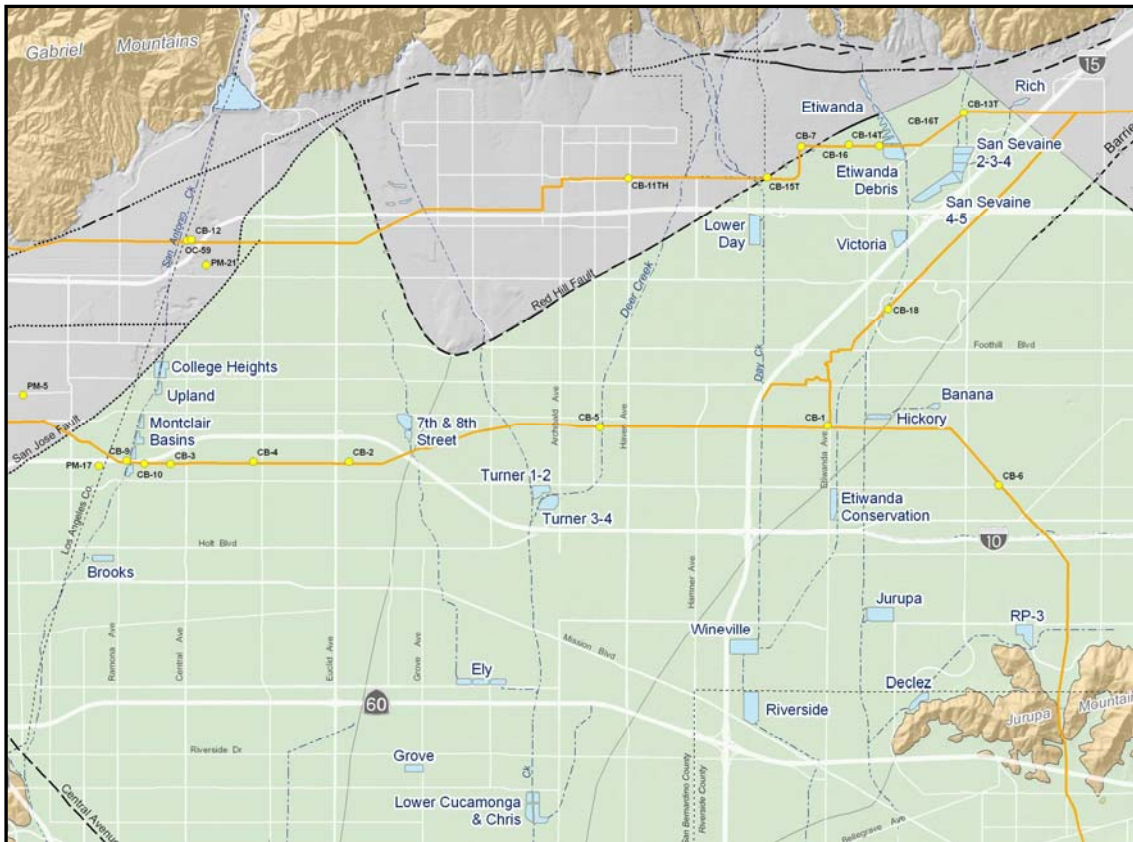


Chino Basin Recycled Water Recharge Program

Quarterly Monitoring Report July through September 2005





Richard Atwater
CEO and General Manager

Kenneth Manning
CEO

November 15, 2005

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 July through September 2005

Dear Mr. Thibeault,

The Inland Empire Utilities Agency (IEUA) and the Chino Basin Watermaster (Watermaster) hereby submit the *Quarterly Monitoring Report* for the third quarter of 2005 (3Q05) – July through September 2005 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.

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

Best regards,

A handwritten signature in black ink, appearing to read "Richard Atwater".

Richard Atwater
Chief Executive Officer and General Manager

A handwritten signature in black ink, appearing to read "Kenneth Manning".

Kenneth Manning
Chief Executive Officer

Chino Basin

Recycled Water Recharge Program

Quarterly Monitoring Report

July through September 2005

Prepared by:



and



November 15, 2005

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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

This 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. 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 (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 below. This document is the Third Quarter 2005 (3Q05) Quarterly Report. Following is an excerpt of Section VI. of the M&RP:

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 the third quarter of 2005, IEUA initiated recycled water recharge at Banana and Hickory Basins. During the quarter, these two basins began respective Start-Up Periods, where by periods of 100 percent diluent water recharge were followed by 100 percent recycled water recharge. As 3Q05 ended, these basins were still in their Start-Up Periods. During 3Q05, recycled water was not recharged in the other Phase 1 basins, namely RP3 Basins, Declez Basin, and Turner Basins.

The 3Q05 report contains monitoring results for Banana and Hickory Basins start-up periods prior to the completion of their Start-Up Periods. 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 fewer sampling points that are collected a compliance monitoring points determined to be representative 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 and lysimeter samples, and groundwater monitoring wells. Section 3 provides an overview of recharge operations, including the volume of diluent water and recycled water recharged. Sections 4 and 5 list the operational problems encountered and the preventive and/or corrective actions taken. Finally, Section 6 is the certification of non-pumping in the buffer zone.



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 2-7 summarize all the requisite data. 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.” Because this is the first quarter of the Recycled Water Recharge Program, only one quarter of data are presented herein. Next quarter (4Q05: October – December 2005) will include an average of two quarters of data; 1Q06 will have three quarters of data, 2Q06 and subsequent quarters will have four quarters of data.

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 2-4, 2-5, and 2-7 in order to facilitate a comparison. The following constituents exceeded limits in the Order during 3Q05:

Constituent	Date	Limit in the Order	Result
Total trihalomethanes (THMs)	September 27, 2005	80 µg/L	241 µg/L
Total Haloacetic Acids (HAA5)	September 27, 2005	60 µg/L	200 µg/L
Odor	September 27, 2005	3 TON	8 TON

The total THMS and the total haloacetic acids results from samples collected from the blend of RP-1 and RP-4 effluents are anomalous when compared with contemporary plant effluent concentrations. Historical values for both groups of constituents have typically been considerably lower in RP-1 and RP-4 effluent samples: about 100 µg/L for THMs and 160 µg/L for total haloacetic acids. IEUA is in the process of determining which sample location option will be used for future compliance and these constituents and parameters are currently being sampled in the lysimeters as required in Section A.2 of the Order (RWQCB, 2005a). IEUA is in the process of completing a report that describes these exceedances and proposed corrective actions for submittal to DHS and the Regional Board as required in the Order.

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 used for recharge shall not exceed a 12-month running average concentration limit of 550 mg/l and 8 mg/l, respectively (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 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.
8. 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.

None of these limits were exceeded in 3Q05, as summarized in Tables 2-1 through 2-3.

2.2 Diluent Water

Table 2-8 describes the water quality of the State Water Project (SWP) water that is recharged in Banana and Hickory Basins through the CB-18 Turnout. These data were downloaded from the Metropolitan Water District of Southern California website. As shown in Table 3-1, some local runoff was also introduced into Hickory West Cell. This has resulted in sporadic spikes in TOC in the surface water grab sampled collected from Hickory West Cell; these TOC spikes range up to 22 mg/L. Again, this TOC is likely of nuisance and/or stormwater origin, since recycled water TOC is consistently less than 10 mg/L for the blend of RP-1 and RP-4 and SWP water had an average TOC of 3.6 mg/L this quarter.

The water quality of the blend of SWP and local runoff is provided in the surface water grab samples at the basins during periods when SWP was being recharged (see Section 2.3).

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 2-9 through 2-14. A Second Quarter 2005 (2Q05) Quarterly Report was not required, because recharge of recycled water had not occurred at any of the recharge basins. However, one month of sample results exists for the period when diluent water was being recharged into Hickory Basin in June 2005, and these data are included herein for completeness. 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 in these two clusters will be used for compliance monitoring following evaluation of start-up period data and recycled water recharge operations. Each table also lists the result by Station ID/Depth and by date.



On July 26, 2005, a grab surface water sample was not collected from Hickory East Cell, because the basin was the basin was dry. Missing samples at the 10 and 15-foot lysimeters of Hickory West Cell are discussed in Sections 4 and 5.

On September 20, 2005, there was a significant storm event in the Inland Empire, which began around 3:00 AM. Local runoff – described by IEUA staff as “water that was noticeably darker than normal” – from this precipitation event flowed down San Sevaine Channel and was recharged into Hickory West Cell until the rubber dam in the channel was deflated around 7:30 AM on the same day. The water in the lysimeter samples collected during the next scheduled sampling event on September 27, 2005 was described by IEUA laboratory staff as having a “brownish tinge.” These samples also had had relatively high TOC, even at the deepest lysimeter, where the TOC concentration was 10 mg/L. It is likely that natural organic carbon that is more recalcitrant than TOC of wastewater origin was diverted into Hickory West Cell during the storm event and percolated to the deepest lysimeter. Samples collected in the Fourth Quarter of 2005 will verify whether or not the system re-stabilizes.

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 new nested monitoring well, BH-1, installed downgradient of Hickory Basin (Figure 2-1). BH-1 is screened in two zones; BH-1/1 is screened from 366 – 406 feet below top of casing, and BH-1/2 is screened from 437 – 477 feet below top of casing. BH-1/1 is screened above the regional groundwater table 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 2-15. Based on estimated travel times in the Title 22 Engineering Report (CH2M-Hill, 2003), the travel times to these wells would be greater than the period that IEUA has been recharging recycled water. Hence, the groundwater quality results for 3Q05 represent background conditions. The MCLs for two constituents were exceeded: aluminum in Fontana F-37A, California Speedway 1, SCE East Well, Ontario Well 20, the California Speedway Infield Well and BH-1/2; and nitrate in BH-1/2. Aluminum exceedances in groundwater samples are often artifacts of sampling (dissolution of fine particulates or colloidal material when the sample is acidified to preserve it). The BH-1/2 well 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 all have very low concentrations of total nitrogen.



3. Recharge Operations

IEUA's Groundwater Recharge Coordinator recorded the volume of water delivered to Banana and Hickory Basins during 3Q05. The delivered volumes included SWP water from MWD Turnout CB18, local runoff, stormwater, and recycled water from the Whittram force main. CB18 flows commingle with local runoff in San Sevaïne Channel prior to diversion into Hickory Basin. Commingled imported water and local runoff water are delivered to Banana Basin by pumping from Hickory Basin. Recycled water can be delivered to Hickory Basin (West Cell) from the Whittram force main by either diversion into San Sevaïne Channel or to Hickory Basin (directly to East Cell). Recycled water is delivered to Banana Basin directly from the Whittram force main. Stormwater volumes are estimated from change in storage in the basin based on positive changes in water elevation. Outflow of stormwater from the basin is not measured or estimated as these waters do not recharge. Table 3-1 lists the daily water deliveries to Hickory and Banana Basins as tabulated by IEUA's Groundwater Recharge Coordinator.



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

After the first sampling event on June 10, 2005, the 10 and 15-foot lysimeters at Hickory West Cell stopped functioning. The lysimeter reservoir would not hold a vacuum and therefore samples could not be collected. This may be a result of a faulty one-way valve in the lysimeter body. Based on the initial result, the 25-foot lysimeter would likely be the compliance point lysimeter. The corrective action for the lysimeter malfunction is discussed in Section 5.3.

4.4 Monitoring Well Sampling

No operational problems encountered this quarter.



5. Preventive and/or Corrective Actions

5.1 Regional Plants RP-1 and RP-4

No operational problems encountered this quarter. No corrective actions anticipated.

5.2 Recharge Operations

No operational problems encountered this quarter. No corrective actions anticipated.

5.3 Lysimeter Sampling

The 10 and 15-foot lysimeters at Hickory West Cell were replaced in November 2005.

5.4 Monitoring Well Sampling

No operational problems encountered this quarter. No corrective actions anticipated.



6. Certification of Non-Pumping in the Buffer Zones

The Chino Basin Watermaster has certified there has been no reported pumping of groundwater from the zone that extends 500 feet and 6 months underground travel time from Hickory and Banana Basins in 3Q05. In fact, there are no production wells within the buffer zones. A letter stating this is included in this Quarterly Report as Appendix A. IEUA is also working 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 zone. 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 utilized 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 – July 2005.
- Metropolitan Water District of Southern California. 2005. Table D. Monthly Analyses of the District Water Supplies – August 2005.
- Metropolitan Water District of Southern California. 2005. Table D. Monthly Analyses of the District Water Supplies – September 2005.



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

Date	RP1 Effluent														RP4 Effluent													
	Turbidity ¹	TOC	NH ₃ -N	NO ₃ -N	NO ₂ -N	TKN	TN	TKN+N O ₂ -N	TIN	pH ¹	EC	TDS	Hardness	Coliform	Turbidity ¹	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		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
7/1/2005	0.7	7								6.99	765		<2	0.5	10	0.1	1.3	<0.01						1.4	7.10	740		<2
7/2/2005	0.7	8								7.03	785		<2	0.6	10	0.1	1.2	<0.01						1.3	7.00	765		<2
7/3/2005	0.7	7								7.04	740		<2	0.6	10	0.2	1.3	<0.01						1.5	7.10	765		<2
7/4/2005	0.7	8								7.05	745		2	0.6	10	0.1	0.9	<0.01						1.0	7.10	765		<2
7/5/2005	0.8	8	0.2	8.6	0.01	1.0	9.7	1.0	8.9	7.04	760	490	137	<2	0.5	9	0.1	1.1	<0.01	1.0	2.1	1.0	1.2	7.00	755	462	113	<2
7/6/2005	0.8	8								7.02	750		<2	0.4	10	0.1	1.3	<0.01						1.4	7.00	740		<2
7/7/2005	0.8	7	0.2	7.5	0.03				7.8	7.05	730		<2	0.5	10	0.1	1.4	<0.01						1.5	7.00	740		<2
7/8/2005	0.7	8								7.07	725		<2	0.5	10	0.1	0.6	<0.01						0.7	7.00	675		<2
7/9/2005	0.7	8								7.09	720		<2	0.5	10	0.1	0.8	<0.01						0.9	7.00	690		<2
7/10/2005	0.7	7	0.2	6.6	0.01				6.8	7.10	740		<2	0.5	9	0.1	1.2	<0.01						1.3	7.10	740		<2
7/11/2005	0.7	8								7.10	720		<2	0.6	10	0.1	1.1	<0.01						1.2	7.10	730		<2
7/12/2005	0.7	7	0.2	5.4	0.02				5.5	7.14	725	468	<2	0.5	10	0.1	1.7	<0.01						1.8	7.10	725	448	2
7/13/2005	0.7	7								7.14	720		<2	0.5	10	0.1	2.2	<0.01						2.3	7.10	710		<2
7/14/2005	0.7	7	0.2	5.5	0.03				5.7	7.13	730		<2	0.5	9	0.1	2.2	<0.01						2.3	7.00	705		<2
7/15/2005	0.7	8								7.12	725		<2	0.5	10	0.1	2.2	<0.01						2.3	7.00	707		<2
7/16/2005	0.7	7								7.13	730		<2	0.5	10	0.1	2.5	<0.01						2.6	7.00	710		<2
7/17/2005	0.7	7	0.1	6.4	0.01				6.5	7.14	715		<2	0.5	10	0.1	2.5	<0.01						2.6	7.00	710		<2
7/18/2005	0.7	7								7.13	715		2	0.6	10	0.1	2.0	<0.01						2.1	7.00	705		<2
7/19/2005	0.7	7	0.2	6.2	0.06				6.5	7.13	715	452	<2	0.9	10	0.1	1.1	<0.01						1.2	7.00	730	440	<2
7/20/2005	0.7	7								7.13	710		<2	0.7	10	0.2	0.6	<0.01						0.8	7.10	720		<2
7/21/2005	0.7	8	0.2	5.5	0.06				5.8	7.10	720		2	0.5	9	0.2	0.7	<0.01						0.9	7.00	710		<2
7/22/2005	0.7	7								7.10	740		2	0.5	9	0.1	0.8	<0.01						0.9	7.00	720		<2
7/23/2005	0.7	7								7.10	725		<2	0.5	9	0.1	0.6	<0.01						0.7	7.00	730		<2
7/24/2005	0.7	8	0.2	4.8	0.03				5.0	7.17	720		<2	0.5	9	0.1	0.6	<0.01						0.7	7.10	730		<2
7/25/2005	0.7	8								7.12	740		<2	0.6	9	0.1	0.5	<0.01						0.6	7.10	730		<2
7/26/2005	0.7	7	0.2	5.1	0.03				5.3	7.10	730	456	<2	0.8	9	0.1	0.4	<0.01						0.5	7.10	720	444	<2
7/27/2005	0.7	8								7.09	730		<2	0.9	10	0.1	0.4	<0.01						0.5	7.10	735		<2
7/28/2005	0.6	8	0.1	4.9	0.02				5.1	7.15	730		<2	0.9	19	6.6	0.2	0.05						6.9	7.00	775		<2
7/29/2005	0.6	7								7.18	735		2	1.6	11	0.1	1.0	<0.01						1.1	6.90	730		<2
7/30/2005	0.6	7								7.19	715		<2	0.7	10	0.1	0.4	<0.01						0.5	6.90	725		<2
7/31/2005	0.6	7	0.2	4.7	0.06				4.9	7.19	715		<2	0.7	10	0.1	0.4	<0.01						0.5	6.90	755		<2
Average	0.7	7	0.2	5.9	0.03	1.0	9.7	1.0	6.2	7.11	731	467	<2	0.6	10	0.3	1.1	<0.01	1.0	2.1	1.0	1.4	7.03	729	449		<2	
Min	0.6	7	0.1	4.7	0.01	1.0	9.7	1.0	4.9	6.99	710	452	<2	0.4	9	0.1	0.2	<0.01	1.0	2.1	1.0	0.5	6.90	675	440		<2	
Max	0.8	8	0.2	8.6	0.06	1.0	9.7	1.0	8.9	7.19	785	490	2	1.6	19	6.6	2.5	0.05	1.0	2.1	1.0	6.9	7.10	775	462		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:

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

Date	RP1 Effluent														RP4 Effluent														
	Turbidity ¹	TOC	NH ₃ -N	NO ₂ -N	NO ₃ -N	TKN	TN	TKN+N O ₂ -N	TIN	pH ¹	EC	TDS	Hardness	Coliform	Turbidity ¹	TOC	NH ₃ -N	NO ₂ -N	NO ₃ -N	TKN	TN	TKN+N O 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	
8/1/2005	0.6	7								7.16	715			<2	0.8	9	0.1	0.2	<0.01					0.3	7.00	755		<2	
8/2/2005	0.5	7	0.1	4.6	0.01	0.9	5.5	0.9	4.7	7.12	700	440	135	<2	0.8	9	0.1	0.2	<0.01					0.3	6.90	730	438	122	<2
8/3/2005	0.3	8								7.17	705			2	0.8	9	0.1	0.4	<0.01					0.5	6.90	725		<2	
8/4/2005	0.3	8	0.1	5.9	0.02	0.8	6.8	0.9	6.1	7.19	715			<2	0.8	9	<0.1	1.6	<0.01	0.9	2.4	0.9		1.6	6.90	730		<2	
8/5/2005	0.3	8								7.20	710			<2	0.9	9	0.1	2.6	<0.01					2.7	6.90	735		<2	
8/6/2005	0.3	8								7.20	720			<2	0.8	10	<0.1	0.3	<0.01					0.3	6.90	745		<2	
8/7/2005	0.3	8	0.1	6.3	0.12	1.0	7.4	1.1	6.6	7.23	705			<2	0.7	10	0.1	0.5	<0.01	0.9	1.4	0.9		0.6	6.90	730		<2	
8/8/2005	0.3	8								7.21	715			<2	0.8	10	0.1	0.3	<0.01					0.4	7.00	750		<2	
8/9/2005	0.6	8	0.1	6.0	0.02	1.1	7.1	1.1	6.2	7.23	705			2	0.9	10	0.1	0.3	<0.01	1.0	1.3	1.0		0.4	7.10	730	444	<2	
8/10/2005	0.8	9								7.21	700			<2	0.9	10	0.1	0.4	<0.01					0.5	7.00	715		<2	
8/11/2005	0.8	8	0.1	6.4	0.02	1.1	7.5	1.1	6.5	7.19	700	440		<2	0.9	10	0.1	0.2	<0.01	0.7	0.9	0.7		0.3	7.00	720		<2	
8/12/2005	0.9	8								7.21	700			2	0.9	11	0.1	0.1	<0.01					0.2	7.00	725		<2	
8/13/2005	1.0	8								7.23	695			<2	1.0	11	<0.1	0.2	<0.01					0.2	7.10	720		<2	
8/14/2005	1.0	8	0.1	6.6	0.04	0.8	7.5	0.8	6.8	7.24	690			<2	0.9	11	<0.1	0.1	<0.01	0.9	1.0	0.9		0.1	7.00	760		<2	
8/15/2005	1.1	8								7.24	690			<2	0.9	10	0.1	0.3	<0.01					0.4	7.10	755		<2	
8/16/2005	1.1	8	0.1	6.6	0.02	0.9	7.6	0.9	6.8	7.23	705	450		2	0.8	9	0.1	<0.1	<0.01	0.7	0.7	0.7		0.1	7.00	725	440	<2	
8/17/2005	1.0	7								7.23	700			<2	0.8	9	0.1	0.3	<0.01					0.4	7.00	720		<2	
8/18/2005	0.9	7	0.1	6.3	0.03	1.0	7.3	1.0	6.4	7.26	700			<2	0.8	10	<0.1	0.3	<0.01	0.9	1.2	0.9		0.3	7.10	725		<2	
8/19/2005	0.9	7								7.25	690			<2	1.1	9	0.1	0.1	<0.01					0.2	7.10	725		<2	
8/20/2005	0.9	7								7.26	705			<2	1.2	10	<0.1	0.1	<0.01					0.1	7.00	735		<2	
8/21/2005	0.8	6	0.1	6.4	0.04	0.9	7.4	0.9	6.6	7.26	695			2	1.2	10	0.1	0.2	<0.01	1.0	1.2	1.0		0.3	7.10	780		2	
8/22/2005	0.8	6								7.26	690			<2	1.3	10	0.1	0.1	<0.01					0.2	7.00	790		<2	
8/23/2005	0.8	6	<0.1	6.6	0.02	0.8	7.4	0.8	6.6	7.29	675	446		<2	1.3	10	0.1	<0.1	<0.01	1.1	1.1	1.1		0.1	7.00	750	452	<2	
8/24/2005	0.8	6								7.24	700			<2	1.2	10	0.1	<0.1	<0.01					0.1	7.10	740		<2	
8/25/2005	0.8	7	0.1	6.9	0.01	0.9	7.8	0.9	7.0	7.25	710			<2	1.3	10	<0.1	<0.1	<0.01	1.2	1.2	1.2		0.0	7.00	740		<2	
8/26/2005	0.9	6								7.28	695			<2	1.1	10	0.1	0.2	<0.01					0.3	7.10	730		<2	
8/27/2005	0.9	7								7.29	690			<2	1.2	10	0.1	1.2	<0.01					1.3	7.10	740		<2	
8/28/2005	0.9	7	0.1	5.5	0.03	1.0	6.5	1.0	5.6	7.29	705			<2	1.3	11	0.1	0.6	<0.01	1.2	1.8	1.2		0.7	7.10	760		<2	
8/29/2005	0.8	7								7.29	705			<2	1.3	11	0.1	0.3	<0.01					0.4	7.10	765		<2	
8/30/2005	0.8	6	0.1	5.2	0.02	0.9	6.1	0.9	5.3	7.31	690	436		<2	1.4	11	0.1	<0.1	<0.01	1.2	1.2	1.2		0.1	7.00	780	480	<2	
8/31/2005	0.8	6								7.31	700			<2	1.2	11	<0.1	0.3	<0.01					0.3	7.10	765		<2	
Average	0.7	7	0.1	6.1	0.03	0.9	7.1	1.0	6.2	7.24	701	442		<2	1.0	10	0.1	0.4	<0.01	1.0	1.3	1.0		0.4	7.02	742	451	<2	
Min	0.3	6	<0.1	4.6	0.01	0.8	5.5	0.8	4.7	7.12	675	436		<2	0.7	9	<0.1	<0.1	<0.01	0.7	0.7	0.7		0.0	6.90	715	438	<2	
Max	1.1	9	0.1	6.9	0.12	1.1	7.8	1.1	7.0	7.31	720	450		2	1.4	11	0.1	2.6	<0.01	1.2	2.4	1.2		2.7	7.10	790	480		

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:

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

Date	RP1 Effluent														RP4 Effluent													
	Turbidity ¹	TOC	NH ₃ -N	NO ₂ -N	NO ₃ -N	TKN	TN	TKN+N O ₂ -N	TIN	pH ¹	EC	TDS	Hardness	Coliform	Turbidity ¹	TOC	NH ₃ -N	NO ₂ -N	NO ₃ -N	TKN	TN	TKN+N 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		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
9/1/2005	0.8	6	0.3	5.3	0.04	0.8	6.2	0.8	5.7	7.30	700			<2	1.4	11	0.1	2.0	<0.01	1.2	3.2	1.2	2.1	7.10	740			<2
9/2/2005	0.8	6								6.69	710			<2	1.9	12	0.1	1.2	<0.01				1.3	7.00	750			<2
9/3/2005	0.8	6								7.20	705			<2	1.7	11	<0.1	1.6	<0.01				1.6	7.00	745			<2
9/4/2005	0.7	6				0.8				7.29	700			<2	1.2	10	0.1	4.1	<0.01	1.0	5.1	1.0	4.2	7.10	735			<2
9/5/2005	0.8	6								7.30	710			<2	1.4	10	0.1	5.7	<0.01				5.8	7.10	785			<2
9/6/2005	0.9	7	0.1	4.6	0.03	0.8	5.5	0.8	4.8	7.30	715	450	127	<2	1.9	10	0.1	6.5	<0.01	1.1	7.6	1.1	6.6	7.10	780	488	122	<2
9/7/2005	0.8	7								7.26	705			<2	1.8	13	0.1	5.5	<0.01				5.6	7.10	780			<2
9/8/2005	0.8	7	<0.1	4.9	<0.01	0.8	5.7	0.8	4.9	6.69	700			2	1.6	12	0.1	4.2	<0.01	1.3	5.5	1.3	4.3	7.10	755			<2
9/9/2005	0.8	7								7.37	705			<2	1.5	11	0.1	3.0	<0.01				3.1	7.10	770			<2
9/10/2005	0.8	7								7.33	710			<2	1.5	12	0.1	2.3	<0.01				2.4	7.10	760			<2
9/11/2005	0.8	7	0.1	5.4	0.04	0.8	6.2	0.8	5.5	7.36	690			<2	1.5	10	0.1	1.4	<0.01	1.0	2.4	1.0	1.5	7.10	770			<2
9/12/2005	0.8	7								7.34	690			<2	1.5	11	0.1							7.10	750			<2
9/13/2005	0.8	7	0.1	6.3	0.01	0.8	7.1	0.8	6.4	7.32	670	456		<2	1.5	12	0.1	2.0	<0.01	1.2	3.2	1.2	2.1	7.20	720	470		<2
9/14/2005	1.0	7								7.33	705			<2	1.4	10	0.1	1.9	<0.01				2.0	7.20	760			<2
9/15/2005	1.0	7	0.1	6.8	0.03	0.9	7.7	0.9	6.9	7.32	700			<2	1.2	10	0.6	<0.1	<0.01	1.1	1.1	1.1	0.6	7.10	735			<2
9/16/2005	0.8	7								7.34	695			<2	1.2	11	0.1	1.0	<0.01				1.1	7.10	745			<2
9/17/2005	0.8	7								7.36	700			<2	1.1	11	0.1	0.8	<0.01				0.9	7.20	755			<2
9/18/2005	0.9	7	0.1	5.2	0.02	1.0	6.2	1.0	5.3	7.36	690			2	1.1	11	0.1	0.6	<0.01	1.0	1.6	1.0	0.7	7.20	770			<2
9/19/2005	0.9	8								7.36	695			<2	1.0	11	0.1	0.5	<0.01				0.6	7.10	770			<2
9/20/2005	1.1	8	0.1	4.4	0.03	1.0	5.4	1.0	4.5	7.34	700	440		<2	1.1	11	0.1	0.3	<0.01	1.1	1.4	1.1	0.4	7.10	765	466		<2
9/21/2005	1.0	8								7.31	690			<2	1.0	11	0.1	0.3	<0.01				0.4	7.10	745			<2
9/22/2005	0.9	7	0.1	5.3	0.03	0.8	6.1	0.8	5.5	7.34	690			<2	0.8	10	0.1	0.7	<0.01	0.9	1.6	0.9	0.8	7.10	740			<2
9/23/2005	0.9	7								7.34	695			<2	0.9		0.1	0.8	<0.01				0.9	7.14	740			<2
9/24/2005	0.9	7								7.35	695			<2	0.9	11	0.1	0.8	<0.01				0.9	7.16	765			<2
9/25/2005	0.9	7	0.1	5.6	0.02	0.8	6.4	0.8	5.7	7.35	710			<2	1.0	10	0.1	0.9	<0.01	0.8	1.7	0.8	1.0	7.17	785			<2
9/26/2005	0.9	7								7.35	710			<2	1.0	11	0.1	0.4	<0.01				0.5	7.15	760			<2
9/27/2005	1.0	9	0.1	6.3	0.02	0.9	7.2	0.9	6.4	7.35	730	480		<2	1.0	10	0.1	0.3	<0.01	1.0	1.3	1.0	0.4	7.14	750	466		<2
9/28/2005	0.9	7								7.36	710			2	1.0	10	0.1	0.8	<0.01				0.9	7.10	750			<2
9/29/2005	0.9	7	0.1	6.0	0.03	0.9	6.9	0.9	6.1	7.35	710			<2	1.0	10	0.1	0.6	0.02	0.9	1.6	0.9	0.8	7.20	760			<2
9/30/2005	0.9	7								7.39	705			<2	1.0	11	0.1	0.3	<0.01				0.4	7.20	760			<2
Average	0.9	7	0.1	5.5	0.03	0.9	6.4	0.9	5.6	7.29	701	457		<2	1.3	11	0.1	1.8	<0.01	1.0	2.9	1.0	1.9	7.12	757	473		<2
Min	0.7	6	<0.1	4.4	<0.01	0.8	5.4	0.8	4.5	6.69	670	440		<2	0.8	10	<0.1	<0.1	<0.01	0.8	1.1	0.8	0.4	7.00	720	466		<2
Max	1.1	9	0.3	6.8	0.04	1.0	7.7	1.0	6.9	7.39	730	480		2	1.9	13	0.6	6.5	0.02	1.3	7.6	1.3	6.6	7.20	785	488		<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:

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 2-4
Recycled Water* Monitoring Results: Oil and Grease, Inorganic Chemicals, VOCs, SOCs,
Disinfection By-Products, Notification Levels, and Radionuclides

Chemical	Date	Order Limit	Result	Units	Method
Oil & Grease (Total)	9/27/2005		<1	mg/L	EPA 1664
Aluminum**	9/27/2005	200		ug/L	EPA 200.7
Antimony	9/27/2005	6	<1	µg/L	EPA 200.8
Arsenic	9/27/2005	10	<1	µg/L	EPA 200.8
Asbestos by TEM - >10 microns	9/27/2005	7	<4.94	MFL	ML/EPA 100.2
Barium	9/27/2005	1000	13	µg/L	EPA 200.7
Beryllium	9/27/2005	4	<1	µg/L	EPA 200.7
Cadmium	9/27/2005	5	<1	µg/L	EPA 200.7
Chromium	9/27/2005	50	<1	µg/L	EPA 200.7
Cyanide	9/27/2005	150	<0.005	mg/L	SM 4500-CN E
Fluoride	9/27/2005	2000	0.2	mg/L	SM 4500-F C
Mercury	9/27/2005	2	0.2	µg/L	EPA 245.2
Nickel	9/27/2005	100	2	µg/L	EPA 200.7
Selenium	9/27/2005	50	<5	µg/L	EPA 200.8
Thallium	9/27/2005	2	<1	µg/L	EPA 200.8
Volatile Organic Compounds					
Benzene	9/27/2005	1	<0.5	µg/L	EPA 524.2
Carbon tetrachloride	9/27/2005	0.5	<0.3	µg/L	EPA 524.2
1,2-Dichlorobenzene	9/27/2005	600	<0.5	µg/L	EPA 524.2
1,4-Dichlorobenzene	9/27/2005	5	<0.5	µg/L	EPA 524.2
1,1-Dichloroethane	9/27/2005	5	<0.5	µg/L	EPA 524.2
1,2-Dichloroethane	9/27/2005	0.5	<0.3	µg/L	EPA 524.2
1,1-Dichloroethylene	9/27/2005	6	<1	µg/L	EPA 524.2
cis-1,2-Dichloroethylene	9/27/2005	6	<0.5	µg/L	EPA 524.2
trans-1,2-Dichloroethylene	9/27/2005	10	<0.5	µg/L	EPA 524.2
Dichloromethane	9/27/2005	5	<0.5	µg/L	EPA 524.2
1,2-Dichloropropane	9/27/2005	5	<0.5	µg/L	EPA 524.2
1,3-Dichloropropane	9/27/2005	0.5	<0.5	µg/L	EPA 524.2
Ethylbenzene	9/27/2005	300	<0.5	µg/L	EPA 524.2
Monochlorobenzene	9/27/2005	70	<0.5	µg/L	EPA 524.2
Methyl tert-butyl ether (MTBE)	9/27/2005	13	<0.5	µg/L	EPA 524.2
Styrene	9/27/2005	100	<0.5	µg/L	EPA 524.2
1,1,2,2-Tetrachloroethane	9/27/2005	1	<0.5	µg/L	EPA 524.2
Tetrachloroethylene	9/27/2005	5	<0.5	µg/L	EPA 524.2
Toluene	9/27/2005	150	<0.5	µg/L	EPA 524.2
1,2,4-Trichlorobenzene	9/27/2005	5	<0.5	µg/L	EPA 524.2
1,1,1-Trichloroethane	9/27/2005	200	<0.5	µg/L	EPA 524.2
1,1,2-Trichloroethane	9/27/2005	5	<0.5	µg/L	EPA 524.2
Trichloroethylene	9/27/2005	5	<0.5	µg/L	EPA 524.2
Trichlorofluoromethane	9/27/2005	150	<0.5	µg/L	EPA 524.2
Trichlorotrifluoroethane	9/27/2005	1200	<0.5	µg/L	EPA 524.2
Vinyl chloride	9/27/2005	0.5	<0.3	µg/L	EPA 524.2
m,p-Xylene	9/27/2005	1750***	<0.5	µg/L	EPA 524.2
o-Xylene	9/27/2005	1750***	<0.5	µg/L	EPA 524.2



Table 2-4
Recycled Water* Monitoring Results: Oil and Grease, Inorganic Chemicals, VOCs, SOCs,
Disinfection By-Products, Notification Levels, and Radionuclides

Chemical	Date	Order Limit	Result	Units	Method
Non-Volatile Synthetic Organic Chemicals (SOCs)					
Alachlor (Alanex)	9/27/2005	2	<0.1	µg/L	EPA 505
Atrazine	9/27/2005	1	<0.05	µg/L	EPA 525.2
Bentazon	9/27/2005	18	<0.5	µg/L	EPA 515.4
Benzo(a)pyrene	9/27/2005	0.2	<0.02	µg/L	EPA 525.2
Carbofuran (Furadan)	9/27/2005	18	<0.5	µg/L	EPA 531.2
Chlordane	9/27/2005	0.1	<0.1	µg/L	EPA 505
2,4-D	9/27/2005	70	<0.1	µg/L	EPA 515.4
Dalapon	9/27/2005	200	<1	µg/L	EPA 515.4
Dibromochloropropane (DBCP)	9/27/2005	0.2	<0.01	µg/L	ML/EPA 504.1
Di-(2-Ethylhexyl)adipate	9/27/2005	400	<0.6	µg/L	ML/EPA 525.2
Di(2-Ethylhexyl)phthalate	9/27/2005	4	1.2	µg/L	ML/EPA 525.2
Dinoseb	9/27/2005	7	<0.2	µg/L	ML/EPA 515.4
Diquat	9/27/2005	20	<0.4	µg/L	ML/EPA 549.2
Endothall	9/27/2005	100	<20	µg/L	ML/EPA 548.1
Endrin	9/27/2005	2	<0.01	µg/L	ML/EPA 505
Ethylene Dibromide (EDB)	9/27/2005	0.05	<0.01	µg/L	ML/EPA 504.1
Glyphosate	9/27/2005	700	<6	µg/L	ML/EPA 547
Heptachlor	9/27/2005	0.01	<0.01	µg/L	ML/EPA 505
Heptachlor Epoxide	9/27/2005	0.01	<0.01	µg/L	ML/EPA 505
Hexachlorobenzene	9/27/2005	1	<0.05	µg/L	ML/EPA 525.2
Hexachlorocyclopentadiene	9/27/2005	50	0.22	µg/L	ML/EPA 525.2
Lindane (gamma-BHC)	9/27/2005	0.2	<0.01	µg/L	EPA 505
Methoxychlor	9/27/2005	30	<0.05	µg/L	EPA 505
Molinate	9/27/2005	20	<0.1	µg/L	ML/EPA 525.2
Oxamyl (Vydate)	9/27/2005	50	<0.5	µg/L	ML/EPA 531.2
Pentachlorophenol	9/27/2005	1	<0.04	µg/L	ML/EPA 515.4
Picloram	9/27/2005	500	<0.1	µg/L	ML/EPA 515.4
PCB 1016	9/27/2005	0.5	<0.07	µg/L	EPA 505
PCB 1221	9/27/2005	0.5	<0.1	µg/L	EPA 505
PCB 1232	9/27/2005	0.5	<0.1	µg/L	EPA 505
PCB 1242	9/27/2005	0.5	<0.1	µg/L	EPA 505
PCB 1248	9/27/2005	0.5	<0.1	µg/L	EPA 505
PCB 1254	9/27/2005	0.5	<0.1	µg/L	EPA 505
PCP 1260	9/27/2005	0.5	<0.1	µg/L	EPA 505
Simazine	9/27/2005	4	<0.05	µg/L	ML/EPA 525.2
Thiobencarb	9/27/2005	70	<0.2	µg/L	ML/EPA 525.2
Toxaphene	9/27/2005	3	<0.5	µg/L	EPA 505
2,3,7,8-TCDD 1613 DW (subbed)	9/27/2005	0.03	<5	pg/l	EPA 1613
2,4,5-TP (Silvex)	9/27/2005	50	<0.2	µg/L	ML/EPA 515.4
Disinfection By-products					
Total Trihalomethanes	9/27/2005	80	241	µg/L	EPA 524.2
Total Haloacetic Acids (HAA5)	9/27/2005	60	200	µg/L	ML/S6251B
Bromate	9/27/2005	10	<5	µg/L	EPA 300.1
Chlorite by IC	9/27/2005	1	<0.04	mg/l	EPA 300.1



Table 2-4
Recycled Water* Monitoring Results: Oil and Grease, Inorganic Chemicals, VOCs, SOCs,
Disinfection By-Products, Notification Levels, and Radionuclides

Chemical	Date	Order Limit	Result	Units	Method
Notification Levels					
Copper	9/27/2005	1300	5	µg/L	EPA 200.7
Lead	9/27/2005	15	<0.5	µg/L	EPA 200.8
Radionuclides					
Combined Radium-226 and Radium 228	9/27/2005	5	<0.753	pCi/l	EPA 903.0
Gross Alpha particle activity (including Radium-226 but excluding Radon and Uranium	9/27/2005	15	<3.00	pCi/l	EPA 900.0
Tritium (Sub)	9/27/2005	20,000	<294	pCi/l	EPA 906
Strontium 90	9/27/2005	8	<0.590	pCi/l	EPA 905
Gross Beta particle activity	9/27/2005	50	9.5	pCi/l	EPA 900.0
Uranium	9/27/2005	20	<0.7	pCi/l	EPA 200.8

* 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.

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

Bold signifies an exceedance of a limit in the Order.



Table 2-5
Recycled Water* Monitoring Results: Remaining Priority Pollutants

Chemical	Date	Result	Units	Method
Metals				
Trivalent Chromium	9/27/2005	1 ug/L	1 ug/L	EPA 200.7
Volatile Organics				
Acrolein	9/27/2005	<2	µg/L	EPA 624
Acrylonitrile	9/27/2005	<2	µg/L	EPA 624
Bromoform	9/27/2005	<0.5	µg/L	EPA 524.2
Dibromochloromethane	9/27/2005	5.6	µg/L	EPA 524.2
Chloroethane	9/27/2005	<0.5	µg/L	EPA 524.2
2-Chloroethyl Vinyl Ether	9/27/2005	<1	µg/L	EPA 624
Chloroform	9/27/2005	199	µg/L	EPA 524.2
Bromodichloromethane	9/27/2005	36.6	µg/L	EPA 524.2
Bromomethane	9/27/2005	<1	µg/L	EPA 524.2
Chloromethane	9/27/2005	0.7	µg/L	EPA 524.2
Acid Extractibles				
2-Chlorophenol	9/27/2005	<100	µg/L	EPA 625
2,4-Dichlorophenol	9/27/2005	<100	µg/L	EPA 625
2,4-Dimethylphenol	9/27/2005	<100	µg/L	EPA 625
2-Methyl-4,6-Dinitrophenol	9/27/2005	<100	µg/L	EPA 625
2,4-Dinitrophenol	9/27/2005	<100	µg/L	EPA 625
2-Nitrophenol	9/27/2005	<100	µg/L	EPA 625
4-Nitrophenol	9/27/2005	<100	µg/L	EPA 625
4-Chloro-3-methylphenol	9/27/2005	<100	µg/L	EPA 625
Phenol	9/27/2005	<100	µg/L	EPA 625
2,4,6-Trichlorophenol	9/27/2005	<100	µg/L	EPA 625
Base/Neutral Extractibles				
Acenaphthene	9/27/2005	<100	µg/L	EPA 625
Acenaphthylene	9/27/2005	<100	µg/L	EPA 625
Anthracene	9/27/2005	<100	µg/L	EPA 625
Benzidine	9/27/2005	<100	µg/L	EPA 625
Benzo(a)anthracene	9/27/2005	<100	µg/L	EPA 625
Benzo(b)fluoranthene	9/27/2005	<100	µg/L	EPA 625
Benzo(g,h,i)perylene	9/27/2005	<100	µg/L	EPA 625
Benzo(k)fluoranthene	9/27/2005	<100	µg/L	EPA 625
Bis (2-Chloroethoxy) Methane	9/27/2005	<100	µg/L	EPA 625
Bis(2-Chloroethyl)ether	9/27/2005	<100	µg/L	EPA 625
Bis (2-Chloroisopropyl) Ether	9/27/2005	<100	µg/L	EPA 625
4-Bromophenyl Phenyl Ether	9/27/2005	<100	µg/L	EPA 625
Butylbenzyl Phthalate	9/27/2005	<100	µg/L	EPA 625
2-Chloronaphthalene	9/27/2005	<100	µg/L	EPA 625
4-Chlorophenyl Phenyl Ether	9/27/2005	<100	µg/L	EPA 625
Chrysene	9/27/2005	<100	µg/L	EPA 625
Dibenzo(a,h)anthracene	9/27/2005	<100	µg/L	EPA 625
1,3-Dichlorobenzene	9/27/2005	<100	µg/L	EPA 625
3,3-Dichlorobenzidine	9/27/2005	<100	µg/L	EPA 625
Diethyl phthalate	9/27/2005	<100	µg/L	EPA 625
Dimethyl Phthalate	9/27/2005	<100	µg/L	EPA 625
Di-n-butyl phthalate	9/27/2005	<100	µg/L	EPA 625
2,4-Dinitrotoluene	9/27/2005	<100	µg/L	EPA 625



Table 2-5
Recycled Water* Monitoring Results: Remaining Priority Pollutants

Chemical	Date	Result	Units	Method
2,6-Dinitrotoluene	9/27/2005	<100	µg/L	EPA 625
Di-n-octyl phthalate	9/27/2005	<100	µg/L	EPA 625
1,2-Diphenylhydrazine	9/27/2005	<100	µg/L	EPA 625
Fluoranthene	9/27/2005	<100	µg/L	EPA 625
Fluorene	9/27/2005	<100	µg/L	EPA 625
Hexachlorobutadiene	9/27/2005	<100	µg/L	EPA 625
Hexachlorocyclopentadiene	9/27/2005	<100	µg/L	EPA 625
Hexachloroethane	9/27/2005	<100	µg/L	EPA 625
Indeno(1,2,3-cd)pyrene	9/27/2005	<100	µg/L	EPA 625
Isophorone	9/27/2005	<100	µg/L	EPA 625
Naphthalene	9/27/2005	<100	µg/L	EPA 625
Nitrobenzene	9/27/2005	<100	µg/L	EPA 625
N-Nitrosodi-N-Propylamine	9/27/2005	<100	µg/L	EPA 625
N-Nitrosodiphenylamine	9/27/2005	<100	µg/L	EPA 625
Phenanthrene	9/27/2005	<100	µg/L	EPA 625
Pyrene	9/27/2005	<100	µg/L	EPA 625
Pesticides				
Aldrin	9/27/2005	<1	µg/L	EPA 608
Alpha-BHC	9/27/2005	<1	µg/L	EPA 608
Beta-BHC	9/27/2005	<1	µg/L	EPA 608
Delta-BHC	9/27/2005	<1	µg/L	EPA 608
4,4' - DDT	9/27/2005	<1	µg/L	EPA 608
4,4' - DDE	9/27/2005	<1	µg/L	EPA 608
4,4' - DDD	9/27/2005	<1	µg/L	EPA 608
Dieldrin	9/27/2005	<1	µg/L	EPA 608
Endosulfan I	9/27/2005	<1	µg/L	EPA 608
Endosulfan II	9/27/2005	<1	µg/L	EPA 608
Endosulfan Sulfate	9/27/2005	<1	µg/L	EPA 608
Endrin Aldehyde	9/27/2005	<1	µg/L	EPA 608
Unregulated Chemicals				
Boron (RP1 Effluent)	*	0.3	mg/L	EPA 200.7
Boron (RP4 Effluent)	*	0.3	mg/L	EPA 200.7
Chromium-6	9/27/2005	0.7	µg/L	EPA 218.6
Dichlorodifluoromethane	9/27/2005	<0.5	µg/L	EPA 524.2
Ethyl tert-butyl ether (ETBE)	9/27/2005	<0.5	µg/L	EPA 524.2
N-Nitroso dimethylamine (NDMA)	9/27/2005	24	ng/l	EPA 1625MOD
Perchlorate	9/27/2005	6.1	µg/L	EPA 314
tert-Amyl methyl ether (TAME)	9/27/2005	<0.5	µg/L	EPA 524.2
tert-Butyl alcohol (TBA)	9/27/2005	<2	µg/L	EPA 524.2MOD
Vanadium	9/27/2005	3.9	µg/L	EPA 200.8
1,4-Dioxane	9/27/2005	<2	µg/L	SW 8270MOD
1,2,3-Trichloropropane	9/27/2005	<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

Bold signifies an exceedance of a limit in the Order.



Table 2-6
Recycled Water* Monitoring Results: Endocrine Disrupting Chemicals & Pharmaceuticals

Chemicals	Date	RP1 Effluent	RP4 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
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



Table 2-6
Recycled Water* Monitoring Results: Endocrine Disrupting Chemicals & Pharmaceuticals

Chemicals	Date	RP1 Effluent	RP4 Effluent	Units	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	"		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 2-7
Recycled Water* Monitoring Results: Miscellaneous Compounds

Chemical	Date	Order Limit	Result	Units	Method
Aluminum**	9/27/2005	200		µg/L	EPA 200.7
Corrosivity Index (RP1 Effluent)	***	Non-corrosive	-0.5	SI	SM 2330B
Corrosivity Index (RP4 Effluent)	***	Non-corrosive	-0.7	SI	SM 2330B
Surfactants (MBAS)	9/27/2005	0.5	0.12	mg/L	S 5540C/E425.1
Fe	9/27/2005	300	236	µg/L	EPA 200.7
Mn	9/27/2005	50	10	µg/L	EPA 200.7
Odor	9/27/2005	3 Units	8	TON	ML/S2150B
Ag	9/27/2005	100	<2	µg/L	EPA 200.7
Thiobencarb	9/27/2005	1	<0.2	µg/L	EPA 525.2
Zn	9/27/2005	5000	53	µg/L	EPA 200.7

* 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.

*** Corrosivity is an average of July, August, and September samples.

Bold signifies an exceedance of a limit in the Order.



Table 2-8
Diluent Water Monitoring Results: State Water Project Water*

Constituents	Units	July-05	August-05	September-05
Silica	mg/L	13.7	13.1	13.6
Calcium	mg/L	17	17	17
Magnesium	mg/L	9	9	10
Sodium	mg/L	34	30	33
Potassium	mg/L	2.4	2.1	2.3
Carbonate	mg/L	0	0	0
Bicarbonate	mg/L	73	76	85
Sulfate	mg/L	30	26	26
Chloride	mg/L	43	37	44
Nitrate	mg/L	2.8	2.2	1.9
Fluoride	mg/L	0.08	0.08	0.09
Boron	mg/L	0.14	NA	NA
Total Dissolved Solids	mg/L	189	174	191
Total Hardness (as CaCO ₃)	mg/L	80	80	84
Total Alkalinity (as CaCO ₃)	mg/L	60	62	70
Free Carbon Dioxide	mg/L	1.4	1.1	1.4
pH		7.97	8.04	8.01
Electrolytic Conductivity	umho/cm	341	319	338
Turbidity	NTU	3.3	2.6	1.6
Temperature	C	25	27	23
Bromide	mg/L	0.12	0.11	0.14
Total Organic Carbon	mg/L	3.88	3.5	3.31

*Silverwood Lake at Devil Canyon

NA - Not analyzed

Source: Metropolitan Water District of Southern California



Table 2-9
Basin and Lysimeter Monitoring Results for Banana Basin: TOC

Station ID	Depth	Date	Result	Units
Banana Basin-SW	0 ft	07/06/05	5.11	mg/L
Banana Basin-5	5 ft	07/06/05	3.98	mg/L
Banana Basin-10	10 ft	07/06/05	5.18	mg/L
Banana Basin-15	15 ft	07/06/05	6.67	mg/L
Banana Basin-25	25 ft	07/06/05	2.41	mg/L
Banana Basin-SW	0 ft	07/12/05	5.20	mg/L
Banana Basin-5	5 ft	07/12/05	3.14	mg/L
Banana Basin-10	10 ft	07/12/05	3.92	mg/L
Banana Basin-15	15 ft	07/12/05	5.15	mg/L
Banana Basin-25	25 ft	07/12/05	2.32	mg/L
Banana Basin-SW	0 ft	07/19/05	4.97	mg/L
Banana Basin-5	5 ft	07/19/05	2.99	mg/L
Banana Basin-10	10 ft	07/19/05	2.77	mg/L
Banana Basin-15	15 ft	07/19/05	3.25	mg/L
Banana Basin-25	25 ft	07/19/05	2.49	mg/L
Banana Basin-5	5 ft	07/26/05	2.90	mg/L
Banana Basin-10	10 ft	07/26/05	2.81	mg/L
Banana Basin-15	15 ft	07/26/05	3.82	mg/L
Banana Basin-25	25 ft	07/26/05	2.39	mg/L
Banana Basin-SW	0 ft	08/02/05	6.49	mg/L
Banana Basin-5	5 ft	08/02/05	3.26	mg/L
Banana Basin-10	10 ft	08/02/05	3.17	mg/L
Banana Basin-15	15 ft	08/02/05	3.80	mg/L
Banana Basin-25	25 ft	08/02/05	2.78	mg/L
Banana Basin-SW	0 ft	08/09/05	6.67	mg/L
Banana Basin-5	5 ft	08/09/05	3.27	mg/L
Banana Basin-10	10 ft	08/09/05	3.07	mg/L
Banana Basin-15	15 ft	08/09/05	3.28	mg/L
Banana Basin-25	25 ft	08/09/05	2.24	mg/L
Banana Basin-SW	0 ft	08/16/05	13.10	mg/L
Banana Basin-5	5 ft	08/16/05	3.76	mg/L
Banana Basin-10	10 ft	08/16/05	3.35	mg/L
Banana Basin-15	15 ft	08/16/05	3.48	mg/L
Banana Basin-25	25 ft	08/16/05	2.50	mg/L
Banana Basin-SW	0 ft	08/23/05	6.98	mg/L
Banana Basin-5	5 ft	08/23/05	5.08	mg/L
Banana Basin-10	10 ft	08/23/05	3.96	mg/L
Banana Basin-15	15 ft	08/23/05	4.00	mg/L
Banana Basin-25	25 ft	08/23/05	2.61	mg/L
Banana Basin-SW	0 ft	08/30/05	9.00	mg/L
Banana Basin-5	5 ft	08/30/05	4.87	mg/L
Banana Basin-10	10 ft	08/30/05	3.65	mg/L
Banana Basin-15	15 ft	08/30/05	4.00	mg/L
Banana Basin-25	25 ft	08/30/05	2.00	mg/L
Banana Basin-SW	0 ft	09/06/05	11.40	mg/L
Banana Basin-5	5 ft	09/06/05	4.45	mg/L
Banana Basin-10	10 ft	09/06/05	3.74	mg/L
Banana Basin-15	15 ft	09/06/05	3.27	mg/L
Banana Basin-25	25 ft	09/06/05	2.20	mg/L



Table 2-9
Basin and Lysimeter Monitoring Results for Banana Basin: TOC

Station ID	Depth		Date	Result	Units
Banana Basin-SW	0	ft	09/13/05	8.68	mg/L
Banana Basin-5	5	ft	09/13/05	4.83	mg/L
Banana Basin-10	10	ft	09/13/05	3.32	mg/L
Banana Basin-15	15	ft	09/13/05	3.05	mg/L
Banana Basin-25	25	ft	09/13/05	2.12	mg/L
Banana Basin-SW	0	ft	09/20/05	9.69	mg/L
Banana Basin-5	5	ft	09/20/05	4.38	mg/L
Banana Basin-10	10	ft	09/20/05	3.21	mg/L
Banana Basin-15	15	ft	09/20/05	2.90	mg/L
Banana Basin-25	25	ft	09/20/05	2.25	mg/L
Banana Basin-SW	0	ft	09/27/05	9.15	mg/L
Banana Basin-5	5	ft	09/27/05	4.03	mg/L
Banana Basin-10	10	ft	09/27/05	3.04	mg/L
Banana Basin-15	15	ft	09/27/05	2.64	mg/L
Banana Basin-25	25	ft	09/27/05	2.00	mg/L

ND: Not Detected

NS-BD: Not Sampled-Basin Dry

NT: Insufficient Sample for Analytical Test

IDC: Insufficient Data for Calculation



Table 2-10
Basin and Lysimeter Monitoring Results for Banana Basin:
Ammonia, Nitrite, Nitrate, TKN, and TN (mg/L)

Station ID	Depth	Date	NH ₃ -N	NO ₂ -N	NO ₃ -N	TKN	TN
Banana Basin-SW	0 ft	07/06/05	0.1	0.03	0.10	0.52	0.65
Banana Basin-5	5 ft	07/06/05	0.1	0.05	0.50	0.32	0.87
Banana Basin-10	10 ft	07/06/05	0.1	0.32	0.30	0.43	1.05
Banana Basin-15	15 ft	07/06/05	0.1	0.08	ND	0.52	0.60
Banana Basin-25	25 ft	07/06/05	0.1	0.1	1.10	0.21	1.41
Banana Basin-SW	0 ft	07/12/05	0.1	0.09	0.20	0.76	1.05
Banana Basin-5	5 ft	07/12/05	ND	0.01	0.20	0.22	0.43
Banana Basin-10	10 ft	07/12/05	0.1	0.21	2.20	0.38	2.79
Banana Basin-15	15 ft	07/12/05	0.1	0.08	ND	0.36	0.44
Banana Basin-25	25 ft	07/12/05	0.1	0.03	0.50	0.21	0.74
Banana Basin-SW	0 ft	07/15/05	0.3	0.03	0.10	1.10	1.23
Banana Basin-5	5 ft	07/15/05	0.1	ND	0.30	0.26	0.56
Banana Basin-10	10 ft	07/15/05	ND	0.05	0.60	0.35	1.00
Banana Basin-15	15 ft	07/15/05	0.1	0.06	0.20	0.36	0.62
Banana Basin-25	25 ft	07/15/05	0.1	0.03	0.30	0.22	0.55
Banana Basin-SW	0 ft	07/19/05	0.2	0.1	0.10	0.76	0.96
Banana Basin-5	5 ft	07/19/05	0.1	0.02	0.20	0.38	0.60
Banana Basin-10	10 ft	07/19/05	0.1	0.05	0.30	0.30	0.65
Banana Basin-15	15 ft	07/19/05	0.1	0.03	0.10	0.29	0.42
Banana Basin-25	25 ft	07/19/05	0.2	0.03	0.30	0.24	0.57
Banana Basin-SW	0 ft	07/22/05	0.2	0.05	ND	0.87	0.92
Banana Basin-5	5 ft	07/22/05	0.1	ND	0.20	0.21	0.41
Banana Basin-10	10 ft	07/22/05	0.1	0.04	0.20	0.28	0.52
Banana Basin-15	15 ft	07/22/05	0.1	0.03	ND	0.26	0.29
Banana Basin-25	25 ft	07/22/05	0.1	0.04	0.20	0.21	0.45
Banana Basin-SW	0 ft	07/26/05	NS-BD	NS-BD	NS-BD	NS-BD	IDC
Banana Basin-5	5 ft	07/26/05	0.1	ND	0.20	0.25	0.45
Banana Basin-10	10 ft	07/26/05	0.1	ND	0.10	0.26	0.36
Banana Basin-15	15 ft	07/26/05	0.1	ND	ND	0.32	0.32
Banana Basin-25	25 ft	07/26/05	0.1	ND	0.40	0.21	0.61
Banana Basin-SW	0 ft	07/29/05	0.1	0.03	3.00	1.80	4.83
Banana Basin-5	5 ft	07/29/05	0.1	ND	0.30	0.26	0.56
Banana Basin-10	10 ft	07/29/05	0.1	ND	0.20	0.25	0.45
Banana Basin-15	15 ft	07/29/05	0.1	ND	ND	0.26	0.26
Banana Basin-25	25 ft	07/29/05	0.1	ND	0.30	0.25	0.55
Banana Basin-SW	0 ft	08/02/05	0.1	0.047	0.60	1.10	1.75
Banana Basin-5	5 ft	08/02/05	0.1	0.03	0.90	0.28	1.21
Banana Basin-10	10 ft	08/02/05	0.1	ND	0.60	0.27	0.87
Banana Basin-15	15 ft	08/02/05	0.1	0.069	0.50	0.28	0.85
Banana Basin-25	25 ft	08/02/05	0.1	ND	0.89	0.21	1.10
Banana Basin-SW	0 ft	08/05/05	0.1	ND	1.40	0.88	2.28
Banana Basin-5	5 ft	08/05/05	ND	0.02	1.50	0.35	1.87
Banana Basin-10	10 ft	08/05/05	0.1	0.02	0.50	0.38	0.90
Banana Basin-15	15 ft	08/05/05	0.4	0.08	0.30	0.33	0.71
Banana Basin-25	25 ft	08/05/05	ND	0.019	0.80	0.23	1.05
Banana Basin-SW	0 ft	08/09/05	0.1	ND	0.50	0.83	1.33



Table 2-10
Basin and Lysimeter Monitoring Results for Banana Basin:
Ammonia, Nitrite, Nitrate, TKN, and TN (mg/L)

Station ID	Depth	Date	NH ₃ -N	NO ₂ -N	NO ₃ -N	TKN	TN
Banana Basin-5	5 ft	08/09/05	ND	0.015	1.60	0.32	1.94
Banana Basin-10	10 ft	08/09/05	ND	0.05	1.30	0.41	1.76
Banana Basin-15	15 ft	08/09/05	ND	0.138	1.60	0.42	2.16
Banana Basin-25	25 ft	08/09/05	ND	ND	1.30	0.31	1.61
Banana Basin-SW	0 ft	08/12/05	ND	ND	1.59	1.70	3.29
Banana Basin-5	5 ft	08/12/05	ND	0.02	1.25	0.54	1.81
Banana Basin-10	10 ft	08/12/05	ND	0.028	1.05	0.33	1.41
Banana Basin-15	15 ft	08/12/05	ND	0.055	0.69	0.52	1.27
Banana Basin-25	25 ft	08/12/05	ND	ND	1.28	0.25	1.53
Banana Basin-SW	0 ft	08/16/05	0.1	0.01	1.40	1.20	2.61
Banana Basin-5	5 ft	08/16/05	ND	0.01	0.59	0.35	0.95
Banana Basin-10	10 ft	08/16/05	ND	0.02	0.80	0.34	1.16
Banana Basin-15	15 ft	08/16/05	ND	0.03	0.86	0.31	1.20
Banana Basin-25	25 ft	08/16/05	ND	ND	0.90	0.24	1.14
Banana Basin-SW	0 ft	08/19/05	0.1	ND	0.28	0.93	1.21
Banana Basin-5	5 ft	08/19/05	0.1	ND	0.38	0.38	0.76
Banana Basin-10	10 ft	08/19/05	0.1	0.01	0.40	0.34	0.75
Banana Basin-15	15 ft	08/19/05	0.1	0.02	0.40	0.31	0.73
Banana Basin-25	25 ft	08/19/05	0.1	ND	0.66	0.48	1.14
Banana Basin-SW	0 ft	08/23/05	0.1	ND	1.47	1.20	2.67
Banana Basin-5	5 ft	08/23/05	ND	ND	ND	0.45	0.45
Banana Basin-10	10 ft	08/23/05	ND	ND	0.18	0.46	0.64
Banana Basin-15	15 ft	08/23/05	ND	ND	0.10	0.32	0.42
Banana Basin-25	25 ft	08/23/05	0.1	ND	0.48	0.23	0.71
Banana Basin-SW	0 ft	08/26/05	0.1	ND	1.50	1.50	3.00
Banana Basin-5	5 ft	08/26/05	0.1	ND	ND	0.48	0.48
Banana Basin-10	10 ft	08/26/05	0.1	ND	0.78	0.43	1.21
Banana Basin-15	15 ft	08/26/05	0.1	ND	1.40	0.46	1.86
Banana Basin-25	25 ft	08/26/05	0.1	ND	0.15	0.24	0.39
Banana Basin-SW	0 ft	08/30/05	ND	ND	0.46	1.00	1.46
Banana Basin-5	5 ft	08/30/05	ND	ND	0.12	0.51	0.63
Banana Basin-10	10 ft	08/30/05	0.1	ND	0.16	0.25	0.41
Banana Basin-15	15 ft	08/30/05	0.1	ND	0.17	ND	0.17
Banana Basin-25	25 ft	08/30/05	ND	ND	0.28	ND	0.28
Banana Basin-SW	0 ft	09/02/05	ND	ND	0.34	1.80	2.14
Banana Basin-5	5 ft	09/02/05	ND	ND	0.44	0.69	1.13
Banana Basin-10	10 ft	09/02/05	ND	ND	0.21	0.42	0.63
Banana Basin-15	15 ft	09/02/05	ND	ND	0.28	0.46	0.74
Banana Basin-25	25 ft	09/02/05	ND	ND	0.37	0.37	0.74
Banana Basin-SW	0 ft	09/06/05	0.04	0.01	2.00	1.70	3.71
Banana Basin-5	5 ft	09/06/05	ND	0.008	0.15	0.59	0.75
Banana Basin-10	10 ft	09/06/05	0.1	0.009	0.13	0.56	0.70
Banana Basin-15	15 ft	09/06/05	0.1	0.009	0.37	0.54	0.92
Banana Basin-25	25 ft	09/06/05	NT	NT	NT	0.35	IDC
Banana Basin-SW	0 ft	09/09/05	NT	NT	NT	1.30	IDC
Banana Basin-5	5 ft	09/09/05	ND	ND	0.05	0.46	0.51



Table 2-10
Basin and Lysimeter Monitoring Results for Banana Basin:
Ammonia, Nitrite, Nitrate, TKN, and TN (mg/L)

Station ID	Depth	Date	NH ₃ -N	NO ₂ -N	NO ₃ -N	TKN	TN
Banana Basin-10	10 ft	09/09/05	ND	ND	0.15	0.34	0.49
Banana Basin-15	15 ft	09/09/05	0.1	0.007	0.44	0.39	0.83
Banana Basin-25	25 ft	09/09/05	0.18	0.014	0.35	0.44	0.81
Banana Basin-SW	0 ft	09/13/05	ND	11	2.00	1.90	14.90
Banana Basin-5	5 ft	09/13/05	ND	ND	ND	0.55	0.55
Banana Basin-10	10 ft	09/13/05	ND	ND	0.78	0.47	1.25
Banana Basin-15	15 ft	09/13/05	0.1	ND	1.40	0.40	1.80
Banana Basin-25	25 ft	09/13/05	0.04	2.3	0.52	0.23	3.05
Banana Basin-SW	0 ft	09/16/05	0.1	ND	1.60	2.70	4.30
Banana Basin-5	5 ft	09/16/05	0.1	ND	ND	0.58	0.58
Banana Basin-10	10 ft	09/16/05	0.1	ND	0.78	0.55	1.33
Banana Basin-15	15 ft	09/16/05	0.1	ND	1.40	0.42	1.82
Banana Basin-25	25 ft	09/16/05	0.1	ND	ND	0.44	0.44
Banana Basin-SW	0 ft	09/20/05	0.36	0.019	1.60	2.00	3.62
Banana Basin-5	5 ft	09/20/05	0.1	0.005	0.11	0.49	0.60
Banana Basin-10	10 ft	09/20/05	0.1	0.012	0.99	0.36	1.36
Banana Basin-15	15 ft	09/20/05	0.1	0.011	1.52	0.52	2.05
Banana Basin-25	25 ft	09/20/05	0.1	0.006	0.66	0.24	0.91
Banana Basin-SW	0 ft	09/23/05	0.6	0.037	1.49	2.30	3.82
Banana Basin-5	5 ft	09/23/05	0.1	0.005	ND	0.54	0.54
Banana Basin-10	10 ft	09/23/05	0.1	0.013	0.73	0.34	1.08
Banana Basin-15	15 ft	09/23/05	0.1	0.01	1.67	0.44	2.12
Banana Basin-25	25 ft	09/23/05	0.1	0.006	0.62	0.29	0.92
Banana Basin-SW	0 ft	09/27/05	0.1	ND	0.38	2.50	2.88
Banana Basin-5	5 ft	09/27/05	0.1	0.006	0.12	0.62	0.75
Banana Basin-10	10 ft	09/27/05	0.1	0.009	0.28	0.37	0.66
Banana Basin-15	15 ft	09/27/05	0.1	0.009	1.15	0.57	1.73
Banana Basin-25	25 ft	09/27/05	ND	ND	0.69	0.53	1.22
Banana Basin-SW	0 ft	09/30/05	0.1	ND	ND	2.70	2.70
Banana Basin-5	5 ft	09/30/05	0.1	0.01	0.26	0.68	0.95
Banana Basin-10	10 ft	09/30/05	0.1	0.007	0.19	0.35	0.54
Banana Basin-15	15 ft	09/30/05	0.1	0.01	0.56	0.37	0.94
Banana Basin-25	25 ft	09/30/05	0.1	ND	0.53	0.26	0.79

ND: Not Detected

NS-BD: Not Sampled-Basin Dry

NT: Insufficient Sample for Analytical Test

IDC: Insufficient Data for Calculation



Table 2-11
Basin and Lysimeter Monitoring Results for Hickory Basin East Cell: TOC

Station ID	Depth		Date	Result	Units
Hickory East-SW	0	ft	07/05/05	6.60	mg/L
Hickory East-5	5	ft	07/05/05	3.20	mg/L
Hickory East-10	10	ft	07/05/05	2.43	mg/L
Hickory East-15	15	ft	07/05/05	2.18	mg/L
Hickory East-25	25	ft	07/05/05	1.52	mg/L
Hickory East-SW	0	ft	07/12/05	5.65	mg/L
Hickory East-5	5	ft	07/12/05	3.07	mg/L
Hickory East-10	10	ft	07/12/05	2.91	mg/L
Hickory East-15	15	ft	07/12/05	2.14	mg/L
Hickory East-25	25	ft	07/12/05	1.56	mg/L
Hickory East-SW	0	ft	07/19/05	5.24	mg/L
Hickory East-5	5	ft	07/19/05	2.71	mg/L
Hickory East-10	10	ft	07/19/05	2.74	mg/L
Hickory East-15	15	ft	07/19/05	1.91	mg/L
Hickory East-25	25	ft	07/19/05	1.17	mg/L
Hickory East-5	5	ft	07/26/05	2.97	mg/L
Hickory East-10	10	ft	07/26/05	2.62	mg/L
Hickory East-15	15	ft	07/26/05	1.83	mg/L
Hickory East-25	25	ft	07/26/05	1.20	mg/L
Hickory East-SW	0	ft	08/02/05	6.19	mg/L
Hickory East-5	5	ft	08/02/05	3.32	mg/L
Hickory East-10	10	ft	08/02/05	2.79	mg/L
Hickory East-15	15	ft	08/02/05	2.11	mg/L
Hickory East-25	25	ft	08/02/05	1.19	mg/L
Hickory East-SW	0	ft	08/09/05	4.50	mg/L
Hickory East-5	5	ft	08/09/05	3.16	mg/L
Hickory East-10	10	ft	08/09/05	3.03	mg/L
Hickory East-15	15	ft	08/09/05	2.17	mg/L
Hickory East-25	25	ft	08/09/05	1.63	mg/L
Hickory East-SW	0	ft	08/16/05	20.10	mg/L
Hickory East-5	5	ft	08/16/05	2.90	mg/L
Hickory East-10	10	ft	08/16/05	2.98	mg/L
Hickory East-15	15	ft	08/16/05	2.73	mg/L
Hickory East-25	25	ft	08/16/05	1.77	mg/L
Hickory East-SW	0	ft	08/23/05	6.38	mg/L
Hickory East-5	5	ft	08/23/05	6.67	mg/L
Hickory East-10	10	ft	08/23/05	6.92	mg/L
Hickory East-15	15	ft	08/23/05	5.34	mg/L
Hickory East-25	25	ft	08/23/05	2.28	mg/L
Hickory East-SW	0	ft	08/30/05	14.40	mg/L
Hickory East-5	5	ft	08/30/05	4.00	mg/L
Hickory East-10	10	ft	08/30/05	4.35	mg/L
Hickory East-15	15	ft	08/30/05	3.68	mg/L
Hickory East-25	25	ft	08/30/05	2.60	mg/L
Hickory East-5	5	ft	09/06/05	3.45	mg/L
Hickory East-10	10	ft	09/06/05	3.76	mg/L
Hickory East-15	15	ft	09/06/05	2.86	mg/L
Hickory East-25	25	ft	09/06/05	2.46	mg/L



Table 2-11
Basin and Lysimeter Monitoring Results for Hickory Basin East Cell: TOC

Station ID	Depth		Date	Result	Units
Hickory East-SW	0	ft	09/13/05	8.19	mg/L
Hickory East-5	5	ft	09/13/05	3.73	mg/L
Hickory East-10	10	ft	09/13/05	3.24	mg/L
Hickory East-15	15	ft	09/13/05	2.48	mg/L
Hickory East-25	25	ft	09/13/05	2.66	mg/L
Hickory East-SW	0	ft	09/20/05	9.37	mg/L
Hickory East-5	5	ft	09/20/05	3.40	mg/L
Hickory East-10	10	ft	09/20/05	2.98	mg/L
Hickory East-15	15	ft	09/20/05	2.44	mg/L
Hickory East-25	25	ft	09/20/05	2.20	mg/L
Hickory East-SW	0	ft	09/27/05	7.22	mg/L
Hickory East-5	5	ft	09/27/05	4.01	mg/L
Hickory East-10	10	ft	09/27/05	3.42	mg/L
Hickory East-15	15	ft	09/27/05	2.93	mg/L
Hickory East-25	25	ft	09/27/05	2.14	mg/L

ND: Not Detected

NS-BD: Not Sampled-Basin Dry

NT: Insufficient Sample for Analytical Test

IDC: Insufficient Data for Calculation



Table 2-12
Basin and Lysimeter Monitoring Results for Hickory Basin East Cell:
Ammonia, Nitrite, Nitrate, TKN, and TN (mg/L)

Station ID	Depth	Date	NH ₃ -N	NO ₂ -N	NO ₃ -N	TKN	TN
Hickory East-SW	0 ft	07/05/05	0.2	ND	ND	1.1	1.1
Hickory East-5	5 ft	07/05/05	0.1	0.01	0.4	0.35	0.76
Hickory East-10	10 ft	07/05/05	0.1	ND	0.6	0.22	0.82
Hickory East-15	15 ft	07/05/05	0.1	0.02	1.2	ND	1.22
Hickory East-25	25 ft	07/05/05	0.1	0.02	2.2	0.22	2.44
Hickory East-SW	0 ft	07/07/05	0.1	ND	0.1	0.5	0.6
Hickory East-5	5 ft	07/07/05	0.1	ND	0.2	0.28	0.48
Hickory East-10	10 ft	07/07/05	0.1	0.01	2.4	0.4	2.81
Hickory East-15	15 ft	07/07/05	0.1	ND	1.5	0.27	1.77
Hickory East-25	25 ft	07/07/05	0.1	0.01	3.6	0.21	3.82
Hickory East-SW	0 ft	07/12/05	0.1	0.02	ND	0.86	0.88
Hickory East-5	5 ft	07/12/05	0.1	ND	0.2	0.31	0.51
Hickory East-10	10 ft	07/12/05	NT	NT	NT	0.43	IDC
Hickory East-15	15 ft	07/12/05	0.1	0.02	1.5	0.28	1.80
Hickory East-25	25 ft	07/12/05	0.1	0.02	3.5	0.21	3.73
Hickory East-SW	0 ft	07/15/05	0.1	ND	0.1	0.69	0.79
Hickory East-5	5 ft	07/15/05	0.1	0.03	0.1	0.29	0.42
Hickory East-10	10 ft	07/15/05	0.1	0.03	4.6	0.45	5.08
Hickory East-15	15 ft	07/15/05	0.1	ND	1.5	0.27	1.77
Hickory East-25	25 ft	07/15/05	ND	ND	4.4	ND	4.40
Hickory East-SW	0 ft	07/19/05	0.1	0.01	ND	0.56	0.57
Hickory East-5	5 ft	07/19/05	1	0.08	0.2	0.31	0.59
Hickory East-10	10 ft	07/19/05	0.1	0.06	5.1	0.41	5.57
Hickory East-15	15 ft	07/19/05	0.1	0.07	1.4	ND	1.47
Hickory East-25	25 ft	07/19/05	0.1	ND	3.7	ND	3.70
Hickory East-SW	0 ft	07/22/05	0.1	ND	ND	0.98	0.98
Hickory East-5	5 ft	07/22/05	0.1	0.02	ND	0.36	0.38
Hickory East-10	10 ft	07/22/05	0.1	0.04	5.5	0.37	5.91
Hickory East-15	15 ft	07/22/05	0.1	0.06	1.4	0.32	1.78
Hickory East-25	25 ft	07/22/05	0.1	0.05	1.6	0.21	1.86
Hickory East-5	5 ft	07/26/05	0.1	ND	ND	0.27	0.27
Hickory East-10	10 ft	07/26/05	0.1	0.05	4.9	0.39	5.34
Hickory East-15	15 ft	07/26/05	0.1	ND	1.4	0.24	1.64
Hickory East-25	25 ft	07/26/05	0.1	ND	3.9	ND	3.90
Hickory East-SW	0 ft	07/29/05	0.1	0.01	0.1	1.3	1.41
Hickory East-5	5 ft	07/29/05	0.1	ND	ND	0.3	0.30
Hickory East-10	10 ft	07/29/05	0.1	0.02	4.1	0.32	4.44
Hickory East-15	15 ft	07/29/05	ND	ND	1.6	0.12	1.72
Hickory East-25	25 ft	07/29/05	0.1	ND	1.9	0.16	2.06
Hickory East-SW	0 ft	08/02/05	0.2	0.03	ND	1.1	1.13
Hickory East-5	5 ft	08/02/05	0.1	ND	0.4	0.45	0.85
Hickory East-10	10 ft	08/02/05	0.1	0.02	2.1	0.27	2.39
Hickory East-15	15 ft	08/02/05	0.1	ND	1.5	0.18	1.68
Hickory East-25	25 ft	08/02/05	0.1	ND	3.59	0.42	4.01
Hickory East-SW	0 ft	08/05/05	0.1	0.05	0.1	0.66	0.81
Hickory East-5	5 ft	08/05/05	0.1	ND	0.2	0.38	0.58



Table 2-12
Basin and Lysimeter Monitoring Results for Hickory Basin East Cell:
Ammonia, Nitrite, Nitrate, TKN, and TN (mg/L)

Station ID	Depth	Date	NH ₃ -N	NO ₂ -N	NO ₃ -N	TKN	TN
Hickory East-10	10 ft	08/05/05	0.1	ND	0.4	0.25	0.65
Hickory East-15	15 ft	08/05/05	0.3	0.03	2.46	0.34	2.83
Hickory East-25	25 ft	08/05/05	0.2	ND	1.2	0.16	1.36
Hickory East-SW	0 ft	08/09/05	ND	0.01	ND	0.61	0.62
Hickory East-5	5 ft	08/09/05	ND	0.02	0.1	0.3	0.42
Hickory East-10	10 ft	08/09/05	ND	ND	0.1	0.26	0.36
Hickory East-15	15 ft	08/09/05	ND	ND	0.6	0.27	0.87
Hickory East-25	25 ft	08/09/05	ND	ND	0.6	0.17	0.77
Hickory East-SW	0 ft	08/12/05	ND	ND	ND	0.5	0.50
Hickory East-5	5 ft	08/12/05	ND	ND	0.2	0.29	0.49
Hickory East-10	10 ft	08/12/05	ND	ND	0.26	0.24	0.50
Hickory East-15	15 ft	08/12/05	ND	ND	0.50	0.21	0.71
Hickory East-25	25 ft	08/12/05	ND	ND	0.8	0.14	0.94
Hickory East-SW	0 ft	08/16/05	0.1	0.13	1	1.8	2.93
Hickory East-5	5 ft	08/16/05	ND	ND	0.1	0.31	0.41
Hickory East-10	10 ft	08/16/05	ND	ND	0.17	0.31	0.48
Hickory East-15	15 ft	08/16/05	ND	ND	0.2	0.31	0.51
Hickory East-25	25 ft	08/16/05	ND	ND	0.6	0.14	0.74
Hickory East-SW	0 ft	08/19/05	0.4	0.04	0.1	2.4	2.54
Hickory East-5	5 ft	08/19/05	0.1	0.06	0.45	0.51	1.02
Hickory East-10	10 ft	08/19/05	0.1	0.09	0.48	0.5	1.07
Hickory East-15	15 ft	08/19/05	0.1	0.06	0.57	0.36	0.99
Hickory East-25	25 ft	08/19/05	0.1	ND	0.3	0.15	0.45
Hickory East-SW	0 ft	08/23/05	0.1	0.01	ND	0.63	0.64
Hickory East-5	5 ft	08/23/05	ND	ND	0.19	0.39	0.58
Hickory East-10	10 ft	08/23/05	ND	ND	0.68	0.29	0.97
Hickory East-15	15 ft	08/23/05	ND	ND	0.49	0.35	0.84
Hickory East-25	25 ft	08/23/05	0.1	ND	0.68	ND	0.68
Hickory East-SW	0 ft	08/26/05	ND	ND	ND	0.78	0.78
Hickory East-5	5 ft	08/26/05	ND	ND	0.35	0.36	0.71
Hickory East-10	10 ft	08/26/05	ND	ND	0.58	0.36	0.94
Hickory East-15	15 ft	08/26/05	ND	ND	0.6	0.3	0.90
Hickory East-25	25 ft	08/26/05	ND	ND	0.69	0.24	0.92
Hickory East-SW	0 ft	08/30/05	ND	ND	ND	2.1	2.10
Hickory East-10	10 ft	08/30/05	ND	ND	0.96	0.25	1.21
Hickory East-15	15 ft	08/30/05	ND	ND	1.21	0.68	1.89
Hickory East-25	25 ft	08/30/05	ND	ND	1.59	ND	1.59
Hickory East-SW	0 ft	09/02/05	ND	ND	ND	2.6	2.60
Hickory East-5	5 ft	09/02/05	ND	ND	0.96	0.43	1.39
Hickory East-10	10 ft	09/02/05	ND	ND	1.21	0.42	1.63
Hickory East-15	15 ft	09/02/05	ND	ND	1.15	0.42	1.57
Hickory East-25	25 ft	09/02/05	ND	ND	0.77	0.31	1.08
Hickory East-10	10 ft	09/06/05	ND	0.004	1.39	0.35	1.74
Hickory East-15	15 ft	09/06/05	ND	ND	1.05	0.41	1.46
Hickory East-25	25 ft	09/06/05	ND	ND	1.77	0.59	2.36
Hickory East-SW	0 ft	09/09/05	ND	0.01	0.04	1.1	1.15



Table 2-12
Basin and Lysimeter Monitoring Results for Hickory Basin East Cell:
Ammonia, Nitrite, Nitrate, TKN, and TN (mg/L)

Station ID	Depth	Date	NH ₃ -N	NO ₂ -N	NO ₃ -N	TKN	TN
Hickory East-5	5 ft	09/09/05	ND	ND	2.09	0.73	2.82
Hickory East-10	10 ft	09/09/05	ND	ND	1.36	0.41	1.77
Hickory East-15	15 ft	09/09/05	ND	ND	0.97	0.59	1.56
Hickory East-25	25 ft	09/09/05	ND	ND	1.17	0.33	1.50
Hickory East-SW	0 ft	09/13/05	0.1	ND	0.7	1.3	2.00
Hickory East-5	5 ft	09/13/05	ND	ND	2.5	0.48	2.98
Hickory East-10	10 ft	09/13/05	ND	ND	1.2	0.23	1.43
Hickory East-15	15 ft	09/13/05	ND	ND	0.87	0.34	1.21
Hickory East-25	25 ft	09/13/05	ND	6.00	1.40	0.21	7.61
Hickory East-SW	0 ft	09/16/05	0.10	ND	ND	0.82	0.82
Hickory East-5	5 ft	09/16/05	0.10	ND	2.50	0.31	2.81
Hickory East-10	10 ft	09/16/05	0.10	ND	1.20	0.32	1.52
Hickory East-15	15 ft	09/16/05	0.10	ND	0.87	0.45	1.32
Hickory East-25	25 ft	09/16/05	0.10	ND	1.30	0.20	1.50
Hickory East-SW	0 ft	09/20/05	0.13	0.03	0.73	1.60	2.35
Hickory East-5	5 ft	09/20/05	0.10	0.01	1.32	0.55	1.88
Hickory East-10	10 ft	09/20/05	ND	ND	1.40	0.27	1.67
Hickory East-15	15 ft	09/20/05	0.10	ND	1.12	0.21	1.33
Hickory East-25	25 ft	09/20/05	0.10	ND	1.24	ND	1.24
Hickory East-SW	0 ft	09/23/05	0.10	0.01	0.79	ND	0.79
Hickory East-5	5 ft	09/23/05	0.10	0.01	1.09	ND	1.10
Hickory East-10	10 ft	09/23/05	0.10	ND	3.32	ND	3.32
Hickory East-15	15 ft	09/23/05	0.06	ND	2.29	ND	2.29
Hickory East-25	25 ft	09/23/05	0.10	ND	1.60	ND	1.60
Hickory East-SW	0 ft	09/27/05	0.06	ND	0.82	1.40	2.22
Hickory East-5	5 ft	09/27/05	0.10	ND	0.78	0.46	1.24
Hickory East-10	10 ft	09/27/05	0.10	ND	1.11	0.62	1.73
Hickory East-15	15 ft	09/27/05	0.10	ND	1.34	0.38	1.72
Hickory East-25	25 ft	09/27/05	0.10	ND	2.20	0.41	2.61
Hickory East-SW	0 ft	09/30/05	0.10	0.01	ND	2.00	2.01
Hickory East-5	5 ft	09/30/05	0.10	0.01	0.47	0.47	0.95
Hickory East-10	10 ft	09/30/05	0.10	0.01	0.62	0.40	1.04
Hickory East-15	15 ft	09/30/05	0.10	ND	0.93	0.71	1.64
Hickory East-25	25 ft	09/30/05	0.10	ND	0.89	0.56	1.45

ND: Not Detected

NS-BD: Not Sampled-Basin Dry

NT: Insufficient Sample for Analytical Test

IDC: Insufficient Data for Calculation



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

Station ID	Depth		Date	Result	Units
Hickory West-SW	0	ft	07/05/05	6.25	mg/L
Hickory West-5	5	ft	07/05/05	4.86	mg/L
Hickory West-25	25	ft	07/05/05	2.85	mg/L
Hickory West-SW	0	ft	07/12/05	6.05	mg/L
Hickory West-5	5	ft	07/12/05	3.95	mg/L
Hickory West-25	25	ft	07/12/05	2.61	mg/L
Hickory West-SW	0	ft	07/19/05	5.08	mg/L
Hickory West-5	5	ft	07/19/05	3.77	mg/L
Hickory West-25	25	ft	07/19/05	2.57	mg/L
Hickory West-SW	0	ft	07/26/05	8.77	mg/L
Hickory West-5	5	ft	07/26/05	5.39	mg/L
Hickory West-25	25	ft	07/26/05	2.83	mg/L
Hickory West-SW	0	ft	08/02/05	5.06	mg/L
Hickory West-5	5	ft	08/02/05	4.41	mg/L
Hickory West-25	25	ft	08/02/05	2.87	mg/L
Hickory West-SW	0	ft	08/09/05	0.00	mg/L
Hickory West-SW	0	ft	08/09/05	4.43	mg/L
Hickory West-5	5	ft	08/09/05	3.77	mg/L
Hickory West-25	25	ft	08/09/05	2.51	mg/L
Hickory West-SW	0	ft	08/16/05	20.00	mg/L
Hickory West-5	5	ft	08/16/05	3.46	mg/L
Hickory West-25	25	ft	08/16/05	2.48	mg/L
Hickory West-SW	0	ft	08/23/05	6.47	mg/L
Hickory West-5	5	ft	08/23/05	5.03	mg/L
Hickory West-25	25	ft	08/23/05	3.71	mg/L
Hickory West-SW	0	ft	08/30/05	6.90	mg/L
Hickory West-5	5	ft	08/30/05	4.90	mg/L
Hickory West-25	25	ft	08/30/05	2.70	mg/L
Hickory West-SW	0	ft	09/06/05	13.10	mg/L
Hickory West-5	5	ft	09/06/05	5.45	mg/L
Hickory West-25	25	ft	09/06/05	1.60	mg/L
Hickory West-SW	0	ft	09/13/05	8.32	mg/L
Hickory West-5	5	ft	09/13/05	4.70	mg/L
Hickory West-25	25	ft	09/13/05	2.38	mg/L
Hickory West-SW	0	ft	09/20/05	21.60	mg/L
Hickory West-5	5	ft	09/20/05	4.80	mg/L
Hickory West-25	25	ft	09/20/05	3.11	mg/L
Hickory West-SW	0	ft	09/27/05	14.10	mg/L
Hickory West-5	5	ft	09/27/05	16.20	mg/L
Hickory West-25	25	ft	09/27/05	10.00	mg/L

ND: Not Detected

NS-BD: Not Sampled-Basin Dry

NT: Insufficient Sample for Analytical Test

IDC: Insufficient Data for Calculation



Table 2-14
Basin and Lysimeter Monitoring Results for Hickory Basin West Cell:
Ammonia, Nitrite, Nitrate, TKN, and TN (mg/L)

Station ID	Depth	Date	NH ₃ -N	NO ₂ -N	NO ₃ -N	TKN	TN
Hickory West-SW	0 ft	07/05/05	0.1	0.05	0.10	0.54	0.69
Hickory West-5	5 ft	07/05/05	0.1	0.01	0.35	0.36	0.72
Hickory West-25	25 ft	07/05/05	0.1	0.02	0.40	0.25	0.67
Hickory West-SW	0 ft	07/07/05	0.1	0.01	0.10	0.50	0.61
Hickory West-5	5 ft	07/07/05	0.1	ND	0.20	0.50	0.70
Hickory West-25	25 ft	07/07/05	0.1	0.02	0.40	0.35	0.77
Hickory West-SW	0 ft	07/12/05	0.2	0.10	0.20	1.40	1.70
Hickory West-5	5 ft	07/12/05	0.1	ND	0.25	0.27	0.52
Hickory West-25	25 ft	07/12/05	0.1	0.01	0.40	0.20	0.61
Hickory West-SW	0 ft	07/15/05	0.1	0.02	0.20	0.73	0.95
Hickory West-5	5 ft	07/15/05	0.1	0.03	0.10	0.31	0.44
Hickory West-25	25 ft	07/15/05	0.1	0.01	0.50	0.21	0.72
Hickory West-SW	0 ft	07/19/05	0.1	0.11	0.10	0.76	0.97
Hickory West-5	5 ft	07/19/05	1	0.08	0.17	0.38	0.63
Hickory West-25	25 ft	07/19/05	0.1	ND	0.50	0.27	0.77
Hickory West-SW	0 ft	07/22/05	0.1	ND	ND	0.93	0.93
Hickory West-5	5 ft	07/22/05	0.1	0.02	ND	0.46	0.48
Hickory West-25	25 ft	07/22/05	0.1	ND	0.50	0.22	0.72
Hickory West-SW	0 ft	07/26/05	0.2	ND	ND	1.40	1.40
Hickory West-5	5 ft	07/26/05	0.1	ND	0.04	0.51	0.55
Hickory West-25	25 ft	07/26/05	ND	ND	0.20	0.23	0.43
Hickory West-SW	0 ft	07/29/05	0.1	0.02	ND	0.92	0.94
Hickory West-5	5 ft	07/29/05	0.1	ND	0.01	0.55	0.56
Hickory West-25	25 ft	07/29/05	0.1	ND	0.10	0.36	0.46
Hickory West-SW	0 ft	08/02/05	0.1	0.05	0.17	0.74	0.95
Hickory West-5	5 ft	08/02/05	0.1	ND	ND	0.44	0.44
Hickory West-25	25 ft	08/02/05	0.1	ND	0.38	0.28	0.66
Hickory West-SW	0 ft	08/05/05	0.1	0.02	ND	1.10	1.12
Hickory West-5	5 ft	08/05/05	0.1	ND	0.20	0.35	0.55
Hickory West-25	25 ft	08/05/05	0.2	ND	0.40	0.31	0.71
Hickory West-SW	0 ft	08/09/05	ND	0.01	ND	0.53	0.54
Hickory West-5	5 ft	08/09/05	ND	0.02	0.11	0.31	0.44
Hickory West-25	25 ft	08/09/05	ND	ND	0.40	0.22	0.62
Hickory West-SW	0 ft	08/12/05	ND	0.01	ND	0.50	0.51
Hickory West-5	5 ft	08/12/05	ND	ND	ND	0.28	0.28
Hickory West-25	25 ft	08/12/05	ND	ND	0.30	0.22	0.52
Hickory West-SW	0 ft	08/16/05	ND	0.16	0.80	1.40	2.36
Hickory West-5	5 ft	08/16/05	ND	ND	0.15	0.29	0.44
Hickory West-25	25 ft	08/16/05	ND	ND	0.30	0.18	0.48
Hickory West-SW	0 ft	08/19/05	0.2	0.07	0.20	1.00	1.27
Hickory West-5	5 ft	08/19/05	0.1	ND	ND	0.61	0.61
Hickory West-25	25 ft	08/19/05	0.1	ND	ND	0.38	0.38
Hickory West-SW	0 ft	08/23/05	0.1	ND	ND	0.60	0.60
Hickory West-5	5 ft	08/23/05	ND	ND	0.17	0.30	0.47
Hickory West-25	25 ft	08/23/05	0.1	ND	0.50	0.22	0.72
Hickory West-SW	0 ft	08/26/05	ND	0.02	ND	0.50	0.52



Table 2-14
Basin and Lysimeter Monitoring Results for Hickory Basin West Cell:
Ammonia, Nitrite, Nitrate, TKN, and TN (mg/L)

Station ID	Depth	Date	NH ₃ -N	NO ₂ -N	NO ₃ -N	TKN	TN
Hickory West-5	5 ft	08/26/05	ND	ND	ND	0.84	0.84
Hickory West-25	25 ft	08/26/05	ND	ND	0.30	0.20	0.50
Hickory West-SW	0 ft	08/30/05	0.1	0.02	ND	0.76	0.78
Hickory West-5	5 ft	08/30/05	ND	0.01	ND	0.38	0.39
Hickory West-25	25 ft	08/30/05	ND	ND	0.44	0.24	0.68
Hickory West-SW	0 ft	09/02/05	2.6	0.37	0.41	12.00	12.77
Hickory West-5	5 ft	09/02/05	ND	ND	1.61	0.36	1.97
Hickory West-25	25 ft	09/02/05	ND	ND	0.56	0.92	1.48
Hickory West-SW	0 ft	09/06/05	0.1	0.02	0.02	1.70	1.73
Hickory West-5	5 ft	09/06/05	NT	NT	NT	0.63	IDC
Hickory West-25	25 ft	09/06/05	0.03	ND	0.55	1.95	2.50
Hickory West-SW	0 ft	09/09/05	ND	0.01	ND	0.77	0.78
Hickory West-5	5 ft	09/09/05	ND	ND	0.10	0.44	0.54
Hickory West-25	25 ft	09/09/05	ND	ND	0.76	ND	0.76
Hickory West-SW	0 ft	09/13/05	0.1	ND	1.40	1.20	2.60
Hickory West-5	5 ft	09/13/05	ND	NT	0.57	0.41	IDC
Hickory West-25	25 ft	09/13/05	0.04	3.80	0.87	0.20	4.87
Hickory West-SW	0 ft	09/16/05	0.129	ND	1.10	1.20	2.30
Hickory West-5	5 ft	09/16/05	0.2	ND	ND	0.57	0.57
Hickory West-25	25 ft	09/16/05	0.1	ND	0.91	0.38	1.29
Hickory West-SW	0 ft	09/20/05	0.4	0.05	2.03	2.80	4.88
Hickory West-5	5 ft	09/20/05	0.1	0.00	0.09	0.48	0.57
Hickory West-25	25 ft	09/20/05	0.1	ND	0.70	0.34	1.04
Hickory West-SW	0 ft	09/23/05	0.5	0.37	0.35	ND	0.73
Hickory West-5	5 ft	09/23/05	0.1	0.00	0.02	ND	0.03
Hickory West-25	25 ft	09/23/05	0.1	0.00	0.60	ND	0.60
Hickory West-SW	0 ft	09/27/05	0.1	0.04	0.27	1.90	2.21
Hickory West-5	5 ft	09/27/05	0.1	ND	0.01	0.98	0.99
Hickory West-25	25 ft	09/27/05	0.06	0.00	0.06	0.80	0.86
Hickory West-SW	0 ft	09/30/05	NT	NT	NT	1.70	IDC
Hickory West-5	5 ft	09/30/05	0.1	0.01	0.09	0.96	1.05
Hickory West-25	25 ft	09/30/05	0.1	ND	ND	0.49	0.49

ND: Not Detected

NS-BD: Not Sampled-Basin Dry

NT: Insufficient Sample for Analytical Test

IDC: Insufficient Data for Calculation



**Table 2-15
Groundwater Monitoring Results**

CBWM ID	Local Name	Sample Date	Quarter	Aluminum, Total (mg/L)	Ammonia (NH ₃ -N) (mg/L)	Chloride, Dissolved (mg/L)	Color (APU)	Copper, Total (mg/L)	Corrosivity Index (SI)	Dissolved Oxygen (Field) (mg/L)	Foaming Agents (MBAS) (mg/L)	Hardness, Total (As CaCO ₃) (mg/L)	Iron, Total (mg/L)	Kjeldahl Nitrogen, Total (mg/L)	Manganese, Total (mg/L)	Methyl Tert-Butyl Ether (µg/L)	Nitrate-Nitrogen (NO ₃ -N) (mg/L)	Nitrite-Nitrogen (NO ₂ -N) (mg/L)	Odor Threshold @ 60 C (TRN)	pH (Field) (Units)	pH (Laboratory) (Units)	Silver (mg/L)	Sodium (mg/L)	Specific Conductance (micromho)	Sulfate (mg/L)	Thiobencarb (mg/L)	Total Coliform Bacteria (MPN/100 mL)	Total Dissolved Solids (mg/L)	Total Nitrogen (mg/L)	Total Organic Carbon (mg/L)	Turbidity (Laboratory) (NTU)	Zinc (mg/L)
			Maximum Contaminant Level ▶	0.2	250*	15*	1	NC*	2**	0.5*	0.3*	0.05	5*	10	1	3*						0.1*	900*	250*	0.001*		500*					
3600573	Fontana F37A	08/05/05	3Q2005	1.10	0.20	13.6	<3	<0.001			<0.05	197	0.13	0.20	<2	<0.5	8.8	<0.01	2	7.74	7.95	<0.002	18.4	435	12.6	<0.0002		298	9.01	<0.3	0.30	<2
3601364	Cal Speedway 1	08/08/05	3Q2005	1.11	<0.1	15.1		<0.001				177	0.33	<0.1	0.01		8.0	<0.01		7.20	7.90	<0.002	19.4	410	16.6			274	8.05		1.21	<2
3600371	SCE East Well	08/05/05	3Q2005	1.03	0.10	13.3	<3	<0.001			<0.05	150	0.10	0.20	<2	<0.5	6.4	<0.01	1	7.55	7.70	<0.002	18.8	345	15.0			252	6.61	<0.3	0.10	<2
3602267	Ontario Well 20	08/05/05	3Q2005	1.05	<0.1	6.4	<3	<0.001			<0.05	140	0.11	0.20	<2	<0.5	1.8	<0.01	1	7.68	7.90	<0.002	13.3	300	6.2	<0.0002		212	2.01	<0.3	0.30	<2
3602267	Ontario Well 20	08/11/05	3Q2005																								ND ¹					
600660	Cal Speedway Infield Well	08/08/05	3Q2005	1.06	<0.1	10.0		<0.001				174	0.10	0.10	<2	<0.5	5.5	<0.01		7.08	7.35	<0.002	18.5	380	13.0			252	5.61		0.14	<2
	BH-1/2	06/07/05	2Q2005	0.52	0.20	22.0	10	<0.001	0.44	5.66	<0.05	164	0.65	<0.1	0.04	<0.5	12.5	0.02	3	7.55	7.90	<0.002	20.0	430	15.0	<0.0002	<1.1	292	12.56	0.75	8.37	<2
	BH-1/2	07/19/05	3Q2005		0.10					5.17				0.20			14.0	0.03		7.61									14.23			
	BH-1/2	08/03/05	3Q2005		0.10					5.15				<0.1			14.0	<0.01		7.51									14.06			
	BH-1/2	08/17/05	3Q2005		<0.1					5.00				<0.1			14.1	<0.01		7.72									14.16			
	BH-1/2	09/01/05	3Q2005		0.54					4.52				<0.1			13.7	<0.01		7.37									13.78			
	BH-1/2	09/15/05	3Q2005		<0.1					4.59				0.10			13.0	<0.01		7.20									13.11	0.53		
	BH-1/2	09/29/05	3Q2005		<0.1					4.31				0.10			13.2	<0.01		7.30									13.28	0.69		
	BH-1/2	10/12/05	4Q2005							5.89										7.29										0.30		
	BH-1/2	10/27/05	4Q2005							5.62										7.25												

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
- Bold Values in Bold Exceed Their Primary Maximum Contaminant Level**
- CBWM Chino Basin Watermaster
- NC Non-Corrosive
- ND Not Detected

Table 3-1
Volume of Diluent and Recycled Water Recharged

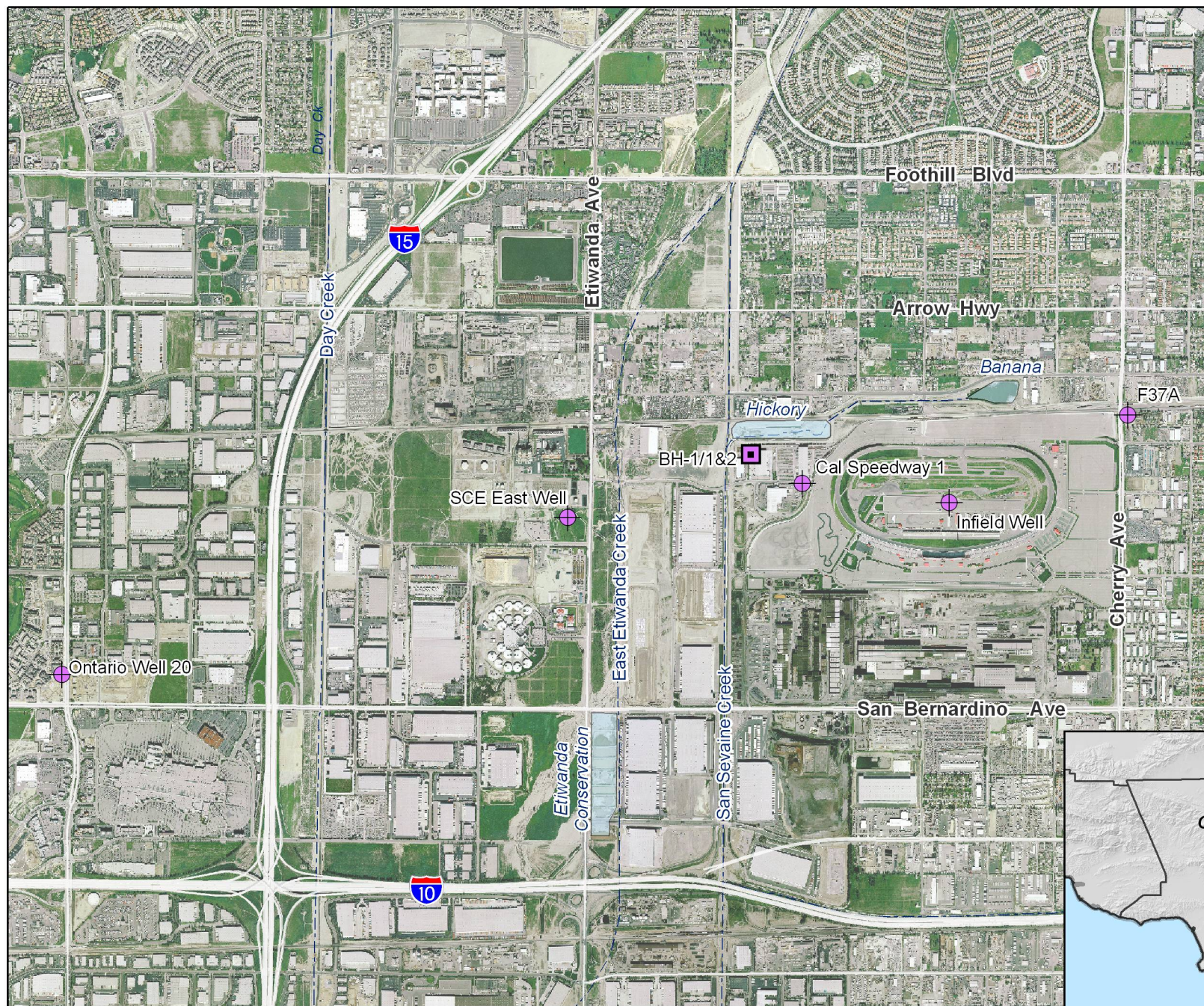
Date	Imported Water	MWD CB18 Water Routing		Local Runoff / Storm Flow		Recycled Water	
	MWD CB-18 (AF)	Hickory (AF)	Banana (AF)	Hickory (AF)	Banana (AF)	Hickory (AF)	Banana (AF)
07/01/05	7.3	0.0	7.3	4.0	0.0	0.0	0.0
07/02/05	12.7	2.7	10.0	4.0	0.0	0.0	0.0
07/03/05	12.9	2.9	10.0	4.0	0.0	0.0	0.0
07/04/05	12.9	2.9	10.0	4.0	0.0	0.0	0.0
07/05/05	15.5	5.5	10.0	4.0	0.0	0.0	0.0
07/06/05	20.0	10.0	10.0	4.0	0.0	0.0	0.0
07/07/05	15.1	5.1	10.0	4.0	0.0	0.0	0.0
07/08/05	11.9	1.9	10.0	4.0	0.0	0.0	0.0
07/09/05	12.3	2.3	10.0	4.0	0.0	0.0	0.0
07/10/05	12.1	2.1	10.0	4.0	0.0	0.0	0.0
07/11/05	17.7	7.7	10.0	4.0	0.0	0.0	0.0
07/12/05	16.3	6.3	10.0	4.0	0.0	0.0	0.0
07/13/05	14.5	4.5	10.0	4.0	0.0	0.0	0.0
07/14/05	14.3	4.3	10.0	4.0	0.0	0.0	0.0
07/15/05	14.3	4.3	10.0	4.0	0.0	0.0	0.0
07/16/05	14.3	4.3	10.0	4.0	0.0	0.0	0.0
07/17/05	14.3	4.3	10.0	4.0	0.0	0.0	0.0
07/18/05	14.3	4.3	10.0	4.0	0.0	0.0	0.0
07/19/05	14.3	4.3	10.0	4.0	0.0	0.0	0.0
07/20/05	5.0	0.0	5.0	4.0	0.0	0.0	0.0
07/21/05	0.0	0.0	0.0	4.0	0.0	0.0	0.0
07/22/05	0.0	0.0	0.0	4.0	0.0	0.0	0.0
07/23/05	0.0	0.0	0.0	4.0	0.0	0.0	0.0
07/24/05	0.0	0.0	0.0	4.0	0.0	0.0	0.0
07/25/05	0.0	0.0	0.0	4.0	0.0	0.0	0.0
07/26/05	0.0	0.0	0.0	4.0	0.0	0.0	0.0
07/27/05	4.4	4.4	0.0	4.0	0.0	0.0	2.0
07/28/05	10.9	10.9	0.0	4.0	0.0	0.0	4.0
07/29/05	13.9	13.9	0.0	4.0	0.0	0.0	6.0
07/30/05	17.1	17.1	0.0	4.0	0.0	0.0	4.0
07/31/05	16.7	16.7	0.0	4.0	0.0	0.0	4.0
08/01/05	20.0	20.0	0.0	4.0	0.0	0.0	4.0
08/02/05	26.2	26.2	0.0	4.0	0.0	0.0	6.0
08/03/05	29.4	29.4	0.0	4.0	0.0	0.0	6.0
08/04/05	32.3	32.3	0.0	4.0	0.0	0.0	9.9
08/05/05	32.3	32.3	0.0	4.0	0.0	0.0	9.9
08/06/05	32.9	32.9	0.0	4.0	0.0	0.0	9.9
08/07/05	29.0	29.0	0.0	4.0	0.0	0.0	7.9
08/08/05	26.2	26.2	0.0	4.0	0.0	0.0	9.9
08/09/05	18.4	18.4	0.0	4.0	0.0	0.0	9.9
08/10/05	15.3	15.3	0.0	4.0	0.0	0.0	9.9
08/11/05	12.1	12.1	0.0	4.0	0.0	0.0	7.9
08/12/05	12.7	12.7	0.0	4.0	0.0	0.0	7.9
08/13/05	12.5	12.5	0.0	4.0	0.0	0.0	7.9
08/14/05	12.7	12.7	0.0	4.0	0.0	0.0	6.0
08/15/05	12.7	12.7	0.0	4.0	0.0	0.0	7.9
08/16/05	6.9	6.9	0.0	4.0	0.0	0.0	7.9
08/17/05	0.0	0.0	0.0	0.0	0.0	0.0	7.9
08/18/05	5.8	5.8	0.0	2.0	0.0	0.0	9.9
08/19/05	12.3	12.3	0.0	2.0	0.0	0.0	9.9
08/20/05	12.5	12.5	0.0	2.0	0.0	0.0	7.9
08/21/05	12.5	12.5	0.0	2.0	0.0	0.0	7.9
08/22/05	4.2	4.2	0.0	2.0	0.0	0.0	7.9
08/23/05	8.3	8.3	0.0	2.0	0.0	0.0	9.9
08/24/05	13.9	13.9	0.0	2.0	0.0	0.0	6.0
08/25/05	6.7	6.7	0.0	2.0	0.0	0.0	7.9
08/26/05	0.0	0.0	0.0	0.0	0.0	0.0	6.0
08/27/05	0.0	0.0	0.0	0.0	0.0	0.0	7.9
08/28/05	0.0	0.0	0.0	0.0	0.0	0.0	7.9



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)
08/29/05	0.0	0.0	0.0	0.0	0.0	0.0	9.9
08/30/05	0.0	0.0	0.0	0.0	0.0	0.0	9.9
08/31/05	0.0	0.0	0.0	0.0	0.0	0.0	7.9
09/01/05	4.8	4.8	0.0	2.0	0.0	0.0	4.0
09/02/05	10.5	10.5	0.0	2.0	0.0	0.0	2.0
09/03/05	10.5	10.5	0.0	2.0	0.0	0.0	4.0
09/04/05	10.5	10.5	0.0	2.0	0.0	0.0	4.0
09/05/05	10.5	10.5	0.0	2.0	0.0	0.0	4.0
09/06/05	10.5	10.5	0.0	2.0	0.0	0.0	3.0
09/07/05	10.5	10.5	0.0	2.0	0.0	0.0	3.8
09/08/05	2.8	2.8	0.0	2.0	0.0	0.0	3.8
09/09/05	0.0	0.0	0.0	1.0	0.0	3.6	9.9
09/10/05	0.0	0.0	0.0	2.0	0.0	6.5	8.9
09/11/05	0.0	0.0	0.0	2.0	0.0	6.1	8.7
09/12/05	0.0	0.0	0.0	2.0	0.0	5.0	5.0
09/13/05	0.0	0.0	0.0	2.0	0.0	4.4	11.9
09/14/05	0.0	0.0	0.0	2.0	0.0	6.1	8.9
09/15/05	0.0	0.0	0.0	2.0	0.0	5.0	7.7
09/16/05	0.0	0.0	0.0	2.0	0.0	5.4	6.3
09/17/05	0.0	0.0	0.0	2.0	0.0	6.1	8.7
09/18/05	0.0	0.0	0.0	2.0	0.0	5.9	9.3
09/19/05	0.0	0.0	0.0	2.0	0.0	5.9	6.9
09/20/05	0.0	0.0	0.0	23.1	0.0	9.9	0.0
09/21/05	0.0	0.0	0.0	0.0	0.0	10.7	0.0
09/22/05	0.0	0.0	0.0	0.0	0.0	11.1	0.0
09/23/05	0.0	0.0	0.0	0.0	0.0	10.3	0.0
09/24/05	0.0	0.0	0.0	0.0	0.0	11.1	0.0
09/25/05	0.0	0.0	0.0	0.0	0.0	11.1	0.0
09/26/05	0.0	0.0	0.0	0.0	0.0	11.1	0.0
09/27/05	0.0	0.0	0.0	0.0	0.0	10.5	0.0
09/28/05	0.0	0.0	0.0	0.0	0.0	0.2	0.0
09/29/05	0.0	0.0	0.0	0.0	0.0	0.4	0.0
09/30/05	0.0	0.0	0.0	0.0	0.0	0.2	0.0
3Q05 Totals	813.0	620.7	192.3	262.1	0.0	146.7	394.5





-  New Monitoring Well
-  Existing Monitoring Well
-  Recharge Basins

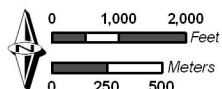


Monitoring Well Network
Hickory and Banana Basins

Figure 2-1



Recycled Water Recharge Program
Quarterly Monitoring Report – 3Q05



Author: AEM
Date: 20051115
File: Figure_2-1.mxd

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 **WILDERMUTH**
ENVIRONMENTAL INC.

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

November 14, 2005

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 (Watermaster) hereby certifies that, during the period July 2005 through September 2005, 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 zone.

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

Best regards,

Kenneth Manning
Chief Executive Officer
