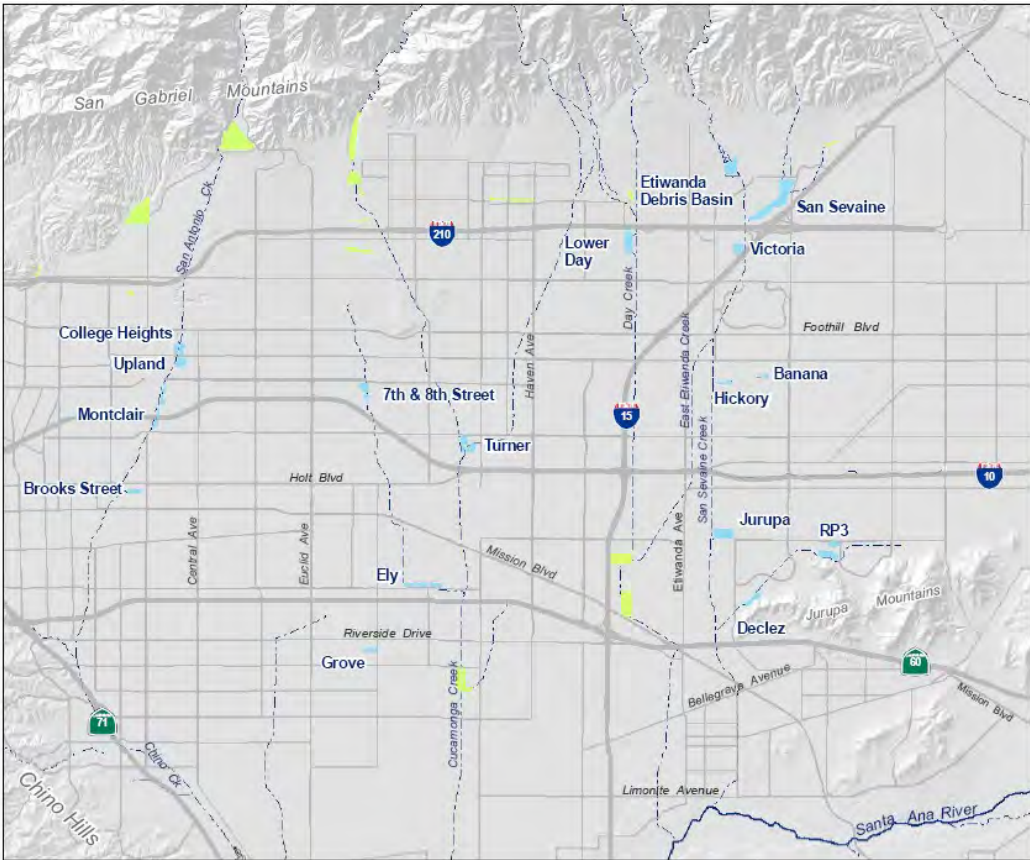


# Chino Basin Recycled Water Groundwater Recharge Program

## 2023 Annual Report



May 1, 2024





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**Pietro Cambiaso**  
Manager of Compliance & Sustainability

**Todd Corbin**  
General Manager

May 1, 2024

Regional Water Quality Control Board, Santa Ana Region

**Attention: Ms. Jayne Joy**

3737 Main Street, Suite 500

Riverside, California 92501-3348

**Subject: Transmittal of the Annual Report for 2023  
Chino Basin Recycled Water Groundwater Recharge Program**

Dear Ms. Joy:

The Inland Empire Utilities Agency (IEUA) and the Chino Basin Watermaster (CBWM) hereby submit the *2023 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 2023:

- The 2023 calendar year include annual program recharge of 77,111.3 acre-feet (AF), which includes 19,100.8 AF of storm water and dry weather flows (including well pump to waste recharge); 13,883.1 AF of recycled water; and 44,127.4 AF of imported water.
- During 2023, 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 2023 with the exception of the primary MCL for 1,2,3-trichloropropane (1,2,3-TCP), NL for perfluorooctanoic acid (PFOA) and secondary MCL for odor.
- No corrective actions were necessary for RP-1 and RP-4. No unit process changes occurred during 2023.



- 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 2023, the volume-based 120-month running average recycled water contributions (RWCs), inclusive of groundwater underflow, by basin were: 8<sup>th</sup> Street - 22%; Banana - 34%; Brooks - 12%; Declez 7%, Ely - 26%, Hickory - 17%, RP3 - 27%; San Sevaine - 16%; Turner Basin Cells 1&2 - 22%; Turner Basin Cells 3&4 – 23%; and Victoria - 27%. 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 2023 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 (21 months), RP3-1 (3.3 months) for RP3 Basin Cell 1, and SSV-2 (4.9 months) for San Sevaine Basin 2. 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 2022) 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 2022 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 through 2022 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 2012) a large mound at the Turner Basin that influences the contour at the basin in 2018. 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 2022 contour 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 2024 in the Cities of Chino and Rancho Cucamonga.



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Pietro Cambiaso  
*Manager of Compliance & Sustainability*



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Todd Corbin  
*General Manager*

# Chino Basin Recycled Water Groundwater Recharge Program

## 2023

## Annual Report

**Prepared by:**

Inland Empire Utilities Agency

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**Reviewed and Approved by:**



Steve Smith, P.E.

*Acting Groundwater Recharge Supervisor*

May 1, 2024

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## 1 INTRODUCTION

This is the 2023 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 Sevaine, and Victoria Basins have previously been summarized in the four 2023 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 2023, 77,111.3 acre-feet (AF) of water were recharged in the Chino Basin, this includes: 19,100.8 AF of storm water and dry weather flows (including pump to waste recharge), 13,883.1 AF of recycled water, and 44,127.4 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.

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 Title 22, Division 4, Chapter 3. Article 5.1 §60320.100

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.

The DDW GRRP regulations require that all GRRPs permitted prior to June 18, 2014 submit a report to the DDW and the Regional Board to assess compliance of the existing permit with the GRRP requirements. The IEUA submitted the Compliance Assessment Report (CAR) for the Chino Basin Recycled Water Groundwater Recharge Project dated June 18, 2015 and began additional monitoring and reporting in 3Q15. IEUA submitted revised CAR to DDW in December 2018. The DDW provided comments on the CAR in July 2019. The IEUA responded to the DDW comments in November 2019.



### 1.3 Organization of the Annual Report

The remainder of this report describes the requirements of the annual report per the MRP in Order R8-2007-0039 and is organized as follows:

- Section 2 – Recycled Water Quality Monitoring discusses compliance with recycled water production specifications and other water quality requirements.
- Section 3 – Groundwater Recharge Monitoring discusses the blending and movement of recycled water recharge in the groundwater basin.
- Section 4 – References includes supporting information consulted in performing the analyses described herein and in preparing this report.

## 2 RECYCLED WATER QUALITY MONITORING

### 2.1 Recycled Water Quality Specifications

During 2023, 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 2023a, 2023b, 2023c, 2024).

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

Recycled Water Specifications A.5 through A.9 are narrative limits in the Order No. R8-2008-0039. The 2023 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.

Table 2-1 of the quarterly reports presents monitoring and compliance data for the narrative permit limits in Order R8-2008-0039 for pH, turbidity, total nitrogen (TN), total inorganic nitrogen (TIN), total organic carbon (TOC), and total dissolved solids (TDS). 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 IEUA National Pollutant Discharge Elimination System (NPDES) permit 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, total nitrogen, and total organic carbon is weekly; and total dissolved solids 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 2023.

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 2023, 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 on 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 2023 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 2023, with the exceptions of 1,2,3-Trichloropropane, PFOA and odor, the 4-quarter running average concentrations for constituents with primary MCLs, secondary MCLs, and action levels did not exceed compliance limits(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.

Although the RW Blend sample from the RP-4 1299 Pump Station is a suitable sample location for most constituents in recycled water, it is not appropriate for Total Trihalomethanes (TTHMs) and Total Haloacetic Acids (HAA5). Compliance samples for these compounds are taken from lysimeters or monitoring wells at basins actively receiving recycled water. At these locations, the samples better represent the compounds present in the recycled water prior to reaching the groundwater table, as the concentrations of these constituents change through the recharge process. Once a quarter, a representative sample is collected from a selected compliance lysimeter/monitoring well and analyzed for these compounds. Compliance for TTHMs and HAA5 were consistently met throughout 2023 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, quarterly and annual groundwater sampling for specific 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 2023 can be found in Table 2-9b in the 4Q23 report. 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 2023, and the notification to the DDW.

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 assess 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.

### 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 or Weck Laboratories. These 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 2024, the EEA laboratory certification is valid through June 2025 and the Weck laboratory certification is valid through March 2026.

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 2023 Annual Laboratory QA/QC Data Summary Report was also submitted to the Regional Board as an attachment in IEUA's 2023 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 an AquaTroll 500 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 2023 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; and oil and grease. Exceedances of 1,2,3-TCP and PFOA are described below.

### 1,2,3-TCP in Recycled Water

In September 2019, 1,2,3-TCP was detected above the MCL of 0.005µg/L at both the RW Blend and 001B Effluent recycled water locations. Accelerated weekly sampling for 1,2,3-TCP was continued until 1,2,3-TCP was not detected above the MCL in 2Q21. During 2Q22, 1,2,3-TCP was detected again above the MCL at both the RW Blend and 001B Effluent. A confirmation sample was collected within 72 hours of notification of the first results, and in accordance with the following requirements of §60320.112(d)(2), weekly sampling began on 06/18/21.

- §60320.112(d)(2), “the GRRP shall initiate weekly monitoring for the contaminant until the running four-week average no longer exceeds the contaminant’s MCL.”
- §60320.112(d)(2)(A) states that “If the running four-week average exceeds the contaminant’s MCL, a project sponsor shall describe the reason(s) for the exceedance and provide a schedule for completion of corrective actions in a report submitted to the Department and Regional Board no later than 45 days following the quarter in which the exceedance occurred.”

During a meeting with the DDW and Regional Board on July 15, 2021, Faraz Asad (DDW) requested that a revised corrective action report (from the one submitted to the DDW and Regional Board on February 13, 2020) be prepared and submitted. The 1,2,3-TCP concentration in the recycled water continued to exceed the MCL after accelerated monitoring was implemented. A corrective action report to address these exceedances were submitted to the Regional Board on February 13, 2020. Following a meeting with DDW and Regional Board on July 15, 2021, DDW requested that a revised correction action report be prepared and submitted. On August 12, 2021, a revised corrective action report was submitted to DDW and Regional Board.

IEUA has been actively implementing corrective actions, which includes: evaluations of monitoring wells, lysimeters, source control, and the analysis method; and an investigation of disinfection byproducts. IEUA has contracted with Trussell Technologies on October 5, 2021 to assist with the investigation of 1,2,3-TCP and possible mitigation measures. The objective of this study is to have 1,2,3-TCP designated as a disinfection byproduct applicable to IEUA’s recycled water groundwater recharge only. The project team identified the potential strategies to carry out the 1,2,3-TCP investigation.

- A 1,2,3-TCP method assessment plan was submitted to DDW and Regional Board for their review and comment on March 22, 2022.
- The last set of comments from the DDW was received on April 27, 2022.
- Trussell Technologies revised the plan, and the plan was re-submitted for review on June 13, 2022.
- IEUA received an email on September 16, 2022 from DDW asking if the DWRL\_123TCP (DWRL) method (Drinking Water and Radiation Laboratories (DWRL) - developed protocols for analytical methods for 1,2,3-TCP at levels comparable to the notification level of 0.005 µg/L) has been incorporated in the method assessment plan.

- IEUA Compliance staff has confirmed that the DWRL method has been incorporated and the revised plan was submitted to DDW on June 6, 2023.

At the time of this reporting, the testing for the method assessment plan has taken place to evaluate the analytical methods and impact of preservative on 1,2,3-TCP concentrations. At the March 2, 2024 meeting with DDW staff, Trussell Technologies presented the method assessment results and plans moving forward. During this meeting, Trussell Technologies also presented data that showed that the compound being reported as 1,2,3-TCP is likely a different, unknown compound. Plans moving forward include demonstrating that the compound is not 1,2,3-TCP and re-evaluating the need for the field investigation plan portion of the study.

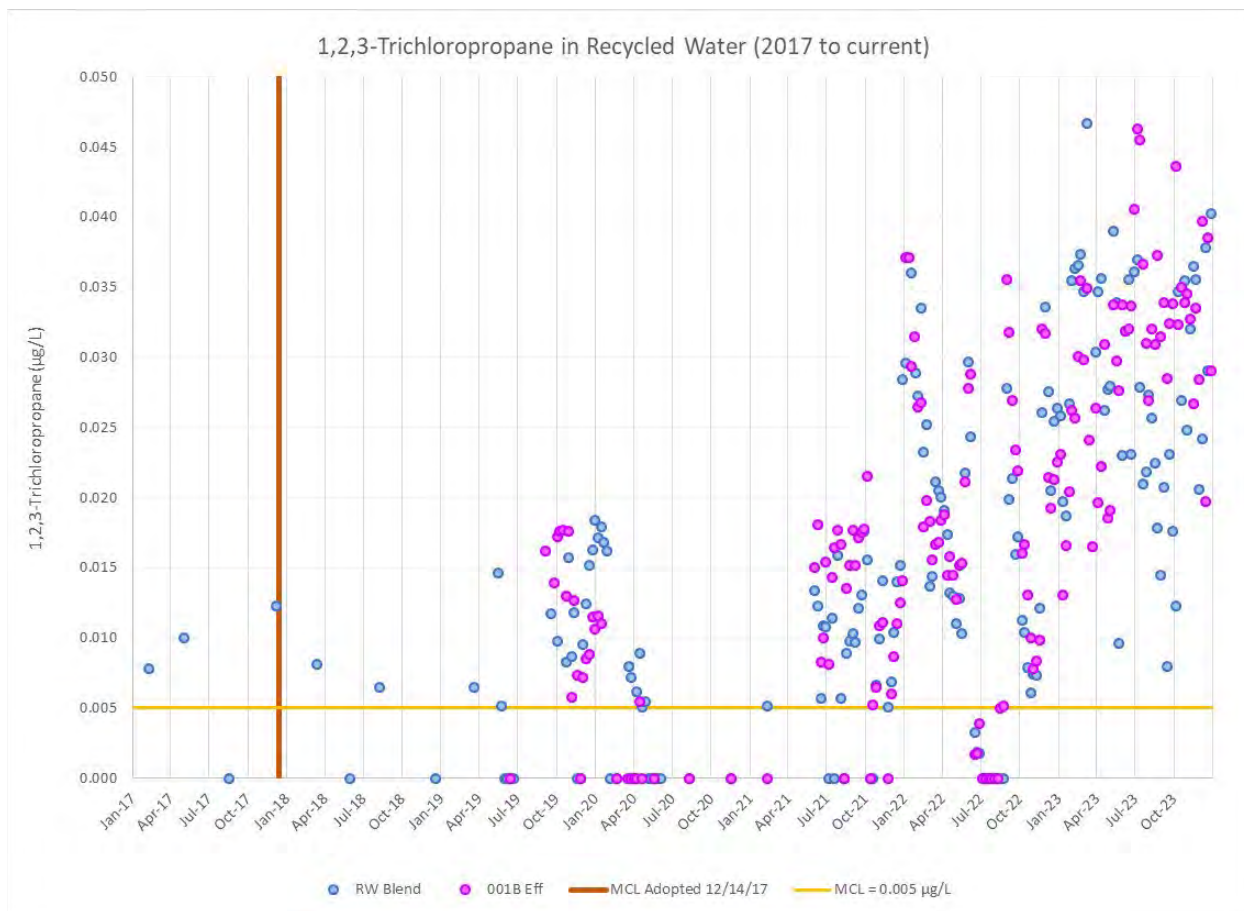
Additionally, IEUA and Los Angeles County Sanitations Districts (LACSD) meet regularly to discuss 1,2,3-TCP, as both agencies utilize surface application for groundwater recharge and are regularly experiencing 1,2,3-TCP concentrations above the MCL.

The table below shows weekly results of 1,2,3-TCP in recycled water for 2023. The chart below shows the trend in 1,2,3-TCP in recycled water from 2017 to 2023. As shown in the table and chart below, 1,2,3-TCP concentration sampled at RW Blend and 001B Effluent continued to exceed the MCL of 0.005 µg/L during the weekly monitoring events in calendar year 2023.

Date	RW Blend (ng/L)	4-sample avg (ng/L)	Date	001B Eff (ng/L)	4-sample avg (ng/L)
01/04/23	25	27	01/04/23	21	23
01/11/23	26	25	01/11/23	23	21
01/18/23	26	25	01/18/23	23	22
01/25/23	20	24	01/25/23	13	20
02/01/23	19	23	02/01/23	17	19
02/08/23	27	23	02/08/23	20	18
02/15/23	35	25	02/15/23	26	19
02/22/23	36	29	02/22/23	26	22
03/01/23	37	34	03/01/23	30	26
03/08/23	37	36	03/08/23	35	29
03/15/23	35	36	03/15/23	30	30
03/22/23	47	39	03/22/23	35	33
04/03/23	52	43	04/03/23	24	31
04/12/23	53	47	04/12/23	16	26
04/19/23	30	46	04/19/23	26	25
04/26/23	35	43	04/26/23	20	22
05/03/23	36	38	05/03/23	22	21
05/10/23	26	32	05/10/23	31	25
05/17/23	28	31	05/17/23	19	23
05/24/23	28	29	05/24/23	19	23
05/31/23	39	30	05/31/23	34	26
06/07/23	34	32	06/07/23	30	25

Date	RW Blend (ng/L)	4-sample avg (ng/L)
06/15/23	10	28
06/21/23	23	26
06/28/23	32	25
07/05/23	37	33
07/12/23	28	31
07/19/23	21	31
07/26/23	22	27
08/02/23	27	25
08/09/23	26	24
08/16/23	22	24
08/23/23	18	23
08/30/23	14	20
09/06/23	21	19
09/13/23	8	15
09/20/23	23	17
09/27/23	18	17
10/04/23	12	15
10/11/23	35	22
10/18/23	27	23
10/25/23	35	27
11/01/23	25	30
11/08/23	32	30
11/15/23	36	32
11/22/23	36	32
11/29/23	21	31
12/06/23	24	29
12/13/23	38	30
12/20/23	29	28
12/27/23	40	33

Date	001B Eff (ng/L)	4-sample avg (ng/L)
06/15/23	28	28
06/21/23	34	31
06/28/23	32	31
07/05/23	46	38
07/12/23	46	42
07/19/23	37	42
07/26/23	31	40
08/02/23	27	35
08/09/23	32	32
08/16/23	31	30
08/23/23	37	32
08/30/23	31	33
09/06/23	34	33
09/13/23	28	33
09/20/23	32	32
09/27/23	34	32
10/04/23	44	35
10/11/23	32	36
10/18/23	35	36
10/25/23	34	36
11/01/23	35	34
11/08/23	33	34
11/15/23	27	32
11/22/23	34	32
11/29/23	28	30
12/06/23	40	32
12/13/23	20	30
12/20/23	39	32
12/28/23	29	32



**PFOA in Recycled Water**

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 implementing accelerated monitoring. The corrective actions report was submitted to the DDW and Regional Board on February 13, 2020.

IEUA completed the sixteen consecutive weeks of sampling the RW Blend and 001B Effluent per §60320.120(b)(2) during 1Q20 and notified the DDW and the Regional Board after the final results



were received. Notifications of exceedance were emailed to the Regional Board and DDW on February 25, 2020 for the RW Blend and on March 5, 2020 for the 001B Effluent.

In a March 5, 2020 email, DDW stated that IEUA needs to continue with weekly samples for PFOA in the recycled water. Weekly sampling was reinitiated during the third week of March 2020. At time of reporting, IEUA is awaiting the reevaluation of the request to reduce the PFOA monitoring frequency from weekly to monthly. During an August 5, 2021 meeting, the DDW and the Regional Board requested additional information and a revised PFOA corrective action report, which was submitted to both regulatory agencies on November 3, 2021.

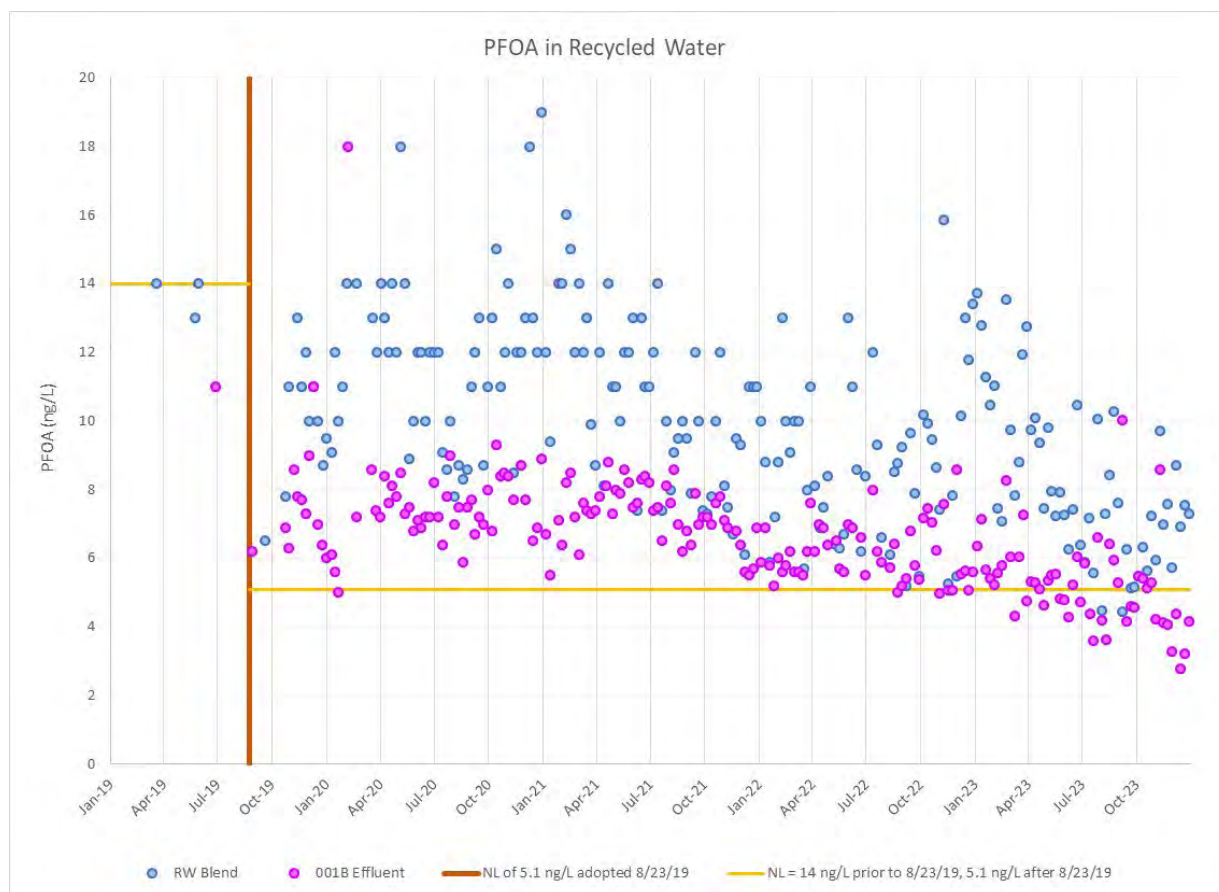
A follow-up meeting took place on February 28, 2022 and the DDW requested additional information on dry weather flow diversions. A revised corrective actions report was submitted to the DDW and Regional Board on May 2, 2022. At time of reporting, IEUA has not received a response from the DDW.

In a meeting on January 17, 2024, IEUA provided DDW staff with an update on the PFOA Corrective Actions Report. An updated Corrective Actions Report with the University of California Irvine (UCI) PFAS Research Project will be submitted when the final report becomes available. The research project is a sewershed-scale analysis of PFAS in wastewater from domestic, commercial, and industrial sewerage system users. Additionally, IEUA is expanding sewershed monitoring efforts to study PFAS in the IEUA service area.

The table below shows weekly results of PFOA in recycled water for 2023. The chart below shows the trend in PFOA in recycled water from 2019 to 2023. As shown in the table and chart below, PFOA concentration sampled at RW Blend and 001B Effluent continued to exceed the MCL of 5.1 ng/L during the weekly monitoring events in calendar year 2023.

Date	RW Blend (ng/L)	4-sample avg (ng/L)	Date	001B Eff (ng/L)	4-sample avg (ng/L)
01/04/23	13.7	13.0	01/04/23	6.4	5.7
01/11/23	12.8	12.9	01/11/23	7.2	6.0
01/18/23	11.3	12.8	01/18/23	5.7	6.2
01/25/23	10.5	12.1	01/25/23	5.4	6.2
02/01/23	11.0	11.4	02/01/23	5.2	5.9
02/08/23	7.4	10.1	02/08/23	5.6	5.5
02/15/23	7.1	9.0	02/15/23	5.8	5.5
02/22/23	13.5	9.8	02/22/23	8.3	6.2
03/01/23	9.8	9.5	03/01/23	6.1	6.4
03/08/23	7.8	9.5	03/08/23	4.3	6.1
03/15/23	8.8	10.0	03/15/23	6.0	6.2
03/22/23	12.0	9.6	03/22/23	7.3	5.9
03/29/23	12.8	10.3	03/29/23	4.8	5.6
04/05/23	9.7	10.8	04/05/23	5.3	5.9
04/12/23	10.1	11.1	04/12/23	5.3	5.7

Date	RW Blend (ng/L)	4-sample avg (ng/L)	Date	001B Eff (ng/L)	4-sample avg (ng/L)
04/19/23	9.4	10.5	04/19/23	5.1	5.1
04/26/23	7.5	9.2	04/26/23	4.6	5.1
05/03/23	9.8	9.2	05/03/23	5.4	5.1
05/10/23	8.0	8.6	05/10/23	5.5	5.2
05/17/23	7.2	8.1	05/17/23	5.6	5.3
05/24/23	7.9	8.2	05/24/23	4.8	5.3
05/31/23	7.3	7.6	05/31/23	4.8	5.2
06/07/23	6.3	7.2	06/07/23	4.3	4.9
06/14/23	7.4	7.2	06/14/23	5.2	4.8
06/21/23	10.5	7.9	06/21/23	6.1	5.1
06/28/23	6.4	7.6	06/28/23	4.7	5.1
07/05/23	5.9	7.5	07/05/23	5.9	5.5
07/12/23	7.2	7.5	07/13/23	4.4	5.3
07/19/23	5.6	6.3	07/19/23	3.6	4.6
07/26/23	10.1	7.2	07/26/23	6.6	5.1
08/02/23	4.5	6.8	08/02/23	4.2	4.7
08/08/23	7.3	6.9	08/09/23	3.6	4.5
08/16/23	8.4	7.6	08/16/23	6.4	5.2
08/23/23	10.3	7.6	08/23/23	6.0	5.1
08/30/23	7.6	8.4	08/30/23	5.3	5.3
09/06/23	4.5	7.7	09/06/23	10.0	6.9
09/13/23	6.3	7.2	09/13/23	4.2	6.4
09/20/23	5.1	5.9	09/20/23	4.6	6.0
09/27/23	5.2	5.3	09/27/23	4.6	5.8
10/04/23	5.5	5.5	10/04/23	5.5	4.7
10/11/23	6.3	5.5	10/11/23	5.4	5.0
10/18/23	5.6	5.7	10/18/23	5.1	5.2
10/25/23	7.2	6.2	10/25/23	5.3	5.3
11/01/23	6.0	6.3	11/01/23	8.6	6.1
11/08/23	9.7	7.1	11/08/23	4.2	5.8
11/15/23	7.0	7.5	11/15/23	4.1	5.6
11/22/23	7.6	7.6	11/22/23	4.1	5.3
11/29/23	5.7	7.5	11/29/23	3.3	3.9
12/06/23	8.7	7.3	12/06/23	4.4	4.0
12/13/23	6.9	7.2	12/13/23	2.8	3.6
12/20/23	7.6	7.2	12/20/23	3.2	3.4
12/27/23	7.3	7.6	12/27/23	4.2	3.6



During 2023, 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 2023 quarterly groundwater sampling, and any DDW notifications during the calendar year 2023. There were no DDW notifications made in 2023.

Primary MCL Exceedances in Groundwater

- NO<sub>3</sub>-N samples collected from monitoring wells at 7th & 8th Street, Banana & Hickory, Brooks, Ely, and RP3 Basins were detected above the primary MCL of 10 mg/L. The NO<sub>3</sub>-N concentrations at these wells range from 11 to 23 mg/L and are characteristic of groundwater quality in these areas of the Chino Basin. The distribution of NO<sub>3</sub>-N concentrations observed at wells in the Chino Basin is summarized in Watermaster's State of the Basin Reports. No notifications were made to the DDW as these high NO<sub>3</sub>-N

concentrations are comparable to the ambient NO<sub>3</sub>-N concentration in groundwater for each monitoring well's respective groundwater management zone within the Chino Basin.

Secondary MCL Exceedances in Groundwater

- TDS was higher than its secondary MCL of 500 mg/L at ALCOA MW3, Bishop of SB Corp. – DOM, and RP3-1/1, Southridge JHS. EC was higher than its secondary MCL of 900 µmhos/cm at ALCOA MW3 and Southridge JHS. The wells near the RP3 Basins are located in areas where the TDS and EC concentrations in groundwater are historically elevated. The distribution of TDS concentrations observed at wells in the Chino Basin is summarized in Watermaster's State of the Basin Reports.

The table below summarizes the recycled water, diluent water, and monitoring well exceedances from 2023.

Sample Type	Site	Exceedance
RW	RW Blend	Primary MCL (0.005 µg/L) – 1,2,3-Trichloropropane NL (5.1 ng/L) – PFOA Secondary MCL (3 TON) – Odor
RW	001B Effluent	Primary MCL (0.005 µg/L) – 1,2,3-Trichloropropane NL (5.1 ng/L) – PFOA Secondary MCL (3 TON) - Odor
Well	ALCOA MW3	Primary MCL (10 mg/L) – NO <sub>3</sub> -N Secondary MCL (200 µmhos/cm) - EC Secondary MCL (500 mg/L) - TDS
Well	BRK-1/2	Primary MCL (10 mg/L) – NO <sub>3</sub> -N
Well	BRK-2/1	Secondary MCL (15 NTU) – Color Secondary MCL (5 NTU) – Turbidity Secondary MCL (50 µg/L) – Manganese
Well	BRK-2/2	Primary MCL (10 mg/L) - NO <sub>3</sub> -N
Well	Bishop of SB Corp	Primary MCL (10 mg/L) – NO <sub>3</sub> -N
Well	DCZ-1/1	Secondary MCL (200 µg/L) - Aluminum Secondary MCL (5 NTU) – Turbidity Secondary MCL (15 NTU) - Color
Well (non-DW)	FWC - F7a	Primary MCL (10 mg/L) – NO <sub>3</sub> -N
Well	Southridge JHS	Primary MCL (10 mg/L) – NO <sub>3</sub> -N Secondary MCL (200 µmhos/cm) - EC Secondary MCL (500 mg/L) – TDS
Well	8TH-1/1	Secondary MCL (50 µg/L) – Manganese Secondary MCL (3 TON) – Odor Secondary MCL (5 NTU) - Turbidity
Well	8TH-1/2	Secondary MCL (5 NTU) - Turbidity
Well	8TH-2/2	Secondary MCL (5 NTU) - Turbidity
Well	SS-1/1	Secondary MCL (200 µg/L) – Aluminum
Well	SSV-2	Primary MCL (1000 µg/L) - Aluminum Secondary MCL (5 NTU) – Turbidity
Well	VCT-2/2	Secondary MCL (5 NTU) - Turbidity

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

No unit process changes occurred during the 2023 calendar year, therefore there was no impact on water quality.

## 2.7 Summary of Chemical Usage

A summary of treatment chemicals used on a monthly basis at RP-1 and RP-4 during the 2023 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 2023, IEUA's recycled water recharge totaled 13,883.1 AF. The table below summarizes the volume of recycled water recharged during 2023 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	2023 Recycled Water Recharge (AF)	Percent of 2023 Recycled Water Recharge
8 <sup>TH</sup>	669.6	5%
Banana	1,017.8	7%
Brooks	750.7	5%
Declez	668.1	5%
Ely	0	0%
Hickory	0	0%
RP3	7,935.8	57%
San Sevaine	1,230.9	9%
Turner 1&2	0.3	0%
Turner 3&4	0	0%
Victoria	1,609.9	5%
Total	13,883.1	100%

The 2023 calendar year include annual program recharge of 77,111.3 acre-feet (AF), which includes 19,100.8 AF of storm water and dry weather flows (including well pump to waste recharge); 13,883.1 AF of recycled water; and 44,127.4 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, 2023a, 2023b, 2023c, and 2024), but are repeated in this section's discussion of RWC (recycled water contribution) management plans. Delivered recharge volumes have been reduced from the metered volume 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 expected long-term blend as all recharged waters sources move and mix towards distant monitoring wells. The 2023 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 2023 for basins having initiated recycled water recharge are listed below:

Basin	RWC Limit	120-Mo. Running Avg. RWC
8 <sup>th</sup> Street	50%	22%
Banana	50%	34%
Brooks	50%	12%
Ely	50%	26%
Declez	20%	7%
Hickory	50%	17%
RP3	50%	27%
San Sevaine	50%	16%
Turner 1&2	24%	22%
Turner 3&4	45%	23%
Victoria	50%	27%



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). Variations in the delivery period of diluent water and recycled water provide for varying levels of blending. 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 5. 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 5, recycled water arrival at the mound monitoring well (SS-1) based on EC and chloride data were inconclusive for determining its arrival during the 2011 to 2014 operational period. Recycled water recharge at San Sevaine 5 was suspended in 2014 due to poor infiltration rates and resulting maintenance issues. However, in August 2020, recycled water recharge resumed at the San Sevaine site at San Sevaine 2. Based on the 2020/21 Start-Up Period performance (IEUA and CBWM, 2022), an RWC limit of 50% was determined for San Sevaine 1, 2, and 3, and superseded the 29% limit initially determined for San Sevaine 5.

### ***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 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).

In the following recharge site discussion, Table 3-1 provides the estimated 2023 ranges of peak percent blend of recycled water observed at wells showing EC and chloride increases associated with recycled water recharge. For these wells, the mass-balance blends 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 data in Table 3-1 are the approximate well water concentration prior to recycled water recharge. The recycled water data in Table 3-1 is the current calendar year average concentration of the blended RP-1 and RP-4 recycled water. The ranges discussed in the paragraph come from Table 3-1 and are presented as the percent based on EC to the percent based on chloride, respectively.

### **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 mid 2009 to late 2015 supporting the arrival of recycled water recharged in 2007. This initial arrival 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. The highest historical percent blend of recycled water in the groundwater mound at 8TH-1/1 during 2015 was approximately 79% to 98% based on EC and chloride concentrations. In 2023, the highest recycled water blend at the well 8th-1/1 was between 51% and 57%.

In the deeper casing (8TH-1/2), there were slight increases in the EC, TDS, and chloride concentrations from mid-2011 to 2021 after trending downward from when the well was constructed in 2007 through 2011. The 2011 increases suggest recycled water recharge after the 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 2023, 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 2023 at 8TH-1/2 was 69 mg/L which was greater than the lowest background concentration of 13 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. The highest percent blend of recycled water in the groundwater mound at 8TH-1/2 during 2023 if confirmed would be approximately 50% to 57%.

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. EC

and TDS show slight increases in 2016-2017 but returned to within their background ranges in 2018. In 2020 through 2023, Chloride concentrations increased by 10 mg/L above background. Continued observation of these water quality trends is warranted prior for further assessment of recycled water arrival time at 8TH-2/1

Between 2007 and 2018, there was insufficient indication from 8TH-2/2 data to identify a recycled 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. In 2019, chloride concentrations trended upwards to a historical high (62 mg/L) but has since gradually decreased to 52 mg/L in 2021. The 2019-2021 increased chloride 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 in 2019-2023 timed with the upward chloride trend but has not exceed background levels.

### **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 stable but slightly lower than the peak of 2016. In 2021 through 2022, concentrations began a gradual decrease but in 2023 concentrations increased slightly. In 2023, the highest percent blend of recycled water within the groundwater mound at BH-1/2 reached approximately 51% to 74%.

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 (compared 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. In 2023, the California Infield Well was out of service and is expected to be repaired in 2024.

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 2021. While small, the change supports a recycled water arrived at this well in April 2012, an approximately 6.5-year travel time. In 2021, the highest percent blend of recycled water in the groundwater mound at the California Speedway Well No. 2 reached approximately 48 to 19%. In 2022 through 2023, EC, TDS, and chloride concentrations remained stable and returned to background levels that were observed in 2006.

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, in 2018 the NRG facility closed

and the well is no longer operational. Should a new owner maintain the well, sampling would be continued. IEUA is developing a project to site to install a replacement monitoring well by 2025.

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 in 2018 was replaced for monitoring with Fontana Water Company 7A. Due to its location up gradient of Banana Basin, neither well is 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. The highest percent blend of recycled water in the groundwater mound at the recharge basin during 2023 was approximately 64% to 65% 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 2017 and have been stable from 2018-2023. 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. In 2023, the percent blend of recycled water at BRK-1/2 is approximately 54% to 11%.

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, then remained stable through 2023. 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, then became relatedly stable through 2023. 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 recycled water recharge is impacting it.

### **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. In late 2023, IEUA completed the installation of a new monitoring well (Ely-3) to replace the damaged Philadelphia well.

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. As of 2021, such a trend has not been observed.

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 2023. 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. Recycled water recharge at Turner 1 has been insignificant in 2019 through 2023 as recharge is following the sites RWC management plan. During 2023, EC, TDS, and chloride continue to decline towards background levels.



At monitoring well T-2/2 (at Turner 4), the EC, TDS, and chloride concentrations arrivals due to recharge are delayed several months. The slower and smaller relative concentration changes (compared to Turner 1's monitoring well 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 the deeper well casing T-2/2 at Turner 4 following recharge in late-2018. During 2023 the highest percent blend of recycled water in the groundwater mound at the Turner 4 Basin was approximately 39% to 52%. 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 of less recycled water recharge, the data show recycled water beneath the Turner Basins is blending in the aquifer with groundwater and other recharge 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. From 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. As of 2019, Ontario Well No. 25 has been classified by DDW as inactive.

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 2022 Well No. 29's concentration 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 arrival and 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. During 2023, the percent blend of recycled water in the groundwater at well RP3-1/1 was 98% and 100% (EC and chloride based).

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 2021, 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 2023, 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 2023. 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 trends 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). The resumption of recycled water recharge in April 2018 allowed confirmation of the travel time based on a second correlation of increased EC and chloride in November 2019. The 2019 confirmation resulted in a 21-month travel time. The 21- and 23-months travel times are within the precision of quarterly sampling. To be conservative from a compliance perspective, 21 months will be considered the travel time. During 2023, the highest percent blend of recycled water in the groundwater at DCZ-1/1 was estimated at approximately 50% to 74%.

### **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. A pump station was also constructed to pump stormwater captured in Basin 5 through the recycled water pipeline to the Basins 1, 2, and 3.

A modified start-up protocol was prepared to repeat the San Sevaine Start-up Period testing using Basin 2 and representative of Basins 1, 2, and 3. The modified start-up period of recycled water recharge in San Sevaine 2 occurred from August 2020 through September 2021. A new monitoring well (SSV-2) was installed at Basin 2. Monitoring well SS-1 at Basin 5 and the well Unitex 91090 were used as the nearest down gradient monitoring wells.

Since the initiation and end of recycled water recharge in San Sevaine 5 (2010-2014), EC and chloride concentrations declined gradually through 2015, stabilized through 2019, gradually increased above background concentrations through 2020, and declined towards background concentrations in 2021. These increases occurred prior to resumed recycled water recharge at San Sevaine 2 in August 2021 and are therefore unrelated to 2021 recharge. It is possible that these increases may be related to the initial recharge of recycled water at Basin 5. If so, this would suggest an approximate 9-year travel time from Basin 5 to groundwater at monitoring well SS-1.

The San Sevaine Modified Recycled Water Recharge Start-Up Protocol used a new mound monitoring well (SSV-2) that was installed in mid-2018 at San Sevaine 2. For SSV-2, the 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 minor fluctuation over the 2018-2020 sampling window. A sharp increase in EC, TDS, and chloride concentrations were observed in SSV-2 in January 2021 and indicates the arrival of recycled water at the monitoring well after 4.9 months of travel time (IEUA & CBWM, 2022). During 2023, the highest percent blend of recycled water in the groundwater at SSV-2 was estimated at approximately 71% to 42%.

In 2023, 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.

### **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. During 2023, the percent blend of recycled water in the groundwater mound at Victoria Basin was approximately 62% 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 6 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 Regional Board 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 2019 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 basins 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 at the end of the year for the most recent eleven years (2013-2023) for each basin. 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 2023 quarterly monitoring reports, CBWM has certified that there was no reported pumping of groundwater in 2023 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; SSV-2 at San Sevaine 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 at 8TH-2/2 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 in 2024.

### **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 in the 2008 Annual Report 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. The travel time to the California Speedway Infield Well from Banana Basin is estimated as 890 days (29 months) based on a stepped increase in EC, TDS, and Chloride concentrations between October 9, 2007 and January 7, 2008. The modeled travel time to the California Speedway Infield Well estimated in the first Title 22 Engineering Report 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 2021. 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 & 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. When taken out of service in 2017, the downgradient monitoring well, Reliant East, had 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. IEUA is currently planning to replace this downgradient monitoring well in 2025.

### **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 through 2021. Similar peak increases in chloride concentration were observed in BRK-1/1 are similar to increases in chloride concentration in BRK-2/1 18 months later. The BRK-1/1 chloride trend is

added to the BRK-2/1 trend for comparison (Appendix C). The initial peak increase in chloride concentration at BRK-2/2 suggested a recycled water travel time of 28 months (2.3 years), yet later arrivals are several months sooner. 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 lack of background monitoring prior to recharge of recycled water at Ely Basin and the variations observed in EC, TDS, and chloride concentrations at the Philadelphia, Walnut, and Riverside wells, the 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 months 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. In 2023, a new monitoring well (Ely-3) was installed to replace the damaged Philadelphia well.

### **Turner Basin Area**

Travel time from Turner Basins through the vadose zone to the groundwater is approximately 10 to 12 months for both the Turner 1 (T-1/2) and Turner 4 (T-2/2) 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 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 2022 from Well 29 are consistent with the prior data interpretations. No data was obtained from Well 25 due to it being inactive since mid-2019.



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## 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 2021 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 from historical highs during the summer and early fall of 2020. Though concentrations fell during two subsequent samplings, levels remained above historical background values. As the chloride concentration peaked 260 mg/L greater than that of recycled water chloride, further observation and investigation may be required to better determine the source of this spike and arrival of recycled water. 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 2023, 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 shows a slight increase in EC, TDS, and chloride concentration beginning in February 2020, but remains similar to background concentrations. Continued monitoring and observation at DCZ-2 will help confirm the arrival of recycled water.

## 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 Basin 5 to the water table is complicated by recharge activities at the other San Sevaine Basins. San Sevaine Basins 1, 2,

and 3 are located upgradient from San Sevaine Basin 5. The hydrograph of SS-1 is complimented with recharge of both San Sevaine Basin 5 (storm water and previously recycled water) and the combined San Sevaine 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.

Due to operational and maintenance limitations, recharge of recycled water was discontinued in San Sevaine Basin 5 in 2014. San Sevaine Basin 5 remains an active basin for stormwater capture and recharge, however, the basin is used largely to store water prior to transferring to other basins. The San Sevaine Basin 5 mound monitoring well showed a spike in chloride in the second half of 2019, which dropped in subsequent sampling in 2021 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 to see if their duration matches the limited historical recycled water deliver to San Sevaine Basin 5.

A modified Start-Up Period for San Sevaine Basins began with recycled water deliveries in August 2020. A new mound monitoring well, SSV-2, was previously installed adjacent San Sevaine 2 Basin as part of the Modified Start-Up Protocol and has been sampled quarterly since September 2018 and monthly since August 2020. Background water quality data collected prior to and during the start-up period from SSV-2 were generally stable and similar to those observed at nearby well Unitex 91090. From December 2020 through October 2022, monthly sampling events detected notable increases in EC, TDS, and chloride concentrations at SSV-2. Though this rise represents the arrival of recycled water at the mound monitoring well, more observation is needed to identify the peak concentrations possible. To allow the modified San Sevaine Start-Up Period to occur, on June 1, 2019 the nearby cross-gradient well Unitex 91090 was removed temporarily from potable service pending results of monthly monitoring for arrival of recycled water indicators. Recycled water indicators were not detected at the well Unitex 91090 through 2023 indicting a minimal travel time greater than 16 months.

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. The time is 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. As of 2023, there is no convincing observation of recycled water arrival 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 of 8<sup>th</sup> Street, Banana, Brooks, Ely, Hickory, Turner Basins, San Sevaine, 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 2023, 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, 2018, 2020, and 2022. These groundwater elevation maps from the CBWM's *Biennial State of the Basin Reports* are presented in Appendix E. The Spring 2022 elevation contour map will be used for discussion in 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 2022) 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 2022 maps are the mound at 8<sup>th</sup> Street, which between 2012 and 2020 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 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 2022 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 2022 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 635 to 680 feet above mean sea level (MSL). In 2021, 8TH-1/2 water levels declined about 7 feet and reached 635 feet MSL, the lowest elevation since 2009. There is an approximate 4-month delay and 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 and 2020. In 2021, 8TH-2 water levels also decline to near prior low levels of 2009. Short duration downward water level spikes of 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 broader 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 2021 and gradually decreased in 2022. 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 & 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 2019, the BH-1/2 hydrograph shows relatively stable water levels with 5 to 10-foot seasonal fluctuations. However, from 2020 through 2022, the hydrograph shows a gradual decrease in water levels to 5 feet below its prior historic low. 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 was discovered to be irreplaceably damaged is permanently out of service. A new well is planned to be constructed at the base in fiscal year 2022/23 and will be equipped with a level sensor.

### **Turner Basin Area**

The hydrographs for the two Turner Basin monitoring wells, T-1/2 and T-2/2, show general long term 40-foot increase in water levels between 2008 and 2017 followed by a long term 30-foot decline from 2018 to 2022. For these two sites, 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. 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. From 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 through 2020 to 2022 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 Basins San Sevaine 1, 2, and 3. For data 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, and a steep recovery 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 resumed at the upper three San Sevaine Basins in August 2020 and appear to have sustained water levels in SS-1 between 2020 and 2021. The operation of the San Sevaine 5 pump station for delivery of stormwater to the upper most San Sevaine Basins should also have a positive influence on water levels at SS-1.

Monitoring well SSV-2 was installed in late 2018 at San Sevaine 2 Basin and its initial hydrography is included in this annual report. The level sensor for this well failed and data were lost from January 2019 through April 2022. The short water elevation history shows a downward trend during a pause in recharge activity. After April 2022, increase groundwater level can be attributed to an increase of basin recharge activities.

## 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 levels and the winter high levels. Longer-term (2014 through 2021) 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 relative stable water elevations from 2010 through 2019 within the elevations 750 to 765 feet MSL. From 2020 through 2022, the well's water elevations declined to historic lows in the low 740s. 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 resumed in November 2015. The transducer failed in mid-2016 and was replaced.

## TABLES

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

Month	RP-1 (Flow)		RP-1 (Tertiary)		RP-4		
	Ferric Chloride	Sodium Hypochlorite	Aluminum Sulfate	Sodium Hypochlorite	Ferric Chloride	Aluminum Sulfate	Sodium Hypochlorite
	Gal.	Gal.	Gal.	Gal.	Gal.	Gal.	Gal.
<i>Jan-23</i>	21,900	345	9,750	98,759	0	1,374	25,917
<i>Feb-23</i>	19,500	858	9,600	89,957	0	1,213	21,278
<i>Mar-23</i>	22,800	1,159	10,200	110,760	1,446	1,392	25,868
<i>Apr-23</i>	20,400	1,826	8,100	107,979	1	1,288	24,450
<i>May-23</i>	22,700	1,789	10,400	102,166	0	1,042	25,207
<i>Jun-23</i>	22,500	2,348	7,400	107,151	0	17	25,681
<i>Jul-23</i>	20,700	2,022	9,450	127,883	0	20	27,075
<i>Aug-23</i>	23,100	2,829	11,500	134,635	0	0	28,501
<i>Sep-23</i>	20,600	1,909	11,100	131,685	0	17	26,059
<i>Oct-23</i>	22,800	1,663	9,100	126,347	0	18	25,235
<i>Nov-23</i>	20,400	1,427	8,500	123,941	0	17	24,537
<i>Dec-23</i>	19,600	303	6,900	125,345	0	18	24,608
<b>Total</b>	257,000	18,478	112,000	1,386,608	1,447	6,414	304,416



**Table 3-1  
Evidence of Recycled Water Blending Based on Water Quality at  
Monitoring Wells Based on EC and Chloride in 2023**

Basin	Well	2023 Recycled Water EC (µmhos/cm)	Groundwater Background EC (µmhos/cm)	Peak EC at Well (µmhos/cm)	Mass-Balance Blend (max) (% Recycled Water)	2023 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	Inconclusive evidence of recycled water				Inconclusive evidence of recycled water			
	8TH-1/2	786	255	525	51%	112	13	69	57%
	8TH-2/1	Inconclusive evidence of recycled water				Inconclusive evidence of recycled water			
	8TH-2/2	Inconclusive evidence of recycled water				Inconclusive evidence of recycled water			
Banana & Hickory	BH-1/2	786	360	578	51%	112	10	85	74%
	California Speedway Infield	Well out of service during 2023				Well out of service during 2023			
	California Speedway No. 2	Inconclusive evidence of recycled water				Inconclusive evidence of recycled water			
	Fontana Water Co. 37A and 7A	Inconclusive evidence of recycled water				Inconclusive evidence of recycled water			
Brooks	BRK-1/1	786	367	637	64%	112	11	77	65%
	BRK-1/2	786	535	670	54%	112	16	27	11%
	BRK-2/1	Inconclusive evidence of recycled water				Inconclusive evidence of recycled water			
	BRK-2/2	Inconclusive evidence of recycled water				Inconclusive evidence of recycled water			
Ely	Ely MW1 (Philadelphia Well) and Ely-3	Inconclusive evidence of recycled water				Inconclusive evidence of recycled water			
	Ely MW 2 (Walnut Well)	Well impacted by regionally high TDS concentration				Well impacted by regionally high TDS concentration			
	Riverside Well	Inconclusive evidence of recycled water				Inconclusive evidence of recycled water			
Turner	T-1/2	Inconclusive evidence of recycled water				Inconclusive evidence of recycled water			
	T-2/2	786	350	521	39%	112	9	63	52%
	Ontario No. 29	Inconclusive evidence of recycled water				Inconclusive evidence of recycled water			
RP-3	RP3-1/1	786	475	781	98%	112	20	113	100%
	Alcoa MW3	Inconclusive evidence of recycled water				Inconclusive evidence of recycled water			
	Alcoa MW1	Inconclusive evidence of recycled water				Inconclusive evidence of recycled water			
	Southridge JHS	Inconclusive evidence of recycled water				Inconclusive evidence of recycled water			
San Sevaine & Victoria	SS-1	Inconclusive evidence of recycled water				Inconclusive evidence of recycled water			
	SSV-2	786	303	646	71%	112	38	69	42%
	Unitex 91090	Inconclusive evidence of recycled water				Inconclusive evidence of recycled water			
	VCT-1/1	786	330	611	62%	112	38	91	72%
	VCT-2/2	Inconclusive evidence of recycled water				Inconclusive evidence of recycled water			
	CVWD No. 39	Inconclusive evidence of recycled water				Inconclusive evidence of recycled water			
Declerz	DCZ-1	786	400	592	50%	112	22	89	74%
	DCZ-2	786	484	598	38%	112	34	67	42%
	JCSD Well No. 13	Inconclusive evidence of recycled water				Inconclusive evidence of recycled water			
	JCSD Well No. 19	Inconclusive evidence of recycled water				Inconclusive evidence of recycled water			

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

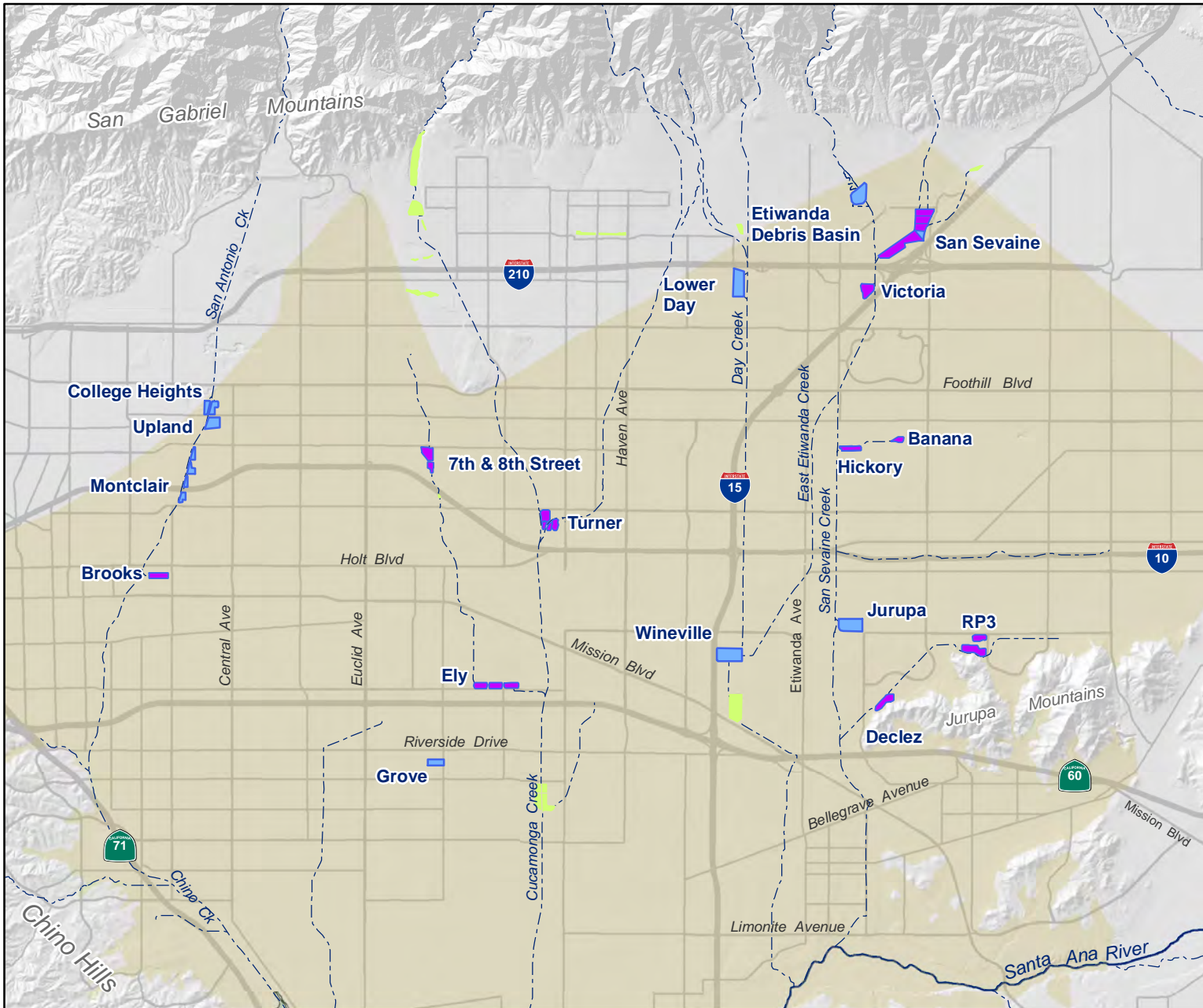
Basin	Owner	RW Start Up	Start-Up Limit	Approved Limit <sup>(1)</sup>	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
8th Street	SBCFCD	2007-10	28%	50%	24%	22%	21%	23%	22%	22%	23%	23%	24%	24%	22%
Banana	SBCFCD	2005	36%	50%	34%	34%	37%	36%	36%	36%	35%	35%	34%	33%	34%
Brooks	CBWCD	2008-09	42%	50%	18%	18%	17%	18%	18%	17%	15%	14%	14%	14%	12%
Decluz	SBCFCD	2015-16	20%	20%	1%	1%	2%	10%	7%	7%	7%	8%	8%	7%	7%
Ely	CBWCD	2006	29%	50%	19%	21%	22%	22%	22%	23%	22%	25%	25%	26%	26%
Hickory	SBCFCD	2005	36%	50%	23%	26%	27%	24%	22%	22%	19%	19%	19%	19%	17%
RP3	IEUA	2009-10	50%	50%	14%	13%	14%	17%	17%	16%	17%	20%	22%	25%	27%
San Sevaine	SBCFCD	2020-21 <sup>(2)</sup>	50%	50%	5%	5%	6%	8%	7%	6%	5%	7%	12%	18%	16%
Turner 1&2	SBCFCD	2006-07	24%	24%	7%	11%	15%	19%	22%	23%	23%	24%	23%	24%	22%
Turner 3&4	SBCFCD	2006-07	45%	45%	23%	25%	28%	24%	23%	25%	24%	25%	26%	25%	23%
Victoria	SBCFCD	2010-11	50%	50%	23%	28%	30%	29%	30%	28%	27%	28%	27%	27%	27%

(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 Sevaine Basin which DDW stated required additional data for consideration of approval.

(2) A modified San Sevaine Start-up was completed in 2021 for the upper basins (San Sevaine 1, 2, an 3) resulting in an RWC limit of 50%. The limit replaces the initial 29% limit for San Sevaine 5 basin which is no longer used for recycled water recharge.

## FIGURES

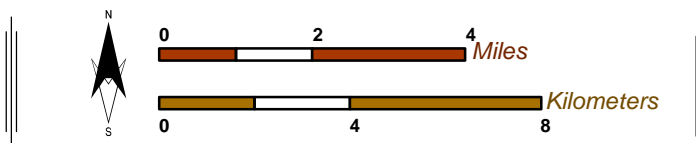
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- Recharge Basins in the Recycled Water Groundwater Recharge Program
- Recharge Basins in the Recycled Water Groundwater Recharge Program (Active Recycled Water Recharge)
- Non-Program Basins
- Chino Groundwater Basin
- Rivers and Streams

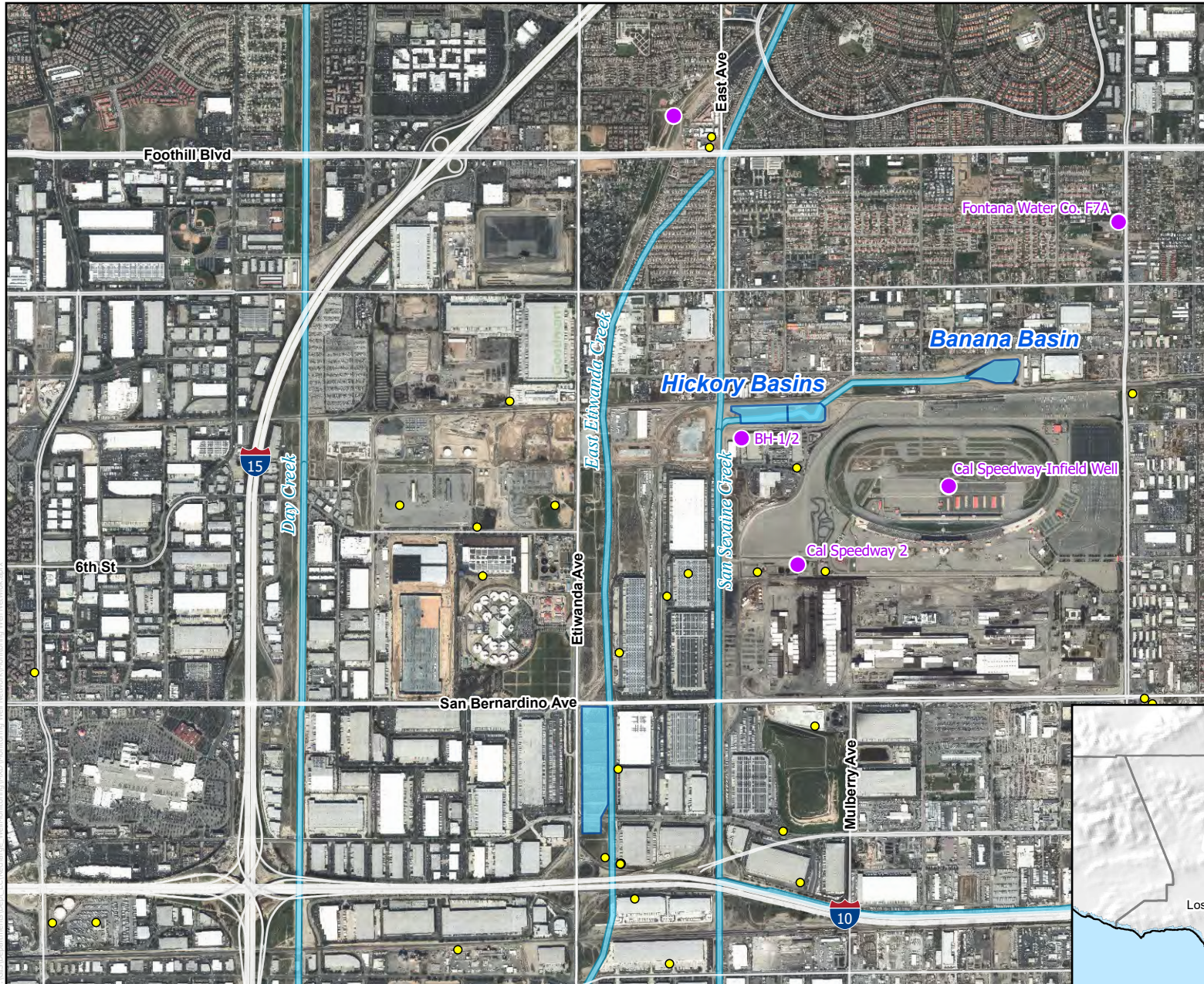


**Chino Basin Recycled Water Groundwater Recharge Program**  
*Basin Locations*



**Figure 1-1**





### Main Map Features

- Monitoring Well
- Other Well
- River/Stream/Creek
- Recharge Basin

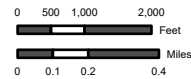


### Monitoring Well Network

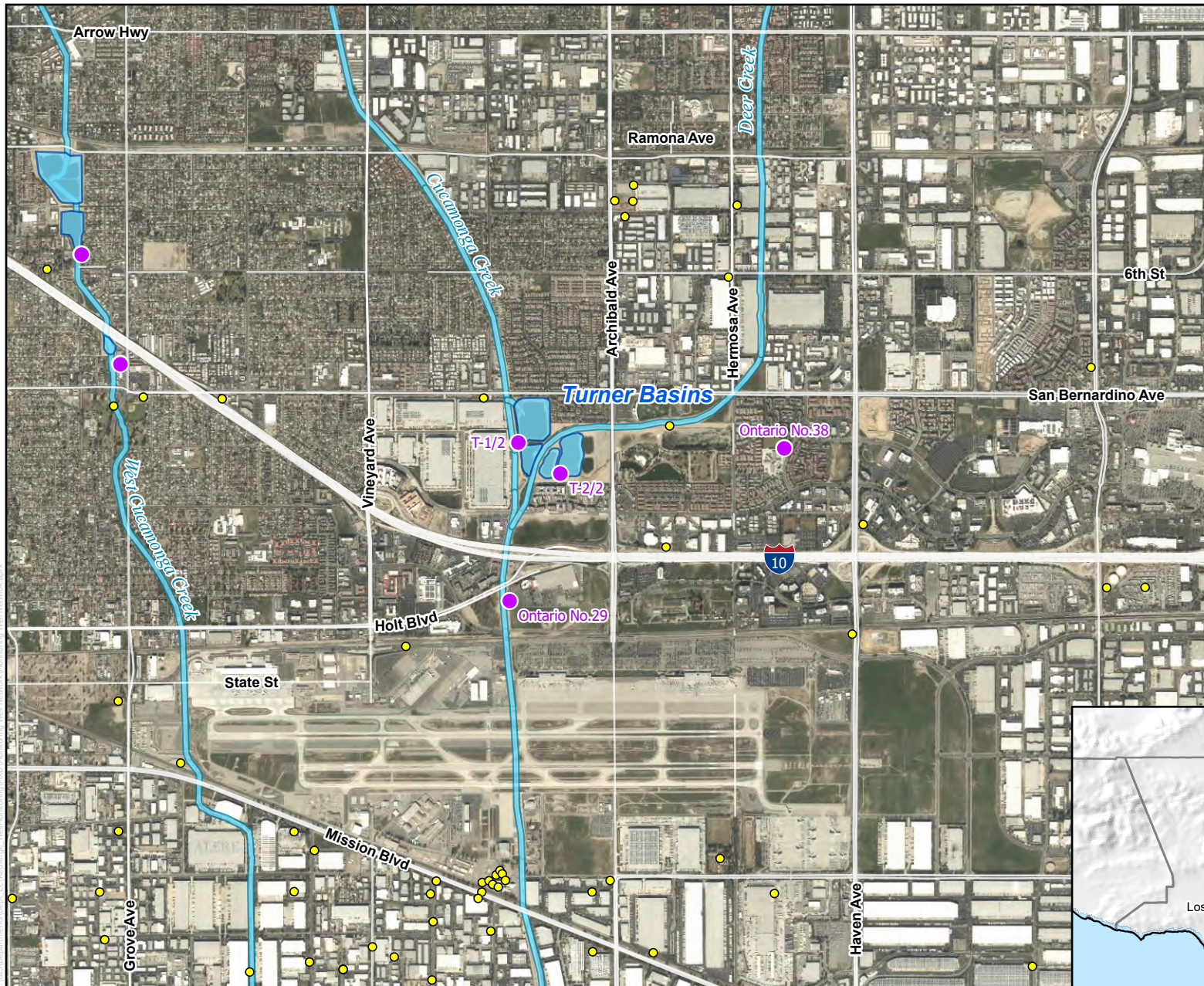
Hickory and Banana Basins

**Figure 2-1**

Recycled Water Recharge Program







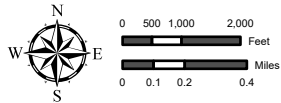
### Main Map Features

- Monitoring Well
- Other Well
- River/Stream/Creek
- Recharge Basin

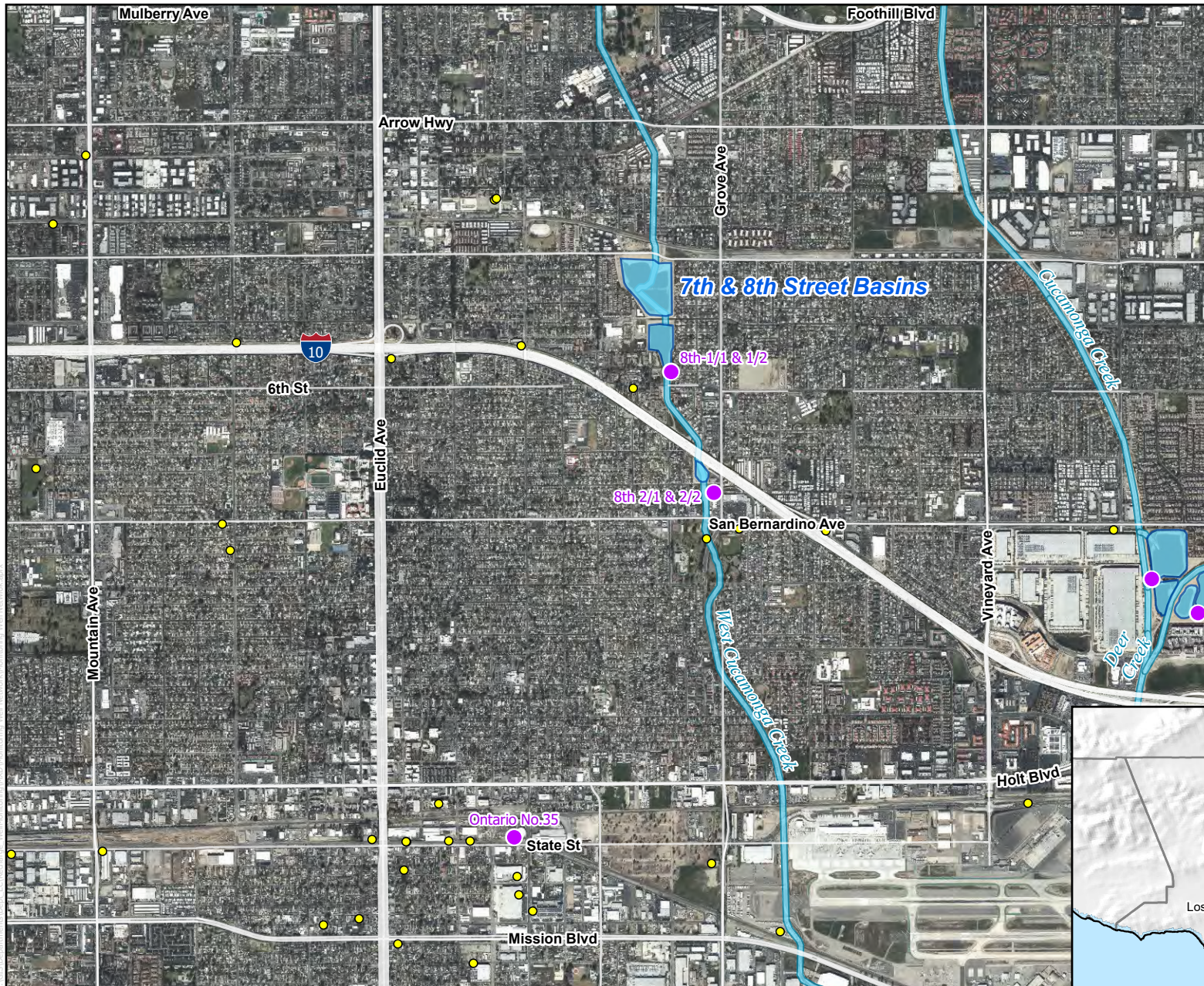


**Monitoring Well Network**  
Turner Basins  
**Figure 2-2**

Recycled Water Recharge Program







### Main Map Features

- Monitoring Well
- Other Well
- River/Stream/Creek
- Recharge Basin

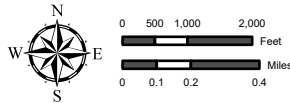


## Monitoring Well Network

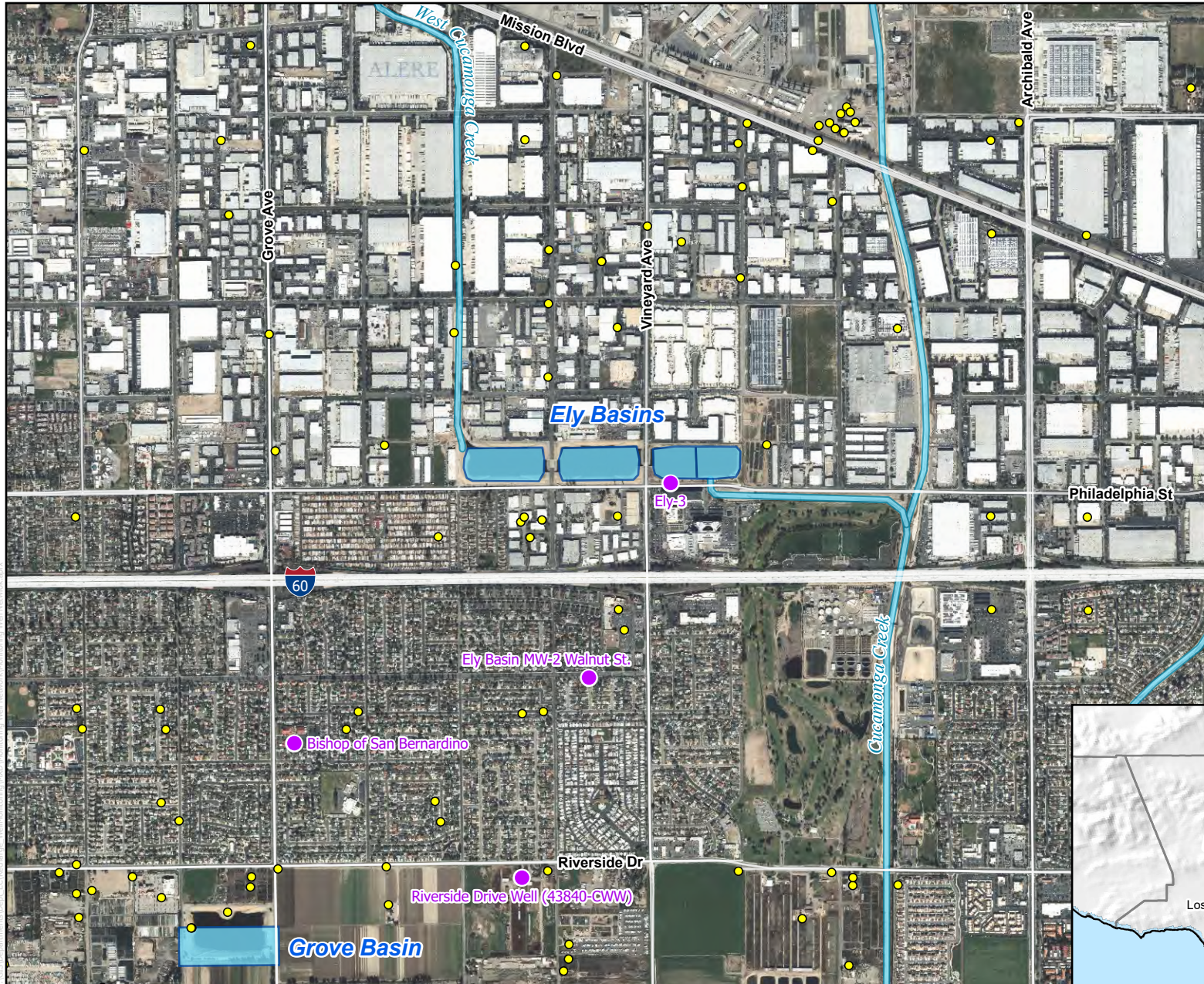
7th and 8th Street Basins

**Figure 2-3**

Recycled Water Recharge Program







### Main Map Features

- Monitoring Well
- Other Well
- River/Stream/Creek
- Recharge Basin

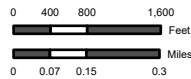


### Monitoring Well Network

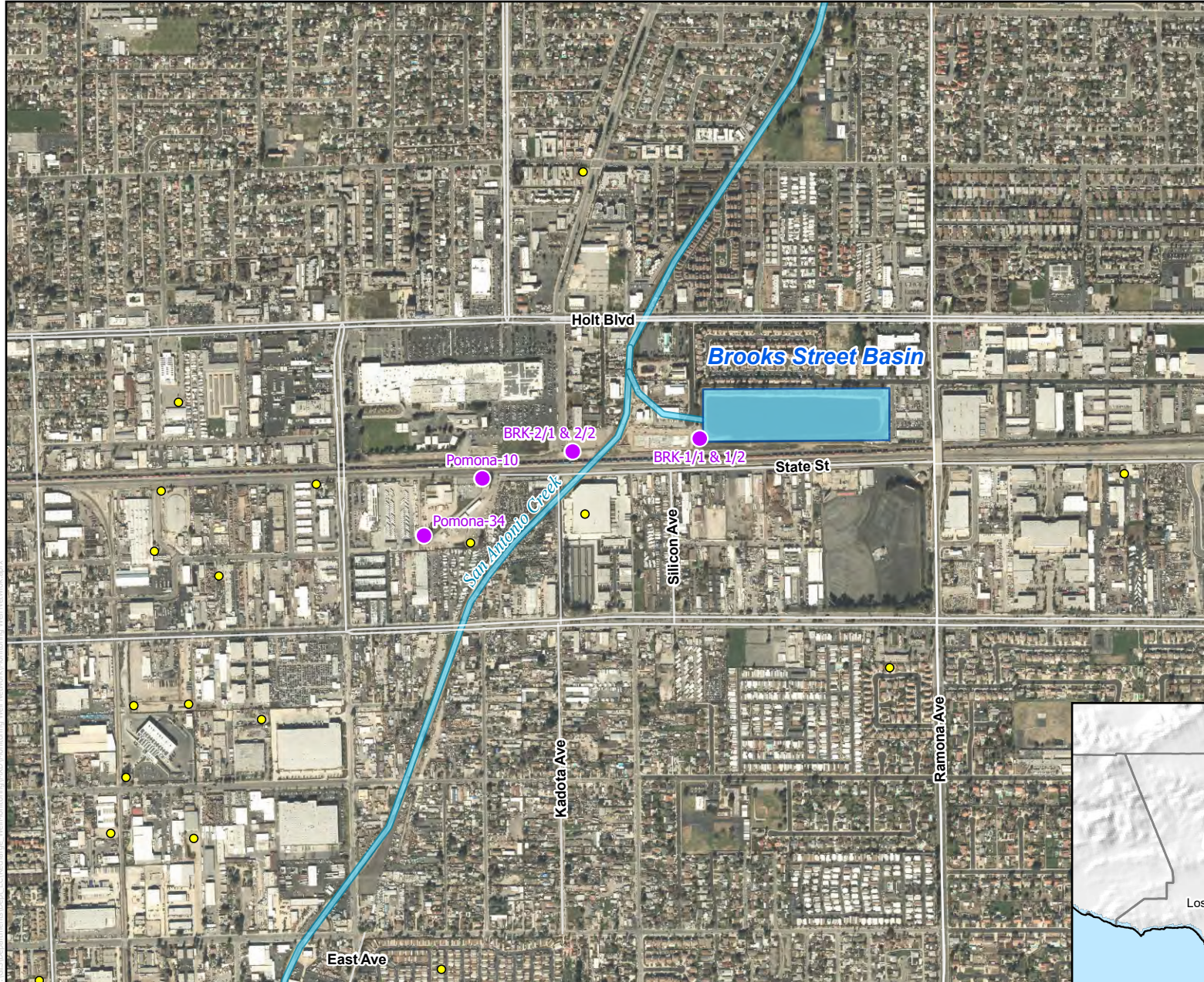
*Ely Basins*

**Figure 2-4**

Recycled Water Recharge Program







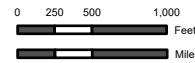
**Main Map Features**

- Monitoring Well
- Other Well
- River/Stream/Creek
- Recharge Basin

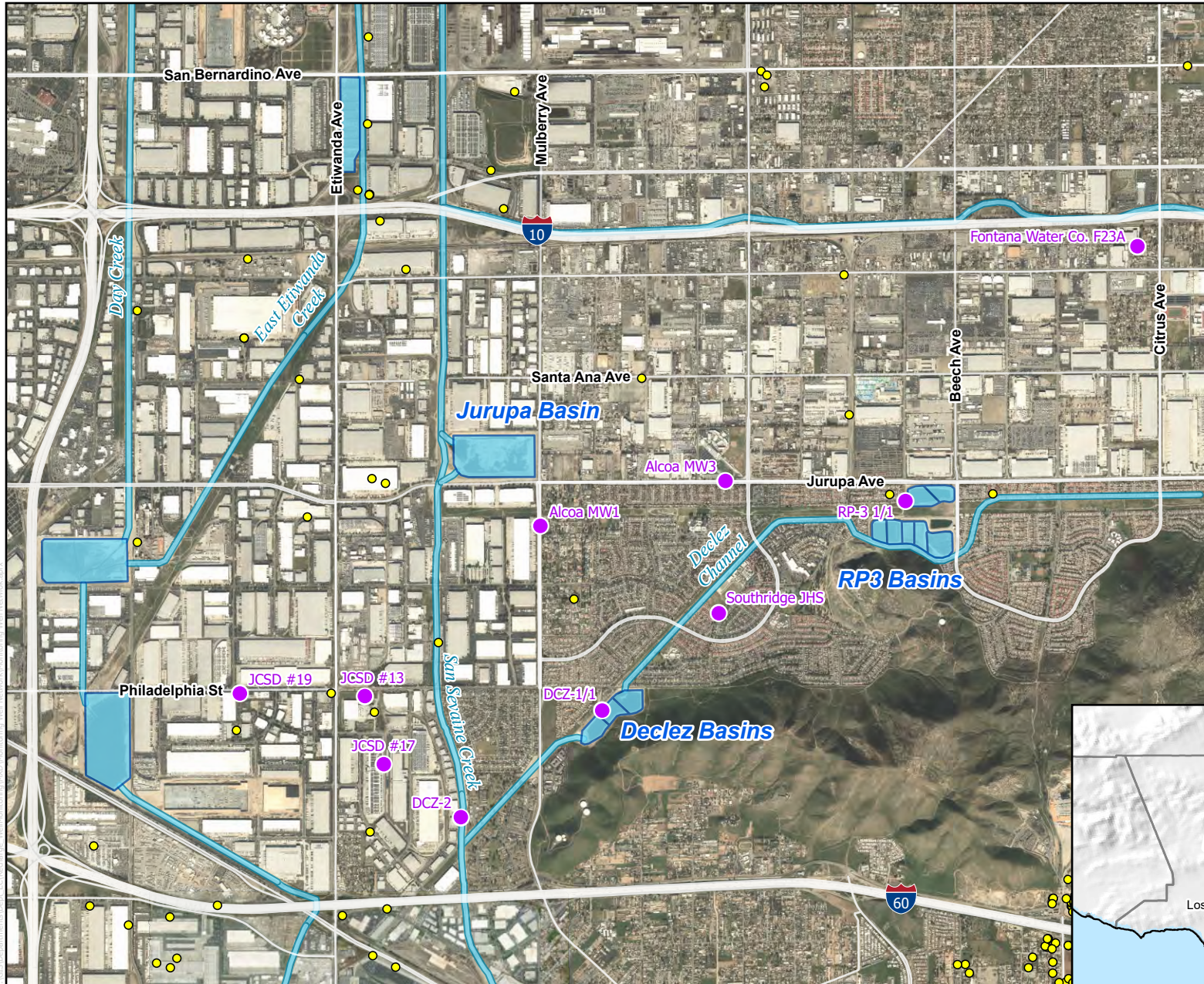


**Monitoring Well Network**  
*Brooks Street Basin*  
**Figure 2-5**

Recycled Water Recharge Program







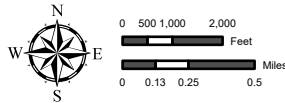
### Main Map Features

- Monitoring Well
- Other Well
- River/Stream/Creek
- Recharge Basin

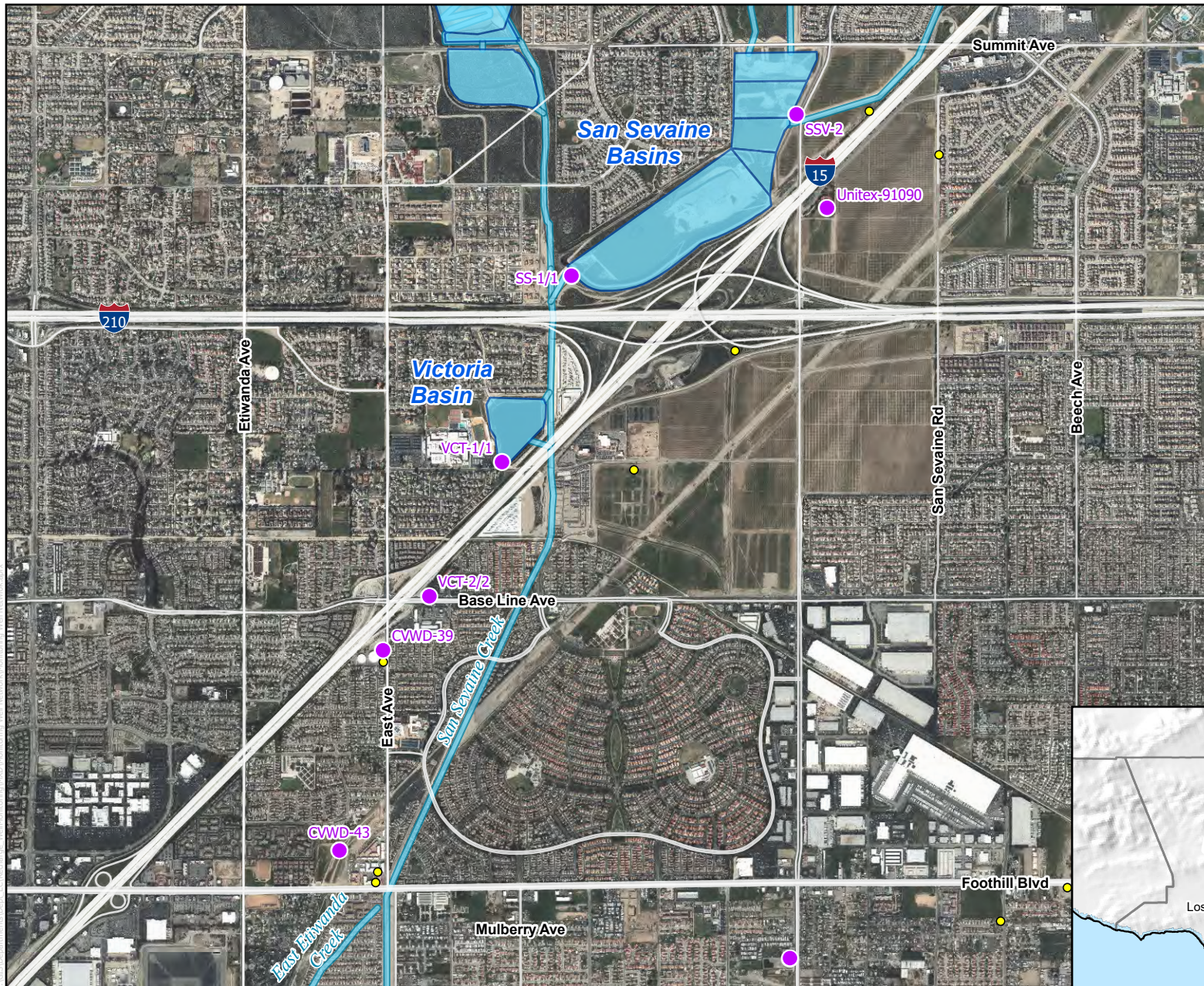


**Monitoring Well Network**  
Declez and RP3 Basins  
**Figure 2-6**

Recycled Water Recharge Program







### Main Map Features

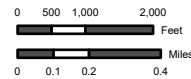
- Monitoring Well
- Other Well
- River/Stream/Creek
- Recharge Basin



### Monitoring Well Network San Seivaine and Victoria Basins

**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 2023**

<b>Drainage System</b>	<b>SW/LR</b>	<b>Imported</b>		<b>Recycled Water</b>		<b>Management</b>	
<b>Basin</b>	Delivered	Delivered	Evaporation	Delivered	Evaporation	<b>Zone Subtotals</b>	
<b>San Antonio Channel Drainage System</b>							
College Heights	0.0	0.0	0.0	N	N	MZ-1 1,236.9 AF***	
Upland	172.6	0.0	0.0	N	N		
Montclair 1, 2, 3 & 4	542.1	0.0	0.0	N	N		
Brooks	311.1	0.0	0.0	45.3	( 0.7)		
<b>West Cucamonga Channel Drainage System</b>							
8th Street	109.5	0.0	0.0	2.8	0.0	MZ-2 2,875.8 AF***	
7th Street	64.3	0.0	0.0	0.0	0.0		
Ely 1, 2, & 3	711.1	0.0	0.0	0.0	0.0		
<b>Minor Drainage</b>							
Grove	54.4	N	N	N	N		
<b>Cucamonga and Deer Creek Channel Drainage Systems</b>							
Turner 1 & 2	205.0	0.0	0.0	0.2	0.0		
Turner 3&4, 5&8	155.0	0.0	0.0	0.0	0.0		
<b>Day Creek Channel Drainage System</b>							
Lower Day	543.1	0.0	0.0	X	0.0		
<b>Etiwanda Channel Drainage System</b>							
Etiwanda Debris	317.9	0.0	0.0	X	0.0		
Victoria	374.5	0.0	0.0	22.1	( 0.3)		
<b>San Sevaine Channel Drainage System (MZ-2)</b>							
San Sevaine 1, 2, 3, & 4	408.3	0.0	0.0	2.4	0.0		
San Sevaine 5	17.5	0.0	0.0	X	X		
<b>West Fontana Channel System</b>							
Hickory	64.6	0.0	0.0	0.0	0.0		
Banana	66.1	0.0	0.0	0.0	0.0		
<b>San Sevaine Channel Drainage System (MZ-3)</b>							
Jurupa	64.8	0.0	0.0	0.0	0.0	MZ-3 1,103.0 AF***	
<b>Declez Channel Drainage System</b>							
RP3 Cells 1,2R,3, & 4	288.0	0.0	0.0	512.6	( 7.7)		
RP3 Cell 2M	92.9	0.0	0.0	0.0	0.0		
Declez	86.3	0.0	0.0	0.0	0.0		
<b>Non-Replenishment Recharge**</b>							
MZ1: Montclair (Upland)	( 5.1)						
MZ1: Upland (Upland)	( 5.0)						
MZ2: None							
MZ3: None							
<b>Month Total = 5,215.7 AF</b>	<b>4,639.0</b>	<b>0.0</b>	<b>0.0</b>	<b>585.4</b>	<b>( 8.7)</b>	January	
<b>All Sources</b>	<b>SW/LR</b>	<b>Imported</b>		<b>Recycled Water</b>			
Fiscal Year Delivery (with evaporation)		0.0	0.0	9,712.2	(317.7)	Fiscal Year to Date	
Since July 1, 2022 = 19,193.5 AF	9,799.0	0.0		9,394.5			
Calendar Year Delivery (with evaporation)		0.0	0.0	585.4	(8.7)	Calendar Year to Date	
Since January 1, 2023 = 5,215.7 AF	4,639.0	0.0		576.7			

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 2023

<b>Drainage System</b>	<b>SW/LR</b>	<b>Imported</b>		<b>Recycled Water</b>		<b>Management Zone Subtotals</b>	
<b>Basin</b>	Delivered	Delivered	Evaporation	Delivered	Evaporation		
<b>San Antonio Channel Drainage System</b>							
College Heights	18.5	96.6	( 1.4)	N	N	MZ-1 1,048.9 AF***	
Upland	135.3	0.0	0.0	N	N		
Montclair 1, 2, 3 & 4	435.2	0.0	0.0	N	N		
Brooks	85.6	0.0	0.0	72.1	( 1.1)		
<b>West Cucamonga Channel Drainage System</b>							
8th Street	124.5	0.0	0.0	7.7	( 0.1)	MZ-2 1,601.8 AF***	
7th Street	84.9	0.0	0.0	0.0	0.0		
Ely 1, 2, & 3	309.9	0.0	0.0	0.0	0.0		
<b>Minor Drainage</b>							
Grove	57.9	N	N	N	N		
<b>Cucamonga and Deer Creek Channel Drainage Systems</b>							
Turner 1 & 2	106.2	58.6	( 0.9)	0.0	0.0		
Turner 3&4, 5&8	29.0	0.0	0.0	0.0	0.0		
<b>Day Creek Channel Drainage System</b>							
Lower Day	246.0	0.0	0.0	X	0.0		
<b>Etiwanda Channel Drainage System</b>							
Etiwanda Debris	76.0	0.0	0.0	X	0.0		
Victoria	120.1	0.0	0.0	121.8	( 1.8)		
<b>San Sevaine Channel Drainage System (MZ-2)</b>							
San Sevaine 1, 2, 3, & 4	235.0	0.0	0.0	83.7	( 1.3)		
San Sevaine 5	120.3	0.0	0.0	X	X		
<b>West Fontana Channel System</b>							
Hickory	41.3	0.0	0.0	0.0	0.0		
Banana	74.1	0.0	0.0	2.7	0.0		
<b>San Sevaine Channel Drainage System (MZ-3)</b>							
Jurupa	210.9	0.0	0.0	0.0	0.0	MZ-3 1,435.2 AF***	
<b>Declez Channel Drainage System</b>							
RP3 Cells 1,2R,3, & 4	82.0	0.0	0.0	801.6	( 12.0)		
RP3 Cell 2M	67.3	0.0	0.0	14.7	( 0.2)		
Declez	194.1	0.0	0.0	0.0	0.0		
<b>Non-Replenishment Recharge**</b>							
MZ1: Montclair (Upland)	( 4.6)					February	
MZ1: Upland (Upland)	( 4.3)						
MZ2: None							
MZ3: None							
Month Total = 4,085.9 AF	2,845.2	155.2	( 2.3)	1,104.3	( 16.5)		
<b>All Sources</b>	<b>SW/LR</b>	<b>Imported</b>		<b>Recycled Water</b>			
Fiscal Year Delivery (with evaporation)		155.2	(2.3)	10,816.5	(334.2)	Fiscal Year to Date	
Since July 1, 2022 = 23,279.4 AF	12,644.2	152.9		10,482.3			
Calendar Year Delivery (with evaporation)		155.2	(2.3)	1,689.7	(25.2)	Calendar Year to Date	
Since January 1, 2023 = 9,301.6 AF	7,484.2	152.9		1,664.5			

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 2023

Drainage System	SW/LR	Imported		Recycled Water		Management Zone Subtotals	
Basin	Delivered	Delivered	Evaporation	Delivered	Evaporation		
<b>San Antonio Channel Drainage System</b>							
College Heights	21.2	71.5	( 1.1)	N	N	MZ-1 1,602.7 AF***	
Upland	324.5	0.0	0.0	N	N		
Montclair 1, 2, 3 & 4	731.2	0.0	0.0	N	N		
Brooks	236.1	0.0	0.0	0.0	0.0		
<b>West Cucamonga Channel Drainage System</b>							
8th Street	163.9	0.0	0.0	0.0	0.0	MZ-2 3,453.1 AF***	
7th Street	65.1	0.0	0.0	0.0	0.0		
Ely 1, 2, & 3	483.0	0.0	0.0	0.0	0.0		
<b>Minor Drainage</b>							
Grove	71.5	N	N	N	N		
<b>Cucamonga and Deer Creek Channel Drainage Systems</b>							
Turner 1 & 2	247.0	52.9	( 0.8)	0.0	0.0		
Turner 3&4, 5&8	27.8	0.0	0.0	0.0	0.0		
<b>Day Creek Channel Drainage System</b>							
Lower Day	1,119.6	0.0	0.0	X	0.0		
<b>Etiwanda Channel Drainage System</b>							
Etiwanda Debris	355.8	0.0	0.0	X	0.0		
Victoria	428.5	0.0	0.0	2.2	0.0		
<b>San Sevaine Channel Drainage System (MZ-2)</b>							
San Sevaine 1, 2, 3, & 4	464.7	0.0	0.0	0.1	0.0		
San Sevaine 5	163.7	0.0	0.0	X	X		
<b>West Fontana Channel System</b>							
Hickory	37.1	0.0	0.0	0.0	0.0		
Banana	59.0	0.0	0.0	0.0	0.0		
<b>San Sevaine Channel Drainage System (MZ-3)</b>							
Jurupa	215.8	0.0	0.0	0.0	0.0	MZ-3 1,100.9 AF***	
<b>Declez Channel Drainage System</b>							
RP3 Cells 1,2R,3, & 4	274.0	0.0	0.0	266.5	( 4.0)		
RP3 Cell 2M	107.3	0.0	0.0	6.2	( 0.1)		
Declez	176.2	0.0	0.0	0.0	0.0		
<b>Non-Replenishment Recharge**</b>							
MZ1: Montclair (Upland)	( 4.8)					March	
MZ1: Upland (Upland)	( 4.9)						
MZ2: None							
MZ3: None							
Month Total = 6,156.7 AF	5,763.3	124.4	( 1.9)	275.0	( 4.1)		
<b>All Sources</b>	<b>SW/LR</b>	<b>Imported</b>		<b>Recycled Water</b>			
Fiscal Year Delivery (with evaporation)		279.6	(4.2)	11,091.5	(338.3)	Fiscal Year to Date	
Since July 1, 2022 = 29,436.1 AF	18,407.5	275.4		10,753.2			
Calendar Year Delivery (with evaporation)		279.6	(4.2)	1,964.7	(29.3)	Calendar Year to Date	
Since January 1, 2023 = 15,458.3 AF	13,247.5	275.4		1,935.4			

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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) - April 2023

<b>Drainage System</b>	<b>SW/LR</b>	<b>Imported</b>		<b>Recycled Water</b>		<b>Management Zone Subtotals</b>
<b>Basin</b>	Delivered	Delivered	Evaporation	Delivered	Evaporation	
<b>San Antonio Channel Drainage System</b>						
College Heights	1.3	124.6	( 5.2)	N	N	MZ-1 276.8 AF***
Upland	4.5	0.0	0.0	N	N	
Montclair 1, 2, 3 & 4	11.2	0.0	0.0	N	N	
Brooks	4.3	0.0	0.0	56.1	( 2.4)	
<b>West Cucamonga Channel Drainage System</b>						
8th Street	10.2	0.0	0.0	84.8	( 3.6)	MZ-2 987.8 AF***
7th Street	0.0	0.0	0.0	0.0	0.0	
Ely 1, 2, & 3	11.1	0.0	0.0	0.0	0.0	
<b>Minor Drainage</b>						
Grove	0.0	N	N	N	N	
<b>Cucamonga and Deer Creek Channel Drainage Systems</b>						
Turner 1 & 2	10.8	82.8	( 3.5)	0.0	0.0	
Turner 3&4, 5&8	0.0	0.0	0.0	0.0	0.0	
<b>Day Creek Channel Drainage System</b>						
Lower Day	90.6	0.0	0.0	X	0.0	
<b>Etiwanda Channel Drainage System</b>						
Etiwanda Debris	274.4	0.0	0.0	X	0.0	
Victoria	107.8	0.0	0.0	115.8	( 4.9)	
<b>San Sevaine Channel Drainage System (MZ-2)</b>						
San Sevaine 1, 2, 3, & 4	254.0	0.0	0.0	51.0	( 2.1)	
San Sevaine 5	0.0	0.0	0.0	X	X	
<b>West Fontana Channel System</b>						
Hickory	0.0	0.0	0.0	0.0	0.0	
Banana	0.0	0.0	0.0	0.0	0.0	
<b>San Sevaine Channel Drainage System (MZ-3)</b>						
Jurupa	44.4	0.0	0.0	0.0	0.0	MZ-3 566.2 AF***
<b>Declez Channel Drainage System</b>						
RP3 Cells 1,2R,3, & 4	41.7	0.0	0.0	424.7	( 17.8)	
RP3 Cell 2M	0.0	0.0	0.0	67.6	( 2.8)	
Declez	8.4	0.0	0.0	0.0	0.0	
<b>Non-Replenishment Recharge**</b>						
MZ1: Montclair (Upland)	( 4.5)					
MZ1: Upland (Upland)	( 4.5)					
MZ2: None						
MZ3: None						
<b>Month Total = 1,830.8 AF</b>	<b>865.7</b>	<b>207.4</b>	<b>( 8.7)</b>	<b>800.0</b>	<b>( 33.6)</b>	April
		<b>198.7</b>		<b>766.4</b>		
<b>All Sources</b>	<b>SW/LR</b>	<b>Imported</b>		<b>Recycled Water</b>		
Fiscal Year Delivery (with evaporation)		487.0	(12.9)	11,891.5	(371.9)	Fiscal Year to Date
Since July 1, 2022 = 31,266.9 AF	19,273.2	474.1		11,519.6		
Calendar Year Delivery (with evaporation)		487.0	(12.9)	2,764.7	(62.9)	Calendar Year to Date
Since January 1, 2023 = 17,289.1 AF	14,113.2	474.1		2,701.8		

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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) - May 2023

<b>Drainage System</b>	<b>SW/LR</b>	<b>Imported</b>		<b>Recycled Water</b>		<b>Management Zone Subtotals</b>	
<b>Basin</b>	Delivered	Delivered	Evaporation	Delivered	Evaporation		
<b>San Antonio Channel Drainage System</b>							
College Heights	7.3	356.4	( 15.0)	N	N	MZ-1 2,292.0 AF***	
Upland	29.5	0.0	0.0	N	N		
Montclair 1, 2, 3 & 4	53.1	1,653.8	( 69.5)	N	N		
Brooks	39.1	0.0	0.0	65.8	( 2.8)		
<b>West Cucamonga Channel Drainage System</b>							
8th Street	126.3	0.0	0.0	97.0	( 4.1)	MZ-2 2,056.2 AF***	
7th Street	0.0	0.0	0.0	0.0	0.0		
Ely 1, 2, & 3	100.2	0.0	0.0	0.0	0.0		
<b>Minor Drainage</b>							
Grove	25.9	N	N	N	N		
<b>Cucamonga and Deer Creek Channel Drainage Systems</b>							
Turner 1 & 2	15.9	77.6	( 3.3)	0.0	0.0		
Turner 3&4, 5&8	2.3	0.0	0.0	0.0	0.0		
<b>Day Creek Channel Drainage System</b>							
Lower Day	12.5	419.1	( 17.6)	X	0.0		
<b>Etiwanda Channel Drainage System</b>							
Etiwanda Debris	82.4	285.8	( 12.0)	X	0.0		
Victoria	33.9	9.3	( 0.4)	216.9	( 9.1)		
<b>San Sevaine Channel Drainage System (MZ-2)</b>							
San Sevaine 1, 2, 3, & 4	54.1	791.2	( 33.2)	0.0	0.0		
San Sevaine 5	4.5	0.0	0.0	X	X		
<b>West Fontana Channel System</b>							
Hickory	0.2	0.0	0.0	0.0	0.0		
Banana	23.4	0.0	0.0	0.0	0.0		
<b>San Sevaine Channel Drainage System (MZ-3)</b>							
Jurupa	34.4	156.5	( 6.6)	0.0	0.0	MZ-3 1,216.8 AF***	
<b>Declez Channel Drainage System</b>							
RP3 Cells 1,2R,3, & 4	1.5	71.5	( 3.0)	753.0	( 31.6)		
RP3 Cell 2M	4.9	0.0	0.0	68.7	( 2.9)		
Declez	78.4	0.0	0.0	71.6	( 3.0)		
<b>Non-Replenishment Recharge**</b>							
MZ1: Montclair (Upland)	( 4.5)					May	
MZ1: Upland (Upland)	( 4.7)						
MZ1: 8th (Upland)	( 35.7)						
MZ3: None							
<b>Month Total = 5,565.0 AF</b>	<b>684.9</b>	<b>3,821.2</b>	<b>( 160.6)</b>	<b>1,273.0</b>	<b>( 53.5)</b>		
<b>All Sources</b>	<b>SW/LR</b>	<b>Imported</b>		<b>Recycled Water</b>			
Fiscal Year Delivery (with evaporation) Since July 1, 2022 = 36,831.9 AF	<b>19,958.1</b>	<b>4,308.2</b>	<b>(173.5)</b>	<b>13,164.5</b>	<b>(425.4)</b>	Fiscal Year to Date	
Calendar Year Delivery (with evaporation) Since January 1, 2023 = 22,854.1 AF	<b>14,798.1</b>	<b>4,134.7</b>	<b>(173.5)</b>	<b>4,037.7</b>	<b>(116.4)</b>	Calendar Year to Date	
		<b>4,134.7</b>		<b>3,921.3</b>			

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\* : 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 2023

Drainage System	SW/LR	Imported		Recycled Water		Management Zone Subtotals	
Basin	Delivered	Delivered	Evaporation	Delivered	Evaporation		
<b>San Antonio Channel Drainage System</b>							
College Heights	0.0	910.0	( 38.2)	N	N	MZ-1 2,908.5 AF***	
Upland	5.4	292.8	( 12.3)	N	N		
Montclair 1, 2, 3 & 4	4.3	1,393.7	( 58.5)	N	N		
Brooks	1.6	0.0	0.0	119.7	( 5.0)		
<b>West Cucamonga Channel Drainage System</b>							
8th Street	142.5	0.0	0.0	168.4	( 7.1)	MZ-2 2,232.0 AF***	
7th Street	0.0	0.0	0.0	0.0	0.0		
Ely 1, 2, & 3	1.5	0.0	0.0	0.0	0.0		
<b>Minor Drainage</b>							
Grove	0.5	N	N	N	N		
<b>Cucamonga and Deer Creek Channel Drainage Systems</b>							
Turner 1 & 2	7.8	31.2	( 1.3)	0.0	0.0		
Turner 3&4, 5&8	0.0	0.0	0.0	0.0	0.0		
<b>Day Creek Channel Drainage System</b>							
Lower Day	0.7	539.7	( 22.7)	X	0.0		
<b>Etiwanda Channel Drainage System</b>							
Etiwanda Debris	0.0	443.8	( 18.6)	X	0.0		
Victoria	0.5	0.0	0.0	287.1	( 12.1)		
<b>San Sevaine Channel Drainage System (MZ-2)</b>							
San Sevaine 1, 2, 3, & 4	0.0	909.0	( 38.2)	103.2	( 4.3)		
San Sevaine 5	0.0	137.8	( 5.8)	X	X		
<b>West Fontana Channel System</b>							
Hickory	0.0	0.0	0.0	0.0	0.0		
Banana	0.0	0.0	0.0	22.1	( 0.9)		
<b>San Sevaine Channel Drainage System (MZ-3)</b>							
Jurupa	16.6	287.3	( 12.1)	0.0	0.0	MZ-3 1,342.5 AF***	
<b>Declez Channel Drainage System</b>							
RP3 Cells 1,2R,3, & 4	3.0	140.5	( 5.9)	647.9	( 27.2)		
RP3 Cell 2M	0.0	0.0	0.0	65.8	( 2.8)		
Declez	9.0	0.0	0.0	207.9	( 8.7)		
<b>Non-Replenishment Recharge**</b>							
MZ1: Montclair (Upland)	( 4.3)					June	
MZ1: Upland (Upland)	( 4.5)						
MZ1: 8th (Upland)	( 127.8)						
MZ3: None							
Month Total = 6,483.0 AF	56.8	5,085.8	( 213.6)	1,622.1	( 68.1)		
<b>All Sources</b>	<b>SW/LR</b>	<b>Imported</b>		<b>Recycled Water</b>			
Fiscal Year Delivery (with evaporation) Since July 1, 2022 = 43,314.9 AF	20,014.9	9,394.0	(387.1)	14,786.6	(493.5)	Fiscal Year to Date	
Calendar Year Delivery (with evaporation) Since January 1, 2023 = 29,337.1 AF	14,854.9	9,006.9		14,293.1		Calendar Year to Date	
		9,394.0	(387.1)	5,659.8	(184.5)		
		9,006.9		5,475.3			

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\*\* : 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 2023

<b>Drainage System</b>	<b>SW/LR</b>	<b>Imported</b>		<b>Recycled Water</b>		<b>Management Zone Subtotals</b>	
<b>Basin</b>	Delivered	Delivered	Evaporation	Delivered	Evaporation		
<b>San Antonio Channel Drainage System</b>							
College Heights	0.0	1,482.2	( 62.3)	N	N	MZ-1 3,738.4 AF***	
Upland	4.4	601.5	( 25.3)	N	N		
Montclair 1, 2, 3 & 4	4.2	1,745.5	( 73.3)	N	N		
Brooks	0.6	0.0	0.0	46.1	( 1.9)		
<b>West Cucamonga Channel Drainage System</b>							
8th Street	135.7	0.0	0.0	23.9	( 1.0)	MZ-2 2,455.9 AF***	
7th Street	0.0	0.0	0.0	0.0	0.0		
Ely 1, 2, & 3	0.8	0.0	0.0	0.0	0.0		
<b>Minor Drainage</b>							
Grove	0.9	N	N	N	N		
<b>Cucamonga and Deer Creek Channel Drainage Systems</b>							
Turner 1 & 2	8.1	107.1	( 4.5)	0.0	0.0		
Turner 3 & 4	12.1	0.0	0.0	0.0	0.0		
<b>Day Creek Channel Drainage System</b>							
Lower Day	1.5	623.6	( 26.2)	X	0.0		
<b>Etiwanda Channel Drainage System</b>							
Etiwanda Debris	0.0	622.8	( 26.2)	X	0.0		
Victoria	0.6	0.0	0.0	242.3	( 10.2)		
<b>San Sevaine Channel Drainage System (MZ-2)</b>							
San Sevaine 1, 2, 3, & 4	0.0	887.3	( 37.3)	55.5	( 2.3)		
San Sevaine 5	0.0	0.0	0.0	X	X		
<b>West Fontana Channel System</b>							
Hickory	0.0	0.0	0.0	0.0	0.0		
Banana	0.0	0.0	0.0	366.0	( 15.4)		
<b>San Sevaine Channel Drainage System (MZ-3)</b>							
Jurupa	12.9	354.8	( 14.9)	0.0	0.0	MZ-3 1,605.3 AF***	
<b>Declez Channel Drainage System</b>							
RP3 Cells 1,3, & 4	0.0	183.7	( 7.7)	677.5	( 28.5)		
RP3 Cell 2	0.0	0.0	0.0	35.7	( 1.5)		
Declez	2.8	0.0	0.0	53.5	( 2.2)		
<b>Non-Replenishment Recharge**</b>							
MZ1: Montclair (Upland)	( 4.2)					July	
MZ1: Upland (Upland)	( 4.4)						
MZ1: 8th (Upland)	( 133.3)						
MZ3: Jurupa (CVWD)	( 11.4)						
Month Total = 7,799.6 AF	31.3	6,608.5	( 277.7)	1,500.5	( 63.0)		
<b>All Sources</b>	<b>SW/LR</b>	<b>Imported</b>		<b>Recycled Water</b>			
Fiscal Year Delivery (with evaporation) Since July 1, 2023 = 7,799.6 AF	31.3	6,608.5	(277.7)	1,500.5	(63.0)	Fiscal Year to Date	
Calendar Year Delivery (with evaporation) Since January 1, 2023 = 28,730.7 AF	10,184.7	13,334.9	(551.7)	5,982.5	(219.7)	Calendar Year to Date	
		12,783.2		5,762.8			

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**SUMMARY OF CHINO BASIN GROUNDWATER RECHARGE OPERATIONS**

Water Delivered\* and Evaporation\*\* (AF) - August 2023

<b>Drainage System</b>	<b>SW/LR</b>	<b>Imported</b>		<b>Recycled Water</b>		<b>Management Zone Subtotals</b>
<b>Basin</b>	Delivered	Delivered	Evaporation	Delivered	Evaporation	
<b>San Antonio Channel Drainage System</b>						
College Heights	3.4	1,637.4	( 68.8)	N	N	MZ-1 4,411.7 AF***
Upland	97.6	174.0	( 7.3)	N	N	
Montclair 1, 2, 3 & 4	284.1	2,161.5	( 90.8)	N	N	
Brooks	57.6	0.0	0.0	0.0	0.0	
<b>West Cucamonga Channel Drainage System</b>						
8th Street	234.3	0.0	0.0	7.5	( 0.3)	MZ-2 3,390.1 AF***
7th Street	48.9	0.0	0.0	0.0	0.0	
Ely 1, 2, & 3	437.5	0.0	0.0	0.0	0.0	
<b>Minor Drainage</b>						
Grove	67.0	N	N	N	N	
<b>Cucamonga and Deer Creek Channel Drainage Systems</b>						
Turner 1 & 2	51.4	64.5	( 2.7)	0.0	0.0	
Turner 3 & 4	34.3	0.0	0.0	0.0	0.0	
<b>Day Creek Channel Drainage System</b>						
Lower Day	49.9	556.7	( 23.4)	X	0.0	
<b>Etiwanda Channel Drainage System</b>						
Etiwanda Debris	47.2	415.7	( 17.5)	X	0.0	
Victoria	119.2	0.0	0.0	85.2	( 3.6)	
<b>San Sevaine Channel Drainage System (MZ-2)</b>						
San Sevaine 1, 2, 3, & 4	202.5	1,039.3	( 43.7)	201.8	( 8.5)	
San Sevaine 5	30.5	0.0	0.0	X	X	
<b>West Fontana Channel System</b>						
Hickory	45.3	43.3	( 1.8)	0.0	0.0	
Banana	59.7	0.0	0.0	229.6	( 9.6)	
<b>San Sevaine Channel Drainage System (MZ-3)</b>						
Jurupa	6.6	199.9	( 8.4)	0.0	0.0	MZ-3 1,601.8 AF***
<b>Declez Channel Drainage System</b>						
RP3 Cells 1,3, & 4	56.4	176.3	( 7.4)	784.2	( 32.9)	
RP3 Cell 2	0.0	0.0	0.0	13.8	( 0.6)	
Declez	126.3	0.0	0.0	8.2	( 0.3)	
<b>Non-Replenishment Recharge**</b>						
MZ1: Montclair (Upland)	( 4.2)					August
MZ1: Upland (Upland)	( 4.4)					
MZ1: 8th (Upland)	( 118.8)					
MZ3: None						
Month Total = 9,403.5 AF	1,932.3	6,468.6	( 271.8)	1,330.3	( 55.9)	
<b>All Sources</b>	<b>SW/LR</b>	<b>Imported</b>		<b>Recycled Water</b>		
Fiscal Year Delivery (with evaporation) Since July 1, 2023 = 17,203.1 AF	1,963.6	13,077.1	(549.5)	2,830.8	(118.9)	Fiscal Year to Date
Calendar Year Delivery (with evaporation) Since January 1, 2023 = 38,134.2 AF	12,117.0	19,803.5	(823.5)	7,312.8	(275.6)	Calendar Year to Date
		18,980.0		7,037.2		

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**SUMMARY OF CHINO BASIN GROUNDWATER RECHARGE OPERATIONS**

Water Delivered\* and Evaporation\*\* (AF) September 2023

<b>Drainage System</b>	<b>SW/LR</b>	<b>Imported</b>		<b>Recycled Water</b>		<b>Management Zone Subtotals</b>	
<b>Basin</b>	Delivered	Delivered	Evaporation	Delivered	Evaporation		
<b>San Antonio Channel Drainage System</b>							
College Heights	0.0	1,458.3	( 61.2)	N	N	MZ-1 5,129.1 AF***	
Upland	6.0	180.0	( 7.6)	N	N		
Montclair 1, 2, 3 & 4	117.5	3,374.7	( 141.7)	N	N		
Brooks	4.7	0.0	0.0	107.7	( 4.5)		
<b>West Cucamonga Channel Drainage System</b>							
8th Street	65.5	13.0	( 0.5)	60.9	( 2.6)	MZ-2 3,042.3 AF***	
7th Street	0.0	0.0	0.0	0.0	0.0		
Ely 1, 2, & 3	61.8	0.0	0.0	0.0	0.0		
<b>Minor Drainage</b>							
Grove	11.4	N	N	N	N		
<b>Cucamonga and Deer Creek Channel Drainage Systems</b>							
Turner 1 & 2	34.3	101.5	( 4.3)	0.0	0.0		
Turner 3 & 4	47.4	0.0	0.0	0.0	0.0		
<b>Day Creek Channel Drainage System</b>							
Lower Day	15.8	544.1	( 22.9)	X	0.0		
<b>Etiwanda Channel Drainage System</b>							
Etiwanda Debris	0.0	301.0	( 12.6)	X	0.0		
Victoria	10.9	0.0	0.0	139.3	( 5.9)		
<b>San Sevaine Channel Drainage System (MZ-2)</b>							
San Sevaine 1, 2, 3, & 4	27.5	1,221.6	( 51.3)	272.7	( 11.5)		
San Sevaine 5	0.9	0.0	0.0	X	X		
<b>West Fontana Channel System</b>							
Hickory	69.4	334.4	( 14.0)	0.0	0.0		
Banana	3.6	0.0	0.0	134.1	( 5.6)		
<b>San Sevaine Channel Drainage System (MZ-3)</b>							
Jurupa	0.7	0.0	0.0	0.0	0.0	MZ-3 1,099.9 AF***	
<b>Declez Channel Drainage System</b>							
RP3 Cells 1,3, & 4	0.0	0.0	0.0	795.5	( 33.4)		
RP3 Cell 2	0.0	0.0	0.0	80.2	( 3.4)		
Declez	12.9	0.0	0.0	120.4	( 5.1)		
<b>Non-Replenishment Recharge**</b>							
MZ1: Montclair (Upland)	( 4.7)					September	
MZ1: Upland (Upland)	( 4.6)						
MZ1: 8th (Upland)	( 31.8)						
MZ2: Ely (GE)	( 29.2)						
Month Total = 9,271.3 AF	420.0	7,528.6	( 316.1)	1,710.8	( 72.0)		
<b>All Sources</b>	<b>SW/LR</b>	<b>Imported</b>		<b>Recycled Water</b>			
Fiscal Year Delivery (with evaporation) Since July 1, 2023 = 26,474.4 AF	2,383.6	20,605.7	(865.6)	4,541.6	(190.9)	Fiscal Year to Date	
Calendar Year Delivery (with evaporation) Since January 1, 2023 = 47,405.5 AF	12,537.0	27,332.1	(1,139.6)	9,023.6	(347.6)	Calendar Year to Date	
		26,192.5		8,676.0			

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\*\* : 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) - October 2023

<b>Drainage System</b>	<b>SW/LR</b>	<b>Imported</b>		<b>Recycled Water</b>		<b>Management Zone Subtotals</b>	
<b>Basin</b>	Delivered	Delivered	Evaporation	Delivered	Evaporation		
<b>San Antonio Channel Drainage System</b>							
College Heights	0.0	187.3	( 7.9)	N	N	MZ-1 3,812.0 AF***	
Upland	4.5	69.5	( 2.9)	N	N		
Montclair 1, 2, 3 & 4	11.7	3,467.8	( 145.6)	N	N		
Brooks	1.9	0.0	0.0	131.0	( 5.5)		
<b>West Cucamonga Channel Drainage System</b>							
8th Street	36.6	0.0	0.0	76.4	( 3.2)	MZ-2 2,929.1 AF***	
7th Street	0.0	0.0	0.0	0.0	0.0		
Ely 1, 2, & 3	1.6	0.0	0.0	0.0	0.0		
<b>Minor Drainage</b>							
Grove	1.0	N	N	N	N		
<b>Cucamonga and Deer Creek Channel Drainage Systems</b>							
Turner 1 & 2	23.5	105.0	( 4.4)	0.0	0.0		
Turner 3 & 4	39.3	0.0	0.0	0.0	0.0		
<b>Day Creek Channel Drainage System</b>							
Lower Day	10.4	533.5	( 22.4)	X	0.0		
<b>Etiwanda Channel Drainage System</b>							
Etiwanda Debris	0.0	310.6	( 13.0)	X	0.0		
Victoria	12.4	0.0	0.0	254.1	( 10.7)		
<b>San Sevaine Channel Drainage System (MZ-2)</b>							
San Sevaine 1, 2, 3, & 4	19.8	1,106.6	( 46.5)	343.7	( 14.4)		
San Sevaine 5	0.7	0.0	0.0	X	X		
<b>West Fontana Channel System</b>							
Hickory	22.0	267.5	( 11.2)	0.0	0.0	MZ-3 1,102.4 AF***	
Banana	0.0	0.0	0.0	150.2	( 6.3)		
<b>San Sevaine Channel Drainage System (MZ-3)</b>							
Jurupa	0.2	0.0	0.0	0.0	0.0		
<b>Declez Channel Drainage System</b>							
RP3 Cells 1,3, & 4	0.2	0.0	0.0	745.3	( 31.3)		
RP3 Cell 2	0.0	0.0	0.0	96.5	( 4.1)		
Declez	13.0	0.0	0.0	144.8	( 6.1)		
<b>Non-Replenishment Recharge**</b>							
MZ1: Montclair (Upland)	( 5.1)						October
MZ1: Upland (Upland)	( 4.5)						
MZ2: None							
MZ3: None							
Month Total = 7,843.5 AF	189.2	6,047.8	( 253.9)	1,942.0	( 81.6)		
<b>All Sources</b>	<b>SW/LR</b>	<b>Imported</b>		<b>Recycled Water</b>			
Fiscal Year Delivery (with evaporation) Since July 1, 2023 = 34,317.9 AF	2,572.8	26,653.5	(1,119.5)	6,483.6	(272.5)	Fiscal Year to Date	
Calendar Year Delivery (with evaporation) Since January 1, 2023 = 55,249.0 AF	12,726.2	33,379.9	(1,393.5)	10,965.6	(429.2)	Calendar Year to Date	
		31,986.4		10,536.4			

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**SUMMARY OF CHINO BASIN GROUNDWATER RECHARGE OPERATIONS**

Water Delivered\* and Evaporation\*\* (AF) - November 2023

<b>Drainage System</b>	<b>SW/LR</b>	<b>Imported</b>		<b>Recycled Water</b>		<b>Management Zone Subtotals</b>	
<b>Basin</b>	Delivered	Delivered	Evaporation	Delivered	Evaporation		
<b>San Antonio Channel Drainage System</b>							
College Heights	0.0	0.0	0.0	N	N	MZ-1 3,463.4 AF***	
Upland	4.5	355.0	( 5.3)	N	N		
Montclair 1, 2, 3 & 4	40.6	2,872.2	( 43.1)	N	N		
Brooks	1.7	0.0	0.0	51.3	( 0.8)		
<b>West Cucamonga Channel Drainage System</b>							
8th Street	72.5	0.0	0.0	126.5	( 1.9)	MZ-2 2,853.9 AF***	
7th Street	0.0	0.0	0.0	0.0	0.0		
Ely 1, 2, & 3	64.4	0.0	0.0	0.0	0.0		
<b>Minor Drainage</b>							
Grove	10.0	N	N	N	N		
<b>Cucamonga and Deer Creek Channel Drainage Systems</b>							
Turner 1 & 2	40.6	101.4	( 1.5)	0.0	0.0		
Turner 3 & 4	77.5	0.0	0.0	0.0	0.0		
<b>Day Creek Channel Drainage System</b>							
Lower Day	13.7	576.7	( 8.7)	X	0.0		
<b>Etiwanda Channel Drainage System</b>							
Etiwanda Debris	0.0	288.6	( 4.3)	X	0.0		
Victoria	18.1	0.0	0.0	149.6	( 2.2)		
<b>San Sevaine Channel Drainage System (MZ-2)</b>							
San Sevaine 1, 2, 3, & 4	38.2	1,103.9	( 16.6)	143.3	( 2.1)		
San Sevaine 5	3.2	0.0	0.0	X	X		
<b>West Fontana Channel System</b>							
Hickory	29.9	233.7	( 3.5)	0.0	0.0		
Banana	21.4	0.0	0.0	104.9	( 1.6)		
<b>San Sevaine Channel Drainage System (MZ-3)</b>							
Jurupa	5.6	0.0	0.0	0.0	0.0	MZ-3 755.8 AF***	
<b>Declez Channel Drainage System</b>							
RP3 Cells 1,3, & 4	0.1	0.0	0.0	444.2	( 6.7)		
RP3 Cell 2	0.0	0.0	0.0	52.5	( 0.8)		
Declez	58.6	0.0	0.0	78.8	( 1.2)		
<b>Non-Replenishment Recharge** Agency (GWR Basins)</b>							
MZ1: Montclair (Upland)	( 5.3)					November	
MZ1: Upland (Upland)	( 4.5)						
MZ2: None							
MZ3: None							
Month Total = 7,073.1 AF	490.8	5,531.5	( 83.0)	1,151.1	( 17.3)		
<b>All Sources</b>	<b>SW/LR</b>	<b>Imported</b>		<b>Recycled Water</b>			
Fiscal Year Delivery (with evaporation)		32,185.0	(1,202.5)	7,634.7	(289.8)	Fiscal Year to Date	
Since July 1, 2023 = 41,391.0 AF	3,063.6	30,982.5		7,344.9			
Calendar Year Delivery (with evaporation)		38,911.4	(1,476.5)	12,116.7	(446.5)	Calendar Year to Date	
Since January 1, 2023 = 62,322.1 AF	13,217.0	37,434.9		11,670.2			

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**SUMMARY OF CHINO BASIN GROUNDWATER RECHARGE OPERATIONS**

Water Delivered\* and Evaporation\*\* (AF) - December 2023

<b>Drainage System</b>	<b>SW/LR</b>	<b>Imported</b>		<b>Recycled Water</b>		<b>Management</b>	
<b>Basin</b>	Delivered	Delivered	Evaporation	Delivered	Evaporation	<b>Zone Subtotals</b>	
<b>San Antonio Channel Drainage System</b>							
College Heights	0.0	225.6	( 3.4)	N	N	MZ-1 2,923.3 AF***	
Upland	34.1	79.6	( 1.2)	N	N		
Montclair 1, 2, 3 & 4	74.2	2,179.7	( 32.7)	N	N		
Brooks	33.4	0.0	0.0	81.5	( 1.2)		
<b>West Cucamonga Channel Drainage System</b>							
8th Street	91.5	114.2	( 1.7)	38.1	( 0.6)	MZ-2 2,172.6 AF***	
7th Street	22.7	0.0	0.0	0.0	0.0		
Ely 1, 2, & 3	112.4	0.0	0.0	0.0	0.0		
<b>Minor Drainage</b>							
Grove	24.6	N	N	N	N		
<b>Cucamonga and Deer Creek Channel Drainage Systems</b>							
Turner 1 & 2	93.1	20.1	( 0.3)	0.1	0.0		
Turner 3 & 4	57.0	0.0	0.0	0.0	0.0		
<b>Day Creek Channel Drainage System</b>							
Lower Day	20.5	449.0	( 6.7)	X	0.0		
<b>Etiwanda Channel Drainage System</b>							
Etiwanda Debris	0.0	271.9	( 4.1)	X	0.0		
Victoria	47.2	90.1	( 1.4)	34.8	( 0.5)		
<b>San Sevaine Channel Drainage System (MZ-2)</b>							
San Sevaine 1, 2, 3, & 4	127.6	623.2	( 9.3)	20.4	( 0.3)		
San Sevaine 5	23.9	0.0	0.0	X	X		
<b>West Fontana Channel System</b>							
Hickory	34.1	147.4	( 2.2)	0.0	0.0	MZ-3 1,287.1 AF***	
Banana	40.2	0.0	0.0	48.4	( 0.7)		
<b>San Sevaine Channel Drainage System (MZ-3)</b>							
Jurupa	204.1	0.0	0.0	0.0	0.0		
<b>Declez Channel Drainage System</b>							
RP3 Cells 1,3, & 4	0.7	0.0	0.0	804.2	( 12.1)		
RP3 Cell 2	15.5	0.0	0.0	41.8	( 0.6)		
Declez	136.0	0.0	0.0	9.7	( 0.1)		
<b>Non-Replenishment Recharge** Agency (GWR Basins)</b>							
MZ1: Upland (Upland)	( 4.7)						December
MZ1: Upland (Montclair)	( 5.8)						
MZ2: None							
MZ3: None							
Month Total = 6,383.0 AF	1,182.3	4,200.8	( 63.0)	1,079.0	( 16.1)		
<b>All Sources</b>	<b>SW/LR</b>	<b>Imported</b>		<b>Recycled Water</b>			
Fiscal Year Delivery (with evaporation) Since July 1, 2023 = 47,774.0 AF	4,245.9	36,385.8	(1,265.5)	8,713.7	(305.9)	Fiscal Year to Date	
Calendar Year Delivery (with evaporation) Since January 1, 2023 = 68,705.1 AF	14,399.3	43,112.2	(1,539.5)	13,195.7	(462.6)	Calendar Year to Date	
		41,572.7		12,733.1			

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
2023/2024	Jul '23	190	136	0	310	446	23	14,125	62,168	23%	A C T U A L
	Aug '23	191	283	0	310	593	7	14,014	62,327	22%	
	Sep '23	192	66	13	310	388	58	13,922	62,303	22%	
	Oct '23	193	37	0	310	347	73	13,756	62,125	22%	
	Nov '23	194	73	0	310	383	125	13,632	62,024	22%	
	Dec '23	195	114	113	310	537	38	13,549	62,122	22%	
	Jan '24	196	159	0	310	469	22	13,462	62,167	22%	
	Feb '24	197	222	0	310	532	0	13,374	62,242	21%	
	Mar '24	198	134		310	444	120	13,468	62,418	22%	
	Apr '24	199	68		310	378	180	13,627	62,566	22%	
	May '24	200	44		310	354	210	13,772	62,729	22%	
	Jun '24	201	22		310	332	230	13,950	62,905	22%	
2024/2025	Jul '24	202	26		310	336	220	14,162	63,118	22%	
	Aug '24	203	26		310	336	220	14,374	63,341	23%	
	Sep '24	204	26		310	336	220	14,562	63,541	23%	
	Oct '24	205	44		310	354	210	14,772	63,795	23%	
	Nov '24	206	87		310	397	160	14,932	63,896	23%	
	Dec '24	207	210		310	520	40	14,972	63,793	23%	
	Jan '25	208	147		310	457	100	15,072	63,930	24%	
	Feb '25	209	167		310	477	80	15,152	64,135	24%	
	Mar '25	210	134		310	444	120	15,272	64,347	24%	
	Apr '25	211	68		310	378	180	15,452	64,570	24%	
	May '25	212	44		310	354	210	15,662	64,767	24%	
	Jun '25	213	22		310	332	230	15,892	65,007	24%	
2025/26	Jul '25	214	26		310	336	220	16,112	65,209	25%	
	Aug '25	215	26		310	336	220	16,309	65,428	25%	
	Sep '25	216	26		310	336	220	16,469	65,538	25%	
	Oct '25	217	44		310	354	210	16,666	65,740	25%	
	Nov '25	218	87		310	397	160	16,731	65,873	25%	
	Dec '25	219	210		310	520	40	16,612	65,878	25%	
	Jan '26	220	147		310	457	100	16,653	65,817	25%	
	Feb '26	221	167		310	477	80	16,527	65,765	25%	
	Mar '26	222	134		310	444	120	16,487	65,659	25%	
	Apr '26	223	68		310	378	180	16,472	65,678	25%	
	May '26	224	44		310	354	210	16,478	65,656	25%	
	Jun '26	225	22		310	332	230	16,412	65,607	25%	
2026/27	Jul '26	226	26		310	336	220	16,373	65,590	25%	
	Aug '26	227	26		310	336	220	16,325	65,560	25%	
	Sep '26	228	26		310	336	220	16,297	65,553	25%	
	Oct '26	229	44		310	354	210	16,222	65,487	25%	
	Nov '26	230	87		310	397	160	16,154	65,424	25%	
	Dec '26	231	210		310	520	40	16,073	65,190	25%	
	Jan '27	232	147		310	457	100	16,173	65,114	25%	
	Feb '27	233	167		310	477	80	16,219	65,227	25%	
	Mar '27	234	134		310	444	120	16,163	65,283	25%	
	Apr '27	235	68		310	378	180	16,063	65,194	25%	
	May '27	236	44		310	354	210	16,089	65,248	25%	
	Jun '27	237	22		310	332	230	16,121	65,265	25%	
2027/28	Jul '27	238	26		310	336	220	16,340	65,405	25%	
	Aug '27	239	26		310	336	220	16,364	64,852	25%	
	Sep '27	240	26		310	336	220	16,453	64,677	25%	
	Oct '27	241	44		310	354	210	16,460	64,476	26%	
	Nov '27	242	87		310	397	160	16,520	64,620	26%	
	Dec '27	243	210		310	520	40	16,348	64,655	25%	
	Jan '28	244	147		310	457	100	16,350	64,682	25%	
	Feb '28	245	167		310	477	80	16,349	64,764	25%	
	Mar '28	246	134		310	444	120	16,460	64,867	25%	
	Apr '28	247	68		310	378	180	16,640	65,103	26%	
	May '28	248	44		310	354	210	16,844	65,343	26%	
	Jun '28	249	22		310	332	230	17,074	65,530	26%	
2028/29	Jul '28	250	26		310	336	220	17,200	65,619	26%	
	Aug '28	251	26		310	336	220	17,274	65,712	26%	
	Sep '28	252	26		310	336	220	17,244	65,703	26%	
	Oct '28	253	44		310	354	210	17,267	65,701	26%	
	Nov '28	254	87		310	397	160	17,143	65,549	26%	
	Dec '28	255	210		310	520	40	16,933	65,385	26%	
	Jan '29	256	147		310	457	100	16,788	65,107	26%	
	Feb '29	257	167		310	477	80	16,868	65,035	26%	
	Mar '29	258	134		310	444	120	16,711	64,736	26%	
	Apr '29	259	68		310	378	180	16,527	64,609	26%	
	May '29	260	44		310	354	210	16,404	64,395	25%	
	Jun '29	261	22		310	332	230	16,200	64,208	25%	



### 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
2029/30	Jul '29	262	26		310	336	48,028	220	16,140	64,168	25%
	Aug '29	263	26		310	336	48,050	220	16,290	64,339	25%
	Sep '29	264	26		310	336	47,500	220	16,382	63,882	26%
	Oct '29	265	44		310	354	47,291	210	16,534	63,825	26%
	Nov '29	266	87		310	397	47,141	160	16,640	63,781	26%
	Dec '29	267	210		310	520	47,171	40	16,680	63,851	26%
	Jan '30	268	147		310	457	47,313	100	16,713	64,026	26%
	Feb '30	269	167		310	477	47,462	80	16,729	64,190	26%
	Mar '30	270	134		310	444	47,435	120	16,849	64,284	26%
	Apr '30	271	68		310	378	47,384	180	17,018	64,402	26%
	May '30	272	44		310	354	47,418	210	17,144	64,562	27%
	Jun '30	273	22		310	332	47,437	230	17,213	64,650	27%
2030/31	Jul '30	274	26		310	336	47,460	220	17,247	64,707	27%
	Aug '30	275	26		310	336	47,483	220	17,354	64,837	27%
	Sep '30	276	26		310	336	47,506	220	17,439	64,945	27%
	Oct '30	277	44		310	354	47,542	210	17,535	65,078	27%
	Nov '30	278	87		310	397	47,585	160	17,626	65,210	27%
	Dec '30	279	210		310	520	47,736	40	17,666	65,402	27%
	Jan '31	280	147		310	457	47,746	100	17,766	65,512	27%
	Feb '31	281	167		310	477	47,883	80	17,846	65,729	27%
	Mar '31	282	134		310	444	47,923	120	17,941	65,864	27%
	Apr '31	283	68		310	378	47,980	180	18,025	66,005	27%
	May '31	284	44		310	354	48,015	210	18,235	66,250	28%
	Jun '31	285	22		310	332	48,031	230	18,465	66,496	28%
2031/32	Jul '31	286	26		310	336	48,047	220	18,685	66,732	28%
	Aug '31	287	26		310	336	48,067	220	18,904	66,971	28%
	Sep '31	288	26		310	336	48,075	220	18,837	66,912	28%
	Oct '31	289	44		310	354	48,087	210	18,761	66,848	28%
	Nov '31	290	87		310	397	48,168	160	18,527	66,695	28%
	Dec '31	291	210		310	520	47,920	40	18,466	66,386	28%
	Jan '32	292	147		310	457	48,037	100	18,293	66,329	28%
	Feb '32	293	167		310	477	48,167	80	18,102	66,270	27%
	Mar '32	294	134		310	444	48,167	120	18,067	66,234	27%
	Apr '32	295	68		310	378	48,193	180	18,023	66,216	27%
	May '32	296	44		310	354	48,230	210	18,001	66,230	27%
	Jun '32	297	22		310	332	48,243	230	18,102	66,345	27%
2032/33	Jul '32	298	26		310	336	48,260	220	18,013	66,273	27%
	Aug '32	299	26		310	336	48,279	220	18,064	66,343	27%
	Sep '32	300	26		310	336	48,230	220	18,267	66,496	27%
	Oct '32	301	44		310	354	48,224	210	18,282	66,506	27%
	Nov '32	302	87		310	397	48,099	160	18,385	66,484	28%
	Dec '32	303	210		310	520	48,024	40	18,421	66,446	28%
	Jan '33	304	147		310	457	47,997	100	18,519	66,516	28%
	Feb '33	305	167		310	477	47,955	80	18,591	66,546	28%
	Mar '33	306	134		310	444	47,860	120	18,711	66,571	28%
	Apr '33	307	68		310	378	47,918	180	18,810	66,728	28%
	May '33	308	44		310	354	47,835	210	18,927	66,762	28%
	Jun '33	309	22		310	332	47,715	230	18,996	66,711	28%
2033/34	Jul '33	310	26		310	336	47,605	220	19,193	66,798	29%
	Aug '33	311	26		310	336	47,348	220	19,406	66,754	29%
	Sep '33	312	26		310	336	47,296	220	19,567	66,863	29%
	Oct '33	313	44		310	354	47,303	210	19,704	67,007	29%
	Nov '33	314	87		310	397	47,318	160	19,739	67,057	29%
	Dec '33	315	210		310	520	47,301	40	19,742	67,043	29%
	Jan '34	316	147		310	457	47,290	100	19,820	67,110	30%
	Feb '34	317	167		310	477	47,235	80	19,900	67,135	30%
	Mar '34	318	134		310	444	47,235	120	19,900	67,135	30%
	Apr '34	319	68		310	378	47,235	180	19,900	67,135	30%
	May '34	320	44		310	354	47,235	210	19,900	67,135	30%
	Jun '34	321	22		310	332	47,235	230	19,900	67,135	30%

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.

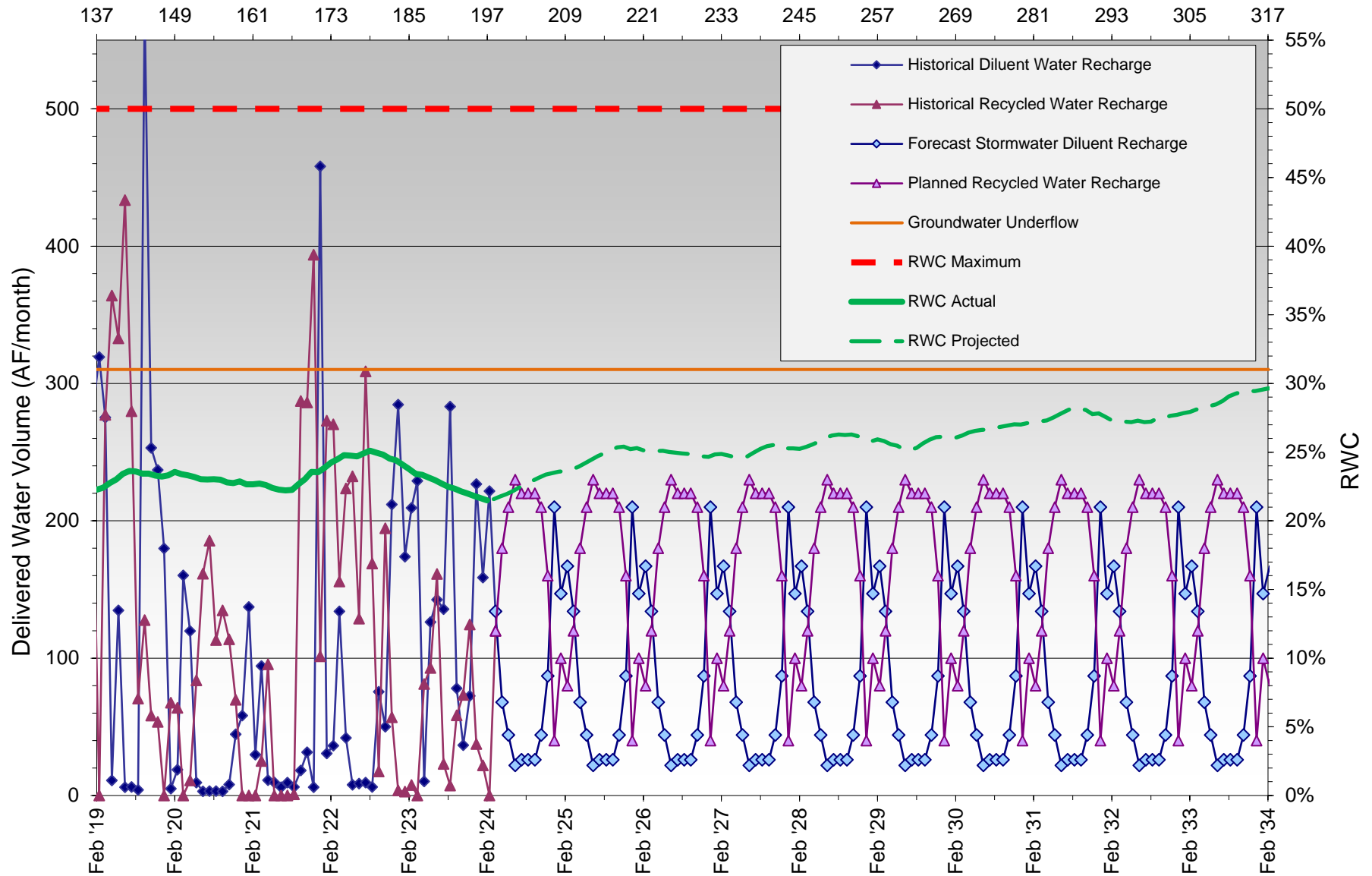
While an RWC calculation is provided starting on the first month of RW recharge, 120 months of data may not be available until 10 years of recharge operations.

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 - 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	
2017/2018	Jul '17	144	0	0	151	151	0	8,772	25,380	35%	H I S T O R I C A L	
	Aug '17	145	2	0	151	153	131	8,903	25,664	35%		
	Sep '17	146	2	134	151	287	161	9,064	26,109	35%		
	Oct '17	147	3	121	151	274	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%	
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	52	0	151	204	20,633	37	11,246	31,878	35%	
	Apr '21	189	2	0	151	154	20,635	121	11,367	32,002	36%	
	May '21	190	0	0	151	151	20,635	97	11,464	32,099	36%	
	Jun '21	191	0	0	151	151	20,635	94	11,558	32,193	36%	
2021/2022	Jul '21	192	9	0	151	161	20,613	86	11,644	32,257	36%	
	Aug '21	193	0	0	151	151	20,613	76	11,584	32,198	36%	
	Sep '21	194	0	0	151	151	20,613	93	11,282	31,895	35%	
	Oct '21	195	5	0	151	156	20,598	49	10,927	31,525	35%	
	Nov '21	196	0	0	151	151	20,568	48	10,814	31,382	34%	
	Dec '21	197	109	0	151	260	20,659	2	10,571	31,230	34%	
	Jan '22	198	2	0	151	153	20,613	25	10,435	31,047	34%	
	Feb '22	199	5	0	151	156	20,597	43	10,310	30,907	33%	
	Mar '22	200	12	0	151	163	20,565	85	10,323	30,888	33%	
	Apr '22	201	4	0	151	155	20,533	54	10,326	30,859	33%	
	May '22	202	0	0	151	151	20,533	0	10,281	30,814	33%	
	Jun '22	203	0	0	151	151	20,533	0	10,202	30,736	33%	
2022/2023	Jul '22	204	0	0	151	151	20,533	0	10,161	30,695	33%	
	Aug '22	205	0	0	151	151	20,533	95	10,254	30,787	33%	
	Sep '22	206	1	0	151	152	20,534	283	10,349	30,883	34%	
	Oct '22	207	1	0	151	153	20,525	144	10,390	30,915	34%	
	Nov '22	208	64	0	151	215	20,584	50	10,320	30,904	33%	
	Dec '22	209	96	0	151	247	20,631	0	10,305	30,935	33%	
	Jan '23	210	66	0	151	217	20,679	0	10,277	30,956	33%	
	Feb '23	211	74	0	151	225	20,733	3	10,277	31,010	33%	
	Mar '23	212	59	0	151	210	20,784	0	10,235	31,019	33%	
	Apr '23	213	0	0	151	151	20,784	0	10,180	30,964	33%	
	May '23	214	23	0	151	175	20,804	0	10,141	30,946	33%	
	Jun '23	215	0	0	151	151	20,804	21	10,128	30,932	33%	
											A C T U A L	



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	
2023/2024	Jul '23	216	0	0	151	151	20,804	351	10,463	31,268	33%	A C T U A L
	Aug '23	217	60	0	151	211	20,864	220	10,671	31,535	34%	
	Sep '23	218	4	0	151	155	20,868	129	10,800	31,667	34%	
	Oct '23	219	0	0	151	151	20,868	144	10,559	31,426	34%	
	Nov '23	220	21	0	151	173	20,867	103	10,560	31,427	34%	
	Dec '23	221	40	0	151	192	20,901	48	10,608	31,509	34%	
	Jan '24	222	42	0	151	194	20,926	29	10,636	31,562	34%	
	Feb '24	223	68	0	151	220	20,940	0	10,636	31,576	34%	
	Mar '24	224	26		151	177	20,957	100	10,651	31,608	34%	
	Apr '24	225	13		151	164	20,968	110	10,673	31,641	34%	
	May '24	226	8		151	159	20,976	120	10,599	31,575	34%	
	Jun '24	227	0		151	151	20,976	130	10,539	31,515	33%	
2024/2025	Jul '24	228	4		151	155	20,980	120	10,659	31,639	34%	
	Aug '24	229	6		151	157	20,986	120	10,697	31,683	34%	
	Sep '24	230	4		151	155	20,990	120	10,745	31,735	34%	
	Oct '24	231	14		151	165	21,004	110	10,649	31,653	34%	
	Nov '24	232	20		151	171	21,017	110	10,586	31,603	33%	
	Dec '24	233	53		151	204	20,925	70	10,589	31,514	34%	
	Jan '25	234	44		151	195	20,945	80	10,525	31,470	33%	
	Feb '25	235	40		151	191	20,969	90	10,568	31,537	34%	
	Mar '25	236	26		151	177	20,993	100	10,588	31,581	34%	
	Apr '25	237	13		151	164	21,003	110	10,608	31,611	34%	
	May '25	238	8		151	159	21,011	120	10,567	31,578	33%	
	Jun '25	239	0		151	151	21,011	130	10,671	31,682	34%	
2025/2026	Jul '25	240	4		151	155	21,015	120	10,737	31,752	34%	
	Aug '25	241	6		151	157	21,021	120	10,701	31,722	34%	
	Sep '25	242	4		151	155	20,985	120	10,445	31,430	33%	
	Oct '25	243	14		151	165	20,894	110	10,206	31,100	33%	
	Nov '25	244	20		151	171	20,884	110	10,054	30,938	32%	
	Dec '25	245	53		151	204	20,878	70	9,841	30,719	32%	
	Jan '26	246	44		151	195	20,851	80	9,846	30,697	32%	
	Feb '26	247	40		151	191	20,884	90	9,826	30,710	32%	
	Mar '26	248	26		151	177	20,872	100	9,852	30,724	32%	
	Apr '26	249	13		151	164	20,885	110	9,865	30,750	32%	
	May '26	250	8		151	159	20,878	120	9,872	30,750	32%	
	Jun '26	251	0		151	151	20,878	130	9,845	30,723	32%	
2026/2027	Jul '26	252	4		151	155	20,882	120	9,782	30,664	32%	
	Aug '26	253	6		151	157	20,888	120	9,853	30,741	32%	
	Sep '26	254	4		151	155	20,892	120	9,876	30,768	32%	
	Oct '26	255	14		151	165	20,900	110	9,871	30,771	32%	
	Nov '26	256	20		151	171	20,899	110	9,926	30,825	32%	
	Dec '26	257	53		151	204	20,881	70	9,995	30,876	32%	
	Jan '27	258	44		151	195	20,875	80	10,075	30,950	33%	
	Feb '27	259	40		151	191	20,897	90	10,165	31,062	33%	
	Mar '27	260	26		151	177	20,923	100	10,265	31,188	33%	
	Apr '27	261	13		151	164	20,936	110	10,375	31,311	33%	
	May '27	262	8		151	159	20,944	120	10,495	31,439	33%	
	Jun '27	263	0		151	151	20,944	130	10,625	31,569	34%	
2027/28	Jul '27	264	4		151	155	20,948	120	10,745	31,693	34%	
	Aug '27	265	6		151	157	20,952	120	10,734	31,686	34%	
	Sep '27	266	4		151	155	20,820	120	10,693	31,513	34%	
	Oct '27	267	14		151	165	20,711	110	10,562	31,273	34%	
	Nov '27	268	20		151	171	20,731	110	10,209	30,940	33%	
	Dec '27	269	53		151	204	20,644	70	10,027	30,671	33%	
	Jan '28	270	44		151	195	20,480	80	9,981	30,461	33%	
	Feb '28	271	40		151	191	20,509	90	9,865	30,374	32%	
	Mar '28	272	26		151	177	20,475	100	9,878	30,352	33%	
	Apr '28	273	13		151	164	20,488	110	9,815	30,303	33%	
	May '28	274	8		151	159	20,495	120	9,774	30,269	32%	
	Jun '28	275	0		151	151	20,495	130	9,775	30,270	32%	
2028/29	Jul '28	276	4		151	155	20,497	120	9,748	30,245	32%	
	Aug '28	277	6		151	157	20,503	120	9,852	30,355	32%	
	Sep '28	278	4		151	155	20,507	120	9,881	30,388	33%	
	Oct '28	279	14		151	165	20,509	110	9,991	30,500	33%	
	Nov '28	280	20		151	171	20,506	110	10,071	30,577	33%	
	Dec '28	281	53		151	204	20,547	70	10,141	30,688	33%	
	Jan '29	282	44		151	195	20,563	80	10,208	30,771	33%	
	Feb '29	283	40		151	191	20,561	90	10,298	30,859	33%	
	Mar '29	284	26		151	177	20,574	100	10,398	30,971	34%	
	Apr '29	285	13		151	164	20,587	110	10,508	31,094	34%	
	May '29	286	8		151	159	20,595	120	10,627	31,222	34%	
	Jun '29	287	0		151	151	20,595	130	10,757	31,352	34%	



### 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
2029/30	Jul '29	288	4		151	155	20,599	120	10,844	31,443	34%
	Aug '29	289	6		151	157	20,605	120	10,864	31,468	35%
	Sep '29	290	4		151	155	20,609	120	10,757	31,365	34%
	Oct '29	291	14		151	165	20,623	110	10,625	31,248	34%
	Nov '29	292	20		151	171	20,590	110	10,643	31,233	34%
	Dec '29	293	53		151	204	20,586	70	10,689	31,275	34%
	Jan '30	294	44		151	195	20,630	80	10,724	31,354	34%
	Feb '30	295	40		151	191	20,670	90	10,791	31,461	34%
	Mar '30	296	26		151	177	20,616	100	10,852	31,468	34%
	Apr '30	297	13		151	164	20,571	110	10,945	31,516	35%
	May '30	298	8		151	159	20,579	120	11,030	31,609	35%
	Jun '30	299	0		151	151	20,579	130	11,160	31,739	35%
2030/31	Jul '30	300	4		151	155	20,583	120	11,280	31,863	35%
	Aug '30	301	6		151	157	20,589	120	11,400	31,989	36%
	Sep '30	302	4		151	155	20,593	120	11,520	32,113	36%
	Oct '30	303	14		151	165	20,607	110	11,464	32,071	36%
	Nov '30	304	20		151	171	20,615	110	11,437	32,052	36%
	Dec '30	305	53		151	204	20,606	70	11,392	31,998	36%
	Jan '31	306	44		151	195	20,562	80	11,434	31,996	36%
	Feb '31	307	40		151	191	20,601	90	11,487	32,088	36%
	Mar '31	308	26		151	177	20,575	100	11,550	32,124	36%
	Apr '31	309	13		151	164	20,585	110	11,538	32,124	36%
	May '31	310	8		151	159	20,593	120	11,561	32,154	36%
	Jun '31	311	0		151	151	20,593	130	11,597	32,191	36%
2031/32	Jul '31	312	4		151	155	20,588	120	11,632	32,220	36%
	Aug '31	313	6		151	157	20,594	120	11,676	32,270	36%
	Sep '31	314	4		151	155	20,598	120	11,703	32,301	36%
	Oct '31	315	14		151	165	20,607	110	11,764	32,371	36%
	Nov '31	316	20		151	171	20,627	110	11,826	32,454	36%
	Dec '31	317	53		151	204	20,571	70	11,895	32,466	37%
	Jan '32	318	44		151	195	20,614	80	11,950	32,563	37%
	Feb '32	319	40		151	191	20,649	90	11,997	32,646	37%
	Mar '32	320	26		151	177	20,663	100	12,012	32,675	37%
	Apr '32	321	13		151	164	20,672	110	12,068	32,740	37%
	May '32	322	8		151	159	20,680	120	12,188	32,868	37%
	Jun '32	323	0		151	151	20,680	130	12,318	32,998	37%
2032/33	Jul '32	324	4		151	155	20,684	120	12,438	33,122	38%
	Aug '32	325	6		151	157	20,690	120	12,463	33,153	38%
	Sep '32	326	4		151	155	20,693	120	12,301	32,994	37%
	Oct '32	327	14		151	165	20,706	110	12,266	32,972	37%
	Nov '32	328	20		151	171	20,662	110	12,326	32,988	37%
	Dec '32	329	53		151	204	20,619	70	12,396	33,015	38%
	Jan '33	330	44		151	195	20,597	80	12,476	33,073	38%
	Feb '33	331	40		151	191	20,563	90	12,564	33,126	38%
	Mar '33	332	26		151	177	20,530	100	12,664	33,193	38%
	Apr '33	333	13		151	164	20,543	110	12,774	33,316	38%
	May '33	334	8		151	159	20,527	120	12,894	33,421	39%
	Jun '33	335	0		151	151	20,527	130	13,003	33,530	39%
2033/34	Jul '33	336	6		151	157	20,533	120	12,772	33,305	38%
	Aug '33	337	4		151	155	20,478	120	12,672	33,149	38%
	Sep '33	338	14		151	165	20,488	120	12,663	33,151	38%
	Oct '33	339	20		151	171	20,508	110	12,630	33,137	38%
	Nov '33	340	53		151	204	20,540	110	12,636	33,176	38%
	Dec '33	341	44		151	195	20,543	70	12,659	33,202	38%
	Jan '34	342	40		151	191	20,541	80	12,710	33,251	38%
	Feb '34	343	26		151	177	20,499	90	12,800	33,299	38%
	Mar '34	344	13		151	164	20,486	100	12,800	33,286	38%
	Apr '34	345	8		151	159	20,481	110	12,800	33,281	38%
	May '34	346	0		151	151	20,473	120	12,800	33,273	38%
	Jun '34	347	6		151	157	20,479	130	12,800	33,279	38%

P L A N N E D

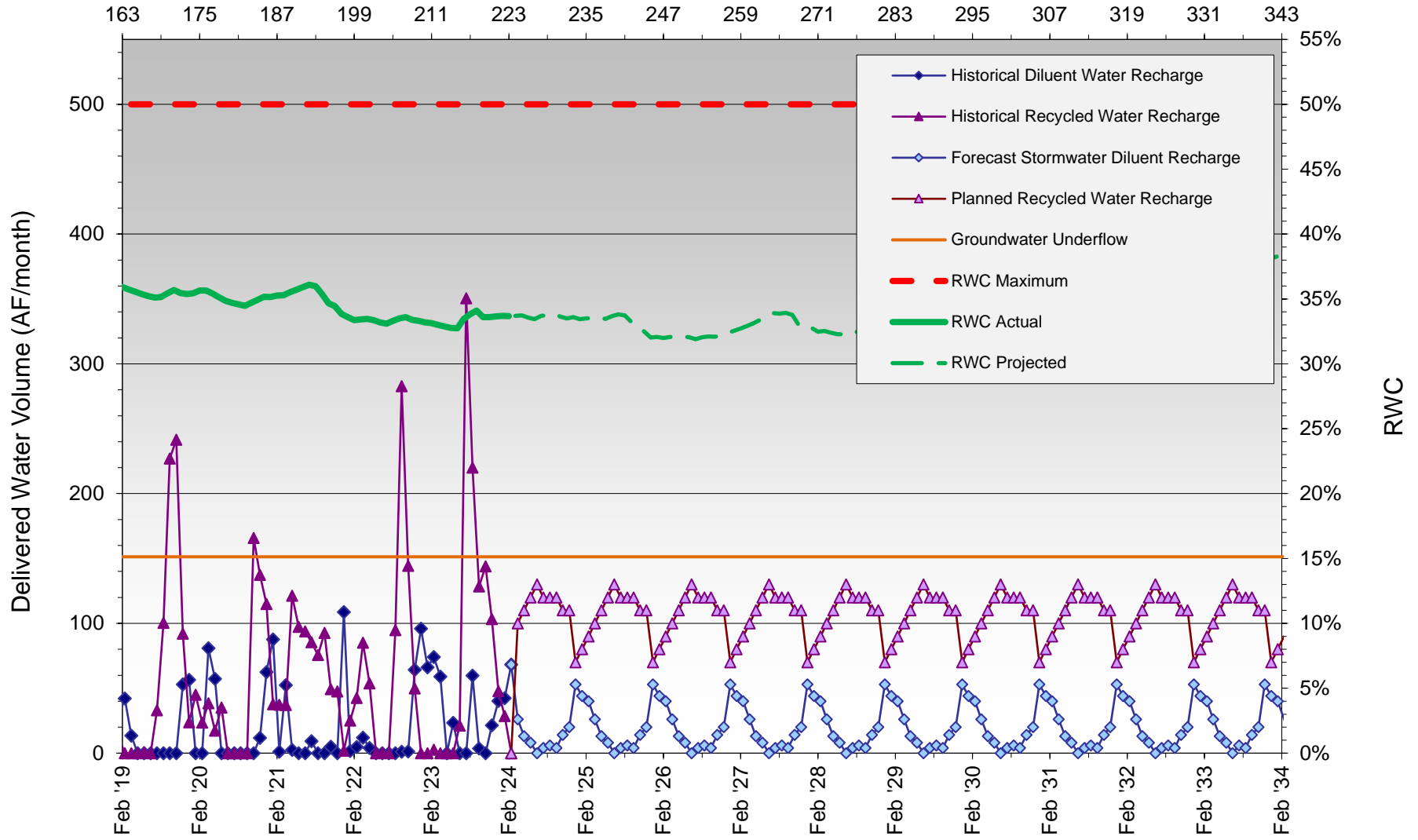
**Notes:**

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 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
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%
2020/21	Jul '20	143	0	0	509	509	66,287	150	11,182	77,469	14%
	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	41	0	509	550	65,661	24	11,028	76,689	14%
	Apr '21	152	0	0	509	509	65,660	164	11,018	76,677	14%
	May '21	153	0	0	509	509	65,650	53	10,909	76,559	14%
	Jun '21	154	0	0	509	509	65,649	53	10,739	76,388	14%
2021/22	Jul '21	155	5	0	509	514	65,416	121	10,860	76,276	14%
	Aug '21	156	0	0	509	509	65,231	100	10,960	76,191	14%
	Sep '21	157	0	0	509	509	65,077	97	11,057	76,135	15%
	Oct '21	158	14	0	509	523	65,073	72	11,049	76,123	15%
	Nov '21	159	5	0	509	514	65,028	44	11,057	76,085	15%
	Dec '21	160	134	0	509	643	65,146	27	10,986	76,132	14%
	Jan '22	161	4	0	509	513	65,105	3	10,846	75,951	14%
	Feb '22	162	7	0	509	517	65,062	67	10,837	75,899	14%
	Mar '22	163	43	0	509	552	65,002	0	10,752	75,754	14%
	Apr '22	164	36	0	509	545	64,974	0	10,720	75,693	14%
	May '22	165	1	0	509	511	64,974	0	10,595	75,568	14%
	Jun '22	166	2	0	509	512	64,976	0	10,434	75,410	14%
2022/23	Jul '22	167	0	0	509	509	64,975	0	10,401	75,376	14%
	Aug '22	168	0	0	509	509	64,973	0	10,362	75,335	14%
	Sep '22	169	6	0	509	516	64,978	189	10,499	75,477	14%
	Oct '22	170	21	0	509	531	64,999	162	10,661	75,660	14%
	Nov '22	171	67	0	509	576	65,066	81	10,742	75,808	14%
	Dec '22	172	69	0	509	578	65,135	111	10,853	75,988	14%
	Jan '23	173	311	0	509	820	65,411	45	10,556	75,967	14%
	Feb '23	174	86	0	509	595	65,471	71	10,328	75,798	14%
	Mar '23	175	236	0	509	745	65,675	0	10,090	75,765	13%
	Apr '23	176	4	0	509	514	65,679	54	9,913	75,592	13%
	May '23	177	39	0	509	548	65,701	63	9,824	75,525	13%
	Jun '23	178	2	0	509	511	65,702	115	9,818	75,520	13%

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





### 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
2023/24	Jul '23	179	1	0	509	510	65,701	44	9,693	75,395	13%
	Aug '23	180	58	0	509	567	65,758	0	9,496	75,254	13%
	Sep '23	181	5	0	509	514	65,735	103	9,418	75,152	13%
	Oct '23	182	2	0	509	511	65,714	126	9,435	75,149	13%
	Nov '23	183	2	0	509	511	65,711	51	9,392	75,103	13%
	Dec '23	184	33	0	509	543	65,737	80	9,368	75,105	12%
	Jan '24	185	79	0	509	588	65,812	34	9,293	75,105	12%
	Feb '24	186	268	0	509	777	66,033	0	9,191	75,224	12%
	Mar '24	187	74		509	583	66,095	80	9,141	75,236	12%
	Apr '24	188	33		509	542	66,114	120	9,196	75,310	12%
	May '24	189	14		509	523	66,128	140	9,336	75,464	12%
	Jun '24	190	2		509	511	66,111	150	9,438	75,549	12%
2024/25	Jul '24	191	3		509	512	66,107	150	9,516	75,623	13%
	Aug '24	192	6		509	515	66,112	140	9,515	75,627	13%
	Sep '24	193	7		509	516	66,118	140	9,498	75,616	13%
	Oct '24	194	10		509	519	66,122	140	9,582	75,704	13%
	Nov '24	195	26		509	535	66,120	120	9,665	75,785	13%
	Dec '24	196	78		509	587	66,103	70	9,735	75,838	13%
	Jan '25	197	98		509	607	66,182	50	9,775	75,957	13%
	Feb '25	198	100		509	609	66,255	50	9,733	75,988	13%
	Mar '25	199	74		509	583	66,316	80	9,744	76,060	13%
	Apr '25	200	33		509	542	66,339	120	9,763	76,102	13%
	May '25	201	14		509	523	66,332	140	9,783	76,115	13%
	Jun '25	202	2		509	511	66,334	150	9,777	76,111	13%
2025/26	Jul '25	203	3		509	512	66,337	150	9,864	76,201	13%
	Aug '25	204	6		509	515	66,343	140	10,004	76,347	13%
	Sep '25	205	7		509	516	66,349	140	10,144	76,493	13%
	Oct '25	206	10		509	519	66,359	140	10,284	76,643	13%
	Nov '25	207	26		509	535	66,384	120	10,404	76,788	14%
	Dec '25	208	78		509	587	66,462	70	10,373	76,835	14%
	Jan '26	209	98		509	607	66,506	50	10,169	76,675	13%
	Feb '26	210	100		509	609	66,515	50	10,103	76,618	13%
	Mar '26	211	74		509	583	66,498	80	9,972	76,470	13%
	Apr '26	212	33		509	542	66,518	120	9,900	76,418	13%
	May '26	213	14		509	523	66,531	140	9,762	76,293	13%
	Jun '26	214	2		509	511	66,533	150	9,912	76,445	13%
2026/27	Jul '26	215	3		509	512	66,536	150	10,062	76,598	13%
	Aug '26	216	6		509	515	66,542	140	10,202	76,744	13%
	Sep '26	217	7		509	516	66,518	140	10,197	76,715	13%
	Oct '26	218	10		509	519	66,341	140	10,318	76,659	13%
	Nov '26	219	26		509	535	66,328	120	10,322	76,650	13%
	Dec '26	220	78		509	587	66,210	70	10,379	76,589	14%
	Jan '27	221	98		509	607	66,054	50	10,429	76,483	14%
	Feb '27	222	100		509	609	66,012	50	10,479	76,491	14%
	Mar '27	223	74		509	583	66,085	80	10,543	76,628	14%
	Apr '27	224	33		509	542	66,102	120	10,655	76,757	14%
	May '27	225	14		509	523	66,115	140	10,757	76,872	14%
	Jun '27	226	2		509	511	66,115	150	10,877	76,992	14%
2027/28	Jul '27	227	3		509	512	66,024	150	10,799	76,823	14%
	Aug '27	228	6		509	515	65,935	140	10,884	76,819	14%
	Sep '27	229	7		509	516	65,938	140	10,855	76,793	14%
	Oct '27	230	10		509	519	65,946	140	10,896	76,842	14%
	Nov '27	231	26		509	535	65,969	120	10,865	76,834	14%
	Dec '27	232	78		509	587	66,047	70	10,813	76,859	14%
	Jan '28	233	98		509	607	66,112	50	10,768	76,880	14%
	Feb '28	234	100		509	609	66,203	50	10,712	76,915	14%
	Mar '28	235	74		509	583	66,233	80	10,780	77,013	14%
	Apr '28	236	33		509	542	66,264	120	10,863	77,128	14%
	May '28	237	14		509	523	66,275	140	10,918	77,193	14%
	Jun '28	238	2		509	511	66,275	150	10,960	77,235	14%
2028/29	Jul '28	239	3		509	512	66,278	150	11,064	77,342	14%
	Aug '28	240	6		509	515	66,284	140	11,186	77,470	14%
	Sep '28	241	7		509	516	66,291	140	11,326	77,617	15%
	Oct '28	242	10		509	519	66,298	140	11,466	77,764	15%
	Nov '28	243	26		509	535	66,302	120	11,403	77,705	15%
	Dec '28	244	78		509	587	66,337	70	11,216	77,553	14%
	Jan '29	245	98		509	607	66,176	50	11,200	77,376	14%
	Feb '29	246	100		509	609	65,993	50	11,250	77,243	15%
	Mar '29	247	74		509	583	65,918	80	11,253	77,171	15%
	Apr '29	248	33		509	542	65,948	120	11,119	77,067	14%
	May '29	249	14		509	523	65,900	140	11,070	76,970	14%
	Jun '29	250	2		509	511	65,902	150	10,929	76,832	14%

A C T U A L

P L A N N E D



### 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
2029/30	Jul '29	251	3		509	512	65,794	150	10,903	76,697	14%
	Aug '29	252	6		509	515	65,761	140	10,986	76,747	14%
	Sep '29	253	7		509	516	65,767	140	11,090	76,857	14%
	Oct '29	254	10		509	519	65,777	140	11,054	76,831	14%
	Nov '29	255	26		509	535	65,733	120	11,110	76,843	14%
	Dec '29	256	78		509	587	65,651	70	11,149	76,800	15%
	Jan '30	257	98		509	607	65,746	50	11,194	76,939	15%
	Feb '30	258	100		509	609	65,846	50	11,190	77,036	15%
	Mar '30	259	74		509	583	65,761	80	11,202	76,963	15%
	Apr '30	260	33		509	542	65,627	120	11,307	76,934	15%
	May '30	261	14		509	523	65,633	140	11,333	76,966	15%
	Jun '30	262	2		509	511	65,635	150	11,381	77,016	15%
2030/31	Jul '30	263	3		509	512	65,638	150	11,381	77,019	15%
	Aug '30	264	6		509	515	65,644	140	11,400	77,044	15%
	Sep '30	265	7		509	516	65,648	140	11,415	77,063	15%
	Oct '30	266	10		509	519	65,656	140	11,469	77,125	15%
	Nov '30	267	26		509	535	65,671	120	11,589	77,261	15%
	Dec '30	268	78		509	587	65,707	70	11,659	77,366	15%
	Jan '31	269	98		509	607	65,748	50	11,627	77,375	15%
	Feb '31	270	100		509	609	65,843	50	11,603	77,446	15%
	Mar '31	271	74		509	583	65,876	80	11,658	77,535	15%
	Apr '31	272	33		509	542	65,909	120	11,615	77,524	15%
	May '31	273	14		509	523	65,923	140	11,701	77,625	15%
	Jun '31	274	2		509	511	65,925	150	11,798	77,724	15%
2031/32	Jul '31	275	3		509	512	65,923	150	11,827	77,751	15%
	Aug '31	276	6		509	515	65,929	140	11,867	77,796	15%
	Sep '31	277	7		509	516	65,936	140	11,910	77,846	15%
	Oct '31	278	10		509	519	65,932	140	11,978	77,910	15%
	Nov '31	279	26		509	535	65,954	120	12,054	78,008	15%
	Dec '31	280	78		509	587	65,898	70	12,098	77,995	16%
	Jan '32	281	98		509	607	65,992	50	12,145	78,137	16%
	Feb '32	282	100		509	609	66,084	50	12,128	78,212	16%
	Mar '32	283	74		509	583	66,116	80	12,208	78,323	16%
	Apr '32	284	33		509	542	66,113	120	12,328	78,441	16%
	May '32	285	14		509	523	66,126	140	12,468	78,593	16%
	Jun '32	286	2		509	511	66,125	150	12,618	78,743	16%
2032/33	Jul '32	287	3		509	512	66,128	150	12,768	78,896	16%
	Aug '32	288	6		509	515	66,134	140	12,908	79,042	16%
	Sep '32	289	7		509	516	66,135	140	12,859	78,994	16%
	Oct '32	290	10		509	519	66,124	140	12,837	78,960	16%
	Nov '32	291	26		509	535	66,083	120	12,876	78,959	16%
	Dec '32	292	78		509	587	66,092	70	12,835	78,927	16%
	Jan '33	293	98		509	607	65,879	50	12,840	78,719	16%
	Feb '33	294	100		509	609	65,893	50	12,819	78,712	16%
	Mar '33	295	74		509	583	65,731	80	12,899	78,630	16%
	Apr '33	296	33		509	542	65,760	120	12,966	78,725	16%
	May '33	297	14		509	523	65,735	140	13,043	78,777	17%
	Jun '33	298	2		509	511	65,735	150	13,078	78,813	17%
2033/34	Jul '33	299	3		509	512	65,737	150	13,184	78,921	17%
	Aug '33	300	6		509	515	65,686	140	13,324	79,010	17%
	Sep '33	301	7		509	516	65,688	140	13,361	79,049	17%
	Oct '33	302	10		509	519	65,696	140	13,375	79,071	17%
	Nov '33	303	26		509	535	65,720	120	13,445	79,165	17%
	Dec '33	304	78		509	587	65,765	70	13,434	79,199	17%
	Jan '34	305	98		509	607	65,784	50	13,450	79,234	17%
	Feb '34	306	100		509	609	65,617	50	13,500	79,117	17%
	Mar '34	307	74		509	583	65,617	80	13,500	79,117	17%
	Apr '34	308	33		509	542	65,617	120	13,500	79,117	17%
	May '34	309	14		509	523	65,617	140	13,500	79,117	17%
	Jun '34	310	2		509	511	65,617	150	13,500	79,117	17%

P L A N N E D

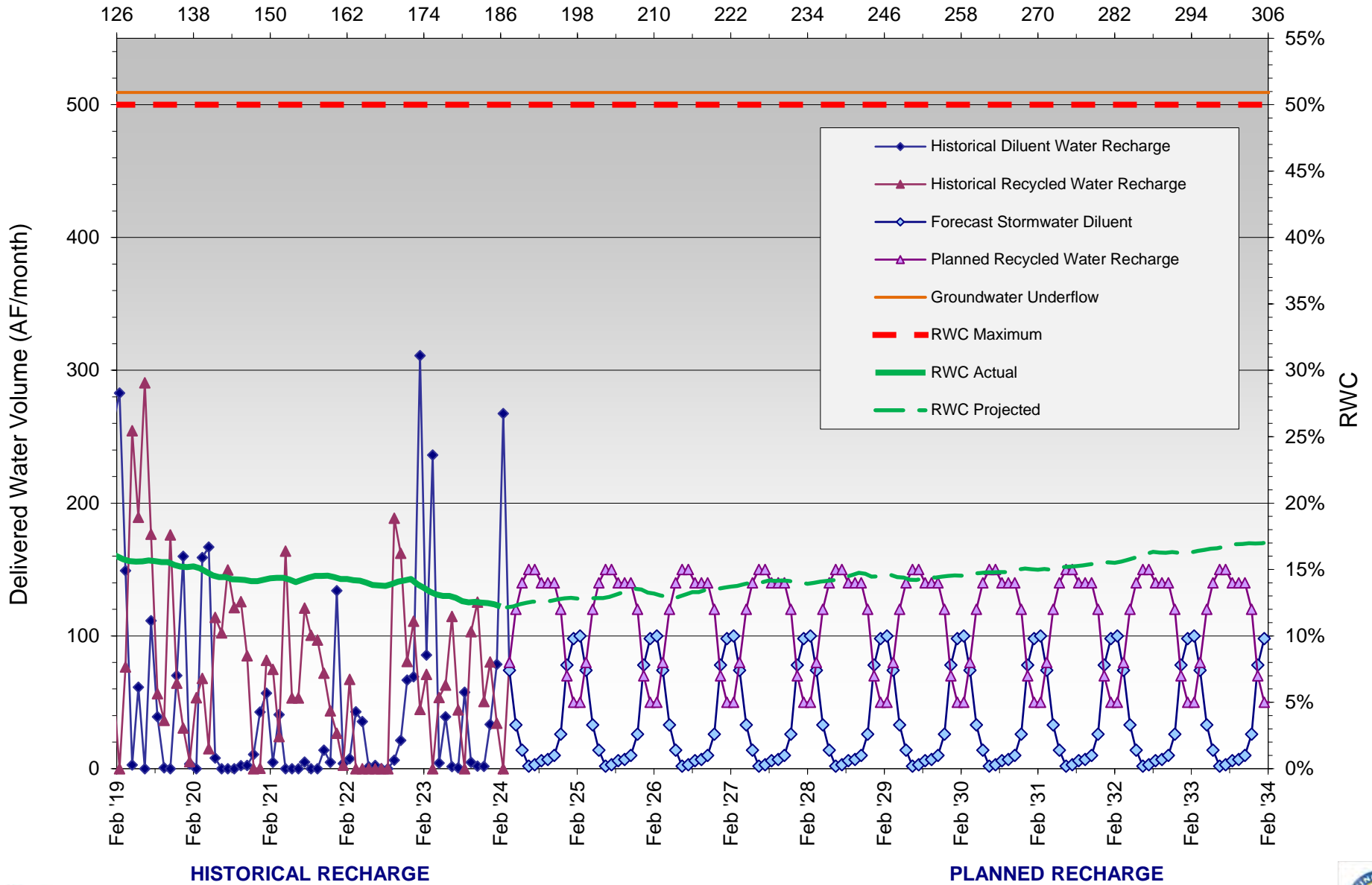
**Notes:**

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 - Brooks Street 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
2023/24	Jul '23	286	1	0	286	287	0	14,428	62,324	23%	A C T U A L
	Aug '23	287	438	0	286	724	0	14,094	62,423	23%	
	Sep '23	288	62	0	286	348	0	13,637	62,022	22%	
	Oct '23	289	2	0	286	288	0	13,279	61,666	22%	
	Nov '23	290	64	0	286	351	0	12,858	61,288	21%	
	Dec '23	291	112	0	286	399	0	12,445	60,963	20%	
	Jan '24	292	259	0	286	545	0	12,234	61,003	20%	
	Feb '24	293	523	0	286	809	0	12,040	61,038	20%	
	Mar '24	294	197		286	483	20	11,952	61,084	20%	
	Apr '24	295	146		286	432	70	11,804	60,999	19%	
	May '24	296	92		286	378	130	11,693	60,971	19%	
	Jun '24	297	29		286	315	190	11,697	60,989	19%	
2024/25	Jul '24	298	40		286	326	180	11,776	61,092	19%	
	Aug '24	299	49		286	335	170	11,938	61,287	19%	
	Sep '24	300	48		286	334	170	11,987	61,369	20%	
	Oct '24	301	75		286	361	140	11,841	61,282	19%	
	Nov '24	302	135		286	421	80	11,851	61,257	19%	
	Dec '24	303	249		286	535	0	11,846	61,109	19%	
	Jan '25	304	223		286	509	0	11,663	61,105	19%	
	Feb '25	305	224		286	510	0	11,441	61,035	19%	
	Mar '25	306	197		286	483	20	11,304	61,080	19%	
	Apr '25	307	146		286	432	70	11,209	61,031	18%	
	May '25	308	92		286	378	130	11,179	60,862	18%	
	Jun '25	309	29		286	315	190	11,096	60,808	18%	
2025/26	Jul '25	310	40		286	326	180	11,174	60,641	18%	
	Aug '25	311	49		286	335	170	11,343	60,856	19%	
	Sep '25	312	48		286	334	170	11,482	60,828	19%	
	Oct '25	313	75		286	361	140	11,546	60,892	19%	
	Nov '25	314	135		286	421	80	11,605	61,045	19%	
	Dec '25	315	249		286	535	0	11,477	61,074	19%	
	Jan '26	316	223		286	509	0	11,416	60,899	19%	
	Feb '26	317	224		286	510	0	11,327	60,975	19%	
	Mar '26	318	197		286	483	20	11,300	60,968	19%	
	Apr '26	319	146		286	432	70	11,243	61,033	18%	
	May '26	320	92		286	378	130	11,254	60,939	18%	
	Jun '26	321	29		286	315	190	11,234	60,947	18%	
2026/27	Jul '26	322	40		286	326	180	11,301	61,052	19%	
	Aug '26	323	49		286	335	170	11,382	61,182	19%	
	Sep '26	324	48		286	334	170	11,320	61,165	19%	
	Oct '26	325	75		286	361	140	11,227	61,100	18%	
	Nov '26	326	135		286	421	80	11,195	61,117	18%	
	Dec '26	327	249		286	535	0	11,195	60,843	18%	
	Jan '27	328	223		286	509	0	11,195	60,749	18%	
	Feb '27	329	224		286	510	0	11,195	60,635	18%	
	Mar '27	330	197		286	483	20	11,092	60,713	18%	
	Apr '27	331	146		286	432	70	10,972	60,730	18%	
	May '27	332	92		286	378	130	10,852	60,665	18%	
	Jun '27	333	29		286	315	190	10,893	60,735	18%	
2027/28	Jul '27	334	40		286	326	180	11,300	60,968	19%	
	Aug '27	335	49		286	335	170	11,243	61,033	18%	
	Sep '27	336	48		286	334	170	11,254	60,939	18%	
	Oct '27	337	75		286	361	140	11,234	60,947	18%	
	Nov '27	338	135		286	421	80	11,301	61,052	19%	
	Dec '27	339	249		286	535	0	11,382	61,182	19%	
	Jan '28	340	223		286	509	0	11,320	61,165	19%	
	Feb '28	341	224		286	510	0	11,227	61,100	18%	
	Mar '28	342	197		286	483	20	11,195	61,117	18%	
	Apr '28	343	146		286	432	70	11,195	60,843	18%	
	May '28	344	92		286	378	130	11,195	60,749	18%	
	Jun '28	345	29		286	315	190	11,195	60,635	18%	
2028/29	Jul '28	346	40		286	326	180	11,092	60,713	18%	
	Aug '28	347	49		286	335	170	10,972	60,730	18%	
	Sep '28	348	48		286	334	170	10,852	60,665	18%	
	Oct '28	349	75		286	361	140	10,893	60,735	18%	
	Nov '28	350	135		286	421	80	11,039	60,968	18%	
	Dec '28	351	249		286	535	0	11,182	61,033	18%	
	Jan '29	352	223		286	509	0	11,136	60,939	18%	
	Feb '29	353	224		286	510	0	11,189	60,947	18%	
	Mar '29	354	197		286	483	20	11,232	61,052	18%	
	Apr '29	355	146		286	432	70	11,014	61,182	18%	
	May '29	356	92		286	378	130	10,983	61,165	18%	
	Jun '29	357	29		286	315	190	10,802	61,100	18%	



### 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
2029/30	Jul '29	358	40		286	326	50,252	180	10,822	61,117	18%
	Aug '29	359	49		286	335	50,379	170	10,738	60,843	18%
	Sep '29	360	48		286	334	50,471	170	10,568	60,749	17%
	Oct '29	361	75		286	361	50,500	140	10,532	60,635	17%
	Nov '29	362	135		286	421	50,540	80	10,503	60,713	17%
	Dec '29	363	249		286	535	50,589	0	10,420	60,730	17%
	Jan '30	364	223		286	509	50,637	0	10,254	60,665	17%
	Feb '30	365	224		286	510	50,676	0	10,239	60,735	17%
	Mar '30	366	197		286	483	50,610	20	10,062	60,884	17%
	Apr '30	367	146		286	432	50,636	70	10,037	60,950	16%
	May '30	368	92		286	378	50,564	130	9,928	60,952	16%
	Jun '30	369	29		286	315	50,500	190	9,928	61,023	16%
2030/31	Jul '30	370	40		286	326	50,629	180	9,948	61,202	16%
	Aug '30	371	49		286	335	50,701	170	10,018	61,232	16%
	Sep '30	372	48		286	334	50,723	170	10,104	61,170	17%
	Oct '30	373	75		286	361	50,752	140	10,294	61,123	17%
	Nov '30	374	135		286	421	50,792	80	10,474	61,074	17%
	Dec '30	375	249		286	535	50,819	0	10,644	61,117	17%
	Jan '31	376	223		286	509	50,778	0	10,687	61,039	18%
	Feb '31	377	224		286	510	50,839	0	10,585	61,032	17%
	Mar '31	378	197		286	483	50,706	20	10,481	61,043	17%
	Apr '31	379	146		286	432	50,512	70	10,481	61,009	17%
	May '31	380	92		286	378	50,730	130	10,369	60,891	17%
	Jun '31	381	29		286	315	50,951	190	10,096	60,915	17%
2031/32	Jul '31	382	40		286	326	50,566	180	10,011	60,672	16%
	Aug '31	383	49		286	335	50,318	170	9,946	60,673	16%
	Sep '31	384	48		286	334	50,372	170	9,607	60,492	16%
	Oct '31	385	75		286	361	50,401	140	9,382	60,428	16%
	Nov '31	386	135		286	421	50,441	80	9,335	60,577	15%
	Dec '31	387	249		286	535	50,425	0	9,483	60,719	16%
	Jan '32	388	223		286	509	50,470	0	9,652	60,827	16%
	Feb '32	389	224		286	510	50,486	0	9,638	61,045	16%
	Mar '32	390	197		286	483	50,534	20	9,660	61,265	16%
	Apr '32	391	146		286	432	50,715	70	9,501	61,462	15%
	May '32	392	92		286	378	50,636	130	9,458	61,465	15%
	Jun '32	393	29		286	315	50,823	190	9,458	61,424	15%
2032/33	Jul '32	394	40		286	326	50,905	180	9,373	61,188	15%
	Aug '32	395	49		286	335	51,000	170	9,336	60,994	15%
	Sep '32	396	48		286	334	50,965	170	9,335	61,099	15%
	Oct '32	397	75		286	361	50,840	140	9,343	61,048	15%
	Nov '32	398	135		286	421	50,858	80	9,337	60,577	15%
	Dec '32	399	249		286	535	50,856	0	9,501	60,263	16%
	Jan '33	400	223		286	509	50,895	0	9,629	59,979	16%
	Feb '33	401	224		286	510	50,960	0	9,667	59,783	16%
	Mar '33	402	197		286	483	51,093	20	9,743	59,776	16%
	Apr '33	403	146		286	432	50,270	70	9,743	59,908	16%
	May '33	404	92		286	378	50,423	130	9,698	60,122	16%
	Jun '33	405	29		286	315	50,574	190	9,604	60,124	16%
2033/34	Jul '33	406	40		286	326	50,377	180	9,607	60,194	16%
	Aug '33	407	49		286	335	50,495	170	9,677	60,216	16%
	Sep '33	408	48		286	334	50,537	170	9,635	60,094	16%
	Oct '33	409	75		286	361	50,554	140	9,742	60,280	16%
	Nov '33	410	135		286	421	50,469	80	9,816	60,279	16%
	Dec '33	411	249		286	535	50,494	0	9,986	60,336	17%
	Jan '34	412	223		286	509	50,508	0	10,156	60,300	17%
	Feb '34	413	224		286	510	50,558	0	10,296	60,184	17%
	Mar '34	414	197		286	483	50,571	20	10,350	60,194	17%
	Apr '34	415	146		286	432	50,534	70	10,350	60,357	17%
	May '34	416	92		286	378	50,046	130	10,350	60,524	17%
	Jun '34	417	29		286	315	49,960	190	10,350	60,627	17%

P L A N N E D

**Notes:**

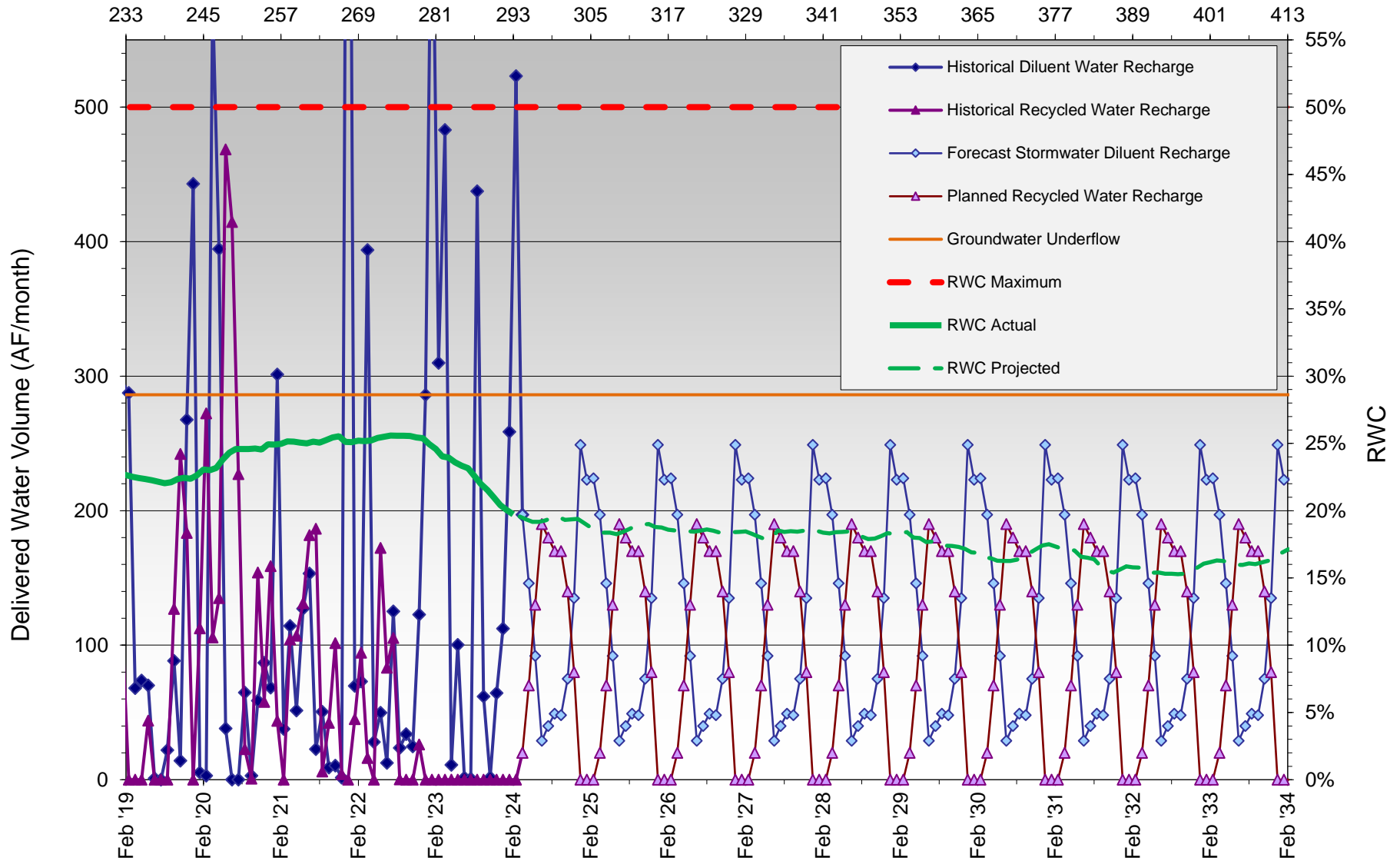
DW = Diluent Water; Total DW is the sum of Stormwater & Local Runoff (SW), Imported Water from the State Water Project (MWD), and groundwater underflow.  
 RW = Recycled Water  
 RWC = 120-month running total of recycled water / 120-month running total of all diluent and recycled water.  
 While an RWC 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 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
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	37,881	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%
2020/2021	Jul '20	178	1	0	267	267	37,299	54	9,193	46,493	20%
	Aug '20	179	2	0	267	268	37,301	74	9,239	46,540	20%
	Sep '20	180	0	0	267	267	37,289	81	9,035	46,324	20%
	Oct '20	181	0	0	267	267	37,276	26	8,967	46,243	19%
	Nov '20	182	1	0	267	268	37,241	0	8,916	46,157	19%
	Dec '20	183	55	0	267	322	37,148	0	8,916	46,064	19%
	Jan '21	184	35	0	267	301	37,171	0	8,866	46,036	19%
	Feb '21	185	0	0	267	267	37,092	0	8,829	45,920	19%
	Mar '21	186	56	0	267	323	37,078	0	8,829	45,907	19%
	Apr '21	187	0	0	267	267	37,078	0	8,777	45,855	19%
	May '21	188	0	0	267	267	37,076	0	8,693	45,769	19%
	Jun '21	189	0	0	267	267	37,068	0	8,619	45,687	19%
2021/2022	Jul '21	190	0	0	267	267	37,068	0	8,605	45,673	19%
	Aug '21	191	17	0	267	284	37,013	209	8,814	45,827	19%
	Sep '21	192	13	0	267	280	36,547	286	9,079	45,626	20%
	Oct '21	193	11	0	267	277	36,541	49	9,093	45,634	20%
	Nov '21	194	6	0	267	272	36,535	36	8,927	45,462	20%
	Dec '21	195	147	0	267	414	36,682	8	8,708	45,390	19%
	Jan '22	196	0	0	267	267	36,633	23	8,715	45,348	19%
	Feb '22	197	0	0	267	267	36,574	78	8,710	45,284	19%
	Mar '22	198	40	0	267	307	36,561	73	8,704	45,266	19%
	Apr '22	199	11	0	267	278	36,543	78	8,716	45,259	19%
	May '22	200	0	0	267	267	36,543	98	8,774	45,317	19%
	Jun '22	201	0	0	267	267	36,541	133	8,906	45,446	20%
2022/2023	Jul '22	202	0	0	267	267	36,519	31	8,880	45,398	20%
	Aug '22	203	0	0	267	267	36,469	56	8,892	45,360	20%
	Sep '22	204	29	0	267	295	36,468	6	8,897	45,365	20%
	Oct '22	205	2	0	267	268	36,419	0	8,897	45,316	20%
	Nov '22	206	65	0	267	332	36,471	24	8,744	45,215	19%
	Dec '22	207	10	0	267	277	36,475	0	8,600	45,075	19%
	Jan '23	208	65	0	267	331	36,540	0	8,485	45,025	19%
	Feb '23	209	41	0	267	308	36,573	0	8,482	45,055	19%
	Mar '23	210	37	0	267	304	36,597	0	8,335	44,932	19%
	Apr '23	211	0	0	267	267	36,597	0	8,264	44,861	18%
	May '23	212	0	0	267	267	36,591	0	8,264	44,855	18%
	Jun '23	213	0	0	267	267	36,590	0	8,148	44,738	18%

H I C K O R Y B A S I N



### 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
2023/2024	Jul '23	214	0	0	267	267	0	7,947	44,533	18%	A C T U A L
	Aug '23	215	45	42	267	353	0	7,936	44,609	18%	
	Sep '23	216	69	320	267	656	0	7,936	44,999	18%	
	Oct '23	217	22	256	267	545	0	7,935	45,275	18%	
	Nov '23	218	30	230	267	527	0	7,596	45,137	17%	
	Dec '23	219	34	145	267	446	0	7,488	45,201	17%	
	Jan '24	220	48	0	267	315	52	7,454	45,203	16%	
	Feb '24	221	128	0	267	394	0	7,387	45,244	16%	
	Mar '24	222	32		267	299	120	7,283	45,159	16%	
	Apr '24	223	20		267	287	130	7,034	44,897	16%	
	May '24	224	13		267	280	140	6,882	44,725	15%	
	Jun '24	225	9		267	276	140	6,810	44,660	15%	
2024/2025	Jul '24	226	16		267	283	130	6,822	44,688	15%	
	Aug '24	227	19		267	286	130	6,870	44,755	15%	
	Sep '24	228	24		267	291	130	6,764	44,673	15%	
	Oct '24	229	17		267	284	130	6,668	44,594	15%	
	Nov '24	230	25		267	292	130	6,526	44,477	15%	
	Dec '24	231	64		267	331	90	6,570	44,400	15%	
	Jan '25	232	41		267	308	110	6,486	44,349	15%	
	Feb '25	233	49		267	316	100	6,406	44,271	14%	
	Mar '25	234	32		267	299	120	6,411	44,308	14%	
	Apr '25	235	20		267	287	130	6,312	44,229	14%	
	May '25	236	13		267	280	140	6,313	44,240	14%	
	Jun '25	237	9		267	276	140	6,256	44,192	14%	
2025/26	Jul '25	238	16		267	283	130	6,347	44,299	14%	
	Aug '25	239	19		267	286	130	6,421	44,392	14%	
	Sep '25	240	24		267	291	130	6,444	44,430	15%	
	Oct '25	241	17		267	284	130	6,501	44,490	15%	
	Nov '25	242	25		267	292	130	6,547	44,547	15%	
	Dec '25	243	64		267	331	90	6,584	44,584	15%	
	Jan '26	244	41		267	308	110	6,671	44,677	15%	
	Feb '26	245	49		267	316	100	6,744	44,794	15%	
	Mar '26	246	32		267	299	120	6,864	44,924	15%	
	Apr '26	247	20		267	287	130	6,951	45,010	15%	
	May '26	248	13		267	280	140	7,039	45,111	16%	
	Jun '26	249	9		267	276	140	7,161	45,242	16%	
2026/27	Jul '26	250	16		267	283	130	7,291	45,388	16%	
	Aug '26	251	19		267	286	130	7,372	45,488	16%	
	Sep '26	252	24		267	291	130	7,473	45,613	16%	
	Oct '26	253	17		267	284	130	7,548	45,680	17%	
	Nov '26	254	25		267	292	130	7,675	45,823	17%	
	Dec '26	255	64		267	331	90	7,765	45,892	17%	
	Jan '27	256	41		267	308	110	7,875	46,024	17%	
	Feb '27	257	49		267	316	100	7,975	46,169	17%	
	Mar '27	258	32		267	299	120	8,095	46,321	17%	
	Apr '27	259	20		267	287	130	8,225	46,471	18%	
	May '27	260	13		267	280	140	8,365	46,624	18%	
	Jun '27	261	9		267	276	140	8,505	46,773	18%	
2027/28	Jul '27	262	16		267	283	130	8,467	46,224	18%	
	Aug '27	263	19		267	286	130	8,577	45,933	19%	
	Sep '27	264	24		267	291	130	8,588	45,695	19%	
	Oct '27	265	17		267	284	130	8,547	45,508	19%	
	Nov '27	266	25		267	292	130	8,507	45,478	19%	
	Dec '27	267	64		267	331	90	8,492	45,450	19%	
	Jan '28	268	41		267	308	110	8,517	45,391	19%	
	Feb '28	269	49		267	316	100	8,483	45,391	19%	
	Mar '28	270	32		267	299	120	8,587	45,467	19%	
	Apr '28	271	20		267	287	130	8,531	45,422	19%	
	May '28	272	13		267	280	140	8,539	45,442	19%	
	Jun '28	273	9		267	276	140	8,586	45,497	19%	
2028/29	Jul '28	274	16		267	283	130	8,699	45,622	19%	
	Aug '28	275	19		267	286	130	8,707	45,648	19%	
	Sep '28	276	24		267	291	130	8,822	45,784	19%	
	Oct '28	277	17		267	284	130	8,952	45,926	19%	
	Nov '28	278	25		267	292	130	9,071	46,034	20%	
	Dec '28	279	64		267	331	90	9,154	46,121	20%	
	Jan '29	280	41		267	308	110	9,256	46,220	20%	
	Feb '29	281	49		267	316	100	9,356	46,279	20%	
	Mar '29	282	32		267	299	120	9,476	46,403	20%	
	Apr '29	283	20		267	287	130	9,606	46,553	21%	
	May '29	284	13		267	280	140	9,746	46,706	21%	
	Jun '29	285	9		267	276	140	9,886	46,855	21%	



### 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
2029/30	Jul '29	286	16		267	283	36,923	130	10,016	46,939	21%
	Aug '29	287	19		267	286	36,586	130	10,082	46,668	22%
	Sep '29	288	24		267	291	36,260	130	10,192	46,452	22%
	Oct '29	289	17		267	284	36,081	130	10,299	46,380	22%
	Nov '29	290	25		267	292	35,990	130	10,419	46,408	22%
	Dec '29	291	64		267	331	35,999	90	10,479	46,479	23%
	Jan '30	292	41		267	308	36,036	110	10,554	46,590	23%
	Feb '30	293	49		267	316	36,084	100	10,639	46,723	23%
	Mar '30	294	32		267	299	36,076	120	10,686	46,762	23%
	Apr '30	295	20		267	287	36,035	130	10,797	46,832	23%
	May '30	296	13		267	280	36,047	140	10,865	46,912	23%
	Jun '30	297	9		267	276	36,056	140	10,883	46,939	23%
2030/31	Jul '30	298	16		267	283	36,071	130	10,959	47,030	23%
	Aug '30	299	19		267	286	36,088	130	11,015	47,103	23%
	Sep '30	300	24		267	291	36,112	130	11,064	47,176	23%
	Oct '30	301	17		267	284	36,129	130	11,168	47,297	24%
	Nov '30	302	25		267	292	36,153	130	11,298	47,451	24%
	Dec '30	303	64		267	331	36,162	90	11,388	47,550	24%
	Jan '31	304	41		267	308	36,168	110	11,498	47,666	24%
	Feb '31	305	49		267	316	36,217	100	11,598	47,815	24%
	Mar '31	306	32		267	299	36,193	120	11,718	47,911	24%
	Apr '31	307	20		267	287	36,213	130	11,848	48,061	25%
	May '31	308	13		267	280	36,226	140	11,988	48,214	25%
	Jun '31	309	9		267	276	36,235	140	12,128	48,363	25%
2031/32	Jul '31	310	16		267	283	36,251	130	12,258	48,509	25%
	Aug '31	311	19		267	286	36,252	130	12,179	48,432	25%
	Sep '31	312	24		267	291	36,263	130	12,024	48,287	25%
	Oct '31	313	17		267	284	36,269	130	12,105	48,374	25%
	Nov '31	314	25		267	292	36,289	130	12,199	48,488	25%
	Dec '31	315	64		267	331	36,205	90	12,282	48,487	25%
	Jan '32	316	41		267	308	36,246	110	12,369	48,615	25%
	Feb '32	317	49		267	316	36,295	100	12,391	48,686	25%
	Mar '32	318	32		267	299	36,287	120	12,438	48,724	26%
	Apr '32	319	20		267	287	36,296	130	12,490	48,785	26%
	May '32	320	13		267	280	36,309	140	12,532	48,840	26%
	Jun '32	321	9		267	276	36,318	140	12,538	48,856	26%
2032/33	Jul '32	322	16		267	283	36,334	130	12,637	48,971	26%
	Aug '32	323	19		267	286	36,353	130	12,711	49,064	26%
	Sep '32	324	24		267	291	36,348	130	12,836	49,184	26%
	Oct '32	325	17		267	284	36,364	130	12,966	49,329	26%
	Nov '32	326	25		267	292	36,323	130	13,072	49,395	26%
	Dec '32	327	64		267	331	36,377	90	13,162	49,539	27%
	Jan '33	328	41		267	308	36,353	110	13,272	49,625	27%
	Feb '33	329	49		267	316	36,361	100	13,372	49,733	27%
	Mar '33	330	32		267	299	36,356	120	13,492	49,848	27%
	Apr '33	331	20		267	287	36,376	130	13,622	49,998	27%
	May '33	332	13		267	280	36,389	140	13,762	50,151	27%
	Jun '33	333	9		267	276	36,398	140	13,902	50,300	28%
2033/34	Jul '33	334	16		267	283	36,414	130	14,032	50,446	28%
	Aug '33	335	19		267	286	36,346	130	14,162	50,508	28%
	Sep '33	336	24		267	291	35,980	130	14,292	50,272	28%
	Oct '33	337	17		267	284	35,719	130	14,422	50,141	29%
	Nov '33	338	25		267	292	35,484	130	14,552	50,036	29%
	Dec '33	339	64		267	331	35,369	90	14,642	50,010	29%
	Jan '34	340	41		267	308	35,361	110	14,700	50,061	29%
	Feb '34	341	49		267	316	35,283	100	14,800	50,083	30%
	Mar '34	342	32		267	299	35,283	120	14,800	50,083	30%
	Apr '34	343	20		267	287	35,283	130	14,800	50,083	30%
	May '34	344	13		267	280	35,283	140	14,800	50,083	30%
	Jun '34	345	9		267	276	35,283	140	14,800	50,083	30%

P L A N N E D

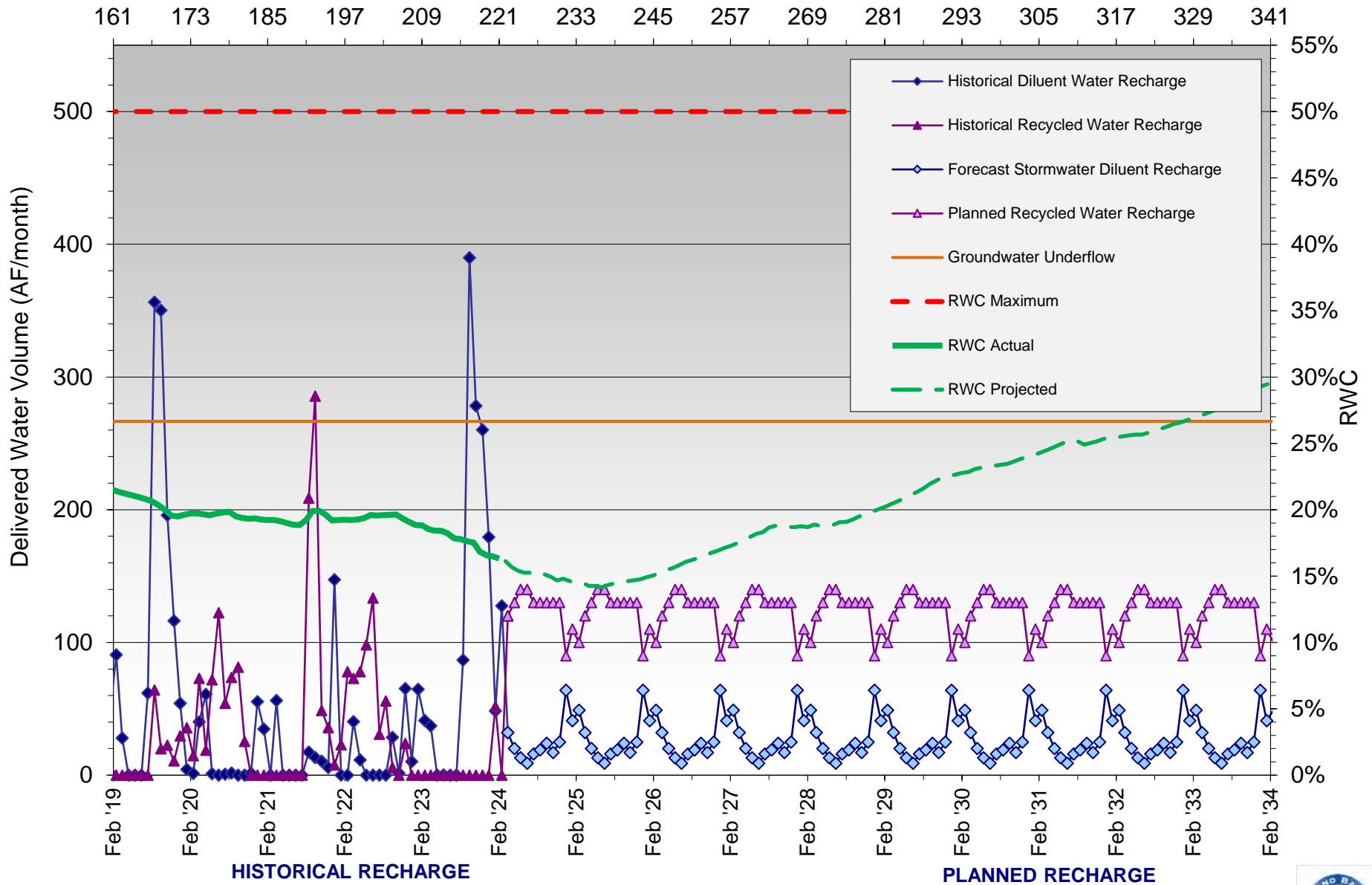
**Notes:**

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 Hickory Basin

Months Since Initial 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
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%
2020/21	Jul '20	133	3	0	904	906	123,421	354	27,133	150,554	18%
	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	103	0	904	1,007	121,814	352	31,048	152,862	20%
	Apr '21	142	17	0	904	921	121,689	471	31,283	152,971	20%
	May '21	143	23	0	904	927	121,351	499	31,605	152,956	21%
	Jun '21	144	9	0	904	913	120,743	452	31,874	152,617	21%
2021/22	Jul '21	145	40	0	904	944	119,916	379	31,999	151,915	21%
	Aug '21	146	8	0	904	911	119,606	499	32,483	152,089	21%
	Sep '21	147	4	0	904	907	118,995	589	33,042	152,037	22%
	Oct '21	148	9	0	904	913	118,783	541	33,401	152,184	22%
	Nov '21	149	5	0	904	908	118,666	558	33,862	152,528	22%
	Dec '21	150	155	0	904	1,058	118,742	279	33,977	152,720	22%
	Jan '22	151	11	0	904	915	118,649	387	34,273	152,922	22%
	Feb '22	152	10	0	904	913	118,483	301	34,414	152,897	23%
	Mar '22	153	49	0	904	953	118,310	251	34,571	152,881	23%
	Apr '22	154	11	0	904	915	118,101	317	34,740	152,841	23%
	May '22	155	9	0	904	913	118,049	303	34,668	152,717	23%
	Jun '22	156	0	0	904	904	117,989	99	34,586	152,575	23%
2022/23	Jul '22	157	1	0	904	905	117,940	298	34,872	152,812	23%
	Aug '22	158	0	0	904	904	117,928	600	35,473	153,401	23%
	Sep '22	159	2	0	904	906	117,926	732	36,204	154,130	23%
	Oct '22	160	16	0	904	920	117,924	780	36,984	154,908	24%
	Nov '22	161	54	0	904	957	117,877	725	37,555	155,431	24%
	Dec '22	162	99	0	904	1,003	117,615	1,054	38,389	156,004	25%
	Jan '23	163	381	0	904	1,285	117,849	505	38,541	156,390	25%
	Feb '23	164	149	0	904	1,053	117,885	804	39,048	156,933	25%
	Mar '23	165	381	0	904	1,285	118,188	269	39,042	157,230	25%
	Apr '23	166	42	0	904	945	118,190	472	39,127	157,317	25%
	May '23	167	6	69	904	979	118,211	787	39,653	157,864	25%
	Jun '23	168	3	135	904	1,041	118,306	684	40,097	158,403	25%

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





### 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	
2023/24	Jul '23	169	0	176	904	1,080	118,410	683	40,706	159,116	26%	A C T U A L
	Aug '23	170	56	169	904	1,129	118,567	765	41,255	159,822	26%	
	Sep '23	171	0	0	904	904	118,509	839	41,741	160,250	26%	
	Oct '23	172	0	0	904	904	118,456	806	42,383	160,839	26%	
	Nov '23	173	0	0	904	904	118,396	489	42,868	161,265	27%	
	Dec '23	174	16	0	904	920	118,340	833	43,451	161,791	27%	
	Jan '24	175	130	0	904	1,034	118,341	379	43,758	162,099	27%	
	Feb '24	176	372	0	904	1,275	118,516	51	43,809	162,325	27%	
	Mar '24	177	128		904	1,032	118,381	440	44,249	162,630	27%	
	Apr '24	178	64		904	968	118,359	510	44,710	163,069	27%	
	May '24	179	31		904	935	118,387	540	45,250	163,637	28%	
	Jun '24	180	15		904	919	118,396	560	45,638	164,034	28%	
2024/25	Jul '24	181	28		904	932	118,415	540	45,994	164,409	28%	
	Aug '24	182	22		904	926	118,414	550	46,352	164,766	28%	
	Sep '24	183	26		904	930	118,400	540	46,649	165,049	28%	
	Oct '24	184	43		904	947	118,418	530	46,844	165,262	28%	
	Nov '24	185	56		904	960	118,362	510	47,104	165,466	28%	
	Dec '24	186	179		904	1,083	118,122	390	47,488	165,610	29%	
	Jan '25	187	165		904	1,069	118,155	410	47,869	166,024	29%	
	Feb '25	188	140		904	1,044	118,200	430	48,056	166,256	29%	
	Mar '25	189	128		904	1,032	118,259	440	48,171	166,430	29%	
	Apr '25	190	64		904	968	118,282	510	48,399	166,681	29%	
	May '25	191	31		904	935	118,192	540	48,591	166,783	29%	
	Jun '25	192	15		904	919	118,195	560	48,620	166,815	29%	
2025/26	Jul '25	193	28		904	932	118,089	540	48,892	166,981	29%	
	Aug '25	194	22		904	926	118,080	550	49,301	167,381	29%	
	Sep '25	195	26		904	930	117,983	540	49,622	167,605	30%	
	Oct '25	196	43		904	947	117,940	530	49,789	167,729	30%	
	Nov '25	197	56		904	960	117,942	510	50,071	168,013	30%	
	Dec '25	198	179		904	1,083	117,933	390	50,187	168,120	30%	
	Jan '26	199	165		904	1,069	117,859	410	50,207	168,066	30%	
	Feb '26	200	140		904	1,044	117,945	430	50,279	168,224	30%	
	Mar '26	201	128		904	1,032	117,865	440	50,545	168,410	30%	
	Apr '26	202	64		904	968	117,879	510	50,808	168,687	30%	
	May '26	203	31		904	935	117,862	540	50,973	168,835	30%	
	Jun '26	204	15		904	919	117,866	560	51,288	169,154	30%	
2026/27	Jul '26	205	28		904	932	117,876	540	51,729	169,605	30%	
	Aug '26	206	22		904	926	117,866	550	51,990	169,856	31%	
	Sep '26	207	26		904	930	117,883	540	51,979	169,862	31%	
	Oct '26	208	43		904	947	117,821	530	52,117	169,938	31%	
	Nov '26	209	56		904	960	117,812	510	51,939	169,751	31%	
	Dec '26	210	179		904	1,083	117,655	390	51,781	169,436	31%	
	Jan '27	211	165		904	1,069	117,232	410	51,760	168,992	31%	
	Feb '27	212	140		904	1,044	117,137	430	51,809	168,946	31%	
	Mar '27	213	128		904	1,032	117,254	440	51,489	168,743	31%	
	Apr '27	214	64		904	968	117,294	510	51,486	168,780	31%	
	May '27	215	31		904	935	117,320	540	51,371	168,691	30%	
	Jun '27	216	15		904	919	116,940	560	51,468	168,408	31%	
2027/28	Jul '27	217	28		904	932	116,717	540	51,783	168,500	31%	
	Aug '27	218	22		904	926	116,306	550	52,125	168,431	31%	
	Sep '27	219	26		904	930	116,117	540	52,442	168,559	31%	
	Oct '27	220	43		904	947	116,125	530	52,919	169,044	31%	
	Nov '27	221	56		904	960	116,181	510	53,398	169,579	31%	
	Dec '27	222	179		904	1,083	116,359	390	53,721	170,080	32%	
	Jan '28	223	165		904	1,069	116,432	410	54,064	170,496	32%	
	Feb '28	224	140		904	1,044	116,553	430	54,482	171,035	32%	
	Mar '28	225	128		904	1,032	116,578	440	54,912	171,490	32%	
	Apr '28	226	64		904	968	116,612	510	55,350	171,962	32%	
	May '28	227	31		904	935	116,628	540	55,820	172,448	32%	
	Jun '28	228	15		904	919	116,642	560	56,331	172,973	33%	
2028/29	Jul '28	229	28		904	932	116,630	540	56,716	173,346	33%	
	Aug '28	230	22		904	926	116,642	550	57,108	173,751	33%	
	Sep '28	231	26		904	930	116,662	540	57,450	174,111	33%	
	Oct '28	232	43		904	947	116,693	530	57,822	174,514	33%	
	Nov '28	233	56		904	960	116,744	510	58,144	174,888	33%	
	Dec '28	234	179		904	1,083	116,879	390	58,365	175,244	33%	
	Jan '29	235	165		904	1,069	116,947	410	58,707	175,653	33%	
	Feb '29	236	140		904	1,044	116,962	430	59,137	176,099	34%	
	Mar '29	237	128		904	1,032	117,053	440	59,577	176,630	34%	
	Apr '29	238	64		904	968	117,115	510	60,070	177,185	34%	
	May '29	239	31		904	935	117,126	540	60,610	177,735	34%	
	Jun '29	240	15		904	919	117,141	560	61,170	178,310	34%	

P L A N N E D



### 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
2029/30	Jul '29	241	28	904	932	117,166	540	61,380	178,546	34%	P L A N E D
	Aug '29	242	22	904	926	117,182	550	61,546	178,728	34%	
	Sep '29	243	26	904	930	117,202	540	61,660	178,862	34%	
	Oct '29	244	43	904	947	117,154	530	61,658	178,812	34%	
	Nov '29	245	56	904	960	116,993	510	61,497	178,490	34%	
	Dec '29	246	179	904	1,083	116,943	390	61,094	178,036	34%	
	Jan '30	247	165	904	1,069	117,055	410	61,139	178,193	34%	
	Feb '30	248	140	904	1,044	117,195	430	61,120	178,314	34%	
	Mar '30	249	128	904	1,032	117,130	440	60,946	178,076	34%	
	Apr '30	250	64	904	968	116,993	510	60,997	177,990	34%	
May '30	251	31	904	935	117,023	540	61,239	178,263	34%		
Jun '30	252	15	904	919	117,037	560	61,471	178,508	34%		
2030/31	Jul '30	253	28	904	932	117,063	540	61,657	178,720	34%	
	Aug '30	254	22	904	926	117,081	550	61,677	178,758	35%	
	Sep '30	255	26	904	930	117,100	540	61,485	178,585	34%	
	Oct '30	256	43	904	947	117,137	530	61,212	178,349	34%	
	Nov '30	257	56	904	960	117,185	510	60,921	178,107	34%	
	Dec '30	258	179	904	1,083	117,324	390	60,496	177,819	34%	
	Jan '31	259	165	904	1,069	117,318	410	60,425	177,742	34%	
	Feb '31	260	140	904	1,044	117,448	430	60,481	177,929	34%	
	Mar '31	261	128	904	1,032	117,473	440	60,569	178,042	34%	
	Apr '31	262	64	904	968	117,520	510	60,608	178,127	34%	
May '31	263	31	904	935	117,528	540	60,649	178,176	34%		
Jun '31	264	15	904	919	117,534	560	60,756	178,290	34%		
2031/32	Jul '31	265	28	904	932	117,521	540	60,918	178,439	34%	
	Aug '31	266	22	904	926	117,536	550	60,969	178,505	34%	
	Sep '31	267	26	904	930	117,558	540	60,920	178,479	34%	
	Oct '31	268	43	904	947	117,592	530	60,909	178,501	34%	
	Nov '31	269	56	904	960	117,644	510	60,861	178,504	34%	
	Dec '31	270	179	904	1,083	117,668	390	60,972	178,640	34%	
	Jan '32	271	165	904	1,069	117,822	410	60,995	178,818	34%	
	Feb '32	272	140	904	1,044	117,953	430	61,124	179,077	34%	
	Mar '32	273	128	904	1,032	118,032	440	61,313	179,345	34%	
	Apr '32	274	64	904	968	118,084	510	61,507	179,591	34%	
May '32	275	31	904	935	118,106	540	61,744	179,850	34%		
Jun '32	276	15	904	919	118,121	560	62,205	180,326	34%		
2032/33	Jul '32	277	28	904	932	118,148	540	62,447	180,595	35%	
	Aug '32	278	22	904	926	118,170	550	62,397	180,567	35%	
	Sep '32	279	26	904	930	118,194	540	62,205	180,399	34%	
	Oct '32	280	43	904	947	118,221	530	61,955	180,176	34%	
	Nov '32	281	56	904	960	118,224	510	61,740	179,964	34%	
	Dec '32	282	179	904	1,083	118,304	390	61,076	179,380	34%	
	Jan '33	283	165	904	1,069	118,088	410	60,981	179,069	34%	
	Feb '33	284	140	904	1,044	118,078	430	60,607	178,685	34%	
	Mar '33	285	128	904	1,032	117,825	440	60,778	178,603	34%	
	Apr '33	286	64	904	968	117,847	510	60,817	178,664	34%	
May '33	287	31	904	935	117,803	540	60,570	178,373	34%		
Jun '33	288	15	904	919	117,681	560	60,446	178,127	34%		
2033/34	Jul '33	289	28	904	932	117,533	540	60,303	177,835	34%	
	Aug '33	290	22	904	926	117,330	550	60,088	177,418	34%	
	Sep '33	291	26	904	930	117,356	540	59,789	177,145	34%	
	Oct '33	292	43	904	947	117,398	530	59,513	176,911	34%	
	Nov '33	293	56	904	960	117,454	510	59,534	176,988	34%	
	Dec '33	294	179	904	1,083	117,617	390	59,090	176,707	33%	
	Jan '34	295	165	904	1,069	117,652	410	59,121	176,773	33%	
	Feb '34	296	140	904	1,044	117,421	430	59,500	176,921	34%	
	Mar '34	297	128	904	1,032	117,421	440	59,500	176,921	34%	
	Apr '34	298	64	904	968	117,421	510	59,500	176,921	34%	
May '34	299	31	904	935	117,421	540	59,500	176,921	34%		
Jun '34	300	15	904	919	117,421	560	59,500	176,921	34%		

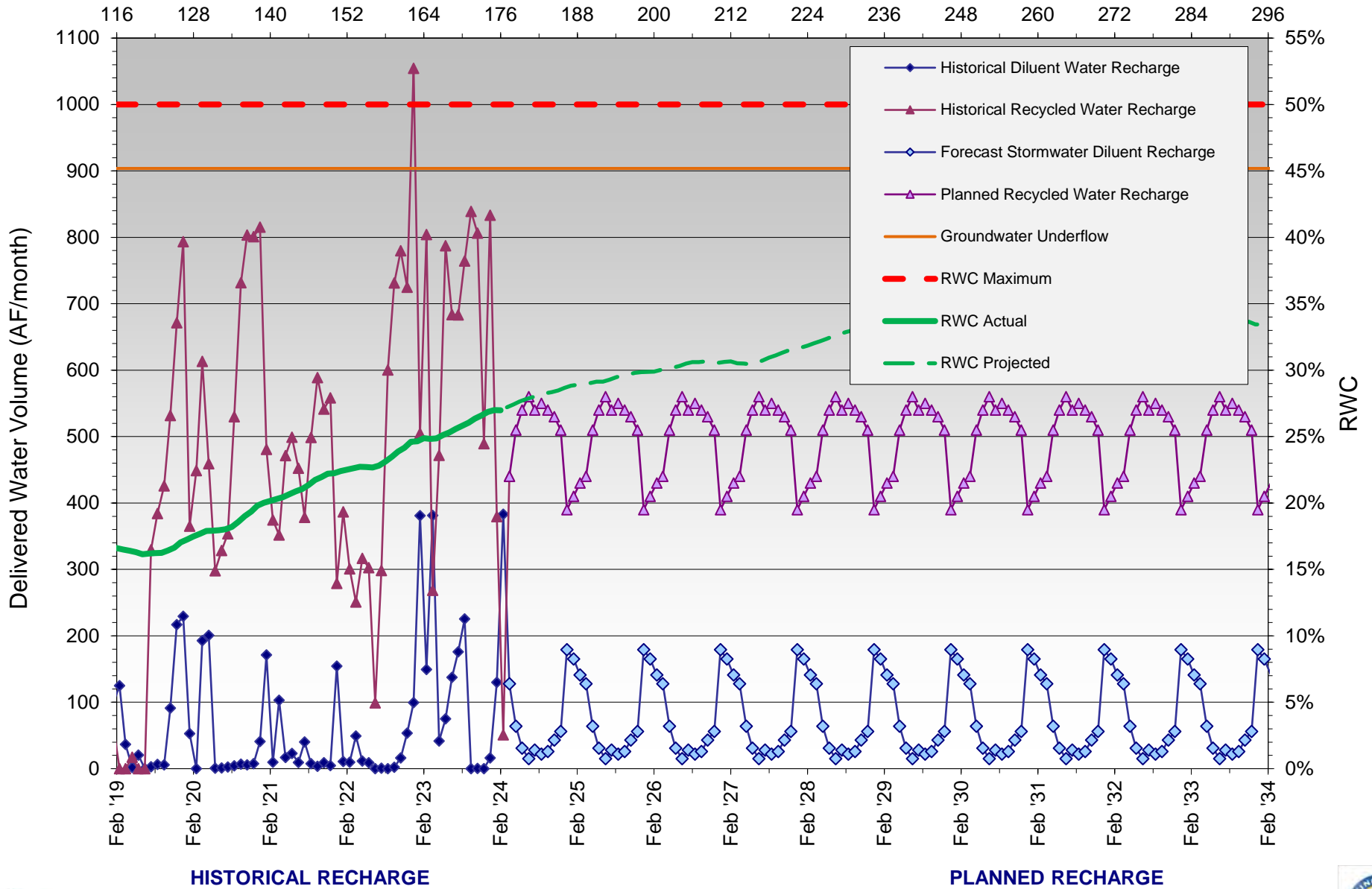
**Notes:**

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 - RP3 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
2017/18	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%
	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%
2018/19	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%
	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%
	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%
2020/21	Jul '20	55	4	0	904	908	57,771	116	4,636	62,407	7%
	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	0	5,118	68,871	7%
	Mar '21	63	137	0	904	1,041	64,656	3	5,121	69,777	7%
	Apr '21	64	7	0	904	911	65,565	31	5,152	70,717	7%
	May '21	65	5	0	904	909	66,460	146	5,298	71,758	7%
	Jun '21	66	6	0	904	910	67,360	146	5,445	72,805	7%
2021/22	Jul '21	67	52	0	904	956	68,235	71	5,516	73,751	7%
	Aug '21	68	2	0	904	906	69,138	109	5,625	74,763	8%
	Sep '21	69	3	0	904	906	70,038	138	5,762	75,800	8%
	Oct '21	70	24	0	904	928	70,892	100	5,862	76,754	8%
	Nov '21	71	7	0	904	911	71,683	50	5,913	77,596	8%
	Dec '21	72	207	0	904	1,111	72,738	0	5,913	78,651	8%
	Jan '22	73	4	0	904	907	73,559	4	5,852	79,411	7%
	Feb '22	74	10	0	904	913	74,426	53	5,905	80,331	7%
	Mar '22	75	205	0	904	1,109	75,351	82	5,987	81,338	7%
	Apr '22	76	21	0	904	925	76,142	0	5,987	82,129	7%
	May '22	77	5	0	904	909	77,044	71	6,058	83,102	7%
	Jun '22	78	48	0	904	952	77,995	0	6,058	84,053	7%
2022/23	Jul '22	79	4	0	904	908	78,902	0	6,058	84,960	7%
	Aug '22	80	5	0	904	908	79,800	0	6,058	85,858	7%
	Sep '22	81	17	0	904	921	80,706	0	6,058	86,764	7%
	Oct '22	82	58	0	904	961	81,533	26	6,083	87,617	7%
	Nov '22	83	128	0	904	1,032	82,544	2	6,085	88,629	7%
	Dec '22	84	206	0	904	1,110	83,486	3	6,088	89,573	7%
	Jan '23	85	86	0	904	990	84,428	0	6,088	90,516	7%
	Feb '23	86	194	0	904	1,098	85,468	0	6,088	91,555	7%
	Mar '23	87	176	0	904	1,080	86,487	0	6,088	92,574	7%
	Apr '23	88	8	0	904	912	87,395	0	6,088	93,482	7%
	May '23	89	78	0	904	982	88,371	69	6,156	94,527	7%
	Jun '23	90	9	0	904	913	89,280	199	6,355	95,635	7%

H I S T O R I C A L A C T U 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
2023/24	Jul '23	91	3	0	904	907	90,180	51	6,407	96,587	7%
	Aug '23	92	126	0	904	1,030	91,207	8	6,415	97,622	7%
	Sep '23	93	13	0	904	917	92,122	115	6,530	98,652	7%
	Oct '23	94	13	0	904	917	93,021	139	6,669	99,689	7%
	Nov '23	95	59	0	904	962	93,931	78	6,746	100,677	7%
	Dec '23	96	136	0	904	1,040	94,905	10	6,756	101,661	7%
	Jan '24	97	150	0	904	1,054	95,857	0	6,756	102,613	7%
	Feb '24	98	168	0	904	1,072	96,753	0	6,756	103,509	7%
	Mar '24	99	81		904	985	97,565	90	6,846	104,411	7%
	Apr '24	100	58		904	962	98,412	150	6,996	105,407	7%
	May '24	101	24		904	928	99,338	160	7,156	106,494	7%
	Jun '24	102	7		904	911	100,247	180	7,336	107,583	7%
2024/25	Jul '24	103	17		904	921	101,166	170	7,506	108,672	7%
	Aug '24	104	13		904	917	102,011	170	7,676	109,687	7%
	Sep '24	105	25		904	929	102,909	170	7,846	110,755	7%
	Oct '24	106	46		904	949	103,856	150	7,996	111,852	7%
	Nov '24	107	61		904	964	104,720	120	8,116	112,836	7%
	Dec '24	108	147		904	1,050	105,456	50	8,166	113,622	7%
	Jan '25	109	86		904	990	106,399	100	8,266	114,665	7%
	Feb '25	110	117		904	1,021	107,313	90	8,356	115,669	7%
	Mar '25	111	81		904	985	108,283	90	8,446	116,729	7%
	Apr '25	112	58		904	962	109,204	150	8,596	117,800	7%
	May '25	113	24		904	928	110,032	160	8,756	118,788	7%
	Jun '25	114	7		904	911	110,940	180	8,936	119,876	7%
2025/26	Jul '25	115	17		904	921	111,812	170	9,106	120,918	8%
	Aug '25	116	13		904	917	112,726	170	9,276	122,002	8%
	Sep '25	117	25		904	929	113,508	170	9,446	122,953	8%
	Oct '25	118	46		904	949	114,421	150	9,596	124,017	8%
	Nov '25	119	61		904	964	115,381	120	9,716	125,097	8%
	Dec '25	120	147		904	1,050	115,479	50	9,716	125,195	8%
	Jan '26	121	86		904	990	115,407	100	9,738	125,145	8%
	Feb '26	122	117		904	1,021	115,490	90	9,675	125,165	8%
	Mar '26	123	81		904	985	115,479	90	9,639	125,118	8%
	Apr '26	124	58		904	962	115,517	150	9,656	125,173	8%
	May '26	125	24		904	928	115,529	160	9,588	125,117	8%
	Jun '26	126	7		904	911	115,533	180	9,567	125,100	8%
2026/27	Jul '26	127	17		904	921	115,550	170	9,536	125,086	8%
	Aug '26	128	13		904	917	115,563	170	9,445	125,008	8%
	Sep '26	129	25		904	929	115,587	170	9,563	125,150	8%
	Oct '26	130	46		904	949	115,586	150	9,713	125,299	8%
	Nov '26	131	61		904	964	115,592	120	9,833	125,424	8%
	Dec '26	132	147		904	1,050	115,521	50	9,883	125,404	8%
	Jan '27	133	86		904	990	115,441	100	9,983	125,423	8%
	Feb '27	134	117		904	1,021	115,487	90	10,073	125,560	8%
	Mar '27	135	81		904	985	115,548	90	10,163	125,711	8%
	Apr '27	136	58		904	962	115,603	150	10,313	125,916	8%
	May '27	137	24		904	928	115,603	160	10,473	126,076	8%
	Jun '27	138	7		904	911	115,508	180	10,653	126,161	8%
2027/28	Jul '27	139	17		904	921	115,474	170	10,823	126,296	9%
	Aug '27	140	13		904	917	115,417	170	10,993	126,409	9%
	Sep '27	141	25		904	929	115,415	170	11,163	126,578	9%
	Oct '27	142	46		904	949	115,389	150	11,313	126,701	9%
	Nov '27	143	61		904	964	115,443	120	11,433	126,876	9%
	Dec '27	144	147		904	1,050	115,584	50	11,483	127,067	9%
	Jan '28	145	86		904	990	115,534	100	11,583	127,117	9%
	Feb '28	146	117		904	1,021	115,602	90	11,673	127,275	9%
	Mar '28	147	81		904	985	115,460	90	11,763	127,223	9%
	Apr '28	148	58		904	962	115,500	150	11,857	127,357	9%
	May '28	149	24		904	928	115,494	160	11,723	127,217	9%
	Jun '28	150	7		904	911	115,484	180	11,665	127,149	9%
2028/29	Jul '28	151	17		904	921	115,490	170	11,569	127,059	9%
	Aug '28	152	13		904	917	115,494	170	11,463	126,958	9%
	Sep '28	153	25		904	929	115,508	170	11,376	126,883	9%
	Oct '28	154	46		904	949	115,493	150	11,359	126,851	9%
	Nov '28	155	61		904	964	115,383	120	11,421	126,805	9%
	Dec '28	156	147		904	1,050	115,469	50	11,368	126,837	9%
	Jan '29	157	86		904	990	115,443	100	11,422	126,864	9%
	Feb '29	158	117		904	1,021	115,429	90	11,512	126,940	9%
	Mar '29	159	81		904	985	115,435	90	11,528	126,963	9%
	Apr '29	160	58		904	962	115,471	150	11,576	127,048	9%
	May '29	161	24		904	928	115,432	160	11,640	127,072	9%
	Jun '29	162	7		904	911	115,421	180	11,646	127,067	9%

A C T U A L

P L A N N E D



### 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
2029/30	Jul '29	163	17		904	921	115,423	170	11,719	127,142	9%
	Aug '29	164	13		904	917	115,425	170	11,861	127,286	9%
	Sep '29	165	25		904	929	115,437	170	12,006	127,444	9%
	Oct '29	166	46		904	949	115,474	150	11,999	127,473	9%
	Nov '29	167	61		904	964	115,398	120	12,034	127,432	9%
	Dec '29	168	147		904	1,050	115,394	50	12,084	127,477	9%
	Jan '30	169	86		904	990	115,471	100	12,113	127,584	9%
	Feb '30	170	117		904	1,021	115,569	90	12,155	127,724	10%
	Mar '30	171	81		904	985	115,487	90	12,218	127,705	10%
	Apr '30	172	58		904	962	115,450	150	12,331	127,781	10%
	May '30	173	24		904	928	115,462	160	12,416	127,878	10%
	Jun '30	174	7		904	911	115,458	180	12,481	127,939	10%
2030/31	Jul '30	175	17		904	921	115,472	170	12,535	128,007	10%
	Aug '30	176	13		904	917	115,481	170	12,620	128,100	10%
	Sep '30	177	25		904	929	115,503	170	12,675	128,178	10%
	Oct '30	178	46		904	949	115,545	150	12,682	128,227	10%
	Nov '30	179	61		904	964	115,559	120	12,702	128,261	10%
	Dec '30	180	147		904	1,050	115,550	50	12,714	128,264	10%
	Jan '31	181	86		904	990	115,484	100	12,813	128,297	10%
	Feb '31	182	117		904	1,021	115,598	90	12,903	128,501	10%
	Mar '31	183	81		904	985	115,542	90	12,990	128,532	10%
	Apr '31	184	58		904	962	115,593	150	13,109	128,702	10%
	May '31	185	24		904	928	115,612	160	13,123	128,734	10%
	Jun '31	186	7		904	911	115,613	180	13,156	128,770	10%
2031/32	Jul '31	187	17		904	921	115,578	170	13,255	128,834	10%
	Aug '31	188	13		904	917	115,590	170	13,316	128,906	10%
	Sep '31	189	25		904	929	115,612	170	13,349	128,960	10%
	Oct '31	190	46		904	949	115,633	150	13,399	129,032	10%
	Nov '31	191	61		904	964	115,687	120	13,468	129,155	10%
	Dec '31	192	147		904	1,050	115,626	50	13,518	129,144	10%
	Jan '32	193	86		904	990	115,709	100	13,614	129,323	11%
	Feb '32	194	117		904	1,021	115,816	90	13,651	129,467	11%
	Mar '32	195	81		904	985	115,692	90	13,659	129,351	11%
	Apr '32	196	58		904	962	115,729	150	13,809	129,538	11%
	May '32	197	24		904	928	115,748	160	13,898	129,646	11%
	Jun '32	198	7		904	911	115,706	180	14,078	129,785	11%
2032/33	Jul '32	199	17		904	921	115,720	170	14,248	129,968	11%
	Aug '32	200	13		904	917	115,728	170	14,418	130,146	11%
	Sep '32	201	25		904	929	115,736	170	14,588	130,324	11%
	Oct '32	202	46		904	949	115,724	150	14,713	130,437	11%
	Nov '32	203	61		904	964	115,657	120	14,831	130,488	11%
	Dec '32	204	147		904	1,050	115,598	50	14,878	130,476	11%
	Jan '33	205	86		904	990	115,598	100	14,978	130,576	11%
	Feb '33	206	117		904	1,021	115,520	90	15,068	130,589	12%
	Mar '33	207	81		904	985	115,425	90	15,158	130,583	12%
	Apr '33	208	58		904	962	115,475	150	15,308	130,783	12%
	May '33	209	24		904	928	115,420	160	15,400	130,820	12%
	Jun '33	210	7		904	911	115,418	180	15,380	130,799	12%
2033/34	Jul '33	211	17		904	921	115,433	170	15,499	130,932	12%
	Aug '33	212	13		904	917	115,319	170	15,661	130,981	12%
	Sep '33	213	25		904	929	115,331	170	15,716	131,047	12%
	Oct '33	214	46		904	949	115,364	150	15,727	131,091	12%
	Nov '33	215	61		904	964	115,366	120	15,770	131,136	12%
	Dec '33	216	147		904	1,050	115,377	50	15,810	131,187	12%
	Jan '34	217	86		904	990	115,313	100	15,910	131,223	12%
	Feb '34	218	117		904	1,021	115,262	90	16,000	131,262	12%
	Mar '34	219	81		904	985	115,262	90	16,000	131,262	12%
	Apr '34	220	58		904	962	115,262	150	16,000	131,262	12%
	May '34	221	24		904	928	115,262	160	16,000	131,262	12%
	Jun '34	222	7		904	911	115,262	180	16,000	131,262	12%

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.

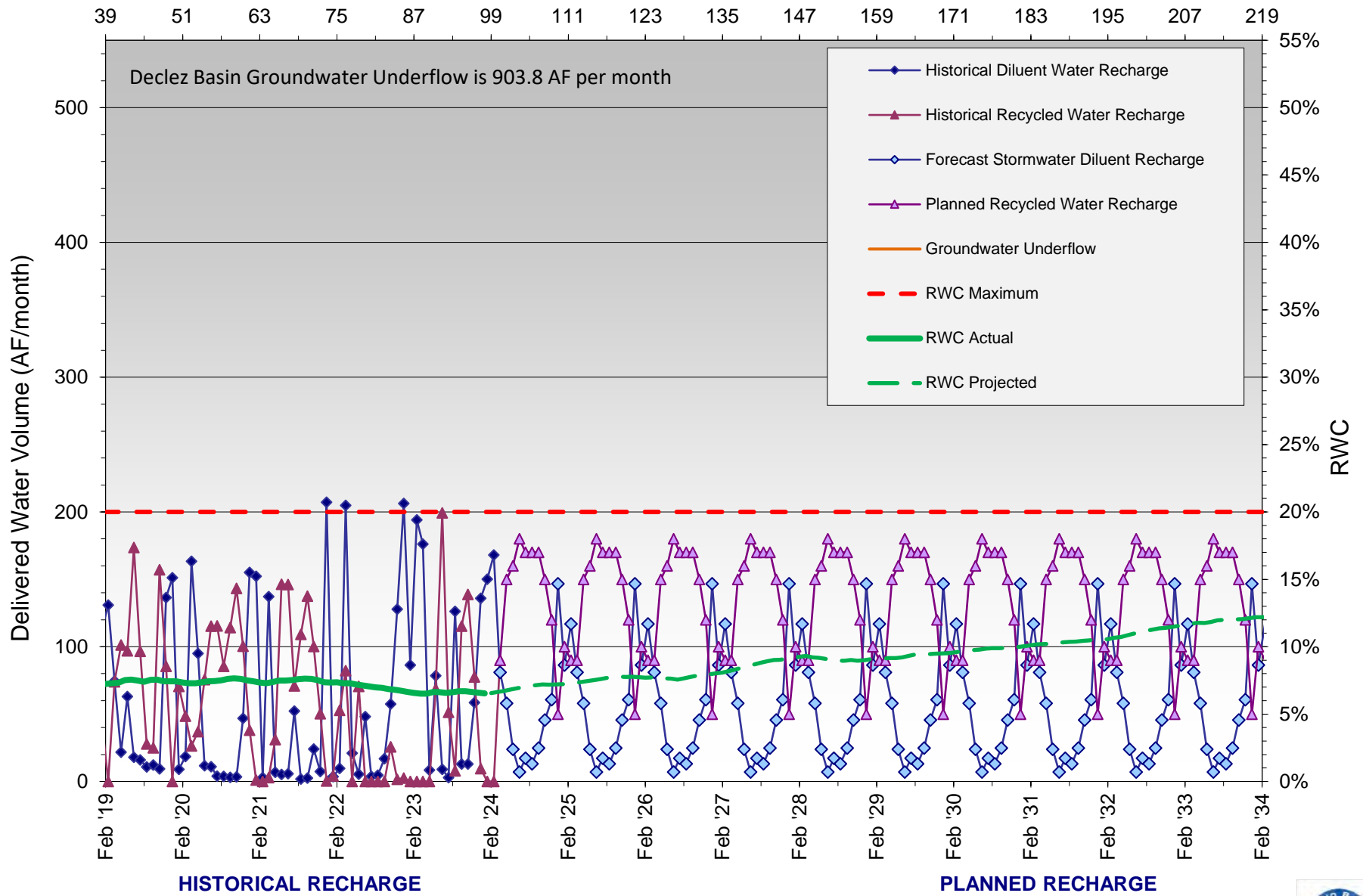
RWC maximum = 0.5 mg/L / the Running Average of Total Organic Carbon (TOC) determined from a recharge site's start-up period





# RWC Management Plan - Declez Basin

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
2023/24	Jul '23	204	8	103	67	178	16,311	0	4,997	21,308	23%	A C T U A L
	Aug '23	205	51	62	67	180	16,424	0	4,997	21,421	23%	
	Sep '23	206	34	97	67	199	16,556	0	4,997	21,552	23%	
	Oct '23	207	24	101	67	191	16,680	0	4,997	21,677	23%	
	Nov '23	208	41	100	67	208	16,820	0	4,997	21,817	23%	
	Dec '23	209	93	20	67	180	16,861	0	4,823	21,684	22%	
	Jan '24	210	83	0	67	150	16,899	55	4,775	21,674	22%	
	Feb '24	211	160	0	67	227	16,965	54	4,759	21,724	22%	
	Mar '24	212	134		67	201	17,036	100	4,839	21,875	22%	
	Apr '24	213	83		67	150	17,058	100	4,834	21,892	22%	
	May '24	214	44		67	111	17,081	100	4,798	21,879	22%	
	Jun '24	215	23		67	90	17,081	90	4,856	21,937	22%	
2024/25	Jul '24	216	12		67	79	17,093	50	4,906	21,999	22%	
	Aug '24	217	20		67	87	17,037	30	4,731	21,768	22%	
	Sep '24	218	37		67	104	17,020	10	4,613	21,633	21%	
	Oct '24	219	44		67	111	17,025	0	4,550	21,575	21%	
	Nov '24	220	69		67	136	16,986	0	4,492	21,478	21%	
	Dec '24	221	195		67	262	16,926	100	4,590	21,516	21%	
	Jan '25	222	144		67	211	16,953	100	4,690	21,643	22%	
	Feb '25	223	146		67	213	17,006	100	4,730	21,736	22%	
	Mar '25	224	134		67	201	17,088	100	4,687	21,775	22%	
	Apr '25	225	83		67	150	17,171	100	4,787	21,958	22%	
	May '25	226	44		67	111	17,215	100	4,887	22,102	22%	
	Jun '25	227	23		67	90	17,238	90	4,977	22,215	22%	
2025/26	Jul '25	228	12		67	79	17,250	50	5,027	22,277	23%	
	Aug '25	229	20		67	87	17,269	30	5,057	22,326	23%	
	Sep '25	230	37		67	104	17,186	10	4,922	22,108	22%	
	Oct '25	231	44		67	111	17,132	0	4,684	21,816	21%	
	Nov '25	232	69		67	136	17,156	0	4,605	21,761	21%	
	Dec '25	233	195		67	262	17,246	100	4,481	21,727	21%	
	Jan '26	234	144		67	211	17,121	100	4,479	21,600	21%	
	Feb '26	235	146		67	213	17,216	100	4,381	21,597	20%	
	Mar '26	236	134		67	201	17,185	100	4,320	21,505	20%	
	Apr '26	237	83		67	150	17,249	100	4,292	21,541	20%	
	May '26	238	44		67	111	17,255	100	4,236	21,491	20%	
	Jun '26	239	23		67	90	17,273	90	4,167	21,440	19%	
2026/27	Jul '26	240	12		67	79	17,281	50	4,128	21,409	19%	
	Aug '26	241	20		67	87	17,279	30	4,106	21,385	19%	
	Sep '26	242	37		67	104	17,298	10	4,076	21,374	19%	
	Oct '26	243	44		67	111	17,304	0	3,972	21,276	19%	
	Nov '26	244	69		67	136	17,289	0	3,960	21,249	19%	
	Dec '26	245	195		67	262	17,245	100	3,989	21,234	19%	
	Jan '27	246	144		67	211	17,156	100	4,089	21,245	19%	
	Feb '27	247	146		67	213	17,172	100	4,123	21,295	19%	
	Mar '27	248	134		67	201	17,292	100	4,084	21,376	19%	
	Apr '27	249	83		67	150	17,366	100	4,074	21,440	19%	
	May '27	250	44		67	111	17,404	100	4,118	21,522	19%	
	Jun '27	251	23		67	90	17,424	90	4,118	21,542	19%	
2027/28	Jul '27	252	12		67	79	17,433	50	4,012	21,445	19%	
	Aug '27	253	20		67	87	17,450	30	3,999	21,449	19%	
	Sep '27	254	37		67	104	17,485	10	3,939	21,424	18%	
	Oct '27	255	44		67	111	17,526	0	3,706	21,231	17%	
	Nov '27	256	69		67	136	17,592	0	3,558	21,150	17%	
	Dec '27	257	195		67	262	17,786	100	3,502	21,288	16%	
	Jan '28	258	144		67	211	17,893	100	3,576	21,469	17%	
	Feb '28	259	146		67	213	18,020	100	3,676	21,696	17%	
	Mar '28	260	134		67	201	17,946	100	3,761	21,707	17%	
	Apr '28	261	83		67	150	18,023	100	3,828	21,851	18%	
	May '28	262	44		67	111	18,061	100	3,928	21,989	18%	
	Jun '28	263	23		67	90	18,082	90	3,935	22,017	18%	
2028/29	Jul '28	264	12		67	79	18,091	50	3,917	22,008	18%	
	Aug '28	265	20		67	87	18,108	30	3,853	21,961	18%	
	Sep '28	266	37		67	104	18,138	10	3,843	21,981	17%	
	Oct '28	267	44		67	111	18,168	0	3,843	22,011	17%	
	Nov '28	268	69		67	136	18,178	0	3,843	22,021	17%	
	Dec '28	269	195		67	262	18,318	100	3,943	22,261	18%	
	Jan '29	270	144		67	211	18,283	100	4,043	22,326	18%	
	Feb '29	271	146		67	213	18,239	100	4,143	22,382	19%	
	Mar '29	272	134		67	201	18,259	100	4,243	22,502	19%	
	Apr '29	273	83		67	150	18,330	100	4,343	22,673	19%	
	May '29	274	44		67	111	18,241	100	4,443	22,683	20%	
	Jun '29	275	23		67	90	18,261	90	4,533	22,793	20%	



### 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
2029/30	Jul '29	276	12		67	79	18,268	50	4,583	22,851	20%
	Aug '29	277	20		67	87	18,283	30	4,537	22,820	20%
	Sep '29	278	37		67	104	18,315	10	4,531	22,846	20%
	Oct '29	279	44		67	111	18,354	0	4,531	22,885	20%
	Nov '29	280	69		67	136	18,332	0	4,531	22,863	20%
	Dec '29	281	195		67	262	18,268	100	4,631	22,899	20%
	Jan '30	282	144		67	211	18,394	100	4,731	23,125	20%
	Feb '30	283	146		67	213	18,320	100	4,831	23,151	21%
	Mar '30	284	134		67	201	18,262	100	4,931	23,193	21%
	Apr '30	285	83		67	150	18,186	100	5,031	23,217	22%
	May '30	286	44		67	111	18,221	100	5,131	23,352	22%
	Jun '30	287	23		67	90	18,243	90	5,221	23,464	22%
2030/31	Jul '30	288	12		67	79	18,255	50	5,271	23,526	22%
	Aug '30	289	20		67	87	18,275	30	5,301	23,576	22%
	Sep '30	290	37		67	104	18,312	10	5,311	23,623	22%
	Oct '30	291	44		67	111	18,343	0	5,306	23,649	22%
	Nov '30	292	69		67	136	18,289	0	5,306	23,595	22%
	Dec '30	293	195		67	262	18,405	100	5,406	23,811	23%
	Jan '31	294	144		67	211	18,336	100	5,506	23,842	23%
	Feb '31	295	146		67	213	18,394	100	5,606	24,000	23%
	Mar '31	296	134		67	201	18,425	100	5,706	24,131	24%
	Apr '31	297	83		67	150	18,485	100	5,806	24,291	24%
	May '31	298	44		67	111	18,467	100	5,906	24,373	24%
	Jun '31	299	23		67	90	18,352	90	5,996	24,348	25%
2031/32	Jul '31	300	12		67	79	18,223	50	6,046	24,269	25%
	Aug '31	301	20		67	87	18,156	30	6,076	24,232	25%
	Sep '31	302	37		67	104	18,111	10	6,085	24,196	25%
	Oct '31	303	44		67	111	18,099	0	6,085	24,184	25%
	Nov '31	304	69		67	136	18,107	0	6,085	24,192	25%
	Dec '31	305	195		67	262	17,907	100	6,185	24,092	26%
	Jan '32	306	144		67	211	18,026	100	6,285	24,312	26%
	Feb '32	307	146		67	213	18,141	100	6,385	24,526	26%
	Mar '32	308	134		67	201	18,179	100	6,485	24,664	26%
	Apr '32	309	83		67	150	18,230	100	6,585	24,815	27%
	May '32	310	44		67	111	18,269	100	6,685	24,954	27%
	Jun '32	311	23		67	90	18,270	90	6,775	25,045	27%
2032/33	Jul '32	312	12		67	79	18,272	50	6,806	25,078	27%
	Aug '32	313	20		67	87	18,281	30	6,835	25,116	27%
	Sep '32	314	37		67	104	18,296	10	6,845	25,141	27%
	Oct '32	315	44		67	111	18,262	0	6,829	25,090	27%
	Nov '32	316	69		67	136	18,200	0	6,829	25,029	27%
	Dec '32	317	195		67	262	18,204	100	6,929	25,133	28%
	Jan '33	318	144		67	211	18,143	100	7,029	25,171	28%
	Feb '33	319	146		67	213	18,125	100	7,129	25,254	28%
	Mar '33	320	134		67	201	17,960	100	7,229	25,188	29%
	Apr '33	321	83		67	150	17,953	100	7,329	25,281	29%
	May '33	322	44		67	111	17,907	100	7,429	25,335	29%
	Jun '33	323	23		67	90	17,892	90	7,519	25,410	30%
2033/34	Jul '33	324	12		67	79	17,793	50	7,569	25,362	30%
	Aug '33	325	20		67	87	17,700	30	7,599	25,299	30%
	Sep '33	326	37		67	104	17,605	10	7,609	25,214	30%
	Oct '33	327	44		67	111	17,525	0	7,609	25,134	30%
	Nov '33	328	69		67	136	17,454	0	7,609	25,062	30%
	Dec '33	329	195		67	262	17,536	100	7,709	25,244	31%
	Jan '34	330	144		67	211	17,597	100	7,754	25,351	31%
	Feb '34	331	146		67	213	17,583	100	7,800	25,383	31%
	Mar '34	332	134		67	201	17,583	100	7,800	25,383	31%
	Apr '34	333	83		67	150	17,583	100	7,800	25,383	31%
	May '34	334	44		67	111	17,583	100	7,800	25,383	31%
	Jun '34	335	23		67	90	17,583	90	7,800	25,383	31%

P L A N N E D

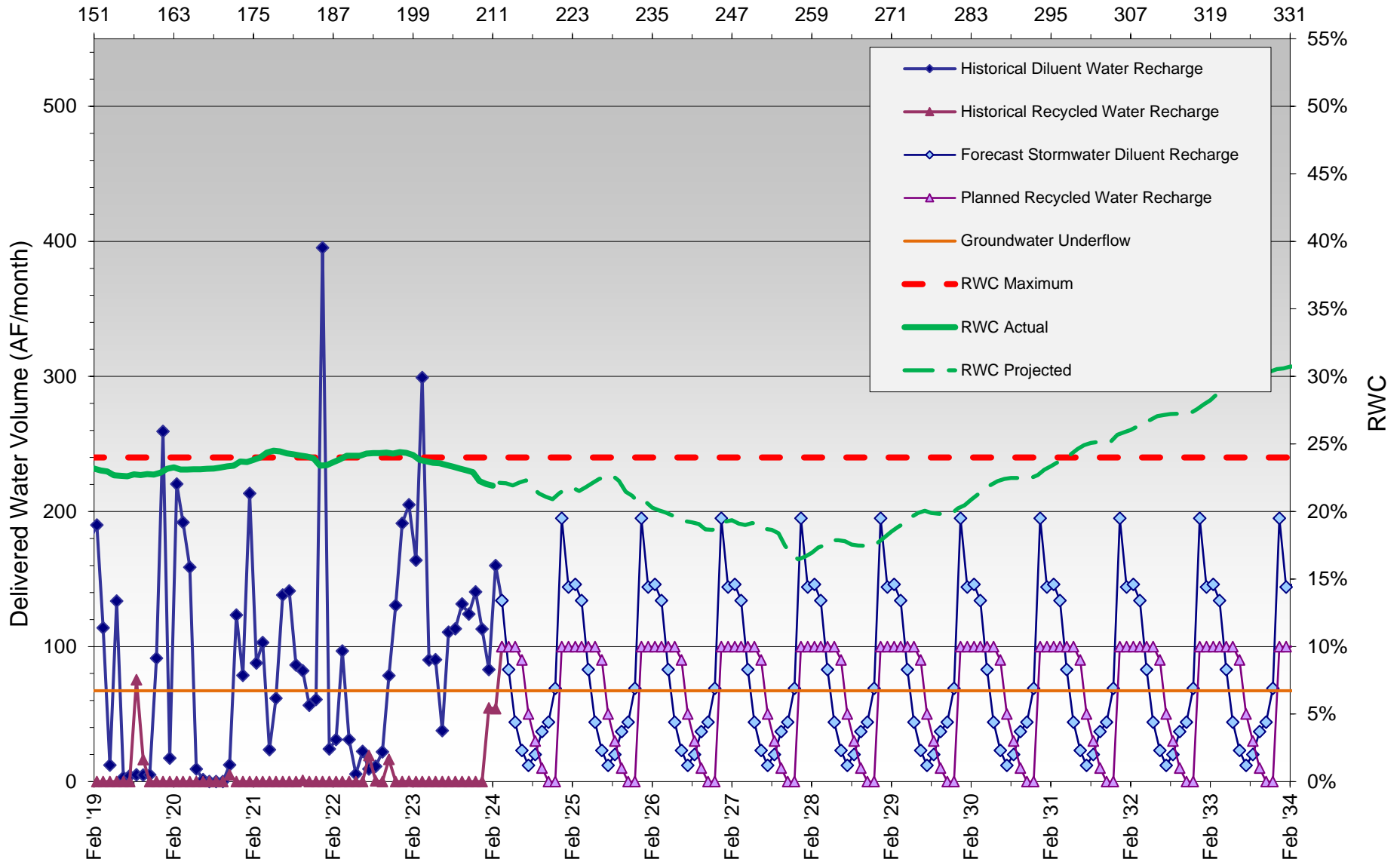
**Notes:**

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	
2023/24	Jul '23	204	12	0	60	72	12,799	0	4,314	17,112	25%	ACTUAL
	Aug '23	205	34	0	60	94	12,833	0	4,314	17,147	25%	
	Sep '23	206	47	0	60	107	12,857	0	4,207	17,063	25%	
	Oct '23	207	39	0	60	99	12,876	0	4,090	16,965	24%	
	Nov '23	208	78	0	60	137	12,936	0	4,001	16,937	24%	
	Dec '23	209	57	0	60	117	12,988	0	3,916	16,904	23%	
	Jan '24	210	57	0	60	117	13,029	0	3,777	16,806	22%	
Feb '24	211	197	0	60	257	13,165	0	3,657	16,821	22%		
Mar '24	212	70		60	130	13,185	50	3,660	16,844	22%		
Apr '24	213	35		60	95	13,220	90	3,750	16,969	22%		
May '24	214	18		60	78	13,215	100	3,682	16,896	22%		
Jun '24	215	14		60	74	13,217	110	3,738	16,954	22%		
2024/25	Jul '24	216	16		60	76	13,222	100	3,838	17,059	22%	
	Aug '24	217	13		60	73	13,235	110	3,948	17,182	23%	
	Sep '24	218	20		60	80	13,255	100	4,048	17,302	23%	
	Oct '24	219	24		60	84	13,279	100	4,148	17,426	24%	
	Nov '24	220	42		60	102	13,321	80	4,228	17,548	24%	
	Dec '24	221	108		60	168	13,081	10	4,238	17,318	24%	
	Jan '25	222	89		60	149	13,166	30	4,268	17,433	24%	
	Feb '25	223	82		60	142	13,183	40	4,255	17,437	24%	
	Mar '25	224	70		60	130	13,182	50	4,150	17,331	24%	
	Apr '25	225	35		60	95	13,178	90	4,240	17,417	24%	
	May '25	226	18		60	78	13,196	100	4,340	17,535	25%	
	Jun '25	227	14		60	74	13,208	110	4,369	17,576	25%	
2025/26	Jul '25	228	16		60	76	13,137	100	4,384	17,520	25%	
	Aug '25	229	13		60	73	13,135	110	4,331	17,465	25%	
	Sep '25	230	20		60	80	13,081	100	4,380	17,460	25%	
	Oct '25	231	24		60	84	13,041	100	4,415	17,455	25%	
	Nov '25	232	42		60	102	13,039	80	4,492	17,530	26%	
	Dec '25	233	108		60	168	13,003	10	4,501	17,503	26%	
	Jan '26	234	89		60	149	13,010	30	4,531	17,540	26%	
	Feb '26	235	82		60	142	13,051	40	4,571	17,621	26%	
	Mar '26	236	70		60	130	13,074	50	4,621	17,694	26%	
	Apr '26	237	35		60	95	13,060	90	4,711	17,770	27%	
	May '26	238	18		60	78	13,045	100	4,811	17,855	27%	
	Jun '26	239	14		60	74	13,039	110	4,921	17,959	27%	
2026/27	Jul '26	240	16		60	76	13,040	100	5,021	18,060	28%	
	Aug '26	241	13		60	73	13,052	110	5,131	18,182	28%	
	Sep '26	242	20		60	80	13,072	100	5,231	18,302	29%	
	Oct '26	243	24		60	84	13,095	100	5,331	18,425	29%	
	Nov '26	244	42		60	102	13,137	80	5,411	18,547	29%	
	Dec '26	245	108		60	168	12,929	10	5,421	18,349	30%	
	Jan '27	246	89		60	149	12,720	30	5,451	18,170	30%	
	Feb '27	247	82		60	142	12,631	40	5,483	18,113	30%	
	Mar '27	248	70		60	130	12,667	50	5,368	18,034	30%	
	Apr '27	249	35		60	95	12,679	90	5,359	18,037	30%	
	May '27	250	18		60	78	12,681	100	5,334	18,014	30%	
	Jun '27	251	14		60	74	12,413	110	5,434	17,846	30%	
2027/28	Jul '27	252	16		60	76	12,199	100	5,534	17,733	31%	
	Aug '27	253	13		60	73	12,112	110	5,631	17,742	32%	
	Sep '27	254	20		60	80	12,116	100	5,680	17,795	32%	
	Oct '27	255	24		60	84	12,139	100	5,775	17,914	32%	
	Nov '27	256	42		60	102	12,177	80	5,855	18,033	32%	
	Dec '27	257	108		60	168	12,284	10	5,865	18,149	32%	
	Jan '28	258	89		60	149	12,257	30	5,895	18,152	32%	
	Feb '28	259	82		60	142	12,264	40	5,922	18,186	33%	
	Mar '28	260	70		60	130	12,227	50	5,934	18,161	33%	
	Apr '28	261	35		60	95	12,258	90	5,885	18,143	32%	
	May '28	262	18		60	78	12,241	100	5,820	18,062	32%	
	Jun '28	263	14		60	74	12,241	110	5,792	18,034	32%	
2028/29	Jul '28	264	16		60	76	12,245	100	5,867	18,112	32%	
	Aug '28	265	13		60	73	12,251	110	5,913	18,164	33%	
	Sep '28	266	20		60	80	12,262	100	5,924	18,187	33%	
	Oct '28	267	24		60	84	12,258	100	5,938	18,196	33%	
	Nov '28	268	42		60	102	12,269	80	5,959	18,227	33%	
	Dec '28	269	108		60	168	12,287	10	5,948	18,235	33%	
	Jan '29	270	89		60	149	12,222	30	5,978	18,200	33%	
	Feb '29	271	82		60	142	12,115	40	6,018	18,133	33%	
	Mar '29	272	70		60	130	12,134	50	6,068	18,202	33%	
	Apr '29	273	35		60	95	12,164	90	6,158	18,322	34%	
	May '29	274	18		60	78	12,170	100	6,258	18,428	34%	
	Jun '29	275	14		60	74	12,181	110	6,368	18,549	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
2029/30	Jul '29	276	16	60	76	12,197	100	6,468	18,665	35%	P L A N N E D
	Aug '29	277	13	60	73	12,210	110	6,546	18,756	35%	
	Sep '29	278	20	60	80	12,230	100	6,614	18,844	35%	
	Oct '29	279	24	60	84	12,254	100	6,714	18,968	35%	
	Nov '29	280	42	60	102	12,135	80	6,759	18,893	36%	
	Dec '29	281	108	60	168	12,180	10	6,769	18,949	36%	
	Jan '30	282	89	60	149	12,247	30	6,799	19,046	36%	
	Feb '30	283	82	60	142	12,297	40	6,839	19,136	36%	
	Mar '30	284	70	60	130	12,264	50	6,889	19,152	36%	
	Apr '30	285	35	60	95	12,213	90	6,979	19,192	36%	
May '30	286	18	60	78	12,218	100	7,079	19,296	37%		
Jun '30	287	14	60	74	12,232	110	7,189	19,420	37%		
2030/31	Jul '30	288	16	60	76	12,248	100	7,289	19,536	37%	
	Aug '30	289	13	60	73	12,261	110	7,399	19,659	38%	
	Sep '30	290	20	60	80	12,281	100	7,499	19,779	38%	
	Oct '30	291	24	60	84	12,304	100	7,593	19,897	38%	
	Nov '30	292	42	60	102	12,339	80	7,511	19,851	38%	
	Dec '30	293	108	60	168	12,412	10	7,393	19,805	37%	
	Jan '31	294	89	60	149	12,395	30	7,378	19,773	37%	
	Feb '31	295	82	60	142	12,465	40	7,332	19,796	37%	
	Mar '31	296	70	60	130	12,432	50	7,328	19,760	37%	
	Apr '31	297	35	60	95	12,463	90	7,390	19,853	37%	
May '31	298	18	60	78	12,476	100	7,443	19,918	37%		
Jun '31	299	14	60	74	12,490	110	7,549	20,039	38%		
2031/32	Jul '31	300	16	60	76	12,503	100	7,649	20,152	38%	
	Aug '31	301	13	60	73	12,516	110	7,759	20,275	38%	
	Sep '31	302	20	60	80	12,533	100	7,841	20,374	38%	
	Oct '31	303	24	60	84	12,549	100	7,739	20,288	38%	
	Nov '31	304	42	60	102	12,574	80	7,684	20,258	38%	
	Dec '31	305	108	60	168	12,440	10	7,662	20,101	38%	
	Jan '32	306	89	60	149	12,504	30	7,627	20,131	38%	
	Feb '32	307	82	60	142	12,562	40	7,629	20,191	38%	
	Mar '32	308	70	60	130	12,563	50	7,643	20,206	38%	
	Apr '32	309	35	60	95	12,581	90	7,715	20,296	38%	
May '32	310	18	60	78	12,591	100	7,751	20,341	38%		
Jun '32	311	14	60	74	12,590	110	7,817	20,406	38%		
2032/33	Jul '32	312	16	60	76	12,589	100	7,870	20,459	38%	
	Aug '32	313	13	60	73	12,585	110	7,920	20,505	39%	
	Sep '32	314	20	60	80	12,545	100	8,020	20,565	39%	
	Oct '32	315	24	60	84	12,564	100	8,120	20,684	39%	
	Nov '32	316	42	60	102	12,504	80	8,200	20,704	40%	
	Dec '32	317	108	60	168	12,514	10	8,210	20,724	40%	
	Jan '33	318	89	60	149	12,448	30	8,240	20,688	40%	
	Feb '33	319	82	60	142	12,501	40	8,280	20,781	40%	
	Mar '33	320	70	60	130	12,543	50	8,330	20,873	40%	
	Apr '33	321	35	60	95	12,578	90	8,420	20,998	40%	
May '33	322	18	60	78	12,594	100	8,520	21,114	40%		
Jun '33	323	14	60	74	12,608	110	8,630	21,238	41%		
2033/34	Jul '33	324	16	60	76	12,612	100	8,730	21,342	41%	
	Aug '33	325	13	60	73	12,590	110	8,840	21,430	41%	
	Sep '33	326	20	60	80	12,563	100	8,940	21,503	42%	
	Oct '33	327	24	60	84	12,548	100	9,040	21,588	42%	
	Nov '33	328	42	60	102	12,512	80	9,120	21,632	42%	
	Dec '33	329	108	60	168	12,563	10	9,130	21,693	42%	
	Jan '34	330	89	60	149	12,595	30	9,160	21,755	42%	
	Feb '34	331	82	60	142	12,480	40	9,200	21,680	42%	
	Mar '34	332	70	60	130	12,480	50	9,200	21,680	42%	
	Apr '34	333	35	60	95	12,480	90	9,200	21,680	42%	
May '34	334	18	60	78	12,480	100	9,200	21,680	42%		
Jun '34	335	14	60	74	12,480	110	9,200	21,680	42%		

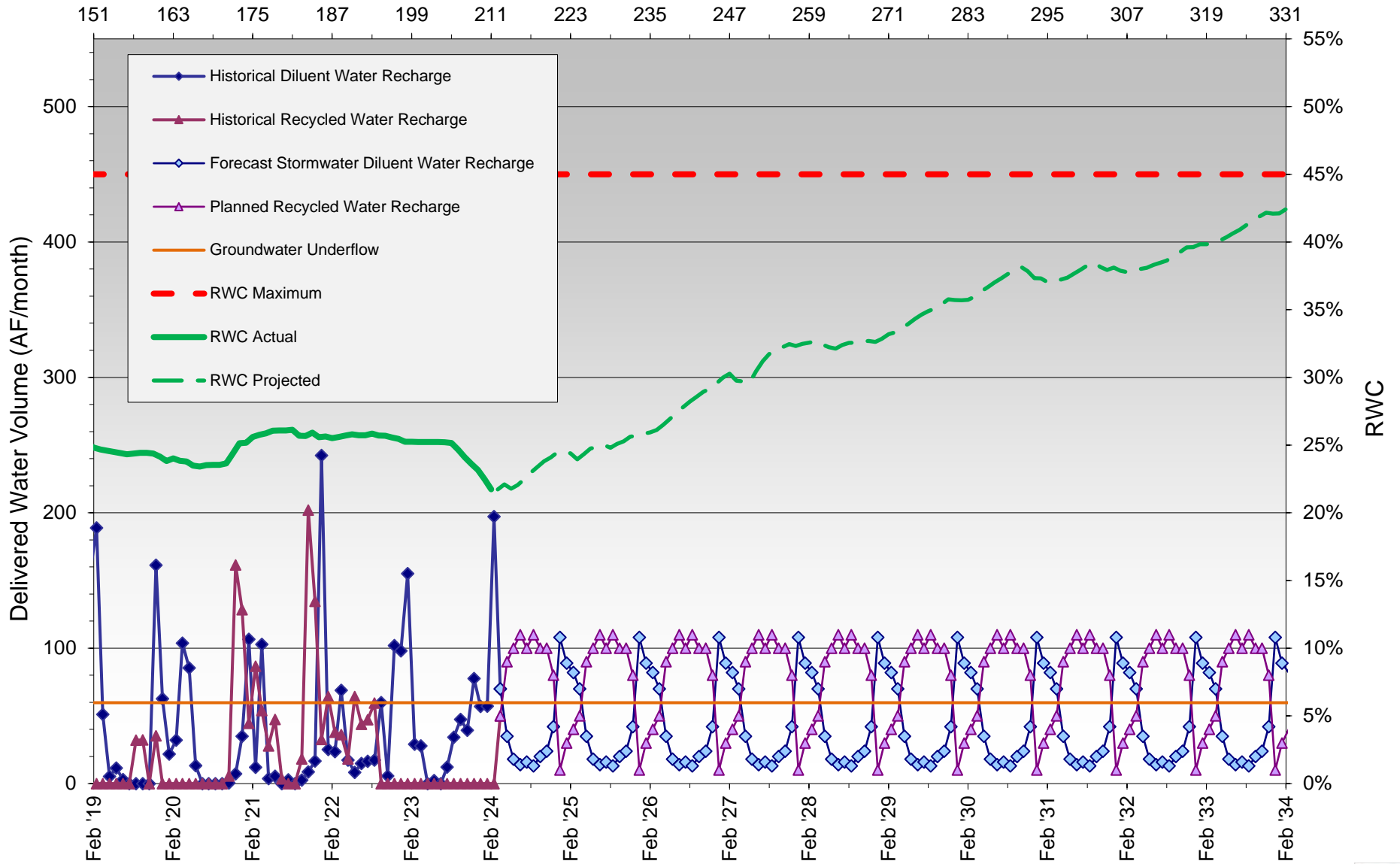
**Notes:**

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 - Turner Basin Cells 3 & 4

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
2023/24	Jul '23	156	0	850	278	1,128	44,370	53	8,650	53,020	16%
	Aug '23	157	233	996	278	1,507	45,738	193	8,843	54,580	16%
	Sep '23	158	28	1,170	278	1,477	47,075	261	8,950	56,025	16%
	Oct '23	159	21	1,060	278	1,359	48,284	329	9,210	57,494	16%
	Nov '23	160	41	1,087	278	1,407	49,512	141	9,343	58,855	16%
	Dec '23	161	152	614	278	1,043	50,411	20	9,363	59,773	16%
	Jan '24	162	141	73	278	492	50,764	152	9,503	60,267	16%
	Feb '24	163	779	0	278	1,057	51,613	112	9,599	61,211	16%
	Mar '24	164	136		278	414	51,868	110	9,709	61,576	16%
	Apr '24	165	112		278	390	52,102	140	9,847	61,948	16%
	May '24	166	20		278	298	52,261	230	10,065	62,325	16%
	Jun '24	167	2		278	280	52,402	250	10,315	62,716	16%
2024/25	Jul '24	168	1		278	279	52,542	250	10,565	63,106	17%
	Aug '24	169	15		278	293	52,689	240	10,805	63,494	17%
	Sep '24	170	7		278	285	52,834	240	11,044	63,878	17%
	Oct '24	171	18		278	296	52,991	230	11,274	64,265	18%
	Nov '24	172	41		278	319	53,153	210	11,484	64,637	18%
	Dec '24	173	175		278	453	53,220	80	11,564	64,784	18%
	Jan '25	174	153		278	431	53,518	100	11,664	65,182	18%
	Feb '25	175	139		278	417	53,757	110	11,774	65,531	18%
	Mar '25	176	136		278	414	54,030	110	11,884	65,914	18%
	Apr '25	177	112		278	390	54,281	140	12,024	66,305	18%
	May '25	178	20		278	298	54,423	230	12,254	66,677	18%
	Jun '25	179	2		278	280	54,564	250	12,504	67,068	19%
2025/26	Jul '25	180	1		278	279	54,695	250	12,754	67,449	19%
	Aug '25	181	15		278	293	54,849	240	12,994	67,842	19%
	Sep '25	182	7		278	285	54,942	240	13,234	68,175	19%
	Oct '25	183	18		278	296	55,052	230	13,464	68,515	20%
	Nov '25	184	41		278	319	55,231	210	13,674	68,904	20%
	Dec '25	185	175		278	453	55,465	80	13,754	69,218	20%
	Jan '26	186	153		278	431	55,513	100	13,854	69,366	20%
	Feb '26	187	139		278	417	55,758	110	13,964	69,721	20%
	Mar '26	188	136		278	414	55,945	110	14,074	70,018	20%
	Apr '26	189	112		278	390	56,166	140	14,214	70,380	20%
	May '26	190	20		278	298	56,324	230	14,444	70,768	20%
	Jun '26	191	2		278	280	56,465	250	14,694	71,159	21%
2026/27	Jul '26	192	1		278	279	56,605	250	14,944	71,549	21%
	Aug '26	193	15		278	293	56,759	240	15,184	71,943	21%
	Sep '26	194	7		278	285	56,905	240	15,424	72,329	21%
	Oct '26	195	18		278	296	57,046	230	15,654	72,700	22%
	Nov '26	196	41		278	319	57,200	210	15,864	73,064	22%
	Dec '26	197	175		278	453	57,358	80	15,944	73,302	22%
	Jan '27	198	153		278	431	57,162	100	16,044	73,206	22%
	Feb '27	199	139		278	417	57,208	110	16,154	73,362	22%
	Mar '27	200	136		278	414	57,341	110	16,264	73,605	22%
	Apr '27	201	112		278	390	57,452	140	16,404	73,856	22%
	May '27	202	20		278	298	57,456	230	16,634	74,090	22%
	Jun '27	203	2		278	280	56,932	250	16,884	73,816	23%
2027/28	Jul '27	204	1		278	279	56,366	250	17,134	73,500	23%
	Aug '27	205	15		278	293	56,217	240	17,374	73,590	24%
	Sep '27	206	7		278	285	56,073	240	17,614	73,686	24%
	Oct '27	207	18		278	296	55,588	230	17,844	73,432	24%
	Nov '27	208	41		278	319	55,575	210	18,054	73,628	25%
	Dec '27	209	175		278	453	54,646	80	18,134	72,779	25%
	Jan '28	210	153		278	431	53,802	100	18,234	72,036	25%
	Feb '28	211	139		278	417	53,920	110	18,344	72,263	25%
	Mar '28	212	136		278	414	53,928	110	18,454	72,382	25%
	Apr '28	213	112		278	390	54,040	140	18,594	72,634	26%
	May '28	214	20		278	298	54,056	230	18,824	72,880	26%
	Jun '28	215	2		278	280	54,058	250	19,074	73,132	26%
2028/29	Jul '28	216	1		278	279	54,057	250	19,324	73,381	26%
	Aug '28	217	15		278	293	54,072	240	19,564	73,636	27%
	Sep '28	218	7		278	285	54,079	240	19,804	73,883	27%
	Oct '28	219	18		278	296	54,090	230	20,034	74,124	27%
	Nov '28	220	41		278	319	54,100	210	20,244	74,344	27%
	Dec '28	221	175		278	453	54,230	80	20,324	74,553	27%
	Jan '29	222	153		278	431	54,065	100	20,424	74,488	27%
	Feb '29	223	139		278	417	53,775	110	20,534	74,309	28%
	Mar '29	224	136		278	414	53,598	110	20,644	74,242	28%
	Apr '29	225	112		278	390	53,710	140	20,784	74,494	28%
	May '29	226	20		278	298	53,705	230	21,014	74,718	28%
	Jun '29	227	2		278	280	52,850	250	21,264	74,114	29%



### 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
2029/30	Jul '29	228	1		278	279	250	21,514	73,599	29%	P L A N N E D
	Aug '29	229	15		278	293	240	21,754	73,257	30%	
	Sep '29	230	7		278	285	240	21,994	73,387	30%	
	Oct '29	231	18		278	296	230	22,224	73,635	30%	
	Nov '29	232	41		278	319	210	22,434	73,618	30%	
	Dec '29	233	175		278	453	80	22,514	73,630	31%	
	Jan '30	234	153		278	431	100	22,614	73,800	31%	
	Feb '30	235	139		278	417	110	22,724	74,041	31%	
	Mar '30	236	136		278	414	110	22,834	74,033	31%	
	Apr '30	237	112		278	390	140	22,974	73,922	31%	
	May '30	238	20		278	298	230	23,204	74,169	31%	
	Jun '30	239	2		278	280	250	23,454	74,421	32%	
2030/31	Jul '30	240	1		278	279	250	23,704	74,672	32%	
	Aug '30	241	15		278	293	240	23,677	74,661	32%	
	Sep '30	242	7		278	285	240	23,716	74,707	32%	
	Oct '30	243	18		278	296	230	23,686	74,695	32%	
	Nov '30	244	41		278	319	210	23,606	74,601	32%	
	Dec '30	245	175		278	453	80	23,475	74,483	32%	
	Jan '31	246	153		278	431	100	23,441	74,460	31%	
	Feb '31	247	139		278	417	110	23,330	74,464	31%	
	Mar '31	248	136		278	414	110	23,239	74,447	31%	
	Apr '31	249	112		278	390	140	23,104	74,424	31%	
	May '31	250	20		278	298	230	23,087	74,427	31%	
	Jun '31	251	2		278	280	250	23,012	74,355	31%	
2031/32	Jul '31	252	1		278	279	250	22,947	74,284	31%	
	Aug '31	253	15		278	293	240	22,858	74,210	31%	
	Sep '31	254	7		278	285	240	22,957	74,316	31%	
	Oct '31	255	18		278	296	230	22,936	74,308	31%	
	Nov '31	256	41		278	319	210	22,864	74,277	31%	
	Dec '31	257	175		278	453	80	22,813	73,669	31%	
	Jan '32	258	153		278	431	100	22,505	73,513	31%	
	Feb '32	259	139		278	417	110	22,345	73,482	30%	
	Mar '32	260	136		278	414	110	22,174	73,381	30%	
	Apr '32	261	112		278	390	140	22,009	73,302	30%	
	May '32	262	20		278	298	230	21,913	73,226	30%	
	Jun '32	263	2		278	280	250	21,735	73,050	30%	
2032/33	Jul '32	264	1		278	279	250	21,535	72,851	30%	
	Aug '32	265	15		278	293	240	21,368	72,696	29%	
	Sep '32	266	7		278	285	240	21,224	72,516	29%	
	Oct '32	267	18		278	296	230	21,045	72,347	29%	
	Nov '32	268	41		278	319	210	21,027	72,147	29%	
	Dec '32	269	175		278	453	80	20,995	72,018	29%	
	Jan '33	270	153		278	431	100	21,093	71,843	29%	
	Feb '33	271	139		278	417	110	21,120	71,654	29%	
	Mar '33	272	136		278	414	110	21,230	71,272	30%	
	Apr '33	273	112		278	390	140	21,321	71,221	30%	
	May '33	274	20		278	298	230	21,551	70,654	31%	
	Jun '33	275	2		278	280	250	21,702	69,937	31%	
2033/34	Jul '33	276	1		278	279	250	21,899	69,284	32%	
	Aug '33	277	15		278	293	240	21,946	68,118	32%	
	Sep '33	278	7		278	285	240	21,925	66,905	33%	
	Oct '33	279	18		278	296	230	21,825	65,743	33%	
	Nov '33	280	41		278	319	210	21,894	64,724	34%	
	Dec '33	281	175		278	453	80	21,954	64,193	34%	
	Jan '34	282	153		278	431	100	21,902	64,080	34%	
	Feb '34	283	139		278	417	110	21,900	63,438	35%	
	Mar '34	284	136		278	414	110	21,900	63,438	35%	
	Apr '34	285	112		278	390	140	21,900	63,438	35%	
	May '34	286	20		278	298	230	21,900	63,438	35%	
	Jun '34	287	2		278	280	250	21,900	63,438	35%	

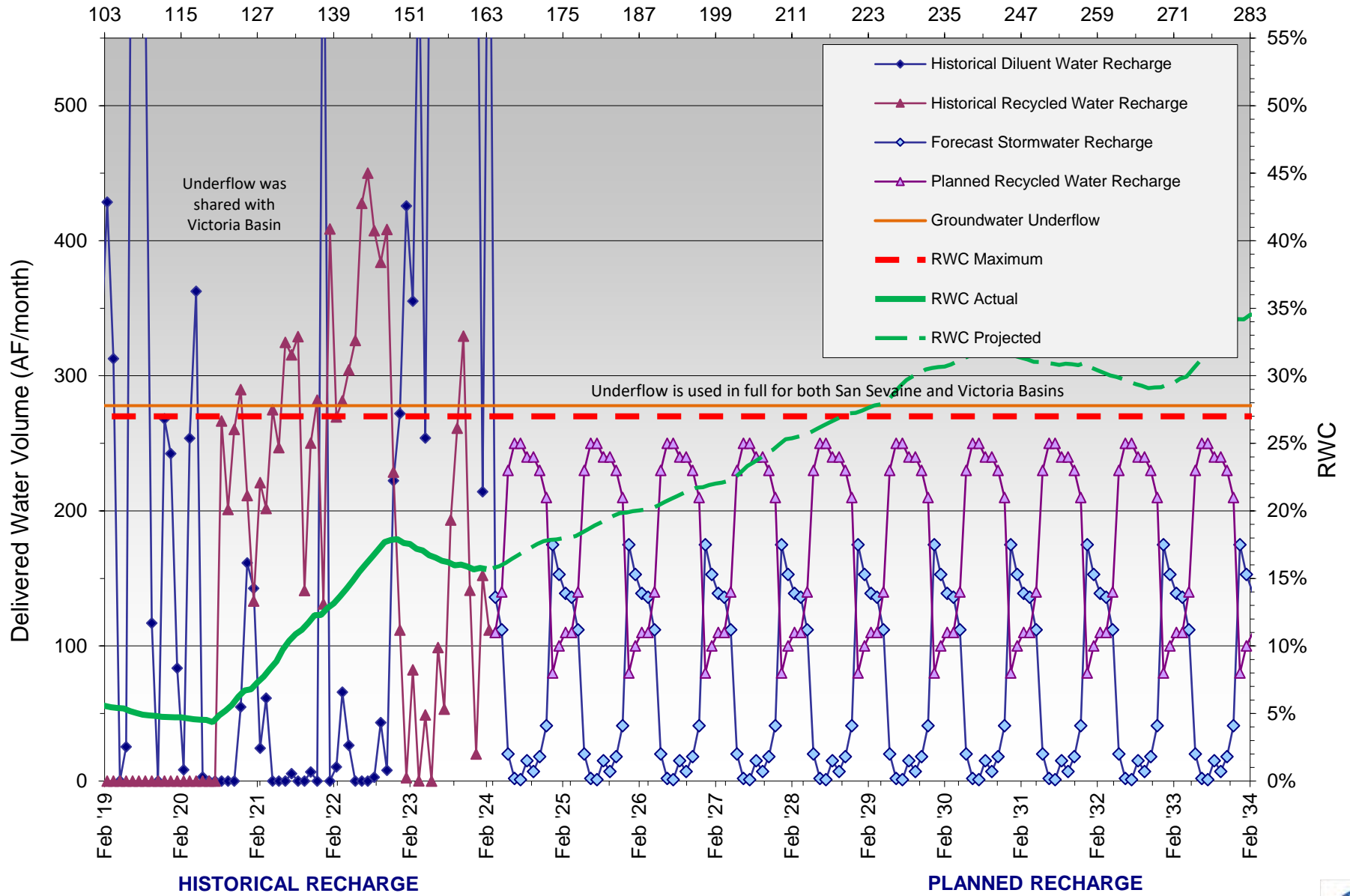
**Notes:**

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 Victoria Basin												Period
(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		
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%	
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	6	0	278	284	29,266	83	10,969	40,235	27%	
	Mar '21	126	7	0.0	278	285	29,354	35	10,965	40,319	27%	
	Apr '21	127	0	0.0	278	278	29,488	0	10,965	40,453	27%	
	May '21	128	0	0.0	278	278	29,552	0	10,824	40,376	27%	
	Jun '21	129	0	0	278	278	29,688	0	10,763	40,451	27%	
2021/22	Jul '21	130	2	0	278	280	29,825	0	10,701	40,527	26%	
	Aug '21	131	1	0	278	279	29,842	0	10,649	40,491	26%	
	Sep '21	132	2	0	278	280	29,825	25	10,674	40,499	26%	
	Oct '21	133	2	0	278	280	29,935	244	10,918	40,854	27%	
	Nov '21	134	0	0	278	278	30,050	98	11,002	41,051	27%	
	Dec '21	135	314	0	278	592	30,493	95	11,071	41,565	27%	
	Jan '22	136	0	0	278	278	30,621	172	11,244	41,865	27%	
	Feb '22	137	6	0	278	284	30,762	256	11,499	42,261	27%	
	Mar '22	138	24	0	278	302	30,906	232	11,732	42,638	28%	
	Apr '22	139	17	0	278	295	30,966	277	11,991	42,957	28%	
	May '22	140	0	0	278	278	31,086	421	12,141	43,226	28%	
	Jun '22	141	0	0	278	278	31,222	129	12,048	43,269	28%	
2022/23	Jul '22	142	0	0	278	278	31,358	62	12,016	43,373	28%	
	Aug '22	143	2	0	278	280	31,494	0	11,898	43,391	27%	
	Sep '22	144	28	0	278	306	31,659	0	11,843	43,502	27%	
	Oct '22	145	8	0	278	286	31,806	53	11,765	43,570	27%	
	Nov '22	146	89	0	278	367	32,027	153	11,846	43,874	27%	
	Dec '22	147	106	0	278	384	32,254	85	11,910	44,164	27%	
	Jan '23	148	375	0	278	653	32,732	22	11,920	44,652	27%	
	Feb '23	149	120	0	278	398	32,981	120	12,030	45,012	27%	
	Mar '23	150	429	0	278	707	33,542	2	11,975	45,517	26%	
	Apr '23	151	108	0	278	386	33,788	111	11,988	45,776	26%	
	May '23	152	34	9	278	321	33,965	208	12,103	46,068	26%	
	Jun '23	153	1	0	278	279	34,103	275	12,296	46,399	27%	

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



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	
2023/24	Jul '23	154	1	0	278	279	34,241	232	12,454	46,695	27%	ACTUAL
	Aug '23	155	119	0	278	397	34,497	82	12,494	46,991	27%	
	Sep '23	156	11	0	278	289	34,645	133	12,581	47,226	27%	
	Oct '23	157	12	0	278	290	34,789	243	12,825	47,614	27%	
	Nov '23	158	18	0	278	296	34,935	147	12,972	47,907	27%	
	Dec '23	159	47	89	278	414	35,200	34	12,888	48,088	27%	
	Jan '24	160	202	0	278	480	35,539	30	12,760	48,299	26%	
Feb '24	161	92	0	278	370	35,733	12	12,581	48,314	26%		
Mar '24	162	66		278	344	35,839	190	12,629	48,468	26%		
Apr '24	163	28		278	306	35,991	230	12,609	48,600	26%		
May '24	164	13		278	291	36,141	240	12,635	48,776	26%		
Jun '24	165	2		278	280	36,280	250	12,741	49,021	26%		
2024/25	Jul '24	166	2		278	280	36,419	250	12,900	49,319	26%	
	Aug '24	167	8		278	286	36,561	250	13,043	49,604	26%	
	Sep '24	168	5		278	283	36,703	250	13,138	49,841	26%	
	Oct '24	169	14		278	292	36,853	240	13,303	50,156	27%	
	Nov '24	170	26		278	304	36,961	230	13,529	50,490	27%	
	Dec '24	171	90		278	368	37,037	170	13,699	50,736	27%	
	Jan '25	172	96		278	374	37,254	160	13,796	51,050	27%	
	Feb '25	173	68		278	346	37,421	190	13,929	51,350	27%	
	Mar '25	174	66		278	344	37,614	190	14,040	51,654	27%	
	Apr '25	175	28		278	306	37,781	230	14,143	51,924	27%	
	May '25	176	13		278	291	37,920	240	14,242	52,162	27%	
	Jun '25	177	2		278	280	38,061	250	14,460	52,520	28%	
	2025/26	Jul '25	178	2		278	280	38,198	250	14,571	52,768	28%
Aug '25		179	8		278	286	38,344	250	14,656	53,000	28%	
Sep '25		180	5		278	283	38,451	250	14,770	53,221	28%	
Oct '25		181	14		278	292	38,569	240	14,909	53,478	28%	
Nov '25		182	26		278	304	38,734	230	15,105	53,839	28%	
Dec '25		183	90		278	368	38,877	170	15,215	54,092	28%	
Jan '26		184	96		278	374	39,025	160	15,375	54,400	28%	
Feb '26		185	68		278	346	39,222	190	15,565	54,787	28%	
Mar '26		186	66		278	344	39,348	190	15,755	55,103	29%	
Apr '26		187	28		278	306	39,514	230	15,985	55,499	29%	
May '26		188	13		278	291	39,664	240	16,225	55,889	29%	
Jun '26		189	2		278	280	39,802	250	16,475	56,277	29%	
2026/27	Jul '26	190	2		278	280	39,943	250	16,725	56,668	30%	
	Aug '26	191	8		278	286	40,090	250	16,975	57,065	30%	
	Sep '26	192	5		278	283	40,234	250	17,172	57,406	30%	
	Oct '26	193	14		278	292	40,377	240	17,270	57,647	30%	
	Nov '26	194	26		278	304	40,511	230	17,282	57,793	30%	
	Dec '26	195	90		278	368	40,555	170	17,346	57,901	30%	
	Jan '27	196	96		278	374	40,324	160	17,506	57,830	30%	
	Feb '27	197	68		278	346	40,327	190	17,643	57,970	30%	
	Mar '27	198	66		278	344	40,375	190	17,614	57,989	30%	
	Apr '27	199	28		278	306	40,403	230	17,527	57,930	30%	
	May '27	200	13		278	291	40,403	240	17,455	57,858	30%	
	Jun '27	201	2		278	280	40,284	250	17,504	57,788	30%	
2027/28	Jul '27	202	2		278	280	40,051	250	17,614	57,665	31%	
	Aug '27	203	8		278	286	40,035	250	17,625	57,660	31%	
	Sep '27	204	5		278	283	39,910	250	17,708	57,618	31%	
	Oct '27	205	14		278	292	39,774	240	17,904	57,679	31%	
	Nov '27	206	26		278	304	39,800	230	18,094	57,894	31%	
	Dec '27	207	90		278	368	39,886	170	18,165	58,052	31%	
	Jan '28	208	96		278	374	39,890	160	18,319	58,209	31%	
	Feb '28	209	68		278	346	39,949	190	18,476	58,425	32%	
	Mar '28	210	66		278	344	40,007	190	18,641	58,648	32%	
	Apr '28	211	28		278	306	39,995	230	18,871	58,866	32%	
	May '28	212	13		278	291	40,005	240	19,111	59,116	32%	
	Jun '28	213	2		278	280	40,007	250	19,361	59,368	33%	
2028/29	Jul '28	214	2		278	280	40,009	250	19,451	59,460	33%	
	Aug '28	215	8		278	286	40,017	250	19,511	59,527	33%	
	Sep '28	216	5		278	283	40,022	250	19,601	59,623	33%	
	Oct '28	217	14		278	292	39,992	240	19,737	59,729	33%	
	Nov '28	218	26		278	304	39,986	230	19,884	59,869	33%	
	Dec '28	219	90		278	368	40,030	170	19,955	59,985	33%	
	Jan '29	220	96		278	374	39,874	160	20,025	59,899	33%	
	Feb '29	221	68		278	346	39,570	190	20,206	59,776	34%	
	Mar '29	222	66		278	344	39,412	190	20,320	59,732	34%	
	Apr '29	223	28		278	306	39,440	230	20,252	59,691	34%	
	May '29	224	13		278	291	39,407	240	20,241	59,648	34%	
	Jun '29	225	2		278	280	39,409	250	20,172	59,581	34%	





### 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
2029/30	Jul '29	226	2		278	280	39,411	250	20,262	59,673	34%
	Aug '29	227	8		278	286	39,075	250	20,370	59,444	34%
	Sep '29	228	5		278	283	38,579	250	20,571	59,149	35%
	Oct '29	229	14		278	292	38,415	240	20,694	59,110	35%
	Nov '29	230	26		278	304	38,316	230	20,850	59,166	35%
	Dec '29	231	90		278	368	38,290	170	20,993	59,282	35%
	Jan '30	232	96		278	374	38,386	160	21,118	59,503	35%
	Feb '30	233	68		278	346	38,454	190	21,240	59,694	36%
	Mar '30	234	66		278	344	38,441	190	21,345	59,786	36%
	Apr '30	235	28		278	306	38,378	230	21,483	59,861	36%
2030/31	May '30	236	13		278	291	38,388	240	21,657	60,045	36%
	Jun '30	237	2		278	280	38,390	250	21,772	60,162	36%
	Jul '30	238	2		278	280	38,392	250	21,834	60,225	36%
	Aug '30	239	8		278	286	38,400	250	21,915	60,314	36%
	Sep '30	240	5		278	283	38,405	250	21,989	60,394	36%
	Oct '30	241	14		278	292	38,419	240	22,046	60,465	36%
	Nov '30	242	26		278	304	38,413	230	22,171	60,584	37%
	Dec '30	243	90		278	368	38,459	170	22,304	60,763	37%
	Jan '31	244	96		278	374	38,497	160	22,432	60,929	37%
	Feb '31	245	68		278	346	38,559	190	22,539	61,097	37%
2031/32	Mar '31	246	66		278	344	38,617	190	22,694	61,311	37%
	Apr '31	247	28		278	306	38,645	230	22,924	61,569	37%
	May '31	248	13		278	291	38,658	240	23,164	61,822	37%
	Jun '31	249	2		278	280	38,660	250	23,414	62,074	38%
	Jul '31	250	2		278	280	38,660	250	23,664	62,324	38%
	Aug '31	251	8		278	286	38,667	250	23,914	62,580	38%
	Sep '31	252	5		278	283	38,670	250	24,139	62,809	38%
	Oct '31	253	14		278	292	38,682	240	24,135	62,817	38%
	Nov '31	254	26		278	304	38,708	230	24,266	62,974	39%
	Dec '31	255	90		278	368	38,484	170	24,342	62,826	39%
2032/33	Jan '32	256	96		278	374	38,580	160	24,329	62,909	39%
	Feb '32	257	68		278	346	38,643	190	24,264	62,906	39%
	Mar '32	258	66		278	344	38,685	190	24,221	62,906	39%
	Apr '32	259	28		278	306	38,696	230	24,174	62,870	38%
	May '32	260	13		278	291	38,709	240	23,993	62,702	38%
	Jun '32	261	2		278	280	38,711	250	24,114	62,825	38%
	Jul '32	262	2		278	280	38,713	250	24,302	63,016	39%
	Aug '32	263	8		278	286	38,719	250	24,552	63,271	39%
	Sep '32	264	5		278	283	38,697	250	24,802	63,499	39%
	Oct '32	265	14		278	292	38,702	240	24,989	63,692	39%
2033/34	Nov '32	266	26		278	304	38,640	230	25,067	63,706	39%
	Dec '32	267	90		278	368	38,623	170	25,152	63,775	39%
	Jan '33	268	96		278	374	38,345	160	25,290	63,635	40%
	Feb '33	269	68		278	346	38,293	190	25,360	63,653	40%
	Mar '33	270	66		278	344	37,930	190	25,548	63,478	40%
	Apr '33	271	28		278	306	37,851	230	25,667	63,517	40%
	May '33	272	13		278	291	37,821	240	25,699	63,520	40%
	Jun '33	273	2		278	280	37,822	250	25,674	63,496	40%
	Jul '33	274	2		278	280	37,824	250	25,692	63,515	40%
	Aug '33	275	8		278	286	37,712	250	25,860	63,573	41%
2033/34	Sep '33	276	5		278	283	37,707	250	25,977	63,683	41%
	Oct '33	277	14		278	292	37,708	240	25,973	63,681	41%
	Nov '33	278	26		278	304	37,716	230	26,056	63,772	41%
	Dec '33	279	90		278	368	37,670	170	26,192	63,862	41%
	Jan '34	280	96		278	374	37,564	160	26,322	63,886	41%
	Feb '34	281	68		278	346	37,540	190	26,500	64,040	41%
	Mar '34	282	66		278	344	37,540	190	26,500	64,040	41%
	Apr '34	283	28		278	306	37,540	230	26,500	64,040	41%
	May '34	284	13		278	291	37,540	240	26,500	64,040	41%
	Jun '34	285	2		278	280	37,540	250	26,500	64,040	41%

P L A N N E D

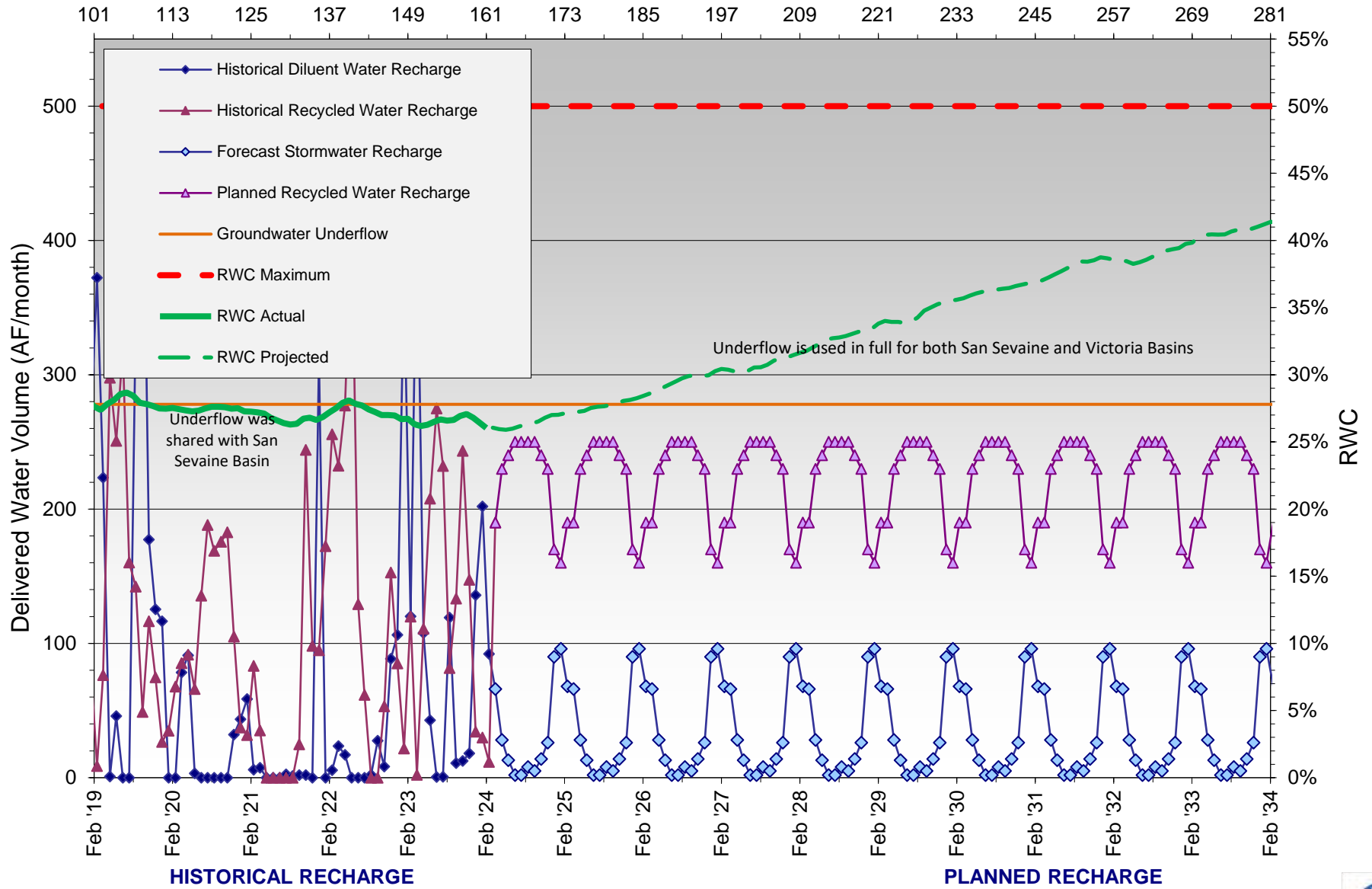
**Notes:**

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 - Victoria Basin

Months Since Initial Recycled Water Delivery

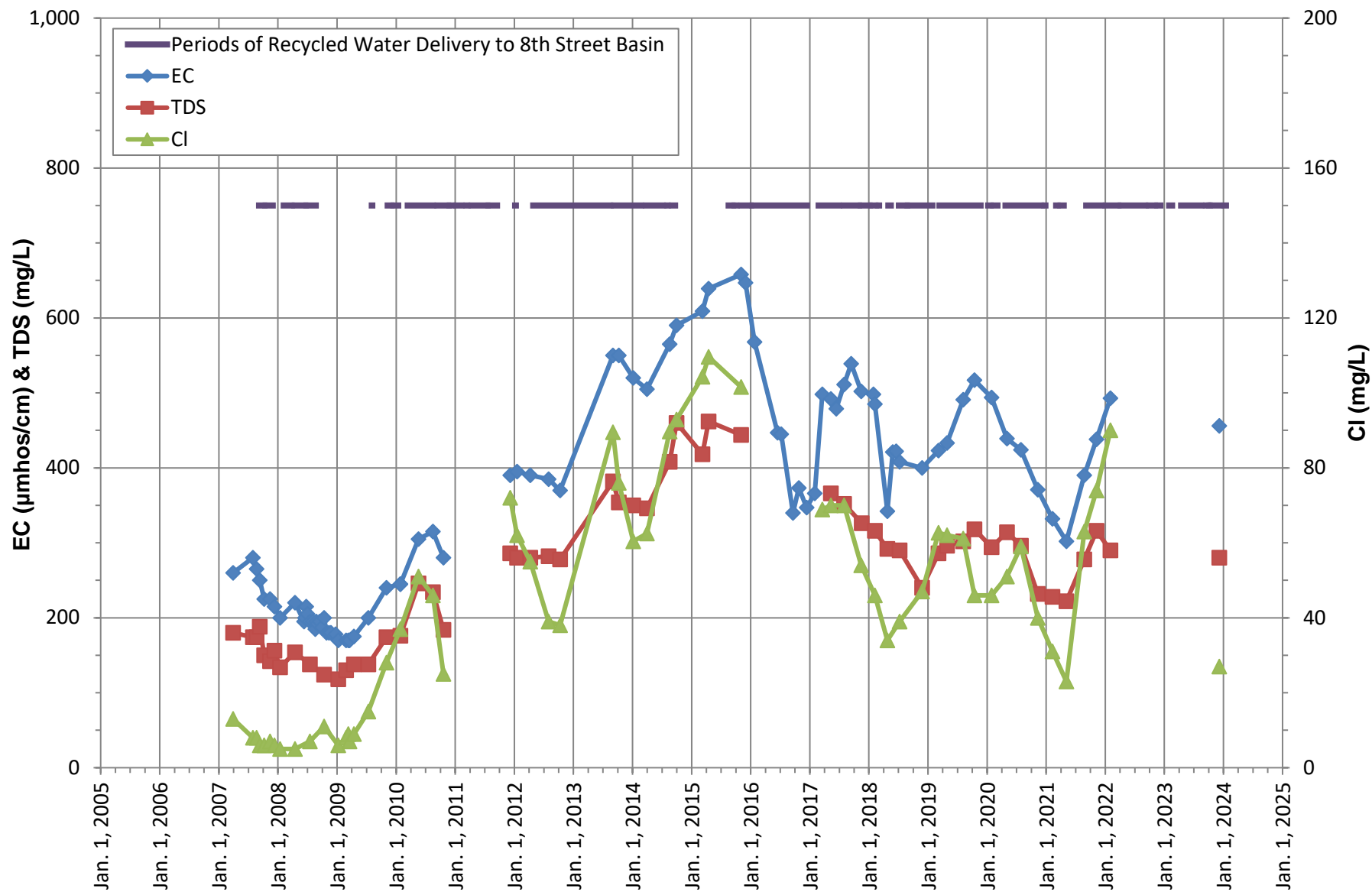


APPENDIX C

EVIDENCE FOR BLENDING:

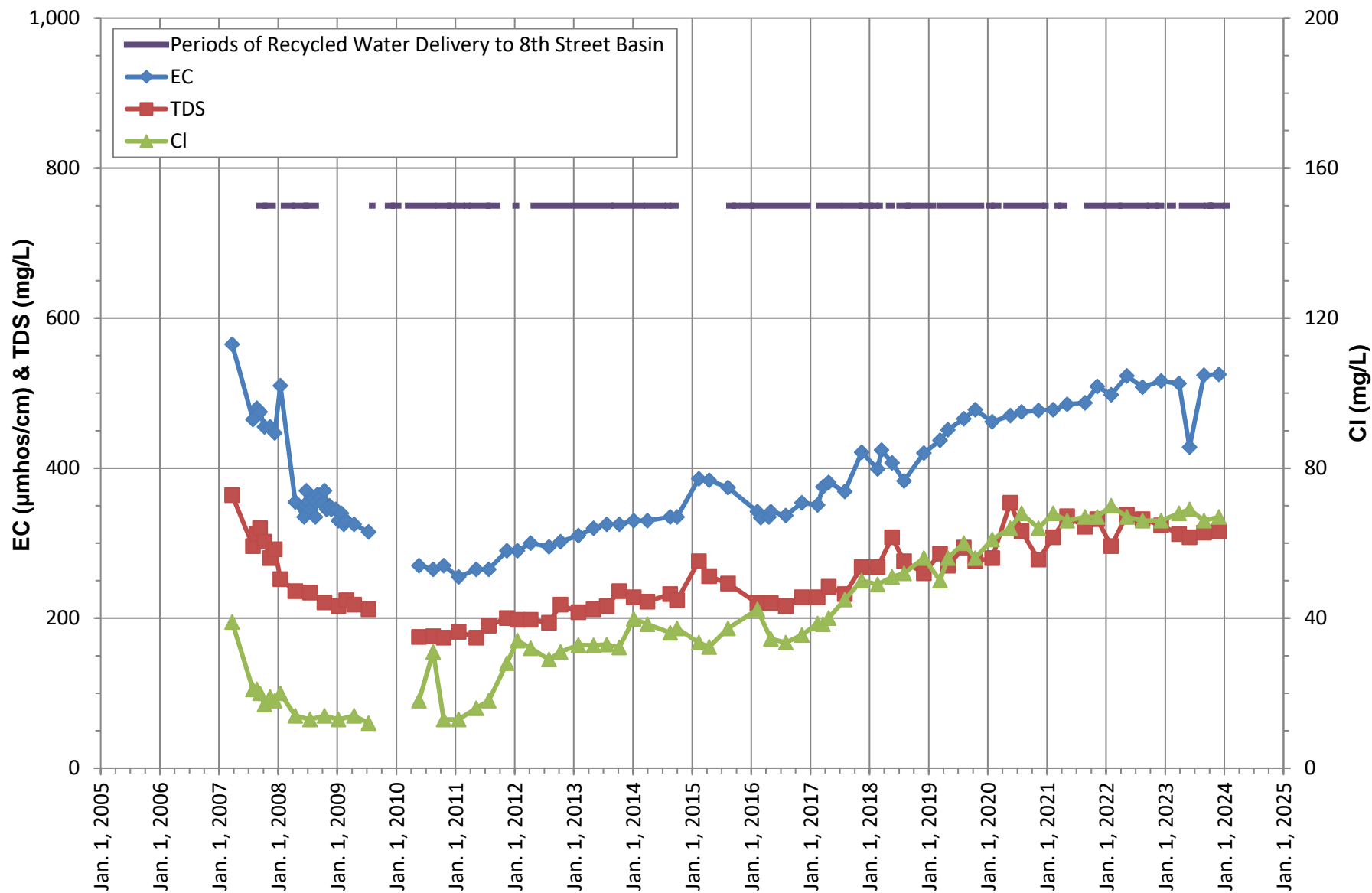
EC, TDS, CHLORIDE TIME-SERIES GRAPHS

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

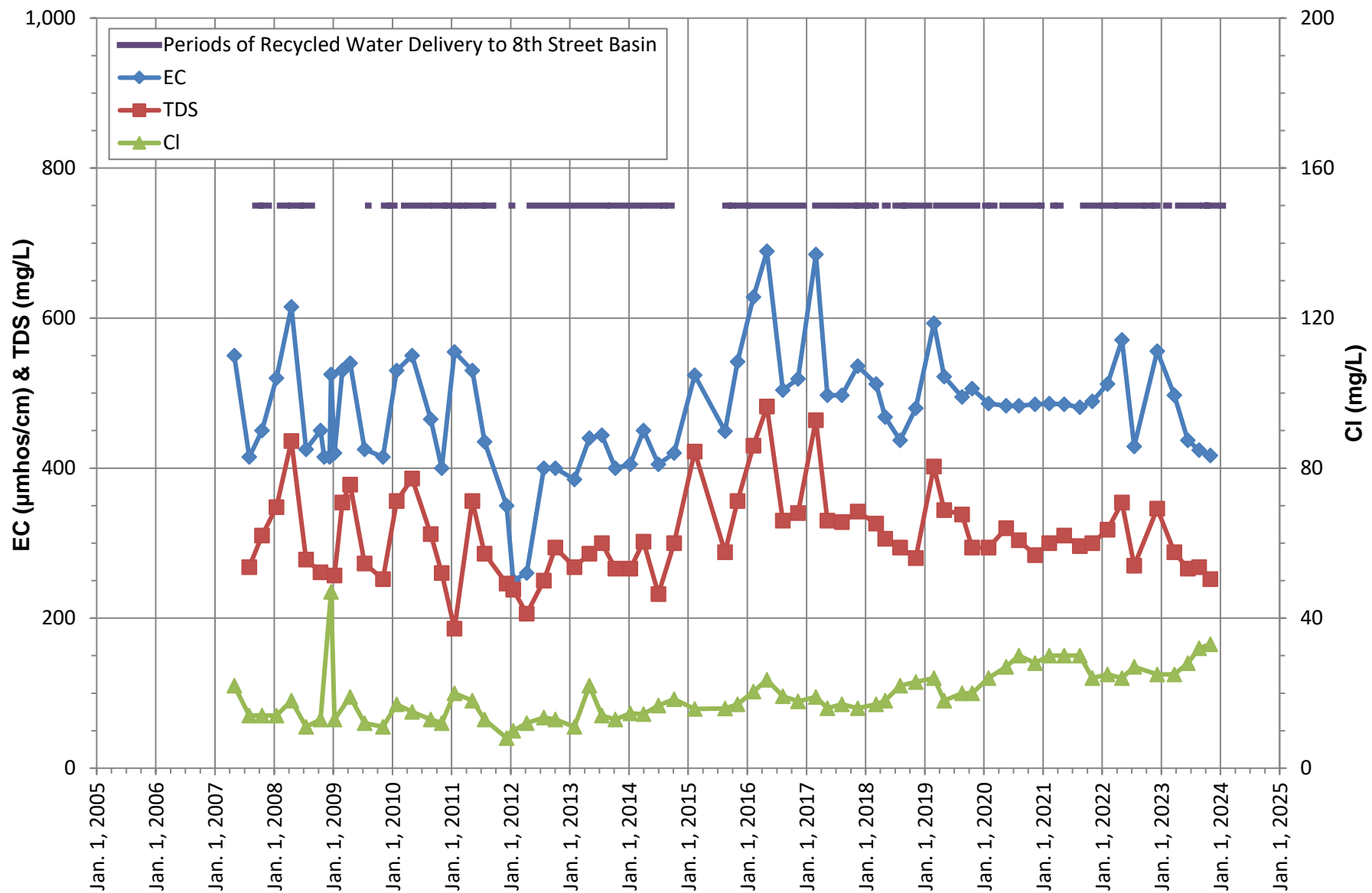




**EC, TDS, CHLORIDE TRENDS  
8TH STREET BASIN  
MW 8TH-1/2**

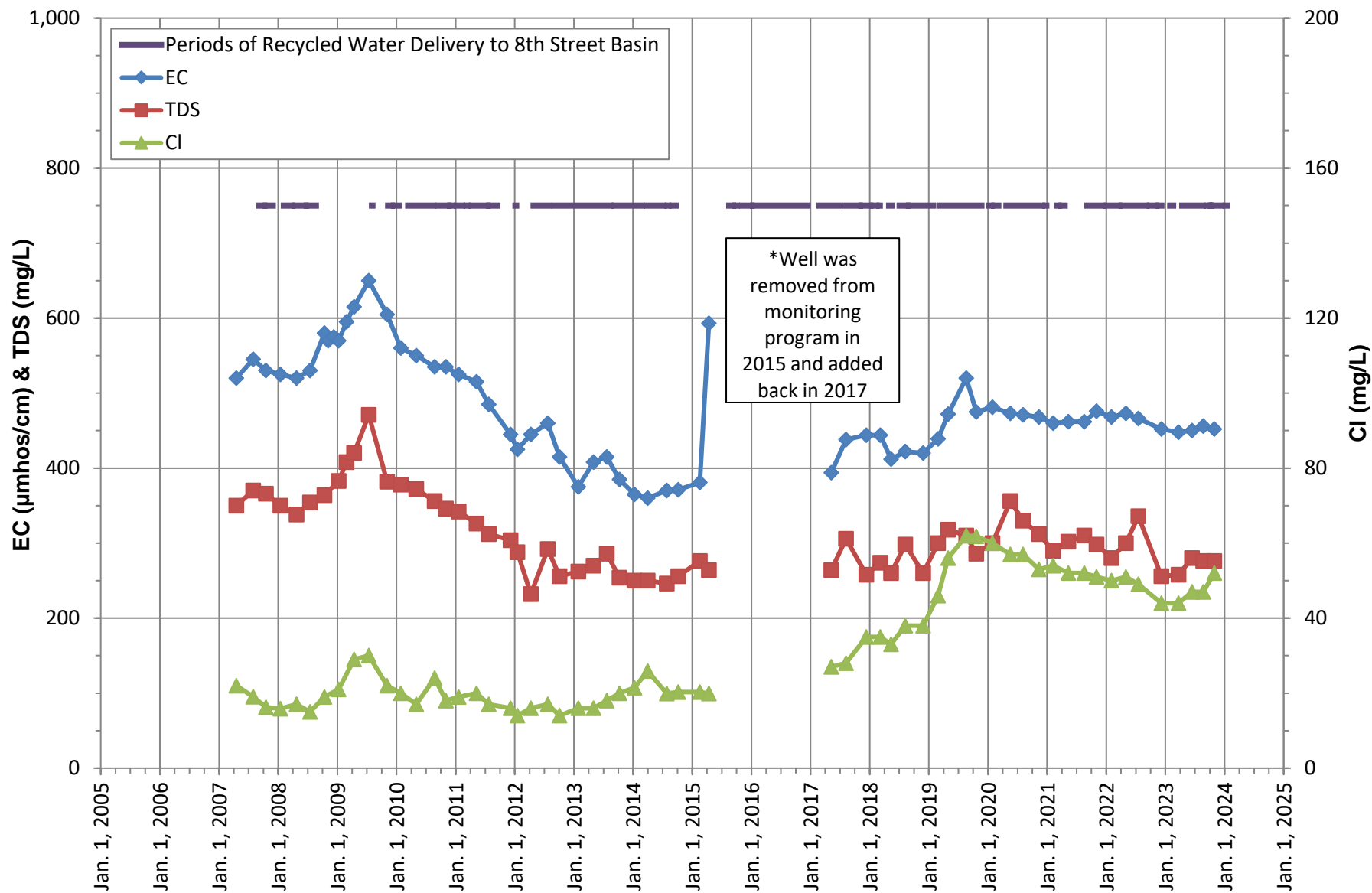






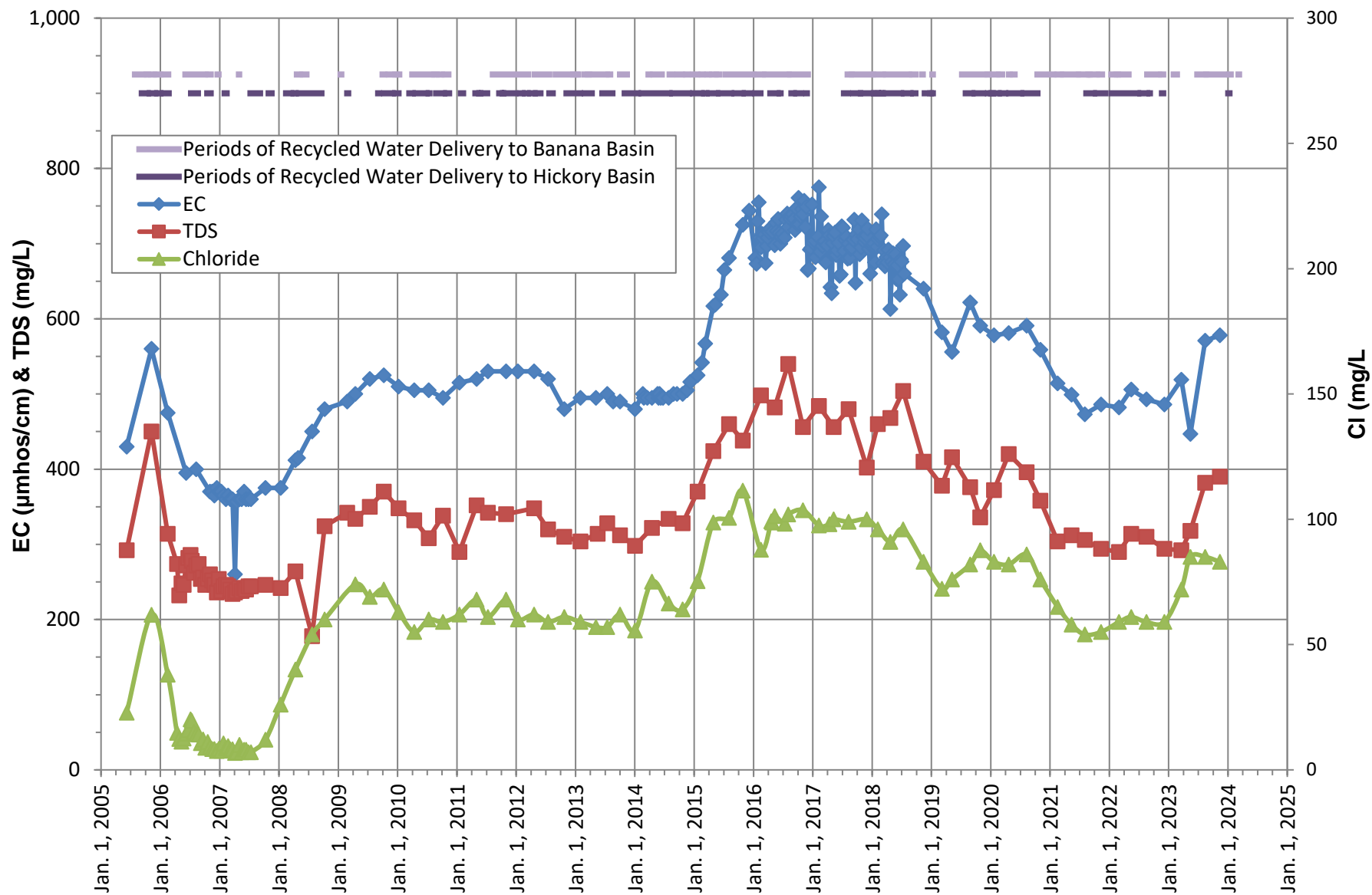
**EC, TDS, CHLORIDE TRENDS  
8TH STREET BASIN  
MW 8TH-2/1**





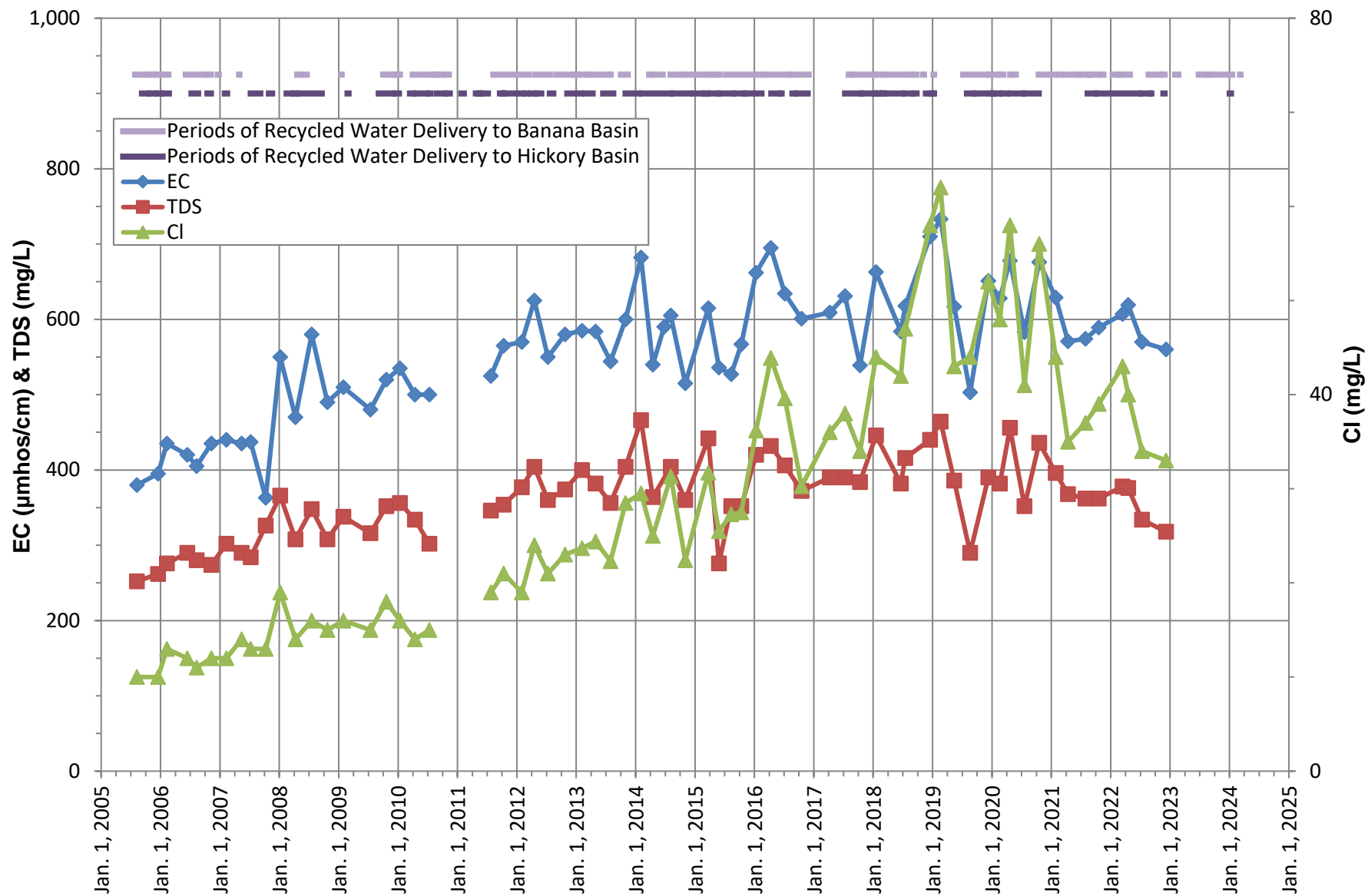
**EC, TDS, CHLORIDE TRENDS  
8TH STREET BASIN  
MW 8TH-2/2**





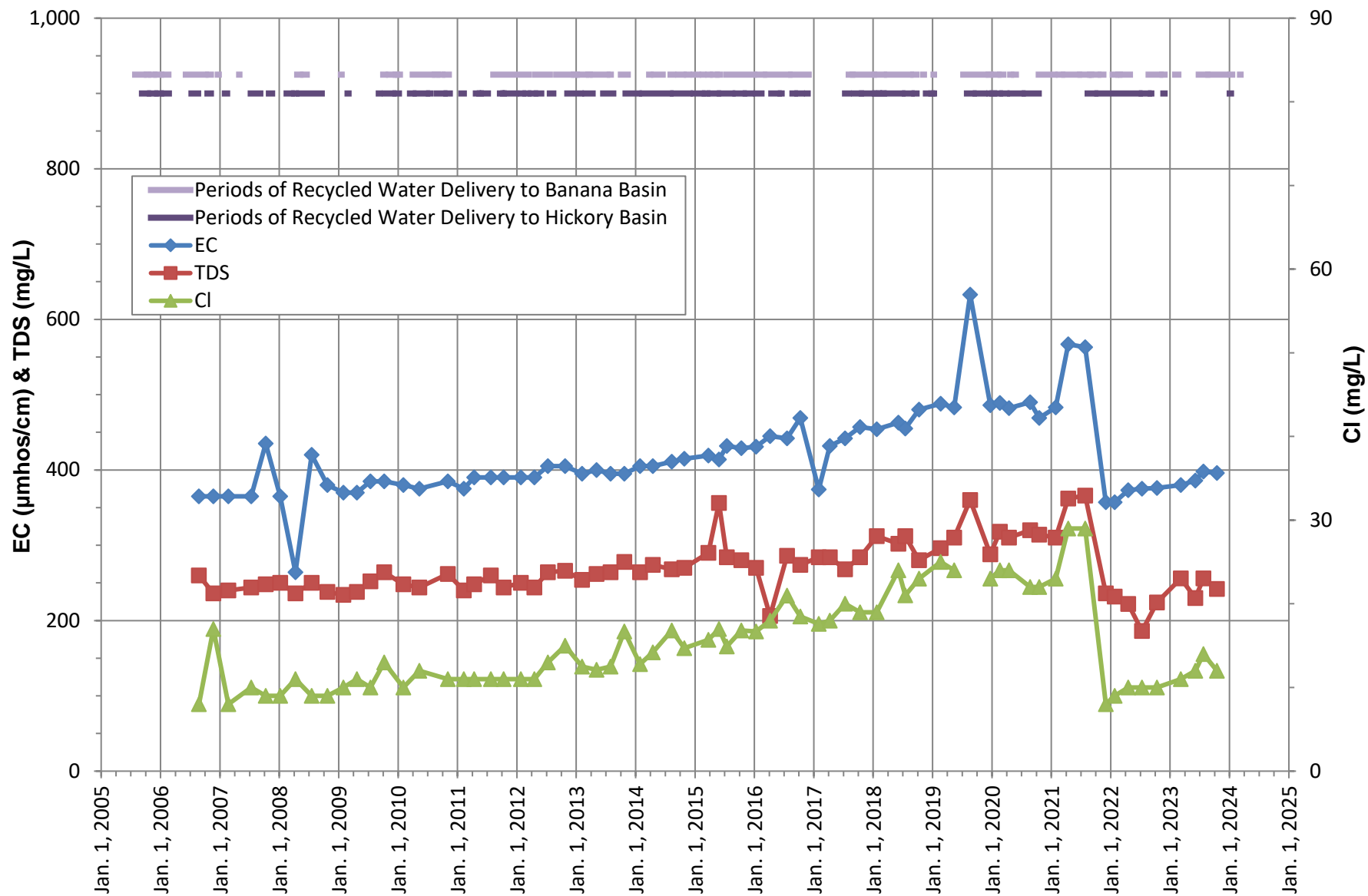
**EC, TDS, CHLORIDE TRENDS  
HICKORY BANANA BASINS  
MW BH-1/2**





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

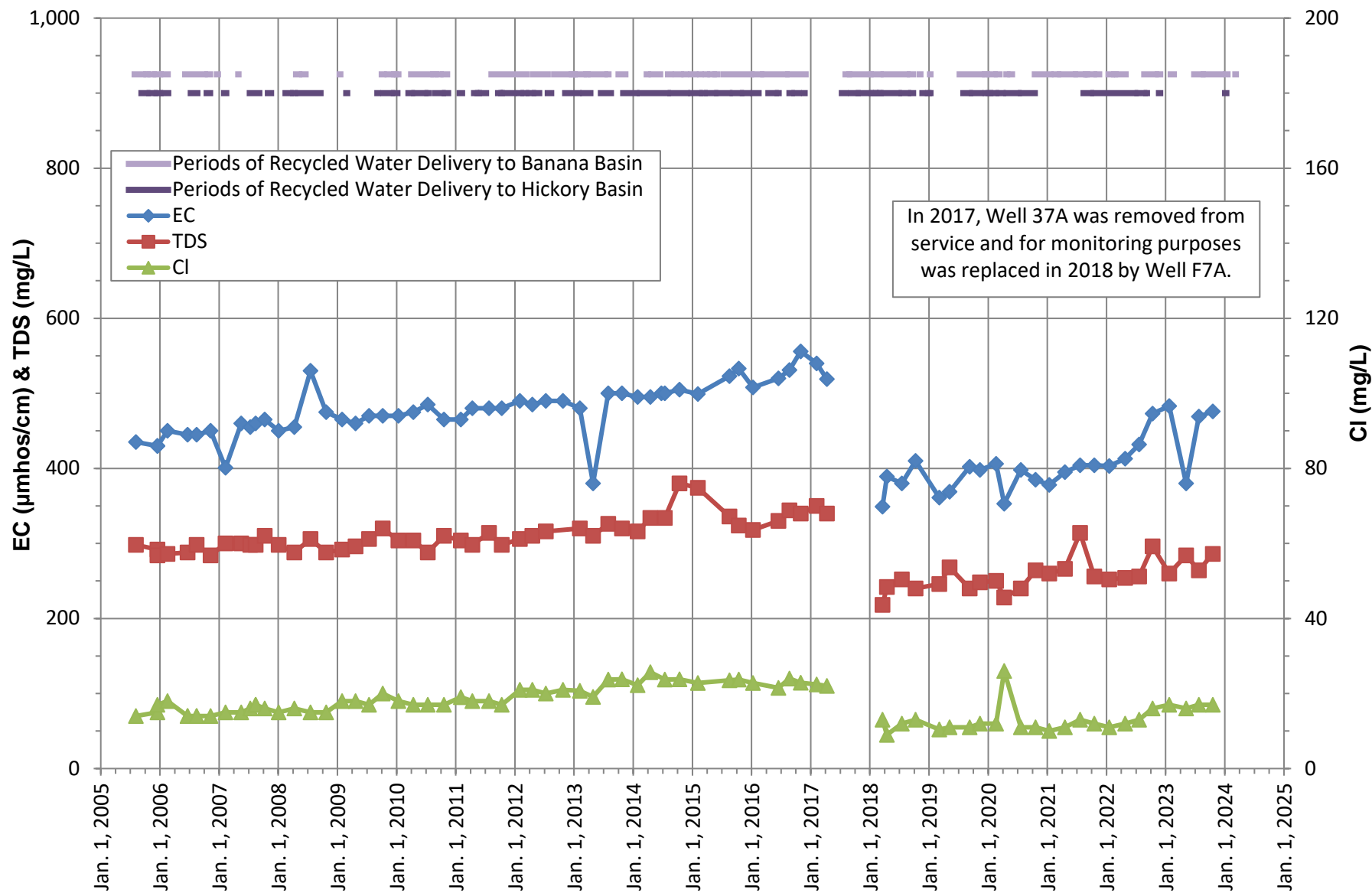




**EC, TDS, CHLORIDE TRENDS  
BANANA-HICKORY BASINS  
CALIFORNIA SPEEDWAY NO. 2**



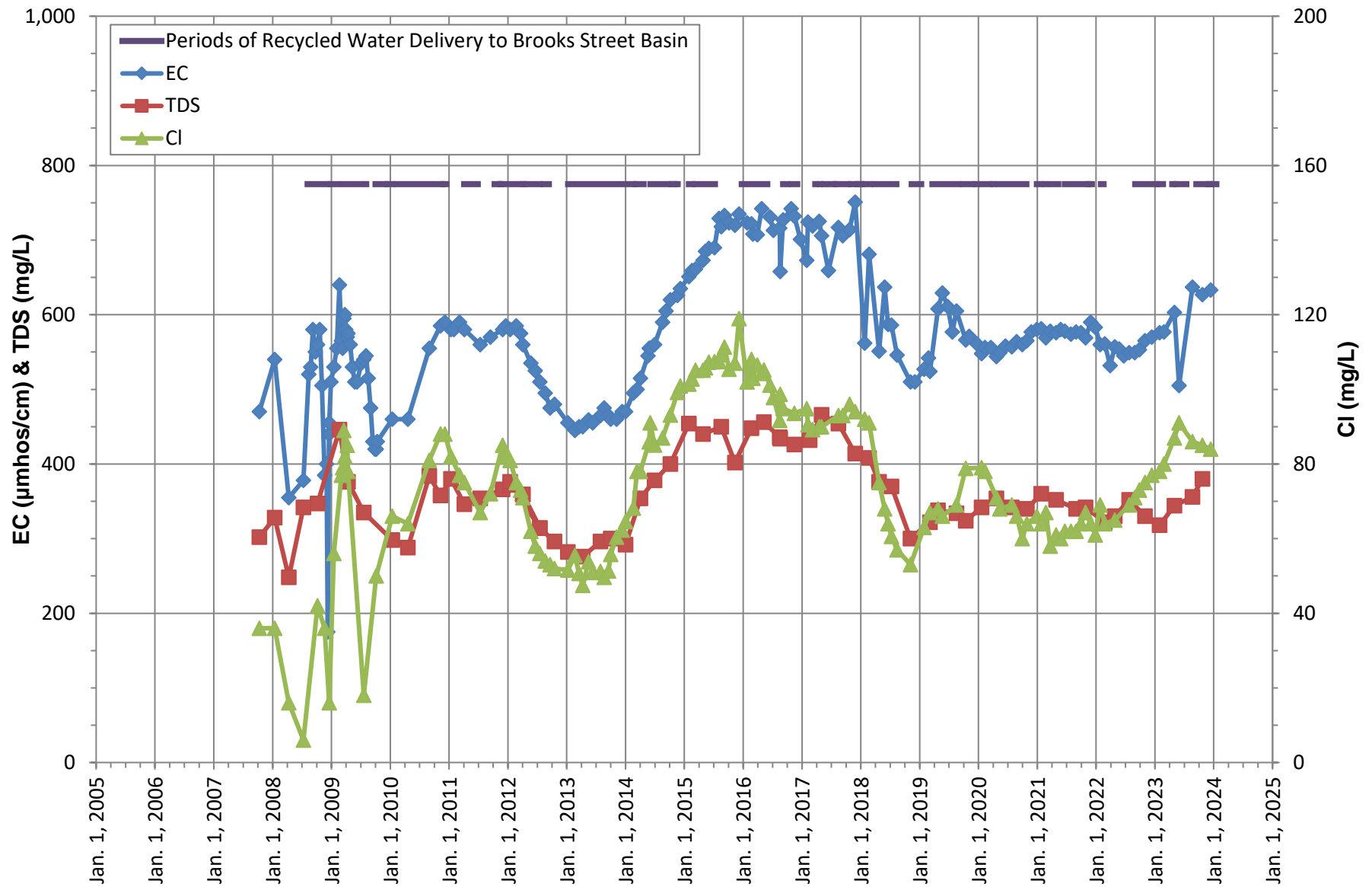




In 2017, Well 37A was removed from service and for monitoring purposes was replaced in 2018 by Well F7A.

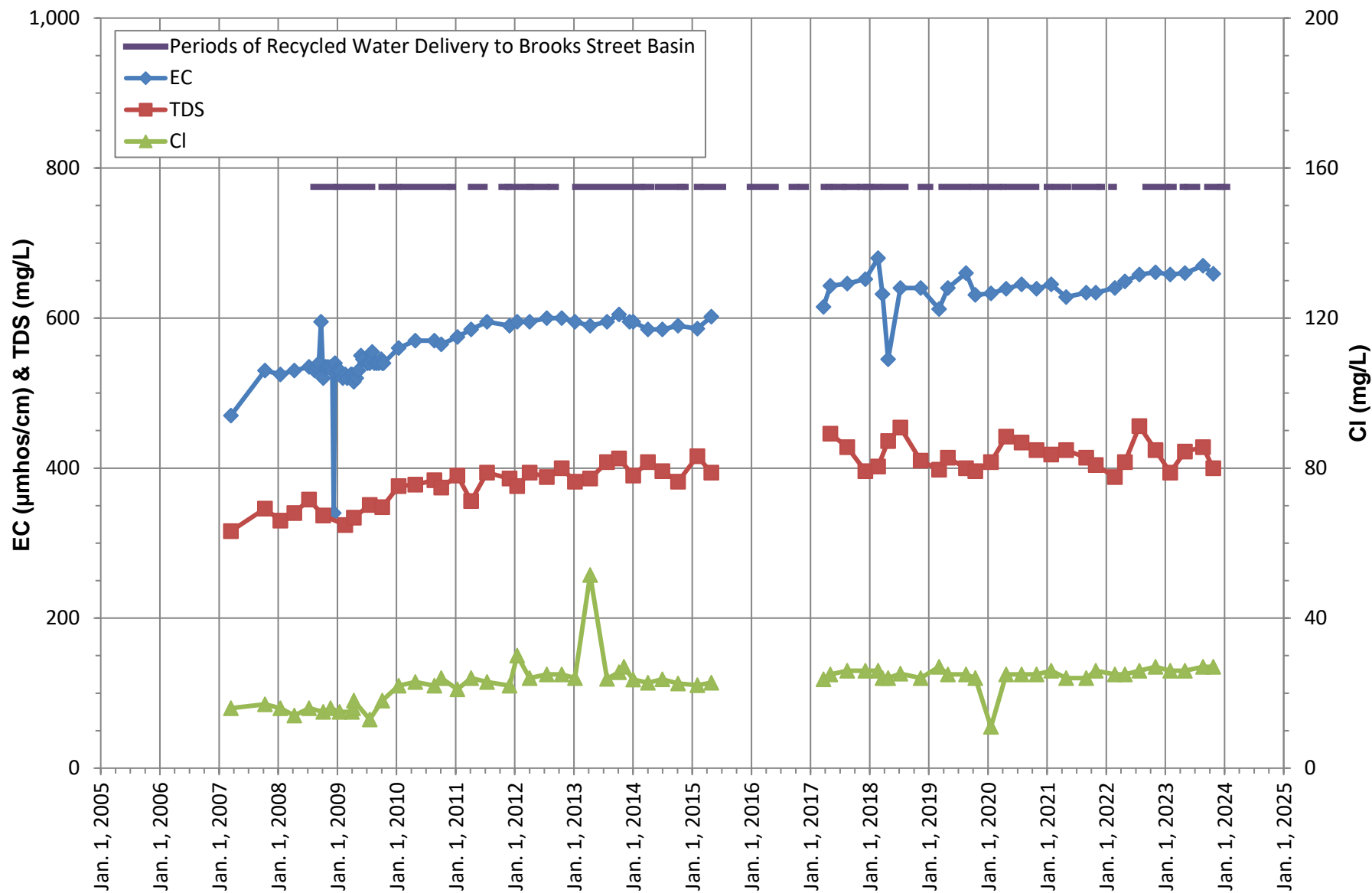
**EC, TDS, CHLORIDE TRENDS  
BANANA-HICKORY BASINS  
FONTANA WATER CO. WELLS 7A AND 37A**





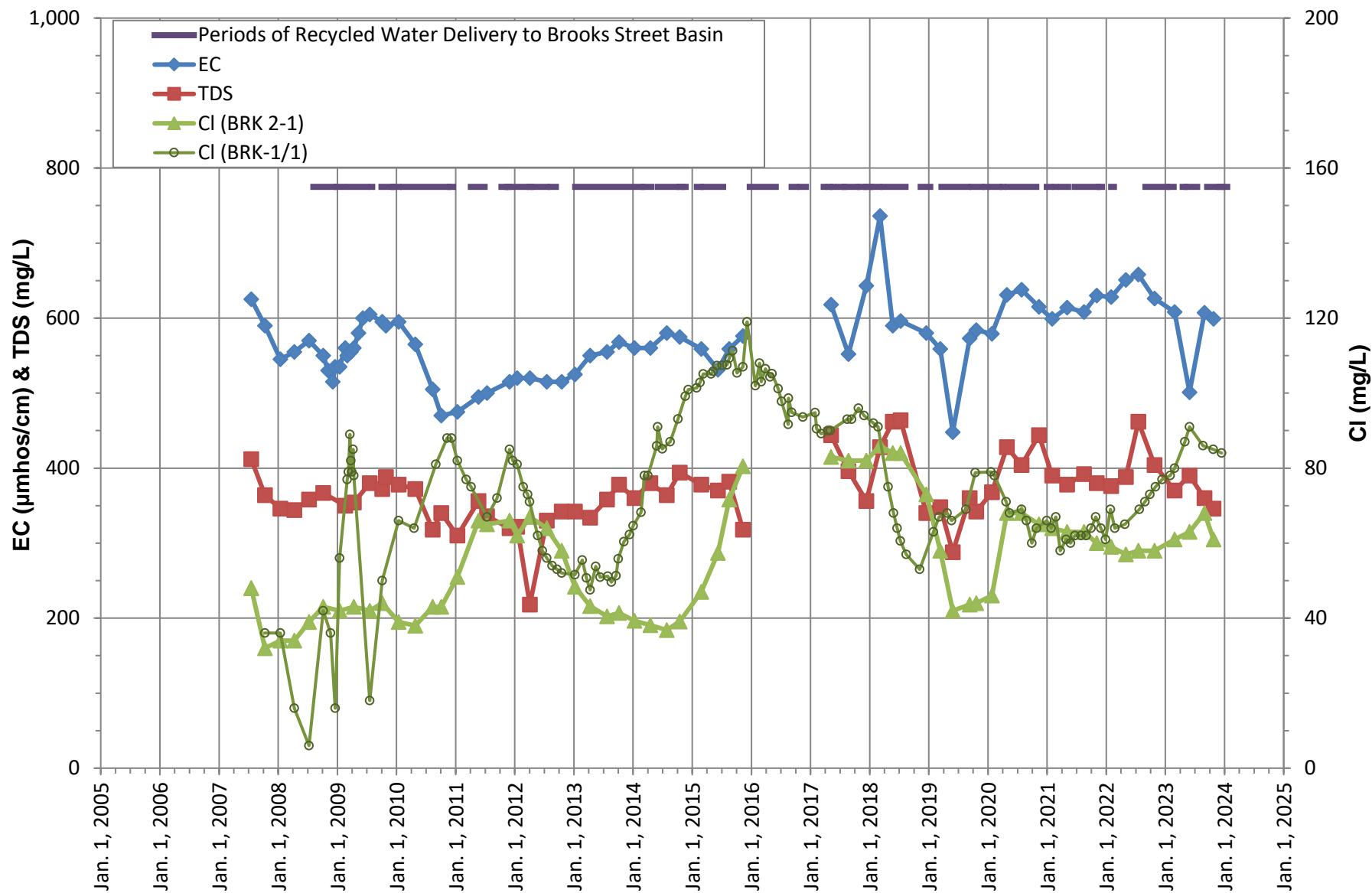
**EC, TDS, CHLORIDE TRENDS  
BROOKS STREET BASIN  
MW BRK-1/1**





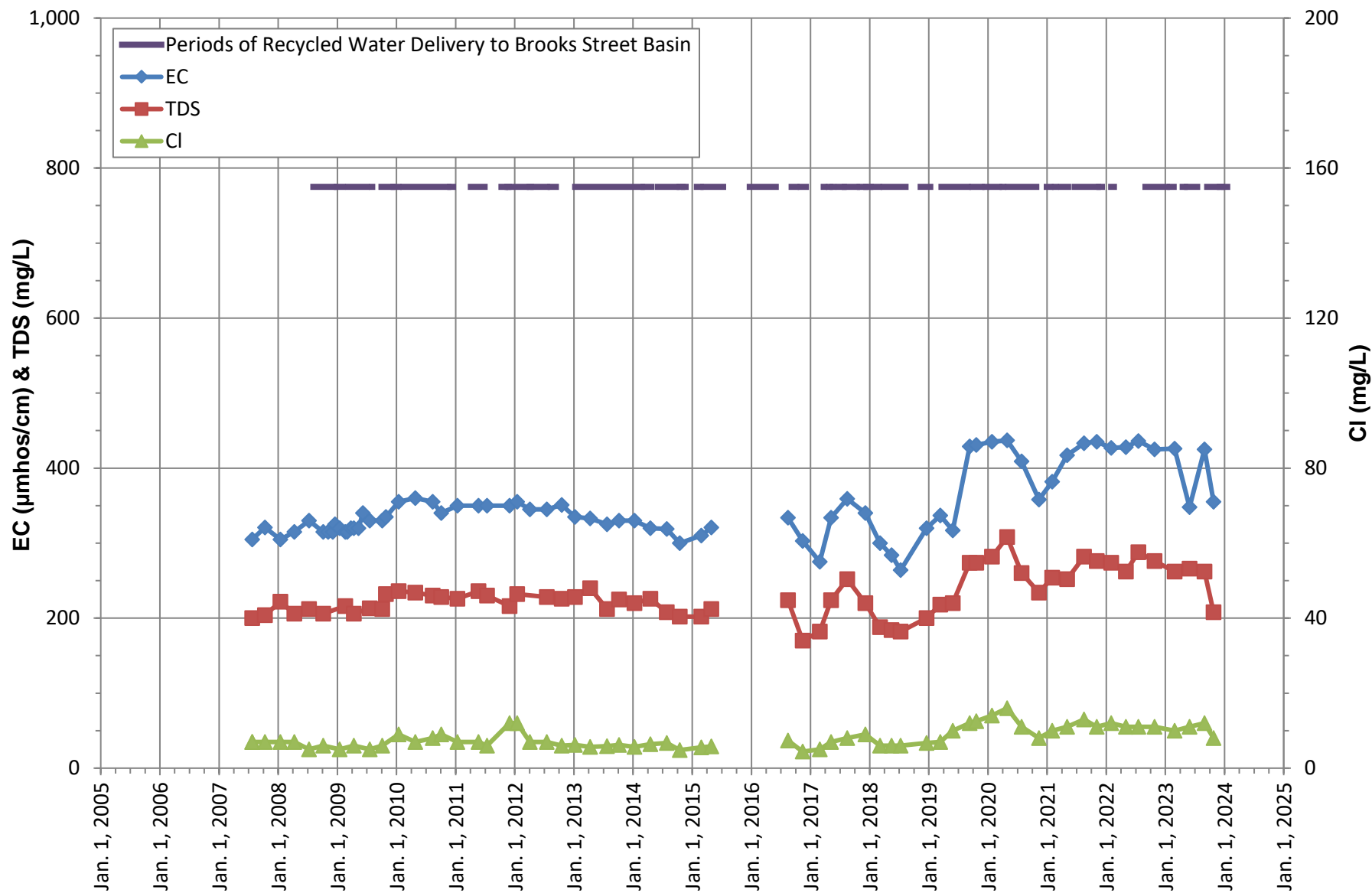
**EC, TDS, CHLORIDE TRENDS  
BROOKS STREET BASIN  
MW BRK-1/2**





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

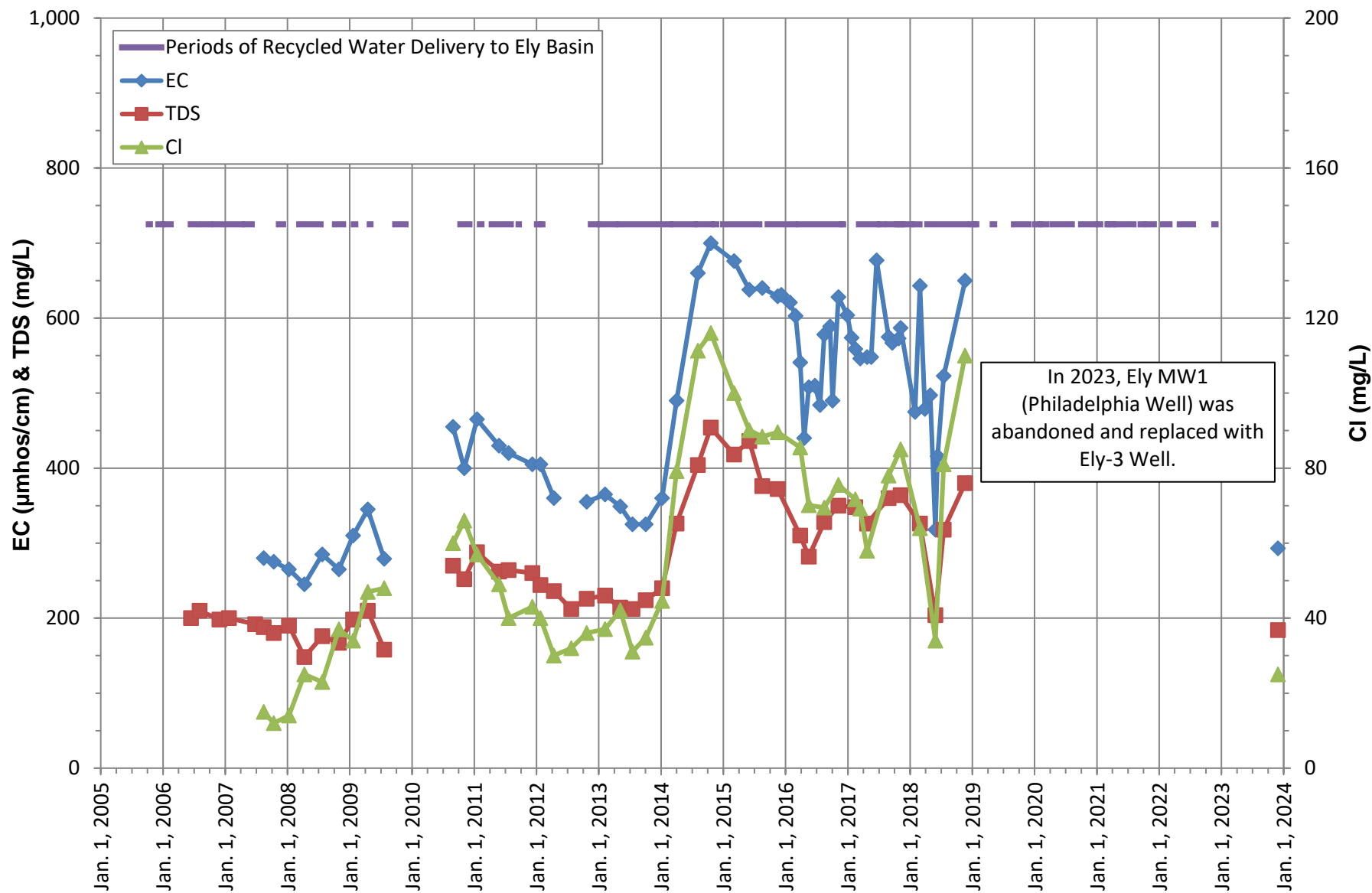




**EC, TDS, CHLORIDE TRENDS  
BROOKS STREET BASIN  
MW BRK-2/2**



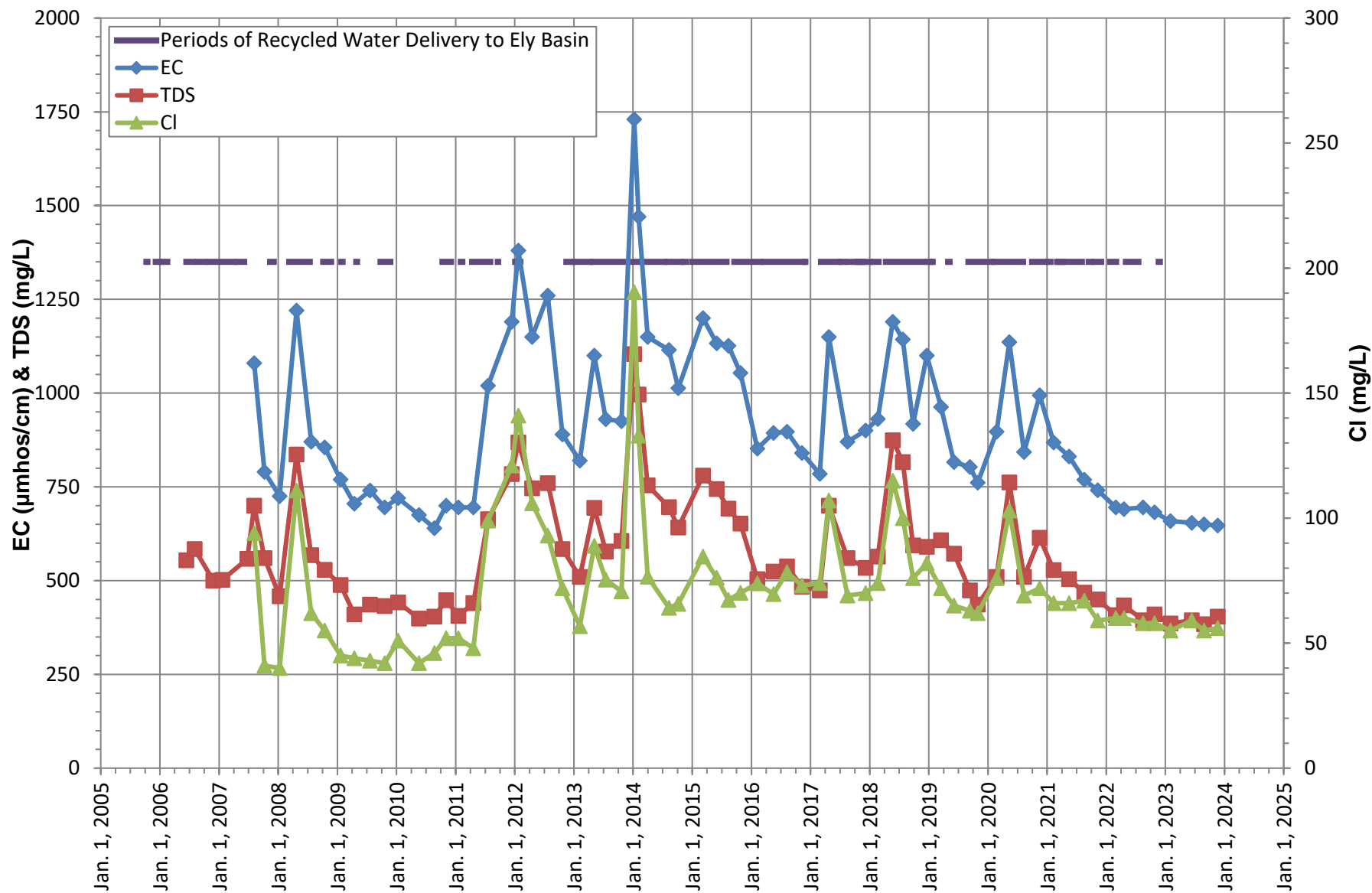




**EC, TDS, CHLORIDE TRENDS  
ELY BASIN**

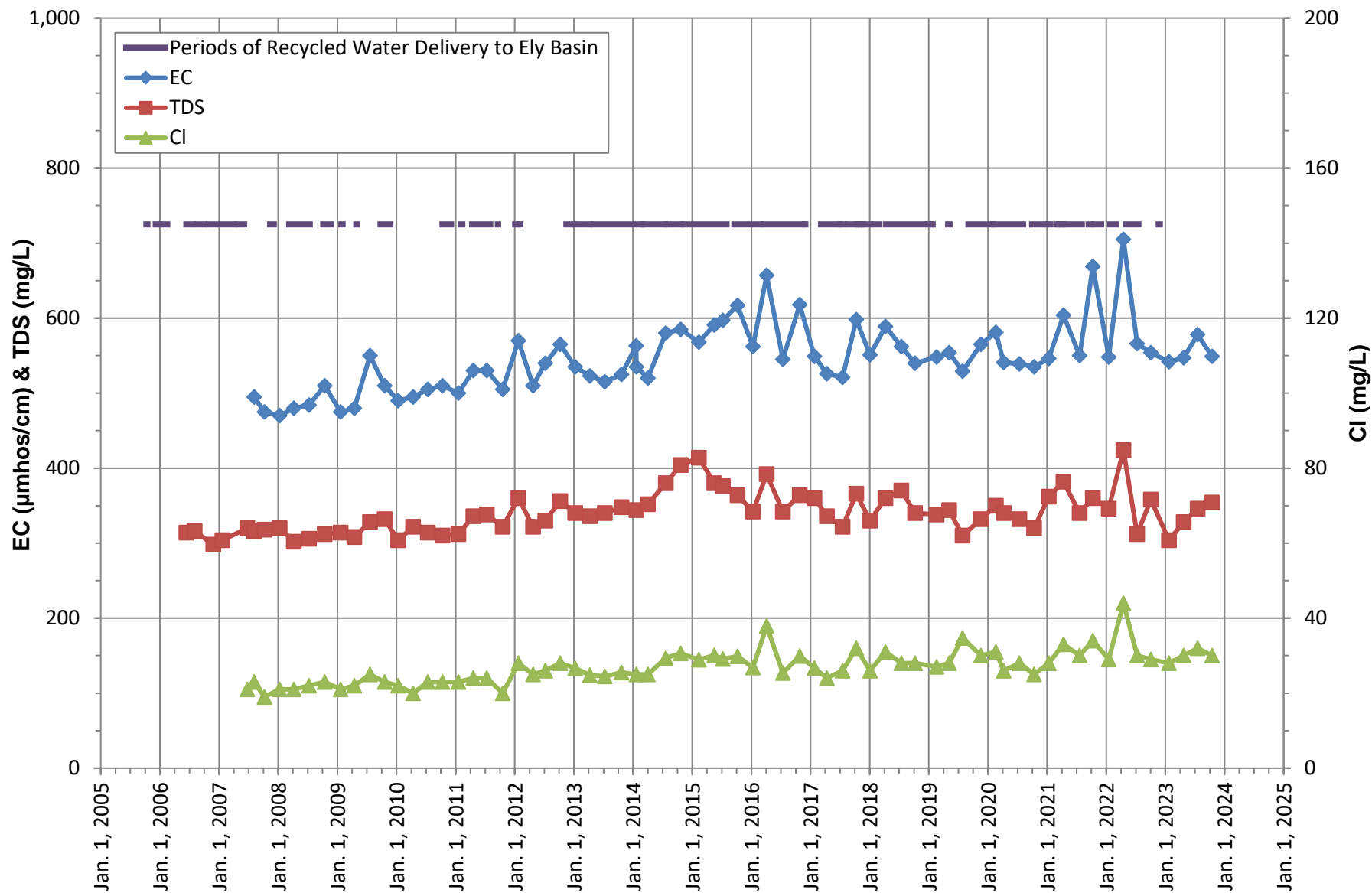
**ELY MW 1 (PHILADELPHIA WELL) AND ELY-3 WELL**





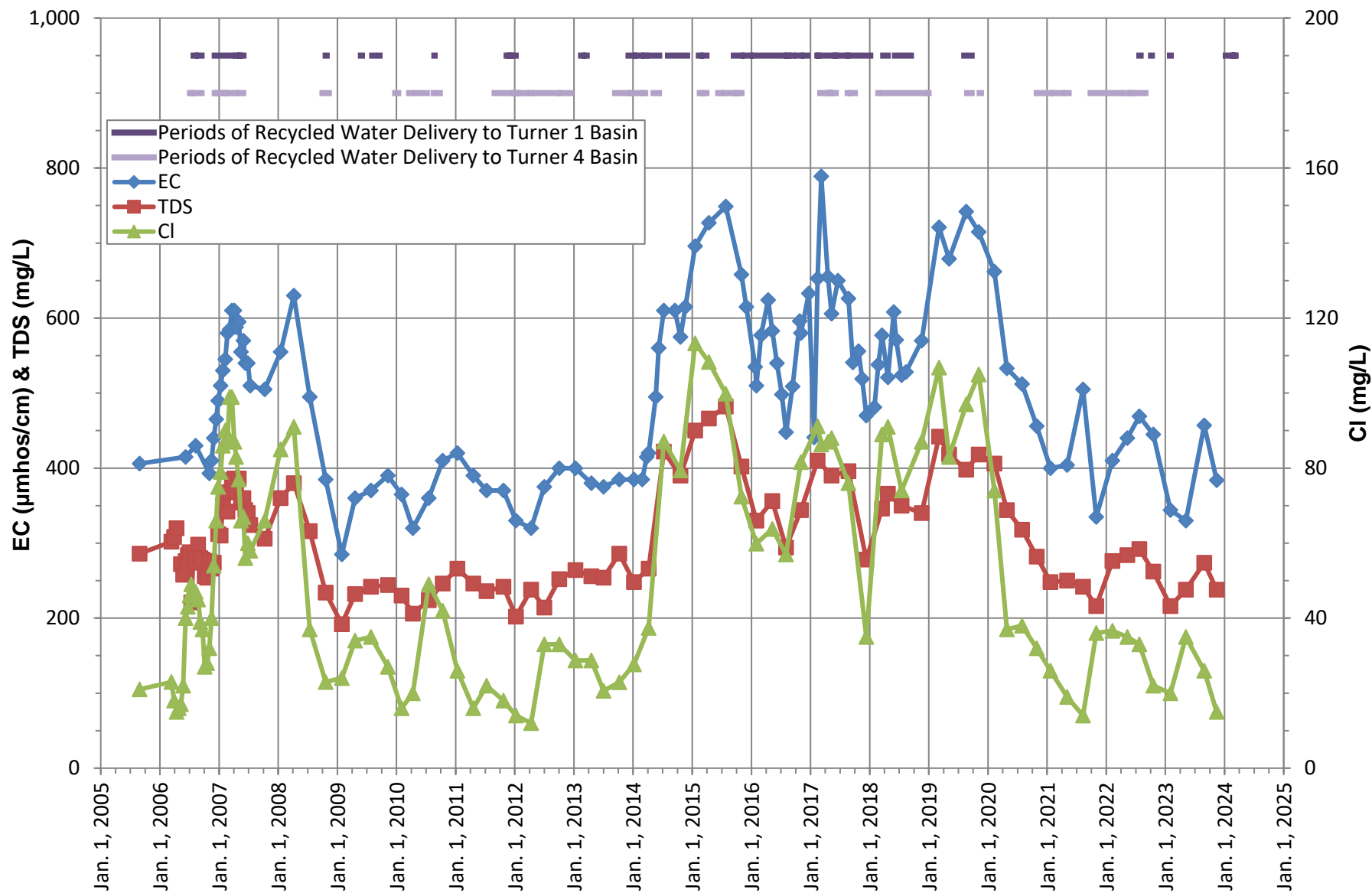
**EC, TDS, CHLORIDE TRENDS  
ELY BASIN  
ELY MW 2 (WALNUT WELL)**





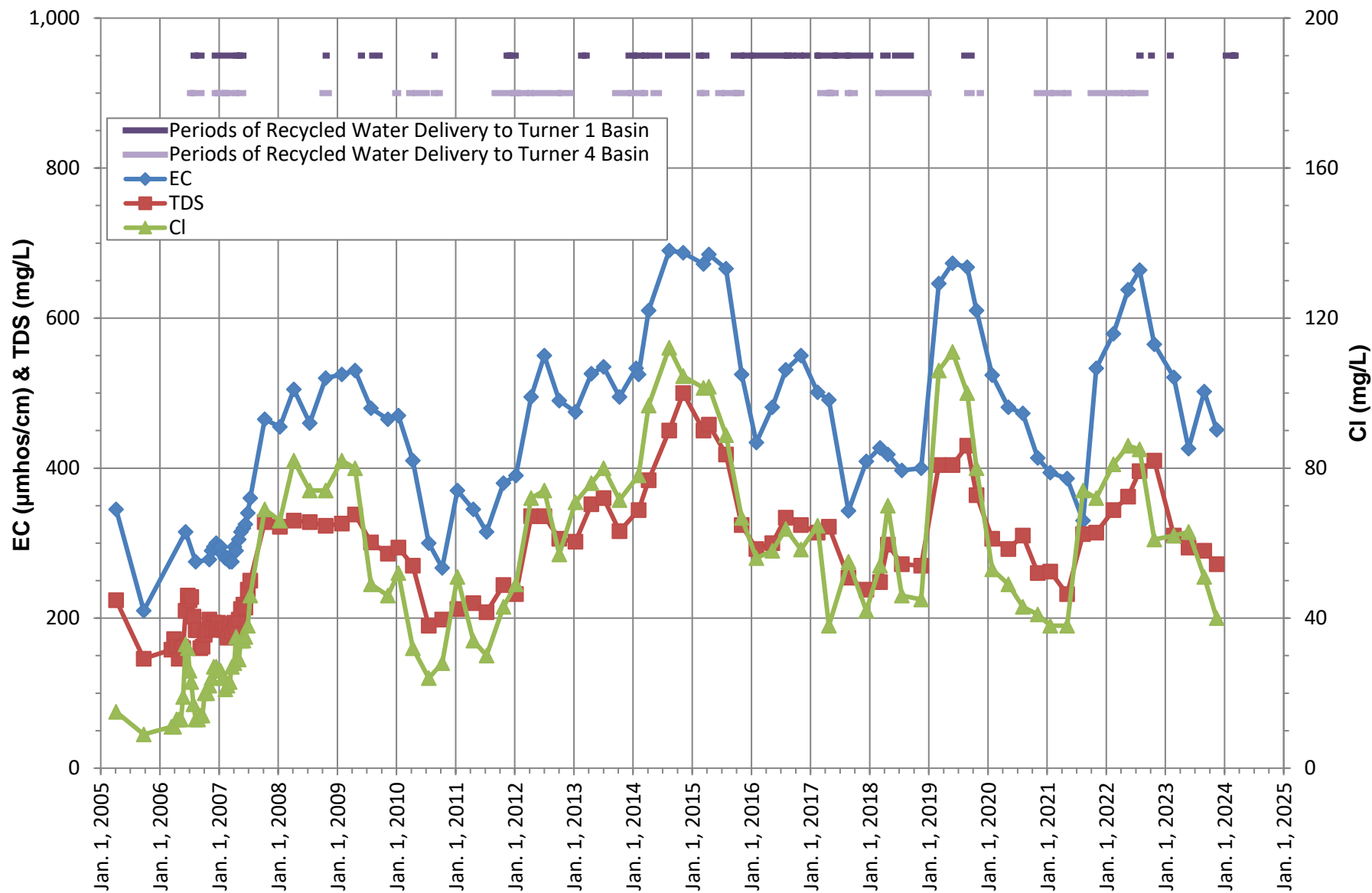
**EC, TDS, CHLORIDE TRENDS  
ELY BASIN  
RIVERSIDE WELL**





**EC, TDS, CHLORIDE TRENDS  
TURNER BASINS  
MW T-1/2**

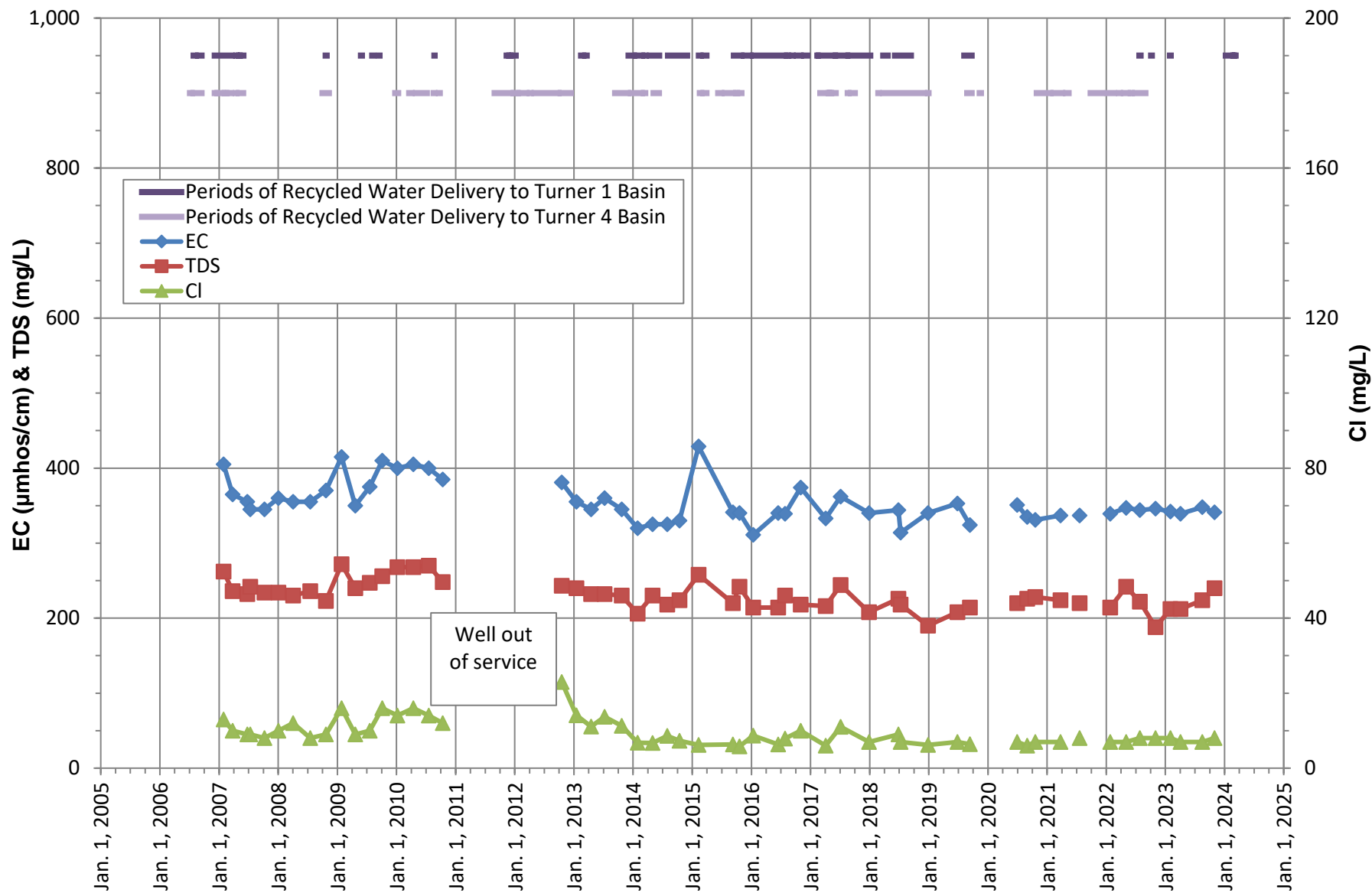




**EC, TDS, CHLORIDE TRENDS  
TURNER BASINS  
MW T-2/2**

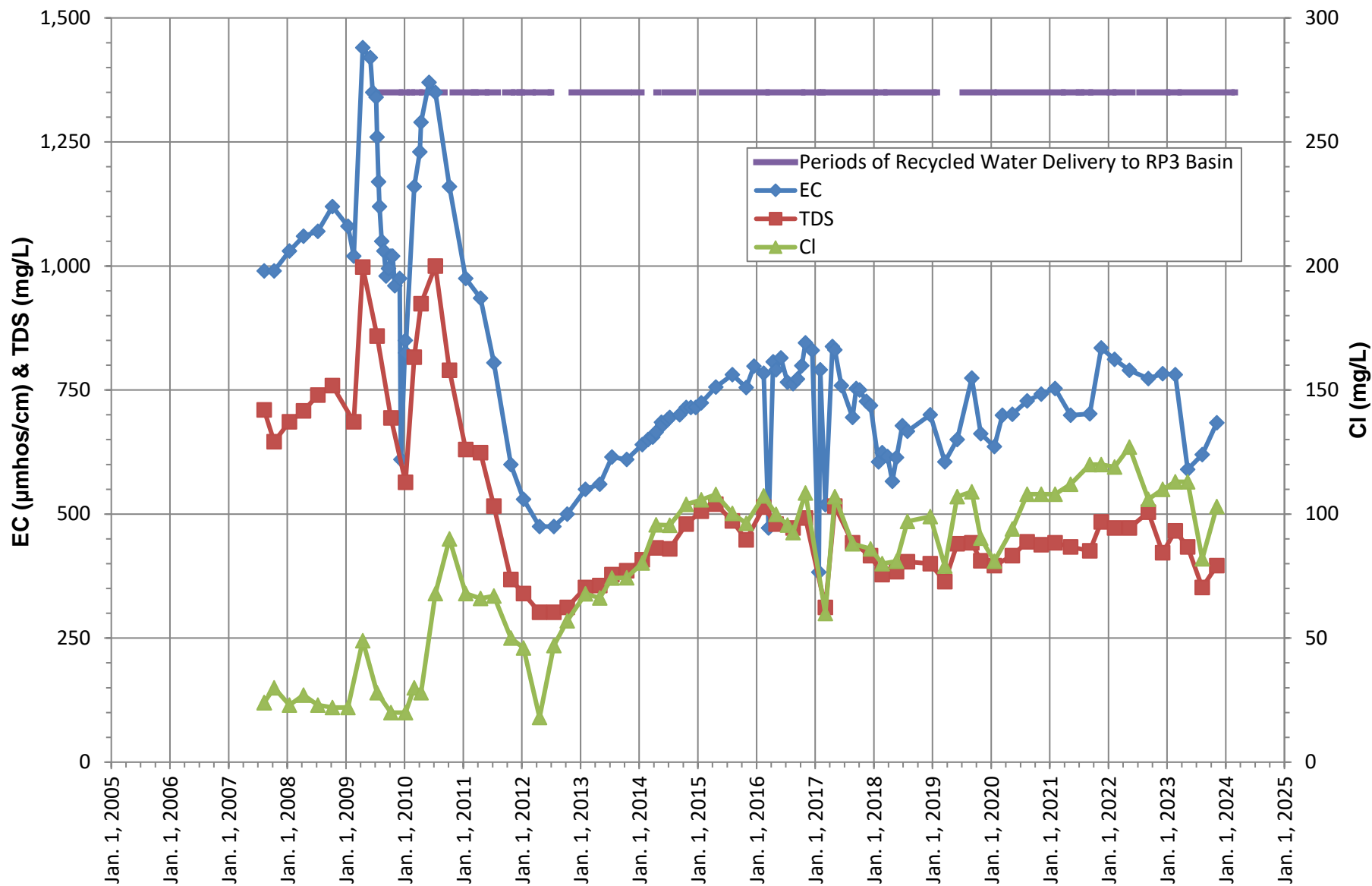






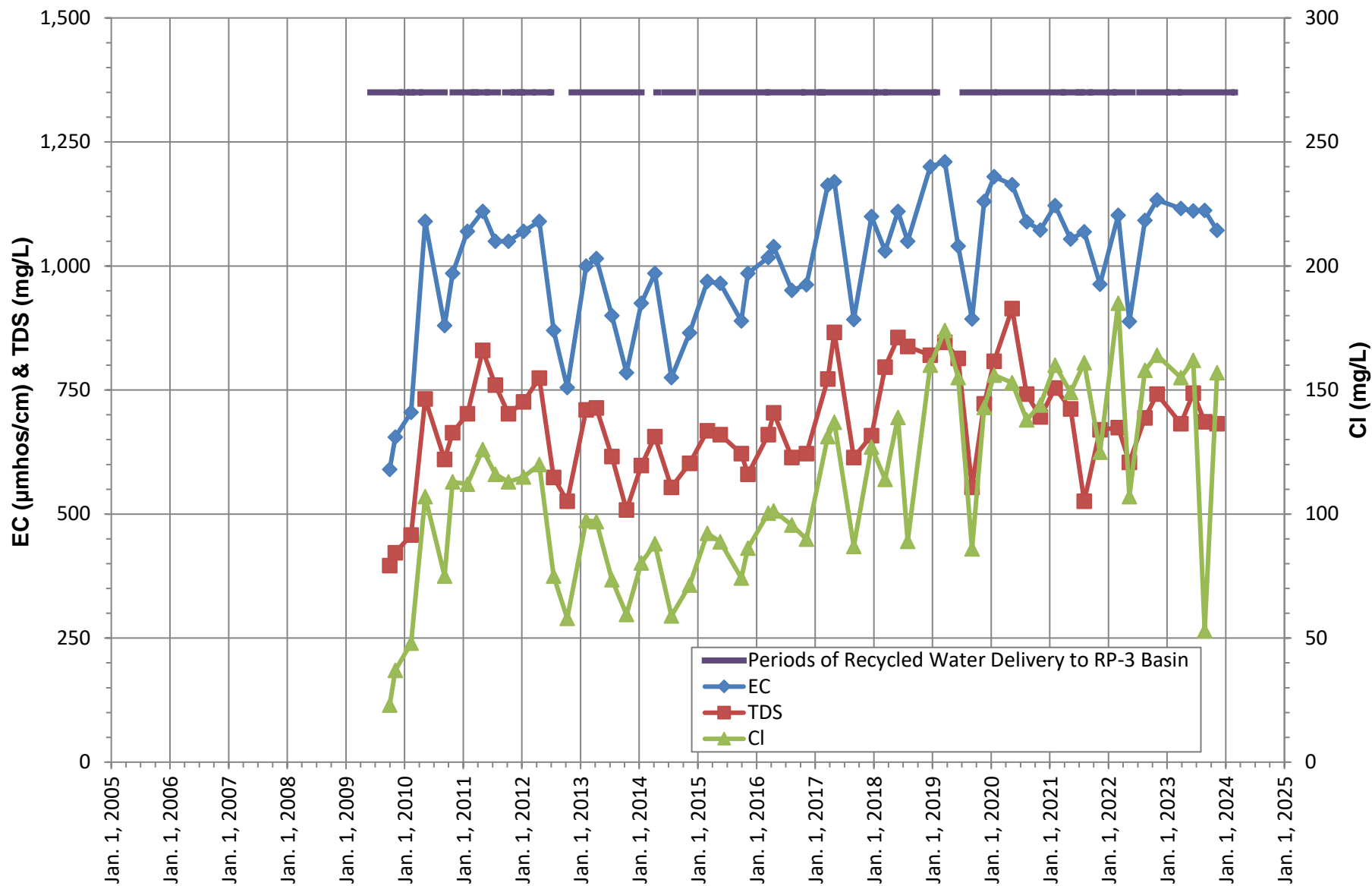
**EC, TDS, CHLORIDE TRENDS  
TURNER BASINS  
ONTARIO NO. 29**





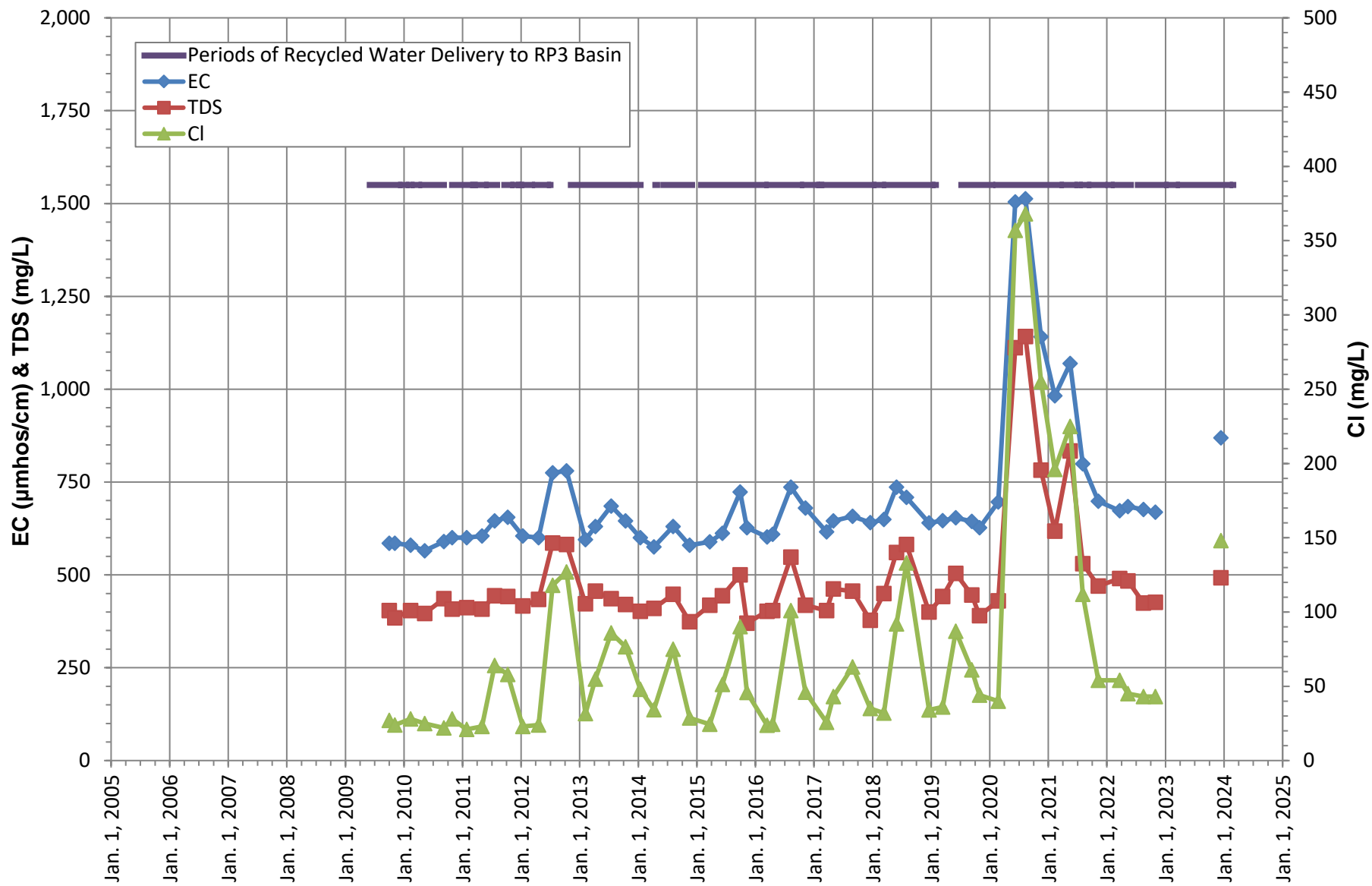
**EC, TDS, CHLORIDE TRENDS  
RP3 BASINS  
MW RP3-1/1**





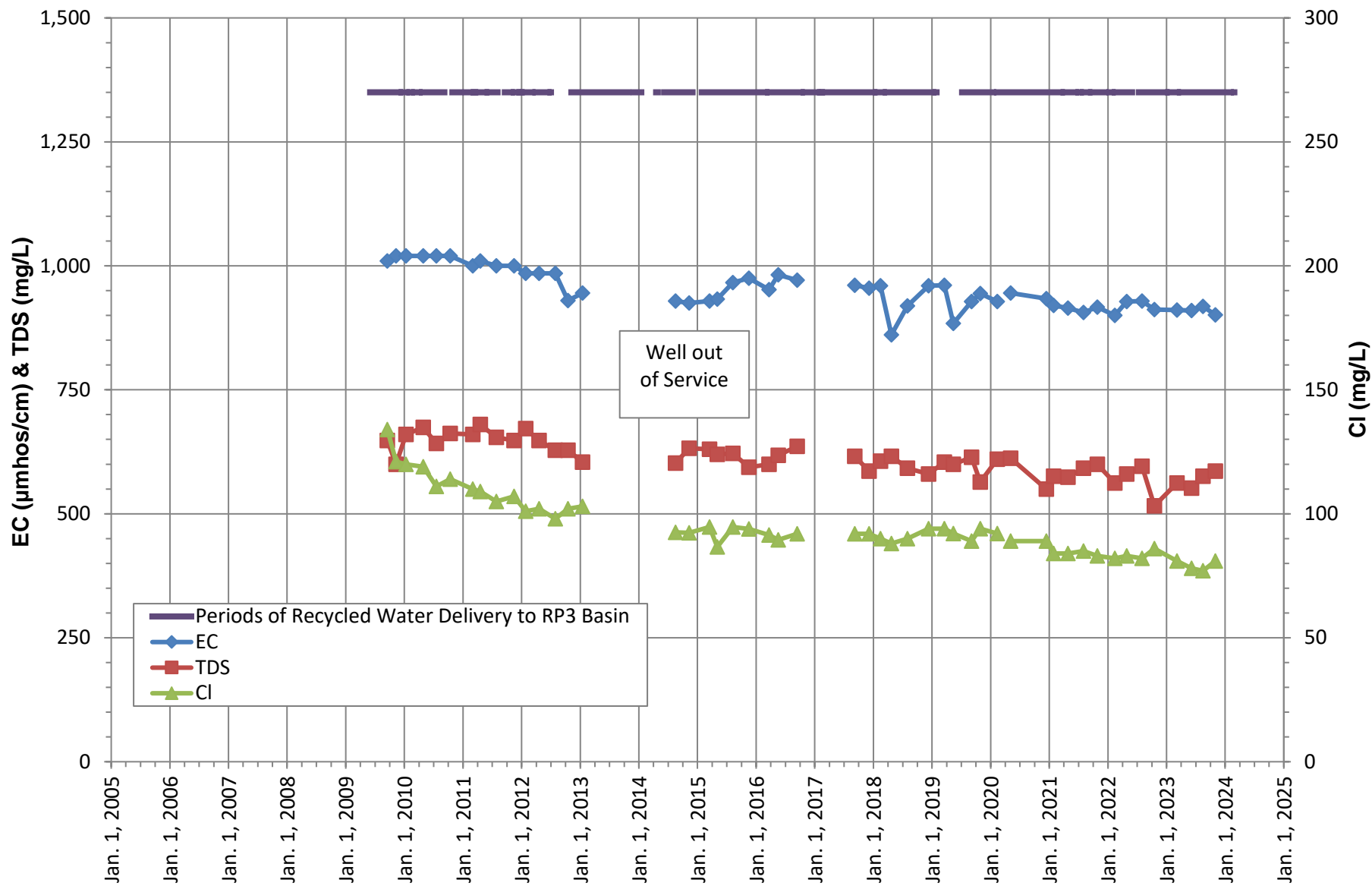
**EC, TDS, CHLORIDE TRENDS  
RP3 BASINS  
ALCOA MW-3**





**EC, TDS, CHLORIDE TRENDS  
RP3 BASINS  
ALCOA MW-1**

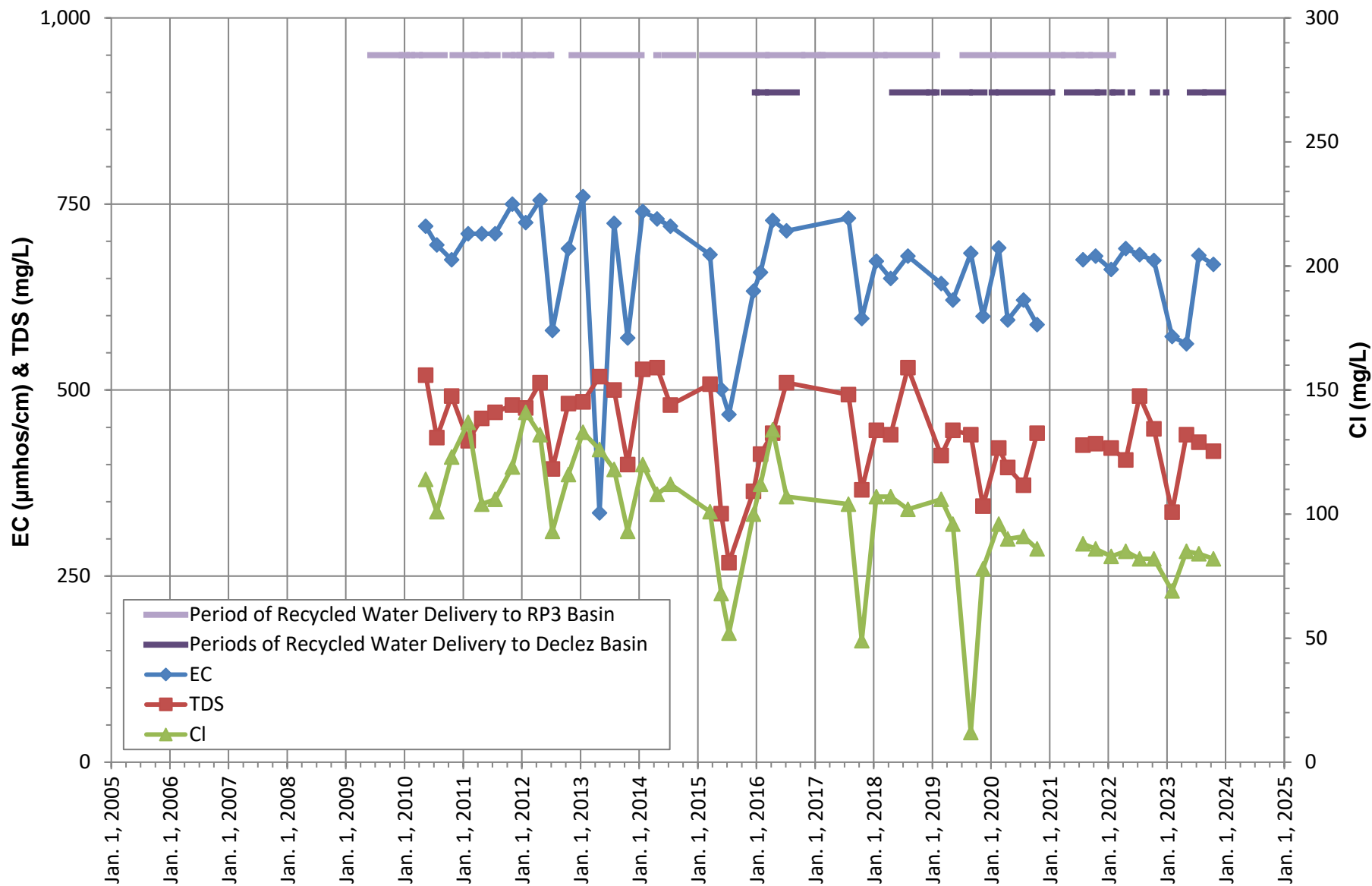




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RP3 BASINS  
Southridge JHS Well**

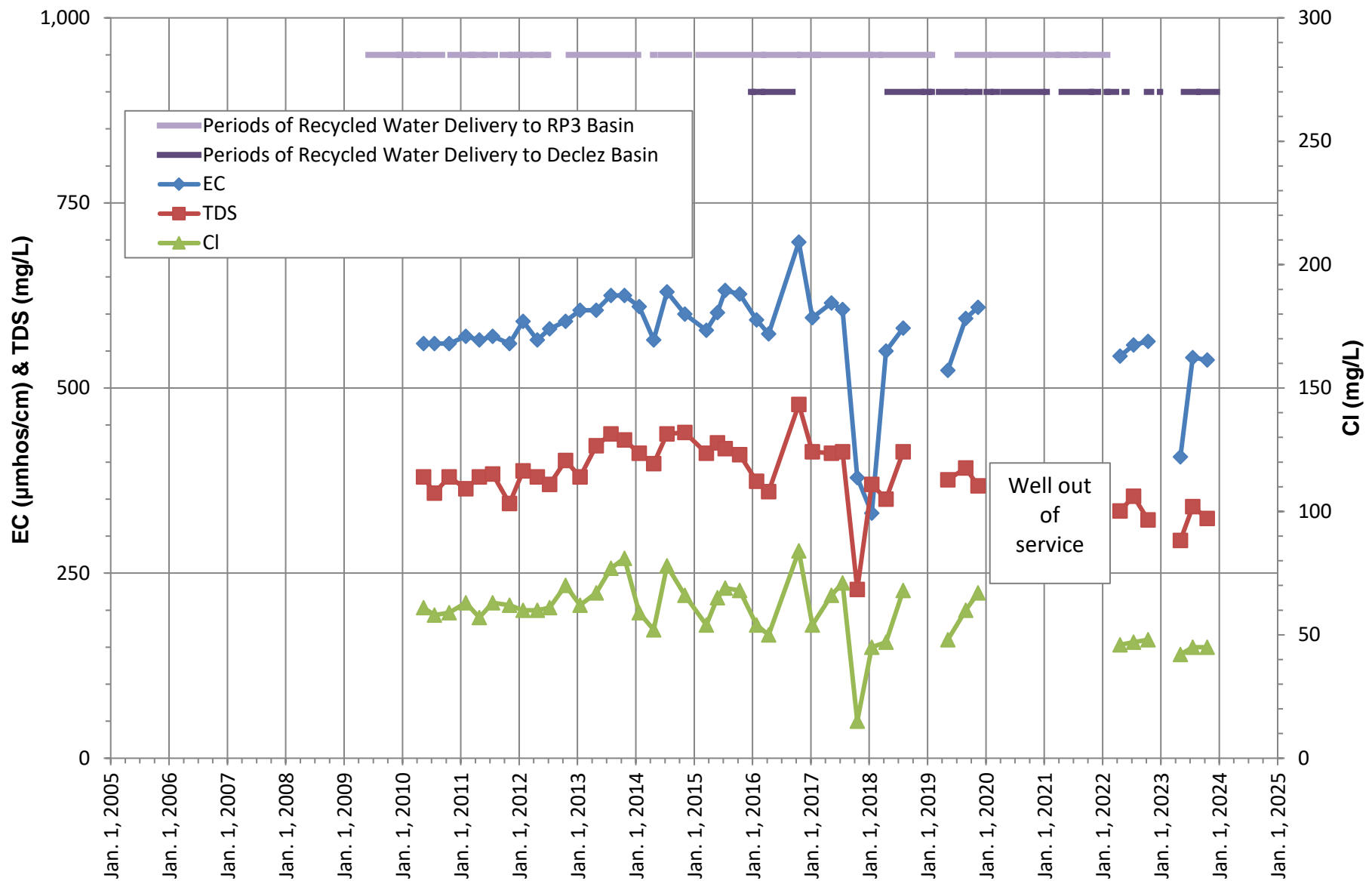






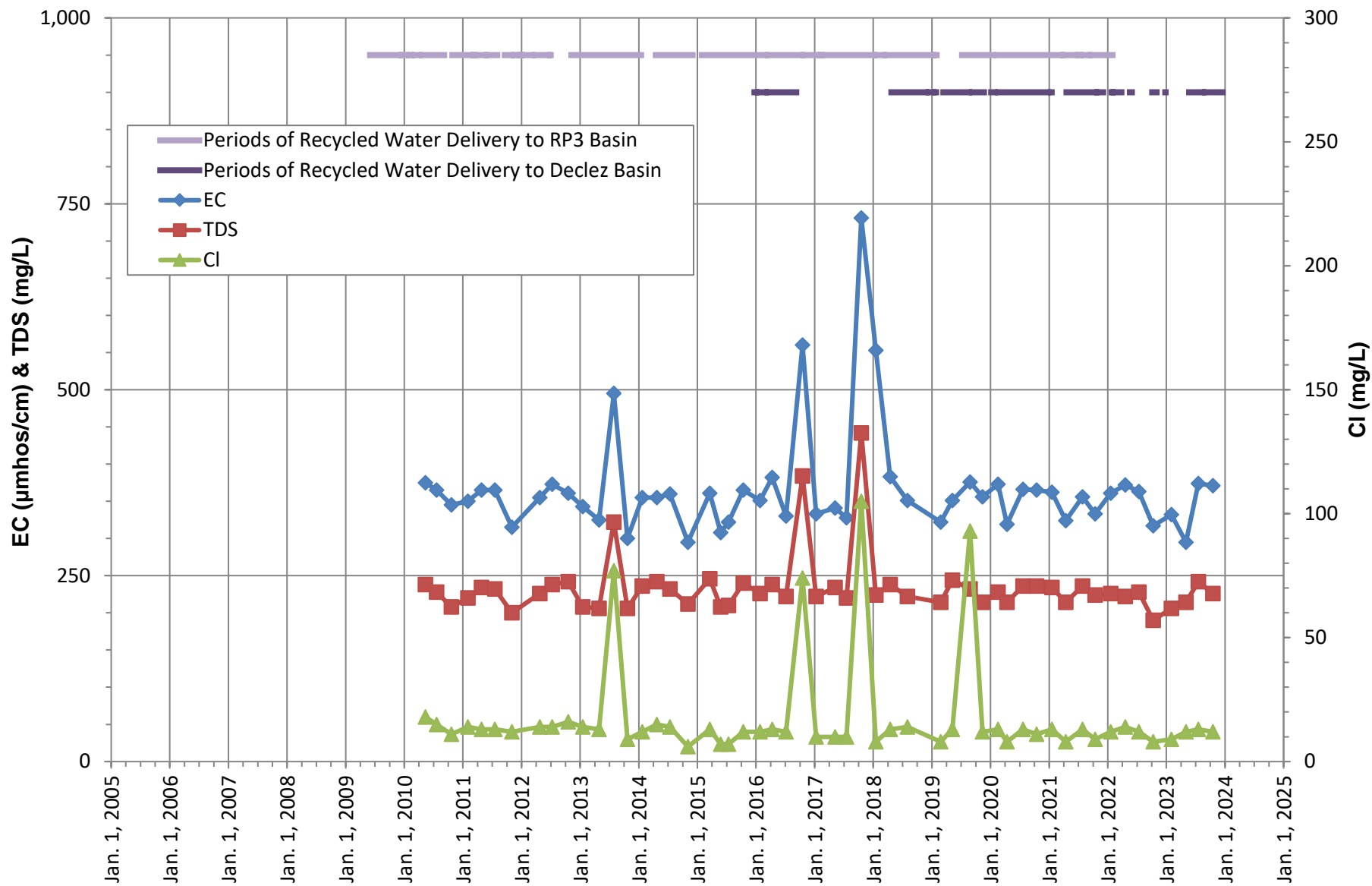
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RP3 AND DECLEZ BASINS  
JCSD Well No. 13**





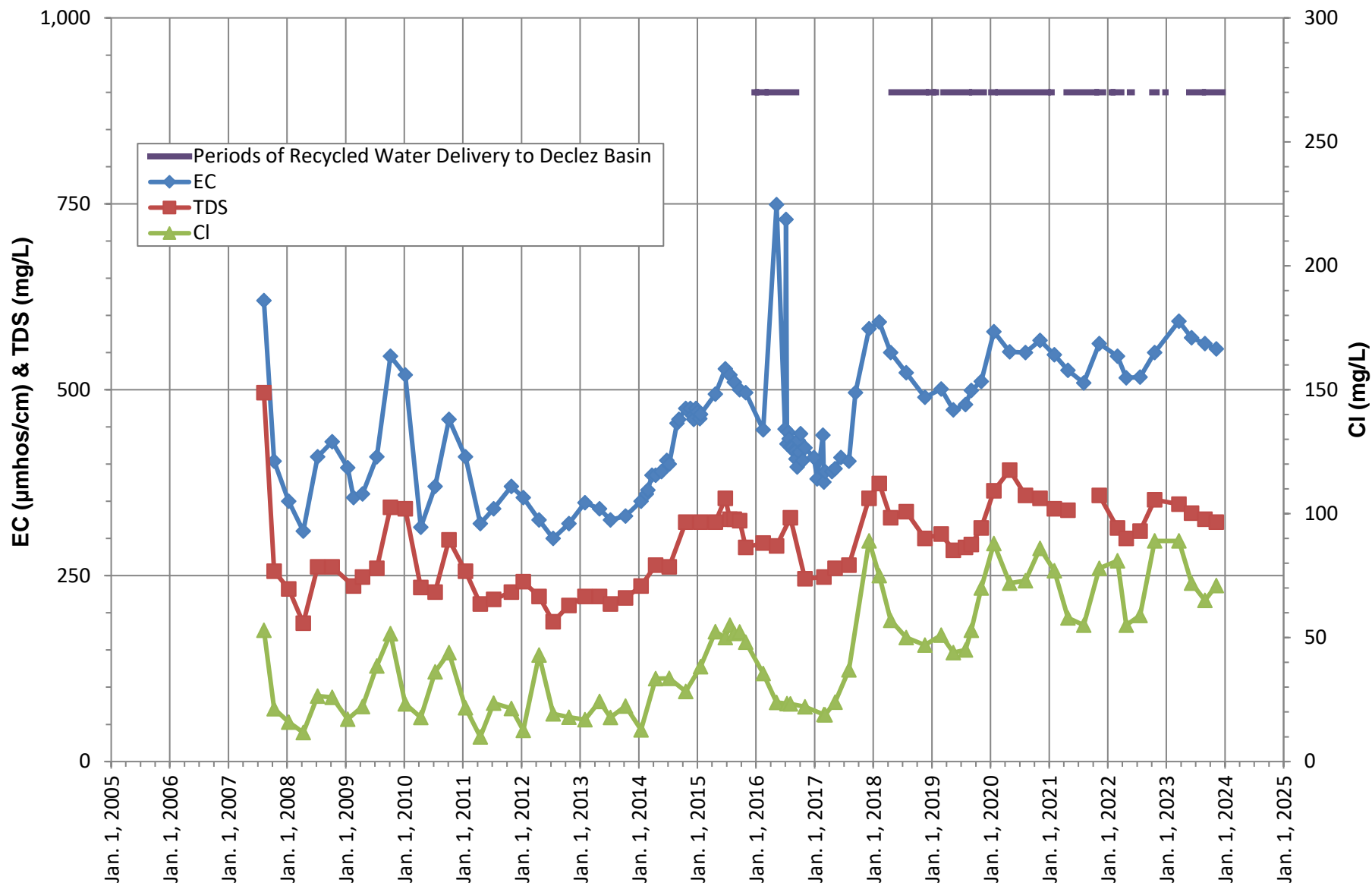
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RP3 AND DECLEZ BASINS  
JCSD Well No. 17**





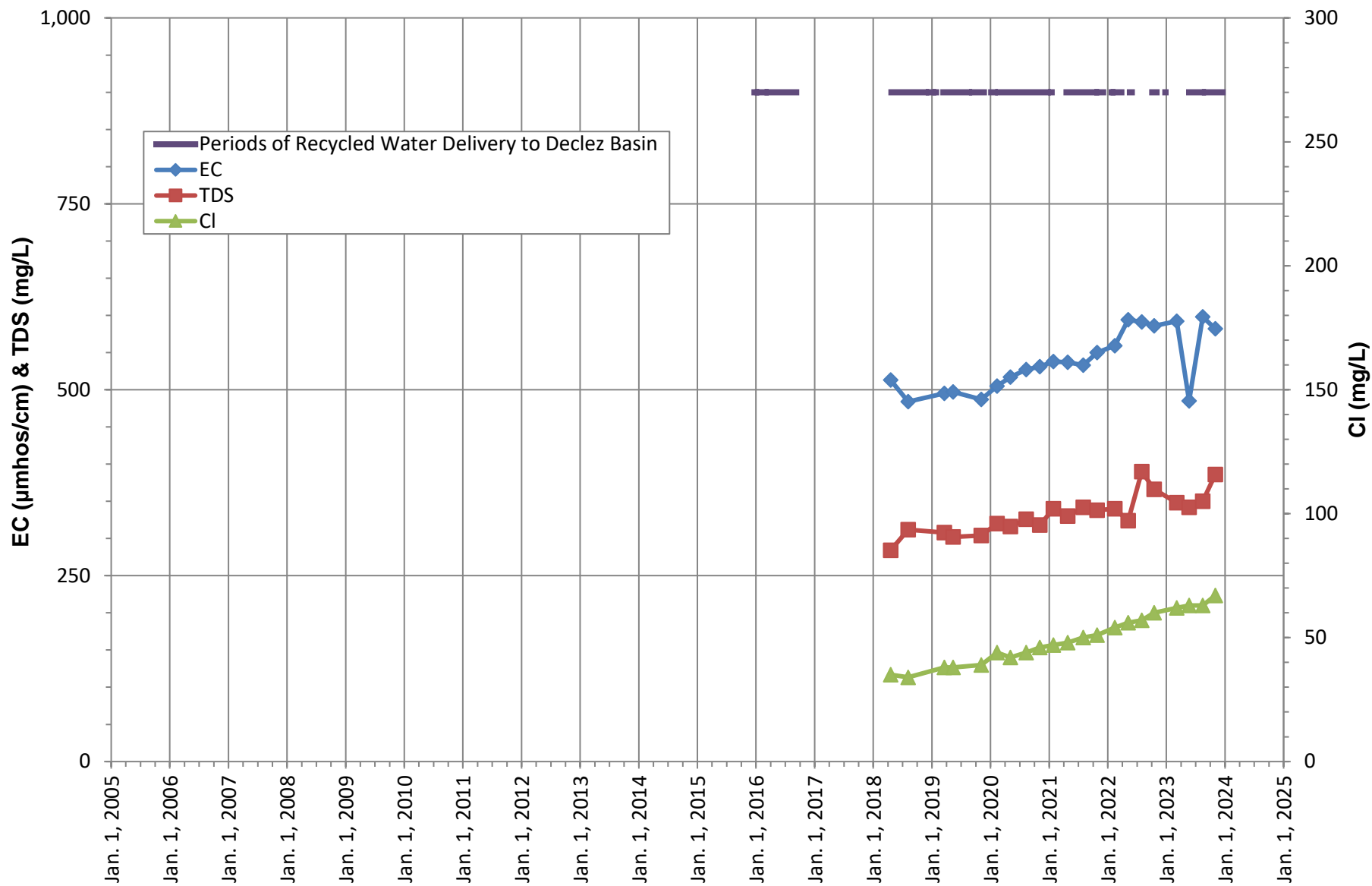
**EC, TDS, CHLORIDE TRENDS  
RP3 AND DECLEZ BASINS  
JCSD Well No. 19**





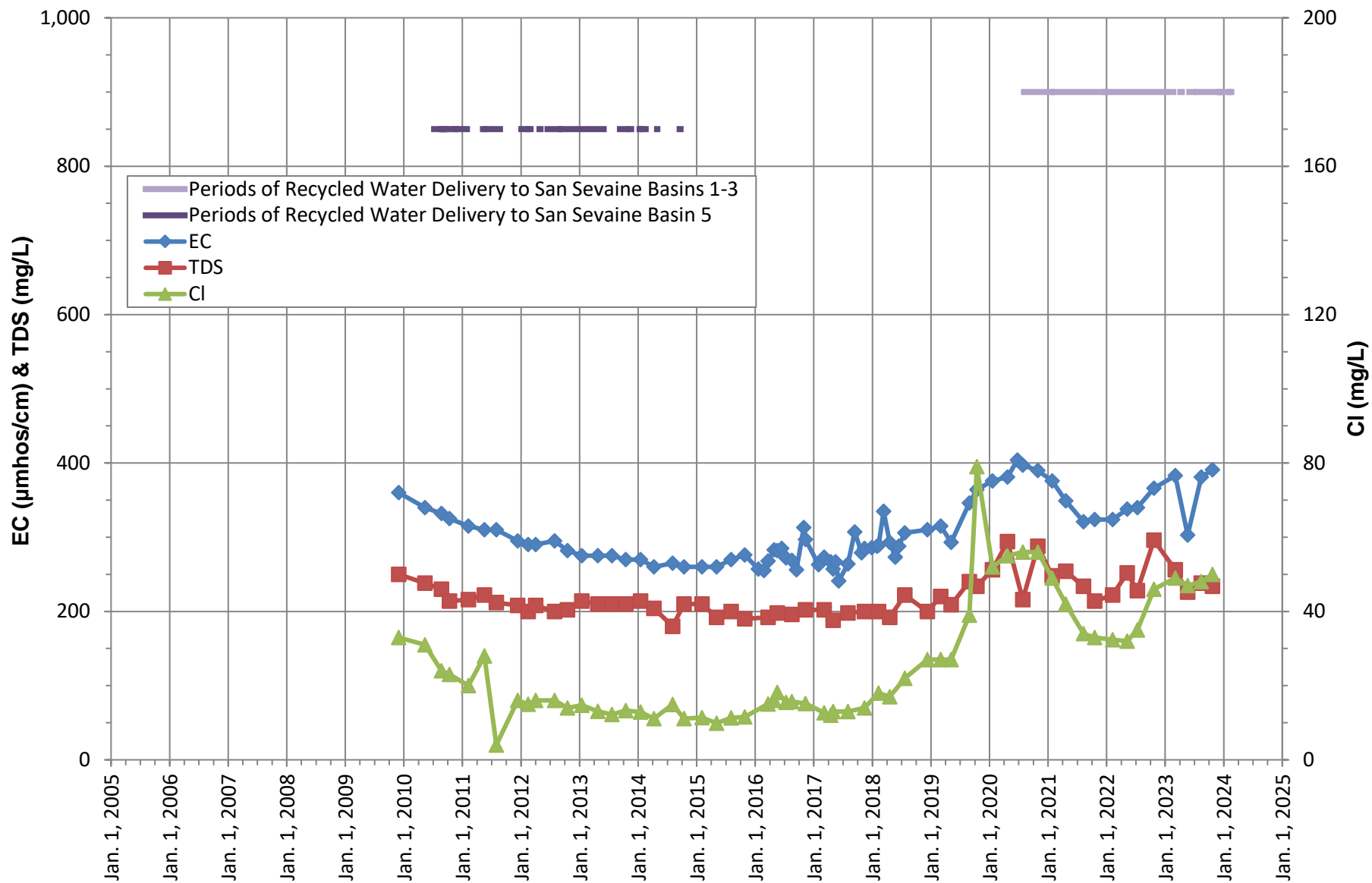
**EC, TDS, CHLORIDE TRENDS  
DECLEZ BASIN  
DCZ-1/1**





**EC, TDS, CHLORIDE TRENDS  
DECLEZ BASIN  
DCZ-2**

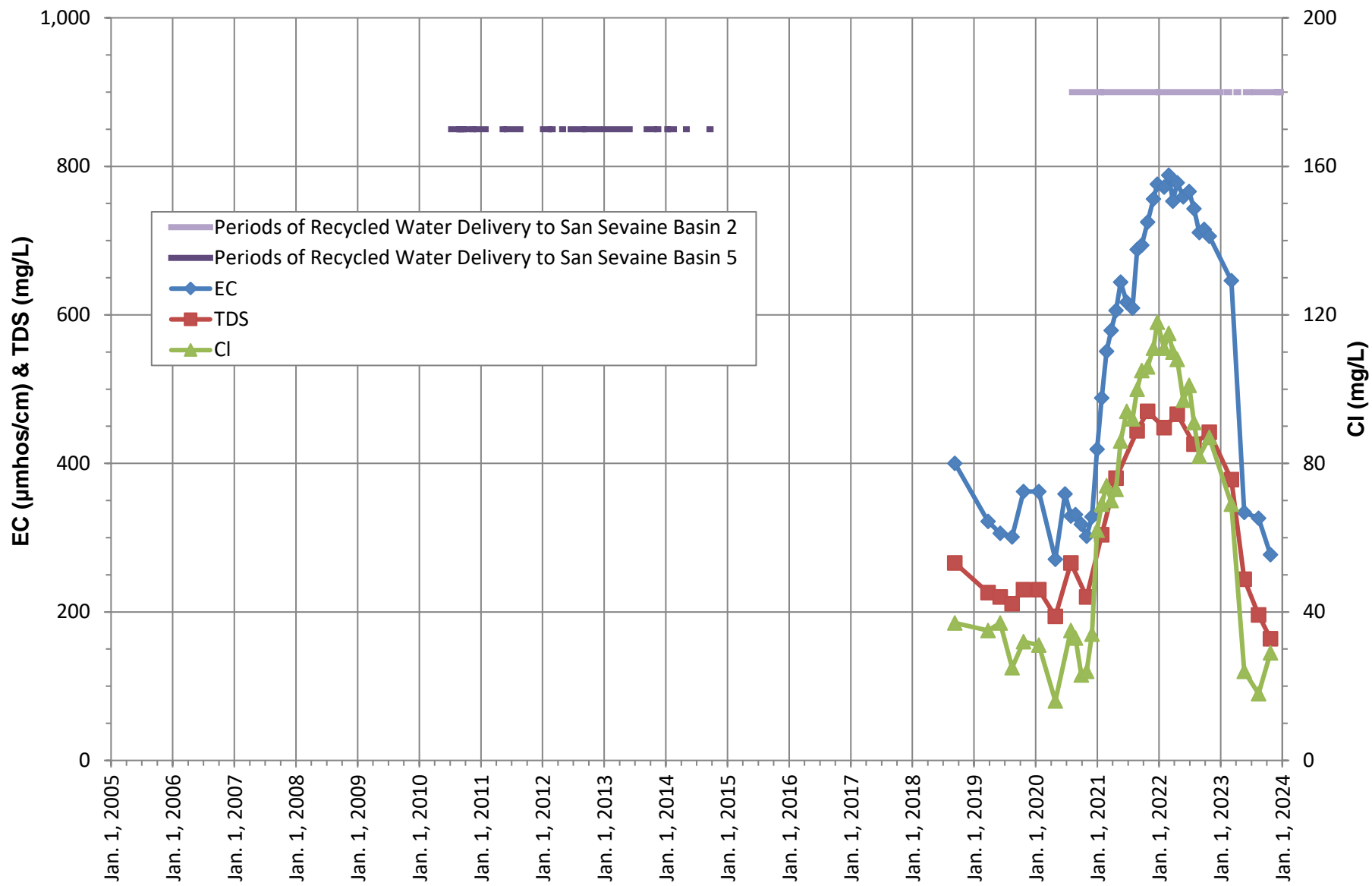




**EC, TDS, CHLORIDE TRENDS  
SAN SEVAINE BASINS  
SS-1/1**

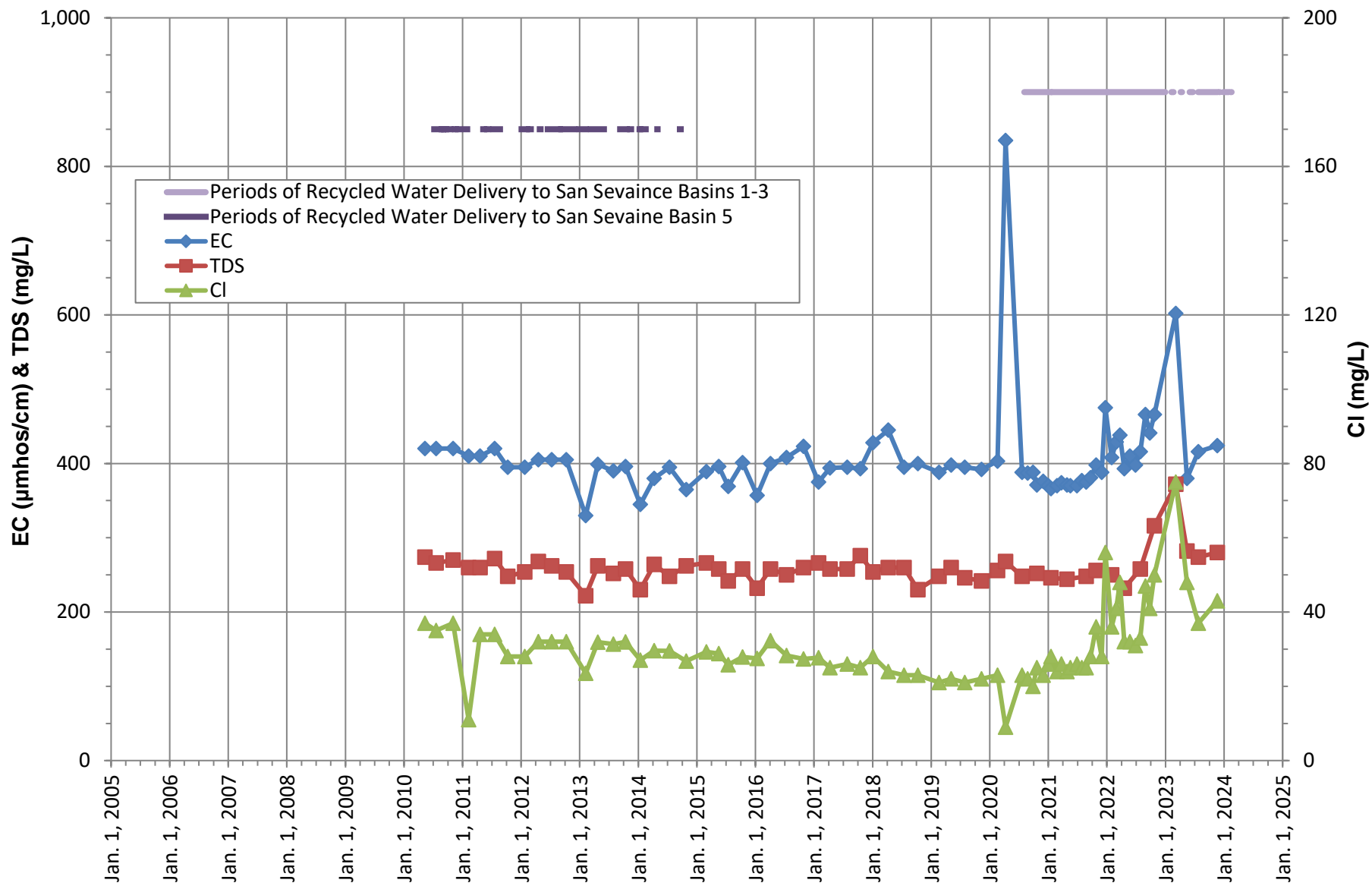






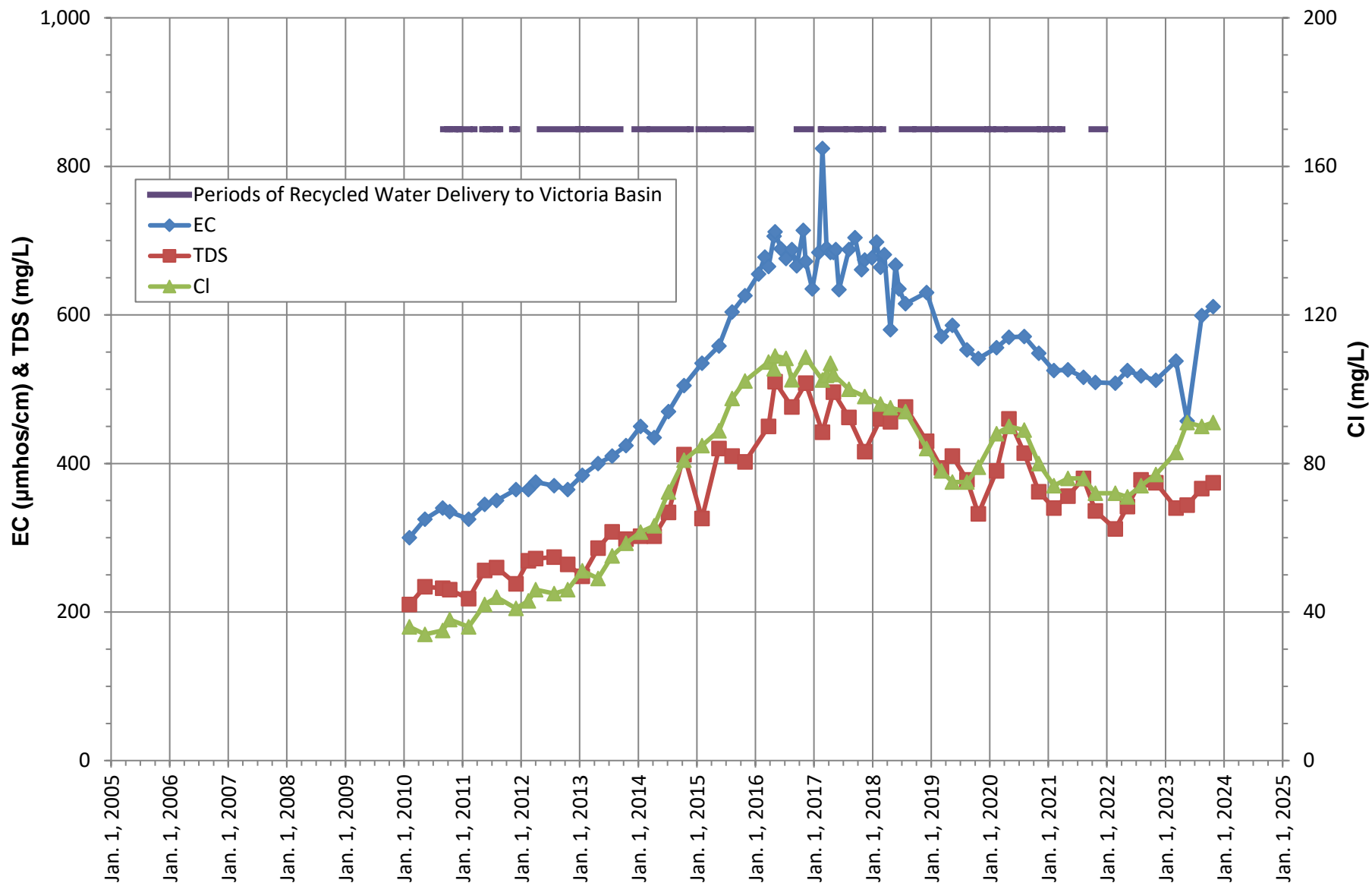
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SAN SEVAINE BASINS  
SSV-2**





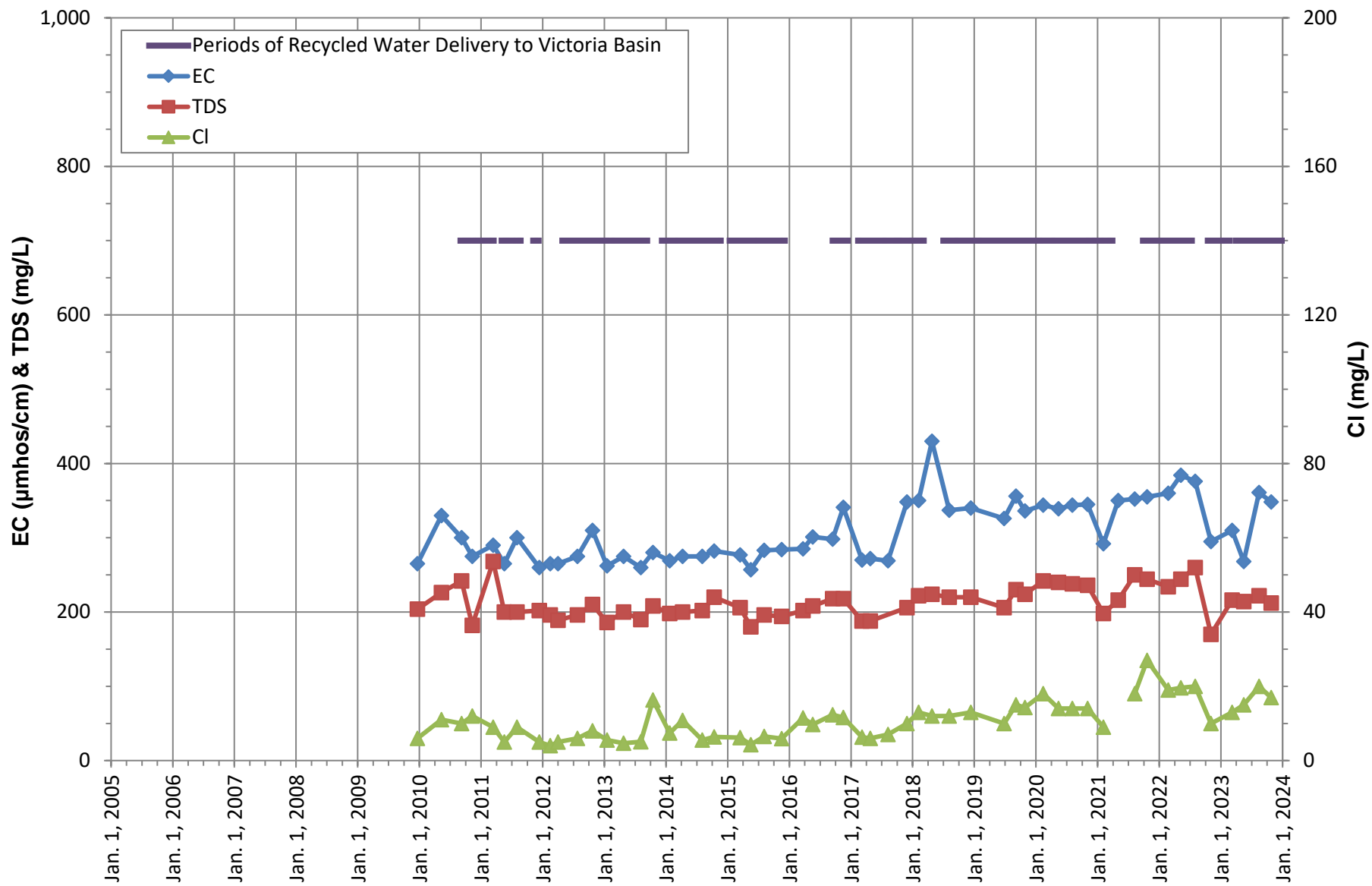
**EC, TDS, CHLORIDE TRENDS  
SAN SEVAINE BASINS  
Unitex 91090**





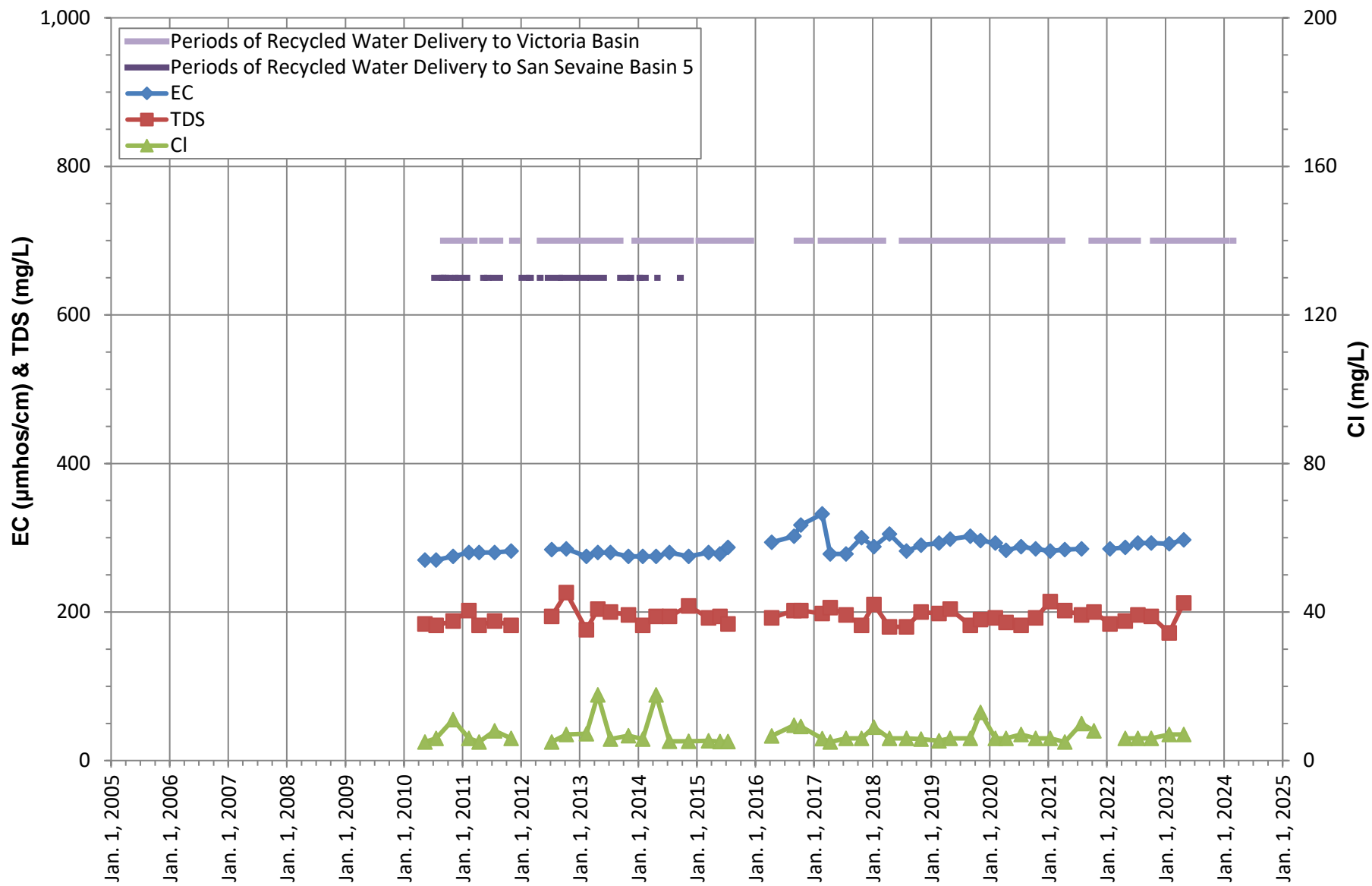
**EC, TDS, CHLORIDE TRENDS  
VICTORIA BASIN  
VCT-1/1**





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





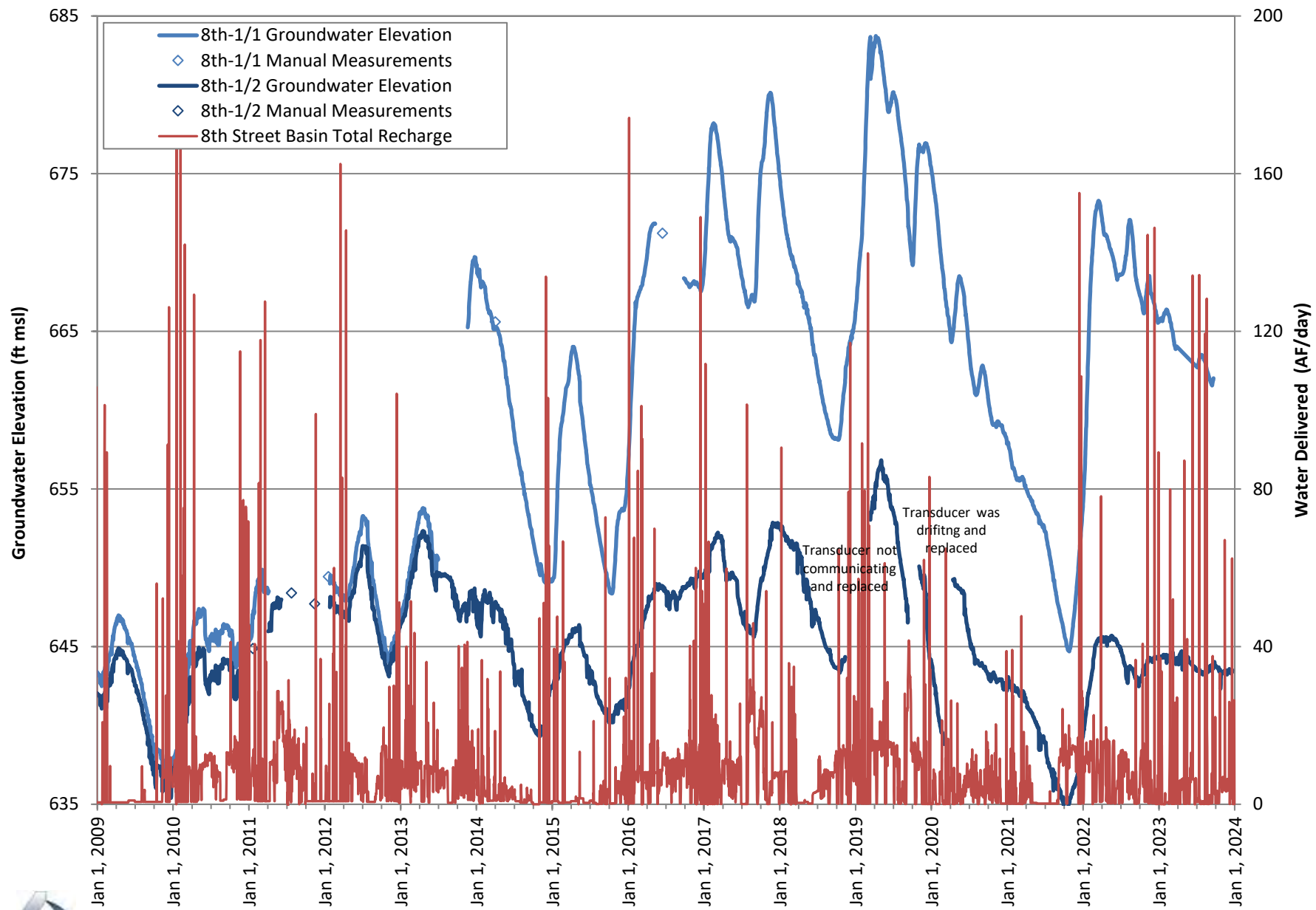
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SAN SEVAIRE & VICTORIA BASINS  
CVWD Well No. 39**



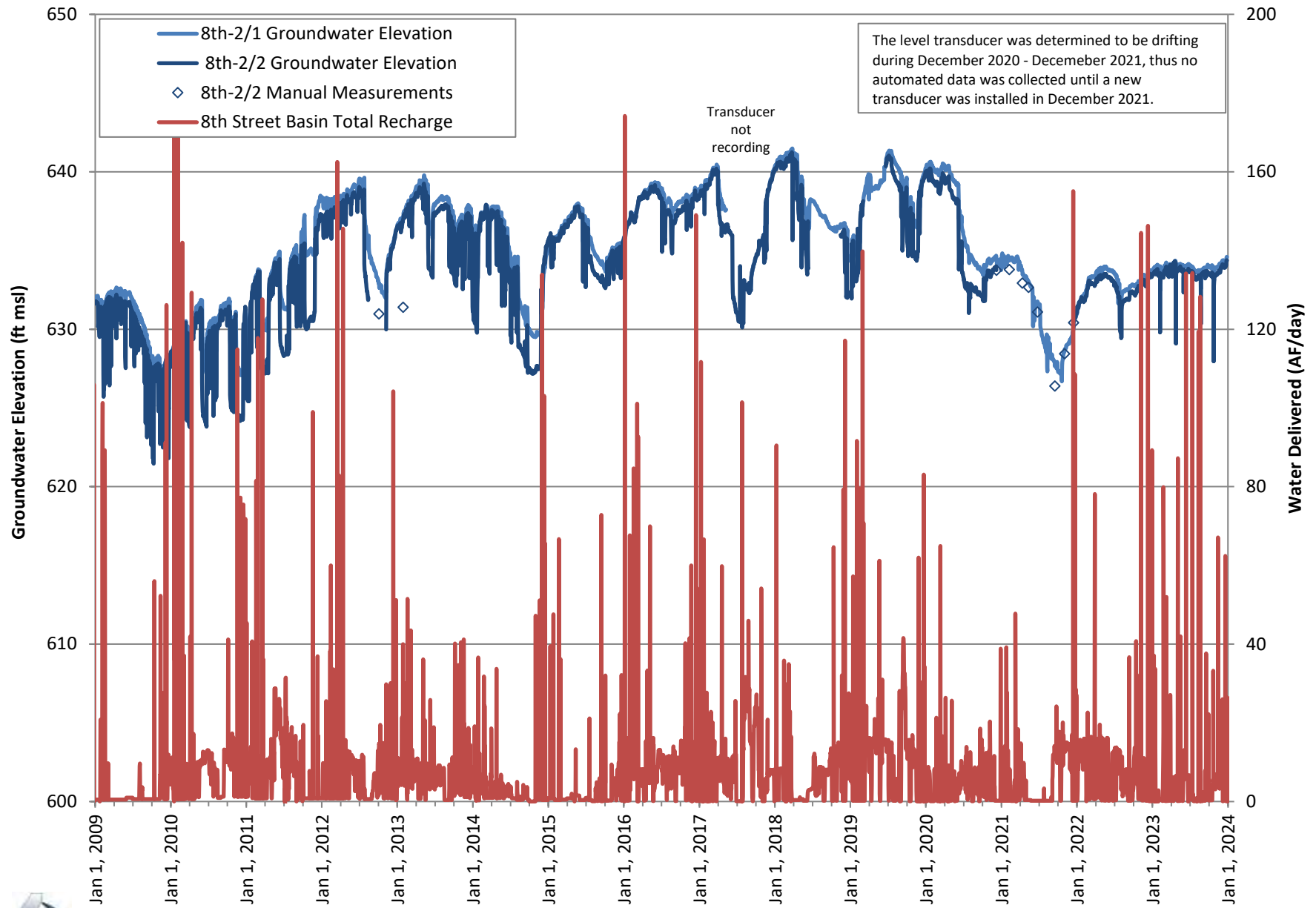
APPENDIX D  
MONITORING WELL HYDROGRAPHS

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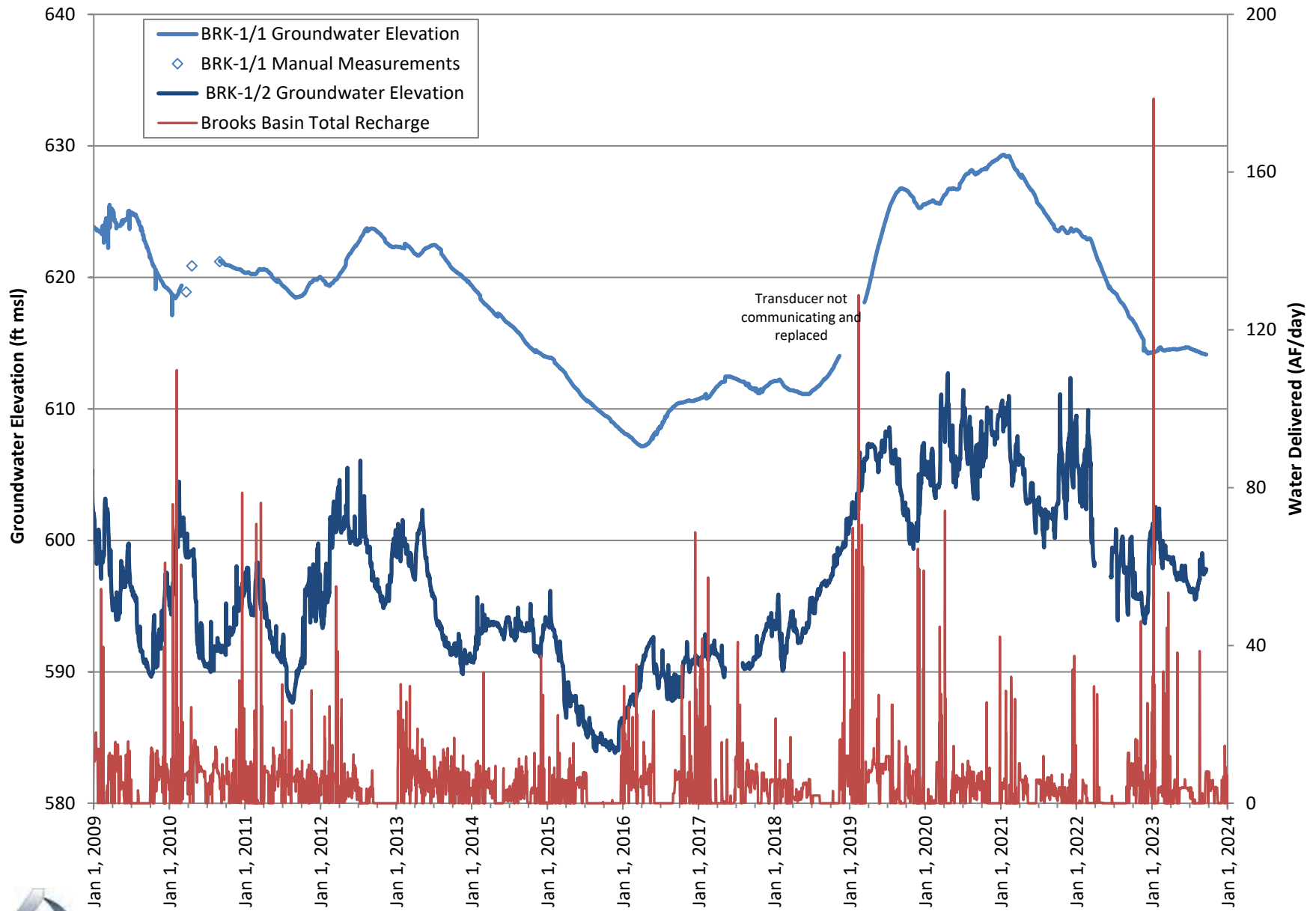




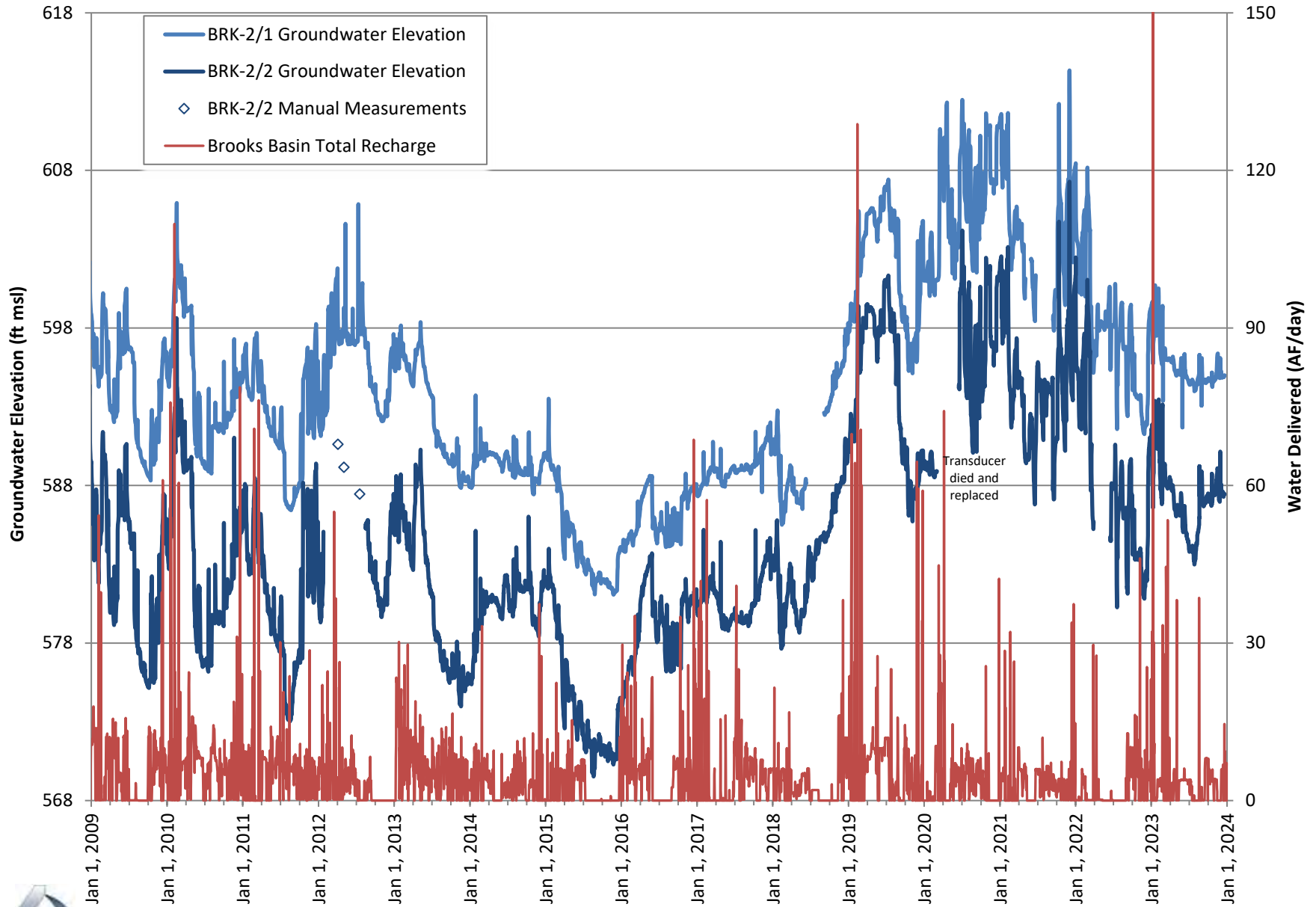
**HYDROGRAPH  
MW 8TH-1/1 & 8TH-1/2**



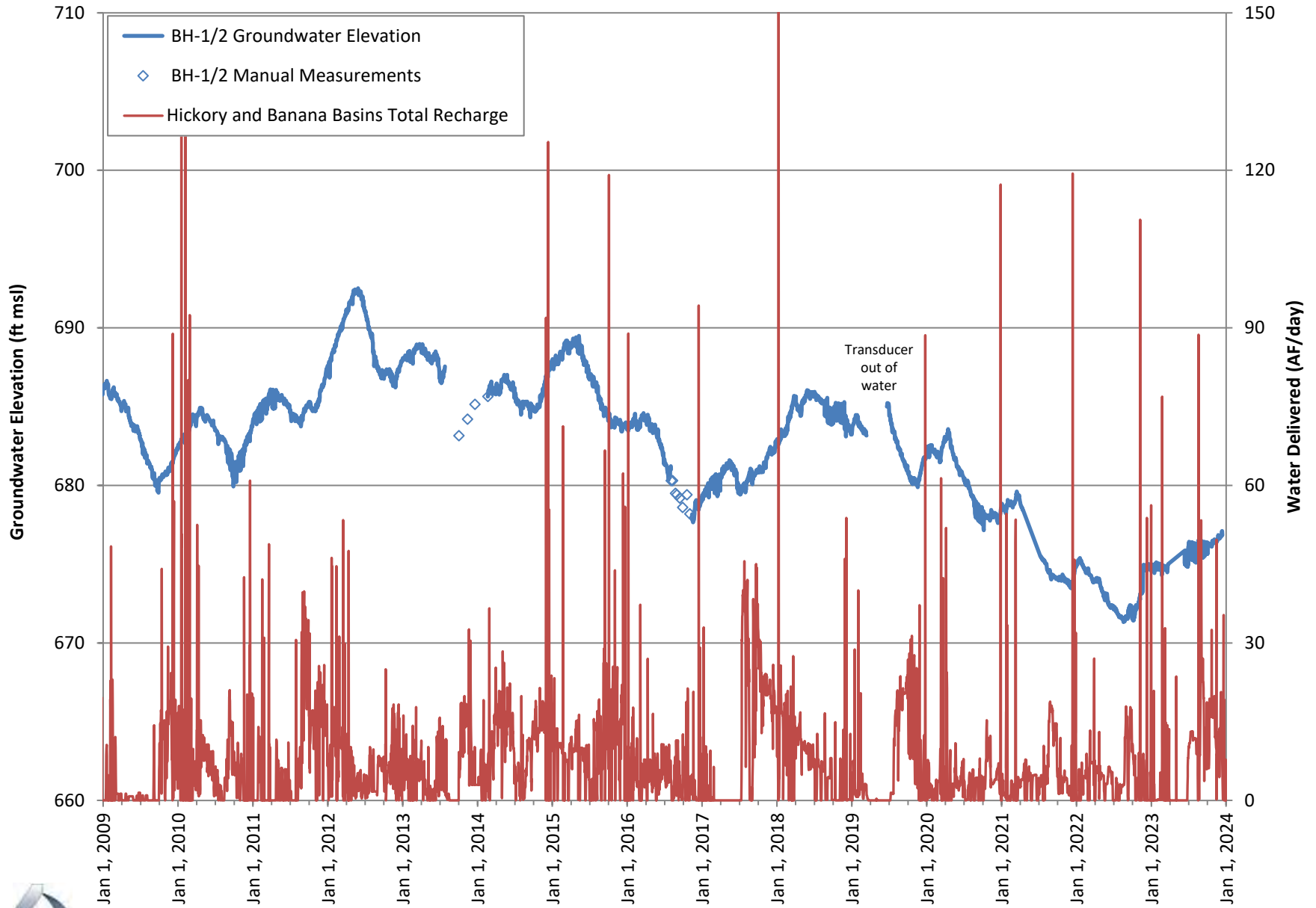
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MW 8TH-2/1 & 8TH-2/2**



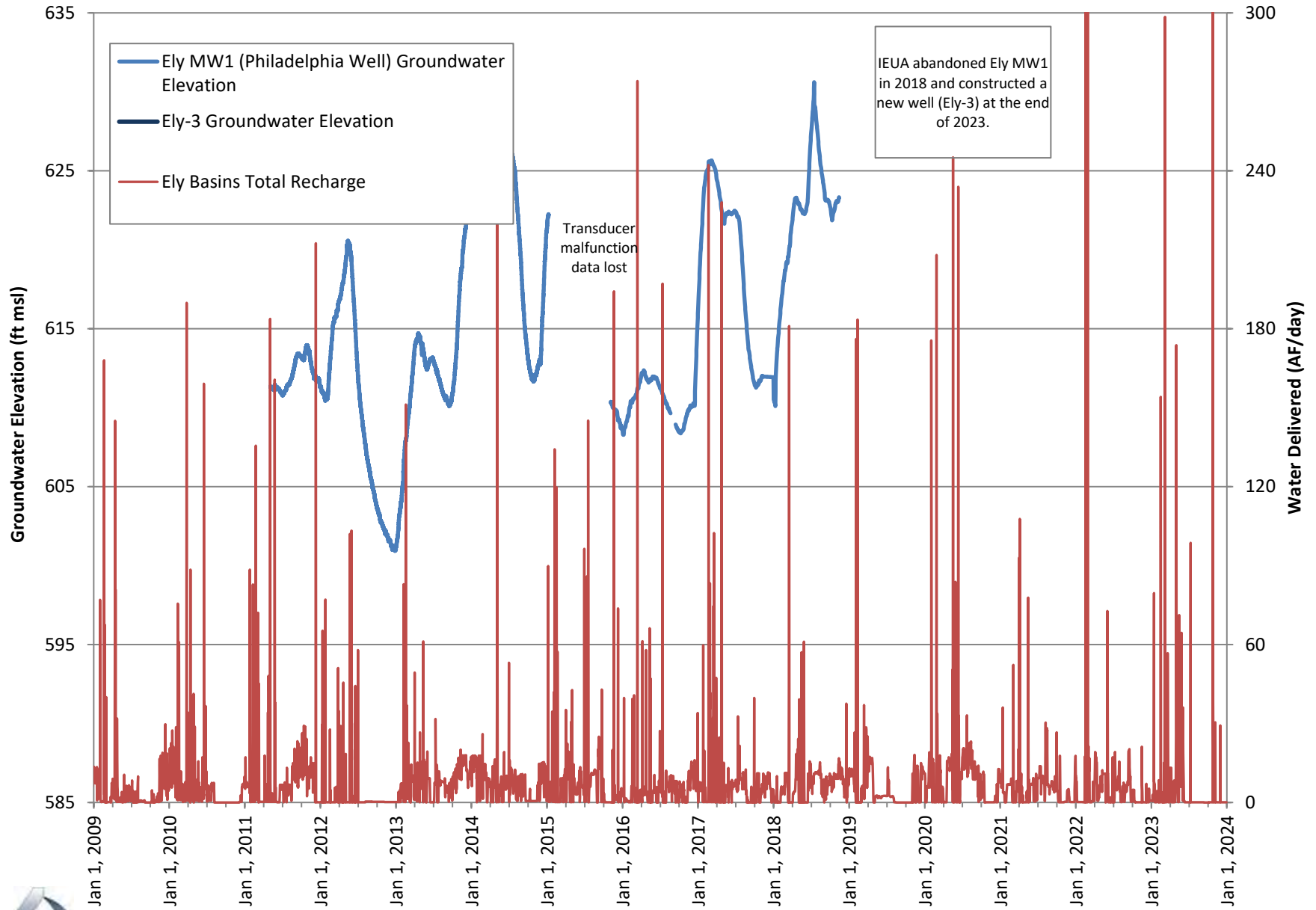
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MW BRK-1/1 & BRK-1/2**



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

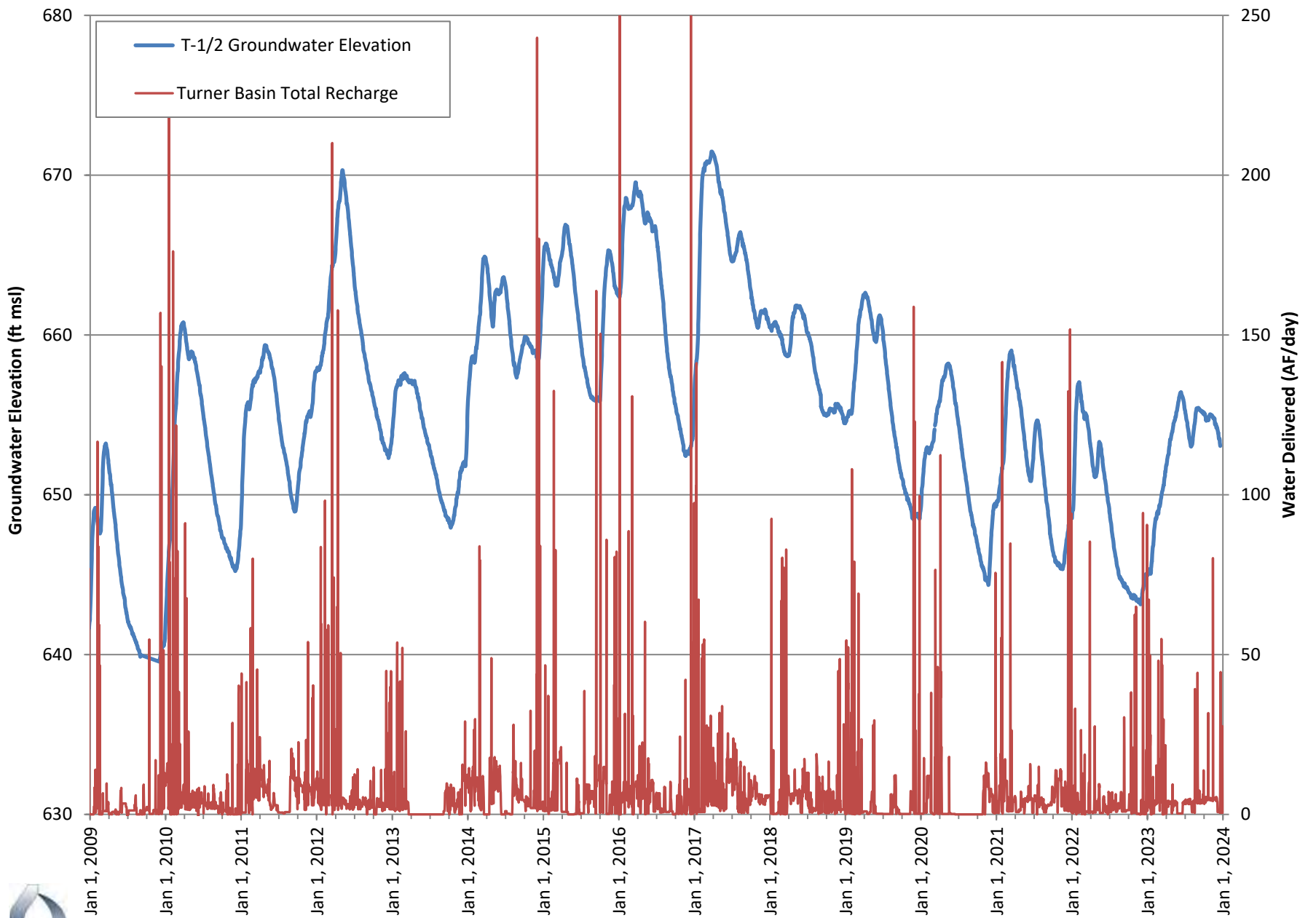


**HYDROGRAPH  
MW BH-1/2**

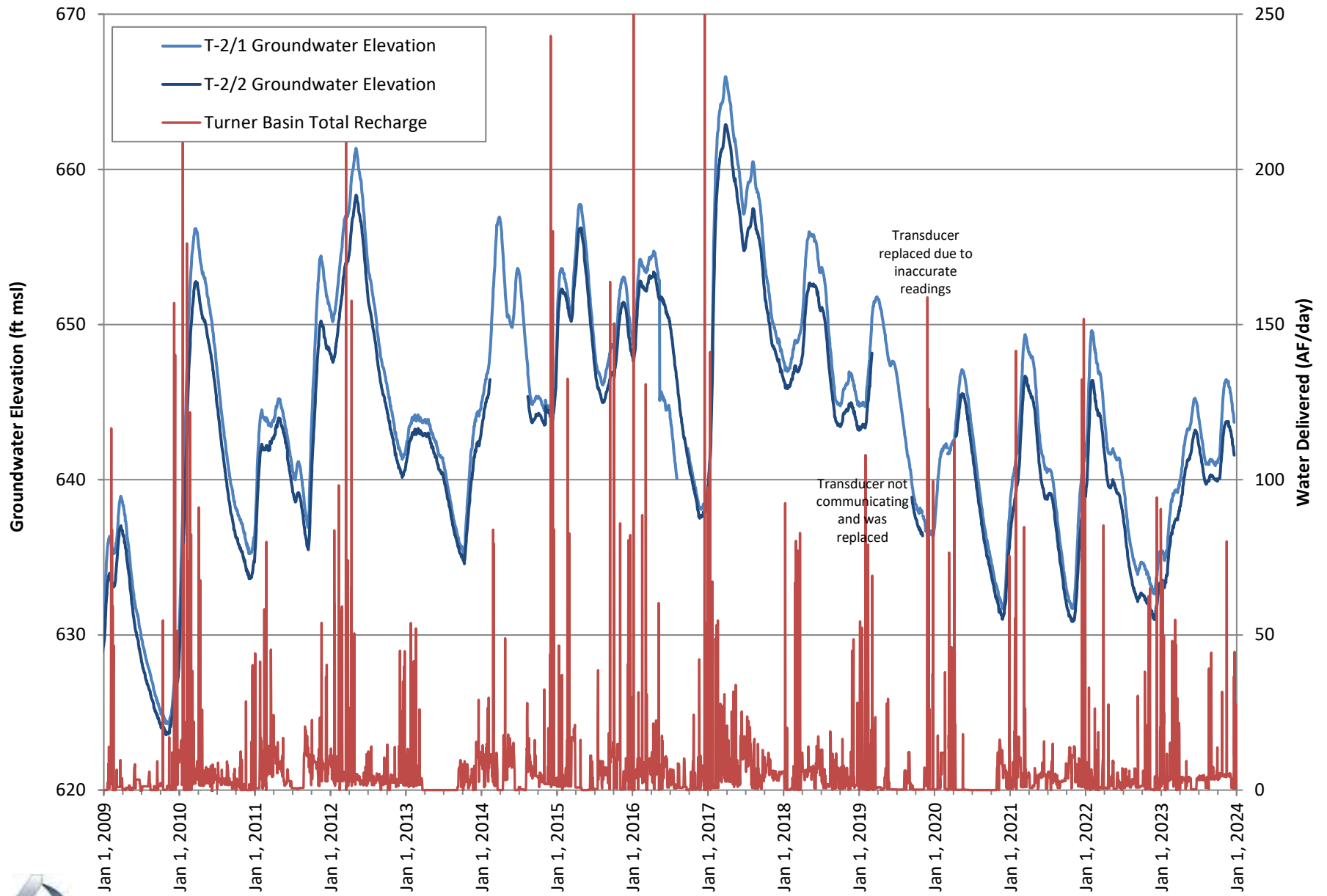


**HYDROGRAPH**  
**Ely MW1 (Philadelphia Well) & Ely-3**

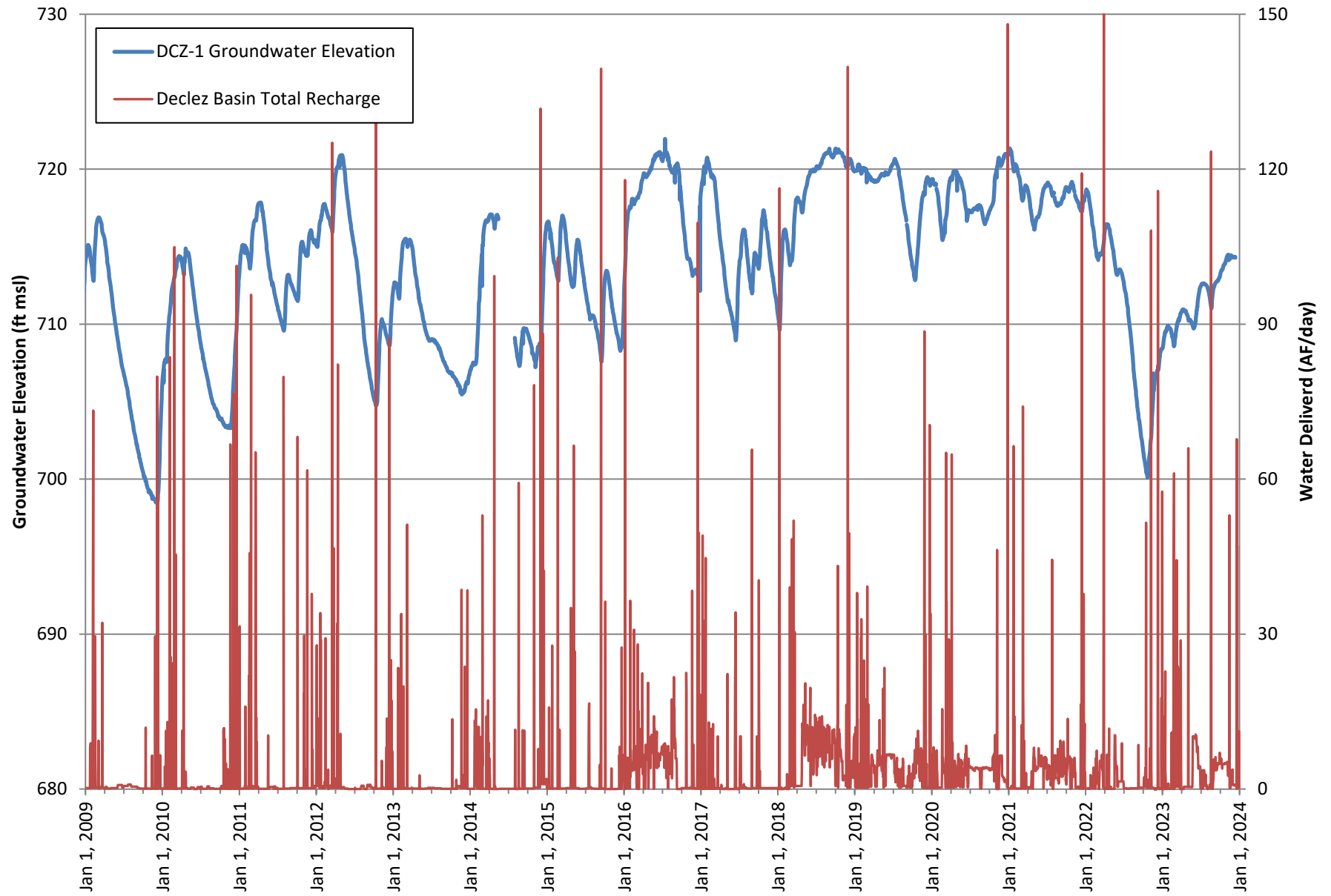




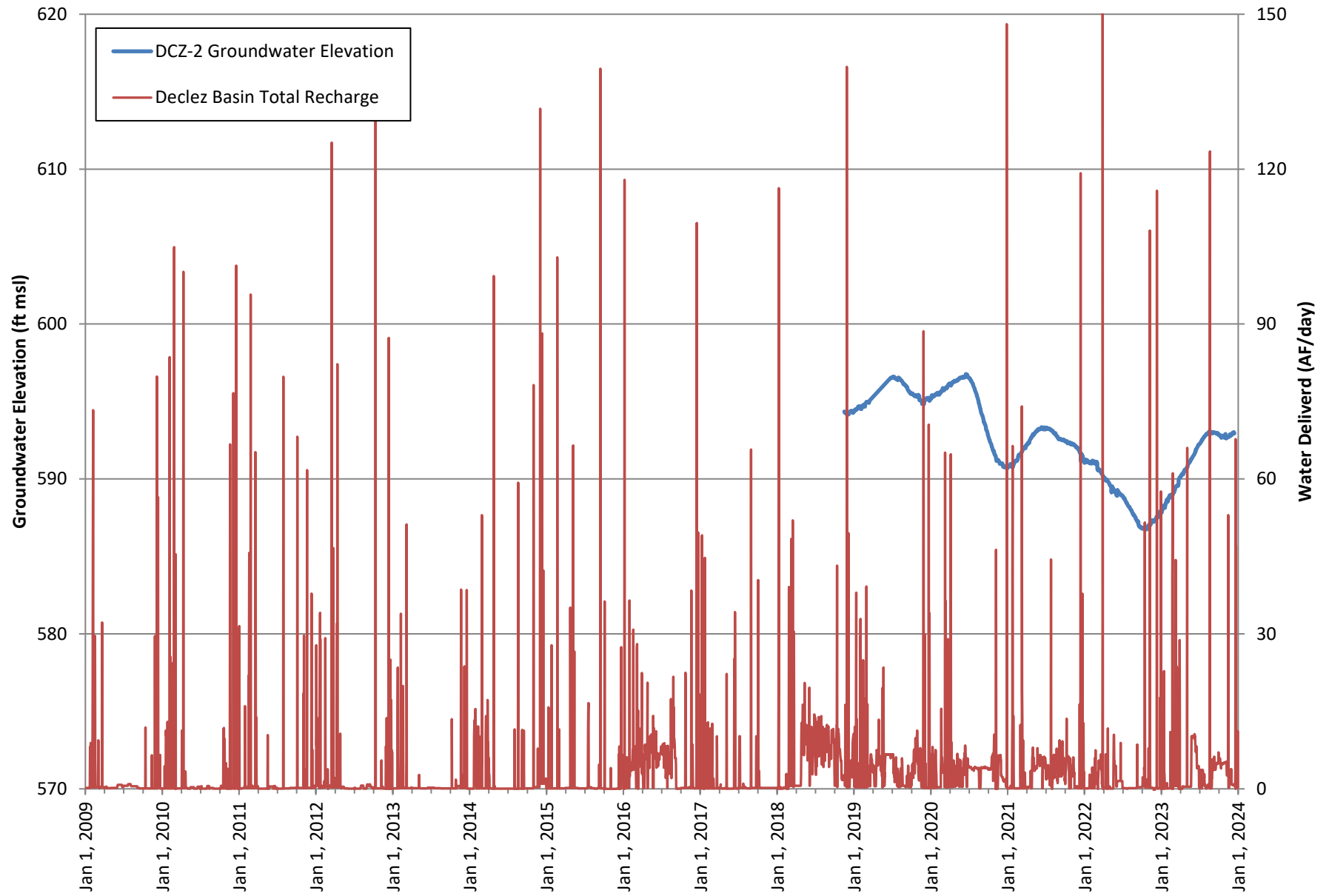
**HYDROGRAPH  
MW T-1/2**



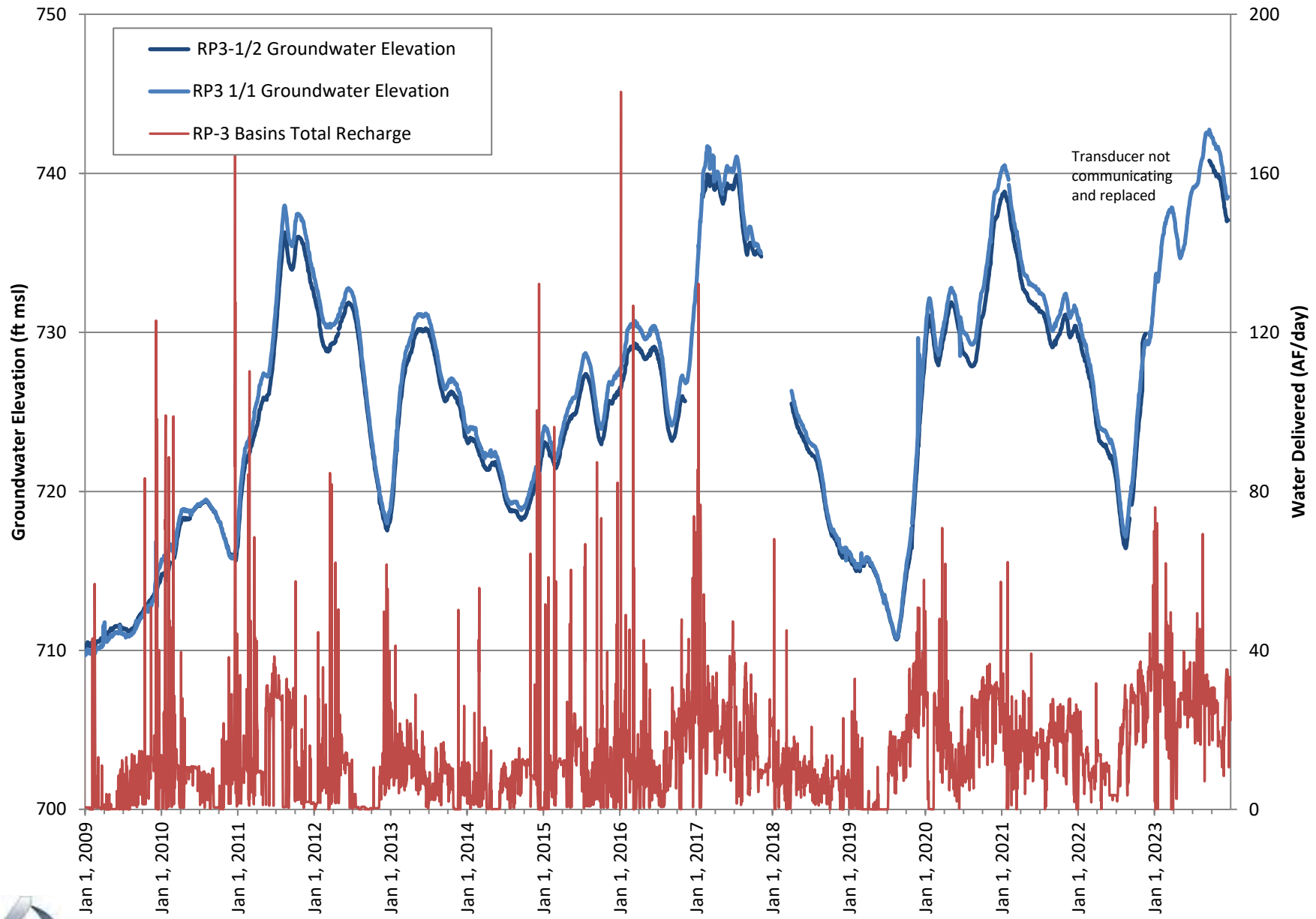
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MW T-2/1 & T-2/2**



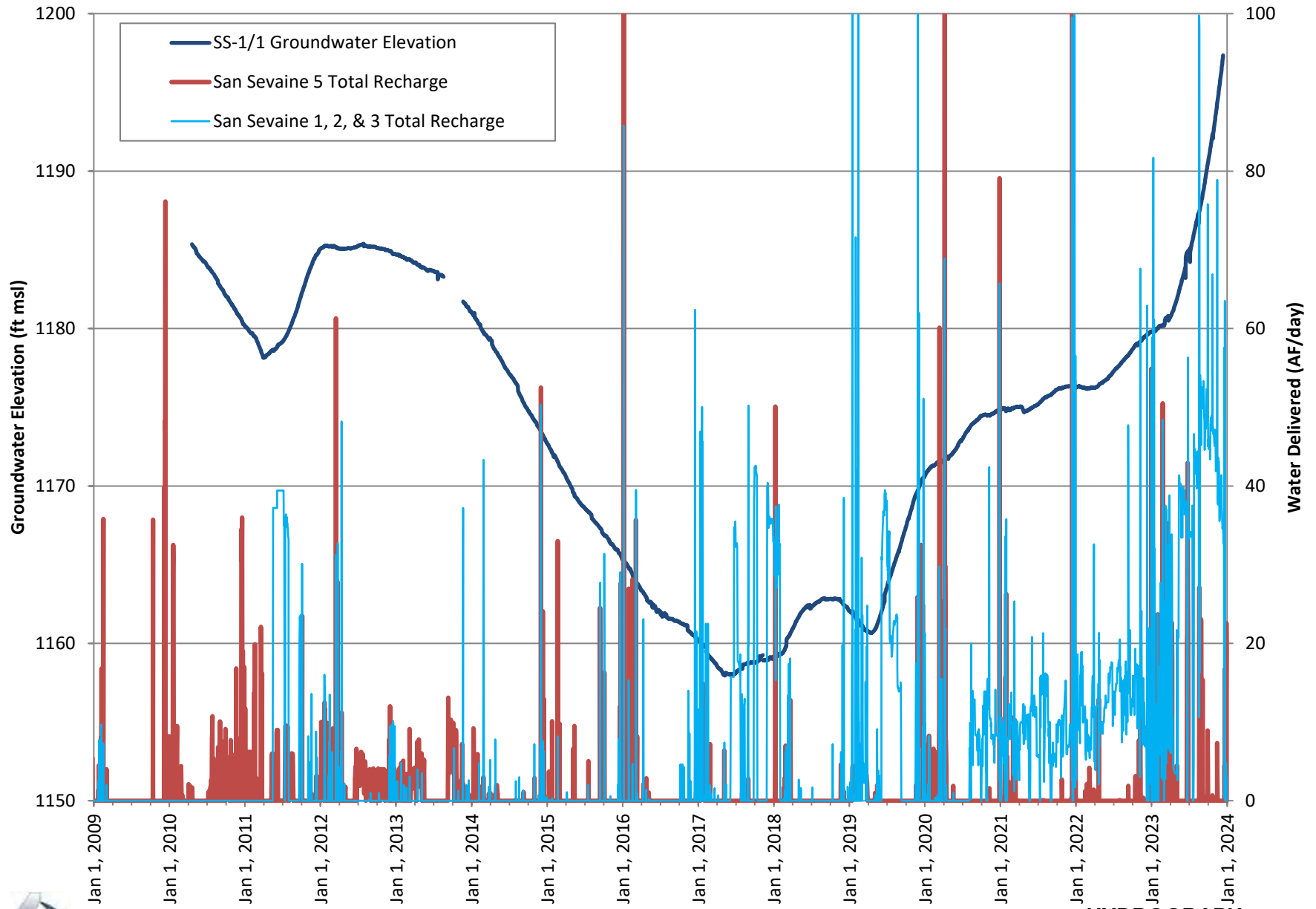
**HYDROGRAPH  
MW DCZ-1**



**HYDROGRAPH  
MW DCZ-2**

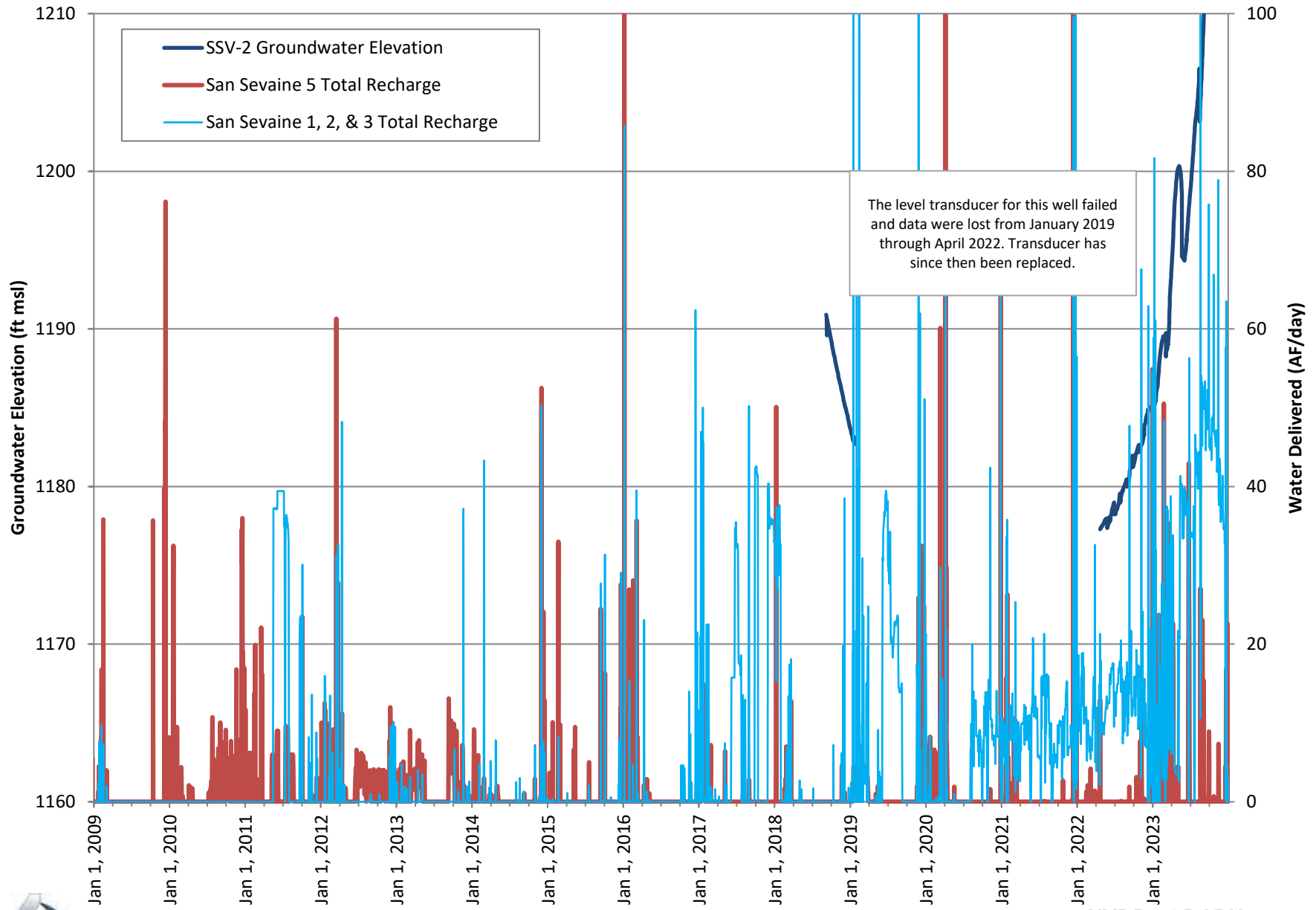


**HYDROGRAPH**  
**MW RP3-1/1 & RP3-1/2**



**HYDROGRAPH  
MW SS-1/1**

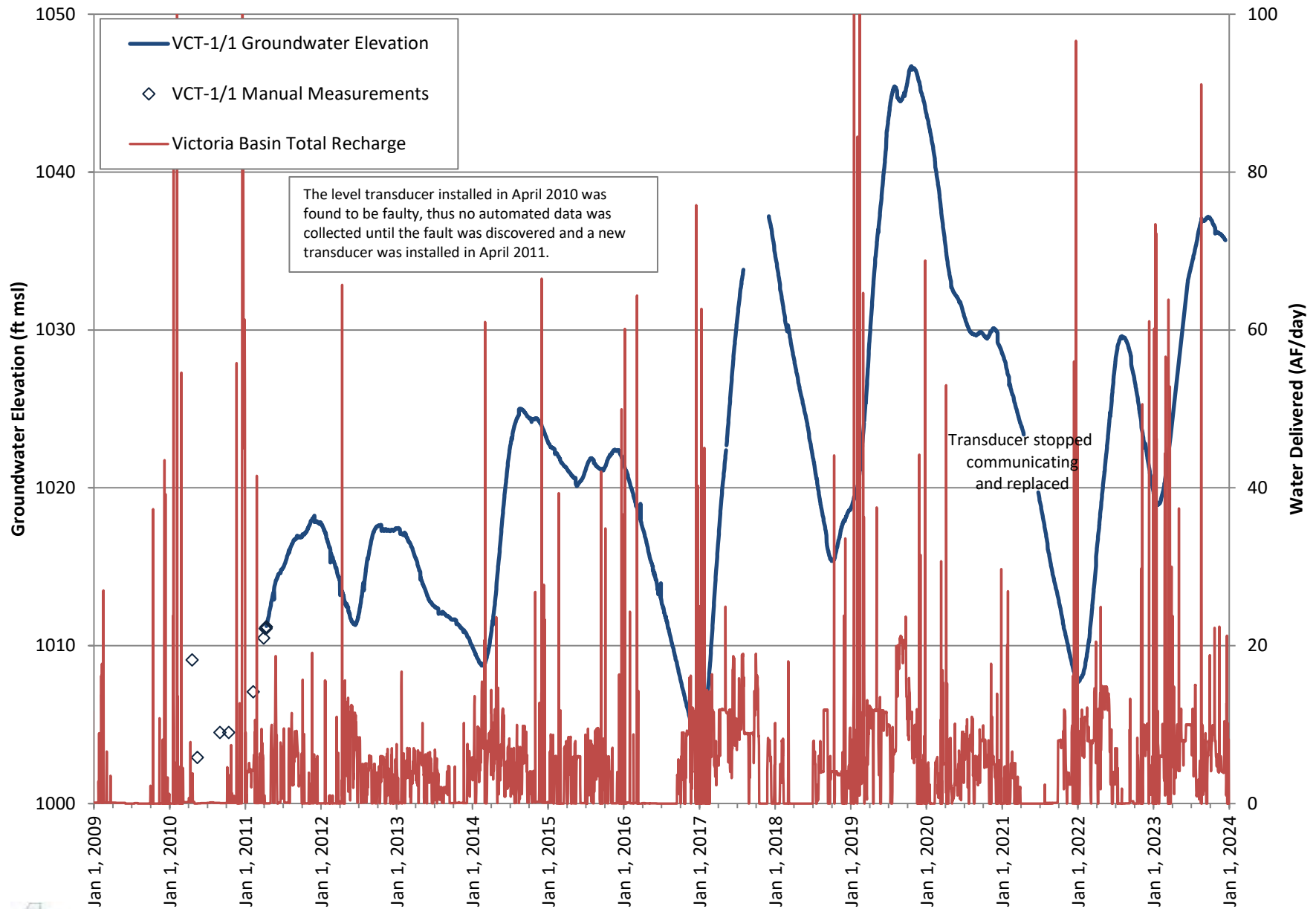




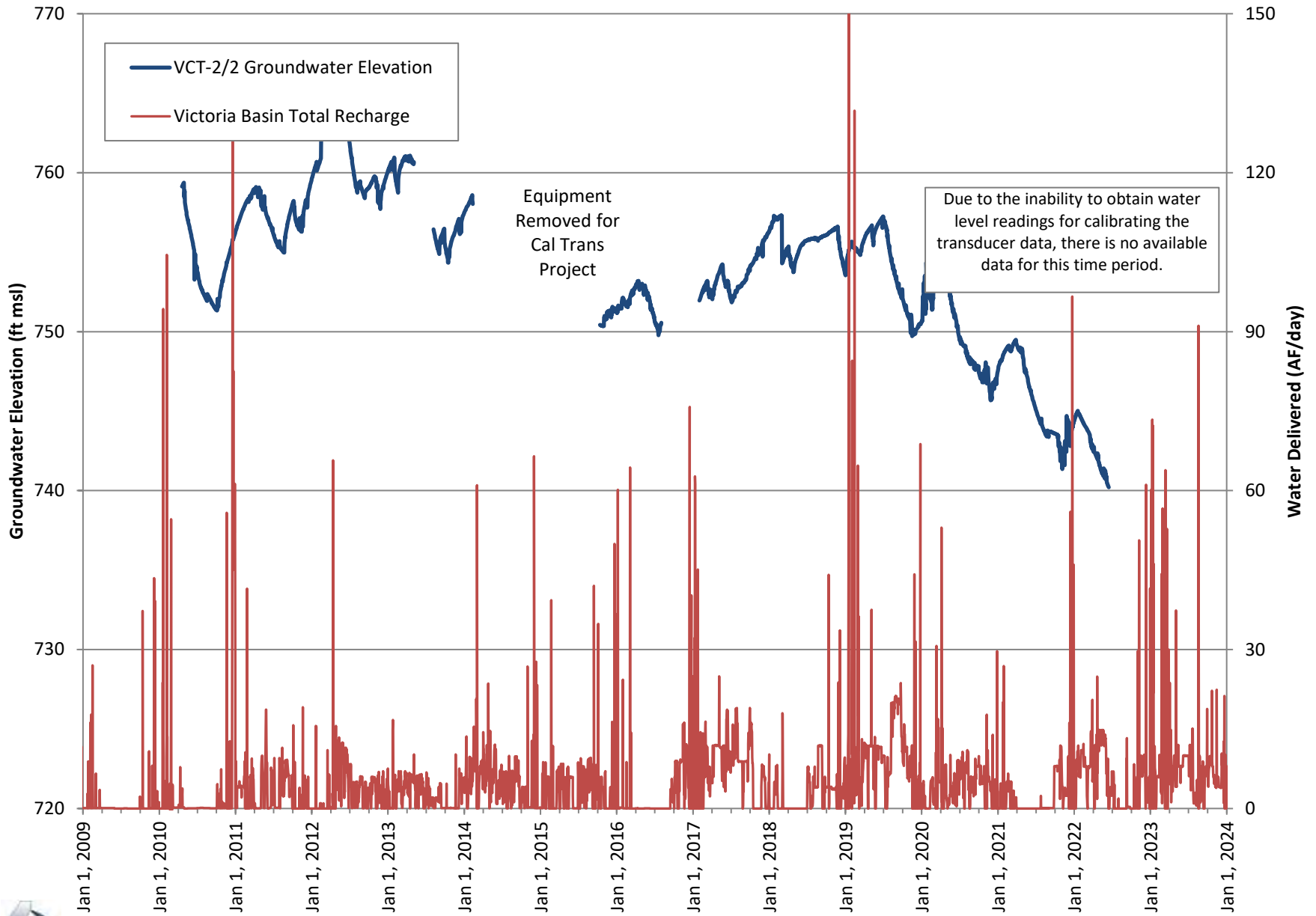
The level transducer for this well failed and data were lost from January 2019 through April 2022. Transducer has since then been replaced.



**HYDROGRAPH  
MW SSV-2**



**HYDROGRAPH  
MW VCT-1/1**



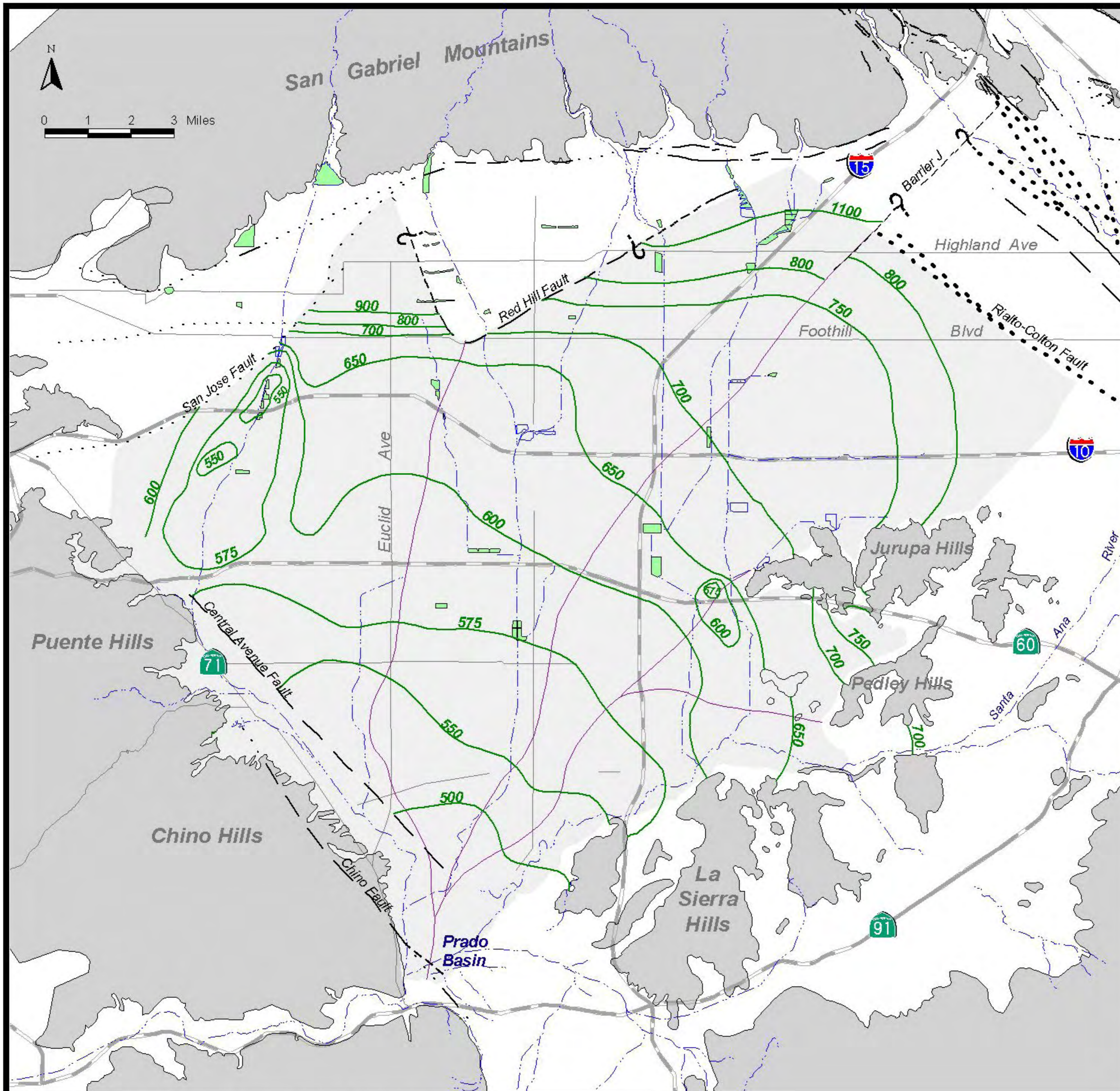
**HYDROGRAPH  
MW VCT-2/2**

## APPENDIX E

### GROUNDWATER ELEVATION CONTOUR MAPS

---





Optimum Basin Management Program  
Chino Basin Watermaster

Legend

- Fall 1997 Groundwater Elevation (ft-msl)
- Fault
  - Dashed Where Approximate
  - Dotted Where Concealed
  - Queried Where Uncertain
  - Large Dots Where Groundwater Barrier (Suspected Fault)
- Rivers & Streams
- Management Zone Boundary
- Hydrologic Chino Basin
- Recharge Basins
- Bedrock

Management Zone Index Map

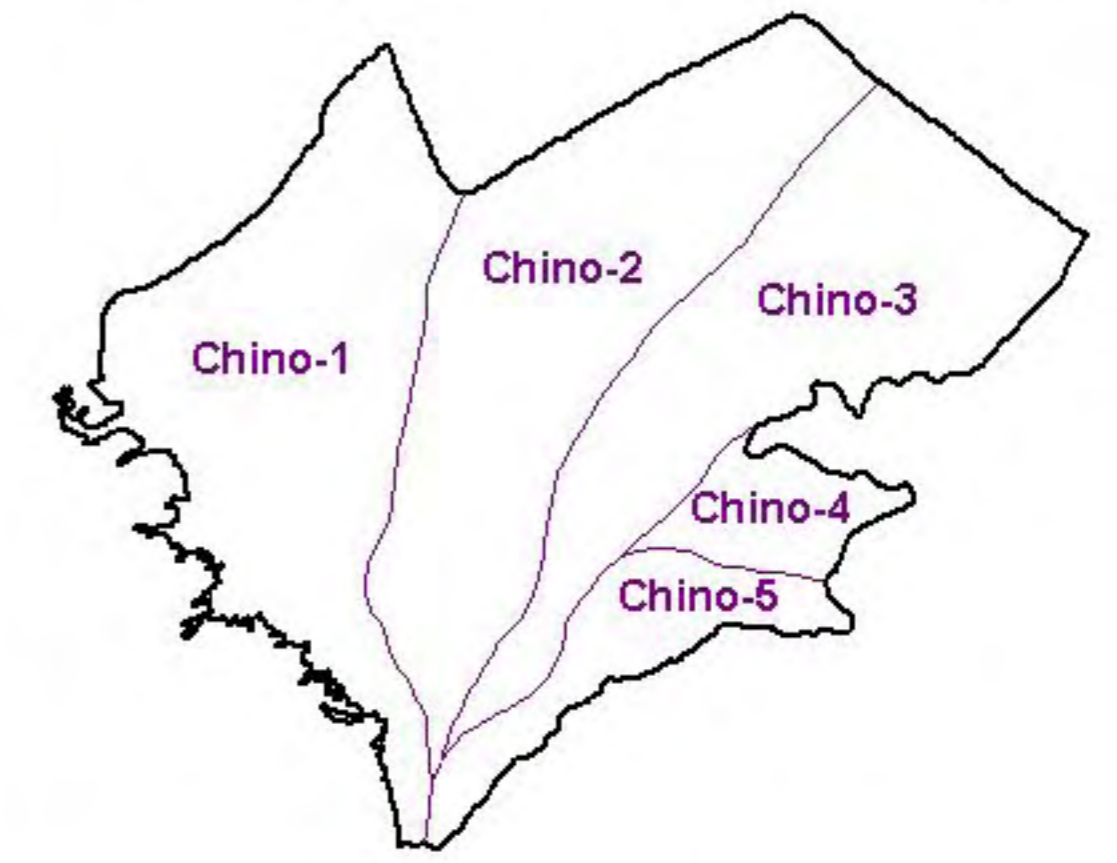
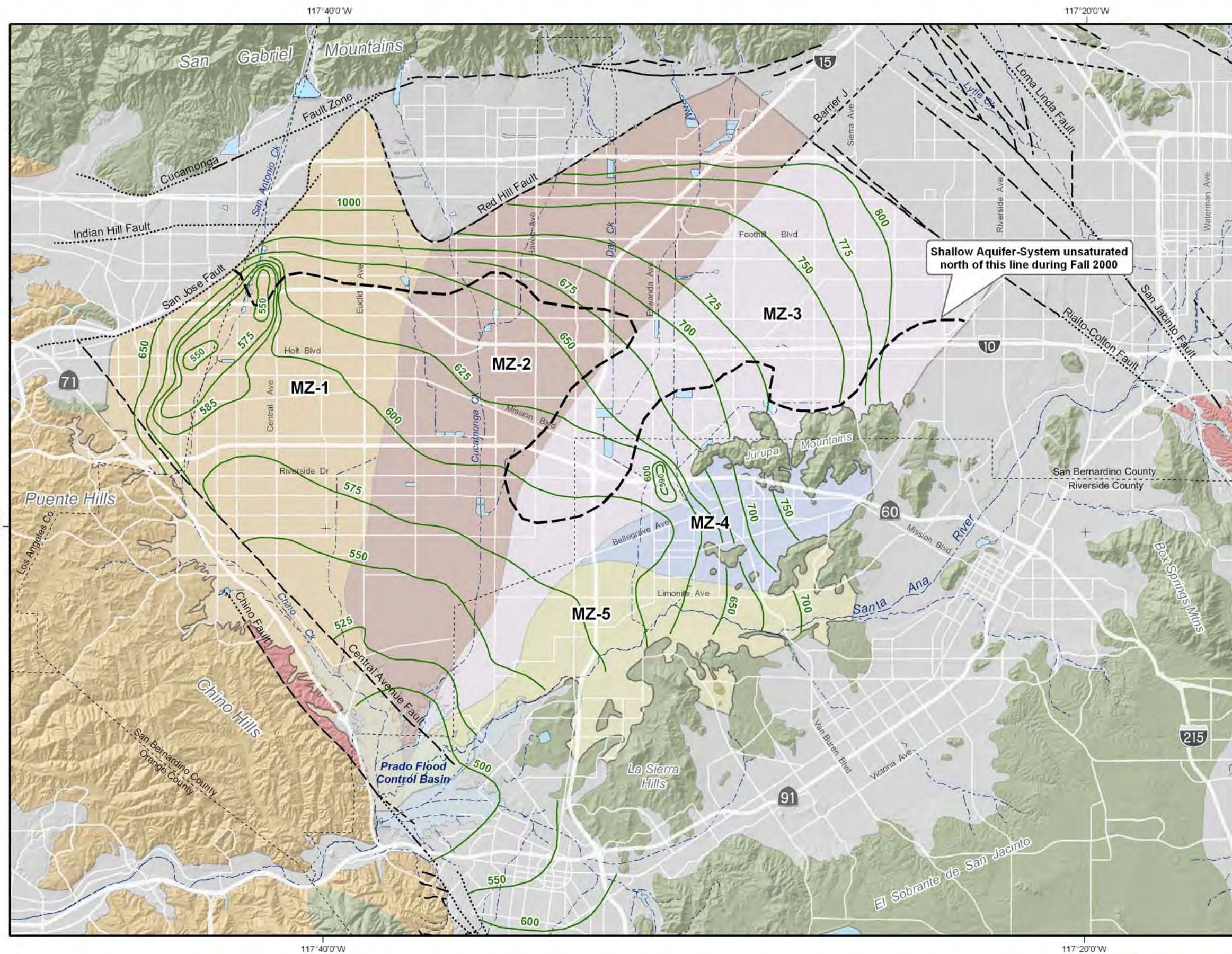


Figure 2-19  
Fall 1997  
Groundwater Elevation Map

**WE** WILDERMUTH ENVIRONMENTAL, INC.

Date: August 19, 1999





### Main Features

- 800 Groundwater Elevation Contours -- Fall 2000 (feet above mean sea level)
- 775 Groundwater Elevation Contours -- Fall 2000 (feet above mean sea level)

### 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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**WILDERMUTH**  
 ENVIRONMENTAL INC.  
 23692 Britcher Drive  
 Lake Forest, CA 92630  
 949.420.3030  
<http://www.wildermuthenvironmental.com>

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

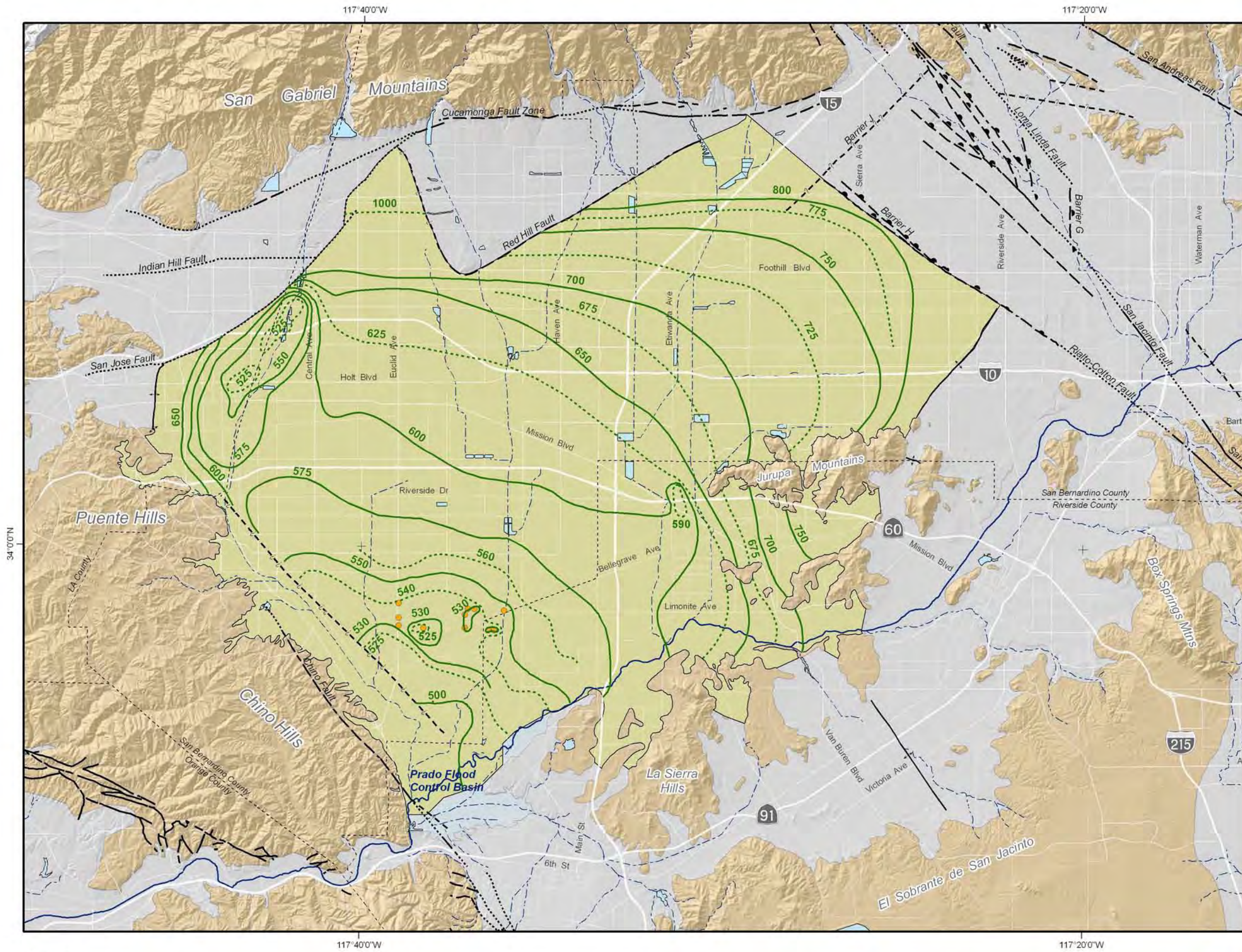


**Inland Empire**  
 UTILITIES AGENCY  
 Phase II Recycled Water  
 Groundwater Recharge Project

**Groundwater Elevation Map  
 Fall 2000**

**Figure 8-3**





### Main Features

- 800 Groundwater Elevation Contours (feet above mean sea-level)
- 775
- 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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Author: KD  
 Date: 20050627  
 File: Figure\_3-6.mxd



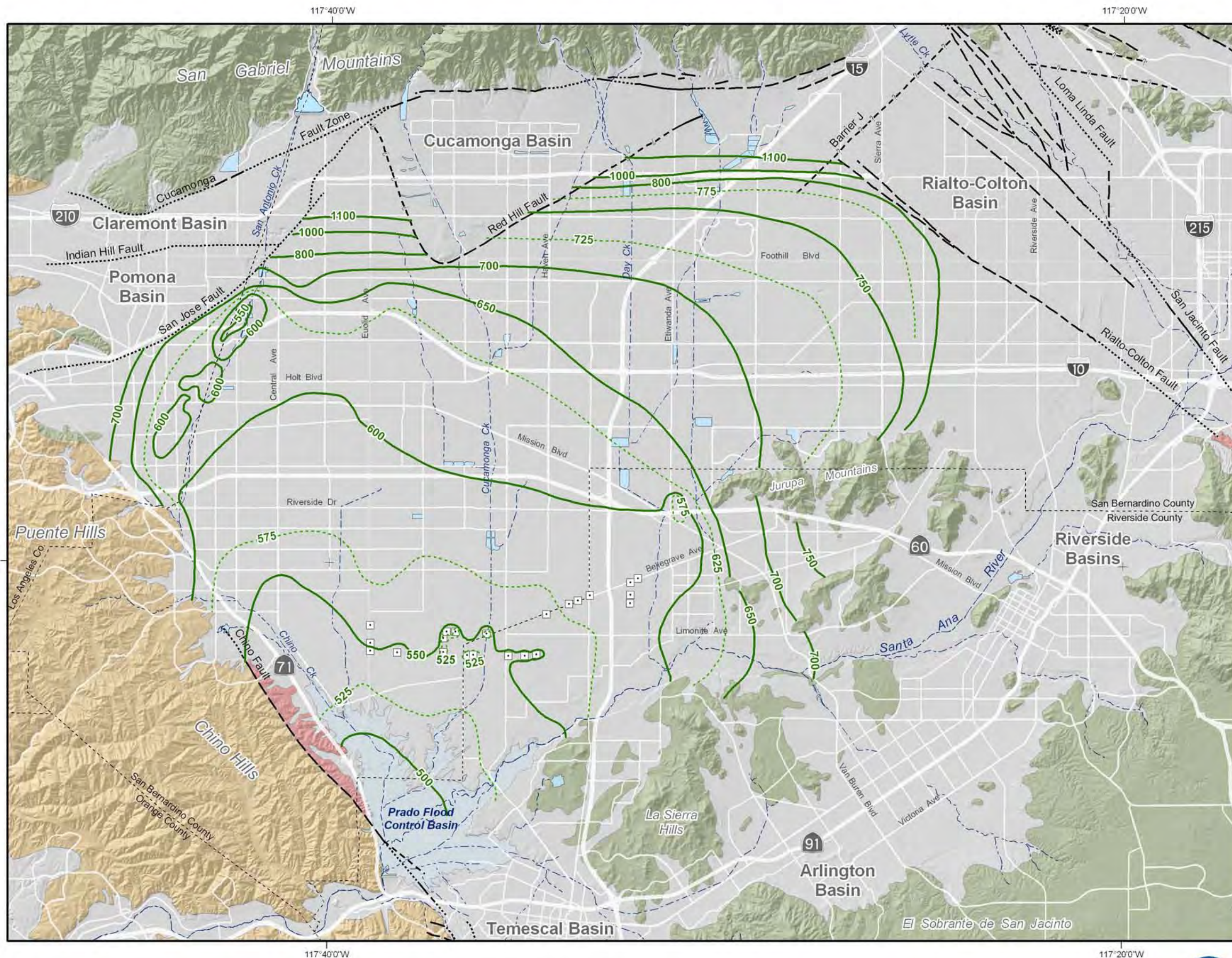
**State of the Basin Report -- 2004**  
 Groundwater Basin Operation and Response



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

**Figure 3-6**





800 Groundwater Elevation Contours (feet above mean sea-level)  
 775

Other Features

- Chino Desalter Well
- ☾ Flood Control and Conservation Basins

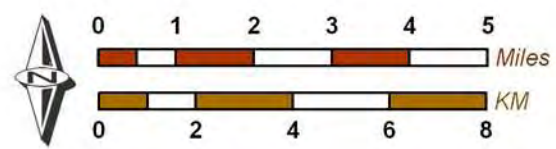
Geology

- 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



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Author: ETL  
 Date: 20070511  
 File: Figure\_3-18.mxd



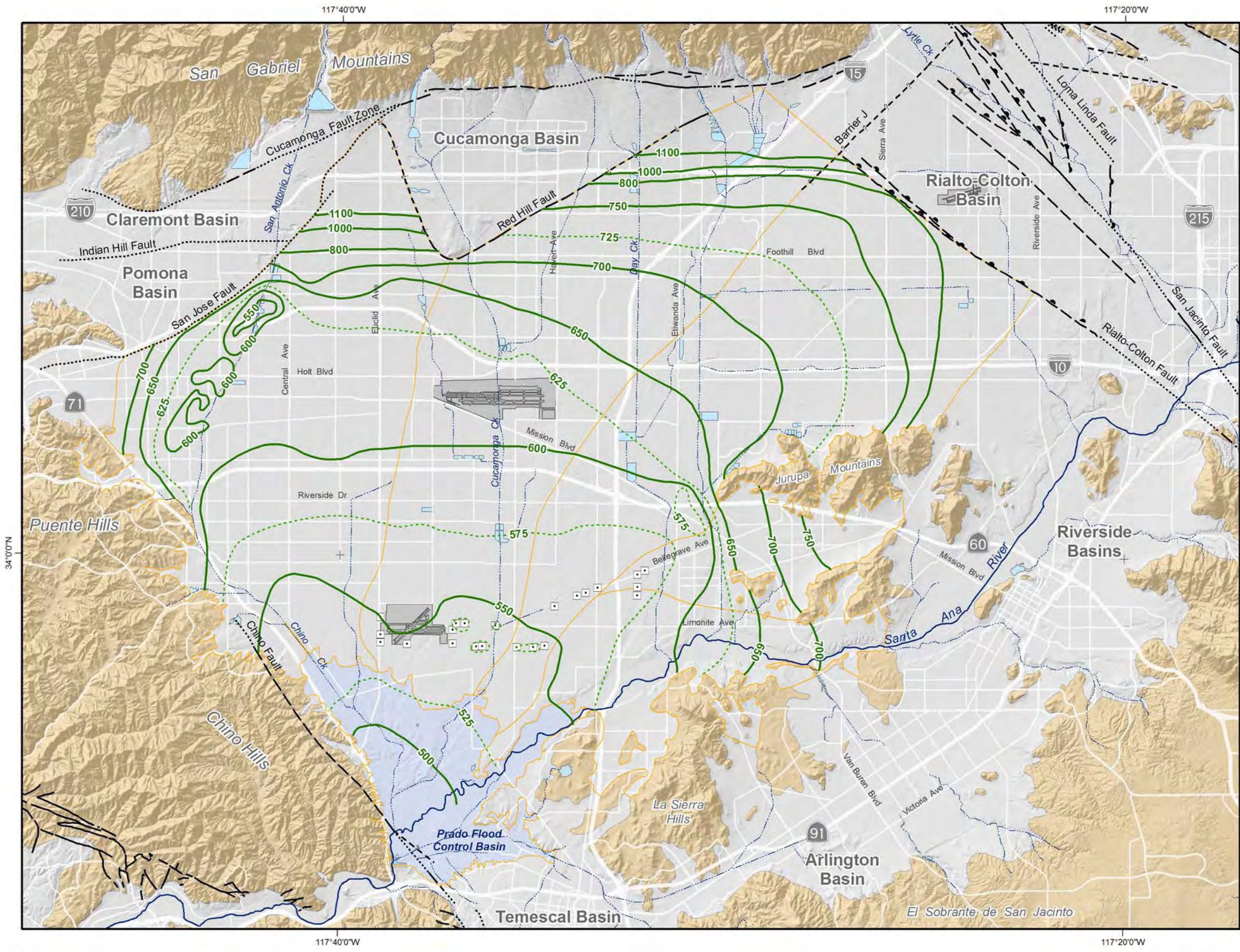
**CHINO BASIN WATERMASTER**  
 Success in Basin Management

**DRAFT - 2007 CBWM Groundwater Model Documentation and Evaluation of the Peace II Project Description**  
 Hydrogeologic Setting

**Groundwater Elevation Contours**  
 Fall 2006 -- Chino Basin

**Figure 2-7a**





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

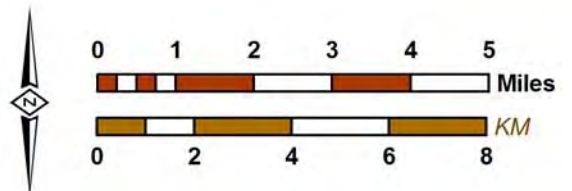
**Faults**

- Location Certain
- Location Concealed
- Location Approximate
- Location Uncertain



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

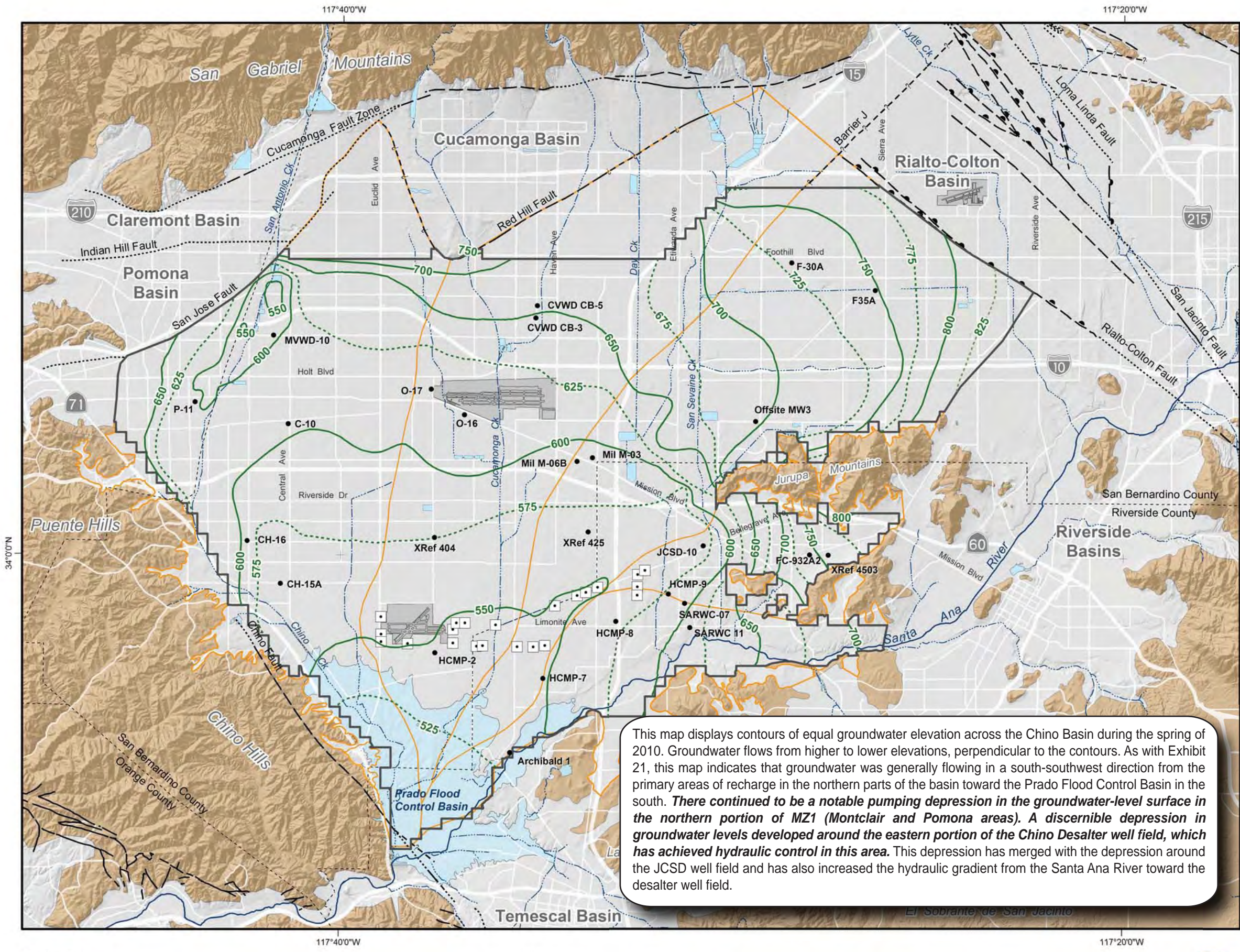


**2008 State of the Basin Report**  
 Groundwater Levels

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

**Figure 3-19**





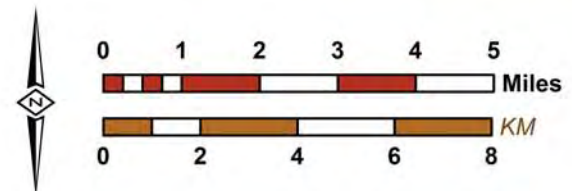
- Groundwater Elevation Contours (feet above mean sea-level)
  - Boundry of Contoured Area (contours are not shown outside of this boundary due to lack of water level data)
  - Well used for Time History Analysis (Exhibits 16 through 20)
  - OBMP Management Zones
  - Chino Desalter Wells
  - Streams & 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 Concealed
  - Location Approximate
  - Location Uncertain
  - Approximate Location of Groundwater Barrier

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

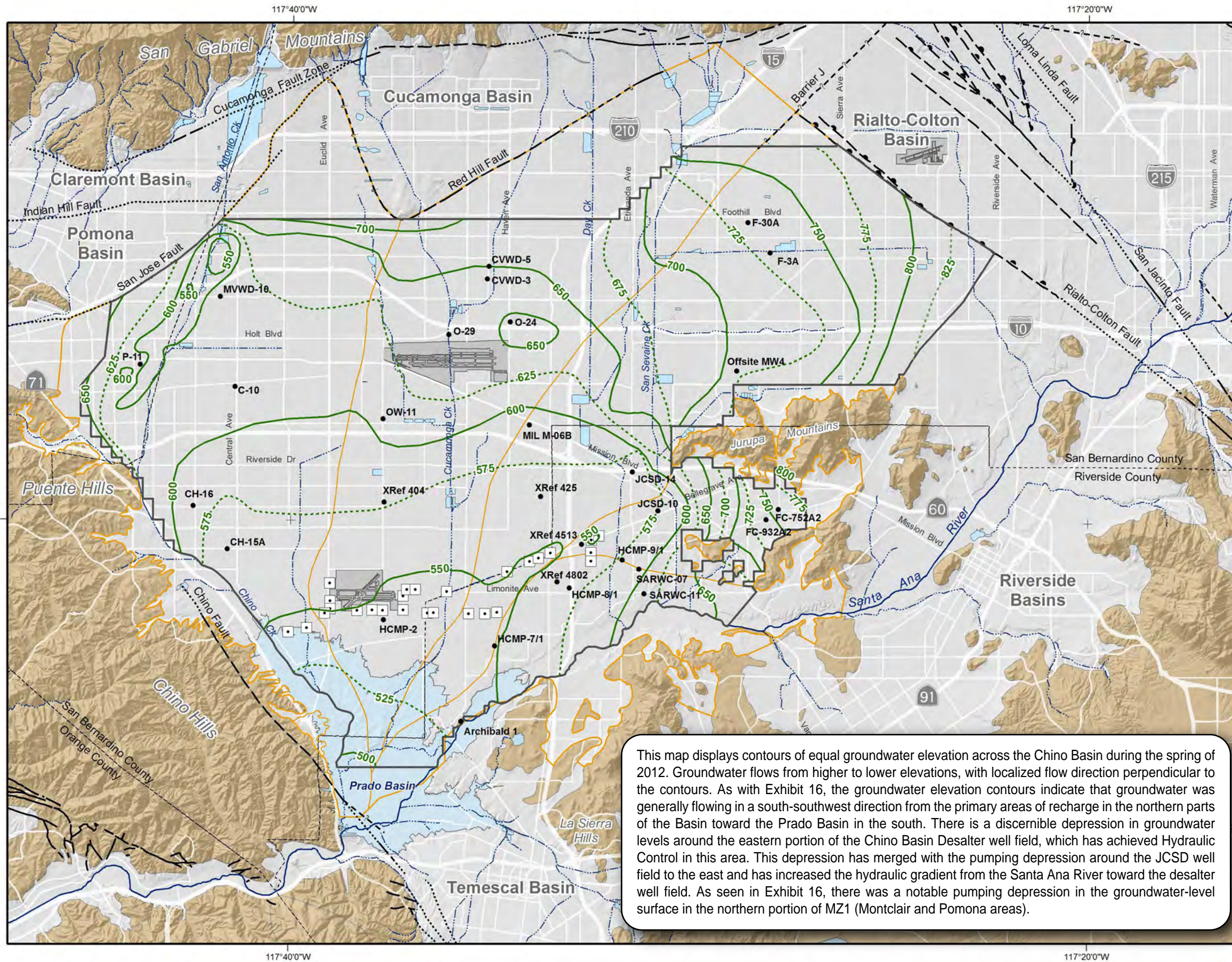


**2010 State of the Basin**  
 Groundwater Levels

**Groundwater Elevation Contours**

Spring 2010





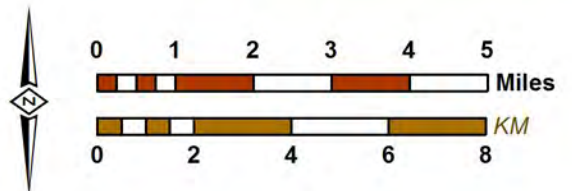
- Groundwater Elevation Contours (feet above mean sea-level)
  - Boundry of Contoured Area (contours are not shown outside of this boundary due to lack of groundwater level data)
  - Well With a Groundwater-Level Time History Plotted on Exhibits 24 through 28
  - OBMP Management Zones
  - Chino Basin 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 Concealed
  - Location Approximate
  - Location Uncertain
  - Approximate Location of Groundwater Barrier

This map displays contours of equal groundwater elevation across the Chino Basin during the spring of 2012. Groundwater flows from higher to lower elevations, with localized flow direction perpendicular to the contours. As with Exhibit 16, the groundwater elevation 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 Basin Desalter well field, which has achieved Hydraulic Control in this area. This depression has merged with the pumping depression around the JCSO 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, there was a notable pumping depression in the groundwater-level surface in the northern portion of MZ1 (Montclair and Pomona areas).



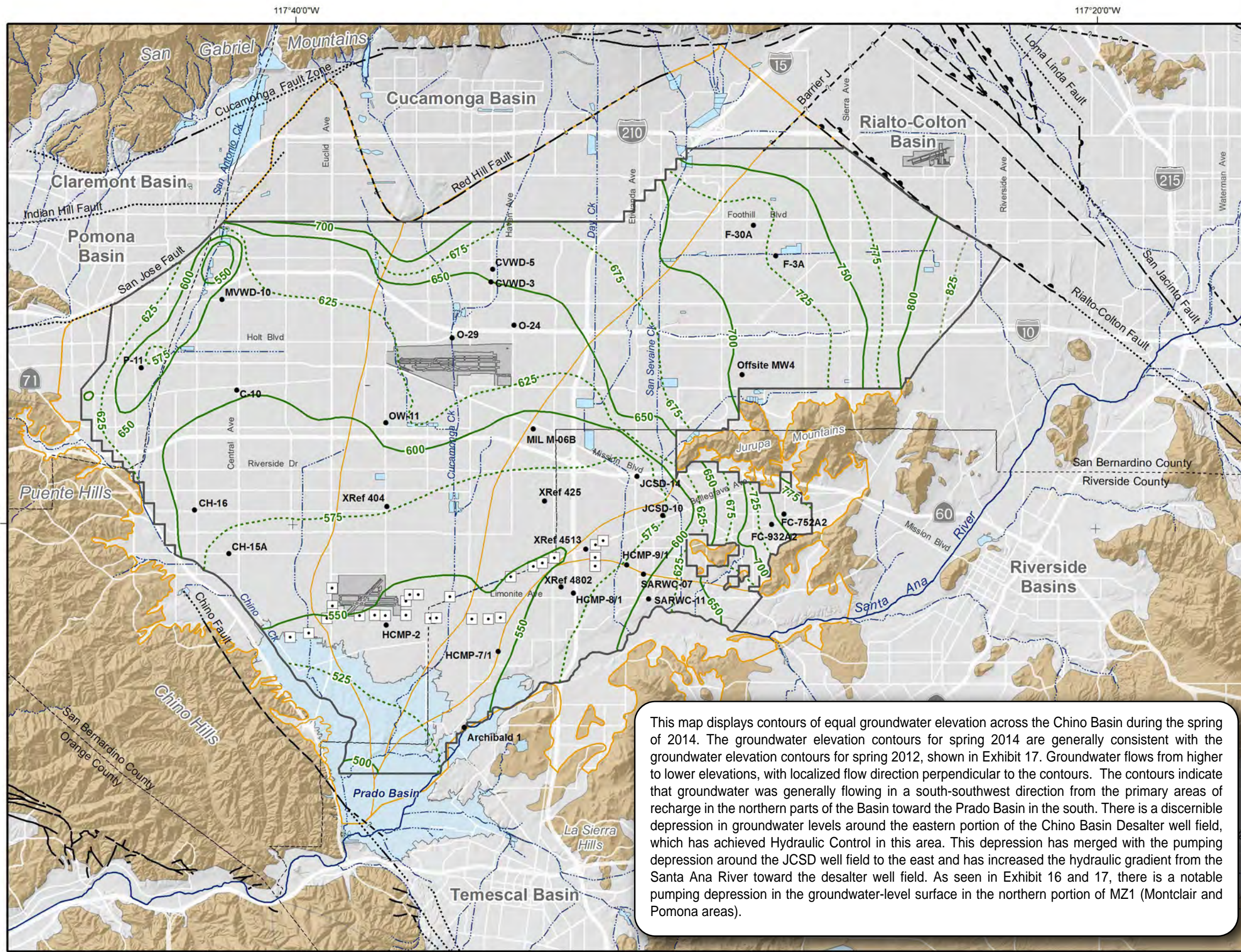
Prepared by:  
 WEI  
 WILSON & ENVIRONMENTAL, INC.  
 23692 Birtcher Drive  
 Lake Forest, CA 92630  
 949.420.3030  
 www.weiwater.com

Author: amalone  
 Date: 6/23/2015  
 Document Name: Exhibit\_17\_sp2012



CHINO BASIN WATERMASTER  
 2014 State of the Basin  
 Groundwater Levels





**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 groundwater level data)

• Well With a Groundwater-Level Time History Plotted on Exhibits 24 through 28

1 2 3 4 5  
OBMP Management Zones

□ Chino Basin 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 Concealed

- - - - - Location Approximate      - - ? - Location Uncertain

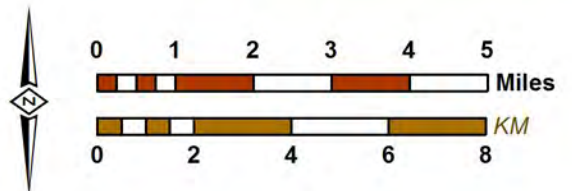
- - - - - Approximate Location of Groundwater Barrier

This map displays contours of equal groundwater elevation across the Chino Basin during the spring of 2014. The groundwater elevation contours for spring 2014 are generally consistent with the groundwater elevation contours for spring 2012, 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 Basin 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).



Prepared by:  
**WEI**  
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www.weiwater.com

Author: amalone  
Date: 6/23/2015  
Document Name: Exhibit\_18\_sp2014



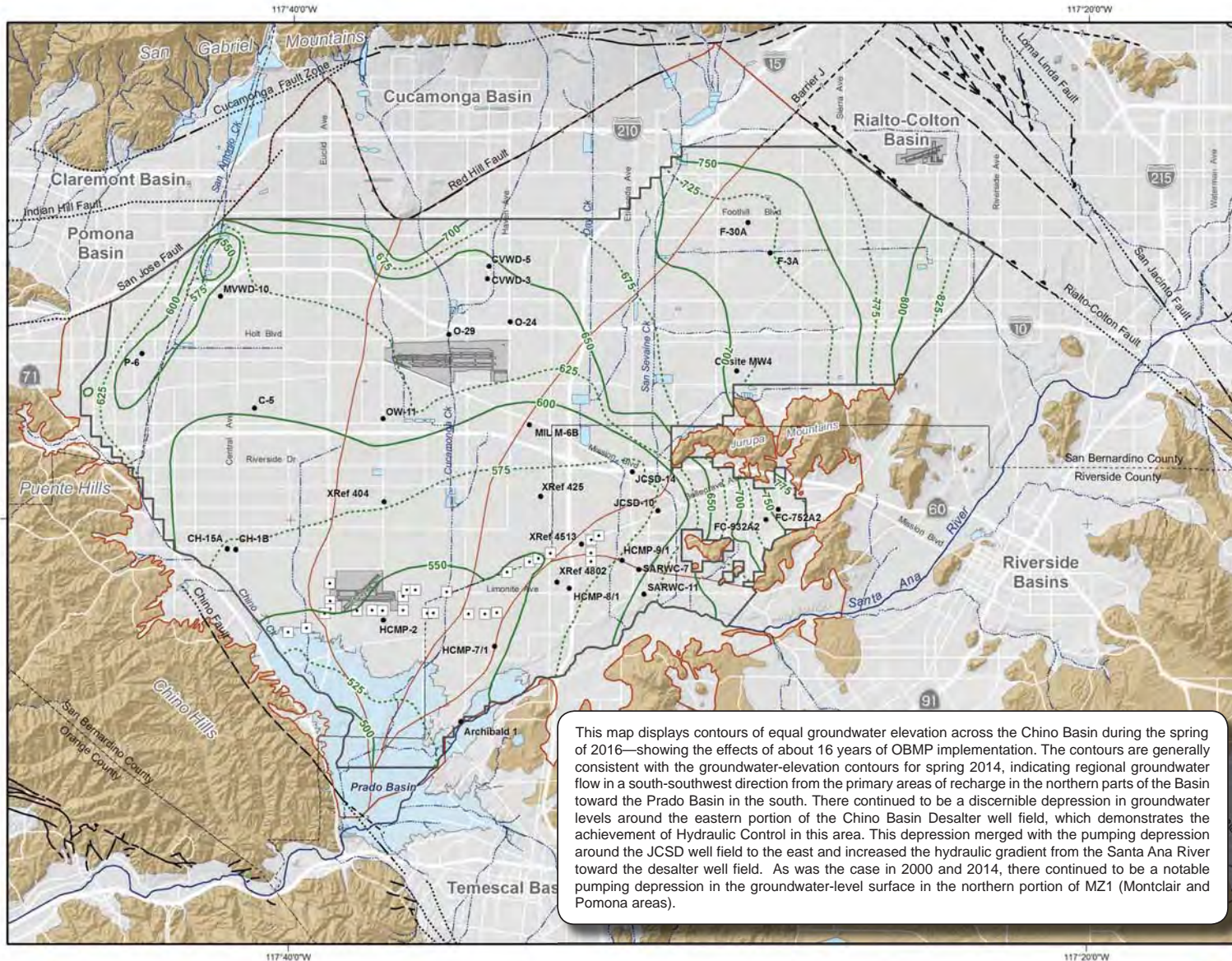
**2014 State of the Basin**  
Groundwater Levels



**Groundwater Elevation Contours in Spring 2014**

Shallow Aquifer System



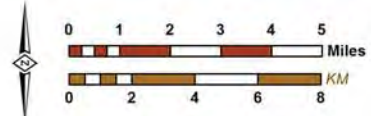


This map displays contours of equal groundwater elevation across the Chino Basin during the spring of 2016—showing the effects of about 16 years of OBMP implementation. The contours are generally consistent with the groundwater-elevation contours for spring 2014, indicating regional groundwater flow 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 JCSB 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 2014, there continued to be a notable pumping depression in the groundwater-level surface in the northern portion of MZ1 (Montclair and Pomona areas).

- Groundwater-Elevation Contours (feet above mean sea-level)
  - 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
  - OBMP Management Zones
  - Chino Basin 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 Concealed
  - Location Approximate
  - Location Uncertain
  - Approximate Location of Groundwater Barrier

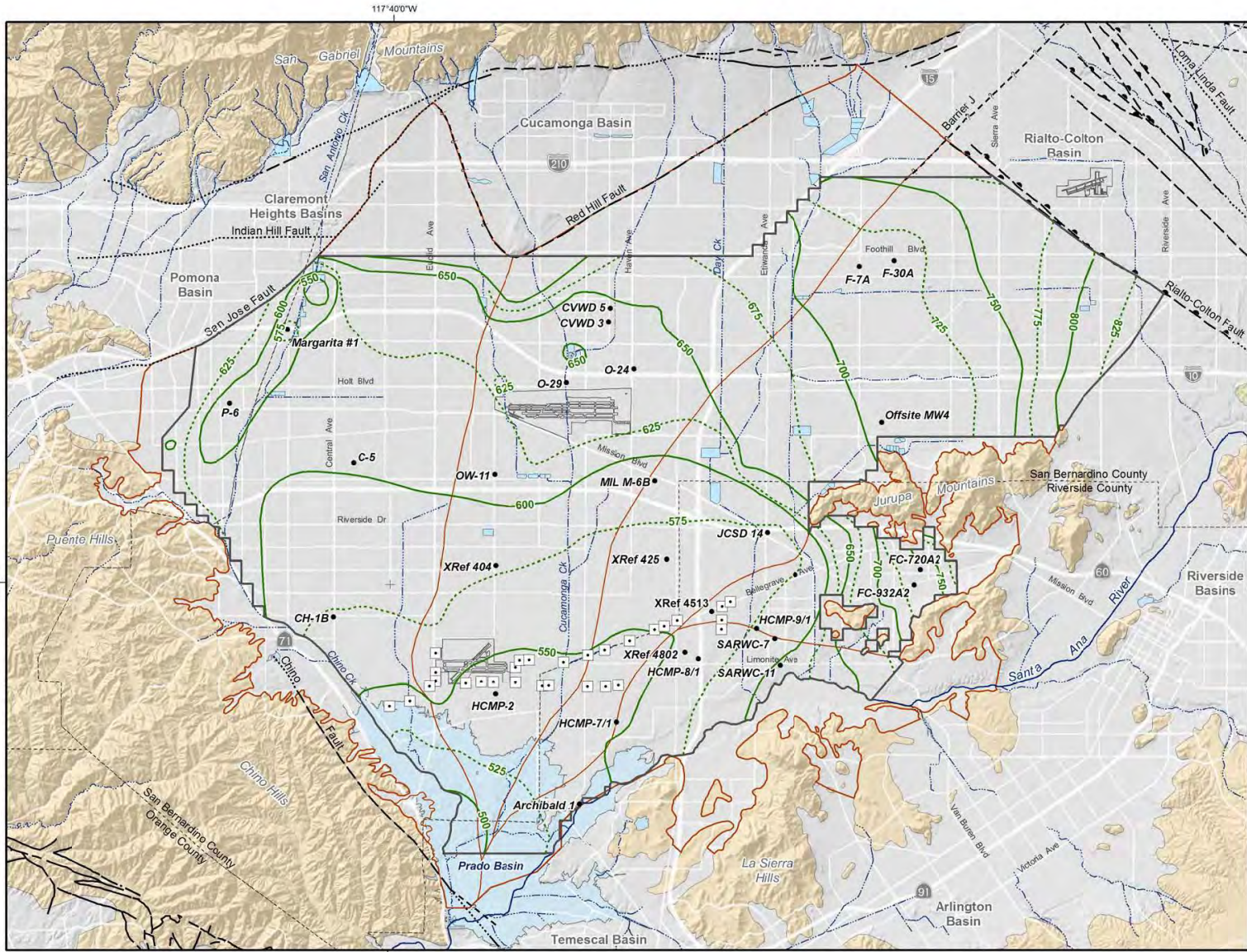


Prepared by:  
 Author: EM  
 Date: 6/5/2017  
 Document Name: Exhibit\_4-4\_sp2016



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





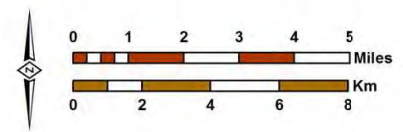
- 800 Groundwater-Elevation Contours (feet above mean sea-level)
- - - 775
- Boundary of Contoured Area (contours are not shown outside of this boundary due to lack of groundwater-level data)
- Well With a Groundwater-Level Time History Plotted on Exhibits 4-10 through 4-14
- Chino Basin Desalter Well

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  
 Date: 5/24/2019  
 File: Exhibit\_4\_4\_sp2018.mxd

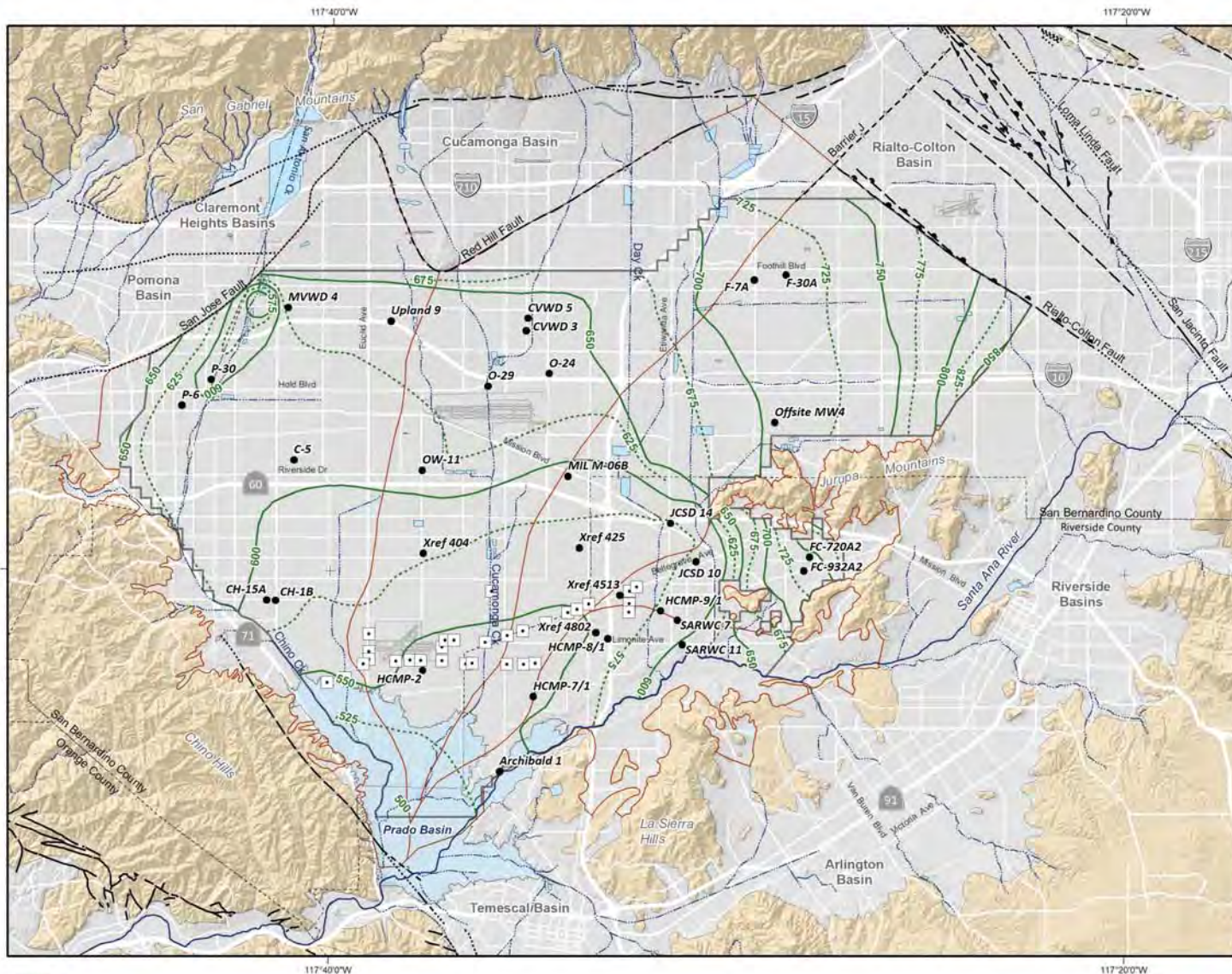


Prepared for:  
 2018 State of the Basin Report  
 Groundwater Levels



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





- 800  
- - - 775
- Groundwater-Elevation Contours  
(feet above mean sea-level)
- 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 Desalter Wells

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 2020, showing the effects of about 20 years of OBMP implementation. The contours are generally consistent with the groundwater-elevation contours for spring 2018, 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 2018, 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:  
  
 Water. Engineered.

Author: TA  
 Date: 6/21/2021

K:\Clients\341 Chino Basin Watermaster\Chino Basin Master Project\30RISGS\MXP\3020\Fig\_4\_1



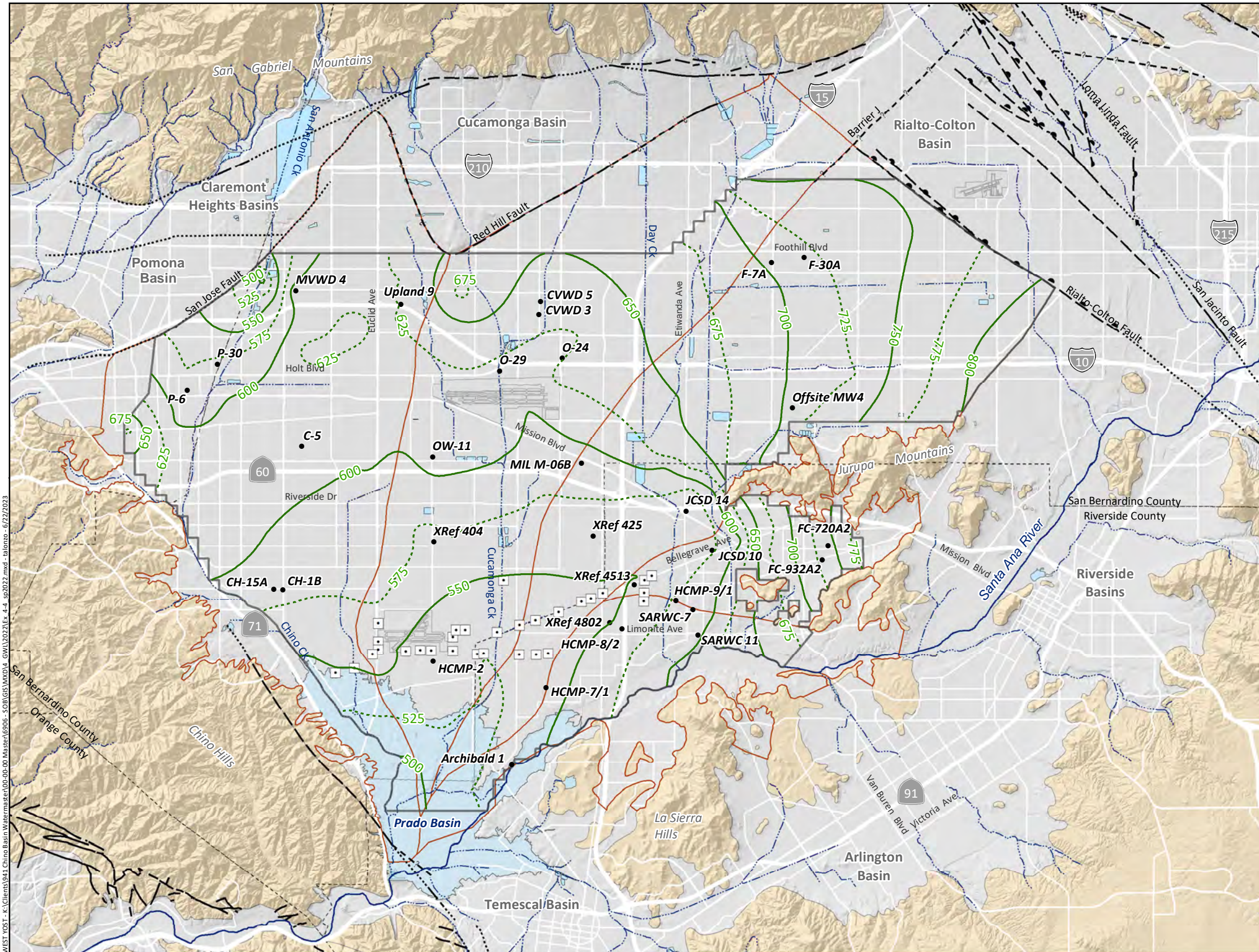
Prepared for:  
**Chino Basin Watermaster**  
 2020 State of the Basin Report  
 Groundwater Levels



**Groundwater-Elevation Contours for Spring 2020**  
*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 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 2022, showing the effects of about 22 years of OBMP implementation. The contours are generally consistent with the groundwater-elevation contours for spring 2020, 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 Chino Desalter well field. As was the case in 2000 and 2020, there continues to be a notable pumping depression in the groundwater-level surface in the northern portion of MZ1 (Montclair and Pomona areas).