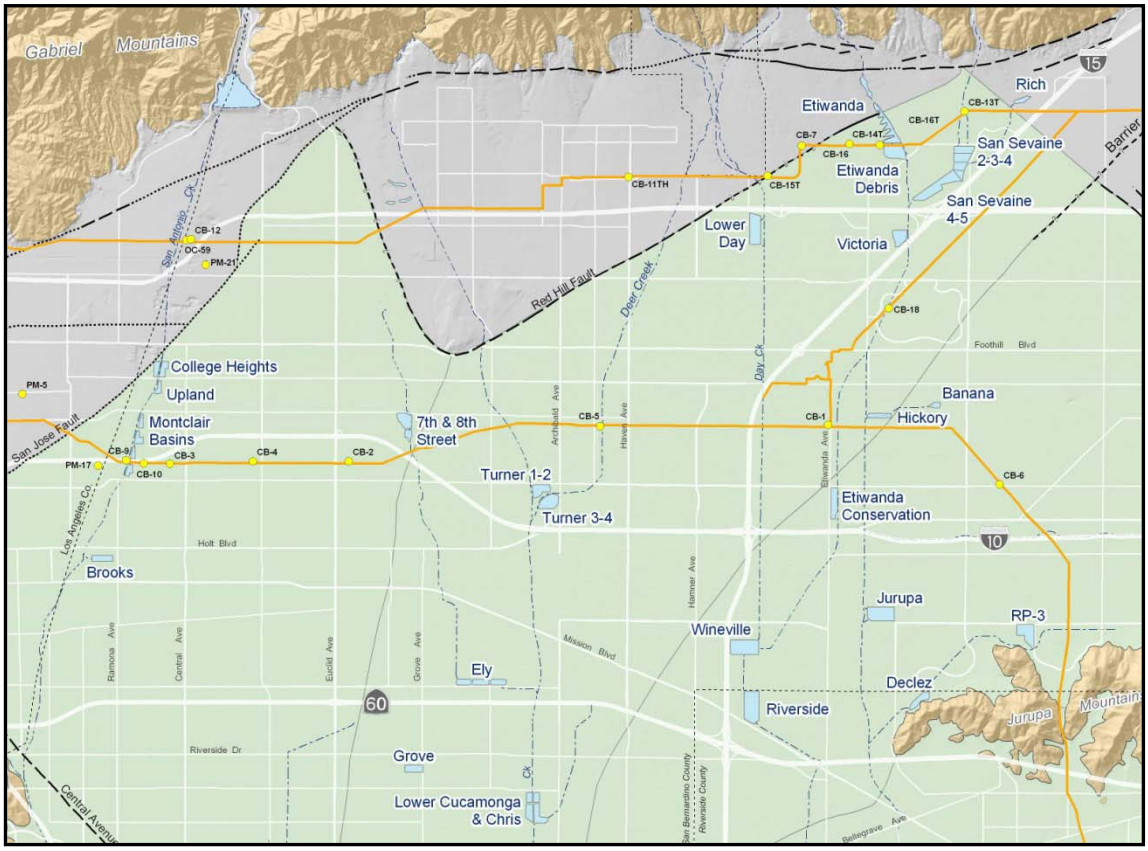
Chino Basin Recycled Water Groundwater Recharge Program

2013

Annual Report



May 1, 2014

Inland Empire Utilities Agency
A MUNICIPAL WATER DISTRICT

Chino Basin Watermaster
Partners in Basin Management

Chris Berch, P.E.
Executive Manager of Engineering / AGM

Peter Kavounas, P.E.
General Manager

May 1, 2014

Regional Water Quality Control Board, Santa Ana Region
Attention: Mr. Kurt V. Berchtold
3737 Main Street, Suite 500
Riverside, California 92501-3348

Subject: Transmittal of the Annual Report for 2013
Chino Basin Recycled Water Groundwater Recharge Program

Dear Mr. Berchtold:

The Inland Empire Utilities Agency (IEUA) and the Chino Basin Watermaster (CBWM) hereby submit the *2013 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 Inland Empire Utilities Agency and Chino Basin Watermaster. 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. Monitoring and Reporting Program No. R8-2007-0039 for Inland Empire Utilities Agency and Chino Basin Watermaster. 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 Inland Empire Utilities Agency and Chino Basin Watermaster. Chino Basin Recycled Water Groundwater Recharge Program: Phase I and Phase II Projects, San Bernardino County, October 23, 2009.
- California Regional Water Quality Control Board, Santa Ana Region. Revised Monitoring and Reporting Program No. R8-2007-0039 for Inland Empire Utilities Agency and Chino Basin Watermaster. Chino Basin Recycled Water Groundwater Recharge Program: Phase I and Phase II Projects, San Bernardino County, October 27, 2010.

ACTIVITIES, FINDINGS, AND CONCLUSIONS

The following bullets summarize the principal activities, findings, and conclusions of the *Recycled Water Groundwater Recharge Program* for 2013:

- The 2013 calendar year include annual program recharge of 17,811 acre-feet (AF), which includes 3,417 AF of storm water and dry weather flows; 14,394 AF of recycled water; and 0 AF of imported water.
- During 2013, recycled water monitoring was conducted in accordance with MRP No. R8-2007-0039. No turbidity, coliform, total organic carbon (TOC), or dissolved oxygen (DO) compliance limits were exceeded during 2013. No primary or secondary regulated contaminants limits were exceeded during 2013, with the exception of secondary MCL for odor.
- During 2013, three notifications were made to the CDPH and Regional Board regarding the exceedance of the total nitrogen (TN) limit of 5 mg/L for the average of two consecutive sample results at the Hickory East Basin compliance lysimeter (HKYE-LYS-25), Banana Basin compliance lysimeter (BNA-LYS-25), and the Ely Basins using the alternative monitoring reduction factor.
- No corrective actions were necessary for RP-1 and RP-4. No unit process changes occurred during 2013.
- In-aquifer blending of recycled water, diluent water, and native groundwater is evident at monitoring wells in the vicinity of 8th Street, Banana, Hickory, Brooks, Ely, Turner, Victoria, and RP3 Basins. For 8th Street, Banana, and Hickory Basins, blending was observed to be occurring both in the area of 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 2013, the volume-based 120-month running average recycled water contributions (RWCs), inclusive of groundwater underflow, by basin were: 8th Street - 24%; Banana - 34%; Brooks - 18%; Ely - 19%, Hickory - 23%, RP3 - 14%; San Sevaine 5 - 5%; Turner Basin Cells 1&2 - 7%; Turner Basin Cells 3&4 - 23%; and Victoria - 23%. These basins are all in compliance with their maximum RWC limits determined during their respective start-up periods.
- CBWM has verified in the Recycled Water Groundwater Recharge Quarterly Reports that there was no reported pumping of groundwater in 2013 for domestic or municipal use from the zones that extend 500 feet and 6-months underground travel time from the 8th Street, Banana, Brooks, Ely, Hickory, Turner, RP3, San Sevaine, and Victoria recharge sites.
- Sufficient data exist to estimate approximate arrival times of recycled water at monitoring wells 8TH-1/1 (22 months) for 8th Street Basin; BRK-1/1 (5 months) and BRK-1/2 (17 months) for Brooks Basin; BH-1/2 (2 months) for Hickory Basin; California Speedway Infield Well (29 months) for Banana Basin; TRN-1/2 (3.2 months) for Turner Cell 1; TRN-2/2 (13 months) and Ontario Well No. 25 (48 months) for Turner Cell 4, respectively; VCT-1/1 for Victoria Basin (7.5 months) and RP3-1 (3.3 months) for RP3 Basin Cell 1. Other program monitoring wells have yet to indicate arrival of recycled water. 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 elevation contour map (Fall 2003) with the most recent post-program start-up groundwater contour map (Spring 2012, draft) indicates minor regional changes in groundwater elevation are present but indicate the recharge program and pumping patterns have not significantly changed groundwater flow directions. The 2012 groundwater elevations in the program monitoring wells have generally changed less than the contour

interval (25 feet) used in the 2003, 2006, 2008, and 2010 groundwater elevation maps. A deeper and larger area pumping depression has developed in the vicinity the Chino Desalter well field (planned 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 2012 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 2012 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 1st day of May 2014 in the Cities of Chino and Rancho Cucamonga.

Chris Berch, P.E.
Executive Manager of Engineering / Assistant General Manager

Peter Kavounas, P.E.
General Manager

Chino Basin Recycled Water Groundwater Recharge Program

2013 Annual Report

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May 1, 2014

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1 INTRODUCTION

This is the 2013 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 8th Street, Banana, Brooks, Ely, Hickory, RP3, Turner, San Sevaine, and Victoria Basins have previously been summarized in the four 2013 quarterly reports to the Regional Board Water Quality Control Board (Regional Board), which document the recharge activities for these basins already having begun recharge with recycled water. During the 2013 calendar year, 17,811 acre-feet (AF) of water were recharged in the Chino Basin, which included 3,417 AF of storm water and dry weather flows; 14,394 AF of recycled water; and 0 AF of imported water.

1.1 Requirements of Order No. R8-2007-0039

This Recycled Water Groundwater Recharge Program is subject to the requirements found 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 Inland Empire Utilities Agency and Chino Basin Watermaster, 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 Inland Empire Utilities Agency and Chino Basin Watermaster, 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 Inland Empire Utilities Agency and Chino Basin Watermaster, 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 Inland Empire Utilities Agency and Chino Basin Watermaster. 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 equipments, such as pH meters, flow meters, turbidity meters, and lysimeters.

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

   f. A summary of the results and recommendations of any tracer testing conducted during the past year.

4. At least one year after the blended recharged water has reached at least one groundwater monitoring well, the users shall submit a report to the CDHS and Regional Board evaluating the compliance with the minimum underground retention time, distance to the nearest point of extraction, blending, and the maximum RWC requirements. The annual report shall include water quality data on turbidity, coliform, total nitrogen, dissolved oxygen, regulated contaminants, TOC, and non-regulated contaminants compliance.

1.2 Organization of the Annual Report

The annual report contains two main sections: Section 2: Recycled Water Quality Monitoring and Section 3: Groundwater Recharge Monitoring. Supporting documents for these sections are included in the 2013 quarterly reports or are provided as appendices to this report. Section 2 discusses compliance with recycled water production specifications and other water quality requirements. Section 3 discusses the blending and movement of recycled water in the groundwater basin.

2 RECYCLED WATER QUALITY MONITORING

2.1 Water Quality Specifications

During 2013, recycled water 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 reports submitted to the Regional Board (IEUA 2013a, 2013b, 2013c, 2014).

2.1.1 Detections and Compliance with Narrative Limits

Recycled Water Specifications A.5 though A.9 are narrative limits in the permit. The 2013 recycled water monitoring data and associated limits for specifications A.5 through A.9 are shown in Tables 2-1 and 2-2 of the quarterly monitoring reports. The monitoring and compliance for Table 2-1 parameters is based on the analysis of the two separate recycled water sources, Regional Plant No. 1 (RP-1) and Regional Plant No. 4 (RP-4) sampled at the NPDES-permitted monitoring locations (M-001B/REC-001 and REC-002) at their respective facilities. Table 2-2 presents IEUA's Agency-wide 12-month running average for total dissolved solids (TDS) and total inorganic nitrogen (TIN) as required by the NPDES permit. In accordance with MRP No. R8-2007-0039, the required monitoring frequency for turbidity and pH is continuous; total coliform is daily; TIN, TN, and TOC is weekly; and TDS is monthly. None of the narrative limits for turbidity, coliform, TDS, TIN, pH, or TOC were exceeded during 2013. During 2013, three separate notifications were made to the CDPH and Regional Board regarding the exceedance of the total nitrogen (TN) limit of 5 mg/L for the average of two consecutive sample results at the Hickory East Basin lysimeter (HKYE-LYS-25), the Banana Basin lysimeter (BNA-LYS-25), and the Ely Basin alternative monitoring location.

2.1.2 Detections and Compliance with Regulated and Non-regulated Contaminants

Recycled Water Specifications A.1 through A.3 (Tables I, II, and III in Order No. R8-2007-0039) specify limits for constituents with primary maximum contaminant levels (MCLs) and secondary MCLs. 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 is the turnout to NRG California South, LP (formerly known as Reliant Energy), as it represents a mixture of recycled water from both RP-1 and RP-4. The 2013 recycled water monitoring data and associated limits for specifications A.1 through A.3 are shown in Table 2-3 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 2013, the 4-quarter running average concentrations for constituents with primary and secondary MCLs did not exceed compliance limits, with the exception of odor (secondary MCL).

Non-regulated contaminants include the remaining priority pollutants, endocrine disrupting chemicals & pharmaceuticals, and unregulated chemicals. These constituents do not have

associated limits; however require annual monitoring in accordance with MRP No. R8-2007-0039 (Table II. Recycled Water Monitoring). The non-regulated contaminants monitoring data for recycled water can be found in Table 2-4 of the quarterly monitoring report. In 2013, the annual sampling for recycled water took place during the third and fourth quarters of 2013.

The compliance sampling point for Total Trihalomethanes (TTHMs) and Total Haloacetic Acids (HAA5) are not at the NRG Turnout. TTHMs and HAA5 compliance sampling is performed at the recharge basin lysimeters prior to the recycled water reaching the groundwater table. During 2013, compliance sampling for TTHMs and HAA5 was collected at lysimeters actively receiving recycled water from basins. Compliance for TTHMs and HAA5 were consistently met throughout 2013 at the selected lysimeters.

2.2 Title 22 Results from Nearest Potable Wells

Table 2-1 contains Title 22 drinking water quality data collected quarterly for the nearest potable water supply well located downgradient of recharge sites that have initiated recharge using recycled water. The Title 22 parameters included in this table are the same as those parameters tested for recycled water. “A discussion on the monitoring and analysis of downgradient public drinking water systems, as required by Section VI.3 of the MRP, is provided in Section 3.4 of this report. 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, RP3, and San Sevaine & Victoria Basins, respectively.

2.3 Laboratory Certifications and Test Methods

The IEUA and Eurofins Eaton Analytical (EEA) laboratories were utilized for the analytical testing required during the recycled water recharge program. Both of the laboratories are California Department of Public Health Environmental Laboratory Accreditation Program (ELAP) certified, pursuant to the California Environmental Laboratory Improvement Act. The IEUA laboratory certification is valid through October 2014 and the EAA laboratory certification is valid through January 2015.

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 2005 Annual Report (IEUA and WEI, 2006) contained an electronic copy of the QA/QC manual from each laboratory, including analytical methodologies; this information has not changed since last reported. The 2013 Annual Laboratory QA/QC Data Summary Report was also submitted to the Regional Board as an attachment in IEUA’s 2013 Annual NPDES Report.

2.4 Calibration Summary

The field parameters of temperature, pH, conductivity, dissolved oxygen, oxidation/reduction potential were recorded during monitoring well sampling using a QED MP20 Multiparameter Meter. This instrument utilizes a flow-cell to allow water to flow through the meter chamber without exposure to the atmosphere. Field analytical instruments used throughout this project

were maintained and calibrated each day of use. Calibration was conducted according to instructions provided by the instrument manufacturer.

2.5 Violations, Suspensions, and Corrective Actions

No operational problems or corrective actions at RP-1 or RP-4 were initiated based on regulatory monitoring at the NRG Turnout and at the recharge basins.

In March 2013, the average of two consecutive TN sample results for the Hickory Basin compliance lysimeter exceeded the 5 mg/L limit. The CDPH and the Regional Board were both notified via e-mail regarding the exceedance. A letter was sent to the CDPH and the Regional Board on April 11, 2013 requesting the relocation of the TN compliance point to the groundwater mound monitoring well, namely BH-1/2. On June 12, 2013, the CDPH issued a letter to the Regional Board concurring with IEUA's recommendation to relocate the compliance point to BH-1/2. On July 29, 2013, IEUA received an approval letter from the Regional Board to change the compliance point to BH-1/2.

In October 2013, the average of two consecutive TN sample results for the Banana Basin compliance lysimeter exceeded the 5 mg/L limit. The CDPH and the Regional Board were both notified via e-mail regarding the exceedance. Recycled water deliveries were voluntarily suspended on November 14, 2013. A letter was sent to the CDPH and the Regional Board on December 11, 2013 requesting the relocation of the Banana Basin TN compliance point to BH-1/2. This is the aforementioned approved TN compliance point for Hickory Basin. At time of reporting, IEUA has not yet received correspondence in acceptance of the proposal to relocate the Banana Basin TN compliance point.

In December 2013, the average of two consecutive TN results for the Ely Basins using the alternative monitoring TN reduction factor of 52% (IEUA, 2009) from Ely Basins exceeded the 5 mg/L limit. The CDPH and the Regional Board were both notified via e-mail regarding the exceedance. Subsequent sampling during the same month showed that the TN had dropped below the 5 mg/L limit; therefore suspension of recycled water deliveries was not required. The TN exceedance has been attributed to higher than normal TN concentrations from RP-1 recycled water. TN concentrations will continue to be evaluated for the Ely Basins during 1Q14. Please note that the proposed CDPH Groundwater Replenishment with Recycled Water regulations has a TN limit of 10 mg/L, which is two times higher than the TN limit in the existing permit. IEUA is in the process of requesting that the TN limit be aligned to be consistent with the State-proposed regulations.

Odor has a secondary MCL of 3 Units in Recycled Water Specification A.3. During 1Q13, 3Q13, and 4Q13 the threshold odor was found to be 40 Units, 8 Units, and 17 Units, respectively. This results in a 4-quarter running average value of 17 Units, causing the threshold odor to exceed the secondary MCL. The odor has been identified by Eaton Analytical (contract laboratory) as chlorine. Recycled water used for groundwater recharge must meet disinfected tertiary recycled water standards in accordance to Title 22. Sodium hypochlorite is used as the disinfection agent at the RP-1 and RP-4 water recycling facilities; hence, the smell of chlorine is prominent in

recycled water and is therefore unavoidable. Order No. R8-2007-0039 allows compliance for secondary MCLs to be determined at the mound monitoring well. Based on the mound monitoring well data (Table 2-8a), threshold odor does not exceed 3 Units at any of the monitoring wells.

Groundwater monitoring wells are monitored quarterly for the parameters listed in Table 1 of Section V.I in the MRP, and annually for parameters with primary MCLs and action levels as specified in the Phase II Findings of Fact, Attachment A in the permit (Bullet 27 in the Conditions Section).

Turbidity exceeding the secondary MCL of 5 NTU was observed in several monitoring wells, namely: 8TH-1/1, BH-1/2, BRK-2/1, Bishop of San Bernardino Corporation (Ely), Ely MW-1, T-2/1, T-2/2, VCT-1/1, and VCT-2/2.

TDS and electrical conductivity (EC) were higher than their secondary MCLs of 500 mg/L and 900 µmhos/cm, respectively, in the RP3 basin area wells (Alcoa MW3 and Southridge JHS) and Ely MW2 (Walnut). The wells south of the Ely Basins and near the RP3 Basins are located in areas where the TDS and EC concentrations in groundwater are elevated; in the RP3 Basins area, TDS is about 750 mg/L and EC is about 1,000 µmhos/cm, and south of the Ely Basins, TDS is about 500 mg/L and EC is about 750 µmhos/cm.

Color exceeded the secondary MCL of 15 units in monitoring wells 8TH-1/1, BH-1/2, BRK-2/1, Ely MW1, and VCT-1/1.

Total recoverable iron was above the secondary MCL of 300 µg/L at the Bishop of San Bernardino Corporation during 1Q13 and 2Q13 following the replacement of a pump column. Dissolved manganese was analyses were above the secondary MCL of 50 µg/L at RP3-1/2 and T-2/1. These two wells have not had high manganese in the past. Additional monitoring will indicate if these results are anomalous. Recycled water manganese concentrations are generally less than 20 µg/L. Historical stormwater manganese analyses have been observed to fall within the range of 5 to 150 µg/L.

Some monitoring wells in the Banana & Hickory, RP3, Brooks, and Ely Basins monitoring networks have NO3-N concentrations above the primary MCL of 10 mg/L. These higher levels are characteristic of groundwater quality in the local area where historically the NO3-N concentrations ranges from 10-30 mg/L.

During annual groundwater monitoring well sampling, a perchlorate concentration above the MCL of 6 µg/L was detected at BRK-1/2 which is characteristic of several production wells in the Pomona area.

2.6 Unit Process Changes and Anticipated Impact on Water Quality

No unit process changes occurred during the 2013 calendar year, therefore there was no impact on water quality.

2.7 Summary of Chemical Usage

The summary of treatment chemicals used on a monthly basis at RP-1 and RP-4 during the 2013 calendar year is presented in Table 2-2.

3 GROUNDWATER RECHARGE MONITORING

3.1 Summary of Recharge Operations

Groundwater recharge using recycled water has been initiated in 8th Street, Banana, Brooks, Ely, Hickory, RP3, Turner, San Sevaine, and Victoria Basins. During 2013, IEUA's recycled water recharge totaled 14,393 AF.

Basin	2013 Recycled Water Recharge (AF)	Percent of 2013 Recycled Water Recharge
8th Street	2,403	17%
Banana	715	5%
Brooks	2,236	16%
Ely	3,371	23%
Hickory	1,112	8%
RP3	2,874	20%
San Sevaine	432	3%
Turner	619	4%
Victoria	632	4%
Total	14,394	100%

Appendix A of this report contains the monthly groundwater recharge summaries for all sites in the recycled water groundwater recharge program. Recharge volumes, including diluent and recycled water volumes, are presented in the quarterly reports (IEUA, 2013a, 2013b, 2013c, and 2014), but are repeated in this section's discussion of RWC (recycled water contribution) management plans.

3.2 In-Aquifer Blending of Recycled Water

Section IV.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 recharge using recycled water and diluent water can be shown in 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, 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 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 horizontal groundwater flow travel velocity away from the recharge site is much slower than the vertical recharge percolation velocity. 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 as the recharged water blends with groundwater in storage.

3.2.1 Evidence of Blending Based on Volume

The 2013 monthly recharge volumes by water type are presented in Appendix A and in the historical recharge portion of the RWC Management Plans (Appendix B). Recycled water and diluent water are typically recharged in distinct batches. However, there can be some blending of local runoff with recycled water as it is delivered to the basins, or if storm water enters a basin already containing some recycled water. Variations in the delivery period for batches of diluent water and recycled water provide a level of blending. Dilution with groundwater already in storage is accounted for by the utilization of groundwater underflow in the calculation of running average RWC.

To be conservative, initial use of the fraction of groundwater underflow used as a diluent water source in the RWC calculation is either October 2009 (the date the permit amendment was adopted allowing for its use) or the first month of a basin's recycled water recharge (if after October 2009). Underflow for each basin was calculated using the Darcy flow equation with input parameters originating from Chino Basin Watermaster's calibrated groundwater flow model. The underflow estimation method was documented in Appendix G of the 2009 Annual Report for the Recycled Water Groundwater Recharge Program (IEUA and CBWM, 2010). Conservatively, the underflow calculation was made using only the upper-most sediments (upper model layer), and thus does not included potential mixing of recycled water recharge with groundwater in the deeper sediments (lower model layer).

The running average RWC calculation is equal to:

Recycled Water 120-Month Total / (Recycled Water + Diluent Water 120-Month Total)

At the end of December 2013, the (volume-based) running average RWC for basins having initiated recharge using recycled water were as follows:

Basin	RWC Limit	120-Mo. Running Avg. RWC
8th Street	28%	24%
Banana	36%	34%
Brooks	42%	18%
Ely	29%	19%
Hickory	36%	23%
RP3	50%	14%
San Sevaine 5	27%	5%
Turner 1&2	24%	7%
Turner 3&4	45%	23%
Victoria	50%	23%

Maximum RWC and the RWC management plans are discussed in more detail in Section 3.3. The volume-based percentages express reasonably anticipated blending as recharge waters move towards distant monitoring wells.

3.2.2 Evidence of Blending Based on Water Quality

Time-series graphs of EC, TDS, and chloride were prepared for monitoring wells adjacent 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 reports. In general, background groundwater concentrations of EC, TDS, and chloride are much lower than recycled water used for recharge. Blending can be gauged based on how rapidly these concentrations change and for how long the change persists. The degree of blending can be estimated based on the proportional relationship of the recycled water EC (and chloride) and the background groundwater EC (and chloride). For wells showing EC (and chloride) increases associated with recycled water recharge, Table 3-1 provides an estimated range of the peak percent recycled water observed at a given well in the past year.

8th Street Basin Area

For the 8th Street Basin area, the 2009-10 increase in chloride concentrations in the shallower monitoring well (8TH-1/1), was interpreted to indicate the arrival of recycled water recharged in 2007 and 2008. The break in recycled water delivery between September 2008 and August 2009 shows up at the end of 2010 as the downward trend of EC, TDS, and chloride at this well. This represents an approximate 21-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. This corresponds well with the previous estimate of 22 months. In late 2010, the sampling pump and pressure transducer at 8TH-1/1 fell to the bottom of the well and required retrieval and replacement. Thus, the well was not sampled from October 2010 until December 2011. In 2012, there is a noticeable increase in the percent recycled water at this well site as indicated by increased concentrations of EC, TDS,

and chloride. Throughout the latter half of 2012 and nearly all of 2013, 8th Street Basin was used predominately for recycled water recharge. In 2013, the 8TH-1/1 monitoring well groundwater EC, TDS, and chloride concentrations were the highest since the initiation of recycled water recharge at the 8th Street Basin. As presented in Table 3-1, the highest percentage of recycled water in the groundwater mound at 8TH-1/1 during 2013 was approximately 66% to 80% based on EC and chloride variations.

From mid-2011 to 2012, there were slight increases in the EC, TDS, and chloride concentrations in the deeper casing of 8TH-1/2. After trending downward since the well was constructed, these increases suggest recycled water recharge from 2007 and 2008 may have started to arrive in the deeper casing after a travel time of roughly 46 months. In 2013, the 8TH-1/2 monitoring well groundwater EC and TDS concentrations increased slightly, while the chloride concentrations remained fairly constant, suggesting that the movement of recycled water downward at this location may be blending with underflow at a steady rate. Continued monitoring of these water quality parameters at the deeper casing water quality is needed to identify with certainty the arrival and blending of recycled water at this depth. Recycled water arrival would be confirmed should these concentrations continue to rise significantly above the 2011 baseline concentrations at this location and depth. As presented in Table 3-1, the highest percentage of recycled water in the groundwater mound at 8TH-1/2 during 2013 may have reached approximately 14% to 21% based preliminarily on EC and chloride variations.

The shallower casing of monitoring well 8TH-2 (8TH-2/1), located approximately 2,500 feet farther from 8TH-1, shows cyclical seasonal variations in EC, TDS, and chloride that make the arrival of recycled water difficult to evaluate. 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, which have yet to be observed. In 2009, the deeper casing at monitoring well 8TH-2 (8TH-2/2) showed a steady increase in chloride above seasonal fluctuations starting around February 2009 and peaking in July 2009. A steady, small magnitude decline in EC, TDS, and chloride concentrations followed the peak and continued through 2012. The steady multi-year decline, despite continued recycled water recharge, indicates the peak in 2009 was likely not due to the arrival of recycled water at this location. EC and TDS continued to decline gradually in 2013 while chloride concentrations rose slightly within background levels. More evidence is needed to determine arrival time of recycled water at this location.

Banana & Hickory Basins Area

In the Banana and Hickory Basins area, monitoring well BH-1 casing 2 (BH-1/2), located adjacent to Hickory Basin, had large changes in EC, TDS, and chloride (100 to 150-mg/L TDS difference) that began in early 2008, peaked in mid-2009, and continued through 2013. These changes are attributed to the initiation and continued recharge of recycled water at Hickory and Banana Basins. Generally consistent EC, TDS, and chloride concentrations of the groundwater at BH-1/2 in 2010 through 2013 suggest a stabilized and perhaps sustained peak RWC with historical operations at Hickory and Banana Basins. As presented in Table 3-1 based on EC and chloride variations, the highest percent recycled water in the groundwater mound at BH-1/2 during 2013 reached approximately 48% to 52%.

The California Speedway Infield Well, south of Banana Basin, shows gradual increases for EC, TDS, and chloride concentrations (150-mg/L TDS and 19 mg/L chloride differences) through

2013 since the initiation of recycled water recharge in 2005. The gradual increase is to be expected with gradual blending as groundwater moves away from the basin (compare with the 150 to 200-mg/L TDS variation at the basin area mound). Travel time from Banana Basin to the California Speedway well based on these data is approximately 29 months. As presented in Table 3-1 based on EC and chloride variations, the highest percent recycled water in the groundwater at the California Speedway Infield Well during 2013 reached approximately 18% to 55%.

The EC, TDS, and chloride data do not definitively suggest that recycled water recharge has reached downgradient wells California Speedway No. 2, Reliant East, and Ontario Well No. 20. Slight increase in EC, TDS, and chloride are seen at California Speedway No. 2 and Ontario Well No. 20 since late 2009. Fontana Water Company 37A (located 2,240 feet upgradient of Banana basin) has shown a small but steady increases in EC (50 µmhos/cm), TDS (28 mg/L), and chloride (6-mg/L) between 2006 and 2013. Continued observation of this Fontana Water Company well is need to evaluate it is being impacted by recycled water recharge or is simply revealing a slow regional change in background water quality.

Brooks Basin Area

For the Brooks Basin area, monitoring wells are located at the basin (BRK-1) and downgradient of the basin (BRK-2). 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. Concentration increases of 100 mg/L for TDS and 50 mg/L for chloride have been observed and attributed to the presence of recycled water at BRK-1/1. In the deeper casing (BRK-1/2), smaller increases in EC, TDS, and chloride began in January 2010 and continued through 2013. Concentration increases of 50 mg/L for TDS and 10 mg/L for chloride have been observed and are attributed to the presence of recycled water at BRK-1/2. As presented in Table 3-1 based on EC and chloride variations, the highest percent recycled water in the groundwater mound at the recharge basin during 2013 reached approximately 28% to 52% at BRK-1/1 and approximately 12% to 33% at BRK-1/2. These data show that blending is occurring in the aquifer beneath Brooks Basin.

The chloride concentrations at BRK-2/1 show a 35-mg/L stepped increase in 2011 and coincides with a 100 umhos/cm decrease in EC. In 2012, chloride and EC concentrations returned to background levels. While these trends may indicate a 2011 arrival of recycled water recharge in the shallower casing groundwater, continued observations at this well will be necessary to identify, with certainty, the presence of recycled water. The return to background concentrations in 2013 may suggest a change in groundwater flow direction near this well. Groundwater flow direction west of Brooks basin is subject to the dynamics of a pumping depression in Pomona which has been observed to gradually shift location and magnitude over the years (see Appendix D).

Ely Basin Area

Groundwater in the area directly south of Ely Basin (south of the 60 Freeway) lies on the northern perimeter of the Chino Groundwater Basin with high background TDS and nitrate concentrations. Groundwater in this area has TDS concentrations between 500 and 1,000 mg/L, as is typical of lands in the Chino Basin with irrigation history (CBWM, 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 their proximity to the basin (0.0 miles, 0.5 mile and 1.0 mile for the Philadelphia, Walnut, and Riverside wells, respectively). At the two downgradient 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 2013 sample results at the Philadelphia well show chloride in the 30 to 40 mg/L range (about three times the 2007 low of 12 mg/L) and indicate the presence of recycled water. Since 2007, TDS has increased about 100 mg/L through late 2010, followed by a 50-mg/L decreasing TDS trend and similar EC and chloride concentrations through early 2012. Concentrations in 2013 varied slightly but remained at levels similar to 2012. As presented in Table 3-1 based on EC and chloride variations, the highest percent recycled water in the groundwater at the Philadelphia well during 2013 reached approximately 11% to 24%. The Philadelphia well water quality data indicate blending is occurring in the aquifer beneath the Ely Basin.

The EC, TDS, and chloride concentrations at the Walnut well during 2007, 2008, 2011, and 2013 were nearly 1.5 to 2 times the concentrations found in recycled water and therefore are not attributed to recycled water recharge activities at Ely Basin. During mid-2009 through mid-2011, the historical low TDS at the Walnut well ranged from approximately 400 to 450 mg/L, but ranges between 500 and 850 mg/L outside these dates. The lower TDS concentrations may be linked with more intense periods of storm water and recycled water recharge that would dilute the higher TDS groundwater. The volume-based percent recycled water recharged at Ely basin has been between 12% and 19% since July 2010 (including groundwater underflow).

Further down gradient of the Walnut well, the EC, TDS, and chloride of groundwater at the Riverside well are relatively stable and do not indicate any direct impacts from recycled water or diluent water recharge from 2007 through 2013. There is however a slight increase in EC, TDS, and chloride that should be observed further in the coming years that could indicate the gradual arrival of recycled water at this well.

Turner Basin Area

The Turner Basin area monitoring well TRN-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. Since the recycled water start-up period at Turner 1 (2006-2007), recycled water deliveries have been limited, and thus EC, TDS, and chloride concentrations have been decreasing towards background levels. Smaller concentration variations (up to 50 mg/L TDS) occur from 2008 through 2013, but other than for chloride are near background concentrations. This indicates recycled water recharge blending with groundwater and its movement away from Turner 1. As presented in Table 3-1 based on EC and chloride variations, the highest percent recycled water in the groundwater mound at Turner 1 during 2013 was no more than 9% at TRN-1/2.

At monitoring well TRN-2/2 (adjacent to Turner 4), the EC, TDS, and chloride concentrations are delayed several months from past recharge activities. In 2011, 2012 and 2013, variations continued in EC, TDS, and chloride concentrations in response to recycled water delivery periods, the general trends are an increase in all three parameters. The slower, more steady, and smaller relative concentration changes at monitoring wells TRN-2/1 and TRN-2/2 (compared to TRN-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. As presented in Table 3-1 based on EC and chloride variations, the highest percent recycled water in the groundwater mound at the Turner 4 basin during 2013 was approximately 56% to 72%. The TRN-1/2 and TRN-2/2 data show recycled water blending is occurring with groundwater in the aquifer beneath the Turner Basins.

The downgradient Ontario Well No. 25 shows a slight increase in EC (75 umhos/cm), TDS (40 mg/L), and chloride (10 mg/L) above background levels that suggest recycled water arrival in July 2010. Little variation in these parameters was evident in 2012 and a slight decline was observed in 2013. Estimated travel time based on these water quality data is approximately 48 months. As presented in Table 3-1 based on EC and chloride variations, the highest percent recycled water in the groundwater at Ontario Well No. 25 during 2013 was approximately 11% to 54%.

In January 2009, downgradient Ontario Well No. 29 showed a slight stepped increase in TDS and chloride concentration similar in magnitude to the gradual rise at Ontario Well No. 25. However, the increase at Ontario Well No. 29 is 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 data are within background concentrations. Additional data from future monitoring are required to assess the arrival and blending 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. Since that time, data from monitoring well RP3-1 (both casings) for EC and TDS at cell 1 are inconclusive as to the degree of recycled water recharge blending with local groundwater. Since July 2010, the EC and TDS data in both casings have been dramatically and steadily decreasing. By 2011, EC and TDS were trending below pre-recycled water recharge background concentrations. This is likely due to the increase in storm water recharge at the RP3 basin site since February 2009 following the completion of a diversion from San Sevaine Channel to Jurupa Basin and the subsequent pumping of these waters to the RP3 basin site. By April 2012, EC, TDS, and chloride concentrations reached historical lows for this well and then began to increase moderately through the end of 2013. Due to the high background EC and TDS concentrations and a supplemental storm water source, it may be several years before EC and TDS can be used as a reliable blending indicator for the RP3 basin site.

The chloride concentrations at RP3-1/1 and RP3-1/2 are more indicative of recharge induced changes and were used to estimate recycled water blending with groundwater and other recharge waters. As presented in Table 3-1 based on chloride variations alone, the highest

percent recycled water in the groundwater mound at RP3-1 during 2012 was approximately 60% to 70%.

Downgradient well ALCOA MW-1 showed spikes in EC, TDS, and chloride in 2011, 2012, and 2013. These spikes of high concentrations are greater in magnitude than their respective concentrations in recycled water, and thus are likely due to salt contamination moving past the well. The background concentrations at ALCOA MW-1 are similar to that of recycled water. More data are required to correlate the arrival of recycled water at ALCOA MW-1.

Downgradient well ALCOA MW-3 has higher EC, TDS, and chloride concentrations than ALCOA MW-1. In 2013, ALCOA MW-3 groundwater continued to show decreasing and increasing EC, TDS, and chloride concentrations, which suggests salt contamination moving past the well site. In 2013, EC ranged from 785 to 1,015 µmhos/cm which is higher than the recycled water EC (about 750 µmhos/cm). More data are required to correlate the arrival of recycled water at ALCOA MW-3.

The Southridge Junior High School (JHS) well water quality data show a slight but gradual decrease in EC, TDS, and chloride concentrations since quarterly sampling began in 2009 through early 2013. The background concentrations at the Southridge JHS well are higher than that of recycled water. As such, mixing of groundwater with recycled water at this location may appear as a slight downward trend. Alternatively it could increase as higher salinity upgradient groundwater moves southward. The well data suggests recycled water recharge has not reached the downgradient Southridge JHS well. In 2013, the well pump's electric motor failed. In 2014, the pump is being replaced and the well's unknown casing construction details are being evaluated with a downhole investigation.

San Sevaine & Victoria Basins Area

Monitoring of San Sevaine and Victoria Basins area wells began in late 2009 and continued through 2013. Initiation of recycled water recharge began in these two basins in mid-2010. For San Sevaine area, the 2010 through 2013 trends in EC, TDS, and chloride have yet to indicate the arrival of recycled water at monitoring points SSV-1 and Unitex 91090. Victoria Basin mound monitoring well VCT-1/1 has shown a slight increase in EC, TDS, and chloride concentrations in May 2011 that increase more rapidly through 2013. Mound monitoring well VCT-1/1 water quality data support a travel time of approximately 7.5 months based on the initiation of recycled water recharge on September 2, 2010 and its arrival detection with the May 19, 2011 sample. As presented in Table 3-1 based on EC and chloride variations, the highest percent recycled water in the groundwater mound at Victoria Basin during 2013 was 22% to 29% at VCT-1/1.

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. In 2009, IEUA and CBWM received a permit amendment from the RWQCB Order No. R8-2009-0057 that allows for a 120-month RWC averaging period (previously a 60-month period) and for the inclusion of a fraction of groundwater underflow as a diluent water source in the RWC calculation. In 2010, the National Water Research Institute (NWRI) convened an independent

expert panel to review the amendment and evaluate if the amendment provided an equal level of public protection. The panel supported the proposed Darcian method of quantifying site specific groundwater underflow; but recommended that, to be conservative (from a mixing standpoint), the fraction of the underflow used should only include the uppermost aquifer layers of higher hydraulic conductivity.

The RWC Management Plans presented in this report include the 120-month averaging period and the use of a fraction of the basin groundwater underflow. The RWC Management Plans are updated to reflect the actual operation of the basin through the previous calendar year and to forecast average operations for the next 120 months. Appendix B contains the RWC Management Plans for 8th Street, Banana, Brooks, Ely, Hickory, RP3, San Sevaine 5, Turner Basin Cells 1&2, Turner Basin Cells 3&4, and Victoria Basins.

Each RWC Management Plan was developed using historical diluent water and recycled water recharge and projections of diluent water and planned recycled water deliveries. Storm water projections are based on the historical averages of diluent recharge for the corresponding months. With each subsequent operational year, storm water projections will be updated to include the past year's historical data. For a conservative approach to the RWC calculation, imported water forecasts are not used as diluent water to calculate the projected RWC.

Following the 2009 recharge permit amendment to allow the utilization of groundwater underflow as a diluent water source, the 2009 Annual Report (IEUA and CBWM, 2010a) contained RWC Management Plans showing underflow occurring since the historical initiation of recycled water recharge in a basin. However, upon further discussion with CDPH, the RWC calculations were revised to initiate the use of a fraction of groundwater underflow beginning in October 2009 (the month the amendment was issued) for basins already receiving recycled water. For basins that start 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. This change in underflow application in RWC calculation was made for the 2010 and subsequent annual reports. For basins initiated with recycled water recharge after October 2009, by the 120th month of recycled water recharge operations, there will be a full 120 months of underflow in the RWC calculation for each basin.

Within the limits of historical recharge, storm water projections, and groundwater underflow, planned recycled water deliveries are forecasted to either maximize the available basin capacity or maintain the volume-based RWC within a basin's maximum RWC limit. The 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. While the plan contains calculations for up to 120 months of historical data, the graphed RWC Management Plans (Appendix B) show only the previous 60 months of recharge and projections for the next 120 months. Historical data not tabulated here are contained in earlier annual reports.

Table 3-2 lists the volume-based RWC actual at the end of 2013 for each recharge site. 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 2013 quarterly reports, CBWM has certified that there was no reported pumping of groundwater in 2013 for domestic or municipal use from the zones that extend 500 feet and 6 months underground travel time from the 8th 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 the aforementioned recharge sites.

3.4.1 Recharge Water Arrival Times

As documented in annual reports and 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 8th Street Basin; BRK-1/1 and BRK-1/2 for Brooks Basin; BH-1/2 for Hickory Basin; California Speedway Infield Well for Banana Basin; TRN-1/2 and TRN-2/2 for Turner 1 and Turner 4 Basins, respectively; Ontario Well No. 25 for Turner 4 Basin; VCT-1/1 for Victoria Basin, and RP3-1/1 and RP3-1/2 for RP3 Basins. 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 natural seasonal variations.

8th Street Basin Area

Travel time from 8th 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 2013. Recharge of recycled water began at 8th Street Basin on November 7, 2007, thus the travel estimate for 8TH-1/1 is approximately 660 days (22 months). The travel time to the further downgradient monitoring well 8TH-2/2 had appeared to be more rapid (perhaps a more direct flow path), and was preliminarily estimated to be approximately 402 days (13 months) based on chloride data (IEUA and CBWM, 2009). While this difference between wells was conceivable and was supported by continued observations of EC, TDS, and chloride in 2010, the water quality data from 2011, 2012, and 2013 at this location no longer support this estimate. This is evidenced by the decline in EC, TDS, and chloride below background concentrations with no influence from recycled water recharged in 2009 and 2010, 2011, as would be expected with the prior estimate of a 402-day travel time.

Banana & Hickory Basins Area

Travel time from Hickory Basin through the vadose zone and along groundwater flow paths to monitoring well BH-1/2 was documented at approximately 59 days (IEUA and CBWM, 2009).

The California Speedway Infield Well has demonstrated a small but gradual increase in EC, TDS, and chloride from September 2005 through the end of 2012. Travel time from Banana Basin to California Speedway Infield Well is estimated at 890 days (29 months) based on a stepped increase in EC, TDS, and chloride concentrations beginning between data collected on October 9, 2007 and January 7, 2008 (IEUA and CBWM, 2009). The modeled travel time to the California Speedway Infield Well was 682 days (22 months) (CH2MHill, 2003). Other Banana-Hickory monitoring wells have not yet shown definitive variations in EC, TDS, and chloride that would signal arrival of recycled water at these well sites. Data collected in 2013 are consistent with the prior data interpretations.

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 was initially interpreted from EC changes to be approximately 7 days (IEUA and CBWM, 2010a) due to the observation of a 200 µmhos/cm EC increase following initiation of recycled water recharge in August 2008. However, data from 2009 and the completion of the Brooks Basin Start-Up Period report suggested the earlier data were anomalous and document the travel time estimate to be approximately 150 days (5 months) based on trends in EC, TDS, and chloride data. Evaluation of 2010 through 2013 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, variations of EC, TDS, and chloride concentrations following recharge are similar to the background variations prior to recycled water recharge, which makes identification of travel time to this well difficult. The 2012 EC, TDS, and chloride data at BRK-2 (casings BRK-2/1 and BRK-2/2) continue to be within the range of the background concentration; however an increase in chloride concentration at BRK-2/1 throughout 2011 and 2012 may suggest the arrival of recycled water. In 2013, the chloride concentration at BRK-2/1 returned to background levels. More data are required to determine the arrival time.

Ely Basin Area

Groundwater in the Ely Basin area has high background TDS and nitrate concentrations from a history of irrigation. Due to the seasonal variations of TDS, EC, and chloride concentrations at the Philadelphia, Walnut, and Riverside Wells, 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.

Turner Basin Area

Travel time from Turner Basins through the vadose zone to the groundwater was documented at 97 days (3 months) and 285 days (9 months) to monitoring wells TRN-1/2 and TRN-2/2, respectively (IEUA and CBWM, 2009). Further review of historical data suggests travel times approaching 11 to 12 months for both sites. Both monitoring wells have two casings, with the shallower being designated /1 and the deeper being designated /2. TRN-1/1 is not currently sampled as it was constructed above the water table for future mound sampling, if needed. Original modeling (CH2MHill, 2003) for the Turner recharge site predicted a 109-day travel time to each of these wells. Recycled water continued to be detected at TRN-2/2 (as elevated EC) through 2013. Decrease in EC, TDS, and chloride concentrations at TRN-1/2 indicate that recycled water recharged during the start-up period has migrated away from this location since

July 2008, after the high volume recharge start-up period ended in 2007. The water quality beneath Turner 1 still indicates the presence of recycled water from subsequent recycled water recharge activities. The travel time from Turner Basins to downgradient Ontario Well No. 25 suggest a travel time of 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 2013 are consistent with the prior data interpretations for these two Ontario wells.

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 findings indicate the earlier data did not represent the arrival of recycled water, but was instead evidence of vadose zone flushing (IEUA and CBWM, 2010b). 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 µmhos/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 µmhos/cm. Recycled water recharge began on June 2, 2009 and a 400-µmhos/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. Recycled water has also been observed as a chloride increase in both the shallow and the deep casing RP3-1/1 and RP3-1/2 in the summer of 2010, approximately 12 months after initiation of the basin with recycled water. The longer time to observe a chloride response is likely due to background noise of water purged from the vadose zone. The water quality data from downgradient monitor wells ALCOA MW-1 and MW-3 do not indicate the arrival of recycled water at these locations.

San Sevaine & Victoria Basins Area

San Sevaine Basins lie directly upgradient of Victoria Basin and thus these two sites are considered together. There is currently insufficient data from the San Sevaine area monitoring wells to establish travel times of recharge to mound monitoring well SSV-1/1 and to cross gradient well Unitex 91090. For Victoria Basin, mound monitoring well VCT-1/1 water quality data (EC, TDS, and chloride) support a travel time of approximately 7.5 months based on the initiation of recycled water recharge on September 2, 2010 and its arrival detection with the May 19, 2011 sample.

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 the above subsections. Appendix D contains basin-specific water level hydrographs, with discussion in Section 3.5.2 of water level mounding due to recycled water recharge. Location maps for wells monitored for the recharge program are presented in Figures

2-1 through 2-7. Evaluation of basin-specific water chemistry and water level data indicate recycled water recharge has passed the first monitoring wells located downgradient of 8th Street, Banana, Brooks, Ely, Hickory, Turner Basins, Victoria, and RP3 Basins. Only two production wells used for monitoring near the basins show a water quality change from background concentrations that would be associated with recycled water recharge; specifically, California Speedway Infield Well 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 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 2013, 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 Elevation vs. Modeled Elevation

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, and 2012. These groundwater elevation maps from the Chino Basin Watermaster's *Biennial State of the Basin Reports* are presented in Appendix E.

A comparison of the pre-recharge elevation contour map (Fall 2003) with the most recent post-program start-up groundwater contour map (Spring 2012) indicates several things. First, local changes in groundwater elevation near the recharge basins due to recharge activities are present, but are not evident by the contour interval of 25 feet shown in the maps, indicating that the recharge program has not significantly impacted regional groundwater flow directions. Local recharge mounds at basins are evident in well hydrographs at the monitoring wells shown in Appendix D, but are smaller than the contour interval (25 feet) on the maps. Small differences in groundwater flow direction are noticeable for 8th Street and Ely Basins between the 2003 and 2012 maps, but neither difference suggests that downgradient monitoring well locations are inappropriately located to become characteristic of recharge water quality. Second, a deeper and larger area pumping depression has developed in the vicinity the Chino Desalter (hydraulic control) well field and a smaller pumping depression (perhaps seasonal) has developed in Pomona west of Brooks Basin. Thirdly, there are some changes in the contouring style/methodology between the 2003 and 2012 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 and 2012 maps.

3.5.2 Water Level Trends in Monitoring Wells

Appendix D contains groundwater elevations hydrographs for wells constructed for the monitoring program from the approximate time of a basin's start-up periods through the end of 2013. 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 rate of water captured for the nearest recharge site. These hydrographs can be used to identify local increases in groundwater elevations and their correlation with local recharge. Generally these wells are mound monitoring wells at basins or the next monitoring well downgradient of the recharge site.

8th Street Basin Area

The hydrographs of the 8th Street Basin mound monitoring well (8TH-1) show 5- to 10-foot seasonal fluctuations and a longer-term 10-foot increasing trend in water levels between 2008 and 2013. There are missing water level data for both casings at 8TH-1 in 2011 due to the loss and replacement of the pressure transducers and pumps at the well. Hand-measured water levels supplemented the hydrographs during that time. The hydrograph for downgradient well 8TH-2 also shows about a 10-foot increasing water level trend between 2008 and 2013. Short duration downward spikes in the 8TH-2 hydrograph are indicative of nearby groundwater pumping activities.

Brooks Basin Area

The hydrographs for the Brooks Basin mound monitoring well (BRK-1/1) show 2- to 10- foot seasonal fluctuations in water level but have been relatively stable annually between mid 2009 and the end of 2013. The larger groundwater elevation fluctuations in the deeper casing (BRK-1/2) are due to a greater influence from nearby groundwater production at that depth. Prior to the generally stable period of mid 2009 to the end of 2013, water levels at BRK-1/1 and BRK-1/2 had generally declined approximately 10 feet during 2008 and early 2009. The shallower casing (BRK/1/1) was redeveloped during 2010. Due to the removal of monitoring equipment at that time, it does not have a continuous water level record in 2010. Periods of rising water levels on the Brooks basin monitoring well hydrographs correlate well with about a 3-months lag from recharge activity at Brooks Basin. The hydrograph of the downgradient (intermediate) monitoring well BRK-2 shows a similarly stable trend as BRK-1 from 2009 to 2013 with the exception of slightly larger seasonal fluctuations and pumping influences.

Banana & Hickory Basins Area

The hydrograph for the Banana and Hickory Basins mound monitoring well (BH-1) shows seasonal and longer-term water level fluctuations in about 15-foot range. Between 2006 and 2009, a 15-foot steady decline in water level. For 2009 through 2011, the BH-1/2 hydrograph shows relative stable annual water levels with 5-foot season fluctuations. For 2012, the hydrograph shows a general 10-foot increase in water levels above the 2009 through 2011 levels. For 2013, water levels are about 5 to 10 feet lower than in 2012. 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.

Turner Basin Area

The hydrographs for the two Turner Basin monitoring wells, TRN-1/2 and TRN-2/2, show seasonal and longer-term water level fluctuations in about a 30-foot range. Annually the hydrographs have shown 10- to 25-foot variations in groundwater elevation with delays of 1 to 2 months associated with peaks in recharge. The annual low water elevations of September 2007 to September 2009 are generally the same elevation. The annual lows of September 2009 through September 2012 show a 20-foot rise suggesting recharge at Turner Basins has a positive impact on regional water levels in their vicinity. For 2013, the Turner Basin area water levels did not continue to increase and were relatively stable due in part to the basins being off line for maintenance.

RP3 Basin Area

The hydrograph of the RP3 Basin mound monitoring well, RP3-1, shows a good correlation with recharge activity at the basin. In 2007 and 2008, the water elevation did not vary by more than 2 to 3 feet with recharge activity. However, after initiation of Jurupa Basin for diverting storm water and recycled water and for subsequently pumping to the RP3 site, annual recharge volumes and water levels increased. For 2009 through 2011, dramatic increases in groundwater elevations occurred, followed by a decrease in groundwater elevation in late 2012 when the RP3 basin was off line for maintenance. For 2013, water levels rebounded 5 to 10 feet upwards with renewed recharge at the RP3 site.

San Sevaine & Victoria Basins Area

The hydrograph for the San Sevaine Basin 5 mound monitoring well (SS-1) shows seasonal and longer-term water level fluctuations within a 5-foot range. In 2010, water levels decreased 5 feet and in 2011 were followed by a similar 5-foot rise. Water levels at San Sevaine remained stable throughout 2012 and decreased 5 feet in 2013. SS-1 was installed in spring 2010 and does not have sufficient water level history to correlate with recharge at the San Sevaine Basins.

The hydrograph for the Victoria Basin mound monitoring well (VCT-1) shows seasonal and longer-term water level fluctuations within a 20-foot range. The Victoria Basin level transducer installed in April 2010 was found to be faulty and only manual measurements were measured until April 2011. The mound area water levels rose 15 feet from 2010 to 2011, then fell and rose 5 feet in 2012. In 2013, the mound area water levels fell approximately 10 feet. There appears to be about an 11-month delay between recharge and water table changes beneath the Victoria Basin, yet more observations are needed to confirm this delay.

The hydrograph for the Victoria Basin downgradient (intermediate) monitoring well (VCT-2/2) shows seasonal and longer-term water level fluctuations within a 12-foot range. The hydrograph shows 5- to 8-foot seasonal water level fluctuations in 2010 through 2013. This well was installed in spring 2010 and does not have sufficient water level history to correlate with recharge at the San Sevaine and Victoria Basins.

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TABLES

Table 2-1
Title 22 Results for Nearest Potable Well

	Sample Location	Date	TOC (mg/L)	Total Coliform (MPN/100mL)	pH	EC (µmho/cm)	TDS (mg/L)	Al (µg/L)	Color (units)	Cu (µg/L)	Corrosivity Index (SI)	Foaming Agents (mg/L)	Fe (µg/L)	Mn (µg/L)	MTBE (µg/L)	Odor Threshold (TON)	Ag (µg/L)	Thiobencarb (µg/L)	Turbidity (NTU)	Zn (µg/L)	Cl (mg/L)	Hardness (mg $CaCO_3$/L)	Na (mg/L)	SO_4 (mg/L)	NH_3-N (mg/L)	NO_2-N (mg/L)	NO_3-N (mg/L)	Nitrogen, Total (mg/L)	TKN (mg/L)	Alkalinity (mg $CaCO_3$/L)	Dissolved Oxygen (mg/L)
8th St	City of Ontario Well No. 35	1Q13	<0.10	<1.1	7.6	350	232	<25	<3	<0.5	0.1	<0.05	<15	<1	<0.5	<1	<0.25	<0.2	0.16	<1	7	154	24	21	<0.1	0.20	2.8	3.0	<0.5	149	7.6
		2Q13	<0.10	<1.1	7.9	345	230	<25	<3	<0.5	0.2	<0.05	<15	<1	<0.5	1	<0.25	<0.2	0.06	<1	7	147	26	20	<0.1	<0.02	2.5	2.5	<0.5	143	3.9
		3Q13	0.11	<1.1	8.0	345	218	<25	<3	0.5	0.2	<0.05	<15	<1	<0.5	<1	<0.25	<0.2	0.05	<1	7	134	24	21	<0.1	<0.02	2.7	2.7	<0.5	142	0.0
		4Q13	0.14	<1.1	8.5	825	228	<25	<3	<0.5	0.1	<0.05	<15	<1	<0.5	2	<0.25	<0.2	0.14	<1	7	135	22	21	<0.1	0.08	2.7	2.8	<0.5	140	1.7
Banana & Hickory	City of Ontario Well No. 20	1Q13	0.40	<1.1	7.7	360	240	<25	3	0.5	0.4	<0.05	<15	<1	<0.5		<0.25	<0.2	0.24	<1	8	177	16	6	<0.1	0.20	2.2	2.4	<0.5	173	7.5
		2Q13	0.12	<1.1	8.0	360	240	<25	*<3*	0.5	0.4	<0.05	<15	<1	<0.5	1	<0.25	<0.2	0.07	1	8	177	15	6	<0.1	<0.02	2.6	2.6	<0.5	170	5.1
		3Q13	0.12	<1.1	8.1	360	236	<25	<3	0.6	0.4	<0.05	<15	<1	<0.5	<1	<0.25	<0.2	0.10	1	8	167	14	6	<0.1	<0.02	2.2	2.8	<0.6	171	0.0
		4Q13	0.15	23	*8.6*	360	244	<25	<3	0.6	0.5	<0.05	<15	<1	<0.5	2	<0.25	<0.2	0.17	<1	12	173	14	7	0.1	0.11	3.2	3.3	<0.5	173	1.4
Brooks	Pomona Well No. 10	1Q13	0.14	<1.1	7.0	570	360	<25	<3	1.4	0.6	<0.05	<15	1	<0.5	<1	<0.25	<0.2	0.10	<1	41	272	13	51	<0.1	0.09	9.1	9.2	<0.5	157	10.2
		2Q13	0.18	<1.1	7.8	510	320	<25	<3	1.3	0.3	<0.05	<15	<1	<0.5	1	<0.25	<0.2	0.08	3	46	263	12	41	<0.1	0.04	6.7	6.7	<0.5	146	2.9
		3Q13	0.41	<1.1	8.2	510	328	<25	*<3*	1.3	0.3	<0.05	<15	<1	<0.5	1	<0.25	<0.2	0.05	4	38	240	12	39	<0.1	<0.02	6.7	6.7	<0.5	144	2.2
		4Q13	0.12	<1.1	8.1	510	330	<25	<3	1.3	0.2	<0.05	<15	<1	<0.5	2	<0.25	<0.2	0.06	3	39	249	12	41	<0.1	0.07	7.3	7.4	<0.5	142	2.1
Ely	Bishop Of San Bernardino Corp.	1Q13	0.22	<1.1	7.0	760	488	<25	10	3.0	0.8	<0.05	*1304*	15	<0.5	2	<0.25	<0.2	*13.3*	9	39	344	23	61	<0.1	0.12	*20.1*	20.2	<0.5	218	11.3
		2Q13	0.37	1.1	7.7	770	*512*	<25	<3	6.2	0.6	<0.05	*1110*	23	<0.5	1	<0.25	<0.2	*8.05*	4	39	392	25	65	<0.1	<0.02	*21.8*	21.8	<0.5	216	4.6
		3Q13	0.26	<1.1	8.0	786	*584*	<25	*<3*	0.9	0.7	0.06	80	3	<0.5	<1	<0.25	<0.2	0.41	2	44	374	25	65	<0.1	<0.02	*21.4*	21.4	<0.5	217	1.2
		4Q13	0.27	<1.1	8.4	740	484	<25	*<3*	1.6	0.8	<0.05	17	<1	<0.5	1	<0.25	<0.2	0.2	2	36	354	23	62	<0.1	<0.02	*18.6*	18.6	<0.5	216	1.4
RP-3	JCSD Well No. 17	1Q13	0.22	<1.1	8.4	605	380	<25	<3	1.0	0.4	<0.05	21	2	<0.5	<1	<0.25	<0.2	0.37	<1	63	252	32	43	0.5	0.10	*12.8*	12.9	<0.5	126	7.1
		2Q13	0.22	<1.1	7.9	605	422	<25	3	0.9	0.3	<0.05	<15	<1	<0.5	<1	<0.25	<0.2	0.05	<1	67	240	30	36	<0.1	<0.02	9.8	9.8	<0.5	131	1.8
		3Q13	0.36	<1.1	8.1	625	438	<25	<3	1.1	0.4	<0.05	73	<1	<0.5	<1	<0.25	<0.2	0.35	<1	77	257	30	35	<0.1	<0.02	9.2	9.2	<0.5	129	5.3
		4Q13	0.35	<1.1	8.2	625	430	<25	<3	0.6	0.4	<0.05	<15	<1	<0.5	1	<0.25	<0.2	0.09	<1	81	249	29	37	<0.1	<0.02	8.9	8.9	<0.5	130	1.3
San Sevaine	Unitex 91090	1Q13	0.27	1.1	7.8	330	222	<25	3	<0.5	0.1	<0.05	<15	<1	<0.5	<1	<0.25	<0.2	0.10	3	24	131	23	21	<0.1	<0.02	1.9	1.9	<0.5	110	5.4
		2Q13	0.12	<1.1	8.0	399	*524*	<25	<3	<0.5	0.2	<0.05	<15	<1	<0.5	1	<0.25	<0.2	<0.05	2	32	179	14	28	<0.1	0.05	1.7	1.8	<0.5	123	2.4
		3Q13	0.21	<1.1	7.9	390	252	<25	<3	<0.5	0.1	<0.05	<15	<1	<0.5	<1	<0.25	<0.2	0.05	2	31	189	14	29	<0.1	<0.02	1.7	1.7	<0.5	121	6.7
		4Q13	0.14	<1.1	8.3	396	258	<25	<3	<0.5	0.2	<0.05	<15	<1	<0.5	<1	<0.25	<0.2	0.09	1	32	183	14	30	<0.1	<0.02	1.9	1.9	<0.5	136	1.6
Turner	City of Ontario Well No. 25	1Q13	0.13	<1.1	7.7	455	298	<25	<3	<0.5	0.3	<0.05	<15	<1	<0.5	1	<0.25	<0.2	0.15	<1	23	203	26	16	0.3	0.13	3.9	4.0	<0.5	179	7.0
		2Q13	0.16	<1.1	7.7	439	290	<25	<3	<0.5	0.3	<0.05	<15	<1	<0.5	1	<0.25	<0.2	0.05	<1	28	197	25	20	<0.1	<0.02	4.3	4.3	<0.5	176	3.5
		3Q13	0.17	<1.1	7.8	438	290	<25	<3	<0.5	0.3	<0.05	<15	<1	<0.5	<1	<0.25	<0.2	0.05	<1	18	189	24	16	<0.1	<0.02	4.0	4.7	<0.7	177	0.0
		4Q13	0.19	12	8.4	435	292	<25	<3	<0.5	0.4	<0.05	<15	<1	<0.5	2	<0.25	<0.2	0.11	<1	20	182	22	17	<0.1	0.08	4.3	4.4	<0.5	178	1.5
Victoria	CVWD No. 39	1Q13	0.14	<1.1	7.8	275	176	<25	<3	61.7	0.0	<0.05	<15	<1	<0.5	1	<0.25	<0.2	0.18	2	7	106	24	10	<0.1	<0.02	1.8	1.8	<0.5	143	9.3
		2Q13	0.11	<1.1	7.8	280	204	<25	<3	1.4	0.0	<0.05	<15	<1	<0.5	1	<0.25	<0.2	<0.05	2	18	103	23	12	<0.1	0.04	1.6	2.5	<0.9	125	1.5
		3Q13	0.23	<1.1	8.0	280	200	<25	<3	0.6	0.1	<0.05	<15	<1	<0.5	1	<0.25	<0.2	0.10	<1	6	107	22	10	<0.1	<0.02	2.0	2.0	<0.5	123	2.5
		4Q13	0.14	<1.1	8.4	275	196	<25	<3	0.6	-0.6	<0.05	<15	<1	<0.5	1	<0.25	<0.2	0.25	<1	7	109	19	11	<0.1	0.08	3.3	3.4	<0.5	119	1.8
	Primary Maximum Contaminant Level							1000		1300					13			70						250				10				
	Secondary Maximum Contaminant Level				6.5-8.5	900	500	200	15	1000		0.5	300	50	5	3	100	1	5	5000	250			250							

Blank cells indicate that analysis was not run for a constituent during the quarter

Table 2-2
Regional Plants No. 1 & No. 4 Chemical Usage Summary

	RP-1 (Flow)				RP-1 (Tertiary)			RP-4		
	Ferric Chloride	Polymer	Sodium Hypochlorite	Sodium Hydroxide	Aluminum Sulfate	Sodium Hypochlorite	Sodium Bisulfite	Ferric Chloride	Aluminum Sulfate	Sodium Hypochlorite
Month	Gal.	Gal.	Gal.	Gal.	lbs.	Gal.	Gal.	Gal.	Gal.	Gal.
Jan-13	20,500	234	1,007	156	7,783	132,400	19,400	10,066	276	21,068
Feb-13	23,300	208	6,153	3	7,224	113,700	14,700	7,436	273	17,421
Mar-13	27,000	232	3,898	0	7,998	112,600	12,000	8,228	576	16,989
Apr-13	28,600	226	3,048	0	7,740	110,400	6,200	7,305	212	19,867
May-13	32,800	233	4,657	0	7,998	124,400	8,600	7,342	446	22,892
Jun-13	26,400	226	5,330	20	7,654	116,600	7,600	6,951	546	25,387
Jul-13	25,800	232	12,009	0	7,826	131,200	8,500	8,404	387	17,803
Aug-13	26,300	234	3,115	7	7,998	128,200	6,600	8,848	366	25,800
Sep-13	26,575	226	2,990	200	7,740	123,800	6,000	9,197	374	24,430
Oct-13	27,050	231	6,673	197	7,740	119,000	11,100	9,472	460	24,544
Nov-13	26,450	230	655	228	7,740	108,700	12,400	8,609	414	23,179
Dec-13	30,750	234	540	240	7,998	140,400	13,800	8,639	408	21,909
Total	321,525	2,747	50,075	1,051	93,439	1,461,400	126,900	100,497	4,740	261,289

Table 3-1
Evidence of Blending Based on Water Quality
Mass Balance based on EC and Cl

Basin	Well	Well Position	Recycled Water EC (µmhos/cm)	Groundwater Background EC (µmhos/cm)	Peak EC at Well (µmhos/cm)	Mass-Balance Blend (max) (% Recycled Water)	Recycled Water Cl (mg/L)	Groundwater Background Cl (mg/L)	Peak Cl at Well (mg/L)	Mass-Balance Blend (max) (% Recycled Water)
8th Street	8TH-1/1	Downgradient	750	170	550	66%	110	9	90	80%
	8TH-1/2	Downgradient	750	255	325	14%	110	13	33	21%
	8TH-2/1	Downgradient	Inconclusive evidence of recycled water arrival				Inconclusive evidence of recycled water arrival			
	8TH-2/2	Downgradient	Inconclusive evidence of recycled water arrival				Inconclusive evidence of recycled water arrival			
Banana & Hickory	BH-1/2	Mound	750	328	530	48%	110	10	62	52%
	California Speedway Infield	Downgradient	750	420	600	55%	110	11	29	18%
	California Speedway No. 2	Downgradient	Inconclusive evidence of recycled water				Inconclusive evidence of recycled water			
	Reliant East Well	Downgradient	Inconclusive evidence of recycled water				Inconclusive evidence of recycled water			
	Fontana Water Co. 37A	Upgradient	Inconclusive evidence of recycled water				Inconclusive evidence of recycled water			
	Ontario No. 20	Downgradient	Inconclusive evidence of recycled water				Inconclusive evidence of recycled water			
Brooks	BRK-1/1	Mound	750	367	475	28%	110	11	62	52%
	BRK-1/2	Mound	750	535	605	33%	110	16	27	12%
	BRK-2/1	Downgradient	Inconclusive evidence of recycled water				Inconclusive evidence of recycled water			
	BRK-2/2	Downgradient	Inconclusive evidence of recycled water				Inconclusive evidence of recycled water			
Ely	Philadelphia Well	Mound	750	245	365	24%	110	34	42	11%
	Walnut Well	Downgradient	Well impacted by regionally high TDS concentration				Well impacted by regionally high TDS concentration			
	Riverside Well	Downgradient	No EC fluctuation correlatable with recharge				No EC fluctuation correlatable with recharge			
Turner	TRN-1/2	Mound	750	390	400	3%	110	21	29	9%
	TRN-2/2	Mound	750	350	575	56%	110	9	82	72%
	Ontario No. 25	Downgradient	750	420	455	11%	110	14	28	15%
	Ontario No. 29	Downgradient	Inconclusive evidence of recycled water				Inconclusive evidence of recycled water			
RP-3	RP3-1/1	Mound	Cannot be determine at this time due to high background EC				110	20	74	60%
	RP3-1/2	Mound	Cannot be determine at this time due to high background EC				110	20	83	70%
	Alcoa MW-3	Downgradient	Inconclusive evidence of recycled water				Inconclusive evidence of recycled water			
	Alcoa MW-1	Downgradient	Inconclusive evidence of recycled water				Inconclusive evidence of recycled water			
	IEUA Southridge JHS	Downgradient	Inconclusive evidence of recycled water				Inconclusive evidence of recycled water			
San Sevaine & Victoria	SS1-1/1	Mound	Inconclusive evidence of recycled water				Inconclusive evidence of recycled water			
	Unitex 91090	Crossgradient	Inconclusive evidence of recycled water				Inconclusive evidence of recycled water			
	VCT-1/1	Mound	750	330	424	22%	110	38	59	29%
	VCT-2/2	Downgradient	Inconclusive evidence of recycled water				Inconclusive evidence of recycled water			
	CVWD No. 39	Downgradient	Inconclusive evidence of recycled water				Inconclusive evidence of recycled water			

Table 3-2
Volume-Based RWC Actuals by Basin

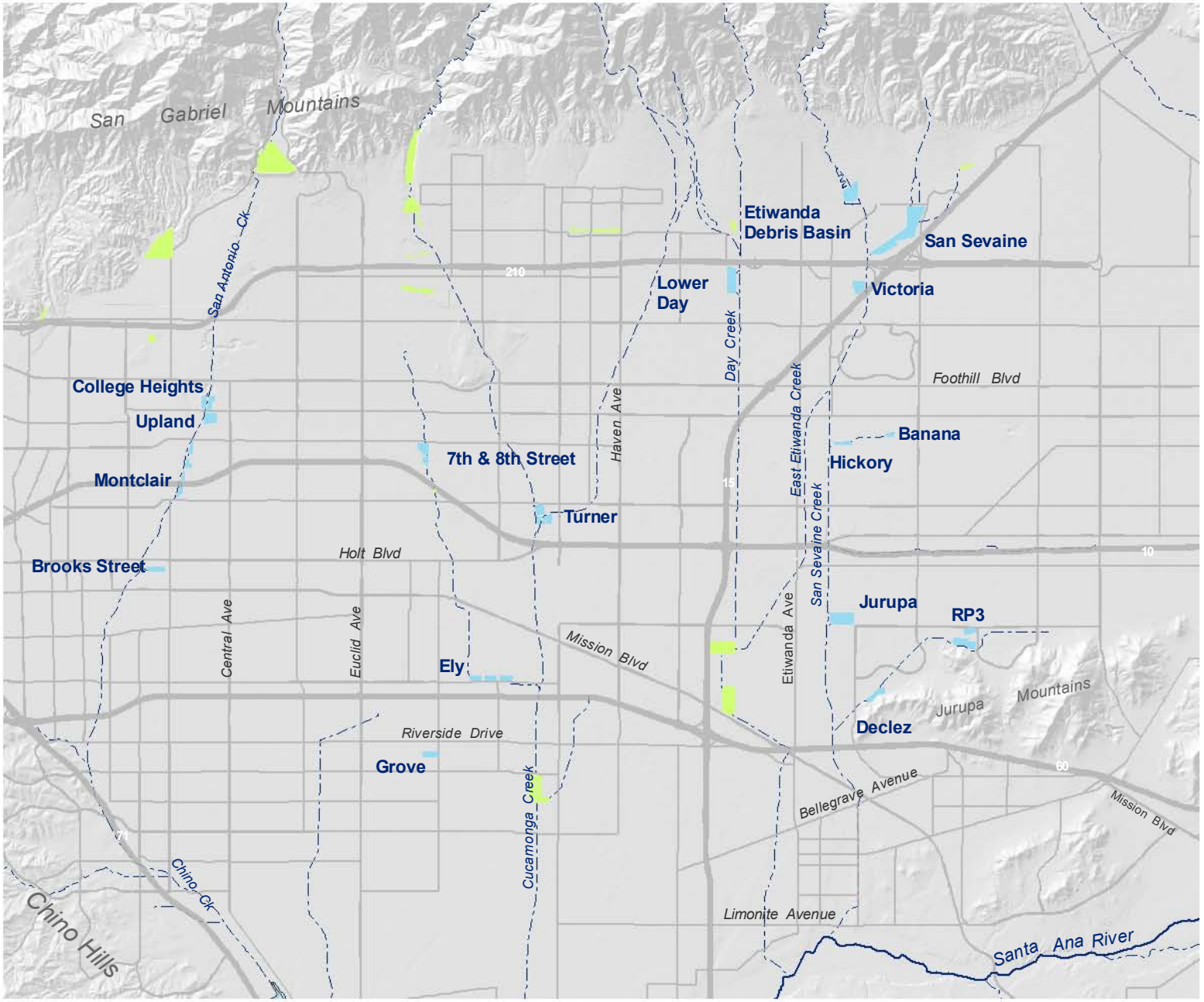
Basin	Owner	RW Start Up	Limit	2008*	2009**	2010	2011	2012	2013
8th Street	SBCFCD	2007-10	28%	28%	23%	23%	21%	21%	24%
Banana	SBCFCD	2005	36%	29%	30%	29%	32%	34%	34%
Brooks	CBWCD	2008-09	42%	8%	30%	22%	18%	16%	18%
Declez	SBCFCD	TBD	TBD	0%	0%	0%	0%	1%	1%
Ely	CBWCD	2006	29%	17%	15%	12%	11%	11%	19%
Hickory	SBCFCD	2005	36%	29%	29%	25%	22%	22%	23%
RP3	IEUA	2009-10	50%	0%	17%	14%	12%	12%	14%
San Sevaine 5	SBCFCD	2010-11	27%	0%	0%	1%	3%	4%	5%
Turner 1&2	SBCFCD	2006-07	24%	12%	10%	8%	7%	6%	7%
Turner 3&4	SBCFCD	2006-07	45%	20%	19%	19%	21%	22%	23%
Victoria	SBCFCD	2010-11	50%	0%	0%	13%	19%	24%	23%

* 2008 RWC Actuals are based on 60-months running average and exclusion of groundwater underflow as diluent water.

** 2009 RWC Actuals include groundwater underflow as a diluent source only after the October 2009 recharge permit amendment and upon initiation of recycled water recharge.

TBD To Be Determined. Declez basin has not been initiated with recycled water recharge, but received recycled water drained from RP3 basins prior to basin restoration activities.

FIGURES



0 2 4 Miles

0 4 8 Kilometers

Main Map Features

Recharge Basins in the Recycled Water Groundwater Recharge Program

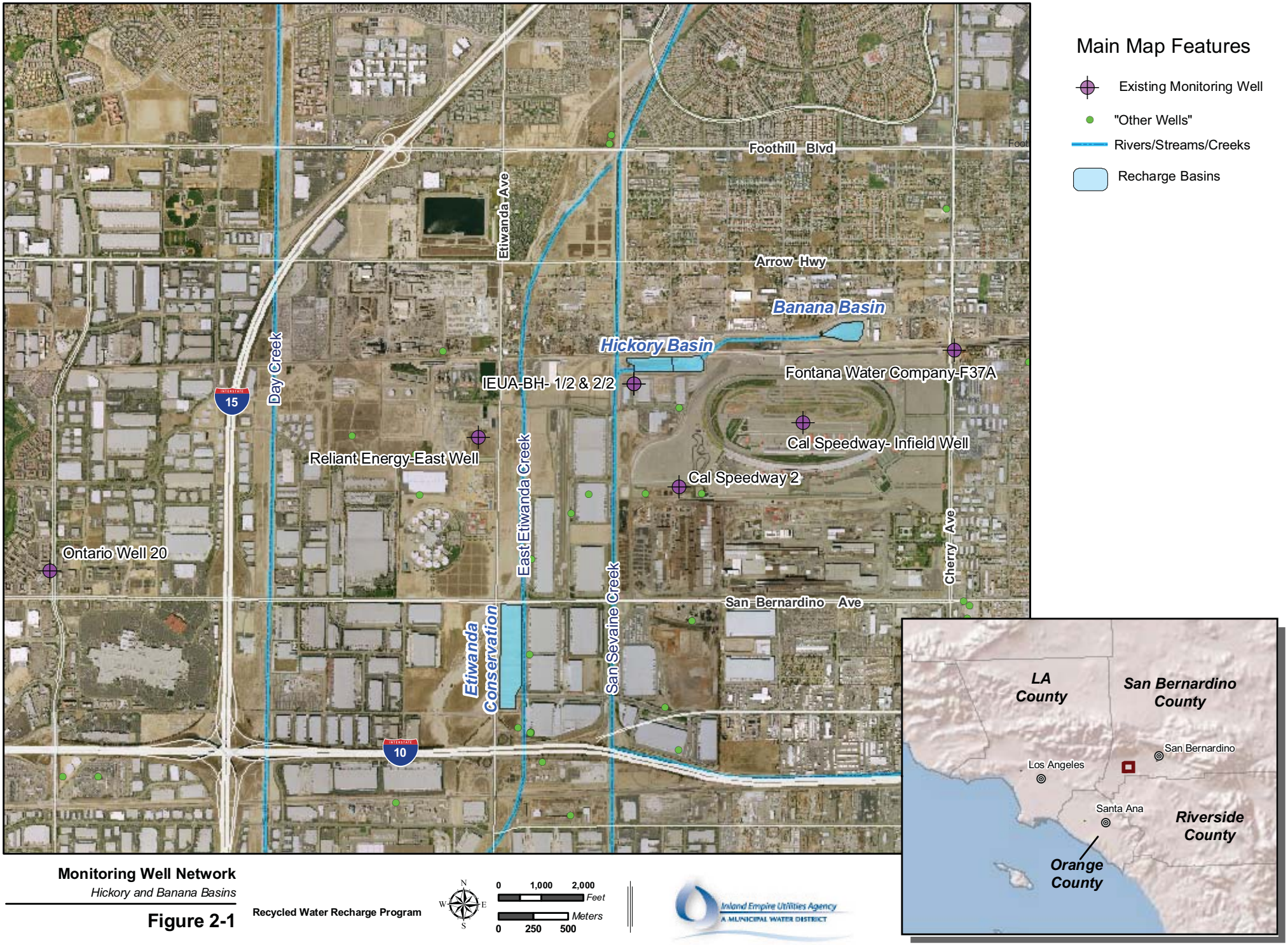
Non-Program Basins

Rivers and Streams

Chino Basin Recycled Water Groundwater Recharge Program

Basin Locations

Figure 1-1

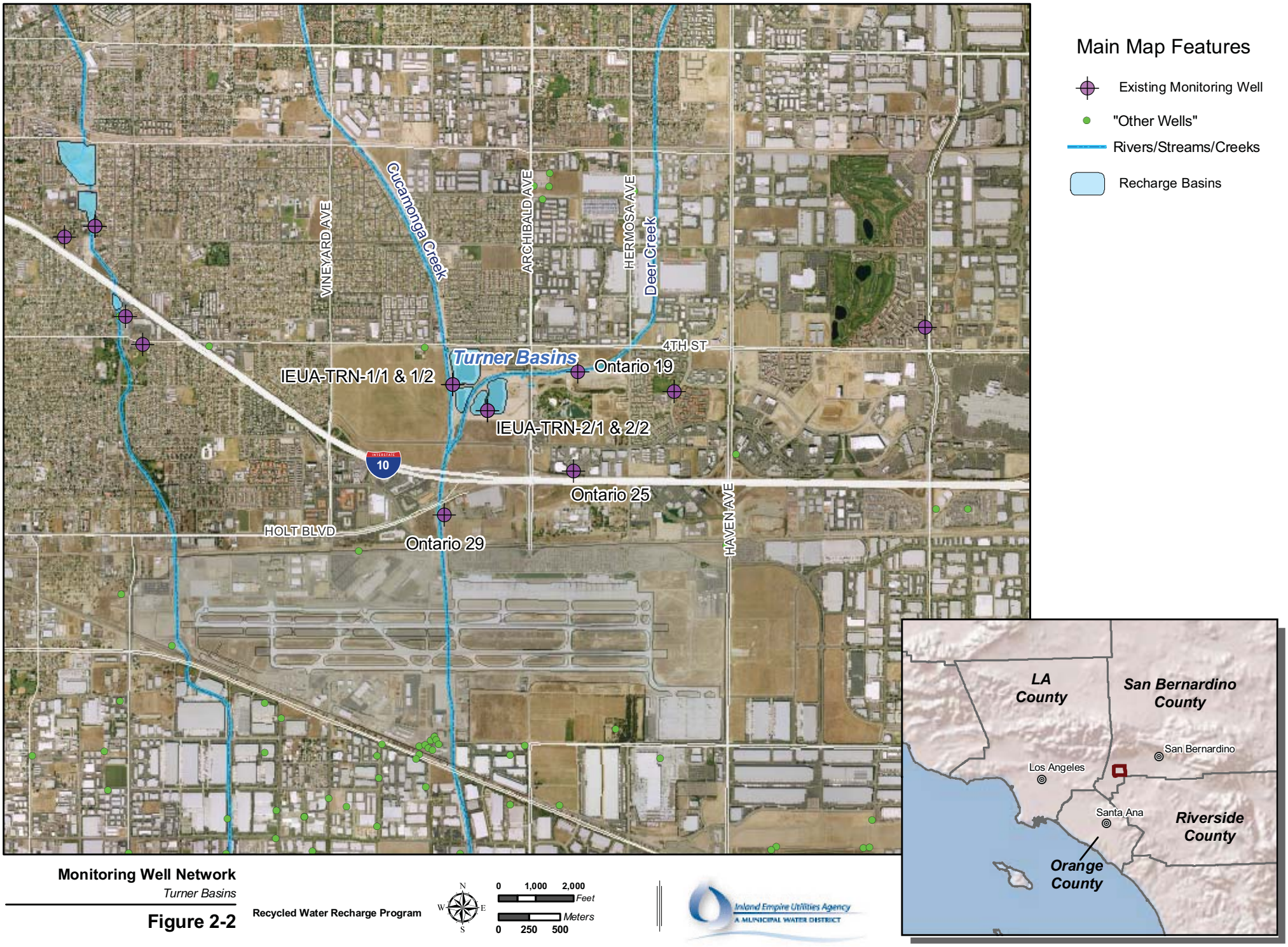


Monitoring Well Network

Hickory and Banana Basins

Figure 2-1

Recycled Water Recharge Program



Monitoring Well Network

Turner Basins

Figure 2-2

Recycled Water Recharge Program

N W E S

0 1,000 2,000 Feet

0 250 500 Meters

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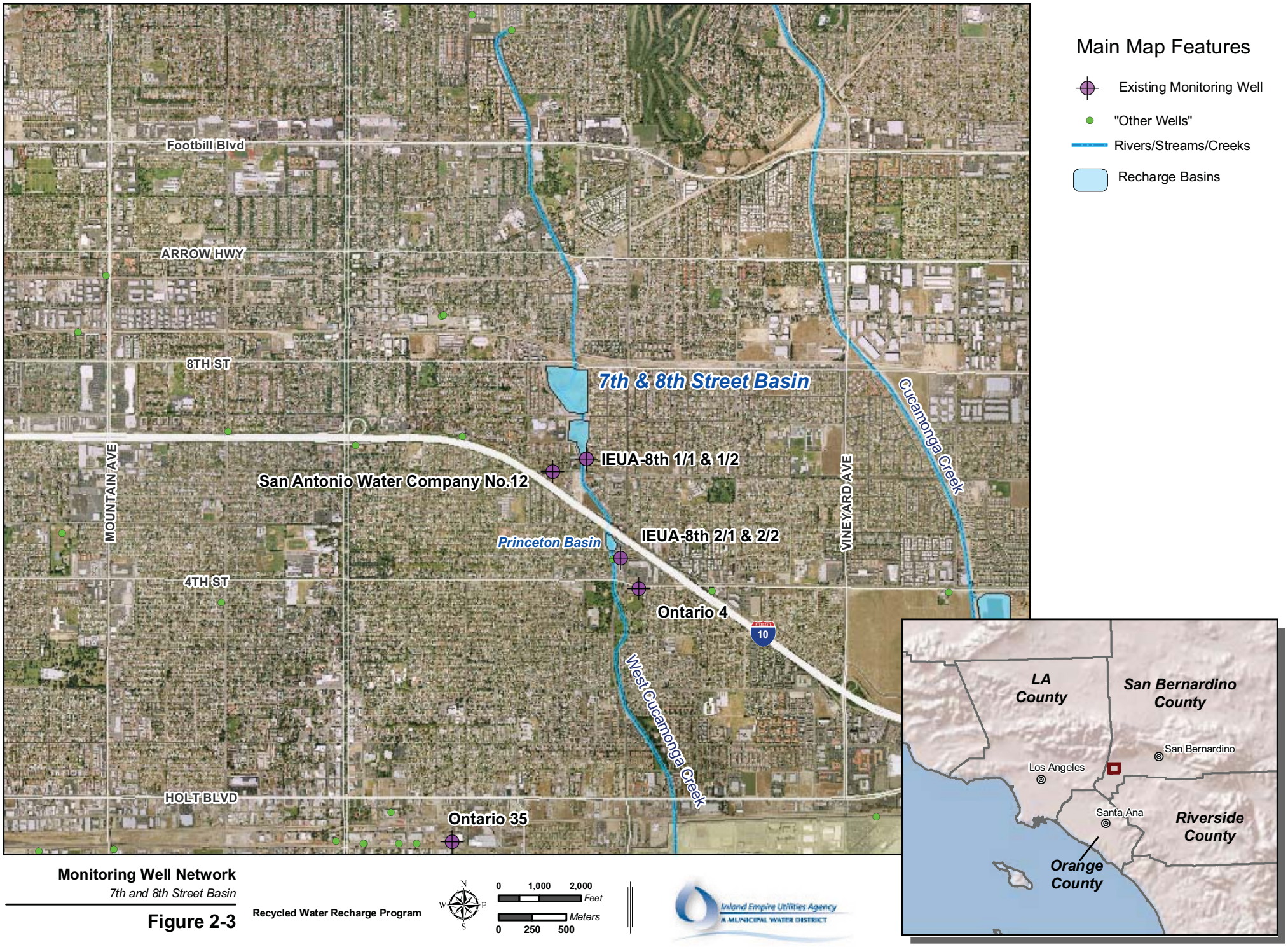
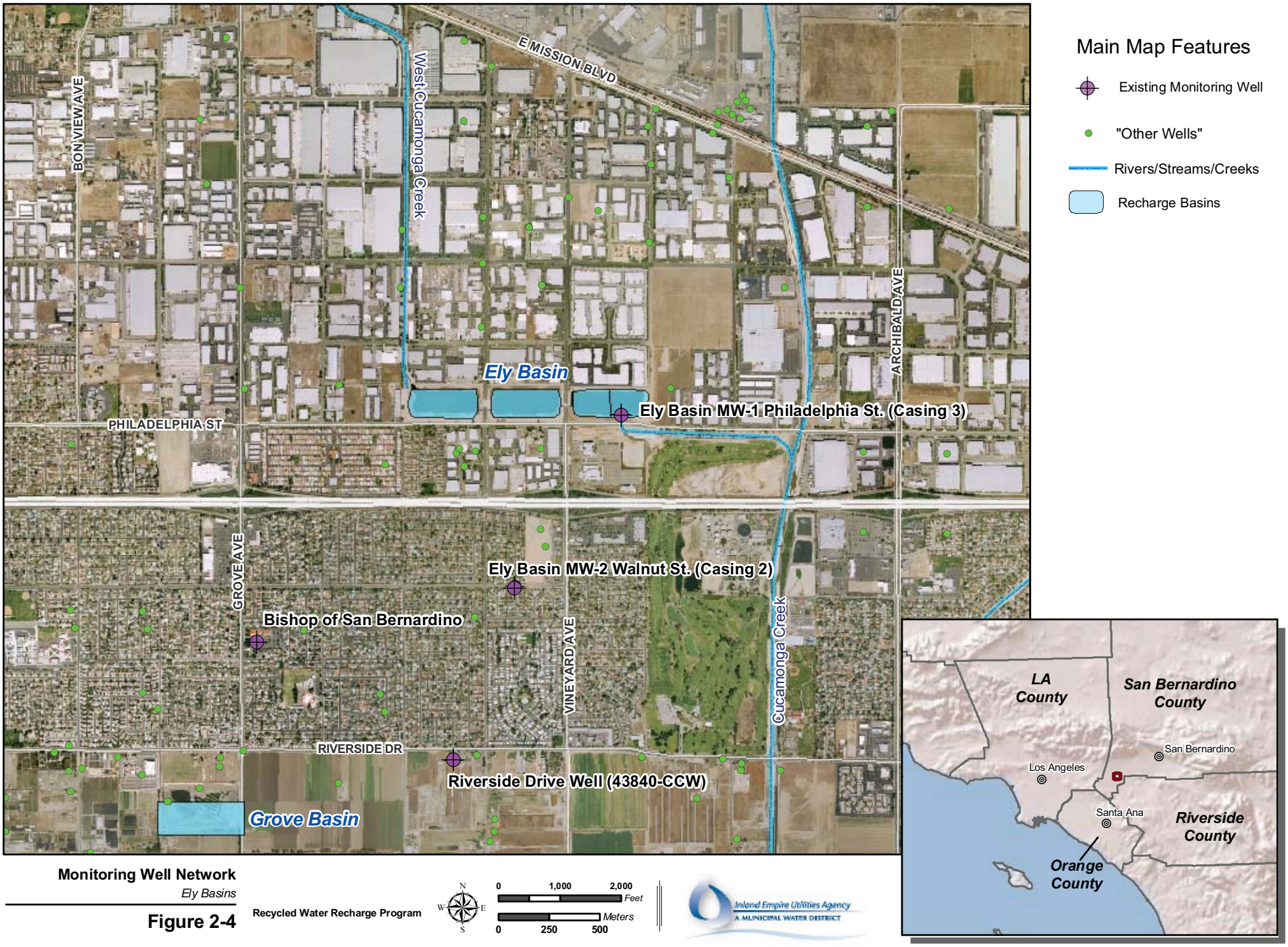


Monitoring Well Network

7th and 8th Street Basin

Figure 2-3

Recycled Water Recharge Program



Monitoring Well Network

Ely Basins

Figure 2-4

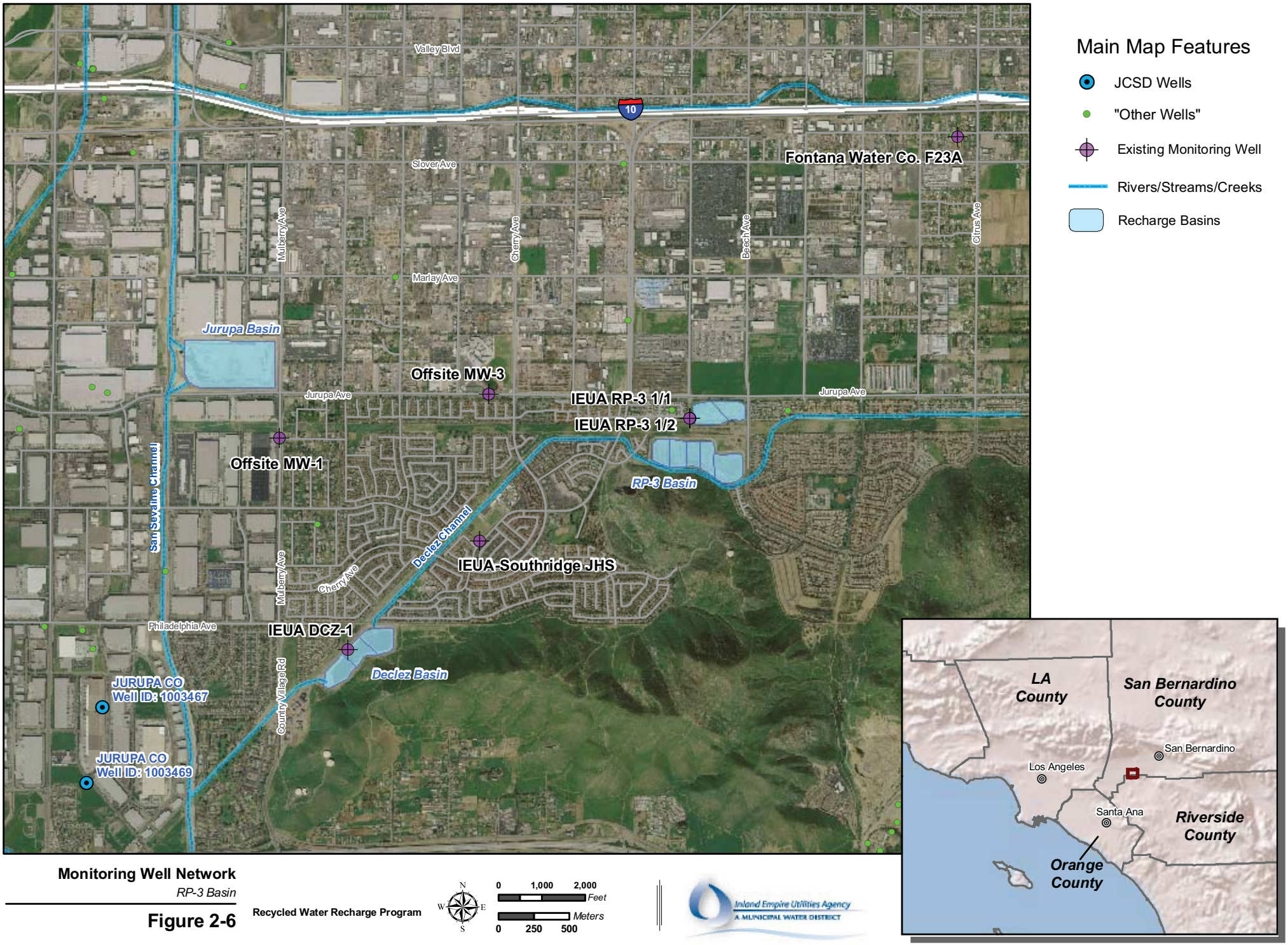
Recycled Water Recharge Program

Monitoring Well Network

Brooks Street Basin

Figure 2-5

Recycled Water Recharge Program

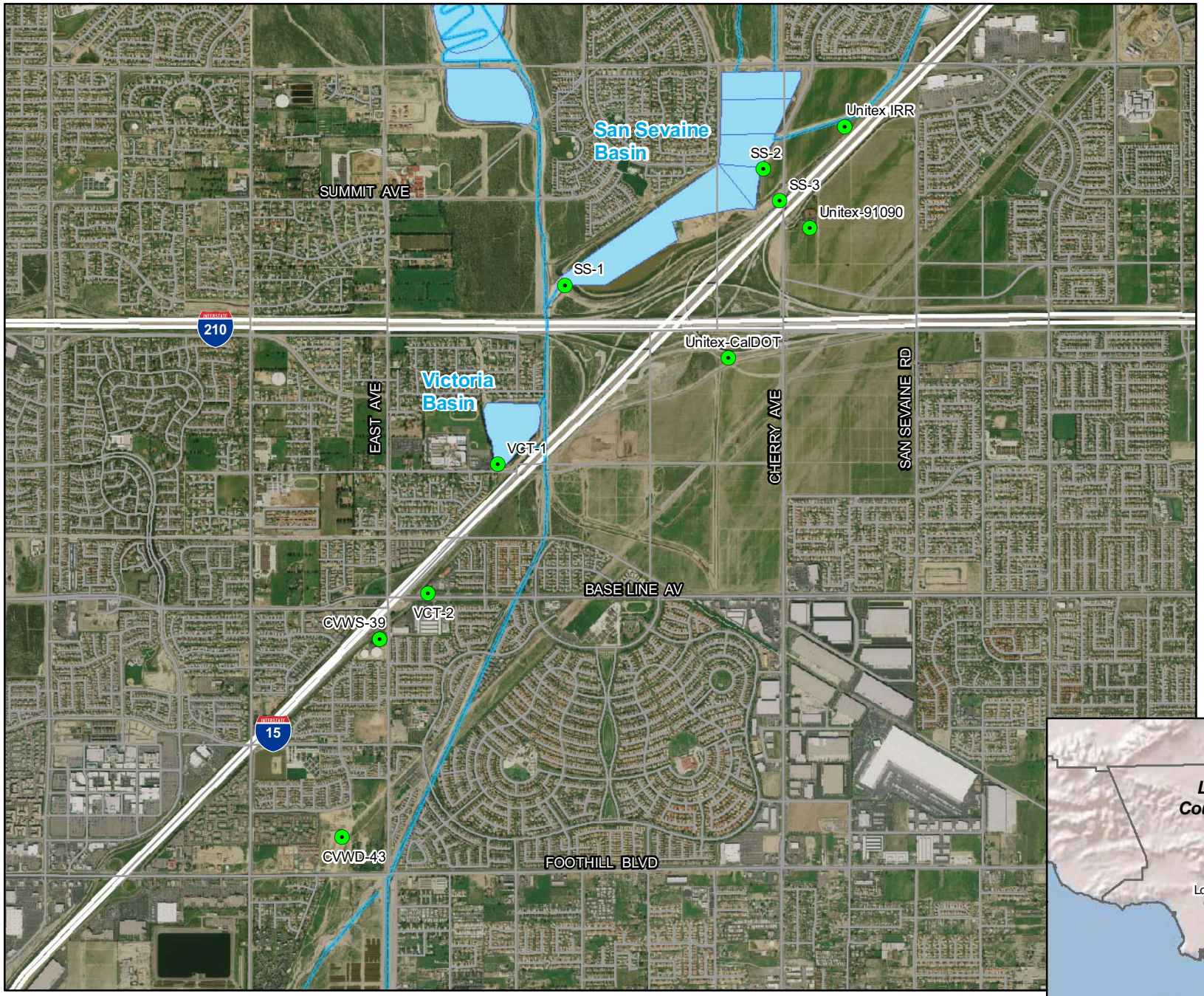


Monitoring Well Network

RP-3 Basin

Figure 2-6

Recycled Water Recharge Program



Main Map Features

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

Monitoring Well Network

San Sevaine and Victoria Basin

Figure 2-7

Recycled Water Recharge Program

N W E S

0 1,000 2,000 Feet

0 250 500 Meters

Inland Empire Utilities Agency
A MUNICIPAL WATER DISTRICT

20071106

APPENDIX A

MONTHLY GROUNDWATER RECHARGE SUMMARIES

SUMMARY OF CHINO BASIN GROUNDWATER RECHARGE OPERATIONS

January 2013

Drainage System / Basin	Recharge Volume (AF)* SW/LR	MW	RW	Management Zone Subtotals
San Antonio Channel Drainage System				
College Heights	-	-	N	MZ-1
Upland	**23**	-	N	**724**
Montclair 1, 2, 3 & 4	**44**	-	N	AF**
Brooks	**35**	-	**342**	
West Cucamonga Channel Drainage System				
8th Street	**51**	-	**190**	
7th Street	**19**	-	**40**	
Ely 1, 2, & 3	**72**	-	**145**	
Minor Drainage				
Grove	**27**	N	N	
Cucamonga and Deer Creek Channel Drainage Systems				
Turner 1 & 2	**149**	-	-	
Turner 3 & 4	**15**	-	-	MZ-2
Day Creek Channel Drainage System				**679**
Lower Day	**15**	-	X	AF**
Etiwanda Channel Drainage System				
Etiwanda Debris	**14**	-	X	
Victoria	**35**	-	**12**	
San Sevaine Channel Drainage System				
San Sevaine 1, 2, 3, & 4	**10**	-	-	
San Sevaine 5	**11**	-	**59**	
West Fontana Channel System				
Hickory	-	-	**115**	
Banana	**18**	-	**28**	
Declez Channel Drainage System				MZ-3
RP3 Cells 1, 3, & 4	**131**	-	**353**	**594**
RP3 Cell 2	**16**	-	-	AF**
Declez	**48**	-	-	
Non-Replenishment Recharge**				
Brooks (MVWD) MZ-1	-			
Montclair (MVWD) MZ-1	**(20)**			
Turner (SAWCO) MZ-2	-			
Month Total = 1,997 AF	**713**	**0**	**1,284**	January 2013
Fiscal Year to Date Total Since July 1, 2012 = 8,669 AF	**3,923**	**0.0**	**4,746**	Fiscal Year to Date
Calendar Year to Date Total Since Jan. 1, 2013 = 1,997 AF	**713**	**0.0**	**1,284**	Calendar Year to Date

SW : Storm Water, LR : Local Runoff (and GE, MVWD), MW : MWD Imported Water, RW : Recycled Water

\- : No stormwater/local runoff, or basin not in use due to maintenance or testing.

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

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SUMMARY OF CHINO BASIN GROUNDWATER RECHARGE OPERATIONS

February 2013

Drainage System / Basin	Recharge Volume (AF)* SW/LR	MW	RW	Management Zone Subtotals
San Antonio Channel Drainage System				
College Heights	-	-	N	MZ-1
Upland	**18**	-	N	**669**
Montclair 1, 2, 3 & 4	**88**	-	N	AF**
Brooks	**26**	-	**299**	
West Cucamonga Channel Drainage System				
8th Street	**89**	-	**126**	
7th Street	**1**	-	**100**	
Ely 1, 2, & 3	**37**	-	**225**	
Minor Drainage				
Grove	**24**	N	N	
Cucamonga and Deer Creek Channel Drainage Systems				
Turner 1 & 2	**116**	-	**26**	
Turner 3 & 4	**25**	-	-	MZ-2
Day Creek Channel Drainage System				**527**
Lower Day	**13**	-	X	AF**
Etiwanda Channel Drainage System				
Etiwanda Debris	**2**	-	X	
Victoria	**10**	-	**10**	
San Sevaine Channel Drainage System				
San Sevaine 1, 2, 3, & 4	**4**	-	-	
San Sevaine 5	**5**	-	**19**	
West Fontana Channel System				
Hickory	**8**	-	**3**	
Banana	**20**	-	**2**	
Declez Channel Drainage System				MZ-3
RP3 Cells 1, 3, & 4	**102**	-	**297**	**490**
RP3 Cell 2	**11**	-	-	AF**
Declez	**58**	-	-	
Non-Replenishment Recharge**				
Brooks (MVWD) MZ-1	-			
Montclair (MVWD) MZ-1	**(78)**			
Turner (SAWCO) MZ-2	-			
Month Total = 1,686 AF	**579**	**0**	**1,107**	February 2013
Fiscal Year to Date Total Since July 1, 2012 = 10,355 AF	**4,502**	**0.0**	**5,853**	Fiscal Year to Date
Calendar Year to Date Total Since Jan. 1, 2013 = 3,683 AF	**1,292**	**0**	**2,391**	Calendar Year to Date

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SUMMARY OF CHINO BASIN GROUNDWATER RECHARGE OPERATIONS

March 2013

Drainage System / Basin	Recharge Volume (AF)* SW/LR	MW	Recycled	Management Zone Subtotals
San Antonio Channel Drainage System				
College Heights	-	-	N	MZ-1
Upland	**12**	-	N	**605**
Montclair 1, 2, 3 & 4	**161**	-	N	AF**
Brooks	**32**	-	**238**	
West Cucamonga Channel Drainage System				
8th Street	**65**	-	**212**	
7th Street	-	-	**28**	
Ely 1, 2, & 3	**63**	-	**314**	
Minor Drainage				
Grove	**11**	N	N	
Cucamonga and Deer Creek Channel Drainage Systems				
Turner 1 & 2	**48**	-	**21**	
Turner 3 & 4	**14**	-	-	
Day Creek Channel Drainage System				
Lower Day	**5**	-	X	MZ-2
Etiwanda Channel Drainage System				**767**
Etiwanda Debris	**1**	-	X	AF**
Victoria	**7**	-	**57**	
San Sevaine Channel Drainage System				
San Sevaine 1, 2, 3, & 4	**3**	-	-	
San Sevaine 5	**10**	-	**53**	
West Fontana Channel System				
Hickory	**13**	-	**147**	
Banana	**8**	-	**42**	
Declez Channel Drainage System				MZ-3
RP3 Cells 1, 3, & 4	**60**	-	**275**	**464**
RP3 Cell 2	**18**	-	-	AF**
Declez	**61**	-	-	
Non-Replenishment Recharge**				
Brooks (MVWD) MZ-1	-			
Montclair (MVWD) MZ-1	**(143)**			
Turner (SAWCO) MZ-2	-			
Month Total = 1,836 AF	**449**	**0**	**1,387**	March 2013
Fiscal Year to Date Total Since July 1, 2012 = 12,191 AF	**4,951**	**0.0**	**7,240**	Fiscal Year to Date
Calendar Year to Date Total Since Jan. 1, 2013 = 5,519 AF	**1,741**	**0**	**3,778**	Calendar Year to Date

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SUMMARY OF CHINO BASIN GROUNDWATER RECHARGE OPERATIONS

April 2013

Drainage System / Basin	Recharge Volume (AF)* SW/LR	MW	Recycled	Management Zone Subtotals
San Antonio Channel Drainage System				
College Heights	-	-	N	MZ-1
Upland	-	-	N	**407**
Montclair 1, 2, 3 & 4	**26**	-	N	AF**
Brooks	-	-	**231**	
West Cucamonga Channel Drainage System				
8th Street	**24**	-	**152**	
7th Street	-	-	-	
Ely 1, 2, & 3	**1**	-	**79**	
Minor Drainage				
Grove	-	N	N	
Cucamonga and Deer Creek Channel Drainage Systems				
Turner 1 & 2	-	-	-	
Turner 3 & 4	-	-	-	MZ-2
Day Creek Channel Drainage System				**296**
Lower Day	-	-	X	AF**
Etiwanda Channel Drainage System				
Etiwanda Debris	-	-	X	
Victoria	**1**	-	**98**	
San Sevaine Channel Drainage System				
San Sevaine 1, 2, 3, & 4	**4**	-	-	
San Sevaine 5	**1**	-	**41**	
West Fontana Channel System				
Hickory	-	-	**71**	
Banana	-	-	**55**	
Declez Channel Drainage System				MZ-3
RP3 Cells 1, 3, & 4	**35**	-	**386**	**556**
RP3 Cell 2	**5**	-	-	AF**
Declez	**4**	-	-	
Non-Replenishment Recharge**				
Brooks (MVWD) MZ-1	-			
Montclair (MVWD) MZ-1	**(26)**			
Turner (SAWCO) MZ-2	-			
Month Total = 1,188 AF	**75**	**0**	**1,113**	April 2013
Fiscal Year to Date Total Since July 1, 2012 = 13,379 AF	**5,026**	**0.0**	**8,353**	Fiscal Year to Date
Calendar Year to Date Total Since Jan. 1, 2013 = 6,707 AF	**1,816**	**0**	**4,891**	Calendar Year to Date

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SUMMARY OF CHINO BASIN GROUNDWATER RECHARGE OPERATIONS

May 2013

Drainage System / Basin	Recharge Volume (AF)* SW/LR	MWD	Recycled	Management Zone Subtotals
San Antonio Channel Drainage System				
College Heights	-	-	N	MZ-1
Upland	-	-	N	**454**
Montclair 1, 2, 3 & 4	**21**	-	N	AF**
Brooks	**17**	-	**152**	
West Cucamonga Channel Drainage System				
8th Street	**43**	-	**195**	
7th Street	-	-	**26**	
Ely 1, 2, & 3	**23**	-	**259**	
Minor Drainage				
Grove	**22**	N	N	
Cucamonga and Deer Creek Channel Drainage Systems				
Turner 1 & 2	-	-	-	
Turner 3 & 4	-	-	-	
Day Creek Channel Drainage System				
Lower Day	-	-	X	MZ-2
Etiwanda Channel Drainage System				**438**
Etiwanda Debris	-	-	X	AF**
Victoria	**5**	-	**93**	
San Sevaine Channel Drainage System				
San Sevaine 1, 2, 3, & 4	**4**	-	-	
San Sevaine 5	-	-	**26**	
West Fontana Channel System				
Hickory	**6**	-	-	
Banana	**3**	-	**39**	
Declez Channel Drainage System				MZ-3
RP3 Cells 1, 3, & 4	**35**	-	**262**	**360**
RP3 Cell 2	**15**	-	-	AF**
Declez	**6**	-	-	
Non-Replenishment Recharge**				
Brooks (MVWD) MZ-1	-			
Montclair (MVWD) MZ-1	-			
Turner (SAWCO) MZ-2	-			
Month Total = 1,252 AF	**200**	**0**	**1,052**	May 2013
Fiscal Year to Date Total Since July 1, 2012 = 14,631 AF	**5,226**	**0.0**	**9,405**	Fiscal Year to Date
Calendar Year to Date Total Since Jan. 1, 2013 = 7,959 AF	**2,016**	**0**	**5,943**	Calendar Year to Date

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SUMMARY OF CHINO BASIN GROUNDWATER RECHARGE OPERATIONS

June 2013

Drainage System / Basin	Recharge Volume (AF)* SW/LR	MWD	Recycled	Management Zone Subtotals
San Antonio Channel Drainage System				
College Heights	-	-	N	MZ-1
Upland	-	-	N	**403**
Montclair 1, 2, 3 & 4	**43**	-	N	AF**
Brooks	-	-	**120**	
West Cucamonga Channel Drainage System				
8th Street	**12**	-	**217**	
7th Street	-	-	**54**	
Ely 1, 2, & 3	**4**	-	**209**	
Minor Drainage				
Grove	**2**	N	N	
Cucamonga and Deer Creek Channel Drainage Systems				
Turner 1 & 2	-	-	-	MZ-2
Turner 3 & 4	-	-	-	**418**
Day Creek Channel Drainage System				AF**
Lower Day	**1**	-	X	
Etiwanda Channel Drainage System				
Etiwanda Debris	-	-	X	
Victoria	**1**	-	**82**	
San Sevaine Channel Drainage System				
San Sevaine 1, 2, 3, & 4	-	-	-	
San Sevaine 5	-	-	**2**	
West Fontana Channel System				
Hickory	**1**	-	**116**	
Banana	-	-	**35**	
Declez Channel Drainage System				MZ-3
RP3 Cells 1, 3, & 4	**16**	-	**238**	**298**
RP3 Cell 2	**4**	-	**1**	AF**
Declez	**4**	-	-	
Non-Replenishment Recharge**				
Brooks (MVWD) MZ-1	-			
Montclair (MVWD) MZ-1	**(43)**			
Turner (SAWCO) MZ-2	-			
Month Total = 1,119 AF	**45**	**0**	**1,074**	June 2013
Fiscal Year to Date Total Since July 1, 2012 = 15,750 AF	**5,271**	**0.0**	**10,479**	Fiscal Year to Date
Calendar Year to Date Total Since Jan. 1, 2013 = 9,078 AF	**2,061**	**0**	**7,017**	Calendar Year to Date

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SUMMARY OF CHINO BASIN GROUNDWATER RECHARGE OPERATIONS

July 2013

Drainage System / Basin	Recharge Volume (AF)* SW/LR	MW	RW	Management Zone Subtotals
San Antonio Channel Drainage System				
College Heights	-	-	N	
Upland	-	-	N	MZ-1
Montclair 1, 2, 3 & 4	**131**	-	N	**369**
Brooks	**1**	-	**169**	AF**
West Cucamonga Channel Drainage System				
8th Street	**13**	-	**186**	
7th Street	-	-	-	
Ely 1, 2, & 3	**6**	-	**157**	
Minor Drainage				
Grove	**3**	N	N	
Cucamonga and Deer Creek Channel Drainage Systems				
Turner 1 & 2	-	-	-	
Turner 3 & 4	-	-	-	MZ-2
Day Creek Channel Drainage System				**448**
Lower Day	**1**	-	X	AF**
Etiwanda Channel Drainage System				
Etiwanda Debris	-	-	X	
Victoria	**2**	-	**74**	
San Sevaine Channel Drainage System				
San Sevaine 1, 2, 3, & 4	-	-	-	
San Sevaine 5	-	-	-	
West Fontana Channel System				
Hickory	**4**	-	**201**	
Banana	-	-	**15**	
Declez Channel Drainage System				MZ-3
RP3 Cells 1,3, & 4	**52**	-	**57**	**167**
RP3 Cell 2	**20**	-	**17**	AF**
Declez	**6**	-	-	
Non-Replenishment Recharge**				
Brooks (MVWD) MZ-1	-			
Montclair (MVWD) MZ-1	**(131)**			
Turner (SAWCO) MZ-2	-			
Month Total = 984 AF	**108**	**0.0**	**876**	July 2013
Fiscal Year to Date Total Since July 1, 2013 = 984 AF	**108**	**0.0**	**876**	Fiscal Year to Date
Calendar Year to Date Total Since Jan. 1, 2013 = 10,062 AF	**2,169**	**0.0**	**7,893**	Calendar Year to Date

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SUMMARY OF CHINO BASIN GROUNDWATER RECHARGE OPERATIONS

August 2013

Drainage System / Basin	Recharge Volume (AF)* SW/LR	MW	RW	Management Zone Subtotals
San Antonio Channel Drainage System				
College Heights	-	-	N	MZ-1
Upland	-	-	N	**329**
Montclair 1, 2, 3 & 4	**8**	-	N	AF**
Brooks	**1**	-	**197**	
West Cucamonga Channel Drainage System				
8th Street	**13**	-	**118**	
7th Street	-	-	-	
Ely 1, 2, & 3	**4**	-	**334**	
Minor Drainage				
Grove	**4**	N	N	
Cucamonga and Deer Creek Channel Drainage Systems				
Turner 1 & 2	-	-	-	
Turner 3 & 4	-	-	-	**MZ-2**
Day Creek Channel Drainage System				**400**
Lower Day	**3**	-	X	AF**
Etiwanda Channel Drainage System				
Etiwanda Debris	-	-	X	
Victoria	**2**	-	**42**	
San Sevaine Channel Drainage System				
San Sevaine 1, 2, 3, & 4	-	-	-	
San Sevaine 5	-	-	-	
West Fontana Channel System				
Hickory	-	-	**11**	
Banana	-	-	**12**	
Declez Channel Drainage System				MZ-3
RP3 Cells 1,3, & 4	**56**	-	**141**	**299**
RP3 Cell 2	**12**	-	**75**	AF**
Declez	**3**	-	-	
Non-Replenishment Recharge**				
Brooks (MVWD) MZ-1	-			
Montclair (MVWD) MZ-1	**(8)**			
Turner (SAWCO) MZ-2	-			
Month Total = 1,028 AF	**98**	-	**930**	August 2013
Fiscal Year to Date Total Since July 1, 2013 = 2,012 AF	**206**	-	**1,806**	Fiscal Year to Date
Calendar Year to Date Total Since Jan. 1, 2013 = 11,090 AF	**2,267**	**0.0**	**8,823**	Calendar Year to Date

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SUMMARY OF CHINO BASIN GROUNDWATER RECHARGE OPERATIONS

September 2013

Drainage System / Basin	Recharge Volume (AF)* SW/LR	MW	RW	Management Zone Subtotals
San Antonio Channel Drainage System				
College Heights	-	-	N	MZ-1
Upland	-	-	N	**343**
Montclair 1, 2, 3 & 4	**8**	-	N	AF**
Brooks	**28**	-	**182**	
West Cucamonga Channel Drainage System				
8th Street	**11**	-	**150**	
7th Street	-	-	-	
Ely 1, 2, & 3	**6**	-	**457**	
Minor Drainage				
Grove	**4**	N	N	
Cucamonga and Deer Creek Channel Drainage Systems				
Turner 1 & 2	-	-	-	
Turner 3 & 4	**24**	-	**107**	MZ-2
Day Creek Channel Drainage System				**805**
Lower Day	**5**	-	X	AF**
Etiwanda Channel Drainage System				
Etiwanda Debris	-	-	X	
Victoria	**2**	-	**46**	
San Sevaine Channel Drainage System				
San Sevaine 1, 2, 3, & 4	-	-	-	
San Sevaine 5	-	-	**154**	
West Fontana Channel System				
Hickory	-	-	-	
Banana	-	-	-	
Declez Channel Drainage System				MZ-3
RP3 Cells 1,3, & 4	**54**	-	**278**	**413**
RP3 Cell 2	**4**	-	**75**	AF**
Declez	**2**	-	-	
Non-Replenishment Recharge**				
Brooks (MVWD) MZ-1	-			
Montclair (MVWD) MZ-1	**(36)**			
Turner (SAWCO) MZ-2	-			
Month Total = 1,561 AF	**112**	-	**1,449**	September 2013
Fiscal Year to Date Total Since July 1, 2013 = 3,573 AF	**318**	-	**3,255**	Fiscal Year to Date
Calendar Year to Date Total Since Jan. 1, 2013 = 12,651 AF	**2,379**	**0.0**	**10,272**	Calendar Year to Date

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** : Management Zone Subtotals have deducted from them any Non-Replenishment Recharge, which is recharge originating from pumped groundwater and is not new water.

Printed: Mar. 04, 14

SUMMARY OF CHINO BASIN GROUNDWATER RECHARGE OPERATIONS

October 2013

Drainage System / Basin	Recharge Volume (AF)* SW/LR	MW	RW	Management Zone Subtotals
San Antonio Channel Drainage System				
College Heights	-	-	N	MZ-1
Upland	**7**	-	N	**434**
Montclair 1, 2, 3 & 4	**34**	-	N	AF**
Brooks	**23**	-	**108**	
West Cucamonga Channel Drainage System				
8th Street	**33**	-	**131**	
7th Street	**15**	-	**108**	
Ely 1, 2, & 3	**15**	-	**358**	
Minor Drainage				
Grove	**20**	N	N	
Cucamonga and Deer Creek Channel Drainage Systems				
Turner 1 & 2	-	-	-	
Turner 3 & 4	**20**	-	**117**	MZ-2
Day Creek Channel Drainage System				**629**
Lower Day	**7**	-	X	AF**
Etiwanda Channel Drainage System				
Etiwanda Debris	**3**	-	X	
Victoria	**7**	-	-	
San Sevaine Channel Drainage System				
San Sevaine 1, 2, 3, & 4	**8**	-	-	
San Sevaine 5	**3**	-	**69**	
West Fontana Channel System				
Hickory	**1**	-	**1**	
Banana	-	-	**385**	
Declez Channel Drainage System				MZ-3
RP3 Cells 1,3, & 4	**44**	-	**164**	**620**
RP3 Cell 2	**9**	-	-	AF**
Declez	**18**	-	-	
Non-Replenishment Recharge Deduct **				
Brooks (MVWD) MZ-1	-			
Montclair (MVWD) MZ-1	**(25)**			
Turner (SAWCO) MZ-2	-			
Upland	-			
Month Total = 1,683 AF	**242**	**0.0**	**1,441**	October 2013
Fiscal Year to Date Total Since July 1, 2013 = 5,256 AF	**560**	**0.0**	**4,696**	Fiscal Year to Date
Calendar Year to Date Total Since Jan. 1, 2013 = 14,334 AF	**2,621**	**0.0**	**11,713**	Calendar Year to Date

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\- : No stormwater/local runoff, or basin not in use due to maintenance or testing.

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

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SUMMARY OF CHINO BASIN GROUNDWATER RECHARGE OPERATIONS

November 2013

Drainage System / Basin	Recharge Volume (AF)* SW/LR	MW	RW	Management Zone Subtotals
San Antonio Channel Drainage System				
College Heights	-	-	N	MZ-1
Upland	**9**	-	N	**415**
Montclair 1, 2, 3 & 4	**172**	-	N	AF**
Brooks	**4**	-	**94**	
West Cucamonga Channel Drainage System				
8th Street	**45**	-	**143**	
7th Street	**4**	-	**106**	
Ely 1, 2, & 3	**21**	-	**421**	
Minor Drainage				
Grove	**26**	N	N	
Cucamonga and Deer Creek Channel Drainage Systems				
Turner 1 & 2	-	-	-	
Turner 3 & 4	**17**	-	**89**	MZ-2
Day Creek Channel Drainage System				**1,034**
Lower Day	**2**	-	X	AF**
Etiwanda Channel Drainage System				
Etiwanda Debris	-	-	X	
Victoria	**12**	-	-	
San Sevaine Channel Drainage System				
San Sevaine 1, 2, 3, & 4	**37**	-	-	
San Sevaine 5	**2**	-	**9**	
West Fontana Channel System				
Hickory	**59**	-	**339**	
Banana	**22**	-	**102**	
Declez Channel Drainage System				MZ-3
RP3 Cells 1,3, & 4	**43**	-	**4**	**240**
RP3 Cell 2	**17**	-	-	AF**
Declez	**52**	-	-	
Non-Replenishment Recharge**				
Upland (SAWCo) MZ-1	-			
Montclair (MVWD) MZ-1	**(162)**			
Turner (SAWCO) MZ-2	-			
Month Total = 1,689 AF	**382**	**0.0**	**1,307**	November 2013
Fiscal Year to Date Total Since July 1, 2013 = 6,945 AF	**942**	**0.0**	**6,003**	Fiscal Year to Date
Calendar Year to Date Total Since Jan. 1, 2013 = 16,023 AF	**3,003**	**0.0**	**13,020**	Calendar Year to Date

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Printed: Mar. 28, 14 ver. 3

SUMMARY OF CHINO BASIN GROUNDWATER RECHARGE OPERATIONS

December 2013

Drainage System / Basin	Recharge Volume (AF)* SW/LR	MW	RW	Management Zone Subtotals
San Antonio Channel Drainage System				
College Heights	-	-	N	MZ-1
Upland	**8**	-	N	**335**
Montclair 1, 2, 3 & 4	**108**	-	N	AF**
Brooks	**8**	-	**104**	
West Cucamonga Channel Drainage System				
8th Street	**36**	-	**83**	
7th Street	**10**	-	**38**	
Ely 1, 2, & 3	**24**	-	**413**	
Minor Drainage				
Grove	**28**	N	N	
Cucamonga and Deer Creek Channel Drainage Systems				
Turner 1 & 2	**72**	-	**174**	
Turner 3 & 4	**5**	-	**85**	MZ-2
Day Creek Channel Drainage System				**1,058**
Lower Day	**5**	-	X	AF**
Etiwanda Channel Drainage System				
Etiwanda Debris	**2**	-	X	
Victoria	**10**	-	**118**	
San Sevaine Channel Drainage System				
San Sevaine 1, 2, 3, & 4	**5**	-	-	
San Sevaine 5	**1**	-	-	
West Fontana Channel System				
Hickory	**8**	-	**108**	
Banana	**6**	-	-	
Declez Channel Drainage System				MZ-3
RP3 Cells 1,3, & 4	**70**	-	**251**	**395**
RP3 Cell 2	**2**	-	-	AF**
Declez	**66**	-	-	
Non-Replenishment Recharge**				
Upland (SAWCo) MZ-1	-			
Montclair (MVWD) MZ-1	**(60)**			
Turner (SAWCO) MZ-2	-			
Month Total = 1,788 AF	**414**	**0.0**	**1,374**	December 2013
Fiscal Year to Date Total Since July 1, 2013 = 8,733 AF	**1,356**	**0.0**	**7,377**	Fiscal Year to Date
Calendar Year to Date Total Since Jan. 1, 2013 = 17,811 AF	**3,417**	**0.0**	**14,394**	Calendar Year to Date

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Printed: Mar. 28, 14 ver 3

APPENDIX B

RWC MANAGEMENT PLANS

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
2008/09	Jul '08	10	29.	0.		29.	2,926	224.	1,278	4204	30%	START-UP
	Aug '08	11	15.	0.		15.	2,941	128.	1,406	4347	32%	
	Sep '08	12	15.	0.		15.	2,956	0.	1,406	4362	32%	
	Oct '08	13	16.	0.		16.	2,972	0.	1,406	4378	32%	
	Nov '08	14	137.	0.		137.	3,109	0.	1,406	4515	31%	
	Dec '08	15	352.	0.		352.	3,461	0.	1,406	4867	29%	
	Jan '09	16	35.	0.		35.	3,496	0.	1,406	4902	29%	
	Feb '09	17	458.	0.		458.	3,954	0.	1,406	5360	26%	HIST.
	Mar '09	18	21.	0.		21.	3,975	0.	1,406	5381	26%	
	Apr '09	19	15.	0.		15.	3,990	0.	1,406	5396	26%	
	May '09	20	16.	0.		16.	4,006	0.	1,406	5412	26%	
	Jun '09	21	0.	0.		0.	4,006	0.	1,406	5412	26%	
2009/10	Jul '09	22	19.	0.		19.	4,025	0.	1,406	5431	26%	SUP
	Aug '09	23	33.	0.		33.	4,058	24.	1,430	5488	26%	
	Sep '09	24	18.	0.		18.	4,076	0.	1,430	5506	26%	
	Oct '09	25	74.	0.	310.2	384.2	4,461	0.	1,430	5891	24%	DATA
	Nov '09	26	90.	3.	310.2	403.2	4,864	133.	1,563	6427	24%	
	Dec '09	27	303.	0.	310.2	613.2	5,477	93.	1,656	7133	23%	
	Jan '10	28	387.	0.	310.2	697.2	6,174	102.	1,758	7932	22%	
	Feb '10	29	474.	3.	310.2	787.2	6,961	0.	1,758	8719	20%	
	Mar '10	30	73.	0.	310.2	383.2	7,345	114.	1,872	9217	20%	
	Apr '10	31	206.	0.	310.2	516.2	7,861	100.	1,972	9833	20%	
	May '10	32	34.	0.	310.2	344.2	8,205	199.	2,171	10376	21%	
	Jun '10	33	33.	0.	310.2	343.2	8,548	302.	2,473	11021	22%	
2010/11	Jul '10	34	30.	0.	310.2	340.2	8,888	218.	2,691	11580	23%	ADDED
	Aug '10	35	28.	0.	310.2	338.2	9,227	106.	2,797	12024	23%	
	Sep '10	36	36.	0.	310.2	346.2	9,573	177.	2,974	12547	24%	
	Oct '10	37	89.	0.	310.2	399.2	9,972	288.	3,262	13234	25%	
	Nov '10	38	187.	0.	310.2	497.2	10,469	163.	3,425	13894	25%	
	Dec '10	39	499.	0.	310.2	809.2	11,278	20.	3,445	14724	23%	
	Jan '11	40	110.	0.	310.2	420.2	11,699	167.	3,612	15311	24%	HISTORICAL
	Feb '11	41	276.	0.	310.2	586.2	12,285	83.	3,695	15980	23%	
	Mar '11	42	250.	0.	310.2	560.2	12,845	23.	3,718	16563	22%	
	Apr '11	43	24.	0.	310.2	334.2	13,179	181.	3,899	17078	23%	
	May '11	44	33.	218.	310.2	561.2	13,740	243.	4,142	17883	23%	
	Jun '11	45	21.	325.3	310.2	656.5	14,397	202.	4,344	18741	23%	
2011/12	Jul '11	46	10.	190.6	310.2	510.8	14,908	88.	4,432	19340	23%	
	Aug '11	47	11.	221.6	310.2	542.8	15,451	46.	4,478	19929	22%	
	Sep '11	48	8.	160.	310.2	478.2	15,929	2.	4,480	20409	22%	
	Oct '11	49	43.	0.	310.2	353.2	16,282	0.	4,480	20762	22%	
	Nov '11	50	138.	0.	310.2	448.2	16,730	0.	4,480	21210	21%	
	Dec '11	51	76.	0.	310.2	386.2	17,116	0.	4,480	21597	21%	
	Jan '12	52	57.	0.	310.2	367.2	17,484	27.	4,507	21991	20%	
	Feb '12	53	154.	0.	310.2	464.2	17,948	0.	4,507	22455	20%	
	Mar '12	54	281.	0.	310.2	591.2	18,539	0.	4,507	23046	20%	
	Apr '12	55	223.	0.	310.2	533.2	19,072	34.	4,541	23613	19%	
	May '12	56	25.	0.	310.2	335.2	19,407	256.	4,797	24205	20%	
	Jun '12	57	21.	0.	310.2	331.2	19,739	188.	4,985	24724	20%	
2012/13	Jul '12	58	20.	0.	310.2	330.2	20,069	137.	5,122	25191	20%	
	Aug '12	59	21.	0.	310.2	331.2	20,400	0.	5,122	25522	20%	
	Sep '12	60	33.	0.	310.2	343.2	20,743	124.	5,246	25989	20%	
	Oct '12	61	29.	0.	310.2	339.2	21,083	309.	5,555	26638	21%	
	Nov '12	62	66.	0.	310.2	376.2	21,459	248.	5,803	27262	21%	
	Dec '12	63	278.	0.	310.2	588.2	22,047	103.	5,906	27953	21%	
	Jan '13	64	70.	0.	310.2	380.2	22,427	230.	6,136	28563	21%	
	Feb '13	65	90.	0.	310.2	400.2	22,827	226.	6,362	29189	22%	
	Mar '13	66	65.	0.	310.2	375.2	23,203	240.	6,602	29805	22%	
	Apr '13	67	24.	0.	310.2	334.2	23,537	152.	6,754	30291	22%	
	May '13	68	43.	0.	310.2	353.2	23,890	221.	6,975	30865	23%	
	Jun '13	69	12.	0.	310.2	322.2	24,212	271.	7,246	31458	23%	
2013/14	Jul '13	70	13.	0.	310.2	323.2	24,535	186.	7,432	31968	23%	
	Aug '13	71	13.	0.	310.2	323.2	24,859	118.	7,550	32409	23%	
	Sep '13	72	11.	0.	310.2	321.2	25,180	150.	7,700	32880	23%	
	Oct '13	73	48.	0.	310.2	358.2	25,538	239.	7,939	33477	24%	
	Nov '13	74	49.	0.	310.2	359.2	25,897	249.	8,188	34085	24%	
	Dec '13	75	46.	0.	310.2	356.2	26,253	121.	8,309	34563	24%	
	Jan '14	76	27.	0.	310.2	337.2	26,591	108.	8,417	35008	24%	
	Feb '14	77	30.	0.	310.2	340.2	26,931	88.	8,505	35436	24%	
	Mar '14	78	134.		310.2	444.2	27,375	100.	8,605	35980	24%	PLAN
	Apr '14	79	103.		310.2	413.2	27,788	150.	8,755	36543	24%	
	May '14	80	42.		310.2	352.2	28,140	200.	8,955	37096	24%	
	Jun '14	81	20.		310.2	330.2	28,471	0.	8,955	37426	24%	

RWC Management Plan for 8th Street Basins

(120-month averaging period)

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

Date		No. Mos. Since Initial RW Delivery	SW (AF)	MWD (AF)	Underflow (AF)	DW Total (AF)	DW 120-Month Total (AF)	RW (AF)	RW 120-Month Total (AF)	DW + RW 120-Month Total (AF)	RWC	Period
2014/15	Jul '14	82	17.		310.2	327.2	28,798	0.	8,955	37753	24%	PLANNED
	Aug '14	83	16.		310.2	326.2	29,124	230.	9,185	38309	24%	
	Sep '14	84	24.		310.2	334.2	29,458	230.	9,415	38873	24%	
	Oct '14	85	57.		310.2	367.2	29,826	200.	9,615	39441	24%	
	Nov '14	86	94.		310.2	404.2	30,230	150.	9,765	39995	24%	
	Dec '14	87	213.		310.2	523.2	30,753	0.	9,765	40518	24%	
	Jan '15	88	133.		310.2	443.2	31,196	50.	9,815	41011	24%	
	Feb '15	89	221.		310.2	531.2	31,727	50.	9,865	41592	24%	
	Mar '15	90	134.		310.2	444.2	32,172	125.	9,990	42162	24%	
	Apr '15	91	103.		310.2	413.2	32,585	175.	10,165	42750	24%	
	May '15	92	42.		310.2	352.2	32,937	100.	10,265	43202	24%	
	Jun '15	93	20.		310.2	330.2	33,267	0.	10,265	43532	24%	
2015/16	Jul '15	94	17.		310.2	327.2	33,594	0.	10,265	43860	23%	
	Aug '15	95	16.		310.2	326.2	33,921	230.	10,495	44416	24%	
	Sep '15	96	24.		310.2	334.2	34,195	230.	10,725	44920	24%	
	Oct '15	97	57.		310.2	367.2	34,429	230.	10,955	45385	24%	
	Nov '15	98	94.		310.2	404.2	34,774	150.	11,105	45879	24%	
	Dec '15	99	213.		310.2	523.2	35,237	0.	11,105	46342	24%	
	Jan '16	100	133.		310.2	443.2	35,564	50.	11,155	46719	24%	
	Feb '16	101	221.		310.2	531.2	35,853	50.	11,205	47058	24%	
	Mar '16	102	134.		310.2	444.2	35,971	125.	11,330	47301	24%	
	Apr '16	103	103.		310.2	413.2	36,155	175.	11,505	47660	24%	
	May '16	104	42.		310.2	352.2	36,457	230.	11,735	48192	24%	
	Jun '16	105	20.		310.2	330.2	36,772	0.	11,735	48507	24%	
2016/17	Jul '16	106	17.		310.2	327.2	37,087	0.	11,735	48823	24%	
	Aug '16	107	16.		310.2	326.2	37,407	230.	11,965	49373	24%	
	Sep '16	108	24.		310.2	334.2	37,720	230.	12,195	49915	24%	
	Oct '16	109	57.		310.2	367.2	38,046	230.	12,425	50472	25%	
	Nov '16	110	94.		310.2	404.2	38,409	150.	12,575	50984	25%	
	Dec '16	111	213.		310.2	523.2	38,852	0.	12,575	51427	24%	
	Jan '17	112	133.		310.2	443.2	39,237	50.	12,625	51862	24%	
	Feb '17	113	221.		310.2	531.2	39,600	50.	12,675	52275	24%	
	Mar '17	114	134.		310.2	444.2	40,006	125.	12,800	52806	24%	
	Apr '17	115	103.		310.2	413.2	40,330	175.	12,975	53306	24%	
	May '17	116	42.		310.2	352.2	40,641	230.	13,205	53846	25%	
	Jun '17	117	20.		310.2	330.2	40,929	0.	13,205	54134	24%	
2017/18	Jul '17	118	17.		310.2	327.2	41,240	0.	13,205	54445	24%	
	Aug '17	119	16.		310.2	326.2	41,550	230.	13,435	54985	24%	
	Sep '17	120	24.		310.2	334.2	41,867	230.	13,537	55404	24%	
	Oct '17	121	57.		310.2	367.2	42,193	230.	13,658	55851	24%	
	Nov '17	122	94.		310.2	404.2	42,516	150.	13,647	56163	24%	
	Dec '17	123	213.		310.2	523.2	42,815	0.	13,647	56462	24%	
	Jan '18	124	133.		310.2	443.2	42,923	50.	13,696	56619	24%	
	Feb '18	125	221.		310.2	531.2	43,357	50.	13,589	56946	24%	
	Mar '18	126	134.		310.2	444.2	43,780	125.	13,550	57330	24%	
	Apr '18	127	103.		310.2	413.2	44,182	175.	13,635	57817	24%	
	May '18	128	42.		310.2	352.2	44,444	230.	13,707	58151	24%	
	Jun '18	129	20.		310.2	330.2	44,759	0.	13,621	58380	23%	
2018/19	Jul '18	130	17.		310.2	327.2	45,058	0.	13,397	58455	23%	
	Aug '18	131	16.		310.2	326.2	45,369	230.	13,499	58868	23%	
	Sep '18	132	24.		310.2	334.2	45,688	230.	13,729	59417	23%	
	Oct '18	133	57.		310.2	367.2	46,039	230.	13,959	59998	23%	
	Nov '18	134	94.		310.2	404.2	46,306	150.	14,109	60415	23%	
	Dec '18	135	213.		310.2	523.2	46,478	0.	14,109	60587	23%	
	Jan '19	136	133.		310.2	443.2	46,886	50.	14,159	61045	23%	
	Feb '19	137	221.		310.2	531.2	46,959	50.	14,209	61168	23%	
	Mar '19	138	134.		310.2	444.2	47,382	125.	14,334	61716	23%	
	Apr '19	139	103.		310.2	413.2	47,780	175.	14,509	62289	23%	
	May '19	140	42.		310.2	352.2	48,117	230.	14,739	62856	23%	
	Jun '19	141	20.		310.2	330.2	48,447	0.	14,739	63186	23%	
2019/20	Jul '19	142	17.		310.2	327.2	48,755	0.	14,739	63494	23%	
	Aug '19	143	16.		310.2	326.2	49,048	230.	14,945	63993	23%	
	Sep '19	144	24.		310.2	334.2	49,364	230.	15,175	64539	24%	
	Oct '19	145	57.		310.2	367.2	49,347	230.	15,405	64752	24%	
	Nov '19	146	94.		310.2	404.2	49,348	150.	15,422	64770	24%	
	Dec '19	147	213.		310.2	523.2	49,258	0.	15,329	64587	24%	
	Jan '20	148	133.		310.2	443.2	49,004	50.	15,277	64281	24%	
	Feb '20	149	221.		310.2	531.2	48,748	50.	15,327	64075	24%	
	Mar '20	150	134.		310.2	444.2	48,809	125.	15,338	64147	24%	
	Apr '20	151	103.		310.2	413.2	48,706	175.	15,413	64119	24%	
	May '20	152	42.		310.2	352.2	48,714	230.	15,444	64158	24%	
	Jun '20	153	20.		310.2	330.2	48,701	0.	15,142	63843	24%	

RWC Management Plan for 8th Street Basins

(120-month averaging period)

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

Date		No. Mos. Since Initial RW Delivery	SW (AF)	MWD (AF)	Underflow (AF)	DW Total (AF)	DW 120-Month Total (AF)	RW (AF)	RW 120-Month Total (AF)	DW + RW 120-Month Total (AF)	RWC	Period
2020/21	Jul '20	154	17.		310.2	327.2	48,688	0.	14,924	63612	23%	
	Aug '20	155	16.		310.2	326.2	48,676	230.	15,048	63724	24%	
	Sep '20	156	24.		310.2	334.2	48,664	230.	15,101	63765	24%	
	Oct '20	157	57.		310.2	367.2	48,632	230.	15,043	63675	24%	
	Nov '20	158	94.		310.2	404.2	48,539	150.	15,030	63569	24%	
	Dec '20	159	213.		310.2	523.2	48,253	0.	15,010	63263	24%	
	Jan '21	160	133.		310.2	443.2	48,276	50.	14,893	63169	24%	
	Feb '21	161	221.		310.2	531.2	48,221	50.	14,860	63081	24%	
	Mar '21	162	134.		310.2	444.2	48,105	125.	14,962	63067	24%	
	Apr '21	163	103.		310.2	413.2	48,184	175.	14,956	63140	24%	
	May '21	164	42.		310.2	352.2	47,975	230.	14,943	62918	24%	
	Jun '21	165	20.		310.2	330.2	47,649	0.	14,741	62390	24%	
2021/22	Jul '21	166	17.		310.2	327.2	47,466	0.	14,653	62119	24%	
	Aug '21	167	16.		310.2	326.2	47,249	230.	14,837	62086	24%	
	Sep '21	168	24.		310.2	334.2	47,105	230.	15,065	62170	24%	P
	Oct '21	169	57.		310.2	367.2	47,119	230.	15,295	62414	25%	L
	Nov '21	170	94.		310.2	404.2	47,075	150.	15,445	62520	25%	A
	Dec '21	171	213.		310.2	523.2	47,212	0.	15,445	62657	25%	N
	Jan '22	172	133.		310.2	443.2	47,288	50.	15,468	62756	25%	N
	Feb '22	173	221.		310.2	531.2	47,355	50.	15,518	62873	25%	E
	Mar '22	174	134.		310.2	444.2	47,208	125.	15,643	62851	25%	D
	Apr '22	175	103.		310.2	413.2	47,088	175.	15,784	62872	25%	
	May '22	176	42.		310.2	352.2	47,105	230.	15,758	62863	25%	
	Jun '22	177	20.		310.2	330.2	47,104	0.	15,570	62674	25%	
2022/23	Jul '22	178	17.		310.2	327.2	47,101	0.	15,433	62534	25%	
	Aug '22	179	16.		310.2	326.2	47,096	230.	15,663	62759	25%	
	Sep '22	180	24.		310.2	334.2	47,087	230.	15,769	62856	25%	
	Oct '22	181	57.		310.2	367.2	47,115	230.	15,690	62805	25%	
	Nov '22	182	94.		310.2	404.2	47,143	150.	15,592	62735	25%	
	Dec '22	183	213.		310.2	523.2	47,078	0.	15,489	62567	25%	
	Jan '23	184	133.		310.2	443.2	47,141	50.	15,309	62450	25%	
	Feb '23	185	221.		310.2	531.2	47,272	50.	15,133	62405	24%	
	Mar '23	186	134.		310.2	444.2	47,341	125.	15,018	62359	24%	
	Apr '23	187	103.		310.2	413.2	47,420	175.	15,041	62461	24%	
	May '23	188	42.		310.2	352.2	47,419	230.	15,050	62469	24%	
	Jun '23	189	20.		310.2	330.2	47,427	0.	14,779	62206	24%	
2023/24	Jul '23	190	17.		310.2	327.2	47,431	0.	14,593	62024	24%	
	Aug '23	191	16.		310.2	326.2	47,434	230.	14,705	62139	24%	
	Sep '23	192	24.		310.2	334.2	47,447	230.	14,785	62232	24%	
	Oct '23	193	57.		310.2	367.2	47,456	230.	14,776	62232	24%	
	Nov '23	194	94.		310.2	404.2	47,501	150.	14,677	62178	24%	
	Dec '23	195	213.		310.2	523.2	47,668	0.	14,556	62224	23%	
	Jan '24	196	133.		310.2	443.2	47,774	50.	14,498	62272	23%	
	Feb '24	197	221.		310.2	531.2	47,965	50.	14,460	62425	23%	
	Mar '24	198	134.		310.2	444.2	47,965	125.	14,485	62450	23%	
	Apr '24	199	103.		310.2	413.2	47,965	175.	14,510	62475	23%	
	May '24	200	42.		310.2	352.2	47,965	230.	14,540	62505	23%	
	Jun '24	201	20.		310.2	330.2	47,965	0.	14,540	62505	23%	

Notes:

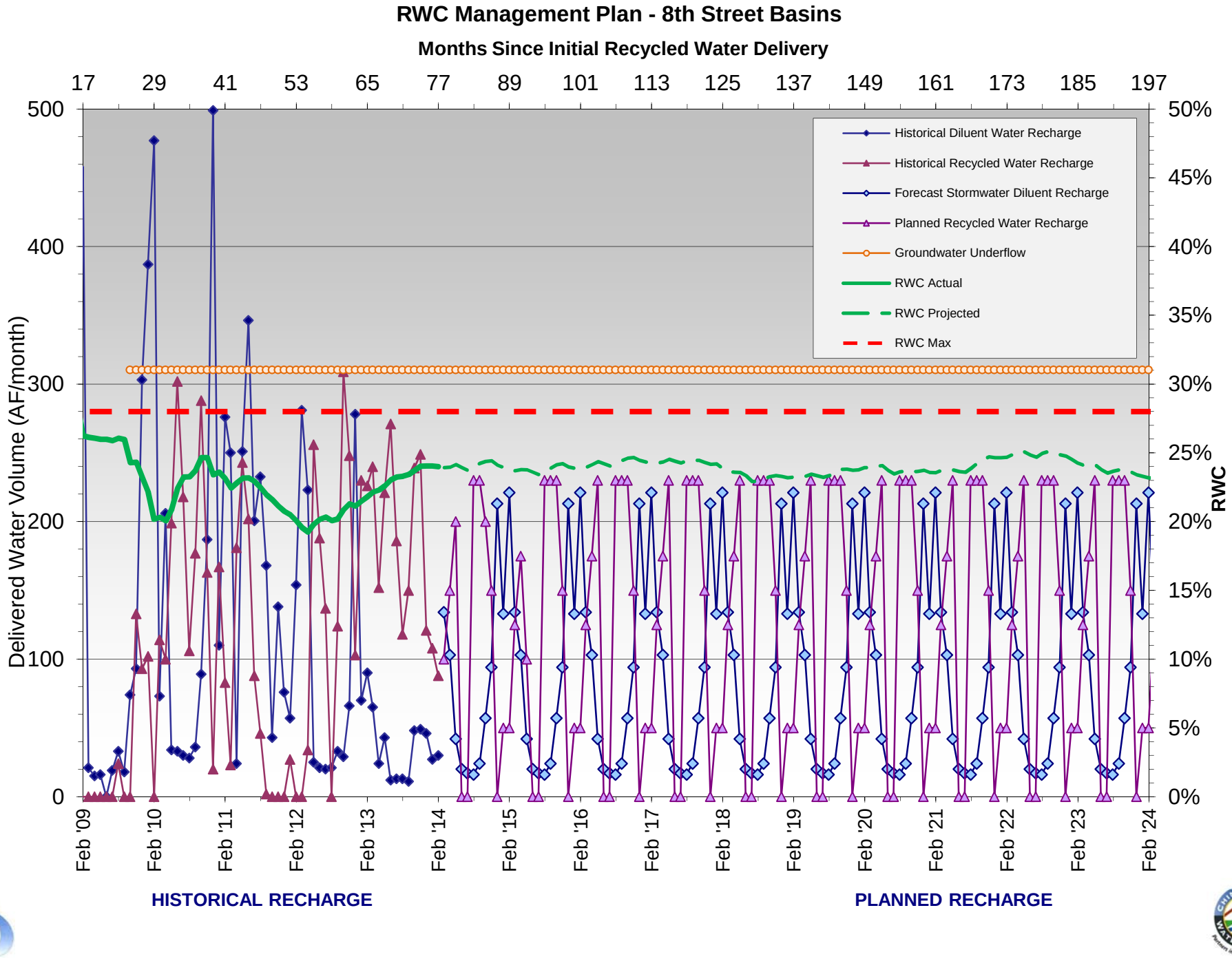
DW = Diluent Water; Total DW is the sum of Stormwater & Local Runoff (SW), Imported Water from the State Water Project (MWD), and groundwater underflow.

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
17
29
41
53
65
77
89
101
113
125
137
149
161
173
185
197
Delivered Water Volume (AF/month)
500
400
300
200
100
0
RWC
50%
45%
40%
35%
30%
25%
20%
15%
10%
5%
0%
Historical Diluent Water Recharge
Historical Recycled Water Recharge
Forecast Stormwater Diluent Recharge
Planned Recycled Water Recharge
Groundwater Underflow
RWC Actual
RWC Projected
RWC Max
Feb '09
Feb '10
Feb '11
Feb '12
Feb '13
Feb '14
Feb '15
Feb '16
Feb '17
Feb '18
Feb '19
Feb '20
Feb '21
Feb '22
Feb '23
Feb '24
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
2008/09	Jul '08	36	31.	0		31.	3,255.5	0.	1,399.1	4655	30%	
	Aug '08	37	45.	0		45.	3,300.5	0.	1,399.1	4700	30%	
	Sep '08	38	34.	0		34.	3,334.5	0.	1,399.1	4734	30%	
	Oct '08	39	36.	0		36.	3,370.5	0.	1,399.1	4770	29%	
	Nov '08	40	50.	0		50.	3,420.5	0.	1,399.1	4820	29%	
	Dec '08	41	87.	0		87.	3,507.5	0.	1,399.1	4907	29%	
	Jan '09	42	5.	0		5.	3,512.5	40.	1,439.1	4952	29%	
	Feb '09	43	95.	0		95.	3,607.5	0.	1,439.1	5047	29%	
	Mar '09	44	0.	0		0.	3,607.5	0.	1,439.1	5047	29%	
	Apr '09	45	0.	0		0.	3,607.5	0.	1,439.1	5047	29%	
	May '09	46	0.	0		0.	3,607.5	0.	1,439.1	5047	29%	
	Jun '09	47	0.	0		0.	3,607.5	0.	1,439.1	5047	29%	
2009/10	Jul '09	48	0.	0		0.	3,607.5	0.	1,439.1	5047	29%	
	Aug '09	49	0.	0		0.	3,607.5	0.	1,439.1	5047	29%	
	Sep '09	50	0.	0		0.	3,607.5	0.	1,439.1	5047	29%	
	Oct '09	51	15.	0	151	166.3	3,773.8	129.	1,568.1	5342	29%	
	Nov '09	52	0.	0	151	151.3	3,925.1	181.	1,749.1	5674	31%	
	Dec '09	53	75.	0	151	226.3	4,151.4	67.	1,816.1	5967	30%	
	Jan '10	54	100.	0	151	251.3	4,402.7	75.	1,891.1	6294	30%	
	Feb '10	55	143.	0	151	294.3	4,697.	0.	1,891.1	6588	29%	
	Mar '10	56	17.	0	151	168.3	4,865.3	0.	1,891.1	6756	28%	
	Apr '10	57	66.	0	151	217.3	5,082.6	140.	2,031.1	7114	29%	
	May '10	58	0.	0	151	151.3	5,233.9	177.	2,208.1	7442	30%	
	Jun '10	59	0.	0	151	151.3	5,385.2	129.	2,337.1	7722	30%	
2010/11	Jul '10	60	0.	0	151	151.3	5,536.6	77	2,414.1	7951	30%	
	Aug '10	61	0.	0	151	151.3	5,687.9	54	2,468.1	8156	30%	
	Sep '10	62	0.	0	151	151.3	5,839.2	59	2,527.1	8366	30%	
	Oct '10	63	5.	0	151	156.3	5,967.2	48	2,575.1	8542	30%	
	Nov '10	64	16.	0	151	167.3	6,121.8	29	2,604.1	8726	30%	
	Dec '10	65	51.	0	151	202.3	6,324.1	0	2,604.1	8928	29%	
	Jan '11	66	10.	0	151	161.3	6,398.5	0	2,604.1	9003	29%	
	Feb '11	67	26.	0	151	177.3	6,453.6	0	2,604.1	9058	29%	
	Mar '11	68	0.	0	151	151.3	6,526.4	0	2,604.1	9130	29%	
	Apr '11	69	0.	0	151	151.3	6,616.6	0	2,604.1	9221	28%	
	May '11	70	0.	0	151	151.3	6,767.9	0	2,604.1	9372	28%	
	Jun '11	71	0.	0	151	151.3	6,919.2	0	2,604.1	9523	27%	
2011/12	Jul '11	72	31.	0	151	182.3	7,089.3	0	2,604.1	9693	27%	
	Aug '11	73	0.	0	151	151.3	7,240.6	135	2,739.1	9980	27%	
	Sep '11	74	0.	0	151	151.3	7,391.9	395	3,134.1	10526	30%	
	Oct '11	75	20.	0	151	171.3	7,563.3	404	3,538.1	11101	32%	
	Nov '11	76	30.	0	151	181.3	7,705.3	161	3,699.1	11404	32%	
	Dec '11	77	18.	0	151	169.3	7,857.9	245	3,944.1	11802	33%	
	Jan '12	78	48.	0	151	199.3	8,007.1	161.	4,105.1	12112	34%	
	Feb '12	79	21.	0	151	172.3	8,158.5	167.	4,272.1	12431	34%	
	Mar '12	80	44.	0	151	195.3	8,322.8	72	4,344.1	12667	34%	
	Apr '12	81	35.	0	151	186.3	8,496.	51	4,395.1	12891	34%	
	May '12	82	0.	0	151	151.3	8,646.5	45	4,440.1	13087	34%	
	Jun '12	83	0.	0	151	151.3	8,797.8	79	4,519.1	13317	34%	
2012/13	Jul '12	84	0.	0	151	151.3	8,949	41	4,560	13,509	34%	
	Aug '12	85	0.	0	151	151.3	9,100	2	4,562	13,662	33%	
	Sep '12	86	0.	0	151	151.3	9,252	188	4,750	14,002	34%	
	Oct '12	87	11.	0	151	162.3	9,414	103	4,853	14,267	34%	
	Nov '12	88	5.	0	151	156.3	9,531	120	4,973	14,505	34%	
	Dec '12	89	49.	0	151	200.3	9,672	15	4,988	14,661	34%	
	Jan '13	90	18.	0	151	169.3	9,842	28	5,016	14,858	34%	
	Feb '13	91	20.	0	151	171.3	9,933	2	5,018	14,951	34%	
	Mar '13	92	8.	0	151	159.3	10,053	42	5,060	15,113	33%	
	Apr '13	93	0.	0	151	151.3	10,117	55	5,115	15,232	34%	
	May '13	94	3.	0	151	154.3	10,210	39	5,154	15,364	34%	
	Jun '13	95	0.	0	151	151.3	10,361	35	5,189	15,550	33%	
2013/14	Jul '13	96	0.	0	151	151.3	10,513	15	5,204	15,717	33%	
	Aug '13	97	0.	0	151	151.3	10,664	12	5,216	15,880	33%	
	Sep '13	98	0.	0	151	151.3	10,815	0	5,216	16,031	33%	
	Oct '13	99	0.	0	151	151.3	10,967	385	5,601	16,568	34%	
	Nov '13	100	22.	0	151	173.3	11,106	102	5,703	16,809	34%	
	Dec '13	101	6.	0	151	157.3	11,226	0	5,703	16,929	34%	
	Jan '14	102	9.	8	151	168.6	11,390	0	5,703	17,093	33%	
	Feb '14	103	2.	16	151	169.3	11,476	0	5,703	17,179	33%	
	Mar '14	104	21.		151	172.3	11,620	100	5,803	17,423	33%	PLAN
	Apr '14	105	25.		151	176.3	11,796	0	5,803	17,599	33%	
	May '14	106	16.		151	167.3	11,963	150	5,953	17,916	33%	
	Jun '14	107	1.		151	152.3	12,115	150	6,103	18,219	33%	

HISTORICAL

RWC Management Plan for Banana Basin

(120-month averaging period)

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

Date		No. Mos. Since Initial RW Delivery	SW (AF)	MWD (AF)	Underflow (AF)	DW Total (AF)	DW 120-Month Total (AF)	RW (AF)	RW 120-Month Total (AF)	DW + RW 120-Month Total (AF)	RWC	Period
2014/15	Jul '14	108	6.		151	157.3	12,272.8	150.	6,253.1	18526	34%	
	Aug '14	109	4.		151	155.3	12,428.1	0.	6,253.1	18681	33%	
	Sep '14	110	3.		151	154.3	12,582.4	0.	6,253.1	18835	33%	
	Oct '14	111	17.		151	168.3	12,687.9	100.	6,353.1	19041	33%	
	Nov '14	112	21.		151	172.3	12,843.2	100.	6,453.1	19296	33%	
	Dec '14	113	43.		151	194.3	13,012.2	100.	6,553.1	19565	33%	
	Jan '15	114	41.		151	192.3	13,110.9	100.	6,653.1	19764	34%	
	Feb '15	115	68.		151	219.3	13,219.4	100.	6,753.1	19972	34%	
	Mar '15	116	21.		151	172.3	13,366.8	100.	6,853.1	20220	34%	
	Apr '15	117	25.		151	176.3	13,523.8	0.	6,853.1	20377	34%	
	May '15	118	16.		151	167.3	13,676.5	150.	7,003.1	20680	34%	
	Jun '15	119	1.		151	152.3	13,828.8	150.	7,153.1	20982	34%	
2015/16	Jul '15	120	6.		151	157.3	13,794	150	7,283	21,077	35%	
	Aug '15	121	4.		151	155.3	13,949	0	7,029	20,979	34%	
	Sep '15	122	3.		151	154.3	14,103	0	6,901	21,004	33%	
	Oct '15	123	17.		151	168.3	14,243	100	6,975	21,218	33%	
	Nov '15	124	21.		151	172.3	14,415	100	7,067	21,483	33%	
	Dec '15	125	43.		151	194.3	14,591	100	7,157	21,748	33%	
	Jan '16	126	41.		151	192.3	14,777	100	7,207	21,984	33%	
	Feb '16	127	68.		151	219.3	14,974	100	7,252	22,226	33%	
	Mar '16	128	21.		151	172.3	15,091	100	7,352	22,443	33%	
	Apr '16	129	25.		151	176.3	15,232	0	7,352	22,583	33%	
	May '16	130	16.		151	167.3	15,342	150	7,502	22,844	33%	
	Jun '16	131	1.		151	152.3	15,494	150	7,605	23,099	33%	
2016/2017	Jul '16	132	6.		151	157.3	15,652	150	7,690	23,342	33%	
	Aug '16	133	4.		151	155.3	15,807	0	7,605	23,412	32%	
	Sep '16	134	3.		151	154.3	15,961	0	7,227	23,189	31%	
	Oct '16	135	17.		151	168.3	16,055	100	7,278	23,333	31%	
	Nov '16	136	21.		151	172.3	15,993	100	7,371	23,364	32%	
	Dec '16	137	43.		151	194.3	15,986	100	7,421	23,407	32%	
	Jan '17	138	41.		151	192.3	15,847	100	7,521	23,368	32%	
	Feb '17	139	68.		151	219.3	15,993	100	7,621	23,614	32%	
	Mar '17	140	21.		151	172.3	16,112	100	7,721	23,833	32%	
	Apr '17	141	25.		151	176.3	16,259	0	7,717	23,976	32%	
	May '17	142	16.		151	167.3	16,390	150	7,861	24,251	32%	
	Jun '17	143	1.		151	152.3	16,542	150	8,011	24,553	33%	
2017/2018	Jul '17	144	6.		151	157.3	16,699	150	8,161	24,860	33%	
	Aug '17	145	4.		151	155.3	16,854	0	8,161	25,015	33%	
	Sep '17	146	3.		151	154.3	17,006	0	8,161	25,167	32%	
	Oct '17	147	17.		151	168.3	17,172	100	8,261	25,433	32%	
	Nov '17	148	21.		151	172.3	17,309	100	8,361	25,670	33%	
	Dec '17	149	43.		151	194.3	17,482	100	8,461	25,943	33%	
	Jan '18	150	41.		151	192.3	17,544	100	8,561	26,105	33%	
	Feb '18	151	68.		151	219.3	17,688	100	8,661	26,349	33%	
	Mar '18	152	21.		151	172.3	17,861	100	8,761	26,622	33%	
	Apr '18	153	25.		151	176.3	18,037	0	8,714	26,751	33%	
	May '18	154	16.		151	167.3	18,201	150	8,826	27,027	33%	
	Jun '18	155	1.		151	152.3	18,345	150	8,904	27,249	33%	
2018/2019	Jul '18	156	6.		151	157.3	18,472	150	9,054	27,526	33%	
	Aug '18	157	4.		151	155.3	18,582	0	9,054	27,636	33%	
	Sep '18	158	3.		151	154.3	18,702	0	9,054	27,756	33%	
	Oct '18	159	17.		151	168.3	18,835	100	9,154	27,989	33%	
	Nov '18	160	21.		151	172.3	18,957	100	9,254	28,211	33%	
	Dec '18	161	43.		151	194.3	19,064	100	9,354	28,418	33%	
	Jan '19	162	41.		151	192.3	19,252	100	9,414	28,666	33%	
	Feb '19	163	68.		151	219.3	19,376	100	9,514	28,890	33%	
	Mar '19	164	21.		151	172.3	19,548	100	9,614	29,162	33%	
	Apr '19	165	25.		151	176.3	19,725	0	9,614	29,339	33%	
	May '19	166	16.		151	167.3	19,892	150	9,764	29,656	33%	
	Jun '19	167	1.		151	152.3	20,044	150	9,914	29,958	33%	
2019/2020	Jul '19	168	6.		151	157.3	20,201	150	10,064	30,265	33%	
	Aug '19	169	4.		151	155.3	20,357	0	10,064	30,421	33%	
	Sep '19	170	3.		151	154.3	20,511	0	10,064	30,575	33%	
	Oct '19	171	17.		151	168.3	20,513	100	10,035	30,548	33%	
	Nov '19	172	21.		151	172.3	20,534	100	9,954	30,488	33%	
	Dec '19	173	43.		151	194.3	20,502	100	9,987	30,489	33%	
	Jan '20	174	41.		151	192.3	20,443	100	10,012	30,455	33%	
	Feb '20	175	68.		151	219.3	20,368	100	10,112	30,480	33%	
	Mar '20	176	21.		151	172.3	20,372	100	10,212	30,584	33%	
	Apr '20	177	25.		151	176.3	20,331	0	10,072	30,403	33%	
	May '20	178	16.		151	167.3	20,347	150	10,045	30,392	33%	
	Jun '20	179	1.		151	152.3	20,348	150	10,066	30,414	33%	

P L A N N E D

RWC Management Plan for Banana Basin

(120-month averaging period)

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

Date		No. Mos. Since Initial RW Delivery	SW (AF)	MWD (AF)	Underflow (AF)	DW Total (AF)	DW 120-Month Total (AF)	RW (AF)	RW 120-Month Total (AF)	DW + RW 120-Month Total (AF)	RWC	Period
2020/2021	Jul '20	180	6.		151	157.3	20,354	150	10,139	30,493	33%	PLANNED
	Aug '20	181	4.		151	155.3	20,358	0	10,085	30,443	33%	
	Sep '20	182	3.		151	154.3	20,361	0	10,026	30,387	33%	
	Oct '20	183	17.		151	168.3	20,373	100	10,078	30,451	33%	
	Nov '20	184	21.		151	172.3	20,378	100	10,149	30,527	33%	
	Dec '20	185	43.		151	194.3	20,370	100	10,249	30,619	33%	
	Jan '21	186	41.		151	192.3	20,401	100	10,349	30,750	34%	
	Feb '21	187	68.		151	219.3	20,443	100	10,449	30,892	34%	
	Mar '21	188	21.		151	172.3	20,464	100	10,549	31,013	34%	
	Apr '21	189	25.		151	176.3	20,489	0	10,549	31,038	34%	
	May '21	190	16.		151	167.3	20,505	150	10,699	31,204	34%	
	Jun '21	191	1.		151	152.3	20,506	150	10,849	31,355	35%	
2021/2022	Jul '21	192	6.		151	157.3	20,481	150	10,999	31,480	35%	
	Aug '21	193	4.		151	155.3	20,485	0	10,864	31,349	35%	
	Sep '21	194	3.		151	154.3	20,488	0	10,469	30,957	34%	
	Oct '21	195	17.		151	168.3	20,485	100	10,165	30,650	33%	
	Nov '21	196	21.		151	172.3	20,476	100	10,104	30,580	33%	
	Dec '21	197	43.		151	194.3	20,501	100	9,959	30,460	33%	
	Jan '22	198	41.		151	192.3	20,494	100	9,898	30,392	33%	
	Feb '22	199	68.		151	219.3	20,541	100	9,831	30,372	32%	
	Mar '22	200	21.		151	172.3	20,518	100	9,859	30,377	32%	
	Apr '22	201	25.		151	176.3	20,508	0	9,808	30,316	32%	
	May '22	202	16.		151	167.3	20,524	150	9,913	30,437	33%	
	Jun '22	203	1.		151	152.3	20,525	150	9,984	30,509	33%	
2022/2023	Jul '22	204	6.		151	157.3	20,531	150	10,093	30,624	33%	
	Aug '22	205	4.		151	155.3	20,535	0	10,091	30,626	33%	
	Sep '22	206	3.		151	154.3	20,538	0	9,903	30,441	33%	
	Oct '22	207	17.		151	168.3	20,544	100	9,900	30,444	33%	
	Nov '22	208	21.		151	172.3	20,560	100	9,880	30,440	32%	
	Dec '22	209	43.		151	194.3	20,554	100	9,965	30,519	33%	
	Jan '23	210	41.		151	192.3	20,577	100	10,037	30,614	33%	
	Feb '23	211	68.		151	219.3	20,625	100	10,135	30,760	33%	
	Mar '23	212	21.		151	172.3	20,638	100	10,193	30,831	33%	
	Apr '23	213	25.		151	176.3	20,663	0	10,138	30,801	33%	
	May '23	214	16.		151	167.3	20,676	150	10,249	30,925	33%	
	Jun '23	215	1.		151	152.3	20,677	150	10,364	31,041	33%	
2023/2024	Jul '23	216	6.		151	157.3	20,683	150	10,499	31,182	34%	
	Aug '23	217	4.		151	155.3	20,687	0	10,487	31,174	34%	
	Sep '23	218	3.		151	154.3	20,690	0	10,487	31,177	34%	
	Oct '23	219	17.		151	168.3	20,707	100	10,202	30,909	33%	
	Nov '23	220	21.		151	172.3	20,706	100	10,200	30,906	33%	
	Dec '23	221	43.		151	194.3	20,743	100	10,300	31,043	33%	
	Jan '24	222	41.		151	192.3	20,767	100	10,400	31,167	33%	
	Feb '24	223	68.		151	219.3	20,817	100	10,500	31,317	34%	
	Mar '24	224	21.		151	172.3	20,817	100	10,500	31,317	34%	
	Apr '24	225	25.		151	176.3	20,817	0	10,500	31,317	34%	
	May '24	226	16.		151	167.3	20,817	150	10,500	31,317	34%	
	Jun '24	227	1.		151	152.3	20,817	150	10,500	31,317	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.

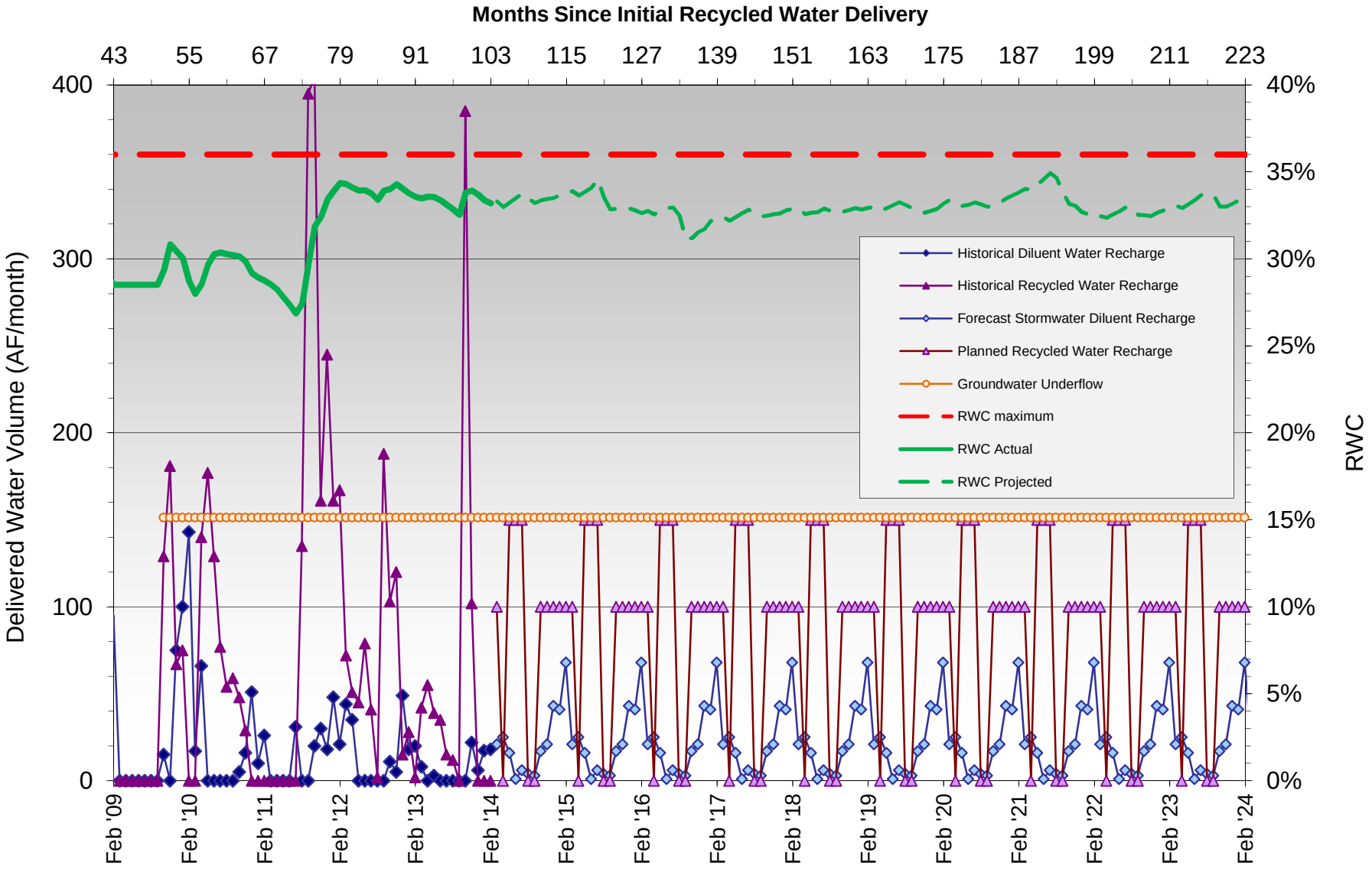
RW = Recycled Water

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 for Banana Basin



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
2008/09	Jul '08	-1	3.	0.		3.	5999	0.	0	5999	0%	
	Aug '08	0	16.	0.		16.	6015	117.	117	6132	2%	
	Sep '08	1	0.	0.		0.	6015	86.	203	6218	3%	
	Oct '08	2	0.	0.		0.	6015	166.	369	6384	6%	
	Nov '08	3	23.	0.		23.	6038	103.	472	6510	7%	
	Dec '08	4	162.	0.		162.	6200	88.	560	6760	8%	
	Jan '09	5	25.	0.		25.	6225	277.	837	7062	12%	
	Feb '09	6	208.	0.		208.	6433	20.	857	7290	12%	
	Mar '09	7	30.	0.		30.	6463	159.	1016	7479	14%	
	Apr '09	8	1.	0.		1.	6464	296.	1312	7776	17%	
	May '09	9	17.	0.		17.	6481	115.	1427	7908	18%	
	Jun '09	10	0.	0.		0.	6481	178.	1605	8086	20%	
2009/10	Jul '09	11	1.	0.		1.	6482	6.	1611	8093	20%	
	Aug '09	12	0.	0.		0.	6482	8.	1619	8101	20%	
	Sep '09	13	0.	0.		0.	6482	0.	1619	8101	20%	
	Oct '09	14	13.	0.	509.2	522.2	7004	184.	1803	8807	20%	
	Nov '09	15	4.	0.	509.2	513.2	7518	246.	2049	9567	21%	
	Dec '09	16	129.	0.	509.2	638.2	8156	144.	2193	10349	21%	
	Jan '10	17	251.	0.	509.2	760.2	8916	74.	2267	11183	20%	
	Feb '10	18	215.	0.	509.2	724.2	9640	54.	2321	11961	19%	
	Mar '10	19	27.	0.	509.2	536.2	10177	180.	2501	12678	20%	
	Apr '10	20	23.	0.	509.2	532.2	10709	235.	2736	13445	20%	
	May '10	21	2.	0.	509.2	511.2	11220	356.	3092	14312	22%	
	Jun '10	22	1.	0.	509.2	510.2	11730	208.	3300	15030	22%	
2010/11	Jul '10	23	1.	0.	509.2	510.2	12240	147.	3447	15687	22%	
	Aug '10	24	18.	0.	509.2	527.2	12768	275.	3722	16490	23%	
	Sep '10	25	1.	0.	509.2	510.2	13278	141.	3863	17141	23%	
	Oct '10	26	24.	0.	509.2	533.2	13811	130.	3993	17804	22%	
	Nov '10	27	44.	0.	509.2	553.2	14364	87.	4080	18444	22%	
	Dec '10	28	282.	0.	509.2	791.2	15156	34.	4114	19270	21%	
	Jan '11	29	112.	0.	509.2	621.2	15777	0.	4114	19891	21%	
	Feb '11	30	164.	0.	509.2	673.2	16450	0.	4114	20564	20%	
	Mar '11	31	142.	0.	509.2	651.2	17101	0.	4114	21215	19%	
	Apr '11	32	1.	0.	509.2	510.2	17611	174.	4288	21899	20%	
	May '11	33	10.	0.	509.2	519.2	18131	162.	4450	22581	20%	
	Jun '11	34	1.	0.	509.2	510.2	18641	223.	4673	23314	20%	
2011/12	Jul '11	35	2.	235.6	509.2	746.8	19388	0.	4673	24061	19%	
	Aug '11	36	2.	183.4	509.2	694.6	20082	0.	4673	24755	19%	
	Sep '11	37	12.	141.5	509.2	662.7	20745	0.	4673	25418	18%	
	Oct '11	38	18.	0.	509.2	527.2	21272	80.	4753	26025	18%	
	Nov '11	39	50.	0.	509.2	559.2	21832	36.	4789	26621	18%	
	Dec '11	40	16.	0.	509.2	525.2	22357	98.	4887	27244	18%	
	Jan '12	41	45.	0.	509.2	554.2	22911	142.	5029	27940	18%	
	Feb '12	42	50.	0.	509.2	559.2	23470	77.	5106	28576	18%	
	Mar '12	43	103.	0.	509.2	612.2	24082	85.	5191	29273	18%	
	Apr '12	44	64.	0.	509.2	573.2	24656	32.	5223	29879	17%	
	May '12	45	1.	0.	509.2	510.2	25166	125.	5348	30514	18%	
	Jun '12	46	0.	0.	509.2	509.2	25675	161.	5509	31184	18%	
2012/13	Jul '12	47	1.	0.	509.2	510.2	26185	33.	5542	31727	17%	
	Aug '12	48	2.	0.	509.2	511.2	26697	39.	5581	32278	17%	
	Sep '12	49	2.	0.	509.2	511.2	27208	51.	5632	32840	17%	
	Oct '12	50	0.	0.	509.2	509.2	27717	0.	5632	33349	17%	
	Nov '12	51	0.	0.	509.2	509.2	28226	0.	5632	33858	17%	
	Dec '12	52	0.	0.	509.2	509.2	28735	0.	5632	34367	16%	
	Jan '13	53	35.	0.	509.2	544.2	29280	342.	5974	35254	17%	
	Feb '13	54	26.	0.	509.2	535.2	29815	299.	6273	36088	17%	
	Mar '13	55	32.	0.	509.2	541.2	30356	238.	6511	36867	18%	
	Apr '13	56	0.	0.	509.2	509.2	30865	231.	6742	37607	18%	
	May '13	57	17.	0.	509.2	526.2	31392	152.	6894	38286	18%	
	Jun '13	58	1.	0.	509.2	510.2	31902	120.	7014	38916	18%	
2013/14	Jul '13	59	1.	0.	509.2	510.2	32412	169.	7183	39595	18%	
	Aug '13	60	1.	0.	509.2	510.2	32922	197.	7380	40302	18%	
	Sep '13	61	28.	0.	509.2	537.2	33459	182.	7562	41021	18%	
	Oct '13	62	23.	0.	509.2	532.2	33992	108.	7670	41662	18%	
	Nov '13	63	4.	0.	509.2	513.2	34505	94.	7764	42269	18%	
	Dec '13	64	8.	0.	509.2	517.2	35022	104.	7868	42890	18%	
	Jan '14	65	3.	0.	509.2	512.2	35534	109.	7977	43511	18%	
	Feb '14	66	4.	0.	509.2	513.2	36048	102.	8079	44127	18%	
	Mar '14	67	69.		509.2	578.2	36626	100.	8179	44805	18%	
	Apr '14	68	44.		509.2	553.2	37179	175.	8354	45533	18%	
	May '14	69	14.		509.2	523.2	37702	250.	8604	46306	19%	
	Jun '14	70	1.		509.2	510.2	38212	275.	8879	47091	19%	

SUP START - UP

HISTORICAL

PLAN

RWC Management Plan for Brooks Street Basins

(120-month averaging period)

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

Date		No. Mos. Since Initial RW Delivery	SW (AF)	MWD (AF)	Underflow (AF)	DW Total (AF)	DW 120-Month Total (AF)	RW (AF)	RW 120-Month Total (AF)	DW + RW 120-Month Total (AF)	RWC	Period
2014/15	Jul '14	71	5.		509.2	514.2	38727	275.	9154	47881	19%	
	Aug '14	72	7.		509.2	516.2	39243	275.	9429	48672	19%	
	Sep '14	73	8.		509.2	517.2	39760	275.	9704	49464	20%	
	Oct '14	74	14.		509.2	523.2	40283	200.	9904	50187	20%	
	Nov '14	75	29.		509.2	538.2	40822	125.	10029	50851	20%	
	Dec '14	76	87.		509.2	596.2	41418	50.	10079	51497	20%	
	Jan '15	77	98.		509.2	607.2	42025	0.	10079	52104	19%	
	Feb '15	78	117.		509.2	626.2	42651	0.	10079	52730	19%	
	Mar '15	79	69.		509.2	578.2	43230	100.	10179	53409	19%	
	Apr '15	80	44.		509.2	553.2	43783	175.	10354	54137	19%	
	May '15	81	14.		509.2	523.2	44306	250.	10604	54910	19%	
	Jun '15	82	1.		509.2	510.2	44816	275.	10879	55695	20%	
2015/16	Jul '15	83	5.		509.2	514.2	45298	275.	11154	56452	20%	
	Aug '15	84	7.		509.2	516.2	45639	275.	11429	57068	20%	
	Sep '15	85	8.		509.2	517.2	45472	275.	11704	57176	20%	
	Oct '15	86	14.		509.2	523.2	45868	200.	11904	57772	21%	
	Nov '15	87	29.		509.2	538.2	46016	125.	12029	58045	21%	
	Dec '15	88	87.		509.2	596.2	46249	50.	12079	58328	21%	
	Jan '16	89	98.		509.2	607.2	46600	0.	12079	58679	21%	
	Feb '16	90	117.		509.2	626.2	46833	0.	12079	58912	21%	
	Mar '16	91	69.		509.2	578.2	47197	100.	12179	59376	21%	
	Apr '16	92	44.		509.2	553.2	47488	175.	12354	59842	21%	
	May '16	93	14.		509.2	523.2	47711	250.	12604	60315	21%	
	Jun '16	94	1.		509.2	510.2	47850	275.	12879	60729	21%	
2016/17	Jul '16	95	5.		509.2	514.2	48158	275.	13154	61312	21%	
	Aug '16	96	7.		509.2	516.2	48523	275.	13429	61952	22%	
	Sep '16	97	8.		509.2	517.2	48698	275.	13704	62402	22%	
	Oct '16	98	14.		509.2	523.2	48914	200.	13904	62818	22%	
	Nov '16	99	29.		509.2	538.2	49165	125.	14029	63194	22%	
	Dec '16	100	87.		509.2	596.2	49499	50.	14079	63578	22%	P L A N N E D
	Jan '17	101	98.		509.2	607.2	49994	0.	14079	64073	22%	
	Feb '17	102	117.		509.2	626.2	50491	0.	14079	64570	22%	
	Mar '17	103	69.		509.2	578.2	51066	100.	14179	65245	22%	
	Apr '17	104	44.		509.2	553.2	51517	175.	14354	65871	22%	
	May '17	105	14.		509.2	523.2	52036	250.	14604	66640	22%	
	Jun '17	106	1.		509.2	510.2	52544	275.	14879	67423	22%	
2017/18	Jul '17	107	5.		509.2	514.2	53059	275.	15154	68213	22%	
	Aug '17	108	7.		509.2	516.2	53575	275.	15429	69004	22%	
	Sep '17	109	8.		509.2	517.2	54067	275.	15704	69771	23%	
	Oct '17	110	14.		509.2	523.2	54555	200.	15904	70459	23%	
	Nov '17	111	29.		509.2	538.2	55070	125.	16029	71099	23%	
	Dec '17	112	87.		509.2	596.2	55624	50.	16079	71703	22%	
	Jan '18	113	98.		509.2	607.2	55949	0.	16079	72028	22%	
	Feb '18	114	117.		509.2	626.2	56525	0.	16079	72604	22%	
	Mar '18	115	69.		509.2	578.2	57094	100.	16179	73273	22%	
	Apr '18	116	44.		509.2	553.2	57644	175.	16354	73998	22%	
	May '18	117	14.		509.2	523.2	58124	250.	16604	74728	22%	
	Jun '18	118	1.		509.2	510.2	58631	275.	16879	75510	22%	
2018/19	Jul '18	119	5.		509.2	514.2	59142	275.	17154	76296	22%	
	Aug '18	120	7.		509.2	516.2	59643	275.	17312	76955	22%	
	Sep '18	121	8.		509.2	517.2	60160	275.	17501	77661	23%	
	Oct '18	122	14.		509.2	523.2	60683	200.	17535	78218	22%	
	Nov '18	123	29.		509.2	538.2	61198	125.	17557	78755	22%	
	Dec '18	124	87.		509.2	596.2	61632	50.	17519	79151	22%	
	Jan '19	125	98.		509.2	607.2	62215	0.	17242	79457	22%	
	Feb '19	126	117.		509.2	626.2	62633	0.	17222	79855	22%	
	Mar '19	127	69.		509.2	578.2	63181	100.	17163	80344	21%	
	Apr '19	128	44.		509.2	553.2	63733	175.	17042	80775	21%	
	May '19	129	14.		509.2	523.2	64240	250.	17177	81417	21%	
	Jun '19	130	1.		509.2	510.2	64750	275.	17274	82024	21%	
2019/20	Jul '19	131	5.		509.2	514.2	65263	275.	17543	82806	21%	
	Aug '19	132	7.		509.2	516.2	65779	275.	17810	83589	21%	
	Sep '19	133	8.		509.2	517.2	66296	275.	18085	84381	21%	
	Oct '19	134	14.		509.2	523.2	66297	200.	18101	84398	21%	
	Nov '19	135	29.		509.2	538.2	66322	125.	17980	84302	21%	
	Dec '19	136	87.		509.2	596.2	66280	50.	17886	84166	21%	
	Jan '20	137	98.		509.2	607.2	66127	0.	17812	83939	21%	
	Feb '20	138	117.		509.2	626.2	66029	0.	17758	83787	21%	
	Mar '20	139	69.		509.2	578.2	66071	100.	17678	83749	21%	
	Apr '20	140	44.		509.2	553.2	66092	175.	17618	83710	21%	
	May '20	141	14.		509.2	523.2	66104	250.	17512	83616	21%	
	Jun '20	142	1.		509.2	510.2	66104	275.	17579	83683	21%	

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
2020/21	Jul '20	143	5.		509.2	514.2	66108	275.	17707	83815	21%	PLANNED
	Aug '20	144	7.		509.2	516.2	66097	275.	17707	83804	21%	
	Sep '20	145	8.		509.2	517.2	66104	275.	17841	83945	21%	
	Oct '20	146	14.		509.2	523.2	66094	200.	17911	84005	21%	
	Nov '20	147	29.		509.2	538.2	66079	125.	17949	84028	21%	
	Dec '20	148	87.		509.2	596.2	65884	50.	17965	83849	21%	
	Jan '21	149	98.		509.2	607.2	65870	0.	17965	83835	21%	
	Feb '21	150	117.		509.2	626.2	65823	0.	17965	83788	21%	
	Mar '21	151	69.		509.2	578.2	65750	100.	18065	83815	22%	
	Apr '21	152	44.		509.2	553.2	65793	175.	18066	83859	22%	
	May '21	153	14.		509.2	523.2	65797	250.	18154	83951	22%	
	Jun '21	154	1.		509.2	510.2	65797	275.	18206	84003	22%	
2021/22	Jul '21	155	5.		509.2	514.2	65565	275.	18481	84046	22%	
	Aug '21	156	7.		509.2	516.2	65386	275.	18756	84142	22%	
	Sep '21	157	8.		509.2	517.2	65241	275.	19031	84272	23%	
	Oct '21	158	14.		509.2	523.2	65237	200.	19151	84388	23%	
	Nov '21	159	29.		509.2	538.2	65216	125.	19240	84456	23%	
	Dec '21	160	87.		509.2	596.2	65287	50.	19192	84479	23%	
	Jan '22	161	98.		509.2	607.2	65340	0.	19050	84390	23%	
	Feb '22	162	117.		509.2	626.2	65407	0.	18973	84380	22%	
	Mar '22	163	69.		509.2	578.2	65373	100.	18988	84361	23%	
	Apr '22	164	44.		509.2	553.2	65353	175.	19131	84484	23%	
	May '22	165	14.		509.2	523.2	65366	250.	19256	84622	23%	
	Jun '22	166	1.		509.2	510.2	65367	275.	19370	84737	23%	
2022/23	Jul '22	167	5.		509.2	514.2	65371	275.	19612	84983	23%	
	Aug '22	168	7.		509.2	516.2	65376	275.	19848	85224	23%	
	Sep '22	169	8.		509.2	517.2	65382	275.	20072	85454	23%	
	Oct '22	170	14.		509.2	523.2	65396	200.	20272	85668	24%	
	Nov '22	171	29.		509.2	538.2	65425	125.	20397	85822	24%	
	Dec '22	172	87.		509.2	596.2	65512	50.	20447	85959	24%	
	Jan '23	173	98.		509.2	607.2	65575	0.	20105	85680	23%	
	Feb '23	174	117.		509.2	626.2	65666	0.	19806	85472	23%	
	Mar '23	175	69.		509.2	578.2	65703	100.	19668	85371	23%	
	Apr '23	176	44.		509.2	553.2	65747	175.	19612	85359	23%	
	May '23	177	14.		509.2	523.2	65744	250.	19710	85454	23%	
	Jun '23	178	1.		509.2	510.2	65744	275.	19865	85609	23%	
2023/24	Jul '23	179	5.		509.2	514.2	65748	275.	19971	85719	23%	
	Aug '23	180	7.		509.2	516.2	65754	275.	20049	85803	23%	
	Sep '23	181	8.		509.2	517.2	65734	275.	20142	85876	23%	
	Oct '23	182	14.		509.2	523.2	65725	200.	20234	85959	24%	
	Nov '23	183	29.		509.2	538.2	65750	125.	20265	86015	24%	
	Dec '23	184	87.		509.2	596.2	65829	50.	20211	86040	23%	
	Jan '24	185	98.		509.2	607.2	65924	0.	20102	86026	23%	
	Feb '24	186	117.		509.2	626.2	66037	0.	20000	86037	23%	
	Mar '24	187	69.		509.2	578.2	66037	100.	20000	86037	23%	
	Apr '24	188	44.		509.2	553.2	66037	175.	20000	86037	23%	
	May '24	189	14.		509.2	523.2	66037	250.	20000	86037	23%	
	Jun '24	190	1.		509.2	510.2	66037	275.	20000	86037	23%	

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

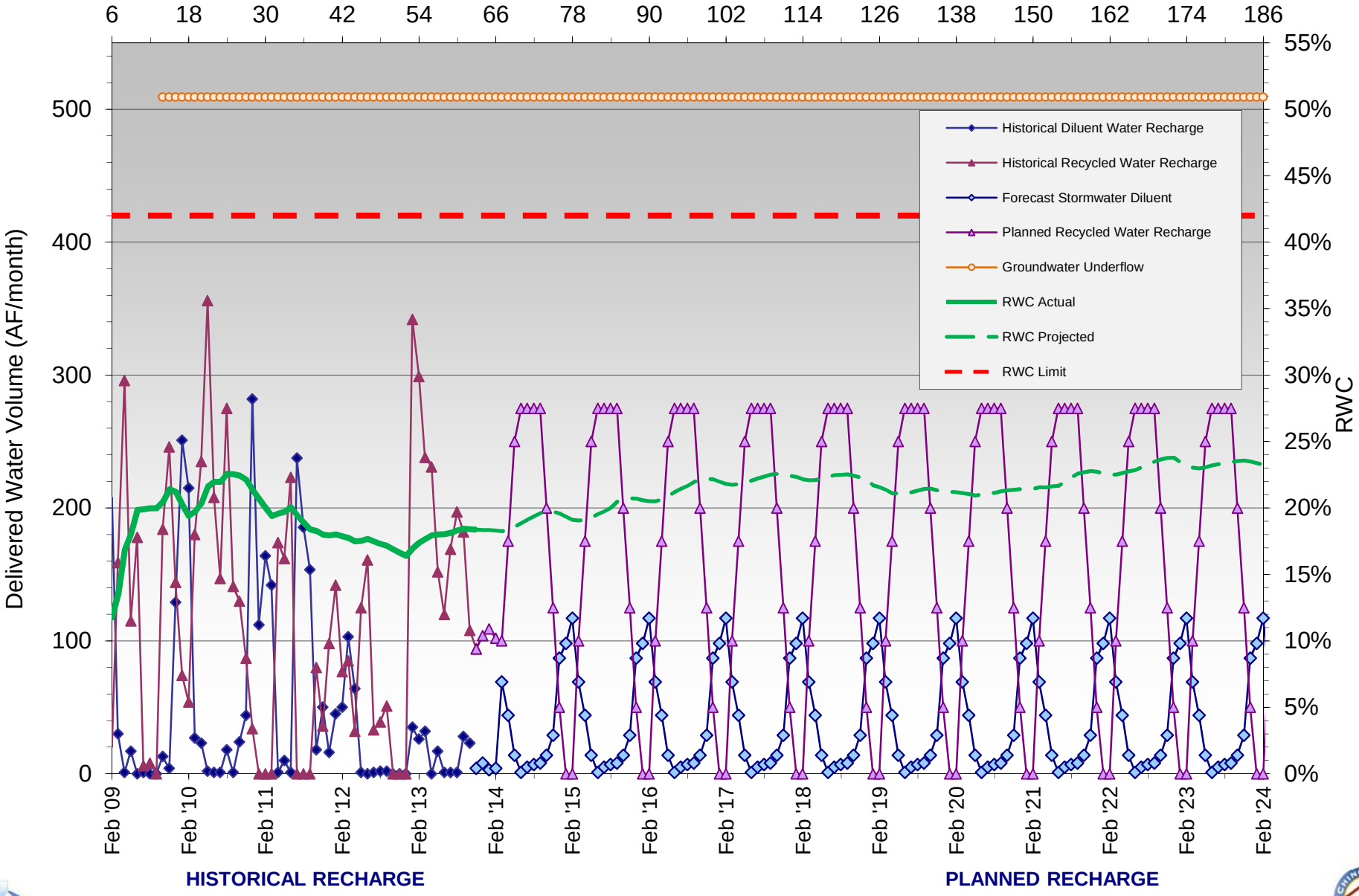
RWC = 120-month running total of recycled water / 120-month running total of all diluent and recycled water.

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
2008/2009	Jul '08	106	17	0		17	16,176	67	3,083	19,259	16%	
	Aug '08	107	8	0		8	16,075	0	3,083	19,158	16%	
	Sep '08	108	5	0		5	15,952	0	3,083	19,035	16%	
	Oct '08	109	17	0		17	15,908	135	3,218	19,126	17%	
	Nov '08	110	114	0		114	15,937	88	3,306	19,243	17%	
	Dec '08	111	287	0		287	16,112	0	3,306	19,418	17%	
	Jan '09	112	38	0		38	15,938	39	3,345	19,283	17%	
	Feb '09	113	409	0		409	16,210	9	3,354	19,564	17%	
	Mar '09	114	48	0		48	16,095	0	3,354	19,449	17%	
	Apr '09	115	135	0		135	15,915	15	3,369	19,284	17%	
	May '09	116	68	0		68	15,885	11	3,380	19,265	18%	
	Jun '09	117	24	0		24	15,871	0	3,380	19,251	18%	
2009/2010	Jul '09	118	0	0		0	15,858	0	3,380	19,238	18%	
	Aug '09	119	21	0		21	15,804	0	3,380	19,184	18%	
	Sep '09	120	202	0		202	15,932	24	3,318	19,250	17%	
	Oct '09	121	187	0	286	473	16,342	102	3,255	19,597	17%	
	Nov '09	122	282	0	286	568	16,904	120	3,259	20,163	16%	
	Dec '09	123	242	0	286	528	17,395	0	3,147	20,541	15%	
	Jan '10	124	319	0	286	605	17,881	0	3,119	21,000	15%	
	Feb '10	125	221	0	286	507	18,058	0	3,119	21,178	15%	
	Mar '10	126	104	0	286	390	18,129	0	3,119	21,248	15%	
	Apr '10	127	394	0	286	680	18,504	0	3,119	21,623	14%	
	May '10	128	98	0	286	384	18,757	0	3,119	21,876	14%	
	Jun '10	129	0	0	286	286	18,926	0	3,119	22,046	14%	
2010/2011	Jul '10	130	0	0	286	286	19,154	0	3,054	22,208	14%	
	Aug '10	131	0	0	286	286	19,434	0	2,909	22,342	13%	
	Sep '10	132	0	0	286	286	19,711	0	2,774	22,485	12%	
	Oct '10	133	29	0	286	315	19,876	114	2,762	22,638	12%	
	Nov '10	134	127	0	286	413	20,204	120	2,882	23,086	12%	
	Dec '10	135	572	0	286	858	20,946	12	2,894	23,840	12%	
	Jan '11	136	104	0	286	390	21,006	0	2,894	23,900	12%	
	Feb '11	137	323	0	286	609	21,285	43	2,937	24,223	12%	
	Mar '11	138	236	0	286	522	21,698	0	2,937	24,635	12%	
	Apr '11	139	3	0	286	289	21,712	107	3,044	24,757	12%	
	May '11	140	13	0	286	299	21,908	155	3,199	25,107	13%	
	Jun '11	141	8	83	286	377	22,272	206	3,376	25,648	13%	
2011/2012	Jul '11	142	18	285	286	589	22,847	176	3,552	26,399	13%	
	Aug '11	143	16	275	286	577	23,414	141	3,662	27,076	14%	
	Sep '11	144	19	325	286	630	24,018	6	3,490	27,508	13%	
	Oct '11	145	215	0	286	501	24,443	0	3,304	27,746	12%	
	Nov '11	146	211	0	286	497	24,611	0	3,194	27,806	11%	
	Dec '11	147	36	0	286	322	24,820	0	3,194	28,015	11%	
	Jan '12	148	89	0	286	375	25,018	64	3,258	28,276	12%	
	Feb '12	149	95	0	286	381	25,293	6	3,264	28,557	11%	
	Mar '12	150	247	0	286	533	25,607	0	3,264	28,872	11%	
	Apr '12	151	135	0	286	421	25,908	0	3,264	29,172	11%	
	May '12	152	3	0	286	289	26,111	0	3,264	29,375	11%	
	Jun '12	153	12	0	286	298	26,393	0	3,264	29,658	11%	
2012/2013	Jul '12	154	7	0	286	293	26,571	0	3,264	29,835	11%	
	Aug '12	155	7	0	286	293	26,728	0	3,264	29,992	11%	
	Sep '12	156	5	0	286	291	26,922	0	3,264	30,187	11%	
	Oct '12	157	5	0	286	291	27,034	0	3,264	30,298	11%	
	Nov '12	158	9	0	286	295	26,999	80	3,344	30,343	11%	
	Dec '12	159	335	0	286	621	27,290	67	3,411	30,702	11%	
	Jan '13	160	72	0	286	358	27,472	145	3,556	31,028	11%	
	Feb '13	161	37	0	286	323	27,465	225	3,781	31,246	12%	
	Mar '13	162	63	0	286	349	27,484	314	4,095	31,580	13%	
	Apr '13	163	1	0	286	287	27,441	79	4,174	31,616	13%	
	May '13	164	23	0	286	309	27,420	259	4,403	31,824	14%	
	Jun '13	165	4	0	286	290	27,599	209	4,458	32,057	14%	
2013/2014	Jul '13	166	6	0	286	292	27,786	157	4,615	32,401	14%	
	Aug '13	167	4	0	286	290	28,044	334	4,949	32,993	15%	
	Sep '13	168	6	0	286	292	28,325	457	5,406	33,731	16%	
	Oct '13	169	0	0	286	286	28,600	358	5,764	34,364	17%	
	Nov '13	170	21	0	286	307	28,803	421	6,185	34,988	18%	
	Dec '13	171	24	0	286	310	28,920	413	6,598	35,518	19%	
	Jan '14	172	8	0	286	294	29,181	211	6,809	35,990	19%	
	Feb '14	173	15	0	286	301	29,152	194	7,003	36,155	19%	
	Mar '14	174	189		286	475	29,453	50	7,053	36,506	19%	PLAN
	Apr '14	175	205		286	491	29,876	50	7,103	36,979	19%	
	May '14	176	107		286	393	30,252	125	7,223	37,475	19%	
	Jun '14	177	40		286	326	30,565	175	7,354	37,920	19%	

HISTORICAL

RWC Management Plan for Ely Basin

(120-month averaging period)

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

Date		No. Mos. Since Initial RW Delivery	SW (AF)	MWD (AF)	Underflow (AF)	DW Total (AF)	DW 120-Month Total (AF)	RW (AF)	RW 120-Month Total (AF)	DW + RW 120-Month Total (AF)	RWC	Period
2014/2015	Jul '14	178	40		286	326	30,877	180	7,488	38,366	20%	PLANNED
	Aug '14	179	39		286	325	31,108	180	7,620	38,729	20%	
	Sep '14	180	67		286	353	31,283	180	7,759	39,042	20%	
	Oct '14	181	107		286	393	31,346	100	7,836	39,182	20%	
	Nov '14	182	169		286	455	31,471	60	7,896	39,368	20%	
	Dec '14	183	222		286	508	31,650	0	7,896	39,546	20%	
	Jan '15	184	232		286	518	31,838	0	7,896	39,734	20%	
	Feb '15	185	273		286	559	32,067	0	7,896	39,963	20%	
	Mar '15	186	189		286	475	32,304	50	7,946	40,250	20%	
	Apr '15	187	205		286	491	32,620	50	7,996	40,616	20%	
	May '15	188	107		286	393	32,873	125	8,121	40,995	20%	
	Jun '15	189	40		286	326	33,197	175	8,296	41,493	20%	
2015/2016	Jul '15	190	40		286	326	33,523	180	8,476	41,999	20%	
	Aug '15	191	39		286	325	33,848	180	8,656	42,504	20%	
	Sep '15	192	67		286	353	34,201	180	8,836	43,038	21%	
	Oct '15	193	107		286	393	34,396	100	8,904	43,300	21%	
	Nov '15	194	169		286	455	34,836	60	8,964	43,801	20%	
	Dec '15	195	222		286	508	35,237	0	8,929	44,166	20%	
	Jan '16	196	232		286	518	35,565	0	8,909	44,474	20%	
	Feb '16	197	273		286	559	35,857	0	8,834	44,691	20%	
	Mar '16	198	189		286	475	35,994	50	8,884	44,878	20%	
	Apr '16	199	205		286	491	36,123	50	8,934	45,057	20%	
	May '16	200	107		286	393	36,481	125	9,059	45,540	20%	
	Jun '16	201	40		286	326	36,781	175	9,208	45,989	20%	
2016/2017	Jul '16	202	40		286	326	37,074	180	9,347	46,421	20%	
	Aug '16	203	39		286	325	37,389	180	9,521	46,910	20%	
	Sep '16	204	67		286	353	37,702	180	9,618	47,320	20%	
	Oct '16	205	107		286	393	38,041	100	9,687	47,728	20%	
	Nov '16	206	169		286	455	38,433	60	9,697	48,130	20%	
	Dec '16	207	222		286	508	38,856	0	9,655	48,511	20%	
	Jan '17	208	232		286	518	39,279	0	9,598	48,876	20%	
	Feb '17	209	273		286	559	39,688	0	9,575	49,263	19%	
	Mar '17	210	189		286	475	40,146	50	9,580	49,726	19%	
	Apr '17	211	205		286	491	40,579	50	9,589	50,168	19%	
	May '17	212	107		286	393	40,958	125	9,674	50,632	19%	
	Jun '17	213	40		286	326	41,266	175	9,842	51,108	19%	
2017/2018	Jul '17	214	40		286	326	41,566	180	10,022	51,588	19%	
	Aug '17	215	39		286	325	41,862	180	10,202	52,064	20%	
	Sep '17	216	67		286	353	42,181	180	10,382	52,563	20%	
	Oct '17	217	107		286	393	42,541	100	10,482	53,023	20%	
	Nov '17	218	169		286	455	42,830	60	10,455	53,285	20%	
	Dec '17	219	222		286	508	43,081	0	10,402	53,483	19%	
	Jan '18	220	232		286	518	42,806	0	10,402	53,208	20%	
	Feb '18	221	273		286	559	43,132	0	10,402	53,534	19%	
	Mar '18	222	189		286	475	43,587	50	10,336	53,923	19%	
	Apr '18	223	205		286	491	44,049	50	10,270	54,319	19%	
	May '18	224	107		286	393	44,412	125	10,308	54,720	19%	
	Jun '18	225	40		286	326	44,720	175	10,483	55,203	19%	
2018/2019	Jul '18	226	40		286	326	45,029	180	10,596	55,625	19%	
	Aug '18	227	39		286	325	45,346	180	10,776	56,122	19%	
	Sep '18	228	67		286	353	45,694	180	10,956	56,650	19%	
	Oct '18	229	107		286	393	46,071	100	10,921	56,992	19%	
	Nov '18	230	169		286	455	46,412	60	10,893	57,305	19%	
	Dec '18	231	222		286	508	46,633	0	10,893	57,526	19%	
	Jan '19	232	232		286	518	47,113	0	10,854	57,967	19%	
	Feb '19	233	273		286	559	47,263	0	10,845	58,108	19%	
	Mar '19	234	189		286	475	47,691	50	10,895	58,586	19%	
	Apr '19	235	205		286	491	48,047	50	10,930	58,977	19%	
	May '19	236	107		286	393	48,372	125	11,044	59,416	19%	
	Jun '19	237	40		286	326	48,674	175	11,219	59,893	19%	
2019/2020	Jul '19	238	40		286	326	49,000	180	11,399	60,399	19%	
	Aug '19	239	39		286	325	49,304	180	11,579	60,883	19%	
	Sep '19	240	67		286	353	49,456	180	11,735	61,191	19%	
	Oct '19	241	107		286	393	49,376	100	11,733	61,109	19%	
	Nov '19	242	169		286	455	49,263	60	11,673	60,936	19%	
	Dec '19	243	222		286	508	49,243	0	11,673	60,916	19%	
	Jan '20	244	232		286	518	49,156	0	11,673	60,829	19%	
	Feb '20	245	273		286	559	49,208	0	11,673	60,881	19%	
	Mar '20	246	189		286	475	49,293	50	11,723	61,016	19%	
	Apr '20	247	205		286	491	49,104	50	11,773	60,877	19%	
	May '20	248	107		286	393	49,113	125	11,898	61,011	20%	
	Jun '20	249	40		286	326	49,153	175	12,073	61,226	20%	

RWC Management Plan for Ely Basin

(120-month averaging period)

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

Date		No. Mos. Since Initial RW Delivery	SW (AF)	MWD (AF)	Underflow (AF)	DW Total (AF)	DW 120-Month Total (AF)	RW (AF)	RW 120-Month Total (AF)	DW + RW 120-Month Total (AF)	RWC	Period
2020/2021	Jul '20	250	40		286	326	49,193	180	12,253	61,446	20%	PLANNED
	Aug '20	251	39		286	325	49,232	180	12,433	61,665	20%	
	Sep '20	252	67		286	353	49,299	180	12,613	61,912	20%	
	Oct '20	253	107		286	393	49,377	100	12,599	61,976	20%	
	Nov '20	254	169		286	455	49,419	60	12,539	61,958	20%	
	Dec '20	255	222		286	508	49,069	0	12,527	61,596	20%	
	Jan '21	256	232		286	518	49,197	0	12,527	61,724	20%	
	Feb '21	257	273		286	559	49,147	0	12,484	61,631	20%	
	Mar '21	258	189		286	475	49,100	50	12,534	61,634	20%	
	Apr '21	259	205		286	491	49,302	50	12,477	61,779	20%	
	May '21	260	107		286	393	49,396	125	12,447	61,843	20%	
	Jun '21	261	40		286	326	49,345	175	12,416	61,761	20%	
2021/2022	Jul '21	262	40		286	326	49,082	180	12,420	61,502	20%	
	Aug '21	263	39		286	325	48,830	180	12,459	61,289	20%	
	Sep '21	264	67		286	353	48,553	180	12,633	61,186	21%	
	Oct '21	265	107		286	393	48,445	100	12,733	61,178	21%	
	Nov '21	266	169		286	455	48,403	60	12,793	61,196	21%	
	Dec '21	267	222		286	508	48,589	0	12,793	61,382	21%	
	Jan '22	268	232		286	518	48,732	0	12,729	61,461	21%	
	Feb '22	269	273		286	559	48,910	0	12,723	61,633	21%	
	Mar '22	270	189		286	475	48,852	50	12,773	61,625	21%	
	Apr '22	271	205		286	491	48,922	50	12,823	61,745	21%	
	May '22	272	107		286	393	49,026	125	12,948	61,974	21%	
	Jun '22	273	40		286	326	49,054	175	13,123	62,177	21%	
2022/2023	Jul '22	274	40		286	326	49,087	180	13,303	62,390	21%	
	Aug '22	275	39		286	325	49,119	180	13,483	62,602	22%	
	Sep '22	276	67		286	353	49,181	180	13,663	62,844	22%	
	Oct '22	277	107		286	393	49,283	100	13,763	63,046	22%	
	Nov '22	278	169		286	455	49,443	60	13,743	63,186	22%	
	Dec '22	279	222		286	508	49,330	0	13,676	63,006	22%	
	Jan '23	280	232		286	518	49,490	0	13,531	63,021	21%	
	Feb '23	281	273		286	559	49,726	0	13,306	63,032	21%	
	Mar '23	282	189		286	475	49,852	50	13,042	62,894	21%	
	Apr '23	283	205		286	491	50,056	50	13,013	63,069	21%	
	May '23	284	107		286	393	50,140	125	12,879	63,019	20%	
	Jun '23	285	40		286	326	50,176	175	12,845	63,021	20%	
2023/2024	Jul '23	286	40		286	326	50,210	180	12,868	63,078	20%	
	Aug '23	287	39		286	325	50,245	180	12,714	62,959	20%	
	Sep '23	288	67		286	353	50,306	180	12,437	62,743	20%	
	Oct '23	289	107		286	393	50,413	100	12,179	62,592	19%	
	Nov '23	290	169		286	455	50,561	60	11,818	62,379	19%	
	Dec '23	291	222		286	508	50,759	0	11,405	62,164	18%	
	Jan '24	292	232		286	518	50,983	0	11,194	62,177	18%	
	Feb '24	293	273		286	559	51,241	0	11,000	62,241	18%	
	Mar '24	294	189		286	475	51,241	50	11,000	62,241	18%	
	Apr '24	295	205		286	491	51,241	50	11,000	62,241	18%	
	May '24	296	107		286	393	51,241	125	11,000	62,241	18%	
	Jun '24	297	40		286	326	51,241	175	11,000	62,241	18%	

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.

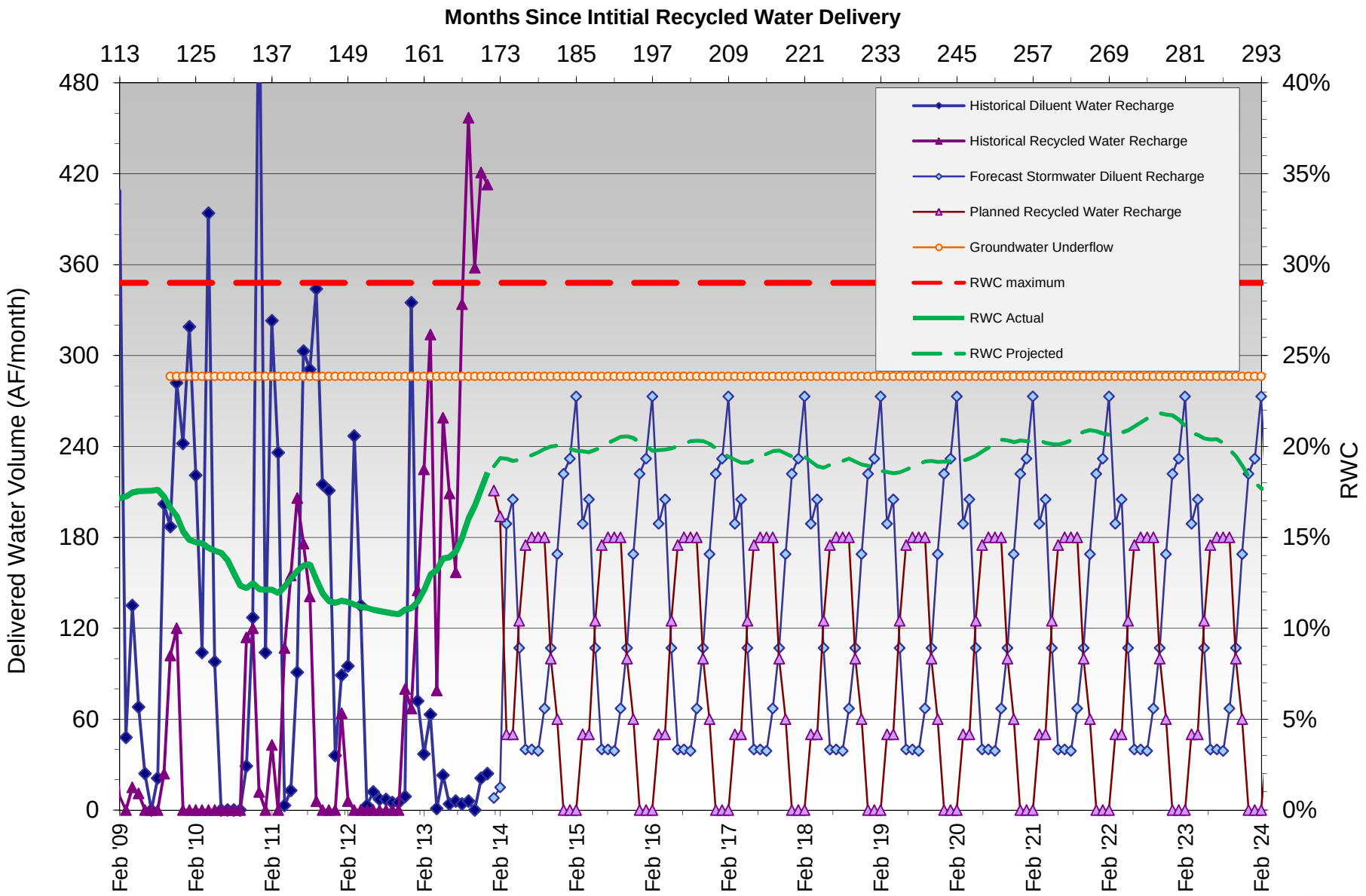
RW = Recycled Water

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



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 Total (AF)	DW 120-Month Total (AF)	RW (AF)	RW 120-Month Total (AF)	DW + RW 120-Month Total (AF)	RWC	Period
2008/09	Jul '08	34	18.	0.		18.	4519	0.	1731.1	6250	28%	
	Aug '08	35	6.	0.		6.	4525	0.	1731.1	6256	28%	
	Sep '08	36	3.	0.		3.	4528	0.	1731.1	6259	28%	
	Oct '08	37	3.	0.		3.	4531	0.	1731.1	6262	28%	
	Nov '08	38	3.	0.		3.	4534	0.	1731.1	6265	28%	
	Dec '08	39	35.	0.		35.	4569	0.	1731.1	6300	27%	
	Jan '09	40	0.	0.		0.	4569	0.	1731.1	6300	27%	
	Feb '09	41	63.	0.		63.	4632	23.	1754.1	6386	27%	
	Mar '09	42	31.	0.		31.	4663	23.	1777.1	6440	28%	
	Apr '09	43	8.	0.		8.	4671	0.	1777.1	6448	28%	
	May '09	44	18.	0.		18.	4689	0.	1777.1	6466	27%	
	Jun '09	45	3.	0.		3.	4692	0.	1777.1	6469	27%	
2009/10	Jul '09	46	9.	0.		9.	4701	0.	1777.1	6478	27%	
	Aug '09	47	4.	0.		4.	4705	0.	1777.1	6482	27%	
	Sep '09	48	3.	0.		3.	4708	34.	1811.1	6519	28%	
	Oct '09	49	24.	7.	266.6	297.6	5006	189.	2000.1	7006	29%	
	Nov '09	50	26.	0.	266.6	292.6	5298	243.	2243.1	7542	30%	
	Dec '09	51	158.	0.	266.6	424.6	5723	93.	2336.1	8059	29%	
	Jan '10	52	214.	0.	266.6	480.6	6204	19.	2355.1	8559	28%	
	Feb '10	53	200.	0.	266.6	466.6	6670	0.	2355.1	9025	26%	
	Mar '10	54	16.	0.	266.6	282.6	6953	61.	2416.1	9369	26%	
	Apr '10	55	46.	0.	266.6	312.6	7265	56.	2472.1	9738	25%	
	May '10	56	0.	0.	266.6	266.6	7532	111.	2583.1	10115	26%	
	Jun '10	57	0.	0.	266.6	266.6	7799	50.	2633.1	10432	25%	
2010/11	Jul '10	58	0.	0.	266.6	266.6	8065	21.	2654.1	10719	25%	
	Aug '10	59	0.	0.	266.6	266.6	8332	28.	2682.1	11014	24%	
	Sep '10	60	12.	0.	266.6	278.6	8611	285.	2967.1	11578	26%	
	Oct '10	61	13.	0.	266.6	279.6	8888	94.	3061.1	11950	26%	
	Nov '10	62	36.	0.	266.6	302.6	9191	51.	3112.1	12303	25%	
	Dec '10	63	149.	0.	266.6	415.6	9607	0.	3112.1	12719	24%	
	Jan '11	64	12.	0.	266.6	278.6	9875	50.	3162.1	13037	24%	
	Feb '11	65	79.	0.	266.6	345.6	10208	37.	3199.1	13407	24%	
	Mar '11	66	70.	0.	266.6	336.6	10538	0.	3199.1	13737	23%	
	Apr '11	67	0.	0.	266.6	266.6	10799	52.	3251.1	14050	23%	
	May '11	68	0.	2.	266.6	268.6	11067	84.	3335.1	14403	23%	
	Jun '11	69	0.	8.	266.6	274.6	11342	74.	3409.1	14751	23%	
2011/12	Jul '11	70	0.	0.	266.6	266.6	11607	14.	3423.1	15030	23%	
	Aug '11	71	4.	68.1	266.6	338.7	11946	0.	3423.1	15369	22%	
	Sep '11	72	32.	447.2	266.6	745.8	12692	20.	3443.1	16135	21%	
	Oct '11	73	17.	0.	266.6	283.6	12975	35.	3478.1	16453	21%	
	Nov '11	74	11.	0.	266.6	277.6	13192	202.	3680.1	16872	22%	
	Dec '11	75	1.	0.	266.6	267.6	13457	226.	3906.1	17364	22%	
	Jan '12	76	49.	0.	266.6	315.6	13738	16.	3922.1	17660	22%	
	Feb '12	77	59.	0.	266.6	325.6	14063	83.	4005.1	18068	22%	
	Mar '12	78	53.	0.	266.6	319.6	14379	79.	4084.1	18463	22%	
	Apr '12	79	30.	0.	266.6	296.6	14674	66.	4150.1	18824	22%	
	May '12	80	0.	0.	266.6	266.6	14941	40.	4190.1	19131	22%	
	Jun '12	81	2.	0.	266.6	268.6	15209	2.	4192.1	19402	22%	
2012/13	Jul '12	82	22.	0.	266.6	288.6	15498	57.	4249.1	19747	22%	
	Aug '12	83	50.	0.	266.6	316.6	15815	44.	4293.1	20108	21%	
	Sep '12	84	29.	0.	266.6	295.6	16110	0.	4293.1	20403	21%	
	Oct '12	85	51.	0.	266.6	317.6	16428	0.	4293.1	20721	21%	
	Nov '12	86	13.	0.	266.6	279.6	16626	177.	4470.1	21096	21%	
	Dec '12	87	6.	0.	266.6	272.6	16777	144.	4614.1	21391	22%	
	Jan '13	88	0.	0.	266.6	266.6	17043	115.	4729.1	21773	22%	
	Feb '13	89	8.	0.	266.6	274.6	17172	3.	4732.1	21904	22%	
	Mar '13	90	13.	0.	266.6	279.6	17346	147.	4879.1	22225	22%	
	Apr '13	91	0.	0.	266.6	266.6	17523	71.	4950.1	22474	22%	
	May '13	92	6.	0.	266.6	272.6	17789	0.	4950.1	22739	22%	
	Jun '13	93	1.	0	266.6	267.6	18057	116.	5066.1	23123	22%	
2013/14	Jul '13	94	4.	0	266.6	270.6	18327	201.	5267.1	23594	22%	
	Aug '13	95	0.	0	266.6	266.6	18594	11.	5278.1	23872	22%	
	Sep '13	96	0.	0	266.6	266.6	18860	0.	5278.1	24139	22%	
	Oct '13	97	1.	0	266.6	267.6	19128	1.	5279.1	24407	22%	
	Nov '13	98	59.	0	266.6	325.6	19449	339.	5618.1	25067	22%	
	Dec '13	99	8.	0	266.6	274.6	19688	108.	5726.1	25415	23%	
	Jan '14	100	9.	3	266.6	278.1	19966	86.	5812.1	25778	23%	
	Feb '14	101	1.	1	266.6	268.6	20106	64.	5876.1	25982	23%	
	Mar '14	102	46.		266.6	312.6	20364	100.	5976.1	26340	23%	PLAN
	Apr '14	103	33.		266.6	299.6	20663	175.	6151.1	26814	23%	
	May '14	104	22.		266.6	288.6	20952	200.	6351.1	27303	23%	
	Jun '14	105	21.		266.6	287.6	21239	225.	6576.1	27816	24%	

HISTORICAL

RWC Management Plan for Hickory Basin

(120-month averaging period)

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

Date		No. Mos. Since Initial RW Delivery	SW (AF)	MWD (AF)	Underflow (AF)	DW Total (AF)	DW 120-Month Total (AF)	RW (AF)	RW 120-Month Total (AF)	DW + RW 120-Month Total (AF)	RWC	Period
2014/15	Jul '14	106	27.		266.6	293.6	21533	225.	6801.1	28334	24%	PLANNED
	Aug '14	107	23.		266.6	289.6	21823	225.	7026.1	28849	24%	
	Sep '14	108	29.		266.6	295.6	22118	225.	7251.1	29369	25%	
	Oct '14	109	30.		266.6	296.6	22297	175.	7426.1	29723	25%	
	Nov '14	110	30.		266.6	296.6	22592	100.	7526.1	30118	25%	
	Dec '14	111	69.		266.6	335.6	22888	0.	7526.1	30415	25%	
	Jan '15	112	58.		266.6	324.6	23063	0.	7526.1	30589	25%	
	Feb '15	113	98.		266.6	364.6	23300	0.	7526.1	30827	24%	
	Mar '15	114	46.		266.6	312.6	23586	100.	7626.1	31212	24%	
	Apr '15	115	33.		266.6	299.6	23881	175.	7801.1	31683	25%	
	May '15	116	22.		266.6	288.6	24118	200.	8001.1	32120	25%	
	Jun '15	117	21.		266.6	287.6	24187	225.	8226.1	32413	25%	
2015/16	Jul '15	118	27.		266.6	293.6	24215	225.	8451.1	32666	26%	
	Aug '15	119	23.		266.6	289.6	24018	225.	8676.1	32694	27%	
	Sep '15	120	29.		266.6	295.6	24183	225.	8762.3	32945	27%	
	Oct '15	121	30.		266.6	296.6	24458	175.	8844.6	33302	27%	
	Nov '15	122	30.		266.6	296.6	24754	100.	8852.3	33607	26%	
	Dec '15	123	69.		266.6	335.6	25082	0.	8820.7	33903	26%	
	Jan '16	124	58.		266.6	324.6	25394	0.	8737.8	34132	26%	
	Feb '16	125	98.		266.6	364.6	25724	0.	8658.6	34383	25%	
	Mar '16	126	46.		266.6	312.6	26010	100.	8758.6	34769	25%	
	Apr '16	127	33.		266.6	299.6	26266	175.	8933.6	35200	25%	
	May '16	128	22.		266.6	288.6	26472	200.	9133.6	35605	26%	
	Jun '16	129	21.		266.6	287.6	26715	225.	9358.6	36074	26%	
2016/2017	Jul '16	130	27.		266.6	293.6	26880	225.	9400.9	36281	26%	
	Aug '16	131	23.		266.6	289.6	27122	225.	9445.9	36568	26%	
	Sep '16	132	29.		266.6	295.6	27329	225.	9670.9	37000	26%	
	Oct '16	133	30.		266.6	296.6	27582	175.	9702.2	37285	26%	
	Nov '16	134	30.		266.6	296.6	27820	100.	9766.8	37587	26%	
	Dec '16	135	69.		266.6	335.6	28072	0.	9766.8	37838	26%	
	Jan '17	136	58.		266.6	324.6	28380	0.	9766.8	38147	26%	
	Feb '17	137	98.		266.6	364.6	28704	0.	9724.8	38429	25%	
	Mar '17	138	46.		266.6	312.6	28982	100.	9824.8	38807	25%	
	Apr '17	139	33.		266.6	299.6	29232	175.	9936.8	39169	25%	
	May '17	140	22.		266.6	288.6	29462	200.	10136.8	39599	26%	
	Jun '17	141	21.		266.6	287.6	29660	225.	10361.8	40022	26%	
2017/2018	Jul '17	142	27.		266.6	293.6	29861	225.	10445.8	40306	26%	
	Aug '17	143	23.		266.6	289.6	30057	225.	10592.8	40650	26%	
	Sep '17	144	29.		266.6	295.6	30261	225.	10802.8	41064	26%	
	Oct '17	145	30.		266.6	296.6	30484	175.	10955.	41439	26%	
	Nov '17	146	30.		266.6	296.6	30679	100.	10957.	41636	26%	
	Dec '17	147	69.		266.6	335.6	30913	0.	10957.	41870	26%	
	Jan '18	148	58.		266.6	324.6	31111	0.	10957.	42068	26%	
	Feb '18	149	98.		266.6	364.6	31379	0.	10918.	42297	26%	
	Mar '18	150	46.		266.6	312.6	31647	100.	10938.	42585	26%	
	Apr '18	151	33.		266.6	299.6	31883	175.	11106.	42989	26%	
	May '18	152	22.		266.6	288.6	32133	200.	11220.	43353	26%	
	Jun '18	153	21.		266.6	287.6	32396	225.	11445.	43841	26%	
2018/2019	Jul '18	154	27.		266.6	293.6	32672	225.	11670.	44342	26%	
	Aug '18	155	23.		266.6	289.6	32956	225.	11895.	44851	27%	
	Sep '18	156	29.		266.6	295.6	33248	225.	12120.	45368	27%	
	Oct '18	157	30.		266.6	296.6	33542	175.	12295.	45837	27%	
	Nov '18	158	30.		266.6	296.6	33835	100.	12395.	46230	27%	
	Dec '18	159	69.		266.6	335.6	34136	0.	12395.	46531	27%	
	Jan '19	160	58.		266.6	324.6	34461	0.	12395.	46856	26%	
	Feb '19	161	98.		266.6	364.6	34762	0.	12372.	47134	26%	
	Mar '19	162	46.		266.6	312.6	35044	100.	12449.	47493	26%	
	Apr '19	163	33.		266.6	299.6	35335	175.	12624.	47959	26%	
	May '19	164	22.		266.6	288.6	35606	200.	12824.	48430	26%	
	Jun '19	165	21.		266.6	287.6	35891	225.	13049.	48940	27%	
2019/2020	Jul '19	166	27.		266.6	293.6	36175	225.	13274.	49449	27%	
	Aug '19	167	23.		266.6	289.6	36461	225.	13499.	49960	27%	
	Sep '19	168	29.		266.6	295.6	36753	225.	13690.	50443	27%	
	Oct '19	169	30.		266.6	296.6	36752	175.	13676.	50428	27%	
	Nov '19	170	30.		266.6	296.6	36756	100.	13533.	50289	27%	
	Dec '19	171	69.		266.6	335.6	36667	0.	13440.	50107	27%	
	Jan '20	172	58.		266.6	324.6	36511	0.	13421.	49932	27%	
	Feb '20	173	98.		266.6	364.6	36409	0.	13421.	49830	27%	
	Mar '20	174	46.		266.6	312.6	36439	100.	13460.	49899	27%	
	Apr '20	175	33.		266.6	299.6	36426	175.	13579.	50005	27%	
	May '20	176	22.		266.6	288.6	36448	200.	13668.	50116	27%	
	Jun '20	177	21.		266.6	287.6	36469	225.	13843.	50312	28%	

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 Total (AF)	DW 120-Month Total (AF)	RW (AF)	RW 120-Month Total (AF)	DW + RW 120-Month Total (AF)	RWC	Period
2020/2021	Jul '20	178	27.		266.6	293.6	36496	225.	14047.	50543	28%	
	Aug '20	179	23.		266.6	289.6	36519	225.	14244.	50763	28%	
	Sep '20	180	29.		266.6	295.6	36536	225.	14184.	50720	28%	
	Oct '20	181	30.		266.6	296.6	36553	175.	14265.	50818	28%	
	Nov '20	182	30.		266.6	296.6	36547	100.	14314.	50861	28%	
	Dec '20	183	69.		266.6	335.6	36467	0.	14314.	50781	28%	
	Jan '21	184	58.		266.6	324.6	36513	0.	14264.	50777	28%	
	Feb '21	185	98.		266.6	364.6	36532	0.	14227.	50759	28%	
	Mar '21	186	46.		266.6	312.6	36508	100.	14327.	50835	28%	
	Apr '21	187	33.		266.6	299.6	36541	175.	14450.	50991	28%	
	May '21	188	22.		266.6	288.6	36561	200.	14566.	51127	28%	
	Jun '21	189	21.		266.6	287.6	36574	225.	14717.	51291	29%	
2021/2022	Jul '21	190	27.		266.6	293.6	36601	225.	14928.	51529	29%	
	Aug '21	191	23.		266.6	289.6	36552	225.	15153.	51705	29%	
	Sep '21	192	29.		266.6	295.6	36102	225.	15358.	51460	30%	
	Oct '21	193	30.		266.6	296.6	36115	175.	15498.	51613	30%	
	Nov '21	194	30.		266.6	296.6	36134	100.	15396.	51530	30%	
	Dec '21	195	69.		266.6	335.6	36202	0.	15170.	51372	30%	
	Jan '22	196	58.		266.6	324.6	36211	0.	15154.	51365	30%	
	Feb '22	197	98.		266.6	364.6	36250	0.	15071.	51321	29%	
	Mar '22	198	46.		266.6	312.6	36243	100.	15092.	51335	29%	
	Apr '22	199	33.		266.6	299.6	36246	175.	15201.	51447	30%	
	May '22	200	22.		266.6	288.6	36268	200.	15361.	51629	30%	
	Jun '22	201	21.		266.6	287.6	36287	225.	15584.	51871	30%	
2022/2023	Jul '22	202	27.		266.6	293.6	36292	225.	15752.	52044	30%	
	Aug '22	203	23.		266.6	289.6	36265	225.	15933.	52198	31%	
	Sep '22	204	29.		266.6	295.6	36265	225.	16158.	52423	31%	
	Oct '22	205	30.		266.6	296.6	36244	175.	16333.	52577	31%	
	Nov '22	206	30.		266.6	296.6	36261	100.	16256.	52517	31%	
	Dec '22	207	69.		266.6	335.6	36324	0.	16112.	52436	31%	
	Jan '23	208	58.		266.6	324.6	36382	0.	15997.	52379	31%	
	Feb '23	209	98.		266.6	364.6	36472	0.	15994.	52466	30%	
	Mar '23	210	46.		266.6	312.6	36505	100.	15947.	52452	30%	
	Apr '23	211	33.		266.6	299.6	36538	175.	16051.	52589	31%	
	May '23	212	22.		266.6	288.6	36554	200.	16251.	52805	31%	
	Jun '23	213	21.		266.6	287.6	36574	225.	16360.	52934	31%	
2023/2024	Jul '23	214	27.		266.6	293.6	36597	225.	16384.	52981	31%	
	Aug '23	215	23.		266.6	289.6	36620	225.	16598.	53218	31%	
	Sep '23	216	29.		266.6	295.6	36649	225.	16823.	53472	31%	
	Oct '23	217	30.		266.6	296.6	36678	175.	16997.	53675	32%	
	Nov '23	218	30.		266.6	296.6	36649	100.	16758.	53407	31%	
	Dec '23	219	69.		266.6	335.6	36710	0.	16650.	53360	31%	
	Jan '24	220	58.		266.6	324.6	36757	0.	16564.	53321	31%	
	Feb '24	221	98.		266.6	364.6	36853	0.	16500.	53353	31%	
	Mar '24	222	46.		266.6	312.6	36853	100.	16500.	53353	31%	
	Apr '24	223	33.		266.6	299.6	36853	175.	16500.	53353	31%	
	May '24	224	22.		266.6	288.6	36853	200.	16500.	53353	31%	
	Jun '24	225	21.		266.6	287.6	36853	225.	16500.	53353	31%	

PLANNED

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

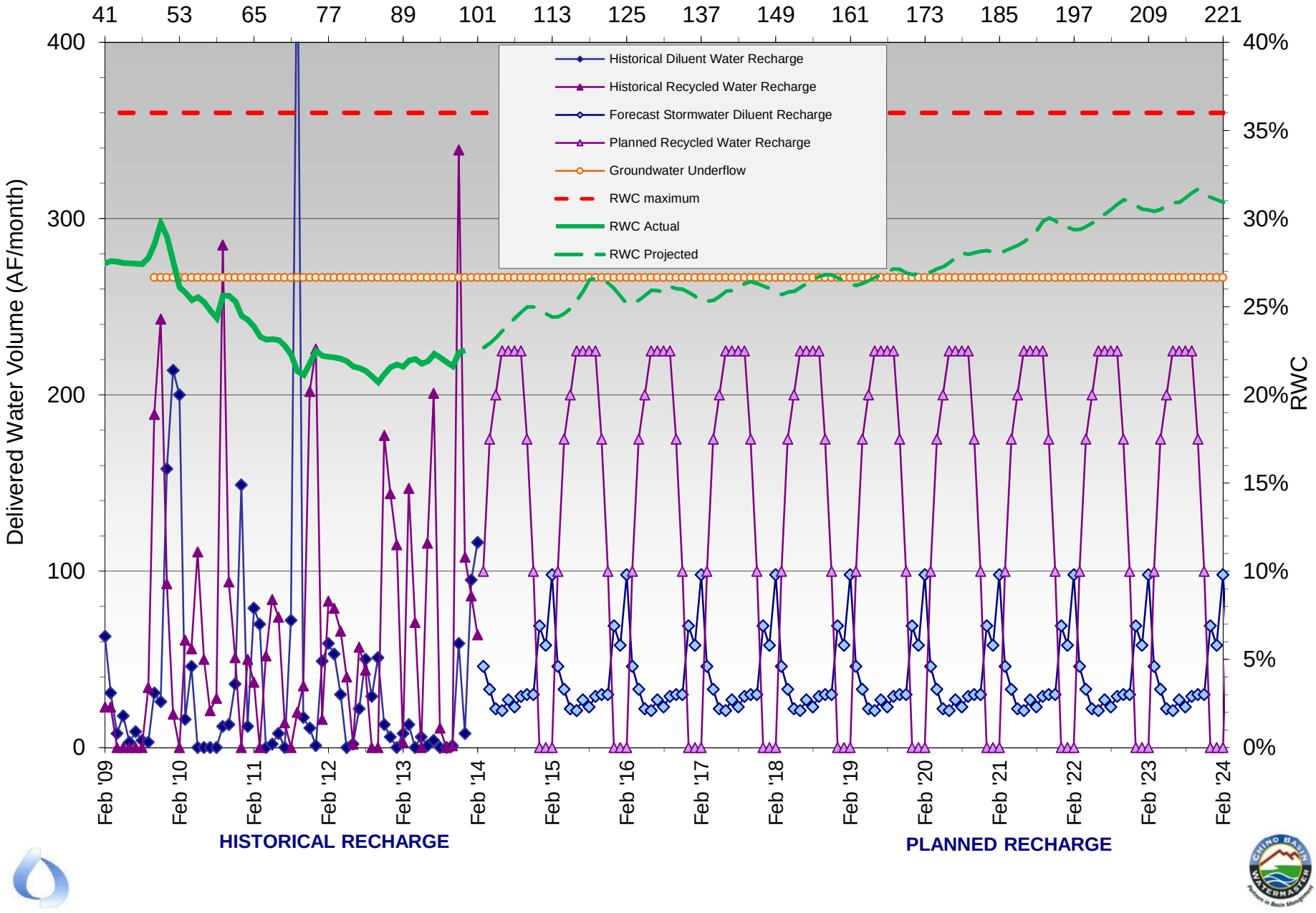
RWC = 120-month running total of recycled water / 120-month running total of all diluent and recycled water.

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 Intitial 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
2008/09	Jul '08	-11	0.	0.		0.	1,514.7	0.	0.0	1,514.7	0%	
	Aug '08	-10	16.	0.		16.	1,530.7	0.	0.0	1,530.7	0%	
	Sep '08	-9	16.	0.		16.	1,546.7	0.	0.0	1,546.7	0%	
	Oct '08	-8	13.	0.		13.	1,559.7	0.	0.0	1,559.7	0%	
	Nov '08	-7	27.	0.		27.	1,586.7	0.	0.0	1,586.7	0%	
	Dec '08	-6	156.	0.		156.	1,742.7	0.	0.0	1,742.7	0%	
	Jan '09	-5	12.	0.		12.	1,754.7	0.	0.0	1,754.7	0%	
	Feb '09	-4	273.	0.		273.	2,027.7	0.	0.0	2,027.7	0%	
	Mar '09	-3	47.	0.		47.	2,074.7	0.	0.0	2,074.7	0%	
	Apr '09	-2	18.	0.		18.	2,092.7	0.	0.0	2,092.7	0%	
	May '09	-1	6.	0.		6.	2,098.7	0.	0.0	2,098.7	0%	
	Jun '09	0	0.	0.		0.	2,098.7	106.	106.0	2,204.7	5%	
2009/10	Jul '09	1	22.	0.		22.	2,120.7	84.	190.0	2,310.7	8%	
	Aug '09	2	30.	0.		30.	2,150.7	148.	338.0	2,488.7	14%	
	Sep '09	3	36.	0.		36.	2,186.7	220.	558.0	2,744.7	20%	
	Oct '09	4	122.	1.	903.8	1026.8	3,213.4	203.	761.0	3,974.4	19%	
	Nov '09	5	100.	0.	903.8	1003.8	4,217.2	287.	1,048.0	5,265.2	20%	
	Dec '09	6	373.	0.	903.8	1276.8	5,493.9	103.	1,151.0	6,644.9	17%	
	Jan '10	7	526.	0.	903.8	1429.8	6,923.7	76.	1,227.0	8,150.7	15%	
	Feb '10	8	370.	0.	903.8	1273.8	8,197.4	113.	1,340.0	9,537.4	14%	
	Mar '10	9	104.	0.	903.8	1007.8	9,205.2	213.	1,553.0	10,758.2	14%	
	Apr '10	10	128.	0.	903.8	1031.8	10,236.9	71.	1,624.0	11,860.9	14%	
	May '10	11	49.	0.	903.8	952.8	11,189.7	272.	1,896.0	13,085.7	14%	
	Jun '10	12	42.	0.	903.8	945.8	12,135.5	261.	2,157.0	14,292.5	15%	
2010/11	Jul '10	13	7.	0.	903.8	910.8	13,046.2	229.	2,386.0	15,432.2	15%	
	Aug '10	14	6.	0.	903.8	909.8	13,956.0	181.	2,567.0	16,523.0	16%	
	Sep '10	15	25.	0.	903.8	928.8	14,884.7	48.	2,615.0	17,499.7	15%	
	Oct '10	16	71.	0.	903.8	974.8	15,859.5	23.	2,638.0	18,497.5	14%	
	Nov '10	17	146.	0.	903.8	1049.8	16,909.2	193.	2,831.0	19,740.2	14%	
	Dec '10	18	744.	0.	903.8	1647.8	18,557.0	122.	2,953.0	21,510.0	14%	
	Jan '11	19	235.	0.	903.8	1138.8	19,695.7	103.	3,056.0	22,751.7	13%	
	Feb '11	20	315.	0.	903.8	1218.8	20,914.5	177.	3,233.0	24,147.5	13%	
	Mar '11	21	414.	0.	903.8	1317.8	22,232.3	126.	3,359.0	25,591.3	13%	
	Apr '11	22	142.	0.	903.8	1045.8	23,278.0	237.	3,596.0	26,874.0	13%	
	May '11	23	62.	298.9	903.8	1264.7	24,542.7	176.	3,772.0	28,314.7	13%	
	Jun '11	24	34.	583.2	903.8	1521.	26,063.6	184.	3,956.0	30,019.6	13%	
2011/12	Jul '11	25	80.	787.4	903.8	1771.2	27,834.8	253.	4,209.0	32,043.8	13%	
	Aug '11	26	31.	286.6	903.8	1221.4	29,056.1	15.	4,224.0	33,280.1	13%	
	Sep '11	27	47.	567.2	903.8	1518.	30,574.1	30.	4,254.0	34,828.1	12%	
	Oct '11	28	138.	82.8	903.8	1124.6	31,698.6	182.	4,436.0	36,134.6	12%	
	Nov '11	29	122.	0.	903.8	1025.8	32,724.4	97.	4,533.0	37,257.4	12%	
	Dec '11	30	78.	0.	903.8	981.8	33,706.1	164.	4,697.0	38,403.1	12%	
	Jan '12	31	104.	0.	903.8	1007.8	34,713.9	91.	4,788.0	39,501.9	12%	
	Feb '12	32	176.	0.	903.8	1079.8	35,793.7	160.	4,948.0	40,741.7	12%	
	Mar '12	33	222.	0.	903.8	1125.8	36,919.4	94.	5,042.0	41,961.4	12%	
	Apr '12	34	220.	0.	903.8	1123.8	38,043.2	147.	5,189.0	43,232.2	12%	
	May '12	35	61.	0.	903.8	964.8	39,007.9	375.	5,564.0	44,571.9	12%	
	Jun '12	36	60.	0.	903.8	963.8	39,971.7	181.	5,745.0	45,716.7	13%	
2012/13	Jul '12	37	50.	0.	903.8	953.8	40,925.4	12.	5,757.0	46,682.4	12%	
	Aug '12	38	12.	0.	903.8	915.8	41,841.2	0.	5,757.0	47,598.2	12%	
	Sep '12	39	4.	0.	903.8	907.8	42,748.9	0.	5,757.0	48,505.9	12%	
	Oct '12	40	18.	0.	903.8	921.8	43,670.7	0.	5,757.0	49,427.7	12%	
	Nov '12	41	101.	0.	903.8	1004.8	44,675.5	154.	5,911.0	50,586.5	12%	
	Dec '12	42	361.	0.	903.8	1264.8	45,940.2	220.	6,131.0	52,071.2	12%	
	Jan '13	43	147.	0.	903.8	1050.8	46,991.0	353.	6,484.0	53,475.0	12%	
	Feb '13	44	113.	0.	903.8	1016.8	48,007.7	297.	6,781.0	54,788.7	12%	
	Mar '13	45	78.	0.	903.8	981.8	48,989.5	275.	7,056.0	56,045.5	13%	
	Apr '13	46	40.	0.	903.8	943.8	49,933.2	386.	7,442.0	57,375.2	13%	
	May '13	47	50.	0.	903.8	953.8	50,887.0	262.	7,704.0	58,591.0	13%	
	Jun '13	48	20.	0	903.8	923.8	51,810.7	239.	7,943.0	59,753.7	13%	
2013/14	Jul '13	49	72.	0	903.8	975.8	52,786.5	74.	8,017.0	60,803.5	13%	
	Aug '13	50	68.	0	903.8	971.8	53,758.2	216.	8,233.0	61,991.2	13%	
	Sep '13	51	58.	0	903.8	961.8	54,720.0	353.	8,586.0	63,306.0	14%	
	Oct '13	52	53.	0	903.8	956.8	55,676.8	164.	8,750.0	64,426.8	14%	
	Nov '13	53	60.	0	903.8	963.8	56,640.5	4.	8,754.0	65,394.5	13%	
	Dec '13	54	72.	0	903.8	975.8	57,616.3	251.	9,005.0	66,621.3	14%	
	Jan '14	55	43.	86	903.8	1032.8	58,649.0	72.	9,077.0	67,726.0	13%	
	Feb '14	56	43.	115	903.8	1062.1	59,711.1	0.	9,077.0	68,788.1	13%	
	Mar '14	57	130.		903.8	1033.8	60,744.8	200.	9,277.0	70,021.8	13%	
	Apr '14	58	85.		903.8	988.8	61,733.6	200.	9,477.0	71,210.6	13%	
	May '14	59	38.		903.8	941.8	62,675.3	250.	9,727.0	72,402.3	13%	
	Jun '14	60	23.		903.8	926.8	63,602.1	250.	9,977.0	73,579.1	14%	

START-UP

HISTORICAL

PLAN

RWC Management Plan for RP3 Basins

(120-month averaging period)

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

Date		No. Mos. Since Initial RW Delivery	SW (AF)	MWD (AF)	Underflow (AF)	DW Total (AF)	DW 120-Month Total (AF)	RW (AF)	RW 120-Month Total (AF)	DW + RW 120-Month Total (AF)	RWC	Period
2014/15	Jul '14	61	26.		903.8	929.8	64,531.9	150.	10,127.0	74,658.9	14%	
	Aug '14	62	21.		903.8	924.8	65,456.6	200.	10,327.0	75,783.6	14%	
	Sep '14	63	28.		903.8	931.8	66,388.4	200.	10,527.0	76,915.4	14%	
	Oct '14	64	60.		903.8	963.8	67,352.1	200.	10,727.0	78,079.1	14%	
	Nov '14	65	80.		903.8	983.8	68,335.9	200.	10,927.0	79,262.9	14%	
	Dec '14	66	238.		903.8	1141.8	69,477.6	200.	11,127.0	80,604.6	14%	
	Jan '15	67	155.		903.8	1058.8	70,536.4	200.	11,327.0	81,863.4	14%	
	Feb '15	68	183.		903.8	1086.8	71,623.1	200.	11,527.0	83,150.1	14%	
	Mar '15	69	130.		903.8	1033.8	72,656.9	200.	11,727.0	84,383.9	14%	
	Apr '15	70	85.		903.8	988.8	73,645.6	200.	11,927.0	85,572.6	14%	
	May '15	71	38.		903.8	941.8	74,587.4	250.	12,177.0	86,764.4	14%	
	Jun '15	72	23.		903.8	926.8	75,514.2	250.	12,427.0	87,941.2	14%	
2015/16	Jul '15	73	26.		903.8	929.8	76,412.9	150.	12,577.0	88,989.9	14%	
	Aug '15	74	21.		903.8	924.8	77,306.7	200.	12,777.0	90,083.7	14%	
	Sep '15	75	28.		903.8	931.8	78,178.4	200.	12,977.0	91,155.4	14%	
	Oct '15	76	60.		903.8	963.8	79,064.2	200.	13,177.0	92,241.2	14%	
	Nov '15	77	80.		903.8	983.8	79,987.9	200.	13,377.0	93,364.9	14%	
	Dec '15	78	238.		903.8	1141.8	81,069.7	200.	13,577.0	94,646.7	14%	
	Jan '16	79	155.		903.8	1058.8	82,095.9	450.	14,027.0	96,122.9	15%	
	Feb '16	80	183.		903.8	1086.8	83,118.3	500.	14,527.0	97,645.3	15%	
	Mar '16	81	130.		903.8	1033.8	83,991.4	550.	15,077.0	99,068.4	15%	
	Apr '16	82	85.		903.8	988.8	84,853.2	600.	15,677.0	100,530.2	16%	
	May '16	83	38.		903.8	941.8	85,758.0	0.	15,677.0	101,435.0	15%	
	Jun '16	84	23.		903.8	926.8	86,659.7	0.	15,677.0	102,336.7	15%	
2016/17	Jul '16	85	26.		903.8	929.8	87,574.5	600.	16,277.0	103,851.5	16%	
	Aug '16	86	21.		903.8	924.8	88,463.2	600.	16,877.0	105,340.2	16%	
	Sep '16	87	28.		903.8	931.8	89,360.0	600.	17,477.0	106,837.0	16%	
	Oct '16	88	60.		903.8	963.8	90,290.7	600.	18,077.0	108,367.7	17%	
	Nov '16	89	80.		903.8	983.8	91,238.4	550.	18,627.0	109,865.4	17%	P
	Dec '16	90	238.		903.8	1141.8	92,354.6	450.	19,077.0	111,431.6	17%	L
	Jan '17	91	155.		903.8	1058.8	93,391.2	450.	19,527.0	112,918.2	17%	A
	Feb '17	92	183.		903.8	1086.8	94,459.0	500.	20,027.0	114,486.0	17%	N
	Mar '17	93	130.		903.8	1033.8	95,485.3	550.	20,577.0	116,062.3	18%	N
	Apr '17	94	85.		903.8	988.8	96,470.1	600.	21,177.0	117,647.1	18%	E
	May '17	95	38.		903.8	941.8	97,409.9	0.	21,177.0	118,586.9	18%	D
	Jun '17	96	23.		903.8	926.8	98,334.6	0.	21,177.0	119,511.6	18%	
2017/18	Jul '17	97	26.		903.8	929.8	99,264.4	600.	21,777.0	121,041.4	18%	
	Aug '17	98	21.		903.8	924.8	100,186.1	600.	22,377.0	122,563.1	18%	
	Sep '17	99	28.		903.8	931.8	101,114.9	600.	22,977.0	124,091.9	19%	
	Oct '17	100	60.		903.8	963.8	102,069.6	600.	23,577.0	125,646.6	19%	
	Nov '17	101	80.		903.8	983.8	103,006.4	550.	24,127.0	127,133.4	19%	
	Dec '17	102	238.		903.8	1141.8	104,040.1	450.	24,577.0	128,617.1	19%	
	Jan '18	103	155.		903.8	1058.8	104,933.9	450.	25,027.0	129,960.9	19%	
	Feb '18	104	183.		903.8	1086.8	105,890.7	500.	25,527.0	131,417.7	19%	
	Mar '18	105	130.		903.8	1033.8	106,919.4	550.	26,077.0	132,996.4	20%	
	Apr '18	106	85.		903.8	988.8	107,905.2	600.	26,677.0	134,582.2	20%	
	May '18	107	38.		903.8	941.8	108,812.9	0.	26,677.0	135,489.9	20%	
	Jun '18	108	23.		903.8	926.8	109,735.7	0.	26,677.0	136,412.7	20%	
2018/19	Jul '18	109	26.		903.8	929.8	110,665.4	600.	27,277.0	137,942.4	20%	
	Aug '18	110	21.		903.8	924.8	111,574.2	600.	27,877.0	139,451.2	20%	
	Sep '18	111	28.		903.8	931.8	112,489.9	600.	28,477.0	140,966.9	20%	
	Oct '18	112	60.		903.8	963.8	113,440.7	600.	29,077.0	142,517.7	20%	
	Nov '18	113	80.		903.8	983.8	114,397.4	550.	29,627.0	144,024.4	21%	
	Dec '18	114	238.		903.8	1141.8	115,383.2	450.	30,077.0	145,460.2	21%	
	Jan '19	115	155.		903.8	1058.8	116,430.0	450.	30,527.0	146,957.0	21%	
	Feb '19	116	183.		903.8	1086.8	117,243.7	500.	31,027.0	148,270.7	21%	
	Mar '19	117	130.		903.8	1033.8	118,230.5	550.	31,577.0	149,807.5	21%	
	Apr '19	118	85.		903.8	988.8	119,201.2	600.	32,177.0	151,378.2	21%	
	May '19	119	38.		903.8	941.8	120,137.0	0.	32,177.0	152,314.0	21%	
	Jun '19	120	23.		903.8	926.8	121,063.7	0.	32,071.0	153,134.7	21%	
2019/20	Jul '19	121	26.		903.8	929.8	121,971.5	600.	32,587.0	154,558.5	21%	
	Aug '19	122	21.		903.8	924.8	122,866.2	600.	33,039.0	155,905.2	21%	
	Sep '19	123	28.		903.8	931.8	123,762.0	600.	33,419.0	157,181.0	21%	
	Oct '19	124	60.		903.8	963.8	123,699.0	600.	33,816.0	157,515.0	21%	
	Nov '19	125	80.		903.8	983.8	123,679.0	550.	34,079.0	157,758.0	22%	
	Dec '19	126	238.		903.8	1141.8	123,544.0	450.	34,426.0	157,970.0	22%	
	Jan '20	127	155.		903.8	1058.8	123,173.0	450.	34,800.0	157,973.0	22%	
	Feb '20	128	183.		903.8	1086.8	122,986.0	500.	35,187.0	158,173.0	22%	
	Mar '20	129	130.		903.8	1033.8	123,012.0	550.	35,524.0	158,536.0	22%	
	Apr '20	130	85.		903.8	988.8	122,969.0	600.	36,053.0	159,022.0	23%	
	May '20	131	38.		903.8	941.8	122,958.0	0.	35,781.0	158,739.0	23%	
	Jun '20	132	23.		903.8	926.8	122,939.0	0.	35,520.0	158,459.0	22%	

RWC Management Plan for RP3 Basins

(120-month averaging period)

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

Date		No. Mos. Since Initial RW Delivery	SW (AF)	MWD (AF)	Underflow (AF)	DW Total (AF)	DW 120-Month Total (AF)	RW (AF)	RW 120-Month Total (AF)	DW + RW 120-Month Total (AF)	RWC	Period
2020/21	Jul '20	133	26.		903.8	929.8	122,958.0	600.	35,891.0	158,849.0	23%	PLANNED
	Aug '20	134	21.		903.8	924.8	122,973.0	600.	36,310.0	159,283.0	23%	
	Sep '20	135	28.		903.8	931.8	122,976.0	600.	36,862.0	159,838.0	23%	
	Oct '20	136	60.		903.8	963.8	122,965.0	600.	37,439.0	160,404.0	23%	
	Nov '20	137	80.		903.8	983.8	122,899.0	550.	37,796.0	160,695.0	24%	
	Dec '20	138	238.		903.8	1141.8	122,393.0	450.	38,124.0	160,517.0	24%	
	Jan '21	139	155.		903.8	1058.8	122,313.0	450.	38,471.0	160,784.0	24%	
	Feb '21	140	183.		903.8	1086.8	122,181.0	500.	38,794.0	160,975.0	24%	
	Mar '21	141	130.		903.8	1033.8	121,897.0	550.	39,218.0	161,115.0	24%	
	Apr '21	142	85.		903.8	988.8	121,840.0	600.	39,581.0	161,421.0	25%	
	May '21	143	38.		903.8	941.8	121,517.1	0.	39,405.0	160,922.1	24%	
	Jun '21	144	23.		903.8	926.8	120,922.9	0.	39,221.0	160,143.9	24%	
2021/22	Jul '21	145	26.		903.8	929.8	120,081.5	600.	39,568.0	159,649.5	25%	
	Aug '21	146	21.		903.8	924.8	119,784.9	600.	40,153.0	159,937.9	25%	
	Sep '21	147	28.		903.8	931.8	119,198.7	600.	40,723.0	159,921.7	25%	
	Oct '21	148	60.		903.8	963.8	119,037.9	600.	41,141.0	160,178.9	26%	
	Nov '21	149	80.		903.8	983.8	118,995.9	550.	41,594.0	160,589.9	26%	
	Dec '21	150	238.		903.8	1141.8	119,155.9	450.	41,880.0	161,035.9	26%	
	Jan '22	151	155.		903.8	1058.8	119,206.9	450.	42,239.0	161,445.9	26%	
	Feb '22	152	183.		903.8	1086.8	119,213.9	500.	42,579.0	161,792.9	26%	
	Mar '22	153	130.		903.8	1033.8	119,121.9	550.	43,035.0	162,156.9	27%	
	Apr '22	154	85.		903.8	988.8	118,986.9	600.	43,488.0	162,474.9	27%	
	May '22	155	38.		903.8	941.8	118,963.9	0.	43,113.0	162,076.9	27%	
	Jun '22	156	23.		903.8	926.8	118,926.9	0.	42,932.0	161,858.9	27%	
2022/23	Jul '22	157	26.		903.8	929.8	118,902.9	600.	43,520.0	162,422.9	27%	
	Aug '22	158	21.		903.8	924.8	118,911.9	600.	44,120.0	163,031.9	27%	
	Sep '22	159	28.		903.8	931.8	118,935.9	600.	44,720.0	163,655.9	27%	
	Oct '22	160	60.		903.8	963.8	118,977.9	600.	45,320.0	164,297.9	28%	
	Nov '22	161	80.		903.8	983.8	118,956.9	550.	45,716.0	164,672.9	28%	
	Dec '22	162	238.		903.8	1141.8	118,833.9	450.	45,946.0	164,779.9	28%	
	Jan '23	163	155.		903.8	1058.8	118,841.9	450.	46,043.0	164,884.9	28%	
	Feb '23	164	183.		903.8	1086.8	118,911.9	500.	46,246.0	165,157.9	28%	
	Mar '23	165	130.		903.8	1033.8	118,963.9	550.	46,521.0	165,484.9	28%	
	Apr '23	166	85.		903.8	988.8	119,008.9	600.	46,735.0	165,743.9	28%	
	May '23	167	38.		903.8	941.8	118,996.9	0.	46,473.0	165,469.9	28%	
	Jun '23	168	23.		903.8	926.8	118,999.9	0.	46,234.0	165,233.9	28%	
2023/24	Jul '23	169	26.		903.8	929.8	118,953.9	600.	46,760.0	165,713.9	28%	
	Aug '23	170	21.		903.8	924.8	118,906.9	600.	47,144.0	166,050.9	28%	
	Sep '23	171	28.		903.8	931.8	118,876.9	600.	47,391.0	166,267.9	29%	
	Oct '23	172	60.		903.8	963.8	118,883.9	600.	47,827.0	166,710.9	29%	
	Nov '23	173	80.		903.8	983.8	118,903.9	550.	48,373.0	167,276.9	29%	
	Dec '23	174	238.		903.8	1141.8	119,069.9	450.	48,572.0	167,641.9	29%	
	Jan '24	175	155.		903.8	1058.8	119,095.9	450.	48,950.0	168,045.9	29%	
	Feb '24	176	183.		903.8	1086.8	119,120.6	500.	49,450.0	168,570.6	29%	
	Mar '24	177	130.		903.8	1033.8	119,120.6	550.	49,800.0	168,920.6	29%	
	Apr '24	178	85.		903.8	988.8	119,120.6	600.	50,200.0	169,320.6	30%	
	May '24	179	38.		903.8	941.8	119,120.6	0.	49,950.0	169,070.6	30%	
	Jun '24	180	23.		903.8	926.8	119,120.6	0.	49,700.0	168,820.6	29%	

Notes:

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

RW = Recycled Water

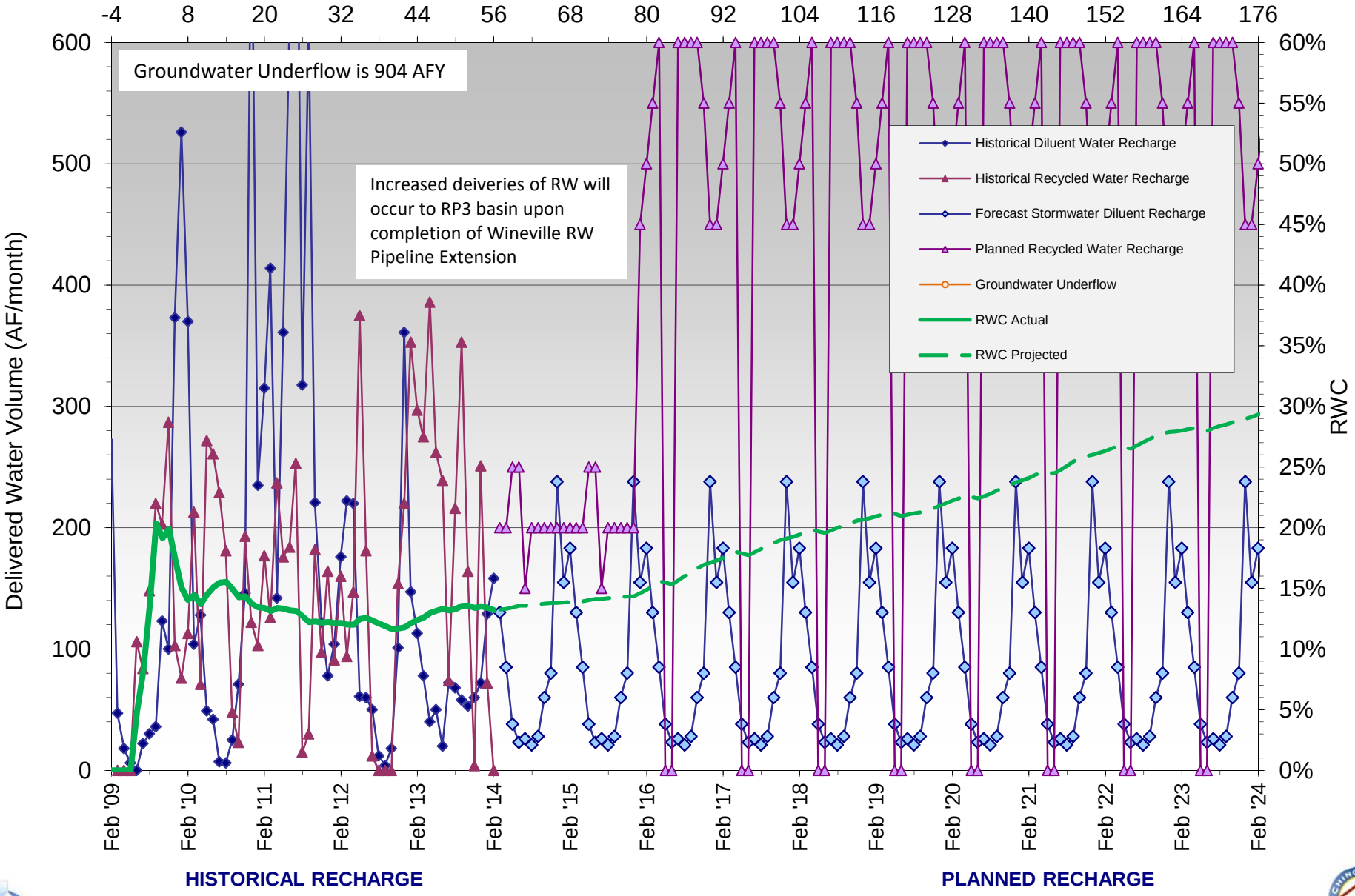
RWC = 120-month running total of recycled water / 120-month running total of all diluent and recycled water.

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

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

RWC Management Plan - RP3 Basin

Months SInce Initial Recycled Water Delivery



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
2008/09	Jul '08	-24	0.	0.		0.	18849	0.	0	18849	0%	
	Aug '08	-23	0.	0.		0.	18849	0.	0	18849	0%	
	Sep '08	-22	0.	0.		0.	18849	0.	0	18849	0%	
	Oct '08	-21	0.	0.		0.	18849	0.	0	18849	0%	
	Nov '08	-20	8.	0.		8.	18857	0.	0	18857	0%	
	Dec '08	-19	86.	0.		86.	18943	0.	0	18943	0%	
	Jan '09	-18	16.	0.		16.	18959	0.	0	18959	0%	
	Feb '09	-17	107.	0.		107.	19066	0.	0	19066	0%	
	Mar '09	-16	8.	0.		8.	19074	0.	0	19074	0%	
	Apr '09	-15	0.	0.		0.	19074	0.	0	19074	0%	
	May '09	-14	0.	0.		0.	19074	0.	0	19074	0%	
	Jun '09	-13	0.	0.		0.	19074	0.	0	19074	0%	
2009/10	Jul '09	-12	0.	0.		0.	19074	0.	0	19074	0%	
	Aug '09	-11	0.	0.		0.	19074	0.	0	19074	0%	HISTORICAL
	Sep '09	-10	0.	0.		0.	19074	0.	0	19074	0%	
	Oct '09	-9	56.	0.		56.	19130	0.	0	19130	0%	
	Nov '09	-8	21.	0.		21.	19151	0.	0	19151	0%	
	Dec '09	-7	334.	0.		334.	19485	0.	0	19485	0%	
	Jan '10	-6	290.	0.		290.	19775	0.	0	19775	0%	
	Feb '10	-5	223.	0.		223.	19998	0.	0	19998	0%	
	Mar '10	-4	16.	0.		16.	20014	0.	0	20014	0%	
	Apr '10	-3	53.	0.		53.	20067	0.	0	20067	0%	
	May '10	-2	0.	0.		0.	20067	0.	0	20067	0%	
	Jun '10	-1	0.	0.		0.	20067	0.	0	20067	0%	
2010/11	Jul '10	0	0.	0.		0.	20067	50.	50	20117	0%	START-UP
	Aug '10	1	0.	0.		0.	20067	44.	94	20161	0%	
	Sep '10	2	0.	0.		0.	20067	42.	136	20203	1%	
	Oct '10	3	95.	0.		95.	20162	73.	209	20371	1%	
	Nov '10	4	81.	0.	139.	220.	20382	13.	222	20604	1%	
	Dec '10	5	577.	0.	139.	716.	21098	32.	254	21352	1%	
	Jan '11	6	13.	0.	139.	152.	21250	72.	326	21576	2%	
	Feb '11	7	143.	0.	139.	282.	21532	0.	326	21858	1%	
	Mar '11	8	133.	0.	139.	272.	21804	0.	326	22130	1%	
	Apr '11	9	0.	0.	139.	139.	21943	0.	326	22269	1%	
	May '11	10	7.	537.9	139.	683.9	22627	36.	362	22989	2%	
	Jun '11	11	0.	1169.2	139.	1308.2	23935	34.	396	24331	2%	
2011/12	Jul '11	12	0.	1010.7	139.	1149.7	25084	113.	509	25593	2%	
	Aug '11	13	0.	11.2	139.	150.2	25235	90.	599	25834	2%	
	Sep '11	14	0.	205.6	139.	344.6	25579	0.	599	26178	2%	
	Oct '11	15	39.	0.	139.	178.	25757	0.	599	26356	2%	
	Nov '11	16	32.	0.	139.	171.	25928	0.	599	26527	2%	
	Dec '11	17	20.	0.	139.	159.	26087	0.	599	26686	2%	
	Jan '12	18	55.	0.	139.	194.	26281	159.	758	27039	3%	
	Feb '12	19	54.	0.	139.	193.	26474	74.	832	27306	3%	
	Mar '12	20	160.	0.	139.	299.	26773	16.	848	27621	3%	
	Apr '12	21	76.	0.	139.	215.	26988	4.	852	27840	3%	
	May '12	22	0.	0.	139.	139.	27127	3.	855	27982	3%	
	Jun '12	23	0.	0.	139.	139.	27266	54.	909	28175	3%	HISTORICAL
2012/13	Jul '12	24	0.	0.	139.	139.	27405	122.	1031	28436	4%	
	Aug '12	25	1.	0.	139.	140.	27545	84.	1115	28660	4%	
	Sep '12	26	0.	0.	139.	139.	27684	39.	1154	28838	4%	
	Oct '12	27	1.	0.	139.	140.	27824	63.	1217	29041	4%	
	Nov '12	28	14.	0.	139.	153.	27977	66.	1283	29260	4%	
	Dec '12	29	79.	0.	139.	218.	28194	1.	1284	29478	4%	
	Jan '13	30	21.	0.	139.	160.	28354	59.	1343	29697	5%	
	Feb '13	31	9.	0.	139.	148.	28502	19.	1362	29864	5%	
	Mar '13	32	13.	0.	139.	152.	28654	53.	1415	30069	5%	
	Apr '13	33	5.	0.	139.	144.	28798	41.	1456	30254	5%	
	May '13	34	4.	0.	139.	143.	28941	26.	1482	30423	5%	
	Jun '13	35	0.	0	139.	139.	29080	2.	1484	30564	5%	
2013/14	Jul '13	36	0.	0	139.	139.	29219	0.	1484	30703	5%	
	Aug '13	37	0.	0	139.	139.	29358	0.	1484	30842	5%	
	Sep '13	38	0.	0	139.	139.	29497	154.	1638	31135	5%	
	Oct '13	39	11.	0	139.	150.	29647	69.	1707	31354	5%	
	Nov '13	40	39.	0	139.	178.	29825	9.	1716	31541	5%	
	Dec '13	41	6.	0	139.	145.	29970	0.	1716	31686	5%	
	Jan '14	42	0.	0	139.	139.	30109	12.	1728	31837	5%	
	Feb '14	43	7.	0	139.	146.	30255	49.	1777	32032	6%	
	Mar '14	44	110.		139.	249.	30504	0.	1777	32281	6%	PLAN
	Apr '14	45	166.		139.	305.	30809	0.	1777	32586	5%	
	May '14	46	28.		139.	167.	30976	120.	1897	32873	6%	
	Jun '14	47	4.		139.	143.	31119	120.	2017	33136	6%	

RWC Management Plan for San Sevaine Basin 1 through 5

(120-month averaging period)

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

Date		No. Mos. Since Initial RW Delivery	SW (AF)	MWD (AF)	Underflow (AF)	DW Total (AF)	DW 120-Month Total (AF)	RW (AF)	RW 120-Month Total (AF)	DW + RW 120-Month Total (AF)	RWC	Period
2014/15	Jul '14	48	0.		139.	139.	31258	120.	2137	33395	6%	
	Aug '14	49	0.		139.	139.	31396	120.	2257	33653	7%	
	Sep '14	50	0.		139.	139.	31535	120.	2377	33912	7%	
	Oct '14	51	25.		139.	164.	31699	120.	2497	34196	7%	
	Nov '14	52	26.		139.	165.	31864	120.	2617	34481	8%	
	Dec '14	53	140.		139.	279.	32143	0.	2617	34760	8%	
	Jan '15	54	112.		139.	251.	32394	0.	2617	35011	7%	
	Feb '15	55	87.		139.	226.	32620	0.	2617	35237	7%	
	Mar '15	56	110.		139.	249.	32869	0.	2617	35486	7%	
	Apr '15	57	166.		139.	305.	33174	0.	2617	35791	7%	
	May '15	58	28.		139.	167.	32947	120.	2737	35684	8%	
	Jun '15	59	4.		139.	143.	31899	120.	2857	34756	8%	
2015/16	Jul '15	60	0.		139.	139.	31569	120.	2977	34546	9%	
	Aug '15	61	0.		139.	139.	31495	120.	3097	34592	9%	
	Sep '15	62	0.		139.	139.	31076	120.	3217	34293	9%	
	Oct '15	63	25.		139.	164.	30665	120.	3337	34002	10%	
	Nov '15	64	26.		139.	165.	29688	120.	3457	33145	10%	
	Dec '15	65	140.		139.	279.	28980	0.	3457	32437	11%	
	Jan '16	66	112.		139.	251.	28263	0.	3457	31720	11%	
	Feb '16	67	87.		139.	226.	27365	0.	3457	30822	11%	
	Mar '16	68	110.		139.	249.	26650	0.	3457	30107	11%	
	Apr '16	69	166.		139.	305.	25768	0.	3457	29225	12%	
	May '16	70	28.		139.	167.	24549	120.	3577	28126	13%	
	Jun '16	71	4.		139.	143.	23743	120.	3697	27440	13%	
2016/17	Jul '16	72	0.		139.	139.	23867	120.	3817	27684	14%	
	Aug '16	73	0.		139.	139.	22976	120.	3937	26913	15%	
	Sep '16	74	0.		139.	139.	22109	120.	4057	26166	16%	
	Oct '16	75	25.		139.	164.	21262	120.	4177	25439	16%	
	Nov '16	76	26.		139.	165.	20862	120.	4297	25159	17%	
	Dec '16	77	140.		139.	279.	20122	0.	4297	24419	18%	
	Jan '17	78	112.		139.	251.	19436	0.	4297	23733	18%	
	Feb '17	79	87.		139.	226.	19320	0.	4297	23617	18%	
	Mar '17	80	110.		139.	249.	19564	0.	4297	23861	18%	
	Apr '17	81	166.		139.	305.	19866	0.	4297	24163	18%	
	May '17	82	28.		139.	167.	20002	120.	4417	24419	18%	
	Jun '17	83	4.		139.	143.	20115	120.	4537	24652	18%	
2017/18	Jul '17	84	0.		139.	139.	20254	120.	4657	24911	19%	
	Aug '17	85	0.		139.	139.	20393	120.	4777	25170	19%	
	Sep '17	86	0.		139.	139.	20530	120.	4897	25427	19%	
	Oct '17	87	25.		139.	164.	20688	120.	5017	25705	20%	
	Nov '17	88	26.		139.	165.	20815	120.	5137	25952	20%	
	Dec '17	89	140.		139.	279.	21019	0.	5137	26156	20%	
	Jan '18	90	112.		139.	251.	20717	0.	5137	25854	20%	
	Feb '18	91	87.		139.	226.	20914	0.	5137	26051	20%	
	Mar '18	92	110.		139.	249.	21163	0.	5137	26300	20%	
	Apr '18	93	166.		139.	305.	21468	0.	5137	26605	19%	
	May '18	94	28.		139.	167.	21588	120.	5257	26845	20%	
	Jun '18	95	4.		139.	143.	21731	120.	5377	27108	20%	
2018/19	Jul '18	96	0.		139.	139.	21870	120.	5497	27367	20%	
	Aug '18	97	0.		139.	139.	22009	120.	5617	27626	20%	
	Sep '18	98	0.		139.	139.	22148	120.	5737	27885	21%	
	Oct '18	99	25.		139.	164.	22312	120.	5857	28169	21%	
	Nov '18	100	26.		139.	165.	22469	120.	5977	28446	21%	
	Dec '18	101	140.		139.	279.	22662	0.	5977	28639	21%	
	Jan '19	102	112.		139.	251.	22897	0.	5977	28874	21%	
	Feb '19	103	87.		139.	226.	23016	0.	5977	28993	21%	
	Mar '19	104	110.		139.	249.	23257	0.	5977	29234	20%	
	Apr '19	105	166.		139.	305.	23562	0.	5977	29539	20%	
	May '19	106	28.		139.	167.	23729	120.	6097	29826	20%	
	Jun '19	107	4.		139.	143.	23872	120.	6217	30089	21%	
2019/20	Jul '19	108	0.		139.	139.	24011	120.	6337	30348	21%	
	Aug '19	109	0.		139.	139.	24149	120.	6457	30606	21%	
	Sep '19	110	0.		139.	139.	24288	120.	6577	30865	21%	
	Oct '19	111	25.		139.	164.	24396	120.	6697	31093	22%	
	Nov '19	112	26.		139.	165.	24540	120.	6817	31357	22%	
	Dec '19	113	140.		139.	279.	24485	0.	6817	31302	22%	
	Jan '20	114	112.		139.	251.	24446	0.	6817	31263	22%	
	Feb '20	115	87.		139.	226.	24449	0.	6817	31266	22%	
	Mar '20	116	110.		139.	249.	24682	0.	6817	31499	22%	
	Apr '20	117	166.		139.	305.	24934	0.	6817	31751	21%	
	May '20	118	28.		139.	167.	25101	120.	6937	32038	22%	
	Jun '20	119	4.		139.	143.	25244	120.	7057	32301	22%	

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RWC Management Plan for San Sevaine Basin 1 through 5

(120-month averaging period)

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

Date		No. Mos. Since Initial RW Delivery	SW (AF)	MWD (AF)	Underflow (AF)	DW Total (AF)	DW 120-Month Total (AF)	RW (AF)	RW 120-Month Total (AF)	DW + RW 120-Month Total (AF)	RWC	Period
2020/21	Jul '20	120	0.		139.	139.	25383	120.	7127	32510	22%	PLANNED
	Aug '20	121	0.		139.	139.	25522	120.	7203	32725	22%	
	Sep '20	122	0.		139.	139.	25661	120.	7281	32942	22%	
	Oct '20	123	25.		139.	164.	25730	120.	7328	33058	22%	
	Nov '20	124	26.		139.	165.	25675	120.	7435	33110	22%	
	Dec '20	125	140.		139.	279.	25238	0.	7403	32641	23%	
	Jan '21	126	112.		139.	251.	25337	0.	7331	32668	22%	
	Feb '21	127	87.		139.	226.	25281	0.	7331	32612	22%	
	Mar '21	128	110.		139.	249.	25258	0.	7331	32589	22%	
	Apr '21	129	166.		139.	305.	25424	0.	7331	32755	22%	
	May '21	130	28.		139.	167.	24907	120.	7415	32322	23%	
	Jun '21	131	4.		139.	143.	23742	120.	7501	31243	24%	
2021/22	Jul '21	132	0.		139.	139.	22731	120.	7508	30239	25%	
	Aug '21	133	0.		139.	139.	22720	120.	7538	30258	25%	
	Sep '21	134	0.		139.	139.	22514	120.	7658	30172	25%	
	Oct '21	135	25.		139.	164.	22500	120.	7778	30278	26%	
	Nov '21	136	26.		139.	165.	22494	120.	7898	30392	26%	
	Dec '21	137	140.		139.	279.	22614	0.	7898	30512	26%	
	Jan '22	138	112.		139.	251.	22671	0.	7739	30410	25%	
	Feb '22	139	87.		139.	226.	22704	0.	7665	30369	25%	
	Mar '22	140	110.		139.	249.	22654	0.	7649	30303	25%	
	Apr '22	141	166.		139.	305.	22744	0.	7645	30389	25%	
	May '22	142	28.		139.	167.	22772	120.	7762	30534	25%	
	Jun '22	143	4.		139.	143.	22776	120.	7828	30604	26%	
2022/23	Jul '22	144	0.		139.	139.	22776	120.	7826	30602	26%	
	Aug '22	145	0.		139.	139.	22775	120.	7862	30637	26%	
	Sep '22	146	0.		139.	139.	22775	120.	7943	30718	26%	
	Oct '22	147	25.		139.	164.	22799	120.	8000	30799	26%	
	Nov '22	148	26.		139.	165.	22811	120.	8054	30865	26%	
	Dec '22	149	140.		139.	279.	22872	0.	8053	30925	26%	
	Jan '23	150	112.		139.	251.	22963	0.	7994	30957	26%	
	Feb '23	151	87.		139.	226.	23041	0.	7975	31016	26%	
	Mar '23	152	110.		139.	249.	23138	0.	7922	31060	26%	
	Apr '23	153	166.		139.	305.	23299	0.	7881	31180	25%	
	May '23	154	28.		139.	167.	23323	120.	7975	31298	25%	
	Jun '23	155	4.		139.	143.	23327	120.	8093	31420	26%	
2023/24	Jul '23	156	0.		139.	139.	23327	120.	8213	31540	26%	
	Aug '23	157	0.		139.	139.	23327	120.	8333	31660	26%	
	Sep '23	158	0.		139.	139.	23327	120.	8299	31626	26%	
	Oct '23	159	25.		139.	164.	23341	120.	8350	31691	26%	
	Nov '23	160	26.		139.	165.	23328	120.	8461	31789	27%	
	Dec '23	161	140.		139.	279.	23462	0.	8461	31923	27%	
	Jan '24	162	112.		139.	251.	23574	0.	8449	32023	26%	
	Feb '24	163	87.		139.	226.	23654	0.	8400	32054	26%	
	Mar '24	164	110.		139.	249.	23654	0.	8400	32054	26%	
	Apr '24	165	166.		139.	305.	23654	0.	8400	32054	26%	
	May '24	166	28.		139.	167.	23654	120.	8400	32054	26%	
	Jun '24	167	4.		139.	143.	23654	120.	8400	32054	26%	

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.

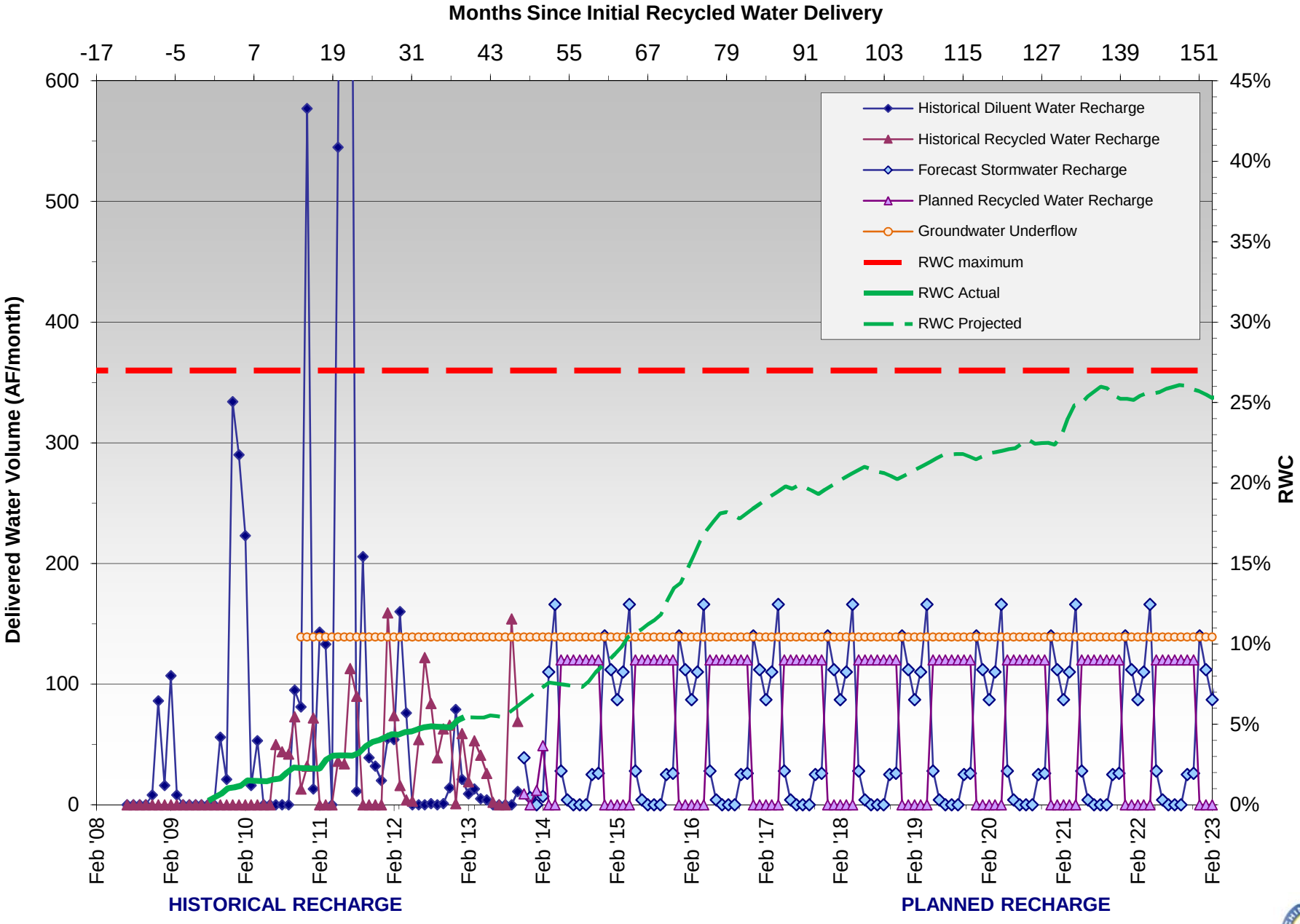
RW = Recycled Water

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



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
2008/09	Jul '08	24	7.	0.		7.	4629	0.	620	5249	12%	
	Aug '08	25	3.	0.		3.	4632	0.	620	5252	12%	
	Sep '08	26	127.	0.		127.	4759	0.	620	5379	12%	
	Oct '08	27	80.	0.		80.	4839	28.	648	5487	12%	
	Nov '08	28	81.	0.		81.	4920	30.	678	5598	12%	
	Dec '08	29	344.	0.		344.	5264	0.	678	5942	11%	
	Jan '09	30	29.	0.		29.	5293	0.	678	5971	11%	
	Feb '09	31	345.	0.		345.	5638	0.	678	6316	11%	
	Mar '09	32	47.	0.		47.	5685	0.	678	6363	11%	
	Apr '09	33	11.	0.		11.	5696	0.	678	6374	11%	
	May '09	34	18.	0.		18.	5714	30.	708	6422	11%	
	Jun '09	35	77.	0.		77.	5791	9.	717	6508	11%	
2009/10	Jul '09	36	32.	0.		32.	5823	0.	717	6540	11%	
	Aug '09	37	19.	0.		19.	5842	20.	737	6579	11%	
	Sep '09	38	28.	0.		28.	5870	18.	755	6625	11%	
	Oct '09	39	80.	0.	67.3	147.3	6017	0.	755	6772	11%	
	Nov '09	40	49.	0.	67.3	116.3	6133	0.	755	6889	11%	
	Dec '09	41	401.	0.	67.3	468.3	6602	0.	755	7357	10%	
	Jan '10	42	294.	0.	67.3	361.3	6963	0.	755	7718	10%	
	Feb '10	43	330.	0.	67.3	397.3	7360	0.	755	8115	9%	
	Mar '10	44	34.	0.	67.3	101.3	7461	0.	755	8217	9%	
	Apr '10	45	158.	0.	67.3	225.3	7687	0.	755	8442	9%	
	May '10	46	38.	0.	67.3	105.3	7792	0.	755	8547	9%	
	Jun '10	47	0.	0.	67.3	67.3	7859	0.	755	8614	9%	
2010/11	Jul '10	48	23.	0.	67.3	90.3	7949	0.	755	8705	9%	
	Aug '10	49	53.	0.	67.3	120.3	8070	8.	763	8833	9%	
	Sep '10	50	57.	0.	67.3	124.3	8194	0.	763	8957	9%	
	Oct '10	51	90.	0.	67.3	157.3	8351	0.	763	9115	8%	
	Nov '10	52	165.	0.	67.3	232.3	8584	0.	763	9347	8%	
	Dec '10	53	365.	0.	67.3	432.3	9016	0.	763	9779	8%	
	Jan '11	54	190.	0.	67.3	257.3	9273	0.	763	10036	8%	
	Feb '11	55	233.	0.	67.3	300.3	9573	0.	763	10337	7%	
	Mar '11	56	264.	0.	67.3	331.3	9905	0.	763	10668	7%	
	Apr '11	57	333.	0.	67.3	400.3	10305	0.	763	11068	7%	
	May '11	58	181.	0.	67.3	248.3	10553	0.	763	11316	7%	
	Jun '11	59	90.	0.	67.3	157.3	10710	0.	763	11474	7%	
2011/12	Jul '11	60	16.	0.	67.3	83.3	10794	0.	763	11557	7%	
	Aug '11	61	22.	0.	67.3	89.3	10883	0.	763	11646	7%	
	Sep '11	62	2.	0.	67.3	69.3	10952	0.	763	11716	7%	
	Oct '11	63	0.	0.	67.3	67.3	11020	0.	763	11783	6%	
	Nov '11	64	81.	0.	67.3	148.3	11148	41.	804	11952	7%	
	Dec '11	65	88.	0.	67.3	155.3	11285	60.	864	12149	7%	
	Jan '12	66	146.	0.	67.3	213.3	11478	29.	893	12371	7%	
	Feb '12	67	221.	0.	67.3	288.3	11742	0.	893	12636	7%	
	Mar '12	68	295.	0.	67.3	362.3	12092	0.	893	12985	7%	
	Apr '12	69	258.	0.	67.3	325.3	12414	0.	893	13307	7%	
	May '12	70	14.	0.	67.3	81.3	12494	0.	893	13387	7%	
	Jun '12	71	20.	0.	67.3	87.3	12581	0.	893	13474	7%	
2012/13	Jul '12	72	83.	0.	67.3	150.3	12731	0.	893	13624	7%	
	Aug '12	73	36.	0.	67.3	103.3	12834	0.	893	13728	7%	
	Sep '12	74	31.	0.	67.3	98.3	12933	0.	893	13826	6%	
	Oct '12	75	61.	0.	67.3	128.3	13061	0.	893	13954	6%	
	Nov '12	76	61.	0.	67.3	128.3	13179	0.	893	14072	6%	
	Dec '12	77	290.	0.	67.3	357.3	13506	0.	893	14399	6%	
	Jan '13	78	149.	0.	67.3	216.3	13722	0.	893	14615	6%	
	Feb '13	79	116.	0.	67.3	183.3	13876	26.	919	14795	6%	
	Mar '13	80	48.	0.	67.3	115.3	13959	21.	940	14899	6%	
	Apr '13	81	0.	0.	67.3	67.3	13989	0.	940	14929	6%	
	May '13	82	0.	0.	67.3	67.3	14004	0.	940	14944	6%	
	Jun '13	83	0.	0	67.3	67.3	14071	0.	940	15011	6%	
2013/14	Jul '13	84	0.	0	67.3	67.3	14138	0.	940	15078	6%	
	Aug '13	85	0.	0	67.3	67.3	14205	0.	940	15146	6%	
	Sep '13	86	0.	0	67.3	67.3	14273	0.	940	15213	6%	
	Oct '13	87	0.	0	67.3	67.3	14340	0.	940	15280	6%	
	Nov '13	88	0.	0	67.3	67.3	14407	0.	940	15348	6%	
	Dec '13	89	72.	0	67.3	139.3	14547	174.	1114	15661	7%	
	Jan '14	90	45.	0	67.3	112.3	14659	102.	1216	15875	8%	
	Feb '14	91	43.	0	67.3	110.3	14769	70.	1286	16055	8%	
	Mar '14	92	106.		67.3	173.3	14942	0.	1286	16229	8%	PLAN
	Apr '14	93	101.		67.3	168.3	15111	75.	1361	16472	8%	
	May '14	94	46.		67.3	113.3	15224	90.	1451	16675	9%	
	Jun '14	95	18.		67.3	85.3	15309	90.	1541	16850	9%	

RWC Management Plan for Turner Basin Cells 1 & 2

(120-month averaging period)

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

Date		No. Mos. Since Initial RW Delivery	SW (AF)	MWD (AF)	Underflow (AF)	DW Total (AF)	DW 120-Month Total (AF)	RW (AF)	RW 120-Month Total (AF)	DW + RW 120-Month Total (AF)	RWC	Period
2014/15	Jul '14	96	13.		67.3	80.3	15389	0.	1541	16931	9%	
	Aug '14	97	15.		67.3	82.3	15472	0.	1541	17013	9%	
	Sep '14	98	30.		67.3	97.3	15569	85.	1626	17195	9%	
	Oct '14	99	43.		67.3	110.3	15619	85.	1711	17330	10%	
	Nov '14	100	69.		67.3	136.3	15624	85.	1796	17420	10%	
	Dec '14	101	174.		67.3	241.3	15700	0.	1796	17496	10%	
	Jan '15	102	115.		67.3	182.3	15786	0.	1796	17582	10%	
	Feb '15	103	142.		67.3	209.3	15907	0.	1796	17704	10%	
	Mar '15	104	106.		67.3	173.3	16015	0.	1796	17811	10%	
	Apr '15	105	101.		67.3	168.3	16183	60.	1856	18040	10%	
	May '15	106	46.		67.3	113.3	16296	85.	1941	18237	11%	
	Jun '15	107	18.		67.3	85.3	16381	85.	2026	18408	11%	
2015/16	Jul '15	108	13.		67.3	80.3	16462	0.	2026	18488	11%	
	Aug '15	109	15.		67.3	82.3	16544	0.	2026	18570	11%	
	Sep '15	110	30.		67.3	97.3	16552	85.	2111	18663	11%	
	Oct '15	111	43.		67.3	110.3	16567	85.	2196	18763	12%	
	Nov '15	112	69.		67.3	136.3	16525	85.	2281	18806	12%	
	Dec '15	113	174.		67.3	241.3	16407	0.	2281	18688	12%	
	Jan '16	114	115.		67.3	182.3	16327	0.	2281	18609	12%	
	Feb '16	115	142.		67.3	209.3	16385	0.	2281	18666	12%	
	Mar '16	116	106.		67.3	173.3	16131	0.	2281	18413	12%	
	Apr '16	117	101.		67.3	168.3	15910	60.	2341	18251	13%	
	May '16	118	46.		67.3	113.3	15926	85.	2426	18352	13%	
	Jun '16	119	18.		67.3	85.3	16000	85.	2511	18512	14%	
2016/17	Jul '16	120	13.		67.3	80.3	16018	0.	2489	18507	13%	
	Aug '16	121	15.		67.3	82.3	16079	0.	2376	18455	13%	
	Sep '16	122	30.		67.3	97.3	16070	85.	2347	18417	13%	
	Oct '16	123	43.		67.3	110.3	16016	85.	2432	18448	13%	
	Nov '16	124	69.		67.3	136.3	16124	85.	2517	18640	14%	
	Dec '16	125	174.		67.3	241.3	16335	0.	2413	18748	13%	
	Jan '17	126	115.		67.3	182.3	16490	0.	2343	18832	12%	
	Feb '17	127	142.		67.3	209.3	16687	0.	2299	18986	12%	
	Mar '17	128	106.		67.3	173.3	16835	0.	2242	19077	12%	
	Apr '17	129	101.		67.3	168.3	16998	60.	2288	19286	12%	
	May '17	130	46.		67.3	113.3	17099	85.	2294	19393	12%	
	Jun '17	131	18.		67.3	85.3	17184	85.	2376	19560	12%	
2017/18	Jul '17	132	13.		67.3	80.3	17260	0.	2376	19636	12%	
	Aug '17	133	15.		67.3	82.3	17304	0.	2376	19680	12%	
	Sep '17	134	30.		67.3	97.3	17397	85.	2461	19858	12%	
	Oct '17	135	43.		67.3	110.3	17446	85.	2546	19992	13%	
	Nov '17	136	69.		67.3	136.3	17486	85.	2631	20117	13%	
	Dec '17	137	174.		67.3	241.3	17512	0.	2631	20143	13%	
	Jan '18	138	115.		67.3	182.3	17384	0.	2631	20015	13%	
	Feb '18	139	142.		67.3	209.3	17342	0.	2631	19973	13%	
	Mar '18	140	106.		67.3	173.3	17498	0.	2631	20129	13%	
	Apr '18	141	101.		67.3	168.3	17652	60.	2691	20343	13%	
	May '18	142	46.		67.3	113.3	17623	85.	2776	20399	14%	
	Jun '18	143	18.		67.3	85.3	17697	85.	2861	20558	14%	
2018/19	Jul '18	144	13.		67.3	80.3	17770	0.	2861	20631	14%	
	Aug '18	145	15.		67.3	82.3	17850	0.	2861	20711	14%	
	Sep '18	146	30.		67.3	97.3	17820	85.	2946	20766	14%	
	Oct '18	147	43.		67.3	110.3	17850	85.	3003	20853	14%	
	Nov '18	148	69.		67.3	136.3	17905	85.	3058	20963	15%	
	Dec '18	149	174.		67.3	241.3	17803	0.	3058	20861	15%	
	Jan '19	150	115.		67.3	182.3	17956	0.	3058	21014	15%	
	Feb '19	151	142.		67.3	209.3	17820	0.	3058	20878	15%	
	Mar '19	152	106.		67.3	173.3	17946	0.	3058	21004	15%	
	Apr '19	153	101.		67.3	168.3	18104	60.	3118	21222	15%	
	May '19	154	46.		67.3	113.3	18199	85.	3173	21372	15%	
	Jun '19	155	18.		67.3	85.3	18207	85.	3249	21456	15%	
2019/20	Jul '19	156	13.		67.3	80.3	18256	0.	3249	21505	15%	
	Aug '19	157	15.		67.3	82.3	18319	0.	3229	21548	15%	
	Sep '19	158	30.		67.3	97.3	18388	85.	3296	21684	15%	
	Oct '19	159	43.		67.3	110.3	18351	85.	3381	21732	16%	
	Nov '19	160	69.		67.3	136.3	18371	85.	3466	21837	16%	
	Dec '19	161	174.		67.3	241.3	18144	0.	3466	21610	16%	
	Jan '20	162	115.		67.3	182.3	17965	0.	3466	21431	16%	
	Feb '20	163	142.		67.3	209.3	17777	0.	3466	21243	16%	
	Mar '20	164	106.		67.3	173.3	17849	0.	3466	21315	16%	
	Apr '20	165	101.		67.3	168.3	17792	60.	3526	21318	17%	
	May '20	166	46.		67.3	113.3	17800	85.	3611	21411	17%	
	Jun '20	167	18.		67.3	85.3	17818	85.	3696	21514	17%	

PLANNED

RWC Management Plan for Turner Basin Cells 1 & 2

(120-month averaging period)

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

Date		No. Mos. Since Initial RW Delivery	SW (AF)	MWD (AF)	Underflow (AF)	DW Total (AF)	DW 120-Month Total (AF)	RW (AF)	RW 120-Month Total (AF)	DW + RW 120-Month Total (AF)	RWC	Period
2020/21	Jul '20	168	13.		67.3	80.3	17808	0.	3696	21504	17%	PLANNED
	Aug '20	169	15.		67.3	82.3	17770	0.	3688	21458	17%	
	Sep '20	170	30.		67.3	97.3	17743	85.	3773	21516	18%	
	Oct '20	171	43.		67.3	110.3	17696	85.	3858	21554	18%	
	Nov '20	172	69.		67.3	136.3	17600	85.	3943	21543	18%	
	Dec '20	173	174.		67.3	241.3	17409	0.	3943	21352	18%	
	Jan '21	174	115.		67.3	182.3	17334	0.	3943	21277	19%	
	Feb '21	175	142.		67.3	209.3	17243	0.	3943	21186	19%	
	Mar '21	176	106.		67.3	173.3	17085	0.	3943	21028	19%	
	Apr '21	177	101.		67.3	168.3	16853	60.	4003	20856	19%	
	May '21	178	46.		67.3	113.3	16718	85.	4088	20806	20%	
	Jun '21	179	18.		67.3	85.3	16646	85.	4173	20819	20%	
2021/22	Jul '21	180	13.		67.3	80.3	16643	0.	4173	20816	20%	
	Aug '21	181	15.		67.3	82.3	16636	0.	4173	20809	20%	
	Sep '21	182	30.		67.3	97.3	16664	85.	4258	20922	20%	
	Oct '21	183	43.		67.3	110.3	16707	85.	4343	21050	21%	
	Nov '21	184	69.		67.3	136.3	16695	85.	4387	21082	21%	
	Dec '21	185	174.		67.3	241.3	16781	0.	4327	21108	20%	
	Jan '22	186	115.		67.3	182.3	16750	0.	4298	21048	20%	
	Feb '22	187	142.		67.3	209.3	16671	0.	4298	20969	20%	
	Mar '22	188	106.		67.3	173.3	16482	0.	4298	20780	21%	
	Apr '22	189	101.		67.3	168.3	16325	60.	4358	20683	21%	
	May '22	190	46.		67.3	113.3	16357	85.	4443	20800	21%	
	Jun '22	191	18.		67.3	85.3	16355	85.	4528	20883	22%	
2022/23	Jul '22	192	13.		67.3	80.3	16285	0.	4528	20813	22%	
	Aug '22	193	15.		67.3	82.3	16264	0.	4528	20792	22%	
	Sep '22	194	30.		67.3	97.3	16263	85.	4613	20876	22%	
	Oct '22	195	43.		67.3	110.3	16245	85.	4698	20943	22%	
	Nov '22	196	69.		67.3	136.3	16253	85.	4783	21036	23%	
	Dec '22	197	174.		67.3	241.3	16137	0.	4783	20920	23%	
	Jan '23	198	115.		67.3	182.3	16103	0.	4783	20886	23%	
	Feb '23	199	142.		67.3	209.3	16129	0.	4757	20886	23%	
	Mar '23	200	106.		67.3	173.3	16187	0.	4736	20923	23%	
	Apr '23	201	101.		67.3	168.3	16288	60.	4796	21084	23%	
	May '23	202	46.		67.3	113.3	16334	85.	4881	21215	23%	
	Jun '23	203	18.		67.3	85.3	16352	85.	4966	21318	23%	
2023/24	Jul '23	204	13.		67.3	80.3	16365	0.	4966	21331	23%	
	Aug '23	205	15.		67.3	82.3	16380	0.	4966	21346	23%	
	Sep '23	206	30.		67.3	97.3	16410	85.	5051	21461	24%	
	Oct '23	207	43.		67.3	110.3	16453	85.	5136	21589	24%	
	Nov '23	208	69.		67.3	136.3	16522	85.	5221	21743	24%	
	Dec '23	209	174.		67.3	241.3	16624	0.	5047	21671	23%	
	Jan '24	210	115.		67.3	182.3	16694	0.	4945	21639	23%	
	Feb '24	211	142.		67.3	209.3	16793	0.	4875	21668	22%	
	Mar '24	212	106.		67.3	173.3	16793	0.	4875	21668	22%	
	Apr '24	213	101.		67.3	168.3	16793	60.	4860	21653	22%	
	May '24	214	46.		67.3	113.3	16793	85.	4855	21648	22%	
	Jun '24	215	18.		67.3	85.3	16793	85.	4850	21643	22%	

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

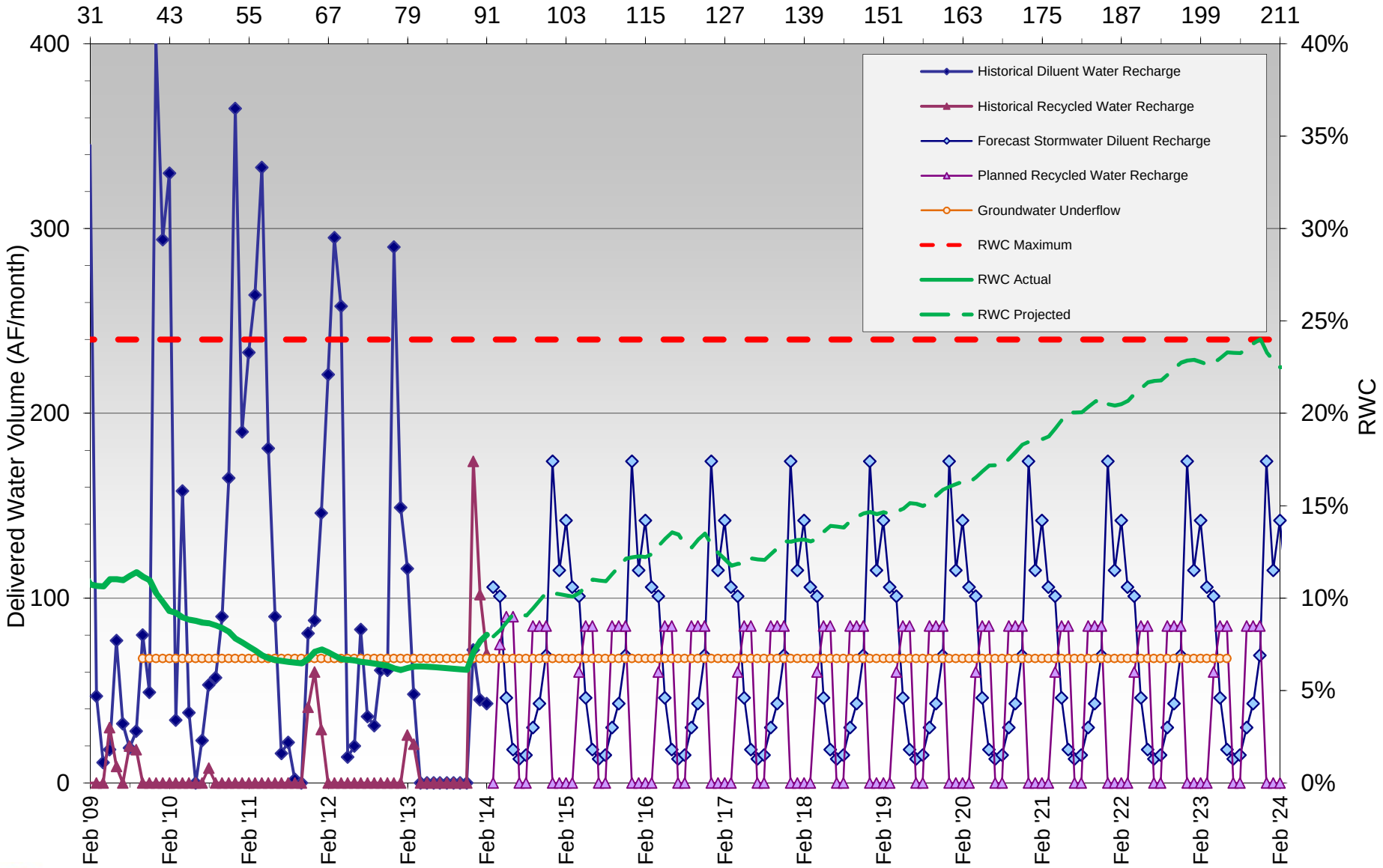
RWC = 120-month running total of recycled water / 120-month running total of all diluent and recycled water.

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



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
2008/09	Jul '08	24	4.	0.		4.	2596	0.	612	3208	19%	HISTORICAL
	Aug '08	25	5.	0.		5.	2601	0.	612	3213	19%	
	Sep '08	26	14.	0.		14.	2615	0.	612	3227	19%	
	Oct '08	27	37.	0.		37.	2652	66.	678	3330	20%	
	Nov '08	28	36.	0.		36.	2688	8.	686	3374	20%	
	Dec '08	29	50.	0.		50.	2738	0.	686	3424	20%	
	Jan '09	30	10.	0.		10.	2748	0.	686	3434	20%	
	Feb '09	31	68.	0.		68.	2816	0.	686	3502	20%	
	Mar '09	32	10.	0.		10.	2826	0.	686	3512	20%	
	Apr '09	33	2.	0.		2.	2828	0.	686	3514	20%	
	May '09	34	1.	0.		1.	2829	0.	686	3515	20%	
	Jun '09	35	0.	0.		0.	2829	0.	686	3515	20%	
2009/10	Jul '09	36	0.	0.		0.	2829	0.	686	3515	20%	
	Aug '09	37	0.	0.		0.	2829	0.	686	3515	20%	
	Sep '09	38	0.	0.		0.	2829	0.	686	3515	20%	
	Oct '09	39	0.	0.	59.7	59.7	2889	0.	686	3575	19%	
	Nov '09	40	3.	0.	59.7	62.7	2952	0.	686	3637	19%	
	Dec '09	41	98.	0.	59.7	157.7	3109	63.	749	3858	19%	
	Jan '10	42	185.	0.	59.7	244.7	3354	127.	876	4230	21%	
	Feb '10	43	175.	0.	59.7	234.7	3589	0.	876	4465	20%	
	Mar '10	44	114.	0.	59.7	173.7	3763	44.	920	4682	20%	
	Apr '10	45	83.	0.	59.7	142.7	3905	15.	935	4840	19%	
	May '10	46	27.	0.	59.7	86.7	3992	70.	1005	4997	20%	
	Jun '10	47	75.	0.	59.7	134.7	4127	40.	1045	5172	20%	
2010/11	Jul '10	48	95.	0.	59.7	154.7	4282	6.	1051	5332	20%	
	Aug '10	49	84.	0.	59.7	143.7	4425	22.	1073	5498	20%	
	Sep '10	50	54.	0.	59.7	113.7	4539	17.	1090	5629	19%	
	Oct '10	51	55.	0.	59.7	114.7	4654	0.	1090	5744	19%	
	Nov '10	52	39.	0.	59.7	98.7	4753	0.	1090	5842	19%	
	Dec '10	53	161.	0.	59.7	220.7	4973	0.	1090	6063	18%	
	Jan '11	54	1.	0.	59.7	60.7	5034	0.	1090	6124	18%	
	Feb '11	55	50.	0.	59.7	109.7	5144	0.	1090	6234	17%	
	Mar '11	56	49.	0.	59.7	108.7	5253	0.	1090	6342	17%	
	Apr '11	57	0.	0.	59.7	59.7	5312	0.	1090	6402	17%	
	May '11	58	0.	0.	59.7	59.7	5372	0.	1090	6462	17%	
	Jun '11	59	0.	0.	59.7	59.7	5432	0.	1090	6522	17%	
2011/12	Jul '11	60	0.	0.	59.7	59.7	5492	0.	1090	6581	17%	
	Aug '11	61	3.	54.6	59.7	117.3	5609	7.	1097	6706	16%	
	Sep '11	62	41.	144.5	59.7	245.2	5854	186.	1283	7137	18%	
	Oct '11	63	63.	0.	59.7	122.7	5977	223.	1506	7483	20%	
	Nov '11	64	66.	0.	59.7	125.7	6103	96.	1602	7704	21%	
	Dec '11	65	69.	0.	59.7	128.7	6232	52.	1654	7885	21%	
	Jan '12	66	86.	0.	59.7	145.7	6377	72.	1726	8103	21%	
	Feb '12	67	109.	0.	59.7	168.7	6546	97.	1823	8369	22%	
	Mar '12	68	126.	0.	59.7	185.7	6732	35.	1858	8589	22%	
	Apr '12	69	88.	0.	59.7	147.7	6880	15.	1873	8752	21%	
	May '12	70	40.	0.	59.7	99.7	6979	56.	1929	8908	22%	
	Jun '12	71	25.	0.	59.7	84.7	7064	65.	1994	9058	22%	
2012/13	Jul '12	72	25.	0.	59.7	84.7	7149	51.	2045	9193	22%	
	Aug '12	73	36.	0.	59.7	95.7	7245	35.	2080	9324	22%	
	Sep '12	74	31.	0.	59.7	90.7	7335	24.	2104	9439	22%	
	Oct '12	75	22.	0.	59.7	81.7	7417	9.	2113	9530	22%	
	Nov '12	76	30.	0.	59.7	89.7	7507	5.	2118	9624	22%	
	Dec '12	77	47.	0.	59.7	106.7	7614	5.	2123	9736	22%	
	Jan '13	78	15.	0.	59.7	74.7	7688	0.	2123	9811	22%	
	Feb '13	79	25.	0.	59.7	84.7	7773	0.	2123	9896	21%	
	Mar '13	80	14.	0.	59.7	73.7	7847	0.	2123	9969	21%	
	Apr '13	81	0.	0.	59.7	59.7	7907	0.	2123	10029	21%	
	May '13	82	0.	0.	59.7	59.7	7966	0.	2123	10089	21%	
	Jun '13	83	0.	0	59.7	59.7	8026	0.	2123	10149	21%	
2013/14	Jul '13	84	0.	0	59.7	59.7	8086	0.	2123	10208	21%	
	Aug '13	85	0.	0	59.7	59.7	8146	0.	2123	10268	21%	
	Sep '13	86	24.	0	59.7	83.7	8229	107.	2230	10459	21%	
	Oct '13	87	20.	0	59.7	79.7	8309	117.	2347	10656	22%	
	Nov '13	88	17.	0	59.7	76.7	8386	89.	2436	10821	23%	
	Dec '13	89	5.	0	59.7	64.7	8451	85.	2521	10971	23%	
	Jan '14	90	16.	0	59.7	75.7	8526	139.	2660	11186	24%	
	Feb '14	91	9.	0	59.7	68.7	8595	120.	2780	11375	24%	
	Mar '14	92	74.		59.7	133.7	8729	90.	2870	11598	25%	PLAN
	Apr '14	93	49.		59.7	108.7	8837	60.	2930	11767	25%	
	May '14	94	21.		59.7	80.7	8918	0.	2930	11848	25%	
	Jun '14	95	22.		59.7	81.7	9000	0.	2930	11930	25%	

RWC Management Plan for Turner Basin Cells 3 & 4

(120-month averaging period)

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

Date		No. Mos. Since Initial RW Delivery	SW (AF)	MWD (AF)	Underflow (AF)	DW Total (AF)	DW 120-Month Total (AF)	RW (AF)	RW 120-Month Total (AF)	DW + RW 120-Month Total (AF)	RWC	Period
2014/15	Jul '14	96	17.		59.7	76.7	9077	90.	3020	12096	25%	PLANNED
	Aug '14	97	19.		59.7	78.7	9155	90.	3110	12265	25%	
	Sep '14	98	18.		59.7	77.7	9233	90.	3200	12433	26%	
	Oct '14	99	35.		59.7	94.7	9207	90.	3290	12497	26%	
	Nov '14	100	43.		59.7	102.7	9182	90.	3380	12561	27%	
	Dec '14	101	84.		59.7	143.7	9108	40.	3420	12527	27%	
	Jan '15	102	83.		59.7	142.7	8993	40.	3460	12453	28%	
	Feb '15	103	83.		59.7	142.7	8904	40.	3500	12403	28%	
	Mar '15	104	74.		59.7	133.7	8863	90.	3590	12453	29%	
	Apr '15	105	49.		59.7	108.7	8972	90.	3680	12651	29%	
	May '15	106	21.		59.7	80.7	9052	0.	3680	12732	29%	
	Jun '15	107	22.		59.7	81.7	9134	0.	3680	12813	29%	
2015/16	Jul '15	108	17.		59.7	76.7	9211	90.	3770	12980	29%	
	Aug '15	109	19.		59.7	78.7	9289	90.	3860	13149	29%	
	Sep '15	110	18.		59.7	77.7	9367	90.	3950	13317	30%	
	Oct '15	111	35.		59.7	94.7	9462	90.	4040	13501	30%	
	Nov '15	112	43.		59.7	102.7	9565	90.	4130	13694	30%	
	Dec '15	113	84.		59.7	143.7	9584	40.	4170	13754	30%	
	Jan '16	114	83.		59.7	142.7	9652	40.	4210	13862	30%	
	Feb '16	115	83.		59.7	142.7	9724	40.	4250	13974	30%	
	Mar '16	116	74.		59.7	133.7	9686	90.	4340	14026	31%	
	Apr '16	117	49.		59.7	108.7	9535	90.	4430	13964	32%	
	May '16	118	21.		59.7	80.7	9543	0.	4430	13973	32%	
	Jun '16	119	22.		59.7	81.7	9538	0.	4430	13968	32%	
2016/17	Jul '16	120	17.		59.7	76.7	9585	90.	4382	13966	31%	
	Aug '16	121	19.		59.7	78.7	9630	90.	4237	13866	31%	
	Sep '16	122	18.		59.7	77.7	9685	90.	4287	13972	31%	
	Oct '16	123	35.		59.7	94.7	9715	90.	4377	14092	31%	
	Nov '16	124	43.		59.7	102.7	9802	90.	4467	14269	31%	
	Dec '16	125	84.		59.7	143.7	9932	40.	4441	14373	31%	
	Jan '17	126	83.		59.7	142.7	10065	40.	4450	14515	31%	
	Feb '17	127	83.		59.7	142.7	10199	40.	4469	14668	30%	
	Mar '17	128	74.		59.7	133.7	10328	90.	4543	14871	31%	
	Apr '17	129	49.		59.7	108.7	10434	90.	4625	15059	31%	
	May '17	130	21.		59.7	80.7	10507	0.	4568	15075	30%	
	Jun '17	131	22.		59.7	81.7	10579	0.	4568	15147	30%	
2017/18	Jul '17	132	17.		59.7	76.7	10654	90.	4658	15312	30%	
	Aug '17	133	19.		59.7	78.7	10723	90.	4748	15471	31%	
	Sep '17	134	18.		59.7	77.7	10789	90.	4838	15627	31%	
	Oct '17	135	35.		59.7	94.7	10881	90.	4928	15809	31%	
	Nov '17	136	43.		59.7	102.7	10917	90.	5018	15935	31%	
	Dec '17	137	84.		59.7	143.7	10999	40.	5058	16057	31%	
	Jan '18	138	83.		59.7	142.7	10999	40.	5098	16097	32%	
	Feb '18	139	83.		59.7	142.7	11133	40.	5138	16271	32%	
	Mar '18	140	74.		59.7	133.7	11266	90.	5228	16494	32%	
	Apr '18	141	49.		59.7	108.7	11371	90.	5318	16689	32%	
	May '18	142	21.		59.7	80.7	11414	0.	5318	16732	32%	
	Jun '18	143	22.		59.7	81.7	11468	0.	5318	16786	32%	
2018/19	Jul '18	144	17.		59.7	76.7	11540	90.	5408	16948	32%	
	Aug '18	145	19.		59.7	78.7	11614	90.	5498	17112	32%	
	Sep '18	146	18.		59.7	77.7	11678	90.	5588	17266	32%	
	Oct '18	147	35.		59.7	94.7	11736	90.	5612	17348	32%	
	Nov '18	148	43.		59.7	102.7	11802	90.	5694	17496	33%	
	Dec '18	149	84.		59.7	143.7	11896	40.	5734	17630	33%	
	Jan '19	150	83.		59.7	142.7	12029	40.	5774	17803	32%	
	Feb '19	151	83.		59.7	142.7	12104	40.	5814	17918	32%	
	Mar '19	152	74.		59.7	133.7	12227	90.	5904	18131	33%	
	Apr '19	153	49.		59.7	108.7	12334	90.	5994	18328	33%	
	May '19	154	21.		59.7	80.7	12414	0.	5994	18408	33%	
	Jun '19	155	22.		59.7	81.7	12496	0.	5994	18490	32%	
2019/2020	Jul '19	156	17.		59.7	76.7	12572	90.	6084	18656	33%	
	Aug '19	157	19.		59.7	78.7	12651	90.	6174	18825	33%	
	Sep '19	158	18.		59.7	77.7	12729	90.	6264	18993	33%	
	Oct '19	159	35.		59.7	94.7	12764	90.	6354	19118	33%	
	Nov '19	160	43.		59.7	102.7	12804	90.	6444	19248	33%	
	Dec '19	161	84.		59.7	143.7	12790	40.	6421	19211	33%	
	Jan '20	162	83.		59.7	142.7	12688	40.	6334	19022	33%	
	Feb '20	163	83.		59.7	142.7	12596	40.	6374	18970	34%	
	Mar '20	164	74.		59.7	133.7	12556	90.	6420	18976	34%	
	Apr '20	165	49.		59.7	108.7	12522	90.	6495	19017	34%	
	May '20	166	21.		59.7	80.7	12516	0.	6425	18941	34%	
	Jun '20	167	22.		59.7	81.7	12463	0.	6385	18848	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
2020/21	Jul '20	168	17.		59.7	76.7	12385	90.	6469	18854	34%	
	Aug '20	169	19.		59.7	78.7	12320	90.	6537	18857	35%	
	Sep '20	170	18.		59.7	77.7	12284	90.	6610	18894	35%	
	Oct '20	171	35.		59.7	94.7	12264	90.	6700	18964	35%	
	Nov '20	172	43.		59.7	102.7	12268	90.	6790	19058	36%	
	Dec '20	173	84.		59.7	143.7	12191	40.	6830	19021	36%	
	Jan '21	174	83.		59.7	142.7	12273	40.	6870	19143	36%	
	Feb '21	175	83.		59.7	142.7	12306	40.	6910	19216	36%	
	Mar '21	176	74.		59.7	133.7	12331	90.	7000	19331	36%	
	Apr '21	177	49.		59.7	108.7	12380	90.	7090	19470	36%	
	May '21	178	21.		59.7	80.7	12401	0.	7090	19491	36%	
	Jun '21	179	22.		59.7	81.7	12423	0.	7090	19513	36%	
2021/22	Jul '21	180	17.		59.7	76.7	12440	90.	7180	19620	37%	
	Aug '21	181	19.		59.7	78.7	12401	90.	7263	19664	37%	
	Sep '21	182	18.		59.7	77.7	12234	90.	7167	19401	37%	
	Oct '21	183	35.		59.7	94.7	12206	90.	7034	19240	37%	
	Nov '21	184	43.		59.7	102.7	12183	90.	7028	19211	37%	
	Dec '21	185	84.		59.7	143.7	12198	40.	7016	19214	37%	
	Jan '22	186	83.		59.7	142.7	12195	40.	6984	19179	36%	P
	Feb '22	187	83.		59.7	142.7	12169	40.	6927	19096	36%	L
	Mar '22	188	74.		59.7	133.7	12117	90.	6982	19099	37%	A
	Apr '22	189	49.		59.7	108.7	12078	90.	7057	19135	37%	N
	May '22	190	21.		59.7	80.7	12059	0.	7001	19060	37%	N
	Jun '22	191	22.		59.7	81.7	12056	0.	6936	18992	37%	E
2022/23	Jul '22	192	17.		59.7	76.7	12048	90.	6975	19023	37%	D
	Aug '22	193	19.		59.7	78.7	12031	90.	7030	19061	37%	
	Sep '22	194	18.		59.7	77.7	12018	90.	7096	19114	37%	
	Oct '22	195	35.		59.7	94.7	12031	90.	7177	19208	37%	
	Nov '22	196	43.		59.7	102.7	12044	90.	7262	19306	38%	
	Dec '22	197	84.		59.7	143.7	12081	40.	7297	19378	38%	
	Jan '23	198	83.		59.7	142.7	12149	40.	7337	19486	38%	
	Feb '23	199	83.		59.7	142.7	12207	40.	7377	19584	38%	
	Mar '23	200	74.		59.7	133.7	12267	90.	7467	19734	38%	
	Apr '23	201	49.		59.7	108.7	12316	90.	7557	19873	38%	
	May '23	202	21.		59.7	80.7	12337	0.	7557	19894	38%	
	Jun '23	203	22.		59.7	81.7	12359	0.	7557	19916	38%	
2023/24	Jul '23	204	17.		59.7	76.7	12376	90.	7647	20023	38%	
	Aug '23	205	19.		59.7	78.7	12395	90.	7737	20132	38%	
	Sep '23	206	18.		59.7	77.7	12389	90.	7720	20109	38%	
	Oct '23	207	35.		59.7	94.7	12404	90.	7693	20097	38%	
	Nov '23	208	43.		59.7	102.7	12430	90.	7694	20124	38%	
	Dec '23	209	84.		59.7	143.7	12509	40.	7649	20158	38%	
	Jan '24	210	83.		59.7	142.7	12576	40.	7550	20126	38%	
	Feb '24	211	83.		59.7	142.7	12650	40.	7470	20120	37%	
	Mar '24	212	74.		59.7	133.7	12650	90.	7470	20120	37%	
	Apr '24	213	49.		59.7	108.7	12650	90.	7500	20150	37%	
	May '24	214	21.		59.7	80.7	12650	0.	7500	20150	37%	
	Jun '24	215	22.		59.7	81.7	12650	0.	7500	20150	37%	

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

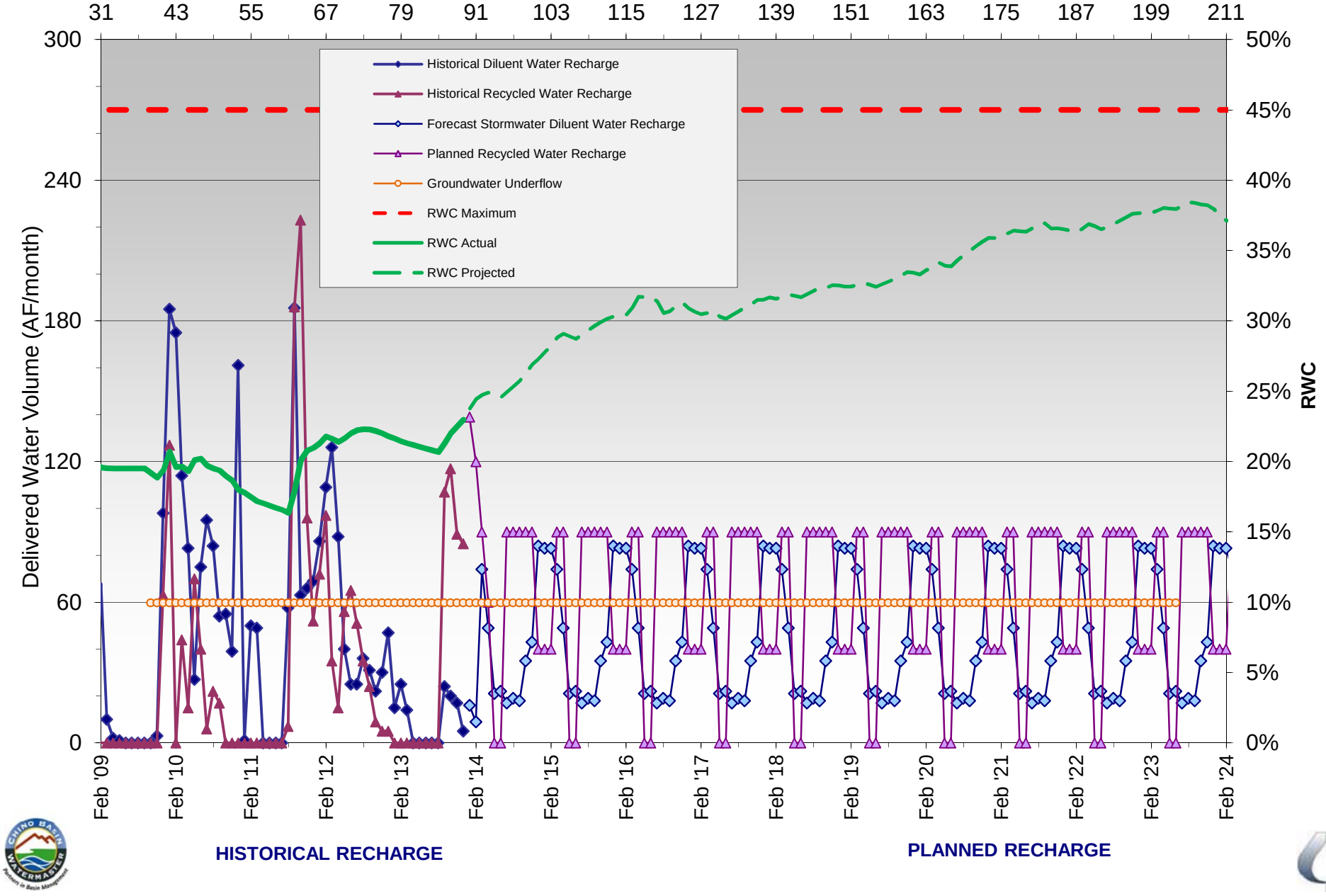
RWC = 120-month running total of recycled water / 120-month running total of all diluent and recycled water.

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



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
2008/09	Jul '08	-26	3.	0.		3.	1,122.4	0.	0.	1,122.4	0%	
	Aug '08	-25	3.	0.		3.	1,125.4	0.	0.	1,125.4	0%	
	Sep '08	-24	2.	0.		2.	1,127.4	0.	0.	1,127.4	0%	
	Oct '08	-23	4.	0.		4.	1,131.4	0.	0.	1,131.4	0%	
	Nov '08	-22	35.	0.		35.	1,166.4	0.	0.	1,166.4	0%	
	Dec '08	-21	74.	0.		74.	1,240.4	0.	0.	1,240.4	0%	
	Jan '09	-20	15.	0.		15.	1,255.4	0.	0.	1,255.4	0%	
	Feb '09	-19	95.	0.		95.	1,350.4	0.	0.	1,350.4	0%	
	Mar '09	-18	13.	0.		13.	1,363.4	0.	0.	1,363.4	0%	
	Apr '09	-17	3.	0.		3.	1,366.4	0.	0.	1,366.4	0%	
	May '09	-16	3.	0.		3.	1,369.4	0.	0.	1,369.4	0%	
	Jun '09	-15	0.	0.		0.	1,369.4	0.	0.	1,369.4	0%	
2009/10	Jul '09	-14	1.	0.		1.	1,370.4	0.	0.	1,370.4	0%	
	Aug '09	-13	0.	0.		0.	1,370.4	0.	0.	1,370.4	0%	
	Sep '09	-12	0.	0.		0.	1,370.4	0.	0.	1,370.4	0%	
	Oct '09	-11	37.	2.		39.	1,409.4	0.	0.	1,409.4	0%	
	Nov '09	-10	19.	0.		19.	1,428.4	0.	0.	1,428.4	0%	
	Dec '09	-9	89.	0.		89.	1,517.4	0.	0.	1,517.4	0%	
	Jan '10	-8	153.	0.		153.	1,670.4	0.	0.	1,670.4	0%	
	Feb '10	-7	174.	0.		174.	1,844.4	0.	0.	1,844.4	0%	
	Mar '10	-6	0.	0.		0.	1,844.4	0.	0.	1,844.4	0%	
	Apr '10	-5	20.	0.		20.	1,864.4	0.	0.	1,864.4	0%	
	May '10	-4	0.	0.		0.	1,864.4	0.	0.	1,864.4	0%	
	Jun '10	-3	1.	0.		1.	1,865.4	0.	0.	1,865.4	0%	
2010/11	Jul '10	-2	3.	0.		3.	1,868.4	0.	0.	1,868.4	0%	
	Aug '10	-1	2.	0.		2.	1,870.4	0.	0.	1,870.4	0%	
	Sep '10	0	2.	0.		2.	1,872.4	67.	67.	1,939.4	3%	START-UP
	Oct '10	1	15.	0.	139.	154.	2,026.3	153.	220.	2,246.3	10%	
	Nov '10	2	34.	0.	139.	173.	2,199.3	117.	337.	2,536.3	13%	
	Dec '10	3	242.	0.	139.	381.	2,580.2	42.	379.	2,959.2	13%	
	Jan '11	4	18.	0.	139.	157.	2,737.2	86.	465.	3,202.2	15%	
	Feb '11	5	72.	0.	139.	211.	2,948.1	67.	532.	3,480.1	15%	
	Mar '11	6	59.	0.	139.	198.	3,146.1	39.	571.	3,717.1	15%	
	Apr '11	7	5.	0.	139.	144.	3,290.1	0.	571.	3,861.1	15%	
	May '11	8	6.	68.8	139.	213.8	3,503.8	141.	712.	4,215.8	17%	HISTORICAL
	Jun '11	9	3.	0.	139.	142.	3,645.8	61.	773.	4,418.8	17%	
2011/12	Jul '11	10	4.	0.	139.	143.	3,788.7	62.	835.	4,623.7	18%	
	Aug '11	11	1.	122.7	139.	262.7	4,051.4	52.	887.	4,938.4	18%	
	Sep '11	12	0.	158.3	139.	297.3	4,348.6	0.	887.	5,235.6	17%	
	Oct '11	13	30.	0.	139.	169.	4,517.6	0.	887.	5,404.6	16%	
	Nov '11	14	25.	0.	139.	164.	4,681.5	15.	902.	5,583.5	16%	
	Dec '11	15	9.	0.	139.	148.	4,829.5	25.	927.	5,756.5	16%	
	Jan '12	16	11.	0.	139.	150.	4,979.4	0.	927.	5,906.4	16%	
	Feb '12	17	4.	0.	139.	143.	5,122.4	0.	927.	6,049.4	15%	
	Mar '12	18	18.	0.	139.	157.	5,279.3	0.	927.	6,206.3	15%	
	Apr '12	19	96.	0.	139.	235.	5,514.3	18.	945.	6,459.3	15%	
	May '12	20	20.	0.	139.	159.	5,673.2	271.	1,216.	6,889.2	18%	
	Jun '12	21	3.	0.	139.	142.	5,815.2	222.	1,438.	7,253.2	20%	
2012/13	Jul '12	22	3.	0.	139.	142.	5,957.1	94.	1,532.	7,489.1	20%	
	Aug '12	23	5.	0.	139.	144.	6,101.1	118.	1,650.	7,751.1	21%	
	Sep '12	24	1.	0.	139.	140.	6,241.	55.	1,705.	7,946.	21%	
	Oct '12	25	1.	0.	139.	140.	6,381.	131.	1,836.	8,217.	22%	
	Nov '12	26	6.	0.	139.	145.	6,525.9	71.	1,907.	8,432.9	23%	
	Dec '12	27	19.	0.	139.	158.	6,683.9	21.	1,928.	8,611.9	22%	
	Jan '13	28	35.	0.	139.	174.	6,857.8	12.	1,940.	8,797.8	22%	
	Feb '13	29	10.	0.	139.	149.	7,006.8	10.	1,950.	8,956.8	22%	
	Mar '13	30	7.	0.	139.	146.	7,152.7	57.	2,007.	9,159.7	22%	
	Apr '13	31	1.	0.	139.	140.	7,292.7	98.	2,105.	9,397.7	22%	
	May '13	32	5.	0.	139.	144.	7,436.6	93.	2,198.	9,634.6	23%	
	Jun '13	33	1.	0	139.	140.	7,576.6	82.	2,280.	9,856.6	23%	
2013/14	Jul '13	34	2.	0	139.	141.	7,717.5	74.	2,354.	10,071.5	23%	
	Aug '13	35	2.	0	139.	141.	7,858.5	42.	2,396.	10,254.5	23%	
	Sep '13	36	2.	0	139.	141.	7,999.4	46.	2,442.	10,441.4	23%	
	Oct '13	37	7.	0	139.	146.	8,145.4	0.	2,442.	10,587.4	23%	
	Nov '13	38	12.	0	139.	151.	8,296.3	0.	2,442.	10,738.3	23%	
	Dec '13	39	10.	0	139.	149.	8,445.3	118.	2,560.	11,005.3	23%	
	Jan '14	40	2.	0	139.	141.	8,586.3	158.	2,718.	11,304.3	24%	
	Feb '14	41	11.	0	139.	150.	8,736.2	169.	2,887.	11,623.2	25%	
	Mar '14	42	27.		139.	166.	8,902.2	160.	3,047.	11,949.2	25%	PLAN
	Apr '14	43	28.		139.	167.	9,069.1	170.	3,217.	12,286.1	26%	
	May '14	44	14.		139.	153.	9,222.1	170.	3,387.	12,609.1	27%	
	Jun '14	45	4.		139.	143.	9,365.	170.	3,557.	12,922.	28%	

RWC Management Plan for Victoria Basin

(120-month averaging period)

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

Date		No. Mos. Since Initial RW Delivery	SW (AF)	MWD (AF)	Underflow (AF)	DW Total (AF)	DW 120-Month Total (AF)	RW (AF)	RW 120-Month Total (AF)	DW + RW 120-Month Total (AF)	RWC	Period
2014/15	Jul '14	46	3.		139.	142.	9,507.	170.	3,727.	13,234.	28%	
	Aug '14	47	2.		139.	141.	9,647.9	0.	3,727.	13,374.9	28%	
	Sep '14	48	2.		139.	141.	9,788.9	0.	3,727.	13,515.9	28%	
	Oct '14	49	19.		139.	158.	9,946.8	180.	3,907.	13,853.8	28%	
	Nov '14	50	22.		139.	161.	10,107.8	180.	4,087.	14,194.8	29%	
	Dec '14	51	75.		139.	214.	10,321.7	100.	4,187.	14,508.7	29%	
	Jan '15	52	57.		139.	196.	10,517.7	100.	4,287.	14,804.7	29%	
	Feb '15	53	66.		139.	205.	10,722.6	100.	4,387.	15,109.6	29%	
	Mar '15	54	27.		139.	166.	10,888.6	160.	4,547.	15,435.6	29%	
	Apr '15	55	28.		139.	167.	10,996.5	180.	4,727.	15,723.5	30%	
	May '15	56	14.		139.	153.	11,123.5	180.	4,907.	16,030.5	31%	
	Jun '15	57	4.		139.	143.	11,254.4	180.	5,087.	16,341.4	31%	
2015/16	Jul '15	58	3.		139.	142.	11,396.4	170.	5,257.	16,653.4	32%	
	Aug '15	59	2.		139.	141.	11,537.3	0.	5,257.	16,794.3	31%	
	Sep '15	60	2.		139.	141.	11,678.3	0.	5,257.	16,935.3	31%	
	Oct '15	61	19.		139.	158.	11,787.2	180.	5,437.	17,224.2	32%	
	Nov '15	62	22.		139.	161.	11,948.2	180.	5,617.	17,565.2	32%	
	Dec '15	63	75.		139.	214.	12,152.7	100.	5,717.	17,869.7	32%	
	Jan '16	64	57.		139.	196.	12,322.9	100.	5,817.	18,139.9	32%	
	Feb '16	65	66.		139.	205.	12,485.2	100.	5,917.	18,402.2	32%	
	Mar '16	66	27.		139.	166.	12,541.3	160.	6,077.	18,618.3	33%	
	Apr '16	67	28.		139.	167.	12,649.6	180.	6,257.	18,906.6	33%	
	May '16	68	14.		139.	153.	12,773.8	180.	6,437.	19,210.8	34%	
	Jun '16	69	4.		139.	143.	12,904.8	180.	6,617.	19,521.8	34%	
2016/17	Jul '16	70	3.		139.	142.	13,038.	170.	6,787.	19,825.	34%	
	Aug '16	71	2.		139.	141.	13,175.9	0.	6,787.	19,962.9	34%	
	Sep '16	72	2.		139.	141.	13,313.8	0.	6,787.	20,100.8	34%	
	Oct '16	73	19.		139.	158.	13,463.7	180.	6,967.	20,430.7	34%	
	Nov '16	74	22.		139.	161.	13,620.7	180.	7,147.	20,767.7	34%	
	Dec '16	75	75.		139.	214.	13,745.8	100.	7,247.	20,992.8	35%	
	Jan '17	76	57.		139.	196.	13,927.1	100.	7,347.	21,274.1	35%	
	Feb '17	77	66.		139.	205.	14,062.3	100.	7,447.	21,509.3	35%	
	Mar '17	78	27.		139.	166.	14,220.	160.	7,607.	21,827.	35%	P
	Apr '17	79	28.		139.	167.	14,352.	180.	7,787.	22,139.	35%	L
	May '17	80	14.		139.	153.	14,497.9	180.	7,967.	22,464.9	35%	A
	Jun '17	81	4.		139.	143.	14,631.9	180.	8,147.	22,778.9	36%	N
2017/18	Jul '17	82	3.		139.	142.	14,773.8	170.	8,317.	23,090.8	36%	N
	Aug '17	83	2.		139.	141.	14,914.8	0.	8,317.	23,231.8	36%	E
	Sep '17	84	2.		139.	141.	15,050.7	0.	8,317.	23,367.7	36%	D
	Oct '17	85	19.		139.	158.	15,200.7	180.	8,497.	23,697.7	36%	
	Nov '17	86	22.		139.	161.	15,312.6	180.	8,677.	23,989.6	36%	
	Dec '17	87	75.		139.	214.	15,460.6	100.	8,777.	24,237.6	36%	
	Jan '18	88	57.		139.	196.	15,476.5	100.	8,877.	24,353.5	36%	
	Feb '18	89	66.		139.	205.	15,620.5	100.	8,977.	24,597.5	36%	
	Mar '18	90	27.		139.	166.	15,784.4	160.	9,137.	24,921.4	37%	
	Apr '18	91	28.		139.	167.	15,944.4	180.	9,317.	25,261.4	37%	
	May '18	92	14.		139.	153.	16,051.3	180.	9,497.	25,548.3	37%	
	Jun '18	93	4.		139.	143.	16,191.3	180.	9,677.	25,868.3	37%	
2018/19	Jul '18	94	3.		139.	142.	16,330.2	170.	9,847.	26,177.2	38%	
	Aug '18	95	2.		139.	141.	16,468.2	0.	9,847.	26,315.2	37%	
	Sep '18	96	2.		139.	141.	16,607.1	0.	9,847.	26,454.1	37%	
	Oct '18	97	19.		139.	158.	16,761.1	180.	10,027.	26,788.1	37%	
	Nov '18	98	22.		139.	161.	16,887.	180.	10,207.	27,094.	38%	
	Dec '18	99	75.		139.	214.	17,027.	100.	10,307.	27,334.	38%	
	Jan '19	100	57.		139.	196.	17,207.9	100.	10,407.	27,614.9	38%	
	Feb '19	101	66.		139.	205.	17,317.9	100.	10,507.	27,824.9	38%	
	Mar '19	102	27.		139.	166.	17,470.9	160.	10,667.	28,137.9	38%	
	Apr '19	103	28.		139.	167.	17,634.8	180.	10,847.	28,481.8	38%	
	May '19	104	14.		139.	153.	17,784.8	180.	11,027.	28,811.8	38%	
	Jun '19	105	4.		139.	143.	17,927.7	180.	11,207.	29,134.7	38%	
2019/20	Jul '19	106	3.		139.	142.	18,068.7	170.	11,377.	29,445.7	39%	
	Aug '19	107	2.		139.	141.	18,209.6	0.	11,377.	29,586.6	38%	
	Sep '19	108	2.		139.	141.	18,350.6	0.	11,377.	29,727.6	38%	
	Oct '19	109	19.		139.	158.	18,469.5	180.	11,557.	30,026.5	38%	
	Nov '19	110	22.		139.	161.	18,611.5	180.	11,737.	30,348.5	39%	
	Dec '19	111	75.		139.	214.	18,736.4	100.	11,837.	30,573.4	39%	
	Jan '20	112	57.		139.	196.	18,779.4	100.	11,937.	30,716.4	39%	
	Feb '20	113	66.		139.	205.	18,810.3	100.	12,037.	30,847.3	39%	
	Mar '20	114	27.		139.	166.	18,976.3	160.	12,197.	31,173.3	39%	
	Apr '20	115	28.		139.	167.	19,123.2	180.	12,377.	31,500.2	39%	
	May '20	116	14.		139.	153.	19,276.2	180.	12,557.	31,833.2	39%	
	Jun '20	117	4.		139.	143.	19,418.1	180.	12,737.	32,155.1	40%	

RWC Management Plan for Victoria Basin

(120-month averaging period)

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

Date		No. Mos. Since Initial RW Delivery	SW (AF)	MWD (AF)	Underflow (AF)	DW Total (AF)	DW 120-Month Total (AF)	RW (AF)	RW 120-Month Total (AF)	DW + RW 120-Month Total (AF)	RWC	Period
2020/21	Jul '20	118	3.		139.	142.	19,557.1	170.	12,907.	32,464.1	40%	
	Aug '20	119	2.		139.	141.	19,696.	0.	12,907.	32,603.	40%	
	Sep '20	120	2.		139.	141.	19,835.	0.	12,840.	32,675.	39%	
	Oct '20	121	19.		139.	158.	19,839.	180.	12,867.	32,706.	39%	
	Nov '20	122	22.		139.	161.	19,827.	180.	12,930.	32,757.	39%	
	Dec '20	123	75.		139.	214.	19,660.	100.	12,988.	32,648.	40%	
	Jan '21	124	57.		139.	196.	19,699.	100.	13,002.	32,701.	40%	
	Feb '21	125	66.		139.	205.	19,693.	100.	13,035.	32,728.	40%	
	Mar '21	126	27.		139.	166.	19,661.	160.	13,156.	32,817.	40%	
	Apr '21	127	28.		139.	167.	19,684.	180.	13,336.	33,020.	40%	
	May '21	128	14.		139.	153.	19,623.2	180.	13,375.	32,998.2	41%	
	Jun '21	129	4.		139.	143.	19,624.2	180.	13,494.	33,118.2	41%	
2021/22	Jul '21	130	3.		139.	142.	19,623.2	170.	13,602.	33,225.2	41%	
	Aug '21	131	2.		139.	141.	19,501.5	0.	13,550.	33,051.5	41%	
	Sep '21	132	2.		139.	141.	19,345.2	0.	13,550.	32,895.2	41%	
	Oct '21	133	19.		139.	158.	19,334.2	180.	13,730.	33,064.2	42%	
	Nov '21	134	22.		139.	161.	19,331.2	180.	13,895.	33,226.2	42%	
	Dec '21	135	75.		139.	214.	19,397.2	100.	13,970.	33,367.2	42%	
	Jan '22	136	57.		139.	196.	19,443.2	100.	14,070.	33,513.2	42%	
	Feb '22	137	66.		139.	205.	19,505.2	100.	14,170.	33,675.2	42%	
	Mar '22	138	27.		139.	166.	19,514.2	160.	14,330.	33,844.2	42%	
	Apr '22	139	28.		139.	167.	19,446.2	180.	14,492.	33,938.2	43%	
	May '22	140	14.		139.	153.	19,440.2	180.	14,401.	33,841.2	43%	
	Jun '22	141	4.		139.	143.	19,441.2	180.	14,359.	33,800.2	42%	
2022/23	Jul '22	142	3.		139.	142.	19,441.2	170.	14,435.	33,876.2	43%	
	Aug '22	143	2.		139.	141.	19,438.2	0.	14,317.	33,755.2	42%	
	Sep '22	144	2.		139.	141.	19,439.2	0.	14,262.	33,701.2	42%	
	Oct '22	145	19.		139.	158.	19,457.2	180.	14,311.	33,768.2	42%	
	Nov '22	146	22.		139.	161.	19,473.2	180.	14,420.	33,893.2	43%	
	Dec '22	147	75.		139.	214.	19,529.2	100.	14,499.	34,028.2	43%	
	Jan '23	148	57.		139.	196.	19,551.2	100.	14,587.	34,138.2	43%	
	Feb '23	149	66.		139.	205.	19,607.2	100.	14,677.	34,284.2	43%	
	Mar '23	150	27.		139.	166.	19,627.2	160.	14,780.	34,407.2	43%	
	Apr '23	151	28.		139.	167.	19,654.2	180.	14,862.	34,516.2	43%	
	May '23	152	14.		139.	153.	19,663.2	180.	14,949.	34,612.2	43%	
	Jun '23	153	4.		139.	143.	19,666.2	180.	15,047.	34,713.2	43%	
	Jul '23	154	3.		139.	142.	19,667.2	170.	15,143.	34,810.2	44%	
	Aug '23	155	2.		139.	141.	19,667.2	0.	15,101.	34,768.2	43%	
	Sep '23	156	2.		139.	141.	19,667.2	0.	15,055.	34,722.2	43%	
	Oct '23	157	19.		139.	158.	19,679.2	180.	15,235.	34,914.2	44%	
	Nov '23	158	22.		139.	161.	19,689.2	180.	15,415.	35,104.2	44%	
	Dec '23	159	75.		139.	214.	19,754.2	100.	15,397.	35,151.2	44%	
	Jan '24	160	57.		139.	196.	19,809.2	100.	15,339.	35,148.2	44%	
	Feb '24	161	66.		139.	205.	19,864.2	100.	15,270.	35,134.2	43%	
	Mar '24	162	27.		139.	166.	19,864.2	160.	15,270.	35,134.2	43%	
	Apr '24	163	28.		139.	167.	19,864.2	180.	15,280.	35,144.2	43%	
	May '24	164	14.		139.	153.	19,864.2	180.	15,290.	35,154.2	43%	
	Jun '24	165	4.		139.	143.	19,864.2	180.	15,300.	35,164.2	44%	

PLANNED

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.

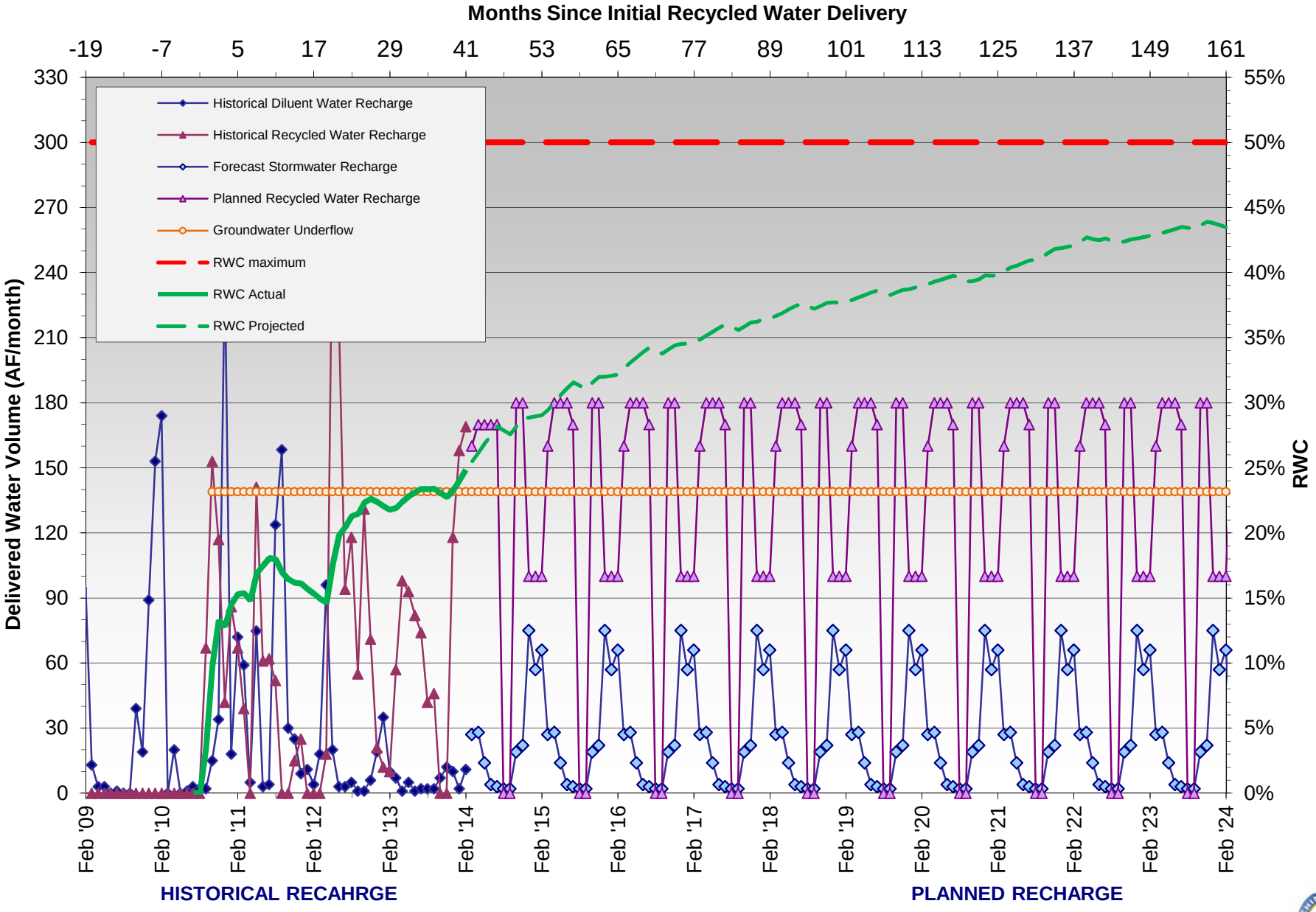
RW = Recycled Water

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

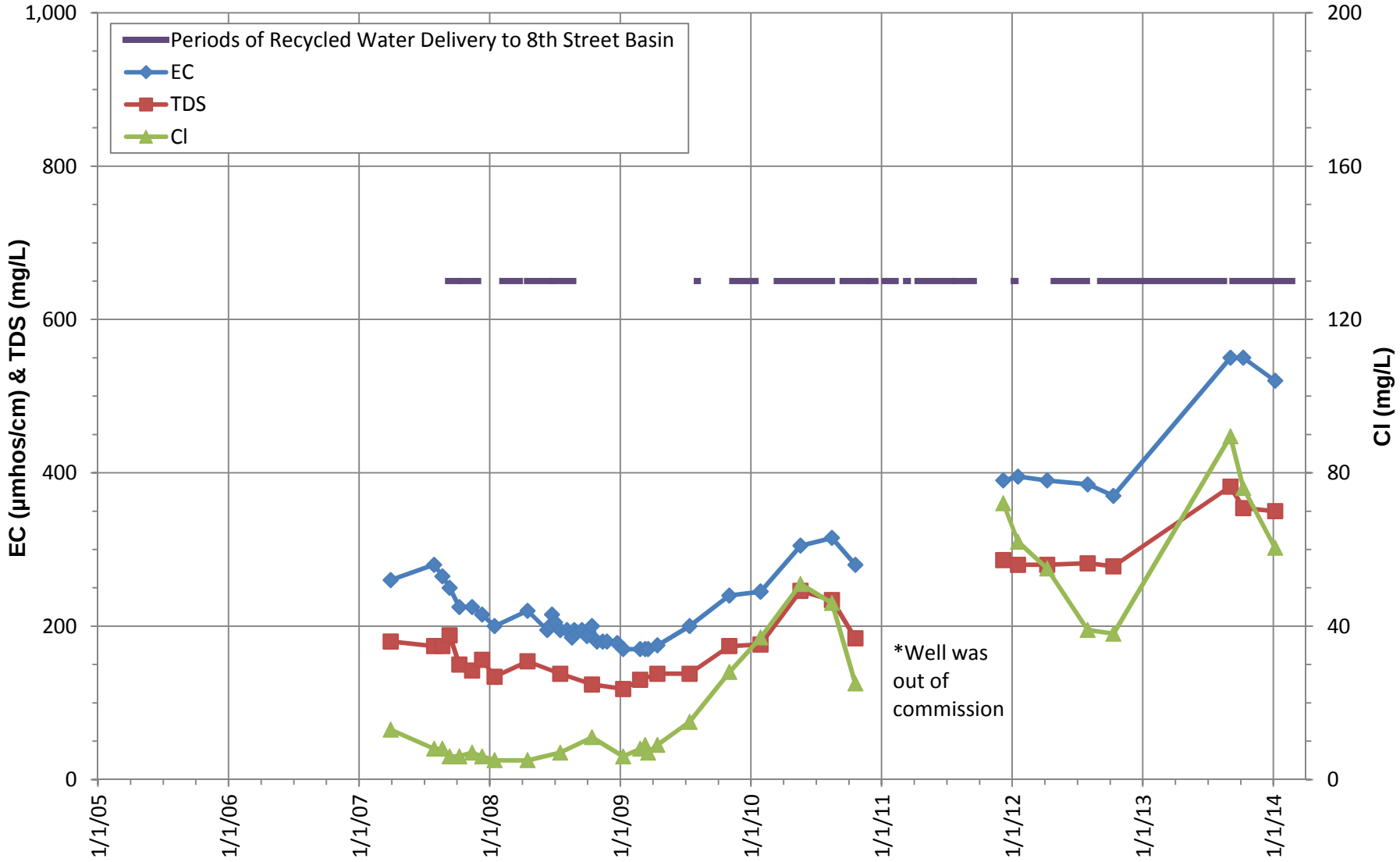
RWC Management Plan - Victoria Basin



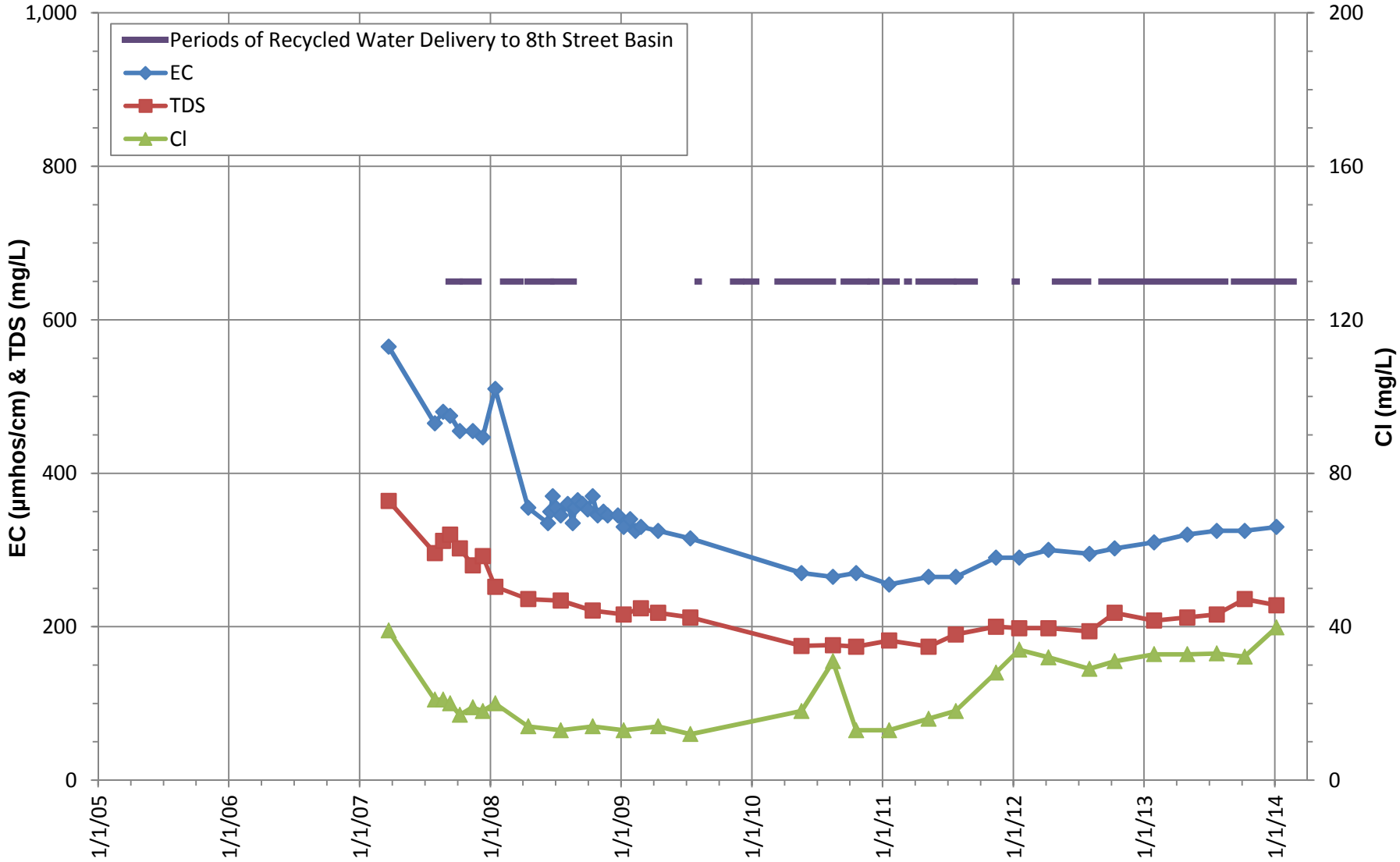
APPENDIX C

EVIDENCE FOR BLENDING:

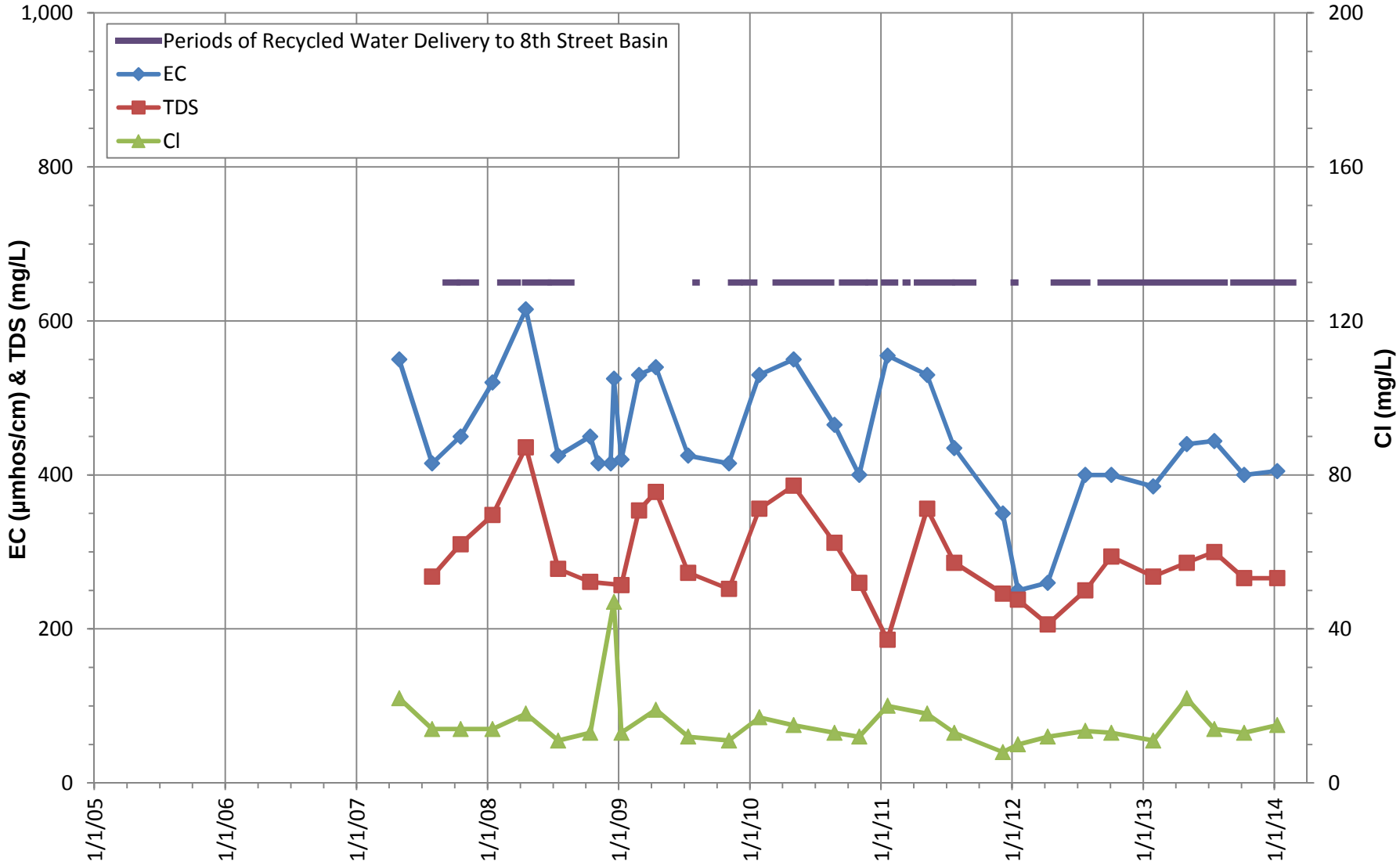
EC, TDS, CHLORIDE TIME-SERIES GRAPHS



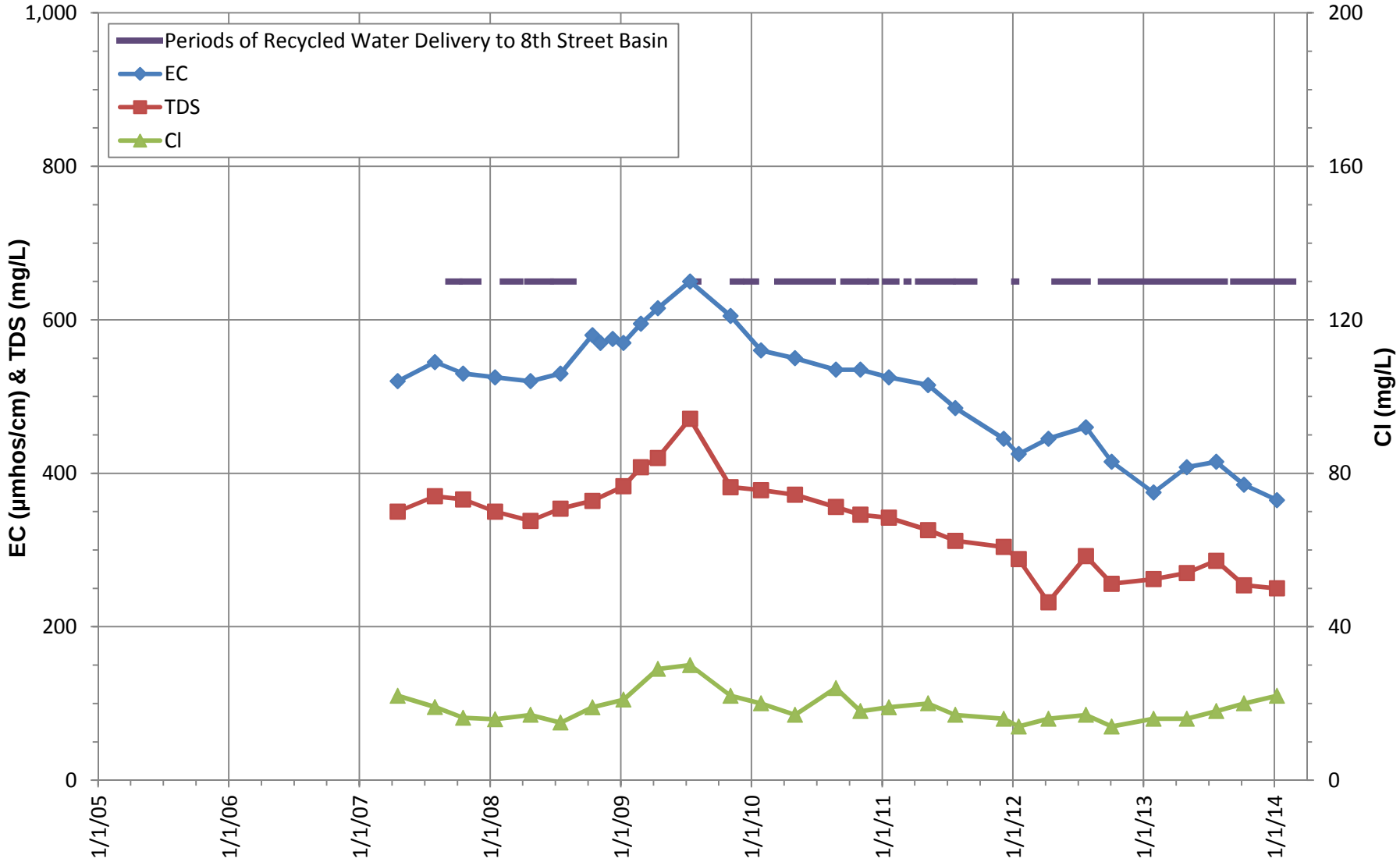
EC, TDS, CHLORIDE TRENDS
8TH STREET BASIN
MW 8TH-1/1



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
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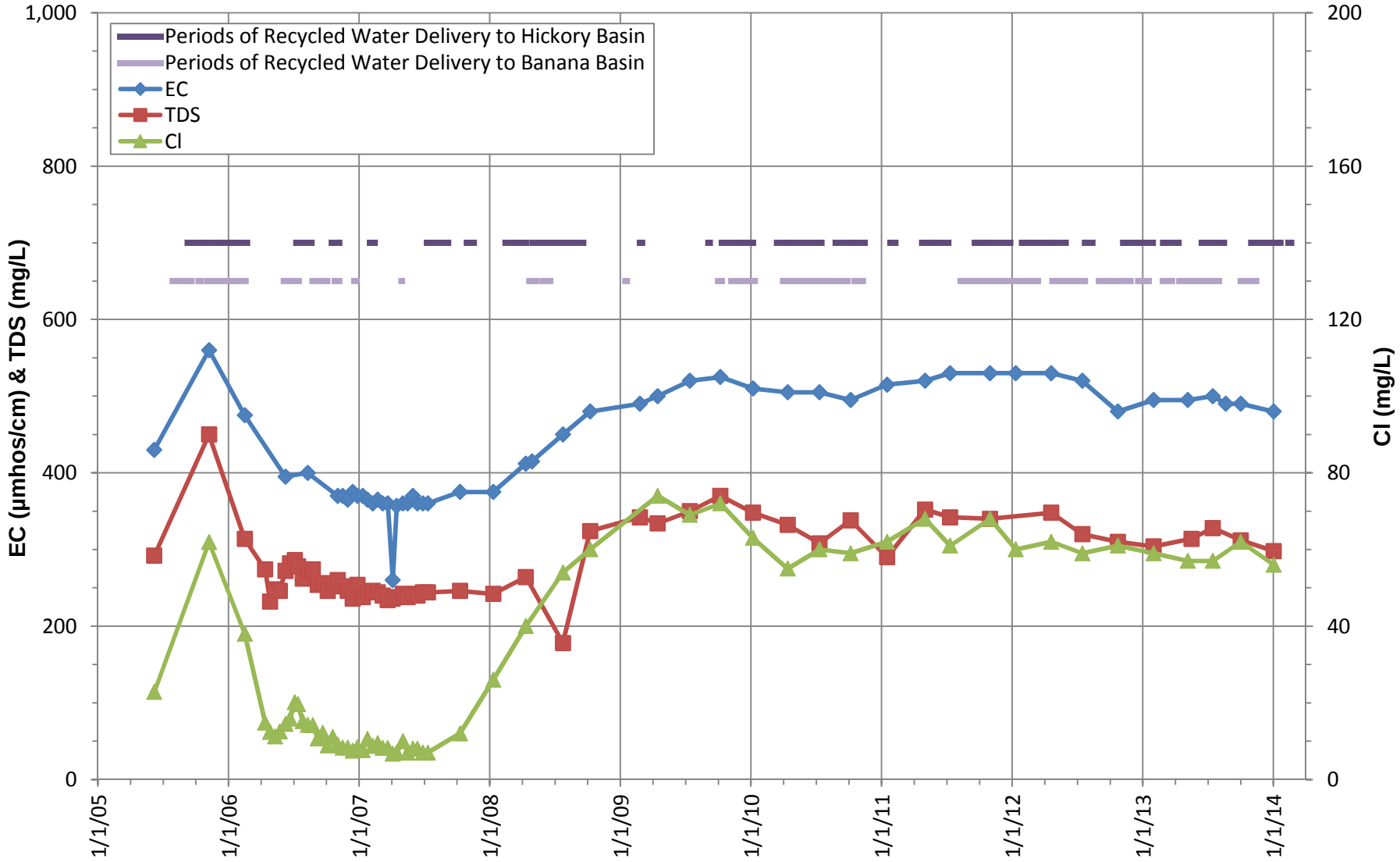
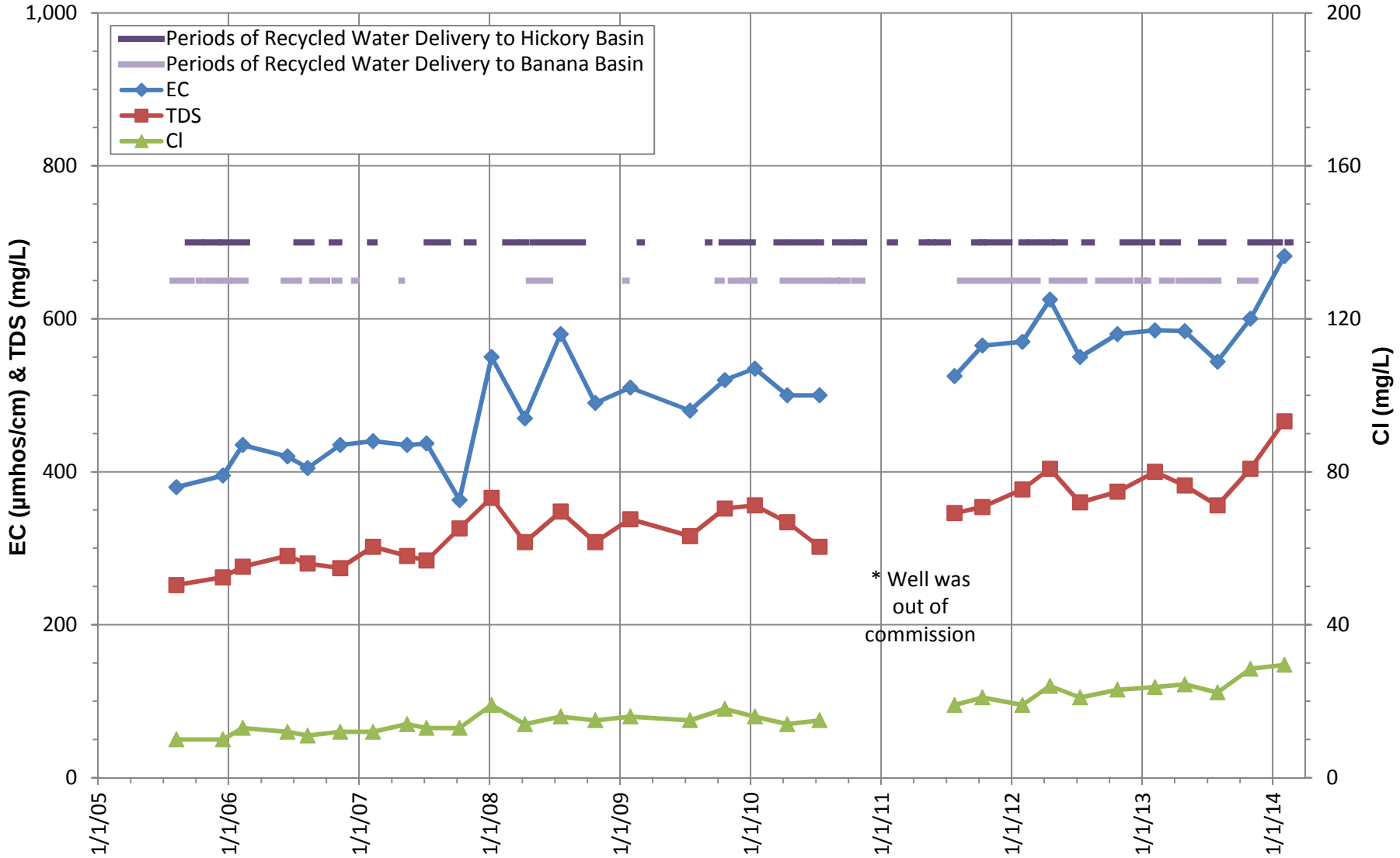
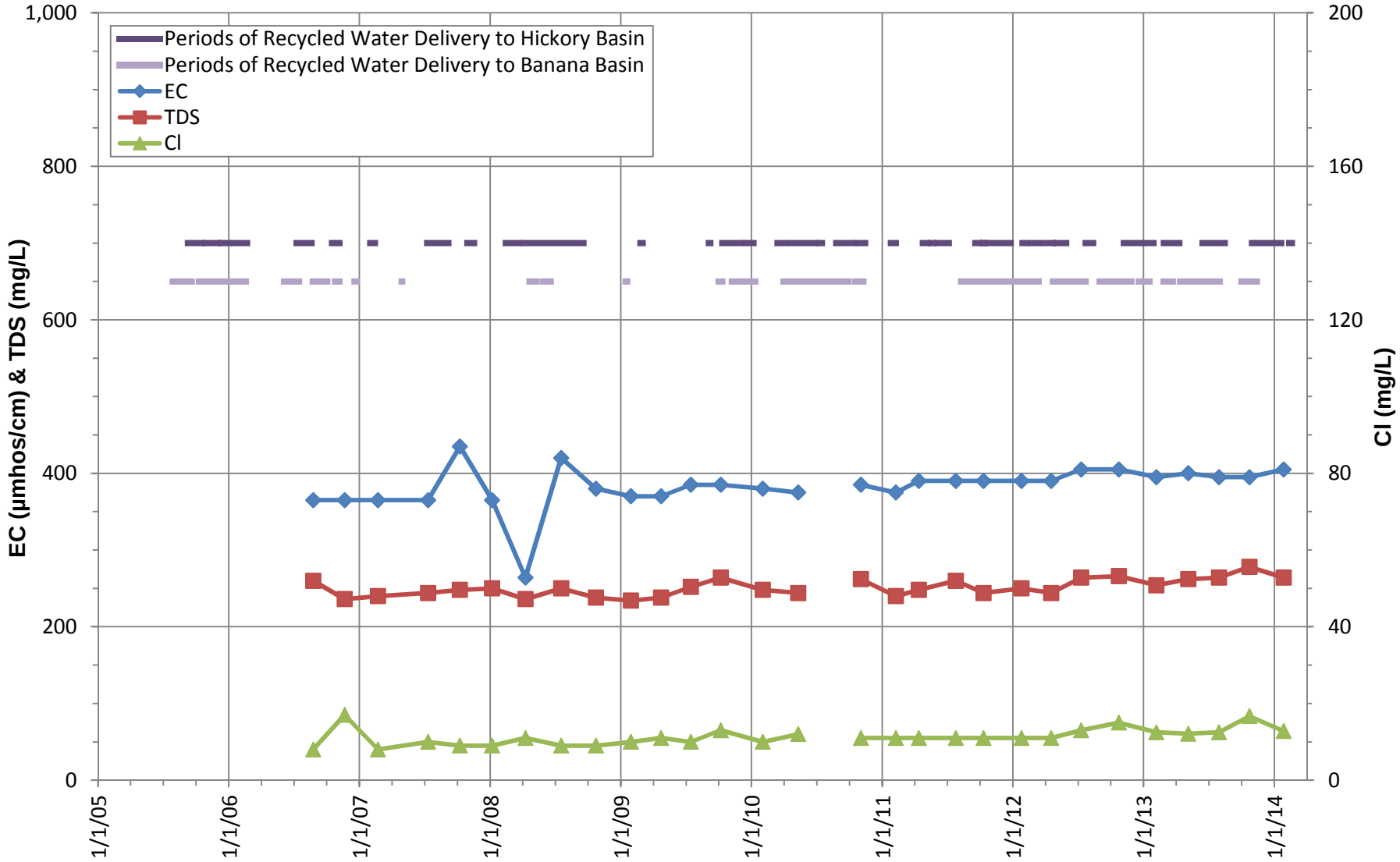
MW 8TH-2/2



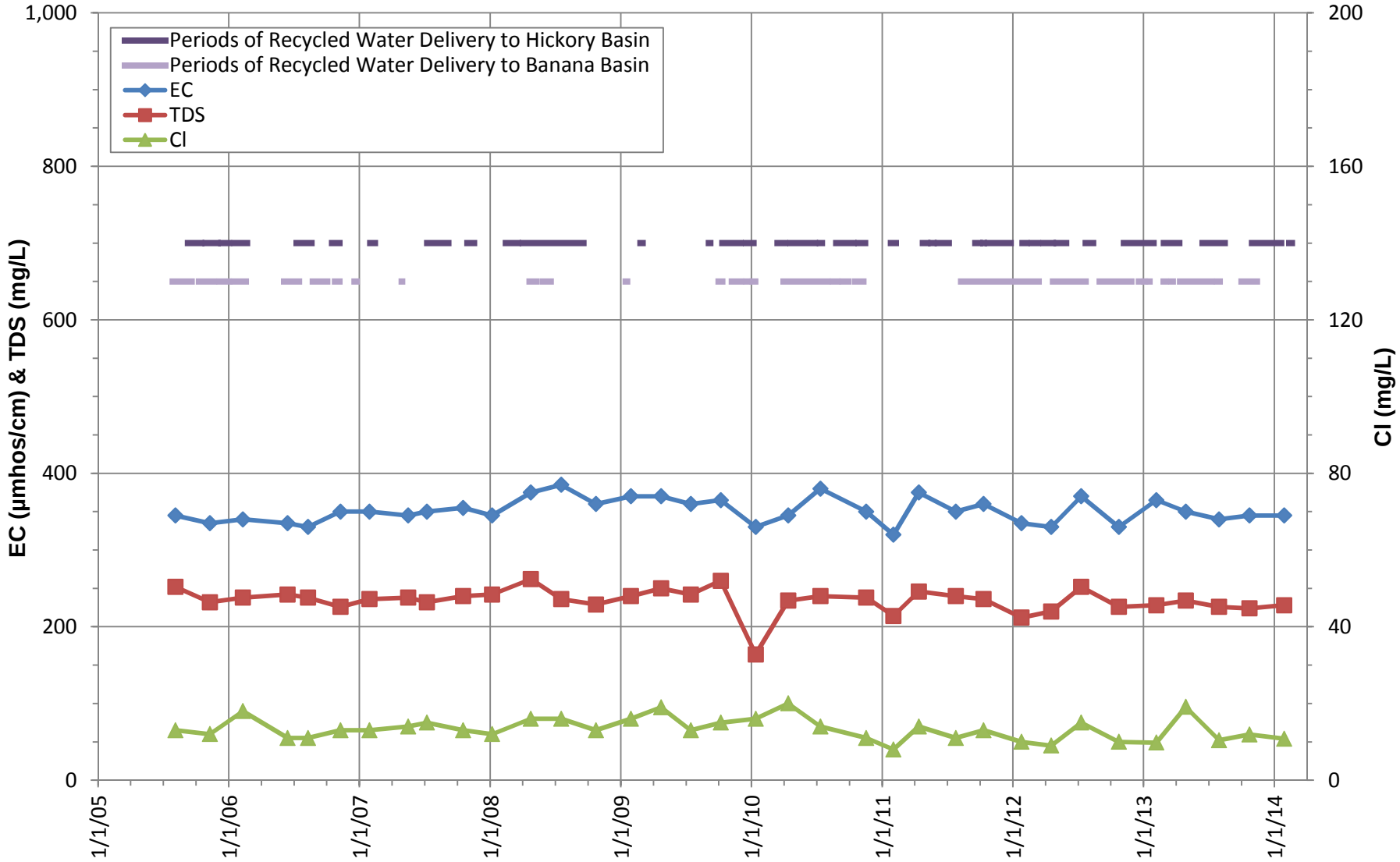
EC, TDS, CHLORIDE TRENDS
HICKORY BANANA BASINS
MW BH-1/2



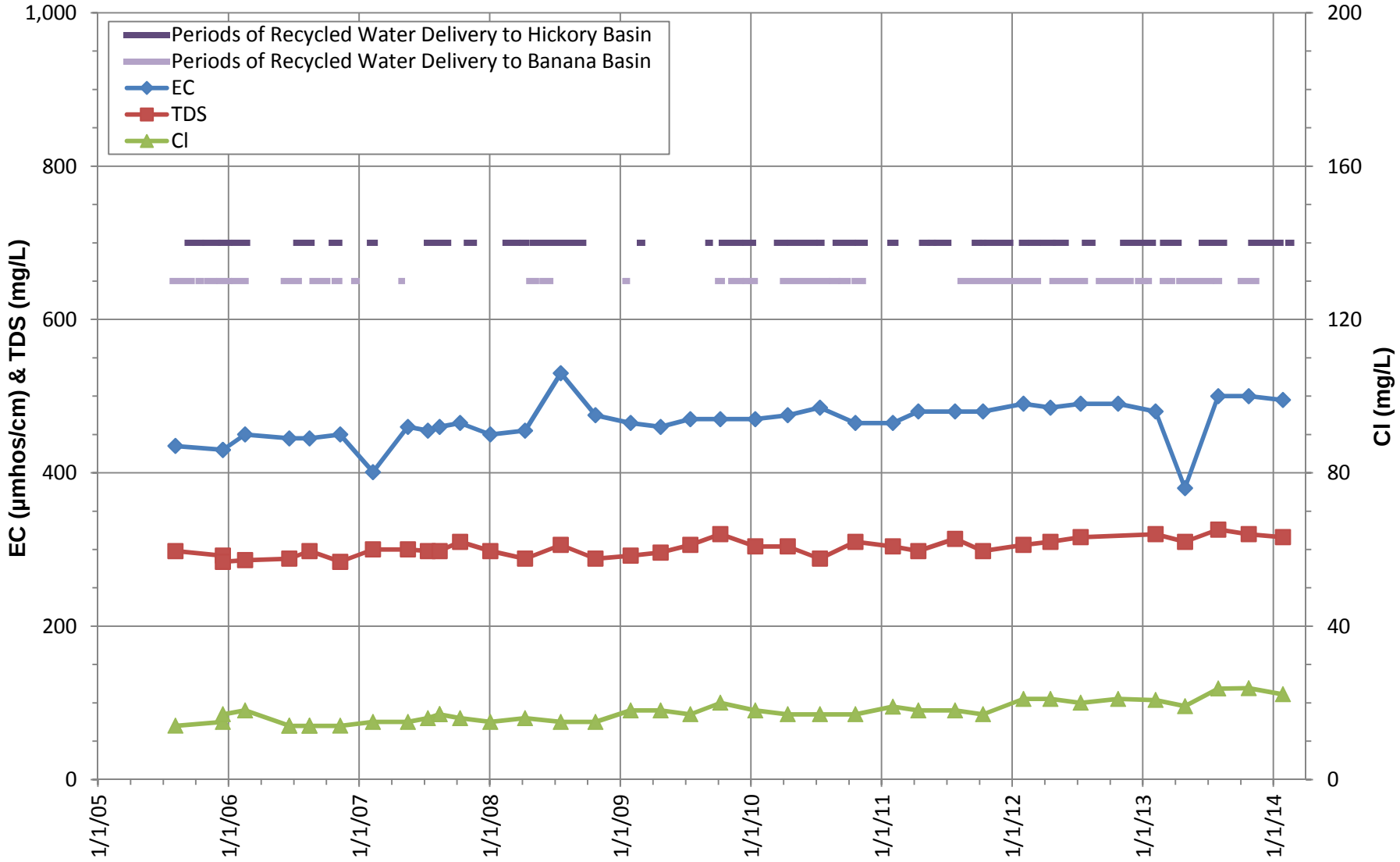
EC, TDS, CHLORIDE TRENDS
BANANA-HICKORY BASINS
CALIFORNIA SPEEDWAY INFIELD WELL



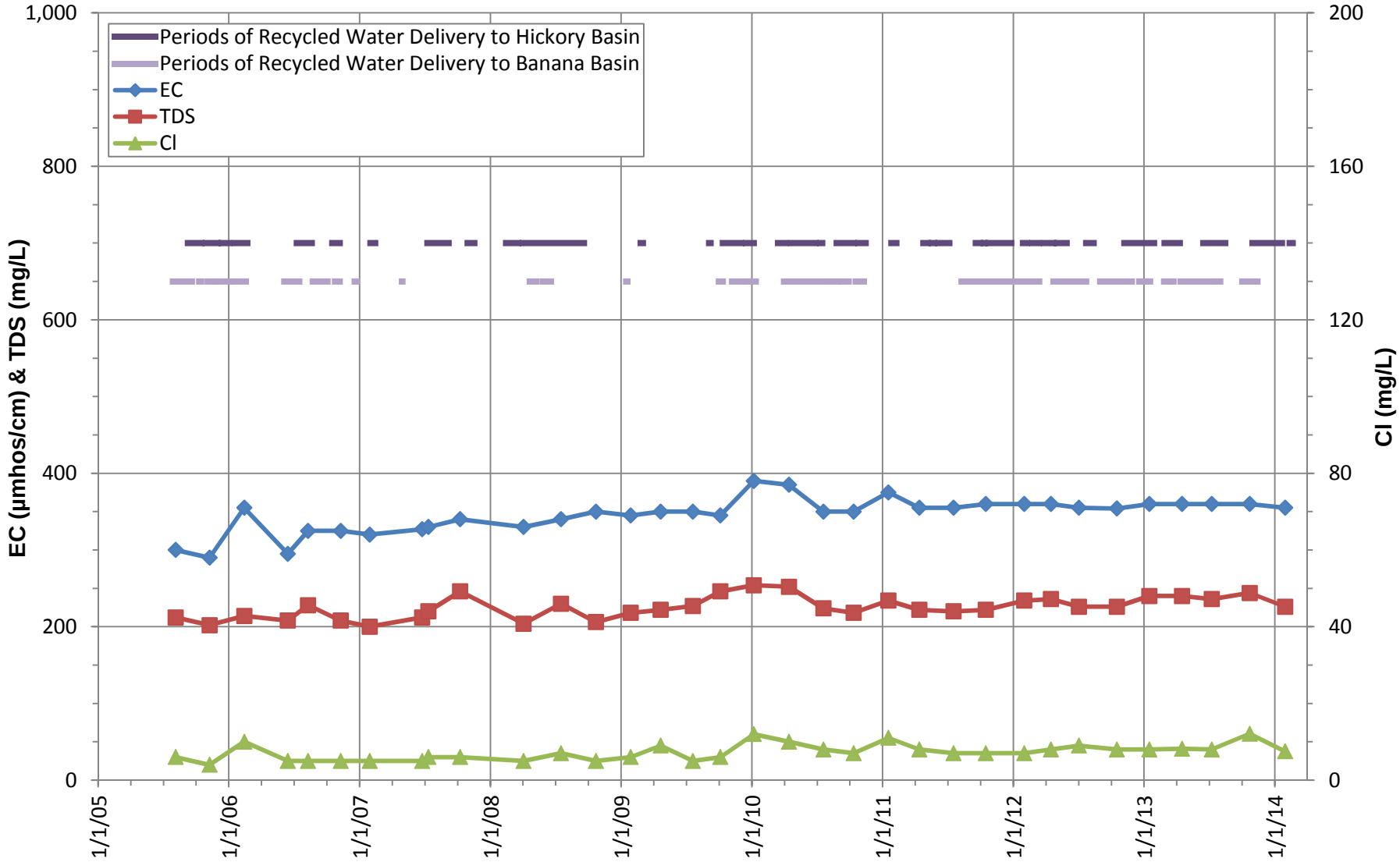
EC, TDS, CHLORIDE TRENDS
BANANA-HICKORY BASINS
CALIFORNIA SPEEDWAY NO. 2



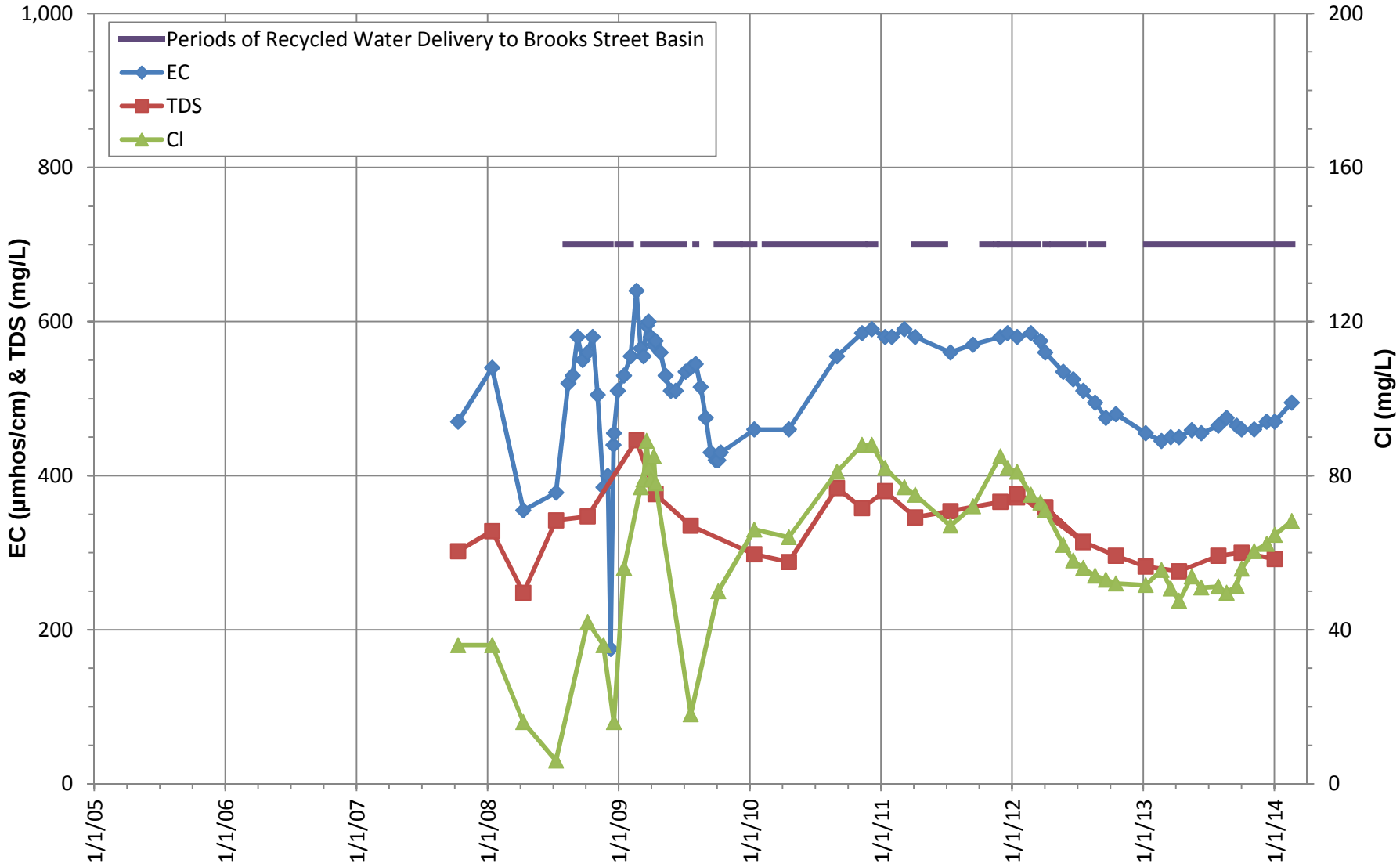
EC, TDS, CHLORIDE TRENDS
BANANA-HICKORY BASINS
RELIANT EAST WELL



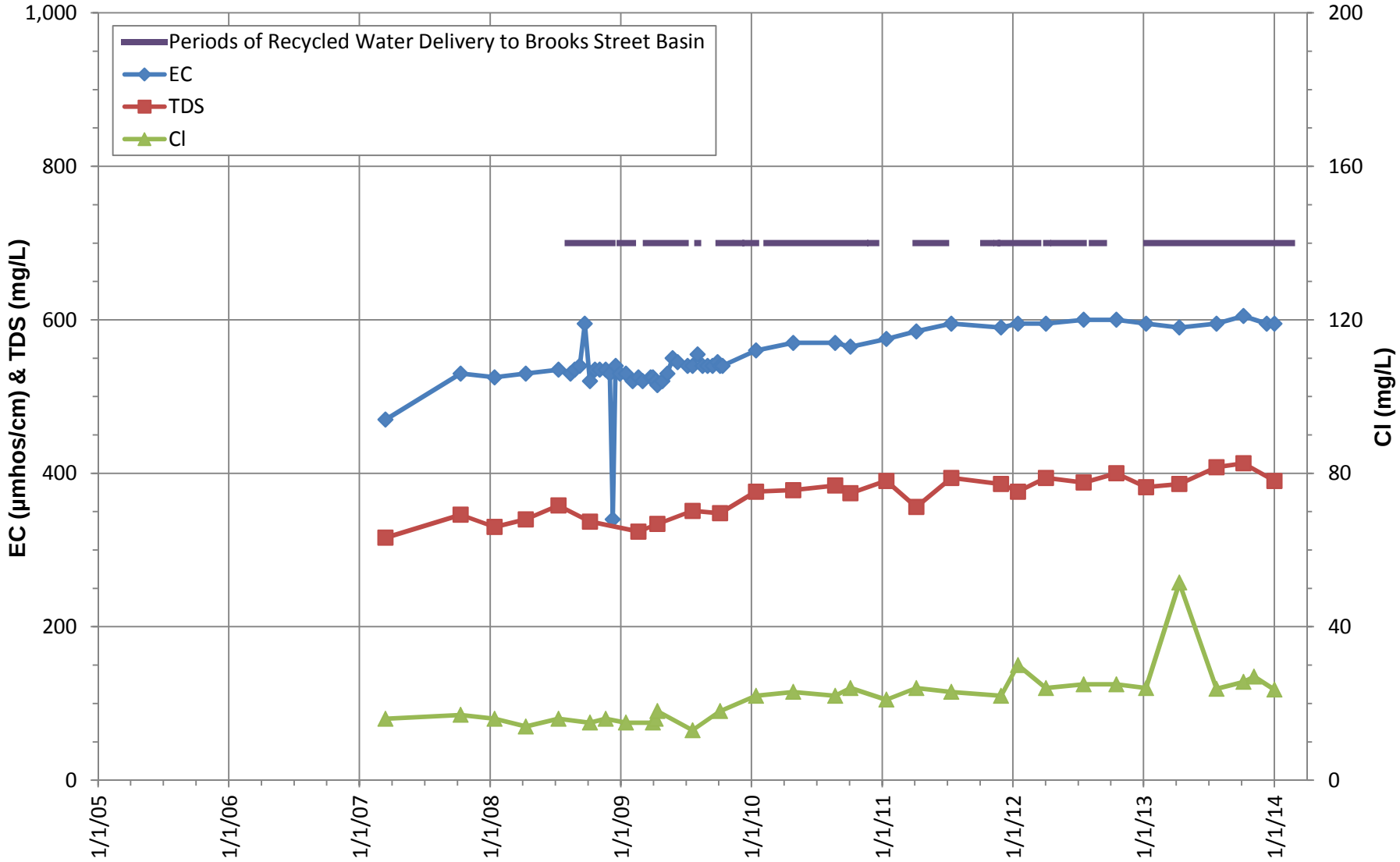
EC, TDS, CHLORIDE TRENDS
BANANA-HICKORY BASINS
FONTANA WATER CO. 37A



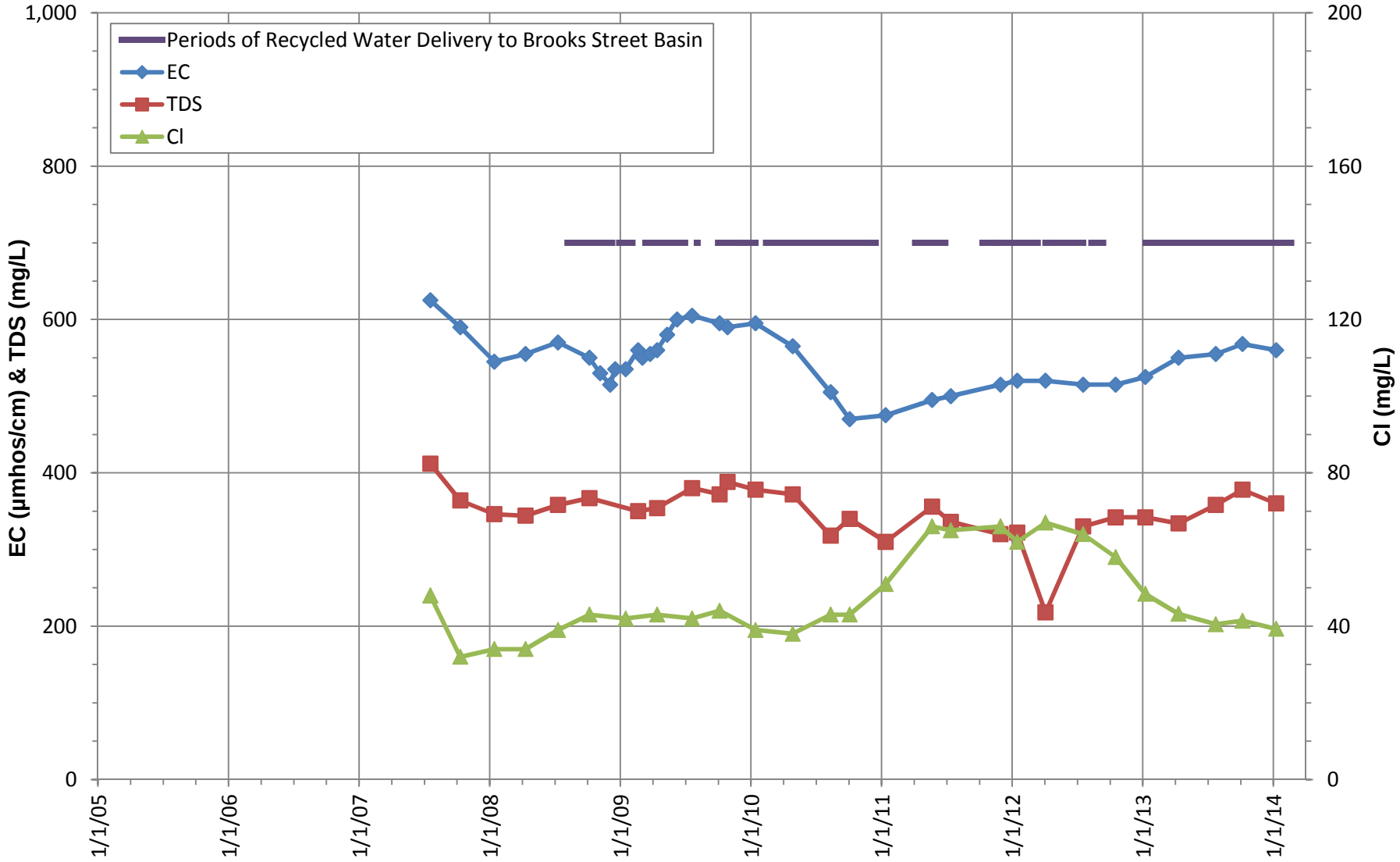
EC, TDS, CHLORIDE TRENDS
BANANA-HICKORY BASINS
ONTARIO NO. 20



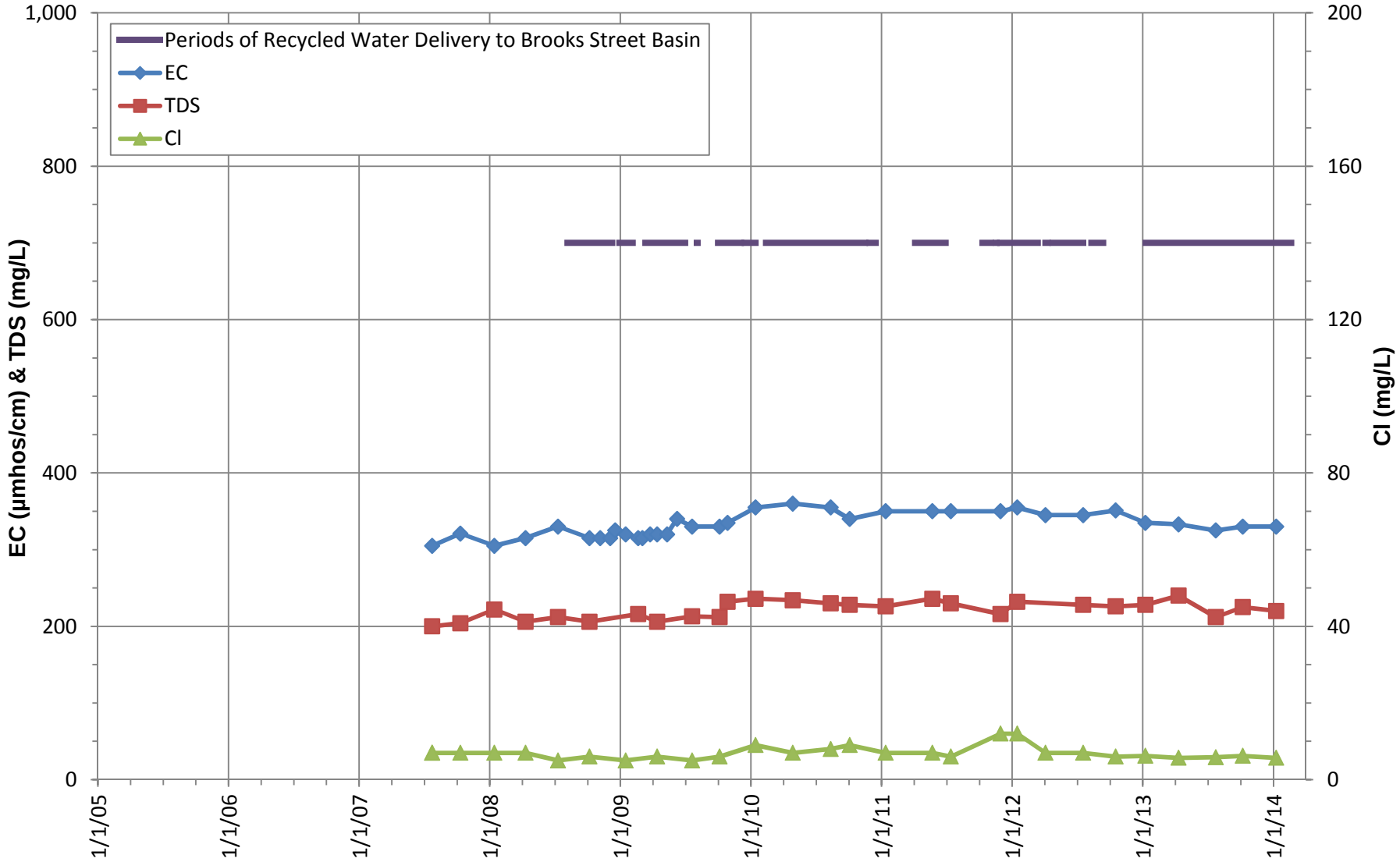
EC, TDS, CHLORIDE TRENDS
BROOKS STREET BASIN
MW BRK-1/1



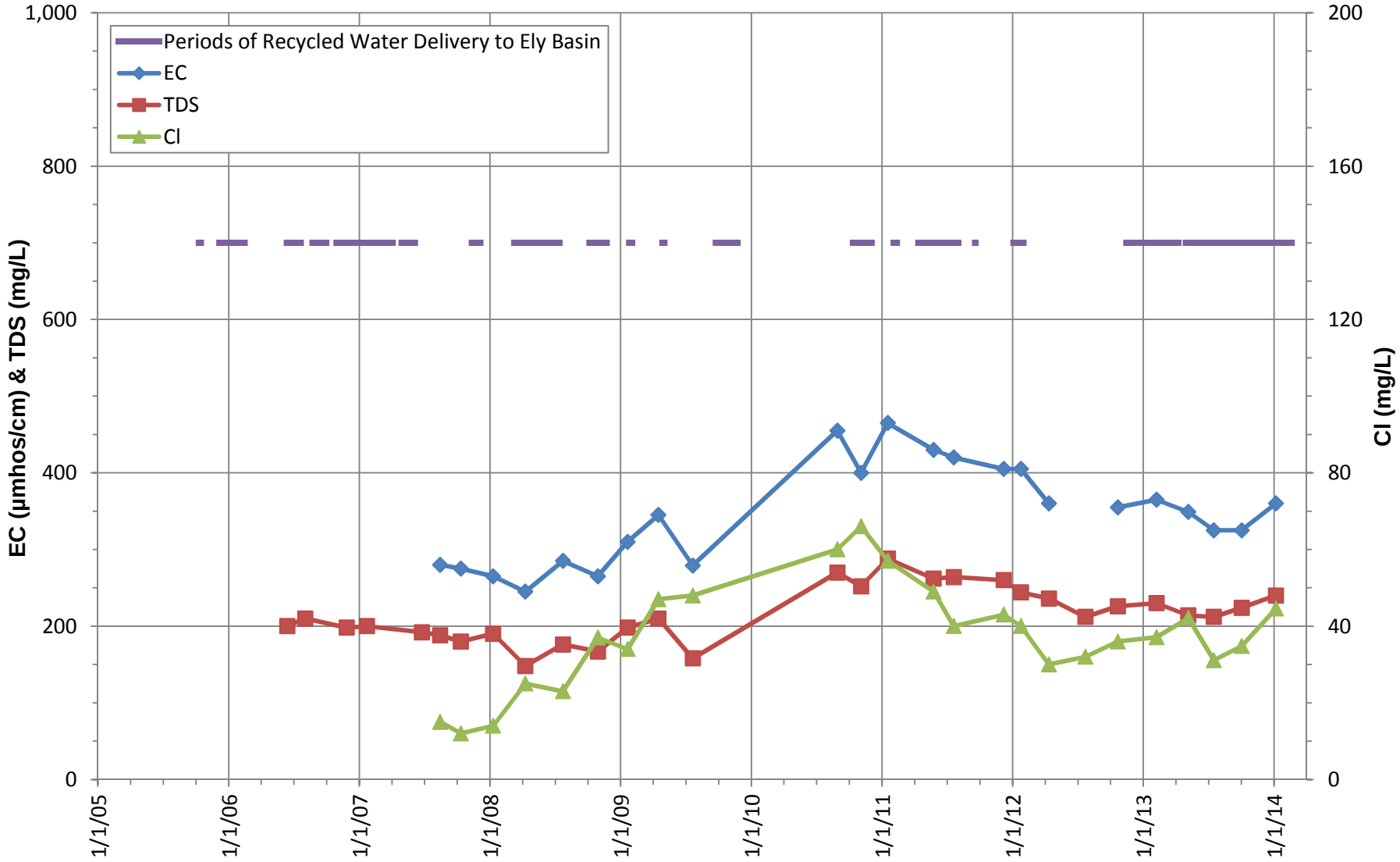
EC, TDS, CHLORIDE TRENDS
BROOKS STREET BASIN
MW BRK-1/2



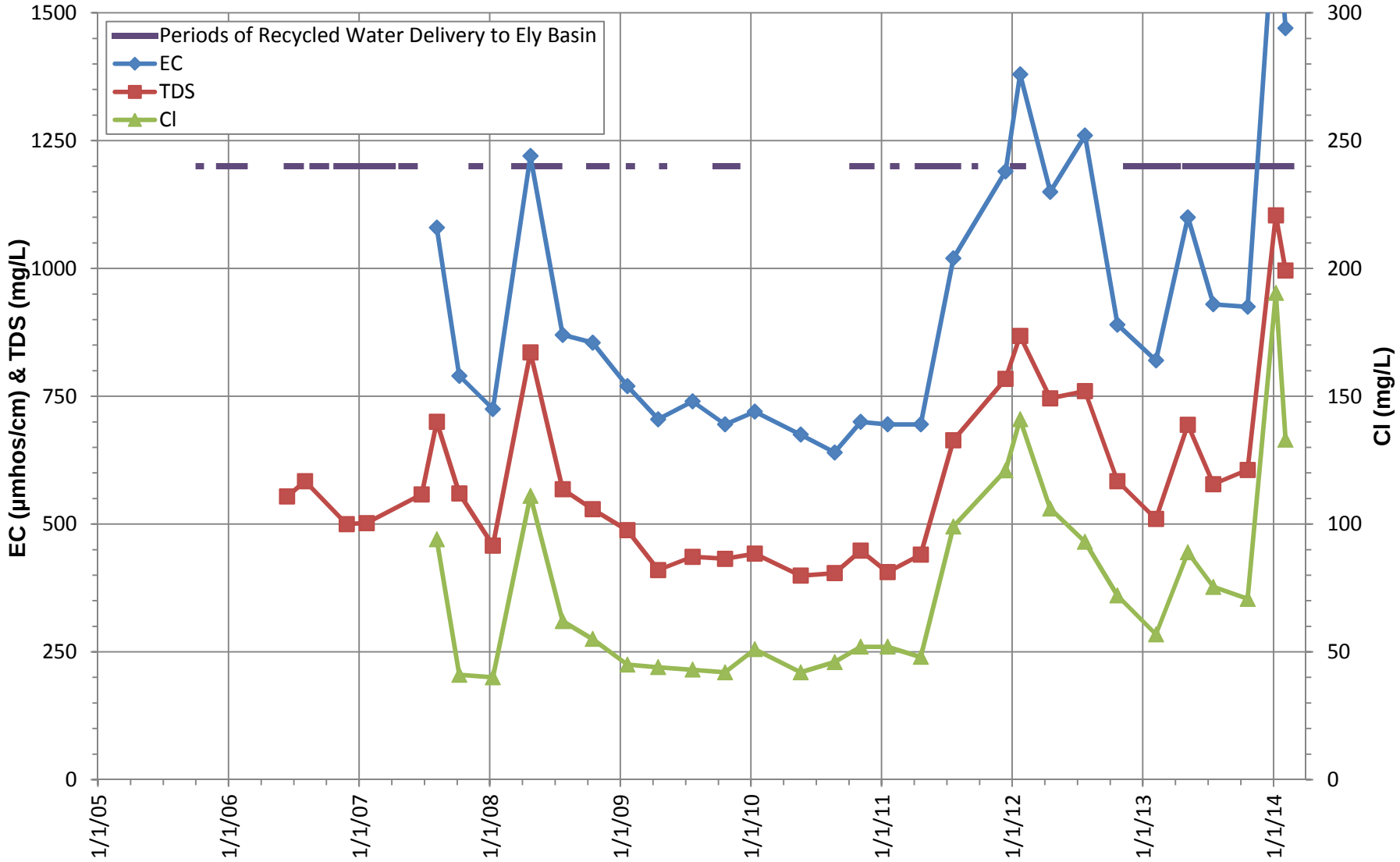
EC, TDS, CHLORIDE TRENDS
BROOKS STREET BASIN
MW BRK-2/1



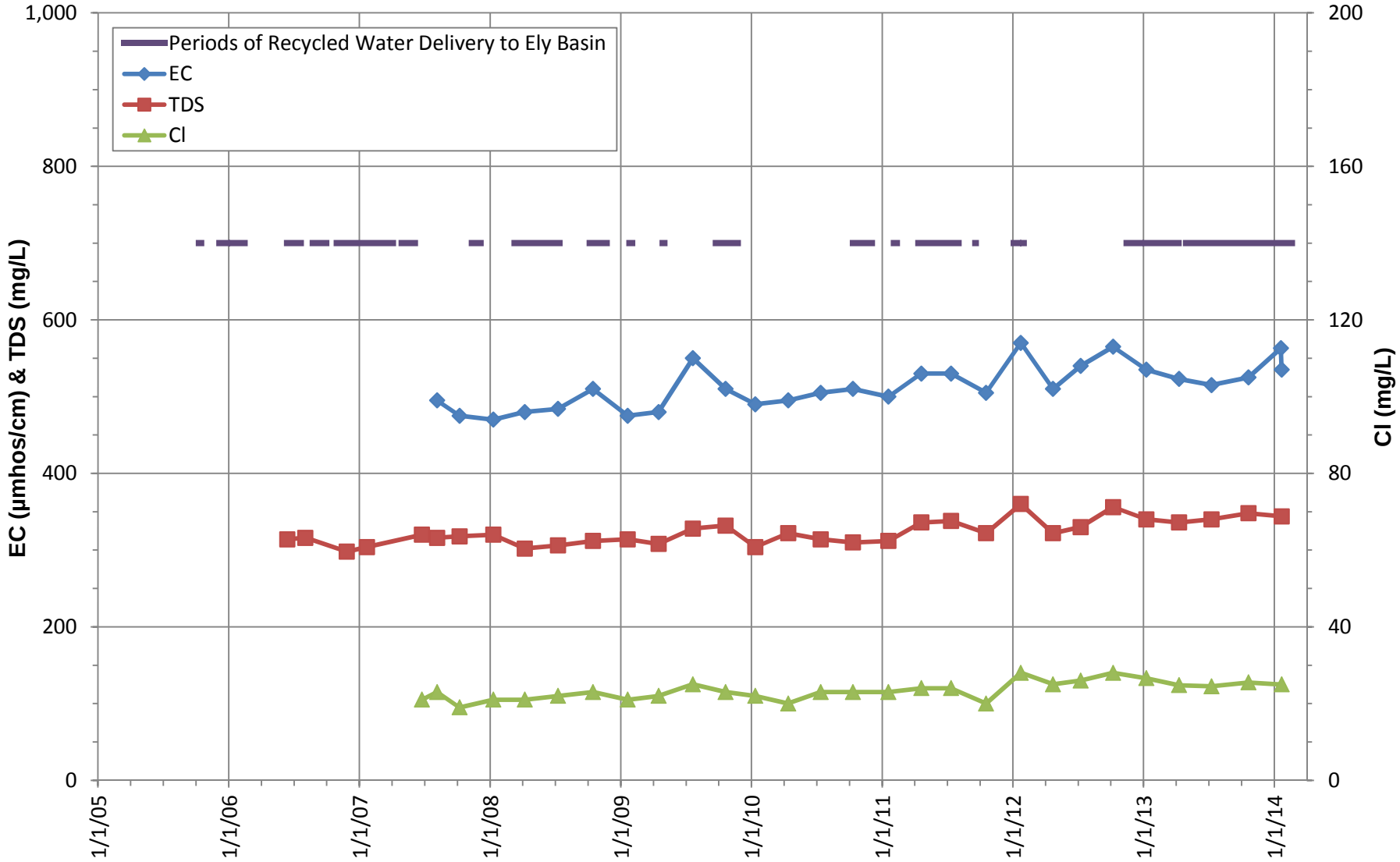
EC, TDS, CHLORIDE TRENDS
BROOKS STREET BASIN
MW BRK-2/2



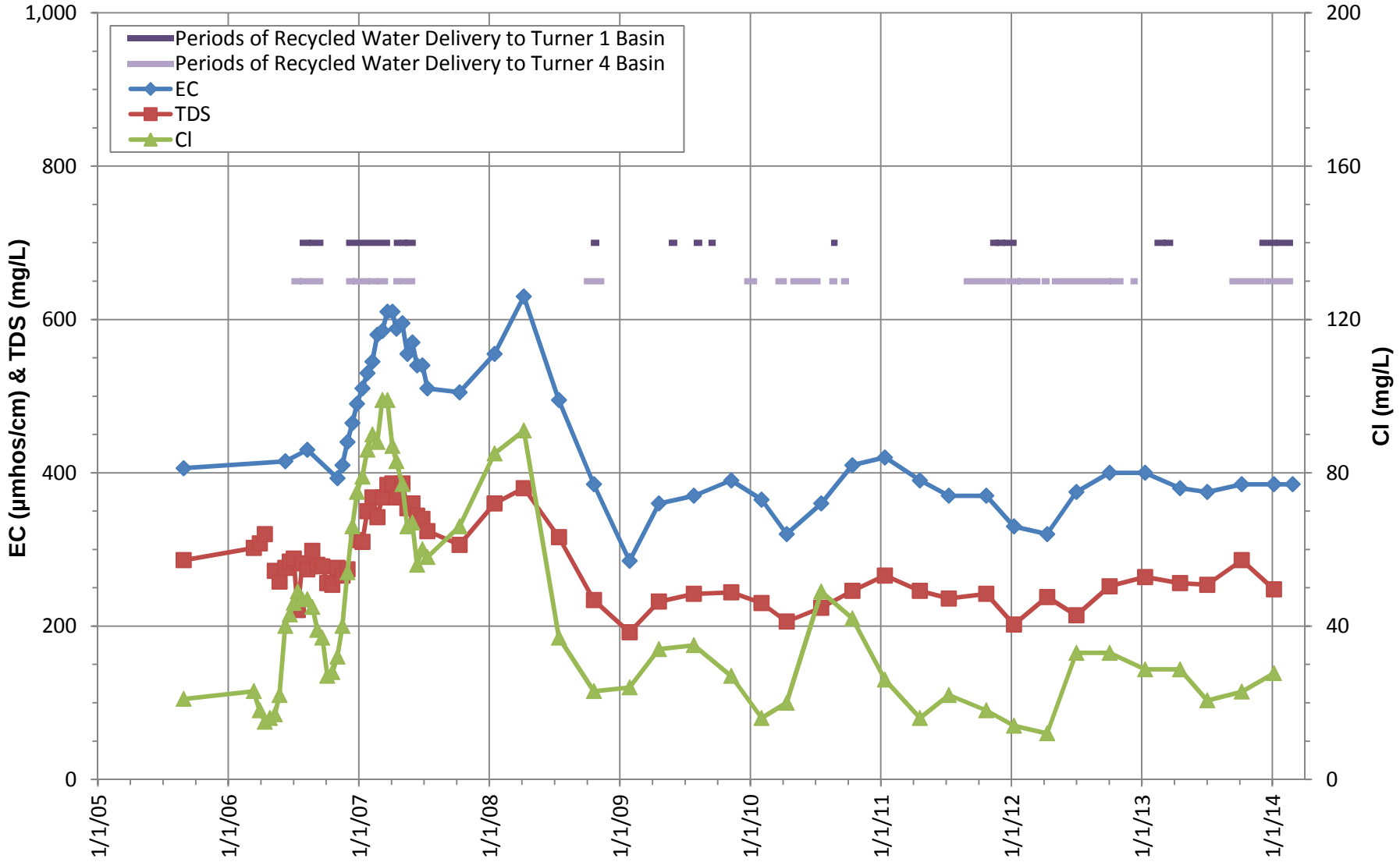
EC, TDS, CHLORIDE TRENDS
ELY BASIN
PHILADELPHIA WELL



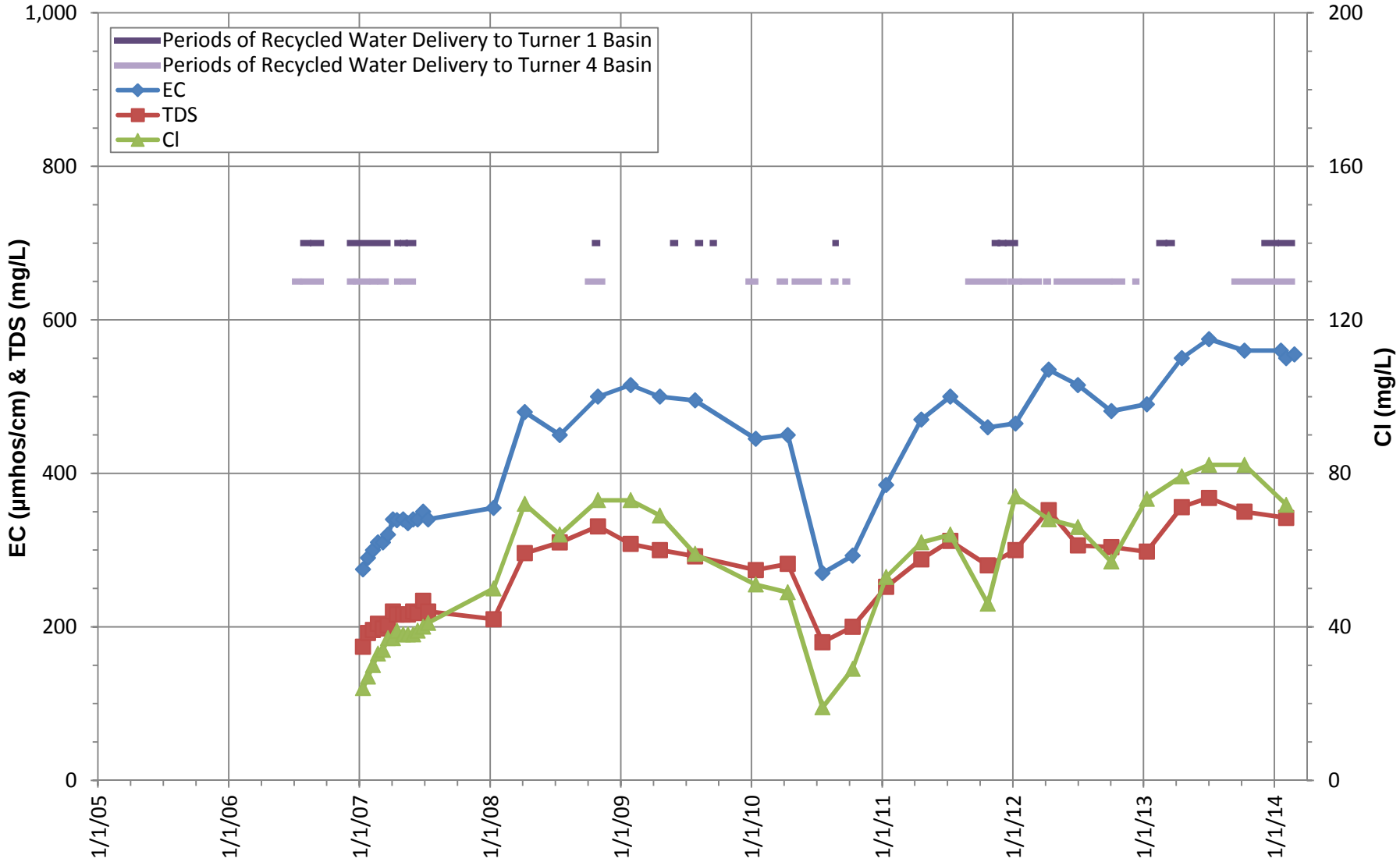
EC, TDS, CHLORIDE TRENDS
ELY BASIN
WALNUT WELL



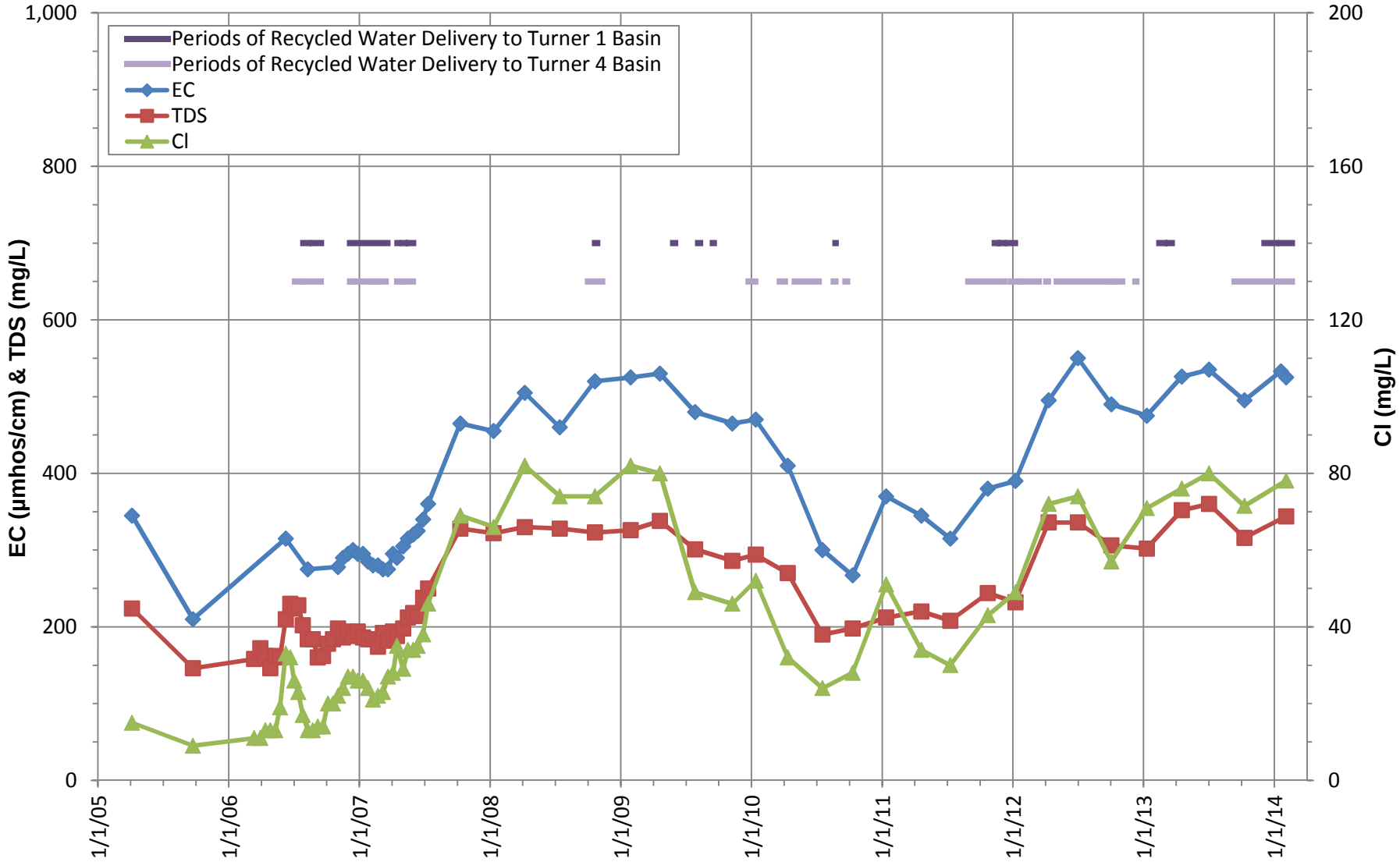
EC, TDS, CHLORIDE TRENDS
ELY BASIN
RIVERSIDE WELL



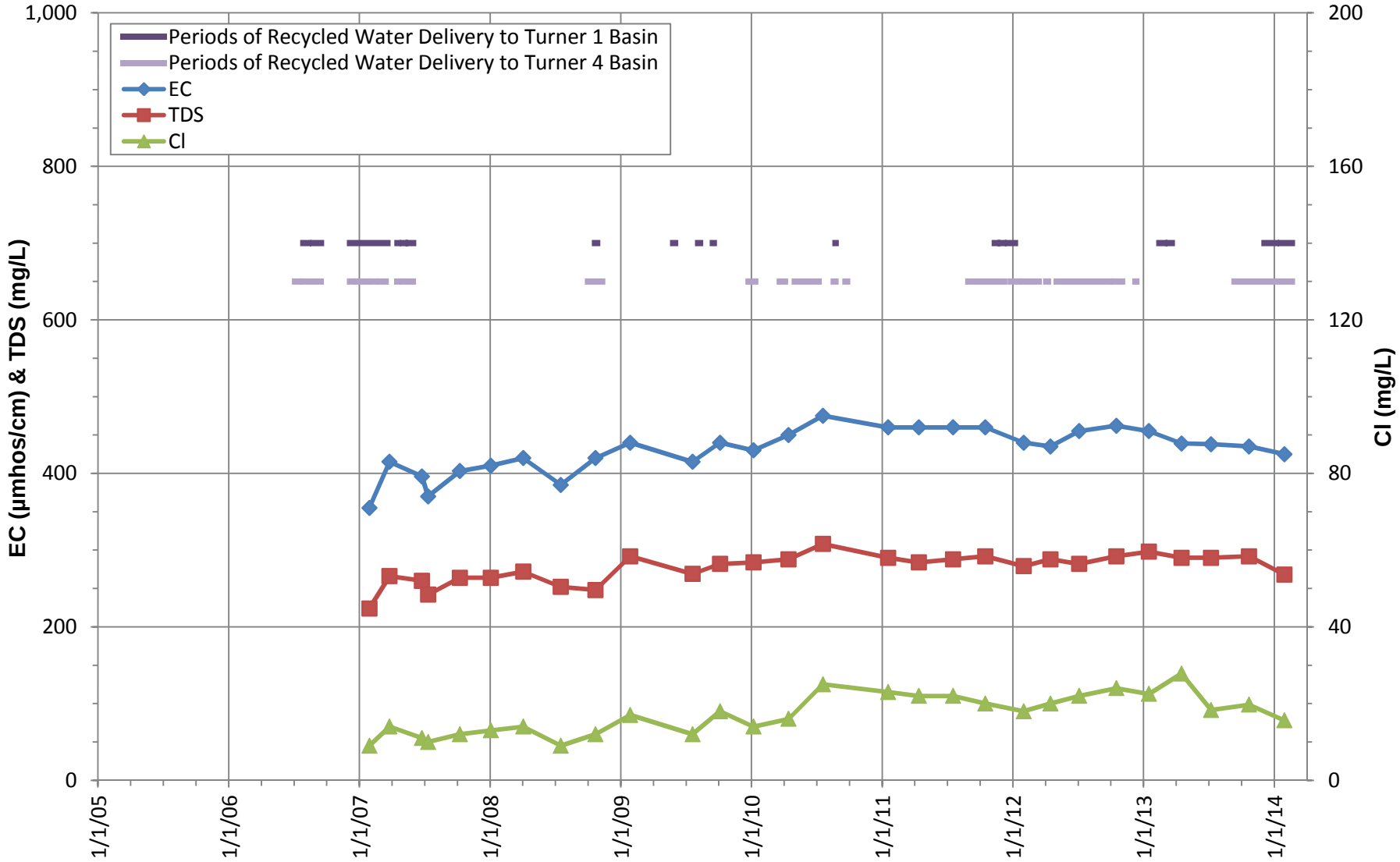
EC, TDS, CHLORIDE TRENDS
TURNER BASINS
MW TRN-1/2



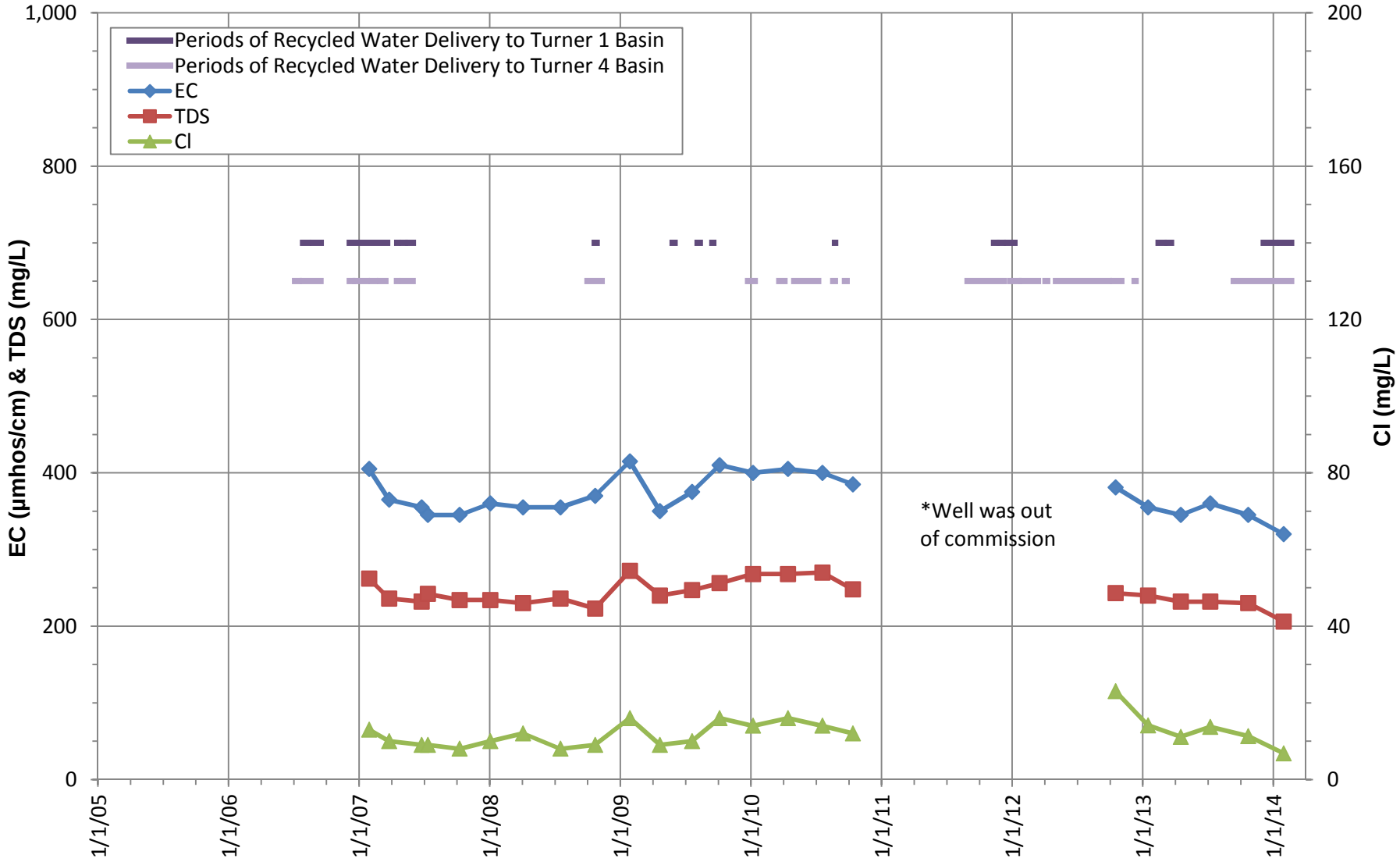
EC, TDS, CHLORIDE TRENDS
TURNER BASINS
MW TRN-2/1



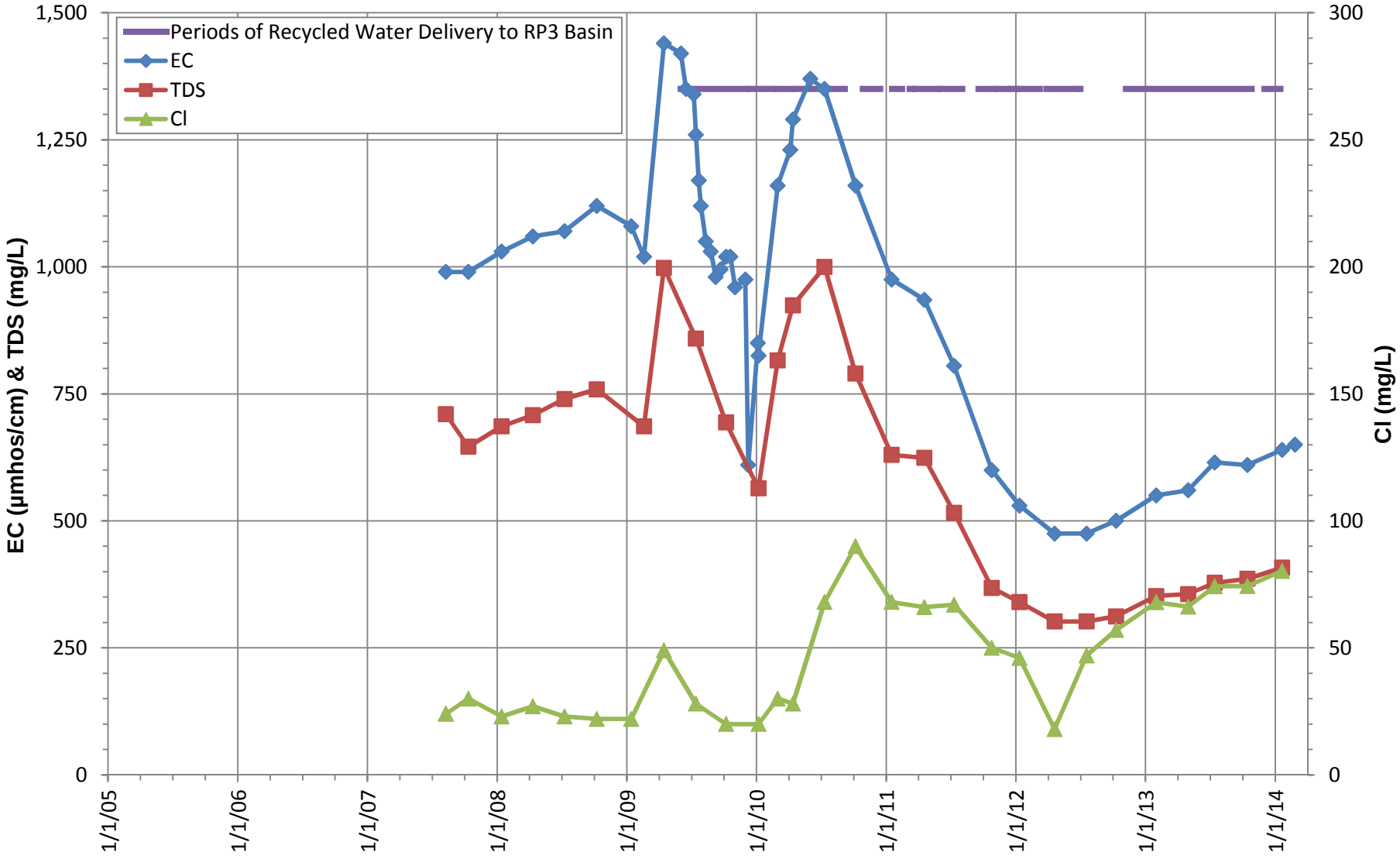
EC, TDS, CHLORIDE TRENDS
TURNER BASINS
MW TRN-2/2



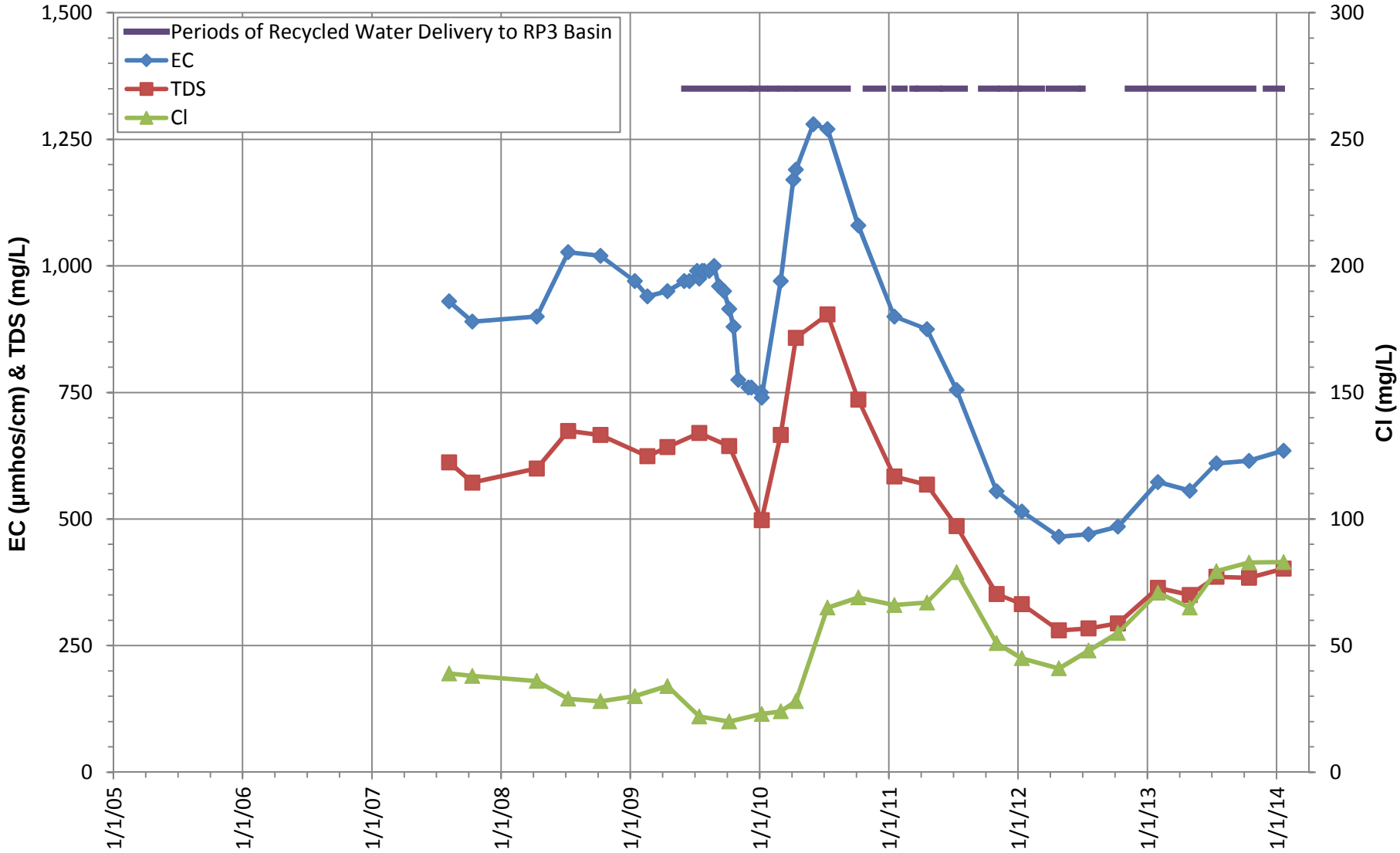
EC, TDS, CHLORIDE TRENDS
TURNER BASINS
ONTARIO NO. 25



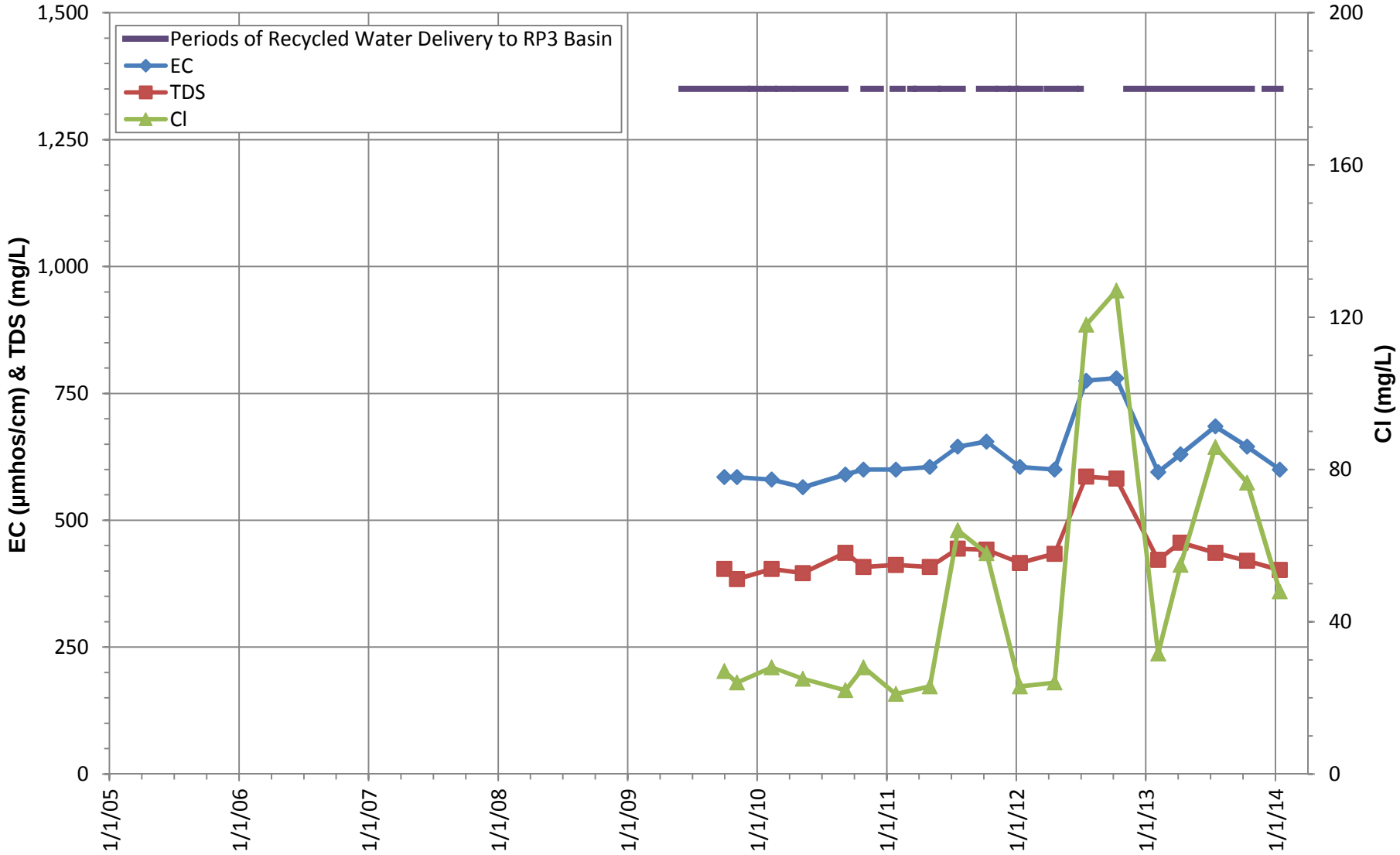
EC, TDS, CHLORIDE TRENDS
TURNER BASINS
ONTARIO NO. 29



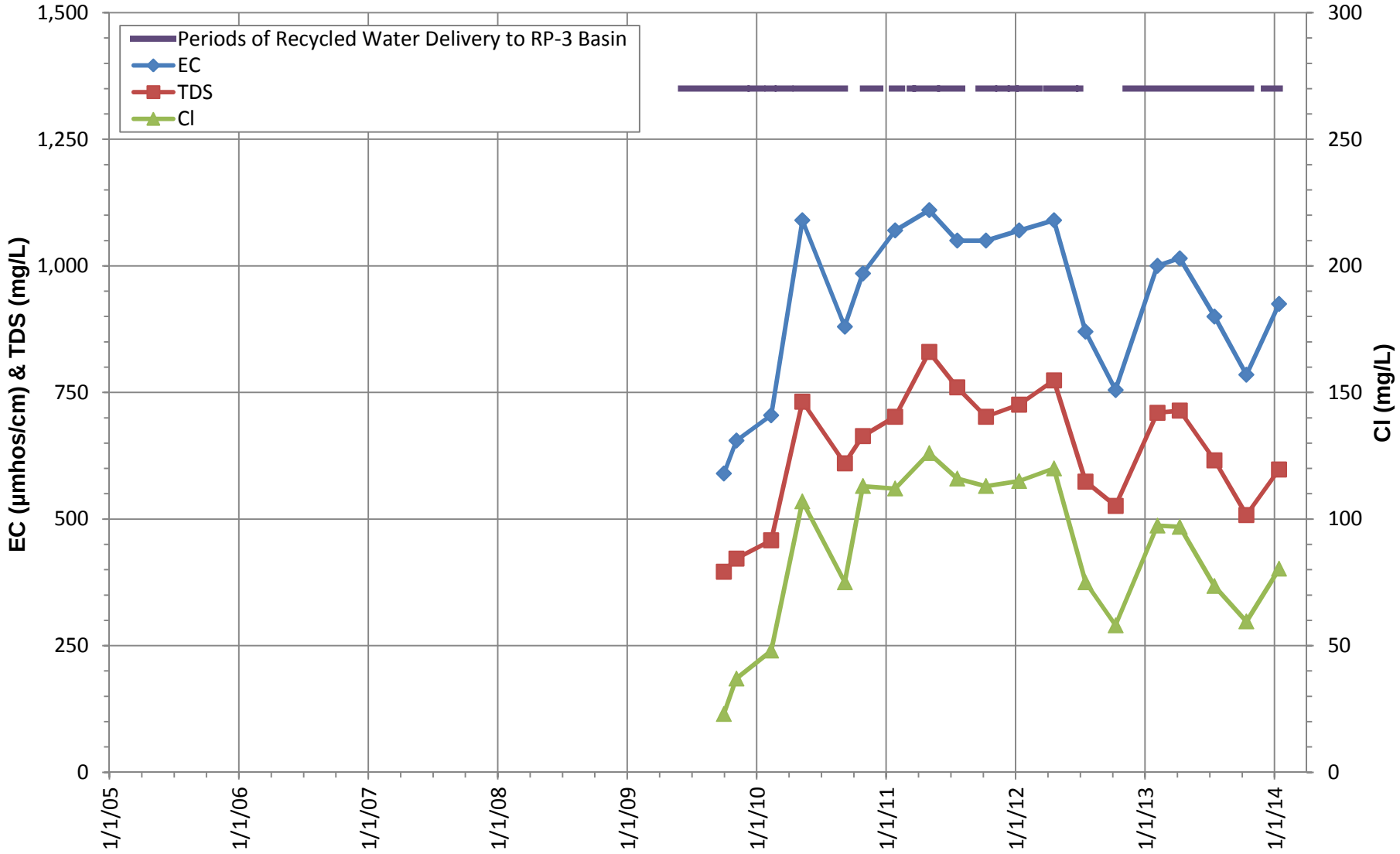
EC, TDS, CHLORIDE TRENDS
RP3 BASINS
RP3-1/1



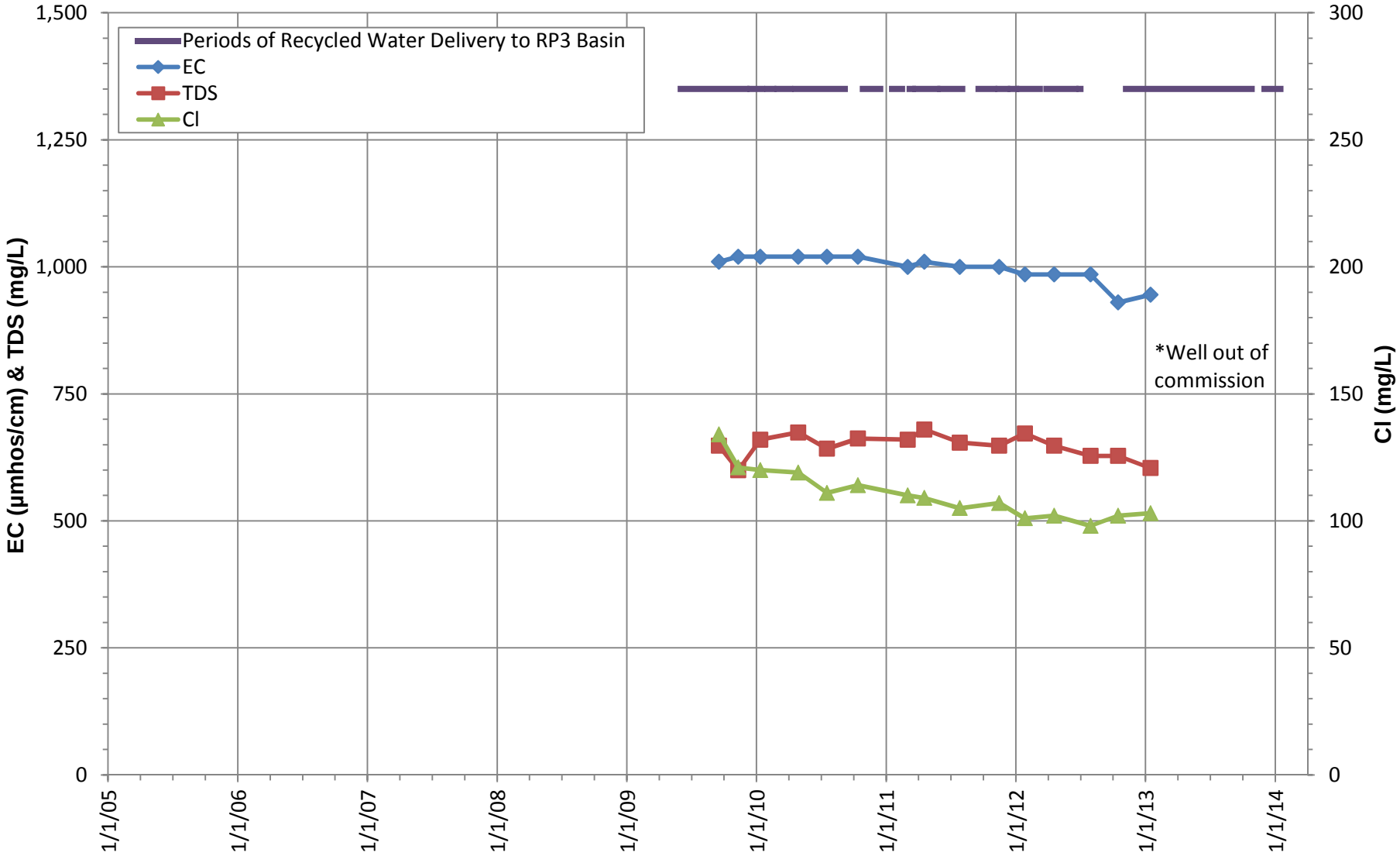
EC, TDS, CHLORIDE TRENDS
RP3 BASINS
RP3-1/2



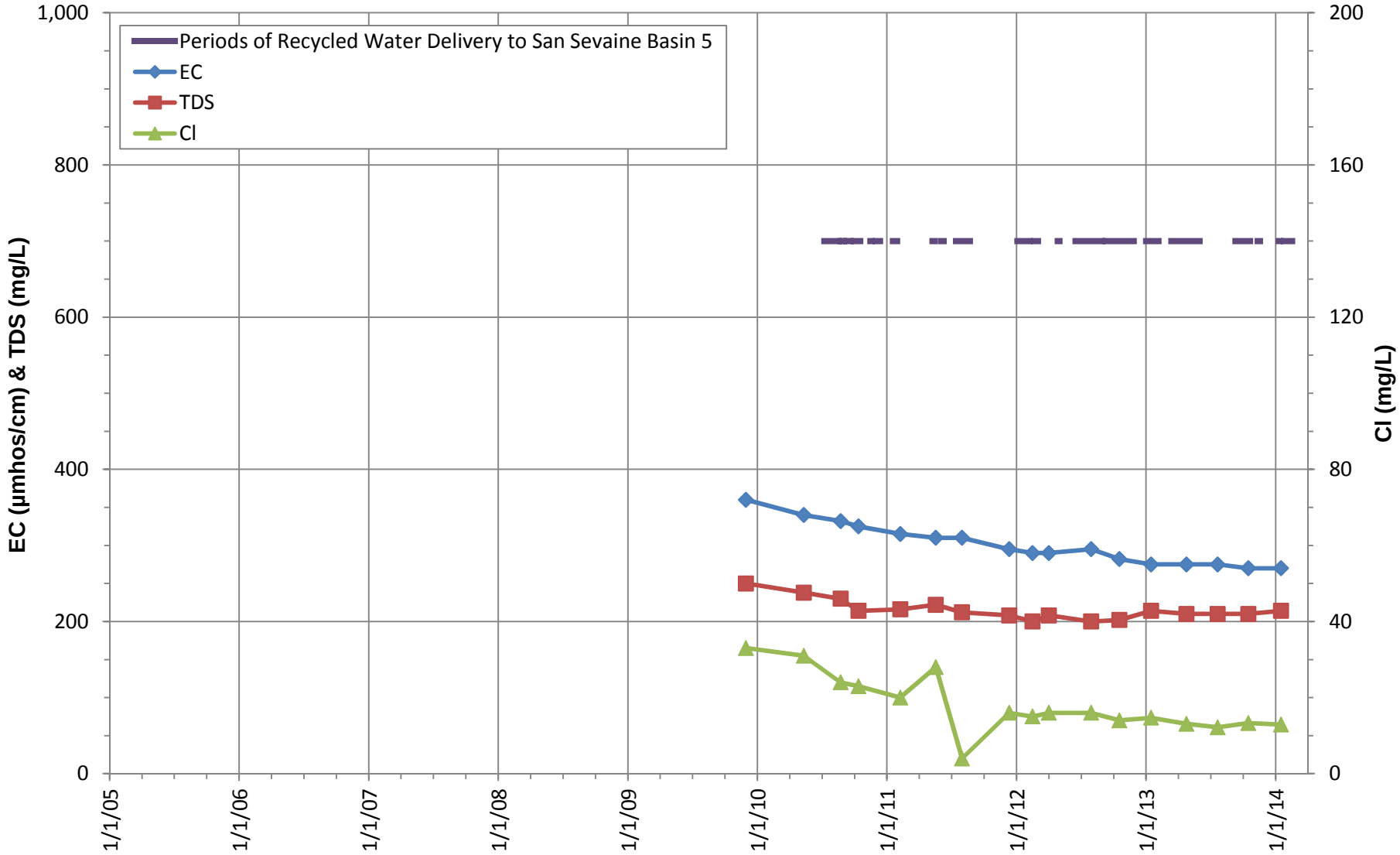
EC, TDS, CHLORIDE TRENDS
RP3 BASINS
ALCOA MW-1



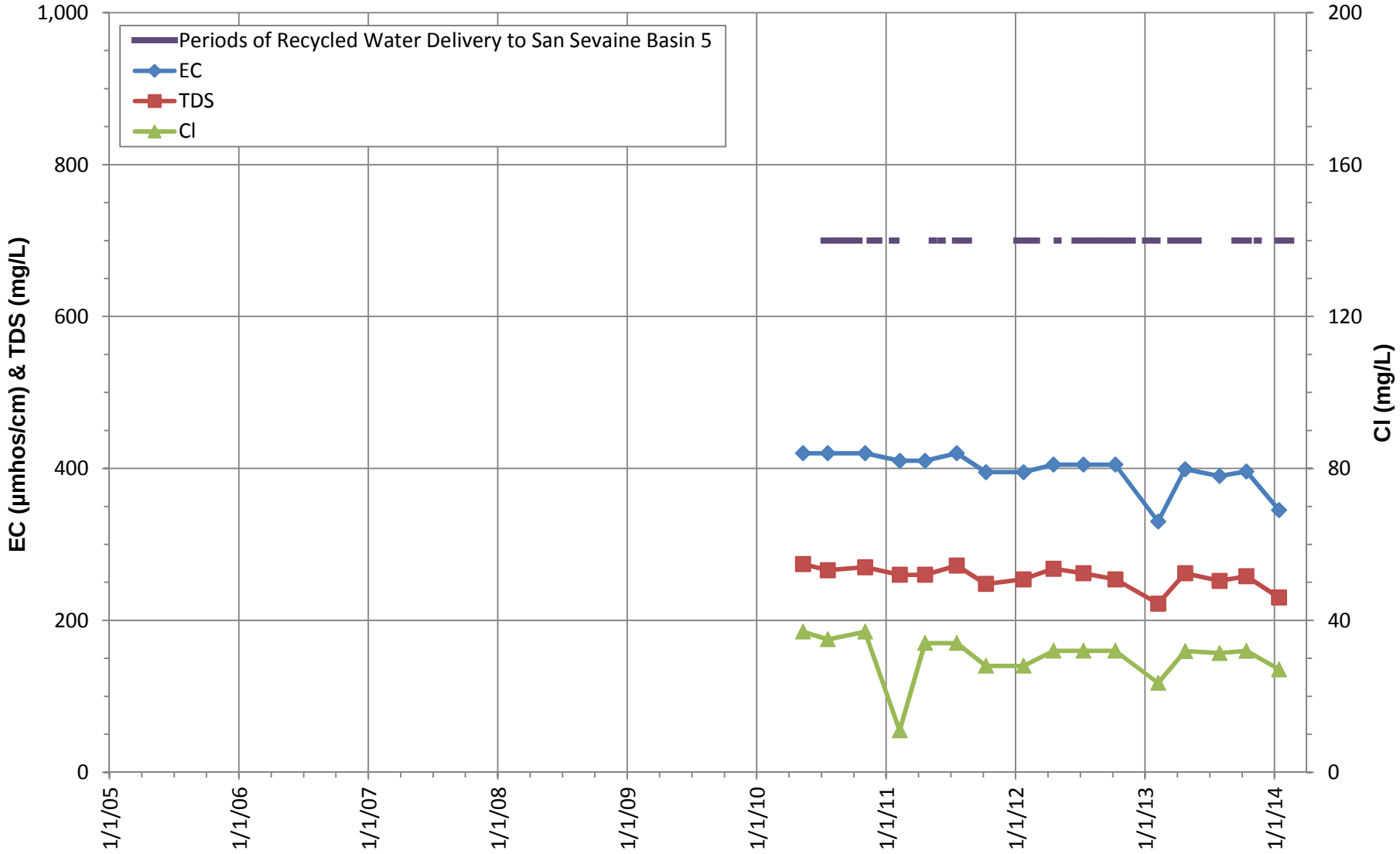
EC, TDS, CHLORIDE TRENDS
RP3 BASINS
ALCOA MW-3



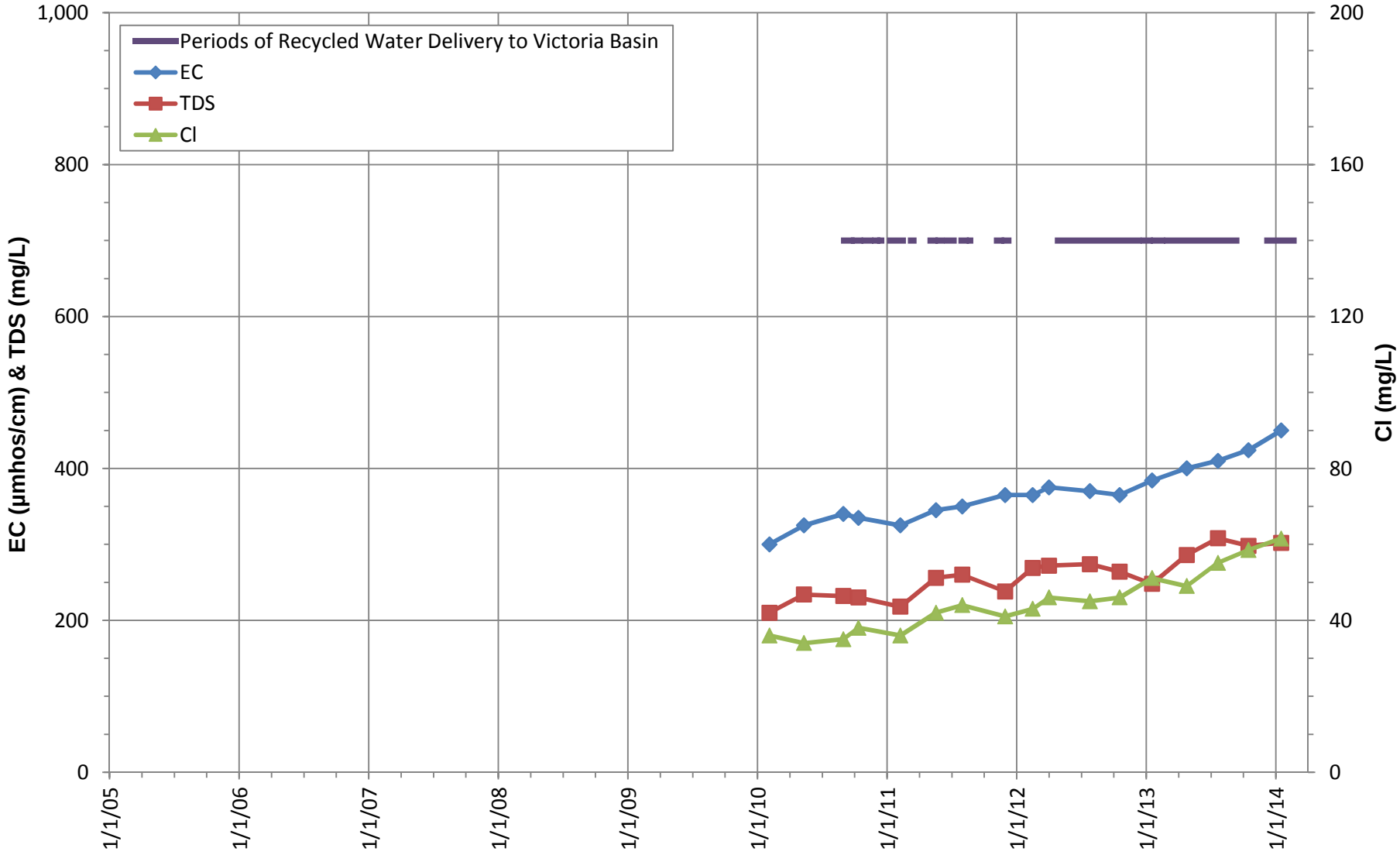
EC, TDS, CHLORIDE TRENDS
RP3 BASINS
Southridge JHS Well



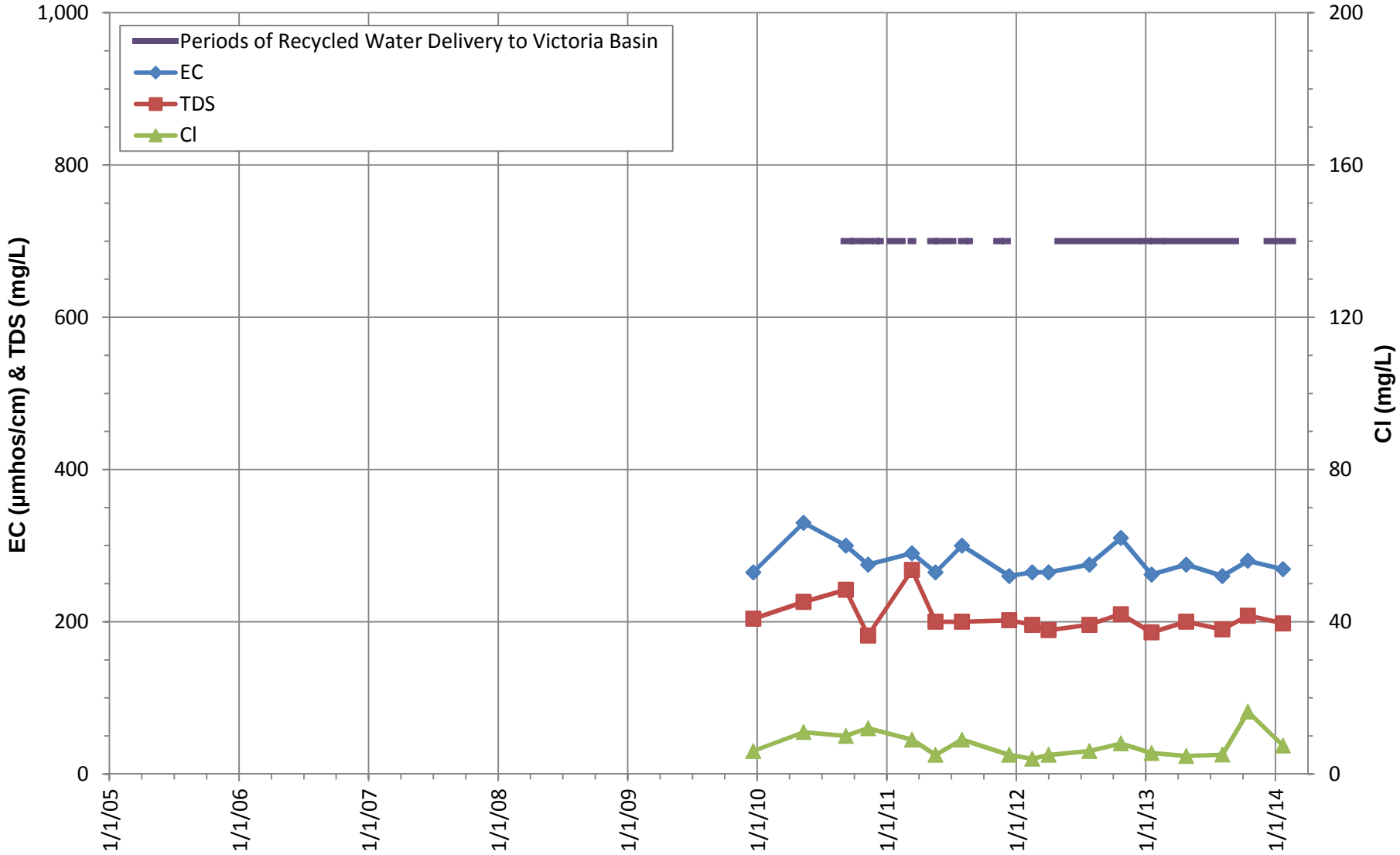
EC, TDS, CHLORIDE TRENDS
SAN SEVAINE BASINS
SS-1/1



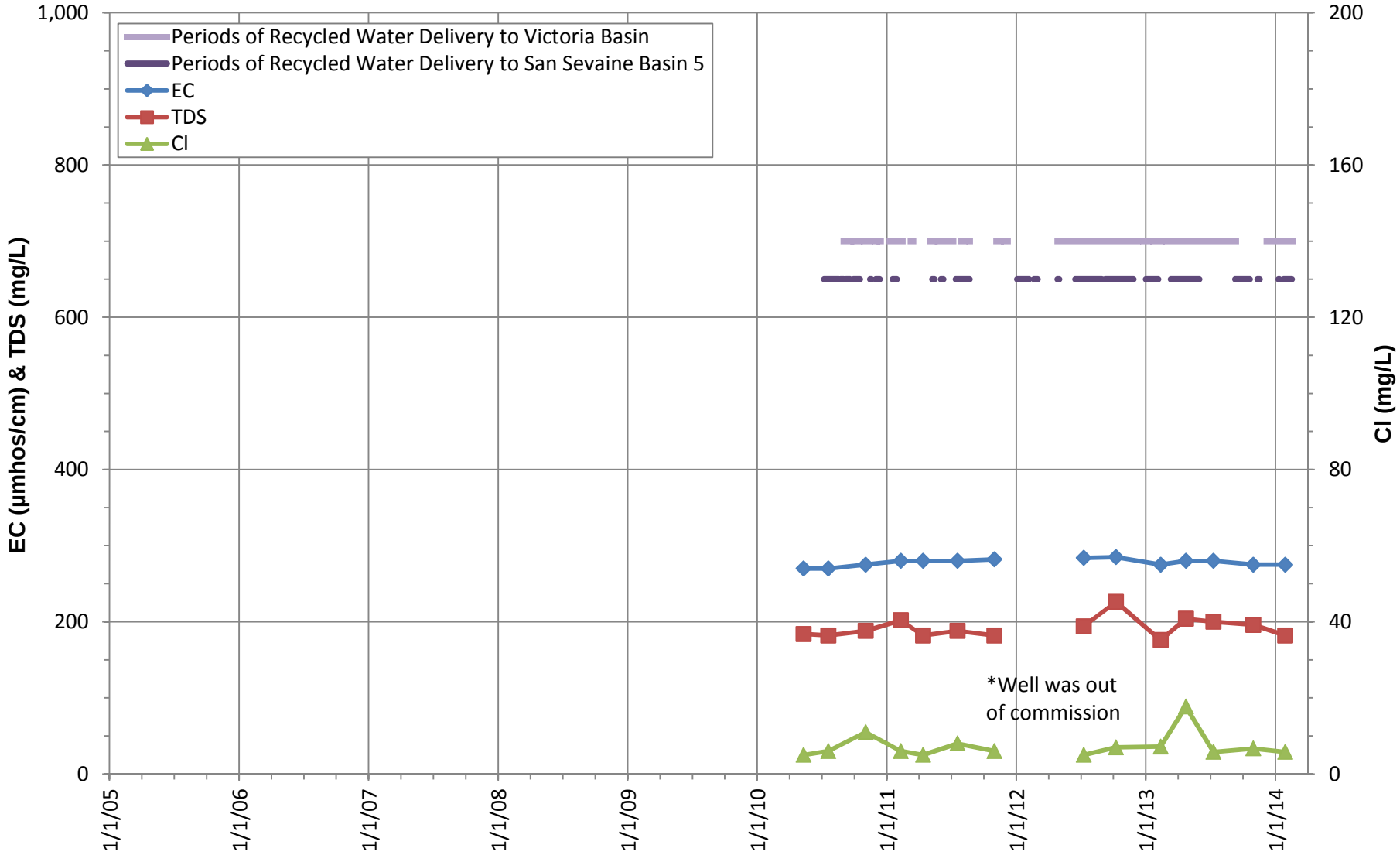
EC, TDS, CHLORIDE TRENDS
SAN SEVAINE BASINS
Unitex 91090



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



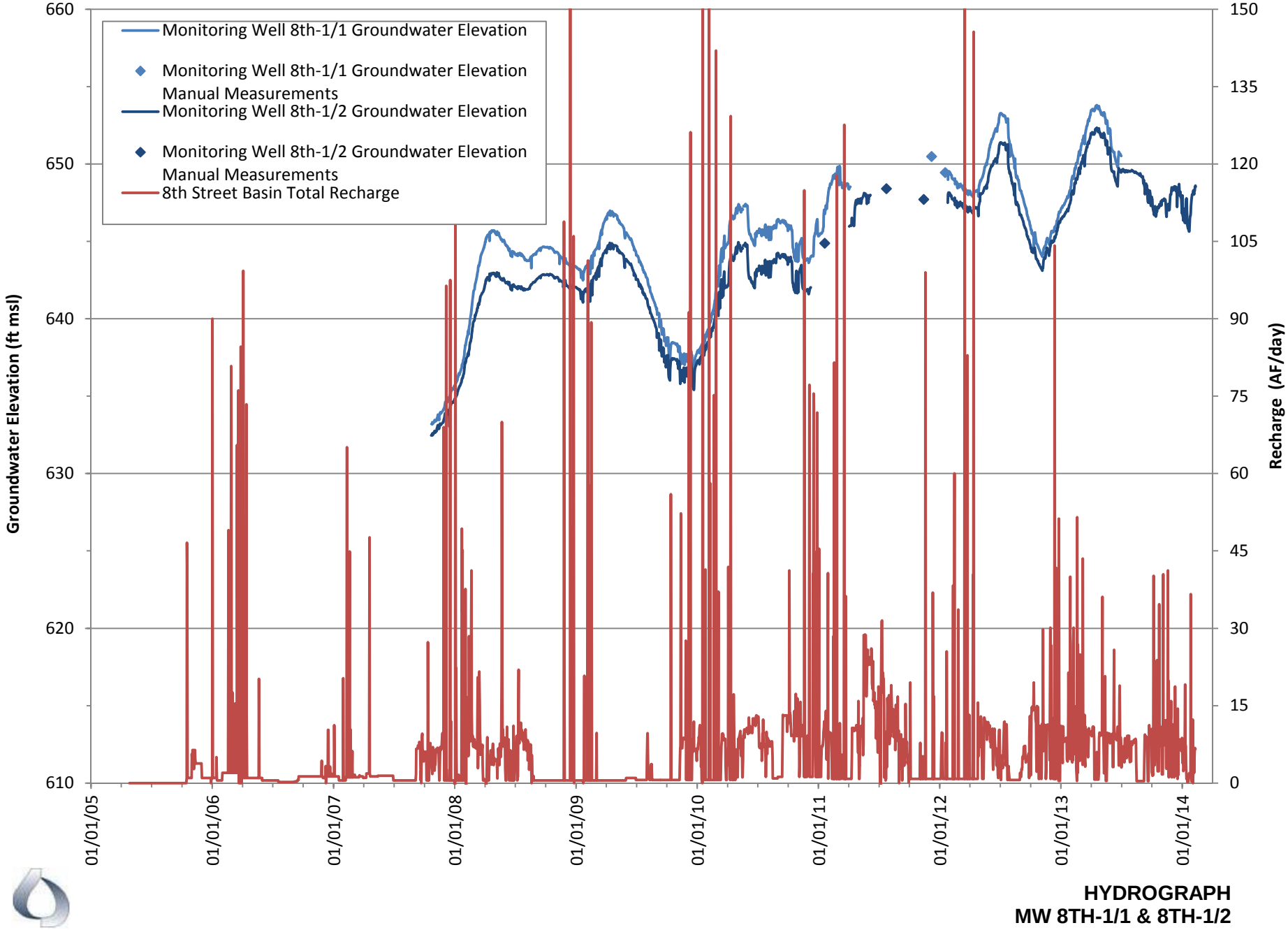
EC, TDS, CHLORIDE TRENDS
VICTORIA BASIN
VCT-2/2



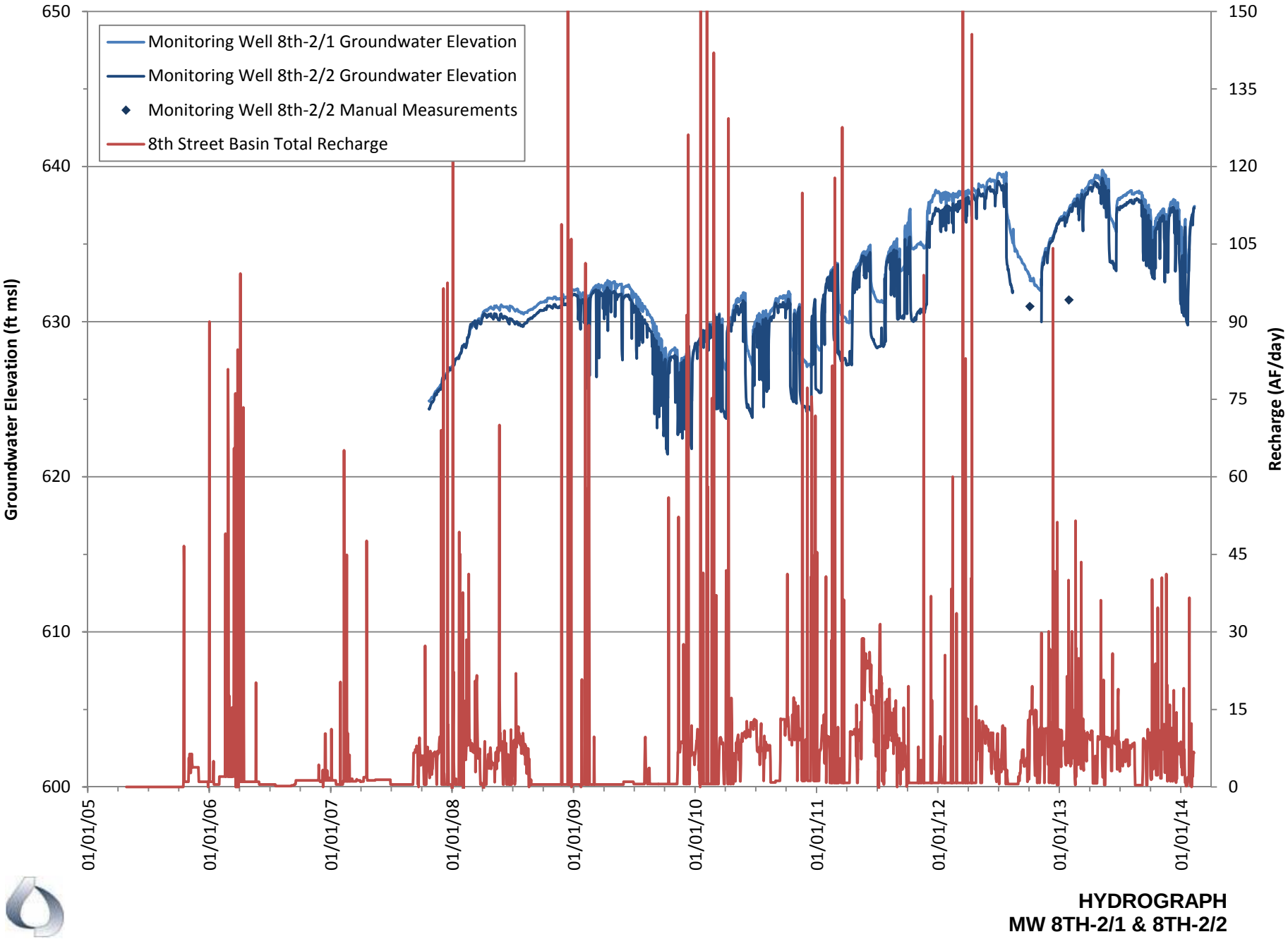
EC, TDS, CHLORIDE TRENDS
SAN SEVAINE & VICTORIA BASINS
CVWD Well No. 39

APPENDIX D

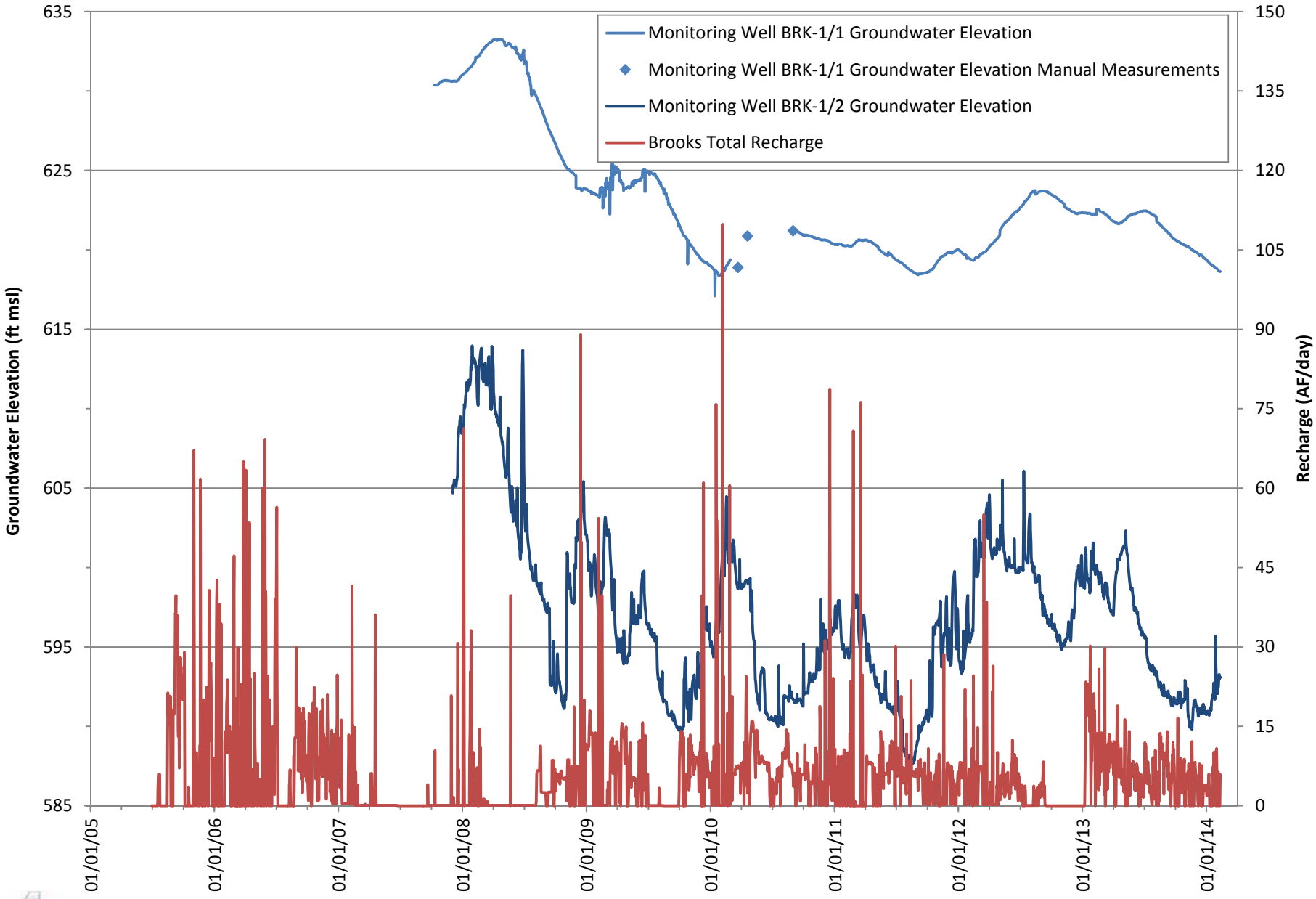
MONITORING WELL HYDROGRAPHS



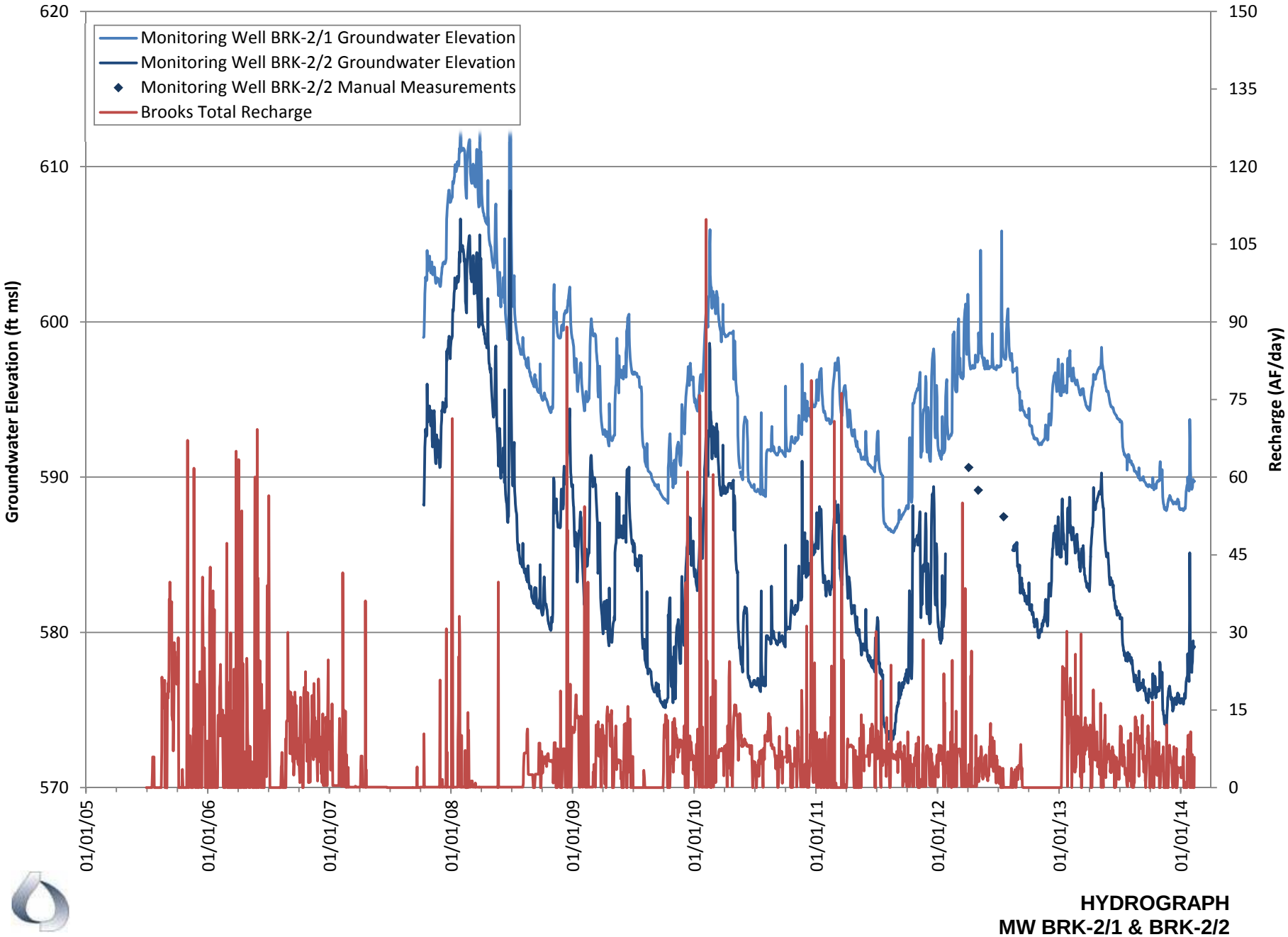
HYDROGRAPH
MW 8TH-1/1 & 8TH-1/2



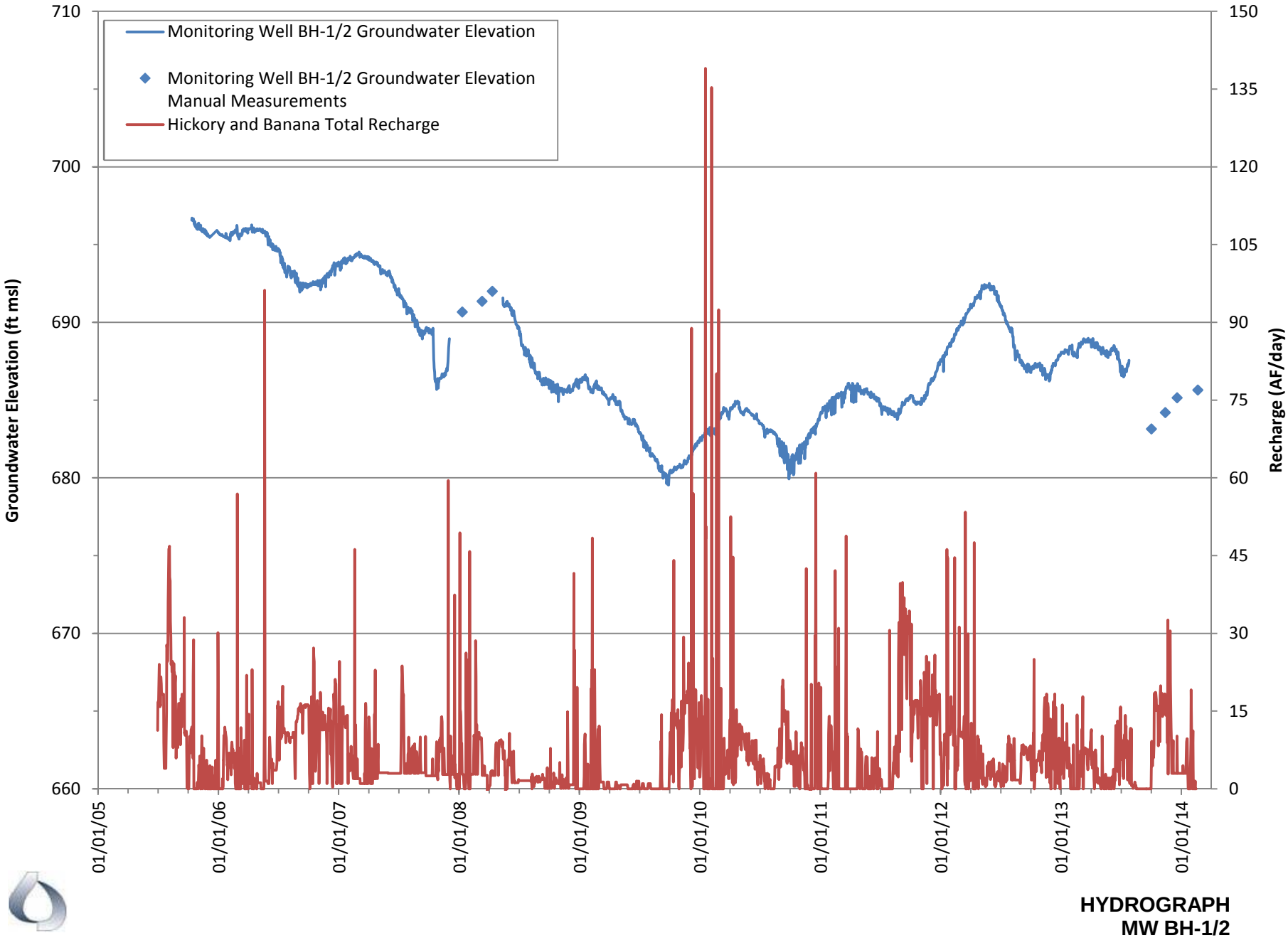
HYDROGRAPH
MW 8TH-2/1 & 8TH-2/2



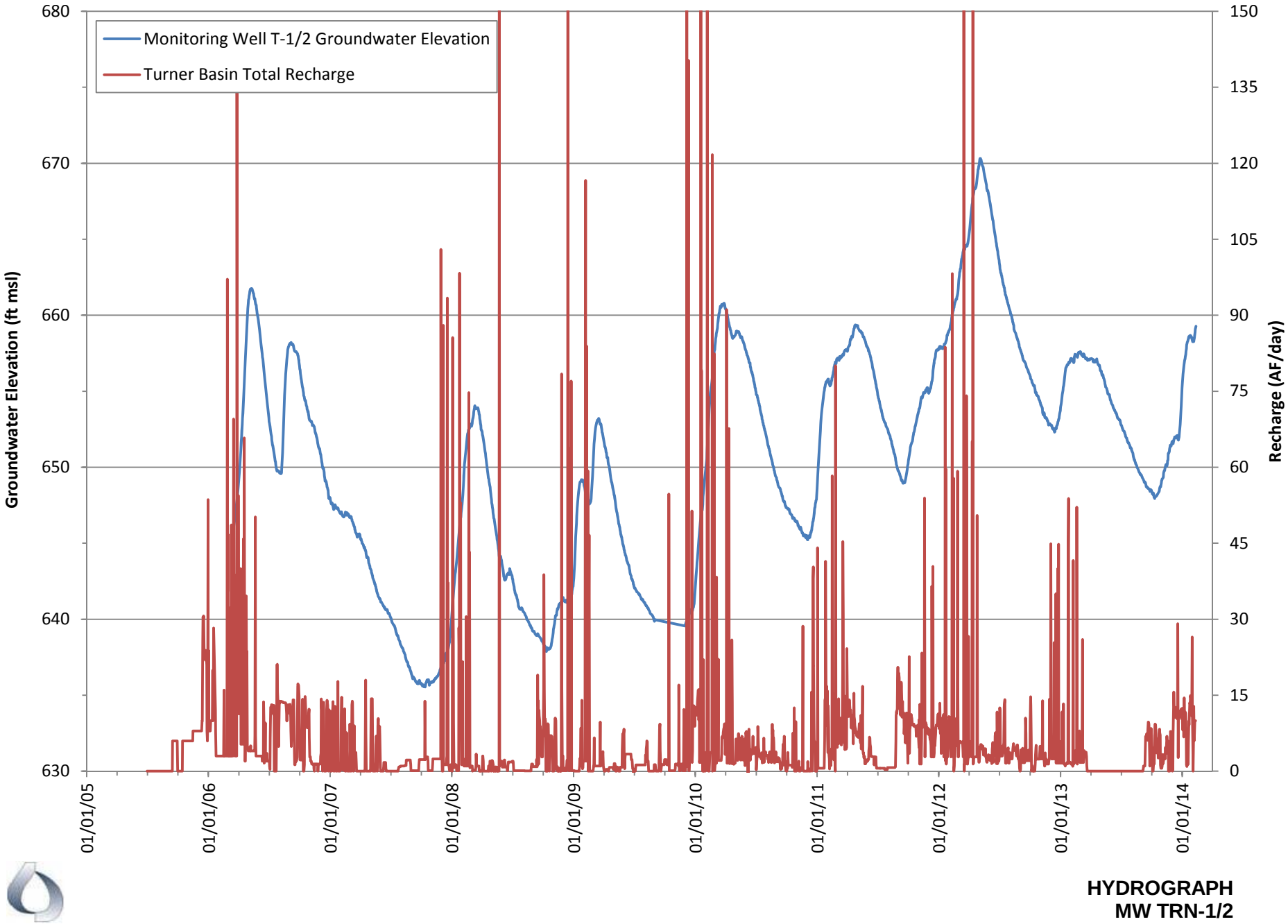
HYDROGRAPH
MW BRK-1/1 & BRK-1/2



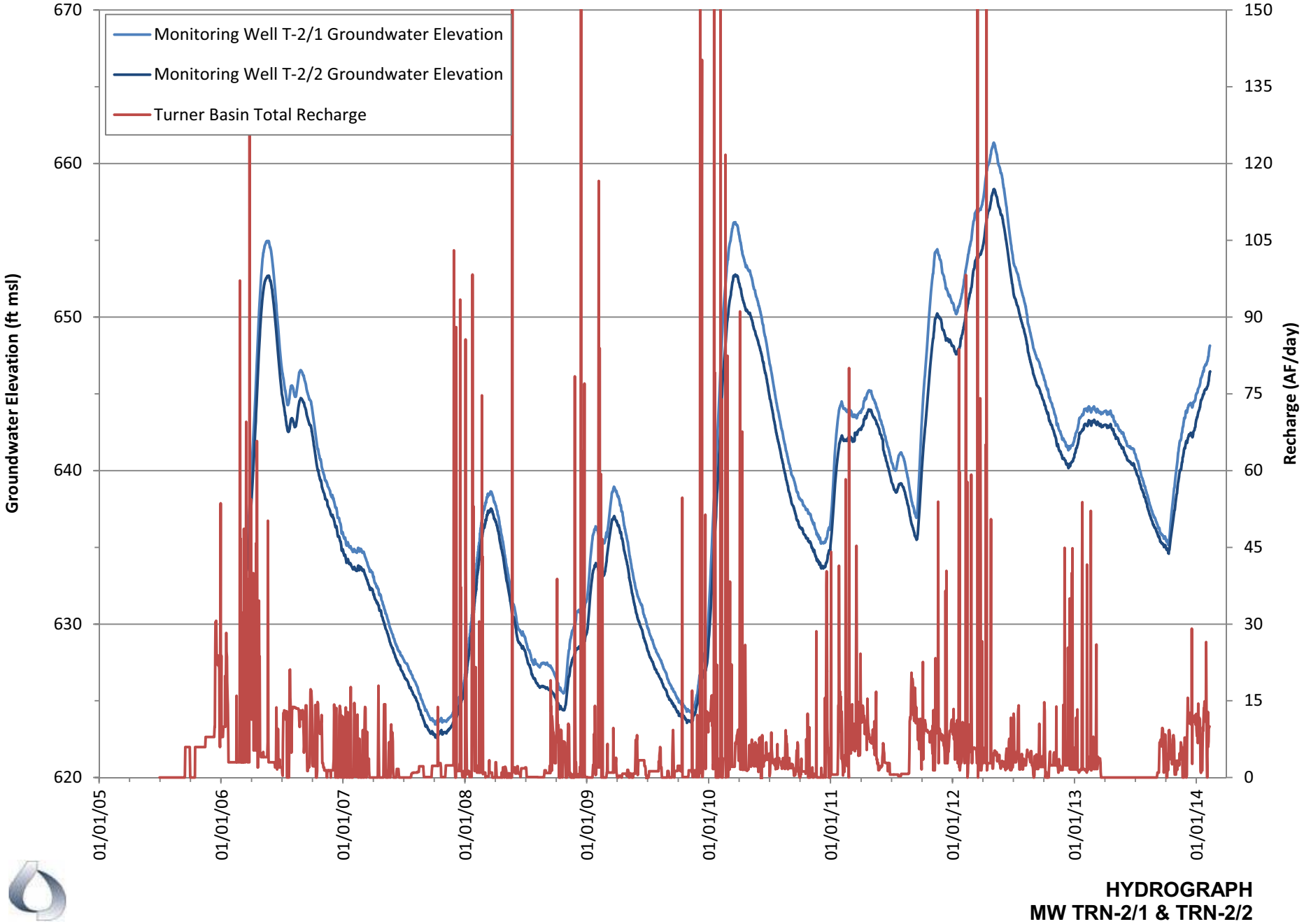
HYDROGRAPH
MW BRK-2/1 & BRK-2/2



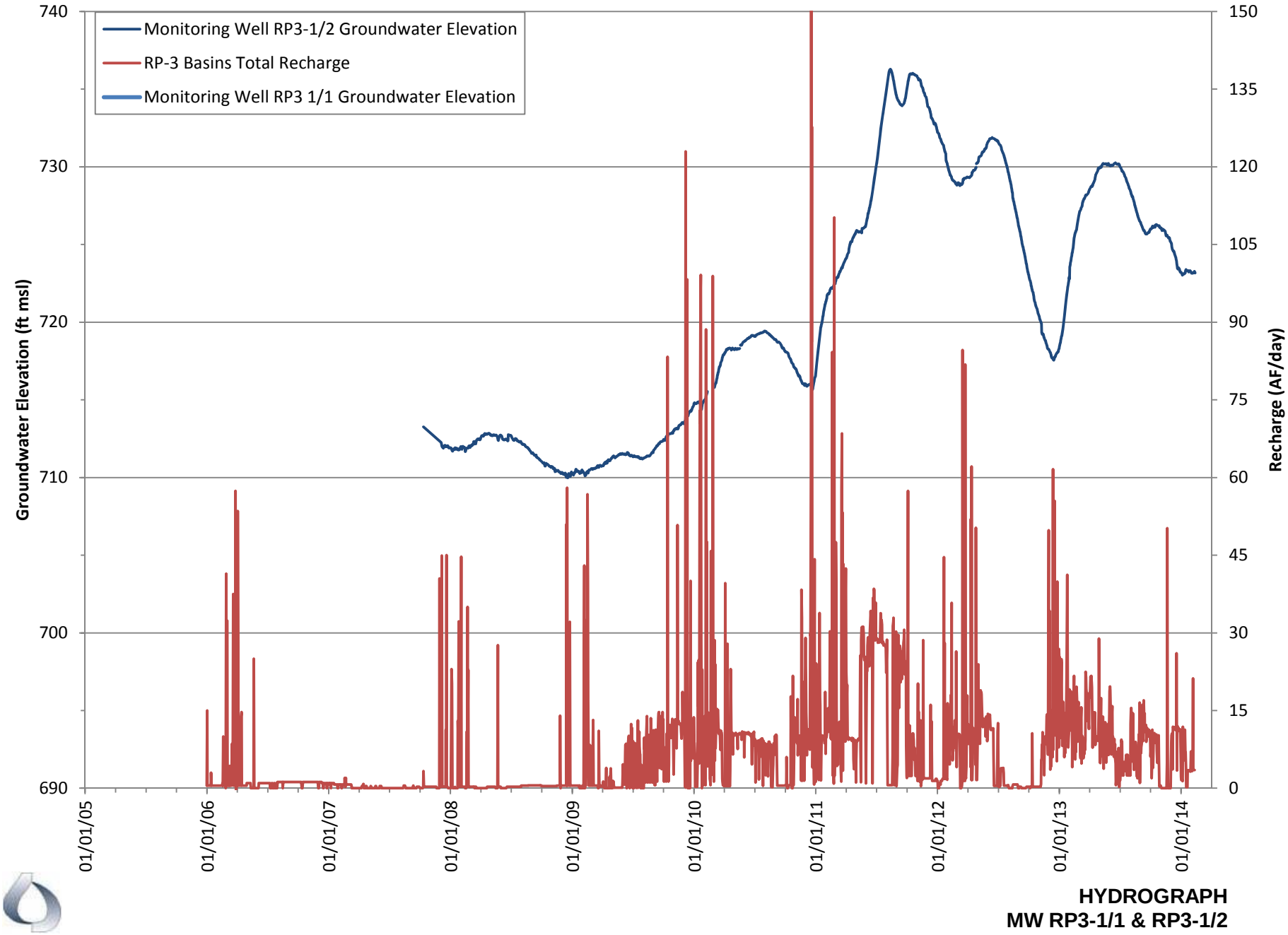
HYDROGRAPH
MW BH-1/2



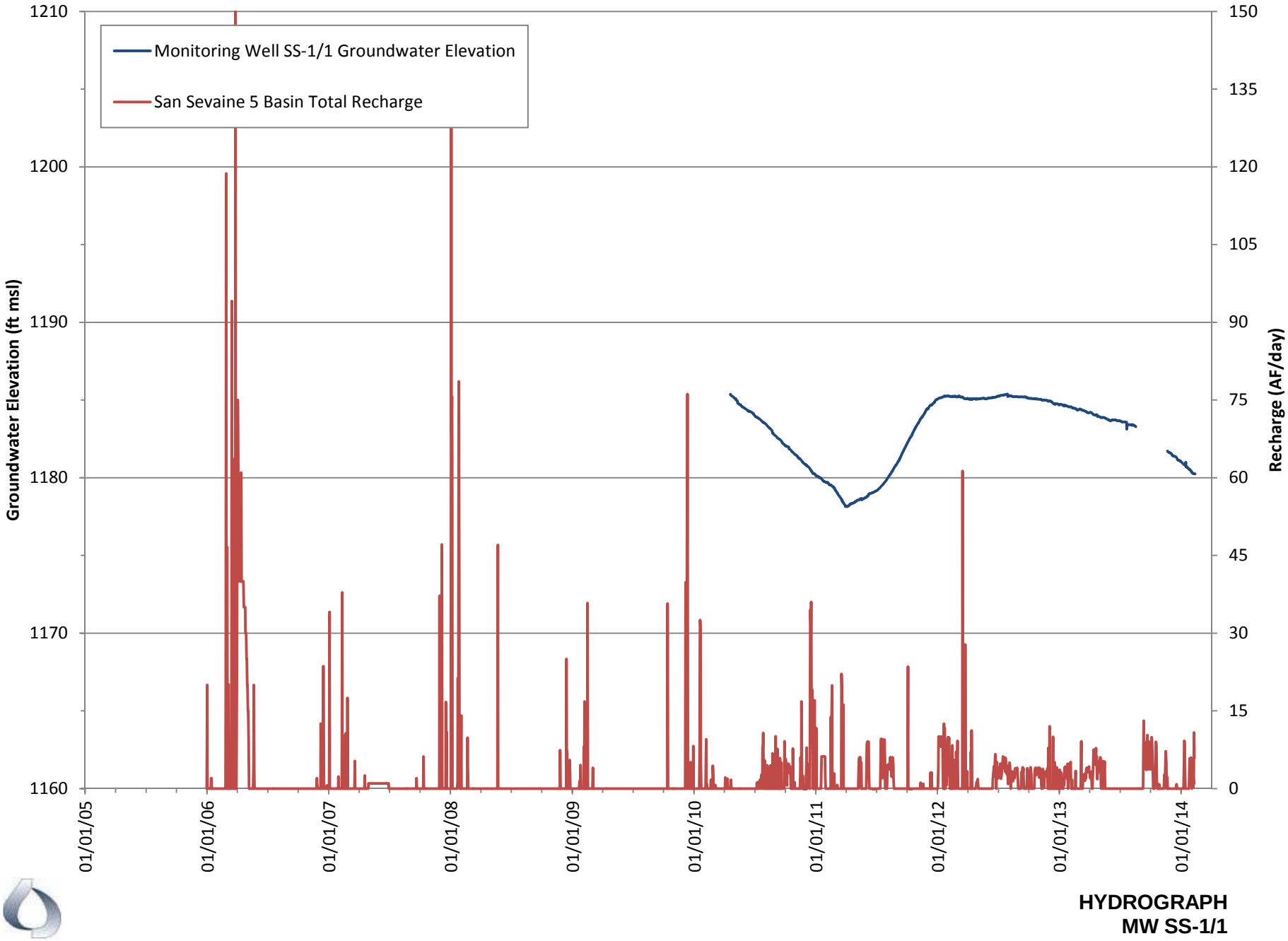
HYDROGRAPH
MW TRN-1/2



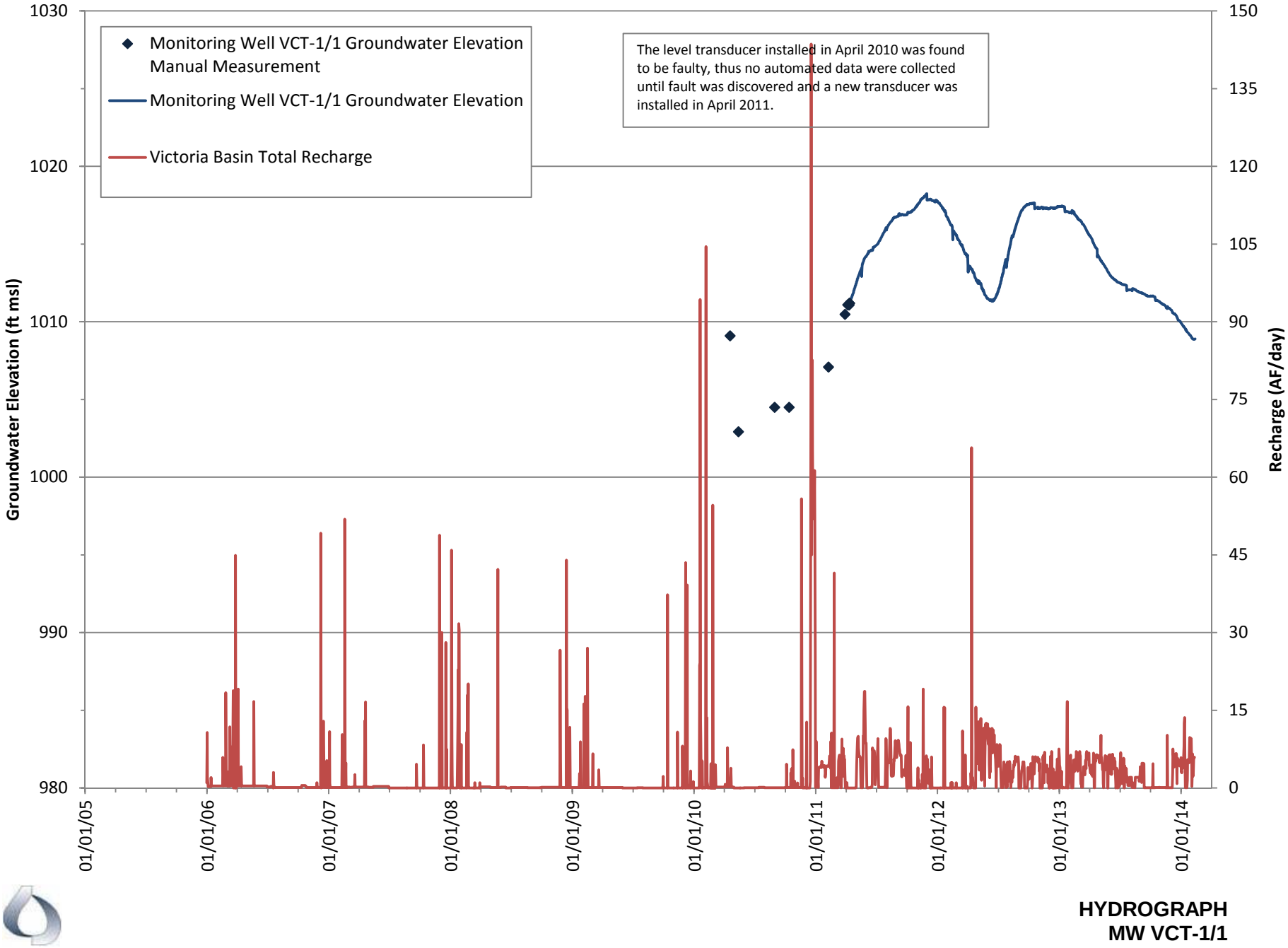
HYDROGRAPH
MW TRN-2/1 & TRN-2/2



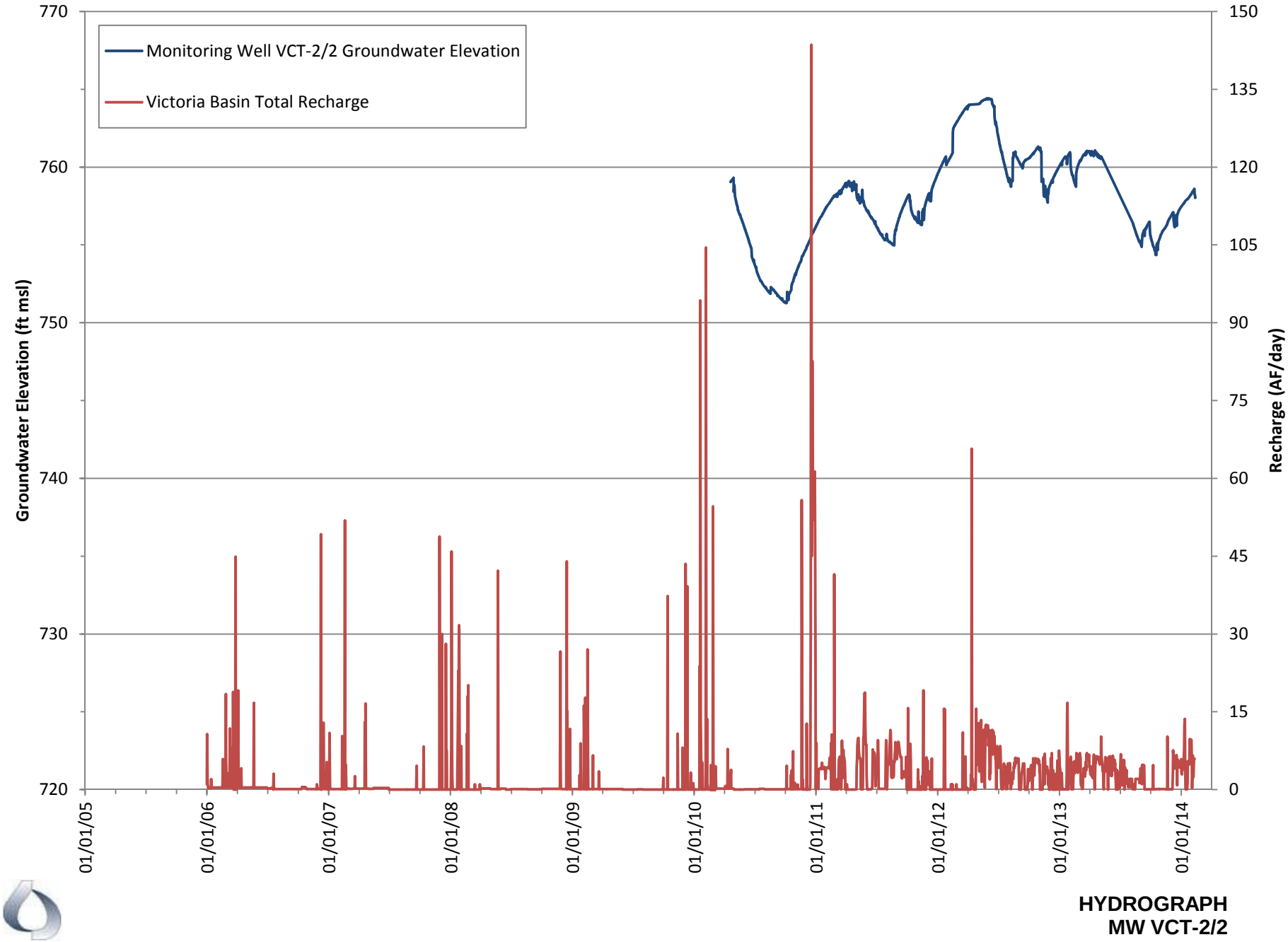
HYDROGRAPH
MW RP3-1/1 & RP3-1/2



HYDROGRAPH
MW SS-1/1



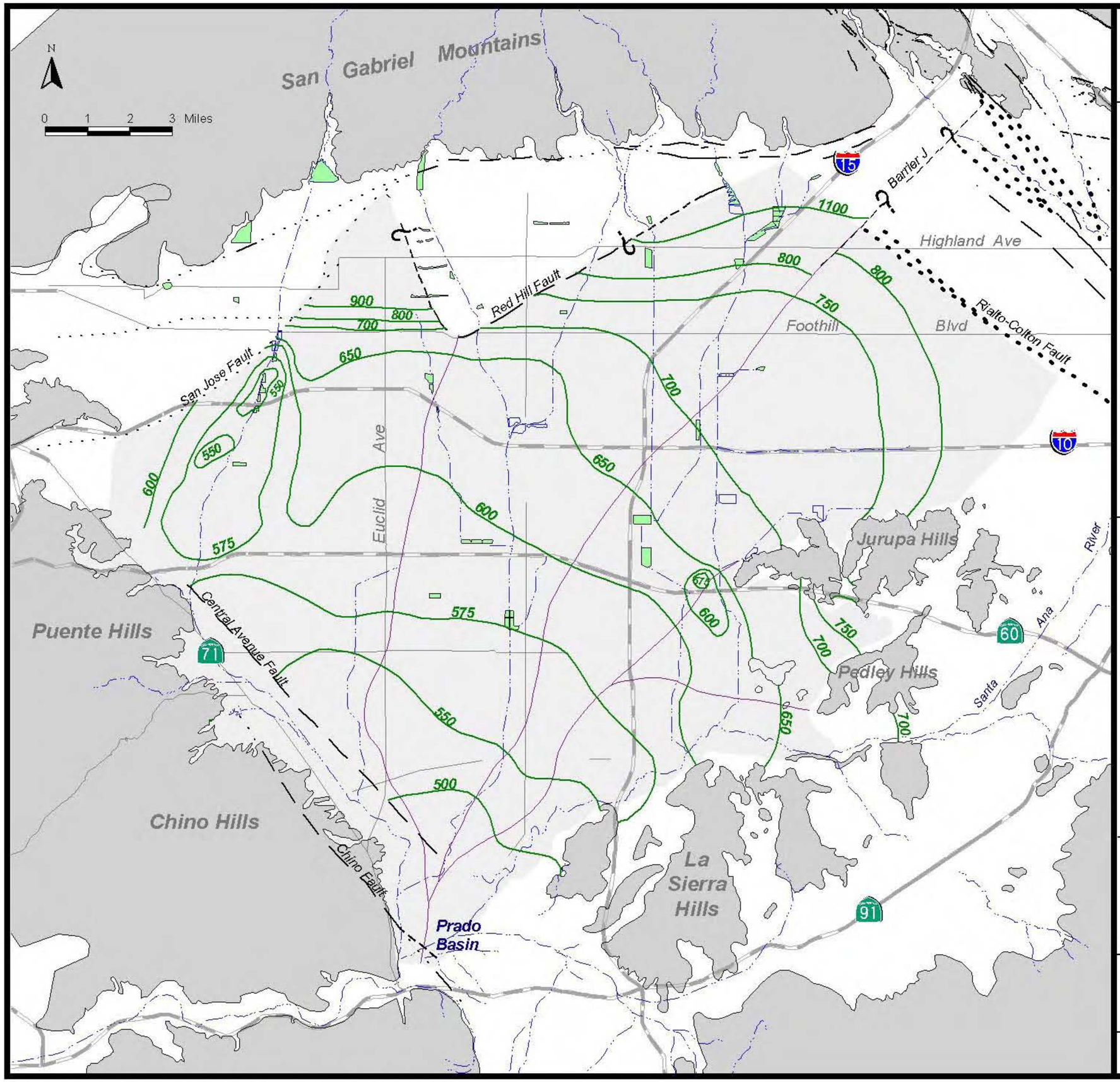
HYDROGRAPH
MW VCT-1/1



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

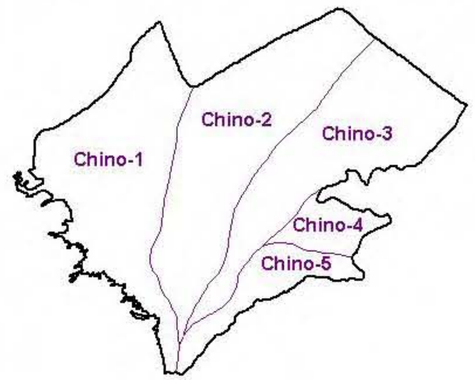


Figure 2-19
Fall 1997
Groundwater Elevation Map

WE WILDERMUTH ENVIRONMENTAL, INC.

Date: August 19, 1999

s:\clients\cbwm\obmp\task order 2\obmp documents\section 2\figures\figure 2-19.apr

117°40'0"W

117°20'0"W

34°0'0"N

Main Features

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

Geology

Water-Bearing Sediments

- Quaternary Alluvium

Consolidated Bedrock

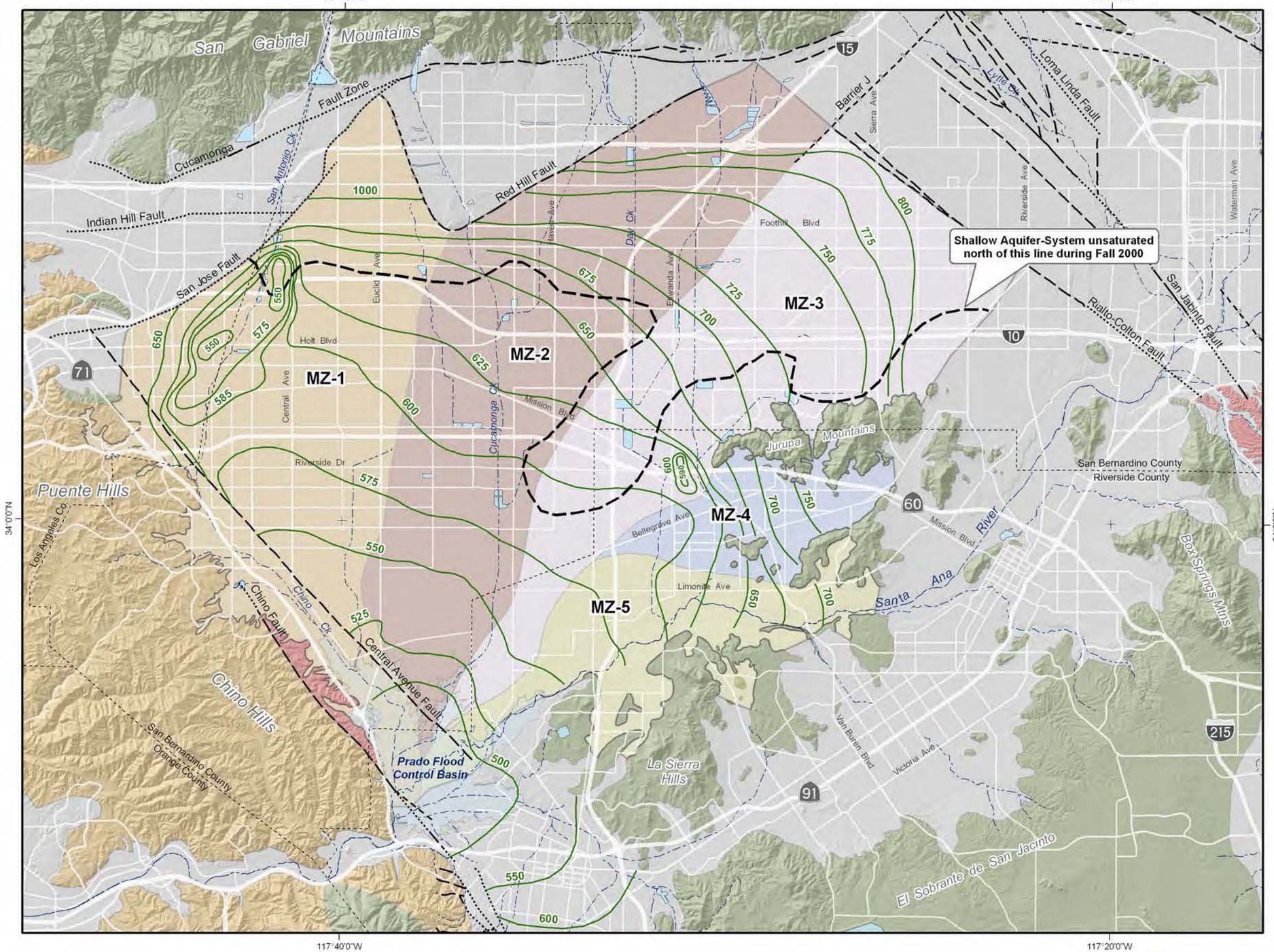
- Plio-Pleistocene Sedimentary Rocks
- Cretaceous to Miocene Sedimentary Rocks
- Pre-Tertiary Igneous and Metamorphic Rocks

Faults

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

Other Features

- Flood Control and Conservation Basins



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

0 1 2 3 4 Miles
0 2 4 6 KM

Inland Empire Utilities Agency

Phase II Recycled Water Groundwater Recharge Project

Groundwater Elevation Map Fall 2000

Figure 8-3

117°40'0"W

117°20'0"W

34°0'0"N

San Gabriel Mountains

Cucamonga Fault Zone

Red Hill Fault

Indian Hill Fault

San Jose Fault

Puente Hills

LA County

Chino Hills

Chino Fault

San Bernardino County
Orange County

Prado Flood Control Basin

La Sierra Hills

El Sobrante de San Jacinto

Jurupa Mountains

San Bernardino County
Riverside County

Box Springs Mtns

San Andreas Fault

Lona Linda Fault

Barrier J

Barrier H

Barrier G

Rialto-Colton Fault

San Jacinto Fault

Foothill Blvd

Holt Blvd

Mission Blvd

Riverside Dr

Bellegrave Ave

Limonite Ave

Van Buren Blvd

Victoria Ave

6th St

Main St

Sierra Ave

Riverside Ave

Waterman Ave

Central Ave

Euclid Ave

Haven Ave

Etiwanda Ave

15

10

60

215

91

1000 800 775 750 725 700 675 650 625 600 575 550 525 590 560 540 530 500

Main Features

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

Chino-I Desalter Well

Chino Basin Hydrologic Boundary

Geology

Water-Bearing Sediments

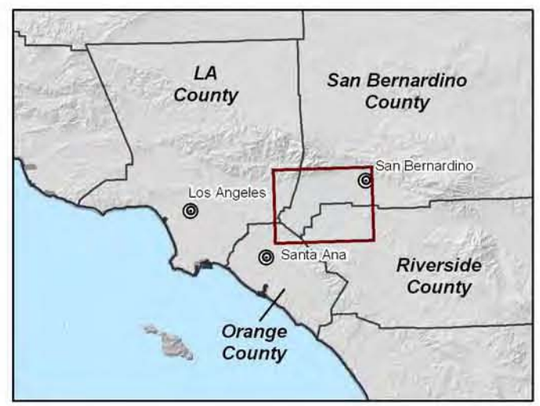
Quaternary Alluvium

Consolidated Bedrock

Undifferentiated Pre-Tertiary to Early Pleistocene Igneous, Metamorphic, and Sedimentary Rocks

Faults & Groundwater Divides

Location Certain
Location Approximate
Location Concealed
Location Uncertain
Groundwater Divide



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Author: KD
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File: Figure_3-6.mxd

0 1 2 3 4 Miles
0 2 4 6 KM

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

Groundwater Elevation Contours

Fall 2003 -- Chino Basin

Figure 3-6

117°40'0"W

117°20'0"W

34°0'0"N

San Gabriel Mountains

Fault Zone

Cucamonga Basin

Claremont Basin

Pomona Basin

Rialto-Colton Basin

Riverside Basins

Puente Hills

Chino Hills

Temescal Basin

Arlington Basin

La Sierra Hills

El Sobrante de San Jacinto

Jurupa Mountains

Prado Flood Control Basin

Cucamonga

San Antonio Ck

Red Hill Fault

Indian Hill Fault

San Jose Fault

Barrier J

Lytle Ck

Loma Linda Fault

San Jacinto Fault

Rialto-Colton Fault

Chino Fault

Chino Ck

Day Ck

Cucamonga Ck

Santa Ana River

Mission Blvd

Foothill Blvd

Holt Blvd

Riverside Dr

Limonite Ave

Van Buren Blvd

Victoria Ave

Sierra Ave

Riverside Ave

Haven Ave

Etiwanda Ave

Euclid Ave

Central Ave

Los Angeles Co.

San Bernardino County

Orange County

Riverside County

15

210

215

10

60

71

91

1100

1000

800

775

725

700

650

600

575

550

525

500

750

625

Groundwater Elevation Contours
(feet above mean sea-level)

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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Date: 20070511

File: Figure_3-18.mxd

0 1 2 3 4 5 Miles

0 2 4 6 8 KM

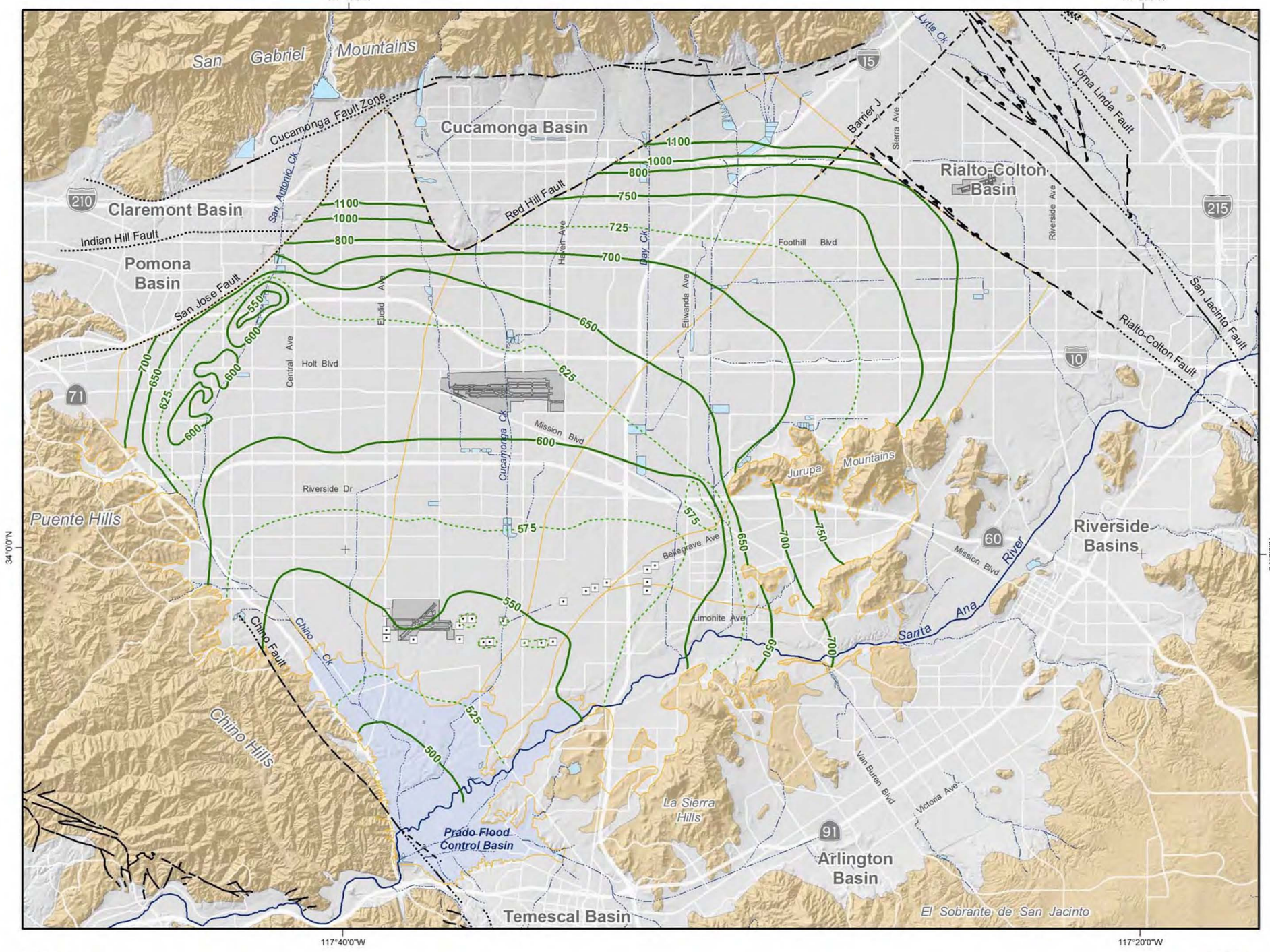
DRAFT - 2007 CBWM Groundwater Model Documentation and Evaluation of the Peace II Project Description

Hydrogeologic Setting

Groundwater Elevation Contours

Fall 2006 -- Chino Basin

Figure 2-7a



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

Other Features

Management Zone Boundary (1, 2, 3, Chino East, Chino South)

Chino Desalter Well

Streams & Flood Control Channels

Flood Control & Conservation Basins

Geology

Water-Bearing Sediments

Quaternary Alluvium

Consolidated Bedrock

Undifferentiated Pre-Tertiary to Early Pleistocene Igneous, Metamorphic, and Sedimentary Rocks

Faults

Location Certain
Location Approximate
Location Concealed
Location Uncertain

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Author: ETL/CML
Date: 20090401
File: Figure_3-19.mxd

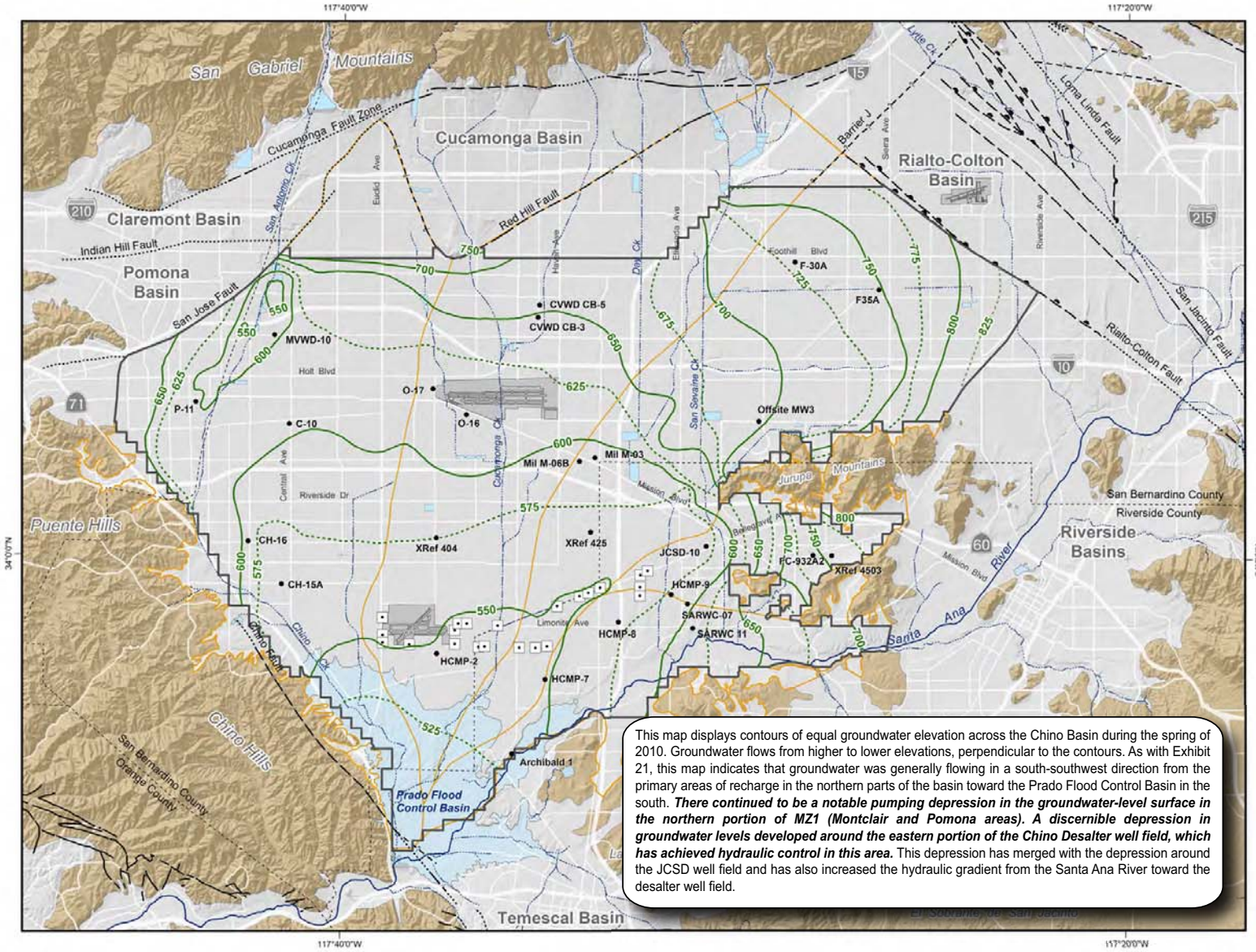
0 1 2 3 4 5 Miles
0 2 4 6 8 KM

2008 State of the Basin Report
Groundwater Levels

Groundwater Elevation Contours

Fall 2008 -- Chino Basin

Figure 3-19



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.

- 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

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Author: TCR
Date: 20111027
File: Exhibit_22.mxd

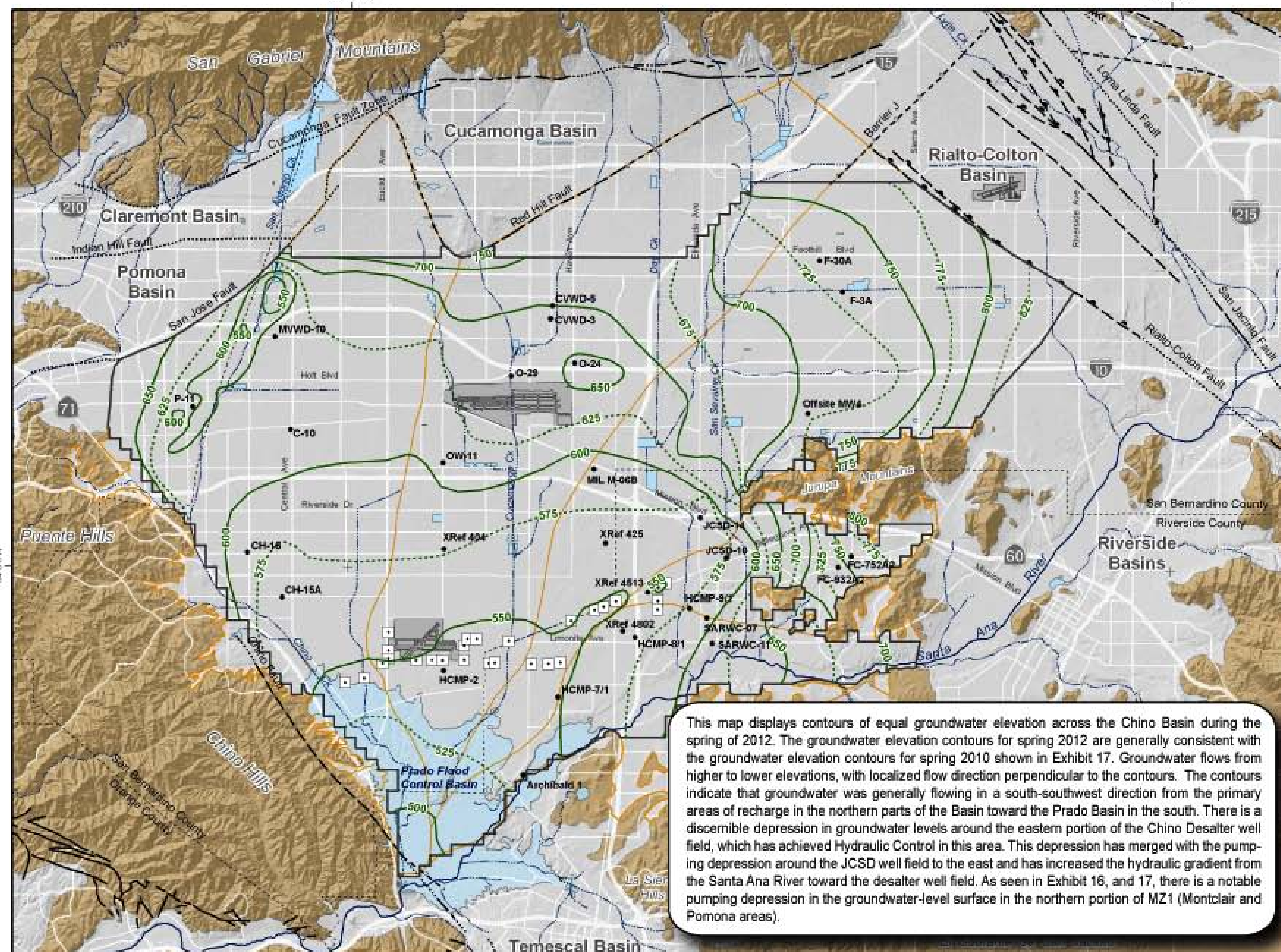
0 1 2 3 4 5 Miles
0 2 4 6 8 KM

2010 State of the Basin
Groundwater Levels

Groundwater Elevation Contours

Spring 2010

Exhibit 22



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

Groundwater Elevation Contours (feet above mean sea-level)

Boundry of Contoured Area (contours are not shown outside of this boundary due to lack of water level data)

Well With a Water-Level Time History Plotted on Exhibits 24 through 28.

OBMP Management Zones

Chino Desalter Wells

Streams & Flood Control Channels

Flood Control & Conservation Basins

Geology

Water-Bearing Sediments

Quaternary Alluvium

Consolidated Bedrock

Undifferentiated Pre-Tertiary to Early Pleistocene Igneous, Metamorphic, and Sedimentary Rocks

Faults

Location Certain — Location Concealed

Location Approximate — Location Uncertain

Approximate Location of Groundwater Barrier

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Date: 20121130
File: Exhibit_18.mxd

0 1 2 3 4 5 Miles
0 2 4 6 8 KM

2012 State of the Basin
Groundwater Levels

Groundwater Elevation Contours in Spring 2012

Shallow Aquifer System

Exhibit 18