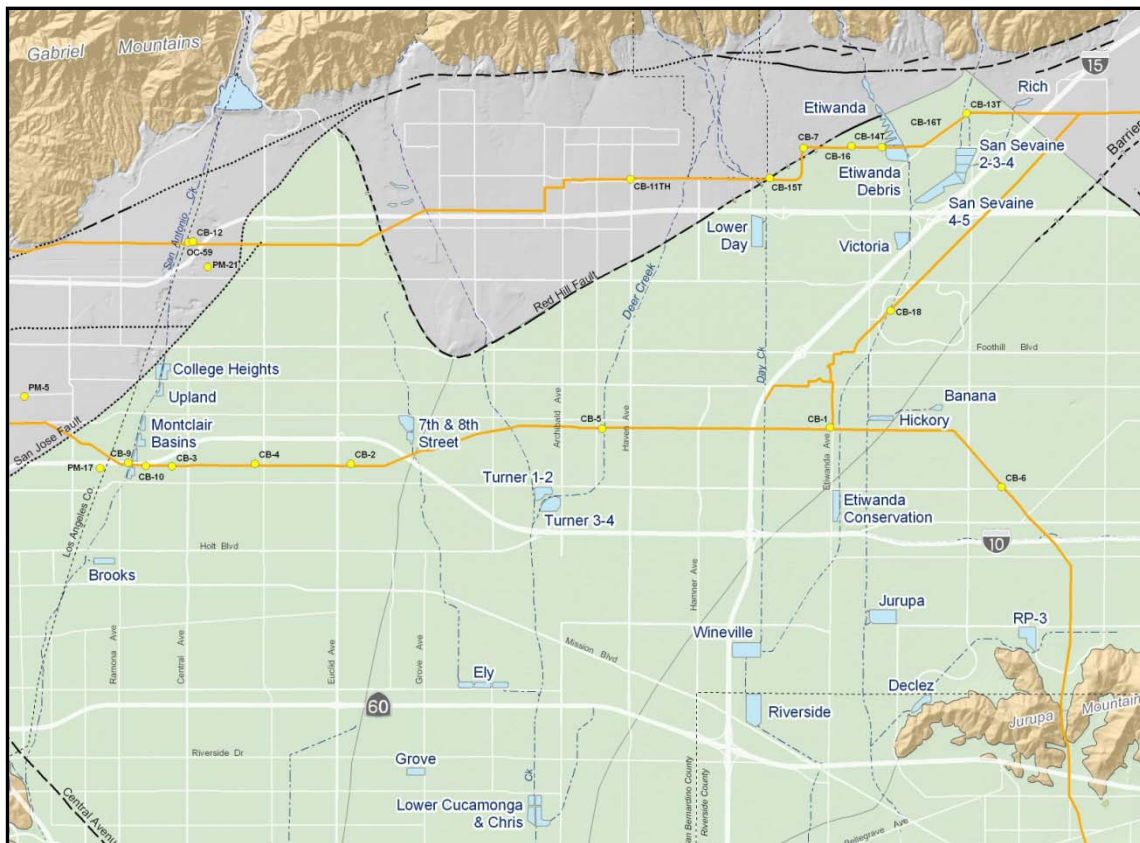


Chino Basin Recycled Water Groundwater Recharge Program

2010 Annual Report



May 1, 2011



Patrick O. Shields

Executive Manager of Operations

May 1, 2011

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 2010

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 *2010 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.

Inland Empire Utilities Agency

P.O. Box 9020

Chino Hills, CA 91709

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- 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 2010:

- Highlights during the 2010 calendar year include the revised monitoring and reporting program, start-up of the San Sevaïne 5 Basin and Victoria Basin, submittal of the Brooks Street Basin and RP3 Basins Start-Up Period reports, and total program recharge of 32,696 acre-feet (AF) including 19,412 of stormwater and dry weather flows; 8,304 AF of recycled water; and 4,980 AF of imported water.
- During 2010, recycled water monitoring was conducted in accordance with MRP No. R8-2007-0039. No turbidity, coliform, total nitrogen (TN), total organic carbon (TOC), and dissolved oxygen (DO) compliance limits were exceeded during 2010. No primary or secondary regulated contaminants limits were exceeded during 2010.
- No operational problems were encountered during the 2010 calendar year; therefore no corrective actions were necessary for RP-1, RP-4, recharge operations, and well sampling. No violations or suspensions of recharge operations occurred. No unit process changes occurred during 2010.
- 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, 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 2010, the volume-based 120-month running average RWCs (inclusive of groundwater underflow) by basin were: 8th Street - 23%; Banana – 29%; Brooks – 22%; Ely – 12%, Hickory – 25%, Turner Basin Cells 1&2 – 8%; Turner Basin Cells 3&4 – 19%; RP3 – 14%; San Sevaïne 5 – 1%; and Victoria – 13%. The Banana, Brooks, Ely, Hickory, Turner Cells 1&2, Turner Cells 3&4, and RP3 recharge sites are in compliance with their maximum RWC limits determined during their start-up period. RWC limits for 8th Street, San Sevaïne, and Victoria Basins are being evaluated.
- CBWM has verified in the Recycled Water Groundwater Recharge Quarterly Reports that there was no reported pumping of groundwater in 2010 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 arrival times of recycled water at monitoring wells 8TH-1/1 (660 days) and 8TH-2/2 (402 days) for 8th Street Basin; BRK-1/1 (150 days) for Brooks Basin; BH-1 (59 days) for Hickory Basin; California Speedway Infield well (848 days) for Banana Basin; TRN-1 (97 days) and TRN-2 (285 days) for Turner Cell 1 and Cell 4, respectively; and RP3-1 (99 days) for RP3 Basin Cell 1. Other program monitoring wells have yet to indicate arrival of recycled water.
- Comparison of the pre-recharge elevation contours (2003) with the post-program start-up contours (2008) indicates that the recharge program has not significantly changed the overall groundwater flow path directions. With the exception of local recharge mounds at basins, 2010 groundwater elevations in the program monitoring wells have changed less than the contour interval (25 feet) used in the 2003 and 2006 groundwater elevation maps. A new groundwater elevation contour map (2010) is being prepared by CBWM and should be available for reference in the 2011 Annual Report to identify potential regional changes in groundwater flow patterns since 2008.

DECLARATION

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

Executed on the 28th day of April 2011 in the City of Chino, California.



Patrick O. Shields

Executive Manager of Operations



Chino Basin Recycled Water Groundwater Recharge Program

2010 Annual Report

Prepared by:

Inland Empire Utilities Agency

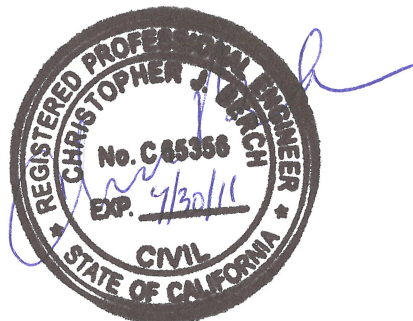
Andrew Campbell

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Manager of Planning & Environmental Compliance

Inland Empire Utilities Agency

May 1, 2011

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1 INTRODUCTION

This document is the Annual Report for Chino Basin Recycled Water Groundwater Recharge Program for the 2010 calendar year. 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. This is part of a comprehensive water supply program to enhance water supply reliability and improve the groundwater quality in local drinking water wells throughout the Chino Groundwater Basin by increasing the recharge of storm water, imported water and recycled water. The annual report summarizes recycled water quality monitoring and the effects of the recharge program on the groundwater basin. The 2010 recharge operations have previously been summarized in the four 2010 quarterly reports, which document the recharge activities for the basins having already begun recharge with recycled water, namely 8th Street, Banana, Brooks, Ely, Hickory, RP3, Turner, San Sevaine, and Victoria Basins. The highlights of the 2010 calendar year include the revised monitoring and reporting program, start-up of the San Sevaine 5 Basin and Victoria Basin, submittal of the Brooks Street Basin and RP3 Basins Start-Up Period reports, and total program recharge of 32,696 acre-feet (AF) including 19,412 of stormwater and dry weather flows; 8,304 AF of recycled water; and 4,980 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; and
- 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.
- 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) 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.

A request was made to the Regional Board to modify permit language for specific sections of the MRP. The modifications to the MRP were previously discussed and agreed upon with staff of the CDPH. An approval letter with a revised MRP was received by IEUA on October 27, 2010. The following modifications were made to the MRP:

1. Sampling Requirements A.3., A.4., and A.5., of page 1 of 18, were modified by specifying that samples shall be collected on a representative day instead of the 10th day.
2. Groundwater Monitoring Program Requirement V.1., page 14 of 18, was modified by adding a sentence to the paragraph that allows IEUA to analyze the groundwater samples collected on a quarterly basis from non-active municipal drinking water well for dissolved metals, instead of total recoverable metals.
3. Reporting Requirement VI.B.3.b., second sentence, page 17 of 18, has been modified and footnote No. 18 has been added to reflect that IEUA uses groundwater monitoring information contained in the state of the basin report prepared on a biennial basis by the Chino Basin Watermaster, amongst other sources, for the annual determination of the recycled water groundwater flow path.



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 2009 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 2010, recycled water monitoring was conducted in accordance to 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, 2010a, 2010b, 2010c, 2011).

2.1.1 *Detections and Compliance with Narrative Limits*

Recycled Water Specifications A.5 through A.9 are narrative limits in the permit. The 2010 recycled water monitoring data and associated limits for specifications A.5 through A.9 are shown in Table 2-1 and 2-2 of the quarterly monitoring reports. The monitoring and compliance for these 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). In accordance with MRP No. R8-2007-0039, the required monitoring frequency for turbidity and pH is continuous; total coliform is daily; total inorganic nitrogen, total nitrogen, and total organic carbon is weekly; and total dissolved solids is monthly. None of the limits narrative limits for turbidity, coliform, total dissolved solids, total inorganic nitrogen, total nitrogen, pH, and total organic carbon were exceeded during 2010.

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) specifies limits for constituents with primary maximum contaminant levels (MCLs) and secondary MCLs. The 2010 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 are 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 2010, the 4-quarter running average concentrations for constituents with MCLs were not in excess of compliance limits.

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 GenOn Energy (formerly known as Reliant Energy) as it represents a mixture of recycled water from both RP-1 and RP-4. The compliance sampling point for Total Trihalomethanes (TTHMs) and Total Haloacetic Acids (HAA5) are not at the GenOn Energy Turnout. TTHMs and HAA5 compliance sampling is done at the recharge basins because it is more representative of the recycled water prior to reaching the groundwater table. During 2010, 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 2010 at the selected lysimeters.



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 corresponding to the annual sampling month specified in the MRP. In 2010 the annual sampling for recycled water took place during the month of August. Recycled water monitoring for unregulated chemicals listed in Table II continues even though the regulations for monitoring were repealed on October 18, 2007.

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. The annual requirement for the discussion on downgradient public drinking water systems is discussed in further detail in Section 3.4 of this report.

2.3 Laboratory Certifications and Test Methods

The IEUA and MWH 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 2011 and the MWH Laboratories laboratory certification is valid through January 2012.

To ensure the quality and reliability of test measurements and results, specific programs and procedures have been developed by both the IEUA and MWH Laboratories. The 2005 Annual Report contained an electronic copy of the QA/QC manual from each laboratory, including analytical methodologies; this information has not changed since last reported. The 2010 Annual Laboratory QA/QC Data Summary Report was also submitted to the Regional Board as an attachment in IEUA's 2010 Annual NPDES Report.

2.4 Calibration Summary

Field parameters 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 were encountered during the 2010 calendar year, therefore no corrective actions were necessary for the following: RP-1, RP-4, recharge operations, lysimeter and monitoring well sampling. No violations or suspensions of recharge operations occurred during the 2010 calendar year.

Groundwater monitoring wells are monitored quarterly for the parameters listed in Groundwater Water Monitoring Program V.1. Table 1 and annually at monitoring wells specified in the Phase II Findings of Fact, Attachment A, for constituents with primary MCLs and action levels.

Turbidity exceeding the secondary MCL was observed in monitoring wells Southridge JHS, Alcoa MW1 & MW3, BRK-1/1, Bishop of San Bernardino Corp, 8TH-1/1, VCT-1/1, and VCT-1/2 during various quarters in 2010. Additional well purging has and will continue to be performed for wells where turbidity levels are elevated.

During 1Q10 and 2Q10, iron and/or manganese exceeding the secondary MCL were observed at wells Southridge JHS, Alcoa MW1, BRK-1/1, BRK-2/1, Bishop of San Bernardino, Ely MW-2, and DCZ-1. To evaluate turbidity impacts on metals results, IEUA conducted comparative sampling and analyses methods for metals at several monitoring wells. The compared methods were analysis of total recoverable metals (unfiltered sample) and analysis of dissolved metals (filtered sample). Findings indicated the metals are not appreciably present following filtering. IEUA discussed with CDPH and RWQCB staff changing the metals analyses protocols for samples from monitoring wells with known high turbidity to the dissolved metals method. Both agencies agreed and written approval was received from the Regional Board in October 2010. During 3Q10, only the manganese at well RP3-1/2 and nickel at 8TH-1/1 remained high after filtering and analysis for dissolved metals. During 4Q10, only the manganese at well RP3-1/2 remained elevated after filtering and analysis for dissolved metals..

During 2010, TDS and EC were slightly higher than the secondary MCLs in wells, RP3-1, Southridge JHS, and Bishop of San Bernardino Corp (4Q10 only). The wells south of Ely and near RP3 are located in an area with historically high EC levels ($>1,000 \mu\text{mhos/cm}$). Many of the monitoring wells in the 8th Street, Brooks, Ely, RP3, and Declez monitoring network also have nitrate concentrations above the primary MCL. These higher levels are characteristic of groundwater quality in the local area where historically $\text{NO}_3\text{-N}$ concentrations ranges from 10-30 mg/L. TDS and nitrate concentrations in the area of the RP3 and Declez monitoring well network are documented in the CBWM 2008 State of the Basin Report.

Aluminum concentrations above the secondary and primary MCLs were detected periodically at the following monitoring wells during 2010: BRK-1/1, BRK-2/1, RP3-1/1, Alcoa Offsite MW-1, Alcoa Offsite MW-3, and DCZ-1. These elevated aluminum results may be related to their shallow construction across the water table, relatively short development history, the natural occurrence of aluminum in the aquifer-bearing sediments in this area, and sampling methodology.



During 4Q09, chromium exceeded the MCL of 50 µg/L at BRK-2/1 during annual sampling. This prompted additional sampling during 1Q10 of the Brooks monitoring wells for confirmation, as these wells are normally monitored for a much shorter list of parameters on a quarterly basis. The 1Q10 results showed MCL exceedances at BRK-1/1 for chromium and nickel in samples collected January 14, 2010 and March 23, 2010. These parameters are not found in recycled water and the City of Pomona was notified as the owner of the nearest potable use wells.

During 3Q10, perchlorate concentrations above the MCL of 6 µg/L were detected at BRK-1/2 which is characteristic of several production wells in the Pomona area and is documented in the CBWM 2008 State of the Basin Report.

During 3Q10, di(2-ethylhexyl)phthalate exceeded the MCL of 4 µg/L in seven groundwater monitoring wells during annual sampling. This is most likely attributed to contamination from sample tubing containing plastic.

Municipal groundwater production wells Cucamonga Valley Water District (CVWD) No. 35 and No. 36 were abandoned by the CVWD in 2010. The two wells were replaced by CVWD No. 43 for tracking recharge from Victoria Basin.

2.6 Unit Process Changes and Anticipated Impact on Water Quality

No unit process changes occurred during the 2010 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 2010 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 2010, recycled water recharge totaled 8,304 AF using these nine recharge sites. Of this volume, 66% was recharged in the 8th Street Brooks, and RP3 Basins with the remaining being recharged in the six other recharge sites with recycled water recharge.

Basin	Recycled Water Recharge (AF)	Percent of All Recycled Water Recharge
8th Street	1,789	22%
Banana	788	9%
Brooks	1,921	23%
Ely	246	3%
Hickory	776	9%
RP3	1,802	22%
San Sevaine	254	3%
Turner	349	4%
Victoria	379	5%
Total	8,304	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, 2010a, 2010b, 2010c, and 2011), but are repeated in this section's discussion of RWC (recycled water contribution) management plans. Of note, the Brooks and RP3 Basins Start-Up Period reports were submitted to the Regional Board in 2010 and the Victoria and San Sevaine Start-Up Periods began in 2010.



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 stormwater / 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 (electrical conductivity), TDS (total dissolved solids), and chloride (Cl).

While 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 the following subsections, blending is evidenced by concentration changes in the monitoring wells located downgradient from the recharge sites. The volume-based percentage expresses a 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 2010 monthly recharge volumes by water type are presented in Appendix A and in the historical recharge portion of the RWC Management Plans (Appendix C). 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 of diluent water and recycled water batches do support 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 passed allowing its use) or the first month of a basin's recycled water recharge (if after October 2009).

The running average RWC calculation is equal to:

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



At the end of December 2010, the (volume-based) running average RWC for basins having initiated recharge using recycled water were as follows:

Basin	120-month Running Average RWC
8 th Street	23%
Banana	29%
Brooks	22%
Ely	12%
Hickory	25%
RP3	14%
Turner 1&2	8%
Turner 3&4	19%
San Sevaine 5	1%
Victoria	13%

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 Cl were prepared for monitoring wells adjacent the recharge sites to help identify if blending is occurring within the aquifer. The graphs depicting trends in EC, TDS, and Cl are presented in Appendix B. The graphed data are tabulated in prior quarterly reports. In general, background groundwater concentrations of EC, TDS, and Cl 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 concentration changes persist. The degree of blending can be estimated roughly based on the proportional relationship of EC given the general EC of recycled water and the background groundwater EC. For wells having EC increases associated with recycled water recharge, Table 3-1 provides a range of estimates of percent recycled water observed at a given well in the past year.

8th Street Basin Area

For the 8th Street Basin area, the shallower casing of the monitoring well at the basin (8TH-1/1) began an upward trend in Cl in July 2009 that continued through the summer of 2010 peaking at 50 mg/L. This increase and peak are interpreted to indicate the arrival of recycled water recharged in 2007 and 2008. The deeper casing (8TH-1/2) does not display such a trend. The 8th Street Basin began recharge using



recycled water in its northernmost basin in September 2007 and fairly continuously through 2008 with interruptions for storm water capture. The increase in Cl suggests an approximate 22-month travel time for recharge in the north portion of 8th Street Basin to percolate to the water table and travel to 8TH-1/1. The deeper casing of 8TH-1/2 has not shown an increase in TDS, EC, or Cl that would indicate arrival of recharged recycled water to the deeper aquifer. The shallower casing of monitoring well 8TH-2 (8TH-2/1), located approximately 2,500 feet farther from 8TH-1 shows seasonal variations in TDS and EC that make any possible arrival of recycled water difficult to evaluate. In 2009, the deeper casing at monitoring well 8TH-2 (8TH-2/2) showed a steady increase in Cl above seasonal fluctuations beginning in approximately February 2009, which with a similar Cl indicator would suggest a 17-month travel time (approximately 5 feet per day) to this location. As this is quicker than hydrogeologic expectations, additional monitoring data are required to conclusively identify the arrival of recycled water at the 8th Street Basin monitoring wells. In 2010, Cl in 8TH-2/2 returned to background concentration.

Banana & Hickory Basins area

In the Banana and Hickory Basins area, monitoring well BH-1 (adjacent to Hickory Basin) casing 2 (BH-1/2) has noticeable variations in EC, TDS, and Cl (100 to 150-mg/L TDS difference) that appear to be attributed to cycles of recycled water and diluent recharge at Hickory Basin. These concentrations returned to background levels following the basins' start-up periods during the subsequent period of diluent water recharge. This is an indication of groundwater flow moving the recycled water recharge away from the site. Following the start-up period, recycled water recharge predominately in only the east half of Hickory basin, which produces a more delayed response at the well than from the start-up period. In 2010, EC, TDS, and Cl remained at levels indicating the presence of recycled water at this well throughout 2010.

The California Speedway Infield well south of Banana Basin shows a gradual concentration increase (100-mg/L TDS difference) since the initiation of recycled water recharge. This is to be expected with gradual blending occurring as groundwater moves away from the basin (compare with the 150 to 200-mg/L variation at the basin). Cl concentrations at the Speedway Infield well show gradual increase from 10 to 18 mg/L since the initiation of recycled water at Banana Basin. As presented in Table 3-1 based on EC variations alone, the groundwater mound at BH-1/2 during 2010 would appear to have reached a high of approximately 38% recycled water, and groundwater at the California Speedway Infield well located downgradient of Banana and Hickory a high of approximately 30% recycled water. However, if one compares the Cl data BH-1/2 shows a more significant increase. Cl data support 58% and 8% recycled water at BH-1/2 and California Speedway Infield well, respectively. The data show that blending is occurring in the aquifer downgradient of the Banana and Hickory Basins. Recycled water recharge is interpreted to have not reached downgradient wells California Speedway No.2, Reliant East, FWC 37A, and Ontario No. 20 due to the lack of significant TDS, EC, and Cl variations.



Brooks Basin Area

For the Brooks Street 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 Cl concentrations at BRK-1/1 were observed to show seasonal increases and decreases through its entire history. Concentration increases of 100 mg/L for TDS and 50 mg/L for Cl have been observed and attributed to recycled water presence at BRK-1/1. In the deeper casing (BRK-1/2), small increases in EC, TDS, and Cl began in January 2010 and continued through 2010. Continued observation of these parameters in the deeper well may support the arrival of recycled water at this casing. No significant concentration changes were observed at well BRK-2. As presented in Table 3-1 based on EC and Cl variations, the groundwater mound at the recharge basin (BRK-1/1) during 2010 reached between 45% and 81% recycled water. These data show that blending is occurring in the aquifer beneath Brooks Street Basin.

Ely Basin Area

Groundwater in the area directly south of Ely Basin (south of the 60 freeway) lies on the northern perimeter of a Chino Basin area having high TDS-high nitrate concentrations. Groundwater in this immediate area has historically had 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 this site was incorporated in the recharge permit.

For the immediate Ely Basin area, monitoring wells are located at the basin (Philadelphia well) and downgradient (Walnut well and Riverside well). Historical recycled water recharge has likely 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 mile for the Philadelphia, Walnut, and Riverside wells, respectively). At the two further downgradient wells, high background EC, TDS, and Cl make it difficult to identify when lower EC, TDS, and Cl arrive at this wells from contemporary recharge since both stormwater and recycled water have EC, TDS, and Cl lower than the background concentrations.

Through the last half of 2009 and first half of 2010, the Philadelphia well pump was inoperable and no samples were collected. In the latter half of 2010, sampling of groundwater at the Philadelphia well indicated the presence of recycled water with an increased TDS about 100 mg/L and an increase of about 20 mg/L in Cl since 2009. As presented in Table 3-1, the Ely Basin 2010 groundwater mound at the Philadelphia well ranged from about 10% to 50% recycled water based on TDS and Cl changes. The Philadelphia monitoring well water quality data indicate blending is occurring in the aquifer beneath the Ely Basins.

In 2006 and 2007, EC, TDS, and Cl at the Walnut monitoring well fluctuate at higher concentrations (TDS just below 600 mg/L), but do not appear to be linked directly to recycled water recharge activities at



Ely Basin as the higher TDS values at this location are greater than the TDS of recycled water. In mid 2008 through 2010, the EC and TDS at the Walnut well decreased and held a TDS range of 400 to 450 mg/L. This lowered EC and TDS are likely linked more stormwater recharge and recycled water recharge as the range is less than the TDS of recycled water. The ration of stormwater to recycled water recharge at Ely basin has been about 4 to 1 since 2005.

Further downgradient, the EC, TDS, and Cl of the Riverside well are relatively stable and do not indicate any impacts on these parameters from recycled water recharge. In 2010, EC, TDS and Cl of both the Walnut and Riverside wells were relatively stable.

Turner Basin Areas

For the Turner Basin area, the monitoring well TRN-1 at the basin Turner 1 has noticeable and relatively temporal variations in EC, TDS, and Cl (100 to 200 mg/L for TDS) that can be attributed to cycles of recycled water recharge. In 2010, these concentrations continued to decrease towards background levels following the start-up period of recycled water recharge in 2006-2007, which indicates groundwater blending and movement away from Turner Basin. At monitoring well TRN-2 (adjacent Turner 4), EC, TDS, and Cl concentrations dipped and moderately rose in 2010 delayed several months from recharge activities. This slower and more steady trend and smaller relative concentration change at monitoring well TRN-2 suggests that recharge from Turner 4 is more regionally distributed when it reaches the groundwater table. This is consistent with the slower recharge rates observed at Turner 4, and supports more immediately aquifer blending occurring beneath Turner 4 in comparison with Turner 1. As presented in Table 3-1, the 2010 groundwater mound within the recharge site at monitoring wells TRN-1/2 and TRN-2/2 reached highs of 35% and 47% recycled water, respectively. The data show blending is occurring in the aquifer beneath the Turner Basins. The downgradient City of Ontario Well 25 shows a gradually increasing trend in EC, TDS (45 mg/L), and Cl (10 mg/L) since mid-2008, while Ontario Well 29 shows a similar magnitude stepped increase in late 2008. These changes are not definitive changes that would correlate with groundwater recharge using recycled water. Additional data for future monitoring are required to assess the degree of blending downgradient from Turner Basins.

RP3 Basin Area

For the RP3 Basins area, the 2009 data at monitoring well RP3-1 (at cell 1) were inconclusive as to the degree of recharge blending. Spikes in the concentrations of EC, TDS, and Cl occurred at the well several months prior to recycled water recharge at RP3, which are likely due to a purging of the vadose zone with the first use of the RP3 cell 1 for storm water recharge using the Jurupa pump station. Approximately 195 AF of water was recharged at RP3 cell 1 between February 2009 and the June 2009 start of recycled water recharge. Following the initiation of recycled water recharge, the EC, TDS, and Cl concentrations at well RP3-1 decreased rapidly to background levels. In 2010, EC, TDS, and Cl spiked for a second time. These data are still considered to be usable for estimating percent recycled water as the



TDS concentrations are greater than that of recycled water (>900 mg/L in both the shallow and deep casing).

San Sevaine & Victoria Basins Area

Monitoring of San Sevaine and Victoria Basin area wells began in late 2009 and continued through 2010. Initiation of recycled water recharge began in these two basins in mid-2010. The 2010 EC, TDS, and Cl have yet to indicate the arrival of recycled water at these monitoring points.

3.3 RWC Management Plan

The RWC Management Plan is a necessary tool to demonstrate how IEUA and CBWM will meet a recharge site's maximum RWC following a site's startup period. In 2009, IEUA and CBWM received a permit amendment from the RWQCB Order No. R8-2009-0057, which allows the RWC averaging period to be 120-months long (previously 60-months long) and allows the inclusion of a fraction of groundwater underflow as a diluent water source. 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 includes the 120-month averaging period and the use of a fraction of the basin underflow. Each recharge site's RWC Management Plan is updated through February 2011 to reflect the past year's operations. Appendix C contains the RWC Management Plans for Banana, Ely, Hickory, Turner Basin Cells 1&2, Turner Basin Cells 3&4, San Sevaine 5, and Victoria Basins. While the maximum RWC limit for 8th Street, San Sevaine, and Victoria Basins have not yet been determined, Appendix C does include a RWC history for these basins. The 8th Street Basin Start-up Period Report is currently in preparation and will be submitted in the spring of 2011. The San Sevaine and Victoria Basins Start-Up Periods are in progress.

Each basin's plan was developed from historical recharge of diluent water (imported and storm water) and recycled water, and projections of diluent water and recycled water. Stormwater projections are based on the historical averages of diluent recharge for the months January through December. With each subsequent operational year, stormwater projections will be modified by averaging the past year's historical data. To add to the conservative approach of the RWC calculation, imported water forecasts are assumed to be zero and are not used to calculate a recharge site's projected RWC. For the 2009 Annual Report, the RWC Management Plans were prepared with underflow occurring since the initiation of recycled water recharge in a basin. However, upon further discussion with CDPH, the initial use of a fraction of groundwater underflow in the RWC calculations was changed to October 2009 (the month the amendment was issued) for basins already initiated with recycled water recharge. For basins initiated



with recycled water after the permit amendment, the use of underflow in the RWC calculation begins upon the month of recycled water recharge initiation. This first-use change in RWC calculation is updated for the 2010 Annual Report. By the 120th month of recycled water recharge operations, there will be a full 120 months of underflow in each basin's RWC calculation for basin initiated after October 2009.

Within these limits of historical recharge, stormwater projections, and groundwater underflow, planned recycled water deliveries are forecasted to maintain the volume-based RWC within the maximum RWC limit. While the plan contains calculations for up to 120 months of historical data, for clarity the graphed RWC management plans (Appendix C) show only the previous 60 months of recharge and projections for the next 120 months. The volume-based RWC is a calculation of the percent recycled water infiltrated based on a 120-month rolling average.

The volume-based RWC at the end of 2010 are listed in the below matrix. These recharge sites are in compliance with maximum RWC limits. Based on future projections of diluent recharge and RWC Management Plans, recycled water deliveries for each basin can be made and continue to be within RWC limit compliance.

Volume-Based RWC Actuals at the End of 2010

Basin	Limit	2009*	2010
8th Street	TBD	23%	23%
Banana	36%	30%	29%
Brooks	42%	30%	22%
Ely	29%	15%	12%
Hickory	36%	29%	25%
RP3	50%	17%	14%
San Sevaine 5	TBD	0%	1%
Turner 1&2	25%	10%	8%
Turner 3&4	45%	19%	19%
Victoria	TBD	0%	13%
* 2009 RWC Actuals listed here are updated from the 2009 Annual Report to include groundwater underflow as a diluent source only after the October 2009 recharge permit amendment and upon initiation of recycled water recharge.			



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 2010 quarterly reports, CBWM has certified that there was no reported pumping of groundwater in 2010 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, and Turner Basins. In fact, there are no production wells within the buffer zones of these recharge sites.

3.4.1 Recharge Water Arrival Times

As documented in this and prior program 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-2/2 for 8th Street Basin, BH-1 for Hickory Basin, California Speedway Infield well for Banana Basin, TRN-1 and TRN-2 for Turner 1 and Turner 4, respectively, 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 B. Arrival times can be determined from notable increases in EC, TDS, and/or Cl concentration above background that exclude 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 both EC and Cl beginning in July 2009 and continuing through 2010. Recharge began at 8th Street Basin on November 7, 2007, thus the travel estimate for 8TH-1/1 is approximately 660 days. Oddly the travel time to the further downgradient monitoring well 8TH-2/2 appears to be more rapid (or in a more in a direct flow path), and was preliminarily estimated to be approximately 402 days based on Cl data (IEUA, 2009). While this difference between wells is conceivable, continued observations of EC, TDS, and Cl in 2010 at 8TH-2/2 continue to support this travel time assessment. Water quality data to be collected in 2011 at this location should show influence from the spring 2010 recharge assuming 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 was documented at approximately 59 days (IEUA, 2009). The California Speedway Infield Well has demonstrated a small but gradual increase in EC, TDS, and Cl between September 2005 and the end of 2010. Travel time from Banana Basin to California Speedway Infield Well is estimated at 2.3 years (848 days) based on a stepped increase in EC, TDS, and Cl concentrations beginning between



data collected on October 9, 2007 and January 7, 2008 (IEUA, 2009). The travel time can be refined from the first noticeable TDS and Cl increase occurring in October 2007, which suggest a travel time to this well of approximately 750 days. The modeled travel time to the California Infield well was 682 days (CH2MHill, 2003). Other Banana-Hickory monitoring wells have not yet shown definitive variations in EC, TDS, and Cl that would signal arrival of recycled water at these well sites. Data collected in 2010 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, 2010d) due to the observation of a 200 $\mu\text{mhos/cm}$ EC increase following initiation of recycled water recharge. However, more recent data from 2009 and the completion of the Brooks Basin Start-up Period report suggested the early time data were anomalous and provide data documenting the travel time estimate to be approximately 150 days based on trends in EC, TOC, and Cl data (IEUA and CBWM, 2010e). Recycled water has not been observed at the deeper casing BRK-1/2. At monitoring well BRK-2, variations of EC, TDS, and Cl concentrations following recharge are similar to the background variations prior to recycled water recharge, which makes identification of a travel time to this well difficult without a variation outside the background range. The 2010 EC, TDS, and Cl data at BRK-2 continue to be within the range background concentration.

Turner Basin Area

Travel time from Turner Basins through the vadose zone to groundwater was documented at 97 days and 285 days to monitoring wells TRN-1 and TRN-2, respectively (IEUA, 2009). 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 (as elevated EC) through mid-2010 with resumption of brief periods of recycled water recharge to Turner 4. A decrease in EC, TDS, and Cl concentrations at TRN-1 indicates that recycled water recharged during the start-up period has migrated away from this location since July 2008. Other downgradient Turner Basin monitoring wells (Ontario 25 and 29) have not yet shown variations in EC, TDS, and Cl that could signal arrival of recycled water at these well sites. Data collected in 2010 are consistent with the prior data interpretations.

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 to be approximately 14 days based on observation of EC changes (IEUA 2010d). However, more recent data



from 2009 and from the completion of the RP3 Basin Start-up Period report indicate the early time data do not represent recycled water but are instead a flushing of the vadose zone. Later-time EC and water level trends support a travel time estimate of 99 days (IEUA and CBWM, 2010f). While the background EC prior to recycled water recharge was 1,000 to 1,100 $\mu\text{mhos/cm}$, initiation of stormwater recharge operations at cell 1 in the prior winter appears to have pushed the higher EC water from the vadose zone raising the well water EC to 1,400 $\mu\text{mhos/cm}$. Subsequent recycled water recharge returned the well water EC to 1,000 $\mu\text{mhos/cm}$. Recycled water recharge began on June 2, 2009 and a 400 $\mu\text{mhos/cm}$ EC decrease was observed in this mound monitoring well by August 25, 2009. Recycled water has been observed as a Cl 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.

San Sevaire & Victoria Basins Area

There is currently insufficient data from wells in the area to establish travel times of recharge to monitoring wells for these basins. These basins are in their start-up periods and the well data will be reviewed again for the 2011 annual report.

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 Cl concentrations. Water quality data were discussed in the above subsections. Appendix E contains basin-specific water level hydrographs, with discussion in Section 3.5.2 of water level mounding due to recycled water recharge. Evaluation of basin-specific water chemistry and water level data indicate recycled water recharge has passed the first monitoring wells located downgradient of Banana, Brooks, Hickory, Turner Basins, and RP3 Basins. Recycled water is also suspected at the downgradient monitoring well 8TH-2/2 associated with 8th Street Basin. Production wells used for monitoring near these basins do not show any changes in EC from the background concentrations that would be associated with recycled water recharge.

3.4.3 Tracer Test Results

No tracer tests were conducted in 2010, 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 fall 2000, 2003, 2006, and 2008. The maps from the *Biennial State of the Basin Reports* are presented in Appendix D. The next scheduled regional water-elevation level contour map will be prepared by CBWM in 2011 for the Fall 2010 elevation data. Comparison of the pre-recharge elevation contours with the post-program start-up contours and 2010 monitoring well hydrographs (discussed in the following section) indicate the recharge program (initiated in 2005) has not changed the overall groundwater flow directions. With the exception of local recharge mounds at basins, 2010 groundwater elevations in the program monitoring wells have changed less than the contour interval (25 feet) used in the historical groundwater elevation map.

3.5.2 Water Level Trends in Monitoring Wells

Appendix E contains hydrographs of groundwater elevations, from basin start-up periods through 2010, for wells constructed for the monitoring program. Plotted on the hydrographs is the daily recharge for the nearest recharge site(s). These hydrographs can be used to identify local increases in groundwater elevations and their correlation with local recharge. Generally these wells are mound (near basin monitoring wells) or the next monitoring well downgradient of the recharge site.

8th Street Basin Area

The 2010 data plotted in the hydrographs for the 8th Street Basin mound monitoring well (8TH-1) and downgradient monitoring well (8TH-2) show about 10-foot and 5-foot increase in water levels, respectively, through the first half of the year, then are generally stabilized through the end of the year. The 2010 water level increases and subsequent stabilization are attributed to sustained recharge at the basin beginning in late 2009. Short duration downward spikes in the 8TH-2 hydrograph are indicative of nearby pumping activities.

Brooks Basin Area

The 2010 data plotted in the hydrographs for the Brooks Street Basin mound monitoring well (BRK-1) and intermediate monitoring well BRK-2 show 10-foot to 15-foot water level variations, respectively. The shallower casing (BRK-1/1) was redeveloped during 2010 and due to the removal of monitoring equipment does not have a continuous water level record in 2010. The hydrograph of the deeper casing (BRK-1/2) and the downgradient monitoring well (BRK-2) both show groundwater elevations that



correlate with recharge activities but are imprinted with water level changes attributed to local groundwater pumping

Banana & Hickory Basins Area

The 2010 data plotted in the hydrograph for the mound monitoring well (BH-1/2) in the vicinity of Banana and Hickory Basins shows a generally stable water elevation trend with 5-foot seasonal fluctuations. The 2010 peak and trough seasonal fluctuations appear delayed between 3 and 4 months from peak recharge activities. Impacts on water elevations due to Banana-Hickory Basins' recharge is more likely muted and delayed due to the over 400-foot depth to the water table at this location.

Turner Basin Area

The 2010 data plotted in the hydrographs for the two Turner Basin monitoring wells, TRN-1 and TRN-2, show a 25-foot and 35-foot, respectively, increase in groundwater elevation with a delay of about 3 months associated with peaks in recharge. The annual low water elevation points of September 2007 to September 2010 show a slight increasing trend of approximately 3 feet per year, and suggest recharge at Turner Basins is having a positive impact on regional water levels in their vicinity.

RP3 Basin Area

The 2010 data plotted in the hydrograph for the RP3 mound monitoring well shows good correlation with recharge activity at the basin, yet water levels increased only 5 feet despite a nearly continuous recharge of water during the year. The peak water level of 2010 is delayed about 5 to 6 months from the peak 2009/10 storm water recharge seasons. Sediments in this area of the Chino Basin are highly conductive, which explain the relatively small recharged-induced water level changes at this location.

San Sevaine & Victoria Basins Area

The 2010 data plotted in the hydrograph of the San Sevaine mound monitoring wells shows a steady 5-foot decrease. This well was installed in spring of 2010 and does not have sufficient water level history to correlate with recharge at the San Sevaine Basins.

The 2010 data plotted in the hydrograph for the Victoria Basin mound monitoring (VCT-1/1) well does not have sufficient water level history to correlate with recharge at the Victoria and San Sevaine Basins. This well was installed in spring of 2010 and recharge was initiated September 2010

The 2010 data plotted in the hydrograph for the Victoria Basin intermediate monitoring well (VCT-2/2) shows seasonal water level fluctuations of approximately 8 feet with a lower level in fall and a higher level in late winter. This well was installed in spring of 2010 and does not have sufficient water level history to correlate with recharge at the Victoria and San Sevaine 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)
Banana & Hickory	City of Ontario Well No. 20	1/7/10	0.10	<1.1	8.1	390	254	<25	3	6.0	0.5	<0.05	647	7	<0.5	1	<0.25	<0.2	2.0	5	12	171	15	8	<0.1	0.09	3.3	3.4	<0.5	180	2.7
		4/15/10	0.20	<1.1	6.4	385	252	<25	<3	4.7	0.4	<0.05	249	2	<0.5	1	<0.25	<0.2	1.6	5	10	176	15	7	<0.1	0.09	3.1	3.2	<0.5	173	7.8
		7/20/10	0.30	<1.1	7.9	350	224	<25	<3	1.0	0.4	<0.05	<15	<1	<0.5	<1	<0.25	<0.2	0.3	2	8	155	14	6	<0.1	0.22	2.1	2.3	<0.5	162	0.0
		10/13/10	0.23	<1.1	8.7	350	218	<25	<3	1.9	0.3	<0.05	<15	<1	<0.5	<1	<0.25	<0.2	0.2	<1	7	164	14	6	<0.1	0.24	2.2	2.4	<0.5	169	8.2
8th St	City of Ontario Well No. 35	7/21/10	0.24	<1.1	7.5	380	244	<25	<3	1.2	0.2	<0.05	<15	<1	<0.5	1	<0.25	<0.2	0.2	<1	8	148	19	21	<0.1	0.11	3.0	3.1	<0.5	151	0.3
		10/13/10	<0.10	<1.1	7.5	375	234	<25	<3	<0.5	0.2	<0.05	26	<1	<0.5	<1	<0.25	<0.2	0.2	1	7	165	19	21	<0.1	0.23	3.1	3.3	<0.5	159	3.9
Turner	City of Ontario Well No. 29	1/7/10	0.13	<1.1	7.5	400	268	<25	<3	1.0	0.4	<0.05	<15	<1	<0.5	1	<0.25	<0.2	0.4	<1	14	169	24	20	<0.1	0.08	5.0	5.6	<0.5	156	2.6
		4/15/10	0.18	<1.1	7.3	405	268	<25	3	<0.5	0.2	<0.05	<15	<1	<0.5	1	<0.25	<0.2	0.2	<1	16	169	21	21	<0.1	0.07	5.6	5.7	<0.5	147	7.8
		7/20/10	0.26	<1.1	7.6	400	270	<25	<3	1.3	0.2	<0.05	<15	<1	<0.5	<1	<0.25	<0.2	0.3	<1	14	152	21	21	<0.1	0.15	4.7	4.8	<0.5	147	0.0
		10/13/10	0.18	<1.1	7.7	385	248	<25	<3	0.9	0.2	<0.05	<15	<1	<0.5	<1	<0.25	<0.2	0.5	<1	12	158	22	19	<0.1	0.23	3.8	4.0	<0.5	152	5.6
Ely	Bishop Of San Bernardino Corp.	1/12/10	0.38	<1.1	7.0	780	490	<25	15	1.0	0.5	<0.05	1230	19	<0.5	2	<0.25	<0.2	12.9	37	36	367	25	64	<0.1	0.03	18.8	18.9	<0.5	227	7.4
		4/14/10	0.19	<1.1	7.2	785	494	<25	<3	3.2	0.5	<0.05	83	5	<0.5	2	<0.25	<0.2	0.9	27	35	370	24	58	<0.1	<0.01	18.3	18.4	<0.5	222	0.8
		7/14/10	0.46	<1.1	7.4	800	486	<25	3	3.1	0.5	<0.05	158	5	<0.5	1	<0.25	<0.2	0.2	28	39	363	24	66	<0.1	0.25	20.4	20.7	<0.5	215	1.2
		10/12/10	0.31	2	7.6	810	510	<25	<3	5.7	0.7	<0.05	100	5	<0.5	<1	<0.25	<0.2	1.9	9	41	373	24	67	<0.1	0.25	21.6	21.9	<0.5	223	5.8
Brooks	Pomona Well No. 10	1/11/10	0.17	<1.1	5.1	550	366	<25	<3	21.6	0.3	<0.05	<15	<1	<0.5	1	<0.25	<0.2	0.3	7	37	262	12	44	<0.1	0.02	10.7	10.8	<0.5	158	11.0
		4/13/10	0.14	<1.1	5.4	550	358	<25	<3	16.5	0.5	<0.05	<15	<1	<0.5	1	<0.25	<0.2	0.4	10	33	260	12	41	<0.1	<0.01	9.8	9.8	<0.5	152	11.2
		7/14/10	0.21	<1.1	7.6	540	324	<25	3	1.8	0.3	<0.05	<15	<1	<0.5	<1	<0.25	<0.2	0.4	8	37	256	12	43	0.5	0.20	9.3	9.6	<0.5	145	1.3
		10/13/10	0.13	<1.1	7.6	540	356	<25	<3	1.3	0.4	<0.05	<15	<1	<0.5	<1	<0.25	<0.2	0.2	6	34	258	11	42	<0.1	0.22	10.6	10.8	<0.5	148	4.8
RP-3	JCSD Well No. 17	5/13/10	0.12	<1.1	7.3	560	380	<25	<3	2.4	0.3	<0.05	22	1	<0.5	1	<0.25	<0.2	0.0	9	61	215	29	39	<0.1	0.06	11.7	11.8	<0.5	118	8.6
		7/21/10	0.20	<1.1	7.7	560	358	<25	<3	5.8	0.1	<0.05	34	1	<0.5	<1	<0.25	<0.2	0.3	19	58	128	25	35	<0.1	0.04	10.9	11.0	<0.5	110	0.0
		10/21/10	0.25	<1.1	7.8	560	380	<25	<3	1.6	0.4	<0.05	<15	<1	<0.5	<1	<0.25	<0.2	0.1	4	59	220	31	35	<0.1	<0.01	11.2	11.2	<0.5	114	5.8
San Seavine	Unitex 91090	5/12/10	<0.10	1	7.4	420	274	<25	<3	5.1	0.2	<0.05	<15	<1	<0.5	1	<0.25	<0.2	0.3	7	37	190	16	30	<0.1	0.08	1.5	1.6	<0.5	125	1.1
		7/21/10	0.15	<1.1	7.6	420	266	<25	<3	5.2	0.2	<0.05	<15	<1	<0.5	1	<0.25	<0.2	0.2	5	35	177	14	29	<0.1	0.06	1.3	1.4	<0.5	126	0.4
		11/3/10	0.52	<1.1	7.7	420	270	<25	<3	<0.5	0.1	<0.05	<15	<1	<0.5	<1	<0.25	<0.2	0.3	3	37	186	15	28	<0.1	<0.01	1.3	1.3	<0.5	125	4.8
Victoria	CVVD No. 39	5/12/10	<0.10	<1.1	7.7	270	184	<25	<3	17.9	0.0	<0.05	321	2	<0.5	1	<0.25	<0.2	0.3	26	5	101	23	11	<0.1	0.11	1.7	2.0	<0.5	121	1.6
		7/21/10	<0.10	<1.1	7.7	270	182	<25	<3	0.8	0.0	<0.05	<15	<1	<0.5	<1	<0.25	<0.2	0.3	2	6	91	22	10	<0.1	0.10	1.8	2.7	<0.8	117	0.4
		11/3/10	0.11	<1.1	7.8	275	188	<25	<3	1.2	0.0	<0.05	<15	<1	<0.5	1	<0.25	<0.2	0.4	2	11	102	21	9	<0.1	<0.01	2.2	2.2	<0.5	120	4.6
	Primary Maximum Contaminant Level							1000		1300				13		70												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									

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

Month	RP-1 (Flow)								RP-1 (Tertiary)				RP-4					
	Ferric Chloride		HW Polymer		Sodium Hypochlorite- Odor Scrub		Sodium Hydroxide 50%		Aluminum Sulfate		Sodium Hypochlorite		Ferric Chloride		Aluminum Sulfate		Sodium Hypochlorite	
	Gal.	lbs.	Gal.	lbs.	Gal.	lbs.	Gal.	lbs.		lbs.	Gal.	lbs.	Gal.	lbs.	Gal.	lbs.	Gal.	lbs.
Jan-10	20,350	99,286	267	2,345	10,320	12,910	0	0		3,199	132,000	165,132	5,677	27,698	217	1,146	26,476	33,121
Feb-10	18,100	88,308	251	2,205	5,305	6,637	0	0		2,890	110,400	138,110	8,085	39,446	126	667	20,518	25,668
Mar-10	22,840	111,434	268	2,358	9,260	11,584	0	0		3,199	97,500	121,973	6,196	30,230	174	921	23,654	29,591
Apr-10	21,550	105,140	252	2,217	8,730	10,921	90	574		3,096	84,400	105,584	4,359	21,267	164	867	23,964	29,979
May-10	19,000	92,699	235	2,068	9,980	12,485	145	925		3,220	99,800	124,850	7,330	35,762	484	2,558	27,699	34,651
Jun-10	18,800	91,723	226	1,989	10,325	12,917	105	670		3,096	97,700	122,223	10,841	52,892	693	3,662	28,745	35,960
Jul-10	18,775	91,601	241	2,122	16,320	20,416	118	753		3,220	120,700	150,996	12,461	60,796	370	1,953	23,495	29,392
Aug-10	18,250	89,040	246	2,169	6,633	8,298	123	785		3,199	114,400	143,114	12,849	62,689	246	1,300	23,893	29,890
Sep-10	18,300	89,284	230	2,022	13,785	17,245	163	1,040		3,468	124,500	155,750	8,839	43,125	104	547	22,504	28,153
Oct-10	20,050	97,822	253	2,222	11,161	13,962	120	765		3,612	101,300	126,726	9,286	45,305	102	539	20,878	26,119
Nov-10	20,050	97,822	255	2,245	9,345	11,691	63	401		3,743	106,800	133,607	9,197	44,871	143	754	20,719	25,920
Dec-10	20,150	98,310	249	2,191	6,130	7,669	127	810		3,839	111,900	139,987	9,599	46,833	196	1,040	21,997	27,518
Total	236,215	1,152,469	2,972	26,152	117,294	146,735	1,054	6,723		39,780	1,301,400	1,628,051	104,719	510,914	3,018	15,954	284,542	355,962

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 (µmhos/cm)	Groundwater Background Cl (µmhos/cm)	Peak Cl at Well (µmhos/cm)	Mass-Balance Blend (max) (% Recycled Water)
8th Street	8TH-1/1	Downgradient	750	170	245	13%	Inconclusive evidence of recycled water			
	8TH-1/2	Downgradient	Inconclusive evidence of recycled water				Inconclusive evidence of recycled water			
	8TH-2/1	Downgradient	Inconclusive evidence of recycled water				100	10	74	71%
	8TH-2/2	Downgradient	750	580	650	41%	100	14.8	30	18%
Banana & Hickory	BH-1/2	Mound	750	360	510	38%	100	10	62	58%
	California Speedway Infield	Downgradient	750	440	534	30%	100	11	18	8%
	California Speedway No. 2		Inconclusive evidence of recycled water				Inconclusive evidence of recycled water			
	Reliant East Well		Inconclusive evidence of recycled water				Inconclusive evidence of recycled water			
	Fontana Water Co. 37A		Inconclusive evidence of recycled water				Inconclusive evidence of recycled water			
	Ontario No. 20		Inconclusive evidence of recycled water				Inconclusive evidence of recycled water			
Brooks	BRK-1/1	Mound	750	460	590	45%	100	36	88	81%
	BRK-1/2	Mound	750	530	570	18%	100	16	24	10%
	BRK-2/1	Downgradient	Inconclusive evidence of recycled water				Inconclusive evidence of recycled water			
	BRK-2/2	Downgradient	Inconclusive evidence of recycled water				Inconclusive evidence of recycled water			
Ely	Philadelphia Well	Mound	750	245	288	9%	100	34	66	48%
	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	420	8%	100	21	49	35%
	TRN-2/2	Mound	750	350	470	30%	100	9	52	47%
	Ontario No. 25	Downgradient	Inconclusive evidence of recycled water				Inconclusive evidence of recycled water			
	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				Cannot be determine at this time due to high background Cl			
	RP3-1/2	Mound	Cannot be determine at this time due to high background EC				Cannot be determine at this time due to high background Cl			
	Alcoa MW-3	Downgradient	Cannot be determine at this time due to high background EC				Cannot be determine at this time due to high background Cl			
	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			

APPENDIX A

MONTHLY GROUNDWATER RECHARGE SUMMARIES

SUMMARY OF CHINO BASIN GROUNDWATER RECHARGE OPERATIONS

January 2010

Drainage System	Recharge Volume (AF)*			Management	
Basin	SW/LR	MW	RW	Zone Subtotals	
San Antonio Channel Drainage System				MZ-1 1,531 AF**	
College Heights	58	-	N		
Upland	212	-	N		
Montclair 1, 2, 3 & 4	584	-	N		
Brooks	251	-	74		
West Cucamonga Channel Drainage System					
8th Street	294	-	98		
7th Street	93	-	4		
Ely 1, 2, & 3	319	-	-		
Minor Drainage					
Grove	57	N	N	MZ-2 2,282 AF**	
Cucamonga and Deer Creek Channel Drainage Systems					
Turner 1 & 2	294	-	-		
Turner 3 & 4	185	-	127		
Day Creek Channel Drainage System					
Lower Day	237	-	X		
Etiwanda Channel Drainage System					
Etiwanda Debris	387	-	X		
Victoria	153	-	X		
San Sevaine Channel Drainage System					
San Sevaine 1, 2, 3, & 4	185	-	N		
San Sevaine 5	105	-	X		
West Fontana Channel System					
Hickory	214	-	19		
Banana	100	-	75		
Declez Channel Drainage System					MZ-3 850 AF**
RP3 Cells 1, 3, & 4	438	-	76		
RP3 Cell 2	88	-	-		
Declez	73	-	-		
Non-Replenishment Recharge**					
Brooks (MVWD) MZ-1	-				
Montclair (MVWD) MZ-1	(137)				
Turner (SAWCO) MZ-2	-				
Ely (GE) MZ-2	-				
Month Total = 4,663 AF	4,190	0	473		
Fiscal Year to Date Total					
Since July 1, 2009 = 12,131 AF	8,472	20	3,639		

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

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N : No turnout planned for installation.

* : Data are preliminary based on the data available at the time of this report preparation.

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

SUMMARY OF CHINO BASIN GROUNDWATER RECHARGE OPERATIONS

February 2010

Drainage System	Recharge Volume (AF)*			Management
Basin	SW/LR	MW	RW	Zone Subtotals
San Antonio Channel Drainage System				MZ-1 1,200 AF**
College Heights	7	-	N	
Upland	168	-	N	
Montclair 1, 2, 3 & 4	279	-	N	
Brooks	215	-	54	
West Cucamonga Channel Drainage System				
8th Street	366	-	-	
7th Street	108	3	-	
Ely 1, 2, & 3	221	-	-	MZ-2 1,821 AF**
Minor Drainage				
Grove	71	N	N	
Cucamonga and Deer Creek Channel Drainage Systems				
Turner 1 & 2	330	-	-	
Turner 3 & 4	175	-	-	
Day Creek Channel Drainage System				
Lower Day	146	3	X	
Etiwanda Channel Drainage System				
Etiwanda Debris	278	-	X	
Victoria	174	-	X	
San Sevaine Channel Drainage System				
San Sevaine 1, 2, 3, & 4	197	-	N	
San Sevaine 5	26	-	X	
West Fontana Channel System				
Hickory	200	-	-	
Banana	143	-	-	
Declez Channel Drainage System				MZ-3 867 AF**
RP3 Cells 1, 3, & 4	345	-	113	
RP3 Cell 2	25	-	-	
Declez	241	-	-	
Non-Replenishment Recharge**				
Brooks (MVWD) MZ-1	-			
Montclair (MVWD) MZ-1	-			
Turner (SAWCO) MZ-2	-			
Ely (Ontario) MZ-2	-			
Month Total = 3,888 AF	3,715	6	167	
Fiscal Year to Date Total				
Since July 1, 2009 = 16,019 AF	12,187	26	3,806	

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SUMMARY OF CHINO BASIN GROUNDWATER RECHARGE OPERATIONS

March 2010

Drainage System	Recharge Volume (AF)*			Management
Basin	SW/LR	MW	Recycled	Zone Subtotals
San Antonio Channel Drainage System				MZ-1 437 AF**
College Heights	-	-	N	
Upland	13	-	N	
Montclair 1, 2, 3 & 4	68	-	N	
Brooks	27	-	180	
West Cucamonga Channel Drainage System				
8th Street	36	-	114	
7th Street	37	-	-	
Ely 1, 2, & 3	104	-	-	
Minor Drainage				
Grove	20	N	N	MZ-2 379 AF**
Cucamonga and Deer Creek Channel Drainage Systems				
Turner 1 & 2	34	-	-	
Turner 3 & 4	114	-	44	
Day Creek Channel Drainage System				
Lower Day	5	-	X	
Etiwanda Channel Drainage System				
Etiwanda Debris	27	-	X	
Victoria	-	-	X	
San Sevaine Channel Drainage System				
San Sevaine 1, 2, 3, & 4	15	-	N	
San Sevaine 5	1	-	X	
West Fontana Channel System				
Hickory	16	-	61	
Banana	17	-	-	
Declez Channel Drainage System				
RP3 Cells 1, 3, & 4	84	-	211	
RP3 Cell 2	20	-	2	MZ-3 389 AF**
Declez	55	-	-	
Non-Replenishment Recharge**				
Brooks (MVWD) MZ-1	-			
Montclair (MVWD) MZ-1	(38)			
Turner (SAWCO) MZ-2	(3)			
Ely (Ontario & GE) MZ-2	(59)			
Month Total = 1,205 AF	593	0	612	
Fiscal Year to Date Total				
Since July 1, 2009 = 17,224 AF	12,780	26	4,418	

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SUMMARY OF CHINO BASIN GROUNDWATER RECHARGE OPERATIONS

April 2010

Drainage System		Recharge Volume (AF)*			Management
Basin	SW/LR	MW	Recycled	Zone Subtotals	
San Antonio Channel Drainage System					MZ-1 990 AF**
College Heights	-	150	N		
Upland	25	-	N		
Montclair 1, 2, 3 & 4	49	215	N		
Brooks	23	-	235		
West Cucamonga Channel Drainage System					MZ-2 621 AF**
8th Street	108	-	54		
7th Street	98	-	46		
Ely 1, 2, & 3	394	-	-		
Minor Drainage					
Grove	43	N	N		
Cucamonga and Deer Creek Channel Drainage Systems					
Turner 1 & 2	158	-	-		
Turner 3 & 4	83	-	15		
Day Creek Channel Drainage System					
Lower Day	10	-	X		
Etiwanda Channel Drainage System					
Etiwanda Debris	28	-	X		
Victoria	20	-	X		
San Sevaine Channel Drainage System					
San Sevaine 1, 2, 3, & 4	47	-	N		
San Sevaine 5	6	-	X		
West Fontana Channel System					
Hickory	46	-	56		
Banana	66	-	140		
Declez Channel Drainage System				MZ-3 629 AF**	
RP3 Cells 1, 3, & 4	112	-	71		
RP3 Cell 2	16	-	-		
Declez	122	-	-		
Non-Replenishment Recharge**					
Brooks (MVWD) MZ-1	-				
Montclair (MVWD) MZ-1	(13)				
Turner (SAWCO) MZ-2	-				
Ely (GE & Ontario) MZ-2	(285)				
Month Total = 2,138 AF	1,156	365	617		
Fiscal Year to Date Total					
Since July 1, 2009 = 19,362 AF	13,936	391	5,035		

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SUMMARY OF CHINO BASIN GROUNDWATER RECHARGE OPERATIONS

May 2010

Drainage System		Recharge Volume (AF)*			Management Zone Subtotals
Basin	SW/LR	MWD	Recycled		
San Antonio Channel Drainage System					MZ-1 3,024 AF**
College Heights	-	134	N		
Upland	-	-	N		
Montclair 1, 2, 3 & 4	71	2,299	N		
Brooks	2	-	356		
West Cucamonga Channel Drainage System					
8th Street	30	-	181		
7th Street	4	-	18		
Ely 1, 2, & 3	98	-	-		
Minor Drainage					
Grove	-	N	N	MZ-2 269 AF**	
Cucamonga and Deer Creek Channel Drainage Systems					
Turner 1 & 2	38	-	-		
Turner 3 & 4	27	-	70		
Day Creek Channel Drainage System					
Lower Day	1	-	X		
Etiwanda Channel Drainage System					
Etiwanda Debris	-	-	X		
Victoria	-	-	X		
San Sevaine Channel Drainage System					
San Sevaine 1, 2, 3, & 4	-	-	N		
San Sevaine 5	-	-	X		
West Fontana Channel System					
Hickory	-	-	111		
Banana	-	-	177		
Declez Channel Drainage System					
RP3 Cells 1, 3, & 4	37	-	231		
RP3 Cell 2	12	-	41		
Declez	6	-	-		
Non-Replenishment Recharge**					
Brooks (MVWD) MZ-1	-				
Montclair (MVWD) MZ-1	(71)				
Turner (SAWCO) MZ-2	-				
Ely (GE, Ontario) MZ-2	(76)				
Month Total = 3,797 AF	179	2,433	1,185		
Fiscal Year to Date Total					
Since July 1, 2009 = 23,080 AF	14,036	2,824	6,220		

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SUMMARY OF CHINO BASIN GROUNDWATER RECHARGE OPERATIONS

June 2010

Drainage System		Recharge Volume (AF)*			Management Zone Subtotals
Basin	SW/LR	MWD	Recycled		
San Antonio Channel Drainage System					MZ-1 2,720 AF**
College Heights	-	98	N		
Upland	-	-	N		
Montclair 1, 2, 3 & 4	8	2,078	N		
Brooks	1	-	208		
West Cucamonga Channel Drainage System					MZ-2 167 AF**
8th Street	33	-	302		
7th Street	-	-	-		
Ely 1, 2, & 3	-	-	-		
Minor Drainage					
Grove	-	N	N	MZ-2 167 AF**	
Cucamonga and Deer Creek Channel Drainage Systems					
Turner 1 & 2	-	-	-		
Turner 3 & 4	75	-	40		
Day Creek Channel Drainage System					
Lower Day	-	-	X		
Etiwanda Channel Drainage System					
Etiwanda Debris	-	-	X		
Victoria	1	-	X		
San Sevaine Channel Drainage System					
San Sevaine 1, 2, 3, & 4	-	-	N	MZ-3 438 AF**	
San Sevaine 5	-	-	X		
West Fontana Channel System					
Hickory	-	-	50		
Banana	-	-	129		
Declez Channel Drainage System					
RP3 Cells 1, 3, & 4	25	-	187		
RP3 Cell 2	17	-	74		
Declez	6	-	-		
Non-Replenishment Recharge**					MZ-3 438 AF**
Brooks (MVWD) MZ-1	-				
Montclair (MVWD) MZ-1	(8)				
Turner (SAWCO) MZ-2	-				
Ely (GE) MZ-2	-				
Month Total = 3,325 AF	159	2,176	990		
Fiscal Year to Date Total					
Since July 1, 2009 = 26,484 AF	14,274	5,000	7,210		
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.					
N : No turnout planned for installation.					
* : Data are preliminary based on the data available at the time of this report preparation.					
** : Management Zone Subtotals have deducted from them any Non-Replenishment Recharge, which is recharge originating from pumped groundwater and is not new water.					
Printed: Aug. 20, 10					

SUMMARY OF GROUNDWATER RECHARGE OPERATIONS				
July 2010				
Drainage System		Recharge Volume (AF)*		
Basin		SW/LR	MW	Recycled
San Antonio Channel Drainage System				
College Heights		-	-	N
Upland		-	-	N
Montclair 1, 2, 3 & 4		20	-	N
Brooks		1	-	147
West Cucamonga Channel Drainage System				
8th Street		13	X	115
7th Street		17	X	103
Ely 1, 2, & 3		-	X	-
Minor Drainage				
Grove		-	N	N
Cucamonga and Deer Creek Channel Drainage Systems				
Turner 1 & 2		23	-	-
Turner 3 & 4		95	-	6
Day Creek Channel Drainage System				
Lower Day		2	-	X
Etiwanda Channel Drainage System				
Etiwanda Debris		-	-	X
Victoria		3	-	0
San Sevaine Channel Drainage System				
San Sevaine 1, 2, 3, & 4		-	-	N
San Sevaine 5		-	N	50
West Fontana Channel System				
Hickory		-	-	21
Banana		-	-	77
Declez Channel Drainage System				
RP3 Cells 1,3, & 4		11	-	144
RP3 Cell 2		12	-	85
Declez		3	-	-
Non-Replenishment Recharge***				
Brooks (MVWD) MZ-1		-		
Montclair (MVWD) MZ-1		(20)		
Turner (SAWCO) MZ-2		-		
Ely (GE) MZ-2		-		
Month Total = 928 AF		180	0	748
Fiscal Year to Date Total				
Since July 1, 2010 = 928 AF		180	0	748
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. N : No turnout planned for installation. * : Data are preliminary based on the data available at the time of this report preparation. ** : Management Zone Subtotals have been reduced by Non-Replenishment Recharge *** : Non-Replenishment (deduct) is groundwater pumped from Chino Basin and recharged back into the basin.				
Printed: Nov. 03, 10				

SUMMARY OF CHINO BASIN GROUNDWATER RECHARGE OPERATIONS

August 2010

Drainage System		Recharge Volume (AF)*			Management
Basin	SW/LR	MW	RW	Zone Subtotals**	
San Antonio Channel Drainage System					
College Heights	-	-	N	MZ-1 410 AF	
Upland	-	-	N		
Montclair 1, 2, 3 & 4	28	-	N		
Brooks	18	-	275		
West Cucamonga Channel Drainage System					
8th Street	9	X	35	MZ-2 241 AF	
7th Street	19	X	71		
Ely 1, 2, & 3	-	X	-		
Minor Drainage					
Grove	-	N	N		
Cucamonga and Deer Creek Channel Drainage Systems					
Turner 1 & 2	53	-	8		
Turner 3 & 4	83	-	22		
Day Creek Channel Drainage System					
Lower Day	1	-	X		
Etiwanda Channel Drainage System					
Etiwanda Debris	-	-	X		
Victoria	2	-	X		
San Sevaine Channel Drainage System					
San Sevaine 1, 2, 3, & 4	-	-	N		
San Sevaine 5	-	N	44		
West Fontana Channel System					
Hickory	-	-	28		
Banana	-	-	54		
Declez Channel Drainage System					
RP-3 Cells 1,3, & 4	8	-	111		
RP-3 Cell 2	14	-	70		
Declez	8	-	-		
Non-Replenishment Recharge***					
Brooks (MVWD) MZ-1	(17)			MZ-3 265 AF	
Montclair (MVWD) MZ-1	(28)				
Turner (SAWCO) MZ-2	-				
Ely (Ontario, GE) MZ-2	-				
Month Total = 916 AF	198	0	718		
Fiscal Year to Date Total					
Since July 1, 2010 = 1,844 AF	378	0	1,466		
SW : Storm Water, LR : Local Runoff (and GE, MVWD), MW : MWD Imported Water, RW : Recycled Water					
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X : Turnouts not available - to be installed during future projects.					
N : No turnout planned for installation.					
* : Data are preliminary based on the data available at the time of this report preparation.					
** : Management Zone Subtotals have been reduced by Non-Repenishment Recharge					
*** : Non-Replenishment (deduct) is groundwater pumped from Chino Basin and recharged back into the basin.					
Printed: Nov. 03, 10					

Printed: Nov. 03, 10

SUMMARY OF CHINO BASIN GROUNDWATER RECHARGE OPERATIONS

September 2010

Drainage System	Recharge Volume (AF)*			Management
Basin	SW/LR	MW	RW	Zone Subtotals**
San Antonio Channel Drainage System				MZ-1 355 AF
College Heights	-	-	N	
Upland	-	-	N	
Montclair 1, 2, 3 and 4	24	-	N	
Brooks	1	-	141	
West Cucamonga Channel Drainage System				MZ-2 537 AF
8th Street	31	X	177	
7th Street	5	X	-	
Ely 1, 2, & 3	-	X	-	
Minor Drainage				
Grove	-	N	N	MZ-2 537 AF
Cucamonga and Deer Creek Channel Drainage Systems				
Turner 1 & 2	57	-	-	
Turner 3 & 4	54	-	17	
Day Creek Channel Drainage System				
Lower Day	1	-	X	
Etiwanda Channel Drainage System				
Etiwanda Debris	-	-	X	
Victoria	2	-	67	
San Sevaine Channel Drainage System				
San Sevaine 1, 2, 3,& 4	-	-	N	MZ-3 128 AF
San Sevaine 5	-	N	42	
West Fontana Channel System				
Hickory	12	-	285	
Banana	-	-	59	
Declez Channel Drainage System				MZ-3 128 AF
RP3 Cells 1,3, & 4	2	-	24	
RP3 Cell 2	17	-	24	
Declez	2	-	-	
Non-Replenishment Recharge***				
Brooks (MVWD) MZ-1	-			
Montclair (MVWD) MZ-1	(24)			
Turner (SAWCO) MZ-2	-			
Ely (GE & Ontario) MZ-2	-			
Month Total = 1,020 AF	184	0	836	
Fiscal Year to Date Total				
Since July 1, 2010 = 2,864 AF	562	0	2,302	

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.

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N : No turnout planned for installation.

* : Data are preliminary based on the data available at the time of this report preparation.

** : Management Zone Subtotals have been reduced by Non-Replenishment Recharge

*** : Non-Replenishment (deduct) is groundwater pumped from Chino Basin and recharged back into the basin.

Printed: Nov. 03, 10

SUMMARY OF CHINO BASIN GROUNDWATER RECHARGE OPERATIONS

October 2010

Drainage System		Recharge Volume (AF)*			Management
Basin		SW/LR	MW	RW	Zone Subtotals
San Antonio Channel Drainage System					MZ-1 580 AF**
College Heights		1	-	N	
Upland		7	-	N	
Montclair 1, 2, 3 and 4		51	-	N	
Brooks		24	-	130	
West Cucamonga Channel Drainage System					
8th Street		85	X	288	
7th Street		4	X	-	
Ely 1, 2, & 3		29	X	114	
Minor Drainage					
Grove		65	N	N	MZ-2 821 AF**
Cucamonga and Deer Creek Channel Drainage Systems					
Turner 1 & 2		90	-	-	
Turner 3 & 4		55	-	-	
Day Creek Channel Drainage System					
Lower Day		17	-	X	
Etiwanda Channel Drainage System					
Etiwanda Debris		8	-	X	
Victoria		15	-	153	
San Sevaine Channel Drainage System					
San Sevaine 1, 2, 3, & 4		86	-	N	
San Sevaine 5		9	N	73	
West Fontana Channel System					
Hickory		13	-	94	
Banana		5	-	48	
Declez Channel Drainage System					MZ-3 191 AF**
RP3 Cells 1,3, & 4		41	-	23	
RP3 Cell 2		29	-	-	
Declez		45	-	-	
Non-Replenishment Recharge Deduct **					
Brooks (MVWD) MZ-1		-			
Montclair (MVWD) MZ-1		(10)			
Turner (SAWCO) MZ-2		-			
Ely (GE) MZ-2		-			
Month Total = 1,592 AF		669	0	923	
Fiscal Year to Date Total					
Since July 1, 2010 = 4,456 AF		1231	0	3,225	

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N : No turnout planned for installation.

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Printed: Nov. 03, 10

SUMMARY OF CHINO BASIN GROUNDWATER RECHARGE OPERATIONS

November 2010

Drainage System	Recharge Volume (AF)*			Management
Basin	SW/LR	MW	RW	Zone Subtotals
San Antonio Channel Drainage System				MZ-1 589 AF**
College Heights	-	-	N	
Upland	127	-	N	
Montclair 1, 2, 3 and 4	73	-	N	
Brooks	44	-	87	
West Cucamonga Channel Drainage System				MZ-2 868 AF**
8th Street	163	-	163	
7th Street	24	-	-	
Ely 1, 2, & 3	127	-	120	
Minor Drainage				
Grove	60	N	N	
Cucamonga and Deer Creek Channel Drainage Systems				
Turner 1 & 2	165	-	-	
Turner 3 & 4	39	-	-	
Day Creek Channel Drainage System				
Lower Day	11	-	X	
Etiwanda Channel Drainage System				
Etiwanda Debris	31	-	X	
Victoria	36	-	122	
San Sevaine Channel Drainage System				
San Sevaine 1, 2, 3, & 4	63	-	N	
San Sevaine 5	18	-	13	
West Fontana Channel System				
Hickory	36	-	51	
Banana	16	-	29	
Declez Channel Drainage System				MZ-3 454 AF**
RP3 Cells 1,3, & 4	97	-	188	
RP3 Cell 2	29	-	-	
Declez	95	-	-	
Non-Replenishment Recharge**				
Upland (SAWCo) MZ-1	(89)			
Montclair (MVWD) MZ-1	(3)			
Turner (SAWCO) MZ-2	(24)			
Ely (GE, Ontario) MZ-2	-			
Month Total = 1,911 AF	1,138	0	773	
Fiscal Year to Date Total				
Since July 1, 2010 = 6,367 AF	2,369	0	3,998	

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

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N : No turnout planned for installation.

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Printed: Dec. 02, 10

SUMMARY OF CHINO BASIN GROUNDWATER RECHARGE OPERATIONS

December 2010

Drainage System		Recharge Volume (AF)*			Management
Basin		SW/LR	MW	RW	Zone Subtotals
San Antonio Channel Drainage System					MZ-1 2,773 AF**
College Heights		315	-	N	
Upland		846	-	N	
Montclair 1, 2, 3 & 4		904	-	N	
Brooks		282	-	34	
West Cucamonga Channel Drainage System					
8th Street		403	-	20	
7th Street		96	-	-	
Ely 1, 2, & 3		572	-	12	MZ-2 3,301 AF**
Minor Drainage					
Grove		94	N	N	
Cucamonga and Deer Creek Channel Drainage Systems					
Turner 1 & 2		365	-	-	
Turner 3 & 4		161	-	-	
Day Creek Channel Drainage System					
Lower Day		351	-	X	
Etiwanda Channel Drainage System					
Etiwanda Debris		698	-	X	
Victoria		242	-	42	
San Sevaine Channel Drainage System					
San Sevaine 1, 2, 3, & 4		385	-	N	
San Sevaine 5		198	-	32	
West Fontana Channel System					
Hickory		149	-	-	
Banana		51	-	-	
Declez Channel Drainage System					MZ-3 1,239 AF**
RP3 Cells 1,3, & 4		653	-	122	
RP3 Cell 2		100	-	-	
Declez		313	-	-	
Non-Replenishment Recharge**					
Upland (SAWCo) MZ-1		(124)			
Montclair (MVWD) MZ-1		(3)			
Turner (SAWCO) MZ-2		-			
Ely (GE, Ontario) MZ-2		-			
Month Total = 7,313 AF		7,051	0	262	
Fiscal Year to Date Total					
Since July 1, 2010 = 13,680 AF		9,420	0	4,260	

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

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

N : No turnout planned for installation.

* : Data are preliminary based on the data available at the time of this report preparation.

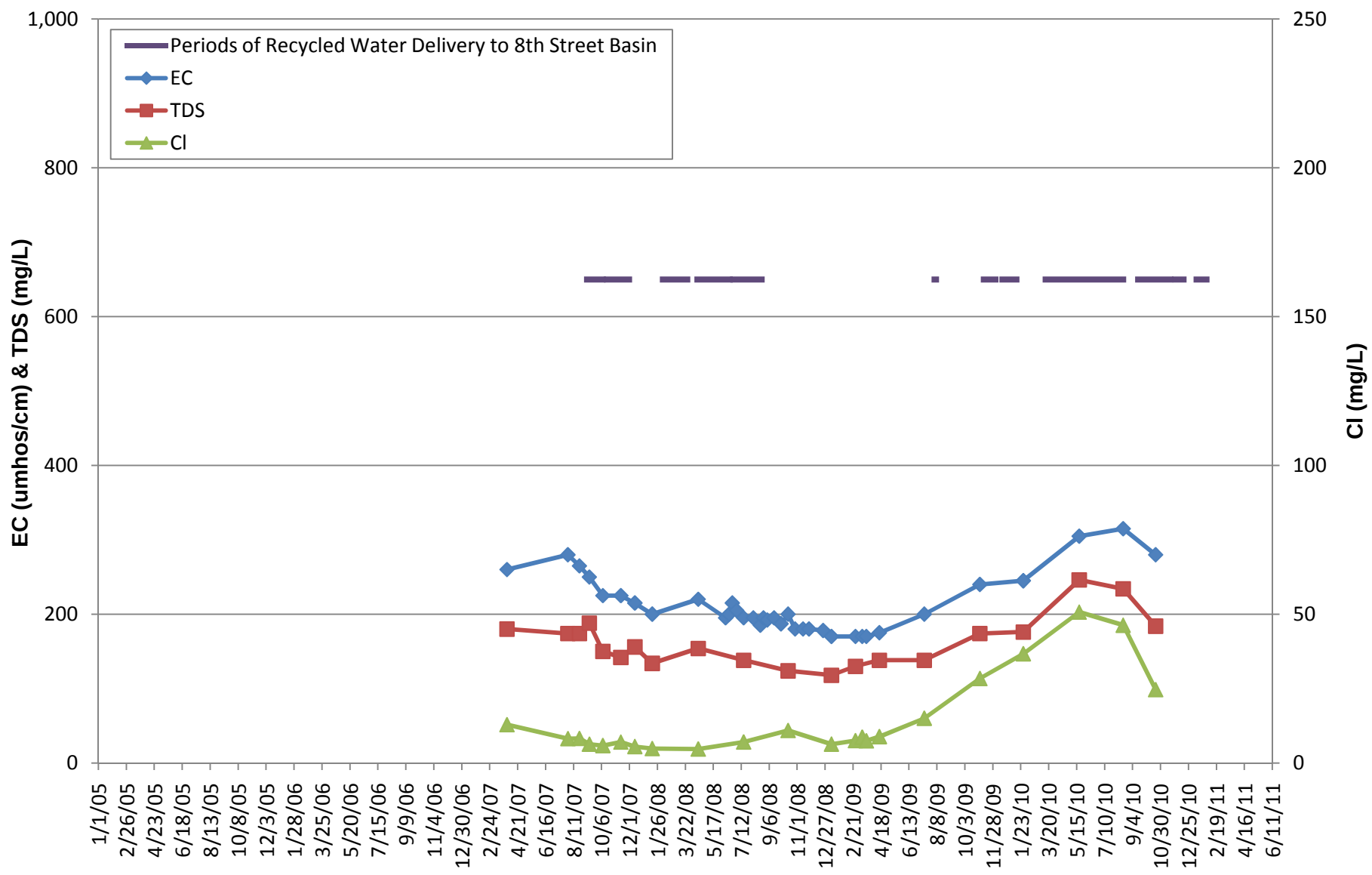
** : Management Zone Subtotals have deducted from them any Non-Replenishment Recharge, which is recharge originating from pumped groundwater and is not new water.

Printed: Feb. 16, 11

APPENDIX B

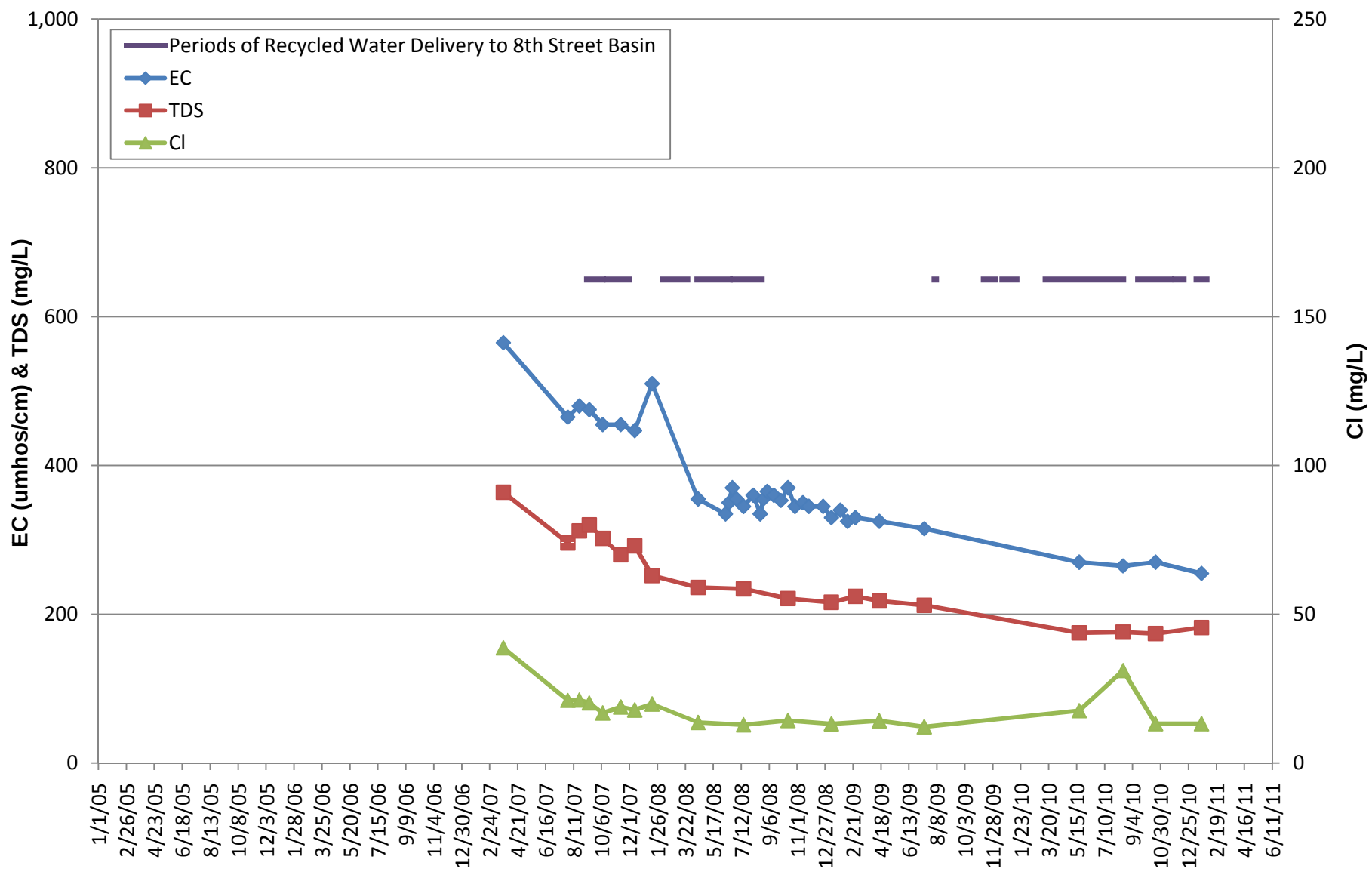
EVIDENCE FOR BLENDING:

EC, TDS, CHLORIDE TIME-SERIES GRAPHS



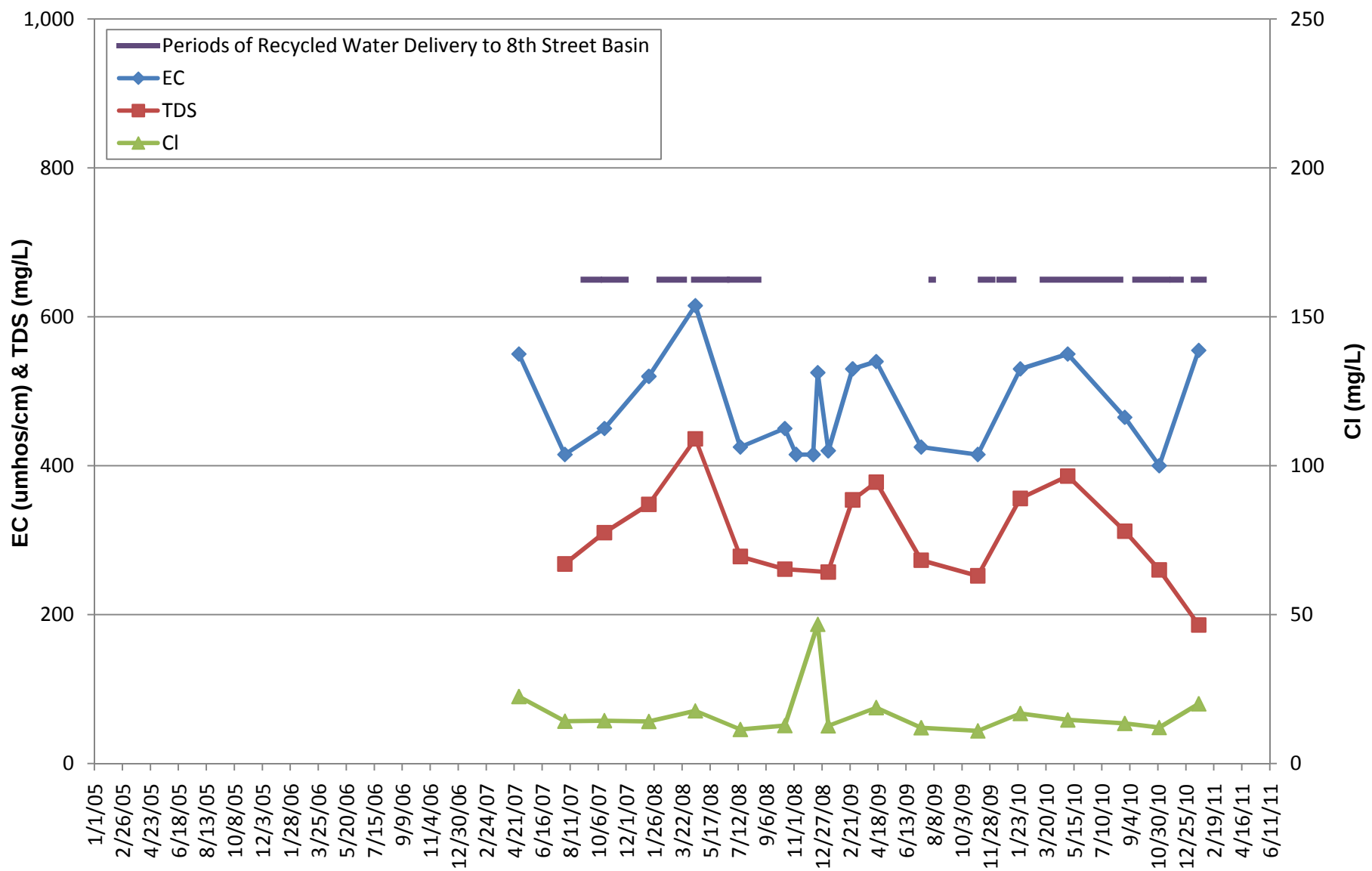
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8TH STREET BASIN
MW 8TH-1/1**





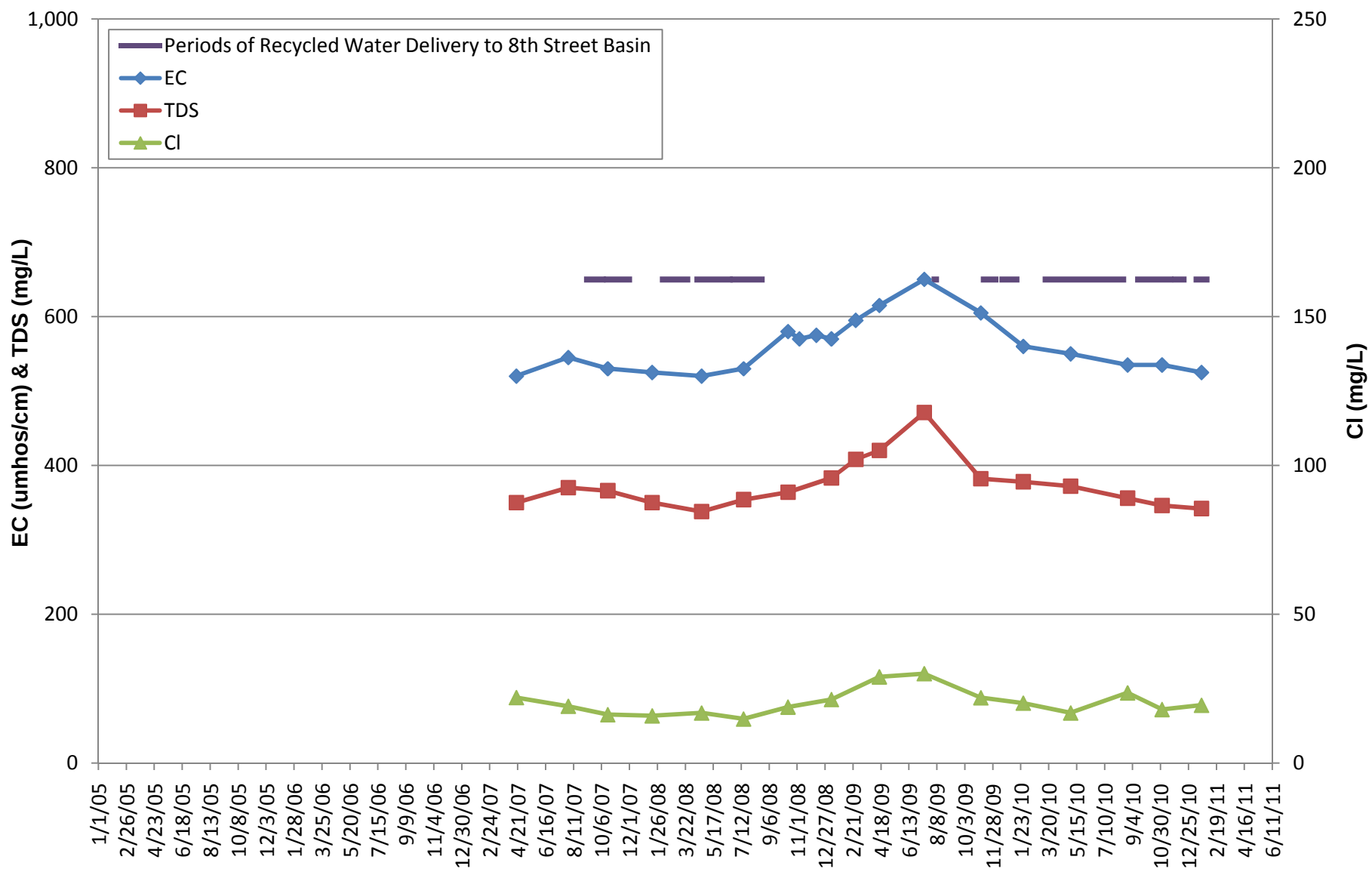
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8TH STREET BASIN
MW 8TH-1/2





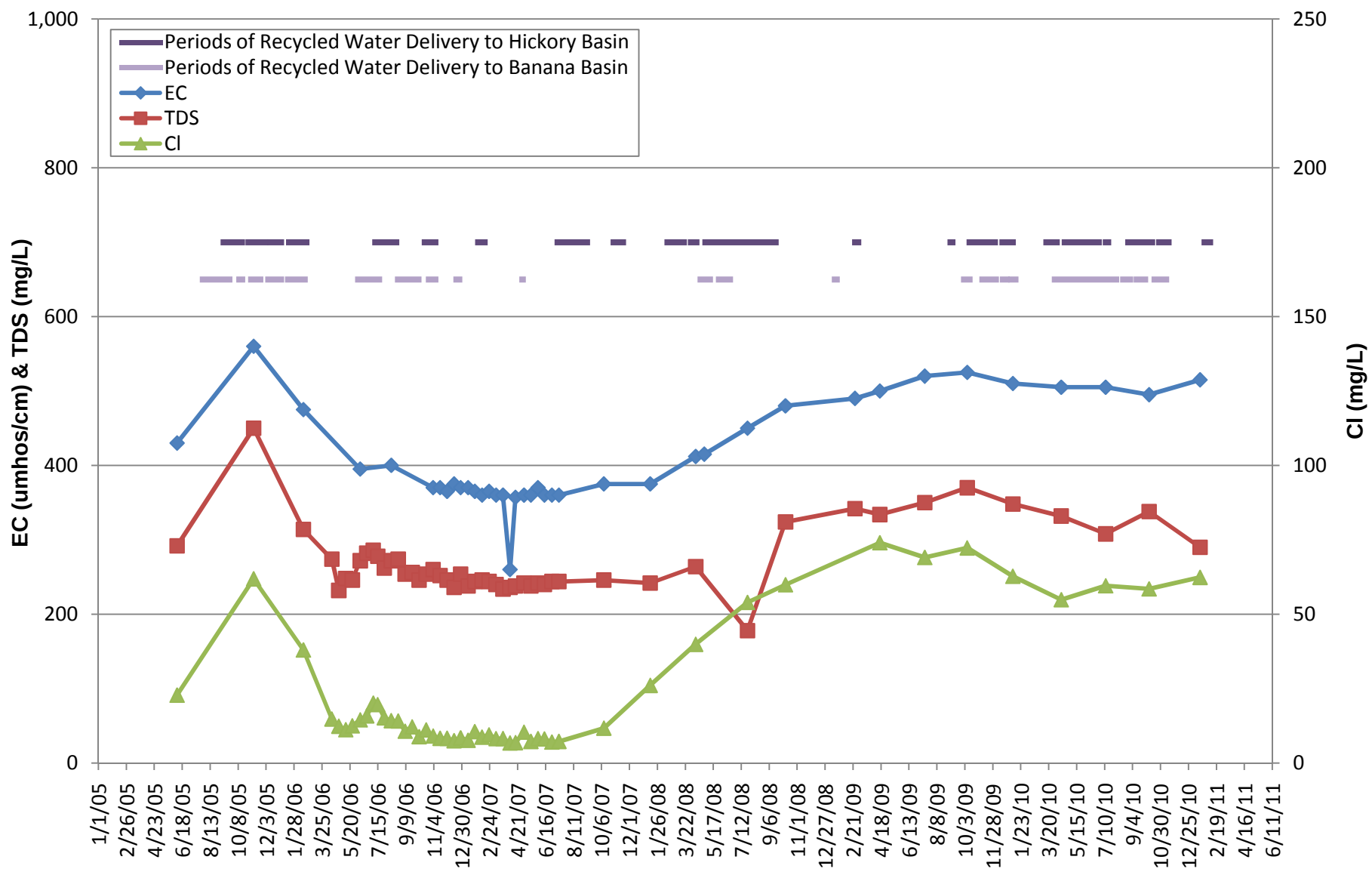
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8TH STREET BASIN
MW 8TH-2/1**





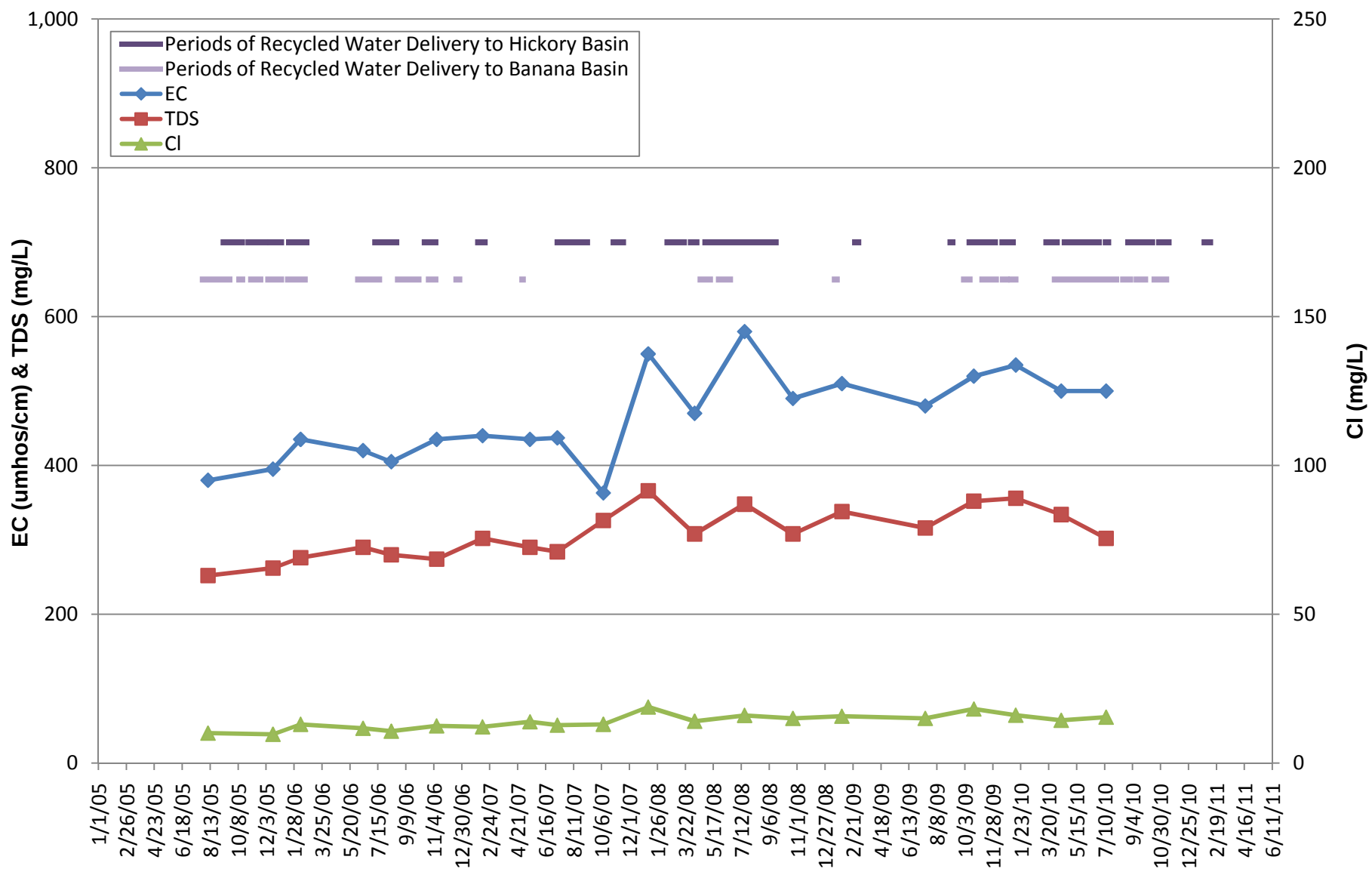
EC, TDS, CL TRENDS
8TH STREET BASIN
MW 8TH-2/2





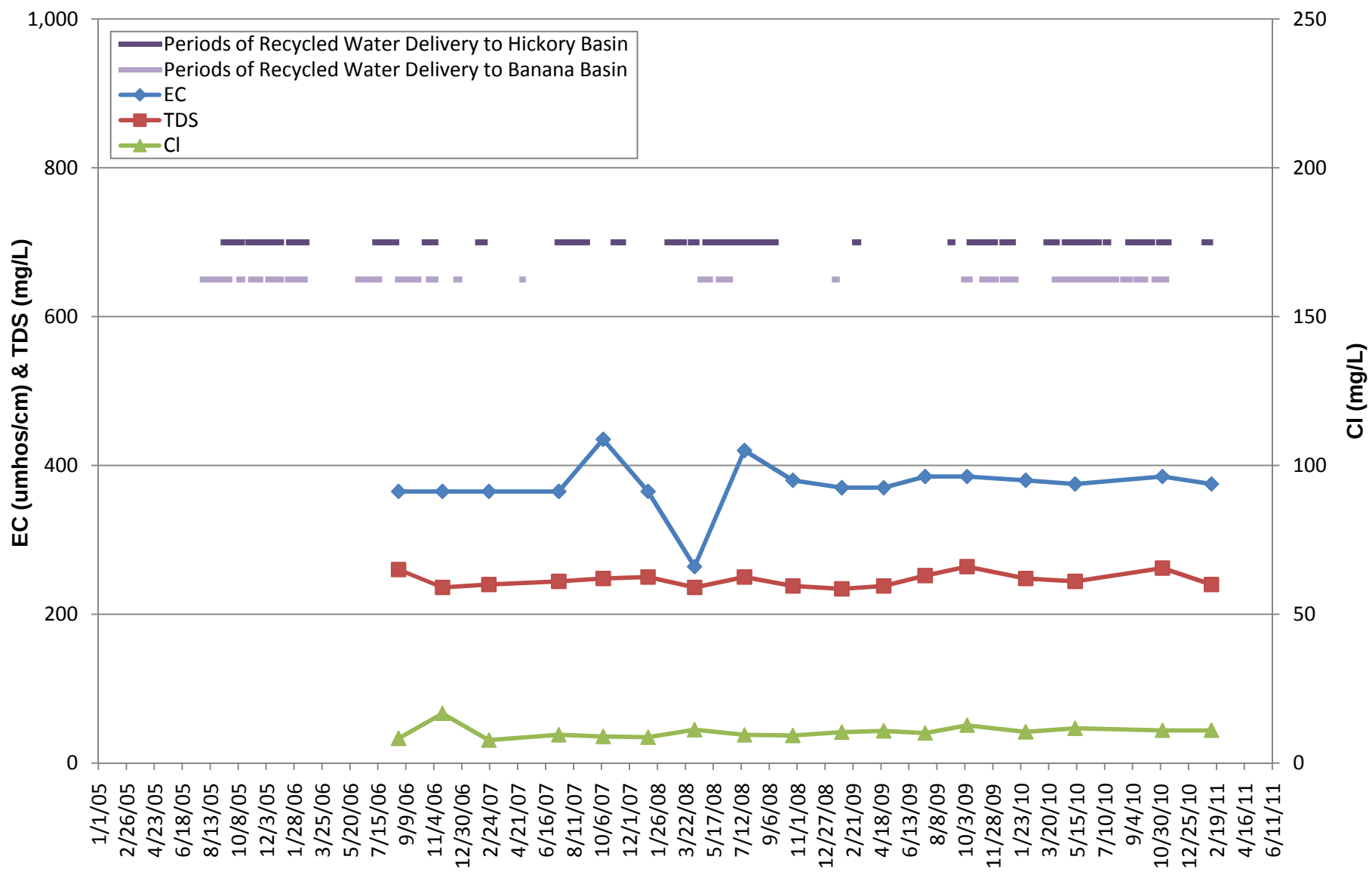
EC, TDS, CL TRENDS
HICKORY BANANA BASINS
MW BH-1/2





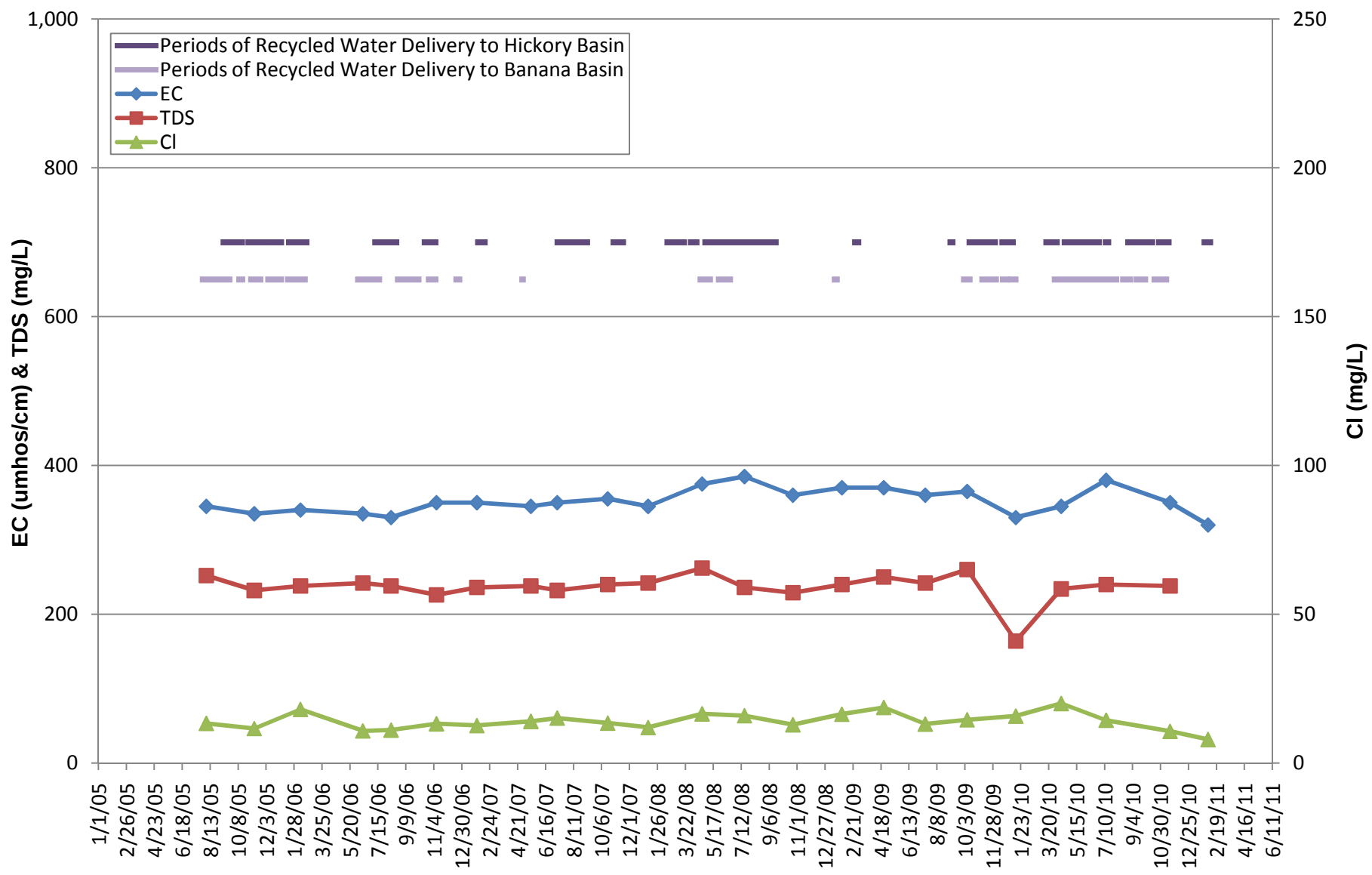
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BANANA-HICKORY BASINS
CALIFORNIA SPEEDWAY INFIELD WELL**





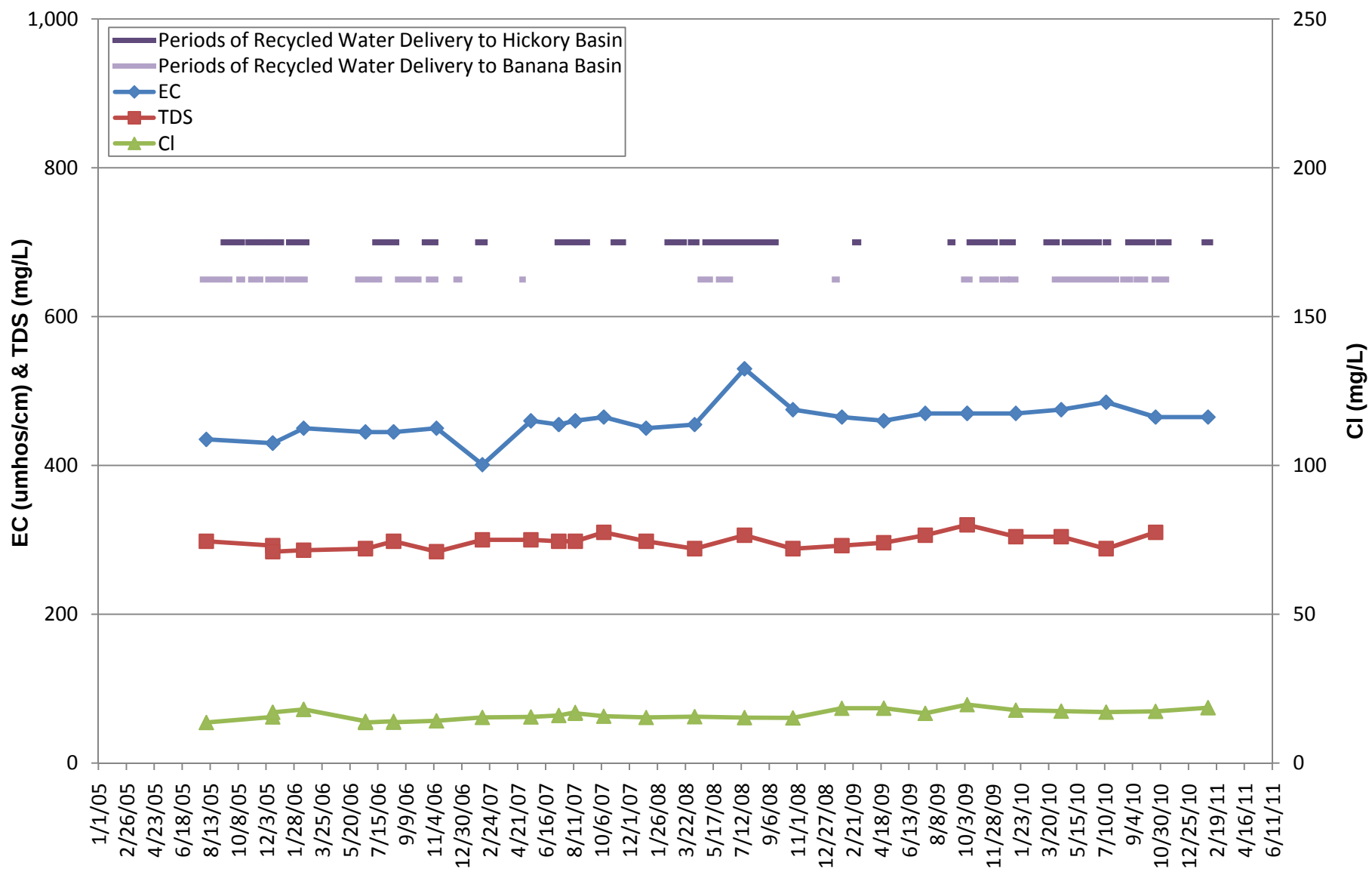
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BANANA-HICKORY BASINS
CALIFORNIA SPEEDWAY NO. 2**





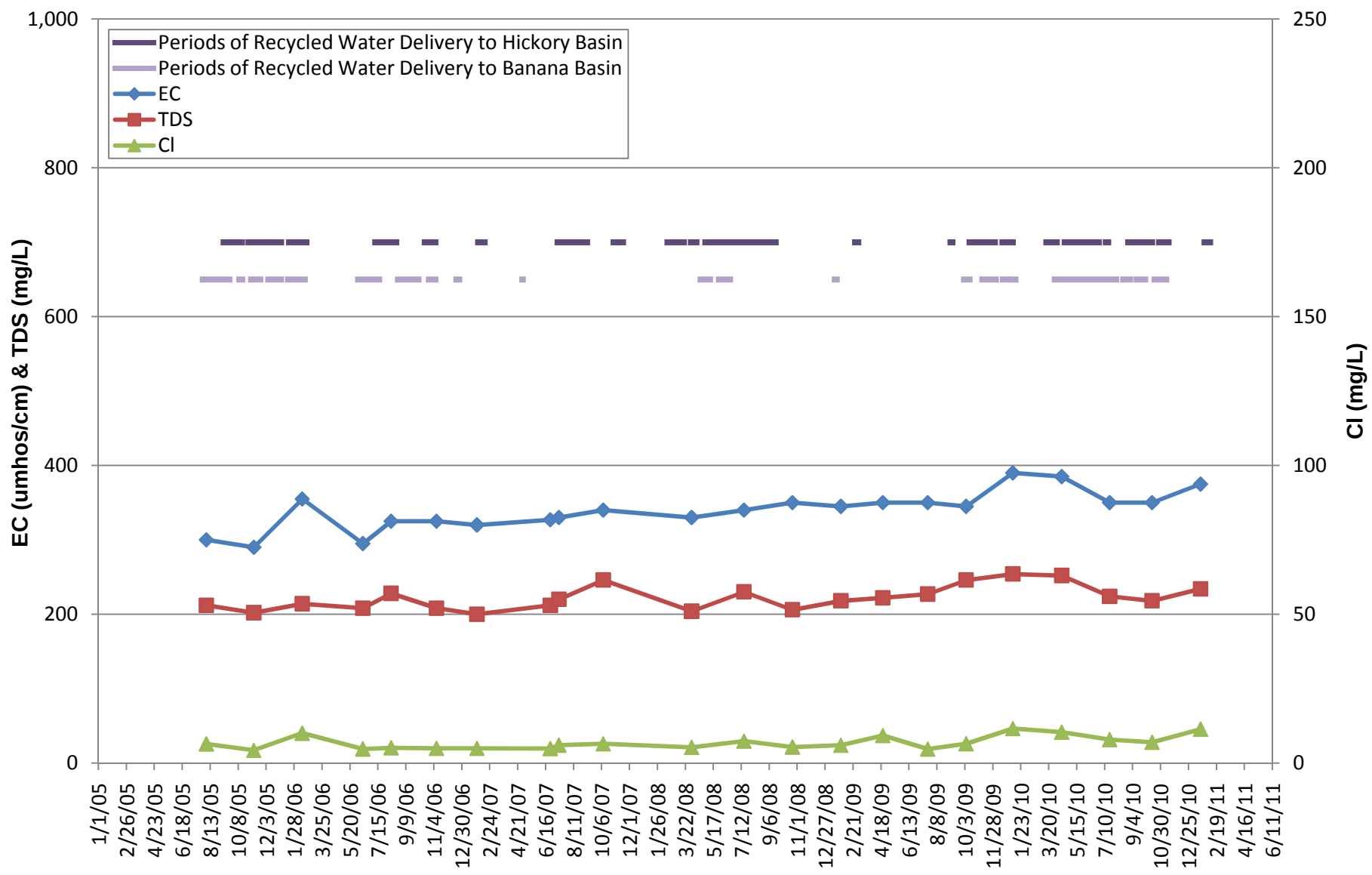
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BANANA-HICKORY BASINS
RELIANT EAST WELL**





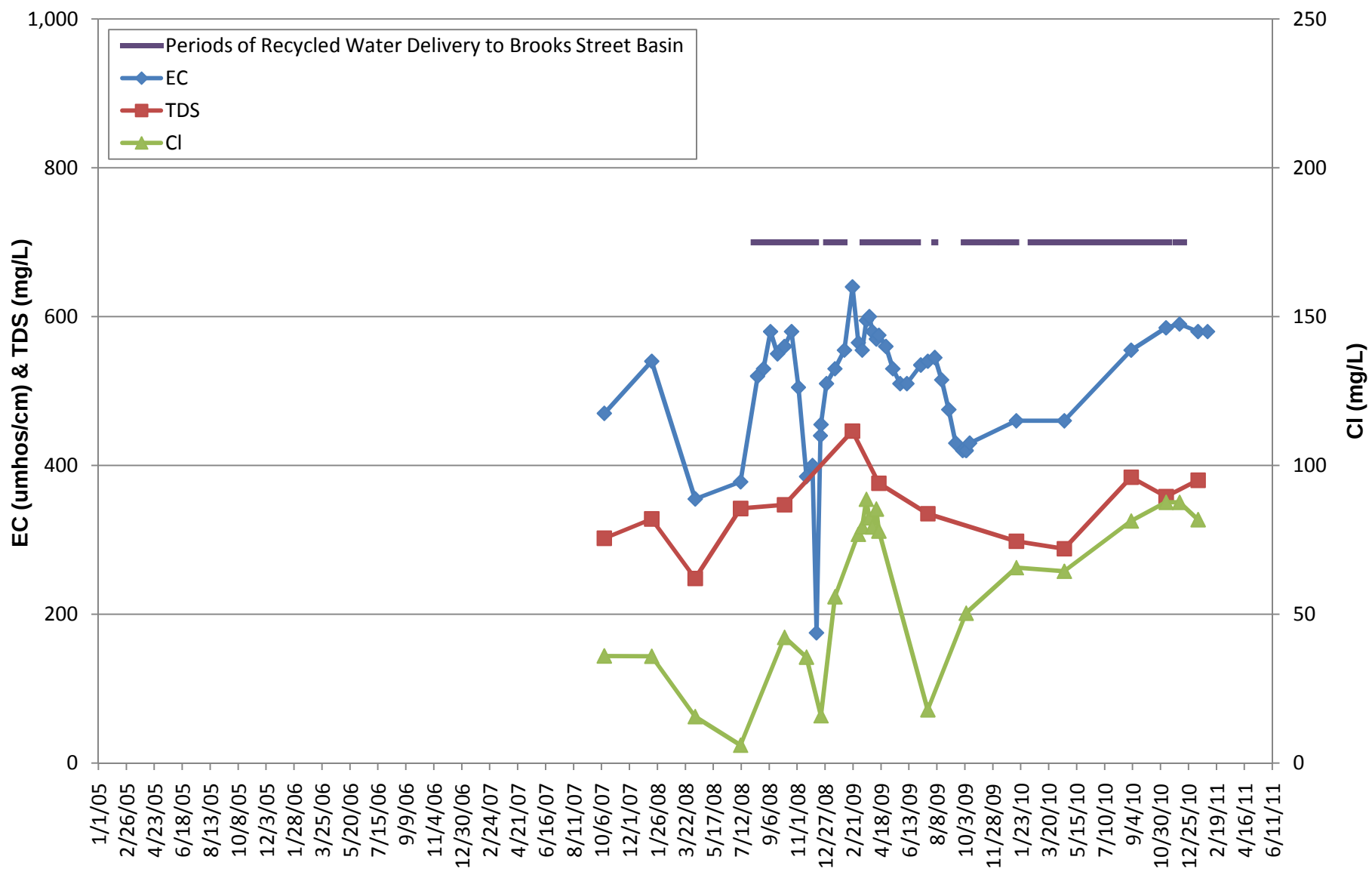
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BANANA-HICKORY BASINS
FONTANA WATER CO. 37A**





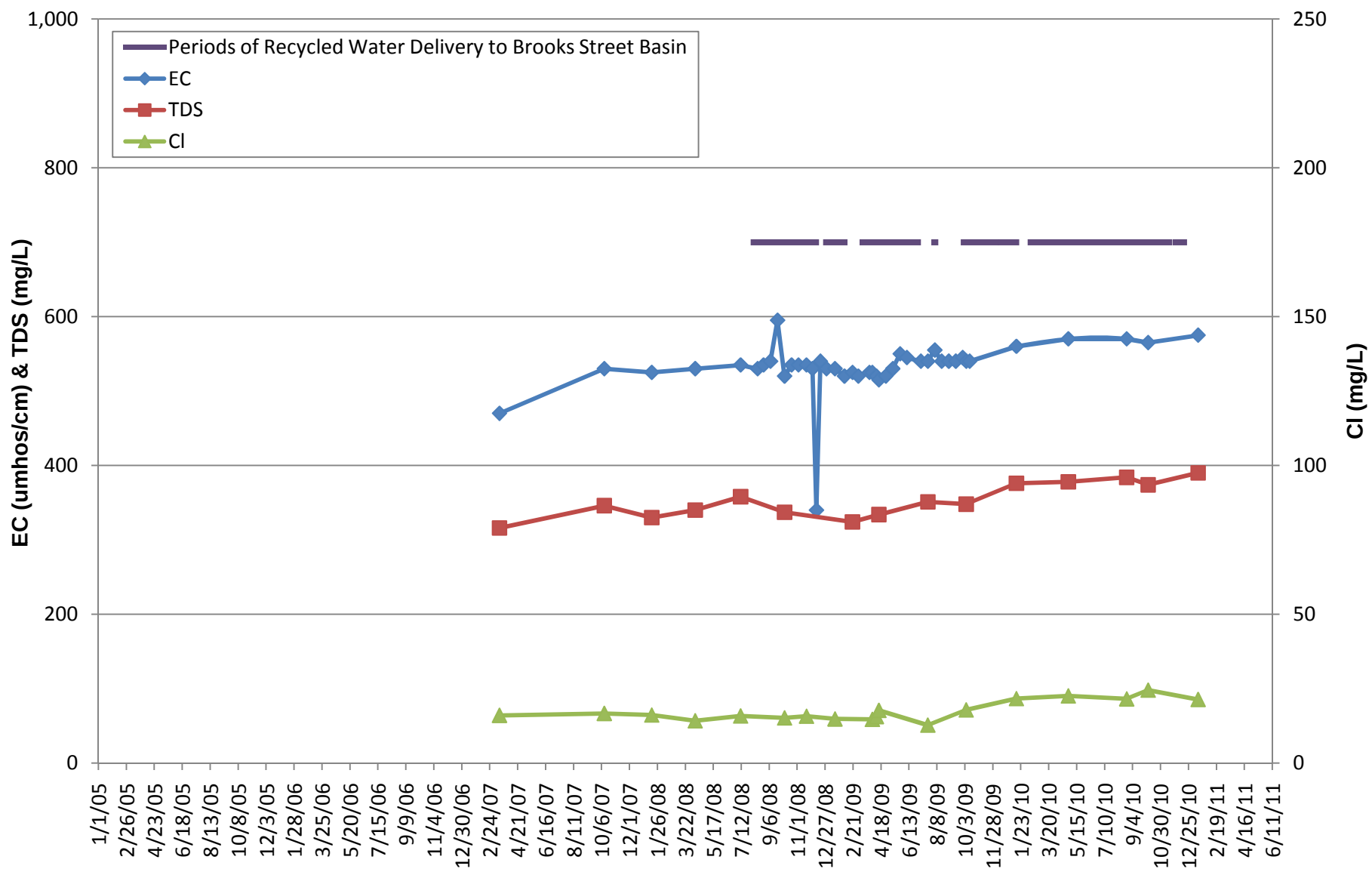
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BANANA-HICKORY BASINS
ONTARIO NO. 20**





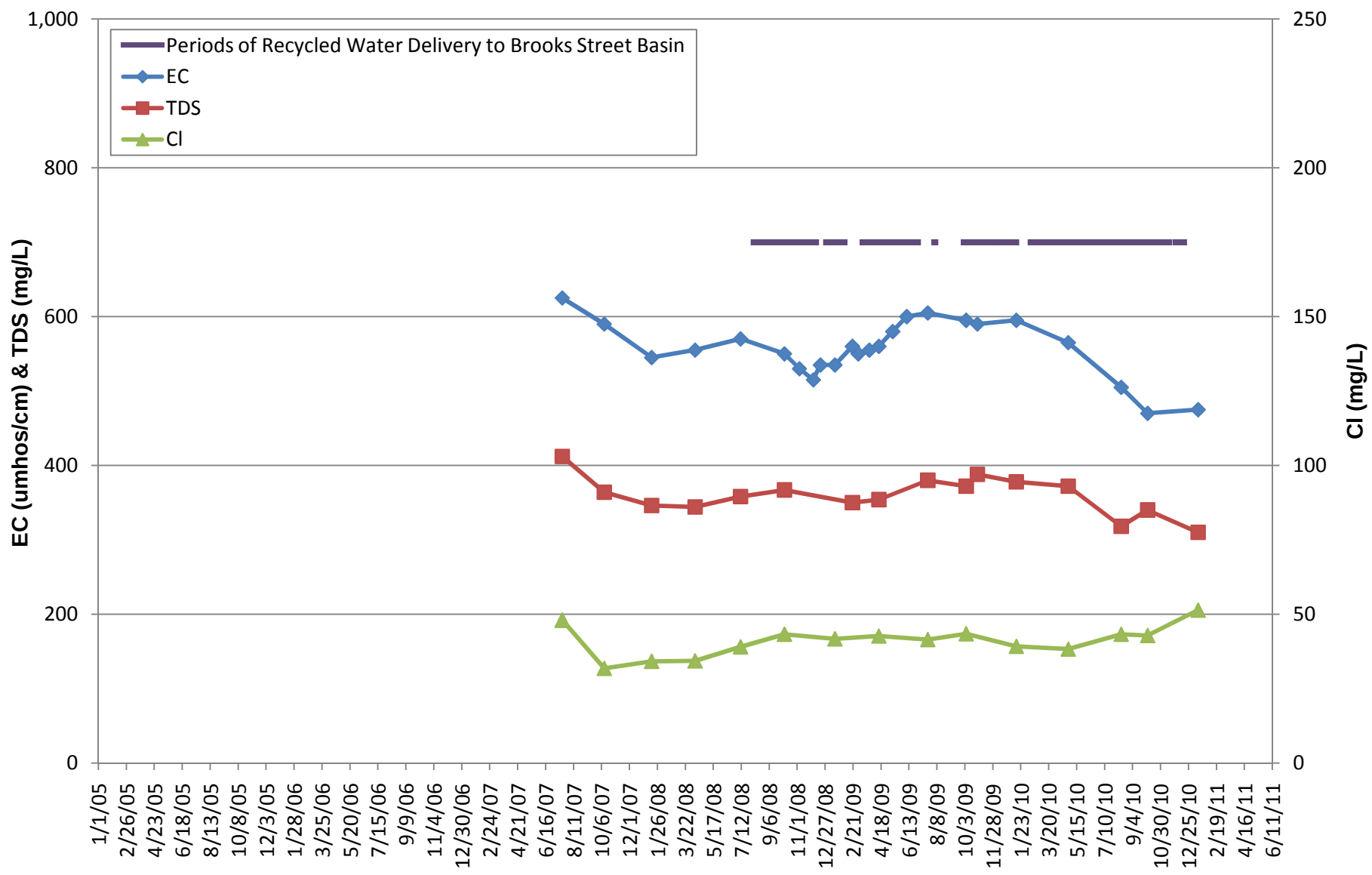
**EC, TDS, CL TRENDS
BROOKS STREET BASIN
MW BRK-1/1**





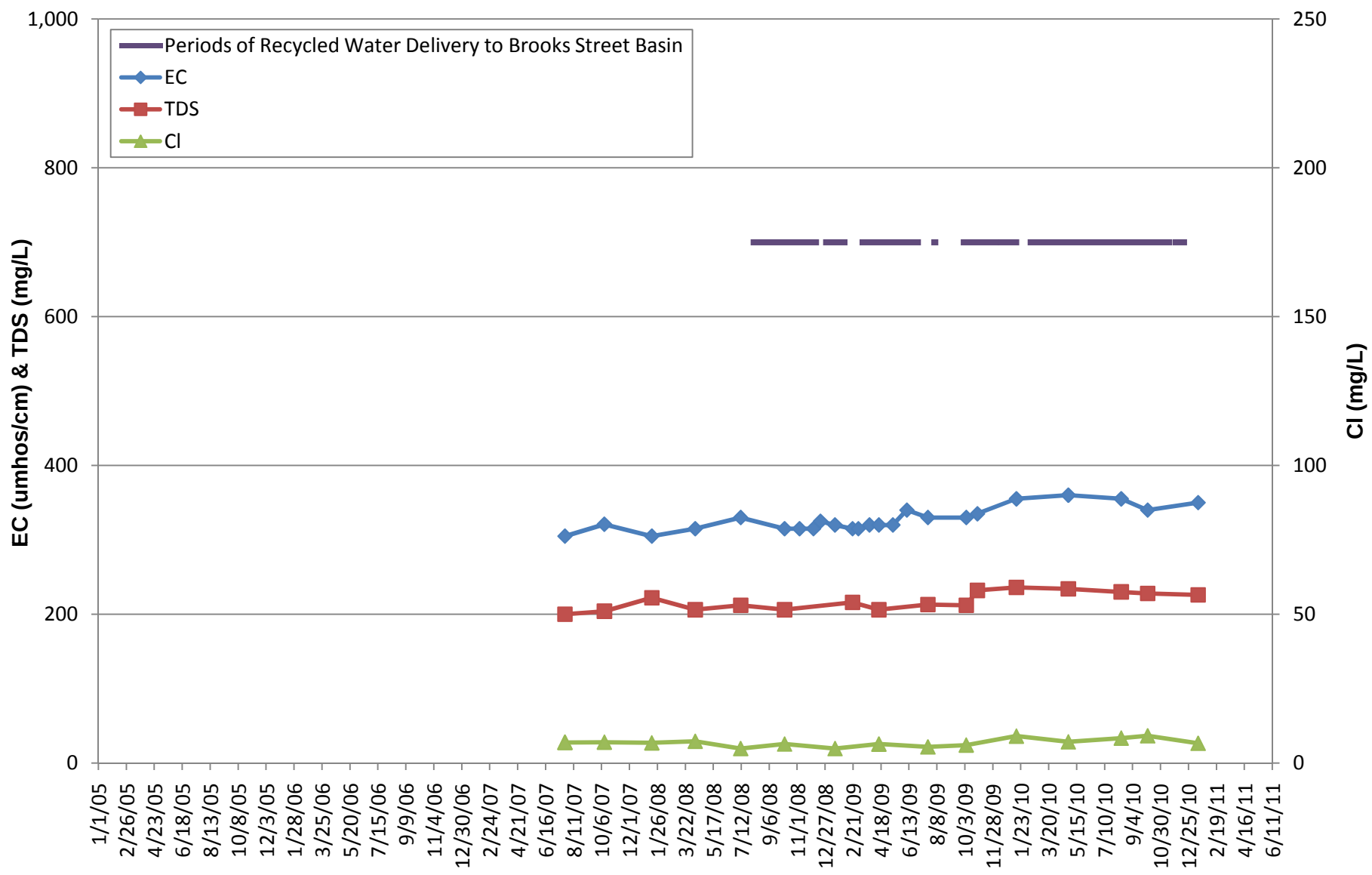
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BROOKS STREET BASIN
MW BRK-1/2





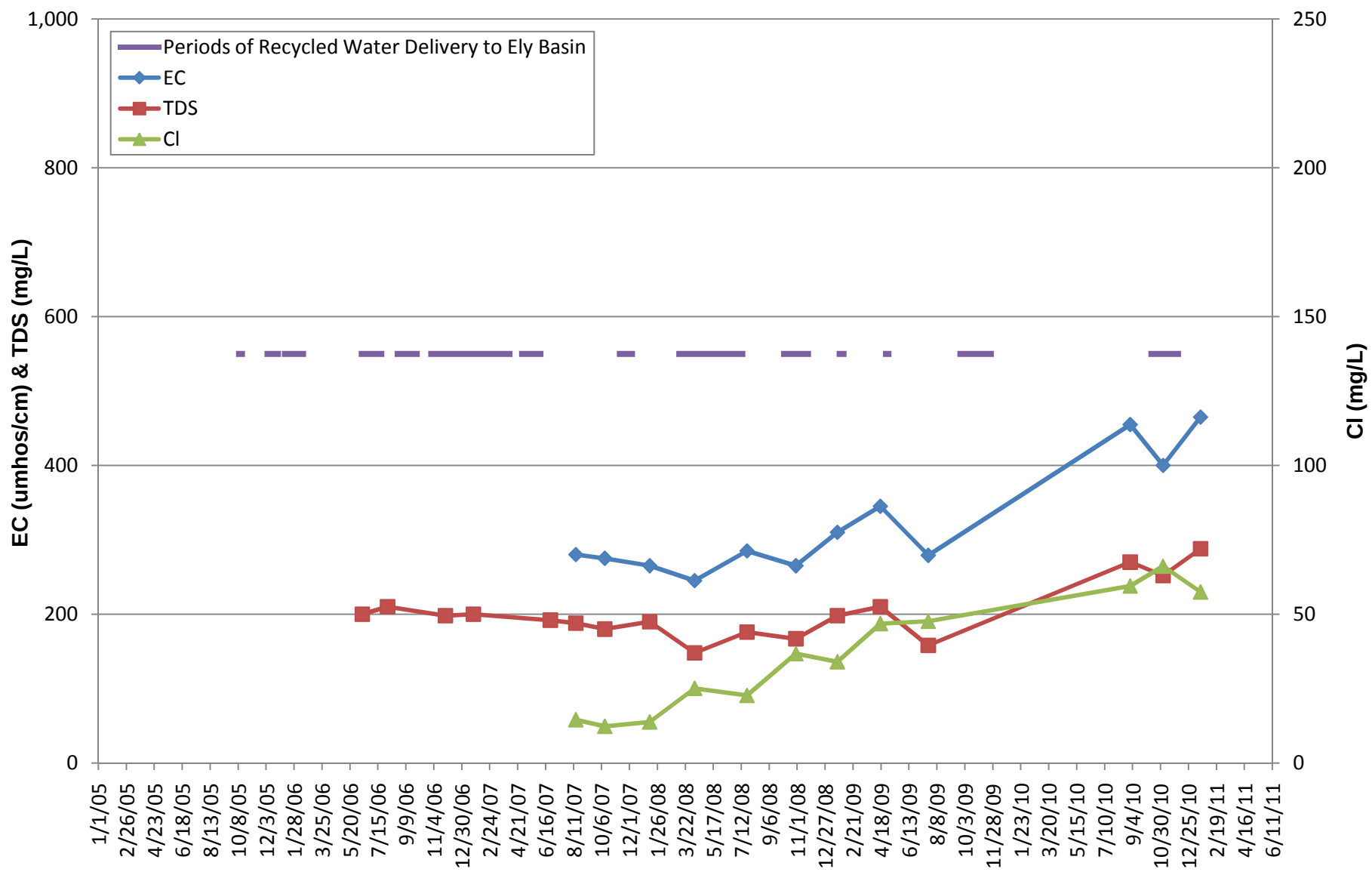
EC, TDS, CL TRENDS
BROOKS STREET BASIN
MW BRK-2/1





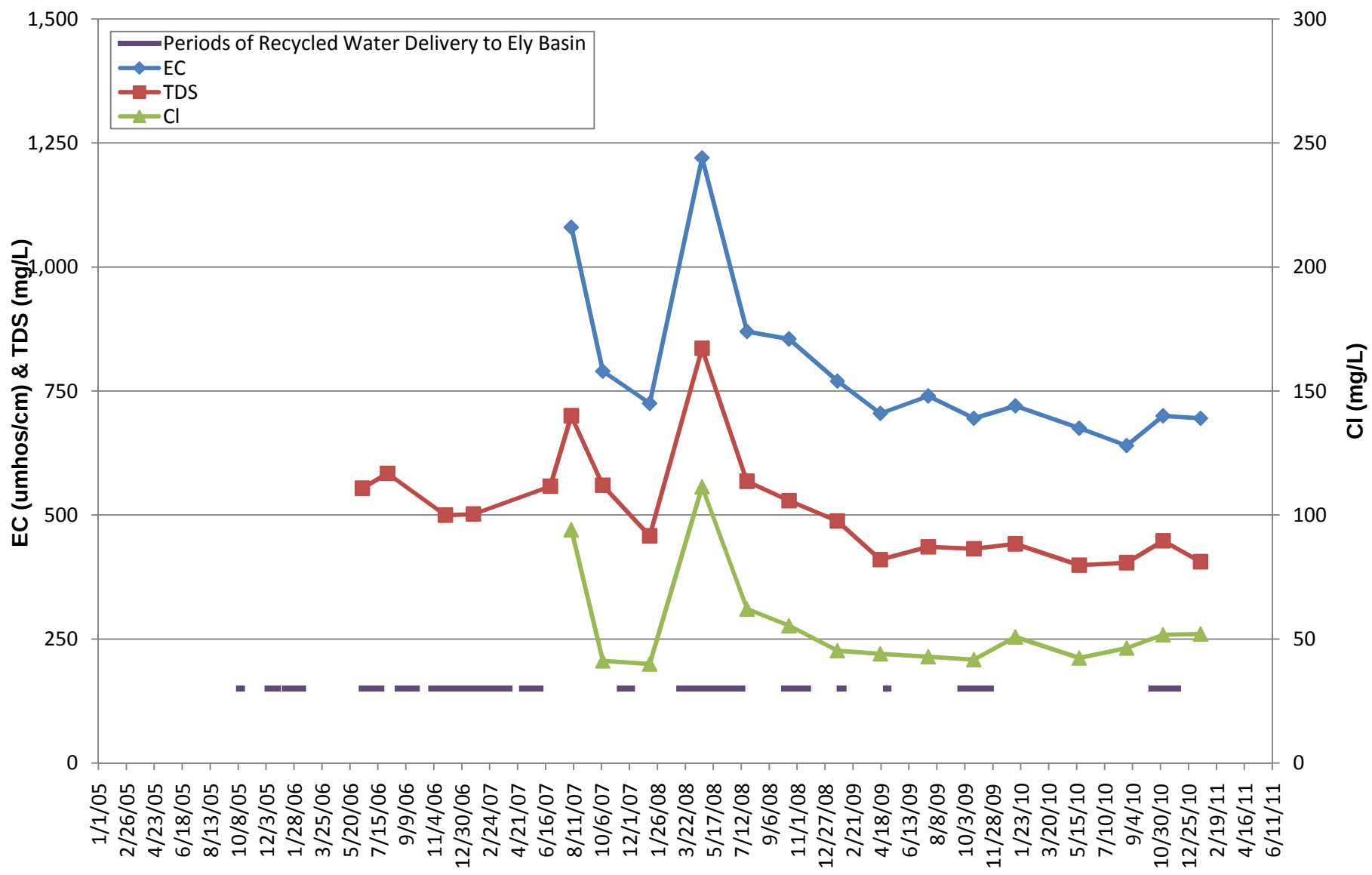
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BROOKS STREET BASIN
MW BRK-2/2**





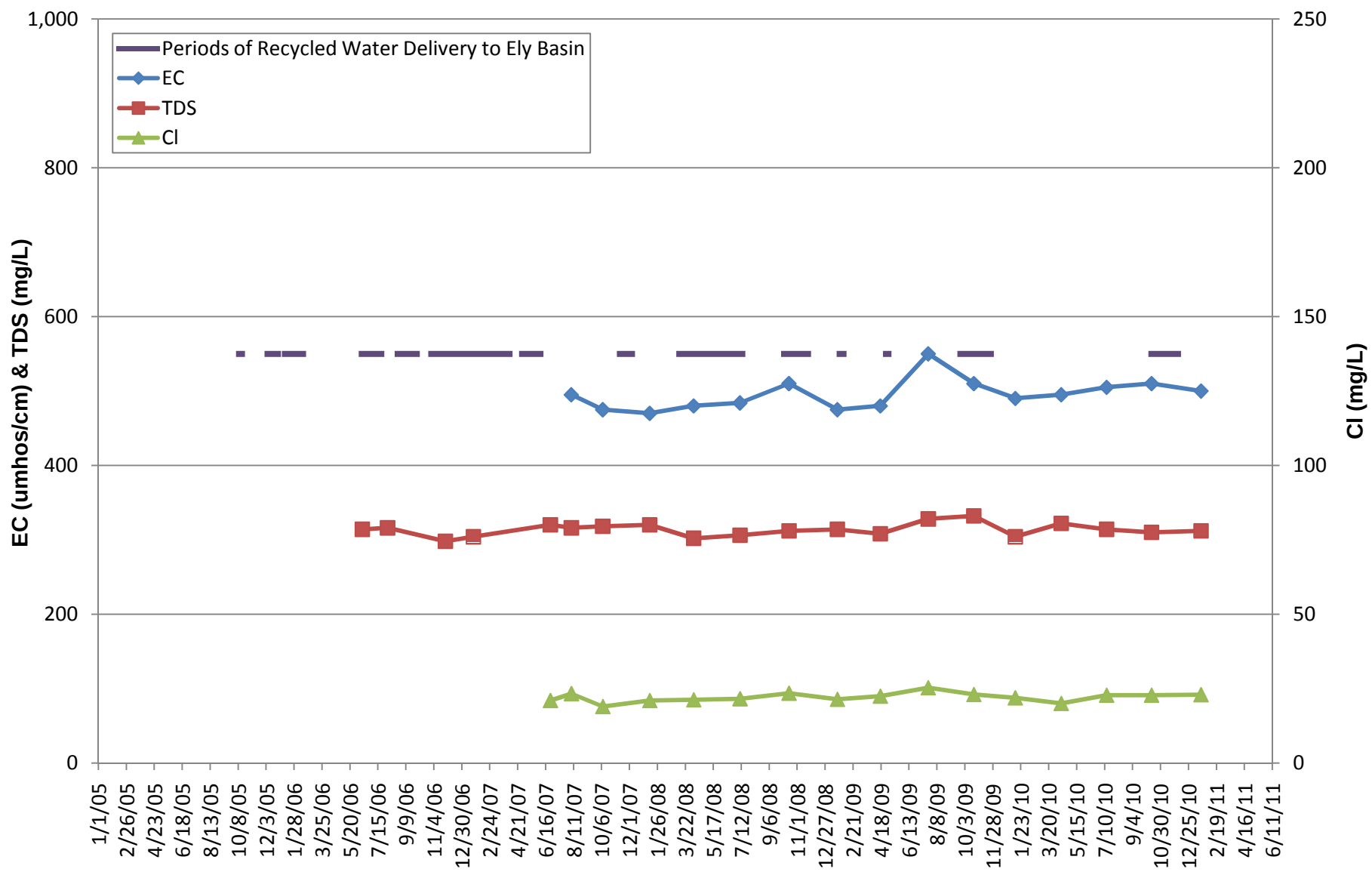
EC, TDS, CL TRENDS
ELY BASIN
PHILADELPHIA WELL





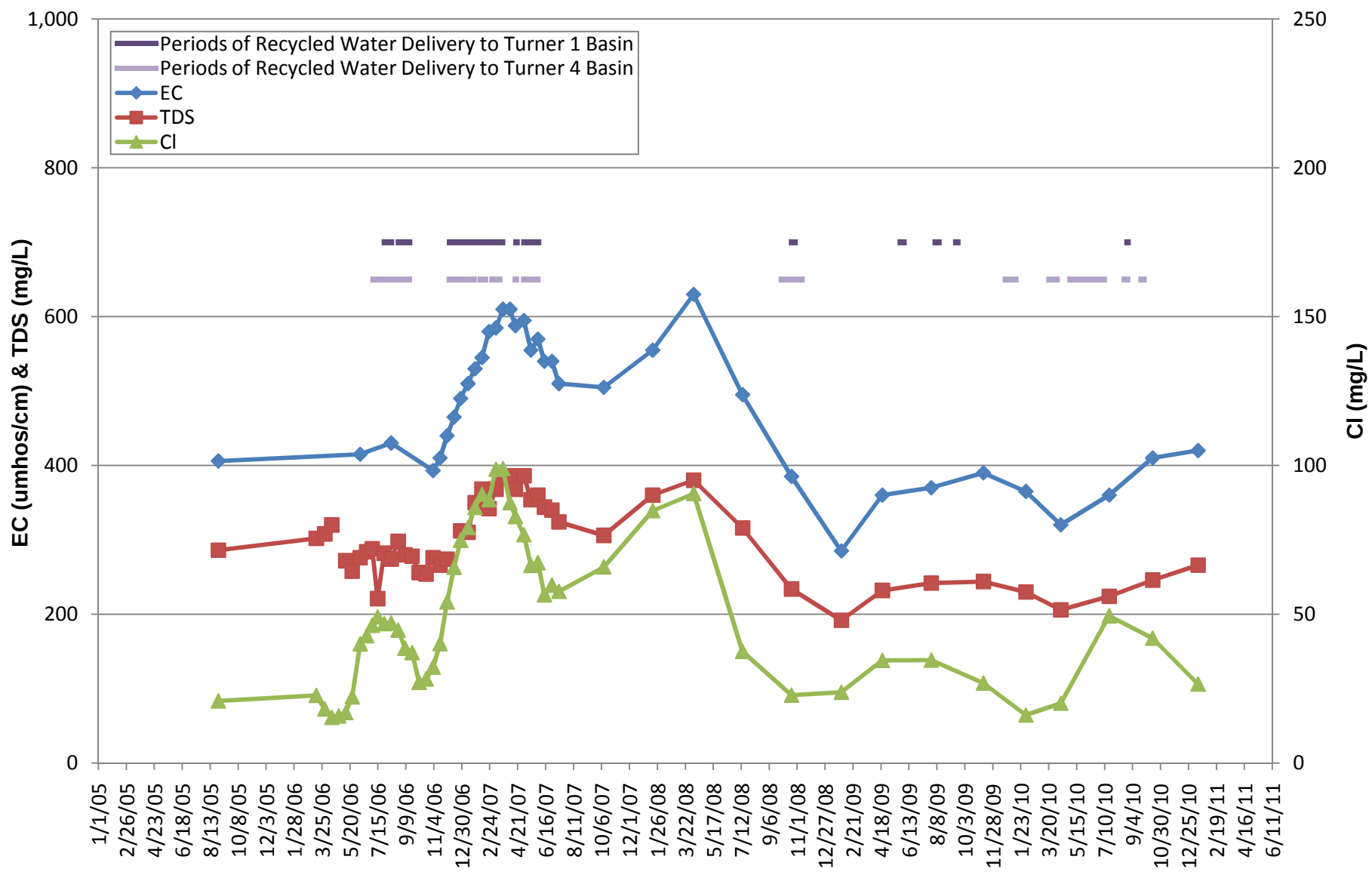
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ELY BASIN
WALNUT WELL





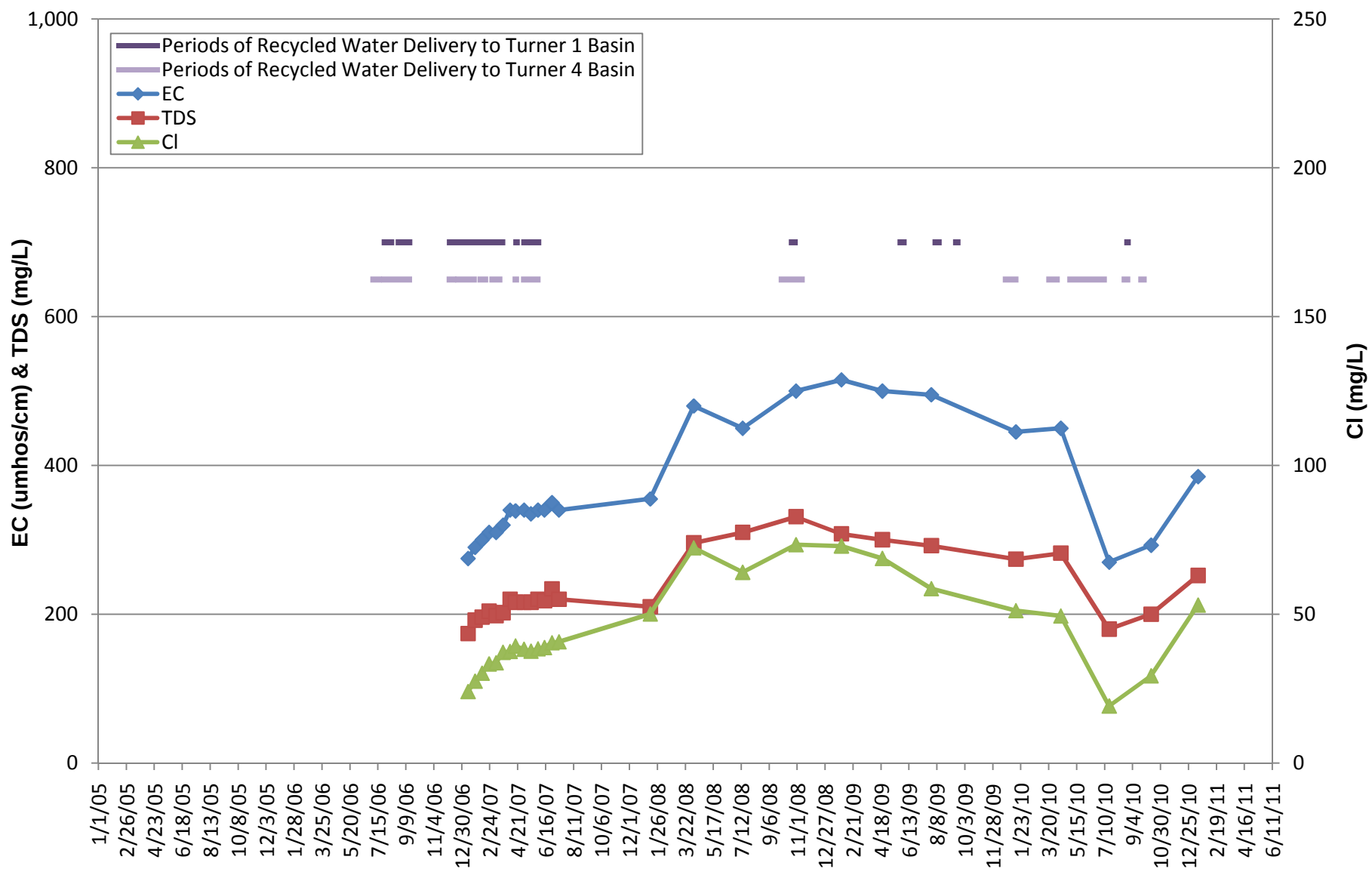
EC, TDS, CL TRENDS
ELY BASIN
RIVERSIDE WELL





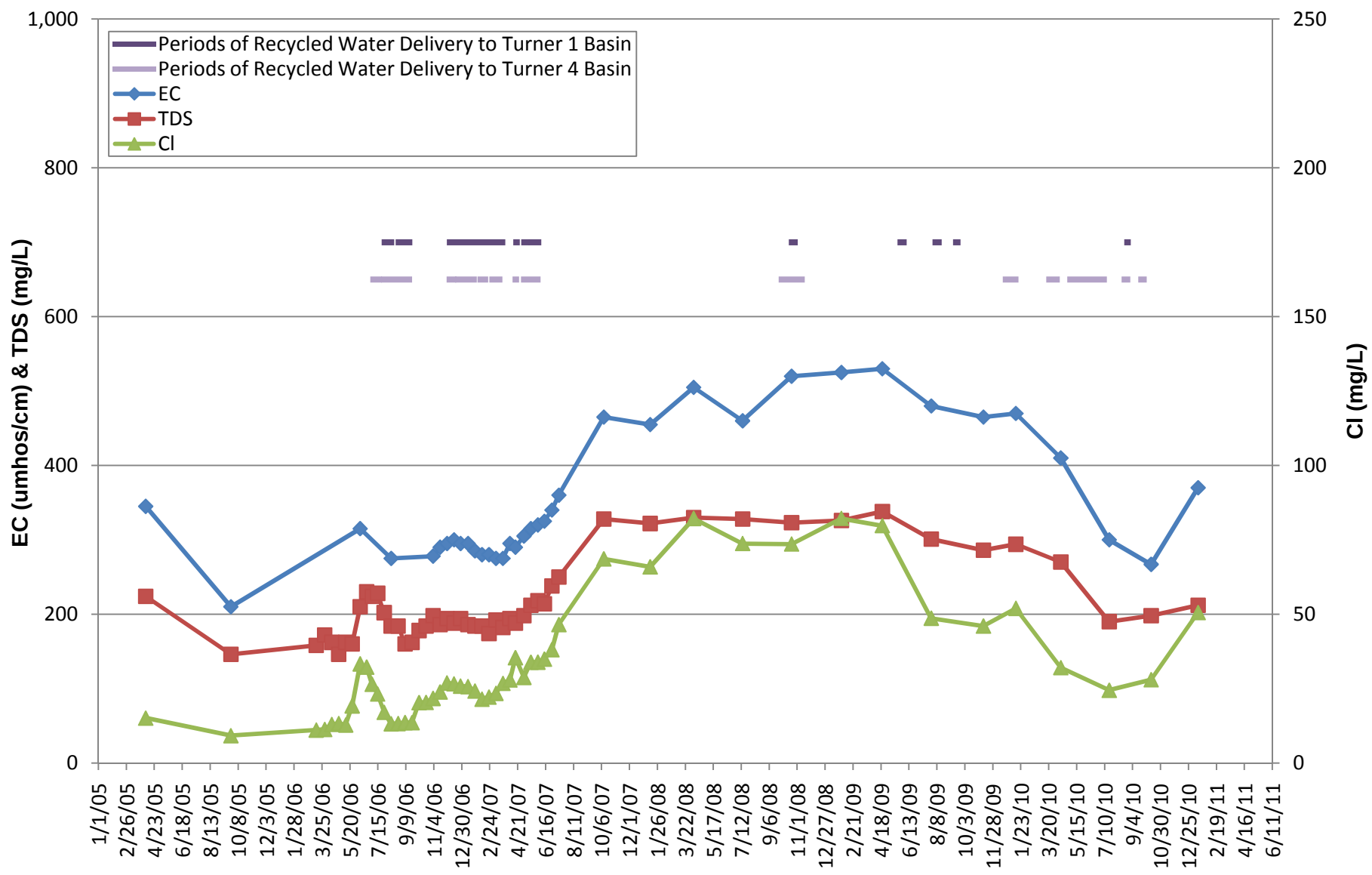
EC, TDS, CL TRENDS
TURNER BASINS
MW TRN-1/2





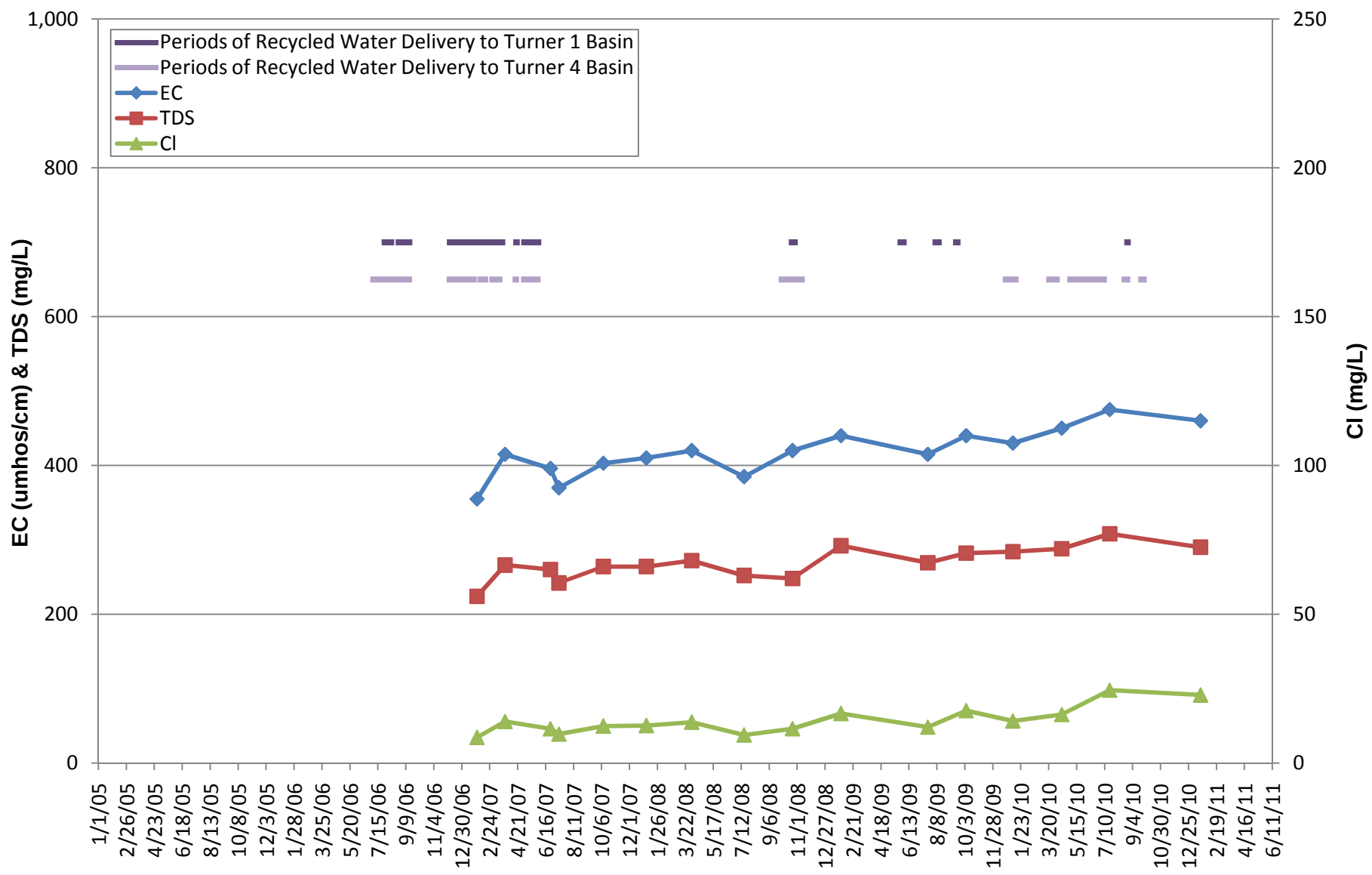
EC, TDS, CL TRENDS
TURNER BASINS
MW TRN-2/1





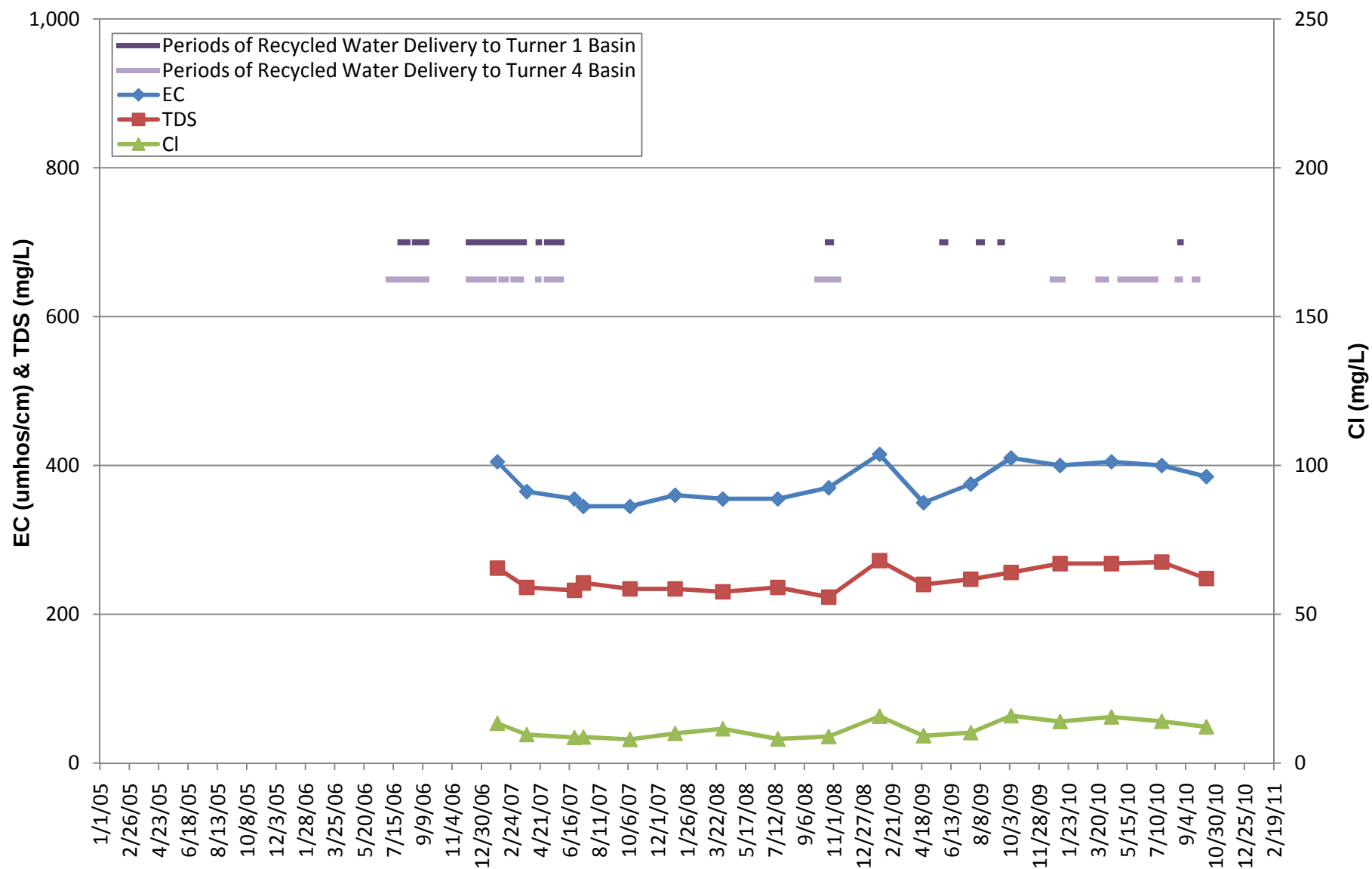
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TURNER BASINS
MW TRN-2/2**





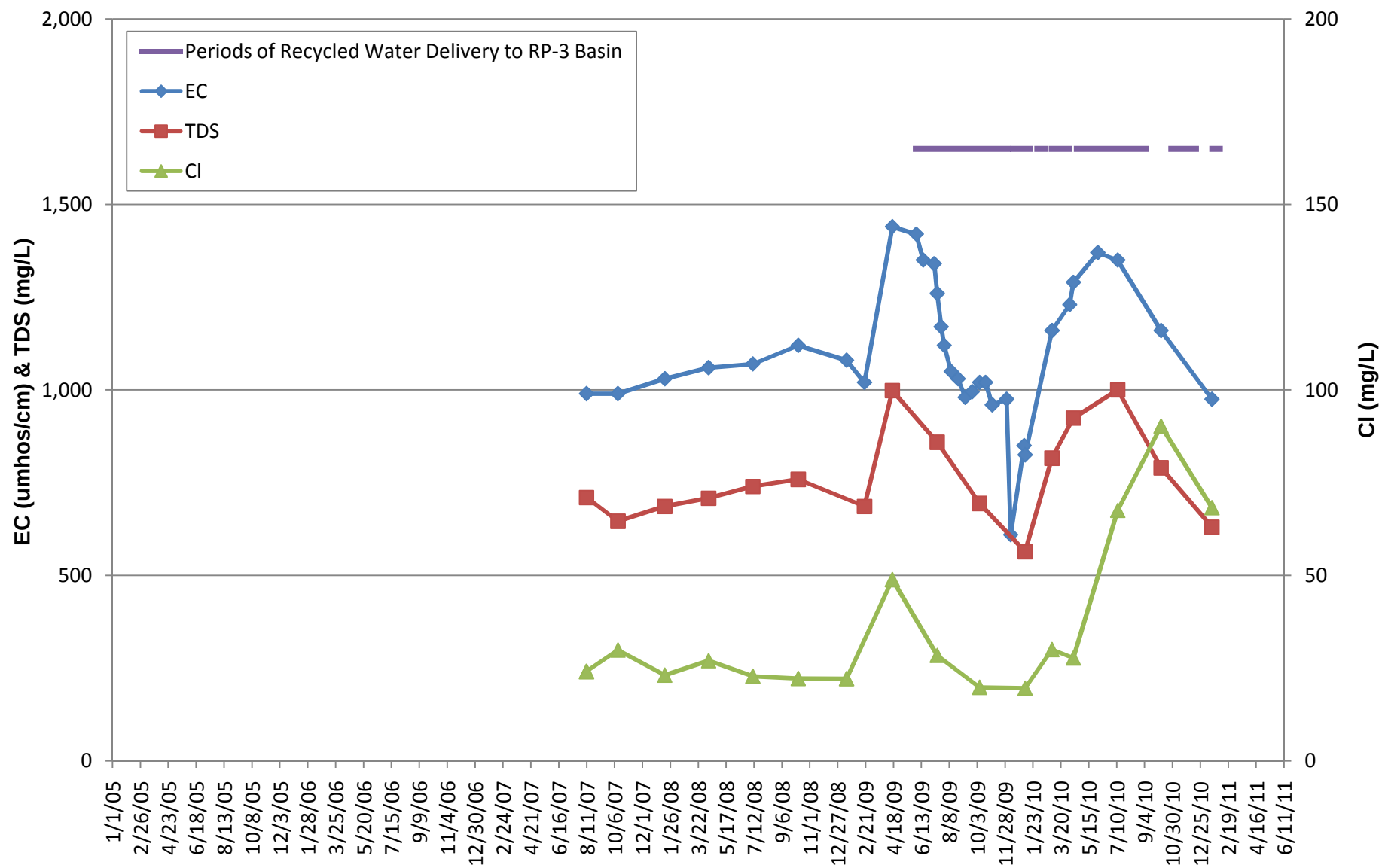
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TURNER BASINS
ONTARIO NO. 25**





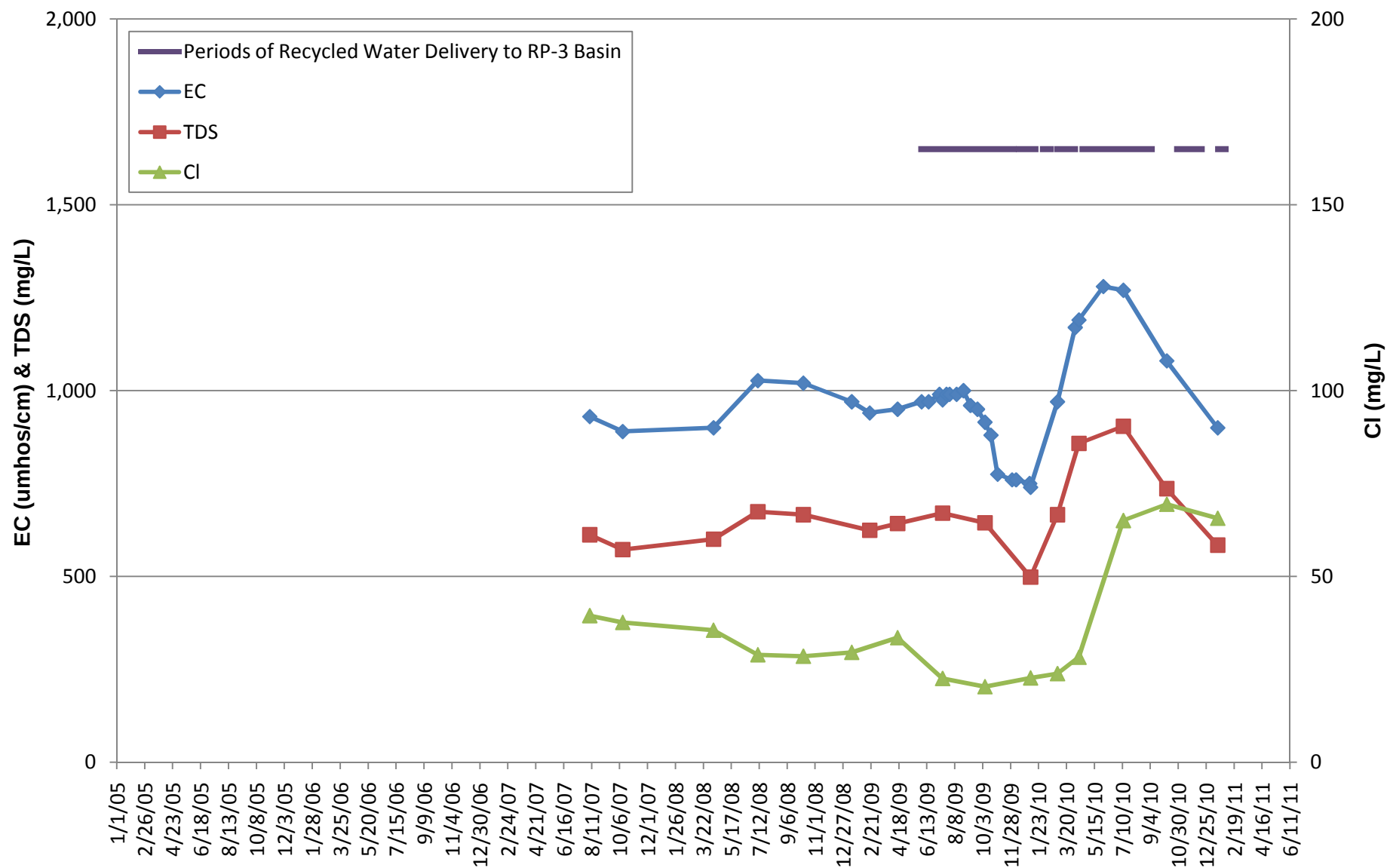
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TURNER BASINS
ONTARIO NO. 29





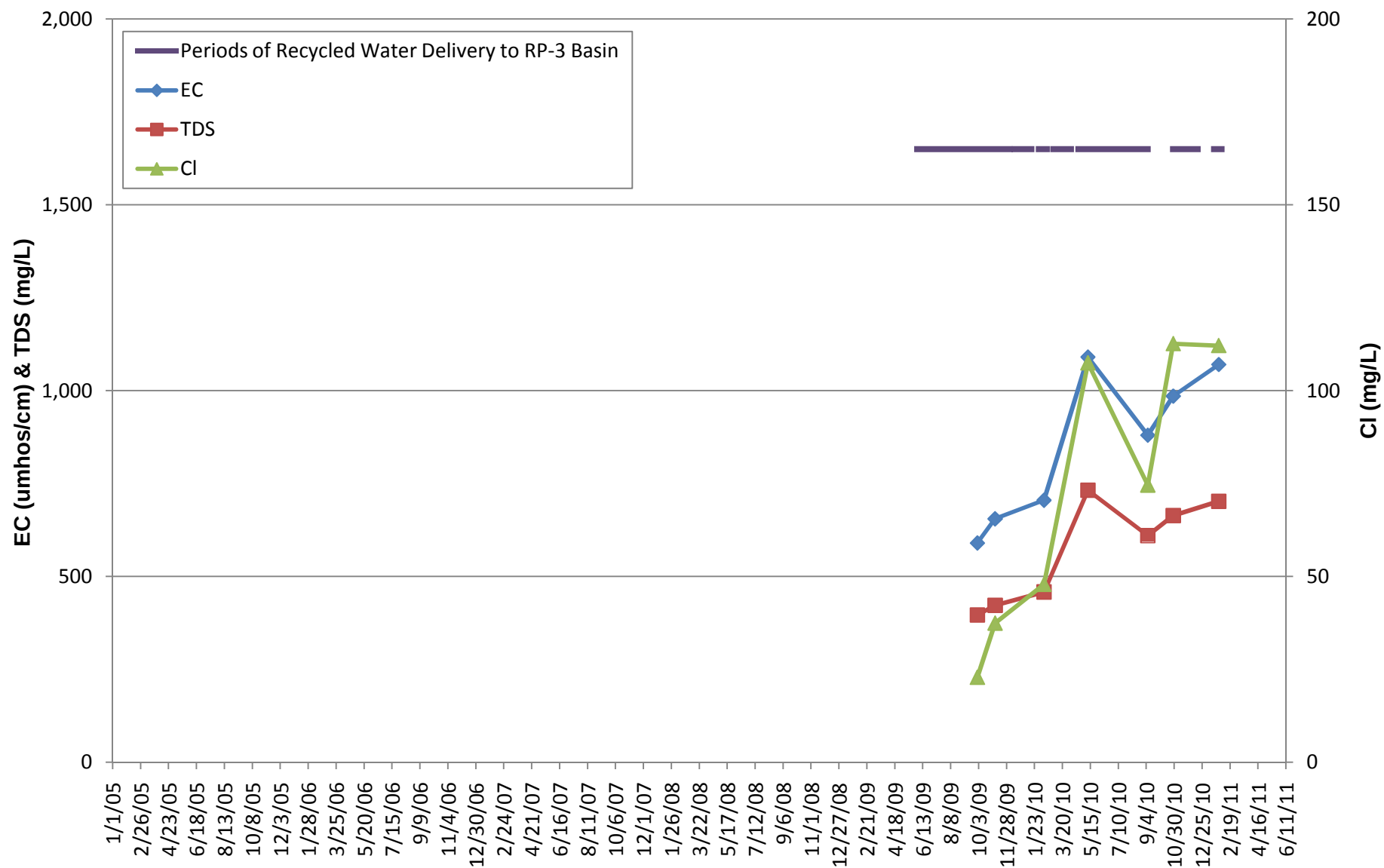
**EC, TDS, CL TRENDS
RP-3 BASINS
RP3-1/1**





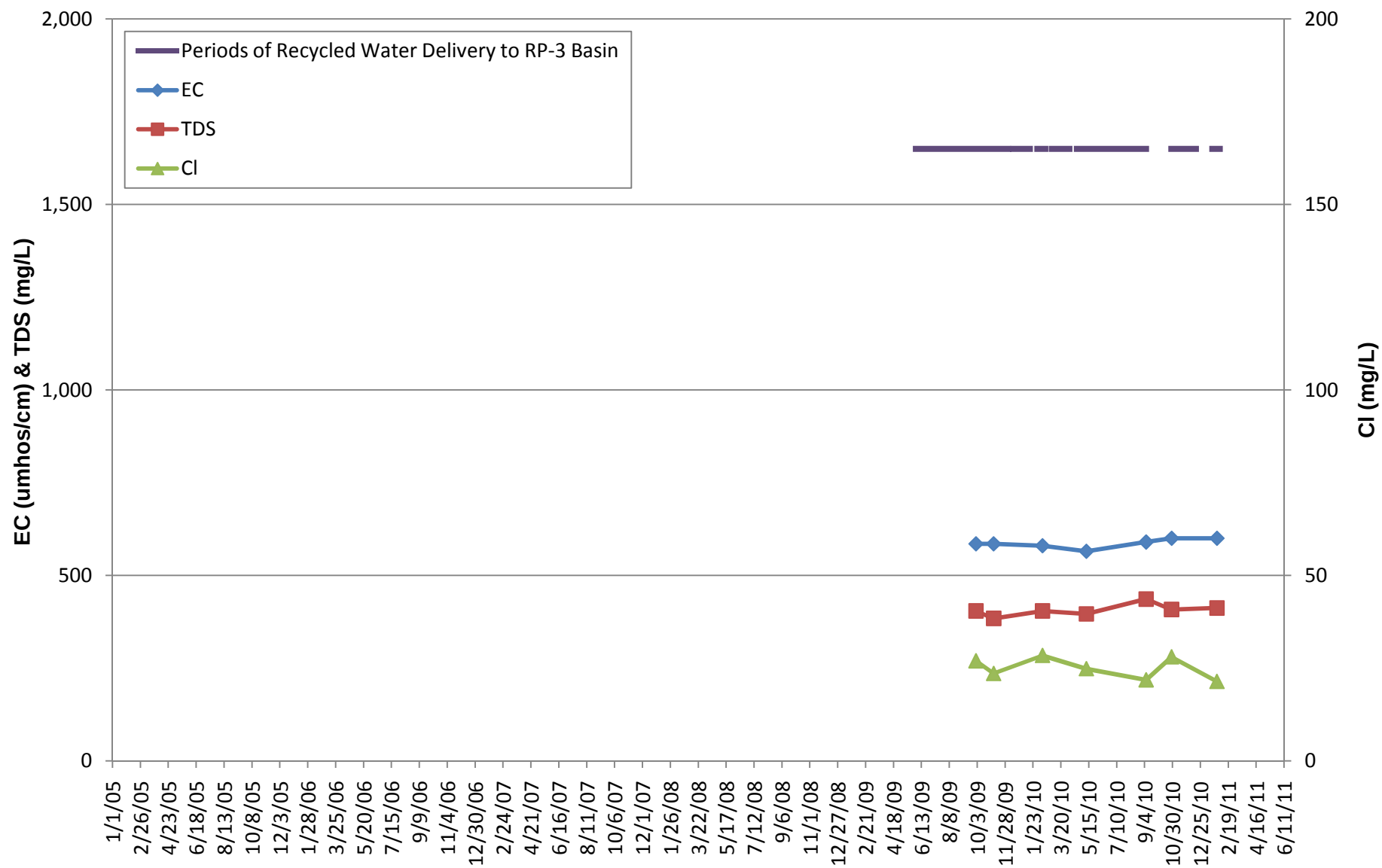
EC, TDS, CL TRENDS
RP-3 BASINS
RP3-1/2





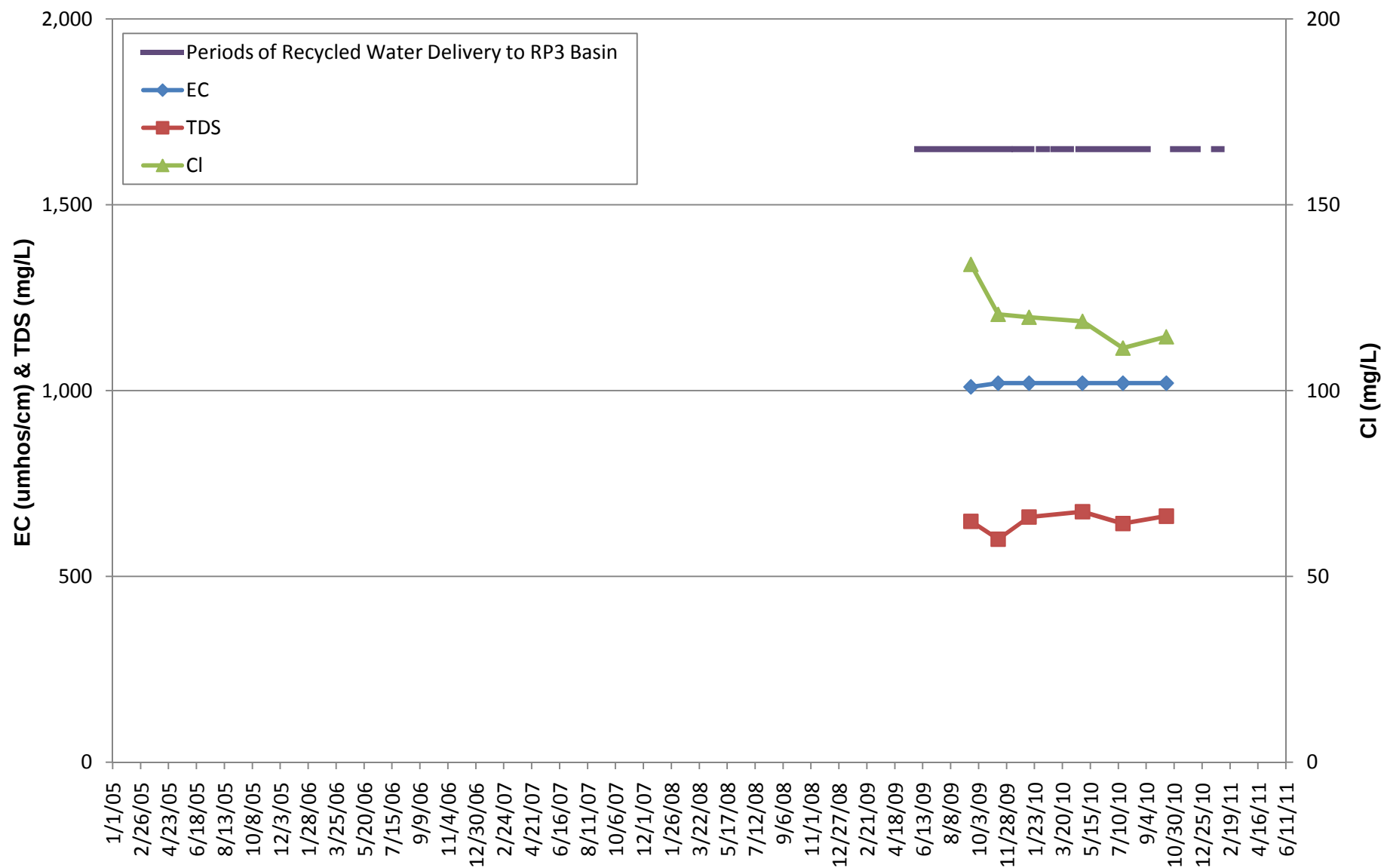
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RP-3 BASINS
Alcoa MW-3**





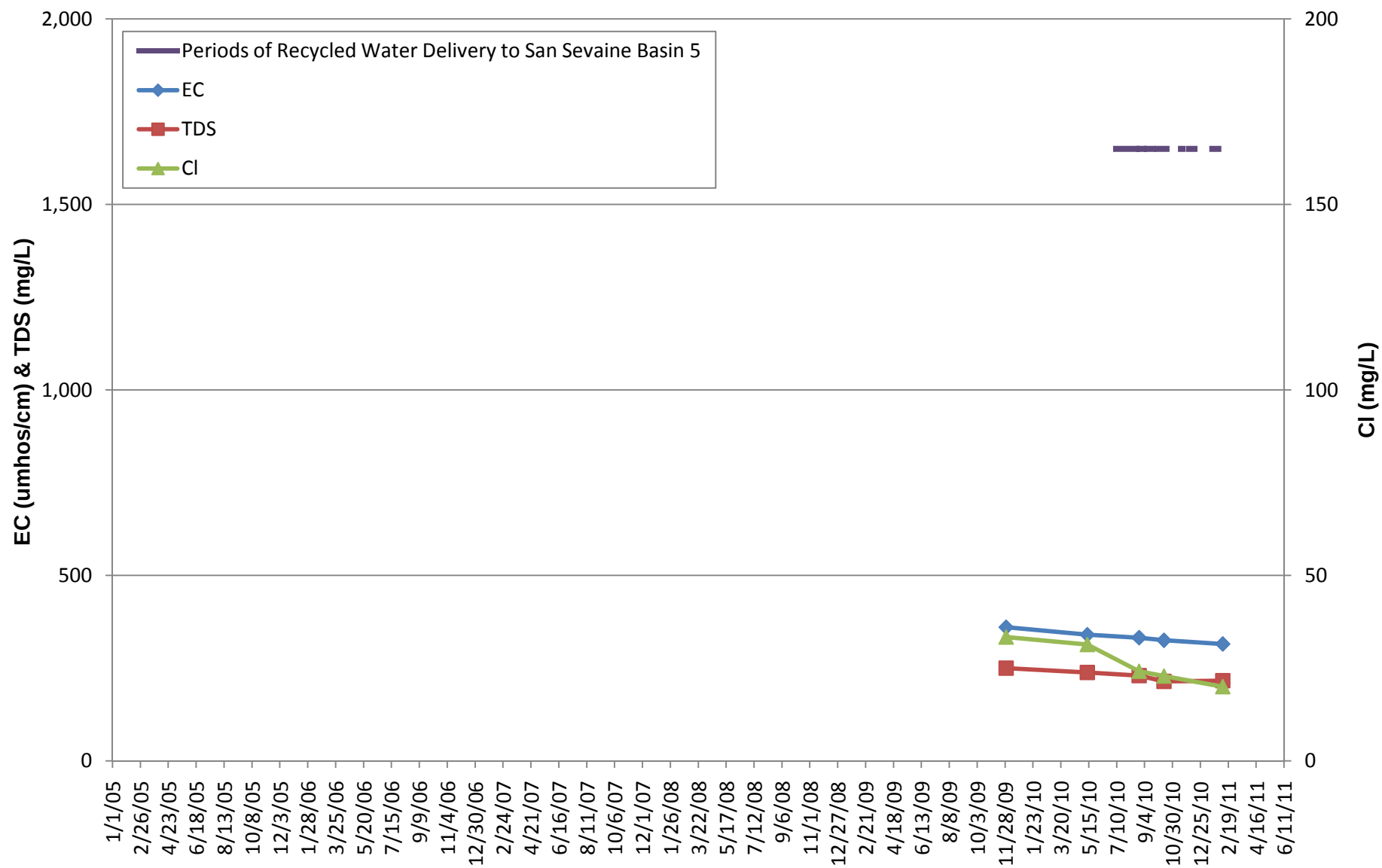
**EC, TDS, CL TRENDS
RP-3 BASINS
Alcoa MW-1**





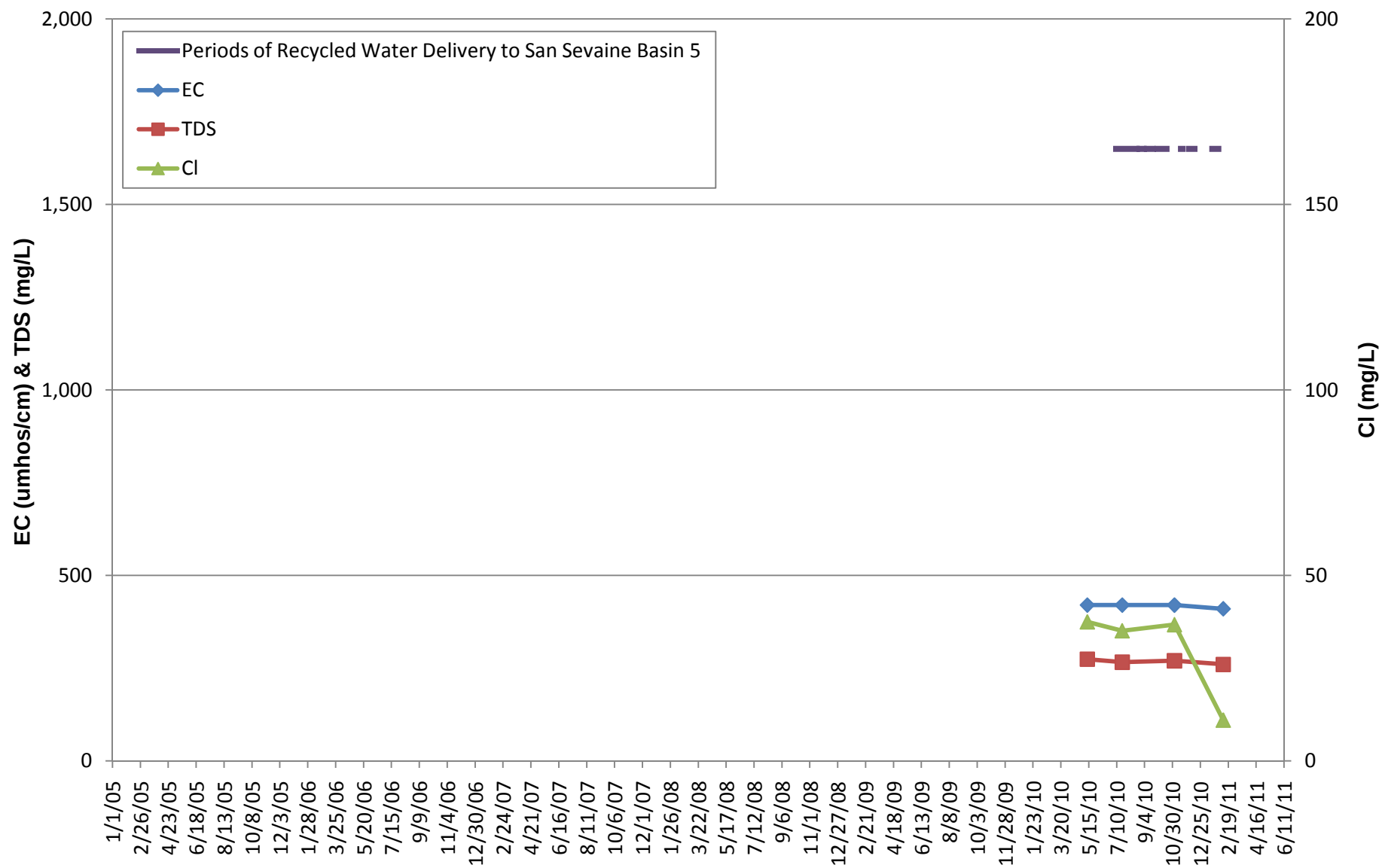
**EC, TDS, CL TRENDS
SAN SEVAINE & VICTORIA BASINS
Southridge JHS Well**





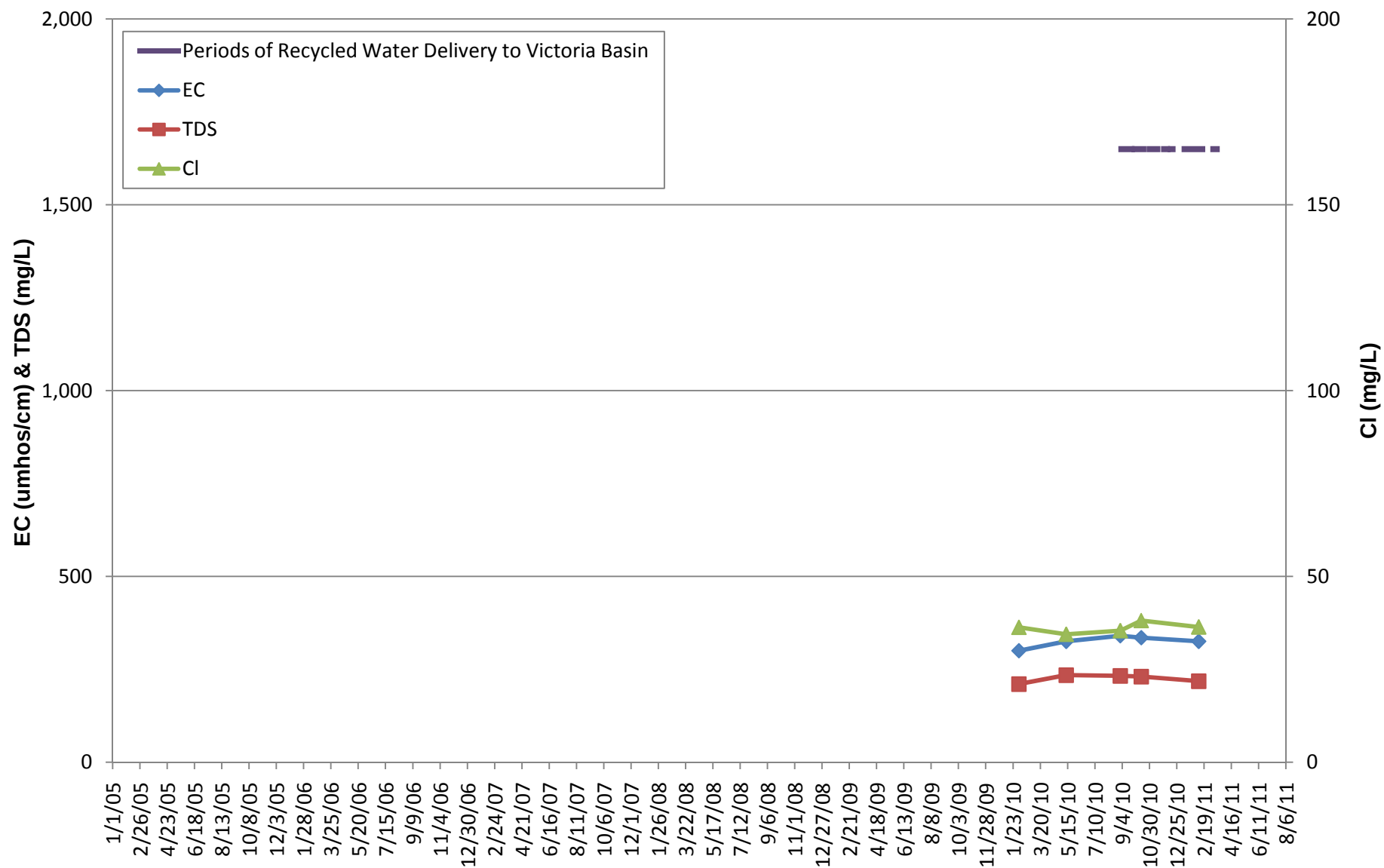
EC, TDS, CL TRENDS
SAN SEVAIRE BASINS
SS-1/1





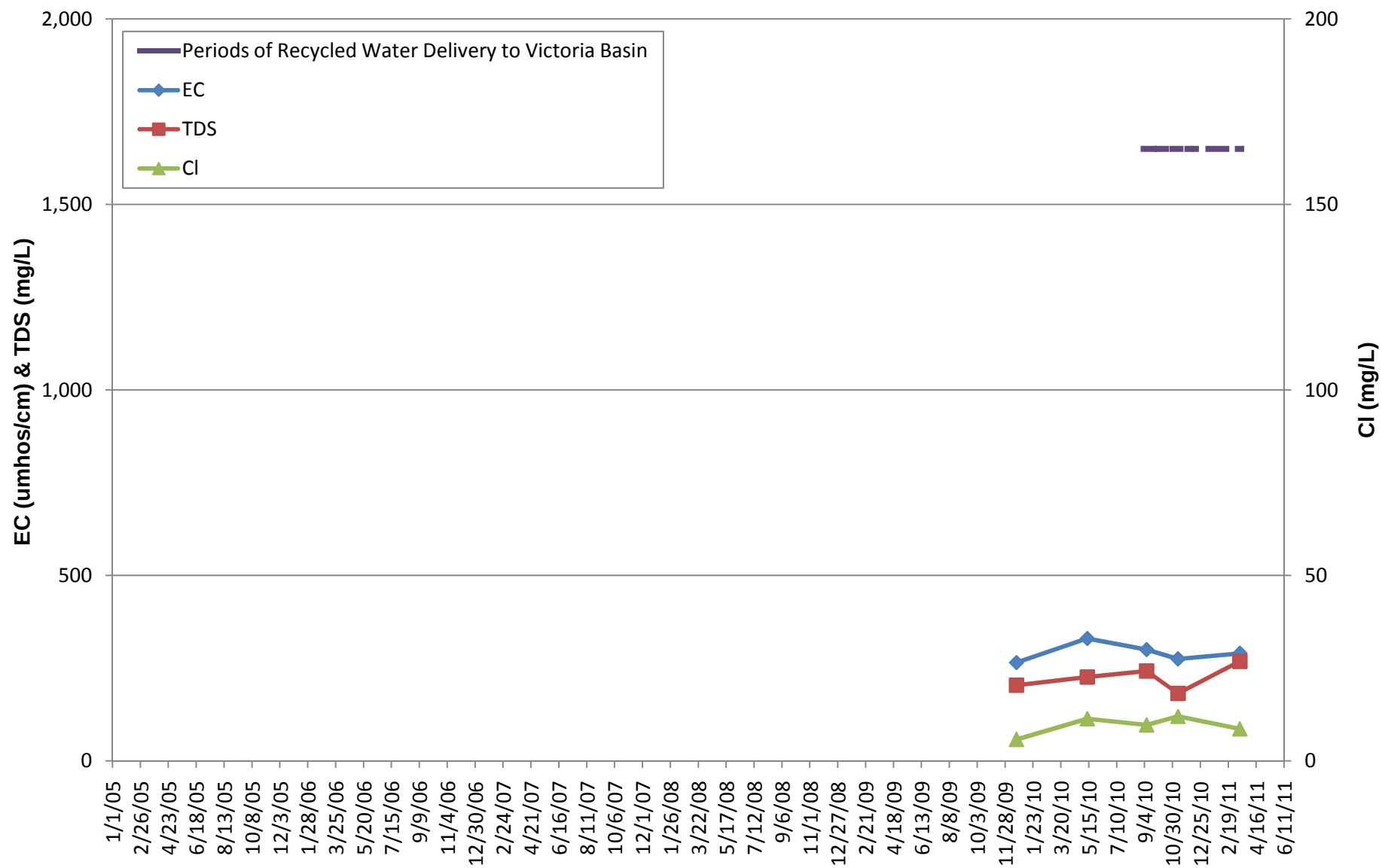
**EC, TDS, CL TRENDS
SAN SEVAIRE BASINS
Unitex 91090**





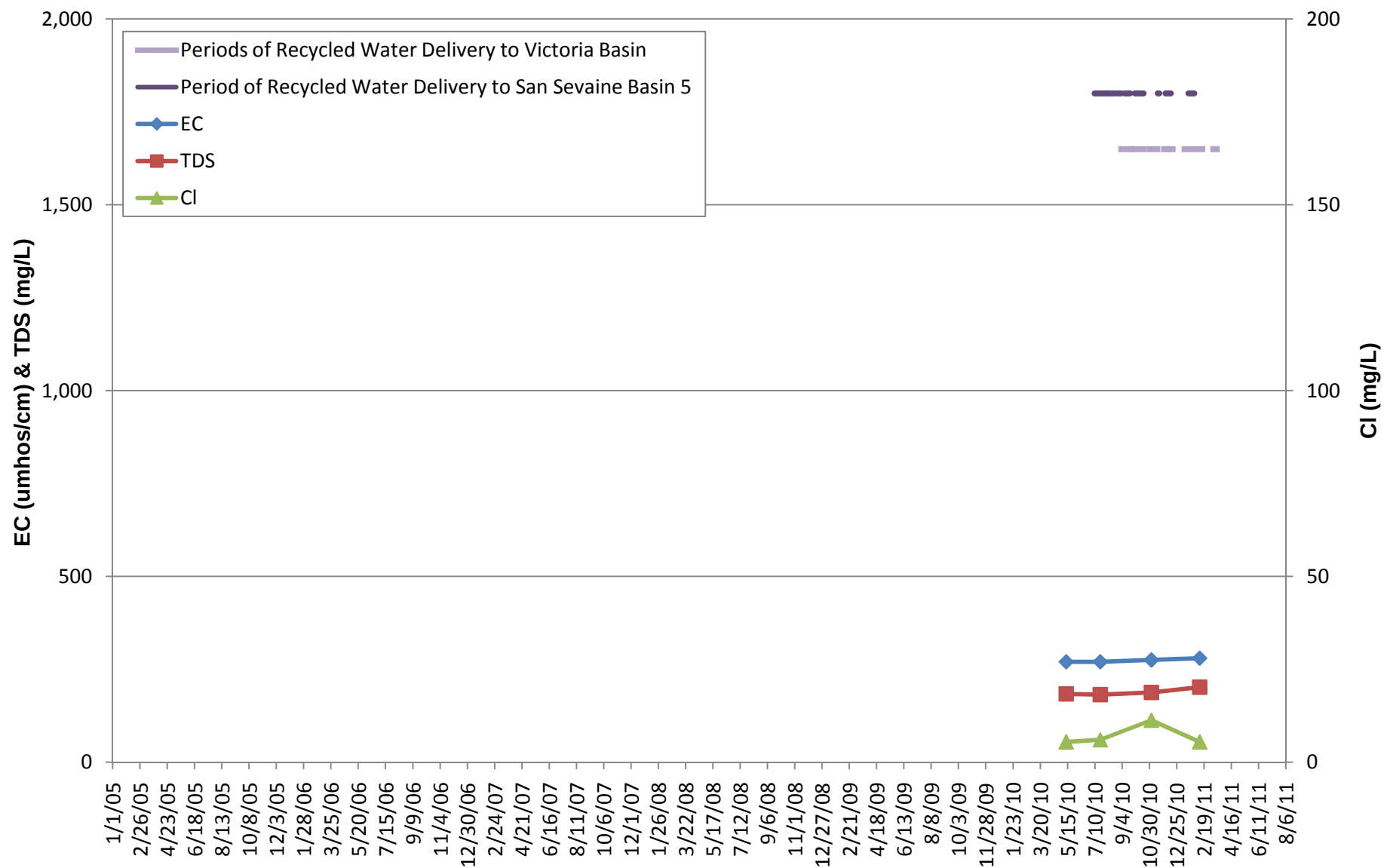
**EC, TDS, CL TRENDS
VICTORIA BASIN
VCT-1/1**





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





**EC, TDS, CL TRENDS
SAN SEVAIRE & VICTORIA BASINS
CVWD Well No. 39**



APPENDIX C

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	Source
2004/05	Jul '04										N O D A T A
	Aug '04										
	Sep '04										
	Oct '04										
	Nov '04										
	Dec '04										
	Jan '05										
	Feb '05										
	Mar '05										
	Apr '05										
	May '05										
	Jun '05										
2005/06	Jul '05	-26	0.	0.		0.	0.				M E A S U R E D
	Aug '05	-25	0.	0.		0.	0.				
	Sep '05	-24	60.	0.		60.	0.				
	Oct '05	-23	132.6	0.		132.6	0.				
	Nov '05	-22	60.	0.		60.	0.				
	Dec '05	-21	60.	0.		60.	0.				
	Jan '06	-20	116.	0.		116.	0.				
	Feb '06	-19	242.4	0.		242.4	0.				
	Mar '06	-18	325.9	0.		325.9	0.				
	Apr '06	-17	229.5	0.		229.5	0.				
	May '06	-16	50.2	0.		50.2	0.				
	Jun '06	-15	15.	0.		15.	0.				
2006/07	Jul '06	-14	11.9	0.		11.9	1,304	0.	0		H I S T O R I C A L
	Aug '06	-13	6.2	0.		6.2	1,310	0.	0		
	Sep '06	-12	22.	0.		22.	1,332	0.	0		
	Oct '06	-11	40.3	0.		40.3	1,372	0.	0		
	Nov '06	-10	42.	0.		42.	1,414	0.	0		
	Dec '06	-9	79.8	0.		79.8	1,494	0.	0		
	Jan '07	-8	58.8	0.		58.8	1,553	0.	0		
	Feb '07	-7	167.4	0.		167.4	1,720	0.	0		
	Mar '07	-6	38.3	0.		38.3	1,758	0.	0		
	Apr '07	-5	89.	0.		89.	1,847	0.	0		
	May '07	-4	42.	0.		42.	1,889	0.	0		
	Jun '07	-3	42.	0.		42.	1,931	0.	0		
2007/08	Jul '07	-2	16.	0.		16.	1,947	0.	0		U P
	Aug '07	-1	16.	0.		16.	1,963	0.	0	1963	
	Sep '07	1	17.	0.		17.	1,980	128.1	128	2108	S T A R T - U P
	Oct '07	2	42.	0.		42.	2,022	109.	237	2259	
	Nov '07	3	81.	0.		81.	2,103	161.	398	2501	
	Dec '07	4	224.	0.		224.	2,327	0.	398	2725	
	Jan '08	5	335.	0.		335.	2,662	1.	399	3061	
	Feb '08	6	98.	0.		98.	2,760	157.	556	3316	
	Mar '08	7	21.	0.		21.	2,781	164.	720	3501	
	Apr '08	8	11.	0.		11.	2,792	90.	810	3602	E N D
	May '08	9	90.	0.		90.	2,882	158.	968	3850	
	Jun '08	10	15.	0.		15.	2,897	86.	1,054	3951	
2008/09	Jul '08	11	29.	0.		29.	2,926	224.	1,278	4204	E X T E N D
	Aug '08	12	15.	0.		15.	2,941	128.	1,406	4347	
	Sep '08	13	15.	0.		15.	2,956	0.	1,406	4362	
	Oct '08	14	16.	0.		16.	2,972	0.	1,406	4378	
	Nov '08	15	137.	0.		137.	3,109	0.	1,406	4515	
	Dec '08	16	352.	0.		352.	3,461	0.	1,406	4867	
	Jan '09	17	35.	0.		35.	3,496	0.	1,406	4902	
	Feb '09	18	458.	0.		458.	3,954	0.	1,406	5360	
	Mar '09	19	21.	0.		21.	3,975	0.	1,406	5381	
	Apr '09	20	15.	0.		15.	3,990	0.	1,406	5396	
	May '09	21	16.	0.		16.	4,006	0.	1,406	5412	S U P
	Jun '09	22	0.	0.		0.	4,006	0.	1,406	5412	



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	Source
2009/10	Jul '09	23	19.	0.		19.	4,025	0.	1,406	5431	26%	A D D E D
	Aug '09	24	33.	0.		33.	4,058	24.	1,430	5488	26%	
	Sep '09	25	18.	0.		18.	4,076	0.	1,430	5506	26%	
	Oct '09	26	74.	0.	310.2	384.2	4,461	0.	1,430	5891	24%	
	Nov '09	27	90.	3.	310.2	403.2	4,864	133.	1,563	6427	24%	
	Dec '09	28	303.	0.	310.2	613.2	5,477	93.	1,656	7133	23%	
	Jan '10	29	387.	0.	310.2	697.2	6,174	102.	1,758	7932	22%	
	Feb '10	30	477.	3.	310.2	790.2	6,964	0.	1,758	8722	20%	
	Mar '10	31	73.	0.	310.2	383.2	7,348	114.	1,872	9220	20%	
	Apr '10	32	206.	0.	310.2	516.2	7,864	100.	1,972	9836	20%	
2010/11	May '10	33	34.	0.	310.2	344.2	8,208	199.	2,171	10379	21%	A D D E D
	Jun '10	34	0.	0.	310.2	310.2	8,518	302.	2,473	10991	23%	
	Jul '10	35	30.	0.	310.2	340.2	8,858	218.	2,691	11550	23%	
	Aug '10	36	28.	0.	310.2	338.2	9,197	106.	2,797	11994	23%	
	Sep '10	37	36.	0.	310.2	346.2	9,543	177.	2,974	12517	24%	
	Oct '10	38	89.	0.	310.2	399.2	9,942	288.	3,262	13204	25%	
	Nov '10	39	187.	0.	310.2	497.2	10,439	163.	3,425	13864	25%	
	Dec '10	40	499.	0.	310.2	809.2	11,248	20.	3,445	14694	23%	
	Jan '11	41	110.	0.	310.2	420.2	11,669	167.	3,612	15281	24%	
	Feb '11	42	276.	0.	310.2	586.2	12,255	83.	3,695	15950	23%	
2011/12	Mar '11	43	96.		310.2	406.2	12,661	100.	3,795	16456	23%	P L A N N E D
	Apr '11	44	110.		310.2	420.2	13,081	150.	3,945	17026	23%	
	May '11	45	46.		310.2	356.2	13,437	150.	4,095	17533	23%	
	Jun '11	46	14.		310.2	324.2	13,762	50.	4,145	17907	23%	
	Jul '11	47	18.		310.2	328.2	14,090	220.	4,365	18455	24%	
	Aug '11	48	16.		310.2	326.2	14,416	220.	4,585	19001	24%	
	Sep '11	49	28.		310.2	338.2	14,754	220.	4,805	19559	25%	
	Oct '11	50	66.		310.2	376.2	15,131	200.	5,005	20136	25%	
	Nov '11	51	100.		310.2	410.2	15,541	100.	5,105	20646	25%	
	Dec '11	52	253.		310.2	563.2	16,104	0.	5,105	21209	24%	
2012/13	Jan '12	53	174.		310.2	484.2	16,588	50.	5,155	21743	24%	P L A N N E D
	Feb '12	54	286.		310.2	596.2	17,184	0.	5,155	22339	23%	
	Mar '12	55	96.		310.2	406.2	17,591	100.	5,255	22846	23%	
	Apr '12	56	110.		310.2	420.2	18,011	150.	5,405	23416	23%	
	May '12	57	46.		310.2	356.2	18,367	150.	5,555	23922	23%	
	Jun '12	58	14.		310.2	324.2	18,691	50.	5,605	24296	23%	
	Jul '12	59	18.		310.2	328.2	19,019	220.	5,825	24845	23%	
	Aug '12	60	16.		310.2	326.2	19,346	220.	6,045	25391	24%	
	Sep '12	61	28.		310.2	338.2	19,684	220.	6,265	25949	24%	
	Oct '12	62	66.		310.2	376.2	20,060	200.	6,465	26525	24%	
2013/14	Nov '12	63	100.		310.2	410.2	20,470	100.	6,565	27035	24%	P L A N N E D
	Dec '12	64	253.		310.2	563.2	21,033	0.	6,565	27599	24%	
	Jan '13	65	174.		310.2	484.2	21,518	50.	6,615	28133	24%	
	Feb '13	66	286.		310.2	596.2	22,114	0.	6,615	28729	23%	
	Mar '13	67	96.		310.2	406.2	22,520	100.	6,715	29235	23%	
	Apr '13	68	110.		310.2	420.2	22,940	150.	6,865	29805	23%	
	May '13	69	46.		310.2	356.2	23,296	150.	7,015	30312	23%	
	Jun '13	70	14.		310.2	324.2	23,621	50.	7,065	30686	23%	
	Jul '13	71	18.		310.2	328.2	23,949	220.	7,285	31234	23%	
	Aug '13	72	16.		310.2	326.2	24,275	220.	7,505	31780	24%	
2013/14	Sep '13	73	28.		310.2	338.2	24,613	220.	7,725	32338	24%	P L A N N E D
	Oct '13	74	66.		310.2	376.2	24,990	200.	7,925	32915	24%	
	Nov '13	75	100.		310.2	410.2	25,400	100.	8,025	33425	24%	
	Dec '13	76	253.		310.2	563.2	25,963	0.	8,025	33988	24%	
	Jan '14	77	174.		310.2	484.2	26,447	50.	8,075	34522	23%	
	Feb '14	78	286.		310.2	596.2	27,043	0.	8,075	35118	23%	
	Mar '14	79	96.		310.2	406.2	27,450	100.	8,175	35625	23%	
	Apr '14	80	110.		310.2	420.2	27,870	150.	8,325	36195	23%	
	May '14	81	46.		310.2	356.2	28,226	150.	8,475	36701	23%	
	Jun '14	82	14.		310.2	324.2	28,550	50.	8,525	37075	23%	



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	Source	
2014/15	Jul '14	83	18.		310.2	328.2	28,878	220.	8,745	37624	23%	P L A N N E D	
	Aug '14	84	16.		310.2	326.2	29,205	220.	8,965	38170	23%		
	Sep '14	85	28.		310.2	338.2	29,543	220.	9,185	38728	24%		
	Oct '14	86	66.		310.2	376.2	29,919	200.	9,385	39304	24%		
	Nov '14	87	100.		310.2	410.2	30,329	100.	9,485	39814	24%		
	Dec '14	88	253.		310.2	563.2	30,892	0.	9,485	40378	23%		
	Jan '15	89	174.		310.2	484.2	31,377	50.	9,535	40912	23%		
	Feb '15	90	286.		310.2	596.2	31,973	0.	9,535	41508	23%		
	Mar '15	91	96.		310.2	406.2	32,379	100.	9,635	42014	23%		
	Apr '15	92	110.		310.2	420.2	32,799	150.	9,785	42584	23%		
May '15	93	46.		310.2	356.2	33,155	150.	9,935	43091	23%			
Jun '15	94	14.		310.2	324.2	33,480	50.	9,985	43465	23%			
2015/16	Jul '15	95	18.		310.2	328.2	33,808	220.	10,205	44013	23%		
	Aug '15	96	16.		310.2	326.2	34,134	220.	10,425	44559	23%		
	Sep '15	97	28.		310.2	338.2	34,412	220.	10,645	45057	24%		
	Oct '15	98	66.		310.2	376.2	34,656	200.	10,845	45501	24%		
	Nov '15	99	100.		310.2	410.2	35,006	100.	10,945	45951	24%		
	Dec '15	100	253.		310.2	563.2	35,509	0.	10,945	46454	24%		
	Jan '16	101	174.		310.2	484.2	35,878	50.	10,995	46873	23%		
	Feb '16	102	286.		310.2	596.2	36,231	0.	10,995	47226	23%		
	Mar '16	103	96.		310.2	406.2	36,312	100.	11,095	47407	23%		
	Apr '16	104	110.		310.2	420.2	36,502	150.	11,245	47747	24%		
May '16	105	46.		310.2	356.2	36,808	150.	11,395	48204	24%			
Jun '16	106	14.		310.2	324.2	37,118	50.	11,445	48563	24%			
2016/17	Jul '16	107	18.		310.2	328.2	37,434	220.	11,665	49099	24%		
	Aug '16	108	16.		310.2	326.2	37,754	220.	11,885	49639	24%		
	Sep '16	109	28.		310.2	338.2	38,070	220.	12,105	50175	24%		
	Oct '16	110	66.		310.2	376.2	38,406	200.	12,305	50711	24%		
	Nov '16	111	100.		310.2	410.2	38,774	100.	12,405	51179	24%		
	Dec '16	112	253.		310.2	563.2	39,258	0.	12,405	51663	24%		
	Jan '17	113	174.		310.2	484.2	39,683	50.	12,455	52138	24%		
	Feb '17	114	286.		310.2	596.2	40,112	0.	12,455	52567	24%		
	Mar '17	115	96.		310.2	406.2	40,480	100.	12,555	53035	24%		
	Apr '17	116	110.		310.2	420.2	40,811	150.	12,705	53516	24%		
May '17	117	46.		310.2	356.2	41,125	150.	12,855	53980	24%			
Jun '17	118	14.		310.2	324.2	41,407	50.	12,905	54313	24%			
2017/18	Jul '17	119	18.		310.2	328.2	41,720	220.	13,125	54845	24%		
	Aug '17	120	16.		310.2	326.2	42,030	220.	13,345	55375	24%		
	Sep '17	121	28.		310.2	338.2	42,351	220.	13,437	55788	24%		
	Oct '17	122	66.		310.2	376.2	42,685	200.	13,528	56213	24%		
	Nov '17	123	100.		310.2	410.2	43,014	100.	13,467	56481	24%		
	Dec '17	124	253.		310.2	563.2	43,354	0.	13,467	56821	24%		
	Jan '18	125	174.		310.2	484.2	43,503	50.	13,516	57019	24%		
	Feb '18	126	286.		310.2	596.2	44,001	0.	13,359	57360	23%		
	Mar '18	127	96.		310.2	406.2	44,386	100.	13,295	57681	23%		
	Apr '18	128	110.		310.2	420.2	44,795	150.	13,355	58150	23%		
May '18	129	46.		310.2	356.2	45,062	150.	13,347	58409	23%			
Jun '18	130	14.		310.2	324.2	45,371	50.	13,311	58682	23%			
2018/19	Jul '18	131	18.		310.2	328.2	45,670	220.	13,307	58977	23%		
	Aug '18	132	16.		310.2	326.2	45,981	220.	13,399	59380	23%		
	Sep '18	133	28.		310.2	338.2	46,304	220.	13,619	59923	23%		
	Oct '18	134	66.		310.2	376.2	46,665	200.	13,819	60484	23%		
	Nov '18	135	100.		310.2	410.2	46,938	100.	13,919	60857	23%		
	Dec '18	136	253.		310.2	563.2	47,149	0.	13,919	61068	23%		
	Jan '19	137	174.		310.2	484.2	47,598	50.	13,969	61567	23%		
	Feb '19	138	286.		310.2	596.2	47,737	0.	13,969	61706	23%		
	Mar '19	139	96.		310.2	406.2	48,122	100.	14,069	62191	23%		
	Apr '19	140	110.		310.2	420.2	48,527	150.	14,219	62746	23%		
May '19	141	46.		310.2	356.2	48,867	150.	14,369	63236	23%			
Jun '19	142	14.		310.2	324.2	49,191	50.	14,419	63610	23%			



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	Source
2019/20	Jul '19	143	18.		310.2	328.2	49,501	220.	14,639	64140	23%	P L A N N E D
	Aug '19	144	16.		310.2	326.2	49,794	220.	14,835	64629	23%	
	Sep '19	145	28.		310.2	338.2	50,114	220.	15,055	65169	23%	
	Oct '19	146	66.		310.2	376.2	50,106	200.	15,255	65361	23%	
	Nov '19	147	100.		310.2	410.2	50,113	100.	15,222	65335	23%	
	Dec '19	148	253.		310.2	563.2	50,063	0.	15,129	65192	23%	
	Jan '20	149	174.		310.2	484.2	49,850	50.	15,077	64927	23%	
	Feb '20	150	286.		310.2	596.2	49,656	0.	15,077	64733	23%	
	Mar '20	151	96.		310.2	406.2	49,679	100.	15,063	64742	23%	
	Apr '20	152	110.		310.2	420.2	49,583	150.	15,113	64696	23%	
	May '20	153	46.		310.2	356.2	49,595	150.	15,064	64659	23%	
	Jun '20	154	14.		310.2	324.2	49,609	50.	14,812	64421	23%	
2020/21	Jul '20	155	18.		310.2	328.2	49,597	220.	14,814	64411	23%	
	Aug '20	156	16.		310.2	326.2	49,585	220.	14,928	64513	23%	
	Sep '20	157	28.		310.2	338.2	49,577	220.	14,971	64548	23%	
	Oct '20	158	66.		310.2	376.2	49,554	200.	14,883	64437	23%	
	Nov '20	159	100.		310.2	410.2	49,467	100.	14,820	64287	23%	
	Dec '20	160	253.		310.2	563.2	49,221	0.	14,800	64021	23%	
	Jan '21	161	174.		310.2	484.2	49,285	50.	14,683	63968	23%	
	Feb '21	162	286.		310.2	596.2	49,295	0.	14,600	63895	23%	
	Mar '21	163	96.		310.2	406.2	49,295	100.	14,600	63895	23%	
	Apr '21	164	110.		310.2	420.2	49,295	150.	14,600	63895	23%	
	May '21	165	46.		310.2	356.2	49,295	150.	14,600	63895	23%	
	Jun '21	166	14.		310.2	324.2	49,295	50.	14,600	63895	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

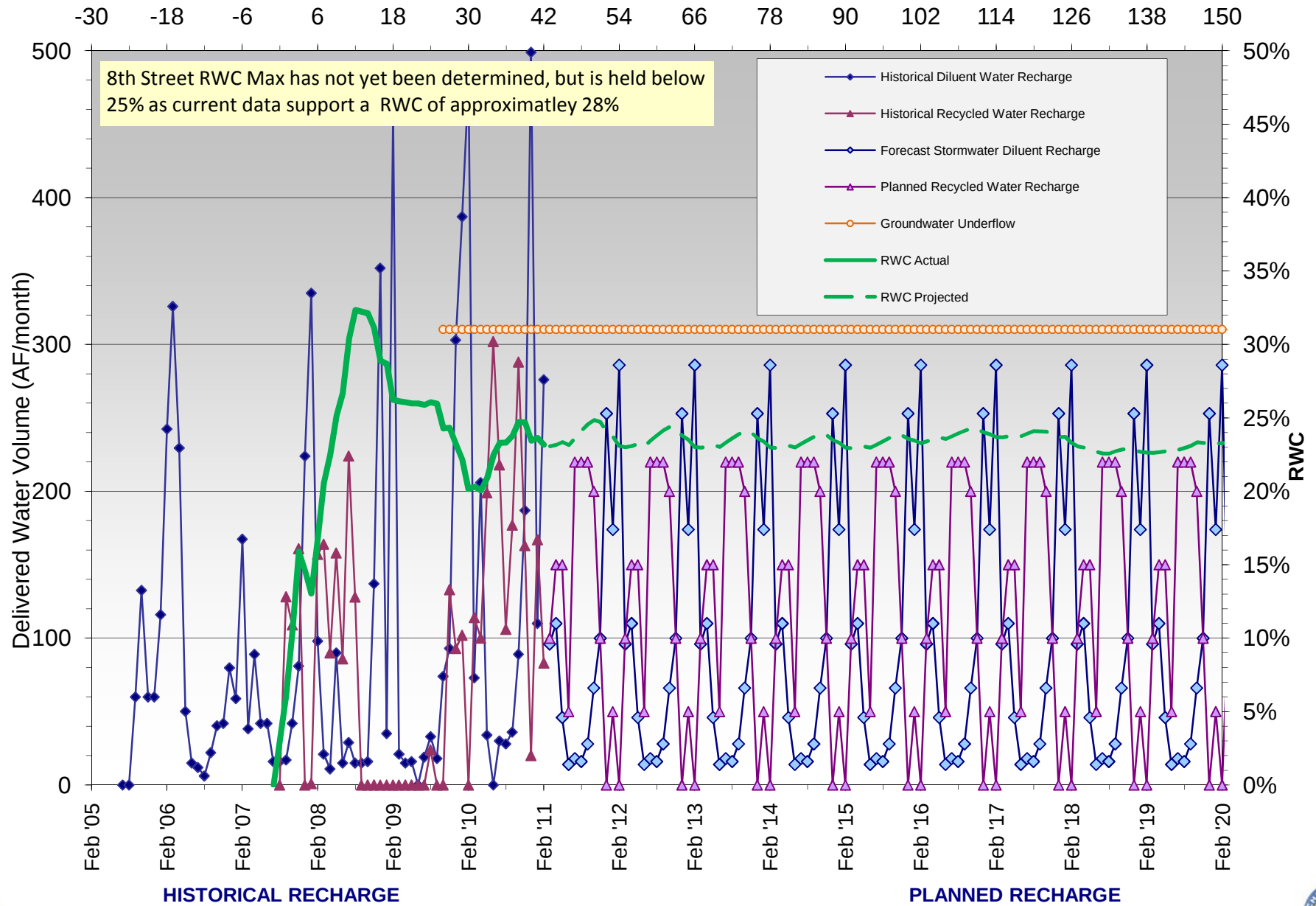
RWC = 120-month running total of recycled water / 120-month running total of all diluent and recycled water.

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



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	Source
2002/03	Jul '02	-36	0.	0		0.		0.				M O D E L E D
	Aug '02	-35	0.	0		0.		0.				
	Sep '02	-34	0.	0		0.		0.				
	Oct '02	-33	0.	0		0.		0.				
	Nov '02	-32	38.9	0		38.9		0.				
	Dec '02	-31	59.3	0		59.3		0.				
	Jan '03	-30	0.	0		0.		0.				
	Feb '03	-29	80.5	0		80.5		0.				
	Mar '03	-28	38.9	0		38.9		0.				
	Apr '03	-27	86.9	0		86.9		0.				
	May '03	-26	61.7	0		61.7		0.				
	Jun '03	-25	0.	0		0.		0.				
2003/04	Jul '03	-24	0.	0		0.		0.				
	Aug '03	-23	0.	0		0.		0.				
	Sep '03	-22	0.	0		0.		0.				
	Oct '03	-21	0.	0		0.		0.				
	Nov '03	-20	34.2	0		34.2		0.				
	Dec '03	-19	37.1	0		37.1		0.				
	Jan '04	-18	4.5	0		4.5		0.				
	Feb '04	-17	83.5	0		83.5		0.				
	Mar '04	-16	28.2	0		28.2		0.				
	Apr '04	-15	0.3	0		0.3		0.				
	May '04	-14	0.	0		0.		0.				
	Jun '04	-13	0.	0		0.		0.				
2004/05	Jul '04	-12	0.	0		0.		0.				S T A R T - U P
	Aug '04	-11	0.	0		0.		0.				
	Sep '04	-10	0.	0		0.		0.				
	Oct '04	-9	62.8	0		62.8		0.				
	Nov '04	-8	17.	0		17.		0.				
	Dec '04	-7	25.3	0		25.3		0.				
	Jan '05	-6	93.6	0		93.6		0.				
	Feb '05	-5	110.8	0		110.8		0.				
	Mar '05	-4	24.9	0		24.9		0.				
	Apr '05	-3	19.3	0		19.3		0.				
	May '05	-2	14.6	0		14.6		0.				
	Jun '05	-1	0.	0		0.	1,496.1	0.	0.	1496	0%	
2005/06	Jul '05	1	0.	192		192.3	1,688.4	19.8	19.8	1708	1%	
	Aug '05	2	0.	0		0.	1,688.4	253.9	273.7	1962	14%	
	Sep '05	3	0.	0		0.	1,688.4	128.7	402.4	2091	19%	
	Oct '05	4	28.8	0		28.8	1,717.2	25.3	427.7	2145	20%	
	Nov '05	5	0.	0		0.	1,717.2	8.	435.7	2153	20%	
	Dec '05	6	19.	0		19.	1,736.2	10.2	445.9	2182	20%	
	Jan '06	7	6.	0		6.	1,742.2	50.3	496.2	2238	22%	
	Feb '06	8	22.3	0		22.3	1,764.5	55.2	551.4	2316	24%	
	Mar '06	9	55.1	0		55.1	1,819.6	0.	551.4	2371	23%	
	Apr '06	10	35.7	0		35.7	1,855.3	0.	551.4	2407	23%	
	May '06	11	57.	0		57.	1,912.3	0.	551.4	2464	22%	
	Jun '06	12	0.	0		0.	1,912.3	47.	598.4	2511	24%	
2006/07	Jul '06	13	0.	0		0.	1,912.3	64.2	662.6	2575	26%	H I S T O R I C A L
	Aug '06	14	0.	0		0.	1,912.3	85.	747.6	2660	28%	
	Sep '06	15	0.	0		0.	1,912.3	378.3	1,125.8	3038	37%	
	Oct '06	16	11.	63		74.1	1,986.4	49.4	1,175.3	3162	37%	
	Nov '06	17	0.	235		234.6	2,221.	7.2	1,182.5	3404	35%	
	Dec '06	18	29.7	172		201.2	2,422.2	49.6	1,232.1	3654	34%	
	Jan '07	19	33.4	298		331.5	2,753.7	0.	1,232.1	3986	31%	
	Feb '07	20	73.7	0		73.7	2,827.4	0.	1,232.1	4059	30%	
	Mar '07	21	12.	41		53.1	2,880.5	0.	1,232.1	4113	30%	
	Apr '07	22	29.	0		29.	2,909.5	4.	1,236.1	4146	30%	
	May '07	23	37.	0		37.	2,946.5	6.	1,242.1	4189	30%	
	Jun '07	24	0.	0		0.	2,946.5	0.	1,242.1	4189	30%	



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	Source
2007/08	Jul '07	25	0.	0		0.	2,946.5	0.	1,242.1	4189	30%	HISTORICAL
	Aug '07	26	0.	0		0.	2,946.5	0.	1,242.1	4189	30%	
	Sep '07	27	3.	0		3.	2,949.5	0.	1,242.1	4192	30%	
	Oct '07	28	2.	0		2.	2,951.5	0.	1,242.1	4194	30%	
	Nov '07	29	35.	0		35.	2,986.5	0.	1,242.1	4229	29%	
	Dec '07	30	22.	0		22.	3,008.5	0.	1,242.1	4251	29%	
	Jan '08	31	130.	0		130.	3,138.5	0.	1,242.1	4381	28%	
	Feb '08	32	75.	0		75.	3,213.5	0.	1,242.1	4456	28%	
	Mar '08	33	0.	0		0.	3,213.5	0.	1,242.1	4456	28%	
	Apr '08	34	0.	0		0.	3,213.5	47.	1,289.1	4503	29%	
2008/09	May '08	35	3.	0		3.	3,216.5	38.	1,327.1	4544	29%	
	Jun '08	36	8.	0		8.	3,224.5	72.	1,399.1	4624	30%	
	Jul '08	37	31.	0		31.	3,255.5	0.	1,399.1	4655	30%	
	Aug '08	38	45.	0		45.	3,300.5	0.	1,399.1	4700	30%	
	Sep '08	39	34.	0		34.	3,334.5	0.	1,399.1	4734	30%	
	Oct '08	40	36.	0		36.	3,370.5	0.	1,399.1	4770	29%	
	Nov '08	41	50.	0		50.	3,420.5	0.	1,399.1	4820	29%	
	Dec '08	42	87.	0		87.	3,507.5	0.	1,399.1	4907	29%	
	Jan '09	43	5.	0		5.	3,512.5	40.	1,439.1	4952	29%	
	Feb '09	44	95.	0		95.	3,607.5	0.	1,439.1	5047	29%	
2009/10	Mar '09	45	0.	0		0.	3,607.5	0.	1,439.1	5047	29%	
	Apr '09	46	0.	0		0.	3,607.5	0.	1,439.1	5047	29%	
	May '09	47	0.	0		0.	3,607.5	0.	1,439.1	5047	29%	
	Jun '09	48	0.	0		0.	3,607.5	0.	1,439.1	5047	29%	
	Jul '09	49	0.	0		0.	3,607.5	0.	1,439.1	5047	29%	
	Aug '09	50	0.	0		0.	3,607.5	0.	1,439.1	5047	29%	
	Sep '09	51	0.	0		0.	3,607.5	0.	1,439.1	5047	29%	
	Oct '09	52	15.	0	151	166.3	3,773.8	129.	1,568.1	5342	29%	
	Nov '09	53	0.	0	151	151.3	3,925.1	181.	1,749.1	5674	31%	
	Dec '09	54	75.	0	151	226.3	4,151.4	67.	1,816.1	5967	30%	
2010/11	Jan '10	55	100.	0	151	251.3	4,402.7	75.	1,891.1	6294	30%	PLANNED
	Feb '10	56	143.	0	151	294.3	4,697.	0.	1,891.1	6588	29%	
	Mar '10	57	17.	0	151	168.3	4,865.3	0.	1,891.1	6756	28%	
	Apr '10	58	66.	0	151	217.3	5,082.6	140.	2,031.1	7114	29%	
	May '10	59	0.	0	151	151.3	5,233.9	177.	2,208.1	7442	30%	
	Jun '10	60	0.	0	151	151.3	5,385.2	129.	2,337.1	7722	30%	
	Jul '10	61	0.	0	151	151.3	5,536.6	77	2,414.1	7951	30%	
	Aug '10	62	0.	0	151	151.3	5,687.9	54	2,468.1	8156	30%	
	Sep '10	63	0.	0	151	151.3	5,839.2	59	2,527.1	8366	30%	
	Oct '10	64	5.	0	151	156.3	5,967.2	48	2,575.1	8542	30%	
2011/12	Nov '10	65	0.	0	151	151.3	6,105.8	29	2,604.1	8710	30%	
	Dec '10	66	0.	0	151	151.3	6,257.1	0	2,604.1	8861	29%	
	Jan '11	67	10.	0	151	161.3	6,331.5	0	2,604.1	8936	29%	
	Feb '11	68	41.	0	151	192.3	6,401.6	0	2,604.1	9006	29%	
	Mar '11	69	22.		151	173.3	6,496.4	0	2,604.1	9100	29%	
	Apr '11	70	30.		151	181.3	6,616.6	120	2,724.1	9341	29%	
	May '11	71	22.		151	173.3	6,789.9	120	2,844.1	9634	30%	
	Jun '11	72	1.		151	152.3	6,942.2	120	2,964.1	9906	30%	
	Jul '11	73	4.		151	155.3	7,085.3	0	2,964.1	10049	29%	
	Aug '11	74	6.		151	157.3	7,242.6	150	3,114.1	10357	30%	
2012/13	Sep '11	75	5.		151	156.3	7,398.9	150	3,264.1	10663	31%	
	Oct '11	76	19.		151	170.3	7,569.3	125	3,389.1	10958	31%	
	Nov '11	77	22.		151	173.3	7,703.3	50	3,439.1	11142	31%	
	Dec '11	78	44.		151	195.3	7,881.9	0	3,439.1	11321	30%	
	Jan '12	79	47.		151	198.3	8,030.1	0	3,439.1	11469	30%	
	Feb '12	80	85.		151	236.3	8,245.5	0	3,439.1	11685	29%	
	Mar '12	81	22.		151	173.3	8,387.8	0	3,439.1	11827	29%	
	Apr '12	82	30.		151	181.3	8,556.	75	3,514.1	12070	29%	
	May '12	83	22.		151	173.3	8,728.5	100	3,614.1	12343	29%	
	Jun '12	84	1.		151	152.3	8,880.8	150	3,764.1	12645	30%	



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	Source
2012/13	Jul '12	85	4.		151	155.3	9,036	0	3,764	12,800	29%
	Aug '12	86	6.		151	157.3	9,193	150	3,914	13,107	30%
	Sep '12	87	5.		151	156.3	9,350	150	4,064	13,414	30%
	Oct '12	88	19.		151	170.3	9,520	125	4,189	13,709	31%
	Nov '12	89	22.		151	173.3	9,654	50	4,239	13,894	31%
	Dec '12	90	44.		151	195.3	9,790	0	4,239	14,030	30%
	Jan '13	91	47.		151	198.3	9,989	0	4,239	14,228	30%
	Feb '13	92	85.		151	236.3	10,145	0	4,239	14,384	29%
	Mar '13	93	22.		151	173.3	10,279	0	4,239	14,518	29%
	Apr '13	94	30.		151	181.3	10,373	75	4,314	14,687	29%
2013/14	May '13	95	22.		151	173.3	10,485	100	4,414	14,899	30%
	Jun '13	96	1.		151	152.3	10,637	150	4,564	15,201	30%
	Jul '13	97	4.		151	155.3	10,793	0	4,564	15,357	30%
	Aug '13	98	6.		151	157.3	10,950	150	4,714	15,664	30%
	Sep '13	99	5.		151	156.3	11,106	150	4,864	15,970	30%
	Oct '13	100	19.		151	170.3	11,277	125	4,989	16,266	31%
	Nov '13	101	22.		151	173.3	11,416	50	5,039	16,455	31%
	Dec '13	102	44.		151	195.3	11,574	0	5,039	16,613	30%
	Jan '14	103	47.		151	198.3	11,768	0	5,039	16,807	30%
	Feb '14	104	85.		151	236.3	11,920	0	5,039	16,960	30%
2014/15	Mar '14	105	22.		151	173.3	12,066	0	5,039	17,105	29%
	Apr '14	106	30.		151	181.3	12,247	75	5,114	17,361	29%
	May '14	107	22.		151	173.3	12,420	100	5,214	17,634	30%
	Jun '14	108	1.		151	152.3	12,572	150	5,364	17,936	30%
	Jul '14	109	4.		151	155.3	12,727.5	0.	5,364.1	18092	30%
	Aug '14	110	6.		151	157.3	12,884.8	150.	5,514.1	18399	30%
	Sep '14	111	5.		151	156.3	13,041.1	150.	5,664.1	18705	30%
	Oct '14	112	19.		151	170.3	13,148.6	125.	5,789.1	18938	31%
	Nov '14	113	22.		151	173.3	13,304.9	50.	5,839.1	19144	31%
	Dec '14	114	44.		151	195.3	13,474.9	0.	5,839.1	19314	30%
2015/16	Jan '15	115	47.		151	198.3	13,579.6	0.	5,839.1	19419	30%
	Feb '15	116	85.		151	236.3	13,705.1	0.	5,839.1	19544	30%
	Mar '15	117	22.		151	173.3	13,853.5	0.	5,839.1	19693	30%
	Apr '15	118	30.		151	181.3	14,015.5	75.	5,914.1	19930	30%
	May '15	119	22.		151	173.3	14,174.2	100.	6,014.1	20188	30%
	Jun '15	120	1.		151	152.3	14,326.5	150.	6,164.1	20491	30%
	Jul '15	121	4.		151	155.3	14,490	0	6,144	20,434	30%
	Aug '15	122	6.		151	157.3	14,447	150	6,040	20,487	29%
	Sep '15	123	5.		151	156.3	14,603	150	6,062	20,665	29%
	Oct '15	124	19.		151	170.3	14,745	125	6,161	20,906	29%
2016/2017	Nov '15	125	22.		151	173.3	14,918	50	6,203	21,121	29%
	Dec '15	126	44.		151	195.3	15,094	0	6,193	21,287	29%
	Jan '16	127	47.		151	198.3	15,287	0	6,143	21,429	29%
	Feb '16	128	85.		151	236.3	15,501	0	6,088	21,588	28%
	Mar '16	129	22.		151	173.3	15,619	0	6,088	21,706	28%
	Apr '16	130	30.		151	181.3	15,764	75	6,163	21,927	28%
	May '16	131	22.		151	173.3	15,881	100	6,263	22,143	28%
	Jun '16	132	1.		151	152.3	16,033	150	6,366	22,399	28%
	Jul '16	133	4.		151	155.3	16,188	0	6,301	22,490	28%
	Aug '16	134	6.		151	157.3	16,346	150	6,366	22,712	28%
2016/2017	Sep '16	135	5.		151	156.3	16,502	150	6,138	22,640	27%
	Oct '16	136	19.		151	170.3	16,598	125	6,214	22,812	27%
	Nov '16	137	22.		151	173.3	16,537	50	6,257	22,793	27%
	Dec '16	138	44.		151	195.3	16,531	0	6,207	22,738	27%
	Jan '17	139	47.		151	198.3	16,398	0	6,207	22,605	27%
	Feb '17	140	85.		151	236.3	16,560	0	6,207	22,767	27%
	Mar '17	141	22.		151	173.3	16,681	0	6,207	22,888	27%
	Apr '17	142	30.		151	181.3	16,833	75	6,278	23,111	27%
	May '17	143	22.		151	173.3	16,969	100	6,372	23,341	27%
	Jun '17	144	1.		151	152.3	17,122	150	6,522	23,644	28%

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	Source
2017/2018	Jul '17	145	4.		151	155.3	17,277	0	6,522	23,799	27%
	Aug '17	146	6.		151	157.3	17,434	150	6,672	24,106	28%
	Sep '17	147	5.		151	156.3	17,587	150	6,822	24,409	28%
	Oct '17	148	19.		151	170.3	17,756	125	6,947	24,703	28%
	Nov '17	149	22.		151	173.3	17,894	50	6,997	24,891	28%
	Dec '17	150	44.		151	195.3	18,067	0	6,997	25,064	28%
	Jan '18	151	47.		151	198.3	18,136	0	6,997	25,133	28%
	Feb '18	152	85.		151	236.3	18,297	0	6,997	25,294	28%
	Mar '18	153	22.		151	173.3	18,470	0	6,997	25,467	27%
	Apr '18	154	30.		151	181.3	18,652	75	7,025	25,677	27%
	May '18	155	22.		151	173.3	18,822	100	7,087	25,909	27%
	Jun '18	156	1.		151	152.3	18,966	150	7,165	26,131	27%
2018/2019	Jul '18	157	4.		151	155.3	19,091	0	7,165	26,256	27%
	Aug '18	158	6.		151	157.3	19,203	150	7,315	26,518	28%
	Sep '18	159	5.		151	156.3	19,325	150	7,465	26,790	28%
	Oct '18	160	19.		151	170.3	19,459	125	7,590	27,049	28%
	Nov '18	161	22.		151	173.3	19,583	50	7,640	27,223	28%
	Dec '18	162	44.		151	195.3	19,691	0	7,640	27,331	28%
	Jan '19	163	47.		151	198.3	19,884	0	7,600	27,484	28%
	Feb '19	164	85.		151	236.3	20,026	0	7,600	27,626	28%
	Mar '19	165	22.		151	173.3	20,199	0	7,600	27,799	27%
	Apr '19	166	30.		151	181.3	20,380	75	7,675	28,055	27%
	May '19	167	22.		151	173.3	20,554	100	7,775	28,329	27%
	Jun '19	168	1.		151	152.3	20,706	150	7,925	28,631	28%
2019/2020	Jul '19	169	4.		151	155.3	20,861	0	7,925	28,786	28%
	Aug '19	170	6.		151	157.3	21,018	150	8,075	29,093	28%
	Sep '19	171	5.		151	156.3	21,175	150	8,225	29,400	28%
	Oct '19	172	19.		151	170.3	21,179	125	8,221	29,400	28%
	Nov '19	173	22.		151	173.3	21,201	50	8,090	29,291	28%
	Dec '19	174	44.		151	195.3	21,170	0	8,023	29,193	27%
	Jan '20	175	47.		151	198.3	21,117	0	7,948	29,065	27%
	Feb '20	176	85.		151	236.3	21,059	0	7,948	29,007	27%
	Mar '20	177	22.		151	173.3	21,064	0	7,948	29,012	27%
	Apr '20	178	30.		151	181.3	21,028	75	7,883	28,911	27%
	May '20	179	22.		151	173.3	21,050	100	7,806	28,856	27%
	Jun '20	180	1.		151	152.3	21,051	150	7,827	28,878	27%
2020/2021	Jul '20	181	4.	0	151	155.3	21,055	0	7,750	28,805	27%
	Aug '20	182	6.	0	151	157.3	21,061	150	7,846	28,907	27%
	Sep '20	183	5.	0	151	156.3	21,066	150	7,937	29,003	27%
	Oct '20	184	19.	0	151	170.3	21,080	125	8,014	29,094	28%
	Nov '20	185	22.	0	151	173.3	21,102	50	8,035	29,137	28%
	Dec '20	186	44.	0	151	195.3	21,146	0	8,035	29,181	28%
	Jan '21	187	47.	0	151	198.3	21,183	0	8,035	29,218	28%
	Feb '21	188	85.	0	151	236.3	21,227	0	8,035	29,262	27%
	Mar '21	189	22.	0	151	173.3	21,227	0	8,035	29,262	27%
	Apr '21	190	30.	0	151	181.3	21,227	75	7,990	29,217	27%
	May '21	191	22.	0	151	173.3	21,227	100	7,970	29,197	27%
	Jun '21	192	1.	0	151	152.3	21,227	150	8,000	29,227	27%

Notes:

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

RW = Recycled Water

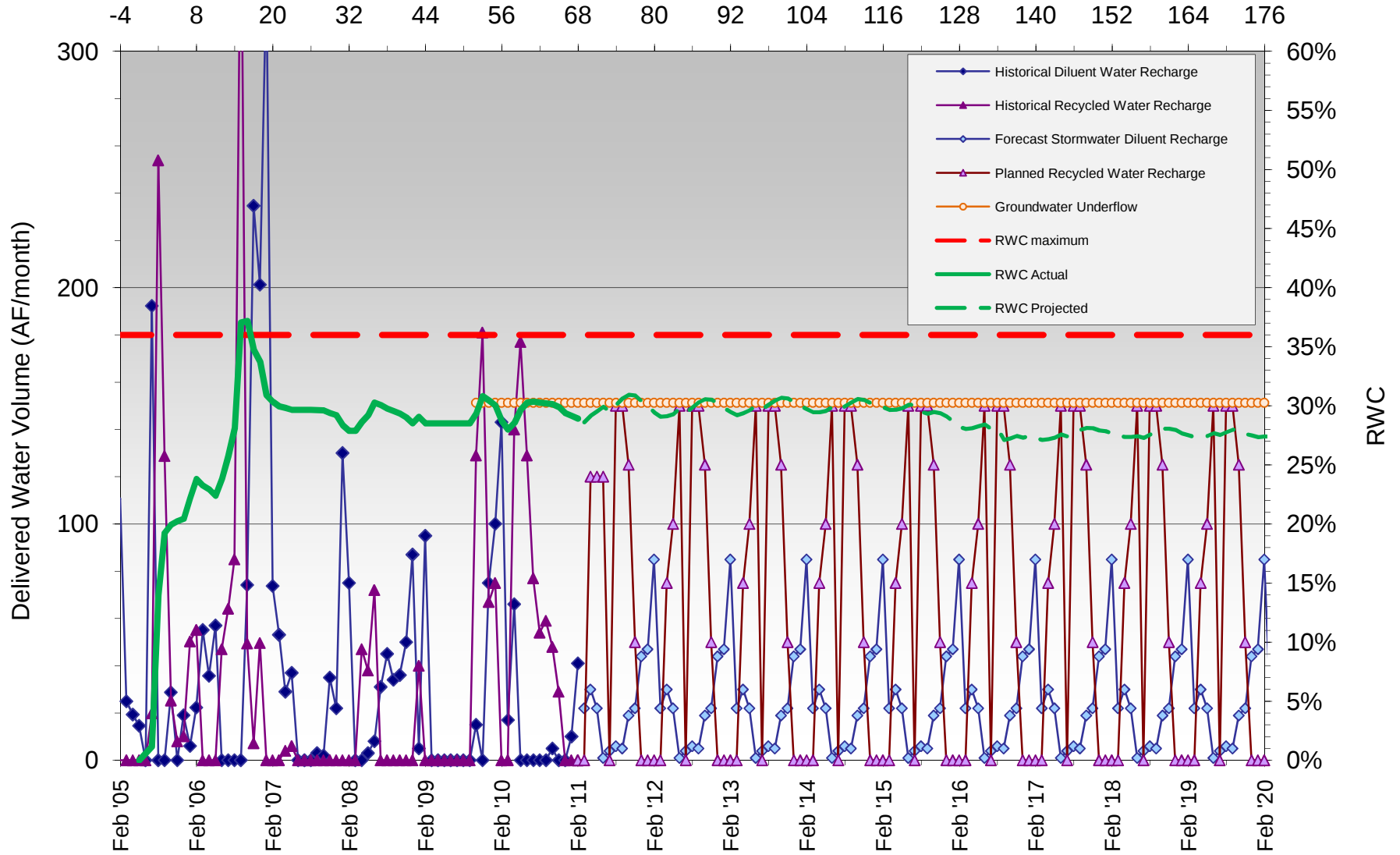
RWC = 120-month running total of recycled water / 120-month running total of all diluent and recycled water.

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



RWC Management Plan for Banana Basin

Months Since Initial Recycled Water Delivery



HISTORICAL RECHARGE

PLANNED RECHARGE



RWC Management Plan for Brooks Street Basins

(120-month averaging period)

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

Date	No. Mos. Since Initial RW Delivery	SW (AF)	MWD (AF)	Underflow (AF)	DW Total (AF)	DW 120- Month Total (AF)	RW (AF)	RW 120- Month Total (AF)	DW + RW 120-Month Total (AF)	RWC	Source
2002/03	Jul '02	-73			0.						HISTORICAL DATA NOT AVAILABLE
	Aug '02	-72			0.						
	Sep '02	-71			0.						
	Oct '02	-70			0.						
	Nov '02	-69			0.						
	Dec '02	-68			0.						
	Jan '03	-67			0.						
	Feb '03	-66			0.						
	Mar '03	-65			0.						
	Apr '03	-64			0.						
	May '03	-63			0.						
	Jun '03	-62			0.						
2003/04	Jul '03	-61			0.		0.				HISTORICAL DATA NOT AVAILABLE
	Aug '03	-60			0.		0.				
	Sep '03	-59			0.		0.				
	Oct '03	-58			0.		0.				
	Nov '03	-57			0.		0.				
	Dec '03	-56			0.		0.				
	Jan '04	-55			0.		0.				
	Feb '04	-54			0.		0.				
	Mar '04	-53			0.		0.				
	Apr '04	-52			0.		0.				
	May '04	-51			0.		0.				
	Jun '04	-50			0.		0.				
2004/05	Jul '04	-49			0.		0.				HISTORICAL DATA NOT AVAILABLE
	Aug '04	-48			0.		0.				
	Sep '04	-47			0.		0.				
	Oct '04	-46			0.		0.				
	Nov '04	-45			0.		0.				
	Dec '04	-44			0.		0.				
	Jan '05	-43			0.		0.				
	Feb '05	-42			0.		0.				
	Mar '05	-41			0.		0.				
	Apr '05	-40			0.		0.				
	May '05	-39			0.		0.				
	Jun '05	-38			0.		0.				
2005/06	Jul '05	-37	32.7	0.	32.7		0.				MEASURED
	Aug '05	-36	0.	175.3	175.3		0.				
	Sep '05	-35	0.	684.2	684.2		0.				
	Oct '05	-34	5.5	121.9	127.4		0.				
	Nov '05	-33	59.5	330.	389.5		0.				
	Dec '05	-32	31.8	331.2	363.		0.				
	Jan '06	-31	12.	245.1	257.1		0.				
	Feb '06	-30	160.4	232.2	392.6		0.				
	Mar '06	-29	204.9	10.	214.9		0.				
	Apr '06	-28	156.3	105.	261.3		0.				
	May '06	-27	16.6	284.1	300.7		0.				
	Jun '06	-26	0.	371.	371.		0.				
2006/07	Jul '06	-25	0.	206.4	206.4	3776	0.	0	3776	0%	MEASURED
	Aug '06	-24	20.	131.	151.	3927	0.	0	3927	0%	
	Sep '06	-23	21.	321.5	342.5	4270	0.	0	4270	0%	
	Oct '06	-22	14.	292.9	306.9	4577	0.	0	4577	0%	
	Nov '06	-21	30.	257.7	287.7	4864	0.	0	4864	0%	
	Dec '06	-20	30.8	231.	261.8	5126	0.	0	5126	0%	
	Jan '07	-19	25.3	87.2	112.5	5239	0.	0	5239	0%	
	Feb '07	-18	62.2	66.9	129.1	5368	0.	0	5368	0%	
	Mar '07	-17	3.5	0.	3.5	5371	0.	0	5371	0%	
	Apr '07	-16	102.	0.	102.	5473	0.	0	5473	0%	
	May '07	-15	4.	0.	4.	5477	0.	0	5477	0%	
	Jun '07	-14	2.	0.	2.	5479	0.	0	5479	0%	



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	Source
2007/08	Jul '07	-13	0.	0.	0.	5479	0.	0	5479	0%	HISTORICAL
	Aug '07	-12	0.	0.	0.	5479	0.	0	5479	0%	
	Sep '07	-11	25.	0.	25.	5504	0.	0	5504	0%	
	Oct '07	-10	35.	0.	35.	5539	0.	0	5539	0%	
	Nov '07	-9	24.	0.	24.	5563	0.	0	5563	0%	
	Dec '07	-8	42.	0.	42.	5605	0.	0	5605	0%	
	Jan '08	-7	282.	0.	282.	5887	0.	0	5887	0%	
	Feb '08	-6	50.	0.	50.	5937	0.	0	5937	0%	
	Mar '08	-5	9.	0.	9.	5946	0.	0	5946	0%	
	Apr '08	-4	4.	0.	4.	5950	0.	0	5950	0%	
	May '08	-3	43.	0.	43.	5993	0.	0	5993	0%	
	Jun '08	-2	3.	0.	3.	5996	0.	0	5996	0%	
2008/09	Jul '08	-1	3.	0.	3.	5999	0.	0	5999	0%	UP START
	Aug '08	1	16.	0.	16.	6015	117.	117	6132	2%	
	Sep '08	2	0.	0.	0.	6015	86.	203	6218	3%	
	Oct '08	3	0.	0.	0.	6015	166.	369	6384	6%	
	Nov '08	4	23.	0.	23.	6038	103.	472	6510	7%	
	Dec '08	5	162.	0.	162.	6200	88.	560	6760	8%	
	Jan '09	6	25.	0.	25.	6225	277.	837	7062	12%	
	Feb '09	7	208.	0.	208.	6433	20.	857	7290	12%	
	Mar '09	8	30.	0.	30.	6463	159.	1016	7479	14%	
	Apr '09	9	1.	0.	1.	6464	296.	1312	7776	17%	
	May '09	10	17.	0.	17.	6481	115.	1427	7908	18%	
	Jun '09	11	0.	0.	0.	6481	178.	1605	8086	20%	
2009/10	Jul '09	12	1.	0.	1.	6482	6.	1611	8093	20%	START
	Aug '09	13	0.	0.	0.	6482	8.	1619	8101	20%	
	Sep '09	14	0.	0.	0.	6482	0.	1619	8101	20%	
	Oct '09	15	13.	0.	509.2	7004	184.	1803	8807	20%	
	Nov '09	16	4.	0.	509.2	7518	246.	2049	9567	21%	
	Dec '09	17	129.	0.	509.2	8156	144.	2193	10349	21%	
	Jan '10	18	251.	0.	509.2	8916	74.	2267	11183	20%	
	Feb '10	19	215.	0.	509.2	9640	54.	2321	11961	19%	
	Mar '10	20	27.	0.	509.2	10177	180.	2501	12678	20%	
	Apr '10	21	23.	0.	509.2	10709	235.	2736	13445	20%	
	May '10	22	2.	0.	509.2	11220	356.	3092	14312	22%	
	Jun '10	23	1.	0.	509.2	11730	208.	3300	15030	22%	
2010/11	Jul '10	24	1.	0.	509.2	12240	147.	3447	15687	22%	PLANNED
	Aug '10	25	18.	0.	509.2	12768	275.	3722	16490	23%	
	Sep '10	26	1.	0.	509.2	13278	141.	3863	17141	23%	
	Oct '10	27	24.	0.	509.2	13811	130.	3993	17804	22%	
	Nov '10	28	9.	0.	509.2	14329	87.	4080	18409	22%	
	Dec '10	29	0.	0.	509.2	14839	34.	4114	18953	22%	
	Jan '11	30	112.	0.	509.2	15460	0.	4114	19574	21%	
	Feb '11	31	164.	0.	509.2	16133	0.	4114	20247	20%	
	Mar '11	32	55.	0.	509.2	16697	50.	4164	20861	20%	
	Apr '11	33	57.	0.	509.2	17263	125.	4289	21552	20%	
	May '11	34	17.	0.	509.2	17790	200.	4489	22279	20%	
	Jun '11	35	1.	0.	509.2	18300	275.	4764	23064	21%	
2011/12	Jul '11	36	6.	0.	509.2	18815	275.	5039	23854	21%	PLANNED
	Aug '11	37	9.	0.	509.2	19333	275.	5314	24647	22%	
	Sep '11	38	8.	0.	509.2	19851	250.	5564	25415	22%	
	Oct '11	39	15.	0.	509.2	20375	150.	5714	26089	22%	
	Nov '11	40	25.	0.	509.2	20909	75.	5789	26698	22%	
	Dec '11	41	66.	0.	509.2	21484	50.	5839	27323	21%	
	Jan '12	42	118.	0.	509.2	22111	50.	5889	28000	21%	
	Feb '12	43	143.	0.	509.2	22764	0.	5889	28653	21%	
	Mar '12	44	55.	0.	509.2	23328	50.	5939	29267	20%	
	Apr '12	45	57.	0.	509.2	23894	125.	6064	29958	20%	
	May '12	46	17.	0.	509.2	24420	200.	6264	30684	20%	
	Jun '12	47	1.	0.	509.2	24931	275.	6539	31470	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	Source
2012/13	Jul '12	48	6.		509.2	515.2	25446	275.	6814	32260	21%
	Aug '12	49	9.		509.2	518.2	25964	275.	7089	33053	21%
	Sep '12	50	8.		509.2	517.2	26481	250.	7339	33820	22%
	Oct '12	51	15.		509.2	524.2	27005	150.	7489	34494	22%
	Nov '12	52	25.		509.2	534.2	27540	75.	7564	35104	22%
	Dec '12	53	66.		509.2	575.2	28115	50.	7614	35729	21%
	Jan '13	54	118.		509.2	627.2	28742	50.	7664	36406	21%
	Feb '13	55	143.		509.2	652.2	29394	0.	7664	37058	21%
	Mar '13	56	55.		509.2	564.2	29959	50.	7714	37673	20%
	Apr '13	57	57.		509.2	566.2	30525	125.	7839	38364	20%
	May '13	58	17.		509.2	526.2	31051	200.	8039	39090	21%
	Jun '13	59	1.		509.2	510.2	31561	275.	8314	39875	21%
2013/14	Jul '13	60	6.		509.2	515.2	32077	275.	8589	40666	21%
	Aug '13	61	9.		509.2	518.2	32595	275.	8864	41459	21%
	Sep '13	62	8.		509.2	517.2	33112	250.	9114	42226	22%
	Oct '13	63	15.		509.2	524.2	33636	150.	9264	42900	22%
	Nov '13	64	25.		509.2	534.2	34170	75.	9339	43509	21%
	Dec '13	65	66.		509.2	575.2	34746	50.	9389	44135	21%
	Jan '14	66	118.		509.2	627.2	35373	50.	9439	44812	21%
	Feb '14	67	143.		509.2	652.2	36025	0.	9439	45464	21%
	Mar '14	68	55.		509.2	564.2	36589	50.	9489	46078	21%
	Apr '14	69	57.		509.2	566.2	37156	125.	9614	46770	21%
	May '14	70	17.		509.2	526.2	37682	200.	9814	47496	21%
	Jun '14	71	1.		509.2	510.2	38192	275.	10089	48281	21%
2014/15	Jul '14	72	6.		509.2	515.2	38707	275.	10364	49071	21%
	Aug '14	73	9.		509.2	518.2	39225	275.	10639	49864	21%
	Sep '14	74	8.		509.2	517.2	39743	250.	10889	50632	22%
	Oct '14	75	15.		509.2	524.2	40267	150.	11039	51306	22%
	Nov '14	76	25.		509.2	534.2	40801	75.	11114	51915	21%
	Dec '14	77	66.		509.2	575.2	41376	50.	11164	52540	21%
	Jan '15	78	118.		509.2	627.2	42004	50.	11214	53218	21%
	Feb '15	79	143.		509.2	652.2	42656	0.	11214	53870	21%
	Mar '15	80	55.		509.2	564.2	43220	50.	11264	54484	21%
	Apr '15	81	57.		509.2	566.2	43786	125.	11389	55175	21%
	May '15	82	17.		509.2	526.2	44312	200.	11589	55901	21%
	Jun '15	83	1.		509.2	510.2	44823	275.	11864	56687	21%
2015/16	Jul '15	84	6.		509.2	515.2	45305	275.	12139	57444	21%
	Aug '15	85	9.		509.2	518.2	45648	275.	12414	58062	21%
	Sep '15	86	8.		509.2	517.2	45481	250.	12664	58145	22%
	Oct '15	87	15.		509.2	524.2	45878	150.	12814	58692	22%
	Nov '15	88	25.		509.2	534.2	46023	75.	12889	58912	22%
	Dec '15	89	66.		509.2	575.2	46235	50.	12939	59174	22%
	Jan '16	90	118.		509.2	627.2	46605	50.	12989	59594	22%
	Feb '16	91	143.		509.2	652.2	46865	0.	12989	59854	22%
	Mar '16	92	55.		509.2	564.2	47214	50.	13039	60253	22%
	Apr '16	93	57.		509.2	566.2	47519	125.	13164	60683	22%
	May '16	94	17.		509.2	526.2	47745	200.	13364	61109	22%
	Jun '16	95	1.		509.2	510.2	47884	275.	13639	61523	22%
2016/17	Jul '16	96	6.		509.2	515.2	48193	275.	13914	62107	22%
	Aug '16	97	9.		509.2	518.2	48560	275.	14189	62749	23%
	Sep '16	98	8.		509.2	517.2	48734	250.	14439	63173	23%
	Oct '16	99	15.		509.2	524.2	48952	150.	14589	63541	23%
	Nov '16	100	25.		509.2	534.2	49198	75.	14664	63862	23%
	Dec '16	101	66.		509.2	575.2	49512	50.	14714	64226	23%
	Jan '17	102	118.		509.2	627.2	50026	50.	14764	64790	23%
	Feb '17	103	143.		509.2	652.2	50550	0.	14764	65314	23%
	Mar '17	104	55.		509.2	564.2	51110	50.	14814	65924	22%
	Apr '17	105	57.		509.2	566.2	51574	125.	14939	66513	22%
	May '17	106	17.		509.2	526.2	52097	200.	15139	67236	23%
	Jun '17	107	1.		509.2	510.2	52605	275.	15414	68019	23%

P L A N N E D



RWC Management Plan for Brooks Street Basins

(120-month averaging period)

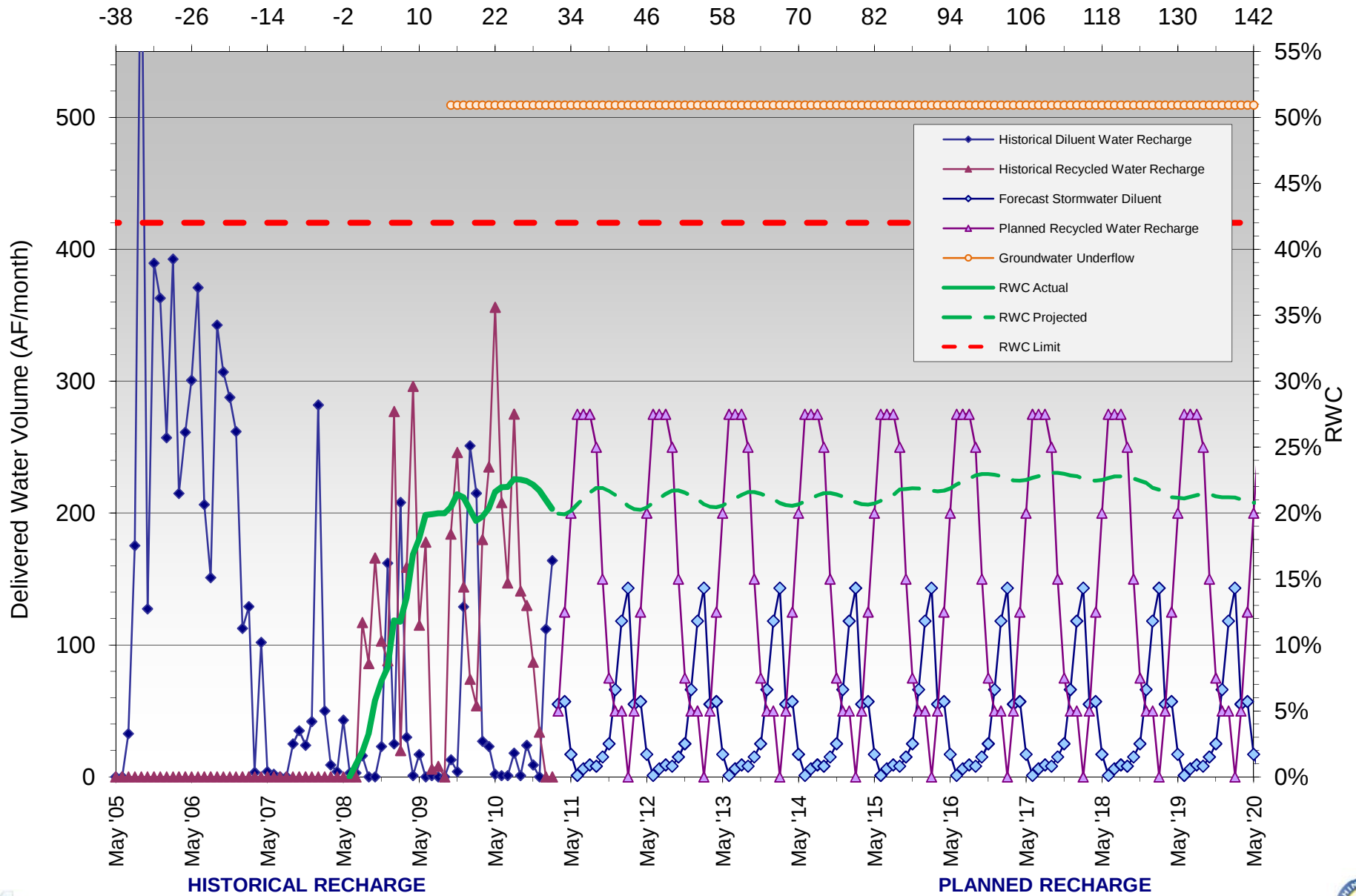
Calculation of Recycled Water Contribution (RWC) from Historical Diluent Water (DW) and Recycled Water (RW) Deliveries

Date	No. Mos. Since Initial RW Delivery	SW (AF)	MWD (AF)	Underflow (AF)	DW Total (AF)	DW 120- Month Total (AF)	RW (AF)	RW 120- Month Total (AF)	DW + RW 120-Month Total (AF)	RWC	Source
2017/18	Jul '17	108	6.		509.2	515.2	53120	275.	15689	68809	23%
	Aug '17	109	9.		509.2	518.2	53638	275.	15964	69602	23%
	Sep '17	110	8.		509.2	517.2	54131	250.	16214	70345	23%
	Oct '17	111	15.		509.2	524.2	54620	150.	16364	70984	23%
	Nov '17	112	25.		509.2	534.2	55130	75.	16439	71569	23%
	Dec '17	113	66.		509.2	575.2	55663	50.	16489	72152	23%
	Jan '18	114	118.		509.2	627.2	56008	50.	16539	72547	23%
	Feb '18	115	143.		509.2	652.2	56611	0.	16539	73150	23%
	Mar '18	116	55.		509.2	564.2	57166	50.	16589	73755	22%
	Apr '18	117	57.		509.2	566.2	57728	125.	16714	74442	22%
	May '18	118	17.		509.2	526.2	58211	200.	16914	75125	23%
	Jun '18	119	1.		509.2	510.2	58719	275.	17189	75908	23%
2018/19	Jul '18	120	6.		509.2	515.2	59231	275.	17464	76695	23%
	Aug '18	121	9.		509.2	518.2	59733	275.	17622	77355	23%
	Sep '18	122	8.		509.2	517.2	60250	250.	17786	78036	23%
	Oct '18	123	15.		509.2	524.2	60775	150.	17770	78545	23%
	Nov '18	124	25.		509.2	534.2	61286	75.	17742	79028	22%
	Dec '18	125	66.		509.2	575.2	61699	50.	17704	79403	22%
	Jan '19	126	118.		509.2	627.2	62301	50.	17477	79778	22%
	Feb '19	127	143.		509.2	652.2	62745	0.	17457	80202	22%
	Mar '19	128	55.		509.2	564.2	63280	50.	17348	80628	22%
	Apr '19	129	57.		509.2	566.2	63845	125.	17177	81022	21%
	May '19	130	17.		509.2	526.2	64354	200.	17262	81616	21%
	Jun '19	131	1.		509.2	510.2	64864	275.	17359	82223	21%
2019/20	Jul '19	132	6.		509.2	515.2	65379	275.	17628	83007	21%
	Aug '19	133	9.		509.2	518.2	65897	275.	17895	83792	21%
	Sep '19	134	8.		509.2	517.2	66414	250.	18145	84559	21%
	Oct '19	135	15.		509.2	524.2	66416	150.	18111	84527	21%
	Nov '19	136	25.		509.2	534.2	66437	75.	17940	84377	21%
	Dec '19	137	66.		509.2	575.2	66374	50.	17846	84220	21%
	Jan '20	138	118.		509.2	627.2	66241	50.	17822	84063	21%
	Feb '20	139	143.		509.2	652.2	66169	0.	17768	83937	21%
	Mar '20	140	55.		509.2	564.2	66197	50.	17638	83835	21%
	Apr '20	141	57.		509.2	566.2	66231	125.	17528	83759	21%
	May '20	142	17.		509.2	526.2	66246	200.	17372	83618	21%
	Jun '20	143	1.		509.2	510.2	66246	275.	17439	83685	21%
2020/21	Jul '20	144	6.		509.2	515.2	66251	275.	17567	83818	21%
	Aug '20	145	9.		509.2	518.2	66242	275.	17567	83809	21%
	Sep '20	146	8.		509.2	517.2	66249	250.	17676	83925	21%
	Oct '20	147	15.		509.2	524.2	66240	150.	17696	83936	21%
	Nov '20	148	25.		509.2	534.2	66256	75.	17684	83940	21%
	Dec '20	149	66.		509.2	575.2	66322	50.	17700	84022	21%
	Jan '21	150	118.		509.2	627.2	66328	50.	17750	84078	21%
	Feb '21	151	143.		509.2	652.2	66307	0.	17750	84057	21%
	Mar '21	152	55.		509.2	564.2	66307	50.	17750	84057	21%
	Apr '21	153	57.		509.2	566.2	66307	125.	17750	84057	21%
	May '21	154	17.		509.2	526.2	66307	200.	17750	84057	21%
	Jun '21	155	1.		509.2	510.2	66307	275.	17750	84057	21%
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. 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	Source
2002/2003	Jul '02	35	116	0		116	0	1,512	11,897	13%	HISTORICAL
	Aug '02	36	136	0		136	0	1,512	12,032	13%	
	Sep '02	37	97	0		97	0	1,512	12,130	12%	
	Oct '02	38	179	0		179	0	1,512	12,309	12%	
	Nov '02	39	330	0		330	0	1,512	12,639	12%	
	Dec '02	40	330	0		330	0	1,512	12,969	12%	
	Jan '03	41	176	0		176	0	1,512	13,146	11%	
	Feb '03	42	330	0		330	0	1,512	13,476	11%	
	Mar '03	43	330	0		330	0	1,512	13,806	11%	
	Apr '03	44	330	0		330	0	1,512	14,136	11%	
2003/2004	May '03	45	330	0		330	30	1,542	14,496	11%	
	Jun '03	46	112	0		112	154	1,696	14,762	11%	
	Jul '03	47	105	0		105	0	1,696	14,867	11%	
	Aug '03	48	32	0		32	0	1,696	14,899	11%	
	Sep '03	49	11	0		11	0	1,696	14,910	11%	
	Oct '03	50	11	0		11	0	1,696	14,921	11%	
	Nov '03	51	105	0		105	0	1,696	15,026	11%	
	Dec '03	52	193	0		193	0	1,696	15,219	11%	
	Jan '04	53	33	0		33	0	1,696	15,252	11%	
	Feb '04	54	330	0		330	0	1,696	15,582	11%	
2004/2005	Mar '04	55	174	0		174	0	1,696	15,756	11%	
	Apr '04	56	69	0		69	0	1,696	15,824	11%	
	May '04	57	17	0		17	5	1,701	15,846	11%	
	Jun '04	58	13	0		13	44	1,745	15,903	11%	
	Jul '04	59	14	0		14	46	1,791	15,963	11%	
	Aug '04	60	94	0		94	48	1,839	16,105	11%	
	Sep '04	61	179	0		179	41	1,880	16,325	12%	
	Oct '04	62	330	0		330	23	1,903	16,678	11%	
	Nov '04	63	330	0		330	0	1,903	17,008	11%	
	Dec '04	64	330	0		330	0	1,903	17,338	11%	
2005/2006	Jan '05	65	330	0		330	0	1,903	17,668	11%	
	Feb '05	66	330	0		330	0	1,903	17,998	11%	
	Mar '05	67	238	0		238	0	1,903	18,236	10%	
	Apr '05	68	176	0		176	0	1,903	18,411	10%	
	May '05	69	140	0		140	0	1,903	18,551	10%	
	Jun '05	70	3	0		3	0	1,903	18,554	10%	
	Jul '05	71	0	0		0	0	1,903	18,554	10%	
	Aug '05	72	0	0		0	0	1,903	18,554	10%	
	Sep '05	73	0	0		0	0	1,903	18,554	10%	
	Oct '05	74	198	0		198	32	1,935	18,784	10%	
2006/2007	Nov '05	75	15	0		15	0	1,935	18,799	10%	
	Dec '05	76	107	0		107	35	1,970	18,941	10%	
	Jan '06	77	190	0		190	21	1,990	19,152	10%	
	Feb '06	78	268	0		268	74	2,065	19,494	11%	
	Mar '06	79	338	0		338	0	2,065	19,832	10%	
	Apr '06	80	362	0		362	0	2,065	20,194	10%	
	May '06	81	35	0		35	0	2,065	20,230	10%	
	Jun '06	82	26	0		26	26	2,091	20,282	10%	
	Jul '06	83	33	0		33	41	2,132	20,356	10%	
	Aug '06	84	10	0		10	6	2,138	20,372	10%	
2006/2007	Sep '06	85	40	0		40	83	2,221	20,495	11%	
	Oct '06	86	54	0		54	31	2,252	20,395	11%	
	Nov '06	87	63	0		63	50	2,302	20,178	11%	
	Dec '06	88	86	0		86	41	2,344	19,975	12%	
	Jan '07	89	95	0		95	58	2,401	19,798	12%	
	Feb '07	90	150	0		150	23	2,424	19,882	12%	
	Mar '07	91	17	0		17	45	2,469	19,862	12%	
	Apr '07	92	59	0		59	41	2,510	19,869	13%	
	May '07	93	14	0		14	40	2,550	19,886	13%	
	Jun '07	94	18	0		18	7	2,557	19,890	13%	



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	Source
2007/2008	Jul '07	95	26	0		26	17,350	0	2,557	19,907	13%	HISTORICAL
	Aug '07	96	29	0		29	17,368	0	2,557	19,925	13%	
	Sep '07	97	34	0		34	17,271	0	2,557	19,828	13%	
	Oct '07	98	34	0		34	17,197	0	2,557	19,754	13%	
	Nov '07	99	166	0		166	17,037	87	2,644	19,681	13%	
	Dec '07	100	257	0		257	16,964	53	2,697	19,661	14%	
	Jan '08	101	793	0		793	17,427	0	2,697	20,124	13%	
	Feb '08	102	233	0		233	17,330	0	2,697	20,027	13%	
	Mar '08	103	20	0		20	17,020	116	2,813	19,833	14%	
	Apr '08	104	30	0		30	16,753	116	2,929	19,682	15%	
May '08	105	30	0		30	16,453	87	3,016	19,469	15%		
Jun '08	106	18	0		18	16,310	0	3,016	19,326	16%		
2008/2009	Jul '08	107	17	0		17	16,176	67	3,083	19,259	16%	
	Aug '08	108	8	0		8	16,075	0	3,083	19,158	16%	
	Sep '08	109	5	0		5	15,952	0	3,083	19,035	16%	
	Oct '08	110	17	0		17	15,908	135	3,218	19,126	17%	
	Nov '08	111	114	0		114	15,937	88	3,306	19,243	17%	
	Dec '08	112	287	0		287	16,112	0	3,306	19,418	17%	
	Jan '09	113	38	0		38	15,938	39	3,345	19,283	17%	
	Feb '09	114	409	0		409	16,210	9	3,354	19,564	17%	
	Mar '09	115	48	0		48	16,095	0	3,354	19,449	17%	
	Apr '09	116	135	0		135	15,915	15	3,369	19,284	17%	
May '09	117	68	0		68	15,885	11	3,380	19,265	18%		
Jun '09	118	24	0		24	15,871	0	3,380	19,251	18%		
2009/2010	Jul '09	119	0	0		0	15,858	0	3,380	19,238	18%	
	Aug '09	120	21	0		21	15,804	0	3,380	19,184	18%	
	Sep '09	121	202	0		202	15,932	24	3,318	19,250	17%	
	Oct '09	122	187	0	286	473	16,342	102	3,255	19,597	17%	
	Nov '09	123	282	0	286	568	16,904	120	3,259	20,163	16%	
	Dec '09	124	242	0	286	528	17,395	0	3,147	20,541	15%	
	Jan '10	125	319	0	286	605	17,881	0	3,119	21,000	15%	
	Feb '10	126	221	0	286	507	18,058	0	3,119	21,178	15%	
	Mar '10	127	104	0	286	390	18,129	0	3,119	21,248	15%	
	Apr '10	128	394	0	286	680	18,504	0	3,119	21,623	14%	
May '10	129	98	0	286	384	18,757	0	3,119	21,876	14%		
Jun '10	130	0	0	286	286	18,926	0	3,119	22,046	14%		
2010/2011	Jul '10	131	0	0	286	286	19,154	0	3,054	22,208	14%	
	Aug '10	132	0	0	286	286	19,434	0	2,909	22,342	13%	
	Sep '10	133	0	0	286	286	19,711	0	2,774	22,485	12%	
	Oct '10	134	29	0	286	315	19,876	114	2,762	22,638	12%	
	Nov '10	135	127	0	286	413	20,204	120	2,882	23,086	12%	
	Dec '10	136	572	0	286	858	20,946	12	2,894	23,840	12%	
	Jan '11	137	104	0	286	390	21,006	0	2,894	23,900	12%	
	Feb '11	138	323	0	286	609	21,285	43	2,937	24,223	12%	
	Mar '11	139	185		286	471	21,647	0	2,937	24,584	12%	
	Apr '11	140	220		286	506	21,878	0	2,937	24,816	12%	
	May '11	141	114		286	400	22,175	100	3,037	25,212	12%	
	Jun '11	142	43		286	329	22,491	150	3,158	25,649	12%	
2011/2012	Jul '11	143	40		286	326	22,803	120	3,278	26,081	13%	
	Aug '11	144	39		286	325	23,118	120	3,367	26,485	13%	
	Sep '11	145	67		286	353	23,445	120	3,309	26,754	12%	
	Oct '11	146	107		286	393	23,762	100	3,223	26,985	12%	
	Nov '11	147	169		286	455	23,888	60	3,173	27,062	12%	
	Dec '11	148	222		286	508	24,283	0	3,173	27,457	12%	
	Jan '12	149	232		286	518	24,624	0	3,173	27,797	11%	
	Feb '12	150	273		286	559	25,077	0	3,173	28,250	11%	
	Mar '12	151	185		286	471	25,329	0	3,173	28,503	11%	
	Apr '12	152	220		286	506	25,715	0	3,173	28,888	11%	
	May '12	153	114		286	400	26,029	100	3,273	29,302	11%	
	Jun '12	154	43		286	329	26,343	150	3,423	29,766	12%	



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	Source
2012/2013	Jul '12	155	40		286	326	26,553	120	3,543	30,096	12%	P L A N N E D
	Aug '12	156	39		286	325	26,742	120	3,663	30,406	12%	
	Sep '12	157	67		286	353	26,998	120	3,783	30,782	12%	
	Oct '12	158	107		286	393	27,212	100	3,883	31,095	12%	
	Nov '12	159	169		286	455	27,337	60	3,943	31,281	13%	
	Dec '12	160	222		286	508	27,515	0	3,943	31,459	13%	
	Jan '13	161	232		286	518	27,857	0	3,943	31,800	12%	
	Feb '13	162	273		286	559	28,086	0	3,943	32,030	12%	
	Mar '13	163	185		286	471	28,227	0	3,943	32,171	12%	
	Apr '13	164	220		286	506	28,403	0	3,943	32,347	12%	
May '13	165	114		286	400	28,474	100	4,013	32,487	12%		
Jun '13	166	43		286	329	28,691	150	4,009	32,700	12%		
2013/2014	Jul '13	167	40		286	326	28,912	120	4,129	33,041	12%	
	Aug '13	168	39		286	325	29,205	120	4,249	33,454	13%	
	Sep '13	169	67		286	353	29,547	120	4,369	33,916	13%	
	Oct '13	170	107		286	393	29,930	100	4,469	34,399	13%	
	Nov '13	171	169		286	455	30,280	60	4,529	34,809	13%	
	Dec '13	172	222		286	508	30,595	0	4,529	35,124	13%	
	Jan '14	173	232		286	518	31,080	0	4,529	35,609	13%	
	Feb '14	174	273		286	559	31,309	0	4,529	35,838	13%	
	Mar '14	175	185		286	471	31,606	0	4,529	36,135	13%	
	Apr '14	176	220		286	506	32,044	0	4,529	36,573	12%	
May '14	177	114		286	400	32,427	100	4,624	37,051	12%		
Jun '14	178	43		286	329	32,743	150	4,730	37,474	13%		
2014/2015	Jul '14	179	40		286	326	33,056	120	4,804	37,860	13%	
	Aug '14	180	39		286	325	33,287	120	4,876	38,163	13%	
	Sep '14	181	67		286	353	33,461	120	4,955	38,417	13%	
	Oct '14	182	107		286	393	33,524	100	5,032	38,557	13%	
	Nov '14	183	169		286	455	33,650	60	5,092	38,742	13%	
	Dec '14	184	222		286	508	33,828	0	5,092	38,920	13%	
	Jan '15	185	232		286	518	34,016	0	5,092	39,108	13%	
	Feb '15	186	273		286	559	34,245	0	5,092	39,337	13%	
	Mar '15	187	185		286	471	34,479	0	5,092	39,571	13%	
	Apr '15	188	220		286	506	34,809	0	5,092	39,901	13%	
May '15	189	114		286	400	35,070	100	5,192	40,262	13%		
Jun '15	190	43		286	329	35,396	150	5,342	40,738	13%		
2015/2016	Jul '15	191	40		286	326	35,722	120	5,462	41,184	13%	
	Aug '15	192	39		286	325	36,048	120	5,582	41,630	13%	
	Sep '15	193	67		286	353	36,401	120	5,702	42,103	14%	
	Oct '15	194	107		286	393	36,595	100	5,770	42,366	14%	
	Nov '15	195	169		286	455	37,036	60	5,830	42,866	14%	
	Dec '15	196	222		286	508	37,437	0	5,795	43,232	13%	
	Jan '16	197	232		286	518	37,765	0	5,775	43,539	13%	
	Feb '16	198	273		286	559	38,056	0	5,700	43,757	13%	
	Mar '16	199	185		286	471	38,189	0	5,700	43,889	13%	
	Apr '16	200	220		286	506	38,333	0	5,700	44,033	13%	
May '16	201	114		286	400	38,698	100	5,800	44,498	13%		
Jun '16	202	43		286	329	39,001	150	5,924	44,925	13%		
2016/2017	Jul '16	203	40		286	326	39,294	120	6,003	45,297	13%	
	Aug '16	204	39		286	325	39,609	120	6,117	45,726	13%	
	Sep '16	205	67		286	353	39,922	120	6,154	46,076	13%	
	Oct '16	206	107		286	393	40,261	100	6,223	46,484	13%	
	Nov '16	207	169		286	455	40,653	60	6,233	46,886	13%	
	Dec '16	208	222		286	508	41,076	0	6,191	47,267	13%	
	Jan '17	209	232		286	518	41,499	0	6,134	47,633	13%	
	Feb '17	210	273		286	559	41,909	0	6,111	48,019	13%	
	Mar '17	211	185		286	471	42,363	0	6,066	48,429	13%	
	Apr '17	212	220		286	506	42,810	0	6,025	48,835	12%	
May '17	213	114		286	400	43,196	100	6,085	49,281	12%		
Jun '17	214	43		286	329	43,507	150	6,228	49,735	13%		



RWC Management Plan for Ely Basin

(120-month averaging period)

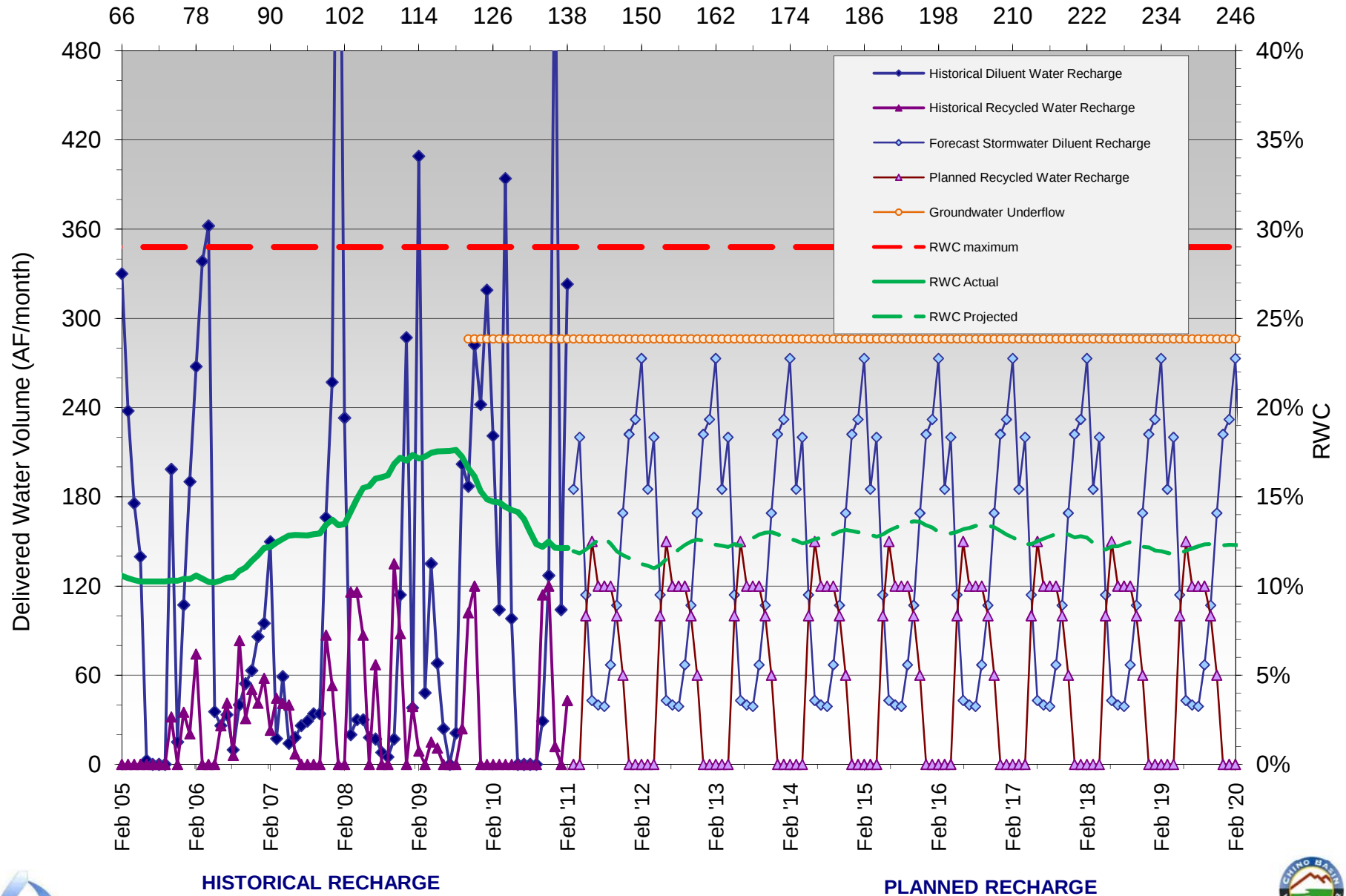
Calculation of Recycled Water Contribution (RWC) from Historical Diluent Water (DW) and Recycled Water (RW) Deliveries

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	Source
2017/2018	Jul '17	215	40		286	326	43,807	120	6,348	50,155	13%	P L A N N E D
	Aug '17	216	39		286	325	44,103	120	6,468	50,571	13%	
	Sep '17	217	67		286	353	44,423	120	6,588	51,011	13%	
	Oct '17	218	107		286	393	44,782	100	6,688	51,470	13%	
	Nov '17	219	169		286	455	45,071	60	6,661	51,732	13%	
	Dec '17	220	222		286	508	45,322	0	6,608	51,930	13%	
	Jan '18	221	232		286	518	45,047	0	6,608	51,655	13%	
	Feb '18	222	273		286	559	45,373	0	6,608	51,981	13%	
	Mar '18	223	185		286	471	45,825	0	6,492	52,317	12%	
	Apr '18	224	220		286	506	46,301	0	6,376	52,677	12%	
May '18	225	114		286	400	46,671	100	6,389	53,060	12%		
Jun '18	226	43		286	329	46,982	150	6,539	53,521	12%		
2018/2019	Jul '18	227	40		286	326	47,291	120	6,592	53,883	12%	
	Aug '18	228	39		286	325	47,609	120	6,712	54,321	12%	
	Sep '18	229	67		286	353	47,957	120	6,832	54,789	12%	
	Oct '18	230	107		286	393	48,333	100	6,797	55,130	12%	
	Nov '18	231	169		286	455	48,674	60	6,769	55,443	12%	
	Dec '18	232	222		286	508	48,895	0	6,769	55,664	12%	
	Jan '19	233	232		286	518	49,375	0	6,730	56,105	12%	
	Feb '19	234	273		286	559	49,526	0	6,721	56,247	12%	
	Mar '19	235	185		286	471	49,949	0	6,721	56,670	12%	
	Apr '19	236	220		286	506	50,320	0	6,706	57,026	12%	
May '19	237	114		286	400	50,652	100	6,795	57,447	12%		
Jun '19	238	43		286	329	50,957	150	6,945	57,902	12%		
2019/2020	Jul '19	239	40		286	326	51,283	120	7,065	58,348	12%	
	Aug '19	240	39		286	325	51,588	120	7,185	58,773	12%	
	Sep '19	241	67		286	353	51,739	120	7,281	59,020	12%	
	Oct '19	242	107		286	393	51,659	100	7,279	58,938	12%	
	Nov '19	243	169		286	455	51,546	60	7,219	58,765	12%	
	Dec '19	244	222		286	508	51,526	0	7,219	58,745	12%	
	Jan '20	245	232		286	518	51,439	0	7,219	58,658	12%	
	Feb '20	246	273		286	559	51,491	0	7,219	58,710	12%	
	Mar '20	247	185		286	471	51,572	0	7,219	58,791	12%	
	Apr '20	248	220		286	506	51,398	0	7,219	58,617	12%	
May '20	249	114		286	400	51,414	100	7,319	58,733	12%		
Jun '20	250	43		286	329	51,457	150	7,469	58,926	13%		
2020/2021	Jul '20	251	40		286	326	51,497	120	7,589	59,086	13%	
	Aug '20	252	39		286	325	51,536	120	7,709	59,245	13%	
	Sep '20	253	67		286	353	51,603	120	7,829	59,432	13%	
	Oct '20	254	107		286	393	51,681	100	7,815	59,496	13%	
	Nov '20	255	169		286	455	51,723	60	7,755	59,478	13%	
	Dec '20	256	222		286	508	51,373	0	7,743	59,116	13%	
	Jan '21	257	232		286	518	51,501	0	7,743	59,244	13%	
	Feb '21	258	273		286	559	51,451	0	7,700	59,151	13%	
	Mar '21	259	185		286	471	51,451	0	7,700	59,151	13%	
	Apr '21	260	220		286	506	51,451	0	7,700	59,151	13%	
May '21	261	114		286	400	51,451	100	7,700	59,151	13%		
Jun '21	262	43		286	329	51,451	150	7,700	59,151	13%		
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. RWC maximum = 0.5 mg/L / the Running Average of Total Organic Carbon (TOC) determined from a recharge site's start-up period												



RWC Management Plan for Ely Basin

Months Since Initial Recycled Water Delivery



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	Source
2002/03	Jul '02	-38	0.	0.	0.						MODELED
	Aug '02	-37	0.	0.	0.						
	Sep '02	-36	0.	0.	0.						
	Oct '02	-35	0.	0.	0.						
	Nov '02	-34	81.7	0.	81.7						
	Dec '02	-33	121.5	0.	121.5						
	Jan '03	-32	0.	0.	0.						
	Feb '03	-31	146.3	0.	146.3						
	Mar '03	-30	105.6	0.	105.6						
	Apr '03	-29	89.	0.	89.						
	May '03	-28	7.	0.	7.						
	Jun '03	-27	0.	0.	0.						
2003/04	Jul '03	-26	0.	0.	0.						MODELED
	Aug '03	-25	0.	0.	0.						
	Sep '03	-24	0.	0.	0.						
	Oct '03	-23	0.	0.	0.						
	Nov '03	-22	4.5	0.	4.5						
	Dec '03	-21	35.2	0.	35.2						
	Jan '04	-20	0.5	0.	0.5						
	Feb '04	-19	128.8	0.	128.8						
	Mar '04	-18	54.9	0.	54.9						
	Apr '04	-17	0.	0.	0.						
	May '04	-16	0.	0.	0.						
	Jun '04	-15	0.	0.	0.						
2004/05	Jul '04	-14	0.	0.	0.						MEASURED
	Aug '04	-13	0.	0.	0.						
	Sep '04	-12	0.	0.	0.						
	Oct '04	-11	117.6	0.	117.6						
	Nov '04	-10	2.	0.	2.						
	Dec '04	-9	39.	0.	39.						
	Jan '05	-8	149.8	0.	149.8						
	Feb '05	-7	127.5	0.	127.5						
	Mar '05	-6	27.	0.	27.						
	Apr '05	-5	4.1	0.	4.1						
	May '05	-4	19.8	31.9	51.7						
	Jun '05	-3	59.5	159.5	219.						
2005/06	Jul '05	-2	123.	142.3	265.3						START - UP
	Aug '05	-1	79.3	407.8	487.1	2407	0.	0.	2407	0%	
	Sep '05	1	59.8	70.6	130.4	2538	138.8	138.8	2677	5%	
	Oct '05	2	21.8	0.	21.8	2560	92.7	231.6	2791	8%	
	Nov '05	3	0.	0.	0.	2560	92.2	323.8	2883	11%	
	Dec '05	4	7.8	0.	7.8	2567	31.6	355.4	2923	12%	
	Jan '06	5	12.6	0.	12.6	2580	82.9	438.3	3018	15%	
	Feb '06	6	34.6	0.	34.6	2615	79.2	517.5	3132	17%	
	Mar '06	7	26.7	0.	26.7	2641	0.	517.5	3159	16%	
	Apr '06	8	43.5	0.	43.5	2685	0.	517.5	3202	16%	
	May '06	9	83.2	0.	83.2	2768	0.	517.5	3285	16%	
	Jun '06	10	30.	14.	44.	2812	0.	517.5	3329	16%	
2006/07	Jul '06	11	31.	98.1	129.1	2941	182.8	700.3	3641	19%	START - UP
	Aug '06	12	47.	0.	47.	2988	180.	880.3	3868	23%	
	Sep '06	13	89.	0.	89.	3077	0.	880.3	3957	22%	
	Oct '06	14	28.7	14.5	43.2	3120	143.6	1023.9	4144	25%	
	Nov '06	15	30.	28.5	58.5	3179	35.4	1059.3	4238	25%	
	Dec '06	16	45.2	39.2	84.4	3263	0.	1059.3	4322	25%	
	Jan '07	17	16.3	0.	16.3	3279	0.	1059.3	4339	24%	
	Feb '07	18	40.3	0.	40.3	3320	42.	1101.3	4421	25%	
	Mar '07	19	27.7	6.9	34.6	3354	0.	1101.3	4456	25%	
	Apr '07	20	50.	0.	50.	3404	63.	1164.3	4569	25%	
	May '07	21	58.	0.	58.	3462	0.	1164.3	4627	25%	
	Jun '07	22	90.	0.	90.	3552	0.	1164.3	4717	25%	



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	Source
2007/08	Jul '07	23	93.	0.		93.	3645	141.	1305.3	4951	26%
	Aug '07	24	93.	0.		93.	3738	78.	1383.3	5122	27%
	Sep '07	25	92.	0.		92.	3830	15.	1398.3	5229	27%
	Oct '07	26	73.	0.		73.	3903	22.8	1421.1	5324	27%
	Nov '07	27	102.	0.		102.	4005	98.	1519.1	5524	27%
	Dec '07	28	102.	0.		102.	4107	0.	1519.1	5626	27%
	Jan '08	29	126.	0.		126.	4233	0.	1519.1	5752	26%
	Feb '08	30	97.	0.		97.	4330	39.	1558.1	5888	26%
	Mar '08	31	44.	0.		44.	4374	80.	1638.1	6012	27%
	Apr '08	32	64.	0.		64.	4438	7.	1645.1	6083	27%
2008/09	May '08	33	39.	0.		39.	4477	86.	1731.1	6208	28%
	Jun '08	34	24.	0.		24.	4501	0.	1731.1	6232	28%
	Jul '08	35	18.	0.		18.	4519	0.	1731.1	6250	28%
	Aug '08	36	6.	0.		6.	4525	0.	1731.1	6256	28%
	Sep '08	37	3.	0.		3.	4528	0.	1731.1	6259	28%
	Oct '08	38	3.	0.		3.	4531	0.	1731.1	6262	28%
	Nov '08	39	3.	0.		3.	4534	0.	1731.1	6265	28%
	Dec '08	40	35.	0.		35.	4569	0.	1731.1	6300	27%
	Jan '09	41	0.	0.		0.	4569	0.	1731.1	6300	27%
	Feb '09	42	63.	0.		63.	4632	23.	1754.1	6386	27%
2009/10	Mar '09	43	31.	0.		31.	4663	23.	1777.1	6440	28%
	Apr '09	44	8.	0.		8.	4671	0.	1777.1	6448	28%
	May '09	45	18.	0.		18.	4689	0.	1777.1	6466	27%
	Jun '09	46	3.	0.		3.	4692	0.	1777.1	6469	27%
	Jul '09	47	9.	0.		9.	4701	0.	1777.1	6478	27%
	Aug '09	48	4.	0.		4.	4705	0.	1777.1	6482	27%
	Sep '09	49	3.	0.		3.	4708	34.	1811.1	6519	28%
	Oct '09	50	24.	7.	266.6	297.6	5006	189.	2000.1	7006	29%
	Nov '09	51	26.	0.	266.6	292.6	5298	243.	2243.1	7542	30%
	Dec '09	52	158.	0.	266.6	424.6	5723	93.	2336.1	8059	29%
2010/11	Jan '10	53	214.	0.	266.6	480.6	6204	19.	2355.1	8559	28%
	Feb '10	54	200.	0.	266.6	466.6	6670	0.	2355.1	9025	26%
	Mar '10	55	16.	0.	266.6	282.6	6953	61.	2416.1	9369	26%
	Apr '10	56	46.	0.	266.6	312.6	7265	56.	2472.1	9738	25%
	May '10	57	0.	0.	266.6	266.6	7532	111.	2583.1	10115	26%
	Jun '10	58	0.	0.	266.6	266.6	7799	50.	2633.1	10432	25%
	Jul '10	59	0.	0.	266.6	266.6	8065	21.	2654.1	10719	25%
	Aug '10	60	0.	0.	266.6	266.6	8332	28.	2682.1	11014	24%
	Sep '10	61	12.	0.	266.6	278.6	8611	285.	2967.1	11578	26%
	Oct '10	62	13.	0.	266.6	279.6	8888	94.	3061.1	11950	26%
2011/12	Nov '10	63	2.	0.	266.6	268.6	9157	51.	3112.1	12269	25%
	Dec '10	64	0.	0.	266.6	266.6	9424	0.	3112.1	12536	25%
	Jan '11	65	12.	0.	266.6	278.6	9692	50.	3162.1	12854	25%
	Feb '11	66	79.	0.	266.6	345.6	10025	46.	3208.1	13233	24%
	Mar '11	67	42.		266.6	308.6	10327	50.	3258.1	13585	24%
	Apr '11	68	38.		266.6	304.6	10626	100.	3358.1	13984	24%
	May '11	69	28.		266.6	294.6	10920	150.	3508.1	14429	24%
	Jun '11	70	26.		266.6	292.6	11213	150.	3658.1	14871	25%
	Jul '11	71	30.		266.6	296.6	11508	150.	3808.1	15316	25%
	Aug '11	72	25.		266.6	291.6	11800	150.	3958.1	15758	25%
2011/12	Sep '11	73	29.		266.6	295.6	12095	150.	4108.1	16204	25%
	Oct '11	74	31.		266.6	297.6	12393	100.	4208.1	16601	25%
	Nov '11	75	28.		266.6	294.6	12627	50.	4258.1	16885	25%
	Dec '11	76	60.		266.6	326.6	12951	0.	4258.1	17209	25%
	Jan '12	77	59.		266.6	325.6	13241	0.	4258.1	17500	24%
	Feb '12	78	102.		266.6	368.6	13610	0.	4258.1	17868	24%
	Mar '12	79	42.		266.6	308.6	13915	50.	4308.1	18223	24%
	Apr '12	80	38.		266.6	304.6	14218	100.	4408.1	18626	24%
	May '12	81	28.		266.6	294.6	14513	150.	4558.1	19071	24%
	Jun '12	82	26.		266.6	292.6	14805	150.	4708.1	19513	24%

HISTORICAL

PLANNED



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	Source
2012/13	Jul '12	83	30.		266.6	296.6	15102	150.	4858.1	19960	24%
	Aug '12	84	25.		266.6	291.6	15393	150.	5008.1	20401	25%
	Sep '12	85	29.		266.6	295.6	15689	150.	5158.1	20847	25%
	Oct '12	86	31.		266.6	297.6	15987	100.	5258.1	21245	25%
	Nov '12	87	28.		266.6	294.6	16199	50.	5308.1	21508	25%
	Dec '12	88	60.		266.6	326.6	16405	0.	5308.1	21713	24%
	Jan '13	89	59.		266.6	325.6	16730	0.	5308.1	22038	24%
	Feb '13	90	102.		266.6	368.6	16952	0.	5308.1	22261	24%
	Mar '13	91	42.		266.6	308.6	17155	50.	5358.1	22514	24%
	Apr '13	92	38.		266.6	304.6	17371	100.	5458.1	22829	24%
2013/14	May '13	93	28.		266.6	294.6	17659	150.	5608.1	23267	24%
	Jun '13	94	26.		266.6	292.6	17951	150.	5758.1	23709	24%
	Jul '13	95	30.		266.6	296.6	18248	150.	5908.1	24156	24%
	Aug '13	96	25.		266.6	291.6	18539	150.	6058.1	24598	25%
	Sep '13	97	29.		266.6	295.6	18835	150.	6208.1	25043	25%
	Oct '13	98	31.		266.6	297.6	19133	100.	6308.1	25441	25%
	Nov '13	99	28.		266.6	294.6	19423	50.	6358.1	25781	25%
	Dec '13	100	60.		266.6	326.6	19714	0.	6358.1	26072	24%
	Jan '14	101	59.		266.6	325.6	20039	0.	6358.1	26397	24%
	Feb '14	102	102.		266.6	368.6	20279	0.	6358.1	26637	24%
2014/15	Mar '14	103	42.		266.6	308.6	20533	50.	6408.1	26941	24%
	Apr '14	104	38.		266.6	304.6	20837	100.	6508.1	27346	24%
	May '14	105	28.		266.6	294.6	21132	150.	6658.1	27790	24%
	Jun '14	106	26.		266.6	292.6	21425	150.	6808.1	28233	24%
	Jul '14	107	30.		266.6	296.6	21721	150.	6958.1	28679	24%
	Aug '14	108	25.		266.6	291.6	22013	150.	7108.1	29121	24%
	Sep '14	109	29.		266.6	295.6	22308	150.	7258.1	29567	25%
	Oct '14	110	31.		266.6	297.6	22488	100.	7358.1	29847	25%
	Nov '14	111	28.		266.6	294.6	22781	50.	7408.1	30189	25%
	Dec '14	112	60.		266.6	326.6	23069	0.	7408.1	30477	24%
2015/16	Jan '15	113	59.		266.6	325.6	23244	0.	7408.1	30653	24%
	Feb '15	114	102.		266.6	368.6	23486	0.	7408.1	30894	24%
	Mar '15	115	42.		266.6	308.6	23767	50.	7458.1	31225	24%
	Apr '15	116	38.		266.6	304.6	24068	100.	7558.1	31626	24%
	May '15	117	28.		266.6	294.6	24311	150.	7708.1	32019	24%
	Jun '15	118	26.		266.6	292.6	24384	150.	7858.1	32242	24%
	Jul '15	119	30.		266.6	296.6	24415	150.	8008.1	32424	25%
	Aug '15	120	25.		266.6	291.6	24220	150.	8158.1	32378	25%
	Sep '15	121	29.		266.6	295.6	24385	150.	8169.3	32554	25%
	Oct '15	122	31.		266.6	297.6	24661	100.	8176.6	32837	25%
2016/17	Nov '15	123	28.		266.6	294.6	24956	50.	8134.3	33090	25%
	Dec '15	124	60.		266.6	326.6	25274	0.	8102.7	33377	24%
	Jan '16	125	59.		266.6	325.6	25587	0.	8019.8	33607	24%
	Feb '16	126	102.		266.6	368.6	25921	0.	7940.6	33862	23%
	Mar '16	127	42.		266.6	308.6	26203	50.	7990.6	34194	23%
	Apr '16	128	38.		266.6	304.6	26464	100.	8090.6	34555	23%
	May '16	129	28.		266.6	294.6	26676	150.	8240.6	34916	24%
	Jun '16	130	26.		266.6	292.6	26924	150.	8390.6	35315	24%
	Jul '16	131	30.		266.6	296.6	27092	150.	8357.9	35450	24%
	Aug '16	132	25.		266.6	291.6	27336	150.	8327.9	35664	23%
2016/2017	Sep '16	133	29.		266.6	295.6	27543	150.	8477.9	36021	24%
	Oct '16	134	31.		266.6	297.6	27798	100.	8434.2	36232	23%
	Nov '16	135	28.		266.6	294.6	28034	50.	8448.8	36482	23%
	Dec '16	136	60.		266.6	326.6	28276	0.	8448.8	36725	23%
	Jan '17	137	59.		266.6	325.6	28585	0.	8448.8	37034	23%
	Feb '17	138	102.		266.6	368.6	28913	0.	8406.8	37320	23%
	Mar '17	139	42.		266.6	308.6	29187	50.	8456.8	37644	22%
	Apr '17	140	38.		266.6	304.6	29442	100.	8493.8	37936	22%
	May '17	141	28.		266.6	294.6	29679	150.	8643.8	38322	23%
	Jun '17	142	26.		266.6	292.6	29881	150.	8793.8	38675	23%

P L A N N E D



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	Source
2017/2018	Jul '17	143	30.		266.6	296.6	30085	150.	8802.8	38888	23%
	Aug '17	144	25.		266.6	291.6	30283	150.	8874.8	39158	23%
	Sep '17	145	29.		266.6	295.6	30487	150.	9009.8	39497	23%
	Oct '17	146	31.		266.6	297.6	30712	100.	9087.	39799	23%
	Nov '17	147	28.		266.6	294.6	30904	50.	9039.	39943	23%
	Dec '17	148	60.		266.6	326.6	31129	0.	9039.	40168	23%
	Jan '18	149	59.		266.6	325.6	31328	0.	9039.	40367	22%
	Feb '18	150	102.		266.6	368.6	31600	0.	9000.	40600	22%
	Mar '18	151	42.		266.6	308.6	31865	50.	8970.	40835	22%
	Apr '18	152	38.		266.6	304.6	32105	100.	9063.	41168	22%
2018/2019	May '18	153	28.		266.6	294.6	32361	150.	9127.	41488	22%
	Jun '18	154	26.		266.6	292.6	32630	150.	9277.	41907	22%
	Jul '18	155	30.		266.6	296.6	32908	150.	9427.	42335	22%
	Aug '18	156	25.		266.6	291.6	33194	150.	9577.	42771	22%
	Sep '18	157	29.		266.6	295.6	33486	150.	9727.	43213	23%
	Oct '18	158	31.		266.6	297.6	33781	100.	9827.	43608	23%
	Nov '18	159	28.		266.6	294.6	34073	50.	9877.	43950	22%
	Dec '18	160	60.		266.6	326.6	34364	0.	9877.	44241	22%
	Jan '19	161	59.		266.6	325.6	34690	0.	9877.	44567	22%
	Feb '19	162	102.		266.6	368.6	34995	0.	9854.	44849	22%
2019/2020	Mar '19	163	42.		266.6	308.6	35273	50.	9881.	45154	22%
	Apr '19	164	38.		266.6	304.6	35570	100.	9981.	45551	22%
	May '19	165	28.		266.6	294.6	35846	150.	10131.	45977	22%
	Jun '19	166	26.		266.6	292.6	36136	150.	10281.	46417	22%
	Jul '19	167	30.		266.6	296.6	36423	150.	10431.	46854	22%
	Aug '19	168	25.		266.6	291.6	36711	150.	10581.	47292	22%
	Sep '19	169	29.		266.6	295.6	37004	150.	10697.	47701	22%
	Oct '19	170	31.		266.6	297.6	37004	100.	10608.	47612	22%
	Nov '19	171	28.		266.6	294.6	37006	50.	10415.	47421	22%
	Dec '19	172	60.		266.6	326.6	36908	0.	10322.	47230	22%
2020/2021	Jan '20	173	59.		266.6	325.6	36753	0.	10303.	47056	22%
	Feb '20	174	102.		266.6	368.6	36655	0.	10303.	46958	22%
	Mar '20	175	42.		266.6	308.6	36681	50.	10292.	46973	22%
	Apr '20	176	38.		266.6	304.6	36673	100.	10336.	47009	22%
	May '20	177	28.		266.6	294.6	36701	150.	10375.	47076	22%
	Jun '20	178	26.		266.6	292.6	36727	150.	10475.	47202	22%
	Jul '20	179	30.		266.6	296.6	36757	150.	10604.	47361	22%
	Aug '20	180	25.		266.6	291.6	36782	150.	10726.	47508	23%
	Sep '20	181	29.		266.6	295.6	36799	150.	10591.	47390	22%
	Oct '20	182	31.		266.6	297.6	36817	100.	10597.	47414	22%
2020/2021	Nov '20	183	28.		266.6	294.6	36843	50.	10596.	47439	22%
	Dec '20	184	60.		266.6	326.6	36903	0.	10596.	47499	22%
	Jan '21	185	59.		266.6	325.6	36950	0.	10546.	47496	22%
	Feb '21	186	102.		266.6	368.6	36973	0.	10500.	47473	22%
	Mar '21	187	42.		266.6	308.6	36973	50.	10500.	47473	22%
	Apr '21	188	38.		266.6	304.6	36973	100.	10500.	47473	22%
	May '21	189	28.		266.6	294.6	36973	150.	10500.	47473	22%
	Jun '21	190	26.		266.6	292.6	36973	150.	10500.	47473	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

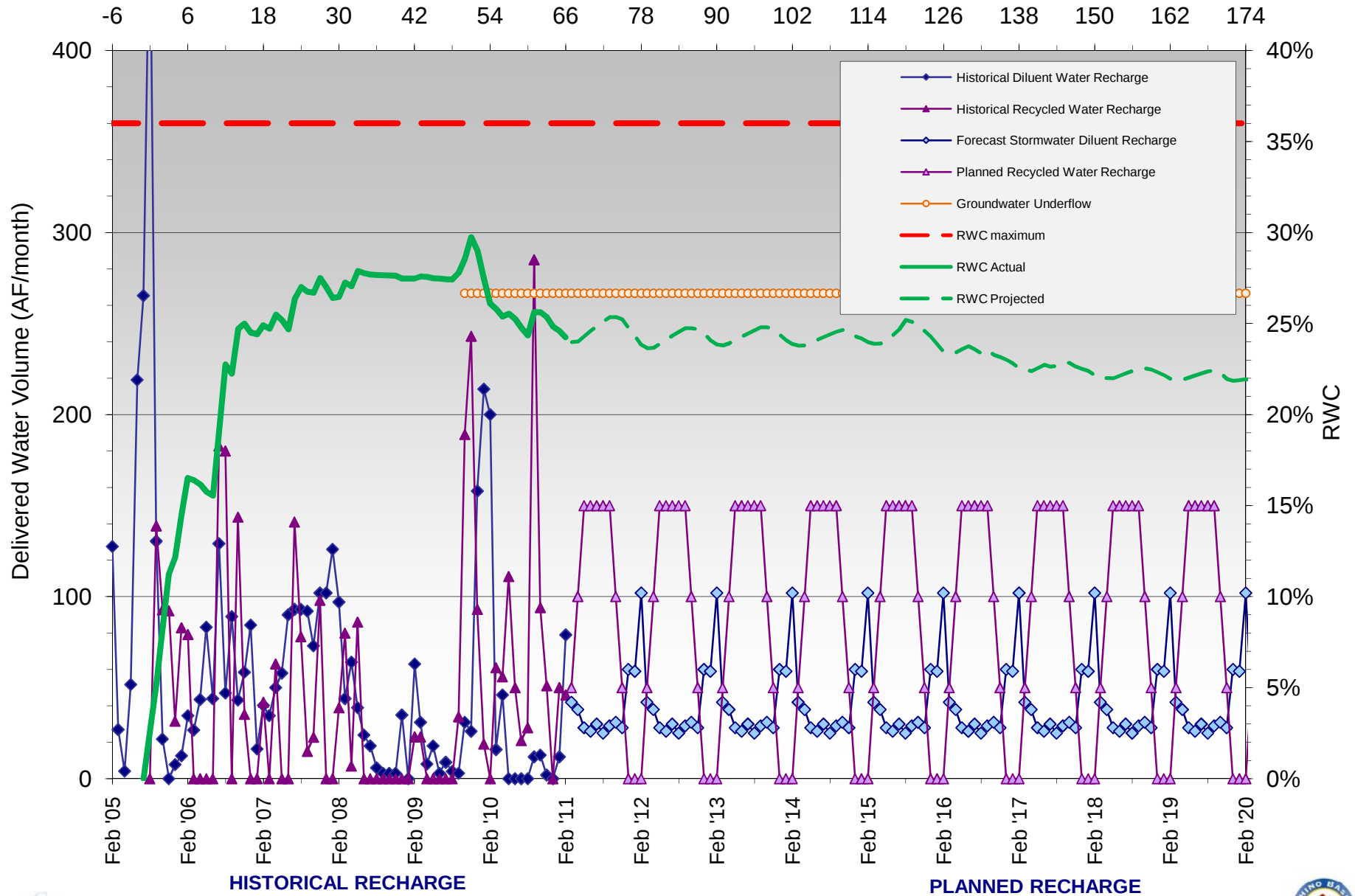
RWC = 120-month running total of recycled water / 120-month running total of all diluent and recycled water.

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



RWC Management Plan for Hickory Basin

Months Since Initial Recycled Water Delivery



RWC Management Plan for 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	Source
2002/03	Jul '02	-48	0.	0.	0.						(M O D E L E D)
	Aug '02	-47	0.	0.	0.						
	Sep '02	-46	0.	0.	0.						
	Oct '02	-45	0.	0.	0.						
	Nov '02	-44	10.	0.	10.						
	Dec '02	-43	30.6	0.	30.6						
	Jan '03	-42	0.	0.	0.						
	Feb '03	-41	29.4	0.	29.4						
	Mar '03	-40	32.2	0.	32.2						
	Apr '03	-39	37.7	0.	37.7						
	May '03	-38	52.3	0.	52.3						
	Jun '03	-37	0.	0.	0.						
2003/04	Jul '03	-36	0.	0.	0.						H I S T O R I C A L
	Aug '03	-35	0.	0.	0.						
	Sep '03	-34	0.	0.	0.						
	Oct '03	-33	0.	0.	0.						
	Nov '03	-32	0.	0.	0.						
	Dec '03	-31	0.	0.	0.						
	Jan '04	-30	0.	0.	0.						
	Feb '04	-29	0.	0.	0.						
	Mar '04	-28	0.	0.	0.						
	Apr '04	-27	0.	0.	0.						
	May '04	-26	0.	0.	0.						
	Jun '04	-25	0.	0.	0.						
2004/05	Jul '04	-24	0.	0.	0.						H I S T O R I C A L
	Aug '04	-23	0.	0.	0.						
	Sep '04	-22	0.	0.	0.						
	Oct '04	-21	60.5	0.	60.5						
	Nov '04	-20	131.	0.	131.						
	Dec '04	-19	165.5	0.	165.5						
	Jan '05	-18	96.4	0.	96.4						
	Feb '05	-17	87.7	0.	87.7						
	Mar '05	-16	65.5	0.	65.5						
	Apr '05	-15	0.	0.	0.						
	May '05	-14	0.5	0.	0.5						
	Jun '05	-13	0.	0.	0.						
2005/06	Jul '05	-12	0.	0.	0.						H I S T O R I C A L
	Aug '05	-11	0.	0.	0.						
	Sep '05	-10	89.3	0.	89.3						
	Oct '05	-9	95.2	0.	95.2						
	Nov '05	-8	178.5	0.	178.5						
	Dec '05	-7	238.	121.	359.						
	Jan '06	-6	192.4	69.5	261.9						
	Feb '06	-5	152.	0.	152.						
	Mar '06	-4	426.5	0.	426.5						
	Apr '06	-3	389.8	0.	389.8						
	May '06	-2	97.1	0.	97.1						
	Jun '06	-1	11.	0.	11.	2960	0.	0	0	0%	
2006/07	Jul '06	1	2.7	60.	62.7	3022	22.3	22	3045	1%	S T A R T - U P
	Aug '06	2	20.8	0.	20.8	3043	113.	135	3178	4%	
	Sep '06	3	51.	55.3	106.3	3149	114.4	250	3399	7%	
	Oct '06	4	36.6	127.9	164.4	3314	0.	250	3564	7%	
	Nov '06	5	29.	0.	29.	3343	0.	250	3593	7%	
	Dec '06	6	30.3	0.	30.3	3373	103.2	353	3726	9%	
	Jan '07	7	27.1	0.	27.1	3400	70.6	424	3824	11%	
	Feb '07	8	11.7	0.	11.7	3412	44.	468	3879	12%	
	Mar '07	9	25.7	0.	25.7	3438	56.8	524	3962	13%	
	Apr '07	10	5.	0.	5.	3443	14.	538	3981	14%	
	May '07	11	12.	0.	12.	3455	79.	617	4072	15%	
	Jun '07	12	1.	0.	1.	3456	3.	620	4076	15%	



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	Source
2007/08	Jul '07	13	4.	0.		4.	3460	0.	620	4080	15%
	Aug '07	14	38.	0.		38.	3498	0.	620	4118	15%
	Sep '07	15	4.	0.		4.	3502	0.	620	4122	15%
	Oct '07	16	62.	0.		62.	3564	0.	620	4184	15%
	Nov '07	17	96.	0.		96.	3660	0.	620	4280	14%
	Dec '07	18	215.	0.		215.	3875	0.	620	4495	14%
	Jan '08	19	311.	0.		311.	4186	0.	620	4806	13%
	Feb '08	20	251.	0.		251.	4437	0.	620	5057	12%
	Mar '08	21	17.	0.		17.	4454	0.	620	5074	12%
	Apr '08	22	14.	0.		14.	4468	0.	620	5088	12%
	May '08	23	143.	0.		143.	4611	0.	620	5231	12%
	Jun '08	24	11.	0.		11.	4622	0.	620	5242	12%
2008/09	Jul '08	25	7.	0.		7.	4629	0.	620	5249	12%
	Aug '08	26	3.	0.		3.	4632	0.	620	5252	12%
	Sep '08	27	127.	0.		127.	4759	0.	620	5379	12%
	Oct '08	28	80.	0.		80.	4839	28.	648	5487	12%
	Nov '08	29	81.	0.		81.	4920	30.	678	5598	12%
	Dec '08	30	344.	0.		344.	5264	0.	678	5942	11%
	Jan '09	31	29.	0.		29.	5293	0.	678	5971	11%
	Feb '09	32	345.	0.		345.	5638	0.	678	6316	11%
	Mar '09	33	47.	0.		47.	5685	0.	678	6363	11%
	Apr '09	34	11.	0.		11.	5696	0.	678	6374	11%
2009/10	May '09	35	18.	0.		18.	5714	30.	708	6422	11%
	Jun '09	36	77.	0.		77.	5791	9.	717	6508	11%
	Jul '09	37	32.	0.		32.	5823	0.	717	6540	11%
	Aug '09	38	19.	0.		19.	5842	20.	737	6579	11%
	Sep '09	39	28.	0.		28.	5870	18.	755	6625	11%
	Oct '09	40	80.	0.	67.3	147.3	6017	0.	755	6772	11%
	Nov '09	41	49.	0.	67.3	116.3	6133	0.	755	6889	11%
	Dec '09	42	401.	0.	67.3	468.3	6602	0.	755	7357	10%
	Jan '10	43	294.	0.	67.3	361.3	6963	0.	755	7718	10%
	Feb '10	44	330.	0.	67.3	397.3	7360	0.	755	8115	9%
2010/11	Mar '10	45	34.	0.	67.3	101.3	7461	0.	755	8217	9%
	Apr '10	46	158.	0.	67.3	225.3	7687	0.	755	8442	9%
	May '10	47	38.	0.	67.3	105.3	7792	0.	755	8547	9%
	Jun '10	48	0.	0.	67.3	67.3	7859	0.	755	8614	9%
	Jul '10	49	23.	0.	67.3	90.3	7949	0.	755	8705	9%
	Aug '10	50	53.	0.	67.3	120.3	8070	8.	763	8833	9%
	Sep '10	51	57.	0.	67.3	124.3	8194	0.	763	8957	9%
	Oct '10	52	90.	0.	67.3	157.3	8351	0.	763	9115	8%
	Nov '10	53	47.	0.	67.3	114.3	8466	0.	763	9229	8%
	Dec '10	54	0.	0.	67.3	67.3	8533	0.	763	9296	8%
2011/12	Jan '11	55	190.	0.	67.3	257.3	8790	0.	763	9553	8%
	Feb '11	56	128.	0.	67.3	195.3	8985	0.	763	9749	8%
	Mar '11	57	73.		67.3	140.3	9126	0.	763	9889	8%
	Apr '11	58	69.		67.3	136.3	9262	0.	763	10025	8%
	May '11	59	40.		67.3	107.3	9369	40.	803	10172	8%
	Jun '11	60	11.		67.3	78.3	9447	80.	883	10331	9%
	Jul '11	61	7.		67.3	74.3	9522	100.	983	10505	9%
	Aug '11	62	13.		67.3	80.3	9602	80.	1063	10665	10%
	Sep '11	63	36.		67.3	103.3	9705	80.	1143	10849	11%
	Oct '11	64	50.		67.3	117.3	9823	80.	1223	11046	11%
2011/12	Nov '11	65	64.		67.3	131.3	9934	40.	1263	11197	11%
	Dec '11	66	144.		67.3	211.3	10127	0.	1263	11390	11%
	Jan '12	67	116.		67.3	183.3	10290	0.	1263	11553	11%
	Feb '12	68	136.		67.3	203.3	10469	0.	1263	11733	11%
	Mar '12	69	73.		67.3	140.3	10597	0.	1263	11860	11%
	Apr '12	70	69.		67.3	136.3	10730	0.	1263	11993	11%
	May '12	71	40.		67.3	107.3	10836	40.	1303	12139	11%
	Jun '12	72	11.		67.3	78.3	10914	80.	1383	12297	11%

HISTORICAL

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	Source
2012/13	Jul '12	73	7.		67.3	74.3	10988	100.	1483	12471	12%	P L A N N E D
	Aug '12	74	13.		67.3	80.3	11068	80.	1563	12632	12%	
	Sep '12	75	36.		67.3	103.3	11172	80.	1643	12815	13%	
	Oct '12	76	50.		67.3	117.3	11289	80.	1723	13012	13%	
	Nov '12	77	64.		67.3	131.3	11410	40.	1763	13173	13%	
	Dec '12	78	144.		67.3	211.3	11591	0.	1763	13354	13%	
	Jan '13	79	116.		67.3	183.3	11774	0.	1763	13537	13%	
	Feb '13	80	136.		67.3	203.3	11948	0.	1763	13711	13%	
	Mar '13	81	73.		67.3	140.3	12056	0.	1763	13819	13%	
	Apr '13	82	69.		67.3	136.3	12155	0.	1763	13918	13%	
May '13	83	40.		67.3	107.3	12210	40.	1803	14013	13%		
Jun '13	84	11.		67.3	78.3	12288	80.	1883	14171	13%		
2013/14	Jul '13	85	7.		67.3	74.3	12362	100.	1983	14345	14%	
	Aug '13	86	13.		67.3	80.3	12442	80.	2063	14506	14%	
	Sep '13	87	36.		67.3	103.3	12546	80.	2143	14689	15%	
	Oct '13	88	50.		67.3	117.3	12663	80.	2223	14886	15%	
	Nov '13	89	64.		67.3	131.3	12794	40.	2263	15058	15%	
	Dec '13	90	144.		67.3	211.3	13006	0.	2263	15269	15%	
	Jan '14	91	116.		67.3	183.3	13189	0.	2263	15452	15%	
	Feb '14	92	136.		67.3	203.3	13392	0.	2263	15655	14%	
	Mar '14	93	73.		67.3	140.3	13532	0.	2263	15796	14%	
	Apr '14	94	69.		67.3	136.3	13669	0.	2263	15932	14%	
May '14	95	40.		67.3	107.3	13776	40.	2303	16079	14%		
Jun '14	96	11.		67.3	78.3	13854	80.	2383	16237	15%		
2014/15	Jul '14	97	7.		67.3	74.3	13928	100.	2483	16412	15%	
	Aug '14	98	13.		67.3	80.3	14009	80.	2563	16572	15%	
	Sep '14	99	36.		67.3	103.3	14112	80.	2643	16755	16%	
	Oct '14	100	50.		67.3	117.3	14169	80.	2723	16892	16%	
	Nov '14	101	64.		67.3	131.3	14169	40.	2763	16932	16%	
	Dec '14	102	144.		67.3	211.3	14215	0.	2763	16978	16%	
	Jan '15	103	116.		67.3	183.3	14302	0.	2763	17065	16%	
	Feb '15	104	136.		67.3	203.3	14417	0.	2763	17181	16%	
	Mar '15	105	73.		67.3	140.3	14492	0.	2763	17255	16%	
	Apr '15	106	69.		67.3	136.3	14628	0.	2763	17392	16%	
May '15	107	40.		67.3	107.3	14735	40.	2803	17538	16%		
Jun '15	108	11.		67.3	78.3	14813	80.	2883	17697	16%		
2015/16	Jul '15	109	7.		67.3	74.3	14888	100.	2983	17871	17%	
	Aug '15	110	13.		67.3	80.3	14968	80.	3063	18031	17%	
	Sep '15	111	36.		67.3	103.3	14982	80.	3143	18125	17%	
	Oct '15	112	50.		67.3	117.3	15004	80.	3223	18227	18%	
	Nov '15	113	64.		67.3	131.3	14957	40.	3263	18220	18%	
	Dec '15	114	144.		67.3	211.3	14809	0.	3263	18072	18%	
	Jan '16	115	116.		67.3	183.3	14730	0.	3263	17994	18%	
	Feb '16	116	136.		67.3	203.3	14782	0.	3263	18045	18%	
	Mar '16	117	73.		67.3	140.3	14495	0.	3263	17759	18%	
	Apr '16	118	69.		67.3	136.3	14242	0.	3263	17505	19%	
May '16	119	40.		67.3	107.3	14252	40.	3303	17555	19%		
Jun '16	120	11.		67.3	78.3	14319	80.	3383	17703	19%		
2016/17	Jul '16	121	7.		67.3	74.3	14331	100.	3461	17792	19%	
	Aug '16	122	13.		67.3	80.3	14390	80.	3428	17818	19%	
	Sep '16	123	36.		67.3	103.3	14387	80.	3394	17781	19%	
	Oct '16	124	50.		67.3	117.3	14340	80.	3474	17814	19%	
	Nov '16	125	64.		67.3	131.3	14443	40.	3514	17956	20%	
	Dec '16	126	144.		67.3	211.3	14624	0.	3410	18034	19%	
	Jan '17	127	116.		67.3	183.3	14780	0.	3340	18119	18%	
	Feb '17	128	136.		67.3	203.3	14971	0.	3296	18267	18%	
	Mar '17	129	73.		67.3	140.3	15086	0.	3239	18325	18%	
	Apr '17	130	69.		67.3	136.3	15217	0.	3225	18442	17%	
May '17	131	40.		67.3	107.3	15312	40.	3186	18498	17%		
Jun '17	132	11.		67.3	78.3	15390	80.	3263	18653	17%		



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	Source
2017/18	Jul '17	133	7.		67.3	74.3	15460	100.	3363	18823	18%
	Aug '17	134	13.		67.3	80.3	15502	80.	3443	18945	18%
	Sep '17	135	36.		67.3	103.3	15601	80.	3523	19124	18%
	Oct '17	136	50.		67.3	117.3	15657	80.	3603	19260	19%
	Nov '17	137	64.		67.3	131.3	15692	40.	3643	19335	19%
	Dec '17	138	144.		67.3	211.3	15688	0.	3643	19331	19%
	Jan '18	139	116.		67.3	183.3	15561	0.	3643	19204	19%
	Feb '18	140	136.		67.3	203.3	15513	0.	3643	19156	19%
	Mar '18	141	73.		67.3	140.3	15636	0.	3643	19279	19%
	Apr '18	142	69.		67.3	136.3	15758	0.	3643	19401	19%
2018/19	May '18	143	40.		67.3	107.3	15723	40.	3683	19406	19%
	Jun '18	144	11.		67.3	78.3	15790	80.	3763	19553	19%
	Jul '18	145	7.		67.3	74.3	15857	100.	3863	19720	20%
	Aug '18	146	13.		67.3	80.3	15935	80.	3943	19878	20%
	Sep '18	147	36.		67.3	103.3	15911	80.	4023	19934	20%
	Oct '18	148	50.		67.3	117.3	15948	80.	4075	20023	20%
	Nov '18	149	64.		67.3	131.3	15998	40.	4085	20083	20%
	Dec '18	150	144.		67.3	211.3	15866	0.	4085	19951	20%
	Jan '19	151	116.		67.3	183.3	16020	0.	4085	20105	20%
	Feb '19	152	136.		67.3	203.3	15878	0.	4085	19963	20%
2019/20	Mar '19	153	73.		67.3	140.3	15971	0.	4085	20056	20%
	Apr '19	154	69.		67.3	136.3	16097	0.	4085	20182	20%
	May '19	155	40.		67.3	107.3	16186	40.	4095	20281	20%
	Jun '19	156	11.		67.3	78.3	16187	80.	4166	20353	20%
	Jul '19	157	7.		67.3	74.3	16230	100.	4266	20496	21%
	Aug '19	158	13.		67.3	80.3	16291	80.	4326	20617	21%
	Sep '19	159	36.		67.3	103.3	16366	80.	4388	20754	21%
	Oct '19	160	50.		67.3	117.3	16336	80.	4468	20804	21%
	Nov '19	161	64.		67.3	131.3	16351	40.	4508	20859	22%
	Dec '19	162	144.		67.3	211.3	16094	0.	4508	20602	22%
2020/21	Jan '20	163	116.		67.3	183.3	15916	0.	4508	20424	22%
	Feb '20	164	136.		67.3	203.3	15722	0.	4508	20230	22%
	Mar '20	165	73.		67.3	140.3	15761	0.	4508	20269	22%
	Apr '20	166	69.		67.3	136.3	15672	0.	4508	20180	22%
	May '20	167	40.		67.3	107.3	15674	40.	4548	20222	22%
	Jun '20	168	11.		67.3	78.3	15685	80.	4628	20313	23%
	Jul '20	169	7.		67.3	74.3	15669	100.	4728	20397	23%
	Aug '20	170	13.		67.3	80.3	15629	80.	4800	20429	23%
	Sep '20	171	36.		67.3	103.3	15608	80.	4880	20488	24%
	Oct '20	172	50.		67.3	117.3	15568	80.	4960	20528	24%
2020/21	Nov '20	173	64.		67.3	131.3	15585	40.	5000	20585	24%
	Dec '20	174	144.		67.3	211.3	15729	0.	5000	20729	24%
	Jan '21	175	116.		67.3	183.3	15655	0.	5000	20655	24%
	Feb '21	176	136.		67.3	203.3	15663	0.	5000	20663	24%
	Mar '21	177	73.		67.3	140.3	15663	0.	5000	20663	24%
	Apr '21	178	69.		67.3	136.3	15663	0.	5000	20663	24%
	May '21	179	40.		67.3	107.3	15663	40.	5000	20663	24%
	Jun '21	180	11.		67.3	78.3	15663	80.	5000	20663	24%

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

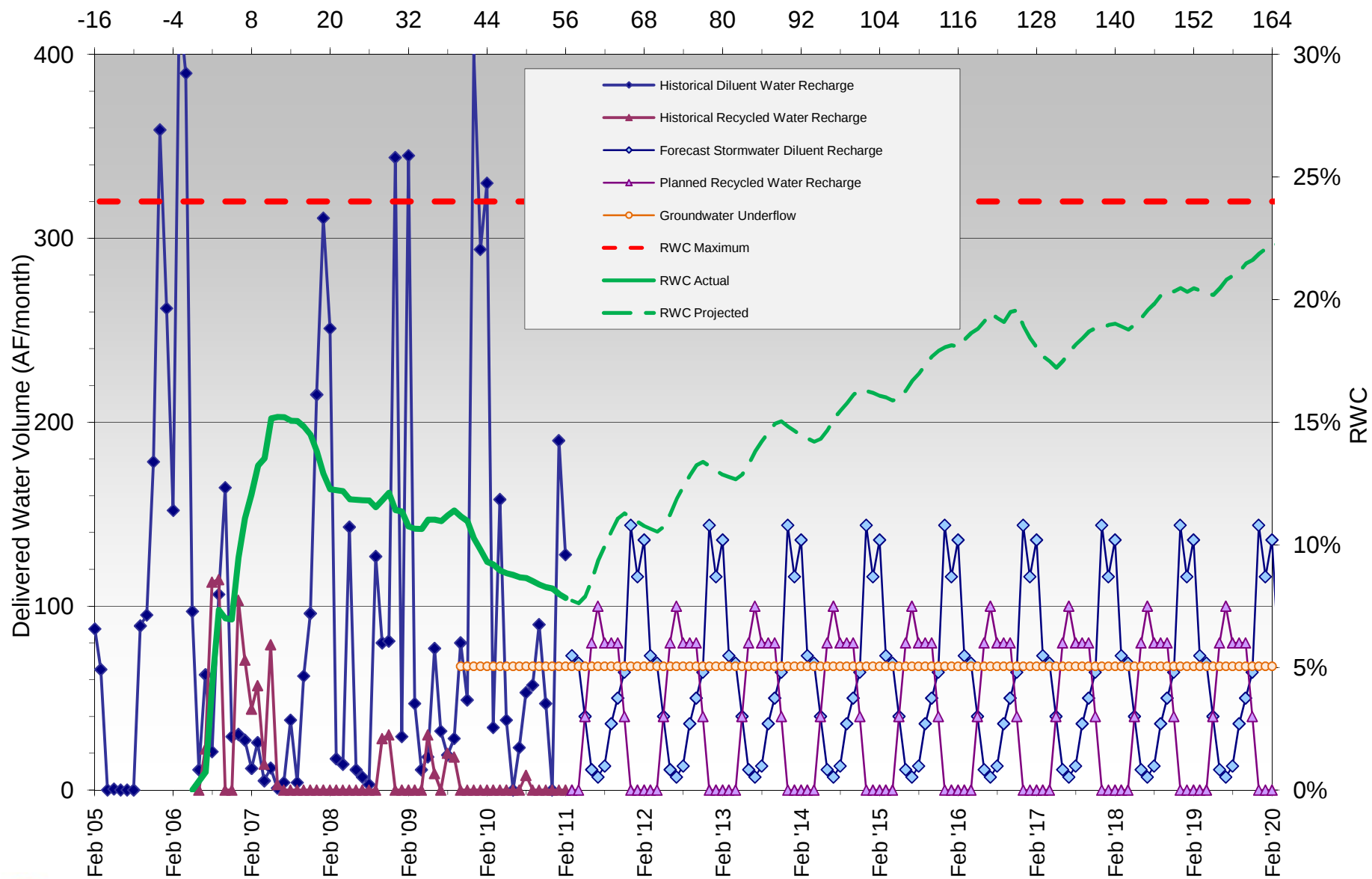
RWC = 120-month running total of recycled water / 120-month running total of all diluent and recycled water.

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



RWC Management Plan for Turner Basin Cells 1 & 2

Months Since Initial Recycled Water Delivery



HISTORICAL RECHARGE

PLANNED RECHARGE



RWC Management Plan for Turner Basin Cells 3 & 4											
(120-month averaging period)											
Calculation of Recycled Water Contribution (RWC) from Historical Diluent Water (DW) and Recycled Water (RW) Deliveries											
Date	No. Mos. Since Initial RW Delivery	SW (AF)	MWD (AF)	Underflow (AF)	DW Total (AF)	DW 120-Month Total (AF)	RW (AF)	RW 120-Month Total (AF)	DW + RW 120-Month Total (AF)	RWC	Source
2002/03	Jul '02	-48	0.	0.	0.						HISTORICAL
	Aug '02	-47	0.	0.	0.						
	Sep '02	-46	0.	0.	0.						
	Oct '02	-45	0.	0.	0.						
	Nov '02	-44	0.	0.	0.						
	Dec '02	-43	0.	0.	0.						
	Jan '03	-42	0.	0.	0.						
	Feb '03	-41	0.	0.	0.						
	Mar '03	-40	0.	0.	0.						
	Apr '03	-39	0.	0.	0.						
2003/04	Jul '03	-36	0.	0.	0.						
	Aug '03	-35	0.	0.	0.						
	Sep '03	-34	0.	0.	0.						
	Oct '03	-33	0.	0.	0.						
	Nov '03	-32	0.	0.	0.						
	Dec '03	-31	0.	0.	0.						
	Jan '04	-30	0.	0.	0.						
	Feb '04	-29	0.	0.	0.						
	Mar '04	-28	0.	0.	0.						
	Apr '04	-27	0.	0.	0.						
2004/05	Jul '04	-26	0.	0.	0.						
	Aug '04	-25	0.	0.	0.						
	Sep '04	-24	0.	0.	0.						
	Oct '04	-23	0.	0.	0.						
	Nov '04	-22	0.	0.	0.						
	Dec '04	-21	120.8	0.	120.8						
	Jan '05	-20	128.2	0.	128.2						
	Feb '05	-19	217.9	0.	217.9						
	Mar '05	-18	257.4	0.	257.4						
	Apr '05	-17	232.	0.	232.						
2005/06	Jul '05	-16	174.4	0.	174.4						
	Aug '05	-15	0.	0.	0.						
	Sep '05	-14	0.5	0.	0.5						
	Oct '05	-13	0.	0.	0.						
	Nov '05	-12	0.	0.	0.						
	Dec '05	-11	0.	0.	0.						
	Jan '06	-10	0.	0.	0.						
	Feb '06	-9	0.	0.	0.						
	Mar '06	-8	0.	0.	0.						
	Apr '06	-7	33.8	90.2	124.						
2006/07	Jul '06	-6	35.9	39.1	74.9						
	Aug '06	-5	71.	0.	71.						
	Sep '06	-4	171.3	0.	171.3						
	Oct '06	-3	260.4	0.	260.4						
	Nov '06	-2	72.1	0.	72.1						
	Dec '06	-1	61.	26.	87.	1992	0.	0	0	0%	
	Jan '07	1	30.3	0.	30.3	2022	138.1	138	2160	6%	START - UP
	Feb '07	2	33.4	0.	33.4	2056	235.	373	2429	15%	
	Mar '07	3	9.	13.4	22.4	2078	39.8	413	2491	17%	
	Apr '07	4	10.1	54.8	64.9	2143	0.	413	2556	16%	
	May '07	5	16.	0.	16.	2159	0.	413	2572	16%	
	Jun '07	6	13.6	0.	13.6	2172	65.8	479	2651	18%	
	Jul '07	7	10.	0.	10.	2182	31.	510	2692	19%	
	Aug '07	8	9.	0.	9.	2191	21.	531	2722	19%	
	Sep '07	9	4.	0.	4.	2195	16.	547	2742	20%	
	Oct '07	10	3.	0.	3.	2198	8.	555	2753	20%	
2007/08	Nov '07	11	7.9	0.	7.9	2206	56.9	612	2818	22%	
	Dec '07	12	10.	0.	10.	2216	0.	612	2828	22%	



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	Source
2007/08	Jul '07	13	1.	0.		1.	2217	0.	612	2829	22%
	Aug '07	14	10.	0.		10.	2227	0.	612	2839	22%
	Sep '07	15	12.	0.		12.	2239	0.	612	2851	21%
	Oct '07	16	3.	0.		3.	2242	0.	612	2854	21%
	Nov '07	17	66.	0.		66.	2308	0.	612	2920	21%
	Dec '07	18	62.	0.		62.	2370	0.	612	2982	21%
	Jan '08	19	143.	0.		143.	2513	0.	612	3125	20%
	Feb '08	20	9.	0.		9.	2522	0.	612	3134	20%
	Mar '08	21	0.	0.		0.	2522	0.	612	3134	20%
	Apr '08	22	4.	0.		4.	2526	0.	612	3138	19%
2008/09	May '08	23	38.	0.		38.	2564	0.	612	3176	19%
	Jun '08	24	28.	0.		28.	2592	0.	612	3204	19%
	Jul '08	25	4.	0.		4.	2596	0.	612	3208	19%
	Aug '08	26	5.	0.		5.	2601	0.	612	3213	19%
	Sep '08	27	14.	0.		14.	2615	0.	612	3227	19%
	Oct '08	28	37.	0.		37.	2652	66.	678	3330	20%
	Nov '08	29	36.	0.		36.	2688	8.	686	3374	20%
	Dec '08	30	50.	0.		50.	2738	0.	686	3424	20%
	Jan '09	31	10.	0.		10.	2748	0.	686	3434	20%
	Feb '09	32	68.	0.		68.	2816	0.	686	3502	20%
2009/10	Mar '09	33	10.	0.		10.	2826	0.	686	3512	20%
	Apr '09	34	2.	0.		2.	2828	0.	686	3514	20%
	May '09	35	1.	0.		1.	2829	0.	686	3515	20%
	Jun '09	36	8.	0.		8.	2837	0.	686	3523	19%
	Jul '09	37	0.	0.		0.	2837	0.	686	3523	19%
	Aug '09	38	0.	0.		0.	2837	0.	686	3523	19%
	Sep '09	39	0.	0.		0.	2837	0.	686	3523	19%
	Oct '09	40	0.	0.	59.7	59.7	2897	0.	686	3583	19%
	Nov '09	41	3.	0.	59.7	62.7	2960	0.	686	3645	19%
	Dec '09	42	98.	0.	59.7	157.7	3117	63.	749	3866	19%
2010/11	Jan '10	43	185.	0.	59.7	244.7	3362	127.	876	4238	21%
	Feb '10	44	175.	0.	59.7	234.7	3597	0.	876	4473	20%
	Mar '10	45	114.	0.	59.7	173.7	3771	44.	920	4690	20%
	Apr '10	46	83.	0.	59.7	142.7	3913	15.	935	4848	19%
	May '10	47	27.	0.	59.7	86.7	4000	70.	1005	5005	20%
	Jun '10	48	75.	0.	59.7	134.7	4135	40.	1045	5180	20%
	Jul '10	49	95.	0.	59.7	154.7	4290	6.	1051	5340	20%
	Aug '10	50	83.	0.	59.7	142.7	4432	22.	1073	5505	19%
	Sep '10	51	53.	0.	59.7	112.7	4545	17.	1090	5635	19%
	Oct '10	52	55.	0.	59.7	114.7	4660	0.	1090	5750	19%
2011/12	Nov '10	53	10.	0.	59.7	69.7	4730	0.	1090	5819	19%
	Dec '10	54	0.	0.	59.7	59.7	4789	0.	1090	5879	19%
	Jan '11	55	1.	0.	59.7	60.7	4850	0.	1090	5940	18%
	Feb '11	56	50.	0.	59.7	109.7	4960	0.	1090	6050	18%
	Mar '11	57	79.		59.7	138.7	5099	40.	1130	6228	18%
	Apr '11	58	59.		59.7	118.7	5217	60.	1190	6407	19%
	May '11	59	24.		59.7	83.7	5301	80.	1270	6571	19%
	Jun '11	60	30.		59.7	89.7	5391	80.	1350	6741	20%
	Jul '11	61	19.		59.7	78.7	5470	80.	1430	6899	21%
	Aug '11	62	19.		59.7	78.7	5548	80.	1510	7058	21%
2012/12	Sep '11	63	13.		59.7	72.7	5621	80.	1590	7211	22%
	Oct '11	64	32.		59.7	91.7	5713	60.	1650	7363	22%
	Nov '11	65	37.		59.7	96.7	5810	40.	1690	7499	23%
	Dec '11	66	68.		59.7	127.7	5937	0.	1690	7627	22%
	Jan '12	67	92.		59.7	151.7	6089	0.	1690	7779	22%
	Feb '12	68	88.		59.7	147.7	6237	0.	1690	7927	21%
	Mar '12	69	79.		59.7	138.7	6376	40.	1730	8105	21%
	Apr '12	70	59.		59.7	118.7	6494	60.	1790	8284	22%
	May '12	71	24.		59.7	83.7	6578	80.	1870	8448	22%
	Jun '12	72	30.		59.7	89.7	6668	80.	1950	8618	23%

H I S T O R I C A L

P L A N N E D



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	Source
2012/13	Jul '12	73	19.		59.7	78.7	6747	80.	2030	8776	23%
	Aug '12	74	19.		59.7	78.7	6825	80.	2110	8935	24%
	Sep '12	75	13.		59.7	72.7	6898	80.	2190	9088	24%
	Oct '12	76	32.		59.7	91.7	6990	60.	2250	9240	24%
	Nov '12	77	37.		59.7	96.7	7087	40.	2290	9376	24%
	Dec '12	78	68.		59.7	127.7	7214	0.	2290	9504	24%
	Jan '13	79	92.		59.7	151.7	7366	0.	2290	9656	24%
	Feb '13	80	88.		59.7	147.7	7514	0.	2290	9804	23%
	Mar '13	81	79.		59.7	138.7	7653	40.	2330	9982	23%
	Apr '13	82	59.		59.7	118.7	7771	60.	2390	10161	24%
2013/14	May '13	83	24.		59.7	83.7	7855	80.	2470	10325	24%
	Jun '13	84	30.		59.7	89.7	7945	80.	2550	10495	24%
	Jul '13	85	19.		59.7	78.7	8024	80.	2630	10653	25%
	Aug '13	86	19.		59.7	78.7	8102	80.	2710	10812	25%
	Sep '13	87	13.		59.7	72.7	8175	80.	2790	10965	25%
	Oct '13	88	32.		59.7	91.7	8267	60.	2850	11117	26%
	Nov '13	89	37.		59.7	96.7	8364	40.	2890	11253	26%
	Dec '13	90	68.		59.7	127.7	8491	0.	2890	11381	25%
	Jan '14	91	92.		59.7	151.7	8643	0.	2890	11533	25%
	Feb '14	92	88.		59.7	147.7	8791	0.	2890	11680	25%
2014/15	Mar '14	93	79.		59.7	138.7	8930	40.	2930	11859	25%
	Apr '14	94	59.		59.7	118.7	9048	60.	2990	12038	25%
	May '14	95	24.		59.7	83.7	9132	80.	3070	12202	25%
	Jun '14	96	30.		59.7	89.7	9222	80.	3150	12371	25%
	Jul '14	97	19.		59.7	78.7	9301	80.	3230	12530	26%
	Aug '14	98	19.		59.7	78.7	9379	80.	3310	12689	26%
	Sep '14	99	13.		59.7	72.7	9452	80.	3390	12842	26%
	Oct '14	100	32.		59.7	91.7	9423	60.	3450	12873	27%
	Nov '14	101	37.		59.7	96.7	9392	40.	3490	12881	27%
	Dec '14	102	68.		59.7	127.7	9302	0.	3490	12791	27%
2015/16	Jan '15	103	92.		59.7	151.7	9196	0.	3490	12686	28%
	Feb '15	104	88.		59.7	147.7	9112	0.	3490	12601	28%
	Mar '15	105	79.		59.7	138.7	9076	40.	3530	12606	28%
	Apr '15	106	59.		59.7	118.7	9195	60.	3590	12784	28%
	May '15	107	24.		59.7	83.7	9278	80.	3670	12948	28%
	Jun '15	108	30.		59.7	89.7	9368	80.	3750	13117	29%
	Jul '15	109	19.		59.7	78.7	9447	80.	3830	13276	29%
	Aug '15	110	19.		59.7	78.7	9525	80.	3910	13435	29%
	Sep '15	111	13.		59.7	72.7	9598	80.	3990	13588	29%
	Oct '15	112	32.		59.7	91.7	9690	60.	4050	13739	29%
2016/17	Nov '15	113	37.		59.7	96.7	9787	40.	4090	13876	29%
	Dec '15	114	68.		59.7	127.7	9790	0.	4090	13880	29%
	Jan '16	115	92.		59.7	151.7	9867	0.	4090	13957	29%
	Feb '16	116	88.		59.7	147.7	9944	0.	4090	14033	29%
	Mar '16	117	79.		59.7	138.7	9911	40.	4130	14041	29%
	Apr '16	118	59.		59.7	118.7	9770	60.	4190	13959	30%
	May '16	119	24.		59.7	83.7	9781	80.	4270	14051	30%
	Jun '16	120	30.		59.7	89.7	9784	80.	4350	14134	31%
	Jul '16	121	19.		59.7	78.7	9832	80.	4292	14124	30%
	Aug '16	122	19.		59.7	78.7	9878	80.	4137	14014	30%
2016/17	Sep '16	123	13.		59.7	72.7	9928	80.	4177	14105	30%
	Oct '16	124	32.		59.7	91.7	9955	60.	4237	14192	30%
	Nov '16	125	37.		59.7	96.7	10036	40.	4277	14313	30%
	Dec '16	126	68.		59.7	127.7	10150	0.	4211	14361	29%
	Jan '17	127	92.		59.7	151.7	10292	0.	4180	14472	29%
	Feb '17	128	88.		59.7	147.7	10430	0.	4159	14589	29%
	Mar '17	129	79.		59.7	138.7	10565	40.	4183	14748	28%
	Apr '17	130	59.		59.7	118.7	10681	60.	4235	14916	28%
	May '17	131	24.		59.7	83.7	10757	80.	4258	15015	28%
	Jun '17	132	30.		59.7	89.7	10837	80.	4338	15175	29%

P L A N N E D

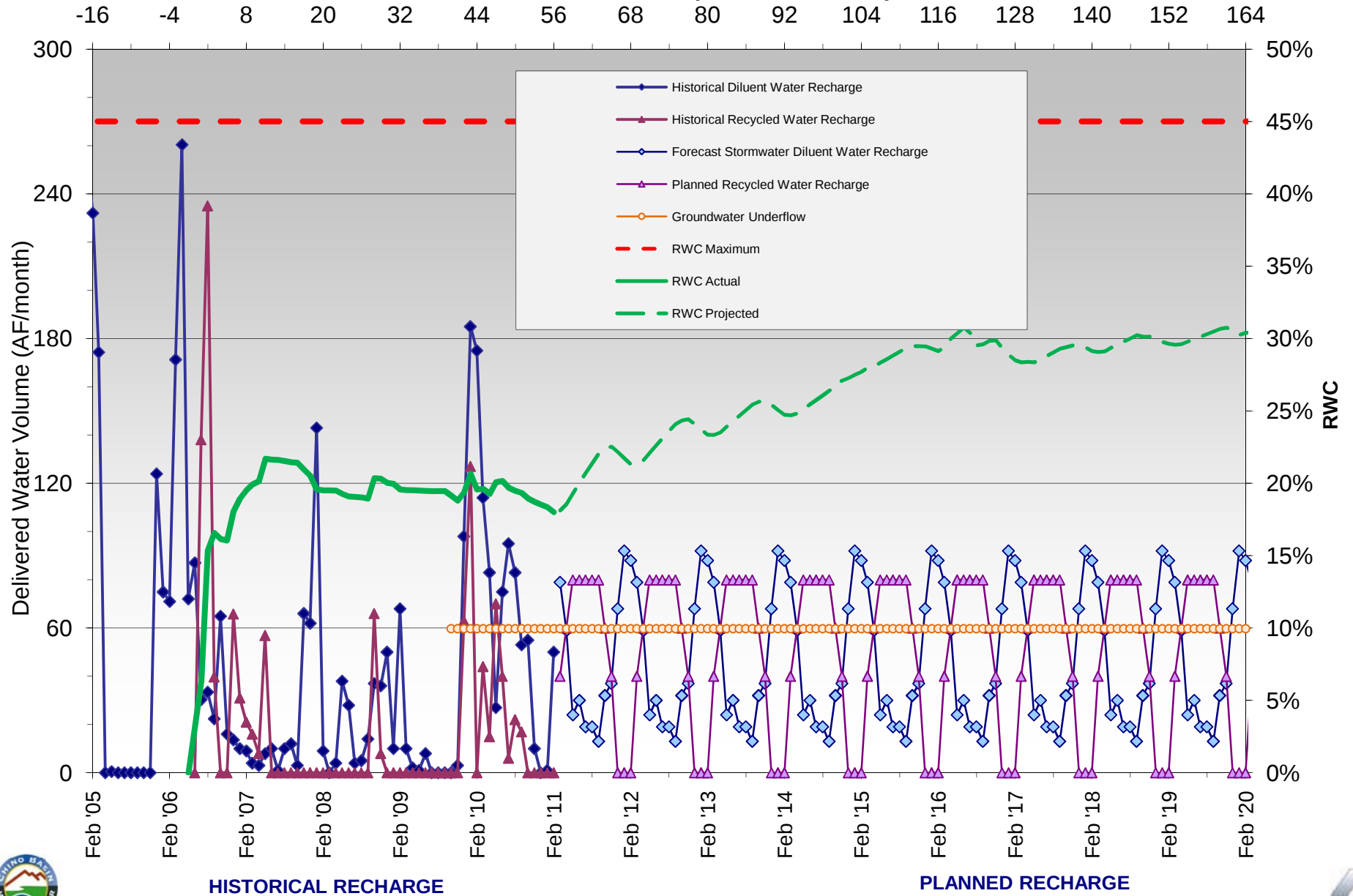


RWC Management Plan for Turner Basin Cells 3 & 4 (120-month averaging period) Calculation of Recycled Water Contribution (RWC) from Historical Diluent Water (DW) and Recycled Water (RW) Deliveries												
Date		No. Mos. Since Initial RW Delivery	SW (AF)	MWD (AF)	Underflow (AF)	DW Total (AF)	DW 120- Month Total (AF)	RW (AF)	RW 120- Month Total (AF)	DW + RW 120-Month Total (AF)	RWC	Source
2017/18	Jul '17	133	19.		59.7	78.7	10914	80.	4418	15332	29%	P L A N E D
	Aug '17	134	19.		59.7	78.7	10983	80.	4498	15481	29%	
	Sep '17	135	13.		59.7	72.7	11044	80.	4578	15622	29%	
	Oct '17	136	32.		59.7	91.7	11133	60.	4638	15771	29%	
	Nov '17	137	37.		59.7	96.7	11163	40.	4678	15841	30%	
	Dec '17	138	68.		59.7	127.7	11229	0.	4678	15907	29%	
	Jan '18	139	92.		59.7	151.7	11238	0.	4678	15916	29%	
	Feb '18	140	88.		59.7	147.7	11377	0.	4678	16055	29%	
	Mar '18	141	79.		59.7	138.7	11515	40.	4718	16233	29%	
	Apr '18	142	59.		59.7	118.7	11630	60.	4778	16408	29%	
May '18	143	24.		59.7	83.7	11676	80.	4858	16534	29%		
Jun '18	144	30.		59.7	89.7	11738	80.	4938	16676	30%		
2018/19	Jul '18	145	19.		59.7	78.7	11812	80.	5018	16830	30%	
	Aug '18	146	19.		59.7	78.7	11886	80.	5098	16984	30%	
	Sep '18	147	13.		59.7	72.7	11945	80.	5178	17123	30%	
	Oct '18	148	32.		59.7	91.7	12000	60.	5172	17172	30%	
	Nov '18	149	37.		59.7	96.7	12060	40.	5204	17264	30%	
	Dec '18	150	68.		59.7	127.7	12138	0.	5204	17342	30%	
	Jan '19	151	92.		59.7	151.7	12280	0.	5204	17484	30%	
	Feb '19	152	88.		59.7	147.7	12360	0.	5204	17564	30%	
	Mar '19	153	79.		59.7	138.7	12488	40.	5244	17732	30%	
	Apr '19	154	59.		59.7	118.7	12605	60.	5304	17909	30%	
May '19	155	24.		59.7	83.7	12688	80.	5384	18072	30%		
Jun '19	156	30.		59.7	89.7	12770	80.	5464	18234	30%		
2019/2020	Jul '19	157	19.		59.7	78.7	12848	80.	5544	18392	30%	
	Aug '19	158	19.		59.7	78.7	12927	80.	5624	18551	30%	
	Sep '19	159	13.		59.7	72.7	13000	80.	5704	18704	30%	
	Oct '19	160	32.		59.7	91.7	13032	60.	5764	18796	31%	
	Nov '19	161	37.		59.7	96.7	13066	40.	5804	18870	31%	
	Dec '19	162	68.		59.7	127.7	13036	0.	5741	18777	31%	
	Jan '20	163	92.		59.7	151.7	12943	0.	5614	18557	30%	
	Feb '20	164	88.		59.7	147.7	12856	0.	5614	18470	30%	
	Mar '20	165	79.		59.7	138.7	12821	40.	5610	18431	30%	
	Apr '20	166	59.		59.7	118.7	12797	60.	5655	18452	31%	
May '20	167	24.		59.7	83.7	12794	80.	5665	18459	31%		
Jun '20	168	30.		59.7	89.7	12749	80.	5705	18454	31%		
2020/21	Jul '20	169	19.		59.7	78.7	12673	80.	5779	18452	31%	
	Aug '20	170	19.		59.7	78.7	12609	80.	5837	18446	32%	
	Sep '20	171	13.		59.7	72.7	12569	80.	5900	18469	32%	
	Oct '20	172	32.		59.7	91.7	12546	60.	5960	18506	32%	
	Nov '20	173	37.		59.7	96.7	12573	40.	6000	18573	32%	
	Dec '20	174	68.		59.7	127.7	12641	0.	6000	18641	32%	
	Jan '21	175	92.		59.7	151.7	12732	0.	6000	18732	32%	
	Feb '21	176	88.		59.7	147.7	12770	0.	6000	18770	32%	
	Mar '21	177	79.		59.7	138.7	12770	40.	6000	18770	32%	
	Apr '21	178	59.		59.7	118.7	12770	60.	6000	18770	32%	
May '21	179	24.		59.7	83.7	12770	80.	6000	18770	32%		
Jun '21	180	30.		59.7	89.7	12770	80.	6000	18770	32%		
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. 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 San Sevaine 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	Source
2002/03	Jul '02	-96			0.						HISTORICAL DATA NOT AVAILABLE
	Aug '02	-95			0.						
	Sep '02	-94			0.						
	Oct '02	-93			0.						
	Nov '02	-92			0.						
	Dec '02	-91			0.						
	Jan '03	-90			0.						
	Feb '03	-89			0.						
	Mar '03	-88			0.						
	Apr '03	-87			0.						
2003/04	May '03	-86			0.						
	Jun '03	-85			0.						
	Jul '03	-84			0.						
	Aug '03	-83			0.						
	Sep '03	-82			0.						
	Oct '03	-81			0.						
	Nov '03	-80			0.						
	Dec '03	-79			0.						
	Jan '04	-78			0.						
	Feb '04	-77			0.						
2004/05	Mar '04	-76			0.						
	Apr '04	-75			0.						
	May '04	-74			0.						
	Jun '04	-73			0.						
	Jul '04	-72			0.						
	Aug '04	-71			0.						
	Sep '04	-70			0.						
	Oct '04	-69			0.						
	Nov '04	-68			0.						
	Dec '04	-67			0.						
2005/06	Jan '05	-66			0.						MEASURED
	Feb '05	-65			0.						
	Mar '05	-64			0.						
	Apr '05	-63			0.						
	May '05	-62			0.						
	Jun '05	-61			0.						
	Jul '05	-60	0.	468.7	468.7	469	0.	0	469		
	Aug '05	-59	0.	212.5	212.5	681	0.	0	681		
	Sep '05	-58	0.	558.	558.	1239	0.	0	1239		
	Oct '05	-57	20.	555.2	575.2	1814	0.	0	1814		
2006/07	Nov '05	-56	0.	1142.2	1142.2	2957	0.	0	2957		
	Dec '05	-55	23.	963.3	986.3	3943	0.	0	3943		
	Jan '06	-54	24.	944.3	968.3	4911	0.	0	4911		
	Feb '06	-53	136.1	987.5	1123.6	6035	0.	0	6035		
	Mar '06	-52	543.8	420.3	964.1	6999	0.	0	6999		
	Apr '06	-51	1187.	0.	1187.	8186	0.	0	8186		
	May '06	-50	138.	1247.8	1385.8	9572	0.	0	9572		
	Jun '06	-49	0.	949.	949.	10521	0.	0	10521	0%	
	Jul '06	-48	0.	15.4	15.4	10536	0.	0	10536	0%	
	Aug '06	-47	0.	1029.7	1029.7	11566	0.	0	11566	0%	
2006/07	Sep '06	-46	0.	1006.4	1006.4	12572	0.	0	12572	0%	
	Oct '06	-45	0.	1010.7	1010.7	13583	0.	0	13583	0%	
	Nov '06	-44	3.	562.3	565.3	14148	0.	0	14148	0%	
	Dec '06	-43	60.3	958.5	1018.8	15167	0.	0	15167	0%	
	Jan '07	-42	36.4	899.8	936.2	16103	0.	0	16103	0%	
	Feb '07	-41	76.2	266.	342.2	16445	0.	0	16445	0%	
	Mar '07	-40	5.3	0.	5.3	16451	0.	0	16451	0%	
	Apr '07	-39	3.	0.	3.	16454	0.	0	16454	0%	
	May '07	-38	31.	0.	31.	16485	0.	0	16485	0%	
	Jun '07	-37	30.	0.	30.	16515	0.	0	16515	0%	



RWC Management Plan for San Sevaine 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	Source
2007/08	Jul '07	-36	0.	0.		0.	16515	0.	0	16515	0%
	Aug '07	-35	0.	0.		0.	16515	0.	0	16515	0%
	Sep '07	-34	2.	0.		2.	16517	0.	0	16517	0%
	Oct '07	-33	6.	0.		6.	16523	0.	0	16523	0%
	Nov '07	-32	37.	0.		37.	16560	0.	0	16560	0%
	Dec '07	-31	75.	0.		75.	16635	0.	0	16635	0%
	Jan '08	-30	553.	0.		553.	17188	0.	0	17188	0%
	Feb '08	-29	29.	0.		29.	17217	0.	0	17217	0%
	Mar '08	-28	0.	0.		0.	17217	0.	0	17217	0%
	Apr '08	-27	0.	0.		0.	17217	0.	0	17217	0%
2008/09	May '08	-26	47.	0.		47.	17264	0.	0	17264	0%
	Jun '08	-25	0.	0.		0.	17264	0.	0	17264	0%
	Jul '08	-24	0.	0.		0.	17264	0.	0	17264	0%
	Aug '08	-23	0.	0.		0.	17264	0.	0	17264	0%
	Sep '08	-22	0.	0.		0.	17264	0.	0	17264	0%
	Oct '08	-21	0.	0.		0.	17264	0.	0	17264	0%
	Nov '08	-20	8.	0.		8.	17272	0.	0	17272	0%
	Dec '08	-19	86.	0.		86.	17358	0.	0	17358	0%
	Jan '09	-18	16.	0.		16.	17374	0.	0	17374	0%
	Feb '09	-17	107.	0.		107.	17481	0.	0	17481	0%
2009/10	Mar '09	-16	8.	0.		8.	17489	0.	0	17489	0%
	Apr '09	-15	0.	0.		0.	17489	0.	0	17489	0%
	May '09	-14	0.	0.		0.	17489	0.	0	17489	0%
	Jun '09	-13	0.	0.		0.	17489	0.	0	17489	0%
	Jul '09	-12	0.	0.		0.	17489	0.	0	17489	0%
	Aug '09	-11	0.	0.		0.	17489	0.	0	17489	0%
	Sep '09	-10	0.	0.		0.	17489	0.	0	17489	0%
	Oct '09	-9	56.	0.		56.	17545	0.	0	17545	0%
	Nov '09	-8	21.	0.		21.	17566	0.	0	17566	0%
	Dec '09	-7	334.	0.		334.	17900	0.	0	17900	0%
2010/11	Jan '10	-6	290.	0.		290.	18190	0.	0	18190	0%
	Feb '10	-5	223.	0.		223.	18413	0.	0	18413	0%
	Mar '10	-4	16.	0.		16.	18429	0.	0	18429	0%
	Apr '10	-3	53.	0.		53.	18482	0.	0	18482	0%
	May '10	-2	0.	0.		0.	18482	0.	0	18482	0%
	Jun '10	-1	0.	0.		0.	18482	0.	0	18482	0%
	Jul '10	1	0.	0.	139.	139.	18621	50.	50	18671	0%
	Aug '10	2	0.	0.	139.	139.	18760	44.	94	18854	0%
	Sep '10	3	0.	0.	139.	139.	18899	42.	136	19035	1%
	Oct '10	4	95.	0.	139.	234.	19133	73.	209	19342	1%
2011/12	Nov '10	5	81.	0.	139.	220.	19352	13.	222	19574	1%
	Dec '10	6	583.	0.	139.	722.	20074	32.	254	20328	1%
	Jan '11	7	13.	0.	139.	152.	20226	72.	326	20552	2%
	Feb '11	8	143.	0.	139.	282.	20508	0.	326	20834	2%
	Mar '11	9	115.		139.	254.	20762	0.	326	21088	2%
	Apr '11	10	249.		139.	388.	21150	100.	426	21576	2%
	May '11	11	43.		139.	182.	21332	200.	626	21958	3%
	Jun '11	12	6.		139.	145.	21477	200.	826	22303	4%
	Jul '11	13	0.		139.	139.	21616	150.	976	22592	4%
	Aug '11	14	0.		139.	139.	21755	0.	976	22731	4%
2011/12	Sep '11	15	0.		139.	139.	21894	0.	976	22870	4%
	Oct '11	16	30.		139.	169.	22063	150.	1126	23189	5%
	Nov '11	17	25.		139.	164.	22227	150.	1276	23503	5%
	Dec '11	18	194.		139.	333.	22560	0.	1276	23836	5%
	Jan '12	19	155.		139.	294.	22854	0.	1276	24130	5%
	Feb '12	20	119.		139.	258.	23112	0.	1276	24388	5%
	Mar '12	21	115.		139.	254.	23366	0.	1276	24642	5%
	Apr '12	22	249.		139.	388.	23754	150.	1426	25180	6%
	May '12	23	43.		139.	182.	23936	150.	1576	25512	6%
	Jun '12	24	6.		139.	145.	24081	150.	1726	25807	7%

HISTORICAL

START-UP

PLANNED



RWC Management Plan for San Sevaine 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	Source
2012/13	Jul '12	25	0.		139.	139.	24220	150.	1876	26096	7%	P L A N E D
	Aug '12	26	0.		139.	139.	24358	0.	1876	26234	7%	
	Sep '12	27	0.		139.	139.	24497	0.	1876	26373	7%	
	Oct '12	28	30.		139.	169.	24666	150.	2026	26692	8%	
	Nov '12	29	25.		139.	164.	24830	150.	2176	27006	8%	
	Dec '12	30	194.		139.	333.	25163	0.	2176	27339	8%	
	Jan '13	31	155.		139.	294.	25457	0.	2176	27633	8%	
	Feb '13	32	119.		139.	258.	25715	0.	2176	27891	8%	
	Mar '13	33	115.		139.	254.	25969	0.	2176	28145	8%	
Apr '13	34	249.		139.	388.	26357	150.	2326	28683	8%		
May '13	35	43.		139.	182.	26539	150.	2476	29015	9%		
Jun '13	36	6.		139.	145.	26684	150.	2626	29310	9%		
2013/14	Jul '13	37	0.		139.	139.	26823	150.	2776	29599	9%	
	Aug '13	38	0.		139.	139.	26962	0.	2776	29738	9%	
	Sep '13	39	0.		139.	139.	27101	0.	2776	29877	9%	
	Oct '13	40	30.		139.	169.	27270	150.	2926	30196	10%	
	Nov '13	41	25.		139.	164.	27434	150.	3076	30510	10%	
	Dec '13	42	194.		139.	333.	27767	0.	3076	30843	10%	
	Jan '14	43	155.		139.	294.	28061	0.	3076	31137	10%	
	Feb '14	44	119.		139.	258.	28319	0.	3076	31395	10%	
	Mar '14	45	115.		139.	254.	28573	0.	3076	31649	10%	
Apr '14	46	249.		139.	388.	28960	150.	3226	32186	10%		
May '14	47	43.		139.	182.	29142	150.	3376	32518	10%		
Jun '14	48	6.		139.	145.	29287	150.	3526	32813	11%		
2014/15	Jul '14	49	0.		139.	139.	29426	150.	3676	33102	11%	
	Aug '14	50	0.		139.	139.	29565	0.	3676	33241	11%	
	Sep '14	51	0.		139.	139.	29704	0.	3676	33380	11%	
	Oct '14	52	30.		139.	169.	29873	150.	3826	33699	11%	
	Nov '14	53	25.		139.	164.	30037	150.	3976	34013	12%	
	Dec '14	54	194.		139.	333.	30370	0.	3976	34346	12%	
	Jan '15	55	155.		139.	294.	30664	0.	3976	34640	11%	
	Feb '15	56	119.		139.	258.	30922	0.	3976	34898	11%	
	Mar '15	57	115.		139.	254.	31176	0.	3976	35152	11%	
Apr '15	58	249.		139.	388.	31564	150.	4126	35690	12%		
May '15	59	43.		139.	182.	31746	150.	4276	36022	12%		
Jun '15	60	6.		139.	145.	31891	150.	4426	36317	12%		
2015/16	Jul '15	61	0.		139.	139.	31561	150.	4576	36137	13%	
	Aug '15	62	0.		139.	139.	31488	0.	4576	36064	13%	
	Sep '15	63	0.		139.	139.	31068	0.	4576	35644	13%	
	Oct '15	64	30.		139.	169.	30662	150.	4726	35388	13%	
	Nov '15	65	25.		139.	164.	29684	150.	4876	34560	14%	
	Dec '15	66	194.		139.	333.	29031	0.	4876	33907	14%	
	Jan '16	67	155.		139.	294.	28356	0.	4876	33232	15%	
	Feb '16	68	119.		139.	258.	27491	0.	4876	32367	15%	
	Mar '16	69	115.		139.	254.	26780	0.	4876	31656	15%	
Apr '16	70	249.		139.	388.	25981	150.	5026	31007	16%		
May '16	71	43.		139.	182.	24778	150.	5176	29954	17%		
Jun '16	72	6.		139.	145.	23974	150.	5326	29300	18%		
2016/17	Jul '16	73	0.		139.	139.	24097	150.	5476	29573	19%	
	Aug '16	74	0.		139.	139.	23206	0.	5476	28682	19%	
	Sep '16	75	0.		139.	139.	22339	0.	5476	27815	20%	
	Oct '16	76	30.		139.	169.	21497	150.	5626	27123	21%	
	Nov '16	77	25.		139.	164.	21096	150.	5776	26872	21%	
	Dec '16	78	194.		139.	333.	20410	0.	5776	26186	22%	
	Jan '17	79	155.		139.	294.	19768	0.	5776	25544	23%	
	Feb '17	80	119.		139.	258.	19683	0.	5776	25459	23%	
	Mar '17	81	115.		139.	254.	19932	0.	5776	25708	22%	
Apr '17	82	249.		139.	388.	20317	150.	5926	26243	23%		
May '17	83	43.		139.	182.	20468	150.	6076	26544	23%		
Jun '17	84	6.		139.	145.	20583	150.	6226	26809	23%		



RWC Management Plan for San Sevaine 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	Source
2017/18	Jul '17	85	0.		139.	139.	20722	150.	6376	27098	24%	P L A N N E D
	Aug '17	86	0.		139.	139.	20861	0.	6376	27237	23%	
	Sep '17	87	0.		139.	139.	20998	0.	6376	27374	23%	
	Oct '17	88	30.		139.	169.	21161	150.	6526	27687	24%	
	Nov '17	89	25.		139.	164.	21288	150.	6676	27964	24%	
	Dec '17	90	194.		139.	333.	21546	0.	6676	28222	24%	
	Jan '18	91	155.		139.	294.	21287	0.	6676	27963	24%	
	Feb '18	92	119.		139.	258.	21516	0.	6676	28192	24%	
	Mar '18	93	115.		139.	254.	21769	0.	6676	28445	23%	
	Apr '18	94	249.		139.	388.	22157	150.	6826	28983	24%	
May '18	95	43.		139.	182.	22292	150.	6976	29268	24%		
Jun '18	96	6.		139.	145.	22437	150.	7126	29563	24%		
2018/19	Jul '18	97	0.		139.	139.	22576	150.	7276	29852	24%	
	Aug '18	98	0.		139.	139.	22715	0.	7276	29991	24%	
	Sep '18	99	0.		139.	139.	22854	0.	7276	30130	24%	
	Oct '18	100	30.		139.	169.	23023	150.	7426	30449	24%	
	Nov '18	101	25.		139.	164.	23179	150.	7576	30755	25%	
	Dec '18	102	194.		139.	333.	23426	0.	7576	31002	24%	
	Jan '19	103	155.		139.	294.	23704	0.	7576	31280	24%	
	Feb '19	104	119.		139.	258.	23855	0.	7576	31431	24%	
	Mar '19	105	115.		139.	254.	24101	0.	7576	31677	24%	
	Apr '19	106	249.		139.	388.	24489	150.	7726	32215	24%	
May '19	107	43.		139.	182.	24671	150.	7876	32547	24%		
Jun '19	108	6.		139.	145.	24816	150.	8026	32842	24%		
2019/20	Jul '19	109	0.		139.	139.	24955	150.	8176	33131	25%	
	Aug '19	110	0.		139.	139.	25094	0.	8176	33270	25%	
	Sep '19	111	0.		139.	139.	25233	0.	8176	33409	24%	
	Oct '19	112	30.		139.	169.	25346	150.	8326	33672	25%	
	Nov '19	113	25.		139.	164.	25489	150.	8476	33965	25%	
	Dec '19	114	194.		139.	333.	25487	0.	8476	33963	25%	
	Jan '20	115	155.		139.	294.	25491	0.	8476	33967	25%	
	Feb '20	116	119.		139.	258.	25526	0.	8476	34002	25%	
	Mar '20	117	115.		139.	254.	25764	0.	8476	34240	25%	
	Apr '20	118	249.		139.	388.	26099	150.	8626	34725	25%	
May '20	119	43.		139.	182.	26281	150.	8776	35057	25%		
Jun '20	120	6.		139.	145.	26426	150.	8926	35352	25%		
2020/21	Jul '20	121	0.		139.	139.	26426	150.	9026	35452	25%	
	Aug '20	122	0.		139.	139.	26426	0.	8982	35408	25%	
	Sep '20	123	0.		139.	139.	26426	0.	8940	35366	25%	
	Oct '20	124	30.		139.	169.	26361	150.	9017	35378	25%	
	Nov '20	125	25.		139.	164.	26305	150.	9154	35459	26%	
	Dec '20	126	194.		139.	333.	25916	0.	9122	35038	26%	
	Jan '21	127	155.		139.	294.	26058	0.	9050	35108	26%	
	Feb '21	128	119.		139.	258.	26034	0.	9050	35084	26%	
	Mar '21	129	115.		139.	254.	26034	0.	9050	35084	26%	
	Apr '21	130	249.		139.	388.	26034	150.	9100	35134	26%	
May '21	131	43.		139.	182.	26034	150.	9050	35084	26%		
Jun '21	132	6.		139.	145.	26034	150.	9000	35034	26%		
2021/22	Jul '21	133	0.		139.	139.	26034	150.	9000	35034	26%	
	Aug '21	134	0.		139.	139.	26034	0.	9000	35034	26%	
	Sep '21	135	0.		139.	139.	26034	0.	9000	35034	26%	
	Oct '21	136	30.		139.	169.	26034	150.	9000	35034	26%	
	Nov '21	137	25.		139.	164.	26034	150.	9000	35034	26%	
	Dec '21	138	194.		139.	333.	26034	0.	9000	35034	26%	
	Jan '22	139	155.		139.	294.	26034	0.	9000	35034	26%	
	Feb '22	140	119.		139.	258.	26034	0.	9000	35034	26%	
	Mar '22	141	115.		139.	254.	26034	0.	9000	35034	26%	
	Apr '22	142	249.		139.	388.	26034	150.	9000	35034	26%	
May '22	143	43.		139.	182.	26034	150.	9000	35034	26%		
Jun '22	144	6.		139.	145.	26034	150.	9000	35034	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

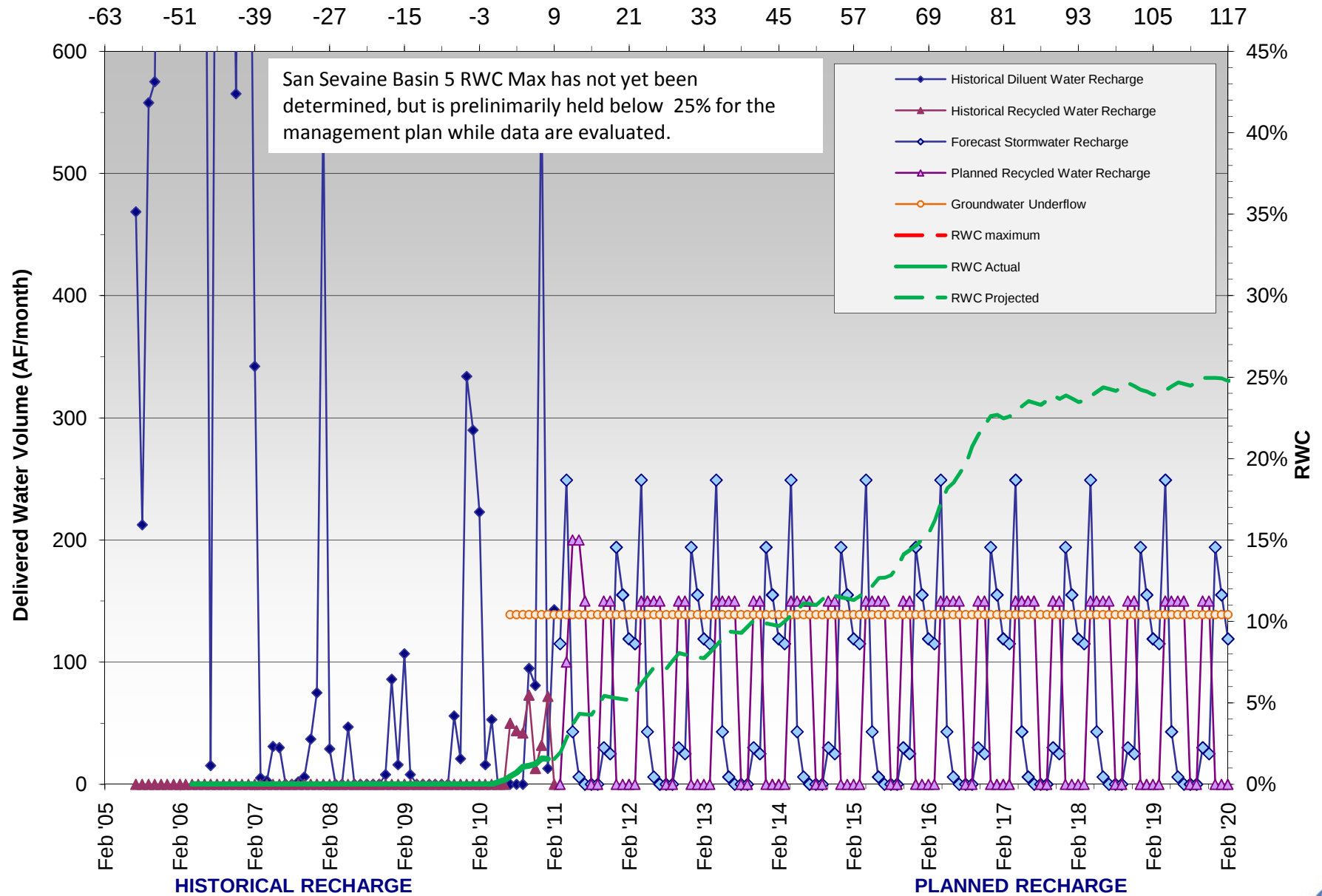
RWC = 120-month running total of recycled water / 120-month running total of all diluent and recycled water.

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

Months Since Initial Recycled Water Delivery



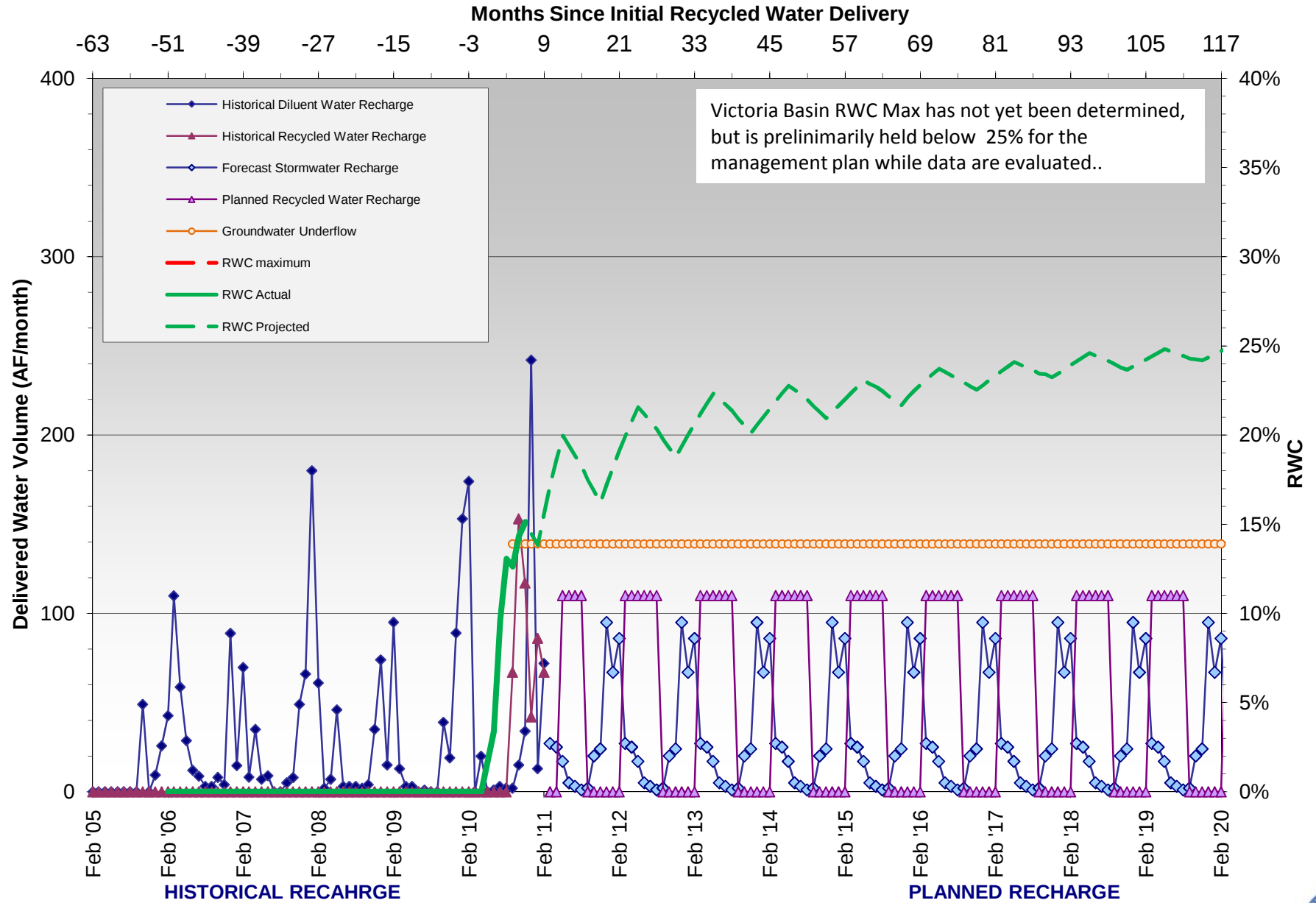
RWC Management Plan for Victoria Basin												
(120-month averaging period)												
Calculation of Recycled Water Contribution (RWC) from Historical Diluent Water (DW) and Recycled Water (RW) Deliveries												
Date		No. Mos. Since Initial RW Delivery	SW (AF)	MWD (AF)	Underflow (AF)	DW Total (AF)	DW 120- Month Total (AF)	RW (AF)	RW 120- Month Total (AF)	DW + RW 120-Month Total (AF)	RWC	Source
2002/03	Jul '02	-98				0.		0.				D A T A N O T A V A I L A B L E
	Aug '02	-97				0.		0.				
	Sep '02	-96				0.		0.				
	Oct '02	-95				0.		0.				
	Nov '02	-94				0.		0.				
	Dec '02	-93				0.		0.				
	Jan '03	-92				0.		0.				
	Feb '03	-91				0.		0.				
	Mar '03	-90				0.		0.				
	Apr '03	-89				0.		0.				
2003/04	May '03	-88				0.		0.				D A T A N O T A V A I L A B L E
	Jun '03	-87				0.		0.				
	Jul '03	-86				0.		0.				
	Aug '03	-85				0.		0.				
	Sep '03	-84				0.		0.				
	Oct '03	-83				0.		0.				
	Nov '03	-82				0.		0.				
	Dec '03	-81				0.		0.				
	Jan '04	-80				0.		0.				
	Feb '04	-79				0.		0.				
2004/05	Mar '04	-78				0.		0.				D A T A N O T A V A I L A B L E
	Apr '04	-77				0.		0.				
	May '04	-76				0.		0.				
	Jun '04	-75				0.		0.				
	Jul '04	-74				0.		0.				
	Aug '04	-73				0.		0.				
	Sep '04	-72				0.		0.				
	Oct '04	-71				0.		0.				
	Nov '04	-70				0.		0.				
	Dec '04	-69				0.		0.				
2005/06	Jan '05	-68				0.		0.				H I S T O R I C A L
	Feb '05	-67				0.		0.				
	Mar '05	-66				0.		0.				
	Apr '05	-65				0.		0.				
	May '05	-64				0.		0.				
	Jun '05	-63				0.		0.				
	Jul '05	-62	0.	0.		0.	0.	0.	0.	0.		
	Aug '05	-61	0.	0.		0.	0.	0.	0.	0.		
	Sep '05	-60	0.	0.		0.	0.	0.	0.	0.		
	Oct '05	-59	49.	0.		49.	49.	0.	0.	49.		
2006/07	Nov '05	-58	0.	0.		0.	49.	0.	0.	49.		H I S T O R I C A L
	Dec '05	-57	9.4	0.		9.4	58.4	0.	0.	58.4		
	Jan '06	-56	25.8	0.		25.8	84.2	0.	0.	84.2		
	Feb '06	-55	42.6	0.		42.6	126.9	0.	0.	126.9		
	Mar '06	-54	109.8	0.		109.8	236.7	0.	0.	236.7		
	Apr '06	-53	58.7	0.		58.7	295.4	0.	0.	295.4		
	May '06	-52	28.7	0.		28.7	324.1	0.	0.	324.1		
	Jun '06	-51	12.	0.		12.	336.1	0.	0.	336.1	0%	
	Jul '06	-50	8.7	0.		8.7	344.8	0.	0.	344.8	0%	
	Aug '06	-49	3.1	0.		3.1	347.9	0.	0.	347.9	0%	

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	Source		
2007/08	Jul '07	-38	0.	0.		0.	595.4	0.	0.	595.4	0%	HISTORICAL		
	Aug '07	-37	0.	0.		0.	595.4	0.	0.	595.4	0%			
	Sep '07	-36	5.	0.		5.	600.4	0.	0.	600.4	0%			
	Oct '07	-35	8.	0.		8.	608.4	0.	0.	608.4	0%			
	Nov '07	-34	49.	0.		49.	657.4	0.	0.	657.4	0%			
	Dec '07	-33	66.	0.		66.	723.4	0.	0.	723.4	0%			
	Jan '08	-32	180.	0.		180.	903.4	0.	0.	903.4	0%			
	Feb '08	-31	61.	0.		61.	964.4	0.	0.	964.4	0%			
	Mar '08	-30	2.	0.		2.	966.4	0.	0.	966.4	0%			
	Apr '08	-29	7.	0.		7.	973.4	0.	0.	973.4	0%			
2008/09	May '08	-28	46.	0.		46.	1,019.4	0.	0.	1,019.4	0%	HISTORICAL		
	Jun '08	-27	3.	0.		3.	1,022.4	0.	0.	1,022.4	0%			
	Jul '08	-26	3.	0.		3.	1,025.4	0.	0.	1,025.4	0%			
	Aug '08	-25	3.	0.		3.	1,028.4	0.	0.	1,028.4	0%			
	Sep '08	-24	2.	0.		2.	1,030.4	0.	0.	1,030.4	0%			
	Oct '08	-23	4.	0.		4.	1,034.4	0.	0.	1,034.4	0%			
	Nov '08	-22	35.	0.		35.	1,069.4	0.	0.	1,069.4	0%			
	Dec '08	-21	74.	0.		74.	1,143.4	0.	0.	1,143.4	0%			
	Jan '09	-20	15.	0.		15.	1,158.4	0.	0.	1,158.4	0%			
	Feb '09	-19	95.	0.		95.	1,253.4	0.	0.	1,253.4	0%			
2009/10	Mar '09	-18	13.	0.		13.	1,266.4	0.	0.	1,266.4	0%	HISTORICAL		
	Apr '09	-17	3.	0.		3.	1,269.4	0.	0.	1,269.4	0%			
	May '09	-16	3.	0.		3.	1,272.4	0.	0.	1,272.4	0%			
	Jun '09	-15	0.	0.		0.	1,272.4	0.	0.	1,272.4	0%			
	Jul '09	-14	1.	0.		1.	1,273.4	0.	0.	1,273.4	0%			
	Aug '09	-13	0.	0.		0.	1,273.4	0.	0.	1,273.4	0%			
	Sep '09	-12	0.	0.		0.	1,273.4	0.	0.	1,273.4	0%			
	Oct '09	-11	37.	2.		39.	1,312.4	0.	0.	1,312.4	0%			
	Nov '09	-10	19.	0.		19.	1,331.4	0.	0.	1,331.4	0%			
	Dec '09	-9	89.	0.		89.	1,420.4	0.	0.	1,420.4	0%			
2010/11	Jan '10	-8	153.	0.		153.	1,573.4	0.	0.	1,573.4	0%	START-UP		
	Feb '10	-7	174.	0.		174.	1,747.4	0.	0.	1,747.4	0%			
	Mar '10	-6	0.	0.		0.	1,747.4	0.	0.	1,747.4	0%			
	Apr '10	-5	20.	0.		20.	1,767.4	0.	0.	1,767.4	0%			
	May '10	-4	0.	0.		0.	1,767.4	0.	0.	1,767.4	0%			
	Jun '10	-3	1.	0.		1.	1,768.4	0.	0.	1,768.4	0%			
	Jul '10	-2	3.	0.		3.	1,771.4	0.	0.	1,771.4	0%			
	Aug '10	-1	2.	0.		2.	1,773.4	0.	0.	1,773.4	0%			
	Sep '10	1	2.	0.	139.	141.	1,914.3	67.	67.	1,981.3	3%			
	Oct '10	2	15.	0.	139.	154.	2,068.3	153.	220.	2,288.3	10%			
2010/11	Nov '10	3	34.	0.	139.	173.	2,241.2	117.	337.	2,578.2	13%	START-UP		
	Dec '10	4	242.	0.	139.	381.	2,622.2	42.	379.	3,001.2	13%			
	Jan '11	5	13.	0.	139.	152.	2,774.1	86.	465.	3,239.1	14%			
	Feb '11	6	72.	0.	139.	211.	2,985.1	67.	532.	3,517.1	15%			
	Mar '11	7	27.		139.	166.	3,151.1	0.	532.	3,683.1	14%			
	Apr '11	8	25.		139.	164.	3,315.	0.	532.	3,847.	14%			
	May '11	9	17.		139.	156.	3,471.	110.	642.	4,113.	16%			
	Jun '11	10	5.		139.	144.	3,614.9	110.	752.	4,366.9	17%			
	2011/12	Jul '11	11	3.		139.	142.	3,756.9	110.	862.	4,618.9		19%	PLANNED
		Aug '11	12	1.		139.	140.	3,896.8	110.	972.	4,868.8		20%	
Sep '11		13	2.		139.	141.	4,037.8	0.	972.	5,009.8	19%			
Oct '11		14	20.		139.	159.	4,196.7	0.	972.	5,168.7	19%			
Nov '11		15	24.		139.	163.	4,359.7	0.	972.	5,331.7	18%			
Dec '11		16	95.		139.	234.	4,593.6	0.	972.	5,565.6	17%			
Jan '12		17	67.		139.	206.	4,799.6	0.	972.	5,771.6	17%			
Feb '12		18	86.		139.	225.	5,024.5	0.	972.	5,996.5	16%			
Mar '12		19	27.		139.	166.	5,190.5	110.	1,082.	6,272.5	17%			
Apr '12		20	25.		139.	164.	5,354.4	110.	1,192.	6,546.4	18%			
2011/12	May '12	21	17.		139.	156.	5,510.4	110.	1,302.	6,812.4	19%	PLANNED		
	Jun '12	22	5.		139.	144.	5,654.3	110.	1,412.	7,066.3	20%			

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	Source
2012/13	Jul '12	23	3.		139.	142.	5,796.3	110.	1,522.	7,318.3	21%	P L A N E D
	Aug '12	24	1.		139.	140.	5,936.2	110.	1,632.	7,568.2	22%	
	Sep '12	25	2.		139.	141.	6,077.2	0.	1,632.	7,709.2	21%	
	Oct '12	26	20.		139.	159.	6,236.1	0.	1,632.	7,868.1	21%	
	Nov '12	27	24.		139.	163.	6,399.1	0.	1,632.	8,031.1	20%	
	Dec '12	28	95.		139.	234.	6,633.	0.	1,632.	8,265.	20%	
	Jan '13	29	67.		139.	206.	6,839.	0.	1,632.	8,471.	19%	
	Feb '13	30	86.		139.	225.	7,063.9	0.	1,632.	8,695.9	19%	
	Mar '13	31	27.		139.	166.	7,229.9	110.	1,742.	8,971.9	19%	
	Apr '13	32	25.		139.	164.	7,393.8	110.	1,852.	9,245.8	20%	
May '13	33	17.		139.	156.	7,549.8	110.	1,962.	9,511.8	21%		
Jun '13	34	5.		139.	144.	7,693.7	110.	2,072.	9,765.7	21%		
2013/14	Jul '13	35	3.		139.	142.	7,835.7	110.	2,182.	10,017.7	22%	
	Aug '13	36	1.		139.	140.	7,975.6	110.	2,292.	10,267.6	22%	
	Sep '13	37	2.		139.	141.	8,116.6	0.	2,292.	10,408.6	22%	
	Oct '13	38	20.		139.	159.	8,275.5	0.	2,292.	10,567.5	22%	
	Nov '13	39	24.		139.	163.	8,438.5	0.	2,292.	10,730.5	21%	
	Dec '13	40	95.		139.	234.	8,672.5	0.	2,292.	10,964.5	21%	
	Jan '14	41	67.		139.	206.	8,878.4	0.	2,292.	11,170.4	21%	
	Feb '14	42	86.		139.	225.	9,103.4	0.	2,292.	11,395.4	20%	
	Mar '14	43	27.		139.	166.	9,269.3	110.	2,402.	11,671.3	21%	
	Apr '14	44	25.		139.	164.	9,433.3	110.	2,512.	11,945.3	21%	
May '14	45	17.		139.	156.	9,589.2	110.	2,622.	12,211.2	21%		
Jun '14	46	5.		139.	144.	9,733.2	110.	2,732.	12,465.2	22%		
2014/15	Jul '14	47	3.		139.	142.	9,875.1	110.	2,842.	12,717.1	22%	
	Aug '14	48	1.		139.	140.	10,015.1	110.	2,952.	12,967.1	23%	
	Sep '14	49	2.		139.	141.	10,156.	0.	2,952.	13,108.	23%	
	Oct '14	50	20.		139.	159.	10,315.	0.	2,952.	13,267.	22%	
	Nov '14	51	24.		139.	163.	10,477.9	0.	2,952.	13,429.9	22%	
	Dec '14	52	95.		139.	234.	10,711.9	0.	2,952.	13,663.9	22%	
	Jan '15	53	67.		139.	206.	10,917.8	0.	2,952.	13,869.8	21%	
	Feb '15	54	86.		139.	225.	11,142.8	0.	2,952.	14,094.8	21%	
	Mar '15	55	27.		139.	166.	11,308.7	110.	3,062.	14,370.7	21%	
	Apr '15	56	25.		139.	164.	11,472.7	110.	3,172.	14,644.7	22%	
May '15	57	17.		139.	156.	11,628.6	110.	3,282.	14,910.6	22%		
Jun '15	58	5.		139.	144.	11,772.6	110.	3,392.	15,164.6	22%		
2015/16	Jul '15	59	3.		139.	142.	11,914.5	110.	3,502.	15,416.5	23%	
	Aug '15	60	1.		139.	140.	12,054.5	110.	3,612.	15,666.5	23%	
	Sep '15	61	2.		139.	141.	12,195.4	0.	3,612.	15,807.4	23%	
	Oct '15	62	20.		139.	159.	12,305.4	0.	3,612.	15,917.4	23%	
	Nov '15	63	24.		139.	163.	12,468.3	0.	3,612.	16,080.3	22%	
	Dec '15	64	95.		139.	234.	12,692.8	0.	3,612.	16,304.8	22%	
	Jan '16	65	67.		139.	206.	12,873.	0.	3,612.	16,485.	22%	
	Feb '16	66	86.		139.	225.	13,055.3	0.	3,612.	16,667.3	22%	
	Mar '16	67	27.		139.	166.	13,111.5	110.	3,722.	16,833.5	22%	
	Apr '16	68	25.		139.	164.	13,216.7	110.	3,832.	17,048.7	22%	
May '16	69	17.		139.	156.	13,344.	110.	3,942.	17,286.	23%		
Jun '16	70	5.		139.	144.	13,475.9	110.	4,052.	17,527.9	23%		
2016/17	Jul '16	71	3.		139.	142.	13,609.2	110.	4,162.	17,771.2	23%	
	Aug '16	72	1.		139.	140.	13,746.	110.	4,272.	18,018.	24%	
	Sep '16	73	2.		139.	141.	13,884.	0.	4,272.	18,156.	24%	
	Oct '16	74	20.		139.	159.	14,034.9	0.	4,272.	18,306.9	23%	
	Nov '16	75	24.		139.	163.	14,193.8	0.	4,272.	18,465.8	23%	
	Dec '16	76	95.		139.	234.	14,339.	0.	4,272.	18,611.	23%	
	Jan '17	77	67.		139.	206.	14,530.2	0.	4,272.	18,802.2	23%	
	Feb '17	78	86.		139.	225.	14,685.5	0.	4,272.	18,957.5	23%	
	Mar '17	79	27.		139.	166.	14,843.2	110.	4,382.	19,225.2	23%	
	Apr '17	80	25.		139.	164.	14,972.1	110.	4,492.	19,464.1	23%	
May '17	81	17.		139.	156.	15,121.1	110.	4,602.	19,723.1	23%		
Jun '17	82	5.		139.	144.	15,256.	110.	4,712.	19,968.	24%		

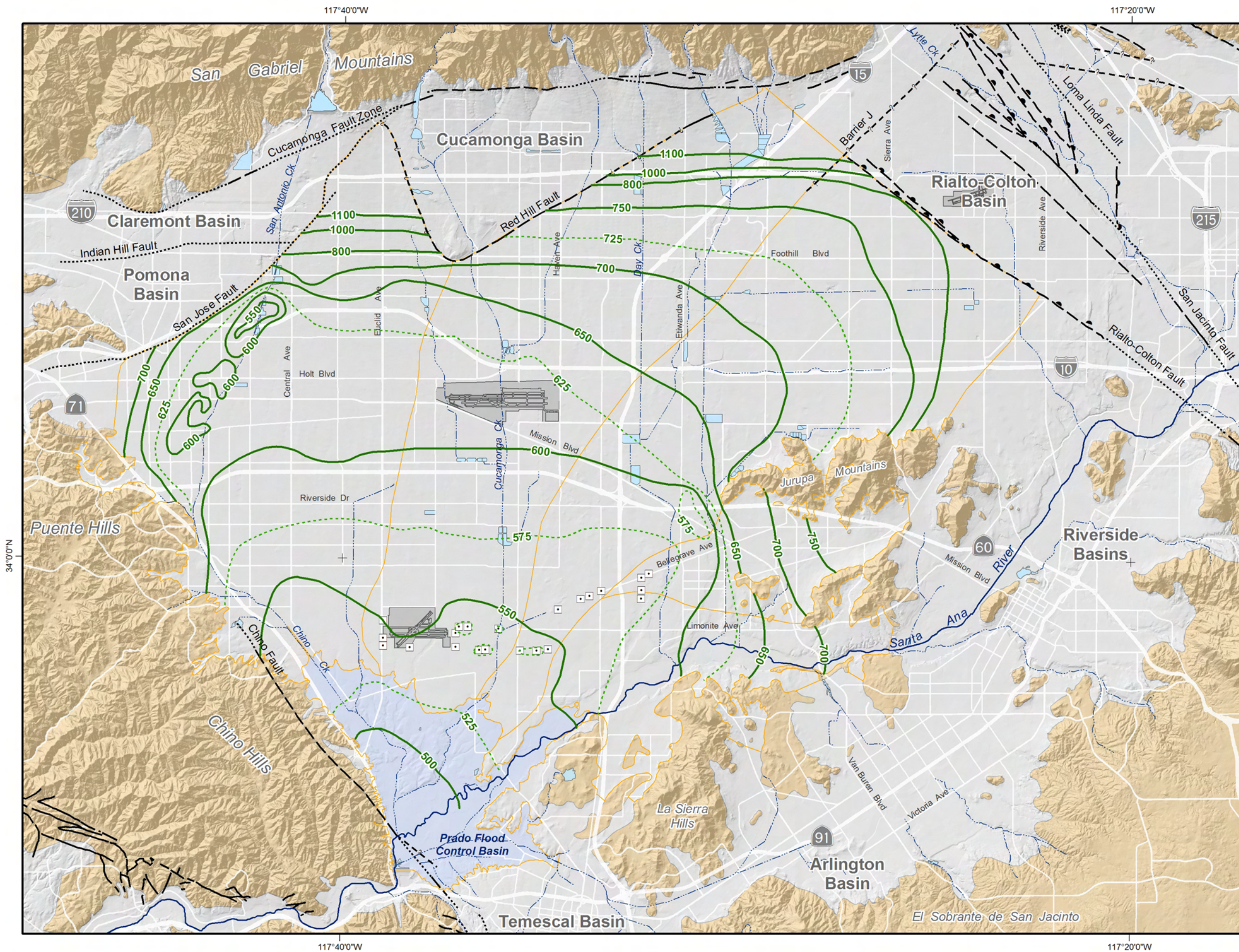
RWC Management Plan for Victoria Basin												Source
(120-month averaging period)												
Calculation of Recycled Water Contribution (RWC) from Historical Diluent Water (DW) and Recycled Water (RW) Deliveries												
Date	No. Mos. Since Initial RW Delivery	SW (AF)	MWD (AF)	Underflow (AF)	DW Total (AF)	DW 120-Month Total (AF)	RW (AF)	RW 120-Month Total (AF)	DW + RW 120-Month Total (AF)	RWC		
2017/18	Jul '17	83	3.		139.	142.	15,398.	110.	4,822.	20,220.	24%	
	Aug '17	84	1.		139.	140.	15,537.9	110.	4,932.	20,469.9	24%	
	Sep '17	85	2.		139.	141.	15,673.9	0.	4,932.	20,605.9	24%	
	Oct '17	86	20.		139.	159.	15,824.8	0.	4,932.	20,756.8	24%	
	Nov '17	87	24.		139.	163.	15,938.8	0.	4,932.	20,870.8	24%	
	Dec '17	88	95.		139.	234.	16,106.7	0.	4,932.	21,038.7	23%	
	Jan '18	89	67.		139.	206.	16,132.7	0.	4,932.	21,064.7	23%	
	Feb '18	90	86.		139.	225.	16,296.6	0.	4,932.	21,228.6	23%	
	Mar '18	91	27.		139.	166.	16,460.6	110.	5,042.	21,502.6	23%	
	Apr '18	92	25.		139.	164.	16,617.5	110.	5,152.	21,769.5	24%	
	May '18	93	17.		139.	156.	16,727.5	110.	5,262.	21,989.5	24%	
Jun '18	94	5.		139.	144.	16,868.4	110.	5,372.	22,240.4	24%		
2018/19	Jul '18	95	3.		139.	142.	17,007.4	110.	5,482.	22,489.4	24%	
	Aug '18	96	1.		139.	140.	17,144.3	110.	5,592.	22,736.3	25%	
	Sep '18	97	2.		139.	141.	17,283.3	0.	5,592.	22,875.3	24%	
	Oct '18	98	20.		139.	159.	17,438.2	0.	5,592.	23,030.2	24%	
	Nov '18	99	24.		139.	163.	17,566.2	0.	5,592.	23,158.2	24%	
	Dec '18	100	95.		139.	234.	17,726.1	0.	5,592.	23,318.1	24%	
	Jan '19	101	67.		139.	206.	17,917.1	0.	5,592.	23,509.1	24%	
	Feb '19	102	86.		139.	225.	18,047.1	0.	5,592.	23,639.1	24%	
	Mar '19	103	27.		139.	166.	18,200.	110.	5,702.	23,902.	24%	
	Apr '19	104	25.		139.	164.	18,361.	110.	5,812.	24,173.	24%	
	May '19	105	17.		139.	156.	18,513.9	110.	5,922.	24,435.9	24%	
Jun '19	106	5.		139.	144.	18,657.9	110.	6,032.	24,689.9	24%		
2019/20	Jul '19	107	3.		139.	142.	18,798.8	110.	6,142.	24,940.8	25%	
	Aug '19	108	1.		139.	140.	18,938.8	110.	6,252.	25,190.8	25%	
	Sep '19	109	2.		139.	141.	19,079.7	0.	6,252.	25,331.7	25%	
	Oct '19	110	20.		139.	159.	19,199.7	0.	6,252.	25,451.7	25%	
	Nov '19	111	24.		139.	163.	19,343.6	0.	6,252.	25,595.6	24%	
	Dec '19	112	95.		139.	234.	19,488.6	0.	6,252.	25,740.6	24%	
	Jan '20	113	67.		139.	206.	19,541.5	0.	6,252.	25,793.5	24%	
	Feb '20	114	86.		139.	225.	19,592.5	0.	6,252.	25,844.5	24%	
	Mar '20	115	27.		139.	166.	19,758.4	110.	6,362.	26,120.4	24%	
	Apr '20	116	25.		139.	164.	19,902.4	110.	6,472.	26,374.4	25%	
	May '20	117	17									

RWC Management Plan - Victoria Basin



APPENDIX D

GROUNDWATER ELEVATION CONTOUR MAPS

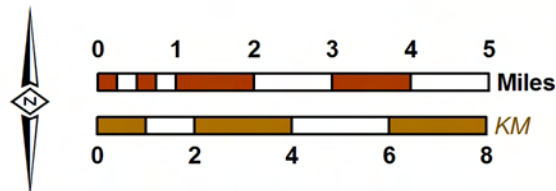


- 800 Groundwater Elevation Contours (feet above mean sea-level)
775
- Other Features**
- Management Zone Boundary
 - Chino Desalter Well
 - Streams & Flood Control Channels
 - Flood Control & Conservation Basins
- Geology**
- Water-Bearing Sediments**
- Quaternary Alluvium
- Consolidated Bedrock**
-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



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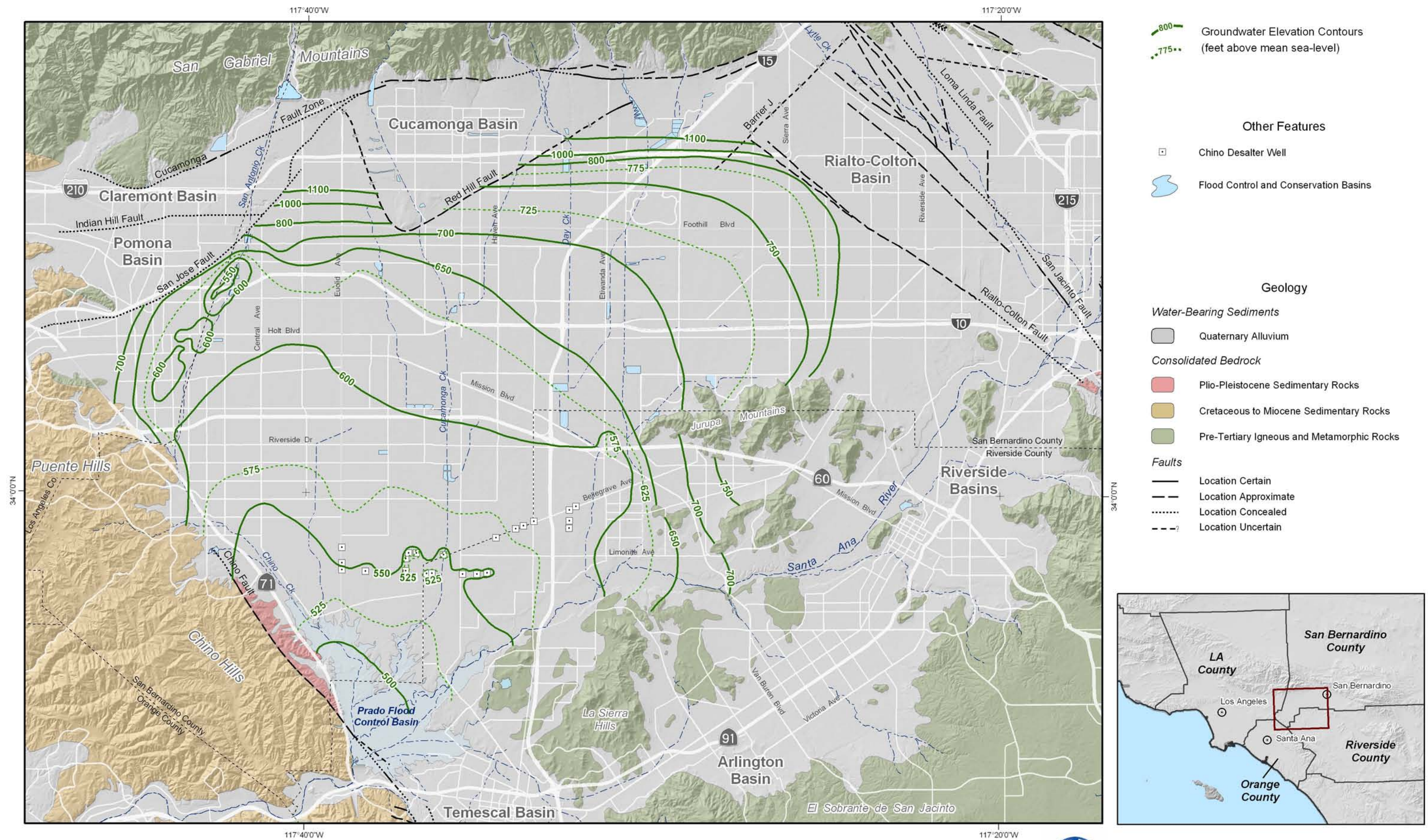
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2008 State of the Basin Report
 Groundwater Levels

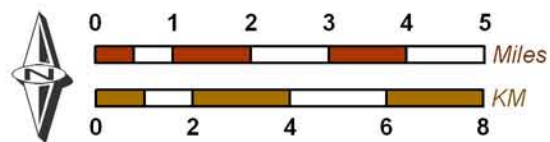
Groundwater Elevation Contours
 Fall 2008 -- Chino Basin

Figure 3-19



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Author: ETL
 Date: 20070511
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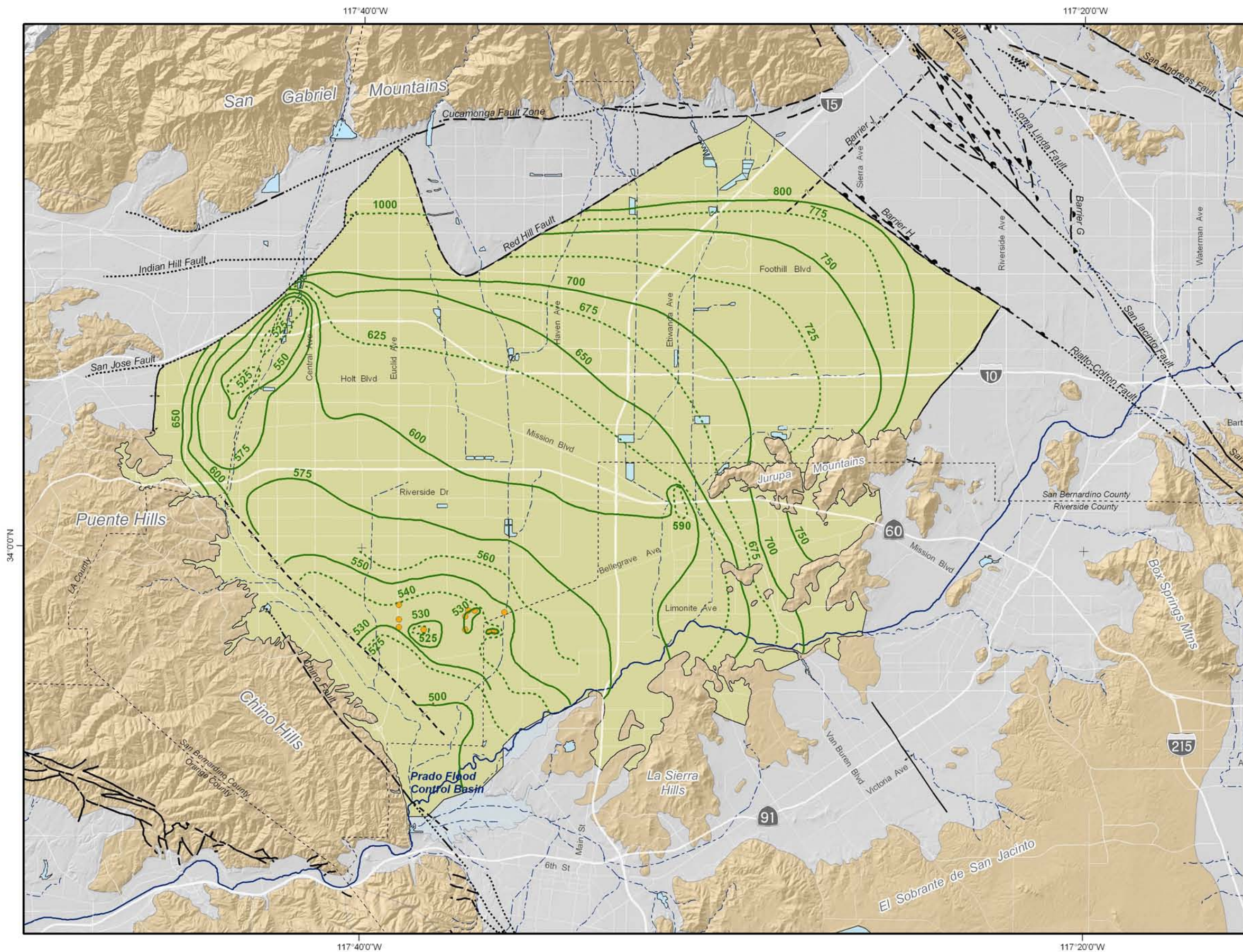


**DRAFT - 2007 CBWM Groundwater Model Documentation
 and Evaluation of the Peace II Project Description**
 Hydrogeologic Setting

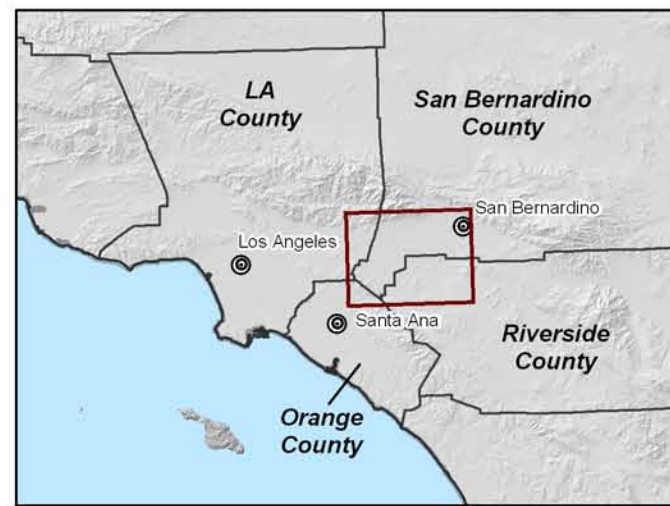


Groundwater Elevation Contours
 Fall 2006 -- Chino Basin

Figure 2-7a

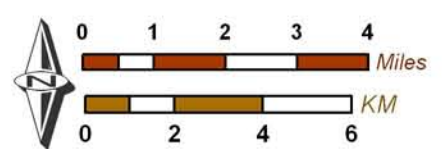


- ### Main Features
- 800
775
Groundwater Elevation Contours (feet above mean sea-level)
 - Chino-I Desalter Well
 - Chino Basin Hydrologic Boundary
- ### Geology
- Water-Bearing Sediments**
- Quaternary Alluvium
- Consolidated Bedrock**
- Undifferentiated Pre-Tertiary to Early Pleistocene Igneous, Metamorphic,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



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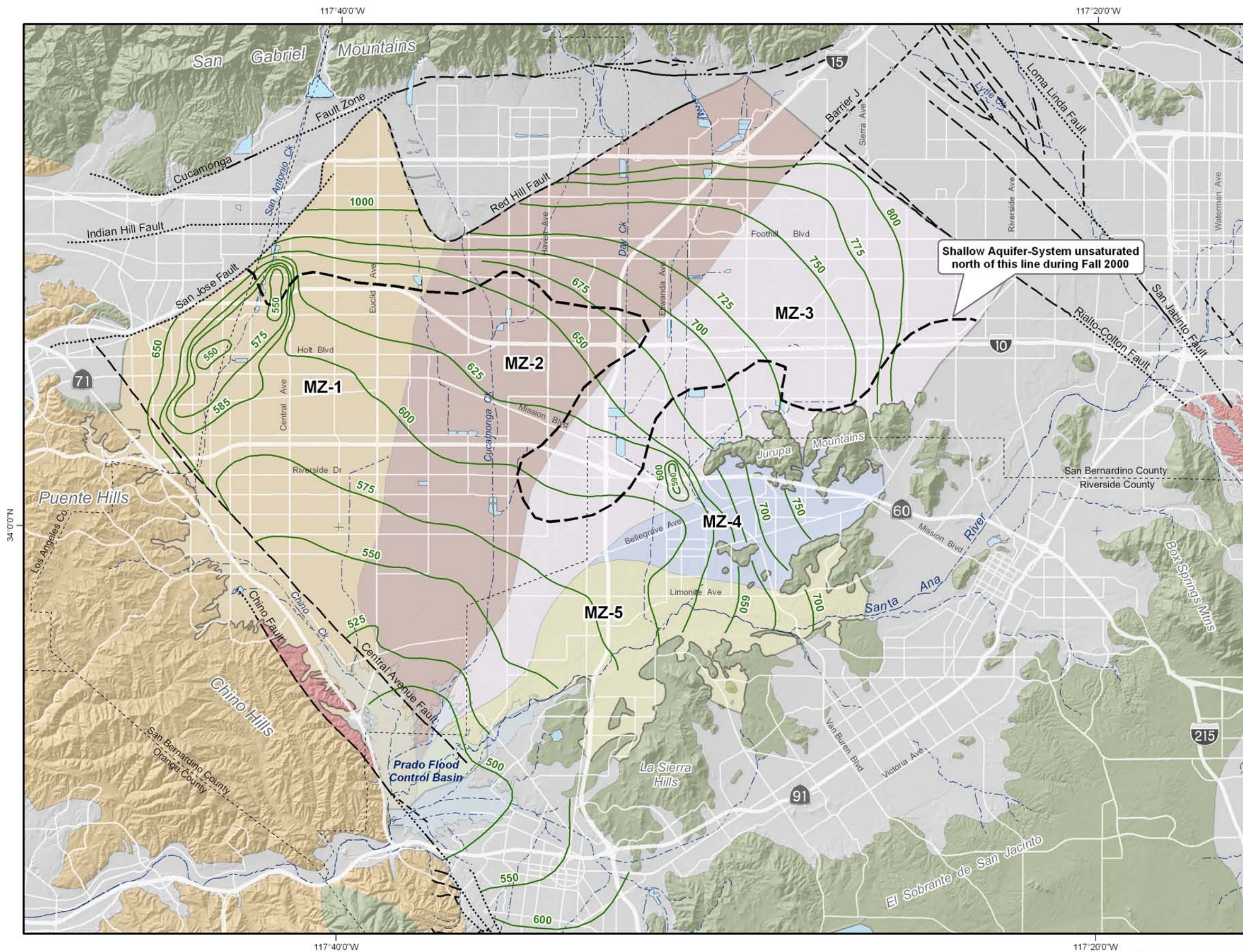
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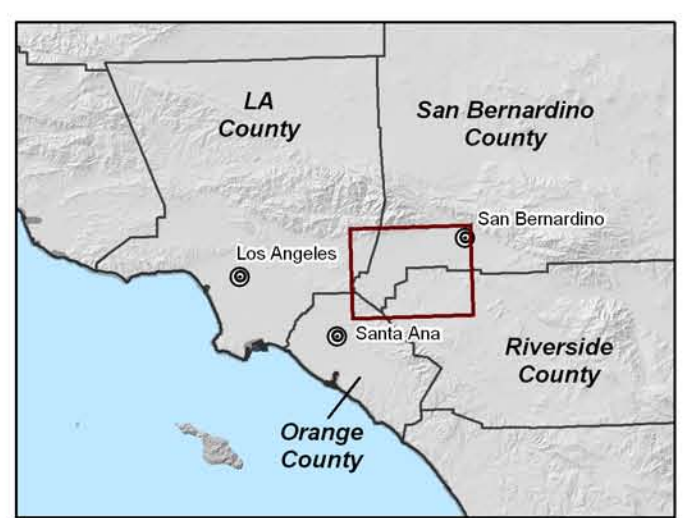
State of the Basin Report -- 2004
 Groundwater Basin Operation and Response

Groundwater Elevation Contours
 Fall 2003 -- Chino Basin

Figure 3-6

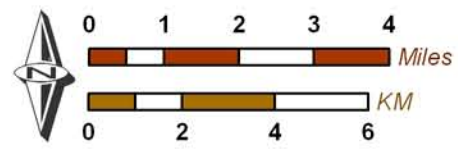


- ### Main Features
- 800 Groundwater Elevation Contours -- Fall 2000 (feet above mean sea level)
 - 775
- ### Geology
- Water-Bearing Sediments**
- Quaternary Alluvium
- Consolidated Bedrock**
- Plio-Pleistocene Sedimentary Rocks
 - Cretaceous to Miocene Sedimentary Rocks
 - Pre-Tertiary Igneous and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



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



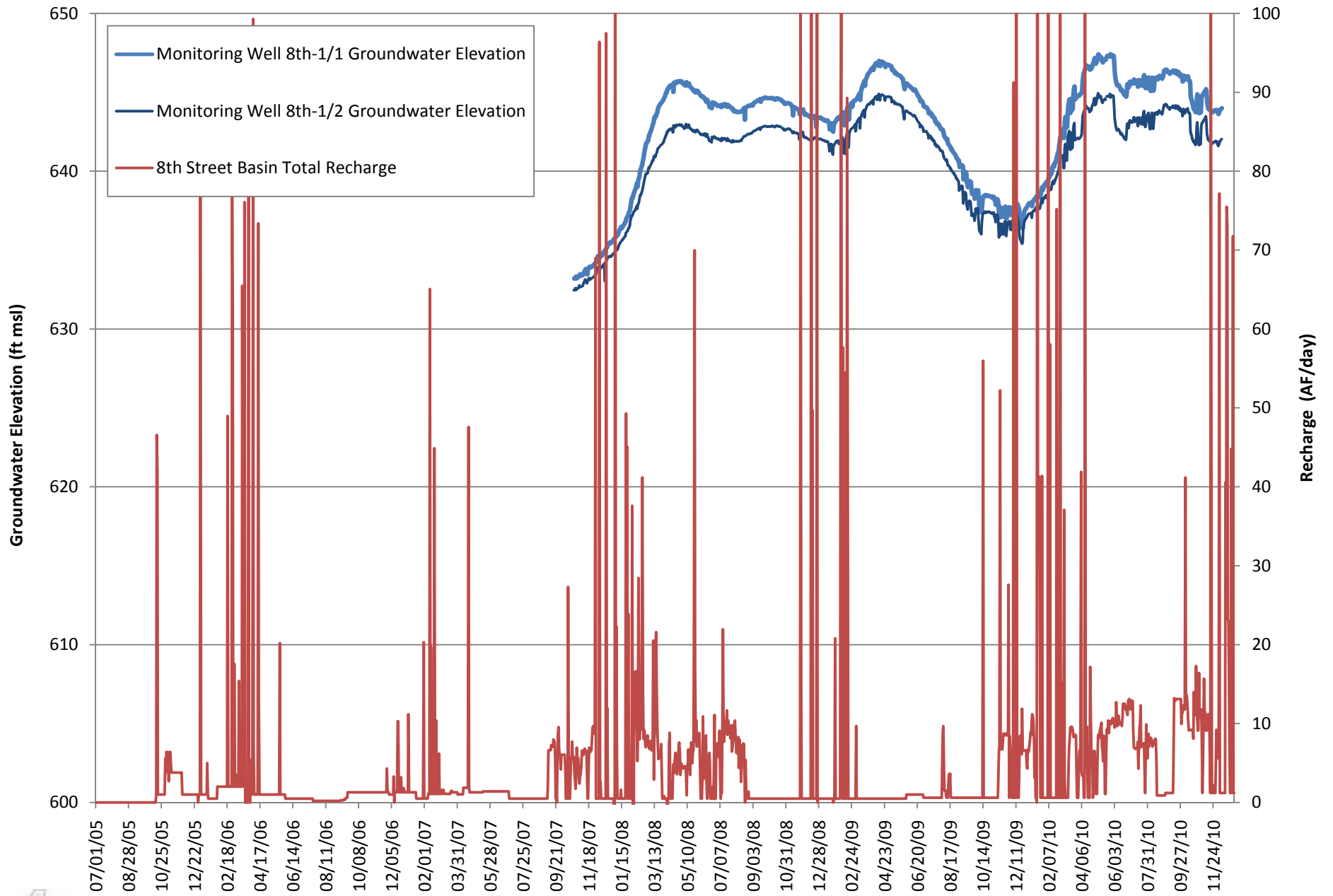
Inland Empire
 UTILITIES AGENCY
 Phase II Recycled Water
 Groundwater Recharge Project

**Groundwater Elevation Map
 Fall 2000**

Figure 8-3

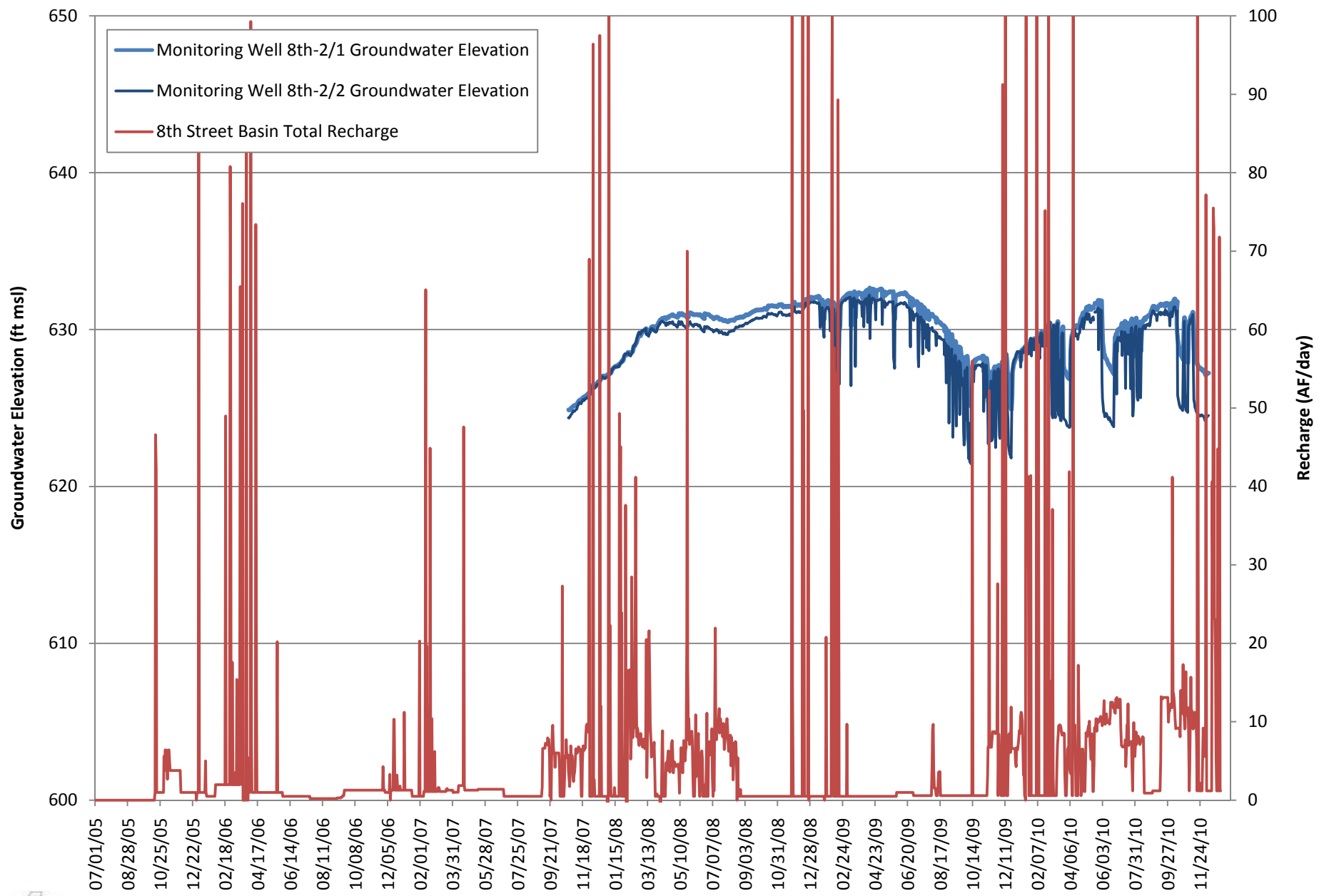
APPENDIX E

MONITORING WELL HYDROGRAPHS



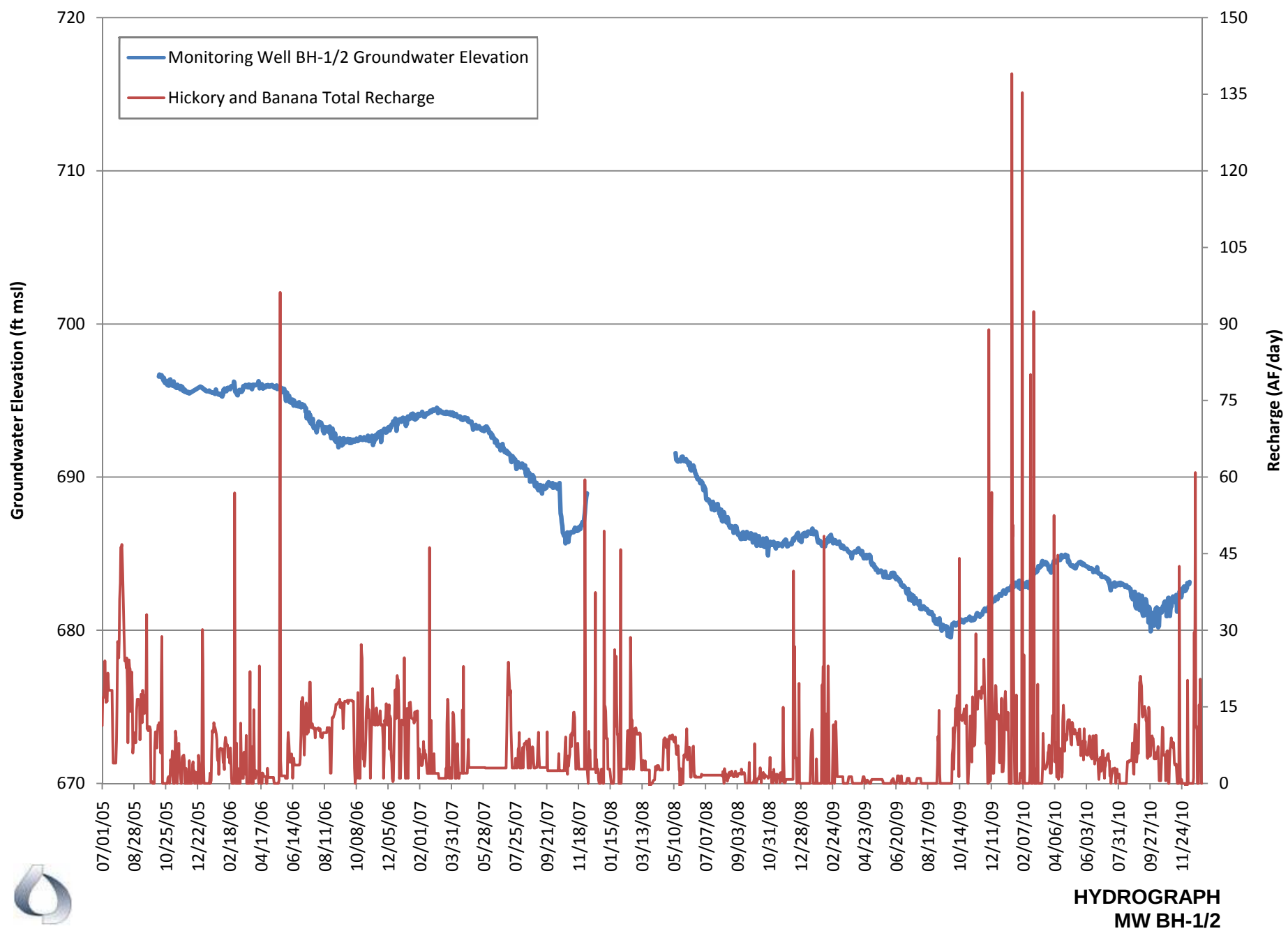
HYDROGRAPH
MW 8TH-1/1 & 8TH-1/2

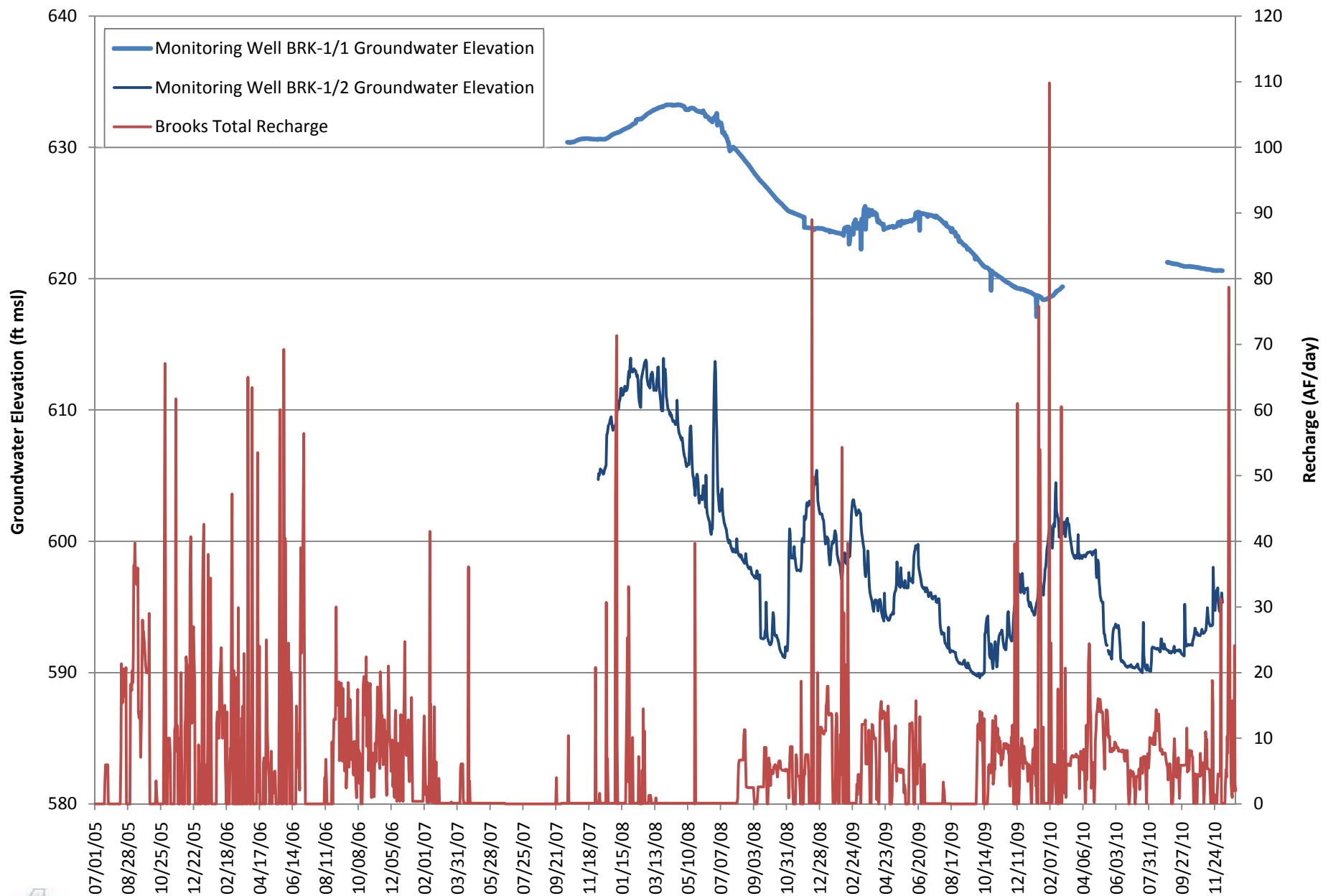




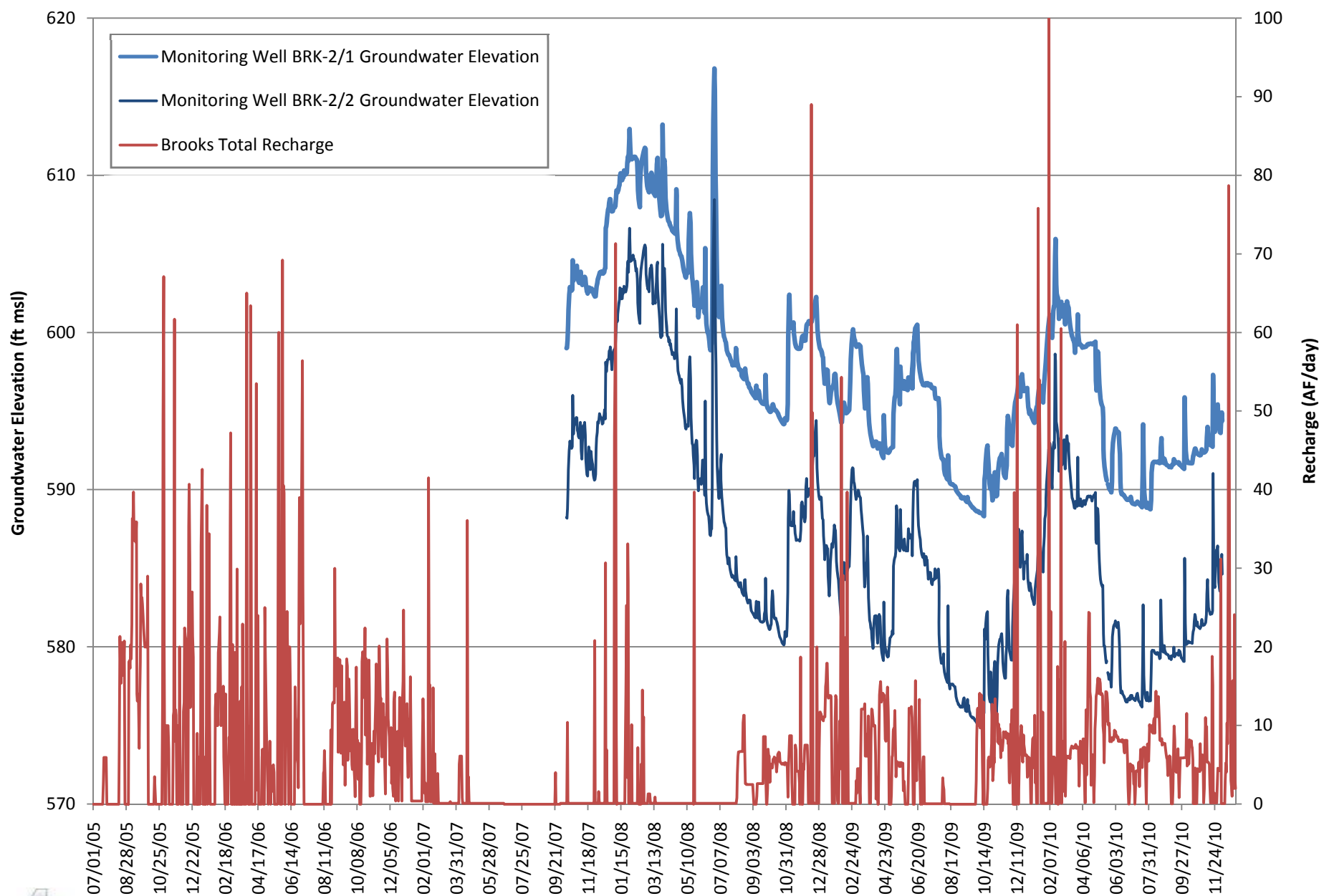
HYDROGRAPH
MW 8TH-2/1 & 8TH-2/2



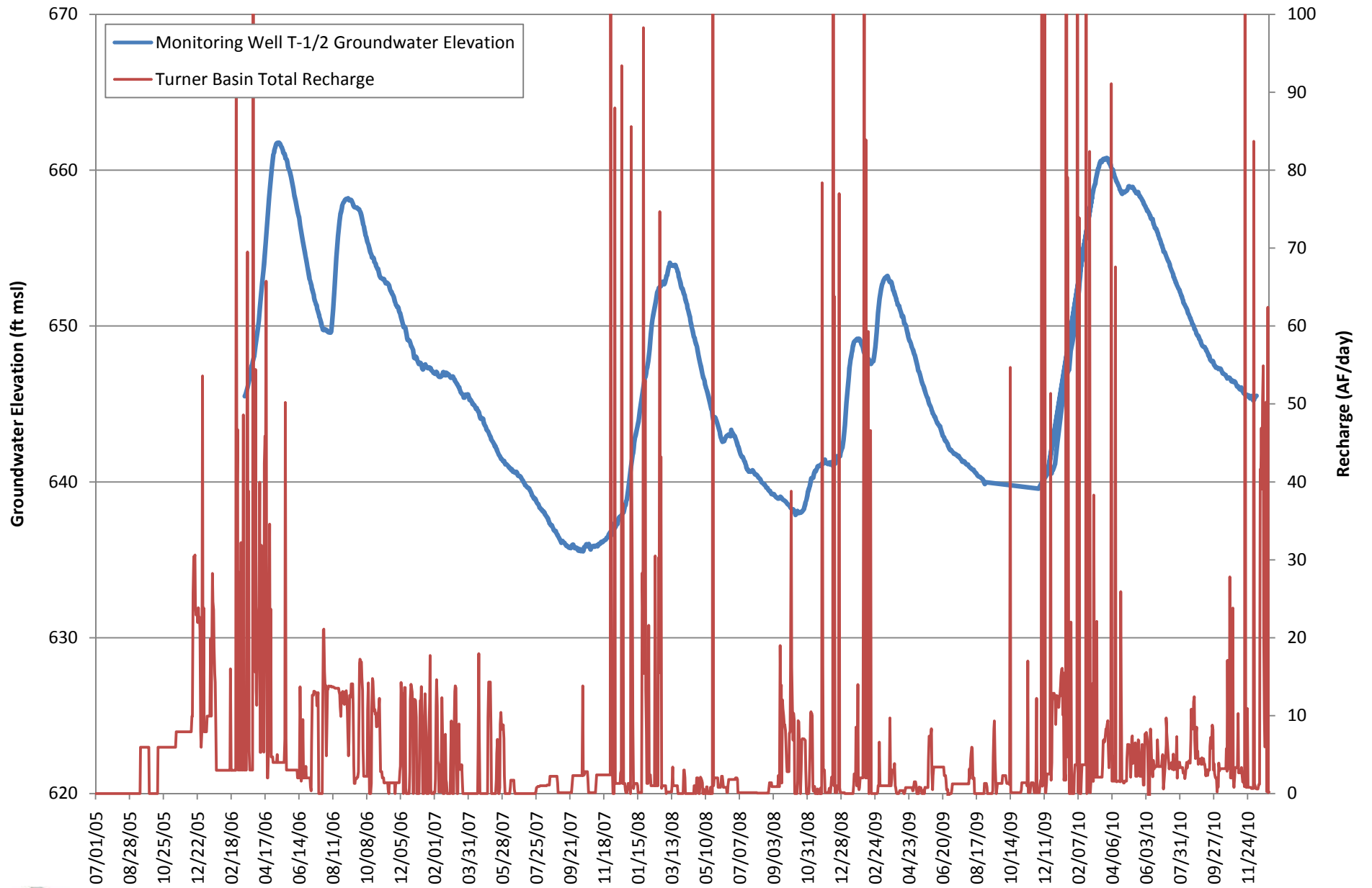




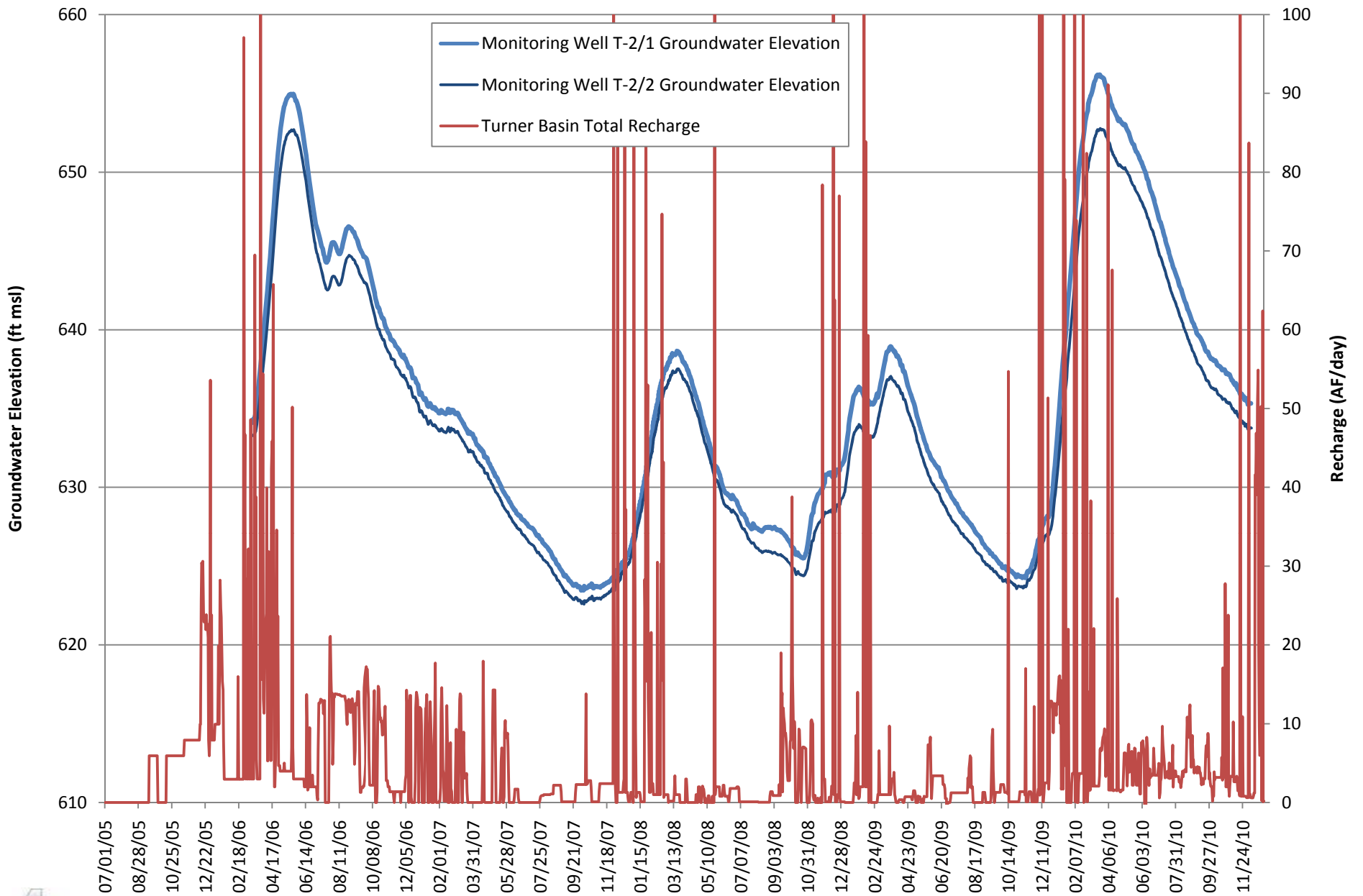
HYDROGRAPH
MW BRK-1/1 & BRK-1/2



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

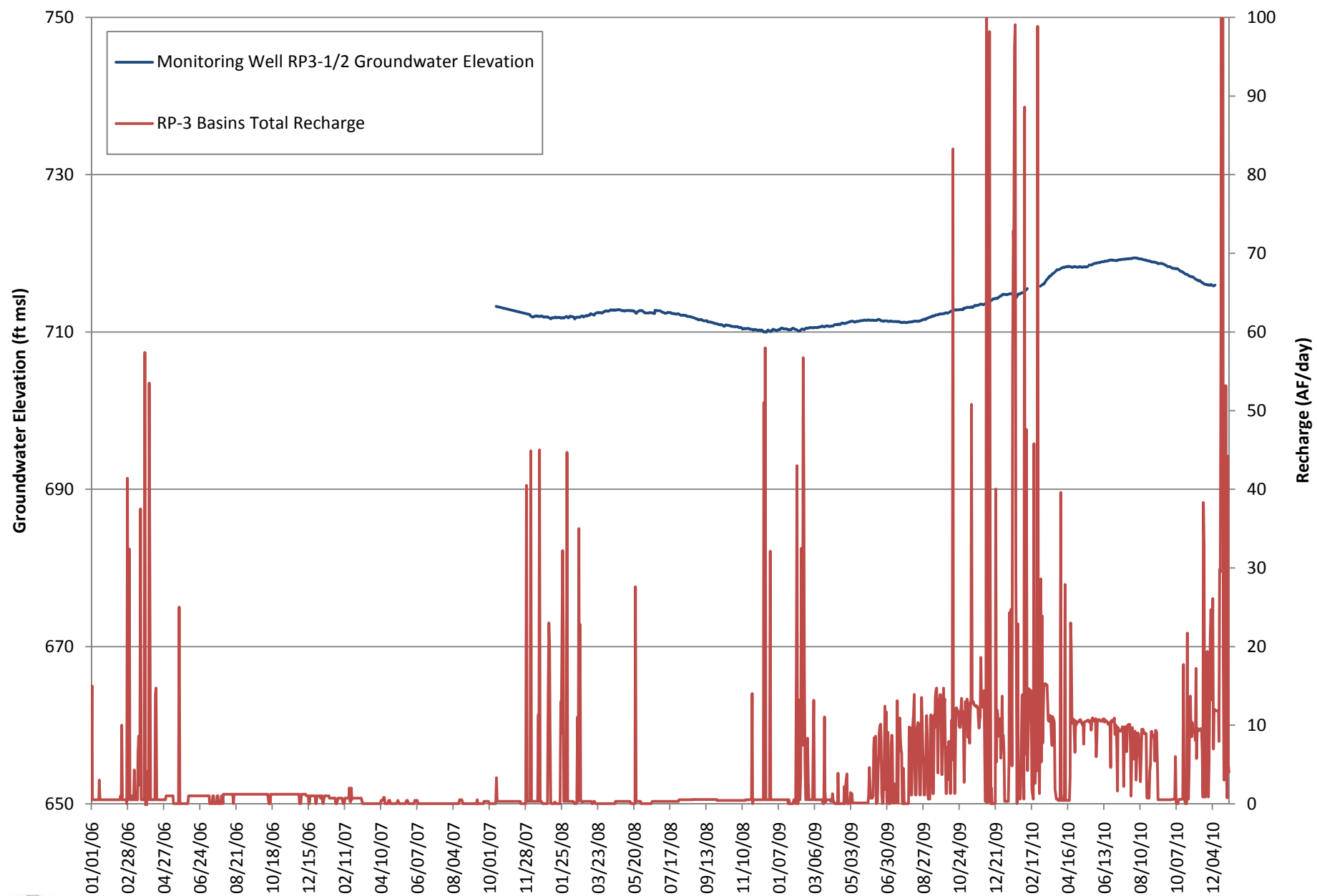


**HYDROGRAPH
MW TRN-1/2**



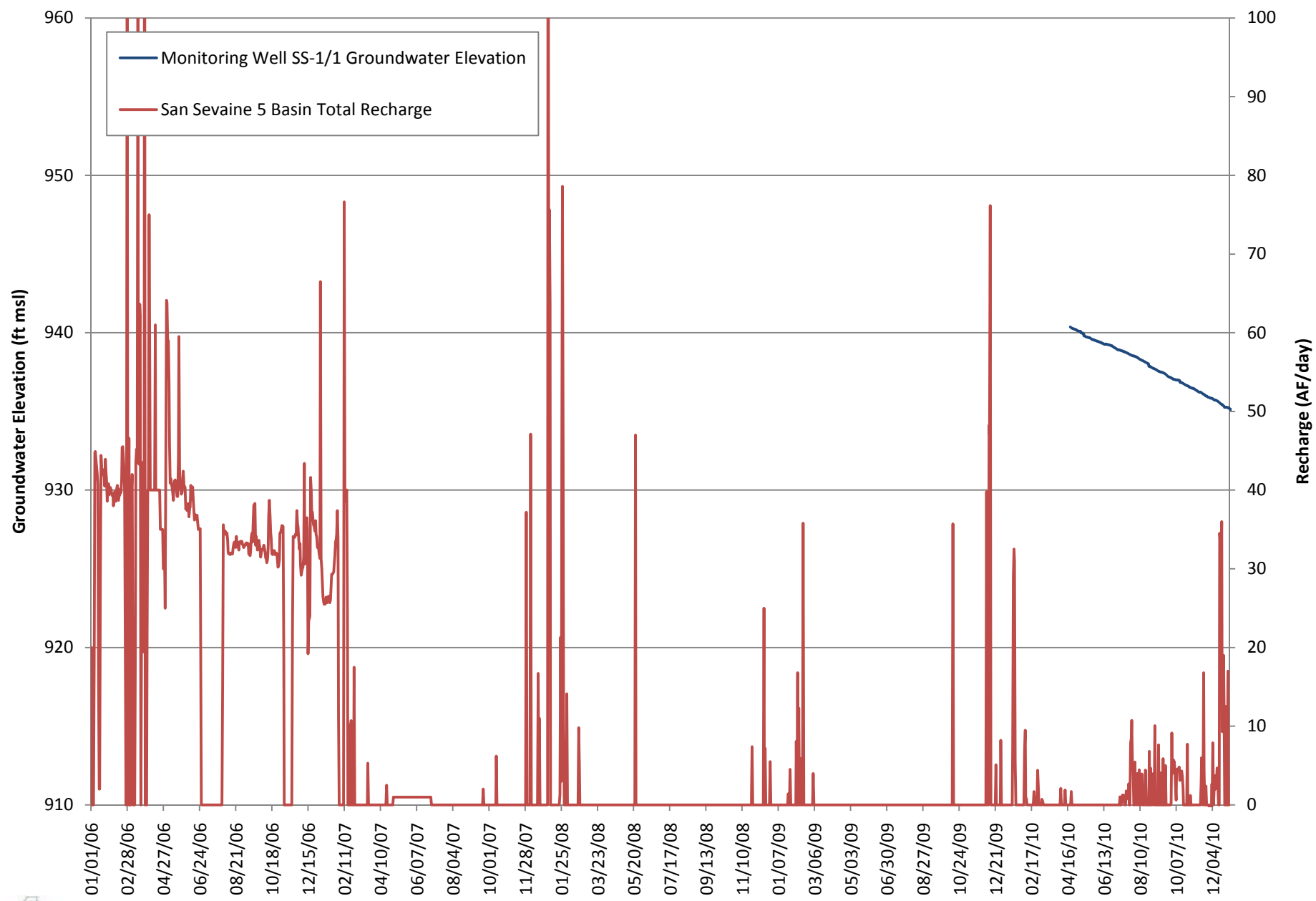
HYDROGRAPH
MW TRN-2/1 & TRN-2/2





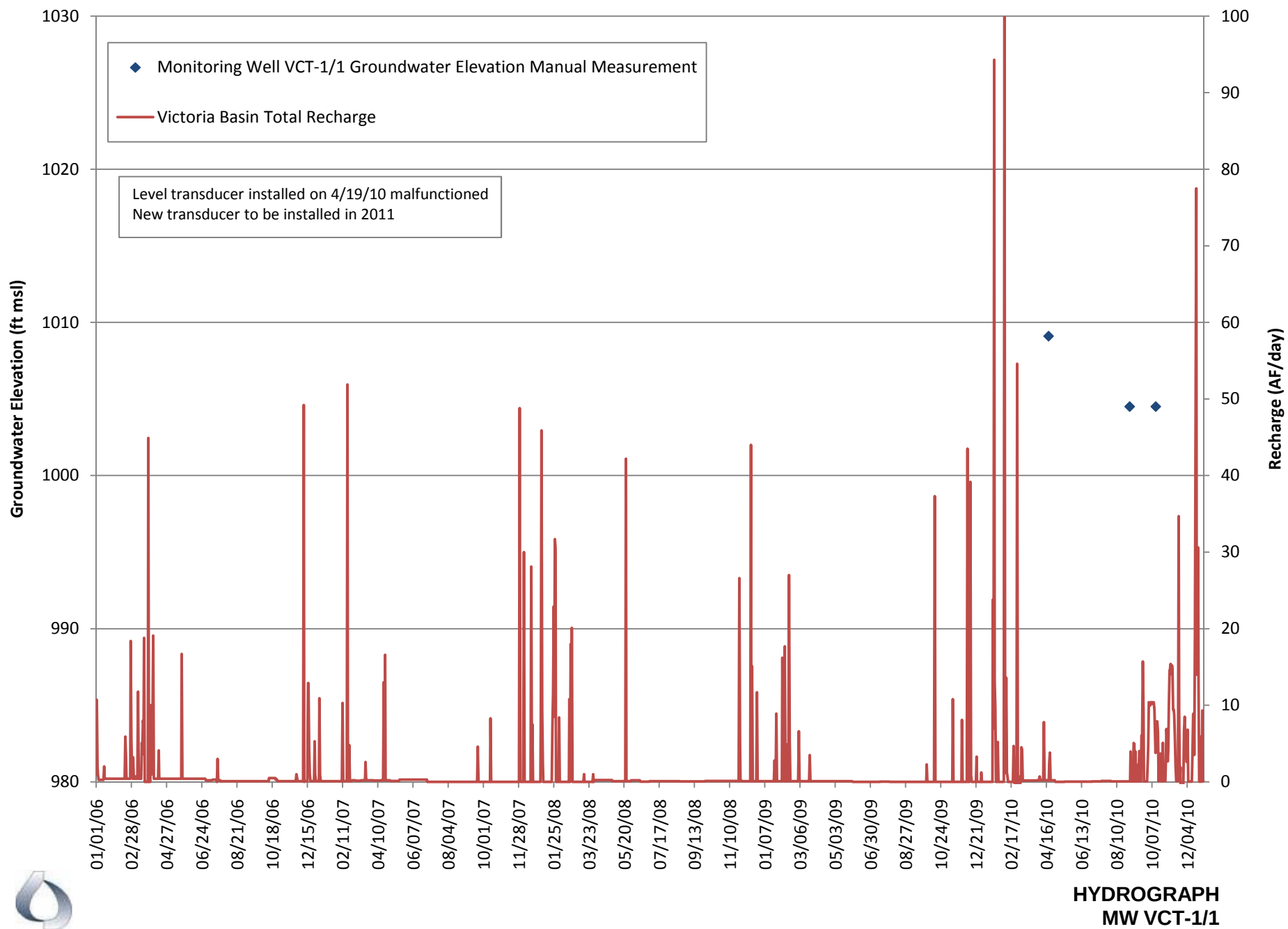
HYDROGRAPH
MW RP3-1/1 & RP3-1/2

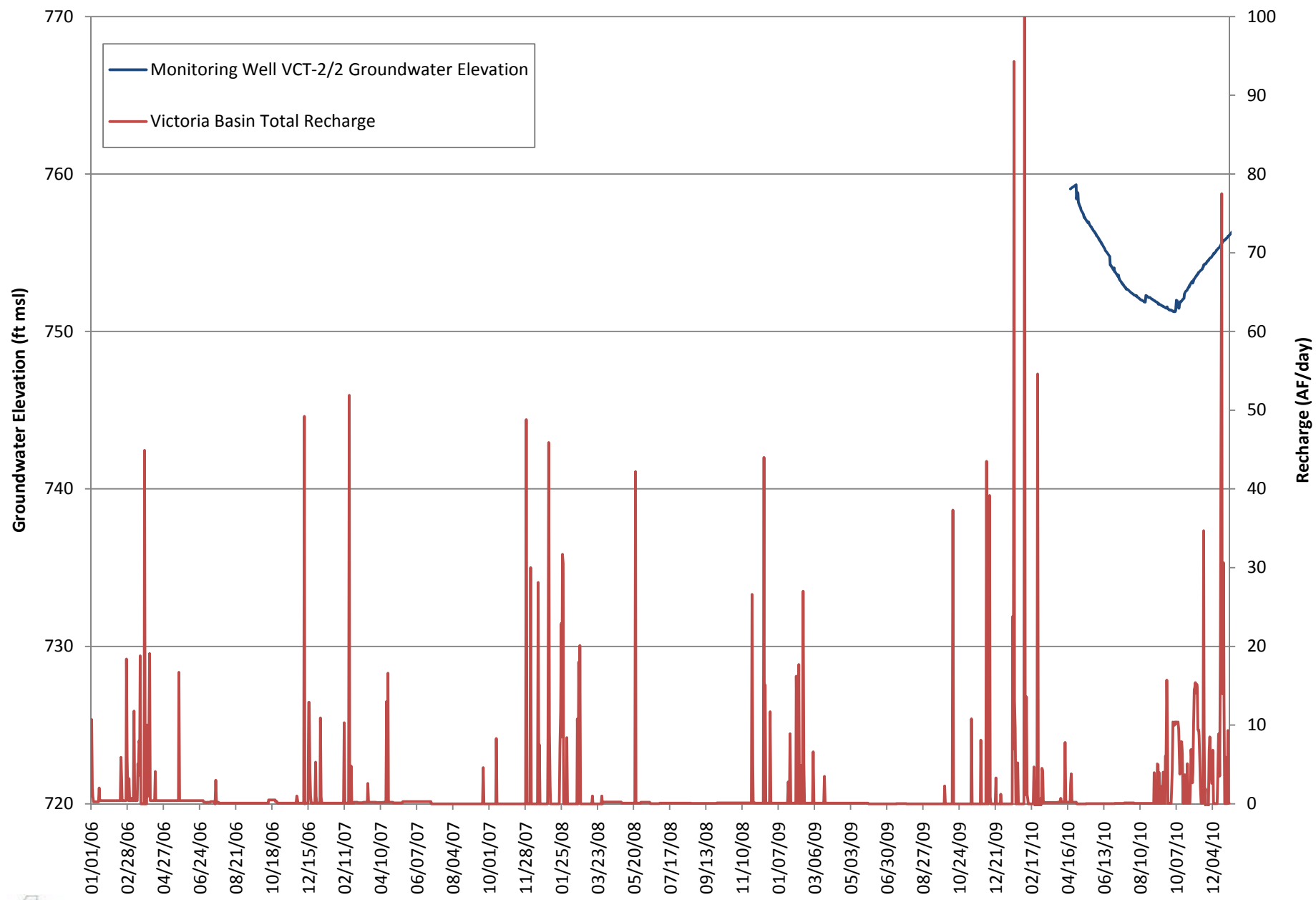




**HYDROGRAPH
MW SS-1/1**







**HYDROGRAPH
MW VCT-2/2**

