



Patrick O. Shields
Executive Manager of Operations

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August 15, 2007

Regional Water Quality Control Board, Santa Ana Region

Attention: Mr. Gerard Thibeault

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

**Subject: Chino Basin Recycled Water Groundwater Recharge Program
Quarterly Monitoring Report for April through June 2007**

Dear Mr. Thibeault,

The Inland Empire Utilities Agency (IEUA) and the Chino Basin Watermaster (Watermaster) hereby submit the *Quarterly Monitoring Report* for the second quarter of 2007 (2Q07), April 1 through June 30, 2007, for the *Recycled Water Groundwater Recharge Program*. This document is submitted pursuant to requirements in Order No. R8-2005-0033. All required monitoring and reporting for the quarter are presented in the attached report.

The monitoring results for 2Q07 show that the Groundwater Recharge Program was in compliance with all primary maximum contaminant levels (MCLs).

Furthermore, the Chino Basin Watermaster hereby certifies that, during the period of April 1 through June 30, 2007, there was no reported pumping for drinking water purposes in the buffer zones—zones that extend 500 feet laterally and 6 months underground travel time—of the Banana, Hickory, and Turner Basins. In point of fact, there are no production wells in the buffer zones of these three basins.

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.

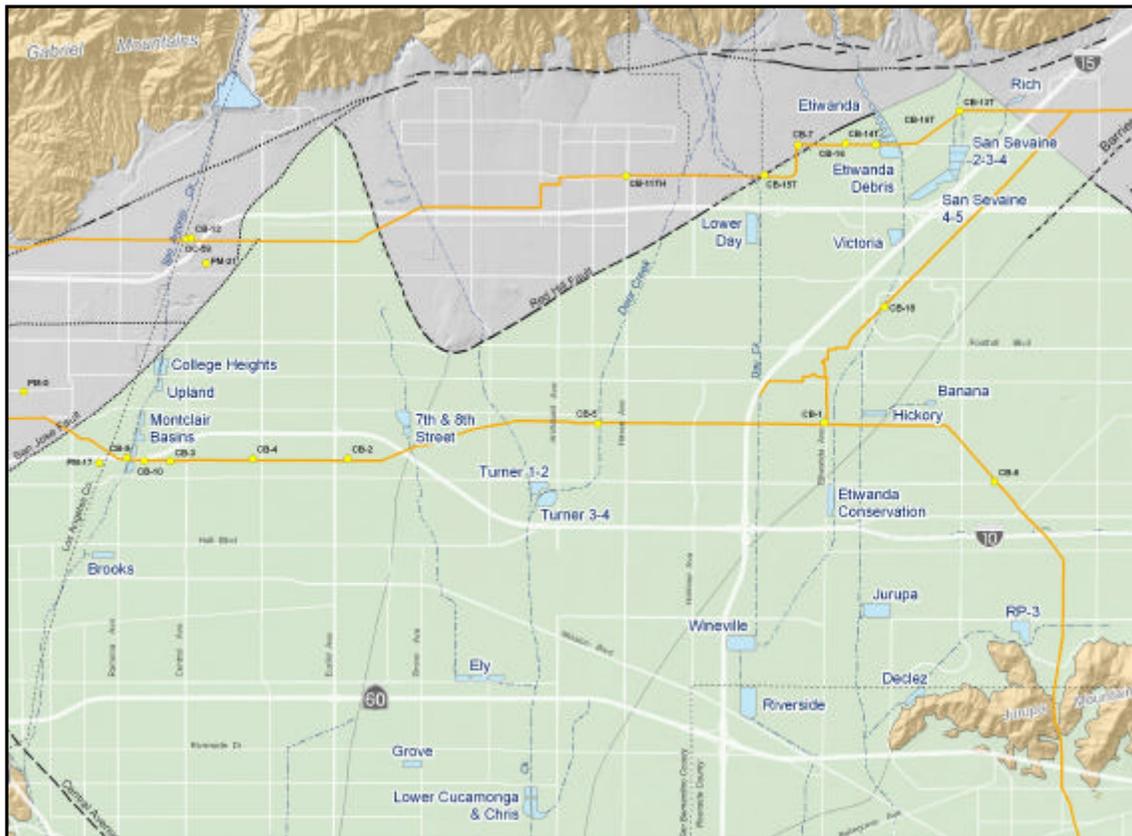
Executed on the 9th day of August 2007 in the Cities of Chino and Rancho Cucamonga.

Patrick Shields
Executive Manager of Operations

Kenneth Manning
Chief Executive Officer

Chino Basin Recycled Water Groundwater Recharge Program

Quarterly Monitoring Report April 1 through June 30, 2007



Prepared by:



August 15, 2007

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Introduction

Inland Empire Utilities Agency (IEUA), Chino Basin Watermaster (Watermaster), Chino Basin Water Conservation District, and San Bernardino County Flood Control District jointly sponsor the Chino Basin Recycled Water Groundwater Recharge Program. This is a comprehensive water supply program to enhance water supply reliability and improve groundwater quality in local drinking water wells throughout the Chino Groundwater Basin by increasing the recharge of stormwater, imported water, and recycled water. This program is an integral part of Watermaster's Optimum Basin Management Program (OBMP).

1. Order No. R8-2005-0033

The Recycled Water Groundwater Recharge Program being implemented by the IEUA and Watermaster is subject to the following requirements:

On April 15, 2005, the Santa Ana Regional Water Quality Control Board (Regional Board) adopted Order No. R8-2005-0033 which prescribes the requirements for use of recycled water for groundwater recharge via spreading in seven Phase I recharge basin sites. As a provision of this Order, IEUA and Watermaster must also comply with Monitoring and Reporting Program No. R8-2005-0033 (M&RP) as issued by the Regional Board. Additionally, on June 29, 2007, the Regional Board adopted Order No. R8-2007-0039 which incorporates both Phase I and Phase II of the Groundwater Recharge Program. Monitoring and reporting for 3Q07 will reflect the requirements specified in the new permit.

The M&RP includes the monitoring and reporting requirements of the Groundwater Recharge Program that require submittal on a quarterly and annual basis. This document is the quarterly report for the Second Quarter of 2007 (2Q07), which is due to the Regional Board by August 15, 2007.

The quarterly report includes the following elements as prescribed in the M&RP:

- Monitoring results for recycled water produced from the RP-1 and RP-4 facilities (including lysimeter monitoring), diluent water, and groundwater.
- Recycled water and diluent water volumes recharged at each basin.
- Reporting of any non-compliance events due to water quality, including records of any operational problems, plant upset and equipment breakdowns or malfunctions, and any diversion(s) of off-specification recycled water and the location(s) of final disposal. All corrective or preventive action(s) taken.
- Certification by the users that no groundwater has been pumped from the zone that extends 500 feet and 6 months underground travel time from the recharge basin(s) where recycled water is applied for domestic water supply use.

In April 2007, the Monte Vista Water District (MVWD) entered into an agreement with Watermaster and IEUA to begin reporting Aquifer Storage & Recovery (ASR) Project injection/recovery volumes and TIN/TDS data under the existing Phase I Groundwater Recharge Order No. R8-2005-0033.

A. Basin Operations

During 2Q07, the IEUA recharged recycled water at Banana Basin, Hickory Basin, and the Turner Basins. Recycled water was not recharged in the other Phase 1 basins during 2Q07, namely RP3 and Declez Basins.

Compliance monitoring points have not yet been established for the Turner Basins; therefore all sampling data are presented in this report for these basins. In the quarterly reports following the completion of the basin Start-Up Period reports, quarterly monitoring and reporting will be limited to

sampling points that are selected as the compliance monitoring points, as determined by the Start-Up Protocols.

B. Outline of the Quarterly Report

Section 2 of this quarterly report discusses the monitoring results for recycled water, diluent water, basin surface water, vadose zone water from lysimeters, and groundwater water from monitoring wells. Section 3 provides an overview of recharge operations, including the volume of diluent water and recycled water recharged. Section 4 describes any operational problems and preventive and/or corrective actions taken. Section 5 contains the certification of non-pumping in the 500-foot buffer zones around each basin. Finally, Section 6 introduces the Monte Vista Water District (MVWD) Aquifer Storage and Recovery (ASR) project, including injection volumes and TIN/TDS mass balance.

2. Monitoring Results

A. Recycled Water: RP-1 and RP-4

The requirements for recycled water monitoring are presented in the M&RP. Tables 2-1 through 2-6 include all of the requisite 2Q07 data.

Recycled Water Specifications A.4 through A.8 are narrative limits and the corresponding monitoring data are summarized in Tables 2-1 through 2-4. Narrative limits were not exceeded in 2Q07.

In the Order, compliance for constituents with maximum contaminant levels (MCLs) is based on 4-quarter running averages. These constituents are listed in Recycled Water Specifications A.1 and A.2 (Tables I and II in the Order). Running-quarterly average concentration data for 3Q06 through 2Q07 are summarized in Table 2-5 of this report. The table includes the calculated 4-quarter running average for each parameter (when specified for compliance determination) and the corresponding limits for compliance comparison. Maximum contaminants levels for inorganic chemicals, organic chemicals, radionuclides, and disinfection byproducts and action levels for lead and copper were not exceeded during 2Q07. Secondary MCLs and Oil & Grease do not require 4-quarter running averages for compliance determination.

IEUA has selected the recycled water sampling point along the distribution pipeline at the turnout to Reliant Energy (an IEUA customer) to be representative of the system blend of recycled water used for recharge. Although this sampling location is suitable for most constituents, it is not appropriate for disinfection byproducts, more specifically, Total Trihalomethanes (TTHMs) and Total Haloacetic Acids (HAA5). For these constituents, IEUA has chosen the 25-foot below ground surface lysimeter at Hickory Basin East Cell, which received recycled water during 2Q07, as the compliance point, in accordance with Recycled Water Specification A.2. For TTHMs and HAA5, the samples collected at the basin are more consistent and representative of the recycled water prior to reaching the groundwater table.

During 2Q07, only the threshold odor secondary MCL of 3 Units was exceeded by a sample value of 8 Units. Additional stormwater sampling of the basin and lysimeters has indicated that a slight odor is common to the formation.

Additional quarterly monitoring data for constituents with no specified limits are listed in Table 2-6.

B. Diluent Water

During 2Q07, local runoff was captured in three recharge sites that also receive recycled water: Banana Basin, Hickory Basin, and the Turner Basins. State Water Project water was not delivered to any of the basins during this monitoring period. Table 3-1 lists the delivered diluent water to the individual basins.

C. Recycled Water: Basin and Lysimeter Samples

TOC and nitrogen species sampling and analysis are performed weekly. Nitrogen species sampling has been reduced from bi-weekly to weekly since the start-up of the program due to the high quality RP-1 and RP-4 plant effluent, which regularly meets the 10 mg/L limit before entering the basin. The basin and lysimeter data are summarized in Table 2-7. The table includes data for Hickory and Turner Basins.

Banana Basin samples were not collected during 2Q07 as recycled water was only routed to it on two days and did not make up a significant volume. Hickory Basin was only sampled for TOC as recommended in the Start-Up Period report; compliance regarding nitrogen species at this basin is determined at the RP-1 and RP-4 plant effluent.

D. Groundwater Monitoring Wells

Groundwater quality within the vicinity of Banana and Hickory Basins is monitored by sampling a network of five wells; and the groundwater quality within the vicinity of the Turner Basins is monitored by sampling a network of five wells. Details of the monitoring well networks for Banana Basin, Hickory Basin, and the Turner Basins are summarized in Table 2-8.

All constituents analyzed from the monitoring wells during 2Q07 are presented in Table 2-9.

3. Recharge Operations

The IEUA's Groundwater Recharge Coordinator recorded the daily volumes of water routed to the Banana, Hickory, and Turner Basins. The Banana, Hickory, and Turner Basins were the only Phase 1 recharge basins to receive recycled water this quarter. Table 3-1 lists the volumes of diluent water, recycled water, and/or local runoff captured at these basins.

Banana Basin

During 2Q07, recycled water was delivered on two days through the Whittram force main. Local runoff was also delivered to Banana Basin during 2Q07 by pumping from Hickory Basin.

Hickory Basin

In April 2007, recycled water was delivered periodically through the Whittram force main. Perennial local runoff was captured in Hickory Basin from the San Sevaine Channel during 2Q07. No imported water was delivered to Hickory Basin during 2Q07.

Turner Basins

During 3Q06, the Start-Up Period for the Turner Basins was initiated. Recycled water was delivered through the RP-4 West Extension recycled water pipeline. Recycled water was captured in the Turner Basins from Deer Creek—commingled with local runoff in Deer Creek. During Start-Up Period testing, local runoff was captured at the Turner Basins only when recycled water was routed to the basins to maximize the percentage of recycled water recharged. Recycled water delivery to Turner Basin for the start-up period ended in June 2007. Due to slow percolation to the deep lysimeters, the actual end of the start-up period will be in either July or August 2007.

4. Operational Problems & Preventive and/or Corrective Actions

No operational problems were encountered this quarter, therefore no corrective actions were necessary for the following: Regional Plants RP-1 & RP-4, recharge operations, lysimeter and monitoring well sampling.

5. Certification of Non-Pumping in the Buffer Zones

Watermaster has certified that there was no reported pumping of groundwater for domestic or municipal use from the zones that extend 500 feet and 6 months underground travel time from the Hickory, Banana, and Turner Basins in 2Q07. In fact, there are no production wells within the buffer zones of these three recharge sites. In the cover letter of this report, Watermaster certifies non-pumping in the buffer zones.

The IEUA will continue to work with the San Bernardino County Department of Environmental Health Services (SBCDEHS) to prevent the drilling and construction of new drinking water wells within the buffer zones.

The SBCDEHS reviews new well permit applications in part by checking the proposed location of a new drinking water well against a list of parcels that abut recharge basins and their 500-foot buffers. The IEUA has provided the SBCDEHS with a list of parcels abutting each recharge basin and a series of maps showing the recharge basins, buffers, and township/range/section parcels adjacent the basins and buffers. If a well falls within an abutting parcel, the SBCDEHS will review the proposed well location using maps of the basins and buffers. If the well falls too near the buffer boundary for the SBCDEHS to determine the relationship of the proposed well location to the buffer boundary, the SBCDEHS will defer to the IEUA for a prompt review of the proposed well location, utilizing a field review. The field review may include contacting and having the well applicant identify the exact location of the proposed well casing. To conduct a detailed field review, the SBCDEHS will contact and provide the IEUA Groundwater Recharge Coordinator with a copy of the well permit application and a timeline for the completion of the IEUA's review. Following the review, the IEUA will notify the SBCDEHS of its findings in writing. The IEUA will also notify the CDHS and the RWQCB of well permit applications that it recommends be declined due to well locations that are determined to fall within a 500-foot buffer. The SBCDEHS has initiated control over production well permitting within the buffer zones of all Phase I basins through the use of buffer zone maps that utilize the same land coordinate system (Township/Range/Section) that is used in the permitting process.

With the Phase II recharge permit being issued by the Regional Board on June 29, 2007, the IEUA Board of Directors on June 20, 2007 adopted resolution 2007-06-17 to prohibit well drilling within specific distances of a groundwater recharge basin that will be used for recharging with recycled water. Coupled with existing resolution 2005-2-6 issued previously for the Phase I recharge permit, all Phase I and II basins are covered by such prohibition on nearby well drilling.

6. MVWD ASR Project

The Monte Vista Water District (MVWD) Aquifer Storage and Recovery (ASR) project was accepted for inclusion under IEUA/CBWM Phase I Groundwater Recharge Order No. R8-2005-0033. In April 2007, MVWD, Watermaster, and IEUA entered into an agreement to report the MVWD ASR project groundwater injection/recovery volumes and TIN/TDS mass balance alongside the existing recharge basins identified in the Phase I permit. The Regional Board has been apprised of this agreement in which IEUA will be reporting MVWD ASR project data on a quarterly basis. Initial injection began in June 2007. Table 6-1 summarizes the volume and TIN/TDS data of the water injected and recovered. The table also includes the mass balance of TIN/TDS from the injection-recovery cycles.

Table 2-1
Recycled Water Monitoring: RP-1 & RP-4 Effluent Water Quality for April 2007

Unit	RP-1 Effluent												RP-4 Effluent											
	Turbidity	TOC	NO ₂ -N	NO ₃ -N	TN	TKN+NO ₂ -N	TIN	pH	EC	TDS	Hardness	Coliform	Turbidity	TOC	NO ₂ -N	NO ₃ -N	TN	TKN+NO ₂ -N	TIN	pH	EC	TDS	Hardness	Coliform
Limits	2;5;10	16	1	10	5	5	6<pH<9					2.2;23;240	2;5;10	16	1	10	5			6<pH<9				2.2;23;240
04/01/07	0.9	6.5	<0.01	4.4	5.7	1.3	4.5	6.9	775			<2	0.3	6.5	<0.01	2.4	3.2	0.8	2.4	7.5	830			<2
04/02/07	1.0	NS						6.9	NS			2	0.3	6.4	<0.01	2.2			2.2	7.5	820			2
04/03/07	1.1	NS						6.9	NS			<2	0.3	6.3	<0.01	3.1			3.1	7.4	825			<2
04/04/07	1.1	NS						7.1	NS			4	0.3	10.9	<0.01	2.5			2.5	7.4	810			<2
04/05/07	1.2	5.7	<0.01	7.5	8.8	1.3	7.5	7.1	820	502		<2	0.4	6.1	<0.01	3.0	4.1	1.1	3.0	7.4	810	474		<2
04/06/07	1.0	6.3						7.0	775			<2	0.4	6.2	<0.01	2.4			2.4	7.4	800			<2
04/07/07	0.9	5.9						7.0	765			<2	0.3	6.1	<0.01	2.4			2.4	7.3	790			<2
04/08/07	0.9	6.2	<0.01	7.7	9.0	1.3	7.7	7.0	765		145	2	0.3	6.7	<0.01	2.4	3.3	0.9	2.4	7.4	800		143	<2
04/09/07	0.9	6.6						7.0	755			<2	0.4	7.0	<0.01	2.4			2.4	7.4	800			<2
04/10/07	1.0	7.1	<0.01	4.4			4.4	7.1	760	482		<2	0.3	6.6	0.02	3.4			3.5	7.4	790	472		<2
04/11/07	0.9	6.0						7.0	770			2	0.3	6.4	<0.01	3.1			3.1	7.5	785			<2
04/12/07	0.8	5.9	<0.01	5.7	6.9	1.2	5.7	7.1	764			<2	0.3	6.5	<0.01	3.5	4.2	0.8	3.5	7.5	790			<2
04/13/07	0.8	6.2						7.0	765			<2	0.3	6.3	<0.01	2.5			2.5	7.4	785			<2
04/14/07	0.8	5.7						7.0	760			2	0.3	6.1	<0.01	2.8			2.8	7.4	780			<2
04/15/07	0.7	5.7	<0.01	6.4	7.4	1.0	6.4	7.1	770			2	0.3	6.2	<0.01	2.5	3.5	0.9	2.5	7.4	805			<2
04/16/07	0.7	5.8						7.1	765			<2	0.4	6.5	<0.01	2.8			2.8	7.5	785			<2
04/17/07	0.8	5.8	<0.01	7.7	8.8	1.2	7.7	7.1	765	456		4	0.4	6.2	0.08	2.4			2.5	7.6	760	448		<2
04/18/07	0.7	5.1						7.1	745			<2	0.3	6.1	<0.01	2.7			2.7	7.5	755			<2
04/19/07	0.7	5.5	<0.01	7.5			7.5	7.1	740			2	0.2	6.0	<0.01	4.2			4.2	7.5	750			<2
04/20/07	0.7	5.3						7.1	725			<2	0.3	6.1	<0.01	4.2			4.2	7.4	745			<2
04/21/07	0.7	5.5						7.1	730			4	0.4	6.2	<0.01	4.4			4.4	7.4	740			<2
04/22/07	0.7	5.3	<0.01	6.0	7.7	1.7	6.0	7.1	730			<2	0.6	6.3	<0.01	3.0	4.7	1.8	3.0	7.5	750			<2
04/23/07	0.8	5.6						7.1	735			<2	0.8	6.7	<0.01	2.4			2.4	7.5	750			<2
04/24/07	0.8	5.5						7.1	740	474		<2	0.7	6.5	<0.01	2.2			2.2	7.4	745	454		<2
04/25/07	0.8	5.1						7.1	750			2	0.7	6.7	<0.01	0.9			0.9	7.1	740			2
04/26/07	0.8	5.2	<0.01	6.5	7.6	1.0	6.5	7.1	750			<2	0.7	6.5	<0.01	1.7	2.9	1.2	1.7	6.9	725			<2
04/27/07	0.8	5.0						7.1	745			<2	0.6	6.4	<0.01	2.0			2.0	7.2	745			<2
04/28/07	0.9	5.2						7.1	750			<2	0.5	6.3	<0.01	1.9			1.9	7.3	740			<2
04/29/07	0.9	5.5	<0.01	5.9	7.3	1.4	5.9	7.2	765			<2	0.7	6.7	<0.01	2.0	3.7	1.7	2.0	7.5	845			<2
04/30/07	0.9	5.6						7.1	760			<2	0.9	6.9	<0.01	0.5			0.5	7.6	845			<2
Avg	0.9	5.7	0.01	6.3	7.7	1.3	6.3	7.1	757	479	145	2	0.4	6.5	0.01	2.6	3.7	1.2	2.6	7.4	781	462	143	2
Min	0.7	5.0	<0.01	4.4	5.7	1.0	4.4	6.9	725	456	145	<2	0.2	6.0	<0.01	0.5	2.9	0.8	0.5	6.9	725	448	143	<2
Max	1.2	7.1	<0.01	7.7	9.0	1.7	7.7	7.2	820	502	145	4	0.9	10.9	0.08	4.4	4.7	1.8	4.4	7.6	845	474	143	2

Note: Turbidity and pH is monitored continuously at RP-1 and RP-4.

NS: No Sample

Turbidity and coliform must meet water quality standards for disinfected tertiary treated recycled water
TDS and TIN limits are based on a 12-month running average values which are presented in Table 2-4

Blank cells indicate that analysis was not run for a constituent on that particular date.

Bolded characters signify an exceedance of a permit limitation

Table 2-2
Recycled Water Monitoring: RP-1 & RP-4 Effluent Water Quality for May 2007

Unit	RP-1 Effluent												RP-4 Effluent											
	Turbidity	TOC	NO ₂ -N	NO ₃ -N	TN	TKN+NO ₂ -N	TIN	pH	EC	TDS	Hardness	Coliform	Turbidity	TOC	NO ₂ -N	NO ₃ -N	TN	TKN+NO ₂ -N	TIN	pH	EC	TDS	Hardness	Coliform
Limits	2;5;10	16	1		10	5		6<pH<9				2.2;23;240	2;5;10	16	1		10	5		6<pH<9				2.2;23;240
05/01/07	0.8	5.6	<0.01	5.7			5.7	7.2	755	464		<2	NS	NS	NS	NS			NS	NS	NS			<2
05/02/07	0.8	5.1	<0.01	6.8			6.8	7.2	765			<2	NS	NS	NS	NS			NS	NS	NS			NS
05/03/07	0.8	5.5		6.6	7.8	1.2		7.1	1010			<2	NS	NS	NS	NS			NS	NS	NS			NS
05/04/07	0.8	5.5						7.2	750			<2	1.3	6.8	<0.01	3.8	4.5	0.7	3.8	7.4	913			<2
05/05/07	0.8	5.2						7.2	763			<2	1.0	7.5	<0.01	13.5			13.5	7.3	986			<2
05/06/07	0.8	5.2	<0.01	7.2	8.4	1.2	7.3	7.2	755			<2	0.8	7.5	<0.01	18.0	19.1*	1.1	18.0	7.3	840			<2
05/07/07	0.8	5.3						7.2	760			<2	NS	7.5	<0.01	20.9			20.9	7.3	850			<2
05/08/07	0.8	5.1	<0.01	7.0	7.7	0.8	7.0	7.2	775	476	147	<2	NS	7.6	<0.01	21.4			21.4	7.2	855	546	194	NS
05/09/07	0.9	5.3						7.2	765			<2	NS	7.6	0.03	21.3			21.3	7.0	845			NS
05/10/07	0.9	5.3	<0.01	7.5	8.8	1.3	7.5	7.2	785			<2	NS	7.9	<0.01	17.3	18.5*	1.2	17.3	7.0	835			NS
05/11/07	0.8	5.7						7.2	780			<2	0.4	7.1	<0.01	10.7			10.7	7.0	825			NS
05/12/07	0.8	5.5						7.1	776			<2	0.3	6.8	<0.01	5.8			5.8	7.1	829			<2
05/13/07	0.8	5.5	<0.01	6.9	8.1	1.2	6.9	7.1	745			<2	0.3	6.7	<0.01	3.2	4.8	1.6	3.2	7.2	920			<2
05/14/07	0.9	5.5						7.1	765			<2	0.4	6.6	<0.01	3.1			3.3	7.2	805			<2
05/15/07	0.8	5.5	<0.01	7.1	7.8	0.7	7.1	7.1	780	480		<2	0.4	6.7	<0.01	3.3			3.3	7.2	790	470		2
05/16/07	0.8	5.3						7.1	765			<2	0.3	6.4	<0.01	3.5			3.5	7.1	790			<2
05/17/07	0.8	5.3	<0.01	6.8			6.8	7.1	760			<2	0.3	6.0	<0.01	3.4			3.4	7.1	785			<2
05/18/07	0.8	5.3						7.2	780			<2	0.3	5.8	<0.01	3.9			3.9	7.0	785			<2
05/19/07	0.8	5.2						7.2	765			<2	0.3	5.8	<0.01	4.1			4.1	7.0	775			<2
05/20/07	0.8	5.6	<0.01	6.6	7.2	0.6	6.6	7.2	750			<2	0.3	6.0	<0.01	2.5	2.5	<0.5	2.5	7.0	815			<2
05/21/07	0.7	5.6						7.2	760			<2	0.2	5.9	<0.01	1.3			1.3	7.2	790			<2
05/22/07	0.8	5.3	<0.01	6.6			6.6	7.2	765	466		<2	0.2	5.7	<0.01	1.9			1.9	7.2	780	466		<2
05/23/07	0.8	5.4						7.2	770			<2	0.3	5.4	<0.01	2.1			2.1	7.2	765			<2
05/24/07	0.8	5.2	<0.01	5.0	6.1	1.1	5.0	7.2	765			<2	0.2	5.2	<0.01	3.4	4.1	0.6	3.4	7.1	770			<2
05/25/07	0.8	5.5						7.2	785			<2	0.2	5.3	<0.01	4.0			4.0	7.1	785			<2
05/26/07	0.8	5.8						7.2	775			<2	0.3	5.5	<0.01	2.4			2.4	7.1	780			<2
05/27/07	0.8	5.7						7.3	845			<2	0.3	5.4	<0.01	1.5			1.5	7.2	805			<2
05/28/07	0.9	5.8						7.2	790			<2	0.2	5.6	<0.01	1.6			1.6	7.2	795			<2
05/29/07	0.9	6.0	<0.01	4.6	5.8	1.2	4.6	7.3	800	490		<2	0.2	5.6	<0.01	1.8			1.8	7.1	795	470		<2
05/30/07	0.9	NS						7.2	NS			<2	0.2	5.6	<0.01	1.8			1.9	7.1	780			<2
05/31/07	0.9	6.2	<0.01	5.0	6.2	1.3	5.0	7.3	815			<2	0.3	5.7	<0.01	2.4	3.1	0.8	2.4	7.1	790			<2
Avg	0.8	5.5	0.01	6.4	7.4	1.1	6.4	7.2	781	475	147	2	0.4	6.3	0.01	6.6	8.1	1.0	6.6	7.1	817	488	194	2
Min	0.7	5.1	<0.01	4.6	5.8	0.6	4.6	7.1	745	464	147	<2	0.2	5.2	<0.01	1.3	2.5	<0.5	1.3	7.0	765	466	194	<2
Max	0.9	6.2	<0.01	7.5	8.8	1.3	7.5	7.3	1010	490	147	<2	1.3	7.9	0.03	21.4	19.1	1.6	21.4	7.4	986	546	194	2

Note: Turbidity and pH is monitored continuously at RP-1 and RP-4.

NS: No Sample

Turbidity and coliform must meet water quality standards for disinfected tertiary treated recycled water

***Turner Basin was not being recharged with RP-4 effluent during this time**

TDS and TIN limits are based on a 12-month running average values which are presented in Table 2-4

Blank cells indicate that analysis was not run for a constituent on that particular date.

Bolded characters signify an exceedance of a permit limitation

Table 2-3
Recycled Water Monitoring: RP-1 & RP-4 Effluent Water Quality for June 2007

Unit	RP-1 Effluent												RP-4 Effluent											
	Turbidity	TOC	NO ₂ -N	NO ₃ -N	TN	TKN+NO ₂ -N	TIN	pH	EC	TDS	Hardness	Coliform	Turbidity	TOC	NO ₂ -N	NO ₃ -N	TN	TKN+NO ₂ -N	TIN	pH	EC	TDS	Hardness	Coliform
Limits	2;5;10	16	1		10	5		6<pH<9				2.2;23;240	2;5;10	16	1		10	5		6<pH<9				2.2;23;240
06/01/07	0.9	6.3					7.2	790				<2	0.5	5.6	<0.01	2.2			2.2	7.1	775			<2
06/02/07	0.9	6.5					7.3	785				<2	0.6	5.7	<0.01	2.6			2.6	7.1	780			<2
06/03/07	0.9	5.7	<0.01	7.9	8.8	1.0	7.9	730				<2	0.5	5.7	<0.01	2.9	3.6	0.7	2.9	7.1	785			<2
06/04/07	0.9	5.7					7.3	775				<2	0.4	5.6	<0.01	3.0			3.0	7.2	790			<2
06/05/07	0.9	5.8	<0.01	6.6	7.7	1.1	6.6	730	486	141		<2	0.3	5.5	<0.01	3.7			3.7	7.1	785	468	133	<2
06/06/07	0.8	5.5					7.4	785				2	0.2	5.3	<0.01	3.9			4.1	7.2	780			<2
06/07/07	0.9	5.8	<0.01	5.6	6.7	1.1	5.6	775				<2	0.3	5.4	<0.01	4.6	5.6	1.0	4.6	7.2	780			<2
06/08/07	0.9	6.0					7.4	790				<2	0.3	5.5	<0.01	3.9			3.9	7.1	780			<2
06/09/07	0.9	5.9					7.4	795				<2	0.3	5.5	<0.01	3.0			3.0	7.2	785			<2
06/10/07	0.9	5.5	<0.01	7.1	8.3	1.2	7.1	775				<2	0.3	5.7	<0.01	2.6	3.4	0.8	2.6	7.2	790			<2
06/11/07	0.9	5.6					7.4	780				<2	0.3	5.9	<0.01	2.0			2.0	7.2	790			<2
06/12/07	0.9	5.6	<0.01	6.7			6.7	785	480			<2	0.3	6.4	<0.01	1.8			1.8	7.2	780	460		<2
06/13/07	0.9	5.4					7.4	780				<2	0.3	6.3	<0.01	2.1			2.1	7.2	785			<2
06/14/07	0.9	5.2	<0.01	7.2	7.9	0.7	7.2	770				2	0.3	6.1	<0.01	3.2	3.8	0.6	3.2	7.2	775			<2
06/15/07	0.9	5.2					7.4	780				<2	0.4	6.3	<0.01	3.9			3.9	7.1	800			<2
06/16/07	0.9	5.3					7.4	770				<2	0.4	6.7	<0.01	2.6			2.6	7.1	770			<2
06/17/07	0.9	5.3	<0.01	6.2			6.2	770				2	0.5	7.1	<0.01	2.5			2.5	6.8	805			<2
06/18/07	0.9	5.4					7.4	785				<2	0.5	6.9	<0.01	3.1			3.1	7.3	815			<2
06/19/07	0.9	5.4	<0.01	6.2	7.1	0.9	6.2	775	476			<2	0.5	6.5	<0.01	3.2	3.9	0.8	3.2	7.4	805	476		<2
06/20/07	0.7	5.2					7.5	770				<2	0.5	6.8	<0.01	3.4			3.4	7.3	800			<2
06/21/07	0.7	5.1	<0.01	5.5	6.6	1.0	5.5	770				<2	0.6	7.0	<0.01	3.1	4.1	1.0	3.1	7.5	810			<2
06/22/07	0.7	4.8					7.5	770				<2	0.5	6.5	<0.01	2.7			2.7	7.4	810			<2
06/23/07	0.8	4.8					7.5	775				<2	0.7	7.4	<0.01	2.9			2.9	7.3	820			<2
06/24/07	0.8	5.0	<0.01	5.1	5.8	0.7	5.1	775				<2	0.5	7.2	<0.01	4.2	5.0	0.8	4.2	7.3	830			<2
06/25/07	0.8	5.2					7.5	770				<2	0.4	6.6	<0.01	3.7			3.7	7.3	815			<2
06/26/07	0.9	5.3	<0.01	5.7	6.3	0.5	5.7	785	490			<2	0.4	5.9	<0.01	3.8	4.6	0.8	3.8	7.2	820	486		<2
06/27/07	0.9	5.3					7.5	790				<2	0.3	6.4	<0.01	3.5			3.5	7.5	810			<2
06/28/07	0.8	5.1	<0.01	5.2			5.2	775				<2	0.5	7.1	<0.01	4.3			4.3	7.3	810			<2
06/29/07	0.8	4.7					7.5	780				<2	0.5	7.0	<0.01	3.0			3.0	7.1	820			<2
06/30/07	0.8	4.8					7.6	770				<2	0.7	7.7	<0.01	3.5			3.5	6.9	815			<2
Avg	0.8	5.4	0.01	6.3	7.2	0.9	6.3	779	483	141	2	0.4	6.3	0.01	3.2	4.2	0.8	3.2	7.2	797	473	133	2	
Min	0.7	4.7	<0.01	5.1	5.8	0.5	5.1	770	476	141	<2	0.2	5.3	<0.01	1.8	3.4	0.6	1.8	6.8	770	460	133	<2	
Max	0.9	6.5	<0.01	7.9	8.8	1.2	7.9	795	490	141	2	0.7	7.7	<0.01	4.6	5.6	1.0	4.6	7.5	830	486	133	<2	

Note: Turbidity and pH is monitored continuously at RP-1 and RP-4.

Blank cells indicate that analysis was not run for a constituent on that particular date.

Turbidity and coliform must meet water quality standards for disinfected tertiary treated recycled water

TDS and TIN limits are based on a 12-month running average values which are presented in Table 2-4

Bolded characters signify an exceedance of a permit limitation

Table 2-4
IEUA's Agency-Wide Flow-Weighted TIN & TDS - 12-Month Running Average (mg/L)

Date	TIN		TDS	
	Monthly	12-Mo. Run Avg.	Monthly	12-Mo. Run Avg.
Jul-06	6.8	7.3	472	469
Aug-06	5.9	7.3	475	470
Sep-06	6.5	7.4	465	470
Oct-06	6.4	7.6	457	469
Nov-06	6.9	7.6	456	468
Dec-06	7.1	7.5	470	467
Jan-07	7.7	7.3	488	467
Feb-07	6.2	7.1	481	468
Mar-07	6.7	6.9	490	470
Apr-07	5.6	6.7	491	472
May-07	5.6	6.5	489	475
Jun-07	6.0	6.5	425	472
Avg	6.5	7.1	472	470
Min	5.6	6.5	425	467
Max	7.7	7.6	491	475

Note: TIN & TDS must meet the Agency-wide 12-mo. running average limits of 8 mg/L & 550 mg/L, respectively.

Table 2-5
Recycled Water Quality Specifications A.1, A.2, A.3, & A.15

Constituent	3Q06	4Q06	1Q07	2Q07	4Q Run. Avg.	Limit	Unit	Method
Inorganic Chemicals								
Aluminum	<25	<25	<25	<25	<25	1000	µg/L	EPA 200.7
Antimony	<0.5	<0.5	0.7	0.8	0.6	6	µg/L	EPA 200.8
Arsenic	<2	<2	<2	<2	<2	10	µg/L	EPA 200.8
Asbestos	<1.1	<0.2	<0.2	<0.2	<0.4	7	MFL	EPA 100.2
Barium	14	12	16	18	15	1000	µg/L	EPA 200.7
Beryllium	<0.5	<0.5	<0.5	<0.5	<0.5	4	µg/L	EPA 200.7
Cadmium	<0.25	<0.25	<0.25	<0.25	<0.25	5	µg/L	EPA 200.7
Chromium	1.7	1.1	3.1	2.1	2.0	50	µg/L	EPA 200.7
Cyanide	4	6	5	<5	5	150	µg/L	SM 4500-CN E
Fluoride	0.3	0.3	0.2	0.3	0.3	2	mg/L	SM 4500-F C
Mercury	<0.2	<0.2	<0.2	<0.2	<0.2	2	µg/L	EPA 245.2
Nickel	2	2	2	2	2	100	µg/L	EPA 200.7
Selenium	<2	<2	2	<2	<2	50	µg/L	EPA 200.8
Thallium	<1	<1	<1	<1	<1	2	µg/L	EPA 200.8
Volatile Organic Chemicals (VOCs)								
Benzene	<0.5	<0.5	<0.5	<0.5	<0.5	1	µg/L	EPA 524.2
Carbon Tetrachloride	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	µg/L	EPA 524.2
1,2-Dichlorobenzene	<0.5	<0.5	<0.5	<0.5	<0.5	600	µg/L	EPA 524.2
1,4-Dichlorobenzene	<0.5	<0.5	<0.5	<0.5	<0.5	5	µg/L	EPA 524.2
1,1-Dichloroethane	<0.5	<0.5	<0.5	<0.5	<0.5	5	µg/L	EPA 524.2
1,2-Dichloroethane	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	µg/L	EPA 524.2
1,1-Dichloroethylene	<0.5	<0.5	<0.5	<0.5	<0.5	6	µg/L	EPA 524.2
cis-1,2-Dichloroethylene	<0.5	<0.5	<0.5	<0.5	<0.5	6	µg/L	EPA 524.2
trans-1,2-Dichloroethylene	<0.5	<0.5	<0.5	<0.5	<0.5	10	µg/L	EPA 524.2
Dichloromethane	<0.5	<0.5	<0.5	<0.5	<0.5	5	µg/L	EPA 524.2
1,2-Dichloropropane	<0.5	<0.5	<0.5	<0.5	<0.5	5	µg/L	EPA 524.2
1,3-Dichloropropane	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	µg/L	EPA 524.2
Ethylbenzene	<0.5	<0.5	<0.5	<0.5	<0.5	300	µg/L	EPA 524.2
Methyl-tert-butyl ether	<0.5	<0.5	<0.5	<0.5	<0.5	13	µg/L	EPA 524.2
Monochlorobenzene	<0.5	<0.5	<0.5	<0.5	<0.5	70	µg/L	EPA 524.2
Styrene	<0.5	<0.5	<0.5	<0.5	<0.5	100	µg/L	EPA 524.2
1,1,2,2-Tetrachloroethane	<0.5	<0.5	<0.5	<0.5	<0.5	1	µg/L	EPA 524.2
Tetrachloroethylene	<0.5	<0.5	<0.5	<0.5	<0.5	5	µg/L	EPA 524.2
Toluene	<0.5	<0.5	<0.5	<0.5	<0.5	150	µg/L	EPA 524.2
1,2,4-Trichlorobenzene	<0.5	<0.5	<0.5	<0.5	<0.5	5	µg/L	EPA 524.2
1,1,1-Trichloroethane	<0.5	<0.5	<0.5	<0.5	<0.5	200	µg/L	EPA 524.2
1,1,2-Trichloroethane	<0.5	<0.5	<0.5	<0.5	<0.5	5	µg/L	EPA 524.2
Trichloroethylene	<0.5	<0.5	<0.5	<0.5	<0.5	5	µg/L	EPA 524.2
Trichlorofluoromethane	<0.5	<0.5	<0.5	<0.5	<0.5	150	µg/L	EPA 524.2
1,1,2-Trichloro-1,2,2-Trifluoroethane	<0.5	<0.5	<0.5	<0.5	<0.5	1200	µg/L	EPA 524.2
Vinyl Chloride	<0.3	<0.3	<0.3	<0.3	<0.3	0.5	µg/L	EPA 524.2
m,p-Xylene	<0.5	<1	<1	<1	<1	1750 ¹	µg/L	EPA 524.2
o-Xylene	<0.5	<0.5	<0.5	<0.5	<0.5		µg/L	EPA 524.2
Non-Volatile Synthetic Organic Chemicals (SOCs)								
Alachlor (Alanex)	<0.1	<0.1	<0.1	<0.1	<0.1	2	µg/L	EPA 505
Atrazine	<0.05	<0.05	<0.05	<0.05	<0.05	1	µg/L	EPA 525.2
Bentazon	<0.5	<0.5	<0.5	<0.5	<0.5	18	µg/L	EPA 515.4
Benzo(a)pyrene	<0.02	<0.02	<0.02	<0.02	<0.02	0.2	µg/L	EPA 525.2
Carbofuran	<0.5	<0.5	<0.5	<0.5	<0.5	18	µg/L	EPA531.2
Chlordane	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	µg/L	EPA 505
2,4-D	<0.1	<0.1	<0.1	<0.1	<0.1	70	µg/L	EPA 515.4
Dalapon	5.1	3.5	5.1	3.4	4.3	200	µg/L	EPA 515.4
Dibromochloropropane	<0.01	<0.01	<0.01	<0.01	<0.01	0.2	µg/L	EPA 504.1
Di(2-ethylhexyl)adipate	<0.6	<0.6	<0.6	<0.6	<0.6	400	µg/L	EPA 525.2
Di(2-ethylhexyl)phthalate	1.1	<0.6	<0.6	<0.6	<0.7	4	µg/L	EPA 525.2
Dinoseb	<0.2	<0.2	<0.2	<0.2	<0.2	7	µg/L	EPA 515.4
Diquat	<0.4	<0.4	<0.4	<0.4	<0.4	20	µg/L	EPA 549.2
Endothall	<5	<5	<5	<5	<5	100	µg/L	EPA 548.1

Table 2-5
Recycled Water Quality Specifications A.1, A.2, A.3, & A.15

Constituent					4Q Run.	Limit	Unit	Method
	3Q06	4Q06	1Q07	2Q07	Avg.			
Endrin	<0.01	<0.01	<0.01	<0.01	<0.01	2	µg/L	EPA 505
Ethylene Dibromide	<0.01	<0.01	<0.01	<0.01	<0.01	0.05	µg/L	EPA 504.1
Glyphosate	<6	<6	<6	<6	<6	700	µg/L	EPA 547
Heptachlor	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	µg/L	EPA 505
Heptachlor Epoxide	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	µg/L	EPA 505
Hexachlorobenzene	<0.05	<0.05	<0.05	<0.05	<0.05	1	µg/L	EPA 525.2
Hexachlorocyclopentadiene	<0.05	<0.05	0.08	<0.05	<0.06	50	µg/L	EPA 525.2
Lindane	<0.01	<0.01	<0.01	<0.01	<0.01	0.2	µg/L	EPA 505
Methoxychlor	<0.05	<0.05	<0.05	<0.05	<0.05	30	µg/L	EPA 505
Molinate	<0.1	<0.1	<0.1	<0.1	<0.1	20	µg/L	EPA 525.2
Oxamyl	<0.5	<0.5	<0.5	<0.5	<0.5	50	µg/L	EPA 531.2
Pentachlorophenol	<0.04	<0.04	<0.04	<0.04	<0.04	1	µg/L	EPA 515.4
Picloram	<0.1	<0.1	<0.1	<0.1	<0.1	500	µg/L	EPA 515.4
PCB 1016	<0.07	<0.07	<0.07	<0.08	<0.07	0.5	µg/L	EPA 505
PCB 1221	<0.1	<0.1	<0.1	<0.1	<0.1	0.5	µg/L	EPA 505
PCB 1232	<0.1	<0.1	<0.1	<0.1	<0.1	0.5	µg/L	EPA 505
PCB 1242	<0.1	<0.1	<0.1	<0.1	<0.1	0.5	µg/L	EPA 505
PCB 1248	<0.1	<0.1	<0.1	<0.1	<0.1	0.5	µg/L	EPA 505
PCB 1254	<0.1	<0.1	<0.1	<0.1	<0.1	0.5	µg/L	EPA 505
PCB 1260	<0.1	<0.1	<0.1	<0.1	<0.1	0.5	µg/L	EPA 505
Simazine	<0.05	<0.05	<0.05	<0.05	<0.05	4	µg/L	EPA 525.2
Thiobencarb	<0.2	<0.2	<0.2	<0.2	<0.2	70	µg/L	EPA 525.2
Toxaphene	<0.5	<0.5	<0.5	<0.5	<0.5	3	µg/L	EPA 505
2,3,7,8-TCDD (Dioxin)	<5	<5	<5	<5	<5	30	pg/L	EPA 1613
2,4,5-TP (Silvex)	<0.2	<0.2	<0.2	<0.2	<0.2	50	µg/L	EPA 515.4
Action Level Chemicals								
Copper	5.4	3.7	3.7	11.8	6.2	1300	µg/L	EPA 200.7
Lead	<0.5	<0.5	<0.5	0.5	<0.5	15	µg/L	EPA 200.8
Radionuclides								
Combined Radium-226 and Radium 228	<0.754	<0.705	<0.705	<0.618	<0.696	5	pCi/l	EPA 903.0
Gross Alpha Particle Activity	<3	<3	<3	<3	<3	15	pCi/l	EPA 900.0
Tritium	<263	<178	190	<194	<206	20,000	pCi/l	EPA 906
Strontium-90	1.07	<0.790	<0.665	<0.688	<0.803	8	pCi/l	EPA 905
Gross Beta Particle Activity	12	10	9	13	11	50	pCi/l	EPA 900.0
Uranium	<0.7	<0.7	<0.7	<0.7	<0.7	20	pCi/l	EPA 200.8
Secondary Maximum Contaminant Level Chemicals ²								
Aluminum				<25		200	µg/L	EPA 200.7
Copper				11.8		1000	µg/L	EPA 200.8
Corrosivity				-0.3		Non-Cor.	SI	SM 2330B
Foaming Agents (MBAS)				<0.05		500	µg/L	S5540C/EPA 425.1
Iron				NR		300	µg/L	EPA 200.7
Manganese				7		50	µg/L	EPA 200.7
Methyl-tert-butyl ether (MTBE)				<0.5		5	µg/L	EPA 524.2
Odor--Threshold				8		3	TON	SM 2150B
Silver				<0.25		100	µg/L	EPA 200.7
Thiobencarb				<0.2		1	µg/L	EPA 525.2
Zinc				75		5000	µg/L	EPA 200.7
Miscellaneous Regulated Constituents ²								
Oil & Grease				2		1	mg/L	EPA 1664
Disinfection Byproducts								
Bromate	<5	<5	<5	<5	<5	10	µg/L	EPA 300.1
Chlorite	<0.02	<0.02	<0.05	<0.02	<0.03	1	µg/L	EPA 300.0
Lysimeter Compliance Point Data	HE-25	HE-25	HE-25	HE-25				
Total Trihalomethanes (TTHMs)	37	66	13	16	33	80	µg/L	EPA 524.2/624
Total Haloacetic Acids (HAA5)	<1	<1	<1	<1	<1	60	µg/L	S6251B

NR: Not Required (Annual Requirement)

¹ The sum of m,p-Xylene and o-Xylene is used to calculate compliance for the Total Xylenes limit

² Secondary MCLs and Odor & Grease do not require 4-quarter running average for compliance determination

Table 2-6
Recycled Water Monitoring: Table II. Remaining Priority Pollutants, EDCs & Pharmaceuticals, and Unregulated Chemicals

Constituent	2Q07	Unit	Method
Metals			
Chromium (III) ¹	2.1	µg/L	EPA 200.8
Volatile Organic Chemicals (VOCs)			
Acrolein	<2	µg/L	EPA 624
Acrylonitrile	<2	µg/L	EPA 624
Bromoform	<0.5	µg/L	EPA 524.2
Chlorodibromomethane	3.2	µg/L	EPA 524.2
Chloroethane	<0.5	µg/L	EPA 524.2
2-Chloroethylvinylether	<1	µg/L	EPA 624
Chloroform	79	mg/L	EPA 524.2
Dichlorobromomethane	20	µg/L	EPA 524.2
Methyl Bromide	<0.5	µg/L	EPA 524.2
Methyl Chloride	<0.5	µg/L	EPA 524.2
Acid Extractibles			
2-Chlorophenol	<1	µg/L	EPA 625
2,4-Dichlorophenol	<2	µg/L	EPA 625
2,4-Dimethylphenol	<1	µg/L	EPA 625
2-Methyl-4,6-dinitrophenol	<2	µg/L	EPA 625
2,4-Dinitrophenol	<3	µg/L	EPA 625
2-Nitrophenol	<1	µg/L	EPA 625
4-Nitrophenol	<3	µg/L	EPA 625
4-Chloro-3-methylphenol	<1	µg/L	EPA 625
Phenol	<1	µg/L	EPA 625
2,4,6-Trichlorophenol	<1	µg/L	EPA 625
Base/Neutral Extractibles			
Acenaphthene	<1	µg/L	EPA 625
Acenaphthylene	<1	µg/L	EPA 625
Anthracene	<1	µg/L	EPA 625
Benzidine	<5	µg/L	EPA 625
Benzo(a)anthracene	<5	µg/L	EPA 625
Benzo(b)fluoranthene	<1	µg/L	EPA 625
Benzo(g,h,i)perylene	<2	µg/L	EPA 625
Benzo(k)fluoranthene	<1	µg/L	EPA 625
Bis(2-chloroethoxy)methane	<2	µg/L	EPA 625
Bis(2-chloroethyl)ether	<1	µg/L	EPA 625
Bis(2-chloroisopropyl)ether	<1	µg/L	EPA 625
4-Bromophenyl phenyl ether	<1	µg/L	EPA 625
Butyl benzyl phthalate	<1	µg/L	EPA 625
2-Chloronaphthalene	<1	µg/L	EPA 625
4-Chlorophenyl phenyl ether	<1	µg/L	EPA 625
Chrysene	<1	µg/L	EPA 625
Dibenzo(a,h)anthracene	<1	µg/L	EPA 625
1,3-Dichlorobenzene	<1	µg/L	EPA 625
3,3-Dichlorobenzidine	<5	µg/L	EPA 625
Diethyl phthalate	<2	µg/L	EPA 625
Dimethyl phthalate	<1	µg/L	EPA 625
Di-n-butyl phthalate	<1	µg/L	EPA 625
2,4-Dinitrotoluene	<1	µg/L	EPA 625
2,6-Dinitrotoluene	<2	µg/L	EPA 625
Di-n-octyl phthalate	<1	µg/L	EPA 625
Azobenzene	<1	µg/L	EPA 625
Fluoranthene	<1	µg/L	EPA 625
Fluorene	<1	µg/L	EPA 625
Hexachlorobutadiene	<1	µg/L	EPA 625
Hexachlorocyclopentadiene	<5	µg/L	EPA 625
Hexachloroethane	<1	µg/L	EPA 625
Indeno(1,2,3-cd)pyrene	<2	µg/L	EPA 625
Isophorone	<1	µg/L	EPA 625
Naphthalene	<1	µg/L	EPA 625
Nitrobenzene	<1	µg/L	EPA 625
N-Nitroso-di-n-propylamine	<1	µg/L	EPA 625
N-Nitrosodiphenylamine	<1	µg/L	EPA 625
Phenanthrene	<1	µg/L	EPA 625
Pyrene	<1	µg/L	EPA 625
Pesticides			
Aldrin	<0.005	µg/L	EPA 608
BHC, alpha isomer	<0.01	µg/L	EPA 608
BHC, beta isomer	<0.005	µg/L	EPA 608
BHC, delta isomer	<0.007	µg/L	EPA 608
4,4'-DDT	<0.01	µg/L	EPA 608
4,4'-DDE	<0.01	µg/L	EPA 608
4,4'-DDD	<0.01	µg/L	EPA 608
Dieldrin	<0.01	µg/L	EPA 608
Endosulfan I	<0.01	µg/L	EPA 608
Endosulfan II	<0.01	µg/L	EPA 608
Endosulfan Sulfate	<0.01	µg/L	EPA 608
Endrin Aldehyde	<0.01	µg/L	EPA 608

Constituent	2Q07	Unit	Method
Unregulated Chemicals			
Boron	0.3	mg/L	EPA 200.7
Chromium VI	0.22	µg/L	EPA 218.6
Dichlorofluoromethane	<0.5	µg/L	EPA 524.2
Ethyl tertiary butyl ether	<3	µg/L	EPA 524.2
N-nitrosodimethylamine (NDMA) ²	9	ng/L	1625MOD
Perchlorate	<4	µg/L	EPA 314
Tertiary amyl methyl ether	<3	µg/L	EPA 524.2
Tertiary butyl alcohol	<2	µg/L	542.2 MOD
Vanadium	4	µg/L	EPA 200.8
1,4 - Dioxane	<2	µg/L	8270MOD
1,2,3-Trichloropropane	<0.5	µg/L	EPA 524.2
Chemicals w/ State Notification Levels			
n-butylbenzene	<0.5	µg/L	EPA 524.2
sec-butylbenzene	<0.5	µg/L	EPA 524.2
tert-butylbenzene	<0.5	µg/L	EPA 524.2
Carbon disulfide	NR	µg/L	EPA 524.2
Chlorate	NR	µg/L	EPA 300.0
2-Chlorotoluene	<0.5	µg/L	EPA 524.2
Diazinon	NR	µg/L	EPA 525.2
Formaldehyde	NR	µg/L	SM 6252/EPA 8315
Isopropylbenzene	<0.5	µg/L	EPA 524.2
N-propylbenzene	<0.5	µg/L	EPA 524.2
1,2,4-trimethylbenzene	<0.5	µg/L	EPA 524.2
1,3,5-trimethylbenzene	<0.5	µg/L	EPA 524.2
N-Nitrosodiethylamine (NDEA)	NR	µg/L	EPA 524.2
N-Nitrosopyrrolidine	NR	µg/L	EPA 524.2
Endocrine Disrupting Chemicals, Pharmaceuticals and Other Chemicals			
<u>Hormones</u>			
Ethinyl estradiol	NR	ng/L	HPLC/MS-SEDC
17-B estradiol	NR	ng/L	HPLC/MS-SEDC
Estrone	NR	ng/L	HPLC/MS-SEDC
<u>"Industrial" Endocrine Disruptors</u>			
Bisphenol A	NR	ng/L	HPLC/MS-SEDC
Nonylphenol and nonylphenol polyethoxylate	NR	ng/L	HPLC/MS-SEDC
Octylphenol and octylphenol polyethoxylate	NR	ng/L	HPLC/MS-SEDC
PolybromiNA	NR	ng/L	8270C SIM
PBDE 28	NR	ng/L	8270C SIM
PBDE 71	NR	ng/L	8270C SIM
PBDE 47	NR	ng/L	8270C SIM
PBDE 66	NR	ng/L	8270C SIM
PBDE 100	NR	ng/L	8270C SIM
PBDE 99	NR	ng/L	8270C SIM
PBDE 85	NR	ng/L	8270C SIM
PBDE 154	NR	ng/L	8270C SIM
PBDE 153	NR	ng/L	8270C SIM
PBDE 138	NR	ng/L	8270C SIM
PBDE 128	NR	ng/L	8270C SIM
PBDE 183	NR	ng/L	8270C SIM
PBDE 190	NR	ng/L	8270C SIM
PBDE 203	NR	ng/L	8270C SIM
PBDE 206	NR	ng/L	8270C SIM
PBDE 209	NR	ng/L	8270C SIM
<u>Pharmaceuticals & Other Substances</u>			
Acetaminopen	NR	ng/L	HPLC/MS-SEDC
Amoxicillin	NR		Not Available
Azithromycin	NR		Not Available
Caffeine	NR	ng/L	HPLC/MS-SEDC
Carbamazepine	NR	ng/L	HPLC/MS-SEDC
Ciprofloxacin	NR		Not Available
Ethylenediamine tetra-acetic acid (EDTA)	NR		Not Available
Gemfibrozil	NR	ng/L	HPLC/MS-SEDC
Ibuprofen	NR	ng/L	HPLC/MS-SEDC
Iodinated contrast media	NR	ng/L	HPLC/MS-SEDC
Lipitor	NR		Not Available
Methadone	NR	ng/L	HPLC/MS-SEDC
Morphine	NR		Not Available
Salicylic acid	NR	ng/L	HPLC/MS-SEDC
Triclosan	NR	ng/L	HPLC/MS-SEDC

NR: Not Required (Annual Requirement)

¹ Trivalent chromium is measured as total chromium

² NDMA is an average of six samples collected monthly from RP-1 & RP-4

Table 2-7
Lysimeter and Surface Water Monitoring: TOC and Nitrogen Species (mg/L)

Hickory Basin East Cell								
Site	Depth, bgs	Date	TOC	TN*	TIN*	NO ₃ -N*	TKN+NO ₂ -N*	NO ₂ -N*
HKE-0	0 ft	04/10/07	11.18					
HKE-25	25 ft	04/10/07	1.00					
HKE-0	0 ft	04/18/07	9.31					
HKE-25	25 ft	04/18/07	0.92					
HKE-0	0 ft	04/24/07	12.68					
HKE-25	25 ft	04/24/07	0.86					
HKE-0	0 ft	05/08/07	10.35					
HKE-25	25 ft	05/08/07	1.10					

Turner Basin Cell 1								
Site	Depth, bgs	Date	TOC	TN	T.I.N.	NO ₃ -N	TKN+NO ₂ -N	NO ₂ -N
TRN1-00	0 ft	04/03/07	6.50	3.4	1.6	1.6	1.8	<0.01
TRN1-05	5 ft	04/03/07	3.25	0.6	0.2	0.2	<0.5	<0.01
TRN1-10	10 ft	04/03/07	2.74	<0.6	<0.2	<0.1	0.5	<0.01
TRN1-15	15 ft	04/03/07	2.34					
TRN1-25	25 ft	04/03/07	2.04	<0.6	<0.2	<0.1	<0.5	<0.01
TRN1-35	35 ft	04/03/07	2.21					
TRN1-00	0 ft	04/10/07	8.45	4.9	1.8	1.8	3.1	<0.01
TRN1-05	5 ft	04/10/07	3.76	0.9	0.2	0.2	0.7	<0.01
TRN1-10	10 ft	04/10/07	2.66	0.6	<0.2	<0.1	0.6	<0.01
TRN1-15	15 ft	04/10/07	1.91					
TRN1-25	25 ft	04/10/07	2.11	<0.6	<0.2	<0.1	<0.5	<0.01
TRN1-35	35 ft	04/10/07	1.43					
TRN1-00	0 ft	04/17/07	8.85	3.2	1.5	1.5	1.7	<0.01
TRN1-05	5 ft	04/17/07	3.56	0.8	0.2	0.2	0.6	<0.01
TRN1-10	10 ft	04/17/07	2.43	<0.6	<0.2	<0.1	<0.5	<0.01
TRN1-15	15 ft	04/17/07	1.62					
TRN1-25	25 ft	04/17/07	1.97	<0.6	<0.2	<0.1	<0.5	<0.01
TRN1-35	35 ft	04/17/07	1.11					
TRN1-00	0 ft	04/24/07	8.03	3.6	2.0	1.9	1.7	0.05
TRN1-05	5 ft	04/24/07	3.93	1.1	0.2	0.2	0.9	<0.01
TRN1-10	10 ft	04/24/07	2.62	0.7	<0.2	<0.1	0.7	<0.01
TRN1-15	15 ft	04/24/07	2.87					
TRN1-25	25 ft	04/24/07	2.02	<0.6	<0.2	<0.1	<0.5	<0.01
TRN1-35	35 ft	04/24/07	1.64					
TRN1-00	0 ft	05/08/07	6.87	6.4	4.8	4.7	1.7	0.01
TRN1-05	5 ft	05/08/07	3.88	0.8	0.2	0.2	0.6	<0.01
TRN1-10	10 ft	05/08/07	2.54	<0.6	<0.2	<0.1	<0.5	<0.01
TRN1-15	15 ft	05/08/07	1.47					
TRN1-25	25 ft	05/08/07	2.00	<0.6	<0.2	<0.1	<0.5	<0.01
TRN1-35	35 ft	05/08/07	1.26					
TRN1-00	0 ft	05/15/07	7.59	5.5	3.5	3.2	2.3	0.08
TRN1-05	5 ft	05/15/07	3.93	0.6	0.2	0.2	<0.5	<0.01
TRN1-10	10 ft	05/15/07	3.00	<0.6	<0.2	<0.1	<0.5	<0.01
TRN1-15	15 ft	05/15/07	1.43	<0.6	<0.2	<0.1	<0.5	<0.01
TRN1-25	25 ft	05/15/07	1.91	<0.6	<0.2	<0.1	<0.5	<0.01
TRN1-35	35 ft	05/15/07	1.55					
TRN1-00	0 ft	05/22/07	6.86	4.1	2.6	2.3	1.8	0.09
TRN1-05	5 ft	05/22/07	4.04	<0.6	<0.2	<0.1	<0.5	<0.01
TRN1-10	10 ft	05/22/07	3.01	<0.6	<0.2	<0.1	<0.5	<0.01
TRN1-15	15 ft	05/22/07	3.67					
TRN1-25	25 ft	05/22/07	1.99	<0.6	<0.2	<0.1	<0.5	<0.01
TRN1-35	35 ft	05/22/07	0.74					
TRN1-00	0 ft	05/29/07	6.72	4.1	2.4	2.3	1.9	0.04
TRN1-05	5 ft	05/29/07	4.02	0.7	0.2	0.2	<0.5	<0.01
TRN1-10	10 ft	05/29/07	3.13	<0.6	<0.2	<0.1	0.5	<0.01
TRN1-15	15 ft	05/29/07	3.46					
TRN1-25	25 ft	05/29/07	2.48	<0.6	<0.2	<0.1	<0.5	<0.01
TRN1-35	35 ft	05/29/07	2.16					
TRN1-00	0 ft	06/05/07	8.52	5.5	2.1	2.1	3.4	0.02
TRN1-05	5 ft	06/05/07	4.05	0.7	<0.2	<0.1	0.7	<0.01
TRN1-10	10 ft	06/05/07	3.11	<0.6	<0.2	<0.1	<0.5	<0.01
TRN1-15	15 ft	06/05/07	3.75					
TRN1-25	25 ft	06/05/07	1.61	<0.6	<0.2	<0.1	<0.5	<0.01
TRN1-35	35 ft	06/05/07	2.05					
TRN1-00	0 ft	06/12/07	8.67	5.3	1.9	1.7	3.6	0.08
TRN1-05	5 ft	06/12/07	3.90	0.7	0.2	0.3	<0.5	<0.01
TRN1-10	10 ft	06/12/07	2.90	<0.6	0.2	<0.1	<0.5	<0.01
TRN1-15	15 ft	06/12/07	1.91					
TRN1-25	25 ft	06/12/07	2.13	<0.6	0.2	<0.1	<0.5	<0.01
TRN1-35	35 ft	06/12/07	0.74					
TRN1-00	0 ft	06/19/07	8.98	3.2	1.0	0.6	2.6	<0.01
TRN1-05	5 ft	06/19/07	3.87	<0.6	0.3	<0.1	<0.5	<0.01
TRN1-10	10 ft	06/19/07	2.94	0.6	0.3	<0.1	0.6	<0.01
TRN1-15	15 ft	06/19/07	1.95					
TRN1-25	25 ft	06/19/07	2.19	<0.6	0.3	<0.1	<0.5	<0.01
TRN1-35	35 ft	06/19/07	1.49					
TRN1-00	0 ft	06/26/07	8.81	0.8	0.2	<0.1	0.8	<0.01
TRN1-05	5 ft	06/26/07	4.41	<0.6	<0.2	0.1	<0.5	<0.01
TRN1-10	10 ft	06/26/07	3.96	<0.6	<0.2	<0.1	<0.5	<0.01
TRN1-15	15 ft	06/26/07	3.72					
TRN1-25	25 ft	06/26/07	2.09	<0.6	<0.2	<0.1	<0.5	<0.01
TRN1-35	35 ft	06/26/07	1.27					

* TN, TKN+NO₂-N, and NO₂-N limits are met at the recycled water compliance point, therefore no additional lysimeter and surface water monitoring was required.

Blank cells indicate that analysis was not run for a constituent on that particular date and/or depth

Table 2-7
Lysimeter and Surface Water Monitoring: TOC and Nitrogen Species (mg/L)

Turner Basin Cell 4									
Site	Depth, bgs	Date	TOC	TN	T.I.N.	NO ₃ -N	TKN+NO ₂ -N	NO ₂ -N	
TRN4-00	0 ft	04/03/07	6.81	2.6	0.4	0.4	2.2	<0.01	
TRN4-05	5 ft	04/03/07	2.97	0.6	<0.2	<0.1	0.6	<0.01	
TRN4-10	10 ft	04/03/07	1.67	0.8	0.5	0.5	<0.5	<0.01	
TRN4-15	15 ft	04/03/07	*						
TRN4-25	25 ft	04/03/07	0.95						
TRN4-35	35 ft	04/03/07	1.25	0.9	0.8	0.8	<0.5	<0.01	
TRN4-00	0 ft	04/10/07	7.51	2.3	0.7	0.3	2.0	<0.01	
TRN4-05	5 ft	04/10/07	2.80	0.6	<0.2	<0.1	0.6	<0.01	
TRN4-10	10 ft	04/10/07	1.69	0.9	0.5	0.5	<0.5	<0.01	
TRN4-15	15 ft	04/10/07	1.77	0.6	0.2	0.2	<0.5	<0.01	
TRN4-25	25 ft	04/10/07	1.03						
TRN4-35	35 ft	04/10/07	0.92	0.9	0.6	0.6	<0.5	<0.01	
TRN4-00	0 ft	04/17/07	7.17	1.9	0.8	0.2	1.7	0.08	
TRN4-05	5 ft	04/17/07	2.61	1.5	1.1	1.1	<0.5	<0.01	
TRN4-10	10 ft	04/17/07	1.58	0.6	0.4	0.4	<0.5	<0.01	
TRN4-15	15 ft	04/17/07	1.79						
TRN4-35	35 ft	04/17/07	0.92	1.1	1.0	1.0	<0.5	<0.01	
TRN4-00	0 ft	04/24/07	6.91	2.4	0.9	0.5	1.9	<0.01	
TRN4-05	5 ft	04/24/07	2.62	0.8	0.4	0.4	<0.5	<0.01	
TRN4-10	10 ft	04/24/07	1.69	<0.6	0.2	0.2	<0.5	<0.01	
TRN4-15	15 ft	04/24/07	1.85						
TRN4-25	25 ft	04/24/07	0.96	1.1	<0.2	1.0	<0.5	<0.01	
TRN4-35	35 ft	04/24/07	1.07						
TRN4-00	0 ft	05/08/07	7.21	4.0	2.3	2.3	1.7	0.01	
TRN4-05	5 ft	05/08/07	2.48	<0.6	<0.2	<0.1	<0.5	<0.01	
TRN4-10	10 ft	05/08/07	1.73	<0.6	<0.2	<0.1	0.5	<0.01	
TRN4-15	15 ft	05/08/07	1.75						
TRN4-25	25 ft	05/08/07	1.25						
TRN4-35	35 ft	05/08/07	0.89	1.1	0.8	0.8	<0.5	<0.01	
TRN4-00	0 ft	05/15/07	7.26	3.5	2.1	2.1	1.5	0.03	
TRN4-05	5 ft	05/15/07	2.77	<0.6	<0.2	<0.1	<0.5	<0.01	
TRN4-10	10 ft	05/15/07	1.71	<0.6	<0.2	<0.1	<0.5	<0.01	
TRN4-15	15 ft	05/15/07	1.49						
TRN4-25	25 ft	05/15/07	2.94						
TRN4-35	35 ft	05/15/07	1.24	0.9	0.9	0.9	<0.5	<0.01	
TRN4-00	0 ft	05/22/07	8.03	3.7	2.1	1.6	2.0	0.08	
TRN4-05	5 ft	05/22/07	3.07	<0.6	<0.2	<0.1	<0.5	<0.01	
TRN4-10	10 ft	05/22/07	1.80	<0.6	<0.2	<0.1	<0.5	<0.01	
TRN4-15	15 ft	05/22/07	1.64						
TRN4-25	25 ft	05/22/07	3.29						
TRN4-35	35 ft	05/22/07	0.89	2.3	1.5	1.3	1.0	<0.01	
TRN4-00	0 ft	05/29/07	8.59	4.2	2.5	1.9	2.3	0.48	
TRN4-05	5 ft	05/29/07	2.98	<0.6	<0.2	<0.1	<0.5	<0.01	
TRN4-10	10 ft	05/29/07	1.81	<0.6	<0.2	<0.1	<0.5	<0.01	
TRN4-15	15 ft	05/29/07	1.73						
TRN4-25	25 ft	05/29/07	1.06						
TRN4-35	35 ft	05/29/07	0.88	0.9	0.5	0.4	0.5	<0.01	
TRN4-00	0 ft	06/05/07	10.57	3.4	1.6	1.5	1.8	0.06	
TRN4-05	5 ft	06/05/07	3.32	<0.6	<0.2	<0.1	<0.5	<0.01	
TRN4-10	10 ft	06/05/07	1.74	<0.6	<0.2	<0.1	<0.5	<0.01	
TRN4-15	15 ft	06/05/07	1.63	<0.6	<0.2	<0.1	<0.5	<0.01	
TRN4-25	25 ft	06/05/07	2.40	<0.6	<0.2	<0.1	<0.5	<0.01	
TRN4-35	35 ft	06/05/07	1.73	1.2	0.8	0.8	<0.5	<0.01	
TRN4-00	0 ft	06/12/07	10.06	3.1	1.6	1.2	1.9	0.11	
TRN4-05	5 ft	06/12/07	3.42	<0.6	<0.2	<0.1	0.5	<0.01	
TRN4-10	10 ft	06/12/07	1.84	<0.6	0.4	<0.1	<0.5	<0.01	
TRN4-15	15 ft	06/12/07	1.70	<0.6	0.2	<0.1	<0.5	<0.01	
TRN4-25	25 ft	06/12/07	1.07						
TRN4-35	35 ft	06/12/07	0.96	0.9	0.7	0.5	<0.5	<0.01	
TRN4-00	0 ft	06/19/07	9.60	2.8	1.2	0.6	2.2	<0.01	
TRN4-05	5 ft	06/19/07	3.28	0.6	0.2	<0.1	0.6	<0.01	
TRN4-10	10 ft	06/19/07	1.95	0.7	0.3	<0.1	0.7	<0.01	
TRN4-15	15 ft	06/19/07	1.92						
TRN4-25	25 ft	06/19/07	1.49						
TRN4-35	35 ft	06/19/07	0.94	1.6	1.6	1.2	<0.5	<0.01	
TRN4-00	0 ft	06/26/07	9.65	1.3	1.1	0.3	0.9	0.07	
TRN4-05	5 ft	06/26/07	3.42	<0.6	<0.2	<0.1	<0.5	<0.01	
TRN4-10	10 ft	06/26/07	1.94	<0.6	<0.2	<0.1	<0.5	<0.01	
TRN4-15	15 ft	06/26/07	1.76	<0.6	<0.2	<0.1	<0.5	<0.01	
TRN4-25	25 ft	06/26/07	1.36						
TRN4-35	35 ft	06/26/07	0.91	0.7	0.7	0.7	<0.5	<0.01	

* Analysis not run due to broken sample bottle.

Blank cells indicate that analysis was not run for a constituent on that particular date and/or depth

Table 2-8
Summary of Wells in Groundwater Monitoring Networks

BASIN	CBWM ID	OWNER/LOCAL NAME	SCREENED INTERVAL(S) (feet bgs)	CASING DIAMETER (inches)	TYPE	SAMPLING METHOD
HICKORY & BANANA BASINS	3600573	FONTANA WATER COMPANY - F37A	378-810	20	MUNICIPAL	FAUCET DISCHARGE
	600660	CALIFORNIA SPEEDWAY - Infield Well	NA	NA	INDUSTRIAL	FAUCET DISCHARGE
	3600371	SOUTHERN CALIFORNIA EDISON - East Well	434-467, 500-513, 553-580, 593-652, 825-847	20	INDUSTRIAL	FAUCET DISCHARGE
	3602267	CITY OF ONTARIO - 20	NA	20	MUNICIPAL	FAUCET DISCHARGE
	BH1/1	INLAND EMPIRE UTILITIES AGENCY	360-400	4	MONITORING	DEDICATED BLADDER PUMP
	BH1/2	INLAND EMPIRE UTILITIES AGENCY	430-470	4	MONITORING	DEDICATED BLADDER PUMP
TURNER BASINS	3600010	CITY OF ONTARIO - 25	370-903	20	MUNICIPAL	FAUCET DISCHARGE
	600453	CITY OF ONTARIO - 29	400-1095	18	MUNICIPAL	FAUCET DISCHARGE
	600585	CITY OF ONTARIO - 38	NA	NA	MUNICIPAL	FAUCET DISCHARGE
	T1/1	INLAND EMPIRE UTILITIES AGENCY	330-350	4	MONITORING	DEDICATED BLADDER PUMP
	T1/2	INLAND EMPIRE UTILITIES AGENCY	380-400	4	MONITORING	DEDICATED BLADDER PUMP
	T2/1	INLAND EMPIRE UTILITIES AGENCY	340-360	4	MONITORING	DEDICATED BLADDER PUMP
	T2/2	INLAND EMPIRE UTILITIES AGENCY	390-410	4	MONITORING	DEDICATED BLADDER PUMP

Notes:

NA = Data not available

CBWM ID = Chino Basin Water Master well identification number

bgs = below ground surface

Table 2-9
Groundwater Monitoring

Sample Location	Date	TOC (mg/L)	Total Coliform (MPN/100mL)	pH	EC (µmho/cm)	Al (µg/L)	Color (units)	Cu (µg/L)	Corrosivity Index (SI)	Foaming Agents (mg/L)	Fe (µg/L)	Mn (µg/L)	MTBE (µg/L)	Odor Threshold (TON)	Ag (µg/L)	Thiobencarb (µg/L)	Turbidity (NTU)	Zn (µg/L)	TDS (mg/L)	Cl (mg/L)	Hardness (mg CaCO 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 Basins	Reliant Energy East Well	5/17/07	0.05	<1.1	7.85	345	<25	<3	0.7	0.2	<0.05	<15	<1	<0.5	1	<0.25	<0.2	0.10	<1	238	14	152	19	21	<0.1	<0.01	6.7	6.7	<0.1	116	6.9
	Fontana Water Company F37A	5/17/07	0.06	<1.1	7.85	460	<25	<3	5.2	0.5	<0.05	29	1	<0.5	1	<0.25	<0.2	0.31	3	300	15	208	19	15	<0.1	<0.01	10.1	10.1	<0.1	171	7.1
	California Speedway Infield Well	5/15/07	0.10	9.2	8.00	435	<25	<3	2.2	0.6	<0.05	<15	<1	<0.5	1	<0.25	<0.2	0.26	3	290	14	206	21	25	<0.1	<0.01	7.7	7.7	<0.1	170	5.4
	City of Ontario - 20	6/25/07	0.01	<1.1	7.60	327	22	<3	41	0.1	<0.05	59	1	<0.5	1	0.10	<0.2	0.32	8	212	5	158	14	6	0.1	<0.01	1.4	1.4	0.2	165	6.1
	BH-1/2 Well	4/5/07	0.19	7.70	260	79		0.6					8			0.28			2	236	7	152	18	32	<0.1	<0.01	4.8	5.0	0.2	130	
		4/16/07	0.13	6.70	357	<25		<0.5					1			<0.25			2	238	7	152	18	31	<0.1	<0.01	4.8	4.8	<0.1	131	
		5/3/07	0.20	7.70	360	<25		<0.5					<1			<0.25			1	242	10	146	17	33	<0.1	<0.01	4.8	4.8	<0.1	126	
		5/17/07	0.18	<1.1	7.85	360	<25	<3	<0.5	0.3	<0.05	<15	<1	<0.5	1	<0.25	<0.2	0.11	19	238	7	153	18	33	<0.1	<0.01	4.7	4.7	<0.1	132	
		5/31/07	0.12	7.80	370	<25		0.6					<1			<0.25			1	242	8	157	18	33	<0.1	<0.01	4.8	4.8	<0.1	130	
		6/13/07	0.20	7.75	360	<25		<0.5					<1			<0.25			1	240	8	160	18	33	<0.1	<0.01	4.6	4.6	<0.1	130	
6/20/07																														6.8	
6/28/07	0.15	7.90	360	<25		<0.5					<1			<0.25			1	244	7	154	17	31	<0.1	0.04	4.3	4.3	<0.1	135			
Turner Basins	City of Ontario - 25	6/25/07	0.10	<1.1	7.90	396	<25	<3	1.4	0.5	<0.05	4	<1	<0.5	1	<0.25	<0.2	0.08	1	260	11	184	22	16	0.1	<0.01	3.1	3.1	<0.1	170	5.5
	City of Ontario - 29	6/25/07	0.20	<1.1	7.75	355	<25	<3	3.4	0.2	0.05	3	<1	<0.5	1	<0.25	<0.2	0.17	2	232	9	153	24	17	0.1	<0.01	3.2	3.2	0.2	152	4.9
	City of Ontario - 38	6/25/07	<0.1	<1.1	7.95	304	<25	<3	3.3	0.4	<0.05	3	<1	<0.5	1	<0.25	<0.2	0.13	1	196	4	134	21	9	0.1	<0.01	1.1	1.1	<0.1	151	5.3
	T-1/2 Well	4/5/07	0.95	7.60	610	<25		0.6					<1			<0.25			<1	386	87	262	26	40	<0.1	<0.01	0.2	0.4	0.2	142	
		4/16/07	0.70	7.50	588	<25		1.2					1			<0.25			3	368	83	258	26	39	<0.1	<0.01	0.2	0.5	0.3	144	
		5/3/07	0.66	7.55	595	<25		0.7					<1			<0.25			2	386	77	228	24	40	<0.1	<0.01	0.4	0.4	<0.1	145	
		5/17/07	0.65	<1.1	7.60	555	<25	<3	0.5	0.2	<0.05	21	3	<0.5	1	<0.25	<0.2	0.11	<1	354	66	243	26	39	0.4	<0.01	0.2	0.2	<0.1	153	
		5/31/07	0.62	7.55	570	<25		0.5					1			<0.25			<1	360	67	241	25	40	<0.1	<0.01	1.0	1.0	<0.1	151	
		6/13/07	0.61	7.65	540	<25		0.5					1			<0.25			<1	344	57	234	24	37	<0.1	<0.01	0.6	0.6	<0.1	150	
		6/20/07																													6.3
	6/28/07	0.64	7.65	540	<25		0.6					1			<0.25			<1	340	60	228	23	38	<0.1	<0.01	0.2	0.2	<0.1	154		
	T-2/1 Well	4/5/07	0.51	7.80	340	<25		<0.5					<1			<0.25			3	220	37	130	21	15	<0.1	<0.01	0.3	0.5	0.2	98	
		4/16/07	0.47	7.75	339	<25		1.1					2			<0.25			4	216	39	131	22	15	<0.1	<0.01	0.4	0.9	0.5	102	
		5/3/07	0.43	7.80	340	<25		0.6					<1			<0.25			2	216	38	128	21	16	<0.1	<0.01	0.3	0.3	<0.1	95	
		5/17/07	0.46	<1.1	7.75	335	<25	<3	<0.5	0.0	<0.05	<15	<1	<0.5	1	<0.25	<0.2	0.16	<1	216	38	127	21	15	<0.1	<0.01	0.4	0.4	<0.1	101	
5/31/07		0.46	7.85	340	<25		0.6					<1			<0.25			<1	220	38	132	22	16	<0.1	<0.01	0.4	0.4	<0.1	100		
6/13/07		0.41	7.90	340	<25		<0.5					<1			<0.25			<1	218	39	124	21	15	<0.1	<0.01	0.4	0.3	<0.1	100		
6/20/07																														6.8	
6/28/07		0.50	8.00	350	<25		0.6					<1			<0.25			1	234	40	129	22	15	<0.1	<0.01	0.4	0.4	0.2	101		
T-2/2 Well	4/5/07	0.49	7.70	295	<25		<0.5					<1			<0.25			<1	194	28	124	14	14	<0.1	<0.01	0.5	0.6	0.1	93		
	4/16/07	0.45	7.70	290	<25		0.9					<1			<0.25			2	188	35	121	14	14	<0.1	<0.01	0.5	1.0	0.5	92		
	5/3/07	0.44	7.55	305	<25		<0.5					<1			<0.25			<1	198	29	127	15	15	<0.1	<0.01	0.7	0.7	<0.1	90		
	5/17/07	0.45	<1.1	7.75	315	<25	<3	<0.5	0.0	<0.05	<15	<1	<0.5	1	<0.25	<0.2	0.09	<1	212	34	132	15	15	<0.1	<0.01	0.5	0.5	<0.1	95		
	5/31/07	0.50	7.65	320	<25		<0.5					<1			<0.25			<1	218	34	135	15	15	<0.1	<0.01	0.5	0.5	<0.1	95		
	6/13/07	0.43	7.75	325	<25		<0.5					<1			<0.25			<1	214	35	135	15	15	0.1	<0.01	0.4	0.4	<0.1	93		
	6/20/07																													6.3	
6/28/07	0.55	7.75	340	<25		<0.5					<1			<0.25			1	238	38	131	14	15	<0.1	<0.01	0.5	0.4	<0.1	97			

Blank cells indicate that analysis was not run for a constituent on that particular date.

Table 3-1
Volume of Diluent & Recycled Water Recharge in Acre-Feet

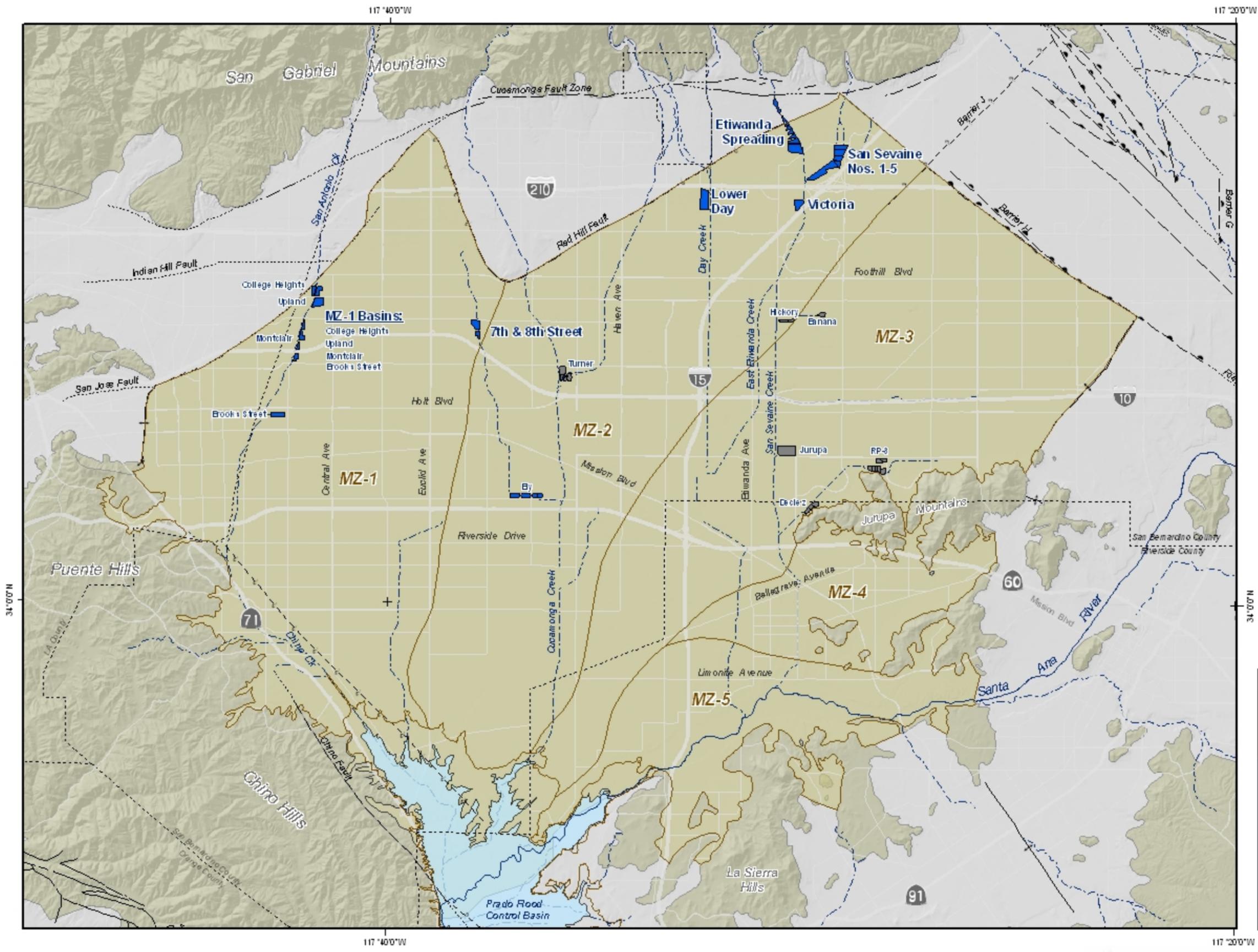
Date	Imported Water			Local Runoff / Storm Flow			Recycled Water		
	Turner	Hickory	Banana	Turner	Hickory	Banana	Turner	Hickory	Banana
April 2007	0.0	0.0	0.0	8.6	49.8	29.4	22.5	62.6	3.6
May 2007	0.0	0.0	0.0	19.4	58.6	37.5	136.4	0.0	5.5
June 2007	0.0	0.0	0.0	11.6	90.0	0.0	2.3	0.0	0.0
2Q07 Totals	0.0	0.0	0.0	67.6	306.8	133.8	320.0	125.2	18.2

Table 6-1
MVWD ASR Project - TIN/TDS Mass Balance

ASR Well No. 30										
	Date	Injection			Recovery			Mass Balance		
		Volume (AF)	TIN (mg/L)	TDS (mg/L)	Volume (AF)	TIN (mg/L)	TDS (mg/L)	Storage (AF)	TIN (kg)	TDS (kg)
2Q07	Apr-07	0			0			0	0	0
	May-07	0			0			0	0	0
	Jun-07	107	0.95	270	0			107	125,595	35,695,445

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

During 2Q07, WFA-treated water was sampled for TDS and TIN (NO₃-N + NO₂-N, assuming no NH₃-N in drinking water) on 4/10/07.

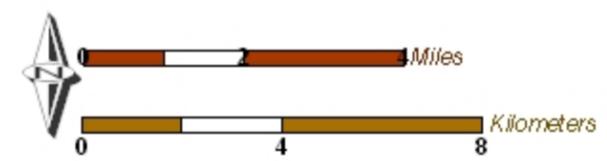


- Main Features**
- Phase II Recharge Basin
 - Phase I Recharge Basin
- Geology**
- Water-Bearing Sediments*
- Quaternary Alluvium
- Consolidated Bedrock*
- Undifferentiated Pre-Tertiary to Early Pleistocene Igneous, Metamorphic, and Sedimentary Rocks
- Faults & Groundwater Divides**
- Location Certain
 - Location Approximate
 - Location Concealed
 - Location Uncertain
 - Groundwater Divide
- Other Features**
- Chino Basin Hydrologic Boundary
 - Management Zone Boundary
 - Rivers and Streams



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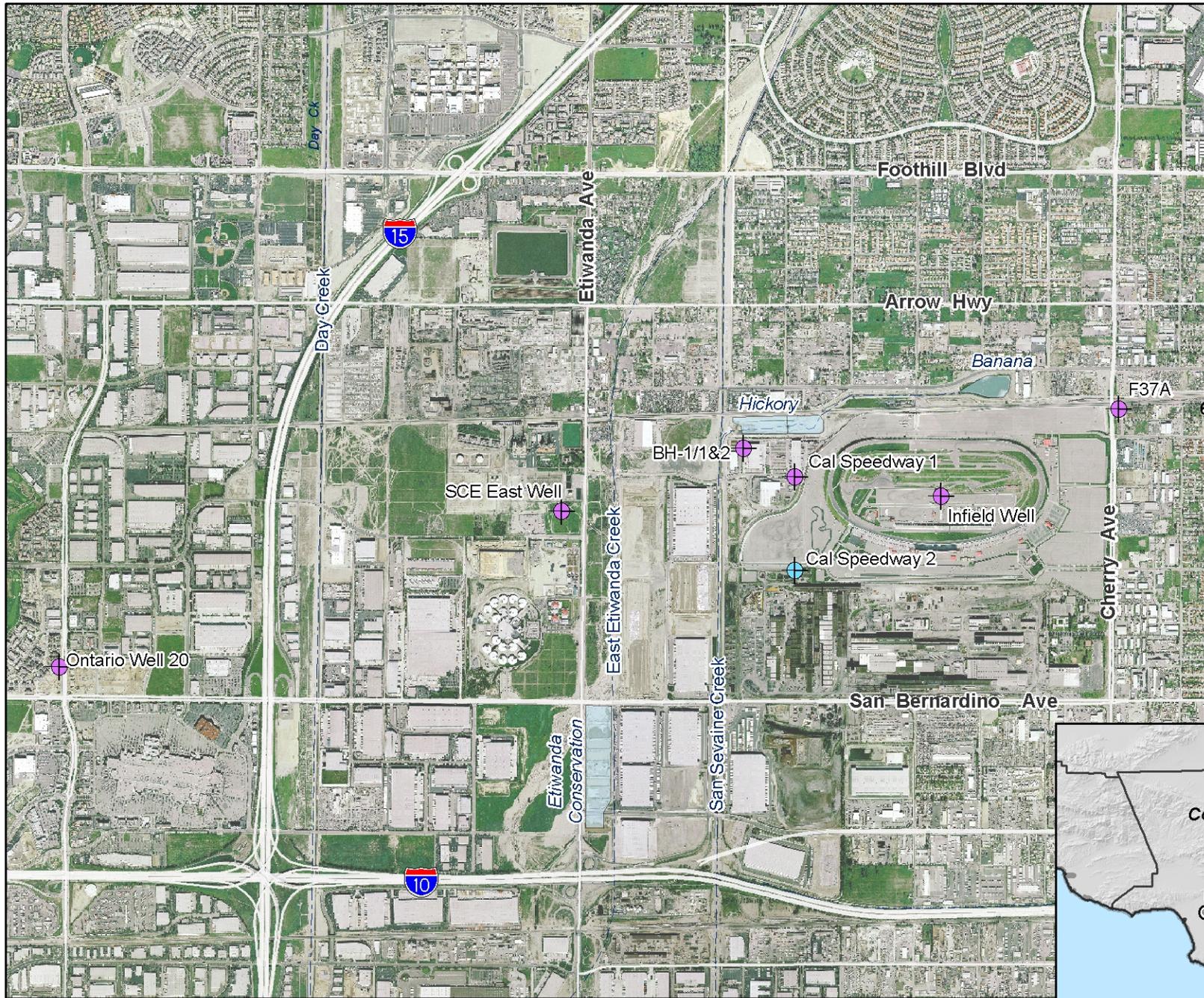
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 File: 20060510_Figure_1-01.mxd



Inland Empire WATER AGENCY
 Recycled Water Recharge Program
 Quarterly Monitoring Report - 2Q07

Chino Basin Recycled Water Groundwater Recharge Program
 Recycled Water Recharge Basins

Figure 1-1



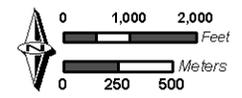
-  Existing Monitoring Well
-  Replacement Monitoring Well
-  Recharge Basins



Monitoring Well Network
Hickory and Banana Basins

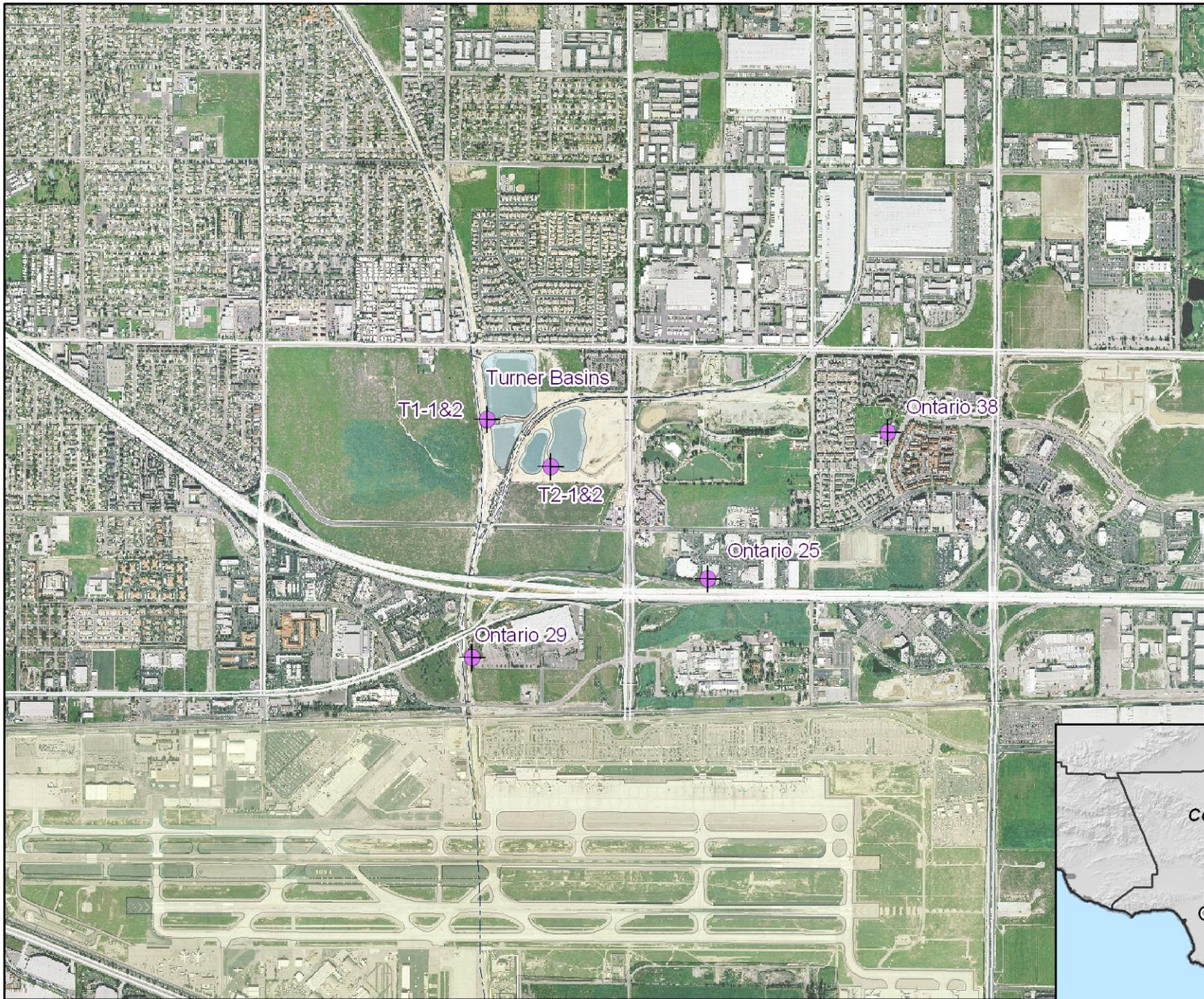
Figure 2-1

 Recycled Water Recharge Program
Quarterly Monitoring Report - 2Q07



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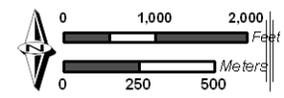
-  Existing Monitoring Well
-  Recharge Basins



Monitoring Well Network
Turner Basins

 Recycled Water Recharge Program
Quarterly Monitoring Report - 2Q07

Figure 2-2



Author: KBM
Date: 20061106
File: Figure_2-2.mxd

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