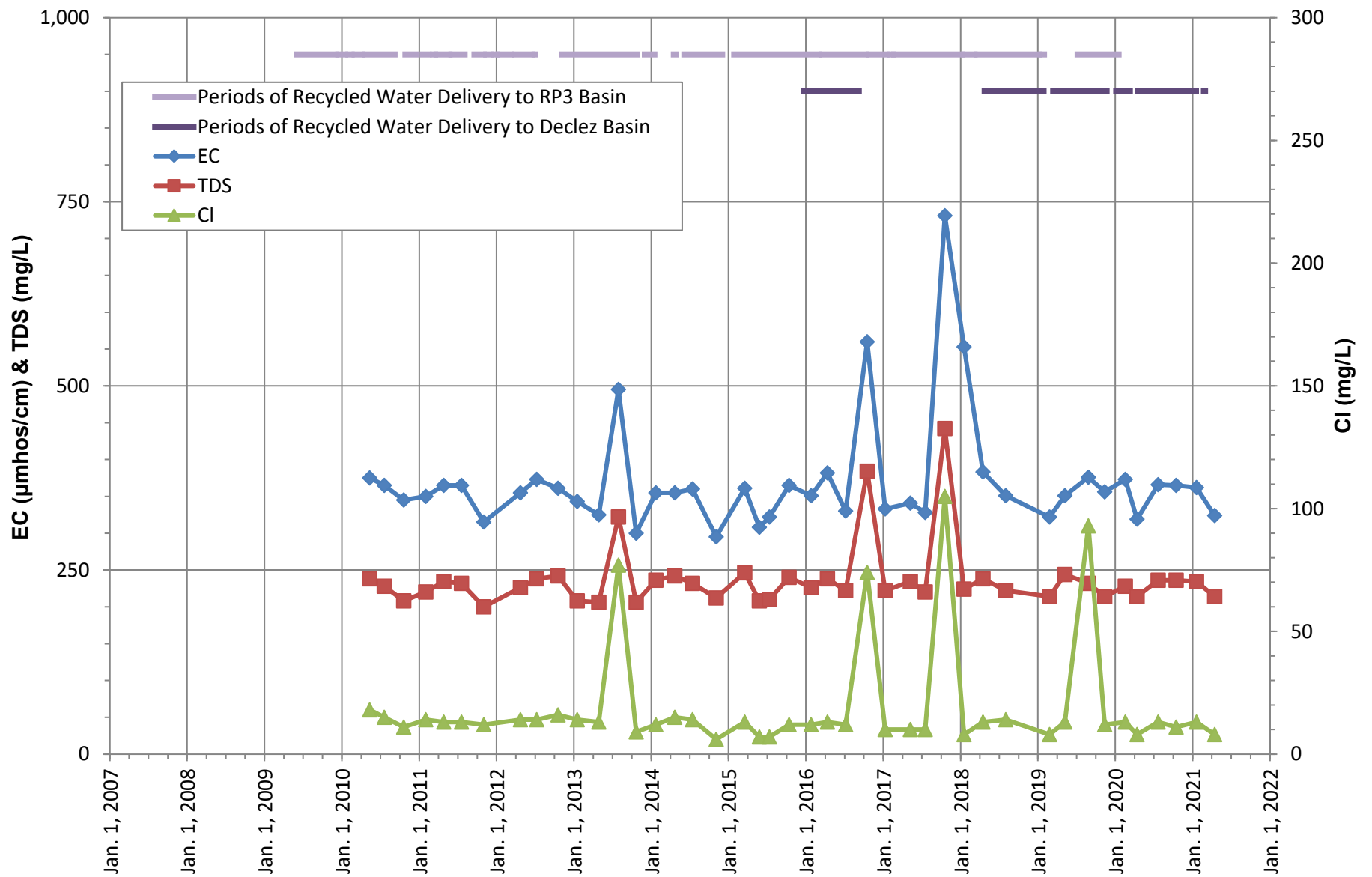
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RP3 AND DECLEZ BASINS  
JCSD Well No. 13**





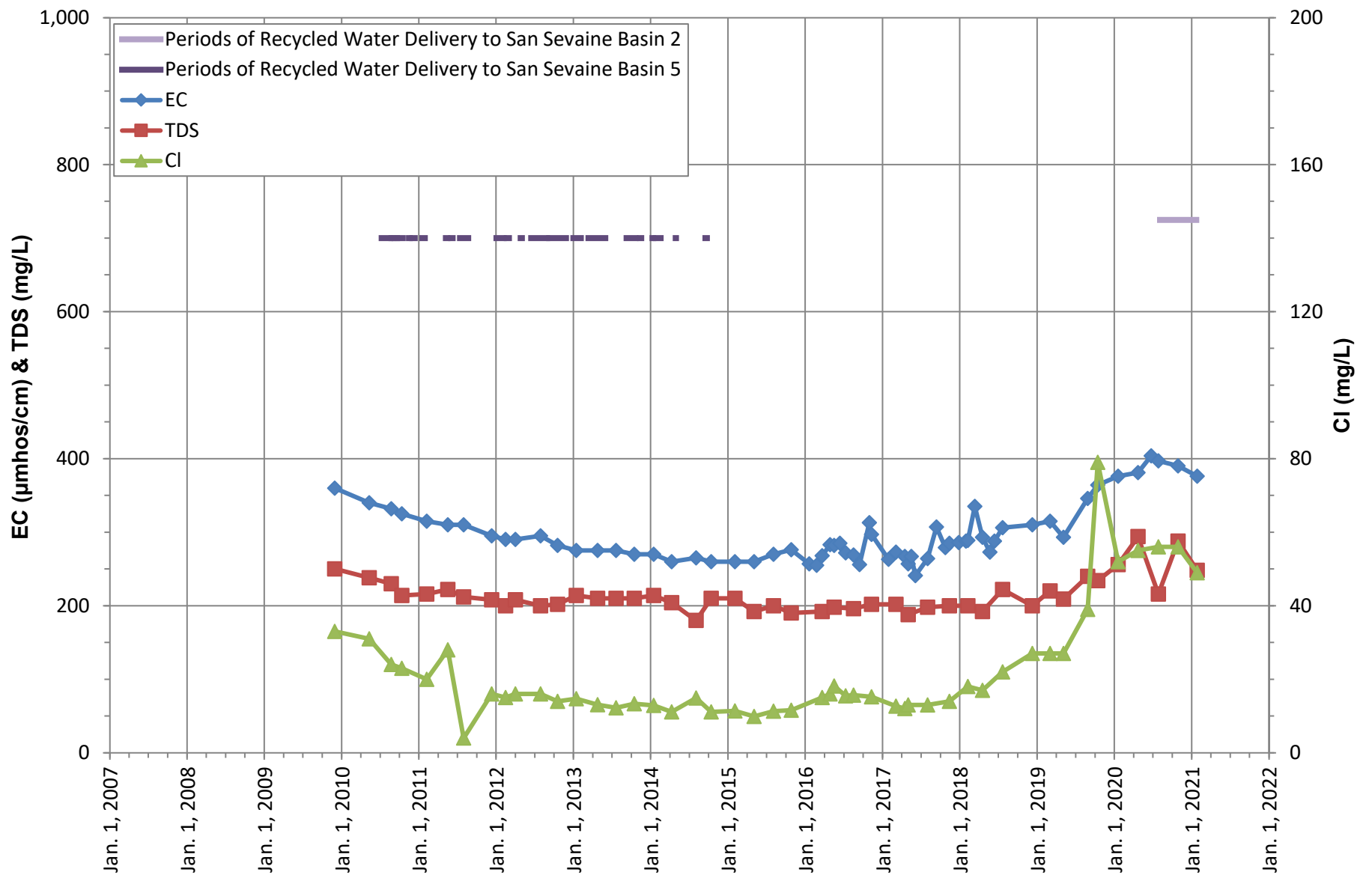
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RP3 AND DECLEZ BASINS  
JCSD Well No. 17**





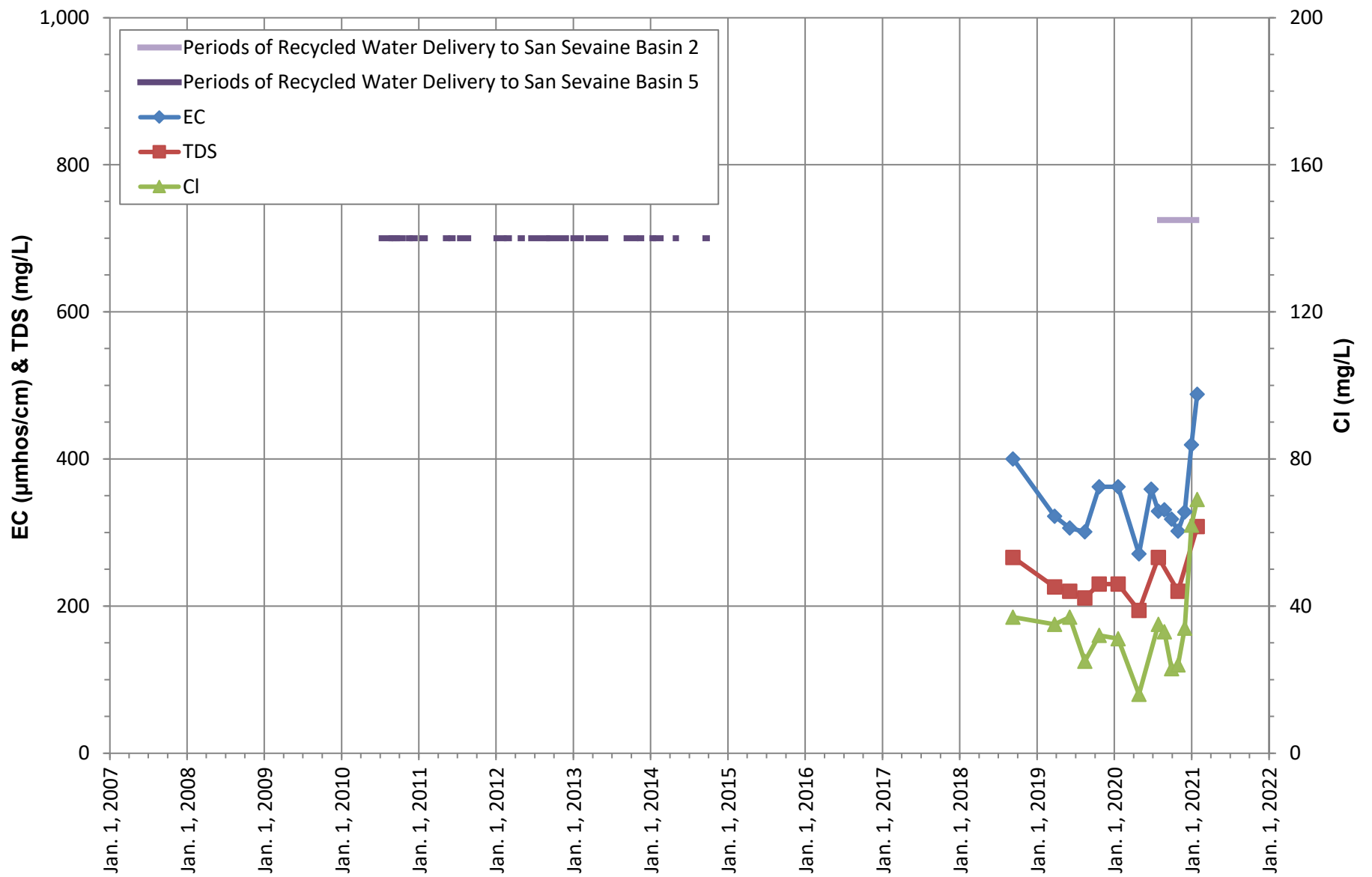
**EC, TDS, CHLORIDE TRENDS  
RP3 AND DECLEZ BASINS  
JCSO Well No. 19**





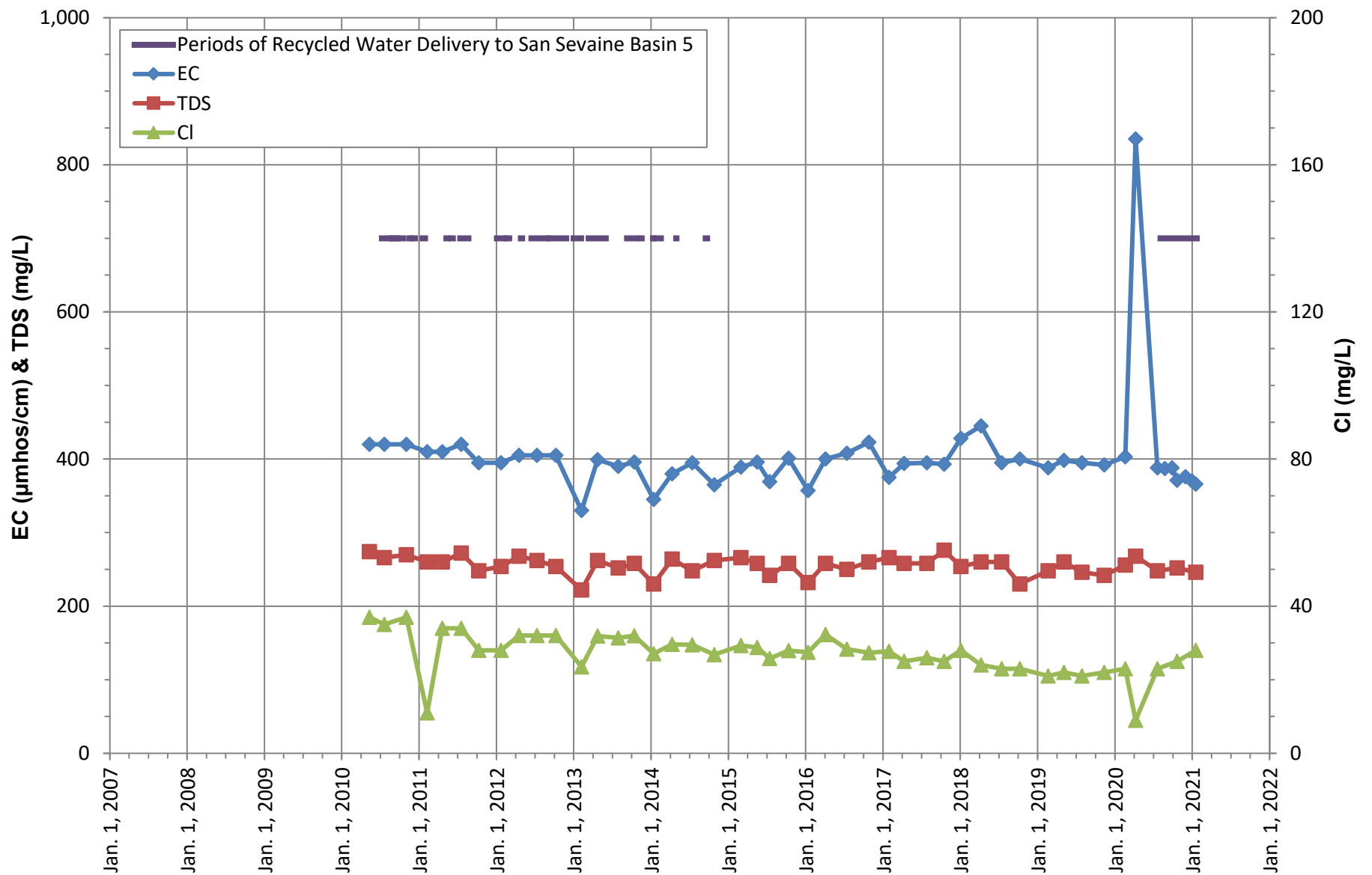
**EC, TDS, CHLORIDE TRENDS  
SAN SEVAINE BASINS  
SS-1/1**





**EC, TDS, CHLORIDE TRENDS  
SAN SEVAINE BASINS  
SSV-2**

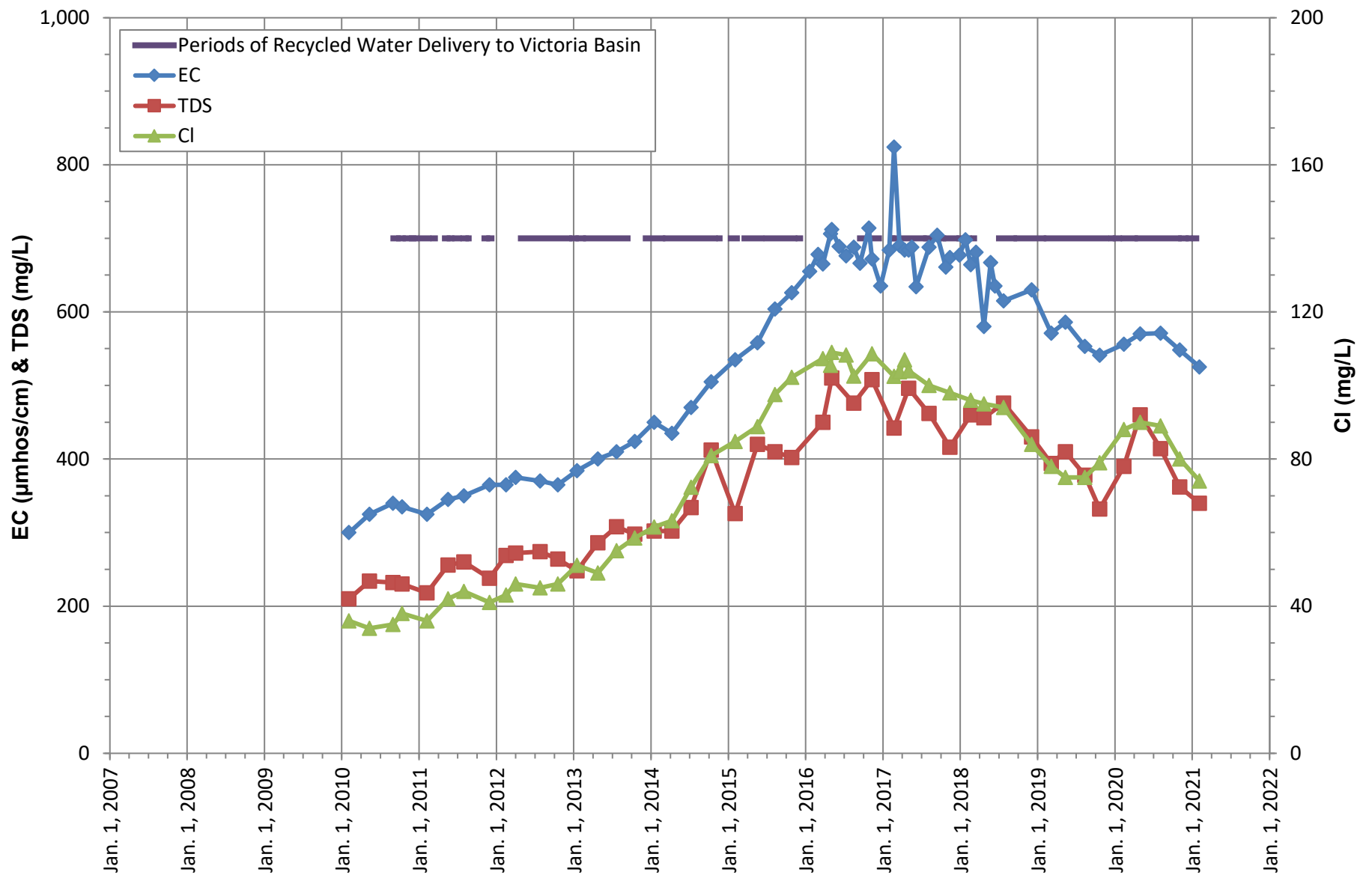




**EC, TDS, CHLORIDE TRENDS  
SAN SEVAINE BASINS  
Unitex 91090**

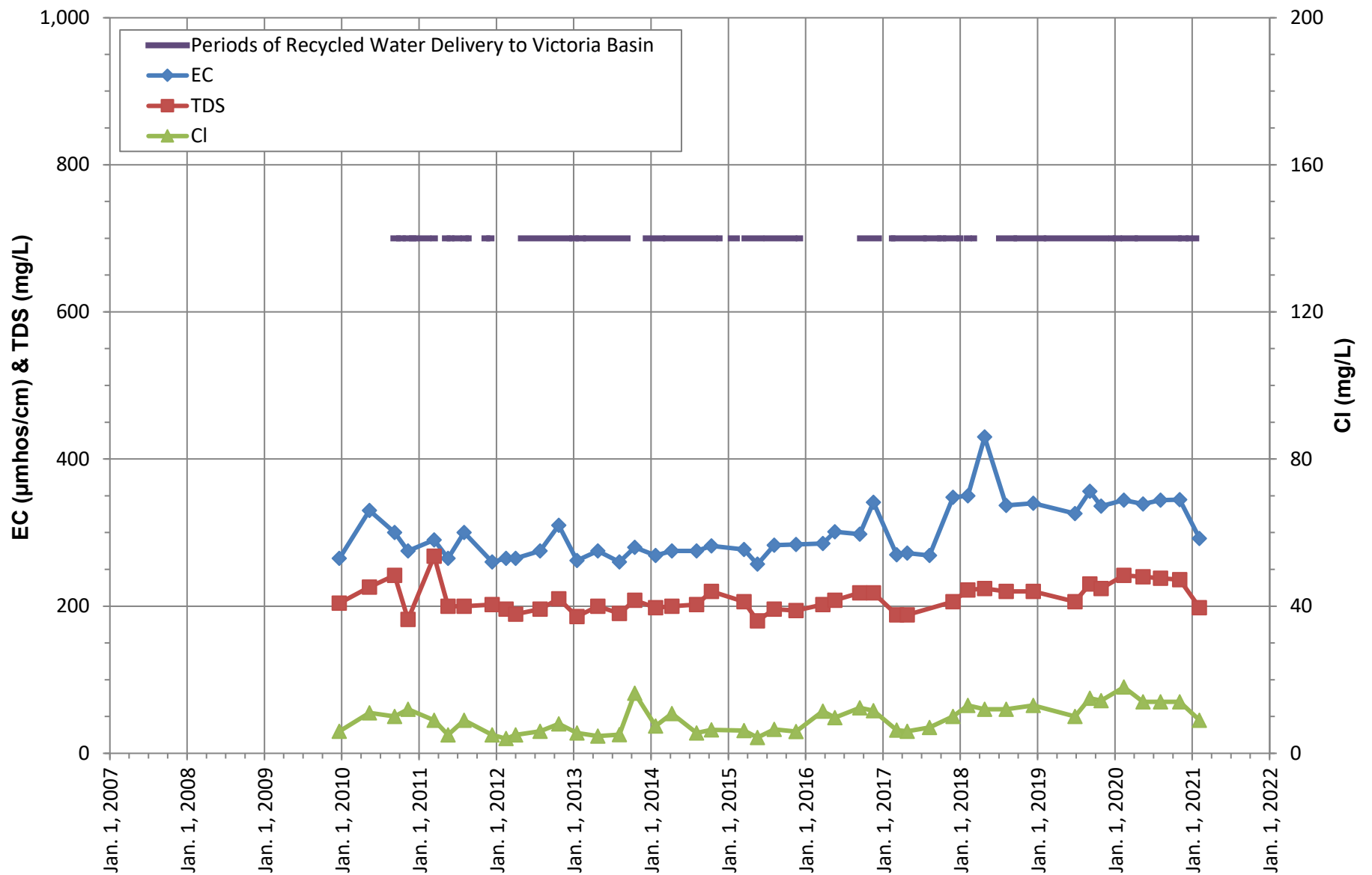






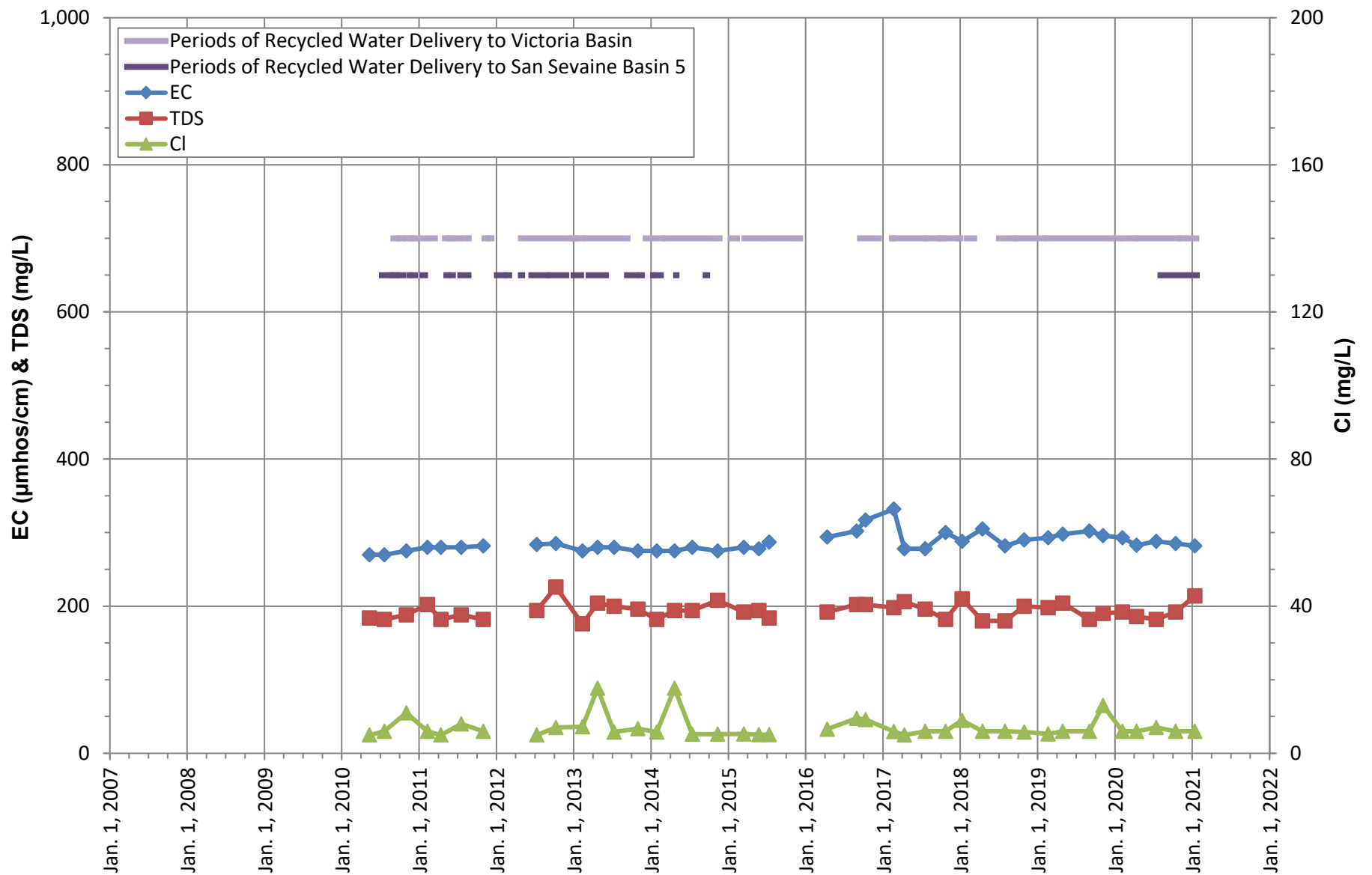
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VICTORIA BASIN  
VCT-1/1**





**EC, TDS, CHLORIDE TRENDS  
VICTORIA BASIN  
VCT-2/2**





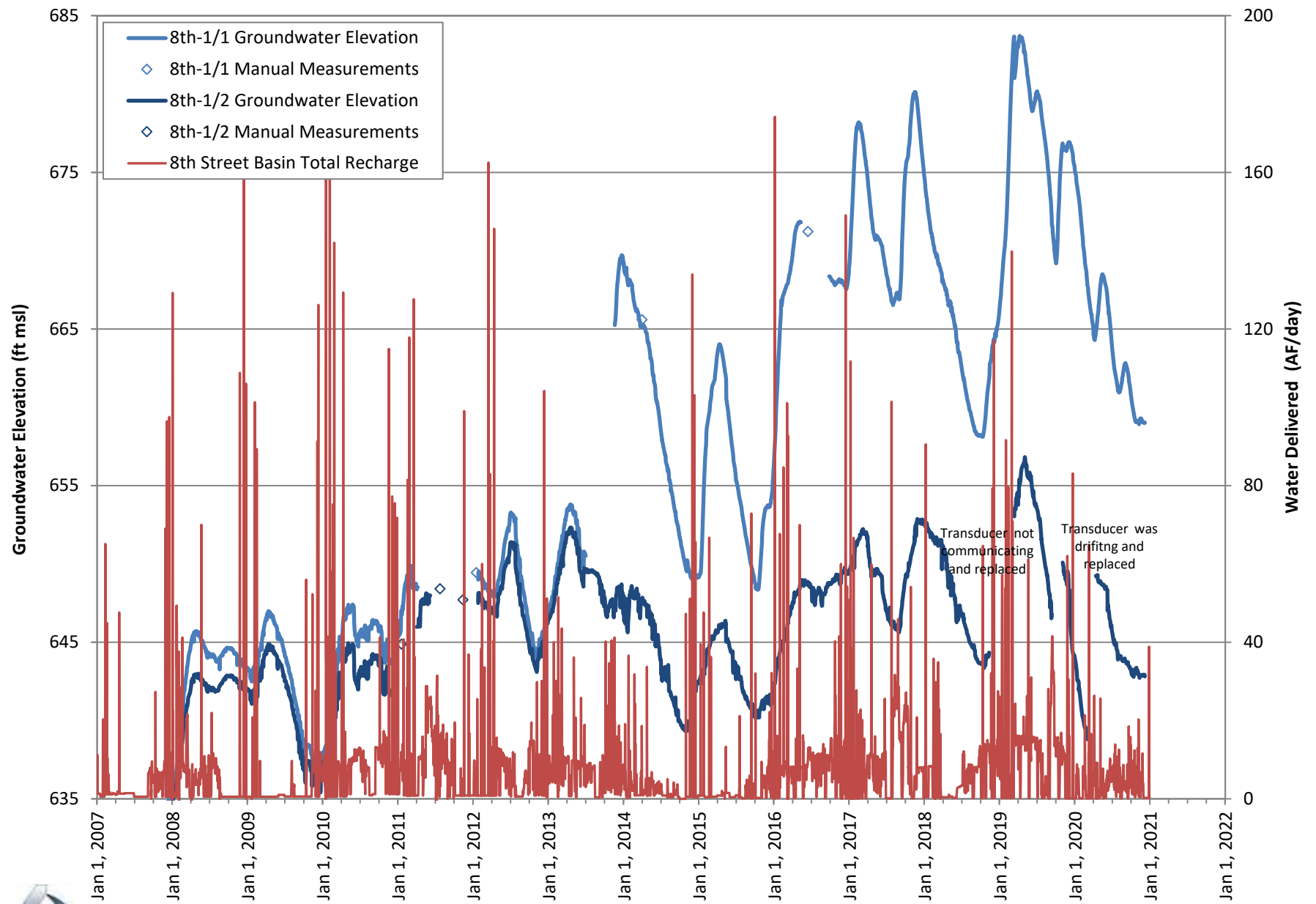
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SAN SEVAIE & VICTORIA BASINS  
CVWD Well No. 39**



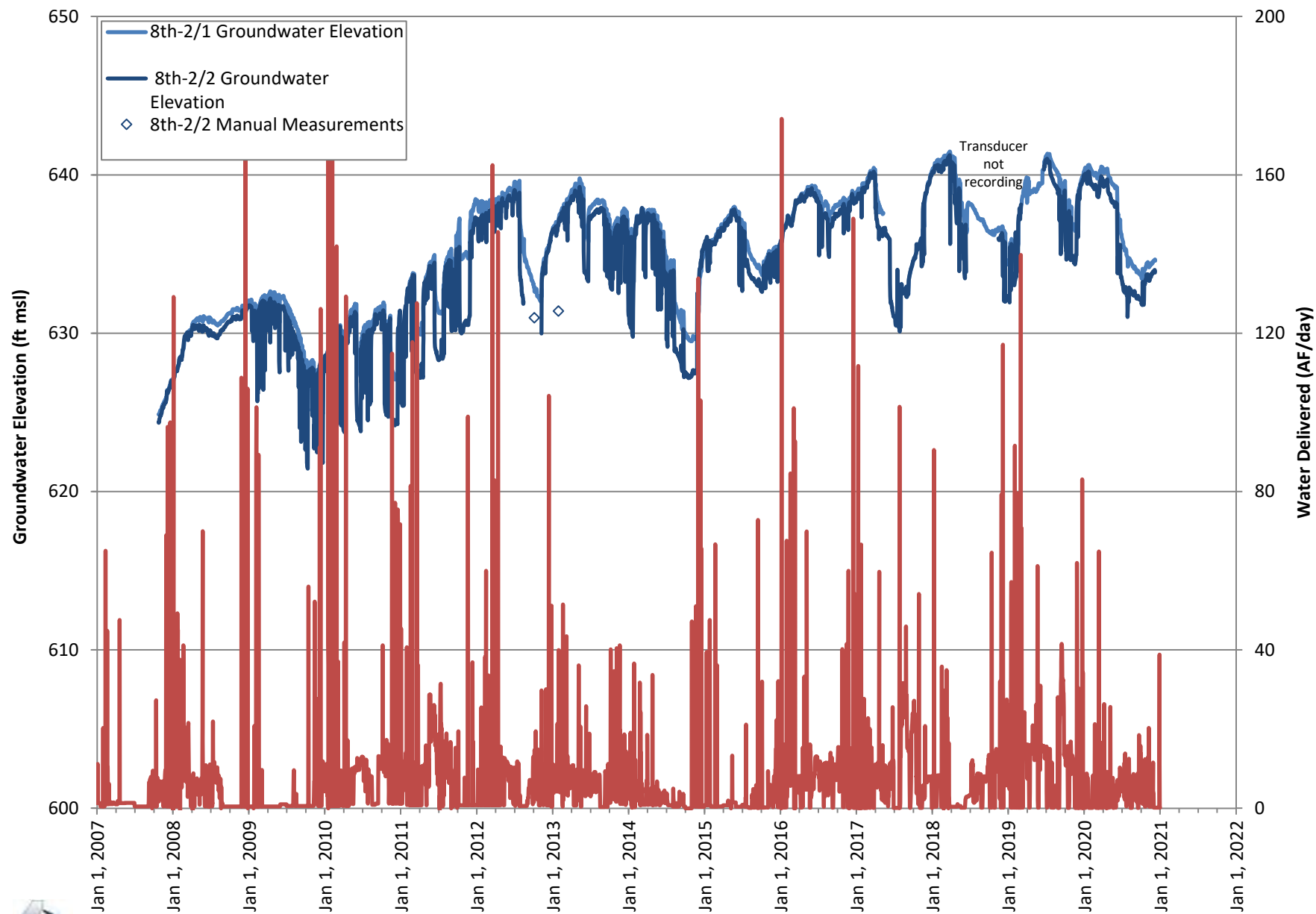
## APPENDIX D

### MONITORING WELL HYDROGRAPHS

---

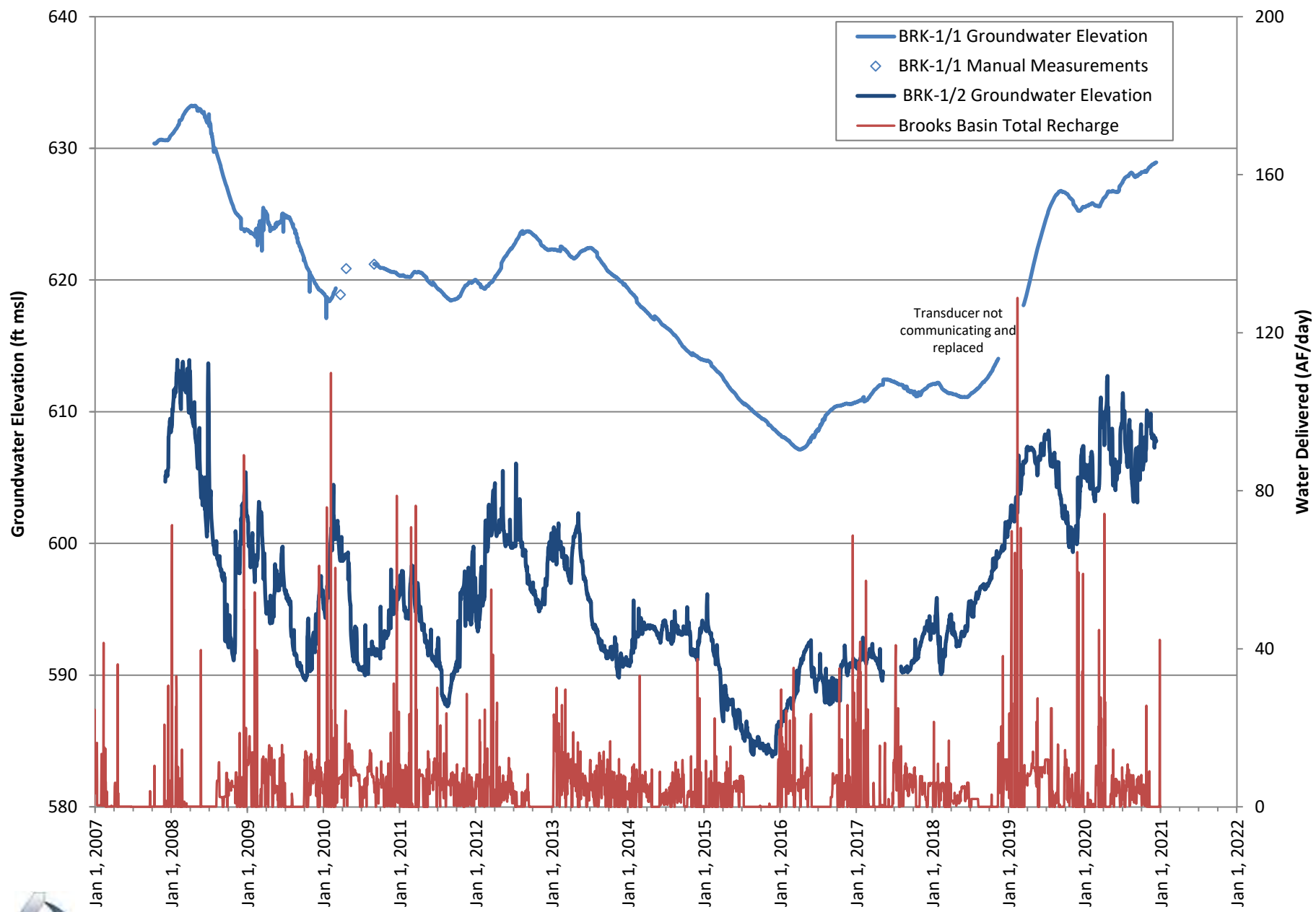


**HYDROGRAPH**  
**MW 8TH-1/1 & 8TH-1/2**

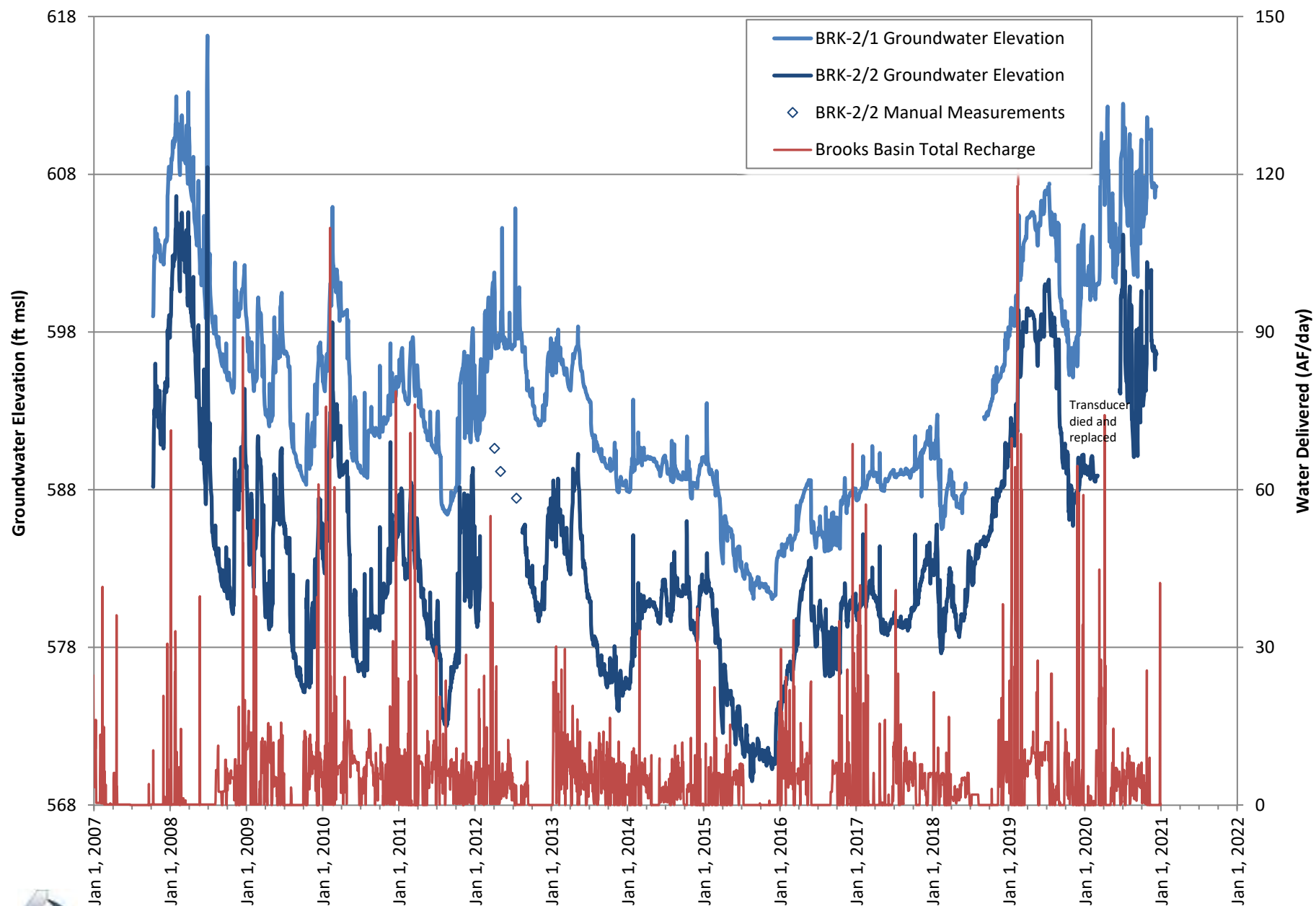


**HYDROGRAPH**  
**MW 8TH-2/1 & 8TH-2/2**

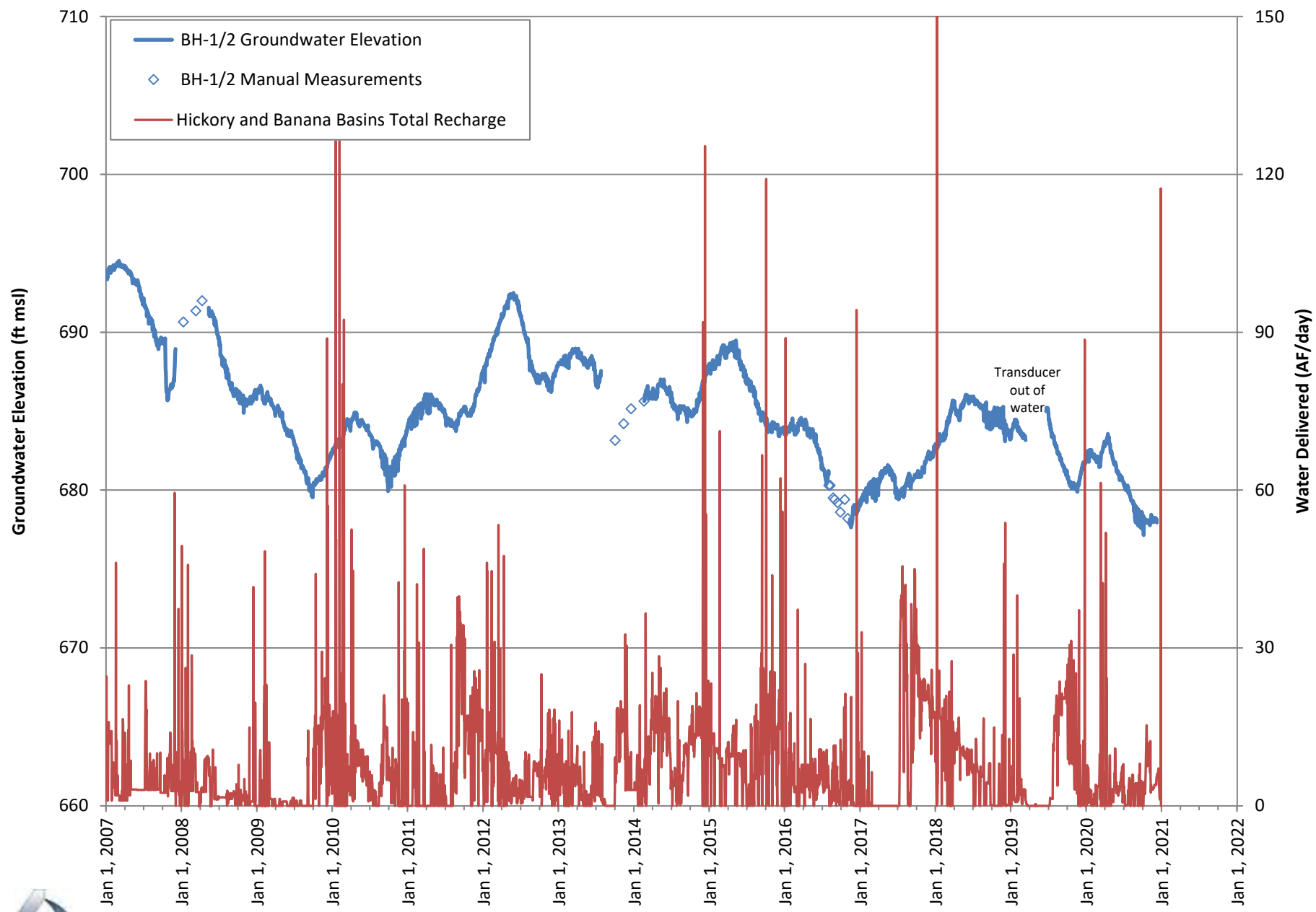




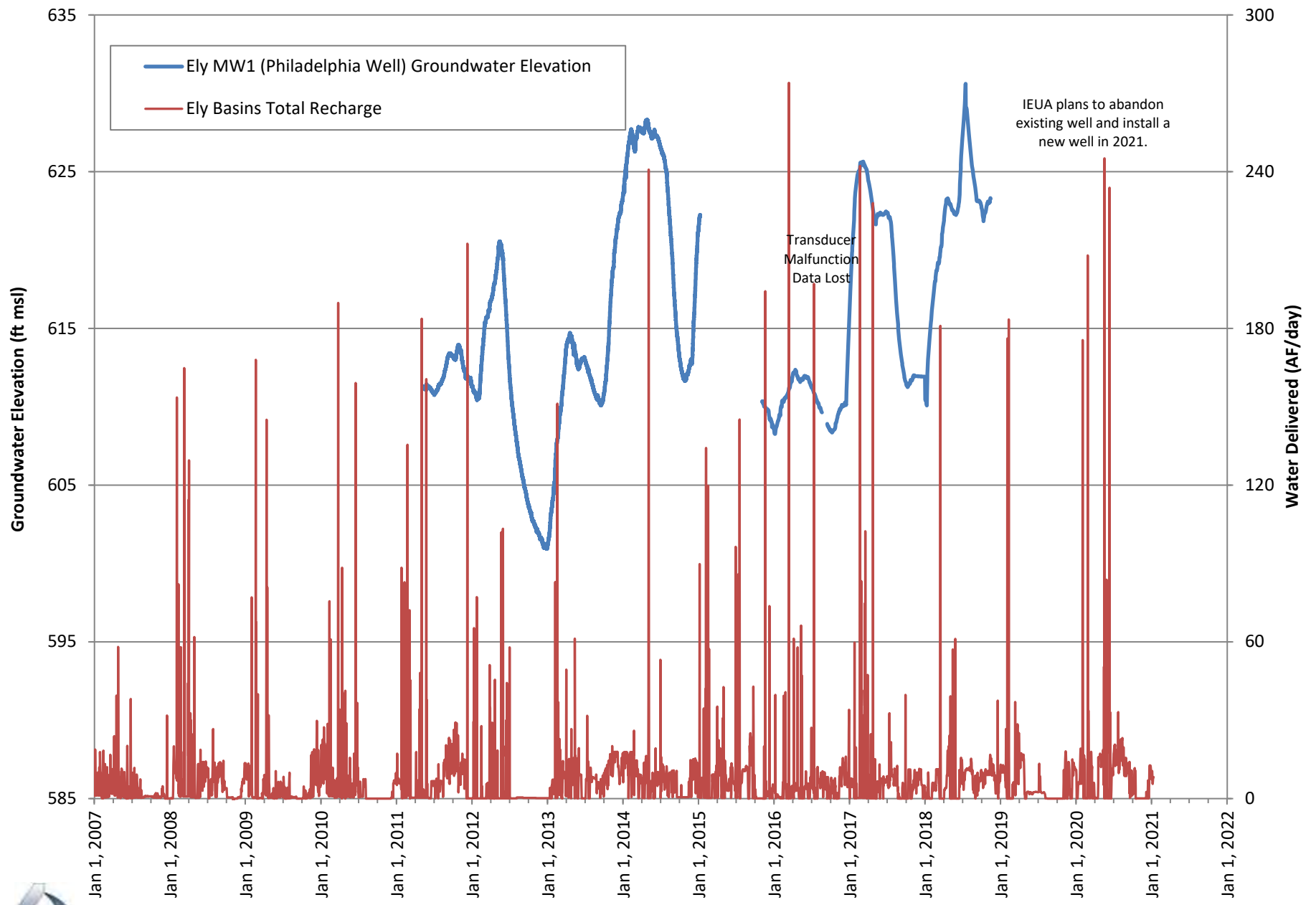
**HYDROGRAPH**  
**MW BRK-1/1 & BRK-1/2**



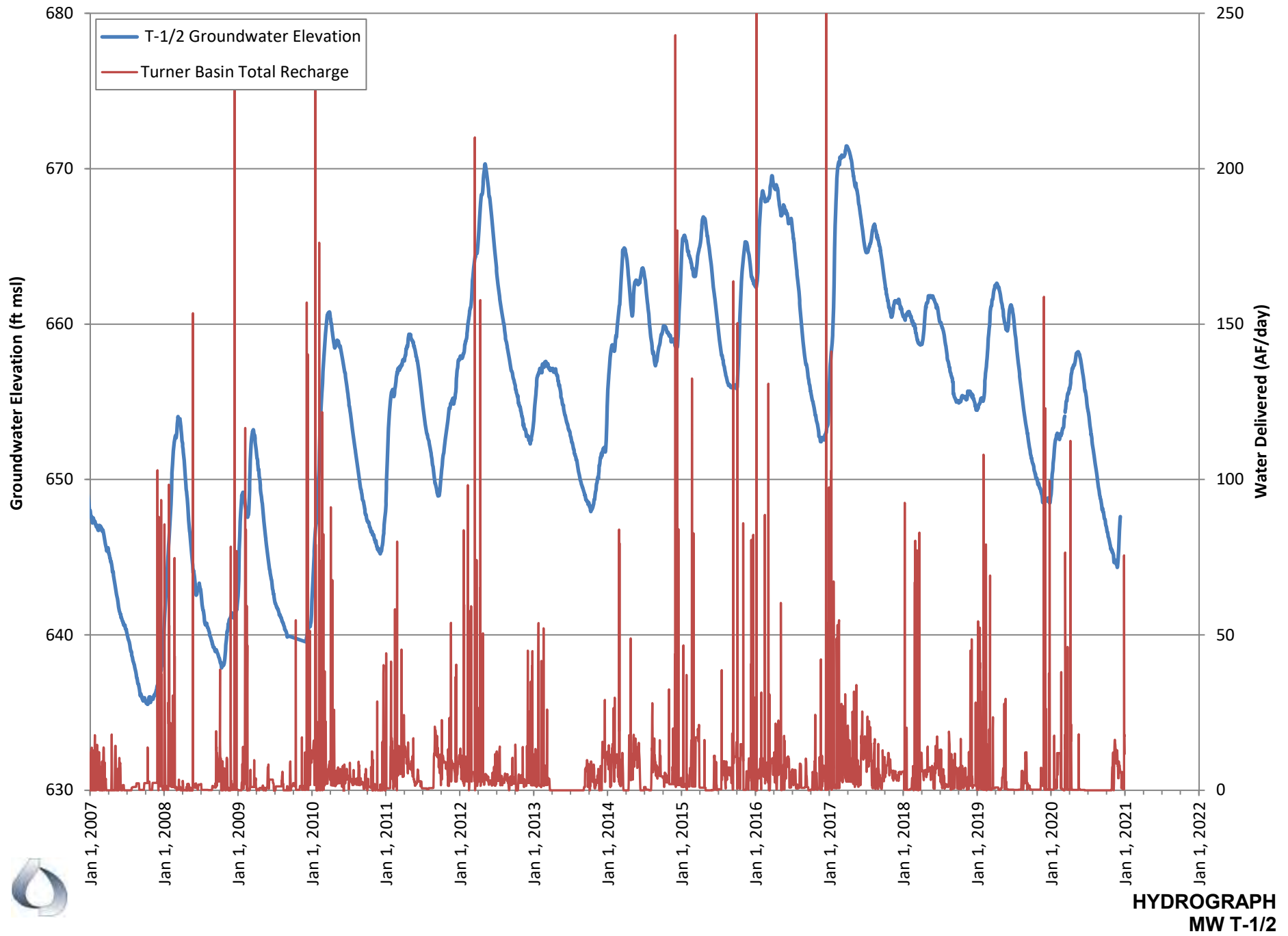
**HYDROGRAPH**  
**MW BRK-2/1 & BRK-2/2**



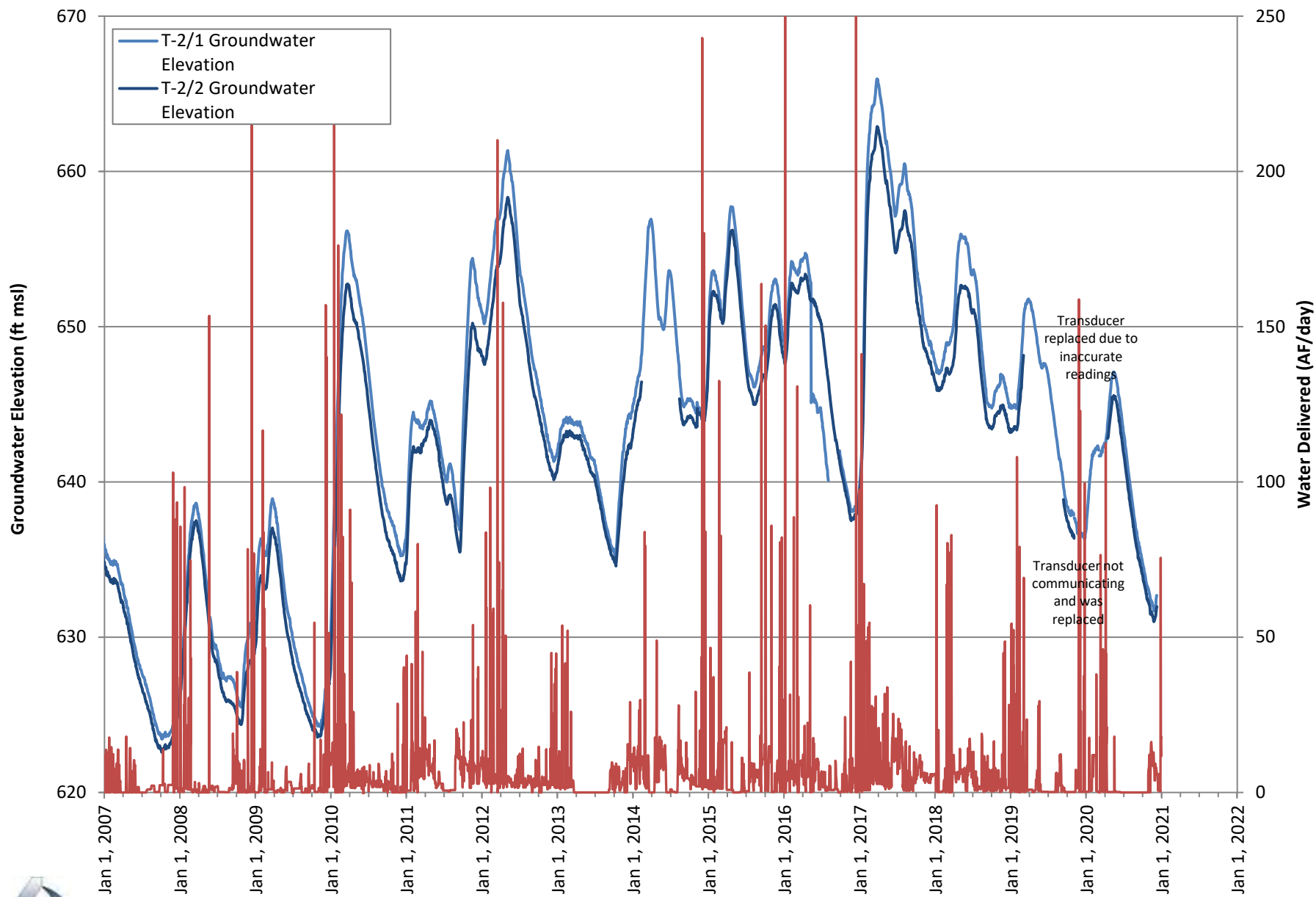
**HYDROGRAPH  
MW BH-1/2**



**HYDROGRAPH**  
**Ely MW1 (Philadelphia Well)**

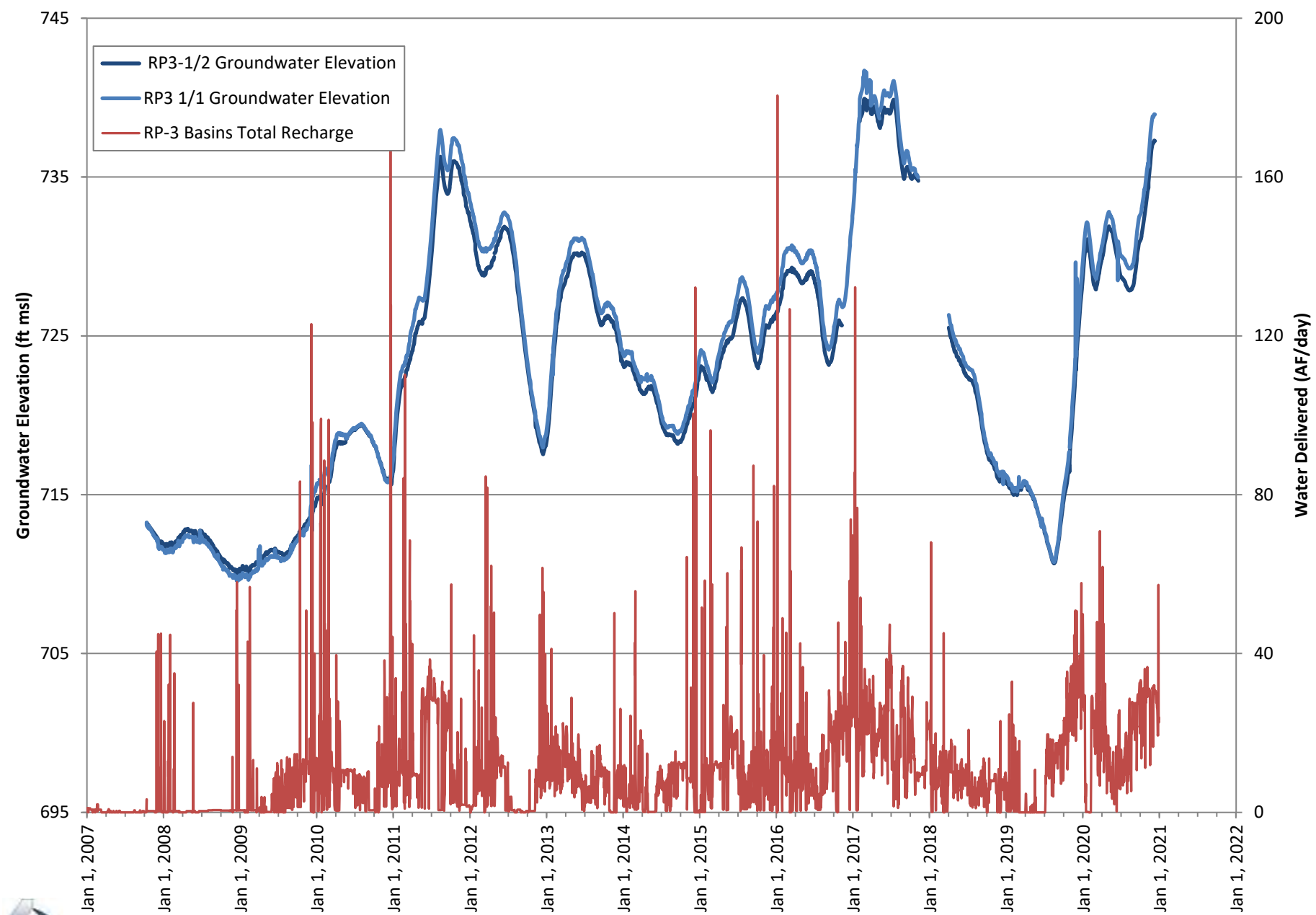


**HYDROGRAPH  
MW T-1/2**

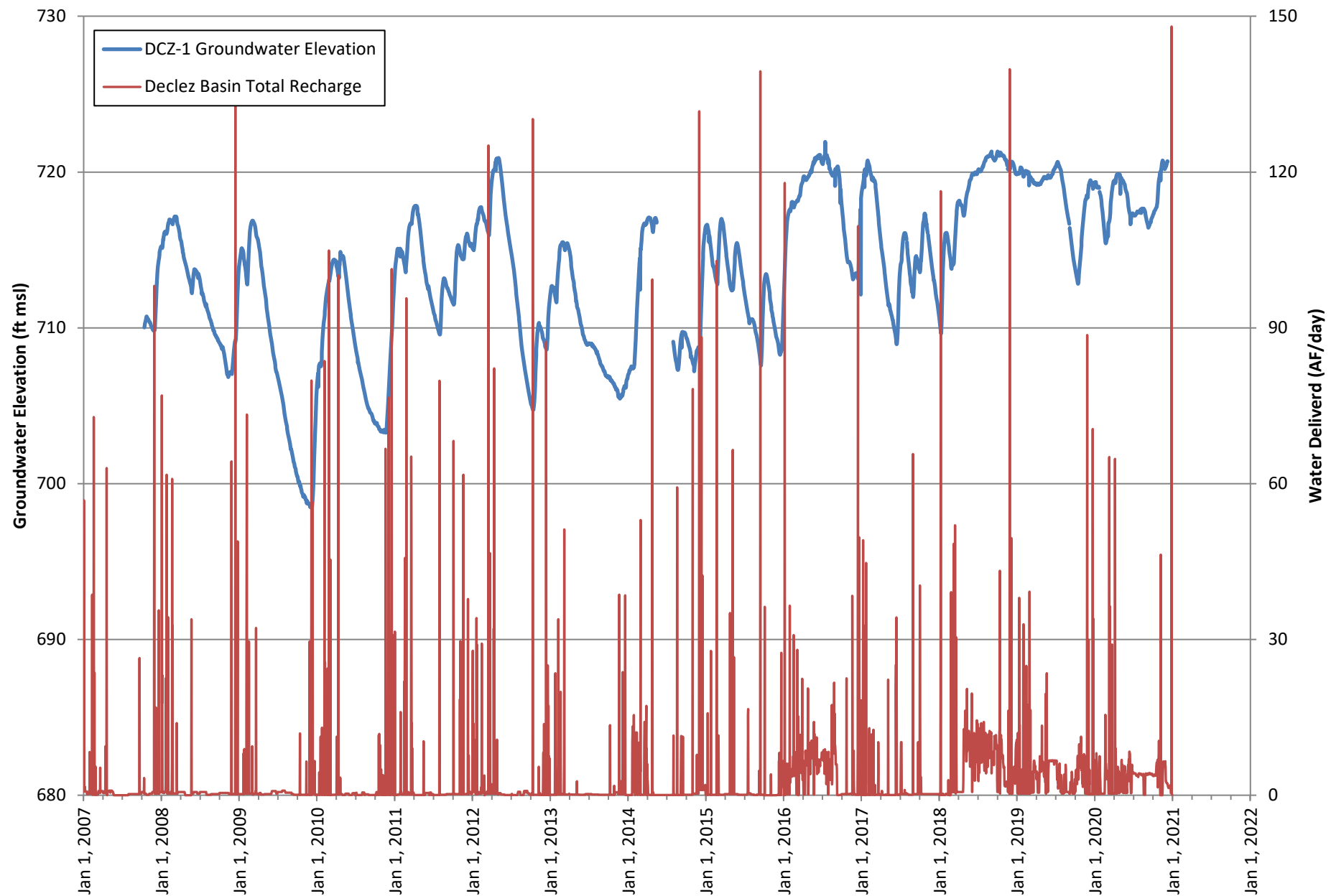


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MW T-2/1 & T-2/2**



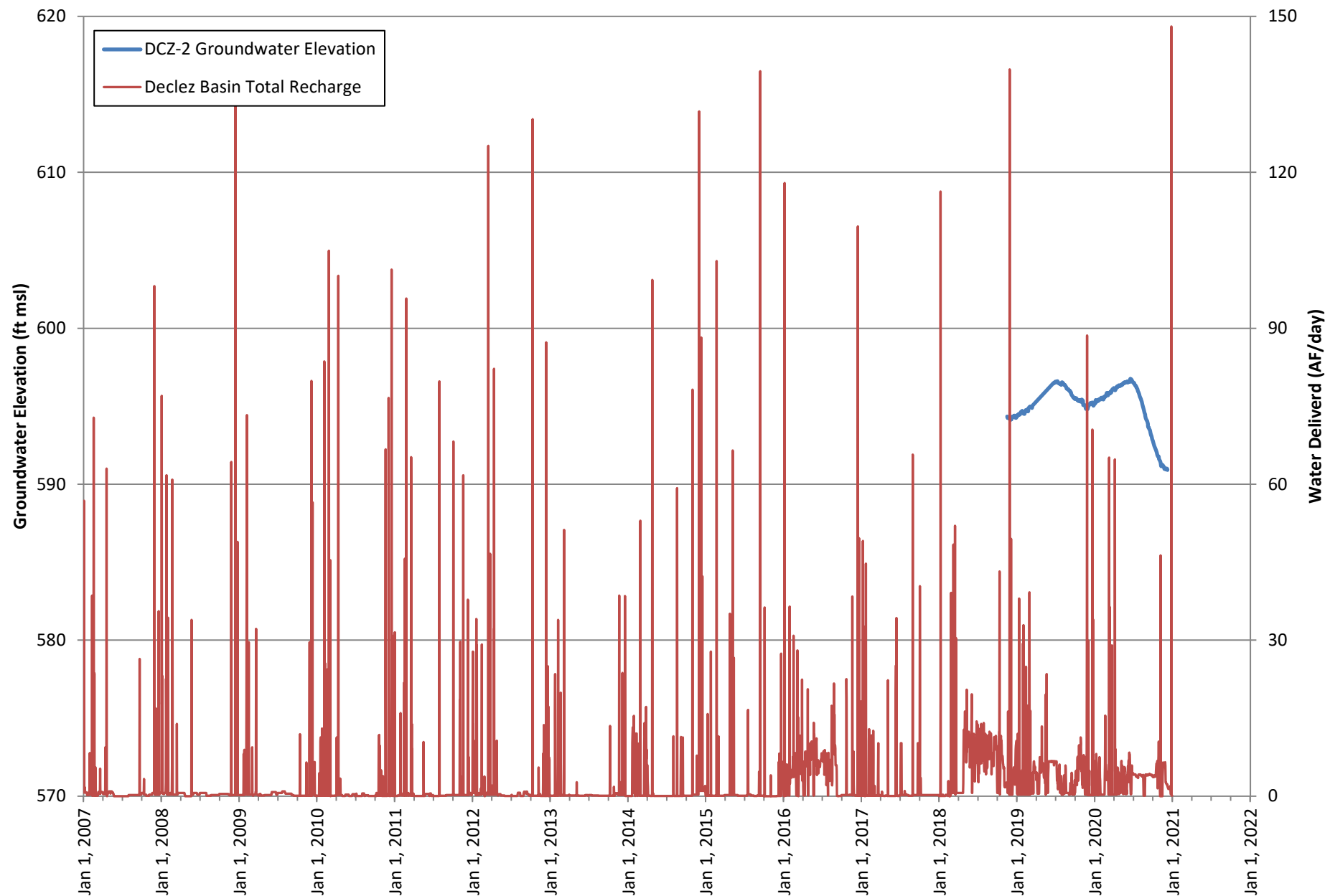


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**MW RP3-1/1 & RP3-1/2**



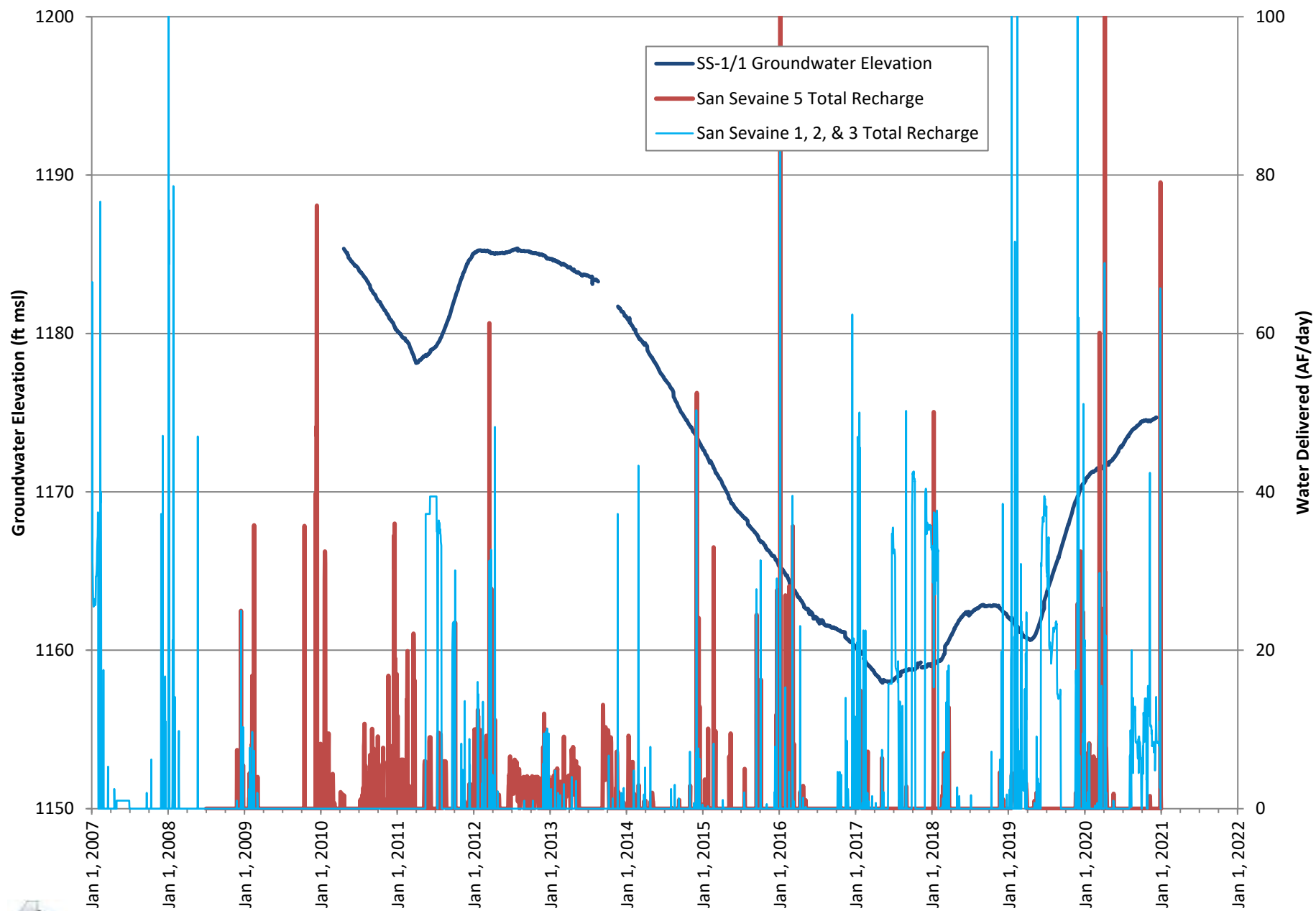
**HYDROGRAPH  
MW DCZ-1**





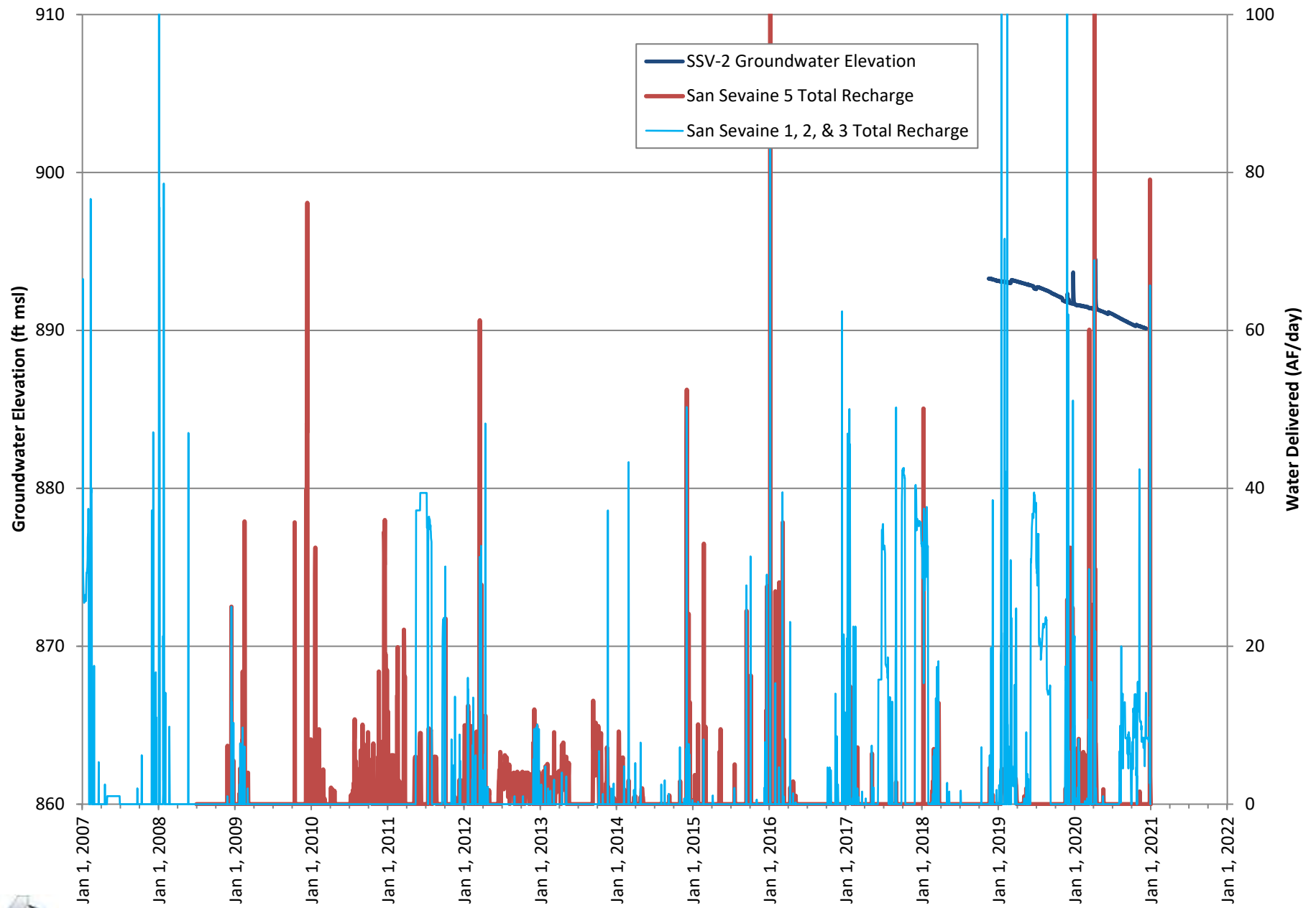
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MW DCZ-2**





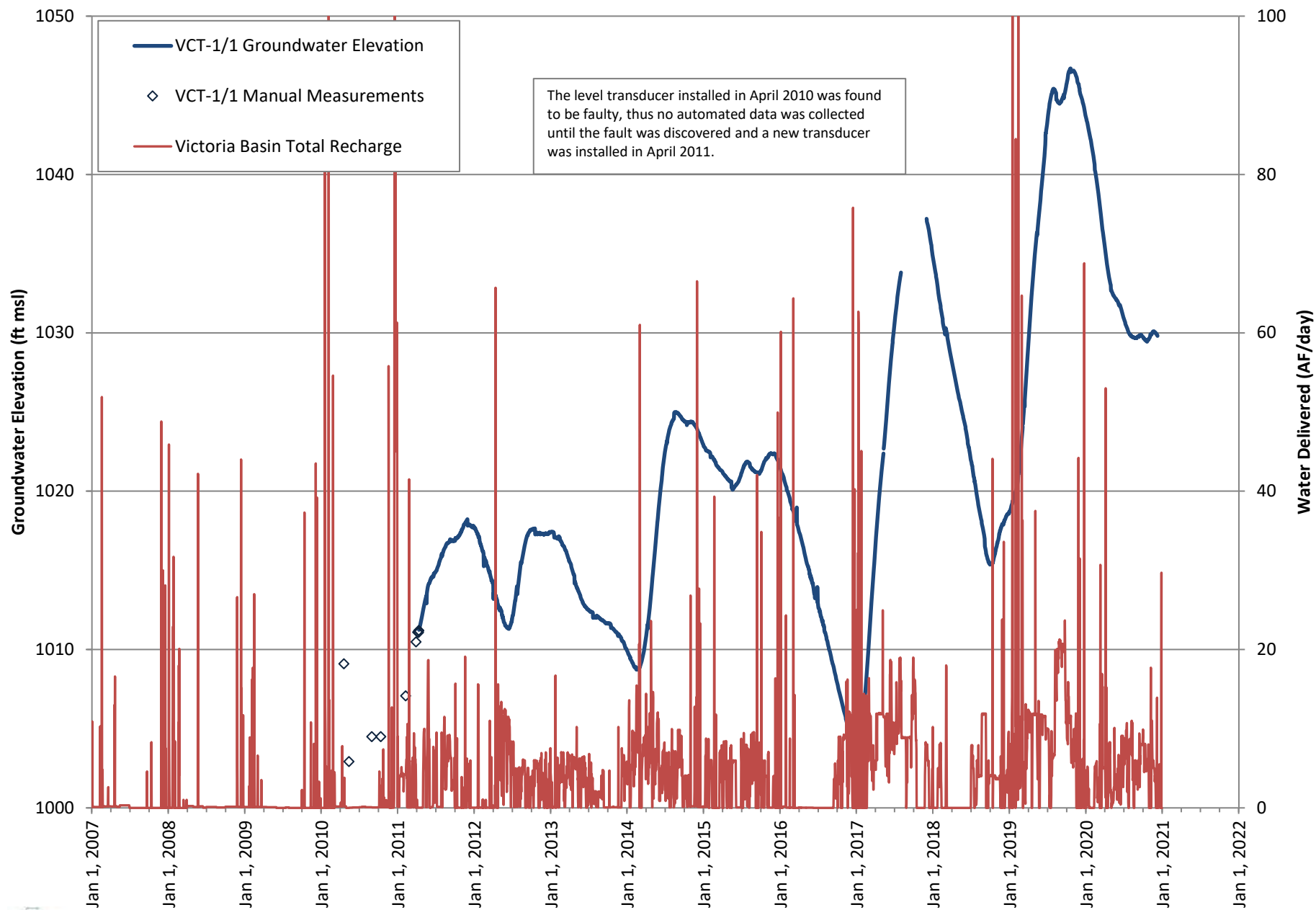
**HYDROGRAPH  
MW SS-1/1**





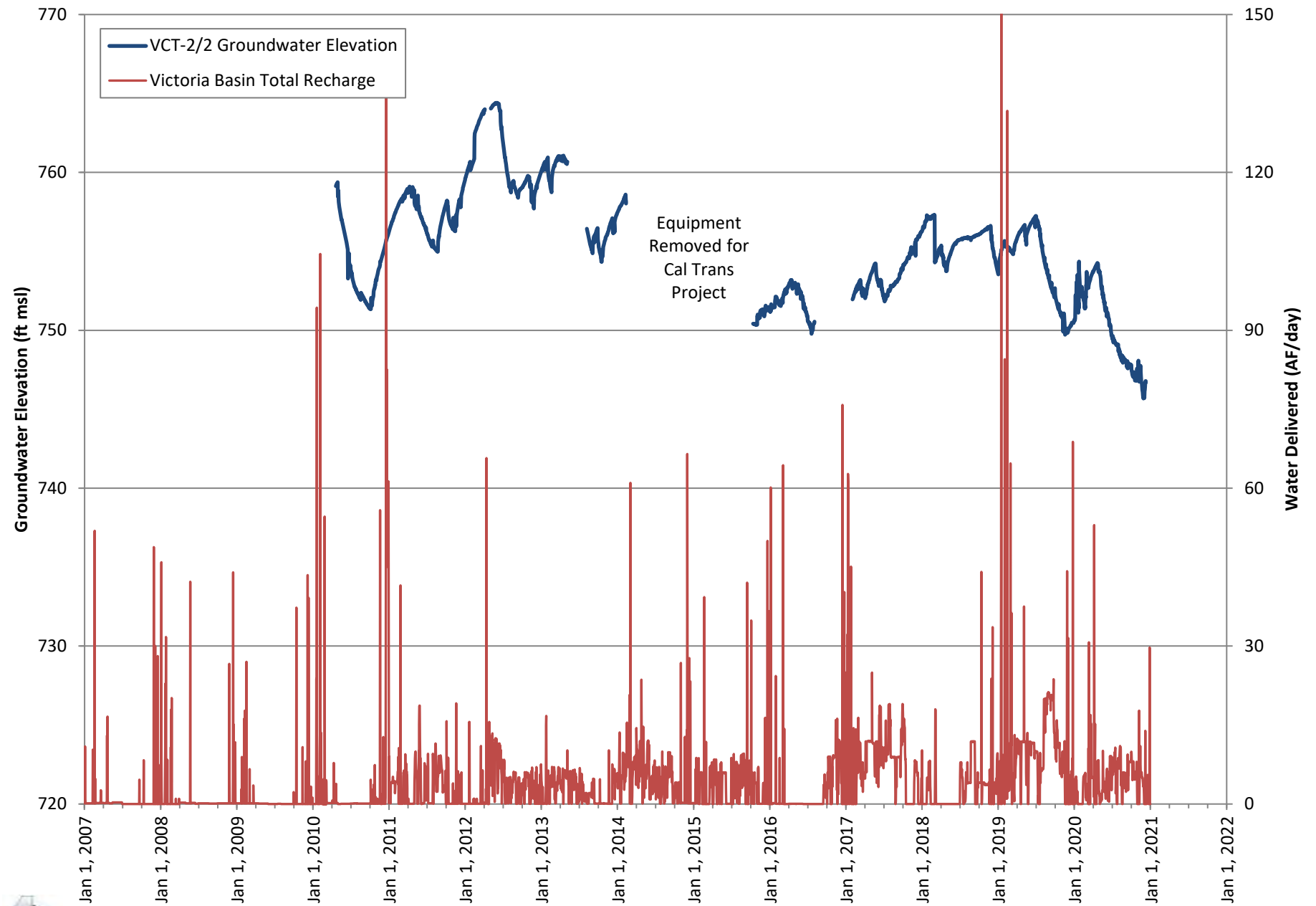
**HYDROGRAPH  
MW SSV-2**





**HYDROGRAPH  
MW VCT-1/1**





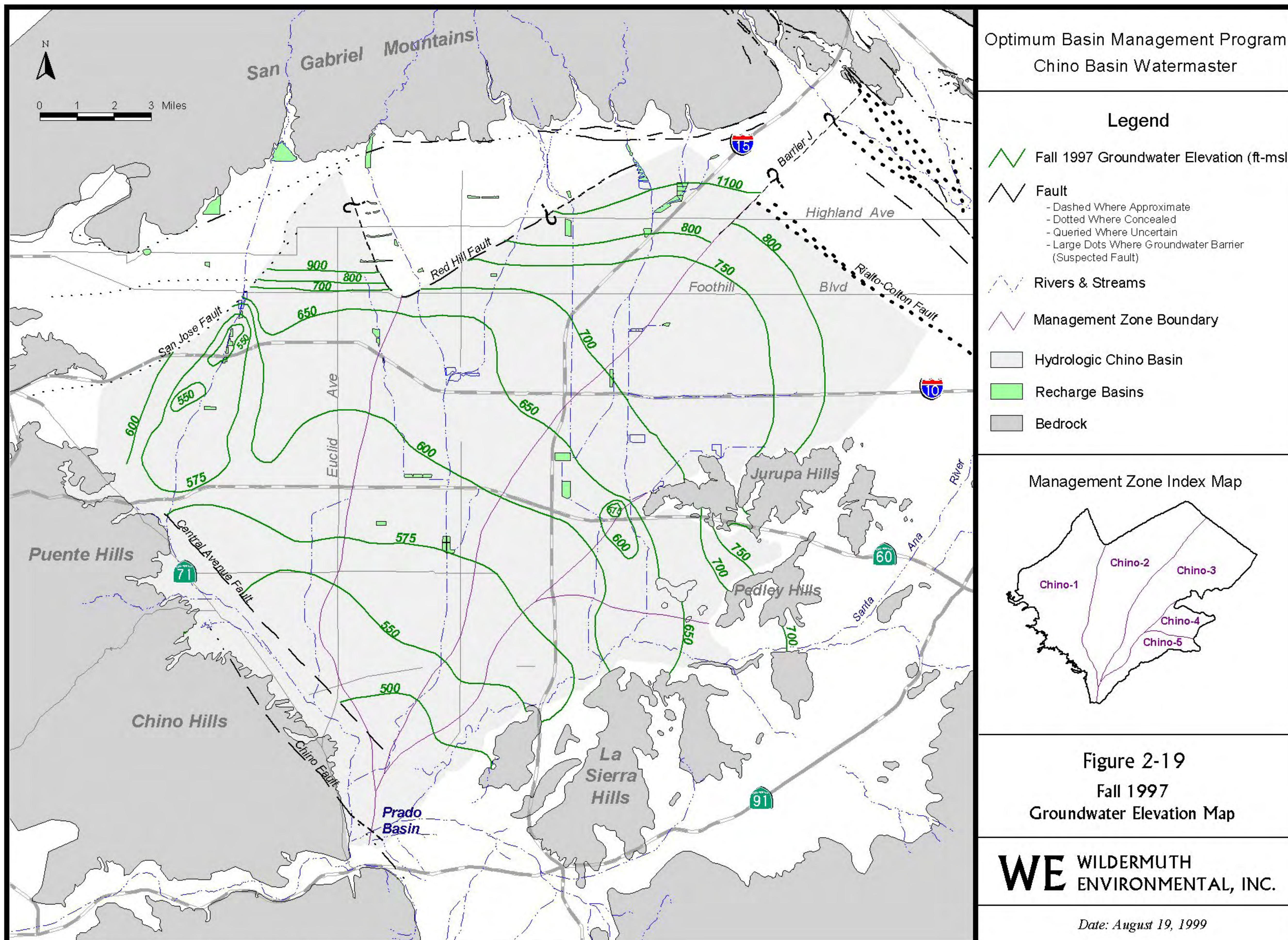
**HYDROGRAPH  
MW VCT-2/2**

APPENDIX E

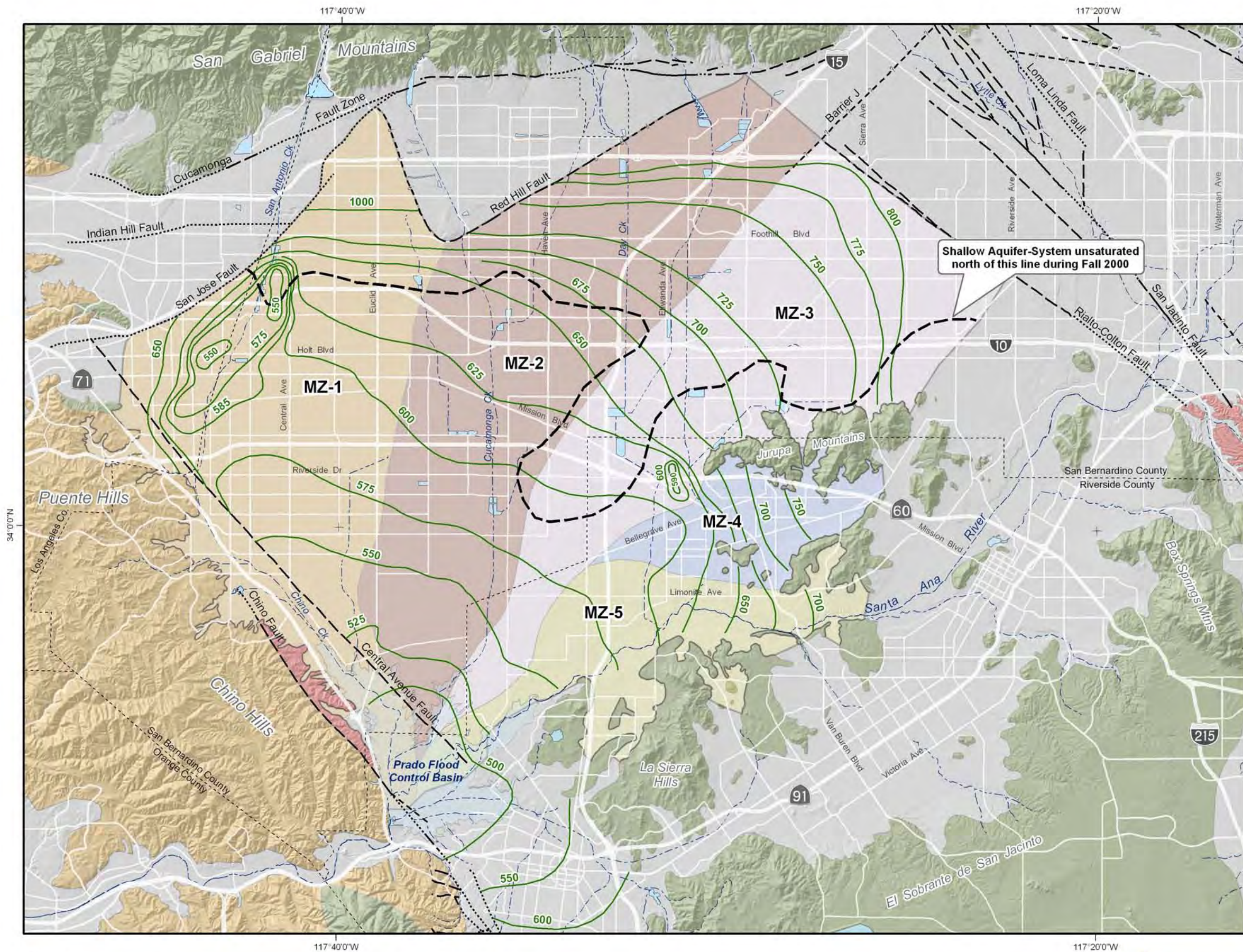
GROUNDWATER ELEVATION CONTOUR MAPS

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- Main Features**
- 800 Groundwater Elevation Contours -- Fall 2000 (feet above mean sea level)
  - 775
- Geology**
- Water-Bearing Sediments*
- Quaternary Alluvium
- Consolidated Bedrock*
- Plio-Pleistocene Sedimentary Rocks
  - Cretaceous to Miocene Sedimentary Rocks
  - Pre-Tertiary Igneous and Metamorphic Rocks
- Faults**
- Location Certain
  - Location Approximate
  - Location Concealed
  - Location Uncertain
- Other Features**
- Flood Control and Conservation Basins



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Author: AEM  
 Update: WEL  
 Date: 20050714  
 File: Figure 8-03.mxd

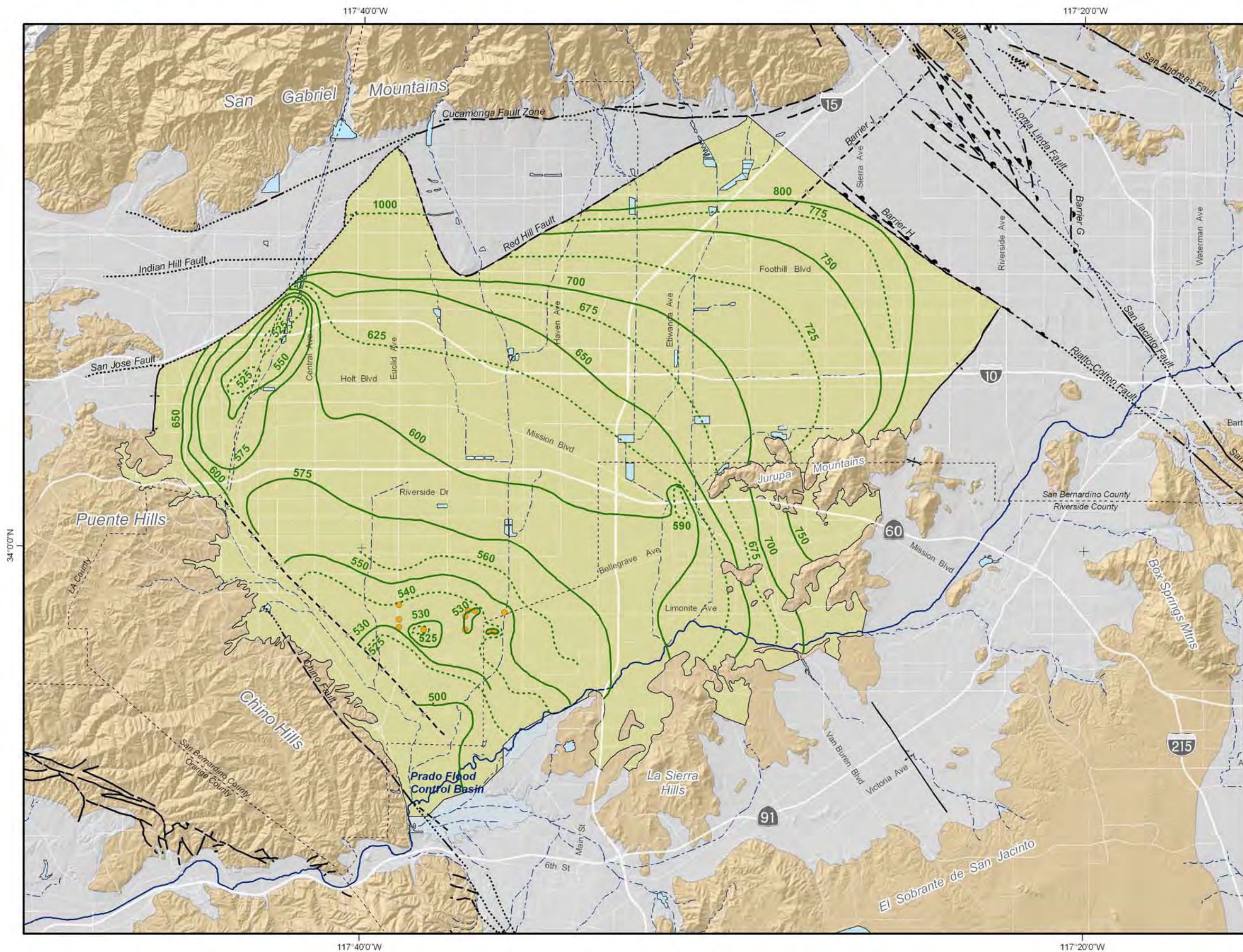


**Inland Empire**  
 UTILITIES AGENCY  
 Phase II Recycled Water  
 Groundwater Recharge Project

**Groundwater Elevation Map  
 Fall 2000**

**Figure 8-3**



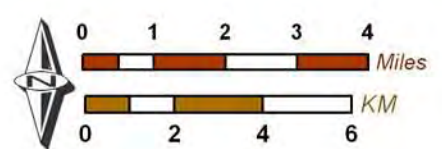


- ### Main Features
- 800  
775  
Groundwater Elevation Contours (feet above mean sea-level)
  - Chino-I Desalter Well
  - Chino Basin Hydrologic Boundary
- ### Geology
- Water-Bearing Sediments**
- Quaternary Alluvium
- Consolidated Bedrock**
- Undifferentiated Pre-Tertiary to Early Pleistocene Igneous, Metamorphic, and Sedimentary Rocks
- Faults & Groundwater Divides**
- Location Certain
  - Location Approximate
  - Location Concealed
  - Location Uncertain
  - Groundwater Divide



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 Date: 20050627  
 File: Figure\_3-6.mxd



State of the Basin Report -- 2004  
 Groundwater Basin Operation and Response



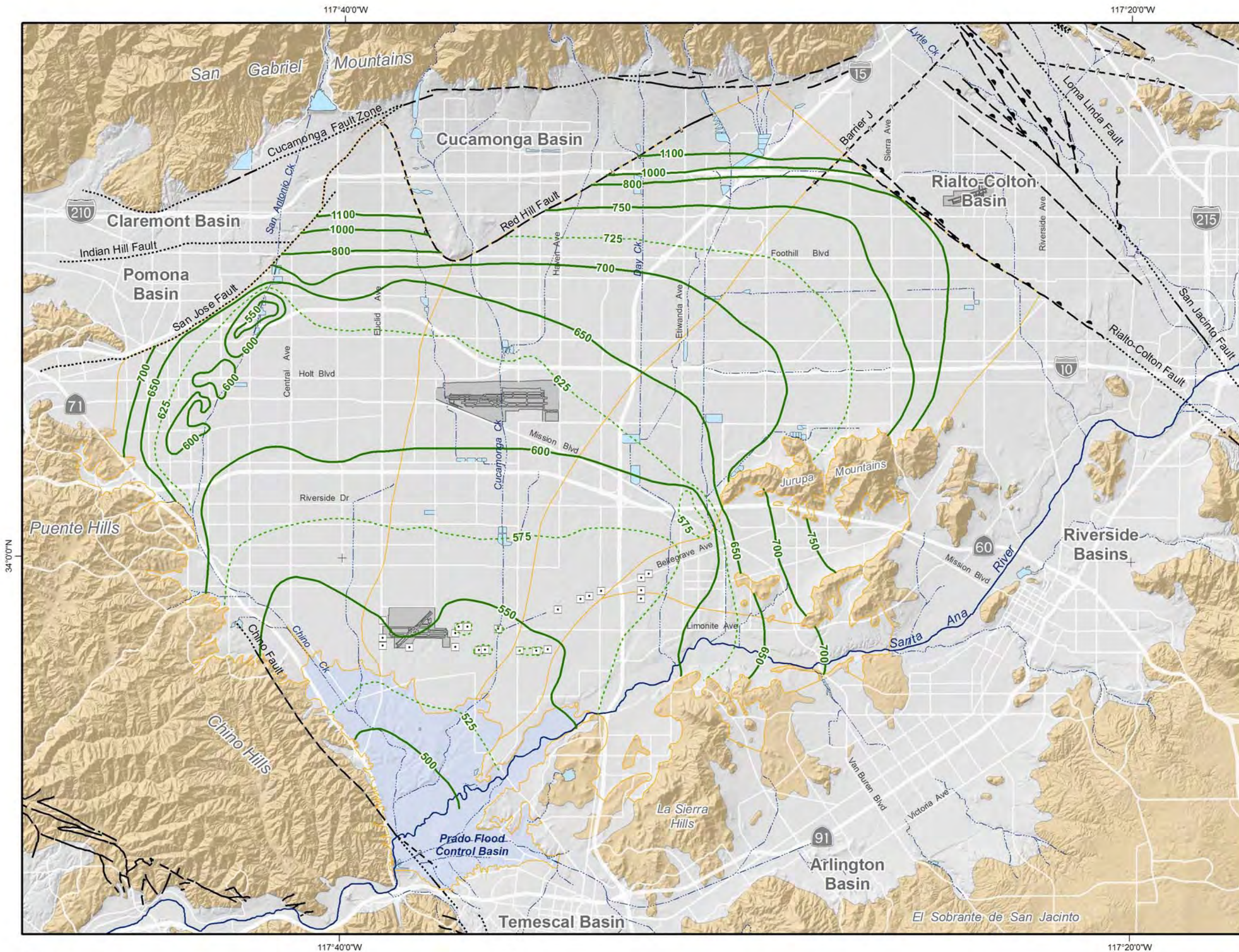
**Groundwater Elevation Contours**  
 Fall 2003 -- Chino Basin

**Figure 3-6**







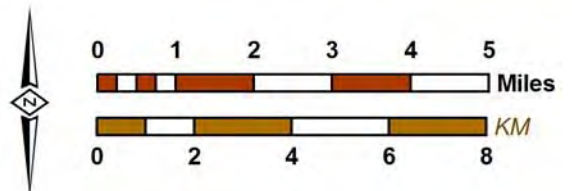


- 800 Groundwater Elevation Contours (feet above mean sea-level)  
775
- Other Features**
- Management Zone Boundary
  - Chino Desalter Well
  - Streams & Flood Control Channels
  - Flood Control & Conservation Basins
- Geology**
- Water-Bearing Sediments**
- Quaternary Alluvium
- Consolidated Bedrock**
- Undifferentiated Pre-Tertiary to Early Pleistocene Igneous, Metamorphic, and Sedimentary Rocks
- Faults**
- Location Certain
  - Location Approximate
  - Location Concealed
  - Location Uncertain



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Author: ETL/CML  
 Date: 20090401  
 File: Figure\_3-19.mxd

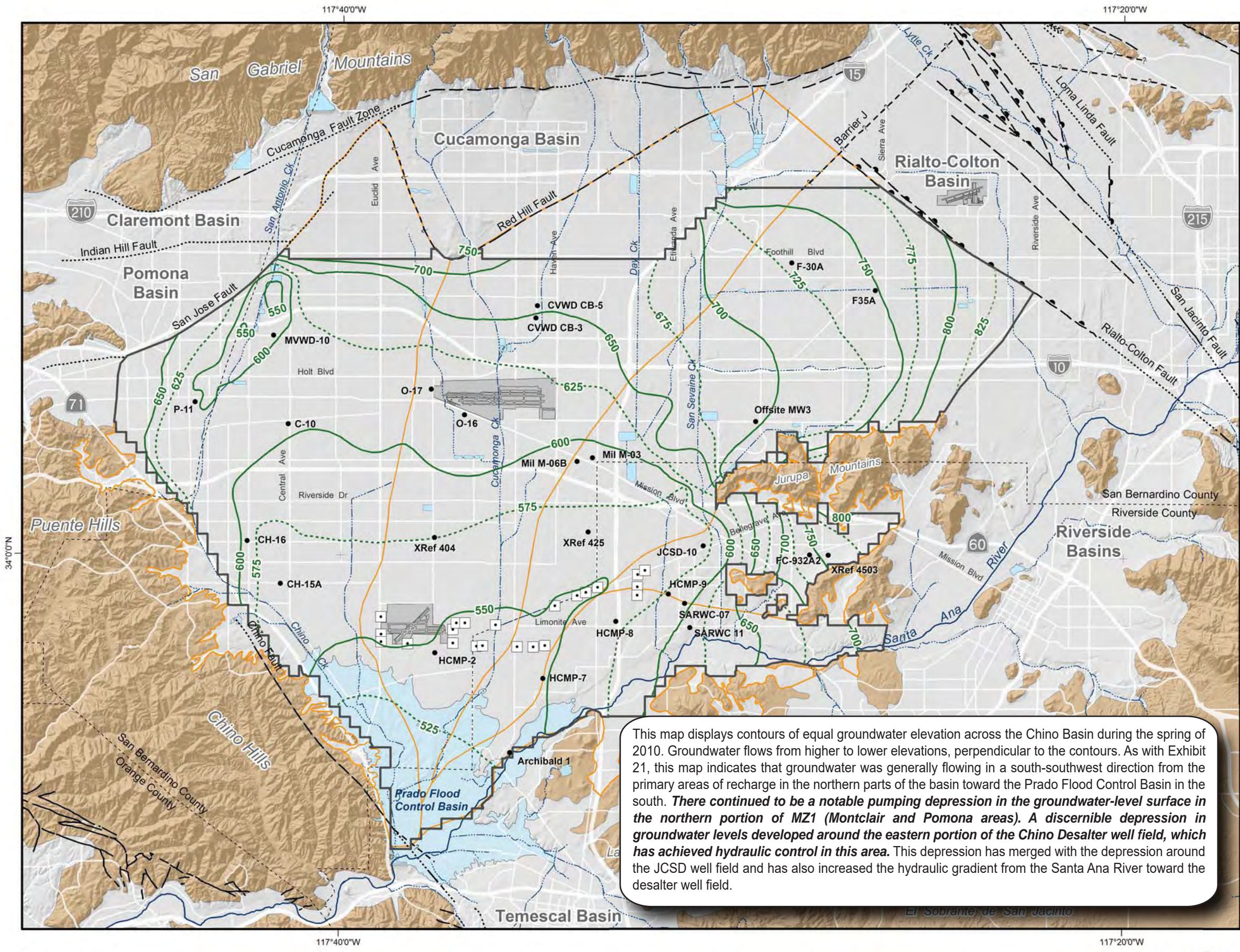


**2008 State of the Basin Report**  
 Groundwater Levels

**Groundwater Elevation Contours**  
 Fall 2008 -- Chino Basin

**Figure 3-19**





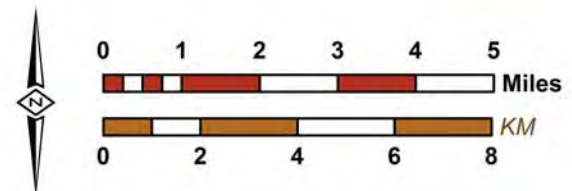
- 800 775 Groundwater Elevation Contours (feet above mean sea-level)
- Boundry of Contoured Area (contours are not shown outside of this boundary due to lack of water level data)
- Well used for Time History Analysis (Exhibits 16 through 20)
- OBMP Management Zones
- Chino Desalter Wells
- Streams & Flood Control Channels
- Flood Control & Conservation Basins
- Geology**
- Water-Bearing Sediments
  - Quaternary Alluvium
- Consolidated Bedrock
  - Undifferentiated Pre-Tertiary to Early Pleistocene Igneous, Metamorphic, and Sedimentary Rocks
- Faults**
  - Location Certain
  - Location Approximate
  - Approximate Location of Groundwater Barrier
  - Location Concealed
  - Location Uncertain

This map displays contours of equal groundwater elevation across the Chino Basin during the spring of 2010. Groundwater flows from higher to lower elevations, perpendicular to the contours. As with Exhibit 21, this map indicates that groundwater was generally flowing in a south-southwest direction from the primary areas of recharge in the northern parts of the basin toward the Prado Flood Control Basin in the south. ***There continued to be a notable pumping depression in the groundwater-level surface in the northern portion of MZ1 (Montclair and Pomona areas). A discernible depression in groundwater levels developed around the eastern portion of the Chino Desalter well field, which has achieved hydraulic control in this area.*** This depression has merged with the depression around the JCSD well field and has also increased the hydraulic gradient from the Santa Ana River toward the desalter well field.



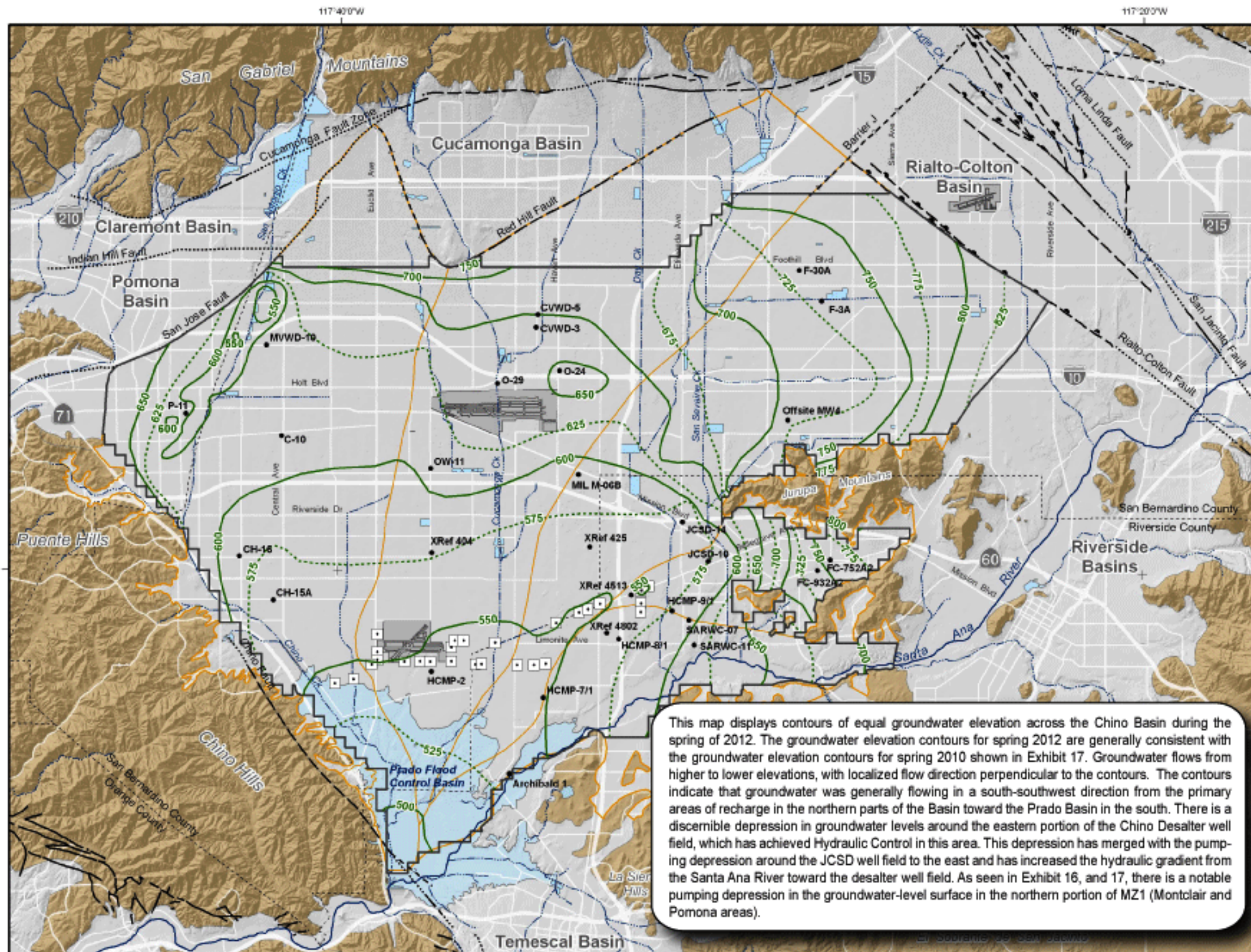
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Author: TCR  
 Date: 20111027  
 File: Exhibit\_22.mxd



**2010 State of the Basin**  
 Groundwater Levels





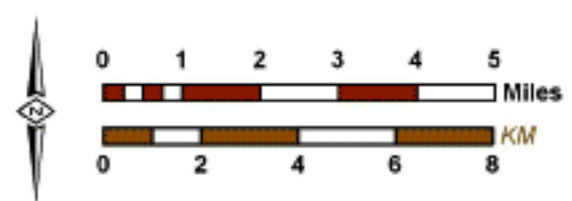
- Groundwater Elevation Contours (feet above mean sea-level)
- Boundry of Contoured Area (contours are not shown outside of this boundary due to lack of water level data)
- Well With a Water-Level Time History Plotted on Exhibits 24 through 28.
- OBMP Management Zones
- Chino Desalter Wells
- Streams & Flood Control Channels
- Flood Control & Conservation Basins
- Geology**
- Water-Bearing Sediments
  - Quaternary Alluvium
- Consolidated Bedrock
  - Undifferentiated Pre-Tertiary to Early Pleistocene Igneous, Metamorphic, and Sedimentary Rocks
- Faults
  - Location Certain
  - Location Approximate
  - Approximate Location of Groundwater Barrier
  - Location Concealed
  - Location Uncertain

This map displays contours of equal groundwater elevation across the Chino Basin during the spring of 2012. The groundwater elevation contours for spring 2012 are generally consistent with the groundwater elevation contours for spring 2010 shown in Exhibit 17. Groundwater flows from higher to lower elevations, with localized flow direction perpendicular to the contours. The contours indicate that groundwater was generally flowing in a south-southwest direction from the primary areas of recharge in the northern parts of the Basin toward the Prado Basin in the south. There is a discernible depression in groundwater levels around the eastern portion of the Chino Desalter well field, which has achieved Hydraulic Control in this area. This depression has merged with the pumping depression around the JCSD well field to the east and has increased the hydraulic gradient from the Santa Ana River toward the desalter well field. As seen in Exhibit 16, and 17, there is a notable pumping depression in the groundwater-level surface in the northern portion of MZ1 (Montclair and Pomona areas).



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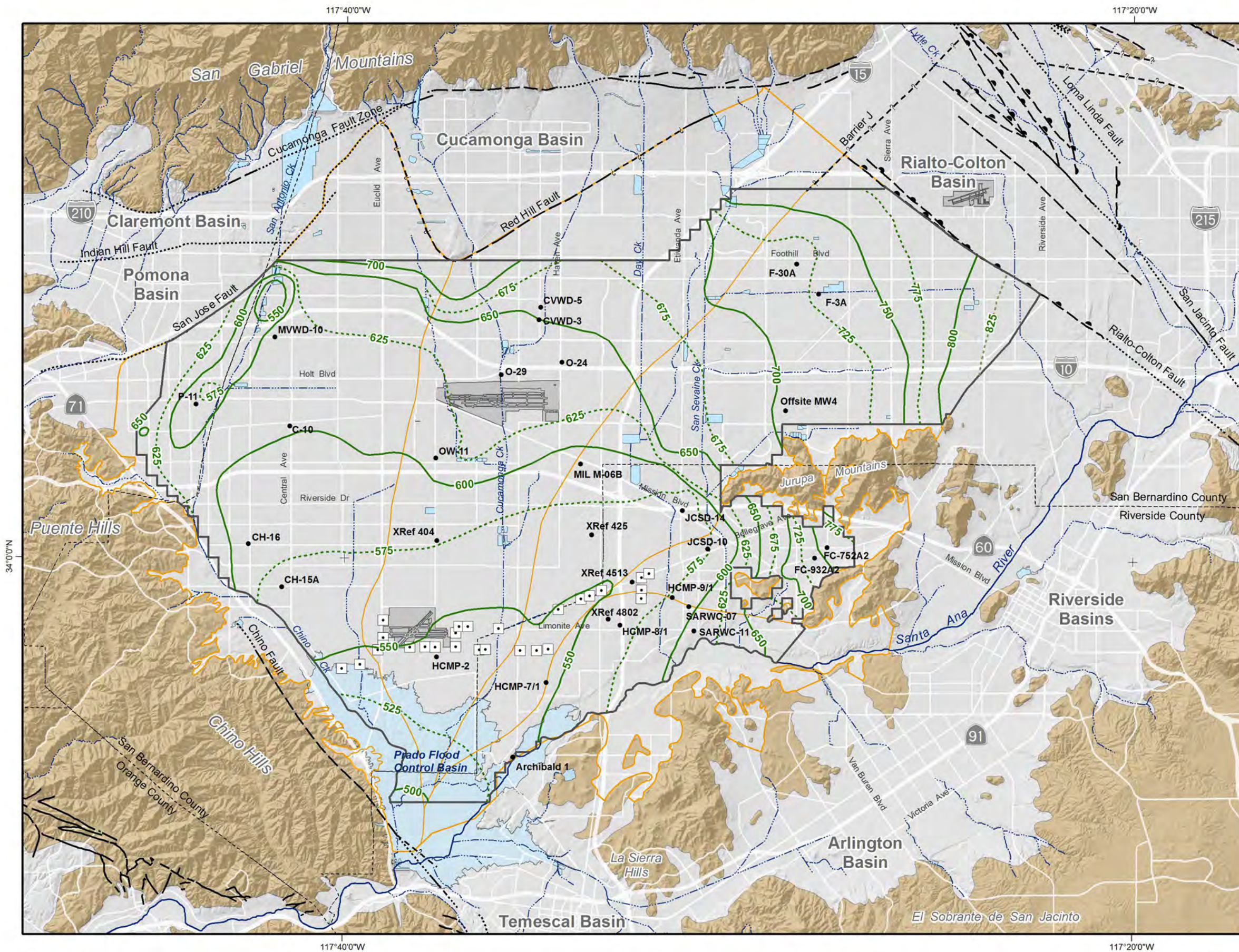
Author: TCR  
 Date: 20121130  
 File: Exhibit\_18.mxd



**2012 State of the Basin**  
 Groundwater Levels

**Groundwater Elevation Contours in Spring 2012**  
 Shallow Aquifer System





- Groundwater Elevation Contours (feet above mean sea-level)
- Boundry of Contoured Area (contours are not shown outside of this boundary due to lack of groundwater level data)
- Well With a Water-Level Time History Plotted on Exhibits 24 through 28
- OBMP Management Zones
- Chino Desalter Wells
- Streams & Flood Control Channels
- Flood Control & Conservation Basins
- Geology**
- Water-Bearing Sediments**
- Quaternary Alluvium
- Consolidated Bedrock**
- Undifferentiated Pre-Tertiary to Early Pleistocene Igneous, Metamorphic, and Sedimentary Rocks
- Faults**
- Location Certain
- Location Concealed
- Location Approximate
- Location Uncertain
- Approximate Location of Groundwater Barrier



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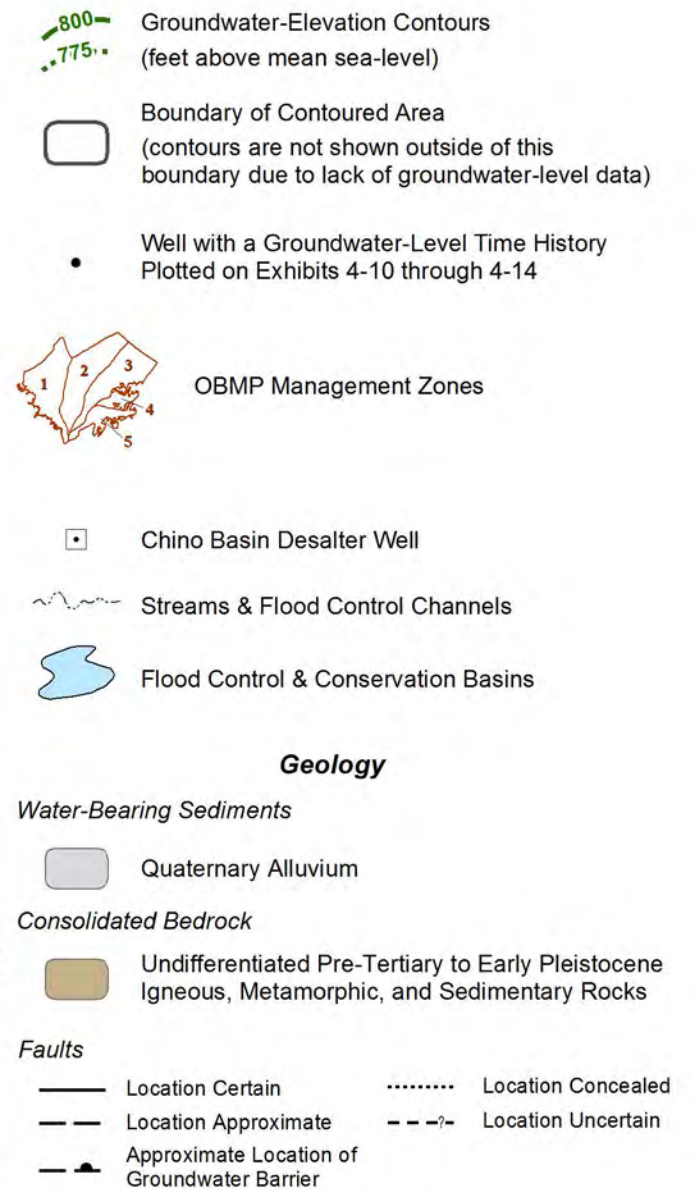
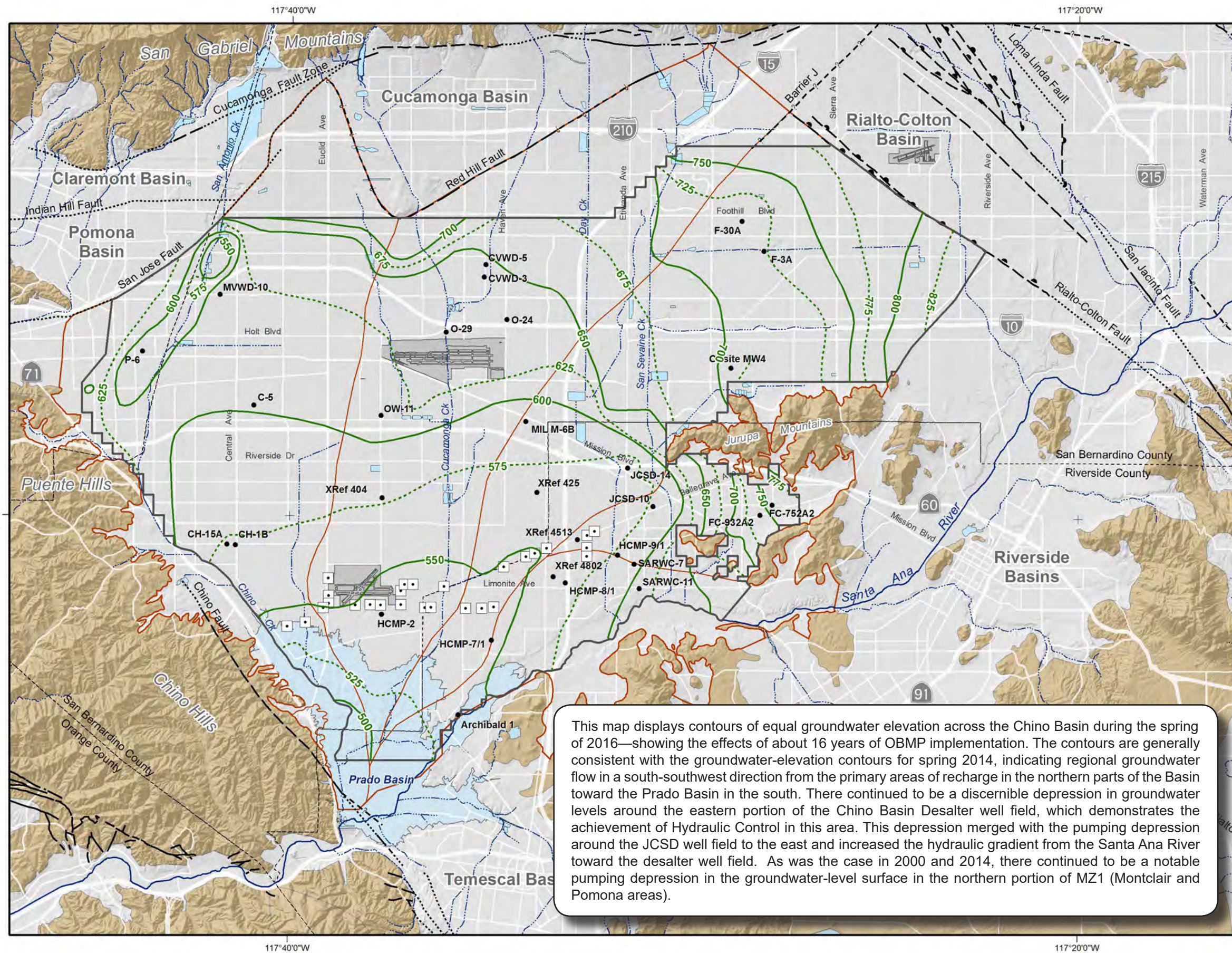
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**DRAFT**

**2014 State of the Basin DRAFT**  
 Groundwater Levels





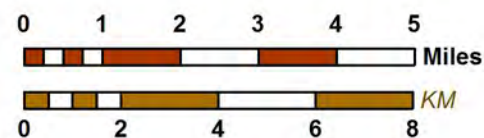
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Author: EM

Date: 6/5/2017

Document Name: Exhibit\_4-4\_sp2016

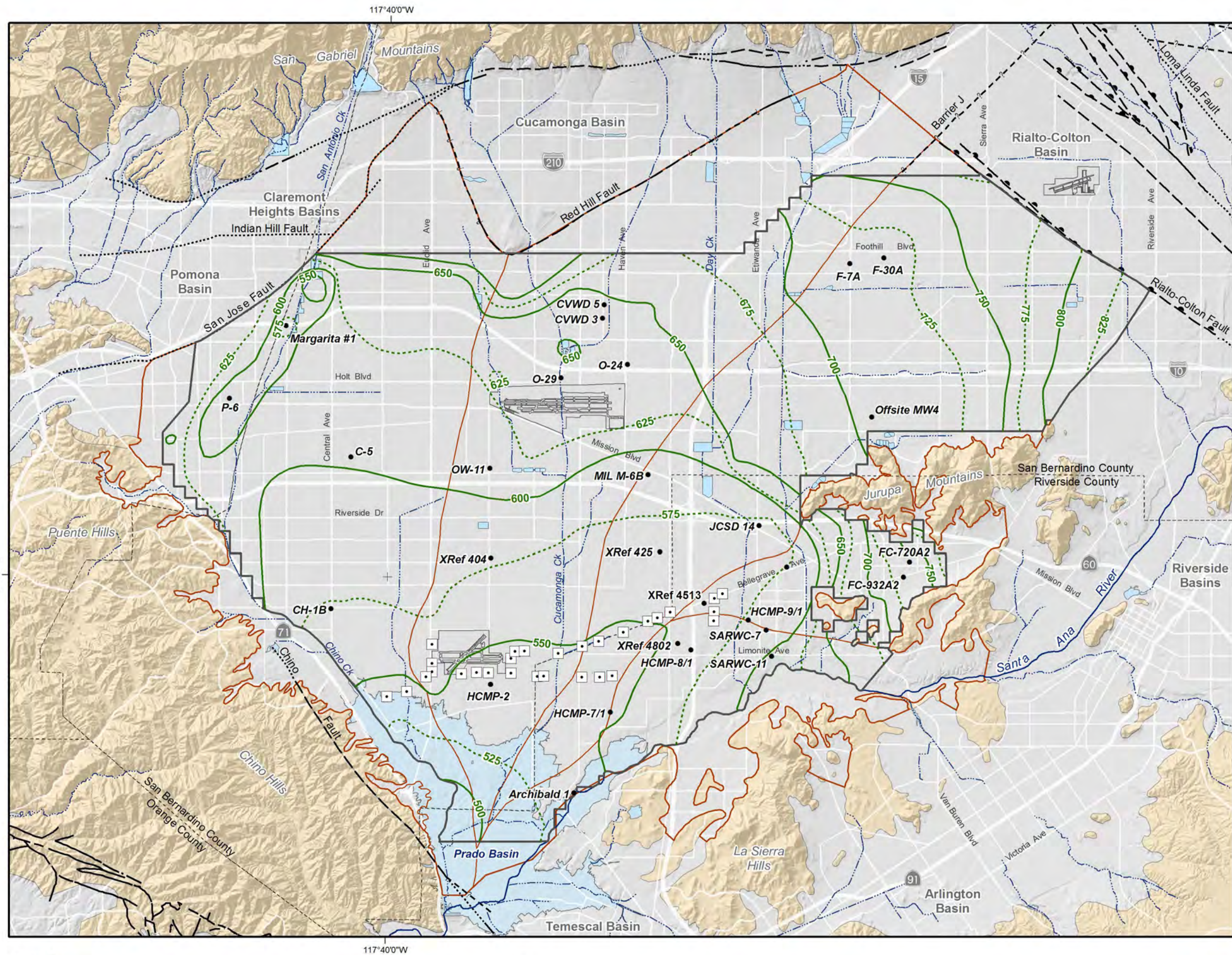


**2016 State of the Basin**  
Groundwater Levels

**Groundwater-Elevation Contours**  
**in Spring 2016**  
Shallow Aquifer System

**Exhibit 4-4**





- 800 Groundwater-Elevation Contours (feet above mean sea-level)
- - - 775
- Boundary of Contoured Area (contours are not shown outside of this boundary due to lack of groundwater-level data)
- Well With a Groundwater-Level Time History Plotted on Exhibits 4-10 through 4-14
- ◻ Chino Basin Desalter Well

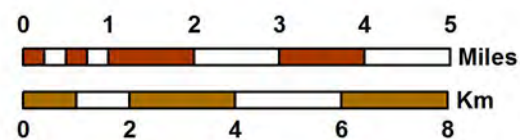
Other key map features are described in the legend of Exhibit 1-1.

This map displays contours of equal groundwater elevation across the Chino Basin during the spring of 2018, showing the effects of about 18 years of OBMP implementation. The contours are generally consistent with the groundwater-elevation contours for spring 2016, indicating regional groundwater flow in a south-southwest direction from the primary areas of recharge in the northern parts of the Basin toward the Prado Basin in the south. There continued to be a discernible depression in groundwater levels around the eastern portion of the Chino Basin Desalter well field, which demonstrates the achievement of Hydraulic Control in this area. This depression merged with the pumping depression around the JCSD well field to the east and increased the hydraulic gradient from the Santa Ana River toward the desalter well field. As was the case in 2000 and 2016, there continues to be a notable pumping depression in the groundwater-level surface in the northern portion of MZ1 (Montclair and Pomona areas).

Prepared by:



Author: EM  
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Prepared for:  
**2018 State of the Basin Report**  
Groundwater Levels



**Groundwater-Elevation Contours**  
**for Spring 2018**  
*Shallow Aquifer System*

**Exhibit 4-4**