



CHINO BASIN WATERMASTER

II. BUSINESS ITEMS

B. BUDGET AMENDMENT





CHINO BASIN WATERMASTER

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KENNETH R. MANNING
Chief Executive Officer

STAFF REPORT

DATE: September 11, 2008
September 16, 2008
September 25, 2008

TO: Committee Members
Watermaster Board Members

SUBJECT: Proposed Budget Amendment Request

SUMMARY

Recommendation - Staff recommends that the Pools, Advisory Committee, and Board to consider approval of the attached Budget Amendment.

DISCUSSION:

Each fiscal year, Watermaster budgets money to contribute to the debt service related to the Phase 1, Recharge Improvement Project. The amount budgeted by Watermaster each year is obtained from IEUA during the budget process and invoiced to Watermaster at the beginning of each fiscal year. IEUA in turn holds the money until the payment is due at the end of the fiscal year.

This year, the budget amount provided to Watermaster was \$360,000, but the invoice came in at \$511,594 which requires a budget amendment in the amount of \$151,594.

Watermaster plans to revisit the budget and the status of projects to determine the need to update budgeted amounts which would be reflected in the final assessment package distributed in November 2008. Because the "pre-assessment package budget review" has not yet been performed, it is currently unclear whether this proposed budget amendment will result in increases to the ultimate assessments that are greater than originally was estimated when the budget was approved.

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CHINO BASIN WATERMASTER BUDGET AMENDMENT

To: **All Parties**

Fiscal Year 2008-2009

From : Sheri Rojo

Date: September, 2008

Describe reason for the budget amendment here: The amount of the debt service budgeted based on estimate was \$360,000. Based on invoice received from IEUA, amount due = \$511,594.33 based on current interest rates.

Expenditure Amendment				
<i>Line Item Description</i>	<i>Account Number</i>	<i>Original Budget</i>	<i>Amended Budget</i>	<i>Amendment Amount</i>
Recharge Debt Payment	7690	\$ 360,000	\$ 511,594	\$ 151,594
TOTAL:				\$ 151,594

Revenue Source				
<i>Line Item Description</i>	<i>Account Number</i>			<i>Amount</i>
Assessment Increase				\$ 151,594
TOTAL:				\$ 151,594

<p style="text-align: center; margin: 0;">Amendment Procedure</p> <ol style="list-style-type: none"> 1. Staff takes amendment requests to the Pools, Advisory Committee & Board for approval. 2. The Chief Financial Officer will prepare and process the budget entry. 4. A log will be maintained by the Finance Department detailing the adjustment. 5. A fiscal year file will also be kept to hold all budget amendment forms for auditor review. 	<p style="text-align: center; margin: 0;">Finance Use Only</p> <p>Date Board Approved _____</p> <p>Entered into System By _____</p> <p>Finance Log # _____</p> <p>Date Posted _____</p> <p>Approved By _____</p> <p>Date Approved _____</p>
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CHINO BASIN WATERMASTER

II. BUSINESS ITEMS

C. INLAND EMPIRE UTILITIES AGENCY DRY YEAR YIELD REPORT BY IEUA STAFF





Inland Empire
UTILITIES AGENCY *

6075 Kimball Avenue • Chino, CA 91710
P.O. Box 9020 • Chino Hills, CA 91709
TEL (909) 993-1600 • FAX (909) 597-8875
www.ieua.org
* A Municipal Water District

DYY Participants,

This is a follow-up letter to the water demand forecast meetings that have taken place over the past month. Again, thank you for taking the time to meet and discuss.

As part of the DYY Expansion Program, we are required to complete the CEQA process by December 2008. Part of the CEQA requires developing groundwater modeling scenarios, which will be completed by Wildermuth Environmental Inc. (WEI), and will describe possible effects to the Chino Basin through the DYY Program. An essential part of the modeling is entering water demand forecast data. Attached is a spreadsheet that contains the DRAFT demand forecasts. WEI will be using the final version for their modeling scenarios. (The forecasts do not take into account the current DYY "call" or MWD's Water Allocation Plan.)

Given our project schedule, any comments/edits to the data must be to be no later than next **Wednesday August 27th** in order to give WEI and Tom Dodson the necessary time to complete their tasks. Please let me know if you have any questions/concerns.

Sincerely,

Inland Empire Utilities Agency
Richard Atwater
CEO/General Manger

Fifty-Five Years of Excellence in Water Resources & Quality Management

Wyatt L. Troxel
President

Terry Catlin
Vice President

Gene Koopmam
Secretary/Treasurer

Angel Santiago
Director

John L. Anderson
Director

Richard W. Atwater
Chief Executive Officer
General Manager

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Fontana Water Company - Water Demand Projections

Source of Water Use	2009	2010	2011	2012	2013	2014	2015	2020	2025	2030	2035
Chino Basin Groundwater	14,500.00	13,500.00	12,500.00	11,000.00	10,000.00	10,000.00	10,000.00	11,000.00	11,500.00	12,000.00	12,500.00
Other Basin Groundwater	16,500.00	14,000.00	13,000.00	12,000.00	11,000.00	11,000.00	11,000.00	12,000.00	13,000.00	13,500.00	14,000.00
Imported Water	10,000.00	12,000.00	10,000.00	16,000.00	18,000.00	18,000.00	18,000.00	18,000.00	18,000.00	18,000.00	18,000.00
Surface Water	4,500.00	4,500.00	4,500.00	4,500.00	4,500.00	4,500.00	4,500.00	5,000.00	6,000.00	6,000.00	6,000.00
Recycled Water	1,000.00	2,500.00	3,500.00	5,000.00	5,500.00	6,000.00	6,000.00	6,000.00	6,000.00	6,000.00	6,000.00
Desalter Water	-	-	-	-	-	-	-	-	-	-	-
TOTAL	46,500.00	46,500.00	47,500.00	48,500.00	49,000.00	49,500.00	49,500.00	52,000.00	54,500.00	55,500.00	56,500.00

Cucamonga Valley Water District - Water Demand Projections

Source of Water Use	2009	2010	2011	2012	2013	2014	2015	2020	2025	2030	2035
Chino Basin Groundwater	15,000.00	15,000.00	15,000.00	15,000.00	15,000.00	15,000.00	15,000.00	15,000.00	15,000.00	15,000.00	15,000.00
Other Basin Groundwater	4,000.00	4,000.00	4,000.00	4,000.00	4,000.00	4,000.00	4,000.00	4,000.00	4,000.00	4,000.00	4,000.00
Imported Water	35,000.00	33,000.00	32,000.00	32,000.00	32,000.00	32,000.00	32,000.00	32,000.00	32,000.00	32,000.00	32,000.00
Surface Water	4,000.00	4,000.00	4,000.00	4,000.00	4,000.00	4,000.00	4,000.00	4,000.00	4,000.00	4,000.00	4,000.00
Recycled Water	1,000.00	3,000.00	4,000.00	4,500.00	4,500.00	4,500.00	4,500.00	4,500.00	4,500.00	4,500.00	4,500.00
Desalter Water	-	-	-	-	-	-	-	-	-	-	-
TOTAL	59,000.00	59,000.00	59,000.00	59,500.00	59,500.00	59,500.00	59,500.00	59,500.00	59,500.00	59,500.00	59,500.00

Monte Vista Water District - Water Demand Projections

Source of Water Use	2009	2010	2011	2012	2013	2014	2015	2020	2025	2030	2035
Chino Basin Groundwater	20,000.00	16,000.00	16,000.00	16,000.00	16,000.00	16,000.00	17,000.00	18,500.00	20,000.00	21,500.00	21,500.00
Other Basin Groundwater	-	-	-	-	-	-	-	-	-	-	-
Imported Water	6,000.00	11,000.00	11,000.00	11,000.00	11,000.00	11,000.00	11,000.00	11,000.00	11,000.00	11,000.00	11,000.00
Surface Water	150.00	300.00	400.00	400.00	400.00	400.00	400.00	450.00	500.00	500.00	500.00
Recycled Water	-	-	-	-	-	-	-	-	-	-	-
Desalter Water	-	-	-	-	-	-	-	-	-	-	-
TOTAL	26,150.00	27,300.00	27,400.00	27,400.00	27,400.00	27,400.00	28,400.00	29,950.00	31,500.00	33,000.00	33,000.00

City of Upland - Water Demand Projections

Source of Water Use	2009	2010	2011	2012	2013	2014	2015	2020	2025	2030	2035
Chino Basin Groundwater	1,433.00	1,284.00	1,284.00	2,140.00	2,140.00	2,140.00	2,140.00	2,140.00	2,140.00	2,140.00	2,140.00
Other Basin Groundwater	6,810.00	6,420.00	6,420.00	6,420.00	6,420.00	6,420.00	6,420.00	6,420.00	6,420.00	6,420.00	6,420.00
Imported Water	6,345.00	5,778.00	5,564.00	4,494.00	4,494.00	4,494.00	4,280.00	4,280.00	4,280.00	4,280.00	4,280.00
Purchased Water (SAWCO)	8,895.00	7,918.00	7,918.00	7,918.00	7,704.00	7,490.00	7,490.00	7,490.00	7,490.00	7,490.00	7,490.00
Recycled Water	-	-	214.00	428.00	642.00	856.00	1,070.00	1,070.00	1,070.00	1,070.00	1,070.00
Desalter Water	-	-	-	-	-	-	-	-	-	-	-
TOTAL	23,483.00	21,400.00	21,400.00	21,400.00	21,400.00	21,400.00	21,400.00	21,400.00	21,400.00	21,400.00	21,400.00

City of Ontario - Water Demand Projections

Source of Water Use	2009	2010	2011	2012	2013	2014	2015	2020	2025	2030	2035
Chino Basin Groundwater	26,000.00	25,000.00	24,000.00	23,000.00	23,000.00	23,000.00	23,000.00	26,000.00	28,000.00	30,000.00	30,000.00
Other Basin Groundwater	-	-	-	-	-	-	-	-	-	-	-
Imported Water	12,000.00	12,000.00	12,000.00	12,000.00	11,500.00	11,000.00	11,000.00	12,000.00	12,000.00	12,000.00	12,000.00
Surface Water	4,000.00	5,000.00	6,000.00	7,000.00	8,000.00	9,000.00	9,000.00	9,000.00	9,000.00	9,000.00	9,000.00
Recycled Water	5,000.00	5,000.00	5,500.00	5,500.00	6,000.00	6,000.00	6,000.00	6,000.00	6,000.00	6,000.00	6,000.00
Desalter Water	47,000.00	47,000.00	47,500.00	47,500.00	48,500.00	49,000.00	49,000.00	53,000.00	55,000.00	57,000.00	57,000.00
TOTAL	47,000.00	47,000.00	47,500.00	47,500.00	48,500.00	49,000.00	49,000.00	53,000.00	55,000.00	57,000.00	57,000.00

City of Chino - Water Demand Projections

Source of Water Use	2009	2010	2011	2012	2013	2014	2015	2020	2025	2030	2035
Chino Basin Groundwater	8,000.00	7,000.00	6,500.00	5,750.00	5,250.00	5,000.00	5,000.00	5,000.00	5,000.00	5,000.00	5,000.00
Other Basin Groundwater	-	-	-	-	-	-	-	-	-	-	-
Imported Water	4,000.00	4,000.00	3,500.00	3,000.00	3,000.00	3,000.00	3,000.00	3,000.00	3,000.00	3,000.00	3,000.00
Surface Water	-	-	-	-	-	-	-	-	-	-	-
Recycled Water	2,000.00	3,000.00	4,000.00	5,000.00	5,500.00	5,500.00	5,500.00	6,000.00	6,000.00	6,000.00	6,000.00
Desalter Water	5,500.00	5,500.00	5,500.00	6,000.00	6,000.00	6,500.00	7,000.00	7,000.00	7,000.00	7,000.00	7,000.00
TOTAL	19,500.00	19,500.00	19,500.00	19,750.00	19,750.00	20,000.00	20,500.00	21,000.00	21,000.00	21,000.00	21,000.00

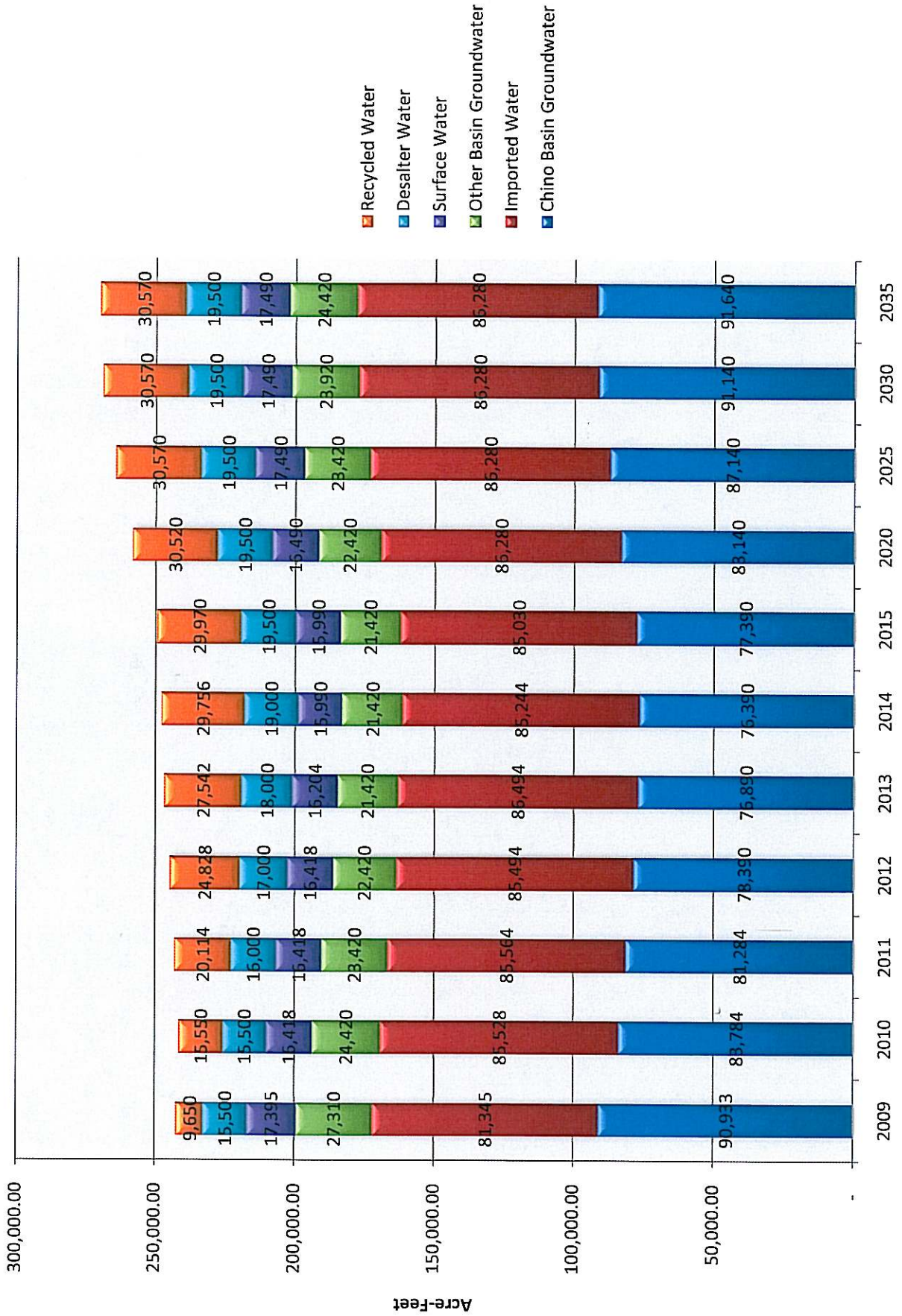
City of Chino Hills - Water Demand Projections

Source of Water Use	2009	2010	2011	2012	2013	2014	2015	2020	2025	2030	2035
Chino Basin Groundwater	6,000.00	6,000.00	6,000.00	5,500.00	5,500.00	5,250.00	5,250.00	5,500.00	5,500.00	5,500.00	5,500.00
Other Basin Groundwater	-	-	-	-	-	-	-	-	-	-	-
Imported Water	8,000.00	7,750.00	7,500.00	7,000.00	6,500.00	5,750.00	5,750.00	6,000.00	6,000.00	6,000.00	6,000.00
Surface Water	-	-	-	-	-	-	-	-	-	-	-
Recycled Water	1,500.00	1,750.00	2,000.00	2,500.00	3,000.00	3,500.00	3,500.00	3,500.00	3,500.00	3,500.00	3,500.00
Desalter Water	5,000.00	5,000.00	5,000.00	5,500.00	6,000.00	6,500.00	6,500.00	6,500.00	6,500.00	6,500.00	6,500.00
TOTAL	20,500.00	20,500.00	20,500.00	20,500.00	21,000.00	21,000.00	21,000.00	21,500.00	21,500.00	21,500.00	21,500.00

TOTAL IEUA - Water Demand Projections

Source of Water Use	2009	2010	2011	2012	2013	2014	2015	2020	2025	2030	2035
Chino Basin Groundwater	90,933.00	83,784.00	81,284.00	78,390.00	76,890.00	76,390.00	77,390.00	83,140.00	87,140.00	91,140.00	91,640.00
Other Basin Groundwater	27,310.00	24,420.00	23,420.00	22,420.00	21,420.00	21,420.00	21,420.00	22,420.00	23,420.00	23,920.00	24,420.00
Imported Water	81,345.00	85,528.00	85,564.00	85,494.00	86,494.00	85,244.00	85,030.00	86,280.00	86,280.00	86,280.00	86,280.00
Surface Water	17,395.00	16,418.00	16,418.00	16,418.00	16,204.00	15,990.00	15,990.00	16,490.00	17,490.00	17,490.00	17,490.00
Recycled Water	9,650.00	15,550.00	20,114.00	24,828.00	27,542.00	29,756.00	29,970.00	30,520.00	30,570.00	30,570.00	30,570.00
Desalter Water	15,500.00	15,500.00	16,000.00	17,000.00	18,000.00	19,000.00	19,500.00	19,500.00	19,500.00	19,500.00	19,500.00
TOTAL	242,133.00	241,200.00	242,800.00	244,550.00	246,550.00	247,800.00	249,300.00	258,350.00	264,400.00	268,900.00	269,900.00

IEUA Water Demand Forecast



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CHINO BASIN WATERMASTER

III. REPORTS/UPDATES

A. WATERMASTER GENERAL LEGAL COUNSEL REPORT

2. LRP Funding Agreement



AGREEMENT NO. 93343
CHINO BASIN DESALINATION PROGRAM, PHASE II
JOINT PARTICIPATION AGREEMENT FOR RECOVERY, TREATMENT AND
UTILIZATION OF CONTAMINATED GROUNDWATER AMONG
THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA,
THE WESTERN MUNICIPAL WATER DISTRICT OF RIVERSIDE COUNTY,
INLAND EMPIRE UTILITY AGENCY, AND
CHINO BASIN DESALTER AUTHORITY

THIS AGREEMENT is made and entered into as of July 1, 2007, by and among THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA (hereinafter "Metropolitan"), WESTERN MUNICIPAL WATER DISTRICT OF RIVERSIDE COUNTY (hereinafter "WMWD"), INLAND EMPIRE UTILITIES AGENCY (hereinafter "IEUA), and CHINO BASIN DESALTER AUTHORITY (hereinafter "CDA").

RECITALS

- A. Metropolitan was incorporated under the Metropolitan Water District Act ("Act") for the purpose of developing, storing, and distributing water for domestic and municipal purposes.
- B. The Act empowers Metropolitan to acquire water and water rights within or without the State; develop, store and transport water; provide, sell and deliver water at wholesale for domestic and municipal uses and purposes; fix water rates, acquire, construct, operate and maintain any and all works, facilities, improvements and property necessary or convenient to the exercise of the powers granted by the Act.
- C. WMWD and IEUA, as member public agencies of Metropolitan under the Act, are wholesale purchasers within its service area of water developed, stored, and distributed by Metropolitan.
- D. CDA is a California joint powers agency comprised of IEUA, the Jurupa Community Services District, the Santa An River Water Company, and the cities of Chino, Chino Hills, Norco, and Ontario. CDA was formed by these entities pursuant to the Joint Exercise of Powers Agreement Creating the CHINO DESALTER AUTHORITY, dated as of September 25, 2001 for the purpose of jointly exercising powers to own, operate and maintain water desalting facilities in the lower part of the Chino Basin.
- E. Metropolitan's water supply and demand projections for its service area, including that encompassed by WMWD and IEUA, show that additional sources of water must be developed to meet future needs.

- F. Metropolitan, WMWD and IEUA and CDA have determined that it is mutually beneficial for local projects originating in the service areas of WMWD and IEUA be developed as a supplement to Metropolitan's imported water supplies in order to meet future water needs.
- G. CDA owns and operates the Chino Basin Desalination Program, Phase II (Project), which commenced operation June 30, 2006. The Project treats approximately 15,000 acre-feet per year of contaminated groundwater from the Chino Groundwater Basin for domestic and municipal purposes.
- H. Metropolitan, in accordance with its Integrated Resources Plan, and Board Letter 7-11, dated June 12, 2007 and attached hereto as Exhibit "A", desires to assist WMWD, IEUA and CDA with the cost of a study to expand water storage in Chino Basin and, if the expansion is implemented, with the cost of that expansion, under the Chino Basin Groundwater Storage Agreement, AGREEMENT NO. 49960 (Storage Agreement) executed in June 2003, attached hereto as Exhibit "B", between Metropolitan, The Chino Basin Watermaster, Three Valleys Municipal Water District and IEUA.
- I. In return for Metropolitan's financial assistance for the study to expand water storage in Chino Basin and, if the expansion is implemented, with the cost of that expansion, WMWD, IEUA and CDA desire to eliminate the Metropolitan losses provision in the Storage Agreement, and to comply with the provisions of Board Letter 7-11, Exhibit "A", and the terms of this Agreement.
- J. This agreement is part of a group of agreements intended to better integrate the various elements of several related programs that all have an impact on the production and beneficial utilization of the Chino Groundwater Basin. Through coordination of resources and operations, Metropolitan's Conjunctive Use Program, Local Resources Programs, which include the Groundwater Recovery Program and Recycled Water Program, can provide benefits for the region. An aspect or change in one program may impact one or more of these other programs. In addition to the current agreement, two other agreements are either being prepared or have been executed. These three agreements are summarized as follows:

1. Chino Basin Desalination Program, Phase II, under which Metropolitan pays an incentive payment for water produced by existing facilities constructed without Metropolitan financial support as part of support for a study, and possible construction, of facilities to expand the amount of water Metropolitan can store in Chino Basin. This agreement expires after two years if the existing storage agreement is not amended for a planned expansion and after five years if the amendments under the storage agreement have not been implemented.

2. The Chino Basin Groundwater Study, Agreement No. 88734, to explore possible expansion of the existing Metropolitan's Conjunctive Use Program for the storage of water in Chino Basin.

3. An Amendment to Metropolitan's Chino Basin Groundwater Storage Conjunctive Use Program to eliminate Metropolitan's responsibility for loss of water held in the Metropolitan's storage account under that agreement.

Three other existing related agreements involving storage of groundwater in Chino Basin are:

1. Chino Basin Groundwater Storage – under the Conjunctive Use Program, Agreement No. 49960, between Metropolitan, Inland Empire Utilities Agency, Three Valleys Municipal Water District, Chino Basin Watermaster, June 19, 2003.

2. Chino Basin Desalination Program, Phase I – a Groundwater Recovery Project under the Local Resources Program, Agreement No. 4912, between Metropolitan, Santa Ana Watershed Project Authority, Western Municipal Water District of Riverside County, Chino Basin Municipal Water District, Orange County Water District, December 7, 1995.

3. IEUA Regional Recycled Water Distribution System – a Recycled Water Project under the Local Resources Program, June 1996.

These existing agreements are included herein as Exhibits I, J, and K as any amendments to any of these agreements must be checked with the other agreements for consistency of overall program goals.

NOW, THEREFORE, in consideration of the promises and covenants herein set forth, the Parties do agree as follows:

Section 1. Definitions

The following words and terms, unless otherwise expressly defined in their context, shall be defined to mean:

- 1.1. "Allowable Yield" shall mean the amount of Recovered Groundwater that is delivered to End User by CDA from the Project in any fiscal year eligible to receive Metropolitan's financial assistance. Allowable Yield, measured in acre-feet, shall exclude any Recovered Groundwater Metropolitan reasonably determines will not reduce WMWD and IEUA's demand for Metropolitan's imported water. Metropolitan shall not be obligated to purchase in excess of 18,000 acre-feet (120 percent of the Project's approximate capacity), of Recovered Groundwater in any one fiscal year, unless otherwise agreed in writing. Allowable Yield shall exclude: (1) any non-Project water

conveyed through the Project facilities; (2) Allowable Yield from other projects with active or terminated LRP, Groundwater Recovery Program, or LPP agreements.

- 1.2. "Degraded Groundwater" shall mean groundwater that does not meet applicable drinking water quality standards such as those set forth in Division 4, Environmental Health of Title 22, California Code of Regulations, as amended from time to time, or any successor regulations.
- 1.3. "End User" shall mean each user that purchases Recovered Groundwater furnished by the Project, unless otherwise approved by Metropolitan.
- 1.4. "Fiscal year" shall mean Metropolitan fiscal year that begins on July 1 and ends on June 30.
- 1.5. "Final Groundwater Storage Program Contribution" shall mean the financial contribution by Metropolitan to the Project in dollars per acre-foot of Allowable Yield. The Final Groundwater Storage Program Contribution for the Project is equal to the sum of the Project Unit Cost and Deferred Cost minus Metropolitan's prevailing full service treated water rate, but shall not exceed \$250 per acre-foot.
- 1.6. "Project" shall mean the Chino Basin Desalination Program, Phase II, owned and operated by CDA, as described in Exhibit C and incorporated herein by reference, consisting of facilities capable of producing and distributing the Allowable Yield. CDA shall notify Metropolitan prior to making any changes to the Project that require new environmental documentation other than addendum to the existing environmental documentation. After reviewing the proposed change and associated environmental documentation, Metropolitan shall inform WMWD and IEUA and CDA of Metropolitan's decision to include or exclude the Project change to this Agreement.
- 1.7. "Recovered Groundwater" shall mean all Degraded Groundwater recovered and delivered for beneficial use by the Project in a fiscal year.
- 1.8. "Replenishment Water" shall mean that water obtained from Metropolitan and used for the purpose of replenishing natural groundwater basins.
- 1.9. "Estimated Contribution" shall mean the advanced financial contribution in dollars per acre-foot Metropolitan pays for Allowable Yield to CDA for monthly billing purposes until the Final Groundwater Storage Program Contribution is calculated pursuant to procedures in Sections 4.2 and 5.2, respectively.
- 1.10. "Project Unit Cost" shall mean the actual cost to produce an acre-foot of water by the Project in a fiscal year and is comprised of three components: Annualized Capital Component, Operation and Maintenance Component, and Annualized Replacement Component as specified in Exhibits D, E, and F, incorporated herein by this reference.

- 1.11. "Deferred Cost" shall mean that cost, in dollars per acre-foot, carried forward from the preceding fiscal year as calculated in Exhibit G, incorporated herein by this reference.

Section 2. Warranties

- 2.1. CDA warrants that the Project will continue to increase groundwater production for potable uses from the Chino Groundwater Basin and improve regional water supply reliability.
- 2.2. CDA warrants that it will continue to extract groundwater from the Chino Groundwater Basin to operate the Project subject to appropriate water rights.
- 2.3. CDA warrants that it is able and has a right to utilize and distribute Allowable Yield.
- 2.4. CDA warrants that it does not discriminate against employees or against any applicant for employment because of age, ancestry, color, creed, denial of family and medical care leave, mental or physical disability (including HIV and AIDS), marital status, medical condition, national origin, race, religion, sex or sexual orientation, and further warrants that it requires all contractors and consultants performing work on the Project to comply with all laws and regulations prohibiting discrimination against any applicant for employment because of age, ancestry, color, creed, denial of family and medical care leave, mental or physical disability (including HIV and AIDS), marital status, medical condition, national origin, race, religion, sex or sexual orientation.
- 2.5. CDA warrants that it has or will comply with the provisions of the California Environmental Quality Act for each and all components of the Project facilities.

Section 3. Ownership and Responsibilities

- 3.1. CDA is the sole owner of Project facilities. Metropolitan, WMWD and IEUA have no ownership right, title, security interest or other interest in the Project facilities.
- 3.2. CDA is solely responsible for all design, environmental documentation, right-of-way acquisitions, permits, construction, and cost of the Project and all modifications thereof.
- 3.3. CDA is solely responsible for operating and maintaining the Project in accordance with all applicable local, State, and federal laws. Metropolitan and WMWD and IEUA shall have no rights, duties or responsibilities for operation and maintenance of the Project.
- 3.4. CDA agrees to install, operate and maintain metering devices for the purpose of measuring the quantity of Allowable Yield delivered to its distribution system.
- 3.5. CDA agrees, at all times during the term of this Agreement, to use its best efforts to operate or cause the Project facilities to be operated to maximize Allowable Yield on a sustained basis.

Section 4. Billing Process

- 4.1. CDA shall invoice Metropolitan monthly for the Contribution based upon the Allowable Yield delivered to End Users during the previous month. After receiving CDA's invoice, Metropolitan shall include a credit equal to CDA's invoice amount on the next monthly water service invoice issued to WMWD and IEUA.
- 4.2. Upon receiving the Metropolitan invoice, WMWD and IEUA shall include the full amount of the credit received from Metropolitan pursuant to Section 4.1 as credit on its next water service invoice to CDA.
- 4.3. Unless otherwise provided for in this Agreement, all invoicing, billing and crediting processes shall be in accordance with the rules and regulations established from time to time by Metropolitan as reflected in Metropolitan's Administrative Code.

Section 5: Reconciliation Process

- 5.1. By December 31 of each fiscal year, CDA shall provide Metropolitan with: (a) records of Recovered Water and Allowable Yield; (b) supporting documentation of the actual cost of the Project for the previous fiscal year required to perform the calculations prescribed in Exhibits "D", "E", and "F"; (c) the terms and schedule of payments of the Project's financing instrument; and (d) a description of any changes to the Project's financing instruments. Metropolitan will suspend its Estimated Contribution if CDA fails to provide any of the above-required data by April First of each fiscal year. During the suspension period, CDA shall continue to invoice Metropolitan for the Allowable Yield for water accounting purposes. Metropolitan will resume the monthly Estimated Contribution once complete data is received and conduct the corresponding reconciliation pursuant to Section 5.2. Failure by CDA to provide reconciliation data within 18 months after the end of the fiscal year for which reconciliation is required shall constitute material breach of the Agreement.
- 5.2. Within 180 days after Metropolitan receives complete data from CDA, pursuant to Section 5.1, Metropolitan shall calculate the Final Contribution for the fiscal year. The Final Contribution shall then apply retroactively to all Allowable Yield for the applicable fiscal year. An adjustment shall be computed by Metropolitan for over- or under-payment for the Allowable Yield and included on the next billing issued to WMWD and IEUA and payments shall be made in accordance with Metropolitan's Administrative Code.
- 5.3. Parties agree that all contributions other than those derived from within WMWD and IEUA service area boundaries received prior to and during the term of this Agreement that offset eligible Project cost shall be deducted from respective cost components. During the reconciliation following receipt of such contributions, the Parties shall determine the equitable apportionment of such contributions for capital and/or operational purposes. If the Parties are unable to arrive at agreement, Section 6 shall apply.

Section 6: Coordinating Committee

- 6.1. The Coordinating Committee is composed of one participant each from Metropolitan, WMWD, IEUA, and CDA. The Coordinating Committee shall meet as needed to resolve issues regarding the Contribution, Annualized Capital Component, Operation and Maintenance Component, Annualized Replacement Component, and Project Unit Cost. Coordinating Committee's responsibilities exclude renegotiating the terms of this agreement.
- 6.2. The Coordinating Committee shall, to the extent possible, seek to establish consensus in carrying out its responsibilities. Metropolitan shall have one vote and WMWD, IEUA, and CDA shall collectively have one vote on the committee. If by voting the Coordinating Committee cannot resolve a particular matter or matters, a third party shall be appointed by the Parties to provide a third vote on the Committee, and the Coordinating Committee shall then act by majority vote as to the matter or matters. The Coordinating Committee's decision shall be final and binding on all Parties. If the Parties cannot agree on the third party, then any Party may request a court to appoint the third party pursuant to Code of Civil Procedure, Section 1281.6. Costs for the third party shall be paid equally by Parties, and shall not be included in the Project Unit Cost.

Section 7: Term and Amendments

- 7.1. This Agreement shall commence on July 1, 2007 and terminate on June 30, 2032 unless terminated earlier pursuant to the provisions set forth in the sections below.
- 7.2. This Agreement may be amended at any time by written mutual agreement of the parties.
- 7.3. CDA may terminate this Agreement upon 30 days prior notice.
- 7.4. Consistent with Met Board Letter 7-11, dated June 12, 2007 and included hereto as Exhibit "A", Metropolitan will terminate this Agreement upon 30 days prior notice upon the following occurrences, whichever occurs first, unless these deadlines are subsequently extended by Metropolitan's Board:
 - (a) on September 1, 2009 (two years from September 1, 2007) if the parties have not amended Agreement No. 49960 (Groundwater Storage Program Funding Agreement) to expand the groundwater storage program as contemplated in Exhibit "A".
 - (b) on September 1, 2009 (two years from September 1, 2007) if the parties have not amended Agreement No. 49960 (Groundwater Storage Program Funding Agreement) to eliminate losses to the Metropolitan Storage Account contemplated in Agreement No. 49960 section VI.C.1.c. retroactive to September 1, 2007 and for the term of Agreement No. 49960 for the expanded storage program, as amended from time to time.

(c) on September 1, 2012 (five years from September 1, 2007) if the parties have not implemented the actions defined in the amended Agreement No. 49960 (Groundwater Storage Program Funding Agreement). Implemented, for purposes of this section means: completed construction for all facilities and signed all agreements necessary for performance of the expanded Groundwater Storage Program set forth in the amendment to Agreement No. 49960.

- 7.5 Metropolitan will terminate this agreement upon 30 days prior notice upon the following occurrences:
- (a) breach of this Agreement by any other party, other than Metropolitan.
 - (b) If the Project does not continue to produce at least 10,000 acre-feet per year.
 - (c) breach of Agreement No. 49960 (Groundwater Storage Program Funding Agreement) by any other party, other than Metropolitan.

Section 8: Record Keeping and Audit

- 8.1. CDA shall establish and maintain accounting records of all costs incurred for the construction, operation and maintenance, and replacement parts of the Project as described in Exhibits "D", "E", and "F" and all contributions as described in Section 5.3. Accounting for the Project shall utilize generally accepted accounting practices and be consistent with the terms of this Agreement. CDA's Project accounting records must clearly distinguish all costs for the Project from CDA's other water production, treatment, and distribution costs. CDA's records shall also be adequate to determine Allowable Yield and Recovered Groundwater to accomplish all cost calculations described in this Agreement.
- 8.2. CDA shall establish and maintain accounting records of all contributions including grants that offset eligible Project capital costs, operation and maintenance costs, and/or replacement costs, as outlined in Section 5.3.
- 8.3. CDA shall collect Recovered Water and Allowable Yield data for each fiscal year of Project operation and retain records of that data based on the metering requirements in Section 3.4.
- 8.4. Metropolitan shall have the right to audit all Project costs and other data relevant to the terms of this agreement for a period of three fiscal years following the termination of this Agreement. Metropolitan may elect to have such audits conducted by its staff or by others, including independent accountants, as designated by Metropolitan. CDA shall make available for inspection to Metropolitan or its designee, upon 30 days advance notice, all records, books and other documents, including all billings and costs incurred by contractors, relating to the construction, operation and maintenance of the Project; any grants and contributions, as described in Exhibits "D", "E", and "F"; and capital cost financing. Upon 30 days advance notice and at Metropolitan's request, CDA shall also allow Metropolitan's personnel or its designee to accompany CDA staff in inspecting

CDA's contractors' records and books for the purpose of conducting such audits of Project costs.

- 8.5. In lieu of conducting its own audit(s), Metropolitan shall have the right to direct CDA to have an independent audit conducted of all Project costs incurred in any fiscal year(s) pursuant to this Agreement. CDA shall then have an audit performed for said fiscal year (s) by an independent certified public accounting firm and provide Metropolitan copies of the audit report within six months after the date the audit was requested. The cost of any independent audit performed under this agreement shall be paid by CDA and is an allowable Project operation and maintenance cost pursuant to Exhibit "E". Based on the results of any independent audit, an adjustment for over or under payment of Allowable Yield for each applicable fiscal year shall be paid by Metropolitan or CDA through WMWD and IEUA within one year of determination after such adjustment.
- 8.6. With the first submittal of Project data as required by Section 5, CDA shall provide Metropolitan with an audit of costs pursuant to Section 8.5 and a certification from an independent certified public accounting firm indicating that CDA has established an accounting system to record Project water deliveries and costs pursuant to Sections 8.1, 8.2, and 8.3.

Section 9: Interruption of Water Supply

- 9.1. Replenishment for the Project pumping is contemplated to be derived from: intercepting rising water, reclaimed water, transfer or abandonment of existing presently unused water, the new water introduced to the basin and Metropolitan's imported water if available, and if the aforementioned sources are insufficient.
- 9.2. Nothing in this agreement guarantees replenishment water deliveries by Metropolitan needed to support the Project's Allowable Yield. Availability of such deliveries shall be solely at Metropolitan's discretion.
- 9.3. CDA agrees to diligently prepare for and operate the Project during interruption of Metropolitan's replenishment deliveries pursuant Subsection 9.2.
- 9.4. Subsequent to restoration of Metropolitan deliveries of replenishment water, the parties shall diligently replenish the Chino Basin to sustain another three years of interruption of Metropolitan replenishment water. Subject to the provisions of Metropolitan's policies and Administrative Code, Metropolitan shall make deliveries of replenishment water requested by the Watermaster for its use in restoring groundwater storage.

Section 10. Hold Harmless and Liability

- 10.1. CDA agrees at its sole cost and expense to protect, indemnify, defend, and hold harmless Metropolitan, WMWD, and IEUA and their Board of Directors, officers, representatives, agents and employees from and against any and all claims and liability of any kind (including, but not limited to, any claims or liability for injury or death to any person, damage to property, natural resources or the environment, or water quality problems) that arise out of or relate to CDA's approval, construction, operation, repair or ownership of the Project, including any use, sale, exchange or distribution of Project water. Such

indemnity shall include all damages and losses related to any claim made, whether or not a court action is filed, and shall include attorney fees, administrative and overhead costs, engineering and consulting fees and all other costs related to or arising out of such claim of liability.

- 10.2. CDA shall include the following language in its agreement with any consultant or contractor retained by CDA to work on the Project:“(Consultant) agrees at its sole cost and expense to protect, indemnify, defend, and hold harmless Metropolitan, WMWD, and IEUA, and their Board of Directors, officers, representatives, agents and employees from and against any and all claims and liability of any kind (including, but not limited to, any claims or liability for injury or death to any person, damage to property, natural resources or to the environment, or water quality problems) that arise out of or relate to CDA’s approval, construction, operation, repair or ownership of the Project, including the use, sale, exchange or distribution of Project water. Such indemnity shall include all damages and losses related to any claim made, whether or not a court action is filed, and shall include attorneys’ fees, administrative and overhead costs, engineering and consulting fees and all other costs related to or arising out of such claim or liability.”

Section 11. Notice

Any notice, payment or instrument required or permitted to be given hereunder shall be deemed received upon personal delivery or 24 hours after deposit in any United States post office, first class postage prepaid and addressed to the Party for whom intended, as follows:

If to Metropolitan:	The Metropolitan Water District of Southern California Post Office Box 54153 Los Angeles, California 90054-0153 Attention: Jeffrey Kightlinger
If to CDA:	CHINO DESALTER AUTHORITY 6905 Kimball Avenue Chino, California 91710 Attention: Dean Martin
If to WMWD:	Western Municipal Water District of Riverside County P. O. Box 5286 Riverside, California 92517 Attention: John V. Rossi
If to IEUA:	Inland Empire Utilities Agency P. O. Box 9020 Chino Hills, CA 91709-9020 Attention: Richard W. Atwater

Any Party may change such address by notice given to each of the other Parties as provided in this section.

Section 12. Successors and Assigns

This Agreement shall inure to the benefit of and be binding upon the successors and assigns of the Parties hereto. This Agreement and any portion thereof shall not be assigned or transferred to any entity not an original Party to this Agreement, nor shall any of the duties be delegated, without the express written consent of all the Parties. Any attempt to assign or delegate this Agreement or any of the obligations or benefits of this Agreement without the express written consent of all Parties shall be void and of no force or effect.

Section 13. Severability

The partial or total invalidity of one or more sections of this Agreement shall not affect the validity of this Agreement.

Section 14. Integration

This Agreement comprises the entire integrated understanding between the Parties concerning the Project, and supersedes all prior negotiations, representations, or agreements.

Section 15. Governing Law

The law governing this Agreement shall be the laws of the state of California and the venue of any action brought hereunder shall be in Los Angeles County, California.

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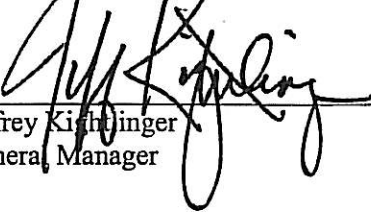
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IN WITNESS WHEREOF, the Parties hereto have executed this Agreement effective as of the date first hereinabove written.

THE METROPOLITAN WATER DISTRICT
OF SOUTHERN CALIFORNIA



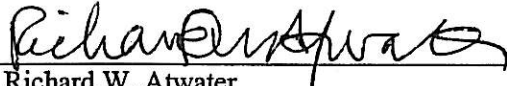
Jeffrey Kindinger
General Manager

WESTERN MUNICIPAL WATER
DISTRICT OF RIVERSIDE



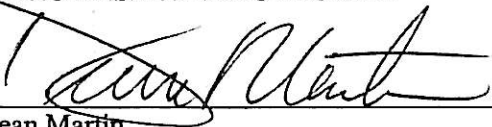
FOR: John V. Rossi
General Manager

INLAND EMPIRE UTILITIES AGENCY



Richard W. Atwater
General Manager

CHINO DESALTER AUTHORITY



Dean Martin
Treasurer

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EXHIBIT "A"

BOARD LETTER 7-11 DATED JUNE 12, 2007

EXHIBIT "B"

CHINO BASIN GROUNDWATER STORAGE AGREEMENT, AGREEMENT NO. 49960
EXECUTED IN JUNE 2003

EXHIBIT "C"

PROJECT DESCRIPTION

Chino Basin Desalination Program, Phase II

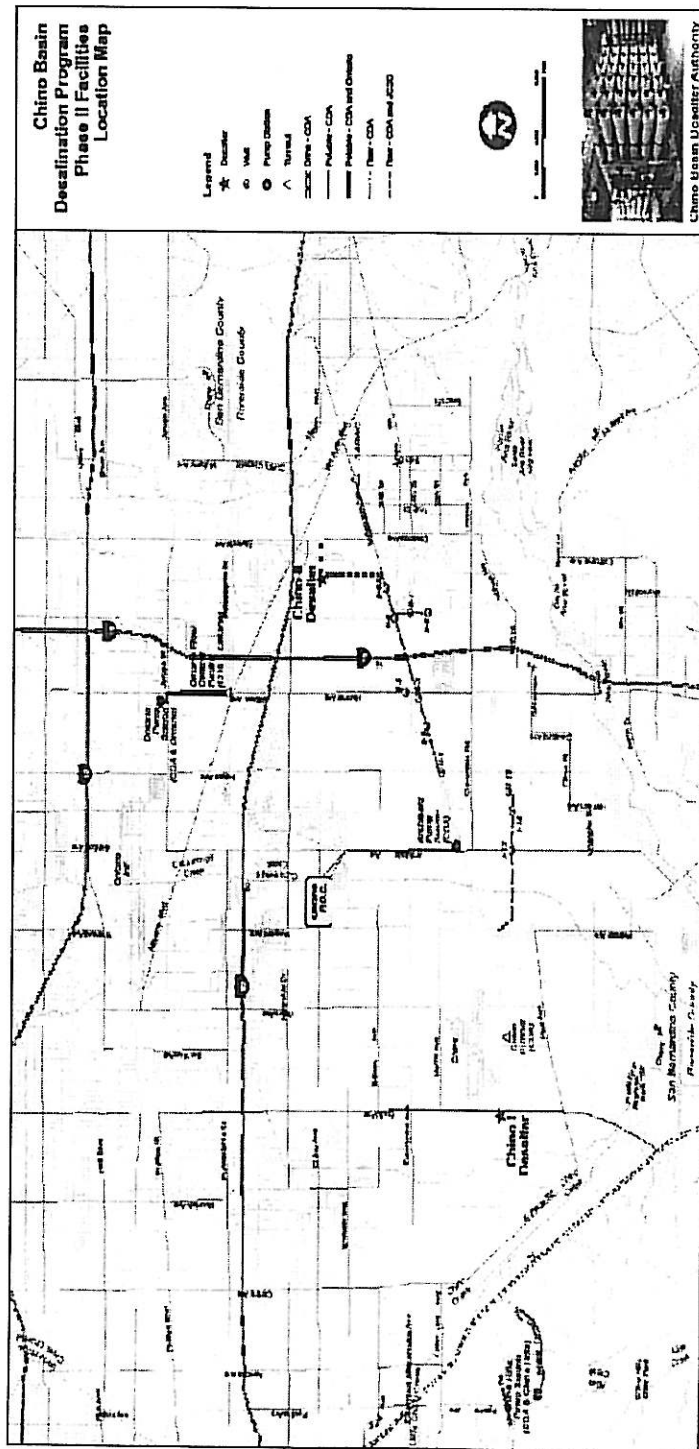
The Chino Basin Desalination Program, Phase II Project, consists of the construction, operation and maintenance of groundwater production wells, pipelines, with ion exchange and reverse osmosis treatment system facilities and ancillary facilities to recover degraded groundwater from the Chino Basin as shown on the attached figure. The project includes clearwell, booster pumps, storage tanks and transmission pipelines, groundwater raw water pipelines, and wastewater brine sewers connecting to the Santa Ana Watershed Project Authority (SAWPA) Santa Ana Regional Interceptor (SARI) system.

The project will yield an estimated 15,000 acre-feet per year (AFY) of treated "potable" water for use within the Inland Empire Utilities Agency and Western Municipal Water District. Approximately 3,000 AFY of brine concentrate will be discharged into the SARI system.

The project will include the extraction of groundwater containing high concentrations of total dissolved solids (tds) and nitrates, treatment of groundwater and conveyance of product water to the cities of Chino, Chino Hills, Ontario, Norco, and Santa Ana River Mutual Water Company, and Jurupa Community Services District potable systems. All of these agencies are members of the CDA, which owns and operates the Chino Basin Desalination Facilities.

FIGURE "A"

CHINO BASIN DESALINATION PROGRAM - PHASE II LOCATION MAP



ANNUALIZED CAPITAL COMPONENT

1. The Annualized Capital Component shall be computed using only the following incurred costs for the Project:
 - a. Final design and construction management services.
 - b. Construction of Project facilities (including start-up), more particularly described in Exhibit "C". Additional capital improvements that are not consistent with the Project Description outlined in Exhibit "C" must be submitted to Metropolitan for review. Written approval by Metropolitan is required before such costs are considered eligible for inclusion in the Annualized Capital Component calculation.
 - c. Agency administration of the design, construction and start-up not to exceed three percent of the eligible construction costs unless approved in writing by Metropolitan.
 - d. Permits, including required data collection.
 - e. Purchase of land, rights-of-way and easements for the Project described in Exhibit "C" except as provided herein.
 - f. County Sanitation District of Orange County (CSDOC) treatment capacity charge, not to exceed CSDOC's uniform capacity rate applicable to all other users at the time of capacity purchase.
 - g. CDA's Santa Ana Regional Interceptor (SARI) capacity charge, not to exceed CDA's uniform SARI capacity rate applicable to all other users at the time of capacity purchase.
 - h. All contributions (except those derived from Metropolitan water management incentives), which are received by CDA from others and offset the above listed eligible capital costs shall be treated as negative capital cost values for the purpose of computing Annualized Capital Component.
2. Cost of the following items shall not be used to calculate the Annualized Capital Component:
 - a. Distribution and concentrated waste disposal facilities beyond the Project's points of connection.
 - b. Environmental planning, documentation, and mitigation measurements required to comply with applicable environmental laws, including but not limited to the California Environmental Quality Act (CEQA), National Environmental Policy Act (NEPA), and the California and Federal Endangered Species Acts.
 - c. Existing water systems, facilities, land, rights-of-way, and easements except as provided herein.
 - d. Feasibility studies.

- e. Deposit of any reserve funds required as a condition of financing.
 - f. All others not specified in Section 1 of this Exhibit.
3. Annualized Capital Cost (ACCost) in dollars per year shall be computed using the following procedure:

- a. For fixed-interest rate financing with uniform payments:

$$\text{ACCost} = \text{CRF}_1 \times P_1 + \text{CRF}_2 \times P_2 + \dots + \text{CRF}_j \times P_j$$

Where:

- i. P_j is each portion of incurred capital cost for Project with a distinct financing arrangement.
 - ii. CRF_j is the capital recovery factor for each distinct financing arrangement, as follows:
 - iii. $\text{CRF}_j = [i \times (1+i)^n] / [(1+i)^n - 1]$
 - iv. i is the interest rate (%)
 - v. n is the term of financing commencing in the first fiscal year of Project operation (years)
 - vi. j is the number of each separate financing element
- b. If the Project capital cost is part of a broad financing arrangement that includes other costs, annual payments shall be calculated by prorating the annual payments of the broad financing using the ratio of the Project capital cost to total principle of the financing instrument.
 - c. For variable-interest rate financing, annual payments shall be computed based on the actual payments made in applicable fiscal year according to CDA's financing documents. Any principal payments toward the Project capital cost before the Project operation will be treated as cash. CDA shall provide Metropolitan with the accumulated paid principal pursuant to Section 5.1.
 - d. For fixed-interest rate financing with a non-uniform annual payment schedule, an economically equivalent uniform annual payment schedule shall be calculated based on "Internal Rate of Return" analysis to establish the annualized capital cost.
 - e. Project capital costs not covered by a financing arrangement described above and all grants and contributions as defined in Section 5.3 shall be amortized over 25 years at an interest rate equal to the lesser of:
 - i. Metropolitan's most recent weighted cost of long-term debt on June 30 in the year the capital expenditure occurred; or
 - ii. The fiscal year average of the 25-bond Revenue Bond Index (RBI), as published in the Bond Buyer, in the year the capital expenditure occurred.

- f. All grants or contributions shall be amortized as a negative capital cost values beginning in the year that money was received.
- g. After first fiscal year of operation, only refinancing changes, which lower the Annualized Capital Component, shall be included in the Annualized Capital Component calculation of each subsequent fiscal year.
- h. If the Project capital cost is part of a broad financing arrangement, annual payments shall be calculated by prorating the annual payments of the broad financing using the ratio of the Project capital cost to total amount of the bigger financing.
- i. For all capital financing, cash expenditures, and grants and contributions received after the Project operation, annual payments shall be calculated, using above process, beginning in the fiscal year the costs occur.

4. The Annualized Capital Component (ACCom) in dollars per acre-foot for purposes of determining the Project Unit Cost each fiscal year shall be calculated using the following formula:

$$ACCom = (ACCost)(D)/[(365)(Q)]$$

Where:

Q is Recovered Groundwater, and may not be less than 12,000 acre-feet (80% of approximate Project Capacity) unless otherwise approved in writing by Metropolitan; and

D is number of days, not to exceed 365, in a fiscal year following the initial start of operation, and prior to the termination of the agreement.

OPERATION AND MAINTENANCE COMPONENT

1. The Operation and Maintenance Component shall be computed using the costs incurred during the applicable fiscal year for the following:
 - a. Professional consulting services for Project operation, maintenance and audits, excluding daily Project operation.
 - b. CDA labor costs and/or contract labor costs for the hours worked by CDA's staff specifically pertaining to administration of the Project, not to exceed the sum total of \$150,000 for fiscal year 2007/08. This upper limit shall be escalated pursuant to changes in the Consumer Price Index for Los Angeles area, using the following formula:
$$(\$50,000 \times \text{ENRCCI-LA for July of fiscal year } i) / (\text{ENRCCI-LA for July 2007})$$
any Party may request the Coordinating Committee to revise the allowable labor cost. Labor cost in the first fiscal year of production of Allowable Yield shall be prorated based on the number of days of production of Allowable Yield.
 - c. Chemicals and supplies for Project operation, maintenance and repair to maintain reliable system operation and achieve regulatory compliance.
 - d. Electrical or gas energy use, not to exceed \$5,000,000 per year, for:
 - (i) Project supply wells.
 - (ii) Project lighting and general electrical needs.
 - (iii) Project booster pumps.
 - (iv) Concentrate waste disposal pumping.
 - e. Water quality sampling and analysis for the Project.
 - f. Contractor staff or O&M services and supplies for Project operation, maintenance and repair to maintain reliable system operation and achieve regulatory compliance, or if CDA chooses to do this work itself, this O&M cost shall be subject to Metropolitan's approval.
 - g. Concentrate disposal user fee limited to CDA's and CSDOC's uniform SARI rate applied to all other water discharged into CDA's Santa Ana Regional Interceptor pipeline and CSDOC's treatment facilities.

- h. All contributions (except those derived from Metropolitan water management incentives), which are received by CDA from others and offset the listed eligible operation and maintenance costs shall be treated as negative values for the purpose of computing Operation and Maintenance Component.
 - i. Watermaster replenishment charges and appropriate administration costs applied to all groundwater pumped for Project operation. These charges shall be equal to or less than:
 - A. The uniform rate charged by the Chino Basin Watermaster applied to comparable municipal groundwater production in the Chino Basin, or
 - B. A uniform rate, not to exceed i. (A.) above charged by others for replenishment water.
 - j. Project Insurance.
 - k. Lease of Project site.
 - l. Replacement parts costs that are less than or equal to \$100,000 per unit.
2. Costs of the following items shall not be used to calculate the Operation and Maintenance Component:
- a. Operation and maintenance of distribution, concentrate waste disposal and storm drain systems beyond Project's points of connection.
 - b. Replacement parts pursuant to Exhibit "F".
 - c. Concentrate waste disposal fee unless approved by Metropolitan.
 - d. All other operation and maintenance items not specified in Section 1 of this Exhibit.
3. The Operation and Maintenance Component (OMC) in dollars per acre-foot for purposes of determining the actual Project Unit Cost each fiscal year shall be calculated using the following formula:

$$(OMC) = (\text{Actual Annual Cost of O\&M}) / (\text{Recovered Groundwater}).$$

ANNUALIZED REPLACEMENT COMPONENT

1. The Annualized Replacement Component shall be computed using incurred costs for the following:

a. Membrane replacement.

Replacement of major parts exceeding \$100,000 per unit, including existing components described in Exhibit "C".

b. All contributions (except those derived from Metropolitan water management incentives), which are received by CDA from others and offset the listed eligible replacement costs, shall be treated as negative values for the purpose of computing Annualized Replacement Component.

c. Salvage of replaced parts shall be a negative replacement cost.

2. Costs of the following items shall not be used to calculate the Annualized Replacement Component:

a. Replacement of distribution and concentrate waste disposal systems beyond the Project's points of connection.

b. Any capital or operation and maintenance costs as previously defined in Exhibits "D" and "E", respectively.

c. Reserve funds.

3. The Annualized Replacement Cost (ARCost) regarding each replacement occurrence defined in this Exhibit "F" shall be calculated using the following procedure:

$$\text{ARCost} = (\text{CRF}) \times (\text{R})$$

Where:

a. R is the summation of all costs of replacing major Project parts other than membranes, incurred through the term of the Agreement.

b. CRF is the capital recovery factor specified in Exhibit "D", used to amortize incurred replacement costs, other than membranes, over 20 years using Metropolitan's default interest rate. Metropolitan's default interest shall be equal to the lower of:

- i. Metropolitan's most recent weighted cost of long-term debt; or
- ii. the average of the 25-bond Revenue Bond Index (RBI) (as published in the Bond Buyer), or such other index that may replace the 25-bond RBI, over the most recent six-month period prior to the date the replacement cost was incurred by CDA.

4. The Annualized Replacement Component (ARCom) for each replacement occurrence in dollars per acre-foot shall be calculated using the following procedure:

$$\text{ARCom} = \text{ARCost}/Q$$

Where:

Q is the Recovered Groundwater for the fiscal year, and shall not be less than $(0.8)(\text{Project Capacity})(D/365)$, unless otherwise approved in writing by Metropolitan; and

D is the number of days, not to exceed 365, in a fiscal year following the initial start of operation, and prior to the termination of the Agreement.

DEFERRED COST

Deferred Cost (DC) applicable to the determination of Agreement Purchase Price for the next fiscal year is computed as follows:

$$DC = (EPC) / (\text{Recovered Groundwater})$$

Where:

1. EPC is the Excess Project Cost incurred in a fiscal year, and it is calculated using the following formula:

$$EPC = [(\text{Project Unit Cost}) - (\text{Treated Non-interruptible Water Rate} - \text{Metropolitan's Maximum Financial Incentive Rate})] \times [\text{Allowable Yield}]$$

The EPC value for a given fiscal year shall be used only in the calculation of DC for the next fiscal year and shall be considered zero thereafter. There shall be no DC value carryover upon Agreement termination.

2. The Recovered Groundwater term is the Project water in acre-feet produced in the next fiscal year.

- **Board of Directors**
Water Planning and Stewardship Committee

June 12, 2007 Board Meeting

7-11

Subject

Authorize execution of an agreement for the Chino Basin Desalination Phase II desalter; and appropriate \$1.5 million to study expansion of the existing Chino Basin Groundwater Storage Program (Approp. 15272)

Description

Background

In the early 1990s, Metropolitan and its member agencies developed its Integrated Water Resources Plan (IRP) to ensure regional water supply reliability. The IRP identifies in-basin groundwater storage as an important part of Metropolitan's water resource mix. In 2004, the Board approved the IRP Update, which updated the resource development targets for groundwater storage. The groundwater storage dry-year yield target for 2010 is 275,000 acre-feet per year (AFY).

Entities within the Chino Basin have developed a comprehensive planning document, the Optimum Basin Management Plan (OBMP), which identifies strategies to protect and manage the Chino Basin for the next 50 years. The goals of the OBMP are to provide additional water supplies, improve water quality, "drought proof" the region, enhance economic development, and improve environmental quality. The OBMP has nine elements, including groundwater storage and salt management plans. Parties within the Chino Basin have begun implementation of various strategies outlined in the OBMP.

In June 2003, Metropolitan executed the Chino Basin Groundwater Storage Agreement (Storage Agreement) with the Chino Basin Watermaster (Watermaster), Three Valleys Municipal Water District (TVMWD), and Inland Empire Utilities Agency (IEUA) for a groundwater storage program in the Chino groundwater basin. The Storage Agreement gives Metropolitan the ability to store 100,000 AF of water in the basin. Metropolitan funded facilities in the basin to pump and treat its stored water. These facilities will give the participating agencies the ability to produce 33,000 AFY of water from the basin at Metropolitan's call. Total funding for the project is \$27.5 million, including \$18.5 million of Metropolitan funds and \$9 million of Proposition 13 funds. Currently, more than 90,000 AF of water is stored in Metropolitan's storage account.

Current Proposal

Watermaster, TVMWD, IEUA, and Western Municipal Water District (Western) are proposing to expand the storage capacity in the existing Storage Agreement from 100,000 AF to 150,000 AF, with a corresponding increase in dry-year yield from 33,000 AFY to 50,000 AFY. As an essential element for expanding the Storage Agreement, Watermaster, TVMWD, IEUA, and Western are also proposing an agreement that would pay up to \$250/AF for about 15,000 acre-feet per year of water produced by the existing Phase II of the Chino Desalination Project. This desalter has been producing water since June 30, 2006.

As an integral part of the Storage Program these facilities will eliminate losses for water stored in the existing agreement, and help provide needed flexibility in the basin.

The expanded Storage Program is expected to provide the following regional benefits: (1) Additional storage capacity – an increase of 50 percent to 150,000 AF; (2) Additional dry year yield increasing from 37,000 AF to 50,000 AF; (3) Elimination of losses in Metropolitan's account; (4) The ability to help manage peak delivery on the East Branch and Rialto Feeder; and (5) Improved water quality in the Chino Basin.

In order to implement the program, staff recommends the following terms and conditions for the two agreements:

Chino Desalter II Agreement—The proposed terms of the agreement would be as follows:

- Metropolitan would pay \$250/AF for up to 15,000 AFY for water from Phase II of the Chino Desalination Project (this agreement is not under the Local Resources Program);
- The Chino II Desalter Agreement would expire in two years if the existing Storage Agreement has not been amended consistent with the terms noted in the board letter;
- The Chino II Desalter Agreement would expire in five years if the amendments to the Storage Agreement have not been implemented; and
- The term of the agreement would be 25 years.

Storage Agreement—The proposed amendments to the Storage Agreement would be as follows:

- Metropolitan's stored water in the basin would not be subject to losses;
- Participants would reduce peak demands at Metropolitan's request;
- Western would be added as a party to the Storage Agreement; and
- Metropolitan would reimburse \$1.5 million to Chino Basin entities to conduct the groundwater study.

Groundwater study—Metropolitan's partners in the Chino Basin would conduct a groundwater and operational study. The proposed budget for the study would be \$1.5 million and would be reimbursed by Metropolitan. This funding level would be approximately equivalent to what Metropolitan paid to fund the study for the existing Groundwater Storage Agreement. The study would be designed to:

- Determine facility and operational components needed to allow dry-year yield to be increased to approximately 50,000 AFY;
- Determine facilities needed, with a cost limited to \$15 million for capital, to implement the expanded Storage Agreement;
- Develop an operating plan for the expanded Storage Agreement to determine local agency participation;
- Investigate optimized operations of the Azusa Pipeline, Rialto Feeder, Upper Feeder and East Branch of the California Aqueduct;
- Investigate the impacts of reduced peaking on the East Branch and the Rialto Pipeline; and
- Perform preliminary engineering design and CEQA for the expanded program.

Conclusion

Without the Chino Desalination Project desalination activities, Metropolitan's ability to participate in conjunctive use programs in the Chino Basin would be limited. Pumping and treatment by the Chino Desalination Project maintains groundwater levels conducive to storing water in the basin, keeps poor quality water from flowing into the Santa Ana River, and treats previously unusable groundwater for potable use. In addition, Metropolitan's stored water in the Chino Basin would not be subject to losses, which would reduce costs. These actions would help meet Chino Basin's OBMP objectives and help Metropolitan meet its water supply objectives. Upon completion of the study, staff would return to the Board with a proposal for amending the Storage Agreement.

Funds for this study have been budgeted within the Local Groundwater Storage Agreement Program. See **Attachment 1** for the Financial Statement.

Policy

As adopted by the Board, the IRP Update recommends developing an in-basin dry-year yield of 275,000 AFY by 2010 and 300,000 AFY by 2025.

California Environmental Quality Act (CEQA)

CEQA determination for Option #1:

The proposed actions are not subject to CEQA because they involve other government fiscal activities, which do not involve any commitment to any specific project which may result in a potentially significant physical impact on the environment (Section 15378(b)(4) of the State CEQA Guidelines). In addition, the proposed actions consist of basic data collection and resource evaluation activities which do not result in a serious or major disturbance to an environmental resource. This may be strictly for information gathering purposes, or as part of a study leading to an action which a public agency has not yet approved, adopted, or funded. Accordingly, the proposed actions also qualify for a Class 6 Categorical Exemption (Section 15306 of the State CEQA Guidelines).

The CEQA determination is: Determine that the proposed actions are exempt from CEQA pursuant to Sections 15306 and 15378(b)(4) of the State CEQA Guidelines.

CEQA determination for Option #2:

The proposed action is categorically exempt under the provisions of CEQA and the State CEQA Guidelines. The proposed action consists of basic data collection and resource evaluation activities, which do not result in a serious or major disturbance to an environmental resource. This may be strictly for information gathering purposes, or as part of a study leading to an action which a public agency has not yet approved, adopted, or funded. Accordingly, the proposed action qualifies as a Class 6 Categorical Exemption (Section 15306 of the State CEQA Guidelines).

The CEQA determination is: Determine that pursuant to CEQA, the proposed action qualifies under a Categorical Exemption (Class 6, Section 15306 of the State CEQA Guidelines).

CEQA determination for Option #3:

None required

Board Options

Option #1

Adopt the CEQA determination and

- a. Authorize the General Manager to execute the Chino Desalter II Agreement for up to \$250 per acre-foot of desalted water. This agreement will expire in two years if the existing Storage Agreement has not been amended consistent with the terms noted in the board letter, or if the amendments to the Storage Agreement have not been implemented within five years;
- b. Appropriate \$1.5 million in budgeted funds; and
- c. Authorize the General Manager to reimburse IEUA, TVMWD and Western \$1.5 million for a study to expand the existing Storage Agreement.

Fiscal Impact: \$3.75 million of desalted water per year for 15,000 AFY from Phase II of the Chino Desalter at \$250/AF for 25 years, and \$1.5 million in studies for the expanded conjunctive use program

Business Analysis: The IRP Update includes targets for developing an in-basin dry-year yield of 275,000 acre-feet by the year 2010. In-basin conjunctive use is an integral part of Metropolitan's overall plan to ensure the future reliability of Metropolitan's water supply. Not approving these actions could jeopardize Metropolitan's ability to meet its in-basin and local project targets. Phase II of the Chino Desalination Project is already producing water. While Metropolitan does not usually pay incentives to assure continued production from existing programs, this project is an integral element for expanding the Storage Agreement.

Option #2

Adopt the CEQA determination and

- a. Appropriate \$1.5 million in budgeted funds; and
- b. Authorize the General Manager to expend \$1.5 million for the groundwater study. Based on the outcome of the studies, the General Manager would then negotiate the Chino Desalter II Agreement and amendments to the existing Storage Agreement to initiate payment of up to \$250/AF for produced water.

Fiscal Impact: \$1.5 million for the groundwater studies and \$3.75 million per year for desalted water, once the program is approved

Business Analysis: The IRP Update includes targets for developing an in-basin dry-year yield of 275,000 acre-feet by the year 2010. In-basin conjunctive use is an integral part of Metropolitan's overall plan to ensure the future reliability of Metropolitan's water supply. Not approving these actions could jeopardize Metropolitan's ability to meet its dry-year yield targets.

Option #3

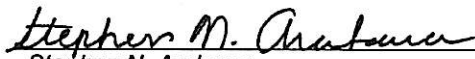
- a. Do not appropriate funds for the groundwater study or the agreement.
- b. Authorize the General Manager to enter into negotiations with the member agencies for the Chino Desalter II Agreement and to amend the existing Storage Agreement under different terms.
- c. Return to the Board for approval of the amended agreements.

Fiscal Impact: None

Business Analysis: Groundwater rights holders may be less likely to enter into conjunctive use agreements without information on impacts to the basin and assurances for payments for desalter production.

Staff Recommendation

Option #1


 Stephen N. Arakawa
 Manager, Water Resource Management

5/29/2007
Date


 Jeffrey Lightlinger
 General Manager

5/31/2007
Date

Attachment 1 – Financial Statement for Local Groundwater Storage Agreements Program

BLA #5459

Financial Statement for Local Groundwater Storage Agreements Program

A breakdown of Board Action No. 8 for Appropriation No. 15272 for the Local Groundwater Storage Agreements Program is as follows:

	Previous Total Appropriated Amount (May 2006)	Current Board Action No. 8 (June 2007)	New Total Appropriated Amount
Labor			
Studies & Investigations	\$ 210,000	-	\$ 210,000
Materials and Supplies	-	-	-
Incidental Expenses	-	-	-
Professional/Technical Services	480,000	1,500,000	1,980,000
Equipment Use	-		-
Contracts	60,200,000		60,200,000
Remaining Budget	-	-	-
Total	\$ 60,890,000	\$ 1,500,000	\$ 62,390,000

Funding Request

Program Name:	Local Groundwater Storage Agreements		
Source of Funds:	Revenue Bonds, Replacement and Refurbishment or General Funds		
Appropriation No.:	15272	Board Action No.:	8
Requested Amount:	\$ 1,500,000	Capital Program No.:	15272-S
Total Appropriated Amount:	\$ 62,390,000	Capital Program Page No.:	E-45
Total Program Estimate:	\$ 210,000,000	Program Goal:	S – Supply and Delivery Reliability

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CHINO BASIN WATERMASTER

III. REPORTS/UPDATES

A. WATERMASTER GENERAL LEGAL COUNSEL REPORT

5. MOU of Water Accounting Procedures in Chino Basin





MWD

METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

Executive Office

August 26, 2008

Mr. Richard Atwater
General Manager
Inland Empire Utilities Agency
P.O. Box 9020
Chino Hills, CA 91709

Mr. Richard Hansen
General Manager/Chief Engineer
Three Valleys Municipal Water District
1021 E. Miramar Avenue
Claremont, CA 91711

Mr. Ken Manning
Chief Executive Officer
Chino Basin Watermaster
9641 San Bernardino Road
Rancho Cucamonga, CA 91730

Dear Messrs. Atwater, Hansen, and Manning:

Memorandum of Understanding of Water Accounting Procedures in Chino Basin

Enclosed are four originals of the Memorandum of Understanding of Water Accounting Procedures in Chino Basin (MOU). This MOU sets out the basic procedures for administering the groundwater storage program agreement in Chino Basin. This document does not change the provisions of the agreement in any way. Please execute the four originals of the MOU on behalf of your agency and return them to Mr. Matthew Hacker at The Metropolitan Water District of Southern California. Once all parties have executed the amendment, a complete set will be forwarded to your agency. Please direct any questions to Ms. Kathy Kunysz at (213) 217-6272 or to Mr. Matthew Hacker at (213) 217-6756.

Very truly yours,

Stephen N. Arakawa
Manager, Water Resource Management

MH:tw

o:\a\s\c\2008\MDH_A49960 Amend 4 Chino CUP executed transmittal 8-6-08.doc

Enclosures

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MEMORANDUM OF UNDERSTANDING OF WATER ACCOUNTING PROCEDURES

RELATING TO

**GROUNDWATER STORAGE PROGRAM FUNDING AGREEMENT NO. 49960 (DYY)
IN CHINO BASIN,
AS AMENDED**

AMONG

**METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA
INLAND EMPIRE UTILITIES AGENCY
THREE VALLEYS MUNICIPAL WATER DISTRICT
CHINO BASIN WATERMASTER**

SEPTEMBER 2008

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**MEMORANDUM OF UNDERSTANDING OF WATER ACCOUNTING PROCEDURES
RELATING TO
GROUNDWATER STORAGE PROGRAM FUNDING AGREEMENT NO. 49960 (DYY)
IN CHINO BASIN,
AS AMENDED**

1. INTRODUCTION

THIS MEMORANDUM OF UNDERSTANDING OF WATER ACCOUNTING PROCEDURES RELATING TO GROUNDWATER STORAGE PROGRAM FUNDING AGREEMENT NO. 49960 (DYY) IN CHINO BASIN, AS AMENDED dated as of September ___, 2008 sets out the basic procedures for administering the groundwater storage program in Chino Basin in conjunction with other water resource programs of the Metropolitan Water District of Southern California (Metropolitan) in the Chino Basin. This document does not change the provisions of any of these programs or associated agreements in any way. The purpose of this document is to provide a basis for common understanding and consistent administration of the groundwater storage program in light of multiple local resources programs in the Chino Basin that provide incentives for recovering poor quality water (e.g. desalters) and use of recycled water for recharge of the groundwater basin. The purpose of this Memorandum of Understanding is consistent with Section VI. of the Groundwater Storage Program Funding Agreement (Agreement) relating to the duties of the Operating Committee established therein to develop an Annual Operating Plan and to reconcile financial and water accounting matters for the groundwater storage program. This Memorandum of Understanding represents the agreement of the signatories as members of the Groundwater Storage Program Operating Committee to carry out administrative tasks in a consistent manner, and may be updated and amended by the Groundwater Storage Program Operating Committee by written mutual consent.

2. GROUNDWATER STORAGE PROGRAM (DRY-YEAR-YIELD -DYY- PROGRAM)

The Groundwater Storage Program (DYY) provides for the storage of up to 100,000 acre-feet (AF) of water at any point in time in a Metropolitan Storage Account in the Chino Basin pursuant to the Groundwater Storage Program Funding Agreement dated June 2003 and as subsequently amended. Signatories to this Agreement are Metropolitan, Inland Empire Utilities Agency (IEUA), Three Valleys Municipal Water District (TVMWD), and Chino Basin Watermaster. As of July 2008, the Operating Parties under this Agreement are for IEUA: City of Ontario, City of Upland, Cucamonga Valley Water District, Monte Vista Water District, City of Chino, City of Chino Hills and Jurupa Community Services District (through Ontario); and for TVMWD: City of Pomona. The Agreement provides for storage of up to 25,000 AF per year unless Chino Basin Watermaster allows for more, and extraction, at Metropolitan's call, of up to 33,000 AF per year not to exceed the amount of water in the Metropolitan Storage Account. The call may be for any twelve month period beginning on the first of day of the month following 15 days notice.

The Agreement requires the Operating Committee to prepare an Annual Operating Plan that estimates how storage or extraction will be accomplished during the course of the year. In practice, Metropolitan indicates the amount it would like to store (up to 25,000 AF per year unless more is approved by Chino Basin Watermaster) or extract (up to 33,000 AF per year, but not to exceed the account balance), and IEUA and TVMWD develop a projection indicating the anticipated monthly schedule by service connection for storage deliveries, or monthly schedule for shifting full service demands from the service connection to the wells. IEUA and TVMWD certify storage or extraction against the Annual Operating Plan and updating the plan for actual amounts as the year progresses. Certification of storage and extraction is reconciled following the end of the storage year or the end of the 12-month call period.

The Agreement provides that the DYY Facilities may be used for unrelated purposes by IEUA and TVMWD so long as excess operable capacity is maintained on a monthly basis for performance under the Agreement unless operable capacity on another basis is agreed to by the Operating Committee.

2.A. STORAGE TO THE METROPOLITAN STORAGE ACCOUNT

2.A.1. Upon notice to IEUA and TVMWD, Metropolitan may deliver imported water for storage in the Metropolitan Storage Account in the Chino Basin. Water may be stored directly (spread or injected) or via in-lieu. In-lieu storage means that an Operating Party with groundwater rights foregoes production of a portion of its rights and directly uses the additional delivery of imported water to meet its retail demands. For each AF of unpumped groundwater right stored in-lieu, one AF of additional Metropolitan imported water delivery will be delivered at the service connections to replace the stored AF in meeting retail demands.

2.A.2. Certification of storage on a monthly basis (see Agreement section VI.B.4) by IEUA and TVMWD to both Metropolitan and Chino Basin Watermaster provides for:

- a) Credit adjustment on the Metropolitan invoice to either IEUA or TVMWD for the conjunctive use delivery (water is not billed until it is called for extraction --Stored Water Delivery) and associated accounting for the stored AF in Metropolitan's WINS accounting system, and
- b) Accounting for stored AF in Metropolitan's Storage Account by Chino Basin Watermaster.

Any subsequent adjustments to certifications for storage of water need to be copied to both Metropolitan and Chino Basin Watermaster to ensure consistent records of stored AF.

Metropolitan Administrative Code section 4507(f) allows for late certifications (and adjustments to prior certifications via re-certification) for a period of up to six months from the time the delivery was made. Reconciliation of in-lieu storage by Metropolitan within twelve months of such a delivery may also result in adjustments. Any such adjustments need to be reported to Metropolitan, IEUA or TVMWD, and the Chino Basin Watermaster to ensure consistency of records. These provisions apply to both storage and extraction from the Metropolitan Storage Account.

Additionally, Chino Basin Watermaster assesses losses to the Metropolitan Storage Account (see Agreement section VI.C.1) once each fiscal year in July. Each year, after July 1 but before September 30, the Operating Committee (Metropolitan, IEUA, TVMWD, and Chino Basin Watermaster) compares records for the balance of AF in the Metropolitan Storage Account and resolves any discrepancies.

2.A.3. Storage to the Metropolitan Storage Account shall exclude all of the following:

1. In-lieu against overproduction of groundwater rights. All storage is required to be new, wet-water storage. Storage cannot be reliant upon a replenishment obligation.
2. In-lieu against foregone rights to produce recharged recycled water. This means that accomplishment of storage through in-lieu means shall only be against Chino Basin native groundwater production rights that would have otherwise been produced and shall exclude recycled water that has been recharged.
3. In-lieu against rights for desalter production that is not pumped. This means that in-lieu storage to the Metropolitan Storage Account shall not be accomplished by reducing the groundwater pumping of the desalters.
4. In-lieu cannot exceed on-line, operational extraction capacity and cannot be against water that cannot be produced. This means that amounts of water certified as stored in-lieu during a month must have been able to be produced--there must be sufficient extraction capacity that is operable, and the water quality must be usable.
5. In-lieu storage cannot exceed the amount of firm water purchased by IEUA or TVMWD from Metropolitan for the month it is certified. This means that acre-foot for acre-foot, imported water was used to meet the demand for the groundwater that was not pumped and certified as stored in-lieu.
6. In-lieu against leased water rights. This means that in-lieu storage to the Metropolitan Storage Account shall not allow a Chino Basin Operating Party to lease groundwater production rights from another basin rights holder in order to underproduce the leased amount of water and certify that the leased water is stored in-lieu.

2B. EXTRACTION FROM THE METROPOLITAN STORAGE ACCOUNT

2.B.1 Extraction from the Metropolitan Storage Account occurs when Metropolitan notifies IEUA and TVMWD that it is making a call for extraction of stored water (Stored Water Delivery) as provided in Agreement section VI.D.3.

Agreement Exhibit G provides that in a call year the following will occur:

- a) deliveries at the Metropolitan service connections will decrease by the call amount over the course of the 12 month call period as compared to the prior 12 months; and
- b) the call amount will be pumped from the Metropolitan Storage Account in Chino Basin over the 12 month call period; and
- c) groundwater pumping in the Chino Basin will increase by the call amount over the 12 month call period as compared to the prior 12 months.

Exhibit G also provides flexibility on each of these measures of +/-10%, and acknowledges that growth in local resources may reduce demand for imported Metropolitan full service water and therefore for the water stored in the Metropolitan Storage Account.

Measurement of these provisions in a call year is against a baseline of the prior twelve months preceding the call. When a call is made two or more years in sequence, the baseline shall be the twelve month period preceding the first call year with any warranted adjustments.

2.B.2. Extraction Baseline

For groundwater production, the following will be included in the baseline:

- a) the prior twelve months of Chino Basin production of groundwater rights by participating IEUA and TVMWD agencies inclusive of in-lieu storage, and as adjusted by agreement of the Operating Committee; and
- b) the prior twelve months of Chino Basin production of recharged recycled water credits by participating IEUA and TVMWD agencies, as adjusted by agreement of the Operating Committee; and
- c) the prior twelve months of Chino Basin desalter production.

Production from the Metropolitan Storage Account will be measured as the number of AF certified as such by IEUA or TVMWD and that production that exceeds the sum of 'a', 'b' and 'c' above in the call year.

For service connection deliveries the following will be included in the baseline:

- a) the prior twelve months of full service deliveries to each IEUA and TVMWD at the service connections.

The following will be excluded from the service connection deliveries baseline:

- a) any direct or in-lieu deliveries certified for storage to the Metropolitan Storage Account;
- b) any direct or in-lieu replenishment deliveries; and

- c) any direct or in-lieu cyclic storage deliveries.

In setting the baselines, note that in-lieu deliveries are subject to reconciliation and any resulting adjustments that are completed up to twelve months following the in-lieu delivery.

2.B.3. Extraction Pumping

Certified extraction from the Metropolitan Storage Account shall exclude the following:

- a) desalter production;
- b) recycled water production;
- c) production from basins other than Chino Basin; and
- d) amounts that exceed: i) available operable extraction capacity and ii) the amount of water pumped in that month.

Metropolitan Administrative Code section 4507(f) allows for late certifications (and adjustments to prior certifications via re-certification) for a period of up to six months from the time the delivery was made. Reconciliation of amounts certified as extracted from the Metropolitan Storage Account is conducted within twelve months and may also result in adjustments. Any such adjustments need to be reported to Metropolitan, IEUA or TVMWD and the Chino Basin Watermaster to ensure consistency of records. These provisions apply to both storage and extraction from the Metropolitan Storage Account.

3. DATA COLLECTION PROCESS

- a) TVMWD will collect, track and certify storage and extraction for Pomona.
- b) IEUA is to receive its retail agencies' production data no later than six weeks after the last day of any given month to allow for efficient updates on compliance progress to Metropolitan. If data have not been received, IEUA staff will contact individual agencies and request the production data.
- c) IEUA tracks and submits (if necessary) performance for the DYY program
- d) Before submitting certifications to Metropolitan, IEUA staff will perform a "check and balance"
 1. Two working days prior to Metropolitan's certification deadline (the third working day of each month by 3:30 p.m.). IEUA is to receive any of four certifications:
 - Conjunctive Use Storage Account
 - Agricultural Credit (Chino Hills)

- Desalter Production
 - Recycled Water Production
2. IEUA staff will check each certification for 'double counting' of credits to ensure that each program is accounting for its own credits.
 3. IEUA will then submit the certifications in a form acceptable to Metropolitan.
- e) IEUA and TVMWD staff will review the monthly Metropolitan invoice to confirm that any submitted certifications are correctly documented.

AS MEMBERS OF THE OPERATING COMMITTEE FOR THE GROUNDWATER STORAGE PROGRAM IN CHINO BASIN WE HEREBY concur with this Memorandum of Understanding of Water Accounting Procedures Relating to Groundwater Storage Program Funding Agreement in Chino Basin and agree to implement the procedures stated herein and to jointly update and clarify this document as needed for the continued coordinated administration of the Metropolitan resource programs in the Chino Basin:

 Stephen N. Arakawa
 Manager, Water Resource Management Group
 Metropolitan Water District of Southern California

 Date

 Richard Atwater
 General Manager
 Inland Empire Utilities Agency

 Date

 Richard Hansen
 General Manager
 Three Valleys Municipal Water District

 Date

 Ken Manning
 Executive Officer
 Chino Basin Watermaster

 Date



CHINO BASIN WATERMASTER

IV. INFORMATION

1. Chino Basin Recycled Water
Groundwater Recharge
Program Quarterly
Monitoring Report for April
through June 2008





Patrick O. Shields
Executive Manager of Operations

Kenneth R. Manning
CEO

August 13, 2008

Regional Water Quality Control Board, Santa Ana Region

Attention: Mr. Gerard Thibeault

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

**Subject: Chino Basin Recycled Water Groundwater Recharge Program
Quarterly Monitoring Report for April through June 2008**

Dear Mr. Thibeault,

The Inland Empire Utilities Agency (IEUA) and the Chino Basin Watermaster (Watermaster) hereby submit the *Quarterly Monitoring Report* for the second quarter of 2008 (2Q08), April 1 through June 30, 2008, for the *Recycled Water Groundwater Recharge Program*. This document is submitted pursuant to requirements in Order No. R8-2007-0039. All required monitoring and reporting for the quarter are presented in the attached report.

During 2Q08, the Groundwater Recharge Program was in compliance with all monitoring and reporting requirements as specified in the Order, with the exception of Odor. Odor does not have a primary maximum contaminant level (MCL); instead it has a secondary MCL, which is a non-enforceable guideline regulating constituents that may cause cosmetic or aesthetic effects in drinking water. Odor is discussed in further detail in the report text.

Furthermore, the Chino Basin Watermaster hereby certifies that, during the period of April 1 through June 30, 2008, there was no reported pumping for drinking water purposes in the buffer zones extending 500 feet laterally and 6 months underground travel time of the recharge sites using recycled water, namely Banana, Hickory, Turner, 7th & 8th Street, and Ely Basins. In point of fact, there are no production wells in the buffer zones of the aforementioned recharge sites.

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.

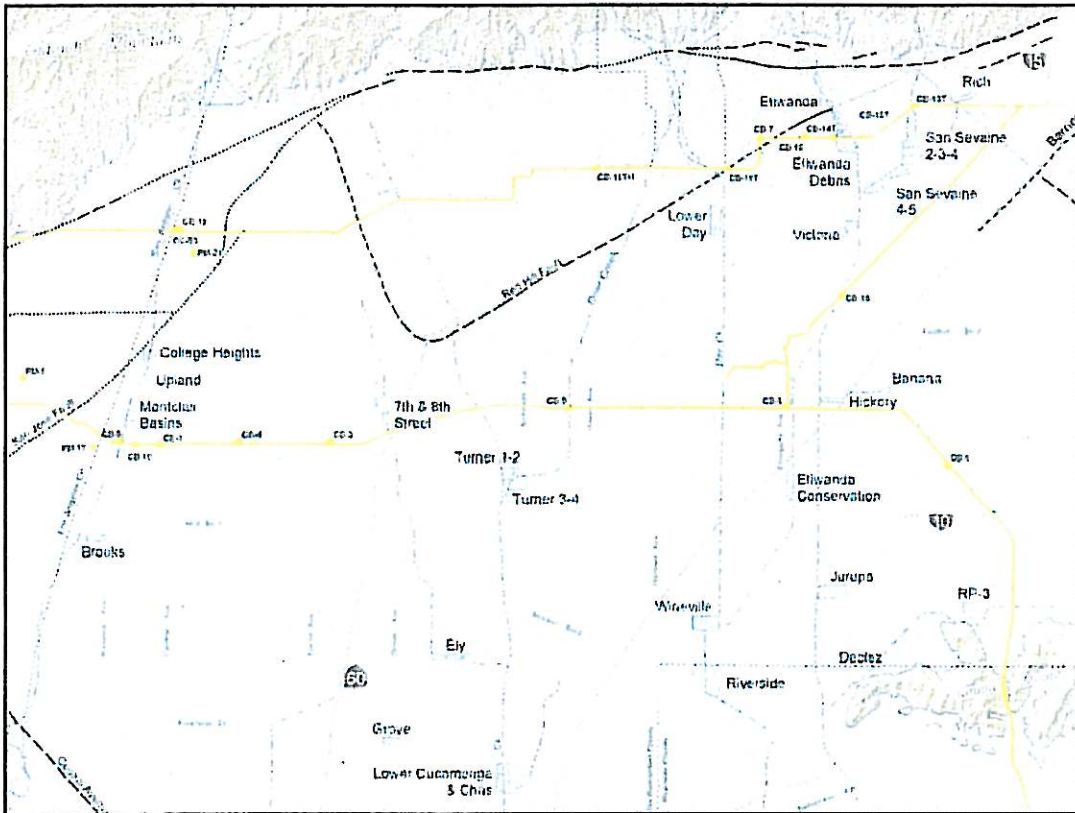
Executed on the 13th day of August 2008 in the Cities of Chino and Rancho Cucamonga.

Patrick O. Shields
Executive Manager of Operations

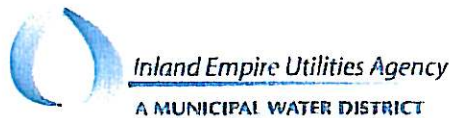
Kenneth R. Manning
Chief Executive Officer

Chino Basin Recycled Water Groundwater Recharge Program

Quarterly Monitoring Report April 1 through June 30, 2008



Prepared by:



August 15, 2008

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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 are partners in the implementation of 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).

A. Order No. R8-2007-0039

On June 29, 2007, the Santa Ana Regional Water Quality Control Board (Regional Board) adopted Order No. R8-2007-0039 which prescribes the requirements for recycled water use for groundwater recharge in six Phase I recharge sites and seven Phase II recharge sites within the Chino North Management Zone. Ely Basin is incorporated into the new Order as one of the seven Phase II recharge sites although recycled water groundwater recharge activities began at this site in 1997. As a provision of this Order, IEUA and Watermaster must also comply with Monitoring and Reporting Program No. R8-2007-0039 (M&RP).

The M&RP includes the water quality monitoring requirements of the Chino Basin Recycled Water Groundwater Recharge Program and the requirement for the submittal of quarterly and annual reports. This document is the quarterly report for the Second Quarter of 2008 (2Q08), which is due to the Regional Board by August 15, 2008.

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

- Monitoring results for recycled water (including lysimeter monitoring), diluent water, and groundwater.
- Recycled water and diluent water volumes recharged at each basin.
- Reporting of any non-compliance events due to water quality, including records of any operational problems, plant upset and equipment breakdowns or malfunctions, and any diversion(s) of off-specification recycled water and the location(s) of final disposal. All corrective or preventive action(s) taken.
- Certification 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.

As approved by the Regional Board in April 2007, the Monte Vista Water District (MVWD) entered into an agreement with Watermaster and IEUA to begin reporting its Aquifer Storage & Recovery (ASR) Project injection/recovery volumes and TIN/TDS data under the then existing Phase I Groundwater Recharge Order No. R8-2005-0033 and future permit updates, such as the current Order No. R8-2007-0039.

B. Outline of the Quarterly Report

Section 2 of this quarterly report discusses the water quality monitoring results for recycled water (water recycling plant effluent, basin surface water, and lysimeter data), diluent water, and groundwater. Section 3 provides an overview of recharge operations including the volume of diluent water and recycled water recharged. Section 4 describes any operational problems and preventive and/or corrective actions taken. Section 5 contains the certification of non-pumping in the 500-foot

buffer zones around each basin. Section 6 is an overview of the Monte Vista Water District (MVWD) Aquifer Storage and Recovery (ASR) project, including injection volumes and TIN/TDS mass balance. Finally, Section 7 includes WaterReuse Foundation (WRF) research study sampling results for San Antonio Water Company Well No. 12 and 8th Street Basin monitoring wells.

2. Monitoring Results

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

The requirements for recycled water monitoring are presented in the M&RP. Tables 2-1 through 2-4 include all of the requisite 2Q08 data.

Recycled Water Specifications A.5 through A.9 are narrative limits in the permit and corresponding monitoring data are presented in Tables 2-1 through 2-2. None of these limits were exceeded in 2Q08.

In the Order, compliance for constituents with maximum contaminant levels (MCLs) and secondary MCLs are based on 4-quarter running averages. These constituents are listed in Recycled Water Specifications A.1 through A.3 (Tables I, II, and III in the Order). The 4-quarter running average concentration data for 3Q07 through 2Q08 are summarized in Table 2-3 of this report. The table includes the 4-quarter running average for each parameter and the corresponding limits for compliance. Of the Recycled Water Quality Specifications with limitations, only Oil & Grease does not require the 4-quarter running averages for compliance determination. Maximum contaminant levels for inorganic chemicals, organic chemicals, radionuclides, and disinfection byproducts; and action levels for lead and copper; and secondary MCLs were not exceeded during 2Q08, with the exception of threshold odor.

Due to the volume of sample required for analyses, IEUA has selected a recycled water sampling point along the distribution pipeline. IEUA selected the turnout to Reliant Energy (an IEUA recycled water customer) to be representative of the system blend of recycled water used for recharge. Although this sampling location is suitable for most constituents, it is not appropriate for disinfection byproducts (DBP), more specifically, Trihalomethanes (TTHMs) and Total Haloacetic Acids (HAA5). For TTHMs and HAA5, samples collected at the basin are more consistent and representative of the recycled water prior to reaching the groundwater table. Compliance is selected at a point prior to the groundwater table and has in previous quarters been selected at a lysimeter actively receiving recycled water recharge during the defined sampling time. For the 2Q08 sampling for DBPs, IEUA chose the 25-foot below ground surface lysimeter at Hickory Basin East Cell as the compliance point, in accordance with Recycled Water Quality Specification A.2. This basin did receive recycled water during 2Q08.

During 2Q08, the threshold odor secondary MCL of 3 Units was exceeded by a 4-quarter running average value of 6 Units. As a comparison for odor values, diluent water sampling for 2Q08 indicated that all three diluent waters resulted in threshold odor values ranging from 3 to 67 Units.

Oil & Grease has a narrative limit in Recycled Water Specification A.15 of 1 mg/L. The method detection limit for Oil & Grease is 2 mg/L; the resultant value for the 2Q08 sample was "non-detect" or less than 2 mg/L. In this case only, the method detection limit is greater than the narrative limit, therefore it is not possible to verify that the narrative limit was not exceeded. Oil & Grease does not have a promulgated primary or secondary MCL. In 3Q08, the IEUA laboratory will run an MDL study to determine if the lab can attain a method detection limit of 1 mg/L. If the IEUA lab is unable to lower the MDL successfully, the sample will be sent to an outside laboratory for analysis during 3Q08.

For constituents with no specified limits, quarterly monitoring data are summarized in Table 2-4.

B. Recycled Water: Basin and Lysimeter Samples

Total organic carbon (TOC) and nitrogen species sampling and analysis are performed weekly during periods when recycled water is delivered to recharge sites. Electrical conductivity is also measured and reported to assist in identifying the presence of recycled water at various depths in the vadose zone. The basin and lysimeter water quality results are summarized in Table 2-5. The table includes lysimeter data for 7th & 8th Street, Ely, Banana and Hickory Basins.

Compliance monitoring points have not yet been established for the 7th & 8th Street Basins; therefore all lysimeter sampling data collected during 2Q08 are presented in this report for this recharge site. In the quarterly reports following the completion of these sites' Start-Up Period Reports, quarterly monitoring and reporting will be limited to compliance monitoring sampling points selected based on the Start-Up Period data evaluation.

After a basin start-up period is complete, TOC compliance is determined from the maximum average RWC indicated by the 20-sample running average TOC. ($TOC_{avg} = 0.5 \text{ mg/L} \div RWC_{avg}$). The total nitrogen compliance limit is 5 mg/L.

C. Diluent Water

For 2Q08, diluent water sampling was conducted at the Turner and 8th Street Basins. State Water Project water was not delivered to any basins during the monitoring period. Table 2-6 lists the results of diluent water sampling and analyses. Details on the methods used to measure daily diluent water flow can be found in the CDPH-approved "Diluent Water Monitoring Plan."

D. Groundwater Monitoring Wells

During 2Q08, groundwater quality within the vicinity of Banana and Hickory Basins was monitored by sampling a network of six wells. The groundwater quality within the vicinity of the Turner Basins is monitored by sampling a network of five wells. The groundwater quality within the vicinity of the 7th & 8th Street Basins are monitored by sampling a network of five wells. The groundwater quality within the vicinity of the Ely Basin is monitored by sampling a network of three wells. The wells in the monitoring well networks for Hickory and Banana Basins, Turner Basin, 7th & 8th Street Basins, and Ely Basins are summarized in Table 2-7, and presented on Figures 2-1 through 2-4, respectively.

The groundwater constituents analyzed from the monitoring wells during 2Q08 are presented in Table 2-8.

3. Recharge Operations

IEUA's Groundwater Recharge Coordinator recorded the daily volumes of water routed to all basins. The 7th & 8th Street, Ely, Hickory and Banana Basins were the only recharge basins to receive recycled water this quarter. No imported water was delivered to any of the aforementioned recharge basins during 2Q08. Table 3-1 lists the volumes of diluent water, recycled water, and/or local runoff captured during 2Q08 at the basins that have initiated recharge using recycled water.

4. Operational Problems & Preventive or Corrective Actions

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

During lysimeter sampling at Ely basin, the compliance lysimeter (15-foot depth) would not hold a negative pressure and could not be sampled. Rather than not collecting a sample, IEUA sampled the

10-and 25-foot depth lysimeters. These data are reported in Table 2-5. IEUA will continue to sample these two depths during recycled water recharge until an alternative monitoring plan is developed.

5. Certification of Non-Pumping in the Buffer Zones

Watermaster has certified that there was no reported pumping of groundwater in 2Q08 for domestic or municipal use from the zones that extend 500 feet and 6 months underground travel time from the Hickory, Banana, Turner 7th & 8th Street, and Ely Basins. In fact, there are no production wells within the buffer zones of these aforementioned recharge sites. In the cover letter of this report, Watermaster certifies 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. SBCDEHS has initiated control over production well permitting within the buffer zones of all recharge sites through the use of buffer zone maps that utilize the same land coordinate system (Township/Range/Section/40-acre Parcel) that is used in the permitting process. SBCDEHS reviews new well permit applications in part by checking the proposed location of a new drinking water well against a list of 40-acre parcels that abut recharge basins and their 500-foot buffers. IEUA has provided SBCDEHS with a list of parcels abutting each recharge basin and a series of maps showing the recharge basins, buffers, and township/range/section parcels adjacent the basins and buffers.

If a well falls within an abutting parcel, SBCDEHS will review the proposed well location using maps of the basins and buffers. 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 field review of the proposed well location. The field review may include contacting and having the well applicant to identify the exact location of the proposed well casing. To conduct a detailed field review, SBCDEHS will contact and provide IEUA Groundwater Recharge Coordinator with a copy of the well permit application and a timeline for the completion of IEUA's review. Following the review, IEUA will notify SBCDEHS of its findings in writing. IEUA will also notify the California Department of Public Health and the Regional Board of well permit applications that it recommends be declined due to well locations that are determined to fall within a 500-foot buffer. SBCDEHS has initiated control over production well permitting within the buffer zones of all Phase I and Phase II basins through the use of buffer zone maps that utilize the same land coordinate system (Township/Range/Section) that is used in the permitting process.

6. MVWD ASR Project

The Regional Board has allowed the Monte Vista Water District (MVWD) Aquifer Storage and Recovery (ASR) project to be included under IEUA/CBWM Phase I Groundwater Recharge Order No. R8-2005-0033 and subsequent permit updates. In April 2007, MVWD, Watermaster, and IEUA entered into an agreement to report the MVWD ASR project groundwater injection/recovery volumes and TIN/TDS mass balance in the recharge program quarterly reports. The Regional Board has been apprised of this agreement and that IEUA will be reporting MVWD ASR project data on a quarterly basis. Initial injection began in June 2007. Table 6-1 summarizes the monthly volumes and TIN/TDS of injected and recovered water. The table also includes the mass balance of TIN/TDS from the injection-recovery cycles. During 2Q08, groundwater injection took place only during the month of April.

7. WaterReuse Study

IEUA is participating in WaterReuse Foundation research study WR-06-018, which includes periodic testing of San Antonio Water Company (SAWCO) Well No. 12, 8th Street Basin 1/1, and 8th Street

Basin 2/1. The purge water from the well sampling is delivered to the 8th Street Recharge Basin. The Regional Board has allowed the test discharges to be covered under IEUA's Groundwater Recharge permit (Order No. R8-2007-0039) rather than the General De Minimus Discharge permit (NPDES No. CAG998001, Order No. R8-2006-0004). Therefore, the well discharge will not be sampled for constituents beyond those identified in the WRF study, and the discharge quantities will be reported in the groundwater recharge quarterly reports.

During 2Q08, Well No. 12 was sampled on April 15, 2008 and June 18, 2008 discharging approximately 12,000 gallons and 10,000 gallons, respectively; 8th Street Basin 1/1 was micropurged and sampled on April 16, 2008 and discharged less than 10 gallons; and 8th Street Basin 2/1 was micropurged and sampled on April 17 & 23, 2008 and discharged less than 10 gallons. Laboratory results for the four sampling/discharge events are included in Table 7-1.

Recycled Water Monitoring: RP-1 & RP-4 Effluent Water Quality for April 2008
(Recycled Water Quality Specifications A.5, A.7, A.8, & A.9)

Unit Limits	RP-1 Effluent											RP-4 Effluent										
	Turbidity NTU 2:5:10	TOC mg/L 16	NO ₃ -N mg/L	TN mg/L	TIN mg/L	pH unit 6<pH<9	EC µmho/cm	TDS mg/L	Hardness mg/L	Coliform mpn/100mL 2,2:23:240	Turbidity NTU 2:5:10	TOC mg/L 16	NO ₃ -N mg/L	TN mg/L	TIN mg/L	pH unit 6<pH<9	EC µmho/cm	TDS mg/L	Hardness mg/L	Coliform mpn/100mL 2,2:23:240		
04/01/08	0.8	6.2	5.9	6.5	5.9	7.0	805	490	149	2	0.5	4.7	3.3	3.7	3.3	6.9	790	458	146	<2		
04/02/08	0.8	5.9				7.0	865			2	0.5	4.5	4.4		4.4	6.9	800			<2		
04/03/08	0.8	5.9	6.7		6.7	7.0	860			2	0.4	4.2	5.4		5.5	6.7	790			<2		
04/04/08	0.8	5.8				7.0	870			<2	0.4	4.0	6.6		6.6	6.7	800			<2		
04/05/08	0.8	5.7				7.0	865			<2	0.4	4.1	6.3		6.3	6.7	820			<2		
04/06/08	0.8	5.9	6.0		6.0	7.0	865			<2	0.3	4.0	6.0		6.0	6.7	820			<2		
04/07/08	0.8	6.1				7.0	845			2	0.5	4.1	4.7		4.7	6.8	825			<2		
04/08/08	0.8	5.9	6.5	7.0	6.5	7.0	860	524		<2	0.7	4.2	5.2	5.4	5.2	6.8	840	482		<2		
04/09/08	0.7	5.8				6.9	825			<2	0.6	4.3	5.3		5.3	6.8	840			<2		
04/10/08	0.6	6.1	5.5		5.5	6.9	840			<2	0.5	4.2	5.6		5.6	6.7	840			<2		
04/11/08	0.6	5.8				7.0	855			<2	0.6	4.1	6.1		6.2	6.8	835			<2		
04/12/08	0.7	5.9				7.0	850		4	<2	0.3	4.0	6.0		6.1	6.8	840			<2		
04/13/08	0.7	6.4	4.7		4.7	7.0	850			<2	0.3	3.9	5.9		6.0	6.8	820			<2		
04/14/08	0.7	6.4				7.0	845			<2	0.5	4.2	5.0		5.0	6.8	830			<2		
04/15/08	1.7	6.8	5.2	5.9	5.2	7.7	860			<2	0.5	4.2	3.5	3.9	3.5	7.3	840	478		<2		
04/16/08	0.8	6.1				7.1	860	534		<2	0.7	4.2	3.1		3.1	6.9	830			<2		
04/17/08	0.8	6.8	7.8		7.8	6.9	855			<2	0.5	4.3	3.2		3.2	6.9	825			<2		
04/18/08	0.7	6.4				7.0	880			<2	0.7	4.2	3.4		3.4	7.2	820			<2		
04/19/08	0.8	6.6				7.0	885			50	0.6	4.2	3.9		3.9	7.0	830			<2		
04/20/08	0.8	6.7	6.7		6.7	7.0	860			<2	0.5	4.4	4.2		4.2	6.9	830			<2		
04/21/08	0.7	6.7				7.0	875			4	0.4	4.4	3.1		3.1	7.0	845			<2		
04/22/08	0.7	6.6	6.7	7.5	6.7	7.0	875	516		<2	0.4	4.2	3.5	3.7	3.5	6.9	830	464		<2		
04/23/08	0.6	6.5				7.0	870			<2	0.4	4.2	3.8		3.8	7.0	820			<2		
04/24/08	0.7	7.0	6.4		6.6	7.0	870			<2	0.4	4.2	3.7		3.8	7.0	810			<2		
04/25/08	0.6	6.2				7.0	860			<2	0.4	4.4	3.9		4.0	7.0	800			<2		
04/26/08	0.6	6.0				7.0	855			2	0.4	4.5	3.6		3.6	7.0	795			<2		
04/27/08	0.6	6.2	7.1		7.1	7.0	850			<2	0.4	4.5	1.4		1.5	7.0	805			<2		
04/28/08	0.6	6.1				7.0	855			<2	0.4	4.6	3.0		3.0	7.0	810			<2		
04/29/08	0.6	6.3	7.9	8.5	7.9	6.9	860	526		<2	0.4	4.5	5.2	5.8	5.2	7.0	815	466		<2		
04/30/08	0.8	6.6				7.0	865			<2	0.5	4.4	5.6		5.6	6.8	825			<2		
Avg	0.7	6.2	6.4	7.1	6.4	7.0	858	518	149	<4	0.5	4.3	4.5	4.5	4.5	6.9	821	470	146	<2		
Min	0.6	5.7	4.7	5.9	4.7	6.9	805	490	149	<2	0.3	3.9	1.4	3.7	1.5	6.7	790	458	146	<2		
Max	1.7	7.0	7.9	8.5	7.9	7.7	885	534	149	50	0.7	4.7	6.6	6.6	6.6	7.3	845	482	146	<2		

Note: Turbidity and coliform must meet water quality standards for disinfected tertiary treated recycled water, as specified in NPDES No. CA0105279, Order No. R8-2006-0010.
TDS and TIN limits are based on a 12-month running average values which are presented in Table 2.2.
Bolded characters signify an exceedance of a permit limitation
Blank cells indicate that analysis was not run for a constituent on that particular date. The data presented meets/exceeds the frequency of analysis specified under the discharge permit for these facilities.
*TN compliance can be met at a point prior to the regional groundwater, including lysimeters.

Table 2-1b
 Recycled Water Monitoring: RP-1 & RP-4 Effluent Water Quality for May 2008
 (Recycled Water Quality Specifications A.5, A.7, A.8, & A.9)

Unit Limits	RP-1 Effluent											RP-4 Effluent										
	Turbidity NTU 2.5:10	TOC mg/L 16	NO ₃ -N mg/L	TN mg/L	pH unit 6<pH<9	EC µmho/cm	TDS mg/L	Hardness mg/L	Coliform mpn/100mL 2,2,23:240	Turbidity NTU 2.5:10	TOC mg/L 16	NO ₃ -N mg/L	TN mg/L	pH unit 6<pH<9	EC µmho/cm	TDS mg/L	Hardness mg/L	Coliform mpn/100mL 2,2,23:240				
05/01/08	0.8	6.6	8.5	8.5	7.0	885		<2	0.5	4.5	6.1	6.1	7.0	830			<2					
05/02/08	0.8	6.2			6.9	800		<2	0.5	4.3	6.5	6.5	6.9	820			<2					
05/03/08	1.2	6.1			6.9	795		<2	0.4	4.4	6.2	6.2	7.0	815			<2					
05/04/08	1.1	6.4	5.8	5.8	7.0	785		2	0.4	4.7	4.7	4.7	7.1	815			<2					
05/05/08	1.2	6.4			7.0	790		<2	0.4	4.9	4.8	4.8	7.1	820			<2					
05/06/08	1.2	6.4	7.1	7.9	7.0	780	480	155	0.4	4.9	5.5	6.1	7.1	825	474	140	<2					
05/07/08	1.1	6.0			7.0	780		<2	0.5	4.9	4.7	4.7	7.1	850			<2					
05/08/08	1.2	6.3	7.1	7.1	7.0	780		<2	0.4	4.8	4.7	4.7	7.0	840			<2					
05/09/08	1.3	6.5			7.0	790		<2	0.4	4.7	6.2	6.2	7.0	830			<2					
05/10/08	1.2	6.6			7.0	795		2	0.4	4.6	6.5	6.5	7.0	825			<2					
05/11/08	1.2	7.1	6.5	6.5	7.0	775		<2	0.4	4.8	5.7	5.7	7.0	825			<2					
05/12/08	1.3	8.5			7.0	795		2	0.4	4.9	5.1	5.1	7.0	825			<2					
05/13/08	1.2	8.4	9.0	9.8	7.0	785	498	<2	0.5	4.8	5.8	6.6	7.0	835	486		<2					
05/14/08	1.2	8.3			7.2	765		<2	0.6	4.8	6.1	6.1	7.0	830			<2					
05/15/08	1.1	8.0	7.7	7.7	7.0	800		<2	0.7	4.8	6.2	6.2	7.0	830			<2					
05/16/08	1.2	7.8			7.0	770		<2	0.7	4.9	6.4	6.4	7.0	830			<2					
05/17/08	1.2	7.7			7.0	780		<2	0.8	5.0	5.7	5.7	7.0	825			<2					
05/18/08	1.2	8.0	7.6	7.6	7.0	755		<2	0.8	5.2	5.5	5.5	7.0	830			<2					
05/19/08	1.2	8.4			7.0	770		<2	0.8	5.4	5.0	5.0	7.0	930			<2					
05/20/08	1.2	6.1	7.7	8.9	7.0	785	502	<2	0.8	5.2	5.4	5.7	7.0	850	490		<2					
05/21/08	1.2	7.8			7.0	780		4	0.4	5.1	6.2	6.2	7.0	850			<2					
05/22/08	1.2	8.0	8.0	8.0	7.0	760		<2	0.7	5.1	7.0	7.0	7.0	835			<2					
05/23/08	1.0	7.7			7.0	750		<2	0.7	5.2	7.1	7.1	7.0	840			<2					
05/24/08	1.1	8.0			7.0	755		<2	0.6	5.1	7.0	7.0	7.0	850			<2					
05/25/08	1.0	7.6			7.0	785		<2	0.6	5.2	6.7	6.7	7.0	845			<2					
05/26/08	1.1	7.8			7.0	760		<2	0.7	5.4	7.0	7.0	7.0	850			<2					
05/27/08	1.1	7.7	6.5	6.7	7.0	765	484	<2	0.7	5.5	6.0	6.2	7.0	825	494		<2					
05/28/08	1.0	7.3			7.0	750		2	0.7	5.3	5.4	5.4	7.0	815			<2					
05/29/08	1.0	6.9	7.2	7.2	7.0	760		<2	0.7	5.1			7.0	805			<2					
05/30/08	1.0	6.9			7.0	740		<2	0.6	4.8	6.6	6.6	7.0	810			<2					
05/31/08	1.1	7.4			7.0	755		<2	0.6	4.6	7.2	7.2	7.0	825			<2					
Avg	1.1	7.3	7.4	8.3	7.4	7.0	778	491	0.6	4.9	6.0	6.1	7.0	833	486	140	<2					
Min	0.8	6.0	5.8	6.7	5.8	6.9	740	155	0.4	4.3	4.7	5.7	6.9	805	474	140	<2					
Max	1.3	8.5	9.0	9.8	9.0	7.2	885	502	0.8	5.5	7.2	6.6	7.1	930	494	140	<2					

Note: Turbidity and coliform must meet water quality standards for disinfected tertiary treated recycled water, as specified in NPDES No. CA0105275, Order No. R6-2006-0010.
 TDS and TIN limits are based on a 12-month running average values which are presented in Table 2-2

Bolded characters signify an exceedance of a permit limitation

Blank cells indicate that analysis was not run for a constituent on that particular date. The data presented meets/exceeds the frequency of analysis specified under the discharge permit for these facilities.
 *TIN compliance can be met at a point prior to the regional groundwater, including lysimeters.

Recycled Water Monitoring: RP-1 & RP-4 Effluent Water Quality for June 2008
(Recycled Water Quality Specifications A.5, A.7, A.8, & A.9)

Unit Limits	RP-1 Effluent											RP-4 Effluent										
	Turbidity NTU 2:5:10	TOC mg/L 16	NO ₃ -N mg/L	TN mg/L	TIN mg/L	pH unit 6<pH<9	EC phmo/cm	TDS mg/L	Hardness mg/L	Coliform mpn/100mL 2,2:23:240	Turbidity NTU 2:5:10	TOC mg/L 16	NO ₃ -N mg/L	TN mg/L	TIN mg/L	pH unit 6<pH<9	EC phmo/cm	TDS mg/L	Hardness mg/L	Coliform mpn/100mL 2,2:23:240		
06/01/08	1.2	7.6	6.1	6.1	6.1	7.0	770		2	0.6	4.8	6.6	6.6	6.6	7.0	840				<2		
06/02/08	1.2	7.9				7.0	770		2	0.7	4.9	5.6	5.6	5.6	7.0	845				<2		
06/03/08	1.1	7.4	6.5	7.9	6.5	7.0	765	154	<2	0.7	4.8	6.0	6.4	6.0	7.0	850	486	143		<2		
06/04/08	1.0	7.4				7.0	765		<2	0.7	4.7	6.7		6.7	7.0	860				<2		
06/05/08	0.9	7.7	8.1		8.1	7.0	700		<2	0.8	4.7	6.4		6.4	7.0	780				<2		
06/06/08	0.9	6.6				7.0	700		<2	0.7	4.7	6.1		6.1	7.1	780				<2		
06/07/08	1.0	6.6				7.0	720		2	0.7	4.7	5.8		5.8	7.1	785				<2		
06/08/08	1.0	6.8	7.8		7.8	7.1	690		<2	0.7	4.8	5.4		5.4	7.1	775				<2		
06/09/08	1.0	7.1				7.0	685		2	0.7	4.9	4.9		4.9	7.1	785				<2		
06/10/08	1.1	6.5	6.6	8.1	6.6	7.1	815	466	2	0.8	5.1	5.6	5.8	5.6	7.1	905	488			<2		
06/11/08	1.2	7.0				7.0	835		<2	1.3	5.4	5.4		6.2	7.1	830				<2		
06/12/08	1.0	7.2	5.7		5.7	7.1	805		2	0.6	5.5	6.2		7.8	7.1	895				<2		
06/13/08	1.1	7.5				7.1	750		<2	0.4	5.2	7.1		7.6	7.1	860				<2		
06/14/08	1.1	7.2				7.1	755		2	0.3	4.9	8.1		8.1	7.1	850				<2		
06/15/08	1.1	6.9	5.1		5.1	7.0	830		2	0.3	5.0	8.7		8.7	7.2	960				<2		
06/16/08	1.1	6.6				7.0	820		<2	0.4	5.0	8.8		8.8	7.1	935				<2		
06/17/08	1.1	6.4	5.9	6.7	6.0	7.0	810	480	<2	0.4	5.3	9.6	9.9	9.6	7.2	965	518			<2		
06/18/08	1.1	10.0				7.0	800		2	0.4	4.8	9.7		9.7	7.2	900				<2		
06/19/08	1.0	5.6	5.9		5.9	7.0	780		<2	0.4	4.7	10.3		10.3	7.1	855				<2		
06/20/08	0.9	11.3				7.0	785		<2	0.3	4.7	11.2		11.2	7.1	845				<2		
06/21/08	1.0	10.3				7.0	790		<2	0.3	4.7	11.4		11.4	7.1	850				<2		
06/22/08	1.0	9.9	6.4		6.4	7.0	795		4	0.3	4.7	10.8		10.8	7.1	900	514			<2		
06/23/08	0.9	9.3				7.0	820		2	0.3	4.5	9.2		9.2	7.1	915				<2		
06/24/08	0.9	9.8	6.6	7.9	6.6	7.1	765	490	<2	0.3	4.7	8.6	8.7	8.6	7.2	825				<2		
06/25/08	0.9	9.0				7.1	750		<2	0.3	4.3	8.6		8.6	7.1	875				<2		
06/26/08	0.9	9.0	7.6		7.6	7.1	800		<2	0.3	4.1	9.2		9.2	7.1	870				<2		
06/27/08	0.9	8.5				7.0	760		<2	0.2	4.0	10.7		10.7	7.1	850				<2		
06/28/08	0.9	8.4				7.0	770		<2	0.3	3.9	12.4		12.4	7.0	855				<2		
06/29/08	1.0	8.9	6.0		6.0	7.0	810		2	0.2	3.9	12.7		12.7	7.0	890				<2		
06/30/08	0.9	9.5				7.0	820		<2	0.2	4.0	11.6		11.6	7.1	890				<2		
Avg	1.0	8.0	6.5	7.6	6.5	7.0	774	478	154	0.5	4.7	8.3	7.7	8.4	7.1	861	502	143		<2		
Min	0.9	5.6	5.1	6.7	5.1	7.0	685	466	154	0.2	3.9	4.9	5.8	4.9	7.0	775	486	143		<2		
Max	1.2	11.3	8.1	8.1	8.1	7.1	835	490	154	1.3	5.5	12.7	9.9	12.7	7.2	965	518	143		<2		

Note: Turbidity and coliform must meet water quality standards for disinfected tertiary treated recycled water, as specified in NPDES No. CA0105279, Order No. R8-2006-0010.
TDS and TIN limits are based on a 12-month running average values which are presented in Table 2-2.
Bolded characters signify an exceedance of a permit limitation
Blank cells indicate that analysis was not run for a constituent on that particular date. The data presented meets/exceeds the frequency of analysis specified under the discharge permit for these facilities.
*TN compliance can be met at a point prior to the regional groundwater, including lysimeters.

Table 2-2
 Recycled Water Monitoring: Agency-Wide Flow-Weighted TIN & TDS
 (Recycled Water Quality Specifications A.6)

Date	TIN		TDS	
	Monthly	12-Mo. Run Avg.	Monthly	12-Mo. Run Avg.
Jul-07	5.1	6.3	492	480
Aug-07	5.2	6.3	478	481
Sep-07	5.9	6.2	478	482
Oct-07	6.0	6.2	517	487
Nov-07	7.6	6.2	514	490
Dec-07	7.4	6.3	522	494
Jan-08	6.8	6.2	511	483
Feb-08	6.4	6.2	492	484
Mar-08	6.6	6.2	515	486
Apr-08	6.7	6.3	519	488
May-08	7.2	6.4	502	490
Jun-08	6.5	6.5	490	491
Limit		8.0		550

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

Constituent	3Q07	4Q07	1Q08	2Q08	4Q Run.	Limit	Unit	Method
					Avg. ¹			
Inorganic Chemicals								
Aluminum	<25	27	<25	57	<25	1000	µg/L	EPA 200.8
Antimony	0.5	<0.5	<1	<1	<1	6	µg/L	EPA 200.8
Arsenic	<2	<2	<2	<2	<2	10	µg/L	EPA 200.8
Asbestos	<0.6	<0.2	<1.8	<1.8	<1.8	7	MFL	EPA 100.2
Barium	14	6	9	7	9	1000	µg/L	EPA 200.8
Beryllium	<0.5	<0.5	<0.5	<0.5	<0.5	4	µg/L	EPA 200.8
Cadmium	<0.25	<0.25	<0.25	<0.25	<0.25	5	µg/L	EPA 200.8
Chromium	4.5	3.2	2.9	1.2	2.9	50	µg/L	EPA 200.8
Cyanide	<6	<6	<5	<6	<6	150	µg/L	SM 4500-CN E
Fluoride	0.3	0.2	0.2	0.2	0.2	2	mg/L	SM 4500-F C
Mercury	<0.2	<0.2	<0.2	<0.2	<0.2	2	µg/L	EPA 245.2
Nickel	3	2	3	3	3	100	µg/L	EPA 200.8
Perchlorate	<4	<4	<10	<4	<10	6	µg/L	EPA 314
Selenium	2	2	<2	<2	<2	50	µg/L	EPA 200.8
Thallium	<1	<1	<1	<1	<1	2	µg/L	EPA 200.8
Volatile Organic Chemicals (VOCs)								
Benzene	<0.5	<1	<0.5	<0.5	<1	1	µg/L	EPA 524.2
Carbon Tetrachloride	<0.5	<1	<0.5	<0.5	<1	0.5	µg/L	EPA 524.2
1,2-Dichlorobenzene	<0.5	<1	<0.5	<0.5	<1	600	µg/L	EPA 524.2
1,4-Dichlorobenzene	<0.5	<1	<0.5	<0.5	<1	5	µg/L	EPA 524.2
1,1-Dichloroethane	<0.5	<0.5	<0.5	<0.5	<0.5	5	µg/L	EPA 524.2
1,2-Dichloroethane	<0.5	<1	<0.5	<0.5	<1	0.5	µg/L	EPA 524.2
1,1-Dichloroethylene	<0.5	<1	<0.5	<1	<1	6	µg/L	EPA 524.2
cis-1,2-Dichloroethylene	<0.5	NA	<0.5	<0.5	<0.5	6	µg/L	EPA 524.2
trans-1,2-Dichloroethylene	<0.5	<0.5	<0.5	<0.5	<0.5	10	µg/L	EPA 524.2
Dichloromethane	<0.5	<1	<0.5	<0.5	<1	5	µg/L	EPA 524.2
1,2-Dichloropropane	<0.5	<0.5	<0.5	<0.5	<0.5	5	µg/L	EPA 524.2
1,3-Dichloropropane	<0.5	<1	<0.5	<0.5	<1	0.5	µg/L	EPA 524.2
Ethylbenzene	<0.5	<1	<0.5	<0.5	<1	300	µg/L	EPA 524.2
Monochlorobenzene	<0.5	<1	<0.5	<0.5	<1	70	µg/L	EPA 524.2
Methyl-tert-butyl ether	<0.5	NA	<0.5	<0.5	<0.5	13	µg/L	EPA 524.2
Styrene	<0.5	NA	<0.5	<0.5	<0.5	100	µg/L	EPA 524.2
1,1,2,2-Tetrachloroethane	<0.5	<0.5	<0.5	<0.5	<0.5	1	µg/L	EPA 524.2
Tetrachloroethylene	<0.5	<1	<0.5	<0.5	<1	5	µg/L	EPA 524.2
Toluene	<0.5	<1	0.5	<0.5	<1	150	µg/L	EPA 524.2
1,2,4-Trichlorobenzene	<0.5	NA	<0.5	<0.5	<0.5	5	µg/L	EPA 524.2
1,1,1-Trichloroethane	<0.5	<1	<0.5	<0.5	<1	200	µg/L	EPA 524.2
1,1,2-Trichloroethane	<0.5	<1	<0.5	<0.5	<1	5	µg/L	EPA 524.2
Trichloroethylene	<0.5	<1	<0.5	<0.5	<1	5	µg/L	EPA 524.2
Trichlorofluoromethane	<0.5	<2	<0.5	<0.5	<2	150	µg/L	EPA 524.2
1,1,2-Trichloro-1,2,2-Trifluoroethane	<0.5	NA	<0.5	<0.5	<0.5	1200	µg/L	EPA 524.2
Vinyl Chloride	<0.3	<1	<0.3	<0.5	<1	0.5	µg/L	EPA 524.2
m,p-Xylene	<1	NA	<1	<0.5	<1	1750 ²	µg/L	EPA 524.2
o-Xylene	<0.5	NA	<0.5	<0.5	<0.5		µg/L	EPA 524.2
Non-Volatile Synthetic Organic Chemicals (SOCs)								
Alachlor (Alanex)	<0.1	<0.1	<0.1	<0.1	<0.1	2	µg/L	EPA 505
Atrazine	<0.05	<0.05	<0.05	<0.05	<0.05	1	µg/L	EPA 525.2
Bentazon	<0.5	<0.5	<0.5	<0.5	<0.5	18	µg/L	EPA 515.4
Benzo(a)pyrene	<0.02	<0.02	<0.02	<0.02	<0.02	0.2	µg/L	EPA 525.2
Carbofuran	<0.5	<0.5	<0.5	<0.5	<0.5	18	µg/L	EPA531.2
Chlordane	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	µg/L	EPA 505
2,4-D	<0.1	<0.1	<0.1	<0.1	<0.1	70	µg/L	EPA 515.4
Dalapon	5	<1	<1	3	2	200	µg/L	EPA 515.4
Dibromochloropropane	<0.01	<0.01	<0.01	<0.01	<0.01	0.2	µg/L	EPA 504.1
Di(2-ethylhexyl)adipate	<0.6	<0.6	<0.6	<0.6	<0.6	400	µg/L	EPA 525.2
Di(2-ethylhexyl)phthalate	<0.6	<0.6	<0.6	<0.6	<0.6	4	µg/L	EPA 525.2
Dinoseb	<0.2	<0.2	<0.2	<0.2	<0.2	7	µg/L	EPA 515.4
Diquat	<0.4	<0.4	<0.4	<0.4	<0.4	20	µg/L	EPA 549.2
Endolhall	<5	<20	<20	<5	<20	100	µg/L	EPA 548.1
Endrin	<0.01	<0.01	<0.01	<0.01	<0.01	2	µg/L	EPA 505

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

Constituent	3Q07	4Q07	1Q08	2Q08	4Q Run.		Unit	Method
					Avg. ¹	Limit		
Ethylene Dibromide	<0.01	<0.01	<0.01	<0.01	<0.01	0.05	µg/L	EPA 504.1
Glyphosate	<6	<6	<6	<6	<6	700	µg/L	EPA 547
Heptachlor	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	µg/L	EPA 505
Heptachlor Epoxide	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	µg/L	EPA 505
Hexachlorobenzene	<0.05	<0.05	<0.05	<0.05	<0.05	1	µg/L	EPA 525.2
Hexachlorocyclopentadiene	<0.05	<0.05	<0.05	0.06	<0.05	50	µg/L	EPA 525.2
Lindane	<0.01	<0.01	<0.01	<0.01	<0.01	0.2	µg/L	EPA 505
Methoxychlor	<0.05	<0.05	<0.05	<0.05	<0.05	30	µg/L	EPA 505
Molinate	<0.1	<0.1	<0.1	<0.1	<0.1	20	µg/L	EPA 525.2
Oxamyl	<0.5	<0.5	<0.5	<0.5	<0.5	50	µg/L	EPA 531.2
Pentachlorophenol	<0.04	<0.04	<0.04	<0.04	<0.04	1	µg/L	EPA 515.4
Picloram	<0.1	<0.1	<0.1	<0.1	<0.1	500	µg/L	EPA 515.4
PCB 1016	<0.08	<0.08	<0.08	<0.08	<0.08	0.5	µg/L	EPA 505
PCB 1221	<0.1	<0.1	<0.1	<0.1	<0.1	0.5	µg/L	EPA 505
PCB 1232	<0.1	<0.1	<0.1	<0.1	<0.1	0.5	µg/L	EPA 505
PCB 1242	<0.1	<0.1	<0.1	<0.1	<0.1	0.5	µg/L	EPA 505
PCB 1248	<0.1	<0.1	<0.1	<0.1	<0.1	0.5	µg/L	EPA 505
PCB 1254	<0.1	<0.1	<0.1	<0.1	<0.1	0.5	µg/L	EPA 505
PCB 1260	<0.1	<0.1	<0.1	<0.1	<0.1	0.5	µg/L	EPA 505
Simazine	0.07	<0.05	<0.05	0.1	0.06	4	µg/L	EPA 525.2
Thiobencarb	<0.2	<0.2	<0.2	<0.2	<0.2	70	µg/L	EPA 525.2
Toxaphene	<0.5	<0.5	<0.5	<0.5	<0.5	3	µg/L	EPA 505
2,3,7,8-TCDD (Dioxin)	<5	<5	<5	<5	<5	30	pg/L	EPA 1613
2,4,5-TP (Silvex)	<0.2	<0.2	<0.2	<0.2	<0.2	50	µg/L	EPA 515.4
Action Level Chemicals								
Copper	5.1	3.9	13.6	3.6	6.5	1300	µg/L	EPA 200.8
Lead	<0.5	<0.5	<0.5	<0.5	<0.5	15	µg/L	EPA 200.8
Radionuclides								
Combined Radium-226 and Radium 228	<0.670	<0.710	<1.0	<0.76	<1.0	5	pCi/L	EPA 903.0
Gross Alpha Particle Activity	<3	<3	<3	<3	<3	15	pCi/L	EPA 900.0
Tritium	<190	<198	<196	<191	<198	20,000	pCi/L	EPA 906
Strontium-90	<0.640	<0.670	<0.700	<0.740	<0.740	8	pCi/L	EPA 905
Gross Beta Particle Activity	7	8	10	10	9	50	pCi/L	EPA 900.0
Uranium	<0.7	<0.7	<0.7	<0.7	<0.7	20	pCi/L	EPA 200.8
Secondary Maximum Contaminant Level Chemicals								
Aluminum	<25	27	<25	57	<25	200	µg/L	EPA 200.8
Copper	5.1	3.9	13.6	3.6	6.5	1000	µg/L	EPA 200.8
Corrosivity ³	-0.3	0.7	<0.1	NR	0.1	Non-Cor.	SI	SM 2330B
Foaming Agents (MBAS) ³	<0.05	0.12	<0.05	<0.05	<0.05	500	µg/L	S5540C/EPA 425.1
Iron ³	79	65	110	NR	85	300	µg/L	EPA 200.7
Manganese	7	1	9	19	9	50	µg/L	EPA 200.8
Methyl-tert-butyl ether (MTBE) ³	<0.5	<0.5	<0.5	<0.5	<0.5	5	µg/L	EPA 524.2
Odor--Threshold ³	8	4	8	2	6	3	TON	SM 2150B
Silver	<0.25	<0.25	<0.25	<0.25	<0.25	100	µg/L	EPA 200.8
Thiobencarb	<0.2	<0.2	<0.2	<0.2	<0.2	1	µg/L	EPA 525.2
Zinc	38	24	55	15	33	5000	µg/L	EPA 200.8
Miscellaneous Regulated Constituents								
Oil & Grease ⁴	2	1	3	<2		1	mg/L	EPA 1664
Disinfection Byproducts								
Bromate	<5	<5	<5	<5	<5	10	µg/L	EPA 300.1
Chlorite	<0.01	0.05	<0.01	<0.01	<0.02	1	mg/L	EPA 300.0
Lysimeter Compliance Point Data								
Total Trihalomethanes (TTHMs)	HE-25	8th-25	8th-15	HE-25				
	129	16	7	48	50	80	µg/L	EPA 524.2/624
Total Haloacetic Acids (HAA5)	3	3	<1	<1	2	60	µg/L	S6251B

NA: Not Analyzed this quarter

¹ 4-quarter running average is calculated based on ND values equal to half the detection limit. Final reported 4-quarter running average value, if less than DL, will be based on highest DL found in the data set.

² The sum of m,p-Xylene and o-Xylene is used to calculate compliance for the Total Xylenes limit

³ 4-quarter running average is calculated based on the four most recent results. Monitoring is required annually.

⁴ Oil & Grease compliance determination not based on 4-quarter running average

Bold signifies an exceedance of a limit in the Order. Explained in further detail in the report text.

Italic signifies that the 4-quarter running average highest DL is greater than the MCL; all values in data set are non-detect.

Table 2-4
Recycled Water Monitoring: Table II. Remaining Priority Pollutants, EDCs & Pharmaceuticals, and Unregulated Chemicals
(Monitoring & Reporting Program)

Constituent	2Q08	Unit	Method
Metals			
Chromium (III) ¹	1.2	µg/L	EPA 200.8
Volatile Organic Chemicals (VOCs)			
Acrolein	NR	µg/L	EPA 624
Acrylonitrile	NR	µg/L	EPA 624
Bromoform	<0.5	µg/L	EPA 524.2
Chlorodibromomethane	6.4	µg/L	EPA 524.2
Chloroethane	<0.5	µg/L	EPA 524.2
2-Chloroethylvinylether	NR	µg/L	EPA 624
Chloroform	88	mg/L	EPA 524.2
Dichlorobromomethane	29	µg/L	EPA 524.2
Methyl Bromide	<1	µg/L	EPA 524.2
Methyl Chloride	0.9	µg/L	EPA 524.2
Acid Extractables			
2-Chlorophenol	NR	µg/L	EPA 625
2,4-Dichlorophenol	NR	µg/L	EPA 625
2,4-Dimethylphenol	NR	µg/L	EPA 625
2-Methyl-4,6-dinitrophenol	NR	µg/L	EPA 625
2,4-Dinitrophenol	NR	µg/L	EPA 625
2-Nitrophenol	NR	µg/L	EPA 625
4-Nitrophenol	NR	µg/L	EPA 625
4-Chloro-3-methylphenol	NR	µg/L	EPA 625
Phenol	NR	µg/L	EPA 625
2,4,6-Trichlorophenol	NR	µg/L	EPA 625
Base/Neutral Extractables			
Acenaphthene	NR	µg/L	EPA 625
Acenaphthylene	NR	µg/L	EPA 625
Anthracene	NR	µg/L	EPA 625
Benzidine	NR	µg/L	EPA 625
Benzo(a)anthracene	NR	µg/L	EPA 625
Benzo(b)fluoranthene	NR	µg/L	EPA 625
Benzo(g,h,i)perylene	NR	µg/L	EPA 625
Benzo(k)fluoranthene	NR	µg/L	EPA 625
Bis(2-chloroethoxy)methane	NR	µg/L	EPA 625
Bis(2-chloroethyl)ether	NR	µg/L	EPA 625
Bis(2-chloroisopropyl)ether	NR	µg/L	EPA 625
Bromophenyl phenyl ether	NR	µg/L	EPA 625
tert-butyl benzyl phthalate	NR	µg/L	EPA 625
2-Chloronaphthalene	NR	µg/L	EPA 625
4-Chlorophenyl phenyl ether	NR	µg/L	EPA 625
Chrysene	NR	µg/L	EPA 625
Dibenzo(a,h)anthracene	NR	µg/L	EPA 625
1,3-Dichlorobenzene	NR	µg/L	EPA 625
3,3-Dichlorobenzidine	NR	µg/L	EPA 625
Diethyl phthalate	NR	µg/L	EPA 625
Dimethyl phthalate	NR	µg/L	EPA 625
Di-n-butyl phthalate	NR	µg/L	EPA 625
2,4-Dinitrotoluene	NR	µg/L	EPA 625
2,6-Dinitrotoluene	NR	µg/L	EPA 625
Di-n-octyl phthalate	NR	µg/L	EPA 625
Azobenzene	NR	µg/L	EPA 625
Fluoranthene	NR	µg/L	EPA 625
Fluorene	NR	µg/L	EPA 625
Hexachlorobutadiene	NR	µg/L	EPA 625
Hexachlorocyclopentadiene	NR	µg/L	EPA 625
Hexachloroethane	NR	µg/L	EPA 625
Indeno(1,2,3-cd)pyrene	NR	µg/L	EPA 625
Isophorone	NR	µg/L	EPA 625
Naphthalene	NR	µg/L	EPA 625
Nitrobenzene	NR	µg/L	EPA 625
N-Nitroso-di-n-propylamine	NR	µg/L	EPA 625
N-Nitrosodiphenylamine	NR	µg/L	EPA 625
Phenanthrene	NR	µg/L	EPA 625
Pyrene	NR	µg/L	EPA 625
Pesticides			
Aldrin	NR	µg/L	EPA 608
BHC, alpha isomer	NR	µg/L	EPA 608
BHC, beta isomer	NR	µg/L	EPA 608
BHC, delta isomer	NR	µg/L	EPA 608
4,4'-DDT	NR	µg/L	EPA 608
4,4'-DDE	NR	µg/L	EPA 608
4,4'-DDD	NR	µg/L	EPA 608
Dieldrin	NR	µg/L	EPA 608
Endosulfan I	NR	µg/L	EPA 608
Endosulfan II	NR	µg/L	EPA 608
Endosulfan Sulfate	NR	µg/L	EPA 608
Endrin Aldehyde	NR	µg/L	EPA 608

Constituent	2Q08	Unit	Method
Unregulated Chemicals			
Boron	0.4	mg/L	EPA 200.7
Chromium VI	0.1	µg/L	EPA 218.6
Dichlorodifluoromethane	<0.5	µg/L	EPA 524.2
Ethyl tertiary butyl ether	<0.5	µg/L	EPA 524.2
N-nitrosodimethylamine (NDMA)	<2	ng/L	1625MOD
Tertiary amyl methyl ether	<0.5	µg/L	EPA 524.2
Tertiary butyl alcohol	<2	µg/L	542.2 MOD
Vanadium	1.2	µg/L	EPA 200.8
1,4 - Dioxane	<2	µg/L	8270MOD
1,2,3-Trichloropropane	<0.5	µg/L	EPA 524.2
Chemicals w/ State Notification Levels ²			
n-butylbenzene	<0.5	µg/L	EPA 524.2
sec-butylbenzene	<0.5	µg/L	EPA 524.2
tert-butylbenzene	<0.5	µg/L	EPA 524.2
Carbon disulfide	<0.5	µg/L	EPA 524.2
Chlorate	204	µg/L	EPA 300.0
2-Chlorotoluene	<0.5	µg/L	EPA 524.2
Diazinon	NR	µg/L	EPA 525.2
Formaldehyde	NR	µg/L	SM 6252/EPA 8315
Isopropylbenzene	<0.5	µg/L	EPA 524.2
N-propylbenzene	<0.5	µg/L	EPA 524.2
1,2,4-trimethylbenzene	<0.5	µg/L	EPA 524.2
1,3,5-trimethylbenzene	<0.5	µg/L	EPA 524.2
N-Nitrosodiethylamine (NDEA)	NR	µg/L	EPA 525
N-Nitrosopyrrolidine	NR	µg/L	EPA 525
Endocrine Disrupting Chemicals, Pharmaceuticals and Other Chemicals ²			
<u>Hormones</u>			
Ethinyl estradiol	NR	ng/L	HPLC/MS-SEDC
17-B estradiol	NR	ng/L	HPLC/MS-SEDC
Estrone	NR	ng/L	HPLC/MS-SEDC
<u>"Industrial" Endocrine Disruptors</u>			
Bisphenol A	NR	ng/L	HPLC/MS-SEDC
Nonylphenol and nonylphenol polyethoxyate	NR	ng/L	HPLC/MS-SEDC
Octylphenol and octylphenol polyethoxyate	NR	ng/L	HPLC/MS-SEDC
PolybromiNA	NR	ng/L	8270C SIM
PBDE 28	NR	ng/L	8270C SIM
PBDE 71	NR	ng/L	8270C SIM
PBDE 47	NR	ng/L	8270C SIM
PBDE 66	NR	ng/L	8270C SIM
PBDE 100	NR	ng/L	8270C SIM
PBDE 99	NR	ng/L	8270C SIM
PBDE 85	NR	ng/L	8270C SIM
PBDE 154	NR	ng/L	8270C SIM
PBDE 153	NR	ng/L	8270C SIM
PBDE 138	NR	ng/L	8270C SIM
PBDE 128	NR	ng/L	8270C SIM
PBDE 183	NR	ng/L	8270C SIM
PBDE 190	NR	ng/L	8270C SIM
PBDE 203	NR	ng/L	8270C SIM
PBDE 206	NR	ng/L	8270C SIM
PBDE 209	NR	ng/L	8270C SIM
<u>Pharmaceuticals & Other Substances</u>			
Acetaminopen	NR	ng/L	HPLC/MS-SEDC
Amoxicillin	NR		Not Available ³
Azithromycin	NR		Not Available ³
Caffeine	NR	ng/L	HPLC/MS-SEDC
Carbamazepine	NR	ng/L	HPLC/MS-SEDC
Ciprofloxacin	NR		Not Available ³
Ethylenediamine tetra-acetic acid (EDTA)	NR		EPA 300.0MOD
Gemfibrozil	NR	ng/L	HPLC/MS-SEDC
Ibuprofen	NR	ng/L	HPLC/MS-SEDC
Iodinated contrast media	NR	ng/L	HPLC/MS-SEDC
Lipitor	NR		Not Available ³
Methodone	NR	ng/L	HPLC/MS-SEDC
Morphine	NR		Not Available ³
Salicylic acid	NR	ng/L	HPLC/MS-SEDC
Triclosan	NR	ng/L	HPLC/MS-SEDC

NR: Not Required (Annual Requirement)

¹ Trivalent chromium is measured as total chromium

² Chemicals w/ State Notification Levels, Nitrosamines, and EDC, Pharmaceuticals & Other Chemicals (Attachment B)

³ Analytical Method is not available for this constituent

Table 2-5
Lysimeter and Surface Water Monitoring: TOC, Nitrogen Species, and EC

8th Street Basin									
Site	Depth, bgs	Date	TOC	TN	EC	TIN	NO ₃ -N	TKN+NO ₂ -N	NO ₂ -N
Unit==>	feet		mg/L	mg/L	µmho/cm	mg/L	mg/L	mg/L	mg/L
8TH-00	0	04/01/08	8.98	<0.6	730	<0.2	<0.1	<0.5	<0.01
8TH-00	0	04/08/08	13.91	1.4	690	<0.2	<0.1	1.4	<0.01
8TH-00	0	04/15/08	15.32	1.6	530	<0.2	<0.1	1.6	<0.01
8TH-00	0	04/22/08	6.86	1.7	820	0.8	0.8	1.0	0.01
8TH-00	0	04/29/08	6.10	1.5	915	1.2	1.1	<0.5	0.02
8TH-00	0	05/06/08	7.17	1.7	800	0.7	0.7	1.0	0.04
8TH-00	0	05/13/08	8.36	7.4	775	2.0	1.8	5.7	0.08
8TH-00	0	05/20/08	7.43	2.6	735	2.1	2.0	0.6	0.02
8TH-00	0	05/28/08	6.29	5.5	560	4.6	4.2	1.3	0.06
8TH-00	0	06/03/08	6.66	4.2	780	2.8	2.7	1.5	0.02
8TH-00	0	06/10/08	6.66	4.2	730	3.4	3.2	1.0	0.05
8TH-00	0	06/17/08	7.25	2.7	760	2.1	1.8	0.9	0.05
8TH-00	0	06/24/08	8.57	1.5	790	0.7	0.6	0.9	0.04
8TH-05	5	04/01/08	3.60	<0.6	720	<0.2	<0.1	<0.5	<0.01
8TH-05	5	04/08/08	3.14	<0.6	670	<0.2	0.1	<0.5	<0.01
8TH-05	5	04/15/08	2.60	<0.6	690	0.5	0.5	<0.5	<0.01
8TH-05	5	04/22/08	3.60	2.3	930	2.2	2.2	<0.5	<0.01
8TH-05	5	04/29/08	3.69	<0.6	945	0.4	0.4	<0.5	0.01
8TH-05	5	05/06/08	3.62	<0.6	935	<0.2	<0.1	<0.5	<0.01
8TH-05	5	05/13/08	3.85	<0.6	815	<0.2	<0.1	<0.5	<0.01
8TH-05	5	05/20/08	4.35	<0.6	775	<0.2	<0.1	<0.5	<0.01
8TH-05	5	05/28/08	4.85	<0.6	710	<0.2	<0.1	<0.5	<0.01
8TH-05	5	06/03/08	4.46	0.8	725	<0.2	<0.1	0.8	<0.01
8TH-05	5	06/10/08	4.31	<0.6	715	<0.2	<0.1	<0.5	<0.01
8TH-05	5	06/17/08	4.36	<0.6	770	0.3	<0.1	<0.5	<0.01
8TH-05	5	06/24/08	4.60	<0.6	835	<0.2	<0.1	<0.5	<0.01
8TH-15	15	04/01/08	3.44	<0.6	760	<0.2	<0.1	<0.5	<0.01
8TH-15	15	04/08/08	2.54	<0.6	715	0.3	0.3	<0.5	<0.01
8TH-15	15	04/15/08	2.45	0.8	645	0.8	0.8	<0.5	<0.01
8TH-15	15	04/22/08	3.93	1.4	655	1.4	1.4	<0.5	<0.01
8TH-15	15	04/29/08	3.12	<0.6	755	0.4	0.4	<0.5	<0.01
8TH-15	15	05/06/08	3.48	<0.6	760	0.6	0.4	<0.5	<0.01
8TH-15	15	05/13/08	3.48	<0.6	700	<0.2	0.1	<0.5	<0.01
8TH-15	15	05/20/08	4.42	<0.6	695	0.2	0.1	<0.5	<0.01
8TH-15	15	05/28/08	5.54	0.6	580	0.4	0.4	<0.5	0.01
8TH-15	15	06/03/08	3.74	1.0	605	0.4	0.3	0.8	<0.01
8TH-15	15	06/10/08	3.97	<0.6	670	0.3	0.2	<0.5	<0.01
8TH-15	15	06/17/08	3.69	9.3	695	0.8	0.7	8.7	0.05
8TH-15	15	06/24/08	3.79	0.7	750	0.6	0.5	<0.5	<0.01
8TH-25	25	04/01/08	3.67	<0.6	765	<0.2	<0.1	<0.5	<0.01
8TH-25	25	04/08/08	3.05	<0.6	710	<0.2	<0.1	<0.5	<0.01
8TH-25	25	04/15/08	3.51	<0.6	560	<0.2	0.1	<0.5	<0.01
8TH-25	25	04/22/08	3.70	<0.6	880	0.6	0.5	<0.5	<0.01
8TH-25	25	04/29/08	3.12	<0.6	965	<0.2	0.2	<0.5	<0.01
8TH-25	25	05/06/08	3.16	<0.6	1160	<0.2	<0.1	<0.5	<0.01
8TH-25	25	05/13/08	4.30	<0.6	905	<0.2	<0.1	<0.5	<0.01
8TH-25	25	05/20/08	4.89	<0.6	835	<0.2	<0.1	<0.5	<0.01
8TH-25	25	05/28/08	5.42	<0.6	805	<0.2	<0.1	<0.5	<0.01
8TH-25	25	06/03/08	4.53	0.8	740	<0.2	<0.1	0.8	<0.01
8TH-25	25	06/10/08	4.68	<0.6	740	<0.2	<0.1	0.5	<0.01
8TH-25	25	06/17/08	4.32	0.9	780	0.4	0.3	0.6	0.04
8TH-25	25	06/24/08	4.10	<0.6	830	<0.2	<0.1	<0.5	<0.01
8TH-35	35	04/01/08	3.17	<0.6	720	<0.2	<0.1	<0.5	<0.01
8TH-35	35	04/08/08	3.10	<0.6	765	<0.2	<0.1	<0.5	<0.01
8TH-35	35	04/15/08	3.21	<0.6	770	<0.2	<0.1	<0.5	<0.01
8TH-35	35	04/22/08	5.24	<0.6	780	<0.2	<0.1	<0.5	<0.01
8TH-35	35	04/29/08	3.31	<0.6	750	<0.2	<0.1	<0.5	<0.01
8TH-35	35	05/06/08	2.75	<0.6	925	<0.2	<0.1	<0.5	<0.01
8TH-35	35	05/13/08	3.71	<0.6	920	<0.2	<0.1	<0.5	<0.01
8TH-35	35	05/20/08	5.07	<0.6	860	<0.2	<0.1	<0.5	<0.01
8TH-35	35	05/28/08	3.20	<0.6	830	<0.2	<0.1	<0.5	<0.01
8TH-35	35	06/03/08	7.03	0.9	780	<0.2	<0.1	0.9	<0.01
8TH-35	35	06/10/08	4.90	<0.6	675	<0.2	<0.1	0.5	<0.01
8TH-35	35	06/17/08	3.47	<0.6	745	<0.2	<0.1	0.5	<0.01
8TH-35	35	06/24/08	3.55	<0.6	810	<0.2	<0.1	<0.5	<0.01

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

Table 2-5
Lysimeter and Surface Water Monitoring: TOC, Nitrogen Species, and EC

Hickory Basin East Cell									
Site	Depth, bgs	Date	TOC	TN	EC	TIN	NO ₃ -N	TKN+NO ₂ -N	NO ₂ -N
Unit==>	feet		mg/L	mg/L	µmho/cm	mg/L	mg/L	mg/L	mg/L
HKYE-00	0	05/06/08	5.43	4.5	825	4.0	4.0	0.5	<0.01
HKYE-00	0	05/13/08	5.90	9.2	815	4.5	4.5	4.7	<0.01
HKYE-00	0	05/20/08	7.26	3.8	775	3.0	2.5	1.3	0.24
HKYE-00	0	05/28/08	26.70	3.4	770	<0.2	<0.1	3.4	<0.01
HKYE-25	25	04/01/08	1.73	3.4	780	3.3	3.3	<0.5	<0.01
HKYE-25	25	05/06/08	2.04	5.2	860	5.2	5.2	<0.5	<0.01
HKYE-25	25	05/13/08	1.42	3.6	785	3.6	3.6	<0.5	<0.01
HKYE-25	25	05/20/08	2.44	4.6	810	4.6	4.6	<0.5	<0.01
HKYE-25	25	05/28/08	1.34	3.4	825	3.3	3.3	<0.5	<0.01

Banana Basin									
Site	Depth, bgs	Date	TOC	TN	EC	TIN	NO ₃ -N	TKN+NO ₂ -N	NO ₂ -N
Unit==>	feet		mg/L	mg/L	µmho/cm	mg/L	mg/L	mg/L	mg/L
BAN-00	0	04/29/08	5.24	4.7	820	4.2	4.1	0.5	<0.01
BAN-00	0	05/06/08	7.68	2.1	760	1.4	1.3	0.8	0.14
BAN-00	0	05/13/08	6.01	2.5	805	2.6	2.4	<0.5	0.10
BAN-00	0	05/20/08	10.56	1.5	805	0.3	<0.1	1.5	<0.01
BAN-00	0	06/03/08	5.24	6.9	815	5.6	5.5	1.4	<0.01
BAN-00	0	06/10/08	6.00	5.1	750	3.9	3.7	1.4	0.08
BAN-00	0	06/17/08	7.38	6.5	800	3.3	3.2	3.3	0.02
BAN-00	0	06/24/08	15.19	4.1	845	0.2	<0.1	4.1	<0.01
BAN-25	25	04/29/08	1.20	1.0	310	0.8	0.8	<0.5	<0.01
BAN-25	25	05/06/08	1.47	1.5	520	1.5	1.5	<0.5	<0.01
BAN-25	25	05/13/08	1.18	2.5	590	2.2	2.1	<0.5	<0.01
BAN-25	25	05/20/08	1.19	2.0	625	1.8	1.8	<0.5	<0.01
BAN-25	25	06/03/08	1.32	3.3	670	2.5	2.5	0.7	<0.01
BAN-25	25	06/10/08	1.40	2.1	590	1.9	1.8	<0.5	<0.01
BAN-25	25	06/17/08	1.42	1.9	680	1.7	1.6	<0.5	<0.01
BAN-25	25	06/24/08	1.17	1.6	685	1.4	1.2	<0.5	<0.01

Ely Basin No. 3									
Site	Depth, bgs	Date	TOC	TN	EC	TIN	NO ₃ -N	TKN+NO ₂ -N	NO ₂ -N
Unit==>	feet		mg/L	mg/L	µmho/cm	mg/L	mg/L	mg/L	mg/L
ELY3E-00	0	04/01/08	8.35	3.3	470	2.3	2.2	1.1	0.02
ELY3E-00	0	04/08/08	6.76	3.6	535	2.9	2.6	1.0	0.02
ELY3E-00	0	04/22/08	7.02	3.7	615	3.0	2.8	0.9	0.06
ELY3E-00	0	04/29/08	6.17	3.9	600	2.6	2.5	1.3	0.05
ELY3E-00	0	05/06/08	5.53	3.3	600	2.6	2.5	0.8	0.05
ELY3E-00	0	05/13/08	6.01	3.3	580	2.5	2.4	0.9	0.04
ELY3E-00	0	05/21/08	6.51	2.5	555	2.2	2.1	<0.5	0.02
ELY3E-00	0	05/28/08	7.25	3.9	565	2.5	2.4	1.5	0.04
ELY3E-00	0	06/03/08	7.87	4.4	550	2.9	2.8	1.6	0.04
ELY3E-00	0	06/10/08	7.89	3.7	525	2.7	2.4	1.3	0.05
ELY3E-00	0	06/17/08	8.34	3.7	545	1.9	1.8	1.8	0.03
ELY3E-00	0	06/24/08	8.65	2.9	585	1.9	1.7	1.2	0.03
ELY3E-05	5	04/29/08	3.84	2.7	505	0.9	0.5	2.2	0.02
ELY3E-05	5	05/06/08	3.48	1.2	560	1.1	0.2	1.0	0.01
ELY3E-10	10	04/01/08	1.80	1.9	195	1.7	1.7	<0.5	<0.01
ELY3E-10	10	04/08/08	1.91	1.6	245	1.2	1.1	0.5	<0.01
ELY3E-10	10	04/22/08	2.08	0.7	390	0.6	0.6	<0.5	<0.01
ELY3E-10	10	04/29/08	2.00	<0.6	445	0.4	0.3	<0.5	<0.01
ELY3E-10	10	05/06/08	1.94	<0.6	575	<0.2	0.1	<0.5	<0.01
ELY3E-10	10	05/13/08	1.84	<0.6	540	0.2	0.2	<0.5	<0.01
ELY3E-10	10	05/21/08	1.75	<0.6	540	0.5	0.5	<0.5	<0.01
ELY3E-10	10	05/28/08	1.34	1.2	375	0.8	0.8	<0.5	<0.01
ELY3E-10	10	06/03/08	1.51	1.3	560	0.8	0.8	<0.5	<0.01
ELY3E-10	10	06/10/08	1.81	0.8	530	0.7	0.6	<0.5	<0.01
ELY3E-10	10	06/17/08	1.57	1.1	560	0.7	0.7	<0.5	<0.01
ELY3E-10	10	06/24/08	1.77	<0.6	570	0.6	0.5	<0.5	<0.01
ELY3E-25	25	04/01/08	2.72	0.7	275	0.3	0.3	<0.5	<0.01
ELY3E-25	25	04/08/08	2.71	0.8	260	0.4	0.1	0.7	0.02
ELY3E-25	25	04/29/08			245		0.2		<0.01
ELY3E-25	25	05/06/08	3.57		255				
ELY3E-25	25	05/13/08	3.27	<0.6	260	<0.2	0.1	<0.5	<0.01
ELY3E-25	25	05/21/08	2.19	<0.6	300	<0.2	<0.1	<0.5	<0.01
ELY3E-25	25	05/28/08	2.73	1.0	220	<0.2	<0.1	1.0	<0.01
ELY3E-25	25	06/03/08	2.96	1.2	450	0.5	0.4	0.8	<0.01
ELY3E-25	25	06/10/08	2.79		455		<0.1		<0.01
ELY3E-25	25	06/17/08	2.68	<0.6	500	0.2	<0.1	<0.5	<0.01
ELY3E-25	25	06/24/08	2.81	<0.6	475	0.2	<0.1	<0.5	<0.01

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

Table 2-6
Diluent Water Monitoring Results

Constituent	West Cucamonga Channel -			Unit	Method
	7th & 8th Street	Cucamonga Creek - Turner 1 & 2	Deer Creek - Turner Drop Inlet		
NO ₂ -N	<0.01	0.04	<0.01	mg/L	EPA 300.0
NO ₃ -N	0.6	1.3	0.2	mg/L	EPA 300.0
TDS	190	542	396	mg/L	SM 2540C
Total Coliform	>23	>23	12	mpn/100ml	SM 9221B
Oil & Grease	<2	2	<2	mg/L	EPA 1664A
Inorganic Chemicals					
Aluminum	101	<25	48	µg/L	EPA 200.7
Antimony	<1	1.4	1.4	µg/L	EPA 200.8
Arsenic	2	<2	<2	µg/L	EPA 200.8
Asbestos	<6.73	<4.42	<6.42	MFL	EPA 100.2
Barium	30	82	54	µg/L	EPA 200.7
Beryllium	<0.5	<0.5	<0.5	µg/L	EPA 200.7
Cadmium	0.3	<0.25	<0.25	µg/L	EPA 200.7
Chromium	1.2	1.7	2.1	µg/L	EPA 200.7
Cyanide	<6	<6	<6	µg/L	SM 4500-CN E
Fluoride	0.4	0.4	0.5	mg/L	SM 4500-F C
Mercury	<0.2	<0.2	<0.2	µg/L	EPA 245.2
Nickel	2	4	3	µg/L	EPA 200.7
Perchlorate	<4	<4	<4	µg/L	EPA 314
Selenium	<2	2	<2	µg/L	EPA 200.8
Thallium	<1	<1	<1	µg/L	EPA 200.8
Volatile Organic Chemicals (VOCs)					
Benzene	<0.5	<0.5	<0.5	µg/L	EPA 524.2
Carbon Tetrachloride	<0.5	<0.5	<0.5	µg/L	EPA 524.2
1,2-Dichlorobenzene	<0.5	<0.5	<0.5	µg/L	EPA 524.2
1,4-Dichlorobenzene	<0.5	<0.5	<0.5	µg/L	EPA 524.2
1,1-Dichloroethane	<0.5	<0.5	<0.5	µg/L	EPA 524.2
1,2-Dichloroethane	<0.5	<0.5	<0.5	µg/L	EPA 524.2
1,1-Dichloroethylene	<0.5	<0.5	<0.5	µg/L	EPA 524.2
cis-1,2-Dichloroethylene	<0.5	<0.5	<0.5	µg/L	EPA 524.2
trans-1,2-Dichloroethylene	<0.5	<0.5	<0.5	µg/L	EPA 524.2
Dichloromethane	<0.5	<0.5	<0.5	µg/L	EPA 524.2
1,2-Dichloropropane	<0.5	<0.5	<0.5	µg/L	EPA 524.2
1,3-Dichloropropane	<0.5	<0.5	<0.5	µg/L	EPA 524.2
Ethylbenzene	<0.5	<0.5	<0.5	µg/L	EPA 524.2
Chlorobenzene	<0.5	<0.5	<0.5	µg/L	EPA 524.2
Methyl Tert-butyl ether (MTBE)	<0.5	<0.5	<0.5	µg/L	EPA 524.2
Styrene	<0.5	<0.5	<0.5	µg/L	EPA 524.2
1,1,2,2-Tetrachloroethane	<0.5	<0.5	<0.5	µg/L	EPA 524.2
Tetrachloroethylene	<0.5	<0.5	<0.5	µg/L	EPA 524.2
Toluene	<0.5	<0.5	<0.5	µg/L	EPA 524.2
1,2,4-Trichlorobenzene	<0.5	<0.5	<0.5	µg/L	EPA 524.2
1,1,1-Trichloroethane	<0.5	<0.5	<0.5	µg/L	EPA 524.2
1,1,2-Trichloroethane	<0.5	<0.5	<0.5	µg/L	EPA 524.2
Trichloroethylene	<0.5	<0.5	<0.5	µg/L	EPA 524.2
Trichlorofluoromethane	<0.5	<0.5	<0.5	µg/L	EPA 524.2
1,1,2-Trichloro-1,2,2-Trifluoroethane	<0.5	<0.5	<0.5	µg/L	EPA 524.2
Vinyl Chloride	<0.3	<0.3	<0.3	µg/L	EPA 524.2
Total Xylenes	<1	<1	<1	µg/L	EPA 524.2
Non-Volatile Synthetic Organic Chemicals (SOCs)					
Atachlor (Alanex)	<0.1	<0.1	<0.1	µg/L	EPA 505
Atrazine	<0.05	<0.05	<0.05	µg/L	EPA 525.2
Bentazon	<0.5	<0.5	<0.5	µg/L	EPA 515.4
Benzo(a)pyrene	<0.02	<0.02	<0.02	µg/L	EPA 525.2
Carbofuran	<0.5	<0.5	<0.5	µg/L	EPA531.2
Chlordane	<0.1	<0.1	<0.1	µg/L	EPA 505
2,4-D	<0.1	<0.1	<0.1	µg/L	EPA 515.4
Dalapon	<1	<1	<1	µg/L	EPA 515.4
Dibromochloropropane	<0.01	<0.01	<0.01	µg/L	EPA 504.1
Di(2-ethylhexyl)adipate	<0.6	<0.6	<0.6	µg/L	EPA 525.2
Di(2-ethylhexyl)phthalate	<0.6	3.7	1.1	µg/L	EPA 525.2
Dinoseb	<0.2	<0.2	<0.2	µg/L	EPA 515.4
Diquat	<0.4	<0.4	<0.4	µg/L	EPA 549.2
Endothall	<5	<5	<5	µg/L	EPA 548.1

Table 2-6
Diluent Water Monitoring Results

Constituent	West Cucamonga Channel - 7th & 8th Street	Cucamonga Creek - Turner 1 & 2	Deer Creek - Turner Drop Inlet	Unit	Method
Endrin	<0.01	<0.01	<0.01	µg/L	EPA 505
Ethylene Dibromide	<0.01	<0.01	<0.01	µg/L	EPA 504.1
Glyphosate	22	<6	38	µg/L	EPA 547
Heptachlor	<0.01	<0.01	<0.01	µg/L	EPA 505
Heptachlor Epoxide	<0.01	<0.01	<0.01	µg/L	EPA 505
Hexachlorobenzene	<0.05	<0.05	<0.05	µg/L	EPA 525.2
Hexachlorocyclopentadiene	<0.05	<0.05	<0.05	µg/L	EPA 525.2
Lindane	<0.01	<0.01	<0.01	µg/L	EPA 505
Methoxychlor	<0.05	<0.05	<0.05	µg/L	EPA 505
Molinate	<0.1	<0.1	<0.1	µg/L	EPA 525.2
Oxamyl	<0.5	<0.5	<0.5	µg/L	EPA 531.2
Pentachlorophenol	<0.04	<0.04	<0.04	µg/L	EPA 515.4
Picloram	<0.1	<0.1	<0.1	µg/L	EPA 515.4
PCB 1016	<0.08	<0.08	<0.08	µg/L	EPA 505
PCB 1221	<0.1	<0.1	<0.1	µg/L	EPA 505
PCB 1232	<0.1	<0.1	<0.1	µg/L	EPA 505
PCB 1242	<0.1	<0.1	<0.1	µg/L	EPA 505
PCB 1248	<0.1	<0.1	<0.1	µg/L	EPA 505
PCB 1254	<0.1	<0.1	<0.1	µg/L	EPA 505
PCB 1260	<0.1	<0.1	<0.1	µg/L	EPA 505
Simazine	<0.05	<0.05	<0.05	µg/L	EPA 525.2
Thiobencarb	<0.2	<0.2	<0.2	µg/L	EPA 525.2
Toxaphene	<0.5	<0.5	<0.5	µg/L	EPA 505
2,3,7,8-TCDD (Dioxin)	<5	<5	<5	pg/L	EPA 1613
2,4,5-TP (Silvex)	<0.2	<0.2	<0.2	µg/L	EPA 515.4
Disinfection Byproducts					
Total Trihalomethanes (TTHMs)	<0.5	<0.5	<0.5	µg/L	EPA 524.2/624
Total Haloacetic Acids (HAA5)	3.2	72	24	µg/L	S6251B
Bromate	<5	<5	18	µg/L	EPA 300.1
Chlorite	<0.01	0.01	0.01	mg/L	EPA 300.0
Notification Level Chemicals					
Copper	11.0	20.0	18.4	µg/L	EPA 200.7
Lead	0.6	<0.5	<0.5	µg/L	EPA 200.8
Radionuclides					
Combined Radium-226 and Radium 228	<0.984	<0.912	<0.677	pCi/L	EPA 903.0
Gross Alpha Particle Activity	<3.00	<3.00	<3	pCi/L	EPA 900.0
Tritium	190	<189	<182	pCi/L	EPA 906
Strontium-90	<0.745	<0.706	<0.792	pCi/L	EPA 905
Gross Beta Particle Activity	15	6	5	pCi/L	EPA 900.0
Uranium	0.94	1.1	<0.7	pCi/L	EPA 200.8
Unregulated Chemicals					
Boron	<0.1	0.2	0.2	mg/L	EPA 200.7
Chromium VI	0.4	1.7	1.1	µg/L	EPA 218.6
Dichlorodifluoromethane	<0.5	<0.5	<0.5	µg/L	EPA 524.2
Ethyl tertiary butyl ether	<3	<3	<3	µg/L	EPA 524.2
N-nitrosodimethylamine (NDMA)	6.8	<4	<2	ng/L	1625MOD
Perchlorate	<4	<4	<4	µg/L	EPA 314
Tertiary amyl methyl ether	<3	<3	<3	µg/L	EPA 524.2
Tertiary butyl alcohol	<2	<2	<2	µg/L	542.2 MOD
Vanadium	7.1	15.3	18.5	µg/L	EPA 200.8
1,4 - Dioxane	<2	2.1	<2	µg/L	8270MOD
1,2,3-Trichloropropane	<0.5	<0.5	<0.5	µg/L	EPA 524.2
Secondary Maximum Contaminant Level Chemicals					
Aluminum	101	<25	48	µg/L	EPA 200.7
Corrosivity	0.5	3.0	2.8	SI	SM 2330B
Foaming Agents (MBAS)	0.79	<0.05	<0.05	mg/L	S5540C/EPA 425.1
Iron	204	45	117	µg/L	EPA 200.7
Manganese	6	5	8	µg/L	EPA 200.7
Odor--Threshold	8	67	3	TON	SM 2150B
Silver	<0.25	<0.25	<0.25	µg/L	EPA 200.7
Thiobencarb	<0.2	<0.2	<0.2	µg/L	EPA 525.2
Zinc	20	7	15	µg/L	EPA 200.7

Table 2-7
Summary of Wells in Groundwater Monitoring Networks

BASIN	CBWM_ID	OWNER/LOCAL NAME	SEPARATION DISTANCE (feet)	SCREENED INTERVAL(S) (feet bgs)	CASING DIAMETER (Inches)	STATUS	TYPE
Hickory and Banana Basins	3600573	Fontana Water Company - F37a	2240 upgradient	378-810	20	Active	Municipal
	600660	California Speedway - Infield Well	2070 downgradient	NA	NA	Active	Industrial
	3601365	California Speedway 2	2780 downgradient	451-455, 491-603, & 664-780	20	Active	Industrial
	3600371	Reliant Energy - East Well	4070 downgradient	434-467, 500-513, 553-580, 593-652, & 825-847	20	Active	Industrial
	3602267	City Of Ontario - 20	14500 downgradient	NA	20	Active	Municipal
	601001	Inland Empire Utilities Agency - BH-1/1	340 downgradient	365-405	4	Active	Monitoring
	601002	Inland Empire Utilities Agency - BH-1/2	340 downgradient	435-475	4	Active	Monitoring
Turner Basins	3601065	City Of Ontario - 19	2200 upgradient	NA	16	Inactive	Municipal
	3600010	City Of Ontario - 25	2530 crossgradient	370-903	20	Active	Municipal
	600453	City Of Ontario - 29	2810 downgradient	400-1095	18	Active	Municipal
	600585	City of Ontario - 38*	4600 crossgradient	500-1010	16	Active	Municipal
	600997	Inland Empire Utilities Agency - TRN-1/1	50 downgradient	340-360	4	Active	Monitoring
	600998	Inland Empire Utilities Agency - TRN-1/2	50 downgradient	380-400	4	Active	Monitoring
	600999	Inland Empire Utilities Agency - TRN-2/1	50 downgradient	350-370	4	Active	Monitoring
	601000	Inland Empire Utilities Agency - TRN-2/2	50 downgradient	392-412	4	Active	Monitoring
7th & 8th Street Basins	3601561	San Antonio Water Company No. 12	740 downgradient	379-480, 525-563, 576-609, & 634-679	16	Inactive	Municipal
	3601772	City of Ontario No. 4	3429 downgradient	526-910	16-20	Inactive	Municipal
	--	City of Ontario No. 51	3402 downgradient	Not Yet Constructed	NA	NA	Municipal
	600493	City of Ontario No. 35	9695 downgradient	580-1020	18-36	Active	Municipal
	--	Inland Empire Utilities Agency - 8th-1/1	150 downgradient	495-535	4	Active	Monitoring
	--	Inland Empire Utilities Agency - 8th-1/2	150 downgradient	595-645	4	Active	Monitoring
	--	Inland Empire Utilities Agency - 8th-2/1	2460 downgradient	465-505	4	Active	Monitoring
	--	Inland Empire Utilities Agency - 8th-2/2	2460 downgradient	576-616	4	Active	Monitoring
Ely Basin	601003	Ely Basin MW-1, Philadelphia Well (Casing 3)	100 downgradient	280 - 300	2	NA	Monitoring
	601004	Ely Basin MW-2, Walnut Well (Casing 2)	3050 downgradient	290 - 310	4	NA	Monitoring
	3600975	Riverside Drive Well (43840-CWW)	6046 downgradient	NA	NA	Active	Private Irrigation
	600134	Bishop Of San Bernardino Corp. - DOM	6500 downgradient	NA	NA	Active	Private Domestic

Notes:

- NA = Data not available
- CBWM ID = Chino Basin Water Master well identification number
- bgs = below ground surface
- * = Ontario Well No. 38 has taken the place of Ontario Well No. 19, which is inactive

Table 2-8
Groundwater Monitoring Results (Quarterly)

Sample Location	Date	TOC (mg/L)	Total Coliform (MPN/100mL)	pH	EC (µmhos/cm)	TDS (mg/L)	Al (µg/L)	Color (units)	Cu (µg/L)	Corrosivity Index (SI)	Foaming Agents (mg/L)	Fe (µg/L)	Mn (µg/L)	MTBE (µg/L)	Odor Threshold (TON)	Ag (µg/L)	Thiobacarb (µg/L)	Turbidity (NTU)	Zn (µg/L)	Cl (mg/L)	Hardness (mg CaCO ₃ /L)	Na (mg/L)	SO ₄ (mg/L)	NH ₃ -N (mg/L)	NO ₂ -N (mg/L)	NO ₃ -N (mg/L)	Nitrogen, Total (mg/L)	TKN (mg/L)	Alkalinity (mg CaCO ₃ /L)	Dissolved Oxygen (mg/L)
Banana & Hickory Basins	Fontana Water Company F37a	0.1	<1.1	7.63	455	288	43	<3	39.1	0.5	<0.05	233	9	<0.5	2	<0.25	<0.2	1.50	8	16	217	19	14	<0.1	0.04	10.2	10.2	<0.5	175	8.6
	California Speedway Infield Well	0.5	<1.1	6.65	470	308	<25	<3	2.9	0.4	<0.05	23	1	<0.5	1	<0.25	<0.2	0.15	3	14	229	21	39	<0.1	0.05	7.9	7.9	<0.5	169	7.9
	California Speedway 2	0.5	<1.1	7.94	284	236	<25	<3	1.6	0.2	<0.05	14	3	<0.5	1	<0.25	<0.2	0.22	30	11	167	19	14	<0.1	0.06	3.8	3.8	<0.5	158	6.8
	Reliant Energy East Well	0.3	<1.1	7.20	375	262	88	<3	2.5	0.0	<0.05	231	18	<0.5	1	<0.25	<0.2	1.47	1	17	160	18	20	<0.1	<0.01	8.4	8.5	<0.5	119	6.5
	Ontario Well No. 20	0.5	<1.1	7.90	330	204	<25	<3	3.7	0.4	<0.05	3	<1	<0.5	2	<0.25	<0.2	0.36	3	5	167	14	6	<0.1	0.19	1.6	1.8	<0.5	162	7.3
	BH-1/2	0.7	<1.1	7.20	412	264	<25	<3	<0.5	0.2	<0.05	20	3	<0.5	1	<0.25	<0.2	0.25	3	40	182	20	24	<0.1	0.13	2.7	2.8	<0.5	118	7.4
	BH-1/2	0.5	7.02	415														0.47						<0.1	<0.01	2.4	2.4		117	7.9
	Ontario Well No. 25	0.5	<1.1	7.65	420	272	<25	<3	1.7	0.3	<0.05	6	<1	<0.5	2	<0.25	<0.2	0.15	<1	14	197	22	19	<0.1	0.18	4.2	4.4	<0.5	177	6.6
Turner Basins	Ontario Well No. 29	0.5	<1.1	7.52	355	230	<25	<3	3.7	0.3	<0.05	1	<1	<0.5	2	<0.25	<0.2	0.26	2	12	159	24	16	<0.1	0.17	3.4	3.5	<0.5	153	8.9
	Ontario Well No. 38	0.5	<1.1	7.93	300	190	<25	<3	1.9	0.3	<0.05	7	<1	<0.5	2	<0.25	<0.2	0.21	<1	4	138	21	9	<0.1	0.18	1.1	1.3	<0.5	152	7.1
	T-1/2	1.0	<1.1	7.57	630	380	<25	<3	0.7	0.1	<0.05	20	1	<0.5	1	<0.25	<0.2	0.95	1	91	275	29	33	<0.1	<0.01	0.2	0.3	<0.5	153	6.9
	T-2/1	0.9	<1.1	7.59	480	296	<25	<3	0.6	0.1	<0.05	54	3	<0.5	1	<0.25	<0.2	0.89	<1	72	194	27	19	<0.1	<0.01	0.7	0.8	<0.5	117	8.8
	T-2/2	1.0	<1.1	7.64	505	330	<25	<3	<0.5	-0.1	<0.05	9	<1	<0.5	1	<0.25	<0.2	0.81	1	82	213	20	27	<0.1	<0.01	0.7	0.7	<0.5	96	8.3
	8TH-1/1	0.9	<1.1	7.95	220	154	<25	<3	0.6	0.1	<0.05	23	4	<0.5	2	<0.25	<0.2	0.55	<1	5	95	18	8	<0.1	<0.01	1.3	1.7	<0.5	100	7.2
	8TH-1/1	0.4	195																					<0.01	1.0			<0.5		
	8TH-1/1	0.5	200																					<0.1	<0.01	1.0	1.0	<0.5		
7th & 8th St. Basins	8TH-1/1	0.6	215																					0.1	<0.01	0.9	1.4	0.5		
	8TH-1/2	0.4	<1.1	7.36	355	236	<25	<3	<0.5	0.0	<0.05	11	5	<0.5	2	<0.25	<0.2	0.44	<1	14	166	18	14	<0.1	<0.01	6.7	6.8	<0.5	133	7.6
	8TH-1/2	0.1	335																					<0.01	6.7	6.8	<0.5			
	8TH-1/2	0.3	350																					<0.1	<0.01	6.6	<0.5			
	8TH-1/2	0.4	370																					<0.1	<0.01	6.7	6.7	<0.5		
	8TH-2/1	0.5	<1.1	7.48	615	436	<25	<3	<0.5	0.4		11	5	<0.5	1	<0.25	<0.2	0.18	2	18	289	20	64	<0.1	0.08	30.2	30.3	<0.5	128	8.2
	8TH-2/1																													
	8TH-2/2	0.2	<1.1	7.24	520	338	<25	<3	<0.5	0.0	<0.05	21	6	<0.5	1	<0.25	<0.2	0.14	1	17	245	19	37	<0.1	<0.01	19.1	18.1	<0.5	153	8.7
Ely Basins	Ely Basin MW-1 Philadelphia St.	0.7	<1.1	8.75	245	148	28	3	<0.5	0.3	<0.05	294	14	<0.5	1	<0.25	<0.2	0.87	2	25	96	20	3	<0.1	<0.01	0.2	0.2	<0.5	83	0.9
	Ely Basin MW-2 Walnut St.	0.9	<1.1	7.22	1220	636	577	20	4.0	0.5	<0.05	4364	21	<0.5	2	<0.25	<0.2	42.8	6	111	571	32	60	<0.1	<0.01	44.5	44.5	<0.5	243	7.4
Background Data	Riverside Drive Well (43840-CWW)	0.6	<1.1	7.45	480	302	<25	<3	0.5	0.2	<0.05	<15	<1	<0.5	2	<0.25	<0.2	0.70	5	21	232	22	32	<0.1	<0.01	8.0	8.0	<0.5	165	7.3
	BRK-1/1	1.5	<1.1	7.71	355	248	878	<3	1.4	-0.1	<0.05	132	7	<0.5	1	<0.25	<0.2	8.45	3	16	105	42	28	<0.1	0.02	1.7	1.8	<0.5	126	5.5
	BRK-1/2	0.6	<1.1	7.86	530	340	<25	<3	<0.5	0.4	<0.05	11	3	<0.5	1	<0.25	<0.2	0.89	<1	14	269	15	37	<0.1	0.02	16.6	16.6	<0.5	152	7.1
	BRK-2/1	0.5	<1.1	7.59	555	344	31	5	0.8	0.4	<0.05	316	12	<0.5	1	<0.25	<0.2	1.94	2	34	297	14	34	<0.1	0.02	8.5	8.5	<0.5	173	8.2
	BRK-2/2	0.2	<1.1	8.33	315	206	<25	<3	0.7	0.1	<0.05	25	8	<0.5	3	<0.25	<0.2	0.59	1	7	82	44	25	<0.1	<0.01	2.8	2.8	<0.5	115	1.2
	DCZ-1	1.4	<1.1	7.24	310	186	<25	<3	0.8	0.2	<0.05	136	164	<0.5	2	<0.25	<0.2	1.90	1	12	118	30	13	<0.1	0.15	1.0	1.1	<0.5	134	3.1
	RP3-1/1	1.8	<1.1	6.24	1060	708	<25	3	1.8	0.4	<0.05	13	273	<0.5	3	<0.25	<0.2	0.20	1	27	408	94	63	<0.1	0.73	<0.1	0.7	<0.5	345	0.5
	RP3-1/2	1.8	<1.1	6.23	900	600	<25	3	2.0	0.3	<0.05	67	130	<0.5	2	<0.25	<0.2	0.21	2	36	359	81	50	<0.1	0.34	<0.1	0.3	<0.5	338	1.2

Blank cells indicate that analysis was not run for a constituent on that particular date. On certain dates, supplemental analysis was conducted on BH-1/2, 8th St-1/1, 8th St-1/2, and 8th St-2/1. On those occasions, a full set of analysis was not necessary and only parameters of interest were analyzed.

Table 3-1
Diluent & Recycled Water Recharge Volume (Acre-Feet)

Date	Diluent Water														
	Imported Water				Local Runoff / Storm Flow				Recycled Water						
	7th & 8th St.	Ely	Turner	Hickory	Banana	7th & 8th St.	Ely	Turner	Hickory	Banana	7th & 8th St.	Ely	Turner	Hickory	Banana
Apr-07	0	0	0	0	0	89	59	8	50	29	0	41	22	63	4
May-07	0	0	0	0	0	42	14	20	58	37	0	40	136	0	6
Jun-07	0	0	0	0	0	42	18	11	90	0	0	7	3	0	0
2Q07 Totals	0	0	0	0	0	173	91	68	306	133	0	88	319	126	19
Jul-07	0	0	0	0	0	16	26	5	93	0	0	0	0	141	0
Aug-07	0	0	0	0	0	16	29	48	93	0	0	0	0	78	0
Sep-07	0	0	0	0	0	17	34	16	92	3	128	0	0	15	0
3Q07 Totals	0	0	0	0	0	49	89	69	278	3	128	0	0	234	0
Oct-07	0	0	0	0	0	42	34	65	73	2	109	0	0	23	0
Nov-07	0	0	0	0	0	81	166	162	102	35	161	87	0	98	0
Dec-07	0	0	0	0	0	224	257	277	102	22	0	53	0	0	0
4Q07 Totals	0	0	0	0	0	347	457	504	277	59	270	140	0	121	0
Jan-08	0	0	0	0	0	328	793	454	126	130	1	0	0	0	0
Feb-08	0	0	0	0	0	98	233	260	97	75	157	0	0	97	0
Mar-08	0	0	0	0	0	21	82	17	44	0	164	116	0	80	0
1Q08 Totals	0	0	0	0	0	447	1108	731	267	205	322	116	0	177	0
Apr-08	0	0	0	0	0	11	170	18	64	0	90	116	0	7	47
May-08	0	0	0	0	0	90	137	181	39	3	158	87	0	86	38
Jun-08	0	0	0	0	0	15	123	39	24	8	86	103	0	0	72
2Q08 Totals	0	0	0	0	0	116	430	238	127	11	334	306	0	93	157

Note: (-) Negative values indicate more water pumped from the basin than was routed to the basin.
Diluent water at Ely Basin does not include discharge of treated groundwater

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

ASR Well No. 4										
	Date	Injection			Recovery			Mass Balance		
		Volume (AF)	TIN (mg/L)	TDS (mg/L)	Volume (AF)	TIN (mg/L)	TDS (mg/L)	Storage (AF)	TIN (kg)	TDS (kg)
1Q08	Jan-08	0			0			0	0	0
	Feb-08	0			0			0	0	0
	Mar-08	40	0.87	290	0			40	43	14,307
2Q08	Apr-08	42	1.10	350	0			82	99	32,273
	May-08	0	1.10	350	98	7.5*	372*	(16)	(805)	(12,728)
	Jun-08	0	1.10	350	107	14	360	(123)	(2,645)	(60,049)

ASR Well No. 30										
	Date	Injection			Recovery			Mass Balance		
		Volume (AF)	TIN (mg/L)	TDS (mg/L)	Volume (AF)	TIN (mg/L)	TDS (mg/L)	Storage (AF)	TIN (kg)	TDS (kg)
3Q07	Jul-07	136	0.53	270	0			243	214	80,909
	Aug-07	71	0.53	270	0			314	261	104,598
	Sep-07	47	0.53	270	0			362	292	120,413
4Q07	Oct-07	123	0.13	310	0			484	312	167,280
	Nov-07	13	0.13	310	0			497	314	172,181
	Dec-07	67	0.13	310	0			564	324	197,792
1Q08	Jan-08	132	0.87	290	0			696	466	244,894
	Feb-08	81	0.87	290	0			777	553	273,947
	Mar-08	99	0.87	290	0			876	659	309,405
2Q08	Apr-08	89	1.10	350	0			965	780	348,001
	May-08	0	1.10	350	0			965	780	348,001
	Jun-08	0	1.10	350	286	3.5*	310*	680	(436)	238,737

ASR Well No. 32										
	Date	Injection			Recovery			Mass Balance		
		Volume (AF)	TIN (mg/L)	TDS (mg/L)	Volume (AF)	TIN (mg/L)	TDS (mg/L)	Storage (AF)	TIN (kg)	TDS (kg)
1Q08	Jan-08	0			0			0	0	0
	Feb-08	33	0.87	290	0			33	35	11,813
	Mar-08	118	0.87	290	0			151	162	54,139
2Q08	Apr-08	89	1.10	350	0			241	284	92,736
	May-08	0	1.10	350	0			241	284	92,736
	Jun-08	0	1.10	350	6	**	**	235	**	**

The injected water is WFA-treated water, which meets CCR Title 22 drinking water standards.
 During 2Q08, WFA-treated water was sampled for TDS and TIN (NO₃-N + NO₂-N, assuming no NH₃-N in drinking water) on 04/15/08.
 MVWD discontinued groundwater injection at ASR Wells 4, 30, and 32, effective May 1, 2008, until further notice.
 All wells were placed into production (extraction) mode during 2Q08.
 * Wells w/ 2+ sampling events for the month show an avg. of those values. Individual values are at the bottom of the page.
 ** Well is not required to sample until it reaches 20% extraction. Mass balance will be calculated after 20% threshold has been reached.

Total Project (All Wells)				
	Date	Mass Balance		
		Storage (AF)	TIN (kg)	TDS (kg)
3Q07	Jul-07	243	214	80,909
	Aug-07	314	261	104,598
	Sep-07	362	292	120,413
4Q07	Oct-07	484	312	167,280
	Nov-07	497	314	172,181
	Dec-07	564	324	197,792
1Q08	Jan-08	696	466	244,894
	Feb-08	810	588	285,760
	Mar-08	1,067	865	377,851
2Q08	Apr-08	1,288	1,164	473,010
	May-08	1,189	259	428,008
	Jun-08	791	(2,797)	271,424

Well 4	TIN	TDS	Est. Prod	Well 30	TIN	TDS	Est. Prod
5/7/08	4.1	360	20%	6/5/08	2.0	310	20%
5/9/08	6.9	370	40%	6/26/08	4.9	310	40%
5/12/08	6.9	370	60%				
5/27/08	12	390	80%				
6/6/08	14	360	100%				

Table 7-1
Water Reuse Study Results

Constituent	SAWCO Well No. 12		8th Street Basin		Unit	Method
	Sample 1	Sample 2	1/1	2/1		
1,1,1-Trichloroethane	<0.5	<0.5	<0.5	<0.5	µg/L	ML/EPA 524.2
1,1,2,2-Tetrachloroethane	<0.5	<0.5	<0.5	<0.5	µg/L	ML/EPA 524.2
1,1,2-Trichloro-1,2,2-Trifluoroethane	<0.5	<0.5	<0.5	<0.5	µg/L	ML/EPA 524.2
1,1,2-Trichloroethane	<0.5	<0.5	<0.5	<0.5	µg/L	ML/EPA 524.2
1,1-Dichloroethane	<0.5	<0.5	<0.5	<0.5	µg/L	ML/EPA 524.2
1,1-Dichloroethylene	<0.5	<0.5	<0.5	<0.5	µg/L	ML/EPA 524.2
1,2,3-Trichloropropane	<0.5	<0.5	<0.5	<0.5	µg/L	ML/EPA 524.2
1,2,4-Trichlorobenzene	<0.5	<0.5	<0.5	<0.5	µg/L	ML/EPA 524.2
1,2,4-Trimethylbenzene	<0.5	<0.5	<0.5	<0.5	µg/L	ML/EPA 524.2
1,2-Dichlorobenzene	<0.5	<0.5	<0.5	<0.5	µg/L	ML/EPA 524.2
1,2-Dichloroethane	<0.5	<0.5	<0.5	<0.5	µg/L	ML/EPA 524.2
cis-1,2-Dichloroethylene	<0.5	<0.5	<0.5	<0.5	µg/L	ML/EPA 524.2
trans-1,2-Dichloroethylene	<0.5	<0.5	<0.5	<0.5	µg/L	ML/EPA 524.2
1,2-Dichloropropane	<0.5	<0.5	<0.5	<0.5	µg/L	ML/EPA 524.2
1,3,5-Trimethylbenzene	<0.5	<0.5	<0.5	<0.5	µg/L	ML/EPA 524.2
1,3-Dichloropropene	<0.5	<0.5	<0.5	<0.5	µg/L	ML/EPA 524.2
1,4-Dichlorobenzene	<0.5	<0.5	<0.5	<0.5	µg/L	ML/EPA 524.2
1,4-Dioxane	<2	<2	<2	<2	µg/L	ML/SW 8270 mod
2,4,6-trichlorophenol	<5	<5	<5	<5	µg/L	ML/EPA625/8270
2,4-D	<0.1	<0.1	<0.1	<0.1	µg/L	ML/EPA 515.4
2,4-dichlorophenol	<5	<5	<5	<5	µg/L	ML/EPA625/8270
2,4-dinitrophenol	<50	<50	<50	<50	µg/L	ML/EPA625/8270
2,4-dinitrotoluene	<0.1	<0.1	<0.1	<0.1	µg/L	ML/EPA 525.2
2,6-dinitrotoluene	<5	<5	<5	<5	µg/L	ML/EPA625/8270
2-chlorotoluene	<0.5	<0.5	<0.5	<0.5	µg/L	ML/EPA 524.2
4-chlorotoluene	<0.5	<0.5	<0.5	<0.5	µg/L	ML/EPA 524.2
Alachlor	<0.05	<0.05	<0.05	<0.05	µg/L	ML/EPA 525.2
Aluminum	39	<25	<25	<25	µg/L	EPA 200.8
Ammonia	<0.5	<0.5	<0.5	<0.5	µg/L	EPA 200.8
Ammonium	<2	<2	<2	<2	µg/L	EPA 200.8
Atrazine	0.1	0.1	0.1	<0.05	µg/L	ML/EPA 525.2
Barium	32	28	26	65	µg/L	EPA 200.8
Bentazon	<0.5	<0.5	<0.5	<0.5	µg/L	ML/EPA 515.4
Benzene	<0.5	<0.5	<0.5	<0.5	µg/L	ML/EPA 524.2
Benzo(a)pyrene	<0.02	<0.02	<0.02	<0.02	µg/L	ML/EPA 525.2
Beryllium	<0.5	<0.5	<0.5	<0.5	µg/L	EPA 200.8
Boron	<0.1	<0.1	<0.1	<0.1	mg/L	EPA 200.7
Bromate	<3	<1	<3	<1	µg/L	EPA 317
Butylbenzene-n	<0.5	<0.5	<0.5	<0.5	µg/L	ML/EPA 524.2
Butylbenzene-sec	<0.5	<0.5	<0.5	<0.5	µg/L	ML/EPA 524.2
Butylbenzene-tert	<0.5	<0.5	<0.5	<0.5	µg/L	ML/EPA 524.2
Cadmium	<0.25	<0.25	<0.25	<0.25	µg/L	EPA 200.8
Carbofuran	<0.5	<0.5	<0.5	<0.5	µg/L	ML/EPA 531.2
Carbon Disulfide	<0.5	<0.5	<0.5	<0.5	µg/L	ML/EPA 624
Carbon Tetrachloride	<0.5	<0.5	<0.5	<0.5	µg/L	ML/EPA 524.2
Chlorate	63	63	14	<10	µg/L	ML/EPA 300.0
Chlordane	<0.1	<0.1	<0.1	<0.1	µg/L	ML/EPA 505
Chlorite	<0.01	<0.01	<0.01	<0.01	mg/l	ML/EPA 300.0
Chromium	2.6	2.8	2.1	4.6	µg/L	EPA 200.8
Chromium-6	1.8	1.5	1.0	4.1	µg/L	EPA 218.6
Copper	702	11.4	0.6	<0.5	µg/L	EPA 200.8
Cyanide	<0.006	<0.006	<0.006	<0.006	mg/L	SM 4500-CN E
Dalapon	<1	<1	<1	<1	µg/L	ML/EPA 515.4
Diazinon	<0.1	<0.1	<0.1	<0.1	µg/L	ML/EPA 525.2
Dibromochloropropane (DBCP)	<0.01	<0.01	<0.01	<0.01	µg/L	ML/EPA 504.1
Dichlorodifluoromethane	<0.5	<0.5	<0.5	<0.5	µg/L	ML/EPA 524.2
Dichloromethane	<0.5	<0.5	<0.5	<0.5	µg/L	ML/EPA 524.2
Diethylhexyladipate	<0.6	<0.6	<0.6	<0.6	µg/L	ML/EPA 525.2
Diethylhexylphthalate	<0.6	<0.6	93	68	µg/L	ML/EPA 525.2

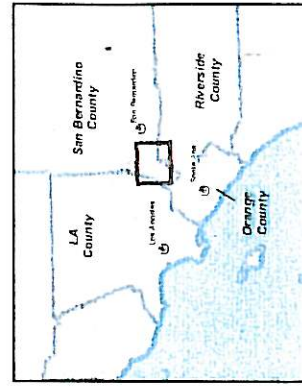
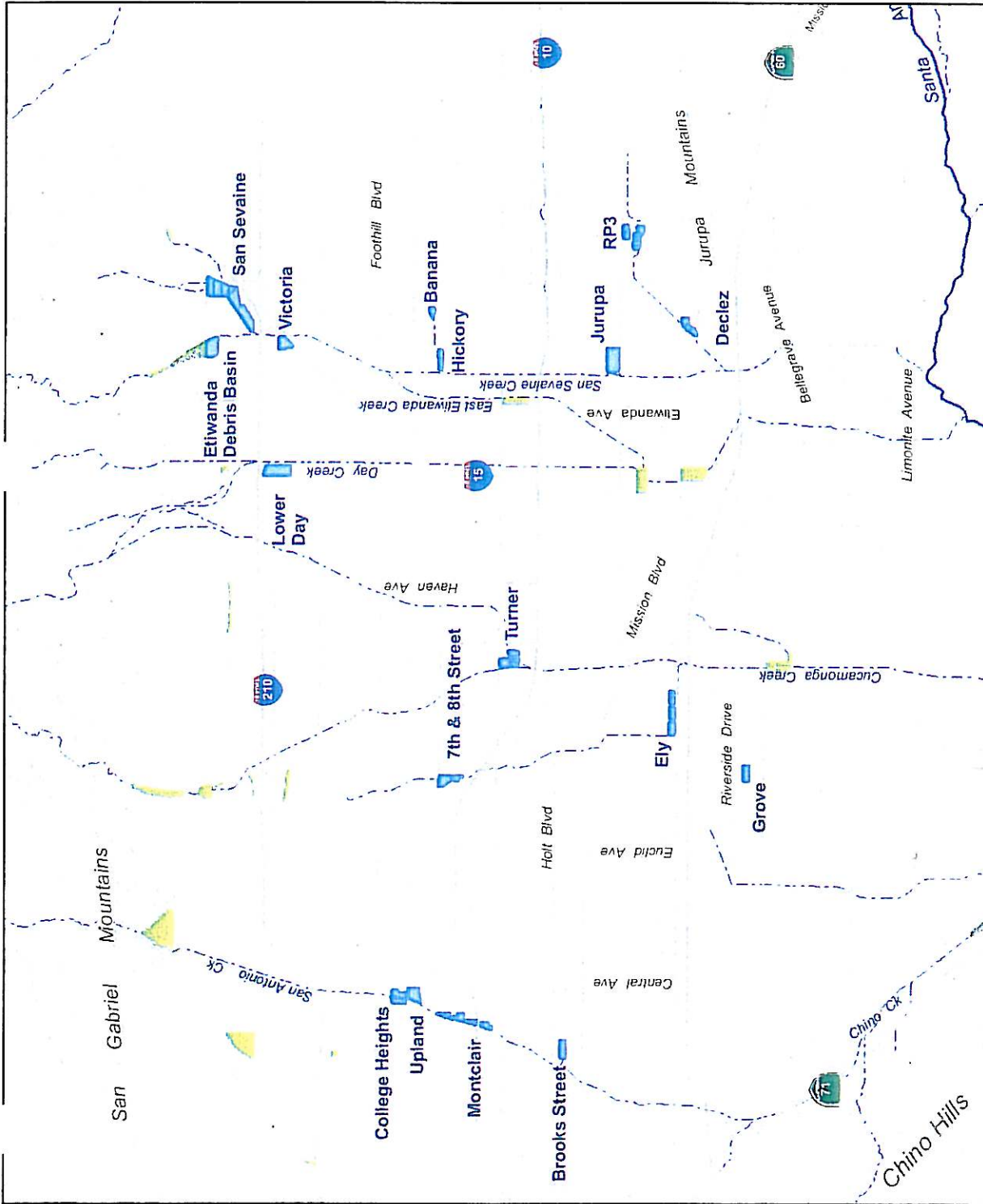
Table 7-1
Water Reuse Study Results

Titrant	SAWCO Well No. 12		8th Street Basin		Unit	Method
	Sample 1	Sample 2	1/1	2/1		
Acetone	<0.2	<0.2	<0.2	<0.2	µg/L	ML/EPA 515.4
Diquat	<0.4	<0.4	<0.4	<0.4	µg/L	ML/EPA 549.2
EC	310	320	220	615	µmhos/cm	SM 2510
Endothall	<20	<5	<5	<20	µg/L	EPA 548.1
Endrin	<0.01	<0.01	<0.01	<0.01	µg/L	ML/EPA 505
Ethyl tertiary butyl ether	<3	<3	<3	<3	µg/L	ML/EPA 524.2
Ethylbenzene	<0.5	<0.5	<0.5	<0.5	µg/L	ML/EPA 524.2
Ethylene Dibromide (EDB)	<0.01	<0.01	<0.01	<0.01	µg/L	ML/EPA 504.1
Fluoride	0.4	0.4	0.4	0.3	mg/L	EPA 300.0
Formaldehyde	<5	5.1	<5	<5	µg/L	ML/SM 6252
Glyphosate	<6	<6	<6	<6	µg/L	EPA 547
Total Haloacetic Acids (HAA5)	<1	<1	<1	<1	µg/L	ML/S6251B
Heptachlor	<0.01	<0.01	<0.01	<0.01	µg/L	ML/EPA 525.2
Heptachlor Epoxide	<0.01	<0.01	<0.01	<0.01	µg/L	ML/EPA 525.2
Hexachlorobenzene	<0.05	<0.05	<0.05	<0.05	µg/L	ML/EPA 525.2
Hexachlorocyclopentadiene	<0.05	<0.05	<0.05	<0.05	µg/L	ML/EPA 525.2
Isopropylbenzene	<0.5	<0.5	<0.5	<0.5	µg/L	ML/EPA 524.2
Lead	16	6.8	<0.5	<0.5	µg/L	EPA 200.8
Lindane	<0.01	<0.01	<0.01	<0.01	µg/L	ML/EPA 505
Manganese	9	6	4	5	µg/L	EPA 200.8
Mercury	<0.2	<0.2	<0.2	<0.2	µg/L	EPA 245.2
Methoxychlor	<0.05	<0.05	<0.1	<0.05	µg/L	ML/EPA 505
Methyl isobutyl ketone (MIBK)	<5	<5	<5	<5	µg/L	ML/EPA 524.2
Methyl-tert-butyl ether (MTBE)	<0.5	<0.5	<0.5	<0.5	µg/L	ML/EPA 524.2
Molinate	<0.1	<0.1	<0.1	<0.1	µg/L	ML/EPA 525.2
Naphthalene	<0.5	<0.5	<0.5	<0.5	µg/L	ML/EPA 524.2
Nickel	2	3	3	3	µg/L	EPA 200.8
Nitrate Nitrogen	4.2	5.0	1.3	30.2	mg/L	EPA 300.0
Nitrogen	0.02	0.12	<0.01	0.08	mg/L	EPA 300.0
o-Benzene	<5	<5	<5	<5	µg/L	ML/EPA625/8270
N-nitrosodiethylamine (NDEA)	<2	<2	<2	<5	ng/l	ML/EPA 521
N-Nitrosodimethylamine (NDMA)	<2	<2	<2	<2	ng/l	ML/EPA 521
N-nitrosodi-n-propylamine (NDPA)	<2	<2	<2	<7	ng/l	ML/EPA 521
n-propylbenzene (isocumene)	<0.5	<0.5	<0.5	<0.5	µg/L	ML/EPA 524.2
Oxamyl	<0.5	<0.5	<0.5	<0.5	µg/L	ML/EPA 531.2
Pentachlorophenol	<0.04	<0.04	<0.04	<0.04	µg/L	ML/EPA 515.4
Perchlorate	<4	<4	<4	18	µg/L	EPA 314
Picloram	<0.1	<0.1	<0.1	<0.1	µg/L	ML/EPA 515.4
Polychlorinated Biphenyls	<0.08	<0.08	<0.08	<0.08	µg/L	ML/EPA 505
Propachlor	<0.05	<0.05	<0.05	<0.05	µg/L	ML/EPA 525.2
Selenium	<2	<2	<2	<2	µg/L	EPA 200.8
2,4,5-TP (Silvex)	<0.2	<0.2	<0.2	<0.2	µg/L	ML/EPA 515.4
Simazine	<0.05	<0.05	0.20	0.1	µg/L	ML/EPA 525.2
Styrene	<0.5	<0.5	<0.5	<0.5	µg/L	ML/EPA 524.2
Tertiary amyl methyl ether	<3	<3	<3	<3	µg/L	ML/EPA 524.2
Tertiary butyl alcohol	<2	<2	<2	<2	µg/L	ML/524.2
Tetrachloroethylene	<0.5	<0.5	<0.5	<0.5	µg/L	ML/EPA 524.2
Thallium	<1	<1	<1	<1	µg/L	EPA 200.8
Thiobencarb	<0.2	<0.2	<0.2	<0.2	µg/L	ML/EPA 525.2
Toluene	<0.5	<0.5	<0.5	<0.5	µg/L	ML/EPA 524.2
Total Nitrate/Nitrite (as N)	4.2	5.1	1.3	30.3	mg/L	EPA 300.0
Total Trihalomethanes (THM)	<0.5	<0.5	<0.5	<0.5	µg/L	ML/EPA 524.2
Toxaphene	<0.5	<0.5	<0.5	<0.5	µg/L	ML/EPA 505
Trichloroethylene	<0.5	<0.5	<0.5	<0.5	µg/L	ML/EPA 524.2
Trichlorofluoromethane	<0.5	<0.5	<0.5	<0.5	µg/L	ML/EPA 624
Vanadium	2	4	5	4	µg/L	EPA 200.8
Vinyl Chloride	<0.3	<0.3	<0.3	<0.3	µg/L	ML/EPA 524.2
Xylenes	<1.5	<1	<1.5	<1.5	µg/L	ML/EPA 524.2

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Main Map Features

-  Recharge Basins in the Recycled Water Groundwater Recharge Program
-  Non-program basins
-  Rivers and Streams



Chino Basin Recharge Programs
Groundwater Recharge Programs
Basin Locations

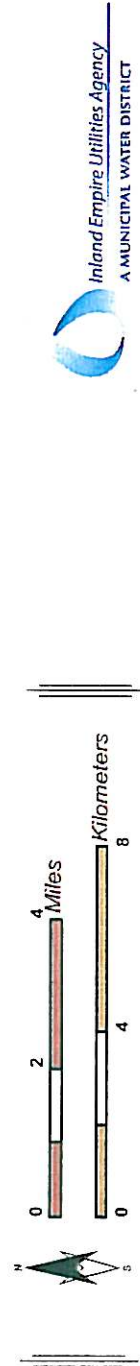
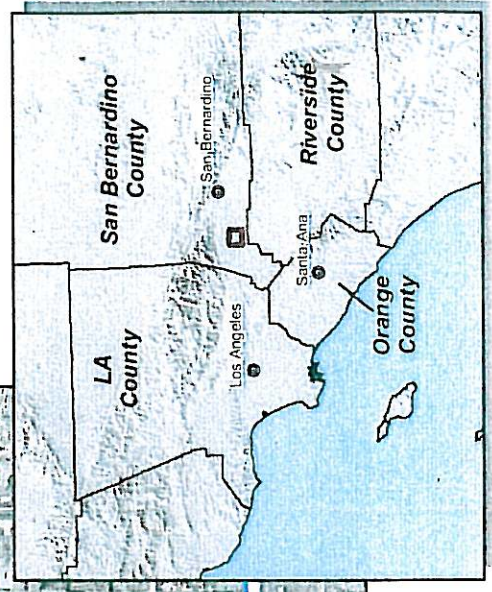
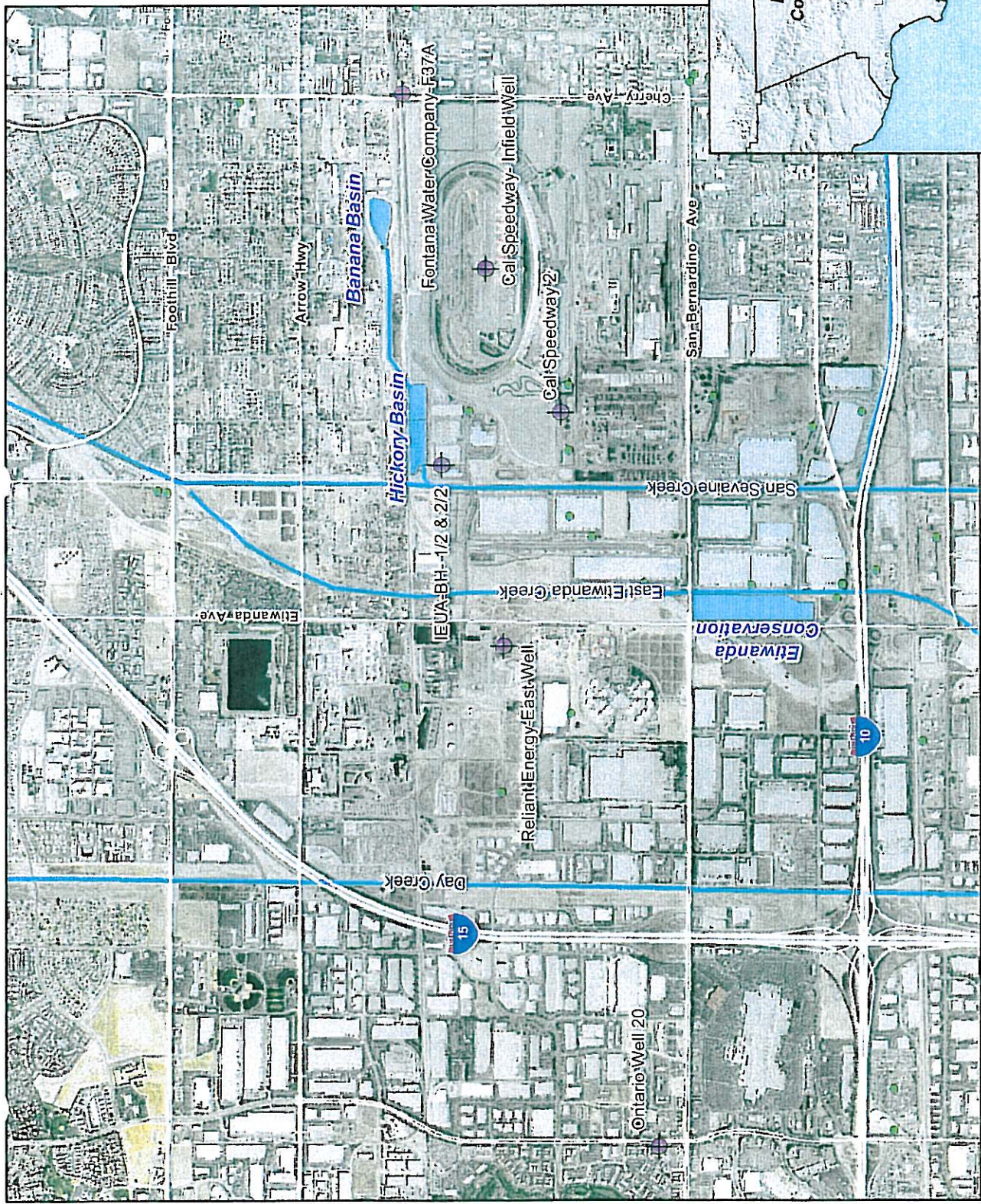


Figure 1-1

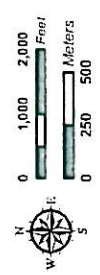
Main Map Features

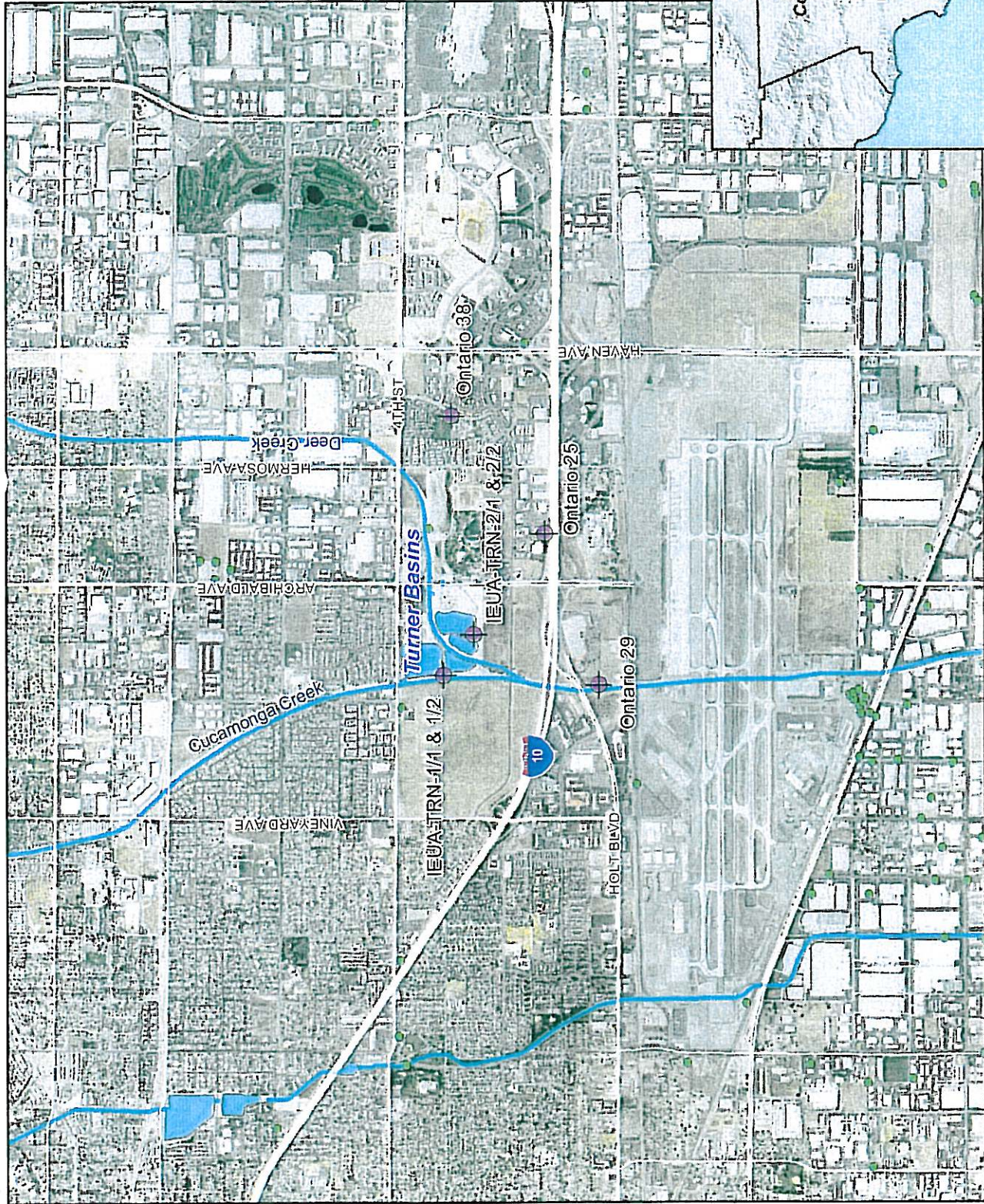
-  Existing Monitoring Well
-  "Other Wells"
-  Rivers/Streams/Creeks
-  Recharge Basins



Monitoring Well Network
 Hickory and Banana Basins

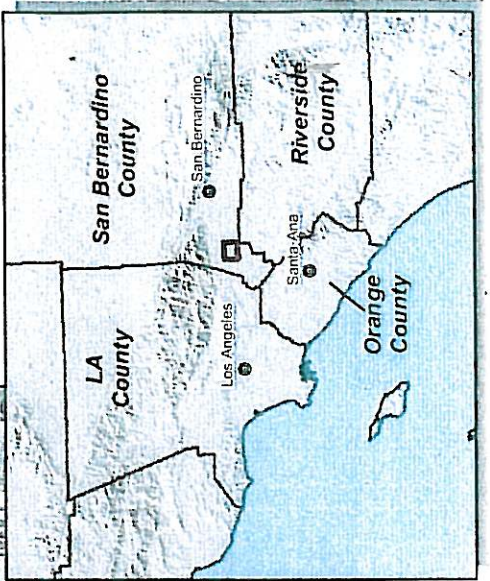
Recycled Water Recharge Program



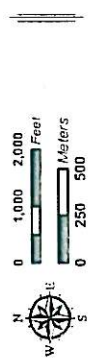


Main Map Features

- Existing Monitoring Well
- "Other Wells"
- Rivers/Streams/Creeks
- Recharge Basins



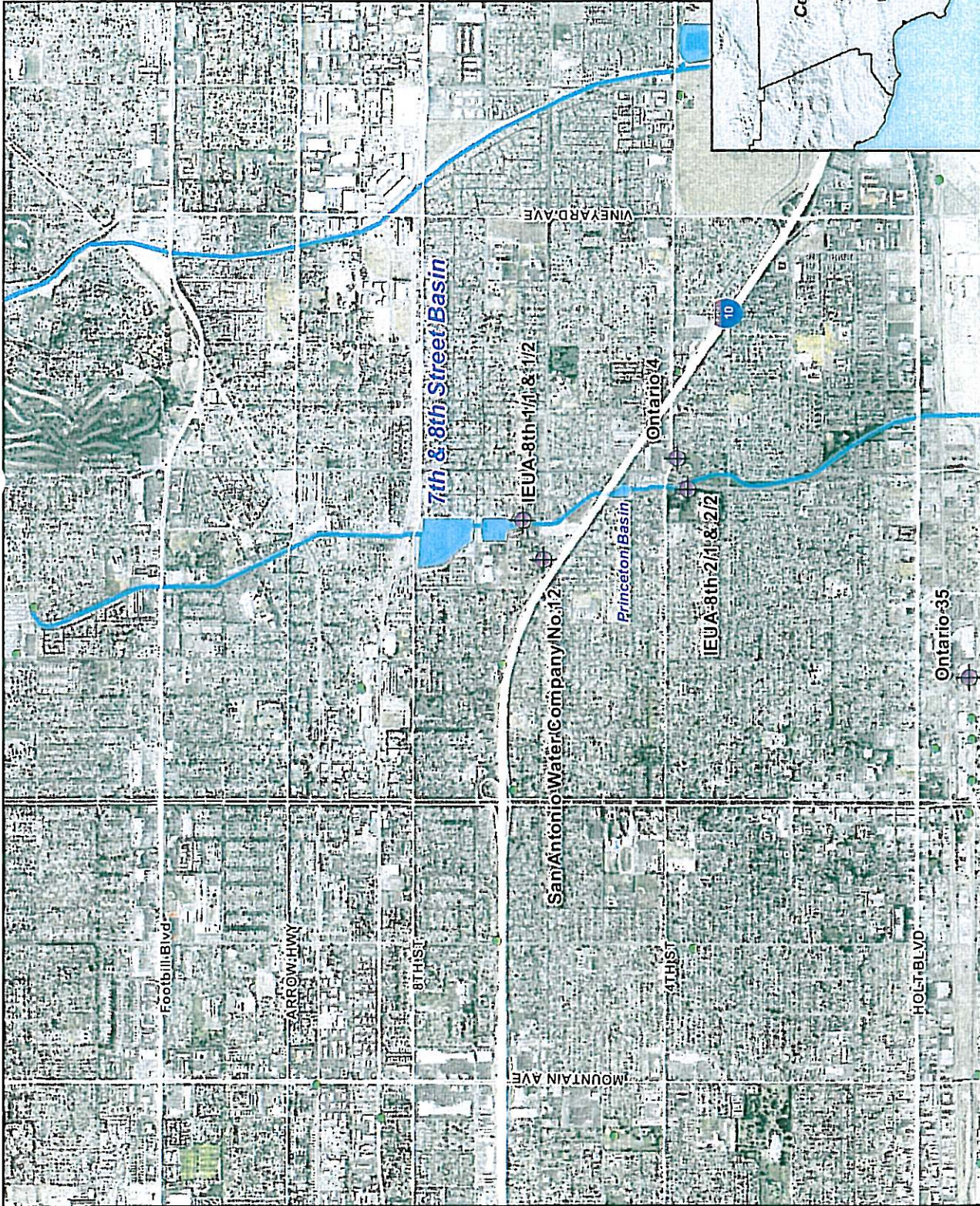
Monitoring Well Network
Turner Basins
Figure 2-2



Recycled Water Recharge Program

Main Map Features

-  Existing Monitoring Well
-  "Other Wells"
-  Rivers/Streams/Creeks
-  Recharge Basins



Monitoring Well Network
7th and 8th Street Basin

Recycled Water Recharge Program

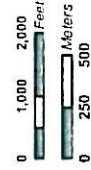



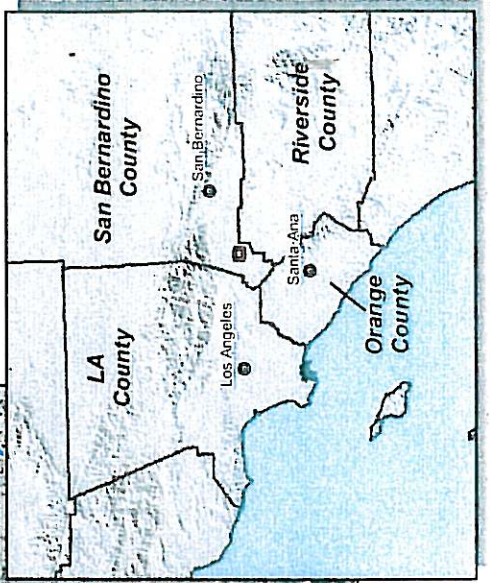
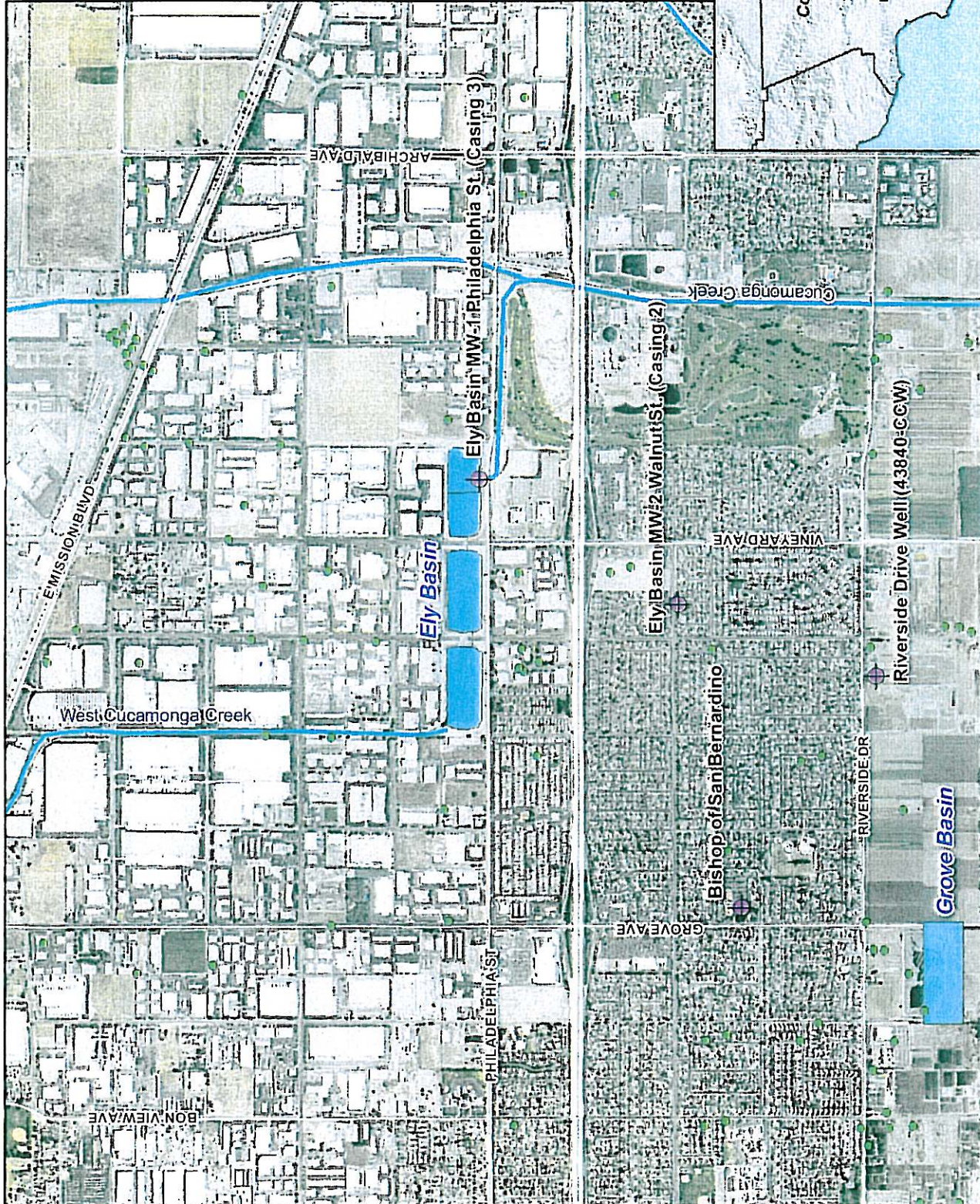


Figure 2-3

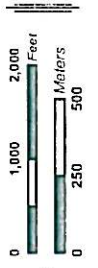
Main Map Features

-  Existing Monitoring Well
-  "Other Wells"
-  Rivers/Streams/Creeks
-  Recharge Basins



Monitoring Well Network
Ely Basins

Recycled Water Recharge Program



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CHINO BASIN WATERMASTER

IV. INFORMATION

2. Newspaper Articles





The Web Site of The Sacramento Bee

This story is taken from [Sacbee / Capitol Alert / E-mail Alerts -- Capitol Alert](#).

Schwarzenegger hammers lawmakers on budget

By Peter Hecht and Aurelio Rojas - phecht@sacbee.com
Published 12:58 pm PDT Wednesday, September 3, 2008

An impatient Gov. Arnold Schwarzenegger ripped Democratic and Republican lawmakers today for collecting per diem checks, vacationing at political conventions and refusing to leave their "ideological corners" as California's budget stalemate is causing "severe consequences" for education, health and public safety.

"I think it is very important for the California people to know that while the state is 2 1/2 months late on a budget, and while there are severe consequences...to education and health care and hospitals and law enforcement and firefighting, there are absolutely no consequences for the legislators," Schwarzenegger said in an appearance at Marshall Medical Center in Placerville. "Absolutely none."

After hearing speeches from hospital administrators and school and public safety officials from El Dorado, Placer and Sacramento County tell of problems they face from the state budget stalemate, the governor said he was upset with lawmakers taking per diem pay while accomplishing nothing at the Capitol and then leaving town. Several lawmakers attended Republican and Democratic conventions in St. Paul, Minn., and Denver.

"They go on vacation. They go on recess. They go home on the weekend and their two days off because God forbid for them to work on the weekend," Schwarzenegger said. "And they go to the various conventions and do their things and it's business as usual. They've been collecting per diem every day at the Capitol..."

"I think it's unfair," he added. "I think they should stay in the Capitol. They should not go anywhere until the budget is done. But I think this should have been done months ago."

Lawmakers have broken the record for legislative budget dysfunction: the previous late mark for legislative action on a spending plan was Aug. 31, in 2002. The budget was signed Sept. 5 that year, meaning if the impasse drags on beyond Friday it will be the deepest into the fiscal year the state has ever gone without a spending plan.

Members of the Legislature make \$116,208 annually, the most in the nation. They also receive about \$35,000 to cover their living expenses in Sacramento, as long as their house is not in recess for more than three days in a row.

The legislative session ended Sunday. But members of the state Senate -- who normally would have left the Capitol for the year -- are continuing to accrue their \$170-a-day, tax free per diem because of the longest California budget impasse in history.

Sen. President Pro Tem Don Perata, D-Oakland, has ordered his house to meet each day this week while waiting for Republicans to put their budget counterproposal into a bill that can be voted on.

Republicans say that won't happen until Friday. Meanwhile, the Senate waits. Tuesday's session lasted about a half hour.

Perata has defended his decision to hold sessions even if there's nothing to vote on, saying, "(The media) would hammer us if we were not (here) doing what we're suppose to be doing."

Over in the Assembly, Speaker Karen Bass, D-Los Angeles, has grappled with whether to hold sessions.

"You're damned if you do, and damned if you don't, because if you stay here you're earning per diem," she said.

This week, she canceled a session set today, instead holding a budget hearing at the committee level. She does not plan to call her entire house back until Monday.

Unlike the Senate, most members of the Assembly will not get their per diems this week.

The governor implored lawmakers to vote on - and pass - a budget compromise plan he has submitted to the Legislature. He made his point by surrounding himself with doctors, nurses and other personnel from the El Dorado County regional hospital, which is facing a \$2 million cash shortfall and has suspended payments to local vendors and merchants because it hasn't received state Medi-Cal funding since July.

The governor touted his budget plan that \$5 billion in new taxes, including a temporary 1-cent sales tax increase, \$10 billion in cuts and a "rainy day fund" to prevent future fiscal emergencies. And he lit into Democrats and Republicans in the Legislature for submitting dead-on-arrival budget plans while failing to act on the compromised he proposed two weeks ago.

"We have seen already the Democrats introduce their budget. They're asking for a tax increase of \$10 billion. That was voted down," Schwarzenegger said. "Then you have the Republicans who are now doing their budget even though it is 2 1/2 months late. And it relies on borrowing. That won't work and it will be voted down."

The governor said the state is still \$9 billion in debt from borrowing its way out of a budget deficit in 2003 and "they (GOP lawmakers) want to go again and borrow more money.

"It's like a family that has overextended itself on credit cards and then gets another credit card to pay off more credit cards," he said.

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Top 6 Myths About Bottled Water

Bottled water — already a more than \$10 billion industry — is the fastest-growing beverage category in the U.S. But is it good for you? Here's the pure truth.



MYTH #1: BOTTLED WATER IS BETTER THAN TAP.

Not necessarily. While labels gush about bottled water that "begins as snowflakes" or flows from "deep inside lush green volcanoes," between 25 and 40 percent of bottled water comes from a less exotic source: U.S. municipal water supplies. ([Bottling companies buy the water and filter it, and some add minerals.](#)) That's not really a bad thing: The Environmental Protection Agency oversees municipal water quality, while the Food and Drug Administration monitors bottled water; in some cases, EPA codes are more stringent.

MYTH #2: PURIFIED WATER TASTES BETTER.

The "purest" water — distilled water with all minerals and salts removed — tastes flat; it's the sodium, calcium, magnesium, and chlorides that give water its flavor. The "off" taste of tap water is the chlorine; if you refrigerate it in a container with a loose-fitting lid, the chlorine taste will be gone overnight.

MYTH #3: BOTTLED WATER WITH VITAMINS, MINERALS, OR PROTEIN IS MORE HEALTHY THAN REGULAR WATER.

"Vitamins, color, herbs, protein, and all the other additions to water — those are a marketing ploy," says Marion Nestle, Ph.D., professor of nutrition studies at New York University. Plus, the additives are usually a scant serving of the vitamins you really need in a day, adds Amy Subar,

Ph.D., a nutritionist with the National Cancer Institute. Enhanced waters usually contain sugars and artificial flavorings to sweeten the deal and can pack more calories than diet soda. When it comes to providing fluoride, tap water usually wins, though that element is increasingly being added to bottled waters.

Myth #4: YOU NEED EIGHT 8-OUNCE GLASSES OF WATER EACH DAY.

The Institute of Medicine recommends about 91 ounces ([a little more than 11 8-ounce glasses](#)) of fluid daily for [women](#). But here's the thing: It expects 80 percent of that to come from water, juice, coffee, tea, or other beverages and the remaining 20 percent from food. That means if you drink a 12-ounce cup of coffee and a 12-ounce can of diet soda, you only need 48 more ounces (three 16-ounce glasses, or four soda cans' worth) for the day.

Myth #5: AFTER AN INTENSE WORKOUT, BOTTLED WATER IS BEST.

There's a reason volunteers hand out Gatorade during marathons. If your workout lasts longer than an hour, you need to replace the water and electrolytes, such as sodium and potassium, that you've lost (that's what sports drinks generally do). For less intense workouts, regular water is fine.

Myth #6: WATER BOTTLES ARE EASY ON THE ENVIRONMENT BECAUSE THEY CAN BE RECYCLED.

Wouldn't it be nice? And it's not just the bottles. [Eco-costs include manufacturing, trucking, shelving, and marketing.](#) And meeting the annual U.S. demand for plastic bottles requires enough oil to keep 100,000 cars on the road for a year, says Janet Larsen of the Earth Policy Institute. Sure, the 70 million empty water bottles the U.S. produces per day can be recycled, but the sad truth is, about 86 percent of them end up in the trash. Hardly worth it, for what flows out of the tap and into a reusable glass for free.

Find this article at: <http://www.marieclaire.com/life/healthy/health-tips/bottled-water-myth>

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Prop. 50 funds to boost recycling

Karen Jonas, Correspondent

Article Created: 07/23/2008 09:03:44 PM PDT

People in the Cucamonga Valley Water District may soon be watering their landscaped yards with recycled water, thanks to money granted by the State Water Resources Board.

With the grant of \$25 million to the Santa Ana Watershed Project Authority, various water districts in the Inland Empire are receiving money to fund programs that will decrease the area's reliance on outside water sources.

The money comes from Proposition 50 water bonds.

SAWPA gave some of the \$25 million to the Inland Empire Utilities Agency, which will partner with CVWD to help fund a project that greatly increases the amount of recycled water that can be stored in the district.

CVWD serves about 186,000 residents in Rancho Cucamonga, according to Wyatt Troxel, IEUA board president and vice chairman of the SAWPA Commission.

Currently, the district imports about half of its water from outside sources. Its goal is to reduce that by using recycled water for landscaping, which uses about 60 to 70 percent of the water

in the district.

The irrigation system that connects public landscaping in the northeastern part of the district to the stored recycled water is expected to be completed by the end of 2009.

"It doesn't make sense to water your front lawn with drinking water," said Troxel.

The district received \$4.9 million of the money donated to SAWPA. About \$2 million of that will be used to purchase a tank with a capacity of 3.5 million gallons, once used for holding drinkable water. The tank will be converted to hold recycled water.

According to Troxel, the district recycles 4 million gallons a day, which is about how much water 15,000 households use a day. The district has been recycling water for about 15 years, but has been more aggressive in recycling water in the past two years.

According to Randall Reed, vice president of the board of directors for CVWD, importing less water should help save energy as well.

"About 17 to 18 percent of all energy in California is used to transport water," said Reed. "When we keep the water here, it reduces our carbon footprint."

Troxel hopes the recycling project will help the Cucamonga Valley Water District save money and keep its landscaping looking beautiful.

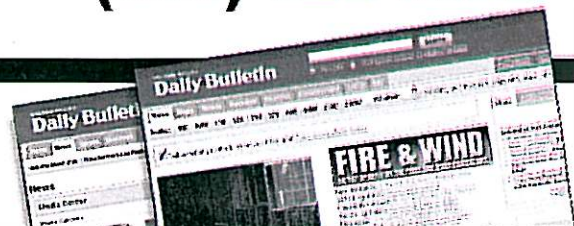
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Fontana seeking state help with water pipeline

City wants to use nonpotable water to irrigate parks, schools

Josh Dulaney, Staff Writer

Article Created: 07/23/2008 10:38:34 PM PDT

FONTANA - The city is asking the state for a cash pipeline to build a real pipeline to carry nonpotable water from its sewage-treatment plant to green-up the schools and parks in the north end.

On Tuesday, the City Council authorized an application to the state Water Resources Control Board for grants and loans to offset some of the \$6 million it will cost to complete the project.

"It's an important project to us," said City Manager Ken Hunt. "Right now we're just sending that water down the channel."

The city has to get in line behind other communities seeking money from the state for recycled water projects, said Bob Pontureri, water resources engineer for the board.

"Grant money is limited," Pontureri said.

The board will dole out a maximum of 25 percent in grants for a single project, he said. The rest is given out in loans up to 20 years with interest rates between 2.1 percent and 2.6

percent, he said.

The program is available for projects such as treatment facilities, water storage units and pumping stations. Cities initiate ideas for water efficiency all the time, officials said.

Fontana Public Works Director Chuck Hays was on vacation and unavailable for comment.

The applications generally take from 90 days to six months for approval, Pontureri said.

After construction begins, the board reimburses the city as it receives receipts for purchases, Pontureri said.

The city hopes to get as much help in grants as possible, Hunt said.

"What we don't get in grants, we'll look for in loans," Hunt said.

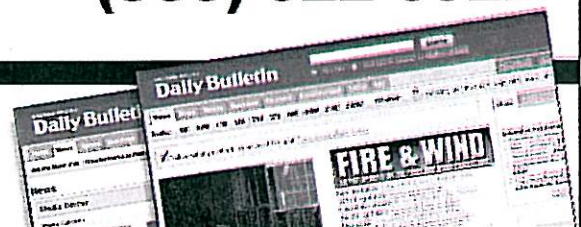
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City enacts strong water restrictions

Neil Nisperos, Staff Writer

Article Created: 07/26/2008 10:10:35 PM PDT

CHINO HILLS - Because of a state drought and a reduction in water supplies, the city has enacted the strongest water-conservation measures in its history.

For the first time, city measures designed to encourage residents to save water are set to go into effect Aug. 8.

Among the restrictions:

The use of hoses to wash sidewalks, walkways, driveways, parking areas, patios, porches or verandas will not be allowed.

Water will not be allowed to leak on residential property, nor will it be allowed to leak from landscaped areas to nearby streets, sidewalks or other paved areas.

Watering of plants and lawns will not be allowed from the hours of 9 a.m. to 6 p.m., except for equestrian and livestock businesses, dairies, nurseries, golf courses, or other water-dependent industries.

Restaurants will not serve drinking water to patrons unless requested.

Gov. Arnold Schwarzenegger's June 4 drought declaration comes after two straight years of below-average rainfall, low snow melt runoff and court-ordered water transfer restrictions in the Sacramento-San Joaquin Delta region. The Metropolitan Water District also ramped up calls for conservation by issuing a water supply alert last month.

Pat Hagler, director of Chino Hills public facilities and operations, who is in charge of the city water agency, said a 10percent reduction of the city's water supply is anticipated this year. Chino Hills provided customers with 17,000 acre-feet of water last year.

The new ordinance to help encourage better water conservation does not have a time frame, Hagler said.

"I think it has to become a way of life for us, just like our gasoline," Hagler said. "We'll never go below \$4 and we're probably never going to get more water.

She added, "We're a very privileged society in America. In other parts of the world, water conservation is a way of life. We have to get in that same frame of mind."

The new rules are part of the city's four-stage water-conservation alert plan to deal with increasing shortages.

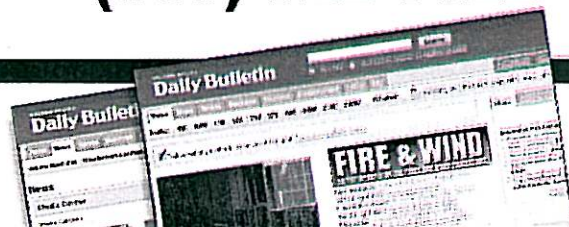
The first stage, which Hagler said began last summer, was a call on residents to voluntarily save water. The Stage 2 alert, calling for the new

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mandatory requirements, was approved by the City Council on Tuesday.

Stages 3 and 4 are not anticipated at this time and are pending further water supply reductions, Hagler said.

The restrictions in these more drastic measures include a call on commercial industry in the city to institute night irrigation and a general prohibition on the refilling of swimming pools "beyond what is necessary for maintenance."

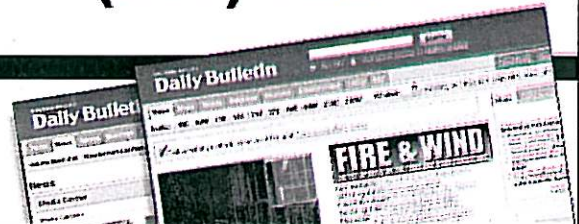
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R.C. building to be showcase for 'green' techniques

Sandra Emerson, Correspondent

Article Created: 07/27/2008 08:29:16 PM PDT

RANCHO CUCAMONGA - The city will soon be home to the only building in the Inland Empire built entirely from green technologies.

The Frontier Project will be a 14,000-square-foot multi-use demonstration building with a Leadership in Energy and Environmental Design certification of Platinum, which is the highest level offered by the U.S. Green Building Council.

The Frontier Project Foundation and the Cucamonga Valley Water District developed the building to showcase energy-efficient and environment-friendly technologies. It will also have a public meeting and conference area, a demonstration garden and an Energy Star-qualified kitchen.

"For homeowners and people in construction, there isn't a center like this," said Bonnie Montoya-May, chairwoman of the Inland Empire chapter of the USGBC. "This is the first center like this in our region, and there will be workshops offered to everybody."

All are welcome to tour the building, at the water district offices on Ashford Street, in order to see the alternative technologies first hand.

"We will tell residents and companies what to look for, where to purchase it and how much it costs," said Kristeen Buxton, public-affairs officer for the Cucamonga Valley Water District. "We want to make this a seamless educational opportunity."

The construction of the building will be filmed and put into 30-minute videos that will play in the display gallery to show the differences in constructing a sustainable building.

The display gallery will also provide examples of resources that were not included in the Frontier Project building.

A significant amount of the materials to be used will be recycled, Buxton said.

Twenty-five percent of the cement will be fly ash, a by-product of coal-fueled power plants, which is to be included in the demonstration videos.

The city also had some recycled materials to contribute.

Wood from the Joseph Filippi Winery and Vineyard in the city was donated.

"The winery donation was the largest part of the project," Buxton said. "They donated \$400,000 worth of redwood. We wanted to use recycled materials to avoid knocking down more trees, and it was a local product, which cuts down on shipping."

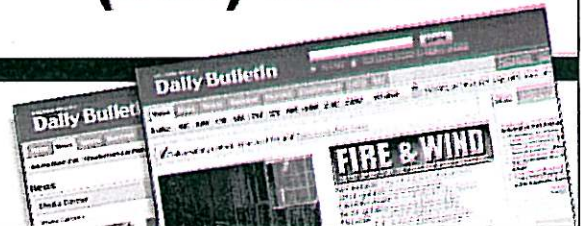
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The wood is being used to build an exterior shade structure and trellis to protect some of the larger windows from excessive sunlight.

by summer 2009.

"The city took part in a small but significant way," said Linda Daniels, the city's redevelopment director. "Anything that helps building and water resources will help the city."

Because water is a main focus of the district, the project will have an advanced water conservation system.

None of the excess surface water will go into the city's storm drains. It will be recycled. Irrigation will be provided by captured rain water and used throughout the year.

The sustainable building construction will also require similar building practices.

More than 75 percent of the construction waste materials will be reused, and a storm-water prevention plan will be put into place to ensure unfiltered rainwater does not leave the site. The construction crew will also be educated in the sustainable building practices, according to the Frontier Project Web site.

Buxton said overall cost for construction is estimated at \$14 million. The CVWD is in the middle of a capital campaign to acquire 50 percent of the costs in capital, products and services. So far \$1 million has been accumulated, which was enough to begin construction in April.

The Frontier Project is expected to be completed

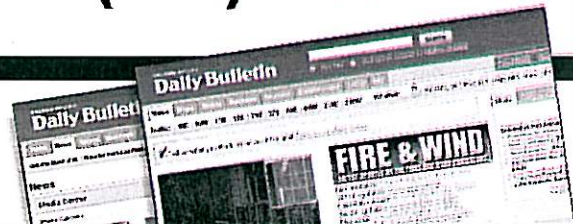
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