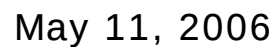


Quarterly Monitoring Report

January through March 2006





Richard Atwater
CEO and General Manager

Kenneth Manning
CEO

May 11, 2006

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 Recharge Program
Transmittal of the Quarterly Monitoring Report for January through March 2006

Dear Mr. Thibeault,

The Inland Empire Utilities Agency (IEUA) and the Chino Basin Watermaster (Watermaster) hereby submit the *Quarterly Monitoring Report* for the first quarter of 2006 (1Q06) – January through March 2006 for the *Recycled Water Groundwater Recharge Program* being implemented by IEUA and Watermaster. This document is submitted pursuant to requirements in Order No. R8-2005-0033 and Monitoring and Reporting Program No. R8-2005-0033:

- California Regional Water Quality Control Board, Santa Ana Region. Order No. R8-2005-0033. Water Recycling Requirements for Inland Empire Utilities Agency and Chino Basin Watermaster. Phase 1 Chino Basin Recycled Water Groundwater Recharge Project, San Bernardino County. Draft Order: April 2005.
- California Regional Water Quality Control Board, Santa Ana Region. Monitoring and Reporting Program No. R8-2005-0033 for Inland Empire Utilities Agency and Chino Basin Watermaster. Phase 1 Chino Basin Recycled Water Groundwater Recharge Project, San Bernardino County.

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 11th day of May 2006 at IEUA's office in Chino, California

Richard Atwater
Chief Executive Officer and General Manager

Kenneth Manning
Chief Executive Officer

Inland Empire Utilities Agency
P.O. Box 9020
Chino Hills, CA 91709
909.993.1740

Chino Basin Watermaster
9641 San Bernardino Road
Rancho Cucamonga, CA 91730
909.484.3888

Chino Basin

Recycled Water Recharge Program

Quarterly Monitoring Report

January through March 2006

Prepared by:



and



May 11, 2006

Table of Contents

1. Introduction	1-1
1.1 Requirements of Order No. R8-2005-0033	1-1
1.2 Basin Operations	1-2
1.3 Outline of the Quarterly Report.....	1-2
2. Monitoring Results	2-1
2.1 Recycled Water: RP-1 and RP-4	2-1
2.2 Diluent Water	2-2
2.3 Basin and Lysimeter Samples.....	2-2
2.4 Groundwater Monitoring Wells.....	2-3
3. Recharge Operations.....	3-1
4. Operational Problems Encountered.....	4-1
4.1 Regional Plants RP-1 and RP-4	4-1
4.2 Recharge Operations.....	4-1
4.3 Lysimeter Sampling	4-1
4.4 Monitoring Well Sampling	4-1
5. Preventive and/or Corrective Actions.....	5-1
5.1 Regional Plants RP-1 and RP-4	5-1
5.2 Recharge Operations.....	5-1
5.3 Lysimeter Sampling	5-1
5.4 Monitoring Well Sampling	5-1
6. Certification of Non-Pumping in the Buffer Zone	6-1
7. References.....	7-1

Appendix A. Watermaster Certification of Non-Pumping in the Buffer Zones



LIST OF TABLES	
2-1	Results of Daily Recycled Water Monitoring for October 2005: Turbidity, TOC, Ammonia-N, Nitrate-N, Nitrite-N, TKN, TN, TKN+Nitrite, TIN, pH, EC, TDS, Hardness, and Coliform
2-2	Results of Daily Recycled Water Monitoring for November 2005: Turbidity, TOC, Ammonia-N, Nitrate-N, Nitrite-N, TKN, TN, TKN+Nitrite, TIN, pH, EC, TDS, Hardness, and Coliform
2-3	Results of Daily Recycled Water Monitoring for December 2005: Turbidity, TOC, Ammonia-N, Nitrate-N, Nitrite-N, TKN, TN, TKN+Nitrite, TIN, pH, EC, TDS, Hardness, and Coliform
2-4	Results of Running Quarterly Average Concentration from Each Quarter: Turbidity, TOC, Ammonia-N, Nitrate-N, Nitrite-N, TKN, TN, TKN+Nitrite, TIN, pH, EC, TDS, Hardness, and Coliform
2-5	IEUA's Agency-Wide Distribution System: Total Dissolved Solids and Total Inorganic Nitrogen Analysis
2-6	Recycled Water Monitoring Results: Oil and Grease, Inorganic Chemicals, VOCs, SOCs, Disinfection By-Products, Notification Levels, and Radionuclides
2-7	Recycled Water Monitoring Results: Remaining Priority Pollutants and Unregulated Chemicals
2-8	Recycled Water Monitoring Results: Endocrine Disrupting Chemicals and Pharmaceuticals, Analyzed on an Annual Basis
2-9	Recycled Water Monitoring Results: Miscellaneous Analytes
2-10	Diluent Water Monitoring Results: State Water Project Water
2-11	Basin and Lysimeter Water Monitoring Results for Banana Basin: TOC
2-12	Basin and Lysimeter Water Monitoring Results for Banana Basin: Ammonia, Nitrite, Nitrate, TKN, and TN (mg/L)
2-13	Basin and Lysimeter Water Monitoring Results for Hickory Basin East Cell: TOC
2-14	Basin and Lysimeter Water Monitoring Results for Hickory Basin East Cell: Ammonia, Nitrite, Nitrate, TKN, and TN (mg/L)
2-15	Basin and Lysimeter Water Monitoring Results for Hickory Basin West Cell: TOC
2-16	Basin and Lysimeter Water Monitoring Results for Hickory Basin West Cell: Ammonia, Nitrite, Nitrate, TKN, and TN (mg/L)
2-17	Groundwater Monitoring Results
3-1	Volume of Diluent and Recycled Water Recharged

LIST OF FIGURES	
1-1	Basin Locations
2-1	Monitoring Well Network: Hickory and Banana Basins



1. 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 the 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 Plan (OBMP).

1.1 Requirements of Order No. R8-2005-0033

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

- California Regional Water Quality Control Board, Santa Ana Region (RWQCB). Order No. R8-2005-0033 (Order). Water Recycling Requirements for Inland Empire Utilities Agency and Chino Basin Watermaster. Phase 1 Chino Basin Recycled Water Groundwater Recharge Project, San Bernardino County.
- RWQCB, Santa Ana Region. Monitoring and Reporting Program (M&RP) No. R8-2005-0033 for Inland Empire Utilities Agency and Chino Basin Watermaster. Phase 1 Chino Basin Recycled Water Groundwater Recharge Project, San Bernardino County.

The M&RP (RWQCB, 2005b) describes the requirements for the quarterly monitoring reports. This document is the **Quarterly Report** for First Quarter 2006 (1Q06). The following is an excerpt of Section VI of the M&RP detailing requirements of quarterly monitoring reports:

VI. REPORTING REQUIREMENTS

A. Quarterly Monitoring Reports

1. Quarterly monitoring reports shall be submitted in accordance with following schedule:

<u>Reporting Period</u>	<u>Report Due Date</u>
January – March	May 15 th
April – June	August 15 th
July – September	November 15 th
October – December	February 15 th

2. If no reclaimed water was delivered for spreading during the quarter, the report shall so state.
3. Each quarterly monitoring report shall include, at a minimum, the following:
 - a. All monitoring results for recycled water produced from the RWRP-1 and RWRP-4 facilities, diluents, recharged water with or without blending with diluents prior to recharge, and groundwater.
 - b. A tabular form report showing the amount of recharged recycled water and diluent water recharge[d] into each recharge basin including any non-compliance events, which occurred at the individual recharge sites during the reporting period. A summary of these data shall be included in the annual report.



- c. 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.
- d. All corrective or preventive action(s) taken.
- e. A 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.
- f. The Regional Board may request supporting documentation, such as daily logs of operations.

1.2 Basin Operations

During 1Q06, IEUA recharged recycled water at Banana and Hickory Basins. Banana and Hickory Basins finished their Start-Up Periods in 1Q06. During 1Q06, recycled water was not recharged in the other Phase 1 basins, namely RP3, Declez, and Turner Basins.

This quarterly report contains monitoring results for Banana Basin and Hickory Basin operations through the completion of their Start-Up Periods and to the end of 1Q06. Because the compliance monitoring points have not yet been established for Banana and Hickory Basins, all sampling data are presented in this report. In quarterly reports following the completion of basin Start-Up Period reports, quarterly monitoring and reporting will be limited to sampling points that are selected as compliance monitoring points as determined through the Start-Up Protocols.

1.3 Outline of the Quarterly Report

Section 2 of this quarterly report discusses the monitoring results for recycled water, diluent water, basin surface water and lysimeter samples, and groundwater monitoring well water samples. Section 3 provides an overview of recharge operations, including the volume of diluent water and recycled water recharged. Sections 4 and 5 list any operational problems encountered and any preventive and/or corrective actions taken. Finally, Section 6 is the certification of non-pumping in the 500-foot buffer zones.



2. Monitoring Results

2.1 Recycled Water: RP-1 and RP-4

The monitoring requirements for recycled water monitoring are provided in the M&RP (RWQCB, 2005b). Tables 2-1 through 2-9 summarize all the requisite 1Q06 data results. Many of the limits defined in the Order are based on moving averages. For example, compliance with Recycled Water Specifications A.1 and A.2 (Tables I and II in the Order) “shall be based on the running-quarterly average concentration, calculated each quarter using the previous consecutive four quarterly data for the specific constituent.” Running-quarterly average concentration data for 3Q05, 4Q05, and 1Q06 are summarized in Table 2-4 of this report.

For analytes with a limit specified in Tables I through III in the Order (RWQCB, 2005a), the compliance limit is included next to the result for that analyte in Tables 2-6, 2-7, and 2-9 to facilitate a comparison. IEUA is in the process of selecting a recycled water sampling location that will be representative of the system blend of recycled water recharged. IEUA has conducted sampling from the distribution pipeline at the turnout to IEUA’s recycled water customer Reliant Energy. For most constituents this sampling location has been suitable. However, it is not suitable for parameters that can change upon leaving the reclamation plants. Such parameters include Total Trihalomethanes (THMs) and Total Haloacetic Acids (HAA5). Over the past 12 months THMs have ranged between 26 and 241 mg/L from RP1, and have averaged approximately 113 mg/L. Rather than provide inconsistent values for these parameters, IEUA conducted sampling of the surface water and pore water in the 25-foot lysimeters at both Banana and Hickory Basins. The samples at the basin should provide more consistent and representative samples of the recharged water.

Of the numerous parameters tested at the distribution system location and the basins, only odor exceeded limits in the Order during 1Q06. Additional sampling of stormwater by IEUA from the basin and lysimeters indicates a slight odor may be common to the formation.

Samples for THMs were collected from the compliance point lysimeters on February 17th at Banana Basin and at Hickory Basin West and East Cells. The results for these samples were 9.3, 11, and 36 µg/L, respectively. Samples for HAA5 analytes were collected on February 17th from the 25-foot depth lysimeters at Banana and both the Hickory Basin East and West Cells. The HAA5 results were <1 µg/L for all samples.

In Table 2-6, the 1Q06 total trihalomethane result was based on a blend of RP-1 and RP-4 effluent. Representative samples for 1Q06 were obtained from the 25-foot depth lysimeters from both Banana and Hickory Basins. Running average values will be initiated as additional data are obtained from a consistent representative sampling location.

Representative samples collected from the basins for THMs were within permitted limits. Thus compliance for THMs was achieved prior to delivered recycled water reaching the groundwater table.

In addition to the limits listed in Tables I, II, and III in the Order, the following “narrative” limits also apply to recycled water quality (A.4 through A.8 in RWQCB, 2005a):

4. Recycled water produced by RP-1 and RP-4 for recharge shall at all times, be adequately oxidized, filtered, and disinfected tertiary treated wastewater and shall meet the following limitations:
 - a. The turbidity of the filter effluent shall not exceed any of the following:



- (1) Average of 2 Nephelometric Turbidity Unit (NTU) within any 24-hour period;
 - (2) 5 NTU more than 5 percent of the time in any 24-hour period; and
 - (3) 10 NTU at any time.
- b. The 7-day median number of total coliform shall not exceed a Most Probable Number (MPN) of 2.2 total coliform bacteria per 100 milliliters (ml).
- c. The number of total coliform organism shall not exceed an MPN of 23 total coliform bacteria per 100 ml in more than one sample in any 30-day period prior to spreading.
- d. No total coliform sample shall exceed an MPN of 240 total coliform bacteria per 100 ml.
5. The Total Dissolved Solids (TDS) and Total Inorganic Nitrogen (TIN) concentration of the recycled water shall not exceed a 12-month running average concentration limit of 550 mg/l and 8 mg/l, respectively from the combined effluent of all IEUA treatment plants (see also Provisions H.4. and H.5.).
6. The recycled water used for recharge, or if supplemented with diluent water, the blend of the two, prior to reaching the regional groundwater table shall not contain constituent concentrations that exceed the following limitations:
 - a. A total nitrogen concentration of 10 mg/L;
 - b. The sum of nitrite, organic, and ammonia nitrogen shall not exceed 5 mg/L as nitrogen; and
 - c. The nitrite level shall not exceed 1 mg/L as nitrogen.
7. The pH of recycled water used for recharge shall at all times be within the range of 6 to 9 pH units.
8. The total organic carbon (TOC) concentration of the filtered wastewater shall not exceed 16 mg/L for more than two consecutive readings.

None of these limits were exceeded in 1Q06, as summarized in Tables 2-1 through 2-3.

2.2 Diluent Water

In 1Q06, State Water Project (SWP) water was not delivered to Banana and Hickory Basins. Table 2-10 lists the water quality of the SWP water. These data are reported by the LaVerne laboratory of Metropolitan Water District of Southern California.

As shown in Table 3-1, some local runoff from rainfall was collected in both Hickory and Banana Basins. This resulted in spikes of TOC in surface water grab samples from both Hickory and Banana Basins. TOC spikes were as high as 20.10 mg/L (Hickory Basin East Cell). During 1Q06, recycled water TOC was less than 8.8 mg/L for the blend of RP-1 and RP-4.

2.3 Basin and Lysimeter Samples

The M&RP schedule for basin and lysimeter sampling is the following (RWQCB, 2005b):

- TOC: Grab, Weekly
- Nitrate-Nitrogen: Grab, Twice per Week
- Nitrate-Nitrogen: Grab, Twice per Week
- Nitrite-Nitrogen: Grab, Twice per Week
- Ammonia: Grab, Twice per Week



- Organic Nitrogen: Grab, Twice per Week
- Total Inorganic Nitrogen (TIN) – by Addition: Grab, Twice per Week
- Total Nitrogen (TN) – by Addition: Grab, Twice per Week

These data are summarized in Tables 2-11 through 2-16. The tables are organized by basin (Banana and Hickory) and analyte group (TOC, Nitrogen Species). Hickory Basin has two lysimeter clusters – one each in the east and west cells of the basin (Hickory East Cell and Hickory West Cell, respectively), one lysimeter from these two clusters will be used for the compliance lysimeter for compliance monitoring following evaluation of start-up period data. Each table lists the result by lysimeter name, depth and date.

Sample recovery was insufficient on occasion from the 5-foot lysimeter at both the Hickory East and West Cells and from the 10-foot lysimeter at Hickory West Cell.

2.4 Groundwater Monitoring Wells

Groundwater quality within the vicinity of the Banana and Hickory Basins is monitored by sampling a network of six wells, including one nested monitoring well, BH-1, down gradient of Hickory Basin (Figure 2-1). BH-1 is screened in two zones: BH-1/1 from 366 – 406 feet below top of casing, and BH-1/2 from 437 – 477 feet below top of casing. BH-1/1 was constructed above the regional groundwater table in anticipation of future water level rise, and is not sampled at this time. Should the regional water table rise, sampling within BH-1/1 will begin.

Groundwater monitoring results are presented in Table 2-17. Based on estimated travel times in the Title 22 Engineering Report (CH2M-Hill, 2003), the travel times to well BH-1/2 is approximately six months. IEUA began recharging recycled water in Banana Basin in July 2005. 4Q05 EC results indicated BH-1 may have received recycled water recharge. However, 1Q06 EC data for BH-1 do not continue to indicate recycled water at the well. Groundwater quality results for 1Q06 at BH-1/2 show a background condition for EC as do the other monitoring wells. The BH-1/2 and Fontana F37A wells had nitrate concentrations greater than the MCL. All water recharged in the Chino Basin Recycled Water Groundwater Recharge Program: stormwater, SWP water, and recycled water have very low concentrations of total nitrogen less than the MCL.



3. Recharge Operations

IEUA's Groundwater Recharge Coordinator recorded the daily volumes of water delivered to or captured at Banana and Hickory Basins. No other Phase 1 recharge basins received recycled water this quarter. Storms occurred on January 1st, February 28th, and March 3rd, 11th, 17th, and 28th during the quarter and some storm water was recharged. In the days prior to a forecast storm, IEUA stops the delivery of recycled water and/or import water to allow basin storage to infiltrate, thus allowing the recharge basins to function as flood control basins. The volumes of storm water captured were calculated from a combination of infiltration rates and change in storage in the basin. Outflow of stormwater from the basin also occurred, but is not measured or estimated as these waters do not recharge. The volumes of recycled water delivered or storm water captured are listed in Table 3-1.

Banana Basin

Recycled water was delivered periodically from the Whittram force main. No imported water was delivered to Banana Basin. As Banana Basin is a flow-through type basin, storm water did enter the basin from West Cucamonga Channel and did in part recharge at the basin.

Hickory Basin

Recycled water was delivered periodically from the Whittram force main to the East Cell of Hickory Basin. Recycled water was delivered directly to the East cell, where it can then flow through a control gate into the West cell. Direct delivery via a small (6-inch diameter) pipe maintenance drain in the Whittram force main to the East cell was utilized during the Hickory Start-up period to prevent mixing recycled water with local runoff in San Sevaine Channel. A larger diameter, recycled water delivery pipe to San Sevaine Channel will be the normal delivery route to Hickory Basin following the Start-Up period. Perennial local runoff will be captured in Hickory Basin from San Sevaine Channel following the start-up period. As Hickory Basin is a flow-through type basin, storm water did enter the basin from West Cucamonga Channel and did in part recharge at the basin.



4. Operational Problems Encountered

4.1 Regional Plants RP-1 and RP-4

No operational problems encountered this quarter.

4.2 Recharge Operations

No operational problems encountered this quarter.

4.3 Lysimeter Sampling

Limited sample recovery occurred on occasion from the 5 and 10 foot lysimeters at Hickory Basins West Cell and from the 5 foot lysimeter at Hickory Basins East Cell. Water monitoring result tables indicate where insufficient sample volume was present to conduct an analytical test with “IS”. Where other nitrate ions were missing as a result of insufficient sample volume, insufficient data for calculation was noted by “IDC” in the tables.

4.4 Monitoring Well Sampling

A sample was unable to be collected from California Speedway Well 1, due to a malfunctioning pump.



5. Preventive and/or Corrective Actions

5.1 Regional Plants RP-1 and RP-4

As no operational problems encountered this quarter, no corrective actions were necessary.

5.2 Recharge Operations

As no operational problems encountered this quarter, no corrective actions were necessary.

5.3 Lysimeter Sampling

As sample recover volume the 5 and 10 foot lysimeters at Hickory Basins West Cell and from the 5 foot lysimeter at Hickory Basins East Cell was intermittent, no corrective actions were necessary. As no other operational problems encountered this quarter, no corrective actions were necessary.

5.4 Monitoring Well Sampling

WEI and IEUA have identified California Speedway 2 Well (CBWM ID 3601365) as an alternative monitoring well to replace the inoperable well California Speedway 1. Investigation of this well and the status of California Speedway 1 will be conducted during the second quarter of 2006.



6. Certification of Non-Pumping in the Buffer Zones

The 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 both Hickory and Banana Basins in 1Q06. In fact, there are no production wells within the buffer zones of these two basins. Appendix A is a letter from Watermaster certifying non-pumping in the buffer zones. IEUA continues 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. Following is proposed text for a letter from SBCDEHS to IEUA, DHS, and the RWQCB.

San Bernardino County Department of Environmental Health Services (SBCDEHS) has reviewed the recycled water use permit conditions placed on Inland Empire Utilities Agency (IEUA) by California Department of Health Services (DHS) and the Santa Ana Regional Water Quality Control Board (RWQCB). IEUA's use permit contains conditions that IEUA act to prevent the permitting of new drinking water wells within 500 feet of its recharge basin that will use recycled water. As the agency responsible for reviewing and issuing permits for construction of drinking water wells in San Bernardino County, SBCDEHS agrees to decline new well permits within 500 feet of IEUA recharge basins that will utilize recycled water for groundwater recharge.

SBCDEHS will add a review procedure for new well permit applications that will include checking the proposed location of a new drinking water well against a list of parcels that abut IEUA recharge basins and their 500-foot buffers. If a well falls within an abutting parcel, SBCDEHS will review the proposed well location using maps of the basins and buffers. SBCDEHS will not issue permits for wells falling inside the buffer. If the well falls too near the buffer boundary for SBCDEHS to determine the relationship of the proposed well location to the buffer boundary, SBCDEHS will defer to 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, SBCDEHS will contact and provide the IEUA Groundwater Recharge Coordinator with a copy of the well permit application and a time line for completion of IEUA's review. Following its review, IEUA will notify SBCDEHS in writing of its findings. As desired by these agencies, IEUA will notify CDHS and RWQCB of well permit applications that it recommends be decline due to their location being determined to fall with a 500-foot buffer.

SBCDEHS will incorporate these outlined procedures upon receipt from IEUA of a list of parcels abutting each recharge basin and a series of the maps showing the recharge basins, buffers, and township / range / section parcels adjacent the basins and buffers.

Although this letter has not been finalized, SBCDEHS has initiated control over production well permitting within the buffer zones of all Phase 1 basins through the use of buffer zone maps that utilize the same land coordinate system (Township/Range-Section) used in the permitting process.



7. References

- California Regional Water Quality Control Board, Santa Ana Region. 2005a. Order No. R8-2005-0033. *Water Recycling Requirements for Inland Empire Utilities Agency and Chino Basin Watermaster. Phase 1 Chino Basin Recycled Water Groundwater Recharge Project, San Bernardino County.* Draft Order: April 2005.
- California Regional Water Quality Control Board, Santa Ana Region. 2005b. *Monitoring and Reporting Program No. R8-2005-0033 for Inland Empire Utilities Agency and Chino Basin Watermaster. Phase 1 Chino Basin Recycled Water Groundwater Recharge Project, San Bernardino County.*
- CH2M-Hill. 2003. *Title 22 Engineering Report. Phase 1 Chino Basin Recycled Water Groundwater Recharge Project. Final Report.* Prepared for the Inland Empire Utilities Agency. November 2003.
- Metropolitan Water District of Southern California. 2005. *Table D. Monthly Analyses of the District Water Supplies – October 2005.*
- Metropolitan Water District of Southern California. 2005. *Table D. Monthly Analyses of the District Water Supplies – November 2005.*
- Metropolitan Water District of Southern California. 2005. *Table D. Monthly Analyses of the District Water Supplies – December 2005.*
- Wildermuth Environmental, Inc. 1999, *Chino Basin Optimum Basin Management Plan, Phase I Report.* Prepared for Chino Basin Watermaster. August 19, 1999.



Table 2-1
Results of Daily Recycled Water Monitoring for October 2005: Turbidity, TOC, Ammonia-N, Nitrate-N, TKN, TN, TKN+Nitrate, TIN, pH, EC, TDS, Hardness, and Coliform

Date	RP1 Effluent														RP4 Effluent														
	Turbidity ²	TOC	NH ₃ -N	NO ₃ -N	NO ₂ -N	TKN	TN	TKN-NO ₂ -N	TIN	pH ¹	EC	TDS	Hardness	Coliform	Turbidity ²	TOC	NH ₃ -N	NO ₃ -N	NO ₂ -N	TKN	TN	TKN-NO ₂ -N	TIN	pH ¹	EC	TDS	Hardness	Coliform	
	NTU	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	µmho/cm	mg/L	mg/L	mg/L	MPN	NTU	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	µmho/cm	mg/L	mg/L	mg/L	MPN
Order Limit	2, 5, 10	16			1		10	5	8	6<pH<9		550		2.2, 23, 240	2, 5, 10	16			1		10	5	8	6<pH<9		550		2.2, 23, 240	
1/1/2006	0.9	8				1				7.3	730			2	0	11.0	0	0.2	<0.01	1.2	1.4	1.2		0.3	6.9	830			<2
1/2/2006	0.9	9								7.3	705			2	0	11.3	0	0.4	<0.01					0.5	6.9	800			2
1/3/2006	0.9	10	0.1	11.1	0.02	1.3	12.4	1.3	11.2	7.3	720	458	130	2	0	11.6	0	0.3	<0.01	1.0	1.3	1.0	0.4	7.0	815	484	127		<2
1/4/2006	0.9	10								7.4	730			4	0	11.0	0	0.6	<0.01					0.7	6.9	800			2
1/5/2006	0.9	9	0.1	12.4	0.02	1.6	14.0	1.6	12.5	7.4	740			<2	0	10.1	0	0.4	<0.01	1.0	1.4	1.0	0.5	7.0	800				<2
1/6/2006	0.9	8								7.5	735			<2	0	10.5	<0.1	0.2	<0.01					0.2	6.9	810			<2
1/7/2006	0.9	8								7.5	740			2	0	10.0	0	0.3	<0.01					0.5	6.9	820			<2
1/8/2006	1.0	10	0.1	10.9	0.02	1.4	12.3	1.4	11.0	7.5	740			2	0	11.5	0	0.3	<0.01	1.3	1.6	1.3	0.4	6.9	780				<2
1/9/2006	1.1	10								7.5	730			4	0	10.9	0	0.5	<0.01					0.6	7.0	810			<2
1/10/2006	1.1	10	0.2	10.7	0.02				10.9	7.5	725	474		2	0	11.7	0	0.5	<0.01					0.6	6.9	800	496		<2
1/11/2006	1.2	10								7.5	714			2	0	12.0	0	0.8	<0.01					0.9	6.9	795			<2
1/12/2006	1.3	11	0.2	11.2	0.02				11.3	7.5	720			<2	0	12.2	0	0.3	<0.01					0.4	6.9	790			<2
1/13/2006	1.0	9								7.5	725			2	0	11.6	0	0.9	<0.01					1.0	6.9	745			<2
1/14/2006	1.0	10								7.5	730			<2	0	11.0	0	0.4	0.0					0.5	6.9	740			<2
1/15/2006	1.1	10	0.1	12.4	0.05				12.5	7.5	745			<2	0	10.8	0	0.9	<0.01					1.0	6.9	795			2
1/16/2006	1.2	10								7.5	755			2	0	11.7	0	0.6	<0.01					0.7	7.0	805			<2
1/17/2006	1.2	11	0.1	11.1	0.01	1.6	12.7	1.6	11.2	7.5	750	476		<2	0	11.4	0	0.3	<0.01					0.4	7.0	815	490		<2
1/18/2006	1.2	11								7.5	745			<2	0	11.7	0	0.8	<0.01					1.0	6.9	815			<2
1/19/2006	1.2	10	0.1	12.6	0.03	1.7	14.3	1.7	12.7	7.5	740			<2	0	11.8	0	0.9	<0.01	1.2	2.1	1.2	1.0	6.9	810			<2	
1/20/2006	0.9	10								7.5	720			<2	0	11.5	0	0.2	<0.01					0.3	6.9	785			<2
1/21/2006	1.0	11								7.5	720			<2	0	12.0	0	0.2	<0.01					0.3	6.8	780			2
1/22/2006	0.9	9	0.1	9.9	0.01	1.3	11.2	1.3	10.0	7.5	730			<2	0	12.1	<0.1	0.4	<0.01	0.9	1.3	0.9	0.4	6.8	815			<2	
1/23/2006	0.8	10								7.6	765			<2	0	12.7	0	0.8	<0.01					1.0	6.9	880			<2
1/24/2006	0.7	10	0.1	7.8	0.02				8.0	7.5	760	472		2	0	15.3	0	1.9	<0.01					2.0	7.0	885	512		<2
1/25/2006	0.6	9								7.5	770			2	0	13.2	0	2.4	<0.01					2.5	6.9	900			2
1/26/2006	0.6	9	0.1	11.3	<0.01	1.1	12.4	1.1	11.4	7.5	760			4	0	12.0	0	0.6	<0.01	1.2	1.8	1.2	0.7	6.8	865			<2	
1/27/2006	0.7	8								7.5	741			4	0	10.0	<0.1	0.5	<0.01					0.5	6.8	861			2
1/28/2006	0.7	7								7.5	790			<2	0	10.0	<0.1	1.1	<0.01					1.1	6.9	867			<2
1/29/2006	0.8	8	0.1	10.7	<0.01	1.4	12.1	1.4	10.8	7.5	775			2	0	10.1	0	2.1	<0.01	1.3	3.4	1.3	2.2	6.9	850			2	
1/30/2006	0.9	10								7.5	770			2	0	12.1	0	<0.1	<0.01					0.1	6.9	830			<2
1/31/2006	0.9	8	0.1	11.0	<0.01				11.1	7.5	800	474		<2	0	10.6	0	0.5	<0.01					0.7	6.9	855	472		<2
Average	0.9	9	0.1	11.0	0.02	1.4	12.7	1.4	11.1	7.5	743	471	130	<2	0	11.5	0	0.7	<0.01	1.14	1.8	1.1	0.8	6.9	818	491	127		<2
Min	0.6	7	0.1	7.8	0.01	1.1	11.2	1.1	8.0	7.3	705	458	130	<2	0	10.0	0	0.2	<0.01	0.91	1.3	0.9	0.3	6.8	740	472	127		<2
Max	1.3	11	0.2	12.6	0.05	1.7	14.3	1.7	12.7	7.6	800	476	130	4	0	15.3	0	2.4	0.0	1.30	3.4	1.3	2.6	7.0	900	512	127		2

¹Turbidity and pH are 24 Hour averages of continuous monitoring

Recycled water produced by RP-1 and RP-4 for recharge shall at all times, be adequately oxidized, filtered, and disinfected tertiary treated wastewater and shall meet the following limitations:

- The turbidity of the filter effluent shall not exceed any of the following:
 - Average of 2 Nephelometric Turbidity Unit (NTU) within any 24-hour period;
 - 5 NTU more than 5 percent of the time in any 24-hour period; and
 - 10 NTU at any time.
- The 7-day median number of total coliform shall not exceed a Most Probable Number (MPN) of 2.2 total coliform bacteria per 100 milliliters (ml).
- The number of total coliform organism shall not exceed an MPN of 23 total coliform bacteria per 100 ml in more than one sample in any 30-day period prior to spreading.
- No total coliform sample shall exceed an MPN of 240 total coliform bacteria per 100 ml.

The Total Dissolved Solids (TDS) and Total Inorganic Nitrogen (TIN) concentration of the recycled water used for recharge shall not exceed a 12-month running average concentration limit of 550 mg/l and 8 mg/l, respectively.

The recycled water used for recharge, or if supplemented with diluent water, the blend of the two, prior to reaching the regional groundwater table shall not contain constituent concentrations that exceed the following limitations:

- A total nitrogen concentration of 10 mg/L;
- The sum of nitrite, organic, and ammonia nitrogen shall not exceed 5 mg/L as nitrogen; and
- The nitrite level shall not exceed 1 mg/L as nitrogen.

The pH of recycled water for recharge, or if supplemented with diluent water, the blend of the two, prior to reaching the regional groundwater table shall at all times be within the range of 6 to 9 pH units.

For the first year of operation after project start-up, the weekly average total organic carbon (TOC) concentration of the filtered wastewater shall not exceed 16 mg/L.

QC: Quality Control Failure, no data reported.

Bold signifies an exceedance of a limit in the Order.



Table 2-2
Results of Daily Recycled Water Monitoring for November 2005: Turbidity, TOC, Ammonia-N, Nitrate-N, TKN, TN, TKN+Nitrate, TIN, pH, EC, TDS, Hardness, and Coliform

Date	RP1 Effluent														RP4 Effluent													
	Turbidity	TOC	NH ₃ -N	NO ₃ -N	NO ₂ -N	TKN	TN	TKN-NO ₂ -N	TIN	pH ¹	EC	TDS	Hardness	Coliform	Turbidity ²	TOC	NH ₃ -N	NO ₃ -N	NO ₂ -N	TKN	TN	TKN-NO ₂ -N	TIN	pH ¹	EC	TDS	Hardness	Coliform
	NTU	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	µmho/cm	mg/L	mg/L	MPN	NTU	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	µmho/cm	mg/L	mg/L	MPN
Order Limit	2, 5, 10	16			1		10	5	8	6<pH<9		550		2.2; 23; 240	2, 5, 10	16			1		10	5	8	6<pH<9		550		2.2; 23; 240
2/1/2006	0.9	7								7.47	780		<2	0.2	10	0.1	0.7	<0.01					0.8	6.9	835.00		<2	
2/2/2006	0.8	7	0.2	10.6	<0.01	1.7	12.3	1.7	10.8	7.47	775		2	0.1	8	0.1	1.1	<0.01	1.0	2.0	1.0	1.2	6.8	830.00		<2		
2/3/2006	0.8	8								7.46	760		<2	0.2	10	0.1	0.8	<0.01				0.9	6.8	835.00		<2		
2/4/2006	0.9	8								7.48	776		<2	0.2	10	0.1	0.7	<0.01				0.8	6.8	835.00		<2		
2/5/2006	0.8	7	0.1	9.5	<0.01	1.4	10.9	1.4	9.6	7.51	760		2	0.3	11	0.1	0.7	<0.01	1.0	1.7	1.0	0.8	6.9	815.00		<2		
2/6/2006	0.8	9								7.50	760		<2	0.2	10	0.1	0.7	<0.01				0.8	6.9	815.00		<2		
2/7/2006	0.8	8	0.1	10.6	<0.01				10.7	7.49	770	472	127	2	0.2	10	<0.1	1.4	<0.01				1.4	6.9	815.00	466	120	<2
2/8/2006	0.7	8								7.49	730		<2	0.3	13	0.1	2.6	<0.01				2.7	6.9	840.00		<2		
2/9/2006	0.7	8	0.2	11.9	<0.01	1.5	13.4	1.5	12.1	7.46	760		<2	0.2	10	0.1	3.2	<0.01	1.4	4.6	1.4	3.3	6.8	845.00		<2		
2/10/2006	0.8	9								7.49	760		<2	0.3	11	1.1	2.4	<0.01				3.5	6.8	830.00		<2		
2/11/2006	0.8	8								7.50	734		<2	0.4	10	0.1	3.2	<0.01				3.3	6.7	842.00		<2		
2/12/2006	0.8	8	0.3	9.9	<0.01	1.7	11.6	1.7	10.2	7.53	765		<2	0.2	9	0.2	3.2	<0.01	1.1	4.3	1.1	3.4	6.7	840.00		<2		
2/13/2006	0.8	7								7.54	765		<2	0.2	8	0.1	2.6	<0.01				2.7	6.7	815.00		<2		
2/14/2006	1.0	8	0.1	9.5	<0.01				9.6	7.55	760	464		<2	0.1	8	0.2	1.7	<0.01				1.9	6.7	785.00	446		<2
2/15/2006	0.9	7								7.55	745		4	0.1	9	0.1	0.7	<0.01				0.8	6.8	760.00		<2		
2/16/2006	0.9	8	0.1	10.5	<0.01	1.3	11.8	1.3	10.6	7.56	740		<2	0.3	9	0.1	0.2	<0.01	0.6	0.8	0.6	0.3	6.7	755.00		<2		
2/17/2006	0.9	7								7.54	735		QC	0.6	8	0.1	0.2	0.1				0.4	6.7	745.00		QC		<2
2/18/2006	0.8	7								7.54	740		<2	0.9	9	0.1	0.1	<0.01				0.2	6.7	740.00		<2		
2/19/2006	0.9	7								7.55	745		2	0.7	8	0.1	0.2	<0.01				0.3	6.8	770.00		<2		
2/20/2006	0.9	8								7.52	735		<2	0.9	9	0.1	<0.1	<0.01				0.1	6.8	790.00		<2		
2/21/2006	0.9	8	0.1	10.5	0.0				10.6	7.52	760	476		<2	1.1	11	0.1	0.3	<0.01				0.4	6.7	775.00	460		<2
2/22/2006	0.9	6								7.53	745		4	1.3	8	0.1	2.4	<0.01				2.5	6.8	830.00		<2		
2/23/2006	0.9	QC	0.1	10.1	<0.01	1.5	11.6	1.5	10.3	7.49	770		<2	1.1	QC	1.7	0.9	<0.01	2.9	3.8	2.9	2.6	6.7	820.00		<2		
2/24/2006	0.9									7.42			2	0.9	8	0.1	1.0	<0.01				1.1	6.8	770.00		<2		
2/25/2006	0.9									7.53			<2	0.8	7	0.1	0.2	<0.01				0.3	6.8	780.00		<2		
2/26/2006	1.0									7.63			<2	0.7	8	0.1	0.1	<0.01	0.9	1.1	0.9	0.2	6.9	775.00		<2		
2/27/2006	1.0	9								7.63	755		2	0.7	9	0.1	<0.1	<0.01				0.1	6.9	750.00		<2		
2/28/2006	1.0	8	0.1	10.0	<0.01				10.1	7.42	660	424		<2	0.7	10	0.1	0.3	<0.01				0.4	6.9	685.00	402		<2
Average	0.9	8	0.1	10.3	0.02	1.5	11.9	1.5	10.4	7.51	751	459	127	<2	0.5	9	0.2	1.2	<0.01	1.3	2.6	1.3	1.3	6.8	797.21	444	120	<2
Min	0.7	6	<0.1	9.5	0.02	1.3	10.9	1.3	9.6	7.42	660	424	127	<2	0.1	7	<0.1	<0.1	<0.01	0.6	0.8	0.6	0.1	6.7	685.00	402	120	<2
Max	1.0	9	0.3	11.9	0.02	1.7	13.4	1.7	12.1	7.63	780	476	127	4	1.3	13	1.7	3.2	<0.01	2.9	4.6	2.9	3.5	6.9	845.00	466	120	<2

¹Turbidity and pH are 24 Hour averages of continuous monitoring

Recycled water produced by RP-1 and RP-4 for recharge shall at all times, be adequately oxidized, filtered, and disinfected tertiary treated wastewater and shall meet the following limitations:

- The turbidity of the filter effluent shall not exceed any of the following:
 - Average of 2 Nephelometric Turbidity Unit (NTU) within any 24-hour period;
 - 5 NTU more than 5 percent of the time in any 24-hour period; and
 - 10 NTU at any time.
- The 7-day median number of total coliform shall not exceed a Most Probable Number (MPN) of 2.2 total coliform bacteria per 100 milliliters (ml).
- The number of total coliform organism shall not exceed an MPN of 23 total coliform bacteria per 100 ml in more than one sample in any 30-day period prior to spreading.
- No total coliform sample shall exceed an MPN of 240 total coliform bacteria per 100 ml.

The Total Dissolved Solids (TDS) and Total Inorganic Nitrogen (TIN) concentration of the recycled water used for recharge shall not exceed a 12-month running average concentration limit of 550 mg/l and 8 mg/l, respectively.

The recycled water used for recharge, or if supplemented with diluent water, the blend of the two, prior to reaching the regional groundwater table shall not contain constituent concentrations that exceed the following limitations:

- A total nitrogen concentration of 10 mg/L;
- The sum of nitrite, organic, and ammonia nitrogen shall not exceed 5 mg/L as nitrogen; and
- The nitrite level shall not exceed 1 mg/L as nitrogen.

The pH of recycled water for recharge, or if supplemented with diluent water, the blend of the two, prior to reaching the regional groundwater table shall at all times be within the range of 6 to 9 pH units.

For the first year of operation after project start-up, the weekly average total organic carbon (TOC) concentration of the filtered wastewater shall not exceed 16 mg/L.

Bold signifies an exceedance of a limit in the Order.

Table 2-3
Results of Daily Recycled Water Monitoring for December 2005: Turbidity, TOC, Ammonia-N, Nitrate-N, TKN, TN, TKN+Nitrate, TIN, pH, EC, TDS, Hardness, and Coliform

Date	RP1 Effluent													RP4 Effluent														
	Turbidity	TOC	NH ₃ -N	NO ₂ -N	NO ₂ -N	TKN	TN	TKN-NO ₃ -N	TIN	pH ¹	EC	TDS	Hardness: Coliform	Turbidity ²	TOC	NH ₃ -N	NO ₂ -N	NO ₂ -N	TKN	TN	TKN-NO ₃ -N	TIN	pH ¹	EC	TDS	Hardness	Coliform	
	NTU	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	µmho/cm	mg/L	mg/L	MPN	NTU	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	µmho/cm	mg/L	mg/L	MPN	
Order Limit	2, 5, 10	16			1	10	5	8	6<pH<9			550	2.2; 23; 240	2, 5, 10	16			1	10	5	8	6<pH<9		550		2.2; 23; 240		
3/1/2006	1.1	10							7.4	700			2	1	9	<0.1	0.2	<0.01				0.2	6.8	710		2		
3/2/2006	1.0	6	0.1	10.1	<0.01	1.5	11.6	1.5	10.2	7.5	700		<2	1	7	0	0.2	<0.01	1.0	1.2	1.0	0.3	6.8	715		<2		
3/3/2006	1.0	6								7.5	715		<2	1	7	0	0.1	<0.01				0.2	6.8	710		<2		
3/4/2006	1.0	6								7.5	720		<2	1	7	<0.1	0.2	<0.01				0.2	6.9	715		<2		
3/5/2006	1.0	10	0.2	10.7	<0.01	1.5	12.2	1.5	10.9	7.5	725		<2	1	11	0	<0.1	<0.01	0.8	0.8	0.8	0.1	6.9	715		<2		
3/6/2006	1.1	11								7.5	720		2	1	11	<0.1	<0.1	<0.01				0.0	6.9	700		<2		
3/7/2006	1.2	11	0.1	11.1	<0.01				11.2	7.6	720	470	145	2	1	15	1	0.5	<0.01			1.0	6.9	720	446	140.0	<2	
3/8/2006	1.0	7								7.6	725		<2	1	6	0	0.1	<0.01				0.2	6.9	725		<2		
3/9/2006	1.1	7	0.1	12.9	<0.01	2.0	14.9	2.0	13.0	7.6	720		<2	1	6	0	0.1	<0.01	1.0	1.1	1.0	0.2	6.9	685		<2		
3/10/2006	1.1	6								7.6	730		<2	1	6	0	1.4	<0.01				1.5	6.9	710		<2		
3/11/2006	1.3	6								7.6	725		<2	1	6	<0.1	0.3	<0.01				0.3	6.9	715		<2		
3/12/2006	1.3	11	0.1	12.0	<0.01	1.8	13.8	1.8	12.1	7.6	715		<2	1	12	<0.1	0.2	<0.01	1.0	1.2	1.0	0.2	6.9	710		<2		
3/13/2006	1.2	7								7.4	700		2	1	7	0	0.2	<0.01				0.3	7.0	710		2		
3/14/2006	1.3	7	0.1	9.5	<0.01				9.6	7.4	770	494		2	1	8	0	0.8	<0.01			0.9	7.0	720	436	<2		
3/15/2006	1.3	10								7.6	735		<2	2	10	0	1.8	<0.01				1.9	7.0	730		<2		
3/16/2006	1.3	10	0.2	10.1	<0.01	1.9	12.0	1.9	10.3	7.6	725		<2	1	10	0	1.0	<0.01	1.0	2.0	1.0	1.1	7.0	705		<2		
3/17/2006	1.2	10								7.6	735		2	1	10	0	1.1	<0.01				1.2	6.9	710		<2		
3/18/2006	1.1	9								7.6	730		<2	1	10	0	0.9	<0.01				1.0	6.9	720		<2		
3/19/2006	1.1	7	0.1	8.3	<0.01	1.7	10.0	1.7	8.5	7.6	730		2	1	9	0	2.8	<0.01	1.2	4.0	1.2	2.9	7.0	740		<2		
3/20/2006	1.1	9								7.6	710		4	1	9	1	2.1	<0.01				3.4	7.0	695		<2		
3/21/2006	1.1	4	0.4	11.4	0.12	1.6	13.1	1.7	11.9	7.6	705	446	<2	1	5	2	2.8	0				5.1	6.9	670	400	<2		
3/22/2006	1.0	7								7.5	715		2	1	5	1	3.2	0				4.8	6.9	675		<2		
3/23/2006	1.0	4	0.1	11.9	0.06	1.6	13.6	1.7	12.1	7.5	720		2	1	5	0	2.3	<0.01	0.9	3.2	0.9	2.4	6.9	685		<2		
3/24/2006	0.9	5								7.5	725		2	1	7	0	1.0	<0.01				1.1	7.0	700		<2		
3/25/2006	0.9	5								7.6	720		<2	1	5	0	1.4	<0.01				1.5	7.0	720		<2		
3/26/2006	0.9	4	0.1	9.9	0.06	1.5	11.5	1.6	10.1	7.6	730		<2	1	6	0	1.9	<0.01	1.1	3.0	1.1	2.0	7.0	715		<2		
3/27/2006	0.9	6								7.6	180		<2	1	8	<0.1	0.7	<0.01				0.7	7.0	735		<2		
3/28/2006	0.9	7	0.1	9.6	0.09				9.8	7.7	715	442	2	1	7	1	0.6	0				1.98	7.0	710	412	<2		
3/29/2006	0.9	5								7.6	660		<2	1	5	<0.1	0.9	<0.01				0.88	7.0	675		<2		
3/30/2006	0.9	6	0.1	11.0	0.10	1.6	12.7	1.7	11.2	7.6	700		2	1	7	<0.1	<0.1	<0.01	1.1	1.1	1.1	0.5	6.9	710		2		
3/31/2006	0.9	6								7.6	725		<2	1	7	2	0.1	0				0.5	6.9	730		<2		
Average	1.1	7	0.1	10.7	0.09	1.7	12.5	1.8	10.8	7.5	701	463	145	<2	1	8	0	1.0	<0.01	1.0	2.0	1.0	1.24	6.9	709	424	140	<2
Min	0.9	4	<0.1	8.3	<0.01	1.5	10.0	1.5	8.5	7.4	180	442	145	<2	1	5	<0.1	<0.1	<0.01	0.8	0.8	0.8	0.00	6.8	670	400	140	<2
Max	1.3	11	0.4	12.9	0.12	2.0	14.9	2.1	13.0	7.7	770	494	145	4	2	15	2	3.2	0	1.2	4.0	1.4	5.07	7.0	740	446	140	2

¹Turbidity and pH are 24 Hour averages of continuous monitoring

Recycled water produced by RP-1 and RP-4 for recharge shall at all times, be adequately oxidized, filtered, and disinfected tertiary treated wastewater and shall meet the following limitations:

- The turbidity of the filter effluent shall not exceed any of the following:
 - Average of 2 Nephelometric Turbidity Unit (NTU) within any 24-hour period;
 - 5 NTU more than 5 percent of the time in any 24-hour period; and
 - 10 NTU at any time.
- The 7-day median number of total coliform shall not exceed a Most Probable Number (MPN) of 2.2 total coliform bacteria per 100 milliliters (ml).
- The number of total coliform organism shall not exceed an MPN of 23 total coliform bacteria per 100 ml in more than one sample in any 30-day period prior to spreading.
- No total coliform sample shall exceed an MPN of 240 total coliform bacteria per 100 ml.

The Total Dissolved Solids (TDS) and Total Inorganic Nitrogen (TIN) concentration of the recycled water used for recharge shall not exceed a 12-month running average concentration limit of 550 mg/l and 8 mg/l, respectively.

The recycled water used for recharge, or if supplemented with diluent water, the blend of the two, prior to reaching the regional groundwater table shall not contain constituent concentrations that exceed the following limitations:

- A total nitrogen concentration of 10 mg/L;
- The sum of nitrite, organic, and ammonia nitrogen shall not exceed 5 mg/L as nitrogen; and
- The nitrite level shall not exceed 1 mg/L as nitrogen.

The pH of recycled water for recharge, or if supplemented with diluent water, the blend of the two, prior to reaching the regional groundwater table shall at all times be within the range of 6 to 9 pH units.

For the first year of operation after project start-up, the weekly average total organic carbon (TOC) concentration of the filtered wastewater shall not exceed 16 mg/L.

ND: Not detected above method reporting limit

Bold signifies an exceedance of a limit in the Order.

Table 2-4
Results of Running Quarterly Average Concentration from Each Quarter:
Turbidity, TOC, Ammonia-N, Nitrate-N, TKN, TN, TKN+Nitrate, TIN, pH, EC, TDS, Hardness, and Coliform

Date	RP1 Effluent														RP4 Effluent													
	Turbidity	TOC	NH ₃ -N	NO ₃ -N	NO ₂ -N	TKN	TN	TKN-N O ₃ -N	TIN	pH	EC	TDS	Hardness	Coliform	Turbidity	TOC	NH ₃ -N	NO ₃ -N	NO ₂ -N	TKN	TN	TKN-N O ₃ -N	TIN	pH	EC	TDS	Hardness	Coliform
	NTU	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L		µmho/cm	mg/L	mg/L	MPN	NTU	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L		µmho/cm	mg/L	mg/L	MPN
Order Limit	2, 5, 10	16			1		10	5	8	6<pH<9		550		2.2, 23, 240	2, 5, 10	16			1		10	5	8	6<pH<9		550		2.2, 23, 240
Average 3Q05	0.77	7.19	0.13	5.86	0.03	0.89	6.86	0.93	6.02	7.21	711.14	454.15	133.00	2.00	0.96	10.20	0.19	1.14	0.04	1.01	2.11	1.01	1.24	7.06	742.14	456.77	119.00	2.00
Min	0.28	5.80	0.10	4.40	0.01	0.80	5.43	0.80	4.53	6.69	670.00	436.00	127.00	2.00	0.44	8.70	0.10	0.10	0.02	0.70	0.70	0.70	0.00	6.90	675.00	438.00	113.00	2.00
Max	1.14	8.60	0.30	8.64	0.12	1.10	9.70	1.12	8.90	7.39	785.00	490.00	137.00	2.00	1.90	18.60	6.60	6.46	0.05	1.25	7.56	1.25	6.86	7.20	790.00	488.00	122.00	2.00
Average 4Q05	0.91	7.60	0.17	6.69	0.02	1.06	6.89	1.09	7.11	7.42	718.10	458.92	133.00	2.19	0.99	10.37	0.11	0.82	0.23	1.14	1.94	1.15	1.01	7.09	752.93	463.54	128.00	2.15
Min	0.64	5.60	0.10	4.56	0.01	0.50	5.08	0.52	4.71	7.29	680.00	436.00	131.00	2.00	0.40	7.00	0.10	0.10	0.02	0.20	1.05	0.20	0.00	7.00	700.00	442.00	124.00	2.00
Max	1.52	11.00	1.00	12.00	0.06	1.90	9.34	1.92	12.02	7.63	755.00	478.00	136.00	4.00	1.90	15.70	0.40	2.63	1.00	2.00	3.35	2.00	3.35	7.20	830.00	492.00	130.00	4.00
Average 1Q06	0.96	8.20	0.13	10.68	0.04	1.53	12.43	1.57	10.83	7.52	730.46	464.77	134.00	2.37	0.57	9.54	0.24	0.97	0.09	1.13	2.09	1.13	1.10	6.88	773.94	455.54	129.00	2.00
Min	0.62	4.10	0.10	7.84	0.01	1.10	10.04	1.10	7.96	7.33	180.00	424.00	127.00	2.00	0.11	4.50	0.10	0.10	0.01	0.64	0.82	0.64	0.00	6.70	670.00	400.00	120.00	2.00
Max	1.34	11.30	0.40	12.89	0.12	2.00	14.89	2.00	13.03	7.65	800.00	494.00	145.00	4.00	1.60	15.30	2.10	3.20	0.16	2.90	4.57	2.90	5.07	7.00	900.00	512.00	140.00	2.00
Running Average	0.86	7.69	0.13	8.27	0.04	1.21	9.64	1.25	8.42	7.36	720.80	459.46	133.50	2.18	0.76	9.87	0.21	1.05	0.06	1.07	2.10	1.07	1.17	6.97	758.04	456.15	124.00	2.00
Min	0.28	4.10	0.10	4.40	0.01	0.80	5.43	0.80	4.53	6.69	180.00	424.00	127.00	2.00	0.11	4.50	0.10	0.10	0.01	0.64	0.70	0.64	0.00	6.70	670.00	400.00	113.00	2.00
Max	1.34	11.30	0.40	12.89	0.12	2.00	14.89	2.00	13.03	7.65	800.00	494.00	145.00	4.00	1.90	18.60	6.60	6.46	0.16	2.90	7.56	2.90	6.86	7.20	900.00	512.00	140.00	2.00

Recycled water produced by RP-1 and RP-4 for recharge shall at all times, be adequately oxidized, filtered, and disinfected tertiary treated wastewater and shall meet the following limitations:

- a. The turbidity of the filter effluent shall not exceed any of the following:
 - 1) Average of 2 Nephelometric Turbidity Unit (NTU) within any 24-hour period;
 - 2) 5 NTU more than 5 percent of the time in any 24-hour period; and
 - 3) 10 NTU at any time.
- b. The 7-day median number of total coliform shall not exceed a Most Probable Number (MPN) of 2.2 total coliform bacteria per 100 milliliters (ml).
- c. The number of total coliform organism shall not exceed an MPN of 23 total coliform bacteria per 100 ml in more than one sample in any 30-day period prior to spreading.
- d. No total coliform sample shall exceed an MPN of 240 total coliform bacteria per 100 ml.

The Total Dissolved Solids (TDS) and Total Inorganic Nitrogen (TIN) concentration of the recycled water used for recharge shall not exceed a 12-month running average concentration limit of 550 mg/l and 8 mg/l, respectively.

The recycled water used for recharge, or if supplemented with diluent water, the blend of the two, prior to reaching the regional groundwater table shall not contain constituent concentrations that exceed the following limitations:

- a. A total nitrogen concentration of 10 mg/L;
- b. The sum of nitrite, organic, and ammonia nitrogen shall not exceed 5 mg/L as nitrogen; and
- c. The nitrite level shall not exceed 1 mg/L as nitrogen.

The pH of recycled water for recharge, or if supplemented with diluent water, the blend of the two, prior to reaching the regional groundwater table shall at all times be within the range of 6 to 9 pH units.

For the first year of operation after project start-up, the weekly average total organic carbon (TOC) concentration of the filtered wastewater shall not exceed 16 mg/L.

Bold signifies an exceedance of a limit in the Order.



Table 2-5
IEUA's Agency-Wide Distribution System
TDS and TIN Analysis

	Agency-Wide Effluent TDS Flow-weighted Average	Agency-wide TIN			
		Discharge		Discharge Limit	
	12-Month Running Average	Flow wt.	Total	Flow wt.	Total
Mo-Yr	mg/L	mg/L	lbs/day	mg/L	lbs/day
Jan-05	492	7.3	3,780	12.2	6,260
Feb-05	494	8.4	4,020	12.3	5,870
Mar-05	501	7.5	3,260	12.5	5,410
Apr-05	509	6.9	2,820	12.5	5,120
May-05	510	6.7	2,980	12.3	5,520
Jun-05	510	7.0	3,080	12.3	5,450
Jul-05	503	5.4	2,370	12.4	5,410
Aug-05	497	5.9	2,350	12.6	5,030
Sep-05	494	5.4	2,240	12.5	5,160
Oct-05	491	5.5	2,430	12.3	5,470
Nov-05	489	5.5	2,470	12.3	5,500
Dec-05	488	8.4	3,830	12.3	5,640
Jan-06	488	10.0	4,650	12.3	5,670
Feb-06	486	9.1	3,970	12.4	5,400
Mar-06	482	8.9	4,370	12.2	5,970
12-Month Average	496	7.1	3,130	12.4	5,450
Minimum	482	5.4	2,240	12.2	5,030
Maximum	510	10.0	4,650	12.6	5,970

Notes:

The TDS and TIN concentration of the recycled water used for recharge shall not exceed a 12-month running average concentration limit of 550 mg/l and 8 mg/l, respectively.

The RP1/RP4 limit is as follows: "The 12-month average total inorganic nitrogen concentration for flows up to 34.4 mgd shall not exceed 13 mg/L and for flows exceeding 34.4 mgd shall not exceed 10 mg/L"



Table 2-6
Recycled Water Monitoring Results: Oil and Grease, Inorganic Chemicals, VOCs, SOCs,
Disinfection By-Products, Notification Levels, and Radionuclides

Chemical	Order Limit	3Q05 Result*	4Q05 Result*	1Q06 Result*	Running Average	Units	Method
Oil & Grease (Total)		<1	<2	<2	<2	mg/L	EPA 1664
Aluminum ²	1000	156	<70	<25	<84	µg/L	EPA 200.7
Antimony	6	<1	<1	<0.5	<1	µg/L	EPA 200.8
Arsenic	10	<1	<1	<2	<1.5	µg/L	EPA 200.8
Asbestos by TEM - >10 microns	7	<4.94	<1.98	<1	<2.64	MFL	ML/EPA 100.2
Barium	1000	13	16	18	15.7	µg/L	EPA 200.7
Beryllium	4	<1	<1	<0.5	<1	µg/L	EPA 200.7
Cadmium	5	<1	<1	<0.25	<1	µg/L	EPA 200.7
Chromium	50	<1	1	8.8	<3.6	µg/L	EPA 200.7
Cyanide	0.15	<0.005	<0.005	0.003	<0.005	mg/L	SM 4500-CN E
Fluoride	2	0.2	0.2	0.2	0.2	mg/L	SM 4500-F C
Mercury	2	0.2	<0.2	<0.2	<0.2	µg/L	EPA 245.2
Nickel	100	2	2	2	2	µg/L	EPA 200.7
Selenium	50	<5	<5	2	<4	µg/L	EPA 200.8
Thallium	2	<1	<1	<1	<1	µg/L	EPA 200.8
Volatile Organic Compounds							
Benzene	1	<0.5	<0.5	<0.5	<0.5	µg/L	EPA 524.2
Carbon tetrachloride	0.5	<0.3	<0.3	<0.5	<0.4	µg/L	EPA 524.2
1,2-Dichlorobenzene	600	<0.5	<0.5	<0.5	<0.5	µg/L	EPA 524.2
1,4-Dichlorobenzene	5	<0.5	<0.5	<0.5	<0.5	µg/L	EPA 524.2
1,1-Dichloroethane	5	<0.5	<1	<0.5	<1	µg/L	EPA 524.2
1,2-Dichloroethane	0.5	<0.3	<0.3	<0.5	<0.4	µg/L	EPA 524.2
1,1-Dichloroethylene	6	<1	<1	<0.5	<1	µg/L	EPA 524.2
cis-1,2-Dichloroethylene	6	<0.5	<0.5	<0.5	<0.5	µg/L	EPA 524.2
trans-1,2-Dichloroethylene	10	<0.5	<0.5	<0.5	<0.5	µg/L	EPA 524.2
Dichloromethane	5	<0.5	<0.5	<0.5	<0.5	µg/L	EPA 524.2
1,2-Dichloropropane	5	<0.5	<0.5	<0.5	<0.5	µg/L	EPA 524.2
1,3-Dichloropropane	0.5	<0.5	<0.5	<0.5	<0.5	µg/L	EPA 524.2
Ethylbenzene	300	<0.5	<0.5	<0.5	<0.5	µg/L	EPA 524.2
Monochlorobenzene	70	<0.5	<0.5	<0.5	<0.5	µg/L	EPA 524.2
Methyl tert-butyl ether (MTBE)	13	<0.5	<0.5	<1	<1	µg/L	EPA 524.2
Styrene	100	<0.5	<0.5	<0.5	<0.5	µg/L	EPA 524.2
1,1,2,2-Tetrachloroethane	1	<0.5	<0.5	<0.5	<0.5	µg/L	EPA 524.2
Tetrachloroethylene	5	<0.5	<0.5	<0.5	<0.5	µg/L	EPA 524.2
Toluene	150	<0.5	<0.5	<0.5	<0.5	µg/L	EPA 524.2
1,2,4-Trichlorobenzene	5	<0.5	<0.5	<0.5	<0.5	µg/L	EPA 524.2
1,1,1-Trichloroethane	200	<0.5	<0.5	<0.5	<0.5	µg/L	EPA 524.2
1,1,2-Trichloroethane	5	<0.5	<0.5	<0.5	<0.5	µg/L	EPA 524.2
Trichloroethylene	5	<0.5	<0.5	<0.5	<0.5	µg/L	EPA 524.2
Trichlorofluoromethane	150	<0.5	<0.5	<0.5	<0.5	µg/L	EPA 524.2
Trichlorotrifluoroethane	1200	<0.5	<0.5	<0.5	<0.5	µg/L	EPA 524.2
Vinyl chloride	0.5	<0.3	<0.3	<0.3	<0.3	µg/L	EPA 524.2
m,p-Xylene	1750	<0.5	<0.5	<0.5	<0.5	µg/L	EPA 524.2
o-Xylene	1750	<0.5	<0.5	<0.5	<0.5	µg/L	EPA 524.2



Table 2-6
Recycled Water Monitoring Results: Oil and Grease, Inorganic Chemicals, VOCs, SOCs,
Disinfection By-Products, Notification Levels, and Radionuclides

Chemical	Order Limit	3Q05 Result*	4Q05 Result*	1Q06 Result*	Running Average	Units	Method
Non-Volatile Synthetic Organic Chemicals (SOCs)							
Alachlor (Alanex)	2	<0.1	<0.1	<0.1	<0.1	µg/L	EPA 505
Atrazine	1	<0.05	<0.05	<0.05	<0.05	µg/L	EPA 525.2
Bentazon	18	<0.5	<0.5	<0.5	<0.5	µg/L	EPA 515.4
Benzo(a)pyrene	0.2	<0.02	<0.02	<0.02	<0.02	µg/L	EPA 525.2
Carbofuran (Furadan)	18	<0.5	<0.5	<0.5	<0.5	µg/L	EPA 531.2
Chlordane	0.1	<0.1	<0.1	<0.1	<0.1	µg/L	EPA 505
2,4-D	70	<0.1	<0.1	<0.1	<0.1	µg/L	EPA 515.4
Dalapon	200	<1	<1	<1	<1	µg/L	EPA 515.4
Dibromochloropropane (DBCP)	0.2	<0.01	0.029	<0.01	<0.02	µg/L	ML/EPA 504.1
Di-(2-Ethylhexyl)adipate	400	<0.6	<0.6	<0.6	<0.6	µg/L	ML/EPA 525.2
Di(2-Ethylhexyl)phthalate	4	1.2	<0.6	<0.6	<0.8	µg/L	ML/EPA 525.2
Dinoseb	7	<0.2	<0.2	<0.2	<0.2	µg/L	ML/EPA 515.4
Diquat	20	<0.4	<0.4	<0.4	<0.4	µg/L	ML/EPA 549.2
Endothall	100	<20	<5	<20	<15	µg/L	ML/EPA 548.1
Endrin	2	<0.01	<0.01	<0.01	<0.01	µg/L	ML/EPA 505
Ethylene Dibromide (EDB)	0.05	<0.01	<0.01	<0.01	<0.01	µg/L	ML/EPA 504.1
Glyphosate	700	<6	<6	<6	<6	µg/L	ML/EPA 547
Heptachlor	0.01	<0.01	<0.01	<0.01	<0.01	µg/L	ML/EPA 505
Heptachlor Epoxide	0.01	<0.01	<0.01	<0.01	<0.01	µg/L	ML/EPA 505
Hexachlorobenzene	1	<0.05	<0.05	<0.05	<0.05	µg/L	ML/EPA 525.2
Hexachlorocyclopentadiene	50	0.22	<0.085	<0.05	<0.12	µg/L	ML/EPA 525.2
Lindane (gamma-BHC)	0.2	<0.01	<0.01	<0.01	<0.01	µg/L	EPA 505
Methoxychlor	30	<0.05	<0.05	<0.05	<0.05	µg/L	EPA 505
Molinate	20	<0.1	<0.1	<0.1	<0.1	µg/L	ML/EPA 525.2
Oxamyl (Vydate)	50	<0.5	<0.5	<0.5	<0.5	µg/L	ML/EPA 531.2
Pentachlorophenol	1	<0.04	<0.04	<0.04	<0.04	µg/L	ML/EPA 515.4
Picloram	500	<0.1	<0.1	<0.1	<0.1	µg/L	ML/EPA 515.4
PCB 1016	0.5	<0.07	<0.07	<0.07	<0.07	µg/L	EPA 505
PCB 1221	0.5	<0.1	<0.1	<0.1	<0.1	µg/L	EPA 505
PCB 1232	0.5	<0.1	<0.1	<0.1	<0.1	µg/L	EPA 505
PCB 1242	0.5	<0.1	<0.1	<0.1	<0.1	µg/L	EPA 505
PCB 1248	0.5	<0.1	<0.1	<0.1	<0.1	µg/L	EPA 505
PCB 1254	0.5	<0.1	<0.1	<0.1	<0.1	µg/L	EPA 505
PCP 1260	0.5	<0.1	<0.1	<0.1	<0.1	µg/L	EPA 505
Simazine	4	<0.05	<0.05	<0.05	<0.05	µg/L	ML/EPA 525.2
Thiobencarb	70	<0.2	<0.2	<0.2	<0.2	µg/L	ML/EPA 525.2
Toxaphene	3	<0.5	<0.5	<0.5	<0.5	µg/L	EPA 505
2,3,7,8-TCDD 1613 DW (subbed)	30	<5	<5	<5	<5	pg/l	EPA 1613
2,4,5-TP (Silvex)	50	<0.2	<0.2	<0.2	<0.2	µg/L	ML/EPA 515.4
Disinfection By-products							
Total Trihalomethanes	80	241	26 ⁽⁴⁾	105 ⁽⁴⁾	RA	µg/L	EPA 524.2
Total Haloacetic Acids (HAA5)	60	200	<1 ⁽⁴⁾	135 ⁽⁴⁾	RA	µg/L	ML/S6251B
Bromate	10	<5	<5	<5	<5	µg/L	EPA 300.1
Chlorite by IC	1000	<0.04	<0.02	<0.02	<0.03	mg/l	EPA 300.1



Table 2-6
Recycled Water Monitoring Results: Oil and Grease, Inorganic Chemicals, VOCs, SOCs,
Disinfection By-Products, Notification Levels, and Radionuclides

Chemical	Order Limit	3Q05 Result*	4Q05 Result*	1Q06 Result*	Running Average	Units	Method
Notification Levels							
Copper	1300	5	9	12.1	5.2	µg/L	EPA 200.7
Lead	15	<0.5	<0.5	<0.5	<0.5	µg/L	EPA 200.8
Radionuclides							
Combined Radium-226 and Radium 228	5	<0.753	<1.04	<0.486	<0.76	pCi/l	EPA 903.0
Gross Alpha particle activity (including Radium-226 but excluding Radon and Uranium)	15	<3.00	<3.00	<3	<3	pCi/l	EPA 900.0
Tritium (Sub)	20,000	<294	<317	<379	<330	pCi/l	EPA 906
Strontium 90	8	<0.590	<0.397	<0.807	<0.598	pCi/l	EPA 905
Gross Beta particle activity	50	9.5	9.4	<3	<7.3	pCi/l	EPA 900.0
Uranium	20	<0.7	<0.7	<0.7	<0.7	pCi/l	EPA 200.8

* Recycled water sample is a blend of RP1 and RP4 Effluents

** Aluminum was reanalyzed in November. 156 value is from 3Q05 and <70 is from 4Q05.

*** Limit is either for a single isomer or the sum of the isomers.

⁽⁴⁾ Representative sample location is the compliance point lysimeter.

IS: Insufficient Sample for Analytical Test

RA: Running average will be initiated as more data is obtained.

Averages are calculated when a detection above the method reporting limit occurs in one or more samples. The reporting limit is used for other samples not detected above the method reporting limit. As an example: $1 + (<0.5) = 0.5$

Bold signifies an exceedance of a limit in the Order.



Table 2-7
Recycled Water* Monitoring Results: Remaining Priority Pollutants

Chemical	3Q05 Result	4Q05 Result	1Q06 Result	Running Average	Units	Method
Metals						
Trivalent Chromium	1	1	0.23	0.74	ug/L	EPA 200.7
Volatile Organics						
Acrolein	<2	<2	<2	<2	µg/L	EPA 624
Acrylonitrile	<2	<2	<2	<2	µg/L	EPA 624
Bromoform	<0.5	<0.5	<0.5	<0.5	µg/L	EPA 524.2
Dibromochloromethane	5.6	5.0	3.7	4.8	µg/L	EPA 524.2
Chloroethane	<0.5	<0.5	<0.5	<0.5	µg/L	EPA 524.2
2-Chloroethyl Vinyl Ether	<1	<1	<1	<1	µg/L	EPA 624
Chloroform	199	150	78	142.3	µg/L	EPA 524.2
Bromodichloromethane	36.6	31	23	30.2	µg/L	EPA 524.2
Bromomethane	<1	<1	<0.5	<1	µg/L	EPA 524.2
Chloromethane	0.7	<0.5	<0.5	<0.57	µg/L	EPA 524.2
Acid Extractibles						
2-Chlorophenol	<100	<1	<1	<34	µg/L	EPA 625
2,4-Dichlorophenol	<100	<2	<2	<35	µg/L	EPA 625
2,4-Dimethylphenol	<100	<1	<1	<34	µg/L	EPA 625
2-Methyl-4,6-Dinitrophenol	<100	<2	<2	<35	µg/L	EPA 625
2,4-Dinitrophenol	<100	<3	<3	<36	µg/L	EPA 625
2-Nitrophenol	<100	<1	<1	<34	µg/L	EPA 625
4-Nitrophenol	<100	<3	<3	<36	µg/L	EPA 625
4-Chloro-3-methylphenol	<100	<1	<1	<34	µg/L	EPA 625
Phenol	<100	<1	<1	<34	µg/L	EPA 625
2,4,6-Trichlorophenol	<100	<1	<1	<34	µg/L	EPA 625
Base/Neutral Extractibles						
Acenaphthene	<100	<1	<1	<34	µg/L	EPA 625
Acenaphthylene	<100	<1	<1	<34	µg/L	EPA 625
Anthracene	<100	<1	<1	<34	µg/L	EPA 625
Benzidine	<100	<5	<5	<37	µg/L	EPA 625
Benzo(a)anthracene	<100	<5	<5	<37	µg/L	EPA 625
Benzo(b)fluoranthene	<100	<1	<1	<34	µg/L	EPA 625
Benzo(g,h,i)perylene	<100	<2	<2	<35	µg/L	EPA 625
Benzo(k)fluoranthene	<100	<1	<1	<34	µg/L	EPA 625
Bis (2-Chloroethoxy) Methane	<100	<2	<2	<35	µg/L	EPA 625
Bis(2-Chloroethyl)ether	<100	<1	<1	<34	µg/L	EPA 625
Bis (2-Chloroisopropyl) Ether	<100	<1	<1	<34	µg/L	EPA 625
4-Bromophenyl Phenyl Ether	<100	<1	<1	<34	µg/L	EPA 625
Butylbenzyl Phthalate	<100	<1	<1	<34	µg/L	EPA 625
2-Chloronaphthalene	<100	<1	<1	<34	µg/L	EPA 625
4-Chlorophenyl Phenyl Ether	<100	<1	<1	<34	µg/L	EPA 625
Chrysene	<100	<1	<1	<34	µg/L	EPA 625
Dibenzo(a,h)anthracene	<100	<1	<1	<34	µg/L	EPA 625
1,3-Dichlorobenzene	<100	<1	<1	<34	µg/L	EPA 625
3,3-Dichlorobenzidine	<100	<5	<5	<37	µg/L	EPA 625



Table 2-7
Recycled Water* Monitoring Results: Remaining Priority Pollutants

Chemical	3Q05 Result	4Q05 Result	1Q06 Result	Running Average	Units	Method
Diethyl phthalate	<100	<2	<2	<35	µg/L	EPA 625
Dimethyl Phthalate	<100	<1	<1	<34	µg/L	EPA 625
Di-n-butyl phthalate	<100	<1	<1	<34	µg/L	EPA 625
2,4-Dinitrotoluene	<100	<1	<1	<34	µg/L	EPA 625
2,6-Dinitrotoluene	<100	<2	<2	<35	µg/L	EPA 625
Di-n-octyl phthalate	<100	<1	<1	<34	µg/L	EPA 625
1,2-Diphenylhydrazine	<100	<1	<1	<34	µg/L	EPA 625
Fluoranthene	<100	<1	<1	<34	µg/L	EPA 625
Fluorene	<100	<1	<1	<34	µg/L	EPA 625
Hexachlorobutadiene	<100	<1	<1	<34	µg/L	EPA 625
Hexachlorocyclopentadiene	<100	<5	<5	<37	µg/L	EPA 625
Hexachloroethane	<100	<1	<1	<34	µg/L	EPA 625
Indeno(1,2,3-cd)pyrene	<100	<2	<2	<35	µg/L	EPA 625
Isophorone	<100	<1	<1	<34	µg/L	EPA 625
Naphthalene	<100	<1	<1	<34	µg/L	EPA 625
Nitrobenzene	<100	<1	<1	<34	µg/L	EPA 625
N-Nitrosodi-N-Propylamine	<100	<1	<1	<34	µg/L	EPA 625
N-Nitrosodiphenylamine	<100	<1	<1	<34	µg/L	EPA 625
Phenanthrene	<100	<1	<1	<34	µg/L	EPA 625
Pyrene	<100	<1	<1	<34	µg/L	EPA 625
Pesticides						
Aldrin	<1	<0.005	<0.005	<0.337	µg/L	EPA 608
Alpha-BHC	<1	<0.01	<0.01	<0.34	µg/L	EPA 608
Beta-BHC	<1	<0.01	<0.01	<0.34	µg/L	EPA 608
Delta-BHC	<1	<0.011	<0.011	<0.341	µg/L	EPA 608
4,4' - DDT	<1	<0.02	<0.02	<0.347	µg/L	EPA 608
4,4' - DDE	<1	<0.01	<0.01	<0.34	µg/L	EPA 608
4,4' - DDD	<1	<0.01	<0.01	<0.34	µg/L	EPA 608
Dieldrin	<1	<0.01	<0.01	<0.34	µg/L	EPA 608
Endosulfan I	<1	<0.01	<0.01	<0.34	µg/L	EPA 608
Endosulfan II	<1	<0.01	<0.01	<0.34	µg/L	EPA 608
Endosulfan Sulfate	<1	<0.01	<0.01	<0.34	µg/L	EPA 608
Endrin Aldehyde	<1	<0.01	<0.01	<0.34	µg/L	EPA 608
Unregulated Chemicals						
Boron	0.3	0.31	0.3	0.3	mg/L	EPA 200.7
Chromium-6	0.7	0.6	0.23	0.5	µg/L	EPA 218.6
Dichlorodifluoromethane	<0.5	<0.5	<0.5	<0.5	µg/L	EPA 524.2
Ethyl tert-butyl ether (ETBE)	<0.5	<0.5	<3	<1.4	µg/L	EPA 524.2
N-Nitroso dimethylamine (NDMA)***	8.8	7.3	4.8	7.0	ng/l	1625MOD
Perchlorate	6.1	<8	<4	<6	µg/L	EPA 314
tert-Amyl methyl ether (TAME)	<0.5	<0.5	<3	<1.4	µg/L	EPA 524.2
tert-Butyl alcohol (TBA)	<2	<2	<2	<2	µg/L	524.2MOD
Vanadium	3.9	3.7	4.3	4.0	µg/L	EPA 200.8



Table 2-7
Recycled Water* Monitoring Results: Remaining Priority Pollutants

Chemical	3Q05 Result	4Q05 Result	1Q06 Result	Running Average	Units	Method
1,4-Dioxane	<2	<2	<2	<2	µg/L	8270MOD
1,2,3-Trichloropropane	<0.5	<0.5	<0.5	<0.5	µg/L	EPA 524.2

* Recycled water sample is a blend of RP1 and RP4 Effluents

** Boron value is an average of July, August & September samples

*** NDMA is an average of 6 sample results collected monthly from both RP1 and RP4

ND: When analytical results are below method reporting limits for all samples in an average.

DNR: Have not received laboratory data as of the date of this report.

Averages are calculated when a detection above the method reporting limit occurs in one or more samples. The reporting limit is used for other samples not detected above the method reporting limit. As an example: $1+(\leq 0.5)=0.5$

Bold signifies an exceedance of a limit in the Order.



Table 2-8

**Recycled Water* Monitoring Results: Endocrine Disrupting Chemicals & Pharmaceuticals
Analyzed on an Annual Basis**

Chemicals	Date	RP-1 Effluent	RP-4 Effluent	Units	Method
Chemicals with State Notification Levels					
N-butylbenzene	2/14/2005	<0.2	<0.2	µg/L	524.2
sec-butylbenzene	2/14/2005	<0.2	<0.2	µg/L	524.2
tert-butylbenzene	2/14/2005	<0.2	<0.2	µg/L	524.2
Carbon disulfide	2/14/2005	<0.2	<0.2	µg/L	524.2
Chlorate	7/5/2005	440	870	µg/L	300.0
2-chlorotoluene	2/14/2005	<0.2	<0.2	µg/L	524.2
Diazinon	7/5/2005	<0.5	<0.5	µg/L	525.2
1,4-Dioxane	7/5/2005	<2	<2	µg/L	Purge and Trap-GC/MS
Formaldehyde	7/5/2005	54	141	µg/L	
Isopropylbenzene	2/14/2005	<0.2	<0.2	µg/L	
N-propylbenzene	2/14/2005	<0.2	<0.2	µg/L	524.2
1,2,4-trimethylbenzene	2/14/2005	<0.2	<0.2	µg/L	524.2
1,3,5-trimethylbenzene	2/14/2005	<0.2	<0.2	µg/L	524.2
Nitrosoamines					
N-Nitrosodiethylamine (NDEA)	7/5/2005	<2	<2	ng/L	525
N-Nitrosopyrrolidine	7/5/2005	2	<2	ng/L	525
Hormones					
Ethinyl estradiol	7/6/2005	<2	<2	ng/L	525
17-B estradiol	7/6/2005	<2	<2	ng/L	525
Estrone	7/6/2005	<1	<1	ng/L	525
"Industrial" Endocrine Disruptors					
Bisphenol A	7/6/2005	<10	<10	ng/L	No approved method
Nonylphenol and nonylphenol polyethoxylate		NA	NA		No approved method
Octylphenol and octylphenol polyethoxylate		NA	NA		No approved method
PolybromiNA	7/6/2005	<2.0	<2.1	ng/L	8270C SIM
PBDE 28	7/6/2005	<2.0	<2.1	ng/L	8270C SIM
PBDE 71	7/6/2005	<2.0	<2.1	ng/L	8270C SIM
PBDE 47	7/6/2005	3.1	3.4	ng/L	8270C SIM
PBDE 66	7/6/2005	<2.0	<2.1	ng/L	8270C SIM
PBDE 100	7/6/2005	<2.0	<2.1	ng/L	8270C SIM
PBDE 99	7/6/2005	<2.0	2.3	ng/L	8270C SIM
PBDE 85	7/6/2005	<2.0	<2.1	ng/L	8270C SIM
PBDE 154	7/6/2005	<2.0	<2.1	ng/L	8270C SIM



Table 2-8

**Recycled Water* Monitoring Results: Endocrine Disrupting Chemicals & Pharmaceuticals
Analyzed on an Annual Basis**

Chemicals	Date	RP-1 Effluent	RP-4 Effluent	Units	Method
PBDE 153	7/6/2005	<2.0	<2.1	ng/L	8270C SIM
PBDE 138	7/6/2005	<9.7	<11	ng/L	8270C SIM
PBDE 128	7/6/2005	<39	<42	ng/L	8270C SIM
PBDE 183	7/6/2005	<9.7	<11	ng/L	8270C SIM
PBDE 190	7/6/2005	<39	<42	ng/L	8270C SIM
PBDE 203	7/6/2005	<39	<42	ng/L	8270C SIM
PBDE 206	7/6/2005	<200	<210	ng/L	8270C SIM
PBDE 209	7/6/2005	<390	<210	ng/L	8270C SIM
Pharmaceuticals and Other Substances					
Acetaminophen		NA	NA		No approved method
Amoxicillin		NA	NA		No approved method
Azithromycin		NA	NA		No approved method
Caffeine	7/6/2005	<5	<5	ng/L	8270C SIM
Carbamazepine	7/6/2005	<0.5	<0.5	ng/L	8270C SIM
Ciprofloxacin		NA	NA		No approved method
Ethylenediamine tetra-acetic acid (EDTA)		NA	NA		No approved method
Gemfibrozil	7/6/2005	<1	<1	ng/L	8270C SIM
Ibuprofen		NA	NA		No approved method
Iodinated contrast media	7/6/2005	12	7.1	ng/L	8270C SIM
Lipitor		NA	NA		No approved method
Methadone		NA	NA		No approved method
Morphine		NA	NA		No approved method
Salicylic acid		NA	NA		No approved method
Triclosan	7/6/2005	5.2	7.0	ng/L	8270C SIM

* Recycled water sample is a blend of RP1 and RP4 Effluents

NA = Not Analyzed at this time, method development in process.

Bold signifies an exceedance of a limit in the Order.



Table 2-9
Recycled Water* Monitoring Results: Miscellaneous Compounds

Chemical	Order Limit	3Q05 Results	4Q05 Results	1Q06 Results	Running Average	Units	Method
Aluminum**	200	156	<70	<25	<84	µg/L	EPA 200.7
Corrosivity Index*	Non-corrosive	-0.6	0	-0.4	-0.3	SI	SM 2330B
Surfactants (MBAS)	0.5	0.12	0.13	0.12	0.12	mg/L	S 5540C/E425.1
Fe	300	236	224	123	194	µg/L	EPA 200.7
Mn	50	10	4	5	6	µg/L	EPA 200.7
Odor	3 Units	8	4	4	5	TON	ML/S2150B
Ag	100	<2	<2	<0.25	<1.42	µg/L	EPA 200.7
Thiobencarb	1	<0.2	<0.2	<0.2	<0.2	µg/L	EPA 525.2
Zn	5000	53	60	72	62	µg/L	EPA 200.7

Refers to Permit Table 3, Compliance Determination B.3

* Recycled water sample is a blend of RP1 and RP4 Effluents

** Aluminum data unavailable at this time, due to laboratory QC problems, sample to be reanalyzed in November.

NT: Insufficient Sample for Analytical Test

DNR: Have not received laboratory data as of the date of this report.

Averages are calculated when a detection above the method reporting limit occurs in one or more samples. The reporting limit is used for other samples not detected above the method reporting limit. As an example: $1+(<0.5)=0.5$

Bold signifies an exceedance of a limit in the Order.



Table 2-10
Diluent Water Monitoring Results: State Water Project Water*

Constituents	Units	January-06	February-06	March-06
Silica	mg/L	12.1	9.4	10.2
Calcium	mg/L	19	16	17
Magnesium	mg/L	13	10	9
Sodium	mg/L	59	41	36
Potassium	mg/L	3.3	2.7	2.2
Carbonate	mg/L	0	0	0
Bicarbonate	mg/L	90	68	67
Sulfate	mg/L	33	30	37
Chloride	mg/L	88	60	44
Nitrate	mg/L	3.4	3.6	3.5
Fluoride	mg/L	0.08	0.07	0.07
Boron	mg/L	0.14	--	--
Total Dissolved Solids	mg/L	276	207	193
Total Hardness (as CaCO ₃)	mg/L	101	82	80
Total Alkalinity (as CaCO ₃)	mg/L	74	56	55
Free Carbon Dioxide	mg/L	2.2	1.2	1.4
pH		7.84	7.98	7.91
Electrical Conductivity	µmho/cm	517	386	349
Turbidity	NTU	26.0	2.8	2.2
Temperature	C	11	11	10
Bromide	mg/L	0.28	0.18	0.13
Total Organic Carbon	mg/L	5.77	3.76	5.49

*Silverwood Lake at Devil Canyon

-- Not Provided

NA - Not analyzed

Source: Metropolitan Water District of Southern California



Table 2-11
Basin and Lysimeter Water Monitoring Results for Banana Basin: TOC

Station ID	Depth	Sample Date	Result	Units
B-SW	0 ft	3-Jan-06	8.29	mg/L
B-5	5 ft	3-Jan-06	2.98	mg/L
B-10	10 ft	3-Jan-06	1.88	mg/L
B-15	15 ft	3-Jan-06	1.38	mg/L
B-25	25 ft	3-Jan-06	1.18	mg/L
B-SW	0 ft	10-Jan-06	5.97	mg/L
B-5	5 ft	10-Jan-06	3.21	mg/L
B-10	10 ft	10-Jan-06	1.79	mg/L
B-15	15 ft	10-Jan-06	1.30	mg/L
B-25	25 ft	10-Jan-06	1.16	mg/L
B-SW	0 ft	17-Jan-06	6.27	mg/L
B-5	5 ft	17-Jan-06	3.05	mg/L
B-10	10 ft	17-Jan-06	1.79	mg/L
B-15	15 ft	17-Jan-06	1.38	mg/L
B-25	25 ft	17-Jan-06	1.22	mg/L
B-SW	0 ft	24-Jan-06	7.08	mg/L
B-5	5 ft	24-Jan-06	2.66	mg/L
B-10	10 ft	24-Jan-06	1.56	mg/L
B-15	15 ft	24-Jan-06	1.37	mg/L
B-25	25 ft	24-Jan-06	0.98	mg/L
B-SW	0 ft	31-Jan-06	6.82	mg/L
B-5	5 ft	31-Jan-06	2.56	mg/L
B-10	10 ft	31-Jan-06	1.58	mg/L
B-15	15 ft	31-Jan-06	1.35	mg/L
B-25	25 ft	31-Jan-06	1.16	mg/L
B-SW	0 ft	7-Feb-06	7.36	mg/L
B-5	5 ft	7-Feb-06	2.41	mg/L
B-10	10 ft	7-Feb-06	1.59	mg/L
B-15	15 ft	7-Feb-06	1.20	mg/L
B-25	25 ft	7-Feb-06	1.15	mg/L
B-SW	0 ft	14-Feb-06	7.94	mg/L
B-5	5 ft	14-Feb-06	2.49	mg/L
B-10	10 ft	14-Feb-06	1.61	mg/L
B-15	15 ft	14-Feb-06	1.19	mg/L
B-25	25 ft	14-Feb-06	0.91	mg/L
B-SW	0 ft	21-Feb-06	8.42	mg/L
B-5	5 ft	21-Feb-06	2.85	mg/L
B-10	10 ft	21-Feb-06	1.81	mg/L
B-15	15 ft	21-Feb-06	1.39	mg/L
B-25	25 ft	21-Feb-06	0.95	mg/L
B-SW	0 ft	28-Feb-06	6.94	mg/L
B-5	5 ft	28-Feb-06	2.89	mg/L
B-10	10 ft	28-Feb-06	1.69	mg/L
B-15	15 ft	28-Feb-06	1.43	mg/L
B-25	25 ft	28-Feb-06	0.97	mg/L



Table 2-11
Basin and Lysimeter Water Monitoring Results for Banana Basin: TOC

Station ID	Depth	Sample Date	Result	Units
B-SW	0 ft	7-Mar-06	5.78	mg/L
B-5	5 ft	7-Mar-06	3.05	mg/L
B-10	10 ft	7-Mar-06	1.74	mg/L
B-15	15 ft	7-Mar-06	1.45	mg/L
B-25	25 ft	7-Mar-06	1.11	mg/L
B-SW	0 ft	14-Mar-06	5.70	mg/L
B-5	5 ft	14-Mar-06	3.02	mg/L
B-10	10 ft	14-Mar-06	1.80	mg/L
B-15	15 ft	14-Mar-06	1.95	mg/L
B-25	25 ft	14-Mar-06	0.94	mg/L
B-SW	0 ft	21-Mar-06	5.74	mg/L
B-5	5 ft	21-Mar-06	2.84	mg/L
B-10	10 ft	21-Mar-06	1.78	mg/L
B-15	15 ft	21-Mar-06	1.48	mg/L
B-25	25 ft	21-Mar-06	0.95	mg/L
B-SW	0 ft	28-Mar-06	6.04	mg/L
B-5	5 ft	28-Mar-06	2.89	mg/L
B-10	10 ft	28-Mar-06	2.09	mg/L
B-15	15 ft	28-Mar-06	1.82	mg/L
B-25	25 ft	28-Mar-06	1.18	mg/L

ft: feet below the bottom of the basin

mg/L: milligrams per liter

TOC: Total Organic Carbon



Table 2-12
Basin and Lysimeter Water Monitoring Results for Banana Basin:
Ammonia-Nitrogen, Nitrite-Nitrogen, Nitrate-Nitrogen, TKN, and TN (mg/L)

Station ID	Depth	Sample Date	NH3-N	NO2-N	NO3-N	TKN	TN
B-SW	0 ft	3-Jan-06	0.6	0.03	0.5	2.20	2.7
B-5	5 ft	3-Jan-06	0.8	<0.01	<0.1	0.27	0.3
B-10	10 ft	3-Jan-06	0.5	0.02	0.9	<0.2	1.0
B-15	15 ft	3-Jan-06	0.4	<0.01	1.3	<0.2	1.3
B-25	25 ft	3-Jan-06	0.1	<0.01	0.7	<0.2	0.7
B-SW	0 ft	6-Jan-06	0.3	0.03	0.4	0.92	1.4
B-5	5 ft	6-Jan-06	<0.1	<0.01	<0.1	0.46	0.5
B-10	10 ft	6-Jan-06	<0.1	0.02	0.9	0.28	1.2
B-15	15 ft	6-Jan-06	<0.1	<0.01	1.3	<0.2	1.3
B-25	25 ft	6-Jan-06	<0.1	<0.01	0.7	0.34	1.1
B-SW	0 ft	10-Jan-06	0.3	0.04	0.4	1.00	1.5
B-5	5 ft	10-Jan-06	0.1	<0.01	<0.1	0.31	0.3
B-10	10 ft	10-Jan-06	<0.1	0.01	0.8	0.59	1.4
B-15	15 ft	10-Jan-06	<0.1	<0.01	1.2	<0.2	1.2
B-25	25 ft	10-Jan-06	<0.1	<0.01	0.8	0.36	1.2
B-SW	0 ft	13-Jan-06	0.2	0.03	0.3	0.91	1.3
B-5	5 ft	13-Jan-06	<0.1	<0.01	<0.1	0.33	0.3
B-10	10 ft	13-Jan-06	<0.1	0.13	0.6	0.46	1.2
B-15	15 ft	13-Jan-06	<0.1	<0.01	1.2	0.24	1.5
B-25	25 ft	13-Jan-06	<0.1	<0.01	0.9	0.26	1.1
B-SW	0 ft	17-Jan-06	<0.1	0.06	<0.1	1.10	1.2
B-5	5 ft	17-Jan-06	<0.1	<0.01	0.7	0.27	1.0
B-10	10 ft	17-Jan-06	<0.1	0.02	0.7	0.22	0.9
B-15	15 ft	17-Jan-06	<0.1	<0.01	1.2	<0.20	1.2
B-25	25 ft	17-Jan-06	<0.1	<0.01	0.9	0.26	1.1
B-SW	0 ft	20-Jan-06	<0.1	<0.01	0.3	0.98	1.2
B-5	5 ft	20-Jan-06	<0.1	0.10	0.3	0.33	0.7
B-10	10 ft	20-Jan-06	<0.1	0.06	0.6	0.22	0.9
B-15	15 ft	20-Jan-06	<0.1	<0.01	0.9	0.23	1.2
B-25	25 ft	20-Jan-06	<0.1	<0.01	0.9	<0.20	0.9
B-SW	0 ft	24-Jan-06	0.1	<0.01	0.8	1.20	2.0
B-5	5 ft	24-Jan-06	<0.1	<0.01	0.9	0.29	1.2
B-10	10 ft	24-Jan-06	<0.1	<0.01	0.8	<0.20	0.8
B-15	15 ft	24-Jan-06	<0.1	<0.01	1.0	<0.20	1.0
B-25	25 ft	24-Jan-06	<0.1	<0.01	0.9	<0.20	0.9
B-SW	0 ft	27-Jan-06	0.1	<0.01	0.9	1.20	2.1
B-5	5 ft	27-Jan-06	<0.1	<0.01	<0.1	0.27	0.3
B-10	10 ft	27-Jan-06	<0.1	<0.01	0.7	0.23	0.9
B-15	15 ft	27-Jan-06	<0.1	<0.01	0.6	<0.20	0.6
B-25	25 ft	27-Jan-06	<0.1	<0.01	1.1	<0.20	1.1
B-SW	0 ft	31-Jan-06	0.1	<0.01	0.8	1.20	2.0
B-5	5 ft	31-Jan-06	0.1	<0.01	<0.1	0.25	0.3
B-10	10 ft	31-Jan-06	0.1	<0.01	0.7	0.30	1.0
B-15	15 ft	31-Jan-06	<0.1	<0.01	0.6	0.43	1.1
B-25	25 ft	31-Jan-06	<0.1	<0.01	0.7	0.24	0.9

Table 2-12
Basin and Lysimeter Water Monitoring Results for Banana Basin:
Ammonia-Nitrogen, Nitrite-Nitrogen, Nitrate-Nitrogen, TKN, and TN (mg/L)

Station ID	Depth	Sample Date	NH3-N	NO2-N	NO3-N	TKN	TN
B-SW	0 ft	3-Feb-06	0.1	<0.01	0.5	1.10	1.6
B-5	5 ft	3-Feb-06	0.1	<0.01	<0.1	0.23	0.2
B-10	10 ft	3-Feb-06	0.1	<0.01	0.4	<0.20	0.4
B-15	15 ft	3-Feb-06	<0.1	<0.01	0.5	<0.20	0.5
B-25	25 ft	3-Feb-06	0.1	<0.01	0.5	<0.20	0.5
B-SW	0 ft	7-Feb-06	<0.1	<0.01	<0.1	1.40	1.4
B-5	5 ft	7-Feb-06	0.1	<0.01	<0.1	0.37	0.4
B-10	10 ft	7-Feb-06	<0.1	<0.01	0.3	0.28	0.6
B-15	15 ft	7-Feb-06	<0.1	<0.01	0.5	0.27	0.8
B-25	25 ft	7-Feb-06	<0.1	<0.01	0.5	0.23	0.7
B-SW	0 ft	10-Feb-06	<0.1	<0.01	<0.1	1.40	1.4
B-5	5 ft	10-Feb-06	<0.1	<0.01	<0.1	0.29	0.3
B-10	10 ft	10-Feb-06	<0.1	<0.01	0.4	<0.20	0.4
B-15	15 ft	10-Feb-06	<0.1	<0.01	0.5	0.26	0.8
B-25	25 ft	10-Feb-06	<0.1	<0.01	0.9	<0.20	0.9
B-SW	0 ft	14-Feb-06	<0.1	<0.01	1.2	1.70	2.9
B-5	5 ft	14-Feb-06	<0.1	<0.01	<0.1	0.27	0.3
B-10	10 ft	14-Feb-06	<0.1	<0.01	0.9	0.20	1.1
B-15	15 ft	14-Feb-06	<0.1	<0.01	0.5	<0.20	0.5
B-25	25 ft	14-Feb-06	<0.1	<0.01	0.8	<0.20	0.8
B-SW	0 ft	17-Feb-06	<0.1	<0.01	2.0	1.80	3.8
B-5	5 ft	17-Feb-06	<0.1	<0.01	<0.1	0.39	0.4
B-10	10 ft	17-Feb-06	<0.1	<0.01	0.3	0.22	0.5
B-15	15 ft	17-Feb-06	<0.1	<0.01	0.3	<0.20	0.3
B-25	25 ft	17-Feb-06	<0.1	<0.01	0.5	0.30	0.8
B-SW	0 ft	21-Feb-06	0.2	0.02	0.6	1.60	2.2
B-5	5 ft	21-Feb-06	0.1	<0.01	<0.1	0.26	0.3
B-10	10 ft	21-Feb-06	<0.1	<0.01	0.2	0.24	0.4
B-15	15 ft	21-Feb-06	<0.1	<0.01	0.3	0.25	0.6
B-25	25 ft	21-Feb-06	<0.1	<0.01	0.5	0.25	0.8
B-SW	0 ft	24-Feb-06	<0.1	<0.01	0.5	1.70	2.2
B-5	5 ft	24-Feb-06	<0.1	<0.01	<0.1	0.27	0.3
B-10	10 ft	24-Feb-06	<0.1	<0.01	0.2	<0.20	0.2
B-15	15 ft	24-Feb-06	<0.1	<0.01	0.4	<0.20	0.4
B-25	25 ft	24-Feb-06	<0.1	<0.01	0.4	<0.20	0.4
B-SW	0 ft	28-Feb-06	0.4	0.03	0.9	1.20	2.1
B-5	5 ft	28-Feb-06	0.1	<0.01	<0.1	0.55	0.6
B-10	10 ft	28-Feb-06	0.1	<0.01	0.2	<0.20	0.2
B-15	15 ft	28-Feb-06	0.1	<0.01	0.4	0.37	0.8
B-25	25 ft	28-Feb-06	0.1	<0.01	0.4	0.22	0.6
B-SW	0 ft	3-Mar-06	0.2	0.02	0.3	1.10	1.4
B-5	5 ft	3-Mar-06	0.1	<0.01	0.2	0.27	0.5
B-10	10 ft	3-Mar-06	<0.1	<0.01	0.2	<0.20	0.2
B-15	15 ft	3-Mar-06	<0.1	<0.01	0.4	<0.20	0.4
B-25	25 ft	3-Mar-06	<0.1	<0.01	0.4	0.25	0.7
B-SW	0 ft	7-Mar-06	0.4	0.04	0.4	1.50	1.9
B-5	5 ft	7-Mar-06	0.1	<0.01	0.2	0.40	0.6
B-10	10 ft	7-Mar-06	<0.1	<0.01	0.2	0.20	0.4
B-15	15 ft	7-Mar-06	<0.1	<0.01	0.5	<0.20	0.5
B-25	25 ft	7-Mar-06	<0.1	<0.01	0.5	<0.20	0.5

Table 2-12

**Basin and Lysimeter Water Monitoring Results for Banana Basin:
Ammonia-Nitrogen, Nitrite-Nitrogen, Nitrate-Nitrogen, TKN, and TN (mg/L)**

Station ID	Depth	Sample Date	NH3-N	NO2-N	NO3-N	TKN	TN
B-SW	0 ft	10-Mar-06	0.3	0.02	0.3	1.30	1.6
B-5	5 ft	10-Mar-06	<0.1	<0.01	0.1	0.32	0.4
B-10	10 ft	10-Mar-06	<0.1	<0.01	0.2	0.25	0.5
B-15	15 ft	10-Mar-06	<0.1	<0.01	0.5	<0.20	0.5
B-25	25 ft	10-Mar-06	<0.1	<0.01	0.5	<0.20	0.5
B-SW	0 ft	14-Mar-06	<0.1	0.02	0.3	1.00	1.3
B-5	5 ft	14-Mar-06	<0.1	<0.01	0.2	0.31	0.5
B-10	10 ft	14-Mar-06	<0.1	<0.01	0.2	<0.20	0.2
B-15	15 ft	14-Mar-06	<0.1	<0.01	0.5	0.23	0.7
B-25	25 ft	14-Mar-06	<0.1	<0.01	0.4	<0.20	0.4
B-SW	0 ft	17-Mar-06	0.1	0.02	0.5	0.86	1.4
B-5	5 ft	17-Mar-06	0.1	<0.01	0.7	0.31	1.0
B-10	10 ft	17-Mar-06	0.1	<0.01	0.7	<0.20	0.7
B-15	15 ft	17-Mar-06	0.1	<0.01	1.0	0.41	1.4
B-25	25 ft	17-Mar-06	0.1	<0.01	0.9	<0.20	0.9

ft: feet below the bottom of the basin

mg/L: milligrams per liter

TKN: Total Kjeldahl Nitrogen

TN: Total Nitrogen

Table 2-13
Basin and Lysimeter Water Monitoring Results for Hickory Basin East Cell: TOC

Station ID	Depth	Sample Date	Result	Units
HE-SW	0 ft	3-Jan-06	7.88	mg/L
HE-5	5 ft	3-Jan-06	2.03	mg/L
HE-10	10 ft	3-Jan-06	1.43	mg/L
HE-15	15 ft	3-Jan-06	1.16	mg/L
HE-25	25 ft	3-Jan-06	1.23	mg/L
HE-SW	0 ft	10-Jan-06	7.49	mg/L
HE-5	5 ft	10-Jan-06	2.17	mg/L
HE-10	10 ft	10-Jan-06	1.51	mg/L
HE-15	15 ft	10-Jan-06	1.30	mg/L
HE-25	25 ft	10-Jan-06	1.27	mg/L
HE-SW	0 ft	17-Jan-06	11.44	mg/L
HE-5	5 ft	17-Jan-06	2.06	mg/L
HE-10	10 ft	17-Jan-06	1.35	mg/L
HE-15	15 ft	17-Jan-06	1.26	mg/L
HE-25	25 ft	17-Jan-06	1.14	mg/L
HE-SW	0 ft	24-Jan-06	7.19	mg/L
HE-5	5 ft	24-Jan-06	1.97	mg/L
HE-10	10 ft	24-Jan-06	2.48	mg/L
HE-15	15 ft	24-Jan-06	1.27	mg/L
HE-25	25 ft	24-Jan-06	1.06	mg/L
HE-SW	0 ft	31-Jan-06	8.19	mg/L
HE-5	5 ft	31-Jan-06	2.93	mg/L
HE-10	10 ft	31-Jan-06	1.79	mg/L
HE-15	15 ft	31-Jan-06	1.22	mg/L
HE-25	25 ft	31-Jan-06	1.09	mg/L
HE-SW	0 ft	7-Feb-06	8.04	mg/L
HE-5	5 ft	7-Feb-06	3.49	mg/L
HE-10	10 ft	7-Feb-06	1.96	mg/L
HE-15	15 ft	7-Feb-06	1.59	mg/L
HE-25	25 ft	7-Feb-06	1.22	mg/L
HE-SW	0 ft	14-Feb-06	7.88	mg/L
HE-5	5 ft	14-Feb-06	3.75	mg/L
HE-10	10 ft	14-Feb-06	2.97	mg/L
HE-15	15 ft	14-Feb-06	2.11	mg/L
HE-25	25 ft	14-Feb-06	1.34	mg/L
HE-SW	0 ft	21-Feb-06	7.44	mg/L
HE-5	5 ft	21-Feb-06	3.60	mg/L
HE-10	10 ft	21-Feb-06	3.11	mg/L
HE-15	15 ft	21-Feb-06	2.54	mg/L
HE-25	25 ft	21-Feb-06	2.24	mg/L
HE-SW	0 ft	28-Feb-06	6.86	mg/L
HE-5	5 ft	28-Feb-06	3.09	mg/L
HE-10	10 ft	28-Feb-06	2.49	mg/L
HE-15	15 ft	28-Feb-06	2.38	mg/L
HE-25	25 ft	28-Feb-06	2.18	mg/L



Table 2-13
Basin and Lysimeter Water Monitoring Results for Hickory Basin East Cell: TOC

Station ID	Depth	Sample Date	Result	Units
HE-SW	0 ft	7-Mar-06	5.86	mg/L
HE-5	5 ft	7-Mar-06	2.51	mg/L
HE-10	10 ft	7-Mar-06	3.00	mg/L
HE-15	15 ft	7-Mar-06	2.07	mg/L
HE-25	25 ft	7-Mar-06	1.83	mg/L
HE-SW	0 ft	14-Mar-06	5.87	mg/L
HE-10	10 ft	14-Mar-06	2.11	mg/L
HE-15	15 ft	14-Mar-06	1.66	mg/L
HE-25	25 ft	14-Mar-06	1.68	mg/L
HE-SW	0 ft	21-Mar-06	5.99	mg/L
HE-5	5 ft	21-Mar-06	2.02	mg/L
HE-10	10 ft	21-Mar-06	1.89	mg/L
HE-15	15 ft	21-Mar-06	1.39	mg/L
HE-25	25 ft	21-Mar-06	1.39	mg/L
HE-SW	0 ft	28-Mar-06	7.03	mg/L
HE-5	5 ft	28-Mar-06	2.21	mg/L
HE-10	10 ft	28-Mar-06	1.85	mg/L
HE-15	15 ft	28-Mar-06	1.45	mg/L
HE-25	25 ft	28-Mar-06	1.38	mg/L

ft: feet below the bottom of the basin

mg/L: milligrams per liter

TOC: Total Organic Carbon



Table 2-14

**Basin and Lysimeter Water Monitoring Results for Hickory Basin East Cell:
Ammonia-Nitrogen, Nitrite-Nitrogen, Nitrate-Nitrogen, TKN, and TN (mg/L)**

Station ID	Depth	Sample Date	NH3-N	NO2-N	NO3-N	TKN	TN
HE-SW	0 ft	3-Jan-06	0.4	0.04	0.6	0.99	1.6
HE-5	5 ft	3-Jan-06	0.1	<0.01	1.9	0.69	2.6
HE-10	10 ft	3-Jan-06	0.1	<0.01	3.4	0.39	3.7
HE-15	15 ft	3-Jan-06	0.1	<0.01	3.7	0.39	4.0
HE-25	25 ft	3-Jan-06	IS	IS	IS	0.25	IDC
HE-SW	0 ft	6-Jan-06	0.3	0.03	0.4	1.00	1.4
HE-5	5 ft	6-Jan-06	<0.1	<0.01	1.6	0.34	2.0
HE-10	10 ft	6-Jan-06	<0.1	<0.1	3.1	0.21	3.3
HE-15	15 ft	6-Jan-06	0.1	0.01	3.4	0.24	3.7
HE-25	25 ft	6-Jan-06	IS	IS	IS	<0.2	IDC
HE-SW	0 ft	10-Jan-06	0.1	<0.01	0.1	0.75	0.8
HE-5	5 ft	10-Jan-06	<0.1	<0.01	0.9	0.23	1.1
HE-10	10 ft	10-Jan-06	<0.1	<0.01	2.5	0.43	3.0
HE-15	15 ft	10-Jan-06	0.1	<0.01	3.2	0.39	3.6
HE-25	25 ft	10-Jan-06	IS	IS	IS	<0.2	IDC
HE-SW	0 ft	13-Jan-06	0.1	<0.01	0.0	1.40	1.4
HE-5	5 ft	13-Jan-06	<0.1	<0.01	0.9	0.26	1.1
HE-10	10 ft	13-Jan-06	<0.1	<0.01	2.5	0.28	2.8
HE-15	15 ft	13-Jan-06	<0.1	<0.01	3.0	0.31	3.3
HE-25	25 ft	13-Jan-06	<0.1	<0.01	3.1	0.62	3.7
HE-SW	0 ft	17-Jan-06	0.2	0.02	0.5	1.90	2.5
HE-5	5 ft	17-Jan-06	IS	IS	IS	0.39	IDC
HE-10	10 ft	17-Jan-06	0.0	<0.01	2.5	0.25	2.7
HE-15	15 ft	17-Jan-06	0.0	<0.01	2.8	0.39	3.2
HE-25	25 ft	17-Jan-06	IS	IS	IS	<0.20	IDC
HE-SW	0 ft	20-Jan-06	0.1	<0.01	4.4	1.10	5.5
HE-5	5 ft	20-Jan-06	<0.1	<0.01	1.2	0.37	1.6
HE-10	10 ft	20-Jan-06	<0.1	<0.01	2.7	0.29	3.0
HE-15	15 ft	20-Jan-06	<0.1	<0.01	2.7	0.28	3.0
HE-25	25 ft	20-Jan-06	<0.1	<0.01	2.5	0.21	2.7
HE-SW	0 ft	24-Jan-06	0.1	0.03	2.3	1.60	3.9
HE-5	5 ft	24-Jan-06	<0.1	<0.01	3.0	0.46	3.5
HE-10	10 ft	24-Jan-06	<0.1	<0.01	3.1	1.30	4.4
HE-15	15 ft	24-Jan-06	<0.1	<0.01	2.4	0.34	2.8
HE-25	25 ft	24-Jan-06	0.1	<0.01	2.5	0.26	2.7
HE-SW	0 ft	27-Jan-06	0.1	0.01	2.2	1.40	3.6
HE-5	5 ft	27-Jan-06	<0.1	<0.01	2.4	0.45	2.9
HE-10	10 ft	27-Jan-06	<0.1	<0.01	3.3	0.35	3.6
HE-15	15 ft	27-Jan-06	<0.1	<0.01	2.1	0.31	2.4
HE-25	25 ft	27-Jan-06	<0.1	<0.01	1.8	0.20	2.0
HE-SW	0 ft	31-Jan-06	<0.1	<0.01	0.4	1.40	1.8
HE-5	5 ft	31-Jan-06	<0.1	<0.01	2.0	0.66	2.7
HE-10	10 ft	31-Jan-06	IS	IS	IS	0.55	IDC
HE-15	15 ft	31-Jan-06	0.1	<0.01	1.9	0.46	2.4
HE-25	25 ft	31-Jan-06	0.1	IS	1.8	0.22	IDC



Table 2-14

**Basin and Lysimeter Water Monitoring Results for Hickory Basin East Cell:
Ammonia-Nitrogen, Nitrite-Nitrogen, Nitrate-Nitrogen, TKN, and TN (mg/L)**

Station ID	Depth	Sample Date	NH3-N	NO2-N	NO3-N	TKN	TN
HE-5	5 ft	3-Feb-06	0.1	<0.01	0.8	0.86	1.7
HE-10	10 ft	3-Feb-06	0.2	<0.01	1.8	0.43	2.2
HE-15	15 ft	3-Feb-06	<0.01	<0.01	1.8	0.40	2.2
HE-25	25 ft	3-Feb-06	0.1	<0.01	1.9	0.28	2.2
HE-SW	0 ft	7-Feb-06	0.1	<0.01	0.2	1.40	1.6
HE-5	5 ft	7-Feb-06	<0.1	<0.01	0.5	0.47	1.0
HE-10	10 ft	7-Feb-06	<0.1	<0.01	1.5	0.36	1.9
HE-15	15 ft	7-Feb-06	<0.1	<0.01	1.8	0.31	2.1
HE-25	25 ft	7-Feb-06	<0.1	<0.01	2.0	0.30	2.3
HE-SW	0 ft	10-Feb-06	0.1	<0.01	1.6	1.30	2.9
HE-5	5 ft	10-Feb-06	<0.1	<0.01	0.5	0.52	1.0
HE-10	10 ft	10-Feb-06	<0.1	<0.01	0.9	0.38	1.3
HE-15	15 ft	10-Feb-06	<0.1	<0.01	1.6	0.20	1.8
HE-25	25 ft	10-Feb-06	<0.1	<0.01	1.6	0.23	1.8
HE-SW	0 ft	14-Feb-06	0.1	0.02	2.0	1.40	3.4
HE-5	5 ft	14-Feb-06	0.2	<0.01	0.4	0.76	1.2
HE-10	10 ft	14-Feb-06	0.2	<0.01	0.9	0.57	1.5
HE-15	15 ft	14-Feb-06	<0.1	<0.01	0.9	0.48	1.4
HE-25	25 ft	14-Feb-06	0.2	<0.01	0.9	0.32	1.2
HE-SW	0 ft	17-Feb-06	0.1	0.03	3.9	1.50	5.4
HE-5	5 ft	17-Feb-06	<0.1	<0.01	1.8	0.95	2.8
HE-10	10 ft	17-Feb-06	<0.1	<0.01	1.8	0.74	2.5
HE-15	15 ft	17-Feb-06	<0.1	<0.01	0.8	0.40	1.2
HE-25	25 ft	17-Feb-06	0.1	<0.01	0.6	0.40	1.0
HE-SW	0 ft	21-Feb-06	0.1	<0.01	1.6	1.40	3.0
HE-5	5 ft	21-Feb-06	0.1	<0.01	2.7	0.64	3.3
HE-10	10 ft	21-Feb-06	0.1	<0.01	2.9	0.73	3.6
HE-15	15 ft	21-Feb-06	<0.1	<0.01	1.9	0.52	2.4
HE-25	25 ft	21-Feb-06	0.1	<0.01	0.9	0.36	1.3
HE-SW	0 ft	24-Feb-06	0.1	0.03	1.9	1.70	3.6
HE-5	5 ft	24-Feb-06	0.1	<0.01	1.5	0.52	2.0
HE-10	10 ft	24-Feb-06	<0.1	<0.01	2.1	0.59	2.7
HE-15	15 ft	24-Feb-06	<0.1	<0.01	2.5	0.48	3.0
HE-25	25 ft	24-Feb-06	<0.1	<0.01	1.7	0.41	2.1
HE-SW	0 ft	28-Feb-06	1.3	0.02	0.4	1.10	1.5
HE-5	5 ft	28-Feb-06	0.3	<0.01	0.4	0.51	0.9
HE-10	10 ft	28-Feb-06	0.2	<0.01	2.5	0.53	3.0
HE-15	15 ft	28-Feb-06	0.2	<0.01	2.1	0.49	2.6
HE-25	25 ft	28-Feb-06	0.2	<0.01	1.7	0.36	2.1
HE-SW	0 ft	3-Mar-06	0.4	0.02	0.3	1.60	1.9
HE-5	5 ft	3-Mar-06	0.3	<0.01	0.2	0.34	0.5
HE-10	10 ft	3-Mar-06	<0.1	<0.01	2.4	0.41	2.8
HE-15	15 ft	3-Mar-06	<0.1	<0.01	1.8	0.31	2.1
HE-25	25 ft	3-Mar-06	<0.1	<0.01	1.5	0.40	1.9
HE-SW	0 ft	7-Mar-06	<0.1	0.02	0.2	1.70	1.9
HE-5	5 ft	7-Mar-06	IS	IS	IS	0.33	IDC
HE-10	10 ft	7-Mar-06	0.1	<0.01	2.0	0.42	2.4
HE-15	15 ft	7-Mar-06	<0.1	<0.01	1.5	0.37	1.9
HE-25	25 ft	7-Mar-06	IS	IS	IS	0.36	IDC



Table 2-14

**Basin and Lysimeter Water Monitoring Results for Hickory Basin East Cell:
Ammonia-Nitrogen, Nitrite-Nitrogen, Nitrate-Nitrogen, TKN, and TN (mg/L)**

Station ID	Depth	Sample Date	NH3-N	NO2-N	NO3-N	TKN	TN
HE-SW	0 ft	10-Mar-06	0.1	<0.01	<0.1	4.50	4.5
HE-5	5 ft	10-Mar-06	<0.1	<0.01	0.2	0.24	0.4
HE-10	10 ft	10-Mar-06	<0.1	<0.01	1.2	0.30	1.5
HE-15	15 ft	10-Mar-06	<0.1	<0.01	1.2	0.27	1.5
HE-25	25 ft	10-Mar-06	<0.1	<0.01	0.9	0.28	1.2
HE-SW	0 ft	14-Mar-06	0.1	0.02	0.2	1.40	1.6
HE-10	10 ft	14-Mar-06	0.1	<0.01	0.9	0.34	1.2
HE-15	15 ft	14-Mar-06	<0.1	<0.01	0.8	0.26	1.1
HE-25	25 ft	14-Mar-06	IS	<0.01	0.7	0.25	1.0
HE-SW	0 ft	17-Mar-06	0.1	<0.01	0.4	1.90	2.3
HE-5	5 ft	17-Mar-06	0.1	<0.01	1.9	0.22	2.1
HE-10	10 ft	17-Mar-06	0.1	<0.01	1.1	0.28	1.4
HE-15	15 ft	17-Mar-06	<0.1	<0.01	1.0	0.34	1.3
HE-25	25 ft	17-Mar-06	<0.1	<0.01	1.1	0.53	1.6

ft: feet below the bottom of the basin

mg/L: milligrams per liter

TKN: Total Kjeldahl Nitrogen

TN: Total Nitrogen

IS: Insufficient sample for analytical test

IDC: Insufficient data for calculation



Table 2-15
Basin and Lysimeter Water Monitoring Results for Hickory Basin West Cell: TOC

Station ID	Depth	Sample Date	Result	Units
HW-SW	0 ft	3-Jan-06	7.90	mg/L
HW-5	5 ft	3-Jan-06	4.72	mg/L
HW-10	10 ft	3-Jan-06	3.36	mg/L
HW-15	15 ft	3-Jan-06	3.39	mg/L
HW-25	25 ft	3-Jan-06	2.35	mg/L
HW-SW	0 ft	10-Jan-06	7.00	mg/L
HW-5	5 ft	10-Jan-06	3.69	mg/L
HW-10	10 ft	10-Jan-06	3.11	mg/L
HW-15	15 ft	10-Jan-06	3.53	mg/L
HW-25	25 ft	10-Jan-06	2.09	mg/L
HW-SW	0 ft	17-Jan-06	6.98	mg/L
HW-5	5 ft	17-Jan-06	3.58	mg/L
HW-10	10 ft	17-Jan-06	2.98	mg/L
HW-15	15 ft	17-Jan-06	3.33	mg/L
HW-25	25 ft	17-Jan-06	1.90	mg/L
HW-SW	0 ft	24-Jan-06	7.08	mg/L
HW-5	5 ft	24-Jan-06	3.09	mg/L
HW-10	10 ft	24-Jan-06	2.60	mg/L
HW-15	15 ft	24-Jan-06	3.06	mg/L
HW-25	25 ft	24-Jan-06	1.71	mg/L
HW-SW	0 ft	31-Jan-06	7.21	mg/L
HW-5	5 ft	31-Jan-06	3.34	mg/L
HW-10	10 ft	31-Jan-06	2.60	mg/L
HW-15	15 ft	31-Jan-06	2.97	mg/L
HW-25	25 ft	31-Jan-06	1.94	mg/L
HW-SW	0 ft	7-Feb-06	7.82	mg/L
HW-5	5 ft	7-Feb-06	3.58	mg/L
HW-10	10 ft	7-Feb-06	2.72	mg/L
HW-15	15 ft	7-Feb-06	2.96	mg/L
HW-25	25 ft	7-Feb-06	2.22	mg/L
HW-SW	0 ft	14-Feb-06	8.03	mg/L
HW-5	5 ft	14-Feb-06	4.40	mg/L
HW-10	10 ft	14-Feb-06	2.80	mg/L
HW-15	15 ft	14-Feb-06	2.90	mg/L
HW-25	25 ft	14-Feb-06	2.36	mg/L
HW-SW	0 ft	21-Feb-06	7.84	mg/L
HW-5	5 ft	21-Feb-06	4.38	mg/L
HW-10	10 ft	21-Feb-06	2.98	mg/L
HW-15	15 ft	21-Feb-06	3.03	mg/L
HW-25	25 ft	21-Feb-06	2.21	mg/L
HW-SW	0 ft	28-Feb-06	7.18	mg/L
HW-5	5 ft	28-Feb-06	4.47	mg/L
HW-10	10 ft	28-Feb-06	2.92	mg/L
HW-15	15 ft	28-Feb-06	3.08	mg/L
HW-25	25 ft	28-Feb-06	2.23	mg/L



Table 2-15
Basin and Lysimeter Water Monitoring Results for Hickory Basin West Cell: TOC

Station ID	Depth	Sample Date	Result	Units
HW-SW	0 ft	7-Mar-06	5.56	mg/L
HW-5	5 ft	7-Mar-06	2.95	mg/L
HW-10	10 ft	7-Mar-06	1.88	mg/L
HW-15	15 ft	7-Mar-06	3.07	mg/L
HW-25	25 ft	7-Mar-06	1.72	mg/L
HW-SW	0 ft	14-Mar-06	5.39	mg/L
HW-5	5 ft	14-Mar-06	2.85	mg/L
HW-15	15 ft	14-Mar-06	3.03	mg/L
HW-25	25 ft	14-Mar-06	1.94	mg/L
HW-SW	0 ft	21-Mar-06	5.87	mg/L
HW-5	5 ft	21-Mar-06	3.10	mg/L
HW-10	10 ft	21-Mar-06	3.62	mg/L
HW-15	15 ft	21-Mar-06	3.32	mg/L
HW-25	25 ft	21-Mar-06	1.78	mg/L
HW-SW	0 ft	28-Mar-06	6.22	mg/L
HW-5	5 ft	28-Mar-06	3.38	mg/L
HW-10	10 ft	28-Mar-06	3.15	mg/L
HW-15	15 ft	28-Mar-06	3.61	mg/L
HW-25	25 ft	28-Mar-06	1.81	mg/L

ft: feet below the bottom of the basin

mg/L: milligrams per liter

TOC: Total Organic Carbon



Table 2-16

**Basin and Lysimeter Water Monitoring Results for Hickory Basin West Cell:
Ammonia-Nitrogen, Nitrite-Nitrogen, Nitrate-Nitrogen, TKN, and TN (mg/L)**

Station ID	Depth	Sample Depth	NH3-N	NO2-N	NO3-N	TKN	TN
HW-SW	0 ft	3-Jan-06	0.4	0.03	0.5	1.00	1.6
HW-10	10 ft	3-Jan-06	0.4	<0.01	0.4	0.40	0.8
HW-15	15 ft	3-Jan-06	0.4	0.05	0.4	0.60	1.0
HW-25	25 ft	3-Jan-06	0.1	<0.01	0.3	0.33	0.6
HW-SW	0 ft	6-Jan-06	0.4	0.03	0.5	1.20	1.7
HW-5	5 ft	6-Jan-06	0.1	0.01	0.2	0.38	0.6
HW-10	10 ft	6-Jan-06	0.1	0.01	0.4	0.40	0.8
HW-15	15 ft	6-Jan-06	0.3	0.03	0.5	0.68	1.2
HW-25	25 ft	6-Jan-06	0.1	0.00	1.0	0.46	1.5
HW-SW	0 ft	10-Jan-06	0.1	0.02	0.3	0.82	1.1
HW-5	5 ft	10-Jan-06	0.1	<0.01	<0.1	0.46	0.5
HW-10	10 ft	10-Jan-06	0.1	0.01	0.3	0.50	0.8
HW-15	15 ft	10-Jan-06	0.2	0.03	0.4	0.55	0.9
HW-25	25 ft	10-Jan-06	<0.1	0.01	0.2	0.36	0.6
HW-SW	0 ft	13-Jan-06	<0.1	<0.01	<0.1	1.00	1.0
HW-5	5 ft	13-Jan-06	<0.1	<0.01	<0.1	0.30	0.3
HW-10	10 ft	13-Jan-06	0.1	0.02	0.3	0.37	0.7
HW-15	15 ft	13-Jan-06	0.2	0.08	0.4	0.44	0.9
HW-25	25 ft	13-Jan-06	<0.1	0.00	0.5	0.29	0.7
HW-SW	0 ft	17-Jan-06	0.0	0.01	<0.1	1.30	1.3
HW-5	5 ft	17-Jan-06	<0.1	<0.01	0.1	0.40	0.5
HW-10	10 ft	17-Jan-06	0.1	<0.01	0.3	0.42	0.7
HW-15	15 ft	17-Jan-06	0.4	0.03	0.3	0.59	0.9
HW-25	25 ft	17-Jan-06	0.0	<0.01	0.1	0.26	0.4
HW-SW	0 ft	20-Jan-06	0.1	<0.01	1.1	1.40	2.5
HW-5	5 ft	20-Jan-06	<0.1	<0.01	0.2	0.33	0.5
HW-10	10 ft	20-Jan-06	0.1	<0.01	0.5	0.29	0.7
HW-15	15 ft	20-Jan-06	0.1	<0.01	0.6	0.41	1.0
HW-25	25 ft	20-Jan-06	<0.1	<0.01	0.4	<0.20	0.4
HW-SW	0 ft	24-Jan-06	0.2	0.03	1.8	1.40	3.2
HW-5	5 ft	24-Jan-06	<0.1	<0.01	0.2	0.38	0.6
HW-10	10 ft	24-Jan-06	0.1	<0.01	0.4	0.62	1.0
HW-15	15 ft	24-Jan-06	0.1	<0.01	0.5	0.47	0.9
HW-25	25 ft	24-Jan-06	0.1	<0.01	0.3	0.21	0.5
HW-SW	0 ft	27-Jan-06	0.2	0.07	1.5	1.50	3.0
HW-5	5 ft	27-Jan-06	<0.1	<0.01	0.7	0.41	1.1
HW-10	10 ft	27-Jan-06	0.1	<0.01	0.4	0.38	0.8
HW-15	15 ft	27-Jan-06	0.1	<0.01	0.6	0.38	1.0
HW-25	25 ft	27-Jan-06	<0.1	<0.01	1.1	0.28	1.4
HW-SW	0 ft	31-Jan-06	0.2	0.03	1.2	1.40	2.6
HW-5	5 ft	31-Jan-06	<0.1	<0.01	0.9	0.63	1.5
HW-10	10 ft	31-Jan-06	0.1	<0.01	0.4	0.39	0.8
HW-15	15 ft	31-Jan-06	<0.1	0.01	0.6	0.38	1.0
HW-25	25 ft	31-Jan-06	<0.1	<0.01	0.4	0.42	0.8



Table 2-16

**Basin and Lysimeter Water Monitoring Results for Hickory Basin West Cell:
Ammonia-Nitrogen, Nitrite-Nitrogen, Nitrate-Nitrogen, TKN, and TN (mg/L)**

Station ID	Depth	Sample Depth	NH3-N	NO2-N	NO3-N	TKN	TN
HW-SW	0 ft	3-Feb-06	0.2	0.02	0.5	1.40	1.9
HW-5	5 ft	3-Feb-06	0.1	<0.01	0.6	0.47	1.1
HW-10	10 ft	3-Feb-06	0.1	<0.01	0.3	0.41	0.7
HW-15	15 ft	3-Feb-06	0.1	<0.01	0.4	1.00	1.4
HW-25	25 ft	3-Feb-06	0.1	<0.01	0.8	0.28	1.1
HW-SW	0 ft	7-Feb-06	0.2	0.02	0.5	1.30	1.8
HW-5	5 ft	7-Feb-06	<0.1	<0.01	0.4	0.44	0.8
HW-10	10 ft	7-Feb-06	0.1	<0.01	0.4	0.38	0.8
HW-15	15 ft	7-Feb-06	<0.1	<0.01	0.5	0.31	0.8
HW-25	25 ft	7-Feb-06	<0.1	<0.01	0.4	0.38	0.8
HW-SW	0 ft	10-Feb-06	0.3	0.02	0.4	1.40	1.8
HW-5	5 ft	10-Feb-06	<0.1	<0.01	0.3	0.69	1.0
HW-10	10 ft	10-Feb-06	0.1	<0.01	0.4	0.42	0.8
HW-15	15 ft	10-Feb-06	<0.1	<0.01	0.4	0.60	1.0
HW-25	25 ft	10-Feb-06	<0.1	<0.01	0.6	0.31	0.9
HW-SW	0 ft	14-Feb-06	0.4	0.02	0.6	1.40	2.0
HW-5	5 ft	14-Feb-06	0.2	0.02	0.2	0.98	1.2
HW-10	10 ft	14-Feb-06	0.1	<0.01	0.3	0.31	0.6
HW-15	15 ft	14-Feb-06	<0.1	<0.01	0.5	0.44	0.9
HW-25	25 ft	14-Feb-06	<0.1	<0.01	0.3	0.39	0.7
HW-SW	0 ft	17-Feb-06	0.3	0.02	1.0	1.60	2.6
HW-5	5 ft	17-Feb-06	0.3	0.02	0.2	0.95	1.2
HW-10	10 ft	17-Feb-06	0.1	<0.01	0.3	0.47	0.8
HW-15	15 ft	17-Feb-06	0.1	<0.01	0.5	0.41	0.9
HW-25	25 ft	17-Feb-06	<0.1	<0.01	0.3	0.56	0.9
HW-SW	0 ft	21-Feb-06	0.3	0.02	1.3	1.60	2.9
HW-5	5 ft	21-Feb-06	0.4	0.02	0.2	0.99	1.2
HW-10	10 ft	21-Feb-06	0.1	<0.01	0.3	0.53	0.8
HW-15	15 ft	21-Feb-06	0.1	<0.01	0.4	0.47	0.9
HW-25	25 ft	21-Feb-06	0.1	<0.01	0.5	0.33	0.8
HW-SW	0 ft	24-Feb-06	0.3	0.03	1.2	1.60	2.8
HW-5	5 ft	24-Feb-06	0.5	0.02	0.2	0.96	1.2
HW-10	10 ft	24-Feb-06	0.1	<0.01	0.3	0.32	0.6
HW-15	15 ft	24-Feb-06	0.1	<0.01	0.4	0.38	0.8
HW-25	25 ft	24-Feb-06	<0.1	<0.01	0.8	0.36	1.2
HW-SW	0 ft	28-Feb-06	0.3	0.02	0.4	1.20	1.6
HW-5	5 ft	28-Feb-06	0.5	<0.01	<0.1	0.78	0.8
HW-10	10 ft	28-Feb-06	0.1	<0.01	0.3	0.31	0.6
HW-15	15 ft	28-Feb-06	0.1	<0.01	0.4	0.43	0.8
HW-25	25 ft	28-Feb-06	0.1	<0.01	0.5	0.33	0.8
HW-SW	0 ft	3-Mar-06	0.3	0.02	0.4	1.20	1.6
HW-5	5 ft	3-Mar-06	0.1	0.02	0.5	0.49	1.0
HW-10	10 ft	3-Mar-06	0.1	<0.01	0.4	0.41	0.8
HW-15	15 ft	3-Mar-06	0.1	<0.01	0.4	0.43	0.8
HW-25	25 ft	3-Mar-06	<0.1	<0.01	0.6	0.32	0.9
HW-SW	0 ft	7-Mar-06	0.4	0.02	0.3	1.40	1.7
HW-5	5 ft	7-Mar-06	0.1	0.06	0.5	0.59	1.2
HW-15	15 ft	7-Mar-06	0.1	<0.01	0.4	0.45	0.9
HW-25	25 ft	7-Mar-06	<0.1	<0.01	0.3	0.31	0.6



Table 2-16

**Basin and Lysimeter Water Monitoring Results for Hickory Basin West Cell:
Ammonia-Nitrogen, Nitrite-Nitrogen, Nitrate-Nitrogen, TKN, and TN (mg/L)**

Station ID	Depth	Sample Depth	NH3-N	NO2-N	NO3-N	TKN	TN
HW-SW	0 ft	10-Mar-06	0.5	0.02	0.2	1.50	1.7
HW-5	5 ft	10-Mar-06	0.1	0.01	0.6	0.44	1.1
HW-10	10 ft	10-Mar-06	IS	<0.01	0.2	0.72	0.9
HW-15	15 ft	10-Mar-06	0.1	<0.01	0.3	0.45	0.8
HW-25	25 ft	10-Mar-06	<0.1	<0.01	0.4	0.22	0.6
HW-SW	0 ft	14-Mar-06	0.4	0.02	0.6	1.50	2.1
HW-5	5 ft	14-Mar-06	<0.1	<0.01	0.7	0.41	1.1
HW-15	15 ft	14-Mar-06	0.1	<0.01	0.8	0.39	1.2
HW-25	25 ft	14-Mar-06	<0.1	<0.01	0.9	0.24	1.1
HW-SW	0 ft	17-Mar-06	0.4	0.01	0.6	1.20	1.8
HW-5	5 ft	17-Mar-06	0.1	0.04	0.8	0.41	1.3
HW-15	15 ft	17-Mar-06	0.1	<0.01	1.0	0.37	1.4
HW-25	25 ft	17-Mar-06	0.1	<0.01	1.1	0.24	1.3

ft: feet below the bottom of the basin

mg/L: milligrams per liter

TKN: Total Kjeldahl Nitrogen

TN: Total Nitrogen

IS: Insufficient sample for analytical test

IDC: Insufficient data for calculation



Table 2-17
Groundwater Monitoring Results

CBWM ID	Local Name	Sample Date	Quarter	ALUMINUM(MG/L)	AMMONIA-NITROGEN(MG/L)	CHLORIDE(MG/L)	COLOR(UNITS)	COPPER(µg/L)	CORROSVITY INDEX(SI)	DO(Field Measurement; MG/L)	FOAMING AGENTS(MG/L)	IRON(MG/L)	MANGANESE(MG/L)	Methyl Tert-Butyl Ether (µg/L)	NITRATE-NITROGEN(MG/L)	NITRITE-NITROGEN(MG/L)	ODOR THRESHOLD @ 60 c(TON)	PH (Field)	SILVER(µg/L)	SODIUM(MG/L)	SPECIFIC CONDUCTANCE(MICROMHO)	SULFATE(MG/L)	THIOBENCARB(µg/L)	Kjeldahl Nitrogen, Total (mg/L)	TOTAL COLIFORM BACTERIA(MPN/100 ML)	TOTAL DISSOLVED SOLIDS(MG/L)	TOTAL HARDNESS (AS CaCO3)(MG/L)	TOTAL ORGANIC CARBON(MG/L)	TOTAL NITROGEN (MG/L)	TURBIDITY(NTU)	ZINC(µg/L)	
Maximum Contaminant Level ▶				0.2		250*	15*	1000	NC*	2**	0.5*	0.3*	0.05	5*	10	1	3*		0.1*	900*	250*	1*			500*							
600660	INFIELD WELL	08-Aug-05	3Q2005	1.06	<0.1	10	<3	<1		NC	<0.050	0.1	<0.002		5.5	<0.01	1	7.35	<2	19	429	13	<0.2	0.1		284	174	<0.3	5.60	0.14	<2	
600660	INFIELD WELL	16-Dec-05	4Q2005	0.16	0.10	10		5	0.2	NC		0.042	<0.002		6.2	<0.01		7.70	<2	17	395	15			262	169	0.15	6.20	0.3	<2		
600660	INFIELD WELL	10-Feb-06	1Q2006	<0.07	<0.1	13	<3	1	DNR	NA	<0.050	<0.015	<0.002	<0.5	8.2	0.04	2	7.9	<2	18	435	20	<0.5	<0.2	<1.1	276	181	<0.1	8.24	0.4	3	
601002	BH-1/2	07-Jun-05	2Q2005	0.52	0.20	22	10	1.996	0.4	NA	<0.050	0.652	0.040312		12.5	0.020	3	7.90	<2	21	430	15	<0.5	<0.1	<1.1	292	164	0.75	12.52	8.37	14	
601002	BH-1/2	19-Jul-05	3Q2005		0.10					5.17					14.0	0.031															14.23	
601002	BH-1/2	03-Aug-05	3Q2005		0.10					5.15					14.0	<0.01															14.00	
601002	BH-1/2	17-Aug-05	3Q2005		<0.1					5.00					14.1	<0.01															14.10	
601002	BH-1/2	01-Sep-05	3Q2005		0.54					4.52					13.7	<0.01															13.72	
601002	BH-1/2	15-Sep-05	3Q2005		<0.1					4.59					13.0	<0.2													0.53	13.10		
601002	BH-1/2	29-Sep-05	3Q2005		<0.1					4.31					13.2	<0.01				630				0.1				0.69	13.27			
601002	BH-1/2	12-Oct-05	4Q2005		0.10					5.89					13.8	<0.001				614				0.3				0.3	14.08			
601002	BH-1/2	27-Oct-05	4Q2005							5.62										600								<0.3	0.00			
601002	BH-1/2	08-Nov-05	4Q2005		0.10	62	<3			6.07	<0.050				13.3	<0.01	1	7.70		22	560	19	<0.2			450		<0.6	13.30	1.65		
601002	BH-1/2	23-Nov-05	4Q2005		0.10					5.61					13.4	<0.01															13.43	
601002	BH-1/2	07-Dec-05	4Q2005							6.90					13.7	<0.01															13.71	
601002	BH-1/2	27-Dec-05	4Q2005		0.10					6.43					12.7	<0.01		7.45		1170											12.97	
601002	BH-1/2	04-Jan-06	1Q2006		0.1					6.44					11.9	<0.01															12.33	
601002	BH-1/2	18-Jan-06	1Q2006		<0.1					6.14					8.717	<0.01															8.72	
601002	BH-1/2	02-Feb-06	1Q2006		0.1					NA					9.4	<0.01															9.40	
601002	BH-1/2	15-Feb-06	1Q2006	<0.07	<0.1	38	<3	<1	DNR	NA	<0.050	<0.015	<0.002	<0.5	12.2	<0.01	1	7.75	<2	20	475	26	<0.5	<0.2	<1.1	314	185	0.21	12.20	0.2	4	
601002	BH-1/2	02-Mar-06	1Q2006		<0.1					5.40					9.6	<0.01													<1	9.60		
601002	BH-1/2	15-Mar-06	1Q2006		<0.1					NA					10.9	<0.01													0.19	10.90		
601002	BH-1/2	29-Mar-06	1Q2006		<0.1					4.43					7.9	<0.01													0.41	7.90		
3600371	EAST WELL	05-Aug-05	3Q2005	1.03	0.10	13	<3	<1		NC	<0.050	0.098	<0.002		6.4	<0.01	1	7.70	<2	19	368	15		0.2		241	150	<0.3	6.64	0.1	2	
3600371	EAST WELL	09-Nov-05	4Q2005		0.10	5.1	<3	<1		NC	<0.050				5.1	<0.01	1	7.55		17	335	15				232		<0.3	5.06	0.92		
3600371	EAST WELL	16-Dec-05	4Q2005							NC													<0.2									
3600371	EAST WELL	10-Feb-06	1Q2006	<0.07	<0.1	18	<3	<1	DNR	NC	<0.050	<0.015	<0.002	<0.5	8.5	<0.01	2	7.6	<2	16	340	20	<0.5	<0.2	<1.1	238	144	0.1	8.50	0.9	4	
3600573	F37A	05-Aug-05	3Q2005	1.10	0.20	14	<3	<1		NC	<0.050	0.127	<0.002		8.8	<0.01	2	7.95	2	18	458	13	<0.2	0.2		298	197	<0.3	9.03	0.3	5	
3600573	F37A	16-Dec-05	4Q2005	0.19	0.10	15	<3	9	0.5	NC	<0.050	0.174	0.004		9.2	<0.01	2	7.85	2	17	430	13	<0.2	<0.2		292	188	0.13	9.20	0.5	5	
3600573	F37A	16-Feb-06	1Q2006	<0.07	<0.1	18	<3	4	DNR	NC	<0.050	0.097	0.004	<0.5	10.1	<0.01	1	7.85	<2	16	450	16	<0.5	0.37	<1.1	286	183	0.32	10.47	0.54	8	
3601364	1	08-Aug-05	3Q2005	1.11	<0.1	15	3	3		NC	<0.050	0.334	0.005		8.0	<0.01	2	7.90	<2	19	453	17	<0.2	<0.2		274	177	<0.3	8.00	1.21	26	
3602267	20	05-Aug-05	3Q2005	1.05	<0.1	6.4	<3	<1		NC	<0.050	0.107	<0.002		1.8	<0.01	1	7.90	<2	13	300	6	<0.2	0.2	ND ¹	212	140	<0.3	1.96	0.3	<2	
3602267	20	08-Nov-05	4Q2005				<3			NC	<0.050							1					<0.2	ND ¹			<0.3					
3602267	20	13-Feb-06	1Q2006	<70	0.1	10	<3	7	DNR	NC	<0.050	0.102	0.003	<0.5	2.7	<0.01	2	7.8	<2	14	355	9	<0.5	<0.2	ND ¹	214	157	<0.1	2.70	1	6	

NOTES:

¹ Sample Collected by the City of Ontario

* Secondary Maximum Contaminant Level

** Dissolved Oxygen May Not Fall Below 2 mg/L in Two Consecutive Samples

<0.01 Analyte Not Detected at or Above Indicated Detection Limit

Values in Bold Exceed Federal Primary Maximum Contaminant Level

CBWM Chino Basin Watermaster

NC Not Collected

ND Not Detected

DNR Data not reported by laboratory by the time of this report

NA Field data is not available

Table 3-1
Volume of Diluent and Recycled Water Recharged

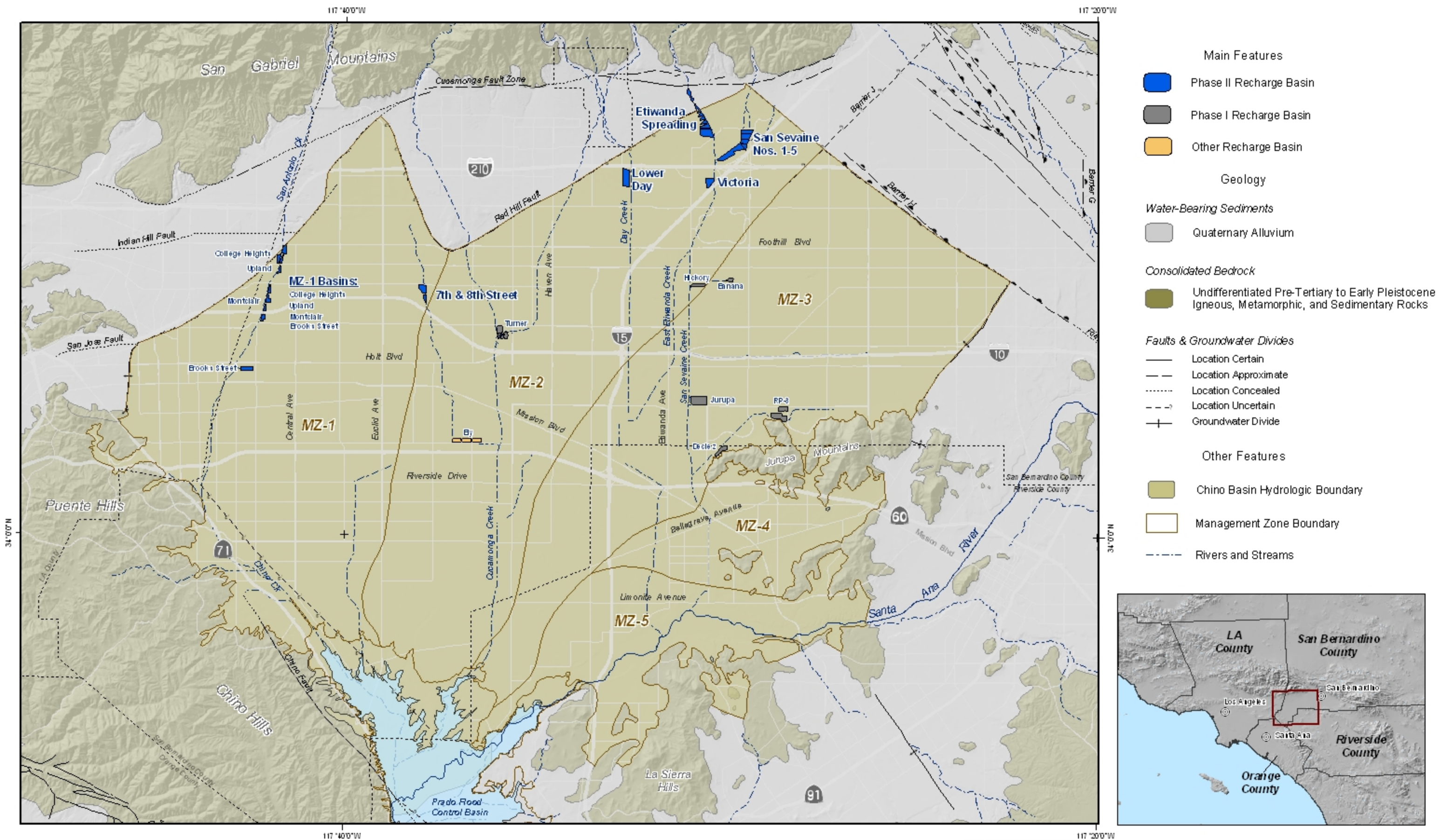
Date	Imported Water	MWD CB18 Water Routing		Local Runoff / Storm Flow		Recycled Water	
	MWD CB-18 (AF)	Hickory (AF)	Banana (AF)	Hickory (AF)	Banana (AF)	Hickory (AF)	Banana (AF)
01/01/06	0.0	0.0	0.0	11.6	5.0	5.2	1.7
01/02/06	0.0	0.0	0.0	0.0	0.0	2.8	0.9
01/03/06	0.0	0.0	0.0	0.0	0.0	0.0	0.0
01/04/06	0.0	0.0	0.0	0.0	0.0	0.0	0.0
01/05/06	0.0	0.0	0.0	0.0	0.0	0.0	0.0
01/06/06	0.0	0.0	0.0	0.0	0.0	0.0	0.0
01/07/06	0.0	0.0	0.0	0.0	0.0	0.0	0.0
01/08/06	0.0	0.0	0.0	0.0	0.0	0.0	0.0
01/09/06	0.0	0.0	0.0	0.0	0.0	0.0	0.0
01/10/06	0.0	0.0	0.0	0.0	0.0	0.0	0.0
01/11/06	0.0	0.0	0.0	0.0	0.0	0.0	0.0
01/12/06	0.0	0.0	0.0	0.0	0.0	0.0	0.0
01/13/06	0.0	0.0	0.0	0.0	0.0	0.0	0.0
01/14/06	0.0	0.0	0.0	1.0	1.0	0.0	0.0
01/15/06	0.0	0.0	0.0	0.0	0.0	0.0	0.0
01/16/06	0.0	0.0	0.0	0.0	0.0	0.0	0.6
01/17/06	0.0	0.0	0.0	0.0	0.0	0.0	5.6
01/18/06	0.0	0.0	0.0	0.0	0.0	10.3	0.0
01/19/06	0.0	0.0	0.0	0.0	0.0	9.1	0.8
01/20/06	0.0	0.0	0.0	0.0	0.0	8.9	1.2
01/21/06	0.0	0.0	0.0	0.0	0.0	6.0	6.0
01/22/06	0.0	0.0	0.0	0.0	0.0	10.9	0.0
01/23/06	0.0	0.0	0.0	0.0	0.0	10.9	0.0
01/24/06	0.0	0.0	0.0	0.0	0.0	7.9	2.6
01/25/06	0.0	0.0	0.0	0.0	0.0	0.0	9.9
01/26/06	0.0	0.0	0.0	0.0	0.0	3.8	5.6
01/27/06	0.0	0.0	0.0	0.0	0.0	0.0	5.6
01/28/06	0.0	0.0	0.0	0.0	0.0	2.5	2.0
01/29/06	0.0	0.0	0.0	0.0	0.0	1.2	3.5
01/30/06	0.0	0.0	0.0	0.0	0.0	0.0	1.8
01/31/06	0.0	0.0	0.0	0.0	0.0	3.3	2.6
02/01/06	0.0	0.0	0.0	0.0	0.0	3.9	2.8
02/02/06	0.0	0.0	0.0	0.0	0.0	0.0	6.9
02/03/06	0.0	0.0	0.0	0.0	0.0	6.8	0.0
02/04/06	0.0	0.0	0.0	0.0	0.0	6.8	0.0
02/05/06	0.0	0.0	0.0	0.0	0.0	6.1	0.7
02/06/06	0.0	0.0	0.0	0.0	0.0	0.0	6.4
02/07/06	0.0	0.0	0.0	0.0	0.0	1.4	2.7
02/08/06	0.0	0.0	0.0	0.0	0.0	4.5	0.0
02/09/06	0.0	0.0	0.0	0.0	0.0	2.7	0.0
02/10/06	0.0	0.0	0.0	0.0	0.0	5.2	2.6
02/11/06	0.0	0.0	0.0	0.0	0.0	0.0	9.0
02/12/06	0.0	0.0	0.0	0.0	0.0	4.5	4.0
02/13/06	0.0	0.0	0.0	0.0	0.0	4.9	2.9
02/14/06	0.0	0.0	0.0	0.0	0.0	0.0	7.4
02/15/06	0.0	0.0	0.0	0.0	0.0	7.5	0.0
02/16/06	0.0	0.0	0.0	0.0	0.0	3.9	1.2
02/17/06	0.0	0.0	0.0	0.0	0.0	0.0	6.3
02/18/06	0.0	0.0	0.0	0.0	0.0	3.6	2.3
02/19/06	0.0	0.0	0.0	0.0	0.0	4.0	0.0
02/20/06	0.0	0.0	0.0	0.0	0.0	6.9	0.0
02/21/06	0.0	0.0	0.0	0.0	0.0	5.4	0.0
02/22/06	0.0	0.0	0.0	0.0	0.0	1.1	0.0
02/23/06	0.0	0.0	0.0	0.0	0.0	0.0	0.0



Table 3-1
Volume of Diluent and Recycled Water Recharged

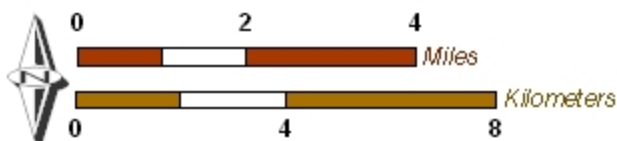
Date	Imported Water	MWD CB18 Water Routing		Local Runoff / Storm Flow		Recycled Water	
	MWD CB-18 (AF)	Hickory (AF)	Banana (AF)	Hickory (AF)	Banana (AF)	Hickory (AF)	Banana (AF)
02/24/06	0.0	0.0	0.0	0.0	0.0	0.0	0.0
02/25/06	0.0	0.0	0.0	0.0	0.0	0.0	0.0
02/26/06	0.0	0.0	0.0	0.0	0.0	0.0	0.0
02/27/06	0.0	0.0	0.0	0.0	0.0	0.0	0.0
02/28/06	0.0	0.0	0.0	34.6	22.3	0.0	0.0
03/01/06	0.0	0.0	0.0	2.1	1.0	0.0	0.0
03/02/06	0.0	0.0	0.0	0.0	0.0	0.0	0.0
03/03/06	0.0	0.0	0.0	8.8	7.9	0.0	0.0
03/04/06	0.0	0.0	0.0	0.0	0.0	0.0	0.0
03/05/06	0.0	0.0	0.0	0.0	0.0	0.0	0.0
03/06/06	0.0	0.0	0.0	0.0	0.0	0.0	0.0
03/07/06	0.0	0.0	0.0	0.0	2.9	0.0	0.0
03/08/06	0.0	0.0	0.0	0.0	0.0	0.0	0.0
03/09/06	0.0	0.0	0.0	0.0	0.0	0.0	0.0
03/10/06	0.0	0.0	0.0	0.0	0.0	0.0	0.0
03/11/06	0.0	0.0	0.0	0.0	11.8	0.0	0.0
03/12/06	0.0	0.0	0.0	4.0	0.0	0.0	0.0
03/13/06	0.0	0.0	0.0	1.0	0.0	0.0	0.0
03/14/06	0.0	0.0	0.0	1.0	0.0	0.0	0.0
03/15/06	0.0	0.0	0.0	1.0	0.0	0.0	0.0
03/16/06	0.0	0.0	0.0	1.0	0.0	0.0	0.0
03/17/06	0.0	0.0	0.0	1.3	4.8	0.0	0.0
03/18/06	0.0	0.0	0.0	1.3	0.6	0.0	0.0
03/19/06	0.0	0.0	0.0	1.8	3.6	0.0	0.0
03/20/06	0.0	0.0	0.0	1.8	0.0	0.0	0.0
03/21/06	0.0	0.0	0.0	1.8	7.6	0.0	0.0
03/22/06	0.0	0.0	0.0	0.0	0.0	0.0	0.0
03/23/06	0.0	0.0	0.0	0.0	0.0	0.0	0.0
03/24/06	0.0	0.0	0.0	0.0	0.0	0.0	0.0
03/25/06	0.0	0.0	0.0	0.0	0.0	0.0	0.0
03/26/06	0.0	0.0	0.0	0.0	0.0	0.0	0.0
03/27/06	0.0	0.0	0.0	0.0	0.0	0.0	0.0
03/28/06	0.0	0.0	0.0	8.6	13.3	0.0	0.0
03/29/06	0.0	0.0	0.0	0.0	1.6	0.0	0.0
03/30/06	0.0	0.0	0.0	0.0	0.0	0.0	0.0
03/31/06	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1Q06 Totals	0.0	0.0	0.0	73.9	83.4	162.1	105.5





Produced by:
WILDERMUTH
 ENVIRONMENTAL
 23602 Birchler Drive
 Lake Forest, CA 92630
 949.420.3030
 www.wilder-muth.com

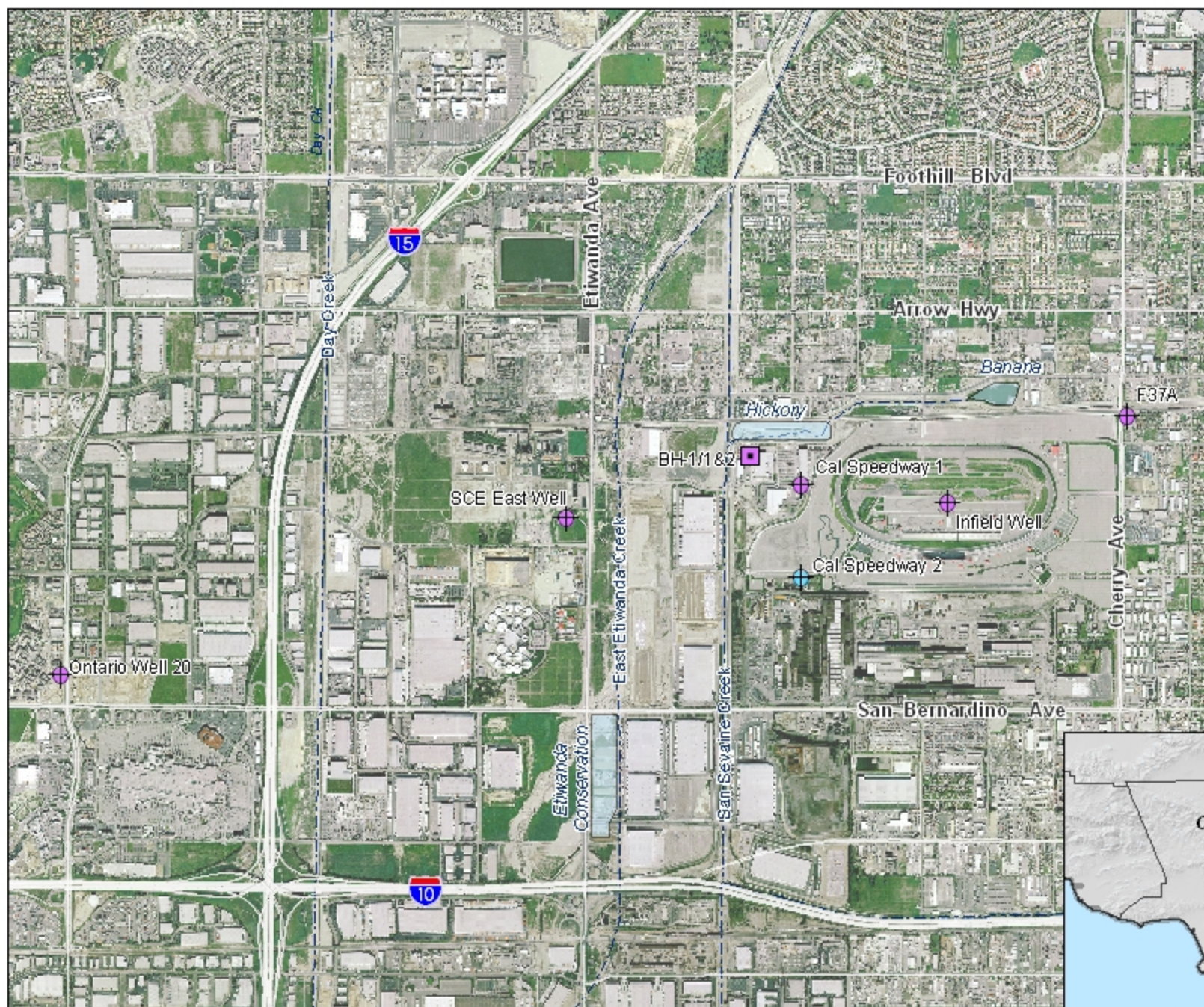
Author: KD/WEL
 Date: 20060510
 File: 20060510_Figure_1-01.mxd



Inland Empire
 WATER AGENCY
 Recycled Water Recharge Program
 Quarterly Monitoring Report - 1Q06

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

Figure 1-1



-  New Monitoring Well
-  Existing Monitoring Well
-  Proposed Replacement Monitoring Well
-  Recharge Basins

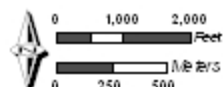


Monitoring Well Network Hinkory and Banana Basins

Figure 2-1



Recycled Water Recharge Program
Quarterly Monitoring Report – 1000



Author: IBM
Date: 20090503
File: Figure_2-1.mxd

Produced by:
 WILDERMUTH
THREAT MANAGEMENT

Appendix A.
Watermaster Certification of
Non-Pumping in the Buffer Zones





CHINO BASIN WATERMASTER

9641 San Bernardino Road, Rancho Cucamonga, Ca 91730-4665
Tel: 909.484.3888 Fax: 909.484.3890 www.cbwm.org

Kenneth Manning
CEO

May 11, 2006

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 Recharge Program
Certification of Non-Pumping in the Buffer Zones of Banana and Hickory Basins**

Dear Mr. Thibeault,

The Chino Basin Watermaster hereby certifies that, during the period January 2006 through March 2006, there has been no reported pumping for drinking water purposes in the buffer zones of Banana and Hickory Basins – 500 feet and 6 months underground travel time. In point of fact, there are no production wells in the buffer zones of these two basins.

If you have any questions, please do not hesitate to call me.

Best regards,

Kenneth Manning
Chief Executive Officer
