

# CHINO BASIN WATERMASTER



## NOTICE OF MEETINGS

February 13, 2003

10:00 a.m. - Joint Appropriative & Non-Agricultural Pools  
1:00 p.m. - Agricultural Pool

*at the office of the  
Chino Basin Watermaster  
8632 Archibald Avenue, Suite 109  
Rancho Cucamonga, CA 91730  
Tele. (909) 484-3888  
FAX (909) 484-3890  
[www.cbwm.org](http://www.cbwm.org)*

# AGENDA

## CHINO BASIN WATERMASTER JOINT APPROPRIATIVE POOL and NON-AGRICULTURAL POOL

10:00 a.m. – February 13, 2003

### AGRICULTURAL POOL

1:00 p.m. – February 13, 2003

#### CALL TO ORDER

#### AGENDA - ADDITIONS/REORDER

#### I. CONSENT CALENDAR

Note: All matters listed under the Consent Calendar are considered to be routine and non-controversial and will be acted upon by one motion in the form listed below. There will be no separate discussion on these items prior to voting unless any members, staff, or the public requests specific items be discussed and/or removed from the Consent Calendar for separate action.

##### A. FINANCIAL REPORTS

1. Cash Disbursement Report – January 2003 (*page 1*)
2. Combining Schedule Of Revenue, Expenses And Changes In Working Capital For The Period July 1, 2002 through December 31, 2002 (*page 3*)
3. Treasurer's Report of Financial Affairs For The Period December 1, through December 31, 2002 (*page 5*)
4. 2002-03 Actual YTD Revenues And Expenses Compared With Adopted 2002-03 Budget (*page 7*)

#### II. BUSINESS ITEMS - POSSIBLE ACTION

##### A. DISCUSSION OF STORMWATER RECHARGE BENEFIT

Mark Wildermuth will present information associated with recordation of new yield associated with recharge additional stormwater in the Chino Groundwater Basin.

##### B. CONSIDER APPROVAL OF DRY YEAR YIELD PROJECT AGREEMENT (*page 9*)

Discuss and consider approval of Dry Year Yield Project Agreement with Metropolitan Water District of Southern California, Inland Empire Utilities Agency, and CBWM.

##### C. CONSIDER IMPLEMENTATION OF MZ1 MONITORING WORK PLAN (*page 73*)

Mark Wildermuth will present the MZ1 Technical Committee's Work Plan and Budget for Implementing the MZ1 Subsidence Monitoring Plan

#### III. REPORTS/UPDATES

##### A. WATERMASTER GENERAL LEGAL COUNSEL REPORT

1. Chino Land & Water SBSC Case No. RCV 06484
2. Attorney/Managers Meeting(s)
3. Niagara Water Company Well Production

##### B. CEO/STAFF REPORT

1. Update regarding Fees and Charges related to the SCIWP funded projects (attachment)
2. Status Update regarding Recharge Improvement Project
3. Discussion regarding SB34 Legislation

**IV. COMMITTEE MEMBER COMMENTS**

**V. OTHER BUSINESS**

**VI. FUTURE MEETINGS**

February 27, 2003	10:00 a.m.	Advisory Committee Meeting
	1:00 p.m.	Watermaster Board Meeting
March 13, 2003	10:00 a.m.	Joint Meeting – Appropriative & Non-Ag Pools
	1:00 p.m.	Ag Pool Meeting
March 27, 2003	10:00 a.m.	Advisory Committee Meeting
	1:00 p.m.	Watermaster Board Meeting

**Adjourn**



# CHINO BASIN WATERMASTER

February 13, 2003

10:00 a.m. – Joint Appropriative Pool  
and Non-Agricultural Pool  
1:00 p.m. – Agricultural Pool

## I. CONSENT CALENDAR A. FINANCIAL REPORTS

CHINO BASIN WATERMASTER  
Cash Disbursement Detail Report  
January 2003

Type	Date	Num	Name	Amount
Jan 03				
Bill Pmt -Check	1/4/2003	5246	AMERICAN GROUND WATER TRUST	-100.00
Bill Pmt -Check	1/4/2003	5247	APPLIED COMPUTER TECHNOLOGIES	-2,085.10
Bill Pmt -Check	1/4/2003	5248	ARROWHEAD MOUNTAIN SPRING WATER	-51.28
Bill Pmt -Check	1/4/2003	5249	ASPEN PUBLISHERS	-161.94
Bill Pmt -Check	1/4/2003	5250	BANK OF AMERICA	-3,341.51
Bill Pmt -Check	1/4/2003	5251	BLACK & VEATCH CORPORATION	-4,570.00
Bill Pmt -Check	1/4/2003	5252	CALPERS	-1,488.00
Bill Pmt -Check	1/4/2003	5253	CITIZENS CONFERENCING	-214.76
Bill Pmt -Check	1/4/2003	5254	COLONIAL LIFE & ACCIDENT INSURANCE CO	-93.15
Bill Pmt -Check	1/4/2003	5255	DE BOOM, NATHAN	-625.00
Bill Pmt -Check	1/4/2003	5256	DeBERARD, ROBERT	-1,250.00
Bill Pmt -Check	1/4/2003	5257	DURRINGTON, GLEN	-250.00
Bill Pmt -Check	1/4/2003	5258	ELLISON, SCHNEIDER & HARRIS, LLP	-446.50
Bill Pmt -Check	1/4/2003	5259	EMPLOYER RESOURCE INSTITUTE	-137.00
Bill Pmt -Check	1/4/2003	5260	FEENSTRA, BOB	-125.00
Bill Pmt -Check	1/4/2003	5261	INLAND EMPIRE UTILITIES AGENCY	-270,536.25
Bill Pmt -Check	1/4/2003	5262	KOOPMAN, GENE	-250.00
Bill Pmt -Check	1/4/2003	5263	LA BRUCHERIE, RONALD	-250.00
Bill Pmt -Check	1/4/2003	5264	LOS ANGELES TIMES	-38.80
Bill Pmt -Check	1/4/2003	5265	MCCALL'S METER SALES & SERVICE	-6,953.77
Bill Pmt -Check	1/4/2003	5266	MWH LABORATORIES	-25,991.00
Bill Pmt -Check	1/4/2003	5267	NEXTEL COMMUNICATIONS	-431.98
Bill Pmt -Check	1/4/2003	5268	OFFICE DEPOT	-714.70
Bill Pmt -Check	1/4/2003	5269	OLDENKAMP, DANA	-500.00
Bill Pmt -Check	1/4/2003	5270	PARK PLACE COMPUTER SOLUTIONS, INC.	-2,850.00
Bill Pmt -Check	1/4/2003	5271	PAYCHEX	-134.80
Bill Pmt -Check	1/4/2003	5272	PETTY CASH	-361.62
Bill Pmt -Check	1/4/2003	5273	PIERSON, JEFFREY	-250.00
Bill Pmt -Check	1/4/2003	5274	PUMP CHECK	-682.26
Bill Pmt -Check	1/4/2003	5275	RANCHO TECH LLC	-4,368.00
Bill Pmt -Check	1/4/2003	5276	RAUCH COMMUNICATION CONSULTANTS, LLC	-1,215.00
Bill Pmt -Check	1/4/2003	5277	RICOH BUSINESS SYSTEMS-Maintenance	-30.93
Bill Pmt -Check	1/4/2003	5278	SANTA ANA WATERSHED PROJECT AUTHORITY	-1,000.00
Bill Pmt -Check	1/4/2003	5279	SOUTHERN CALIFORNIA EDISON	-552.56
Bill Pmt -Check	1/4/2003	5280	STANDARD INSURANCE CO.	-466.45
Bill Pmt -Check	1/4/2003	5281	STATE COMPENSATION INSURANCE FUND	-624.72
Bill Pmt -Check	1/4/2003	5282	UNITEK TECHNOLOGY INC.	-1,645.35
Bill Pmt -Check	1/4/2003	5283	USPS/PITNEY BOWES	-1,800.00
Bill Pmt -Check	1/4/2003	5284	VERIZON	-477.19
Bill Pmt -Check	1/4/2003	5285	WATER EDUCATION FOUNDATION	-325.00
Bill Pmt -Check	1/4/2003	5286	WDC EXPLORATION & WELLS	-20,150.25
Bill Pmt -Check	1/4/2003	5287	WEST VALLEY ELECTRIC	-272.79
Bill Pmt -Check	1/4/2003	5288	WHEELER METER MAINTENANCE	-12,879.01
Bill Pmt -Check	1/4/2003	5289	WORLDCOM	-945.95
Check	1/7/2003	5290	TOGO'S	-104.85
Bill Pmt -Check	1/8/2003	5240	SANTA ANA WATERSHED PROJECT AUTHORITY	-32,220.00
Check	1/8/2003	5291	TOGO'S	0.00
Check	1/8/2003	5292	TOGO'S	-104.85
General Journal	1/8/2003	03/01/4	PAYROLL	-5,383.89
General Journal	1/8/2003	03/01/4	PAYROLL	-14,927.18
Check	1/8/2003	5324	CITISTREET	-2,362.72
Check	1/10/2003	5293	CUBICAL CENTRAL, INC.	-129.30
Check	1/15/2003	5294	JUAN POLLO	-70.00
Bill Pmt -Check	1/15/2003	5295	ACWA SERVICES CORPORATION	-74.46
Bill Pmt -Check	1/15/2003	5296	CAREER TRACK	-118.00
Bill Pmt -Check	1/15/2003	5297	CATLIN, TERRY	-125.00
Bill Pmt -Check	1/15/2003	5298	CHEVRON	0.00
Bill Pmt -Check	1/15/2003	5299	DU BOIS, GERALD ALLEN	-125.00
Bill Pmt -Check	1/15/2003	5300	FIRST AMERICAN REAL ESTATE SOLUTIONS	-125.00
Bill Pmt -Check	1/15/2003	5301	FRANCOTYP-POSTALIA, INC.	-16.16
Bill Pmt -Check	1/15/2003	5302	HATCH AND PARENT	-38,206.60
Bill Pmt -Check	1/15/2003	5303	IDEAL GRAPHICS	-105.60
Bill Pmt -Check	1/15/2003	5304	INLAND COUNTIES INSURANCE SERVICES, INC.	-413.97
Bill Pmt -Check	1/15/2003	5305	INLAND EMPIRE UTILITIES AGENCY	-6,667.00
Bill Pmt -Check	1/15/2003	5306	INLAND WATER WORKS	-25.86
Bill Pmt -Check	1/15/2003	5307	MCGRAW, MICHAEL	-125.00
Bill Pmt -Check	1/15/2003	5308	MWH LABORATORIES	-5,979.00
Bill Pmt -Check	1/15/2003	5309	OFFICE DEPOT	-44.77
Bill Pmt -Check	1/15/2003	5310	PUBLIC EMPLOYEES' RETIREMENT SYSTEM	-3,981.29

5:55 PM  
02/05/03  
Accrual Basis

CHINO BASIN WATERMASTER  
Cash Disbursement Detail Report  
January 2003

Type	Date	Num	Name	Amount
Bill Pmt -Check	1/15/2003	5311	PUMP CHECK	-5,975.98
Bill Pmt -Check	1/15/2003	5312	RBM LOCK & KEY	-245.67
Bill Pmt -Check	1/15/2003	5313	REID & HELLYER	-1,492.50
Bill Pmt -Check	1/15/2003	5314	RICOH BUSINESS SYSTEMS-Lease	-3,591.31
Bill Pmt -Check	1/15/2003	5315	RICOH BUSINESS SYSTEMS-Maintenance	-544.95
Bill Pmt -Check	1/15/2003	5316	SANTA ANA WATERSHED PROJECT AUTHORITY	-1,000.00
Bill Pmt -Check	1/15/2003	5317	UNITED PARCEL SERVICE	-166.14
Bill Pmt -Check	1/15/2003	5318	UNITEK TECHNOLOGY INC.	-139.54
Bill Pmt -Check	1/15/2003	5319	VANDEN HEUVEL, GEOFFREY	-125.00
Bill Pmt -Check	1/15/2003	5320	VELASQUEZ JANITORIAL	-175.00
Bill Pmt -Check	1/15/2003	5321	WILDERMUTH ENVIRONMENTAL INC	-64,751.54
Bill Pmt -Check	1/15/2003	5322	YATES, DENNIS	-125.00
Check	1/15/2003	5323	TACO FACTORY	-215.07
Bill Pmt -Check	1/16/2003	5325	CHEVRON	-292.58
Bill Pmt -Check	1/16/2003	5326	PUBLIC EMPLOYEES' RETIREMENT SYSTEM	-3,981.29
Check	1/17/2003	5327	CITISTREET	-2,123.01
Check	1/17/2003	5328	CITISTREET	-1,046.98
Bill Pmt -Check	1/17/2003	5329	PUBLIC EMPLOYEES' RETIREMENT SYSTEM	-3,981.29
General Journal	1/18/2003	03/01/6	PAYROLL	-5,029.65
General Journal	1/18/2003	03/01/6	PAYROLL	-14,939.57
Check	1/21/2003	5330	TOGO'S	-81.90
Check	1/23/2003	5331	DJ'Z AUTOMOTIVE REPAIR	-379.75
Check	1/28/2003	5332	TOGO'S	-139.53
Check	1/29/2003	5333	TOGO'S	-83.25
Check	1/30/2003	5334	REGINA VEGA	-31.50
Bill Pmt -Check	1/30/2003	5335	ARROWHEAD MOUNTAIN SPRING WATER	-47.09
Bill Pmt -Check	1/30/2003	5336	BANK OF AMERICA	-679.81
Bill Pmt -Check	1/30/2003	5337	BLACK & VEATCH CORPORATION	-2,245.00
Bill Pmt -Check	1/30/2003	5338	CALPERS	-1,490.98
Bill Pmt -Check	1/30/2003	5339	CITIZENS CONFERENCING	-192.92
Bill Pmt -Check	1/30/2003	5340	COLONIAL LIFE & ACCIDENT INSURANCE CO	-93.15
Bill Pmt -Check	1/30/2003	5341	DELUXE BUSINESS FORMS & SUPPLIES	-245.96
Bill Pmt -Check	1/30/2003	5342	DONALD E. WILLIAMSON, ASSESSOR	-80.00
Bill Pmt -Check	1/30/2003	5343	ELLISON, SCHNEIDER & HARRIS, LLP	-3,794.00
Bill Pmt -Check	1/30/2003	5344	IDEAL GRAPHICS	-48.36
Bill Pmt -Check	1/30/2003	5345	MIJAC ALARM	-126.00
Bill Pmt -Check	1/30/2003	5346	MWH LABORATORIES	-2,917.00
Bill Pmt -Check	1/30/2003	5347	NEXTEL COMMUNICATIONS	-422.50
Bill Pmt -Check	1/30/2003	5348	OFFICE DEPOT	-694.85
Bill Pmt -Check	1/30/2003	5349	PITNEY BOWES CREDIT CORPORATION	-468.72
Bill Pmt -Check	1/30/2003	5350	PUMP CHECK	-14,980.38
Bill Pmt -Check	1/30/2003	5351	RANCHO TECH LLC	-4,368.00
Bill Pmt -Check	1/30/2003	5352	RAUCH COMMUNICATION CONSULTANTS, LLC	-4,246.22
Bill Pmt -Check	1/30/2003	5353	RICOH BUSINESS SYSTEMS-Maintenance	-164.25
Bill Pmt -Check	1/30/2003	5354	SOUTHERN CALIFORNIA EDISON	-615.70
Bill Pmt -Check	1/30/2003	5355	STANDARD INSURANCE CO.	-466.45
Bill Pmt -Check	1/30/2003	5356	WHEELER METER MAINTENANCE	-4,595.34
Bill Pmt -Check	1/30/2003	5357	WORLDCOM	-945.95
Check	1/31/2003	5358	JAMES JOHNSTON	-395.00
Check	1/31/2003	5359	STAULA, MARY L	-7,544.27
Check	1/31/2003	5360	LAUFFER, MICHELLE D	-7,902.76
				<u>-653,501.78</u>

Jan 03

CHINO BASIN WATERMASTER  
 COMBINING SCHEDULE OF REVENUE, EXPENSES AND CHANGES IN WORKING CAPITAL  
 FOR THE  
 PERIOD JULY 1, 2002 THROUGH DECEMBER 31, 2002

	WATERMASTER ADMINISTRATION	OPTIMUM BASIN MANAGEMENT	POOL ADMINISTRATION AND SPECIAL PROJECTS APPROPRIATIVE POOL	AGRICULTURAL POOL	NON-AGRIC. POOL	GROUNDWATER OPERATIONS GROUNDWATER REPLENISHMENT	SB222 FUNDS	EDUCATION FUNDS	GRAND TOTALS	BUDGET 2002-03
Administrative Revenues										
Administrative Assessments			\$4,470,784.83		\$149,042.18				\$4,619,827.01	\$3,797,572
Interest Revenue			30,443.60	\$5,826.92	1,788.52			\$35.54	38,094.58	132,890
Mutual Agency Project Revenue	\$ 26,628.93								26,628.93	0
Grant Income									0.00	0
Miscellaneous Income									0.00	0
<b>Total Revenues</b>	<b>26,628.93</b>	<b>\$0.00</b>	<b>4,501,228.43</b>	<b>5,826.92</b>	<b>150,830.70</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>35.54</b>	<b>4,684,550.52</b>	<b>3,930,462</b>
Administrative & Project Expenditures										
Watermaster Administration	300,401.93								300,401.93	752,208
Watermaster Board-Advisory Committee	21,130.02								21,130.02	60,392
Pool Administration			6,746.47	33,821.58	2,379.66				42,947.71	139,782
Optimum Basin Mgmt Administration		\$ 476,489.44							476,489.44	891,634
OBMP Project Costs		1,604,599.02							1,604,599.02	3,324,257
Education Funds Use									0.00	375
Mutual Agency Project Costs	38,156.30								38,156.30	2,500
<b>Total Administrative/OBMP Expenses</b>	<b>359,688.25</b>	<b>2,081,088.46</b>	<b>6,746.47</b>	<b>33,821.58</b>	<b>2,379.66</b>				<b>2,483,724.42</b>	<b>5,171,148</b>
Net Administrative/OBMP Income	(333,059.32)	(2,081,088.46)								
Allocate Net Admin Income To Pools	333,059.32		242,630.88	79,289.26	11,139.19				0.00	0
Allocate Net OBMP Income To Pools		2,081,088.46	1,516,055.21	495,431.13	69,602.11				0.00	0
Agricultural Expense Transfer			605,916.97	(605,916.97)					0.00	0
<b>Total Expenses</b>			<b>2,371,349.53</b>	<b>2,625.00</b>	<b>83,120.96</b>				<b>2,483,724.42</b>	<b>5,171,148</b>
<b>Net Administrative Income</b>			<b>2,129,878.90</b>	<b>3,201.92</b>	<b>67,709.74</b>			<b>35.54</b>	<b>2,200,826.10</b>	<b>(1,240,686)</b>
Other Income/Expense										
Replenishment Water Purchases						1,432,608.71			1,432,608.71	615,000
MZ1 Supplemental Water Assessments						1,586,000.00			1,586,000.00	1,670,049
Water Purchases									0.00	0
MZ1 Imported Water Purchase									0.00	(699,000)
Groundwater Replenishment						(1,333,066.90)			(1,333,066.90)	(1,586,049)
<b>Net Other Income</b>			<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>1,685,541.81</b>	<b>0.00</b>	<b>0.00</b>	<b>1,685,541.81</b>	<b>0</b>
<b>Net Transfers To/(From) Reserves</b>			<b>2,129,878.90</b>	<b>3,201.92</b>	<b>67,709.74</b>	<b>1,685,541.81</b>	<b>-</b>	<b>35.54</b>	<b>3,886,367.91</b>	<b>(1,240,686)</b>
Working Capital, July 1, 2002			2,916,003.13	468,150.31	175,804.57	204,947.95	158,250.86	2,845.07	3,926,001.89	
Working Capital, End Of Period	\$ 5,045,882.03	\$ 471,352.23	\$ 243,514.31	\$ 1,890,489.76	\$ 158,250.86	\$ 2,880.61	\$ 7,812,369.80			
<b>01/02 Production</b>			<b>120,855.574</b>	<b>39,494.349</b>	<b>5,548.481</b>				<b>165,898.404</b>	
<b>01/02 Production Percentages</b>			<b>72.849%</b>	<b>23.806%</b>	<b>3.345%</b>				<b>100.000%</b>	

Q:\Financial Statements\02-03\Dec 02\Grouping Dec.xls\Sheet1

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**CHINO BASIN WATERMASTER  
TREASURER'S REPORT OF FINANCIAL AFFAIRS FOR THE PERIOD  
DECEMBER 1 THROUGH DECEMBER 31, 2002**

**SUMMARY at 12/31/2002**

<b>DEPOSITORIES:</b>			
Cash on Hand - Petty Cash		\$	500.00
Bank of America			
Governmental Checking-Demand Deposits	\$148,205.50		
Savings Deposits	9,580.81		
Zero Balance Account - Payroll	0.00		157,786.31
Local Agency Investment Fund - Sacramento			2,100,580.04
<b>TOTAL CASH IN BANKS AND ON HAND</b>	<b>12/31/2002</b>	<b>\$</b>	<b>2,258,866.35</b>
<b>TOTAL CASH IN BANKS AND ON HAND</b>	<b>11/30/2002</b>		<b>2,674,363.09</b>
<b>PERIOD INCREASE (DECREASE)</b>		<b>\$</b>	<b><u>(415,496.74)</u></b>

**CHANGE IN CASH POSITION DUE TO:**

Decrease/(Increase) in Assets: Accounts Receivable	(16,627.09)
Assessments Receivable	(5,545,803.88)
Prepaid Expenses, Deposits & Other Current Assets	1,153.17
(Decrease)/Increase in Liabilities: Accounts Payable	(658,515.61)
Accrued Payroll, Payroll Taxes & Other Current Liabilities	4,459.85
Transfer to/(from) Reserves	5,799,836.82
<b>PERIOD INCREASE (DECREASE)</b>	<b>\$ <u>(415,496.74)</u></b>

**SUMMARY OF FINANCIAL TRANSACTIONS:**

	Petty Cash	Gov't'l Checking Demand	Zero Balance Account Payroll	Savings	Local Agency Investment Funds	Totals
Balances as of 11/30/2002	\$500.00	\$163,714.46	\$0.00	\$9,568.59	\$2,500,580.04	\$2,674,363.09
Deposits		507,162.20	0.00	12.22		507,174.42
Transfers		359,546.54	40,453.46	0.00	(400,000.00)	0.00
Withdrawals/Checks		(882,217.70)	(40,453.46)	0.00	0.00	(922,671.16)
Balances as of 12/31/2002	\$500.00	\$148,205.50	\$0.00	\$9,580.81	\$2,100,580.04	\$2,258,866.35
<b>PERIOD INCREASE OR (DECREASE)</b>	<b>\$0.00</b>	<b>(\$15,508.96)</b>	<b>\$0.00</b>	<b>\$12.22</b>	<b>(\$400,000.00)</b>	<b>(\$415,496.74)</b>

CHINO BASIN WATERMASTER  
 TREASURER'S REPORT OF FINANCIAL AFFAIRS FOR THE PERIOD  
 DECEMBER 1 THROUGH DECEMBER 31, 2002

INVESTMENT TRANSACTIONS

Effective Date	Transaction	Depository	Activity	Redeemed	Days to Maturity	Interest Rate(*)	Maturity Yield
12/12/2002	Transfer	L.A.I.F.	\$ (400,000.00)				
<b>TOTAL INVESTMENT TRANSACTIONS</b>			<b>(\$400,000.00)</b>	<b>\$0.00</b>			

\* The earnings rate for L.A.I.F. is a daily variable rate; 2.63% was the effective yield rate at the Quarter ended September 30, 2002.

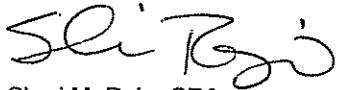
INVESTMENT STATUS  
 December 31, 2002

Financial Institution	Principal Amount	Number of Days	Interest Rate	Maturity Date
Local Agency Investment Fund	\$2,100,580.04			
Time Certificates of Deposit		0.00		
<b>TOTAL INVESTMENTS</b>	<b>\$2,100,580.04</b>			

Funds on hand are sufficient to meet all foreseen and planned Administrative and project expenditures during the next six months.

All investment transactions have been executed in accordance with the criteria stated in Chino Basin Watermaster's Investment Policy.

Respectfully submitted,



Sheri M. Rojo, CPA  
 Finance Manager  
 Chino Basin Watermaster

CHINO BASIN WATERMASTER  
2002/2003 ACTUAL YEAR TO DATE REVENUES AND EXPENSES  
COMPARED WITH ADOPTED 2002/2003 BUDGET

	Jul - Dec 02	Budget	\$ Over Budget	% of Budget
<b>Ordinary Income/Expense</b>				
<b>Income</b>				
4010 · Local Agency Subsidies	26,628.93	20,000.00	6,628.93	133.15%
4110 · Admin Asmnts-Approp Pool	4,470,784.83	3,580,590.00	890,194.83	124.86%
4120 · Admin Asmnts-Non-Agri Pool	149,042.18	196,982.00	-47,939.82	75.66%
4200 · Grants	0.00	0.00	0.00	0.0%
4700 · Non Operating Revenues	38,094.58	132,890.00	-94,795.42	28.67%
4900 · Miscellaneous income	0.00	0.00	0.00	0.0%
<b>Total Income</b>	<b>4,684,550.52</b>	<b>3,930,462.00</b>	<b>754,088.52</b>	<b>119.19%</b>
<b>Gross Profit</b>	<b>4,684,550.52</b>	<b>3,930,462.00</b>	<b>754,088.52</b>	<b>119.19%</b>
<b>Expense</b>				
6010 · Salary Costs	198,285.09	414,173.00	-215,887.91	47.88%
6020 · Office Building Expense	40,491.03	123,845.00	-83,353.97	32.7%
6030 · Office Supplies & Equip.	13,994.56	27,500.00	-13,505.44	50.89%
6040 · Postage & Printing Costs	28,726.51	72,450.00	-43,723.49	39.65%
6050 · Information Services	43,348.03	101,800.00	-58,451.97	42.58%
6061 · Other Consultants	10,698.24	29,000.00	-18,301.76	36.89%
6062 · Audit Services	0.00	5,000.00	-5,000.00	0.0%
6063 · Public Relations Consultan	0.00	12,000.00	-12,000.00	0.0%
6065 · MWD Connection Fee	6,500.00	15,600.00	-9,100.00	41.67%
6066 · Engineering Services	0.00	90,000.00	-90,000.00	0.0%
6067.1 · General Counsel	36,280.76	71,000.00	-34,719.24	51.1%
6067.2 · Legal Services -Markot	90.36	5,000.00	-4,909.64	1.81%
6080 · Insurance	7,127.82	11,210.00	-4,082.18	63.58%
6110 · Dues and Subscriptions	11,216.95	13,500.00	-2,283.05	83.09%
6140 · Other WM Admin Expenses	818.40	2,300.00	-1,481.60	35.58%
6150 · Field Supplies	1,906.84	3,950.00	-2,043.16	48.27%
6170 · Travel & Transportation	13,662.11	25,500.00	-11,837.89	53.58%
6190 · Conferences & Seminars	7,107.29	14,500.00	-7,392.71	49.02%
6200 · Advisory Comm - WM Board	7,311.32	17,870.00	-10,558.68	40.91%
6300 · Watermaster Board Expenses	13,818.70	42,522.00	-28,703.30	32.5%
8300 · Appr PI-WM & Pool Admin	6,746.47	16,310.00	-9,563.53	41.36%
8400 · Agri Pool-WM & Pool Admin	9,235.98	18,710.00	-9,474.02	49.36%
8467 · Agri-Pool Legal Services	18,710.60	83,000.00	-64,289.40	22.54%
8470 · Ag Meeting Attend -Special	5,875.00	17,300.00	-11,425.00	33.96%
8500 · Non-Ag PI-WM & Pool Admin	2,379.66	4,462.00	-2,082.34	53.33%
6500 · Education Funds Use Expens	0.00	375.00	-375.00	0.0%
9500 · Allocated G&A Expenditures	-119,852.06	-286,120.00	166,267.94	41.89%
<b>Subtotal Administrative Expenses</b>	<b>364,479.66</b>	<b>952,757.00</b>	<b>-588,277.34</b>	<b>38.26%</b>
6900 · Optimum Basin Mgmt Plan	443,070.17	810,777.00	-367,706.83	54.65%
6950 · Mutual Agency Projects	38,156.30	2,500.00	35,656.30	1,526.25%
9501 · G&A Expenses Allocated-OBMP	33,419.27	80,857.00	-47,437.73	41.33%
	514,645.74	894,134.00	-379,488.26	57.56%
7101 · Production Monitoring	14,173.63	61,062.00	-46,888.37	23.21%
7102 · In-line Meter Installation	187,302.41	439,399.00	-252,096.59	42.63%
7103 · Grdwtr Quality Monitoring	101,118.94	321,829.00	-220,710.06	31.42%
7104 · Gdwtr Level Monitoring	51,492.03	205,916.00	-154,423.97	25.01%
7105 · Sur Wtr Qual Monitoring	17,028.15	85,161.00	-68,132.85	20.0%
7106 · Wtr Level Sensors Install	16,595.99	34,501.00	-17,905.01	48.1%
7107 · Ground Level Monitoring	367,980.60	801,070.00	-433,089.40	45.94%
7200 · PE2- Comp Recharge Pgm	114,521.55	184,168.00	-69,646.45	62.18%
7300 · PE3&5-Water Supply/Desalte	5,300.00	123,587.00	-118,287.00	4.29%
7400 · PE4-MZ1 Mgmt Plan	98,805.36	81,172.00	17,633.36	121.72%
7500 · PE6&7-CoopEfforts/SaltMgmt	87,942.13	58,299.00	29,643.13	150.85%
7600 · PE8&9-StorageMgmt/Conj Use	26,655.45	102,830.00	-76,174.55	25.92%
7690 · Recharge Improvement Debt Pymt	429,250.00	620,000.00	-190,750.00	69.23%
9502 · G&A Expenses Allocated-Projects	86,432.78	205,263.00	-118,830.22	42.11%
	1,604,599.02	3,324,257.00	-1,719,657.98	48.27%

CHINO BASIN WATERMASTER  
2002/2003 ACTUAL YEAR TO DATE REVENUES AND EXPENSES  
COMPARED WITH ADOPTED 2002/2003 BUDGET

	<u>Jul - Dec 02</u>	<u>Budget</u>	<u>\$ Over Budget</u>	<u>% of Budget</u>
Total Expense	2,483,724.42	5,171,148.00	-2,687,423.58	48.03%
Net Ordinary Income	2,200,826.10	-1,240,686.00	3,441,512.10	-177.39%
Other Income/Expense				
Other Income				
4231 · MZ1 Assigned Water Sales	0.00	615,000.00	-615,000.00	0.0%
4210 · Approp Pool-Replenishment	1,424,041.36	0.00	0.00	100.0%
4220 · Non-Ag Pool-Replenishment	8,567.35	0.00	0.00	100.0%
4230 · MZ1 Sup Wtr Assessment	1,586,000.00	1,670,049.00	-84,049.00	94.97%
Total Other Income	<u>3,018,608.71</u>	<u>2,285,049.00</u>	<u>733,559.71</u>	<u>132.1%</u>
Other Expense				
5012.4 · MZ1 Imported Water Purchase	0.00	699,000.00	-699,000.00	0.0%
5010 · Groundwater Replenishment	1,333,066.90	1,586,049.00	-252,982.10	84.05%
9999 · To/(From) Reserves	3,886,367.91	-1,240,686.00	5,127,053.91	-313.24%
Total Other Expense	<u>5,219,434.81</u>	<u>1,044,363.00</u>	<u>4,175,071.81</u>	<u>499.77%</u>
Net Other Income	<u>-2,200,826.10</u>	<u>1,240,686.00</u>	<u>-3,441,512.10</u>	<u>-177.39%</u>
Net Income	<u>0.00</u>	<u>0.00</u>	<u>0.00</u>	<u>0.0%</u>



# CHINO BASIN WATERMASTER

February 13, 2003

10:00 a.m. – Joint Appropriative Pool  
and Non-Agricultural Pool  
1:00 p.m. – Agricultural Pool

## II. BUSINESS ITEMS

**B. CONSIDER APPROVAL OF DRY YEAR YIELD  
PROJECT AGREEMENT**



# CHINO BASIN WATERMASTER

8632 Archibald Avenue, Suite 109, Rancho Cucamonga, Ca 91730  
Tel: 909.484.3888 Fax: 909.484.3890 www.cbwm.org

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JOHN V. ROSSI  
Chief Executive Officer

## STAFF REPORT

**DATE:** February 13, 2003

**TO:** Pool Chairs  
Pool Members

**SUBJECT:** Consideration of Agreement with MWDofSC, IEUA, and Watermaster for the Dry Year Yield Project

### Summary

**Issue** – Approval of Agreement to Contract with Metropolitan Water District and IEUA for funding of Dry Year Yield Facilities and related 100,000 AF Storage Account

**Recommendation** – Staff recommends that the Watermaster begin the process of agreement consideration and approval to implement the Dry Year Yield Project.

**Fiscal Impact** – A fiscal analysis will be sent out under separate cover as prepared by Black and Veatch. The Agreement provides funding to project participants to build treatment and well facilities capable of producing water in dry years as called by MWD. The Watermaster would receive \$132,000 (indexed) per year to offset administrative costs. Further details will be discussed at the meeting.

### Background

In the early 2000, IEUA and the Watermaster applied for a grant from MWD and DWR for funding to build Dry Year Yield facilities. In April of 2000, the grant funding was approved. For the last year, IEUA and Watermaster staffs have been negotiating with MWD on details associated with a 100,000-acre foot storage account. A term sheet was approved in August of 2001 that outlined the features of the agreement and related fiscal terms.

During the summer and fall of 2001, staff of IEUA and the Watermaster, along with consultants Black and Veatch, presented various fiscal and engineering analysis of the project components. Staff further negotiated a \$1.6 million advance funding agreement to provide funds to perform preliminary engineering, CEQA, and modeling work. The agreement required that CEQA approvals be completed by December 2002. This deadline was met.

The attached agreement includes the following highlights:

- 1) A 100,000 acre foot storage (maximum) account
- 2) Allows MWD to call on up to 33,000 acre feet per year, up to the amount stored in the account
- 3) MWD would provide \$700,000 worth of work associated with design review, inspection, and approval of imported water connections
- 4) Provide additional credits associated with the Local Projects Program (estimated at \$1.2 million by 2005)
- 5) Up to 25,000 acre feet per year of recharge water (in lieu, recharge, etc)
- 6) \$132,000 administrative fees per year (indexed)
- 7) Water provided to basin in put year would not be assessed a water rate charge
- 8) Water pumped out of the basin in dry year would be charge at untreated rate
- 9) Pumping costs would be reimbursed by MWD
- 10) Treatment costs would be reimbursed by MWD ( up to \$25 per AF)
- 11) Term of 25 years with 5 year options (mutual) for renewal
- 12) Allows for continuation of the MWD Cyclic Account
- 13) Planning and Construction- monthly progress reports and assurance that funding is accomplished within specific time constraints
- 14) Construction funding limited to \$27.5 million but if individual projects go over budget by 5 percent or more, can re-evaluate going forward, including discontinuing the project.
- 15) Operating committee- MWD/IEUA/Watermaster/TVMWD membership plus we propose a separate local operating committee. Annual operating plans developed for storage up to 25,000 AF and dry year "take" pumping plans of 33,000 AF. Detailed record keeping and accounting of MWD 100,000 AF storage is required.
- 16) Key point MWD allows local control and use of facilities
- 17) Dispute Resolution---- key point, retail utility penalty for non-performance is double the Tier II rate (remember IICP was triple MWD full service rate).
- 18) Expands the Carbon Canyon Local Projects credits (approximately \$1.2 million per year by 2005)

The contract provisions would be passed on to project participants by way of a retail agreement between the individual project parties, IEUA, and the Watermaster.

### **Summary**

Many meetings with staff of the participating agencies, the Watermaster, IEUA, and Black & Veatch have been held over the past year. Consensus has been reached on funding allocations, performance obligation targets, and other project facility elements.

Staff recommends that the Watermaster approve the agreement in substantial form and authorize staff and legal counsel to finalize clarifying language.

**AGREEMENT NO. 49960**  
**GROUNDWATER STORAGE PROGRAM**  
**FUNDING AGREEMENT**

**BY AND AMONG**

**THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA**

**AND**

**INLAND EMPIRE UTILITIES AGENCY**

**AND**

**THREE VALLEYS MUNICIPAL WATER DISTRICT**

**AND**

**CHINO BASIN WATERMASTER**

**DATED AS OF \_\_\_\_\_, 2003**

Notice: added language to XI.B and XIII.C to address TVMWD concerns on indemnity and termination language. Also, added language to address in-lieu treated water delivery and O&M Costs for the City of Pomona see Sections IV.A.1.c, VII.D.1, VII.D.

Items that still need to be resolved: Exhibit H needs to be updated



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## GROUNDWATER STORAGE PROGRAM FUNDING AGREEMENT

**THIS GROUNDWATER STORAGE PROGRAM FUNDING AGREEMENT** (this “**Agreement**”), dated as of \_\_\_\_\_, 2003, is entered into by and among **THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA** (“**Metropolitan**”), a public entity of the State of California, **INLAND EMPIRE UTILITIES AGENCY**, a municipal water district of the State of California (“**IEUA**”), **THREE VALLEYS MUNICIPAL WATER DISTRICT**, a municipal water district of the State of California (“**TVMWD**”) and **CHINO BASIN WATERMASTER**, an entity established by the Superior Court of the State of California as described in Recital F below (“**Watermaster**”).

### I. RECITALS

- A. In March 2000, California voters approved Proposition 13 (“**Prop. 13**”) authorizing the State of California to sell \$1.97 billion in general obligation bonds for water related projects throughout the State. The Governor’s Budget Act for 2000, Chapter 52, Statutes of 2000, appropriated to the California Department of Water Resources (“**DWR**”) local assistance grants for groundwater storage and supply reliability projects in the amount of \$161,544,000 by budget item 3860-01-6027, payable from the Interim Reliable Water Supply and Water Quality Infrastructure and Managed Subaccount.
- B. Metropolitan was subsequently selected by DWR as a grant recipient for \$45 million (the “**Prop. 13 Funds**”) to be used for groundwater storage projects within its service area. In a letter dated October 13, 2000 (the “**DWR Funding Letter**”) (see Exhibit A attached hereto), DWR set forth the specific terms and conditions of the grant to Metropolitan.
- C. On September 20, 2000, Metropolitan sent a letter to its twenty-six member public agencies (consisting of cities, municipal water districts and a county water authority within its 5,155 square-mile service area covering portions of Los Angeles, Orange, San Diego, Riverside, San Bernardino and Ventura Counties), requesting a list of groundwater storage projects to be considered for Prop. 13 Funding. On November 1, 2000, Metropolitan delivered to those member public agencies that indicated an interest in the Prop. 13 groundwater storage programs the Request for Proposals for Participation in Groundwater Storage Programs Using Proposition 13 Funds, RFP No. WRM-2 (the “**RFP**”) (see Exhibit B attached hereto). Metropolitan subsequently conducted a Pre-Submittal Workshop, open to the public, on November 8, 2000, to address any concerns or questions regarding the RFP.
- D. Metropolitan anticipated that programs funded by the Prop. 13 Funds would store water (by various methods) that Metropolitan imports from the State Water Project and the Colorado River. This stored water would be pumped by the member agency (or a sub-agency) with a corresponding reduction in surface



water deliveries from Metropolitan. As a result, Metropolitan would have a greater amount of water to distribute within its service area. In addition, such groundwater storage programs are part of a larger effort to meet water supply demands in Southern California, as specifically set forth in the Integrated Water Resources Plan ("IRP") approved by Metropolitan's Board of Directors in 1996, and the Groundwater Storage Principles (see Appendix A of Exhibit B attached hereto) adopted in connection therewith by Metropolitan's Board of Directors in January 2000.

- E. IEUA and TVMWD are both municipal water districts formed in 1950 and have been member agencies of Metropolitan since their formation. IEUA was formerly known as Chino Basin Municipal Water District. IEUA serves a portion of San Bernardino County and has one or more designated representatives on Metropolitan's Board of Directors. TVMWD was formerly known as Pomona Valley Municipal Water District. TVMWD serves a portion of Los Angeles County and has one or more designated representatives on Metropolitan's Board of Directors.
- F. The Watermaster was established under the Judgment in the Superior Court of California for County of San Bernardino, entitled, "Chino Basin Municipal Water District v. City of Chino, et al", entered into on January 27, 1978 ("**Judgment**"). The Watermaster is responsible for managing the Chino Groundwater Basin ("Chino Basin") in the most beneficial manner and to equitably administer and enforce the provisions of the Judgment.
- G. Metropolitan has the following storage agreements with IEUA and Chino Basin Watermaster beginning in 1979:
  - 1. Cyclic Storage Agreement approved by the Court in January 1979.
  - 2. The MWD Trust Storage Agreement approved by the Court in August 1986.
  - 3. The Short-Term Conjunctive Use Agreement (CB-5) approved in September 1993.
- H. On January 19, 2001, the Proposal for Chino Basin Groundwater Storage Project (the "**Proposal**") was submitted by IEUA for Metropolitan's consideration (see Exhibit C attached hereto). On April 10, 2001, Metropolitan notified IEUA that the program described in its Proposal (the "Program") had been selected for further consideration (see Exhibit D attached hereto) and that it was eligible for up to \$9 million of the Prop. 13 Funds. The Program is also eligible for disbursement of up to \$ 18.5 million of other funds administered by Metropolitan. The Prop. 13 Funds plus the Metropolitan funds specifically allocated to the proposed Program are referred to herein as the "**Program Funds**".
- I. During further development of the Program, the City of Pomona was identified as a participating retail agency (Operating Party) for implementation of the Program.

The City of Pomona is a sub-agency of TVMWD, and TVMWD has therefore joined this Agreement.

- J. Accordingly, the parties hereto (each a "Party" and, collectively, the "Parties") desire to enter into a mutually beneficial agreement for a groundwater storage program funded by Program Funds that will achieve reasonable and beneficial conjunctive use of Metropolitan's water supply to provide 33,000 acre-feet of additional pumping capacity in the Chino Basin in accordance with this Agreement and the Groundwater Storage Principles referenced above. This Agreement describes the terms of the Program agreed to among Metropolitan, the Watermaster, IEUA, and TVMWD which includes the terms for the storage and delivery of stored water from Metropolitan, the construction of groundwater production facilities, and the funding of such facilities. All of the elements together as described in this Agreement shall constitute the "Program".
  
- K. IEUA as the lead agency in accordance with the State of California CEQA Guidelines Section 15168 certified the Program EIR for the Chino Basin Watermaster Optimum Basin Management Program(OBMP) on July 19, 2000 which included conjunctive use storage and recovery program of 500,000 acre-feet. Subsequent CEQA determinations of findings of consistency by the IEUA have been certified and met legal time period for challenge with regard to recharge master plan improvement and new connections for Metropolitan replenishment deliveries and the proposed groundwater productions funded through this Agreement and described in Exhibit H. TVMWD and Metropolitan, as responsible agencies under CEQA, have reviewed and considered the information in the Program EIR and CEQA determinations of findings of consistency and have adopted findings.
  
- L. IEUA and Watermaster are funding a \$45 million capital improvement program, separate and apart from this agreement, a Recharge Master Plan that will increase significantly the ability for Metropolitan to store water through direct replenishment into Metropolitan's storage account. Under the OBMP the parties to Watermaster have agreed to expand the existing Chino I Desalter from 8 mgd to 14 mgd and build the Chino II Desalter at a capacity of 10 mgd to produce and treat approximately 25,000 AF per year of poor quality water to minimize downstream water quality impacts on the Orange County Water District (OCWD) consistent with the OBMP Program Environmental Impact Report and Chino I expansion/Chino II Desalter Environmental Impact Report and the Memorandum of Understanding with OCWD.

**NOW, THEREFORE**, in consideration of the foregoing Recitals, and for other good and valuable consideration the receipt and adequacy of which are hereby acknowledged, the Parties hereby agree as follows:

**II. EFFECTIVE DATE AND TERM**

**A. Effective Date**

This Agreement shall be effective as of \_\_\_\_\_, 2003 (the “**Effective Date**”).

**B. Termination Date**

This Agreement shall initially terminate on the date which is twenty-five years after the Effective Date, unless sooner terminated in accordance herewith (the “**Initial Termination Date**”). Notwithstanding the foregoing, this Agreement will renew, for a five-year period commencing on the Initial Termination Date and each fifth anniversary thereof (each, a “**Renewal Date**”) if written consent of all parties is filed with Metropolitan at least 90 days prior to each termination date. This Agreement shall absolutely terminate and be of no further force or effect on the date which is fifty years after the Effective Date (the “**Final Termination Date**”).

**III. CONDITIONS PRECEDENT TO FUNDING OBLIGATION AND PROGRAM IMPLEMENTATION**

Metropolitan’s funding obligations with respect to construction of the Facilities (as set forth in Article V below) are subject to the satisfaction of the following conditions precedent, or waiver of the condition(s) precedent by Metropolitan:

**A. CEQA.**

The applicable CEQA and NEPA documents or project approvals shall have been certified and the time period for legal challenge to the certification of the applicable CEQA and NEPA document or project approval, as applicable, by the Parties to this Agreement shall have passed with no legal challenge having been filed, as provided in Recital K.

**B. DWR Commitment**

The conditions necessary to receive Prop. 13 Funds under the DWR Funding Letter shall have been satisfied, and DWR shall be committed to disbursing the Prop. 13 Funds to Metropolitan in accordance with the DWR Funding Letter, the Schedule and the Budget.

**C. Permits and Approvals**

Any authorizations, consents, licenses, permits and approvals from any Governmental Authority (as defined hereafter) or person as may be required by applicable law to construct and operate the Program (including, without limitation, the approvals or consents from other groundwater users in the Chino

Basin, or parties whose approval is required by any judgment in an adjudicated basin, and approval and recognition of this Agreement by the San Bernardino Superior Court with continuing jurisdiction over the Judgment (collectively, the “**Required Approvals**”) shall have been obtained. IEUA shall have delivered reasonably satisfactory evidence of such Required Approvals to Metropolitan. None of the Required Approvals shall impose any condition to such approval that a Party finds unacceptable, and any acceptable conditions to the Required Approvals shall have been satisfied or waived by the person imposing such condition or will be satisfied by the Program as then contemplated.

“**Governmental Authority**” means any federal, state, local or other governmental, regulatory or administrative agency, governmental commission, department, board, subdivision, court, tribunal, or other governmental arbitrator, arbitral body or other authority.

#### **D. No Litigation**

IEUA, TVMWD, and Watermaster shall have certified that, except as disclosed in writing to Metropolitan and accepted by Metropolitan in its reasonable discretion, there is no litigation, including any arbitration, investigation or other proceeding, pending before any court, arbitrator or Governmental Authority, nor any such litigation threatened, nor any decree, order or injunction issued by any court, arbitrator or Governmental Authority and remaining in effect, which relates to Program Funds or the Program or which prevents or hinders (or seeks to prevent or hinder) implementation of the Program, or which raises a question as to the validity of this Agreement, or any of the other Program agreements.

The date upon which each of the foregoing conditions has been satisfied or waived by Metropolitan, as set forth in a written notice from Metropolitan to IEUA, shall be the “**Funding Obligation Date**”. Program implementation cannot be accomplished without MWD funding obligation notice.

### **IV. PROGRAM PLANNING AND CONSTRUCTION**

#### **A. Planning**

##### **1. General Description of Program**

The Program includes the following components:

- a. Metropolitan shall have the right to: (1) deliver and store imported water supplies in the Chino Basin at up to a rate of 25,000 acre-feet per year and up to 100,000 AF in storage at any time (“**Maximum Storage Amount**”), subject to higher amounts if approved in

advance by the Chino Basin Watermaster, and (2) cause Chino Basin stored water to be produced at a rate of 33,0000 AF per year, pursuant to the Exhibit G "Performance Criteria" of this Agreement, the Chino Basin Judgment and the Watermaster Rules and Regulations. Watermaster will provide for rights to store and extract water from the Chino Basin.

- b. The proposed groundwater storage program consists of the facilities described in Exhibit H (the "**Facilities**"). The agencies within the service areas of IEUA and TVMWD responsible for operating the respective Facilities ("Operating Parties") are also listed in Exhibit H. IEUA and TVMWD will enter into agreements with the Operating Parties within their respective service areas that will require such Operating Parties to operate and maintain the Facilities.
- c. Water provided for storage by Metropolitan hereunder will be untreated water (except in the case of water stored via in-lieu methods by TVMWD), as defined in Section 4104 of Metropolitan's Administrative Code ("**Program Water**"). Water stored by spreading or injection in the Chino Basin must meet the applicable water quality requirements as required by the Watermaster and any other regulatory agency with jurisdiction over the Chino Basin.
- d. Metropolitan will fund the construction of the Facilities in accordance with this Agreement.

2. Operational Capacity Thresholds

The Program "**Operational Capacity Thresholds**" are:

- a. *Storage.* Water can be stored in the following ways: (1) spreading, (2) injection, (3) in-lieu deliveries (pursuant to the administration procedures described in Exhibit F) and transfer from existing MWD storage accounts consistent with the Chino Basin Judgment. Metropolitan can store water in the Chino Basin at a rate of 25,000 AF per year, unless a greater amount is approved by the Watermaster.
- b. *Extraction.* At a minimum, the Facilities, when combined with the existing groundwater production capacity of the Operating Parties as defined in Exhibit H, if necessary, shall be designed to have the capacity to extract water from the Chino Basin at a rate of 33,000 AF per year. Prior to the completion of all Facilities, the minimum

extraction capacity shall be a pro rata portion of the extraction capacity based on the Facilities then completed.

3. Submission of Plans, Schedule and Budget

On or before September 1, 2003, IEUA shall deliver to Metropolitan the engineering and construction plans and specifications (the "**Plans**"), a construction schedule (the "**Schedule**") and a construction budget (the "**Budget**") for the Facilities . At a minimum:

- a. The Plans shall describe in reasonable detail the construction and design of the Facilities, and shall conform to any requirements of DWR;
- b. The Schedule shall state the date of construction commencement, the anticipated completion date (which shall occur no later than March 8, 2008, ), key milestone dates in the interim (each a "**Milestone Date**") including timing of discrete program elements ("**Discrete Program Elements**") and major tasks ("**Tasks**") within them; and
- c. The Budget shall contain an itemized summary of Program costs including costs of the contractors, consultants, and other service providers, and all materials anticipated to be purchased in connection with the Program. For the purpose of Metropolitan's payment of invoices from Program Funds ("**Invoice**") pursuant to Section V(D), the Budget shall be divided into phases corresponding to the Milestone Dates, Discrete Program Elements and Tasks set forth in the Schedule.

4. Review and Approval of Schedule and Budget

- a. Metropolitan shall review and approve or disapprove, by written notice to IEUA, the Schedule and Budget for the Facilities within ten (10) business days after Metropolitan's receipt thereof (once so approved, the "**Approved Budget**" and the "**Approved Schedule**"). If Metropolitan has not acted on the schedule or budget within ten (10) business days after Metropolitan's receipt, the schedule or budget shall be deemed approved.
- b. For all facilities funded in whole or part with Prop. 13 funds, all Metropolitan approvals shall be conditional upon DWR approvals. IEUA acknowledges and agrees that Metropolitan intends to submit the Schedule and Budget to the DWR for its review and approval, and Metropolitan shall disapprove the Schedule and/or Budget upon DWR's disapproval of the Schedule and/or Budget.

- c. If Metropolitan (or DWR, if applicable) disapproves of the Schedule and/or Budget, Metropolitan shall specify the reasons for the disapproval in its disapproval notice to IEUA. Metropolitan shall thereafter promptly meet with IEUA to correct any deficiencies to the Schedule and/or Budget such that the Schedule and Budget are reasonably acceptable to Metropolitan, DWR (if applicable) and IEUA.
- d. Notwithstanding any requirements of DWR as noted in clause (b) above, or any other terms or conditions set forth herein, neither DWR nor Metropolitan shall have any responsibility for reviewing or approving the Plans, and IEUA assumes all responsibility for the proper design, planning, and specifications of the Facilities.
- e. IEUA, may, as warranted, update the Approved Schedule and Approved Budget for the Facilities to reflect changes as necessary. However, under no condition may the Completion Date exceed March 8, 2008, or the total budget exceed the specified amount allocated as Program Funds unless such overages shall be the responsibility of IEUA. Review and approval of the proposed update shall follow the above procedure.

**B. Construction**

1. Contracting

IEUA shall retain, or cause to be retained through agreements with the Operating Parties, qualified contractor(s) and consultants to design and construct the Facilities. All contracts let for project construction shall be let by competitive bid procedures that assure award of the contract to the lowest responsible bidder, except as may be otherwise authorized under the enabling authority for IEUA and/or the California Public Contract Code.

2. Construction Supervision and Responsibility

- a. *Diligent Prosecution of Facility Construction.* IEUA agrees to faithfully and diligently complete, or cause to be completed, the construction of the Facilities in accordance with the Plans, Approved Budget and Approved Schedule.
- b. *Supervision.* As among Metropolitan, IEUA, TVMWD, and the Watermaster, IEUA shall be responsible for all work in connection with the construction of the Facilities and for persons engaged in the performance of such work.

- c. *Compliance with Laws; Permits.* IEUA shall ensure that all construction in connection with the Program complies with any applicable federal, state and local laws, rules and regulations, including, without limitation, environmental, procurement and safety laws, rules, regulations and ordinance.
- d. *Contracting Disputes.* IEUA shall be responsible for any and all disputes arising out of its contracts for work on the Program, including, without limitation, any bid disputes and payment disputes with contractors or subcontractors. Metropolitan will not mediate disputes between IEUA, TVMWD, their Operating Parties and any other entity in connection herewith.

3. Inspection Right

During reasonable business hours, Metropolitan and/or the DWR, with respect to Facilities funded with Prop. 13 Funds (and any of their designated representatives or agents), may enter upon the Program site and inspect the on-going and/or completed construction activities. Metropolitan agrees to exercise commercially reasonable efforts to deliver advance written notice to IEUA of any such visit to the Program site (it being acknowledged, however, by IEUA that the DWR may inspect the Program site at any and all reasonable times without prior notice pursuant to the terms of the DWR Funding Letter).

4. Completion of Construction

- a. *Completion Date.* IEUA shall assure that Completion of the Facilities occurs not later than March 8, 2008. "**Completion**" means (x) performance of the construction in a good and workmanlike manner, free and clear of mechanics', materialmens' and other liens or security interests, claims or encumbrances relating to such construction, subject only to completion of punch list items which do not materially interfere with the use or functionality of the Facilities, and (y) the payment of all costs to the persons entitled thereto less retainage or reserves for punch list items.
- b. *Completion Notification and Certification.* IEUA shall notify Metropolitan within ten business days after Completion of Facilities by each Operating Party. Such notification shall include a certification from the IEUA, the general contractor (if applicable) and a California Registered Civil Engineer affirming Completion and that the Facilities: (i) are as described in Exhibit C; (ii) have been constructed substantially in accordance with the Plans; (iii) have been adequately tested and meet the Operational Capacity



Thresholds; and (iv) are otherwise sufficient to achieve the goals of the Program (as stated in Exhibit C).

5. Ownership of Project

Metropolitan will have no ownership interest in the Facilities.

**V. PROJECT CONSTRUCTION FUNDING (NOT INCLUDING OPERATION AND MAINTENANCE/ENERGY COST FUNDING)**

**A. Metropolitan Funding Obligation**

After the Funding Obligation Date, subject to and in accordance with the terms and conditions of Section V(D) below, Metropolitan hereby agrees to fund the payment of costs for constructing the Facilities in accordance with the Approved Budget (the “**Program Construction Costs**”) in an amount not to exceed \$27.5 million, inclusive of design and construction of Facilities and the costs to comply with CEQA. Of these Program Construction Costs, \$9 million is funded by Prop. 13 Funds. Metropolitan shall fund the payment of Program Construction Costs from the Prop. 13 Funds and from other funds provided by Metropolitan (which may include the proceeds of future grants awarded to Metropolitan for disbursement).

**B. Cost Overruns**

1. IEUA agrees to pay, and Metropolitan shall have no liability for, any costs of constructing the Facilities in excess of the amounts set forth in the applicable Approved Budget (on line-item and aggregate bases); provided, however, that upon written request from IEUA, Metropolitan shall approve, conditional upon DWR approval, to reallocate demonstrated costs savings from one line-item of the Approved Budget to another line item in order to cover any cost overruns for the \$9 million funded by Prop. 13 Funds for specific Program facilities.
2. Should bids for construction of the Program Facilities exceed the Approved Budget by more than 5%, IEUA may review such cost increase with Metropolitan to determine the appropriate way to proceed with the program. Metropolitan and IEUA may mutually agree to a cost share, a change in scope of the project, or to discontinue the project.
3. IEUA agrees to reimburse Metropolitan for any of its costs intended to be reimbursed with Prop. 13 Funds which are disapproved by DWR, within thirty (30) days of receipt of invoice from Metropolitan for such reimbursement. IEUA agrees to pay interest computed at an annual rate

equal to that earned by Surplus Money Investment Fund (SMIF) rate as provided for in Government Code Sections 16480 et seq. calculated monthly, on any outstanding amounts so invoiced by Metropolitan, beginning thirty days after the date such invoice is received, until paid.

**C. Disbursement Protocol**

1. Invoice Payment.

Commencing on the Funding Obligation Date, and continuing not more often than monthly thereafter, IEUA may submit for Metropolitan's consideration and payment from the Program Funds an Invoice for costs incurred. Each Invoice shall set forth in reasonable detail those Program Construction Costs that have been incurred since submittal of the prior Invoice and shall reference Discrete Program Elements and Tasks as outlined in the Approved Budget and Schedule. Each Invoice shall be accompanied by a Progress Report pursuant to Section X (B)(1). Work accomplished on each Discrete Program Element shall be briefly described, and the percent complete shall be presented with the percent and actual amounts expended to date on each Discrete Program Element. Metropolitan shall review and approve or disapprove (in part or whole) the Invoice and provide payment of Program Funds to IEUA for all approved portions of the Invoice within 30 days of receipt. If Metropolitan disapproves any portion of an Invoice, it shall state its reasons for such disapproval in writing and cooperate in good faith with IEUA, to promptly achieve a mutually acceptable revision to the disallowed portion of the Invoice. Metropolitan agrees to pay interest at the rate and in the manner specified in Section V(B)(2) on approved portions of invoices paid more than thirty (30) days after receipt of such invoice by Metropolitan.

2. Certification of Expenditures

With each Invoice submitted for Program Construction Costs, IEUA shall also provide its written certification and a written certification from the general contractor, if any, affirming that invoiced amounts were utilized exclusively for construction of the Facilities in accordance with the Plans and Approved Budget. Such certification shall be accompanied by evidence of payment to third parties for services and/or materials delivered in connection with the construction of the Facilities.

3. Disbursement of Program Funds

Upon Metropolitan's payment of Program Funds pursuant to an Invoice, Metropolitan shall have fulfilled its obligation with respect to such payment, and shall have no obligations to ensure disbursement to the appropriate party(ies) entitled thereto.

## VI. OPERATING COMMITTEE

### A. Operating Committee

#### 1. Composition of Committee.

A committee (the “**Operating Committee**”) shall be established for the specific purposes specified herein. The Operating Committee shall have five members, two representatives from Metropolitan and three representatives chosen by IEUA, TVMWD, and Watermaster in any manner determined by IEUA, TVMWD, and Watermaster. The local agencies listed in Exhibit H may also attend meetings of the Operating Committee. With respect to any matter on which the Operating Committee cannot reach unanimous agreement, the Operating Committee shall submit such matter for determination by a consultant and/or arbitration panel in accordance with Section XIII(A).

#### 2. Meeting of Operating Committee

The Operating Committee shall meet:

- a. as reasonably often as necessary to implement operations and take other needed action pursuant to this Agreement. Such tasks will include preparation of Operating Committee’s certification to Watermaster regarding monthly storage achieved utilizing methodology specified in Exhibit F (Accounting Methodology).
- b. within thirty days after the execution of this Agreement; and thereafter at least sixty days prior to the end of each fiscal year (which fiscal year shall run from July 1 through June 30) to develop Program Annual Operating Plan for the subsequent year and to review need for adjustments to Electrical Costs and Operation and Maintenance Costs; and
- c. by August 31 of each year review prior fiscal year performance for storage and/or extraction in conformance with the Annual Operating Plan and Exhibit G, Performance Criteria; and for assessment of per-acre-foot Electrical Costs and Operation and Maintenance Costs to be paid by Metropolitan.

#### 3. Annual Operating Plan

- a. The Annual Operating Plan shall provide an estimated schedule and location for all storage and extraction under this Agreement

and in conformance with Exhibit G (Performance Criteria) on a monthly basis for the upcoming fiscal year and documentation of adequate available capacity with respect to the Program Facilities capacity to accommodate Metropolitan's rights pursuant to Section VII hereof. Initial operation of the Metropolitan Storage Account prior to completion of Facilities funded under this Agreement shall be accomplished under the Annual Operating Plan. Until all Facilities are completed, partial performance shall be pro rata according to the proportion of Facilities listed in Exhibit H which are then complete.

- b. The Annual Operating Plan shall provide sufficient information to allow the Operating Committee and Watermaster to assess potential impacts from the Program on the Chino Basin and the Judgment Parties, such as : (1) current and projected water levels in the basin; and (2) short-term and long-term projections of Chino Basin water supply and water quality. The Operating Committee and the Watermaster may request additional information from the Operating Parties.
- c. Consistent with Section VIII(A) below, the Annual Operating Plan shall not limit Metropolitan's ability to modify its call for extraction or storage of water upon fifteen (15) days advance notice as provided in Sections VII(A) and VII(C). Watermaster reserves the right to approve the location and amount of storage and extraction pursuant to this Agreement, in accordance with the Judgment, OBMP and its policies applicable to the Judgment Parties.
- d. Storage and extraction operations under this Agreement shall be in accordance with the provisions of the Annual Operating Plan as adopted or as amended to accommodate changed circumstances or new information. The Annual Operating Plan may be amended: (1) at the request of a member of the Operating Committee and with the concurrence of the Operating Committee and approval of the Watermaster (2) as a requirement of the Watermaster in the implementation of the Judgment and OBMP with specific adjustments proposed by consensus of the Operating Committee and approved by the Watermaster.

4. Specific Duties

Without limiting the foregoing, the Operating Committee shall:

- a. Properly account for the amounts of all water stored and extracted and submit a report of these amounts achieved for the Metropolitan

Storage Account to Watermaster and Metropolitan on a monthly basis but not more than two months in arrears. At the end of the fiscal year, an annual reconciliation shall be performed of storage and extraction, and any adjustments to the monthly submittals shall be submitted to the Watermaster and to Metropolitan in a timely manner for consideration in the preparation of the Watermaster's annual assessment package.

- b. Within two months following formal issuance of Watermaster's annual report, perform an annual reconciliation of Metropolitan and IEUA's and TVMWD's records with Watermaster annual report and Metropolitan's water billing inclusive of credits for the Operation and Maintenance Costs and Electrical Costs, and prepare any needed paperwork for adjustments to the billing.
- c. Consistent with Section VIII(A) below, confirm that sufficient excess operable production capacity was maintained for the conjunctive use program during the prior year, unless different criteria are agreed upon by the Operating Committee.
- d. Prepare and deliver to the Parties, on or before August 1 of each year, a written annual report outlining the Program Annual Operating Plan for the subsequent year, and the Operating Committee's actions during the prior year (the "**Operating Committee Annual Report**").
- e. Every five years, commencing upon Project Completion, the Operating Committee shall review the maintenance charge set forth in Section VI(D)(1) of this Agreement. To such end, the Operating Committee shall conduct a survey of operation and maintenance costs with respect to facilities within the Program Basin and which are comparable to the Facilities. Based on such survey and other information the Operating Committee deems relevant, the Operating Committee shall approve a new Operation and Maintenance Cost for the next five-year period.
- f. Every year commencing upon Project Completion, determine the electrical power cost to extract Program Water (the "Electrical Costs") shall be equal to Stored Water Deliveries (as defined in Section VII(C) below for the applicable period at the unit rate(s) (dollars per AF of Stored Water Deliveries) for the Operating Party(ies) that extracted the water. The Operating Committee shall ensure that the unit rate per acre-foot of extracted water calculated for each Operating Party is reflective of actual energy costs.

**B. IEUA and TVMWD Obligations**

Subject to Section VI(C), IEUA and TVMWD hereby agree to do, or to cause through agreements with the Operating Parties in their respective service areas, the following:

1. Cause the Facilities to be operated and maintained in as good and efficient condition as upon their construction, ordinary and reasonable wear and depreciation excepted, and otherwise in accordance with industry standards (and DWR standards and requirements, if any);
2. Provide for all repairs, renewals, and replacements necessary to the efficient operation of the Facilities;
3. To the extent existing facilities are utilized for the Program, provide for all repairs, renewals, and replacements necessary to the efficient operation of such existing facilities;
4. Certify the amount of water in the Metropolitan Storage Account pursuant to the Operating Committee accounting; and
5. Upon call by Metropolitan for Stored Water Delivery, operate Facilities, combined with the existing infrastructure, at Operational Capacity Thresholds necessary to meet performance targets as outlined in Exhibit G.

**C. Watermaster Obligations**

Watermaster hereby agrees to:

1. Maintain records of the amounts of all water stored in and extracted from the Chino Basin pursuant to this Agreement and consistent with the Judgment and Rules and Regulations, and provide to Metropolitan an amount specified in an account ~~to be maintained by IEUA and TVMWD~~ to be designated as the **Metropolitan Storage Account**. Watermaster will maintain a monthly statement regarding the account as information becomes available and will document in its annual report all water stored in and withdrawn from the MWD Storage Account. Chino Basin Watermaster shall account for MWD stored water as follows:
  - a. The amount of any water stored in the Chino Basin on behalf of Metropolitan prior to the Effective Date of this Agreement shall be credited to the Metropolitan Storage Account on the Effective Date pursuant to the procedure set forth in Exhibit E.
  - b. Watermaster shall credit water which Metropolitan delivers for

storage to the Metropolitan Storage Account on an acre-foot for acre-foot basis, less any losses assessed.

- c. Losses assessed by Watermaster against the Metropolitan Storage Account will be equivalent to losses assessed Judgment parties for participation in the storage and recovery project.
  - d. Watermaster shall debit the Metropolitan Storage Account one acre-foot for each acre-foot of water produced from the account. Watermaster accounting for water produced from the Metropolitan Storage Account shall specify quantities produced by each Operating Party.
  - e. Watermaster shall obtain from Operating Committee on a monthly basis its report of the amount of storage achieved using the methodology specified in Section VII(B) and Exhibit F of this Agreement.
2. Report the total active and inactive annual extraction capacity of the Operating Parties in the Watermaster's annual report.

#### **D. Metropolitan Obligations**

In accordance with the procedures set forth in clause (E) below, Metropolitan hereby agrees to:

1. Pay costs of operating and maintaining the Facilities at the unit rate (dollars per AF of Stored Water Deliveries) determined by the Operating Committee for the Operating Party(ies) that extracted water as adjusted when and as required by Section VI(A)(4)(e) (the "**Operation and Maintenance Costs**"). Except for water extracted through the City of Pomona's ion exchange facility, Operationing and Maintenance Costs will include a dollar per AF amount for each AF produced by an Operating Party from Metropolitan's Storage Account through the funded ion exchange facilities equal to the Operating Party's variable costs of treating Metropolitan's State Water Project surface deliveries (expressed as dollar per AF of treating such water). Such variable costs shall exclude capital, debt service, or replacement costs and include only variable operating and maintenance costs at the Water Facilities Authority Treatment Plant or CCWD Lloyd Michael Filtration Plants. The dollar per AF cost shall be calculated by dividing the variable costs by the quantity of water produced by the treatment plants. The dollar per acre-foot shall be determined by the Operating Committee pursuant to Section VI(A)(4)(e) and set at the beginning of each fiscal year. In the case of water extracted via the City

of Pomona's ion exchange facility. Operation and Maintenance Costs will include the operating and maintenance costs associated with the ion exchange facilities. This dollar per acre-foot amount will be determined by the Operating Committee pursuant to Section VI(A)(4)(e);

2. Pay the Electrical Costs as determined in Section VI(A)(4)(f) to extract water from the basin, if any, equal to **Stored Water Deliveries** (as defined in Section VII(C) below) for the applicable period for the Operating Party(ies) that extracted the water; and
3. From and after the first full year in which water is stored in the Program Basin on Metropolitan's behalf, and on or prior to July 1 of each subsequent year, pay an administrative fee in an annual amount of \$132,000 to the Watermaster (as such amount is adjusted on each anniversary of the execution of this Agreement by the lesser of 2.5% or the Retail Consumer Price Index for the City of Los Angeles published by the Engineering News Record), for the incremental costs and expenses of administering the Program during such year. Such administrative fee is subject to adjustment from time to time as approved by the Operating Committee.

**E. Payment of Operation and Maintenance Costs and Electrical Costs**

1. Amounts owing by Metropolitan pursuant to Section VI(D) for Operation and Maintenance Costs and Electrical Costs shall be paid through a credit to Metropolitan's monthly invoice for the Stored Water Delivery to TVMWD or IEUA, as applicable, pursuant to Section VII(D). Upon the credit to Metropolitan's invoice for the Operation and Maintenance Costs and Electrical Costs, Metropolitan will have satisfied its funding obligations with respect thereto.

**F. Annual Reconciliation**

1. Reconciliation of Metropolitan Storage Account and Costs.

As noted in Section VI(A)(4)(a) above, the Operating Committee will conduct an annual reconciliation of the prior year's credits and debits to the Metropolitan Storage Account. If such reconciliation reveals that the actual amount of water delivered by Metropolitan for storage pursuant to Section VII(A)(1), or the actual amount of Stored Water Deliveries, as defined in Section VII(C) below, during the prior year were not accurately accounted for, then the Operating Committee shall reflect this in its year-end assessment of storage and extraction provided to the Watermaster.



The Watermaster shall determine the manner in which any credits or debits to the Metropolitan Storage Account shall be made.

The Operating Committee shall complete its reporting and processing of any prior year adjustments to the Metropolitan water invoice within two months of the formal issuance of the Watermaster's annual report, as provided in Section VI(A)(4)(b).

## **VII. GROUNDWATER STORAGE AND EXTRACTION**

### **A. Metropolitan's Storage Account Rights**

1. During any fiscal year of the term of this Agreement, Metropolitan may deliver up to 25,000 AF of Program Water for storage in the Program Basin with an equivalent amount to be accounted for in the Metropolitan Storage Account pursuant hereto; provided, however, that total Program Water stored on behalf of Metropolitan in the Program Basin, pursuant to this Agreement, shall never exceed the Maximum Storage Amount unless approved by the Watermaster. Deliveries shall be subject to the prior approval of the Watermaster pursuant to the policies described in subsection 5 below. Metropolitan shall not be obligated to pay any fees associated with basin utilization.
2. Metropolitan may make such deliveries to IEUA or TVMWD on fifteen (15) days advance notice to such Party and Watermaster. Watermaster will credit the Metropolitan Storage Account by the amount of Program Water delivered to IEUA or TVMWD.
3. Upon notification by Metropolitan pursuant to Section VII(A)(2), IEUA or TVMWD and Watermaster may either: (a) directly store the amount of any such delivery of Program Water in the Chino Basin (e.g., by injection or spreading); or (b) store the amount of any such delivery of Program Water in the Chino Basin by in lieu storage, i.e., by reducing pumping from the Chino Basin by the amount of such delivery.
4. The quantity of Program Water delivered to the Metropolitan Storage Account in any given month shall be determined in accordance with the accounting methodology set forth in Exhibit F.
5. The Watermaster's storage and extraction policies shall be applied to Program Water stored under this Agreement in a manner consistent with the application of such policies to all parties to the Judgment. Subject to the terms of this Agreement, water stored in the Metropolitan Storage

Account shall be treated by the Watermaster as belonging to Metropolitan and as equivalent to the stored water of any party to the Judgment.

**B. Certification of Deliveries to Metropolitan Water Account**

1. Metropolitan shall deliver available Program Water to IEUA or TVMWD at the appropriate service connection for storage in the Metropolitan Storage Account consistent with the Annual Operating Plan. In any month where imported water is delivered to the Chino Basin through a Metropolitan service connection, the Party receiving Program Water shall certify the facts concerning the quantities of such deliveries to Metropolitan and Watermaster in writing or electronically in a format satisfactory to Metropolitan by a responsible officer of such Party.
2. Metropolitan will credit the appropriate IEUA or TVMWD invoice at the applicable rate for each acre-foot of water certified by such Party for that service connection.
3. Certifications of Program Water for a given billing period must be received by Metropolitan before 3:30 p.m. on the third working day after the end of the month to receive credit on the bill for that billing period or any preceding billing period.
4. No certification received after six months following the end of any month in which a credit for Program Water is claimed will be accepted.

**C. Extraction of Stored Water**

1. In lieu of providing all or some of its regular surface water deliveries to IEUA or TVMWD, Metropolitan may, on fifteen (15) days advance notice, deliver water to such Party on the first of the following month by requesting such Party to debit the Metropolitan Water Account (each such delivery being a “**Stored Water Delivery**”); provided, however, that unless permitted by Watermaster, such Stored Water Deliveries shall not, in any fiscal year exceed the lesser of (a) 33% of the Maximum Storage Amount or (b) the amount then remaining in the Metropolitan Storage Account. Metropolitan’s regular surface water deliveries to IEUA and TVMWD will be reduced by the amount of such Stored Water Delivery. During an emergency or unforeseen operational condition, IEUA and TVMWD will use their best efforts in responding to Metropolitan’s request for a Stored Water Delivery.

If Metropolitan selects this option pursuant to this Section VII(C), IEUA and TVMWD, as applicable, shall pump the amount of the Stored Water Delivery from the Program Basin in lieu of receiving its regular surface

water deliveries in accordance with specific direction from the Watermaster.

**D. Payment for Extraction of Stored Water**

Upon call by Metropolitan for Stored Water Delivery, Metropolitan shall invoice IEUA or TVMWD for the amount reported as extracted by the Operating Committee pursuant to Section VI(A)(4)(a), and such Party shall pay to Metropolitan the then applicable full-service rate (or its equivalent, as determined by Metropolitan in its reasonable discretion) as if such Stored Water Deliveries were surface water deliveries through its service connection. In the case of water extracted through the City of Pomona's ion exchange facility, such full service rate shall include Metropolitan's Treatment Surcharge (or its equivalent). The invoice from Metropolitan shall include credits for the Operation and Maintenance Costs and the Electrical Costs associated with the Stored Water Delivery. Where prior storage accounts are credited to the Metropolitan Water Account pursuant to Section VI(A)(3)(a), this water shall constitute the Stored Water Delivery prior to any water credited to the Metropolitan Water Account after the Effective Date, and shall be paid for at the appropriate rate indicated in Exhibit E.

**VIII. OTHER USES OF FACILITIES**

**A. Allowed Use**

IEUA and TVMWD may use Program Facilities for purposes unrelated to the Program so long as such use does not interfere with the Program and the excess operable production capacity is maintained as necessary for performance under this Program, unless monthly operable production capacity on other than a monthly basis is agreed to by the Operating Committee.

B. IEUA and Watermaster shall certify to the Operating Committee that there will exist at all times excess operable production capacity in the Chino Basin of at least an annual extraction of 33,000AF or 33% of Maximum Storage Account for performance under this conjunctive use program.

**IX. REPRESENTATIONS, WARRANTIES AND AFFIRMATIVE COVENANTS OF PARTIES**

**A. Of IEUA and TVMWD**

IEUA and TVMWD respectively represent, warrant and covenants as follows:

1. Power and Authority

That it is a municipal water district, duly organized and validly existing under the laws of the State of California; that it has all necessary power and authority to enter into this Agreement and to perform its obligations hereunder on the terms set forth in this Agreement, and that the execution and delivery hereof by it and the performance of its obligations hereunder will not violate or constitute an event of default under the terms or provisions of any agreement, document or instrument to which it is a party or by which it is bound.

2. Authorization; Valid Obligation

That all proceedings required to be taken by or on behalf of such Party to authorize it to make, deliver and carry out the terms of this Agreement have been duly and properly taken, and that this Agreement is its valid and binding obligation enforceable in accordance with its terms, except as the same may be affected by bankruptcy, insolvency, moratorium or similar laws or by legal or equitable principles relating to or limiting the rights of contracting parties generally.

3. No Litigation

To the best of its knowledge, there is no litigation, proceeding or investigation pending or threatened, to which it is or would be a party, or which does or would bind or relate to the Program Basin, directly or indirectly, which, individually or in the aggregate, if adversely determined, might materially and adversely affect its ability to perform its obligations under this Agreement, or which raises a question as to the validity of this Agreement, or any action to be taken hereunder.

4. Compliance with Laws

In the performance of its obligations hereunder, such Party and its contractors and subcontractors will comply with all applicable laws, regulations and ordinances, including, without limitation:

- a. the Fair Employment and Housing Act (Government Code, Section 12900 et seq.), and the regulations promulgated thereunder (California Code of Regulations, Title 2, Section 7285.0 et seq.);
- b. Article 9.5, Chapter 1, Part 1, Division 3, Title 2 of the Government Code (Government Code, Sections 11135-11139.5) and the regulations or standards adopted by the DWR relating thereto;

- c. the nondiscrimination program requirements of Government Code, Section 12990, and Title 2, California Code of Regulations, Section 8103;
- d. Section 3700 of the California Labor Code, requiring every employer to be insured against liability for workers' compensation or to undertake self insurance in accordance with the provisions of that code, and such Party affirms that it will comply with such provisions before commencing the construction of the Facilities and will exercise best efforts to make the its contractors and subcontractors aware of this provision;
- e. the Drug-Free Workplace Act of 1990 (Government Code 8350 et seq.) and have or will provide a drug-free workplace; and
- f. the Americans with Disabilities Act of 1990 (42 U.S.C. 12101 et seq.) which prohibits discrimination on the basis of disability, as well as all applicable regulations and guidelines issued pursuant thereto.

Such party and its contractors and subcontractors will give written notice of their obligations under this clause to labor organizations with which they have a collective bargaining or other agreement. Such Party and its contractors will include the nondiscrimination and compliance provisions of this clause in all contracts and subcontracts let for the construction of the Facilities.

5. Compliance with DWR Requirements

The Plans comply with any DWR requirements, including any requirements set forth in the DWR Funding Letter. During the performance of its obligations herein, such Party will comply with any DWR requirements, including any requirements set forth in the DWR Funding Letter.

6. No Construction

That construction of the Facilities and related work (including planning activities) did not commence prior to the Effective Date.

7. Capacity

Such Party and its contractors, subcontractors and their respective agents will at all times act in an independent capacity and not purport to act as, or represent to others that they are, officers, employees, representatives or agents of Metropolitan, DWR or the State of California.

8. Oversight and Supervision of Construction

Such Party will oversee and supervise all contractors and keep control of all work and provisions of services and materials in connection with the Program.

9. Maintain Ownership of Program Property

Such Party will not sell, abandon, lease, transfer, exchange, mortgage, hypothecate or encumber in any manner whatsoever all or any portion of any real or other property necessarily connected or used in conjunction with the Program.

10. Protection of Others' Rights

Such Party will fully protect and preserve the rights of overlying landowners, other groundwater users or water rights holders, parties whose approval is required by any judgment in an adjudicated basin, and all groundwater management agencies or other applicable regulatory agencies, and will take the necessary actions (including groundwater monitoring and mitigation and/or limiting extraction of groundwater) to protect such rights.

**B. Of Watermaster**

Watermaster and its contractors, subcontractors and their respective agents will at all times act in an independent capacity and not purport to act as, or represent to others that they are, officers, employees, representatives or agents of Metropolitan, DWR or the State of California. Watermaster represents, warrants and covenants as follows:

1. Power and Authority

That Watermaster is a court-appointed entity created through the Judgement, duly organized and validly existing under the laws of the State of California; that it has all necessary power and authority to enter into this Agreement and to perform its obligations hereunder on the terms set forth in this Agreement, and that the execution and delivery hereof by Watermaster and the performance by Watermaster of Watermaster's obligations hereunder will not violate or constitute an event of default under the terms or provisions of any agreement, document or instrument to which Watermaster is a party or by which Watermaster is bound.

2. Authorization; Valid Obligation

That all proceedings required to be taken by or on behalf of Watermaster to authorize it to make, deliver and carry out the terms of this Agreement have been duly and properly taken, and that this Agreement is a valid and binding obligation of Watermaster enforceable in accordance with its terms, except as the same may be affected by bankruptcy, insolvency, moratorium or similar laws or by legal or equitable principles relating to or limiting the rights of contracting parties generally.

3. No Litigation

To the best of Watermaster's knowledge, there is no litigation, proceeding or investigation pending or threatened, to which Watermaster is or would be a party, or which does or would bind or relate to the Chino Basin, directly or indirectly, which, individually or in the aggregate, if adversely determined, might materially and adversely affect the ability of Watermaster to perform its obligations under this Agreement, or which raises a question as to the validity of this Agreement, or any action to be taken hereunder.

4. Compliance with Laws

In the performance of its obligations hereunder, Watermaster will comply with all applicable laws, regulations and ordinances, including, without limitation:

- a. the Fair Employment and Housing Act (Government Code, Section 12900 et seq.), and the regulations promulgated thereunder (California Code of Regulations, Title 2, Section 7285.0 et seq.);
- b. Article 9.5, Chapter 1, Part 1, Division 3, Title 2 of the Government Code (Government Code, Sections 11135-11139.5) and the regulations or standards adopted by the DWR relating thereto;
- c. the nondiscrimination program requirements of Government Code, Section 12990, and Title 2, California Code of Regulations, Section 8103;
- d. Section 3700 of the California Labor Code, requiring every employer to be insured against liability for workers' compensation or to undertake self insurance in accordance with the provisions of that code, and IEUA affirms that it will comply with such provisions before commencing the construction of the Facilities

and will exercise best efforts to make the its contractors and subcontractors aware of this provision;

- e. the Drug-Free Workplace Act of 1990 (Government Code 8350 et seq.) and have or will provide a drug-free workplace; and
- f. the Americans with Disabilities Act of 1990 (42 U.S.C. 12101 et seq.) which prohibits discrimination on the basis of disability, as well as all applicable regulations and guidelines issued pursuant thereto.

Watermaster will give written notice of its obligations under this clause to labor organizations with which it has a collective bargaining or other agreement.

5. Compliance with DWR Funding Letter

During the performance of its obligations herein, Watermaster will comply with the terms and provisions of the DWR Funding Letter (Exhibit A), as applicable.

6. Capacity

Watermaster and its contractors, subcontractors and their respective agents will at all times act in an independent capacity and not purport to act as, or represent to others that they are, officers, employees, representatives or agents of Metropolitan, DWR or the State of California.

**C. Of Metropolitan**

Metropolitan represents, warrants and covenants as follows:

1. Power and Authority

That Metropolitan is a public agency and quasi-municipal corporation, duly organized and validly existing under the laws of the State of California; that it has all necessary power and authority to enter into this Agreement and to perform its obligations hereunder on the terms set forth in this Agreement, and that the execution and delivery hereof by Metropolitan and the performance by Metropolitan of Metropolitan's obligations hereunder will not violate or constitute an event of default under the terms or provisions of any agreement, document or instrument to which Metropolitan is a party or by which Metropolitan is bound.



2. Authorization; Valid Obligation

That all proceedings required to be taken by or on behalf of Metropolitan to authorize it to make, deliver and carry out the terms of this Agreement have been duly and properly taken, and that this Agreement is a valid and binding obligation of Metropolitan enforceable in accordance with its terms, except as the same may be affected by bankruptcy, insolvency, moratorium or similar laws or by legal or equitable principles relating to or limiting the rights of contracting parties generally.

3. No Litigation

To the best of Metropolitan's knowledge, there is no litigation, proceeding or investigation pending or threatened, to which Metropolitan is or would be a party, directly or indirectly, which, individually or in the aggregate, if adversely determined, might materially and adversely affect the ability of Metropolitan to perform its obligations under this Agreement, or which raises a question as to the validity of this Agreement, or any action to be taken hereunder.

**X. RECORD KEEPING, REPORTING, INSPECTION AND AUDIT**

**A. Record Keeping**

1. IEUA shall maintain audit and accounting procedures and written accounts with respect to the Program that are in accordance with generally accepted accounting principles and practices, consistently applied. IEUA shall keep complete and accurate records of all receipts, disbursements, and interest earned on expenditures of Program Funds.
2. IEUA and its respective contractors and subcontractors shall maintain copies of all contracts, agreements, and other documents relating to the Program for a minimum of three years following Program completion.
3. IEUA and TVMWD shall keep on file, for the useful life of the Facilities, as-built plans and the specifications of the Facilities. Such documents shall be made available for inspection by the State, Metropolitan, and upon reasonable notice.
4. IEUA shall require their respective contractors and subcontractors to maintain books, records, and other documents pertinent to their work in accordance with generally accepted accounting principles and practices, consistently applied.

**B. Reporting**

1. Construction Progress Reports

During construction of the Facilities, a monthly progress report shall accompany each Invoice submitted by IEUA to Metropolitan (each a "**Progress Report**"), certified by a designated official of such Party, providing in reasonable detail, a description of (a) the work accomplished during the invoice period and the percent complete on each Discrete Program Element (b) and the amount of Program Construction Funds expended on each Discrete Program Element and Tasks, the purposes of those expenditures, the total amount expended and remaining of the budget for that Discrete Program Element. In the absence of a monthly Invoice, IEUA shall deliver the Progress Report detailing progress and expenditures for the month, and reporting on status of construction activities within 30-days after the month.

2. O&M Reports

Commencing on the first day of the month which is ninety days following the date of Completion, and unless otherwise determined by the Operating Committee, on a semi-annual basis thereafter throughout the term of this Agreement, IEUA and TVMWD shall deliver to Metropolitan and the Operating Committee a report (an "**O&M Report**") summarizing the operational and maintenance activities conducted in connection with the Program during the prior period.

**C. Inspection**

Metropolitan and the DWR may inspect the aforementioned books, records and any other Program-related information at any time, upon reasonable advance notice to IEUA or TVMWD, as applicable.

**D. Audit Rights and Obligations**

1. Pursuant to California Government Code Section 8546.7, IEUA and its contractors and subcontractors shall be subject to the examination and audit by the State Auditor for a period of three years after Program completion. IEUA agrees that, IEUA and its contractors and subcontractors shall be subject to examination and audit by Metropolitan and DWR for such period.
2. Within thirty days after the Completion of a Program Facility, IEUA shall, at its expense, cause an audit of all Program Construction Costs and expenses with respect to such Facility to be conducted by an independent

certified public accountant and deliver to Metropolitan a report prepared by such accountant in connection therewith.

## **XI. INDEMNITY**

### **A. General Indemnity**

Each Party hereto shall indemnify, defend and hold harmless the other Party and its elected officials, officers and employees from and against any and all lawsuits, actions, causes of action, claims and damages and any and all court costs and attorneys' fees related thereto ("**Claims**"), in any way arising out of or connected with the performance or nonperformance of the indemnifying Party's duties or the discharge of or failure to discharge that Party's obligations hereunder to the maximum extent permitted by law.

### **B. IEUA and TVMWD Specific Indemnity**

Without limiting the foregoing indemnity, each of IEUA and TVMWD hereby agree to indemnify, defend and hold harmless Metropolitan and Watermaster, their elected officials, officers and employees from and against any and all Claims, in any way arising out of or connected with the Program, including any Claims by DWR or any other branch, agency or department of the State of California in connection with the Program (except for a breach of the DWR Funding Letter attributable to Metropolitan) or breach of its obligations hereunder, or otherwise to the extent of such Party's responsibility hereunder or to the extent that such Party caused or exacerbated such or other Claim(s).

### **C. Watermaster Specific Indemnity**

Without limiting the indemnity in clause(A) above, Watermaster hereby agrees to indemnify, defend and hold harmless Metropolitan and IEUA and TVMWD, and their elected officials, officers and employees from and against any and all Claims, in any way arising out of or connected with the Program, including any Claims by DWR or any other branch, agency or department of the State of California in connection with the Program (except for a breach of the DWR Funding Letter attributable to Metropolitan or IEUA's and TVMWD's breach of its obligations hereunder), or otherwise to the extent of Watermaster's responsibility hereunder or to the extent that it caused or exacerbated such Claim(s).

### **D. Metropolitan Specific Indemnity**

Without limiting the indemnity in clause (A) above, Metropolitan hereby agrees to indemnify, defend and hold harmless IEUA and TVMWD and Watermaster, their elected officials, officers and employees from and against any and all Claims arising out of or connected with a failure under or breach of the DWR Funding

Letter by Metropolitan, or otherwise to the extent of Metropolitan's responsibility hereunder or to the extent that it caused or exacerbated such or other Claim(s).

## **XII. INSURANCE**

### **A. General Required Coverages**

IEUA and TVMWD through agreement with their respective Operating Parties shall procure, pay for and keep in full force and effect, at all times during the term of this Agreement the following insurance (to the extent not already maintained by IEUA and TVMWD or their respective Operating Parties):

1. Commercial general liability insurance insuring IEUA and TVMWD against liability for personal injury, bodily injury, death and damage to property (including the Facilities) arising from IEUA's and TVMWD's performance under this Agreement. Said insurance shall include coverage in an amount equal to at least [Five Million Dollars (\$5,000,000)], and shall contain "blanket contractual liability" and "broad form property damage" endorsements insuring IEUA's and TVMWD's performance of its obligations to indemnify Metropolitan as set forth herein (the "**CGL Insurance**"); and
2. Pursuant to Section 3700 of the California Labor Code, workers' compensation insurance with employer's liability in the amounts required by any applicable laws (the "**Workers' Compensation Insurance**").
3. Member Agency will provide proof of automobile liability insurance as required by the State of California Department of Motor Vehicles.

### **B. Specific Policy Requirements**

Each policy of insurance required to be carried pursuant to this Agreement: (1) shall, except with respect to Worker's Compensation Insurance, name Metropolitan as an additional insured; (2) shall be in a form reasonably satisfactory to Metropolitan; (3) shall be carried with companies reasonably acceptable to Metropolitan; (4) shall provide that such policy shall not be subject to cancellation, lapse or change except after at least thirty (30) days prior written notice to Metropolitan, and (5) shall, except with respect to the Environmental Liability Insurance required under clause (B) above, be on an "occurrence" basis and not on a "claims-made" basis.

### **C. Deductibles/Self-Insurance.**

The insurance required by this Section XII may contain deductibles or be self-insured. IEUA and TVMWD through agreement with their respective Operating Parties shall be solely responsible for deductibles and/or self-insured retention for

general required coverages specified in Section XII(A) and Metropolitan, at its option, may require IEUA and TVMWD to secure the payment of such deductibles or self-insured retention by a surety bond or an irrevocable and unconditional letter of credit. The insurance policies that contain deductibles or self-insured retention in excess of \$25,000 per occurrence shall not be acceptable without the prior approval of Metropolitan.

1. Insurance Certificates.

Metropolitan reserves the right to require certified complete copies of any insurance certificates required by this Agreement but the receipt of such certificates shall not confer responsibility upon Metropolitan as to sufficiency of coverage.

2. Acceptability of Insurers

All insurance required by this Agreement shall be placed with insurers admitted to transact business in the State of California for the applicable class of insurance, as required by §700 of the California Insurance Code. Each insurer shall have a current Best Insurance Guide rating of not less than AVII unless prior approval is secured from Metropolitan as to the use of such insurer.

**D. Environmental Liability Insurance**

If IEUA, TVMWD and Metropolitan agree to procure environmental liability insurance, IEUA and TVMWD shall obtain and Metropolitan shall pay 50% of the cost of the policy of environmental liability insurance that, at a minimum, shall cover: (1) the costs of on-site and off-site clean-up of pollution conditions relating to or arising from the Program (including natural resource damages, changes in water quality regulatory requirements and/or changes in the quality of water in the basin below original water quality readings); and (2) losses resulting from tort claims for bodily injury and property damage resulting from pollution conditions relating to or arising from the Program. Such insurance shall have limits of liability and terms and conditions (including premiums) reasonably approved by Metropolitan. Notwithstanding the foregoing, if Metropolitan reasonably agrees that, despite IEUA's and TVMWD's good faith and diligent efforts to obtain such environmental liability insurance, the coverage required herein is not available on commercially reasonable terms, IEUA and TVMWD shall obtain the coverage that most closely approximates the coverage required herein that is available on commercially reasonable terms or consider other risk financing alternatives. Metropolitan shall pay 50% of the cost of any such alternative coverage or risk financing alternative selected by IEUA and TVMWD, provided that the terms and conditions (including premiums) have been reasonably approved by Metropolitan.

For purposes of this Section XII(B), the “costs” of environmental liability insurance, alternative coverage or risk financing alternatives to be shared by the parties as provided in the prior paragraph shall include (1) insurance premiums and other up-front or periodic costs of coverage; (2) deductibles payable in connection with claims; and (3) any out-of-pocket costs (including court costs, attorneys’ fees and other litigation expenses) incurred in connection with enforcement or collection under the policy, alternative coverage or other risk financing alternative.

### **XIII. DISPUTE RESOLUTION; DEFAULTS AND REMEDIES**

#### **A. Dispute Resolution**

If any dispute arises between or among the Parties regarding interpretation or implementation of this Agreement (or the Operating Committee is unable to reach agreement on a matter being considered by it), the Parties will endeavor to resolve the dispute by using the services of a mutually acceptable consultant. The fees and expenses of the consultant shall be shared equally by the Parties. Except for disputes relating to exercises of Metropolitan discretion pursuant to Sections V(D); VII(A); VII(C); VII(D); XII(A) and XIII(B), if a consultant cannot be agreed upon, or if the consultant’s recommendations are not acceptable to all Parties (or, in the case of the Operating Committee, to the members thereof), and unless the Parties (or members of the Operating Committee) otherwise agree, such dispute shall be settled by arbitration in accordance with the Rules of the American Arbitration Association in the County of Los Angeles, California. The arbitration panel acting pursuant to said rules may order any legal or equitable relief permitted by California law, including, without limitation, (1) declaratory and injunctive relief, (2) **SPECIFIC PERFORMANCE OF THE TERMS, CONDITIONS AND OBLIGATIONS OF THIS AGREEMENT**, (3) monetary liability, or (4) any other relief (including, without limitation, termination of this Agreement, as set forth in Section XIII(B) below) consistent with the purposes of this Agreement and applicable to the matter. The arbitration panel shall also be empowered to make final and binding determinations with respect to matters before the Operating Committee, where the members of the Committee were unable to reach agreement. Judgment upon the award rendered by the arbitration panel may be entered and enforced by any court having jurisdiction thereof.

#### **B. Defaults and Remedies**

1. Should IEUA or TVMWD, each acting through agreement with its respective Operating Parties, fail to fully perform in the extraction of Program Water from the Metropolitan Water Storage Account in accordance with Exhibit G in response to a call from Metropolitan that has been approved by the Watermaster, and upon a determination by the Operating Committee that full performance

could and should have occurred, then Metropolitan shall invoice to IEUA or to TVMWD, as appropriate, water delivered equal to the quantity in acre-feet of non-performance at two times the Tier 2 full service water rate (or its equivalent, as determined by Metropolitan in its reasonable discretion) currently then in effect (“**Nonperformance Penalty**”).

Should Operating Committee in its review of incomplete performance, as specified in paragraph B (1) above, determine that unanticipated operational or water quality considerations precluded full performance, Operating Committee shall not recommend to Metropolitan that the Nonperformance Penalty be assessed. In such case, IEUA or TVMWD, whichever is the responsible Member Agency, shall work with the nonperforming Operating Party to promptly set out a mutually agreeable course of action and schedule to correct the deficiency and present such to the Operating Committee for its concurrence. Future nonperformance outside of the agreed-upon schedule (provided that the Operating Committee has concurred with such schedule) would be subject to the Nonperformance Penalty.

**C. Termination**

Notwithstanding anything to the contrary herein, upon a breach of any provision of this Agreement by IEUA, TVMWD or Watermaster or any of them, Metropolitan may terminate this Agreement as to the breaching ~~party~~Party, by written notice to IEUA, TVMWD and Watermaster. Upon such termination, Metropolitan may require the breaching ~~party~~Party to purchase in equal installments over a 5-year period, at Metropolitan’s then applicable full-service rate (or its equivalent, as determined by Metropolitan in its reasonable discretion), the balance of any water then identified in the Metropolitan Water Account. Upon full payment of the amounts required pursuant to this Section XIII(B), this Agreement shall be fully terminated as to the breaching ~~party~~Party.

Notwithstanding anything to the contrary herein, upon a breach of any provision of this Agreement by Metropolitan, IEUA and TVMWD may terminate its participation in this Agreement by written notice to Metropolitan. Upon such termination, the terminating ~~party~~Party shall be responsible to purchase in equal installments over a 5year period, at Metropolitan’s then applicable full-service rate (or its equivalent as determined by Metropolitan in its reasonable discretion), the balance of any water then identified in the Metropolitan Storage Account. IEUA and TVMWD shall be responsible to reimburse to Metropolitan all Program Funds advanced to such Party by Metropolitan pursuant to this Agreement.

**D. Remedies Are Cumulative**

The rights and remedies of the Parties are cumulative, and the exercise by any Party of one or more of such rights or remedies shall not preclude the exercise by

it, at the same or different times, of any other rights or remedies for the same breach or any other breach by the other Party.

#### **XIV. FORCE MAJEURE EVENTS**

##### **A. Excuse to Performance**

In addition to specific provisions of the Agreement, lack of performance by any Party shall not be deemed to be a breach of this Agreement, where delays or defaults are due to acts of God, or the elements, accident, casualty, labor disturbances, unavailability or delays in delivery of any product, labor, fuel, service or materials, failure or breakdown of equipment, strikes, lockouts, or other labor disturbances, acts of the public enemy, orders or inaction of any kind from the government of the United States, the State of California, or any other governmental, military or civil authority (other than Metropolitan, IEUA, TVMWD or Watermaster), war, insurrections, riots, epidemics, landslides, lightning, droughts, floods, fires, earthquakes, arrests, civil disturbances, explosions, freight embargoes, lack of transportation, breakage or accidents to vehicles, or any other inability of any Party, whether similar or dissimilar to those enumerated or otherwise, which are not within the control of the Party claiming such inability or disability, which such Party could not have avoided by exercising due diligence and care and with respect to which such Party shall use all reasonable efforts that are practically available to it in order to correct such condition (such conditions being herein referred to as "**Force Majeure Events**").

##### **B. Responding to Force Majeure Events**

The Parties agree that in the event of a Force Majeure Event which substantially interferes with the implementation of this Agreement, the Parties will use their best efforts to negotiate an interim or permanent modification to this Agreement which responds to the Force Majeure Event and maintains the principles pursuant to which this Agreement was executed.

#### **XV. MISCELLANEOUS**

##### **A. Entire Agreement**

This Agreement constitutes the entire agreement between the Parties pertaining to the matters provided for herein and, except as herein provided, supersedes all prior and/or contemporaneous agreements and understanding, whether written or oral, between the Parties relating to the matters provided for herein.

##### **B. Interpretation**

The Parties have participated in the drafting of this Agreement and the Agreement shall not be construed for or against any Party. The language in all parts of this



Agreement shall be in all cases construed simply according to its fair meaning and not strictly for or against any of the Parties hereto and Section 1654 of the Civil Code has no application to interpretation of this Agreement. In addition, this Agreement shall be construed to the maximum extent possible in conformance with Prop. 13, the DWR Funding Letter, the IRP, the Groundwater Storage Principles, the RFP, and the Proposal. Notwithstanding anything to the contrary herein, to the extent this Agreement conflicts with the RFP and/or Proposal, this Agreement shall control.

**C. Further Assurances**

Each Party, upon the request of the other, agrees to perform such further acts and to execute and deliver such other documents as are reasonably necessary to carry out the provisions of this instrument.

**D. Counterparts**

This Agreement, and any document or instrument entered into, given or made pursuant to this Agreement or authorized hereby, and any amendment or supplement thereto may be executed in two or more counterparts, and by each party on a separate counterpart, each of which, when executed and delivered, shall be an original and all of which together shall constitute one instrument, with the same force and effect as though all signatures appeared on a single document. Any signature page of this Agreement or of such an amendment, supplement, document or instrument may be detached from any counterpart without impairing the legal effect of any signatures thereon, and may be attached to another counterpart identical in form thereto but having attached to it one or more additional signature pages. In proving this Agreement or any such amendment, supplement, document or instrument, it shall not be necessary to produce or account for more than one counterpart thereof signed by the Party against whom enforcement is sought.

**E. Assignment**

No Party shall transfer this Agreement, in whole or in part, or any of its interests hereunder, to any other person or entity, without the prior written consent of the other Party. Any attempt to transfer or assign this Agreement, or any privilege hereunder, without such written consent shall be void and confer no right on any person or entity that is not a Party to this Agreement. Nothing contained herein shall prevent the Parties from subcontracting for the performance of obligations hereunder, provided, however, no such subcontracting shall relieve the Parties from the performance of obligations hereunder.

**F. Venue**

Any legal actions initiated pursuant to this Agreement or otherwise with respect to its subject matter must be instituted in the Superior Court of the County of Los Angeles, State of California, or in the Federal District Court in the Central District of California.

**G. Governing Law; Attorneys Fees and Costs**

The laws of the State of California shall govern the interpretation and enforcement of this Agreement. The non-prevailing party in any claim, suit or other action, including use of the dispute resolution as provided for in Section XIII(A), brought by such party shall pay to the prevailing party the costs of such prevailing party's attorneys fees and expenses and all other costs and expenses incurred by the prevailing party in defense of such action.

**H. Notice**

Formal written notices, demands, correspondence and communications between the Parties authorized by this Agreement shall be sufficiently given if personally served or dispatched by registered or certified mail, first-class, postage prepaid, return receipt requested, to the Parties as follows:

- |                  |   |
|------------------|---|
| To IEUA:         | Inland Empire Utilities Agency<br>General Manager<br>P.O. Box 697<br>Rancho Cucamonga, CA 91729   |
| To TVMWD:        | Three Valleys Municipal Water District<br>General Manager<br>1021 E. Miramar Avenue<br>Claremont, CA 91711                                      |
| To Watermaster:  | Chino Basin Watermaster<br>Chief Executive Officer<br>8632 Archibald Avenue, Suite 109<br>Rancho Cucamonga, CA 91730                            |
| To Metropolitan: | The Metropolitan Water District<br>of Southern California<br>Chief Executive Officer<br>700 No. Alameda Street<br>Los Angeles, California 90012 |

Such written notices, demands, correspondence and communications may be sent in the same manner to such other persons and addresses as either Party may, from time to time, reasonably designate by mail as provided in this Section. Notice shall be deemed given when received by mail or when personally served.

**I. Successors**

This Agreement shall bind and inure to the benefit of the Parties, and their respective successors and assigns.

**J. Severability**

Should any provisions of this Agreement prove to be invalid or illegal, such invalidity or illegality shall in no way affect, impair or invalidate any other provisions hereof, and such remaining provisions shall remain in full force and effect; provided, however, if the illegality or invalidity of any provision undermines the intent of the Parties, then the Parties shall attempt in good faith to amend the agreement in order to fulfill the intent of the Parties. If the Parties are unable to so amend the Agreement, then the Agreement shall terminate and be of no further force or effect.

**K. Time is of the Essence**

Time is of the essence with respect to the performance of every provision of this Agreement in which time of performance is a factor.

**L. Amendment**

This Agreement may be amended only in writing duly executed by the Parties hereto. Notwithstanding the foregoing, individual items listed in Exhibit H are subject to adjustment pursuant to the procedure set forth in Exhibit H.

*[Remainder of Page Intentionally Blank – Signature Pages Follow]*

IN WITNESS WHEREOF, the Parties have caused this Agreement to be executed as of the date first set forth above.

**THE METROPOLITAN WATER DISTRICT  
OF SOUTHERN CALIFORNIA**

By: \_\_\_\_\_  
Ronald R. Gastelum  
Chief Executive Officer

Date: \_\_\_\_\_

**APPROVED AS TO FORM:**

Jeffrey Kightlinger  
General Counsel

By: \_\_\_\_\_  
Assistant General Counsel Jeffrey  
Kightlinger  
General Counsel

Date: \_\_\_\_\_

**INLAND EMPIRE UTILITIES AGENCY**

By: \_\_\_\_\_  
Richard Atwater  
General Manager

Date: \_\_\_\_\_

**APPROVED AS TO FORM:**

By: \_\_\_\_\_  
(Name)  
General Counsel

Date: \_\_\_\_\_

**THREE VALLEYS MUNICIPAL WATER  
DISTRICT**

By: \_\_\_\_\_  
(Name)  
General Manager

Date: \_\_\_\_\_

**APPROVED AS TO FORM:**

By: \_\_\_\_\_  
(Name)  
General Counsel

Date: \_\_\_\_\_

**CHINO BASIN WATERMASTER**

By: \_\_\_\_\_  
(Name)  
Watermaster

Date: \_\_\_\_\_

**APPROVED AS TO FORM:**

By: \_\_\_\_\_  
(Name)  
General Counsel

Date: \_\_\_\_\_

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**EXHIBIT A**

**DWR FUNDING LETTER**

**REQUEST FOR PROPOSAL**

**THE PROPOSAL**



**METROPOLITAN AWARD LETTER**

**PROCEDURE FOR INITIAL CALCULATION OF  
METROPOLITAN STORAGE ACCOUNT**

Exhibit E is to itemize a pre-existing storage account to be rolled over into the conjunctive use project Metropolitan Water Account. This rollover water is to be called and sold to IEUA on a first in/first out basis. The applicable water rate to be paid for each rolled over account is specified in this exhibit, as is the responsibility for extraction costs, facility maintenance fees, etc.

<b>Water Account</b>	<b>Quantity of Water Transferred (Acre-feet)</b>	<b>Water Rate to be Paid when called under this Agreement for firm delivery</b>	<b>Responsibility for Costs: Electrical and Operation &amp; Maintenance Costs</b>	<b>Losses</b>
Trust Storage Account	4,739	Untreated replenishment rate at the time the water is called under this Agreement	IEUA	None

**ACCOUNTING METHODOLOGY**

**Annual Operating Schedule**

Prior to the beginning of each fiscal year, the Operating Committee will develop an annual operating schedule to forecast IEUA's and TVMWD's operations for the coming year in terms of groundwater production, imported water delivery, storage through in-lieu deliveries, injection and direct spreading, and extraction. Deliveries to the Metropolitan Storage Account through in-lieu deliveries, injection, or direct spreading will be determined using methodologies detailed in this Exhibit F.

The Annual Operating Schedule must reflect IEUA's and TVMWD's monthly operations in terms of groundwater production and imported water deliveries with and without in-lieu storage. If water is to be stored through direct injection or spreading, the Annual Operating Schedule must indicate the months when the deliveries to the Chino Basin are expected to occur. If water is to be extracted, the operating schedule must reflect the amount of imported water that will be delivered from the Metropolitan Storage Account each month.

**Calculation of Storage and Extraction**

IEUA and TVMWD shall account for all water stored and extracted in the Chino Basin by their respective subagencies and each submit its certification of these total amounts and the subset of these amounts achieved for the Metropolitan Storage Account. IEUA and TVMWD shall each submit this certification to Metropolitan and the Watermaster on a monthly basis. At the end of each fiscal year, IEUA and TVMWD shall perform an annual assessment of total storage and extraction and the subset achieved for the Metropolitan Storage Account. Any adjustments to the monthly submittals shall be provided by IEUA to Metropolitan and to the Watermaster in a timely manner for consideration in the preparation of the Watermaster's annual report.

All accounting for the Metropolitan Storage Account shall conform to the following unless otherwise agreed by Metropolitan, IEUA, TVMWD, and Watermaster:

- a. Initial storage balance upon execution of this Agreement shall be consistent with Exhibit E "Procedure for Initial Calculation of Metropolitan Storage Account". This initial storage balance is firm water to be billed at the rate designated in Exhibit E upon its extraction. This water, when extracted, shall be part of IEUA's firm water allocation pursuant to the rate structure. This water shall be first in, and first out of the Metropolitan Storage Account.
- b. All other storage made to the Metropolitan Storage Account shall be "new wet-water storage" to the Chino Basin, and not accomplished through an accounting transfer of pre-existing storage. New storage is achieved through demonstrated in-lieu methods, or spreading or injection of imported water supplied by Metropolitan.

c. Monthly amounts certified by IEUA or TVMWD as in-lieu storage cannot exceed:

1. extraction capacity available within IEUA's or TVMWD's service area in the month certified, and
2. amount of firm water purchased by IEUA or TVMWD from Metropolitan in the month certified.

In-lieu storage amount will be equal to the difference between the amount pumped during the year and the sum of the pumping rights, but in no case shall be larger than the quantity of water purchased from Metropolitan or the pumping capacity.

Within two months following the formal issuance of Watermaster's annual report, the Operating Committee shall perform an annual reconciliation of Metropolitan and IEUA's and TVMWD's records with the Watermaster report with respect to total storage and/or extraction from the Metropolitan Storage Account and Metropolitan's water billing inclusive of credits for the Operation and Maintenance Costs and Electrical Costs, and prepare any needed paperwork for adjustments to the billing.

**Chino Basin Conjunctive Use “Dry Year” Storage Project**

**Performance Criteria**

If MWD for delivery of the conjunctive use account, upon 15 days notice, IEUA will meet the objectives of the project as follows:

- 1) IEUA and TVMWD agree to reduce imported water by approximately 33,000 AF from the preceding 12 month period during the next 12 month period; and
- 2) IEUA, TVMWD and Chino Basin Watermaster through their agreements with Operating Parties will cause to be pumped during the next 12 months 33,000 AF from the MWD storage account; and
- 3) Chino Basin pumping by the Operating Parties in the Dry Year program within the Chino Basin appropriative pool will increase pumping over the previous year by 33,000 AF.

All three performance targets do not need to be met precisely (+ or – 10 percent.) As an example, IEUA and TVMWD would meet the objectives of the program if all three of the following occurred:

- |           |  |
|-----------|--|
| 30,000 AF | Reduced imported full service deliveries when compared to the preceding 12 months. |
| 30,000 AF | Pump from MWD storage account.   |
| 33,000 AF | Increase pumping by Operating Parties, when compared to the preceding year.        |

However, if the operating committee mutually agrees that performance targets are met even though a performance target is not met (a scenario when retail conservation were to exceed 15 – 25 percent or if other local supplies were developed, e.g., dramatic increase in recycled water use, may reduce the opportunity for the retail agencies to pump 33,000 AF from the MWD storage account.) In this case the operating committee would need to agree on the variance procedures for the accepting a modified performance target after the episode. It should be generally agreed that additional use and production of all local supplies native to the Chino Basin area should not be restricted or cause IEUA, TVMWD or Chino Basin Watermaster (or the Operating Parties) to be out of compliance of the performance target. It should also be agreed that if IEUA and TVMWD retailers demand firm water from MWD over the twelve month period, the pumped water would come from the MWD account up to 33,000AF.

The objective of the program is to provide 33,000 acre-feet of additional pumping capacity in the Chino Basin for dry year use, to allow MWD, IEUA and TVMWD the flexibility to utilize the facilities in the most efficient manner possible (including normal year and wet years) and to ensure that upon a call of stored water, facilities will be used to provide an additional supply of water to meet IEUA’s needs. A partial call will be addressed through a pro rata performance of all three objectives .

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## Exhibit H

### DESCRIPTION OF PROGRAM FACILITIES & OPERATING PARTIES

To include a list of Operating Parties, the Facilities to be constructed, operated and maintained by each, the yield to be produced by each, and the funding amount and source allocated to each.

Agency	Facility Name	Location
<b>Ion Exchange Nitrate Removal Facility</b>		
<b>City of Chino</b>	Southwest A	Phillips Blvd & Central Ave
	Southwest A alternative	Benson Ave, south of Francis St
	Northwest B	Palo Verde St & Benson Ave
<b>City of Chino Hills</b>	Southwest C	State St & Ramona Ave
	Southwest D	Chino Hills Pkwy & Ramona Ave
<b>CCWD</b>	North Central	Apricot St & Amethyst Ave
<b>MVWD</b>	Southwest B	Monte Vista Ave, btwn Phillips Blvd & Grand Ave
	Northwest B	Palo Verde St & Benson Ave
<b>City of Ontario</b>	Central	Cucamonga Ave, btwn Fourth St & I St
<b>City of Pomona</b>	West	First St & San Lorenzo St
<b>City of Upland</b>	Northwest A	Ninth Ave, west of Mountain Ave
<b>Well Facilities</b>	<b>Quantity</b>	
<b>CCWD</b>	2	East Ave & I-15 Fwy
<b>MVWD</b>	1	Monte Vista Ave & Richton St
<b>City of Ontario*</b>	1	Monte Vista Ave & Richton St
	1	Seventh St & Grove Ave
	1	1150 Hellman Ave
	1	Concours & Milliken Ave
	1	1335 Holt Blvd
	1	G St & Grove Ave
	1	Belmont St & Grove Ave
	1	Jurupa St & Dupont Ave
<b>SAWC</b>	1	Eight St, btwn San Antonio Ave & Euclid Ave

\*City of Ontario will select four of the seven listed well sites



The foregoing list is a preliminary list based on reasonable expectations of the Parties as of the Effective Date. Individual items on this Exhibit H may be adjusted from time to time by written notice from IEUA or TVMWD, as applicable, and Watermaster to Metropolitan. Each such notice shall specify the items to be adjusted and the amount of adjustment and shall certify to Metropolitan that after making such adjustment the Operational Capacity Thresholds continue to be met. Each notice which meets the requirements of this paragraph shall modify this Exhibit H to the extent provided in the notice.

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# CHINO BASIN WATERMASTER

February 13, 2003

10:00 a.m. – Joint Appropriative Pool  
and Non-Agricultural Pool  
1:00 p.m. – Agricultural Pool

## **II. BUSINESS ITEMS**

**C. CONSIDER IMPLEMENTATION OF MZ1  
MONITORING WORK PLAN**



# CHINO BASIN WATERMASTER

8632 Archibald Avenue, Suite 109, Rancho Cucamonga, Ca 91730  
Tel: 909.484.3888 Fax: 909.484.3890 www.cbwm.org

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JOHN V. ROSSI  
Chief Executive Officer

## STAFF REPORT

**DATE:** February 13, 2003  
**TO:** Pool Chairs  
Pool Members  
**SUBJECT:** Recommendation regarding MZ1 Subsidence Monitoring Work Plan and related Budget Funding

### Summary

*Issue* – Implementation of Monitoring Work Plan for Interim Plan for Management of Subsidence in MZ1

*Recommendation* – Staff and the MZ1 Technical Committee recommend that the Monitoring Work Plan be implemented and that funds be re-allocated within the fiscal year 2002-2003 budget for associated costs.

*Fiscal Impact* – Staff will present an analysis of the funding components at the meeting.

### Background

In the past year, the Watermaster approved and filed with the court the Interim Plan for the Management of Subsidence. This plan established parameters for collecting data associated with subsidence in MZ1. A series of meetings attended by members of the appropriate and Ag pools, and others, have been held concerning the development of a monitoring work plan and associated budget. The attached work plan (Attachment I) outlines several monitoring elements including aquifer stress tests, land surface surveys, and the use of satellite imagery.

The attached budget outlines specific tasks and the engineering and other direct costs for each task (Attachment II). The Committee considered various aspects of the plan including, but not limited to:

- 1) Timing requirements for data collection
- 2) The need to collect and analyze data in order to recommend the subsequent long term plan
- 3) Appropriate number and type of survey bench marks
- 4) Location of monitoring points
- 5) Appropriate monitoring methods
- 6) Data collection, calculation, and reporting frequencies

**Summary**

Work has already commenced to install portions of the monitoring equipment including transducers in selected wells and the piezometer. Authorization of the plan would allow for continuation of the monitoring plan as outlined.

Mark Wildermuth and Andy Malone will present the work plan and budget at the meeting, as well as a status report on the installation of the piezometer and extensometer. They will be prepared to answer questions regarding the plan and budget.

Staff and the Technical Committee recommend that the Watermaster implement the plan and re-program authorized budget funding for fiscal 2002 – 2003 to fund the work plan implementation. Funding for year two of the plan would be requested as part of the Watermaster budget process.



# Chino Basin Watermaster

## OPTIMUM BASIN MANAGEMENT PROGRAM

### MANAGEMENT ZONE 1 (MZ-1) INTERIM MONITORING PROGRAM

#### DRAFT WORK PLAN



*Prepared by*  
Wildermuth Environmental, Inc.

**January 8, 2003**

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### ACRONYM AND ABBREVIATIONS LIST

CIM	California Institution for Men
GPS	Global Positioning System
InSAR	Synthetic Aperture Radar Interferometry
MZ-1	Management Zone 1
WEI	Wildermuth Environmental, Inc.



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# MANAGEMENT ZONE 1 (MZ-1) INTERIM MONITORING PROGRAM

## 1. BACKGROUND

The area underlying the City of Chino and the California Institution for Men (CIM) has experienced ground fissuring as early as 1973, but an accelerated occurrence of ground fissuring ensued during the early 1990s. A common cause of ground fissuring within alluvial basins is the removal of subsurface fluids resulting in compaction of poorly-consolidated aquifer materials and land subsidence (Galloway *et al.*, 1998; USGS, 1999). A number of studies have attributed this process to the ground fissuring and land subsidence that has occurred in this area (Fife *et al.*, 1976, Kleinfelder, 1993, 1996, 1999; Geomatrix, 1994).

The City of Chino commissioned a number of repeat vertical-control benchmark surveys from 1987 through 2001 that have documented the land subsidence that has occurred within Chino (Kleinfelder, 1993, 1996, 1999; Associated Engineers 2000, 2002). Remote sensing studies of subsidence were conducted for the City of Chino (Peltzer, 1999a, 1999b) and Chino Basin Watermaster (WEI, 2002) to further characterize subsidence in Chino Basin. These studies employed Synthetic Aperture Radar Interferometry (InSAR), which utilizes radar imagery from an Earth-orbiting spacecraft to map ground surface deformation. The InSAR studies independently confirmed the location and relative magnitude of subsidence in Management Zone 1 as defined by benchmark surveys and have indicated the occurrence of subsidence north and northeast of the City of Chino.

## 2. MZ-1 INTERIM MONITORING PROGRAM

*Program Element 4* (of the Optimum Basin Management Program) – *Develop and Implement a Comprehensive Groundwater Management Plan for Management Zone 1* relates specifically to ground fissuring and land subsidence in the Chino Basin. This program element calls for the development and implementation of an Interim Management Plan for MZ-1 that will:

- Minimize subsidence and fissuring in the short-term
- Collect information necessary to understand the extent, rate, and mechanisms of subsidence and fissuring
- Formulate a long-term management plan

The MZ-1 Interim Monitoring Program (IMP) is being developed and implemented to address the second bullet above. The data collected and analyzed as part of this effort will be utilized to develop effective management tools and, ultimately, a long-term management plan that will minimize or completely abate ground fissuring and subsidence in Management Zone 1.

The IMP consists of three main elements: benchmark survey, InSAR, and aquifer-system monitoring. The benchmark surveys and the InSAR analyses will monitor deformation of the land surface. Aquifer-system monitoring will measure the hydraulic and mechanical changes within the aquifer-system that cause land surface deformation.



### 3. BENCHMARK SURVEYS

InSAR data indicate that the west side of Chino Basin is experiencing persistent subsidence over time (see Figure 1). Repeated benchmark surveys will be performed to measure vertical (and in some cases horizontal) ground surface deformation along selected profiles within Chino Basin – mainly on the west side. The benchmark surveys will (1) establish a datum from which to measure land surface deformation during the IMP period, (2) allow determination of historical subsidence at any historical benchmarks that can be recovered, (3) “ground-truth” the InSAR data, and (4) evaluate the effectiveness of the long-term management plan.

Figure 1 depicts the locations of nine proposed benchmark survey profiles that traverse about 25 linear miles along major streets on the west-side of Chino Basin. All of these profiles will measure vertical displacement of the land surface over time. Portions of two of these profiles (along Eucalyptus and Edison avenues) will be aligned across (perpendicular to) the known fissure zone and will measure both vertical and horizontal displacement over time.

The physical benchmarks will consist of a combination of about 90 permanent Class-A and Class-B benchmark monuments. Class-A benchmarks are designed to enhance the precision of repeat leveling surveys by minimizing the errors due to near-surface changes in soil moisture and temperature. Figure 2 is a schematic diagram of a typical Class-A benchmark. It consists of a steel rod driven to refusal and decoupled from the shallow soil by enclosure in a PVC casing set to a depth of about 10 feet below land surface. Class-B benchmarks are not designed to minimize errors due to near-surface changes in soil moisture and temperature, and typically consist of a steel spike and brass cap driven into concrete (e.g. sidewalk).

The benchmark surveys will utilize about 30 existing Class-B benchmarks that were installed by the City of Chino for its benchmark survey program (1987-2002).

#### 3.1 Lines That Measure Vertical Displacement Only

The survey profiles that will measure vertical displacement only will consist of permanent benchmarks with spacing of ¼-½ mile along each profile. The major streets that these profiles will follow are Monte Vista Avenue, Central Avenue, Philadelphia Street, Riverside Drive, Chino Avenue, Schaefer Avenue, and Kimball Avenue (see Figure 1). The Kimball Avenue profile runs along the southern boundary of the Chino-I Desalter well field – an area where past InSAR data are absent – in an attempt to measure land surface deformation, if any, caused by desalter production. Ultimately, this profile will be extended to run through the Chino-II Desalter well field, once that well field is constructed.

The initial leveling survey along these lines will commence in April 2003, just prior to the upcoming pumping season and coincident with maximum seasonal groundwater-level recovery in Chino Basin. The elastic rebound of the land surface due to the recovery of groundwater levels should be near a maximum in April. These lines will be surveyed again one-year later in April 2004, and thence, every two years. The consistency of surveying in April will allow measurement of the persistent subsidence while minimizing the interference of elastic land surface deformation caused by seasonal pumping and recharge of the underlying aquifer-system.





### 3.2 Profiles That Measure Vertical and Horizontal Displacement

Portions of the two benchmark profiles aligned along Edison and Eucalyptus avenues will measure both vertical and horizontal displacement of the land surface. Vertical displacement will be measured at all benchmarks along these profiles, but at selected benchmarks on either side of the known fissure zone, horizontal displacement between adjacent benchmarks also will be measured. The information obtained from the measurement of horizontal displacement between adjacent benchmarks will be used to develop and recommend a more refined horizontal monitoring program for the fissure area. The future program may involve horizontal extensometers.

### 3.3 Starting Benchmark

All surveys will be started from a Class-A benchmark located near the Ayala Park Extensometer facility near the intersection of Central and Edison avenues. An absolute elevation will be determined for this benchmark, using survey-grade global positioning system (GPS). This benchmark will then be surveyed to the deep extensometer, which is anchored at depth in bedrock, and hence, is expected to be a stable benchmark unaffected by land surface deformation caused by aquifer-system compaction and expansion.

### 3.4 Cost Estimates

A budget-level cost estimate for benchmark installations and the initial survey is shown below in Table 1. A detailed cost estimate is in preparation but will depend on the final profile alignments and monument spacing intervals agreed upon by the MZ-1 Technical Committee.

## 4. SYNTHETIC APERTURE RADAR INTERFEROMETRY (INSAR)

Whereas benchmark survey data are a measure of ground deformation at specific points on the land surface, InSAR data provide a measure of land surface deformation over a continuous grid of the land surface. InSAR data that can be used for land surface deformation studies were acquired by the European Space Agency satellites ERS-1 and ERS-2. These data are available from 1992 to the present. A third satellite, ENVISAT, has been launched and will be acquiring data for sale in spring 2003.

### 4.1 Historical InSAR

In the past, the City of Chino and Watermaster have, in separate efforts, acquired InSAR imagery and prepared interferograms covering periods ranging from one to three years. The coherency of these interferograms in the agricultural areas and part of CIM was poor and, therefore, the interferograms were unable to produce information on land surface changes in these areas. The coherency of interferograms created from InSAR images closer in time such as a month or two (as opposed to one to three years) may be much better and provide useful information on land surface changes in agricultural and CIM areas. Interferograms created from InSAR imagery taken one to two months apart can be used to estimate the time history of subsidence in the Chino Basin. Watermaster proposes to acquire all available imagery for the period 1992 to the present. Interferograms, created from this imagery will be used to estimate a time history of the land surface changes from 1992 to the present. These data will be used to characterize the area and historical rate of subsidence in the Chino Basin and could be used later to calibrate a numerical model that could be used to evaluate future management plans.



Initially, Watermaster proposes to acquire and process a portion of the available InSAR imagery for the period 1992 through 1993 to determine if the interferograms created from InSAR imagery taken one to two months apart will be coherent and provide subsidence data throughout the entire Basin. If successful, Watermaster would acquire the remaining imagery and estimate a time history of the land surface changes from 1992 to the present.

#### 4.2 Future InSAR

Watermaster proposes to acquire InSAR imagery to monitor ongoing subsidence for the duration of the IMP. Imagery will be acquired and analyzed at frequency to maximize coherence and information regarding subsidence in the Basin.

#### 4.3 Cost Estimates

In preparation.

### 5. AQUIFER-SYSTEM MONITORING

Aquifer-system monitoring will measure the stresses within the aquifer-system that cause the land surface deformation that will be measured by benchmark surveys, InSAR, and the extensometers (described below). The centerpiece of the aquifer-system monitoring program is the Ayala Park Extensometer – a highly sophisticated monitoring facility consisting of two multi-piezometers and dual-extensometer that will be located just north of CIM property in Ayala Park. This facility will monitor the hydraulics and mechanics of the underlying aquifer-system as the aquifer-system undergoes various stresses due to groundwater production and recharge. The construction of this facility, and the subsequent aquifer-system monitoring and testing, will proceed in two phases: an initial reconnaissance study followed by a comprehensive investigation.

#### 5.1 Reconnaissance Phase

The Reconnaissance Phase of aquifer-system monitoring includes construction of two multiple-depth piezometers at Ayala Park followed by several months of aquifer-system monitoring and testing. The multiple-depth piezometers consist of eleven (11) isolated completions at various depths through the entire saturated column of aquifer sediments. Nine of the piezometers are completed within coarser-grained aquifer sediments, and two of the piezometers are completed within finer-grained aquitard sediments. Pressure transducers equipped with data-loggers continuously record piezometric levels (one record every 5-15 minutes) at each piezometer.

Until the construction and completion of the extensometer (Spring 2003), Watermaster proposes to, among other activities, conduct aquifer stress tests (pumping tests) and monitor water levels and groundwater production at nearby monitoring wells and production wells. These initial months of monitoring and testing are reconnaissance in nature, and are intended to assist in the development of the Comprehensive Phase of monitoring and testing to be initiated after completion of the extensometer (see below).

All groundwater producers in MZ-1 will be asked to participate in both phases of aquifer-system monitoring; however, the major groundwater producers closest to the Ayala Park Extensometer,



specifically the City of Chino, City of Chino Hills, and CIM, are being asked to participate in greater scope (see Table 2).

Aquifer-system stresses will be applied by pumping wells that surround the Ayala Park Extensometer. Continuous monitoring of pumping and the water levels at the multi-piezometer will demonstrate how pore pressure changes propagate horizontally and vertically through the aquifer-system. Analyses of these data will assist in the development of the Comprehensive Phase of aquifer-system testing and monitoring, assist in the design of the shallow extensometer, and, potentially, provide estimates of aquifer-system parameters for later use in groundwater flow models.

This program requires that groundwater production be continuously monitored at nearby pumping wells (wells within about 1.5 miles of the Ayala Park Extensometer). The data collected at each well will be:

- Time on
- Time off
- Pumping rate
- Water level

Time on/off and water levels can be recorded by installing pressure transducers equipped with data-loggers in each pumping well. Average pumping rates are typically known by operations staff. Pressure transducers also will be installed in other nearby non-pumping wells to monitor water levels. Figure 3 shows the wells that are proposed to participate in the Reconnaissance Phase of aquifer-system testing and monitoring.

If and when possible, Watermaster will request "controlled" pumping of various wells, which would possibly require modification of the normal pumping schedules. Watermaster realizes this may not be possible given water supply constraints and the current Interim Management Plan forbearance agreement. Controlled aquifer stress testing will likely consist of pumping designated wells continuously at a constant rate for a period of 3-10 days.

## 5.2 Comprehensive Phase

The Comprehensive Phase of aquifer-system monitoring includes construction of a dual-borehole extensometer at Ayala Park followed by several months of aquifer-system monitoring and testing. The construction of the extensometer is expected to be complete in spring of 2003. The dual-borehole extensometer will measure differential consolidation in the aquifer-system sediments underlying the City of Chino and CIM and, from these observations, provide valuable information on the physical properties and conditions of the compressible sediments. A schematic diagram of the dual-borehole extensometer is shown in Figure 4.

The period of monitoring and testing of the aquifer-system following extensometer completion will be similar to the Reconnaissance Phase, except more focused with longer duration of pumping tests at surrounding wells. Aquifer-system stresses will be applied by pumping wells that surround the Ayala Park Extensometer. Continuous monitoring of the surrounding pumping, the water levels at the multi-piezometer and other nearby wells, and the aquifer-system deformation recorded at the extensometer will demonstrate how pore pressure changes propagate horizontally and vertically through the aquifer-system and how these pore pressure changes deform the aquifer-system sediments. Analyses of these data will



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provide estimates of aquifer-system parameters for input to predictive tools that can be used to develop a long-term management plan for Management Zone 1.

## 6. REPORTING

Watermaster proposes to make all monitoring data available to the members of the Technical Committee for their review and use. The data will be provided in digital format as they are collected and organized.

Watermaster will prepare a quarterly monitoring report for the Technical Committee and the Court. These reports will cover monitoring periods ending January 31, April 30, July 30, and October 31, and will be presented as a draft to the Technical Committee at a regular quarterly meeting. The Technical Committee will have one week to submit comments. The report content will be cumulative, that is, they will contain data and analyses from the start of the monitoring program. Each report also will provide a summary of the content of the Technical Committee meetings and comments, if any. The report will then proceed through the Watermaster process (Pool, Advisory, and Board review), and will be submitted to the Court at the end of each calendar quarter as final.

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**Table 1**  
**Budget-Level Cost Estimate for Benchmark Surveys**  
*Fiscal Year 2002/03*

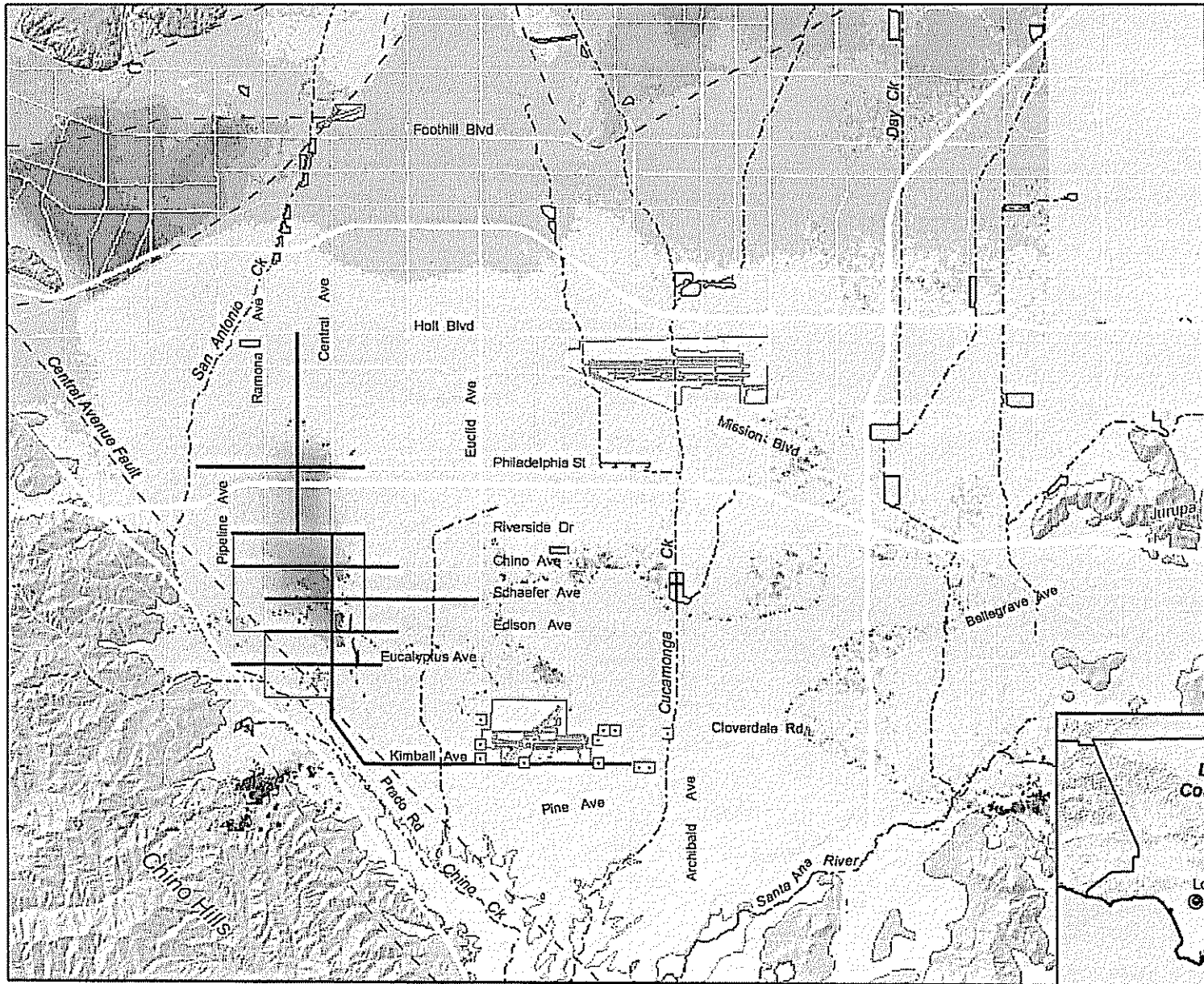
<i>Description</i>					<i>Cost</i>			
<b>Line</b>	<b>Length</b>	<b>New Class-A Monument</b>	<b>New Class-B Monument</b>	<b>Existing Class-B Monuments</b>	<b>Monument Installation Cost</b>	<b>Vertical-Control Survey</b>	<b>Vertical/Horizontal-Control Survey</b>	<b>Total Line Cost</b>
	miles	\$610/monument	\$150/monument	no cost		\$1,000/mile		
Monte Vista	3.00	2	6	1	\$2,120	\$3,000		\$5,120
Central	2.80	0	5	2	\$750	\$2,800		\$3,550
Philadelphia	2.50	3	7	1	\$2,880	\$2,500		\$5,380
Riverside	2.00	2	2	5	\$1,520	\$2,000		\$3,520
Chino	2.50	0	0	6	\$0	\$2,500		\$2,500
Schaefer	3.25	3	4	7	\$2,430	\$3,250		\$5,680
Edison	2.00	4	1	5	\$2,590	\$2,000	\$3,550	\$8,140
Eucalyptus	2.00	3	4	3	\$2,430	\$2,000		\$4,430
Kimball	4.80	4	7	0	\$3,490	\$4,800		\$8,290
Extensometer	0.15	1	0	0	\$610	\$150		\$760
<b>Totals</b>	<b>25.00</b>	<b>22</b>	<b>36</b>	<b>30</b>	<b>\$18,820</b>	<b>\$25,000</b>	<b>\$3,550</b>	<b>\$47,370</b>

**Table 2  
Wells within Aquifer-System Monitoring Program**

Pumper	Total Number of Wells	Number of Wells Involved in			
		Long-term Continuous Piezometric Level Monitoring <sup>1</sup>	Long-term Continuous Pumping Monitoring <sup>2</sup>	Cooperative Piezometric Level Monitoring <sup>3</sup>	Cooperative Monthly Production Monitoring
Ayala Park Extensometer	11	11	0	0	0
CIM	48	14	7	34	3
City of Chino	16	9	9	7	0
City of Chino Hills	16	14	12	2	1
Monte Vista Water District	21	0	0	21	15
City of Ontario	4	0	0	4	3
City of Pomona	22	0	0	22	20
City of Upland	6	0	0	6	6
San Antonio Water Company	5	0	0	5	3

Notes: 1-- equipped with water level transducers at a sampling rate of 15 minutes or less; 2 -- includes wells with water level transducers or SCADA; 3 -- measurements made by well owners at sampling rate to be determined, but not greater than once every two weeks



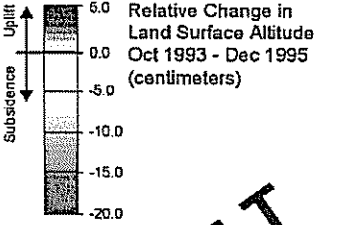


**Main Map Features**

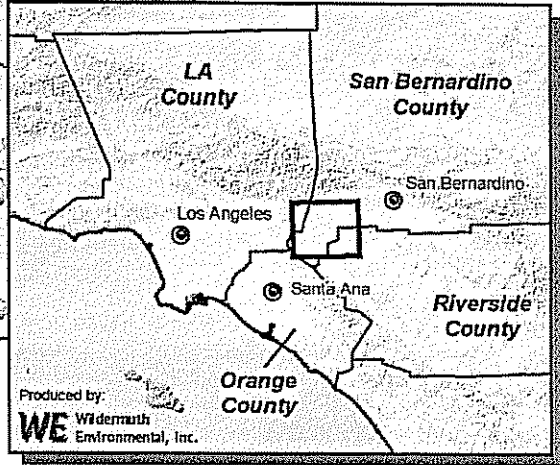
— Benchmark Survey Line

**Other Features**

- Chino-I Desalter Well
- ~ Ground Fissure (1994)
- Extent of Chino Surveys (1987-2001)

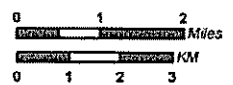


**DRAFT**



**Benchmark Surveys**  
MZ-1 Interim Plan Monitoring Program

**Figure 1**



Author: AEM  
Date: 20030108  
File: bm\_surveys.mxd

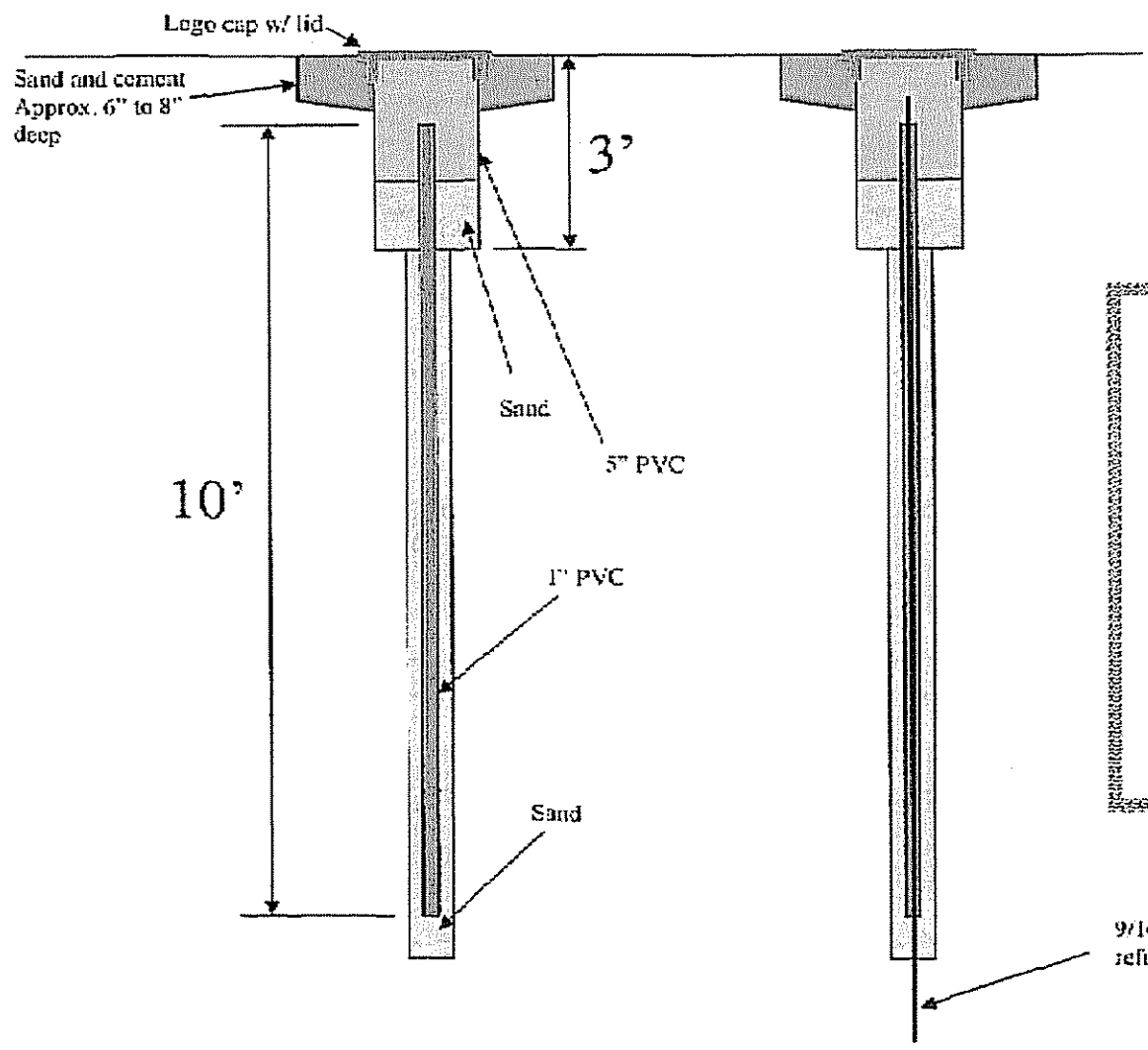
Produced by:  
**WE** Willemuth  
Environmental, Inc.

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**Figure 2**

# Class A bench mark

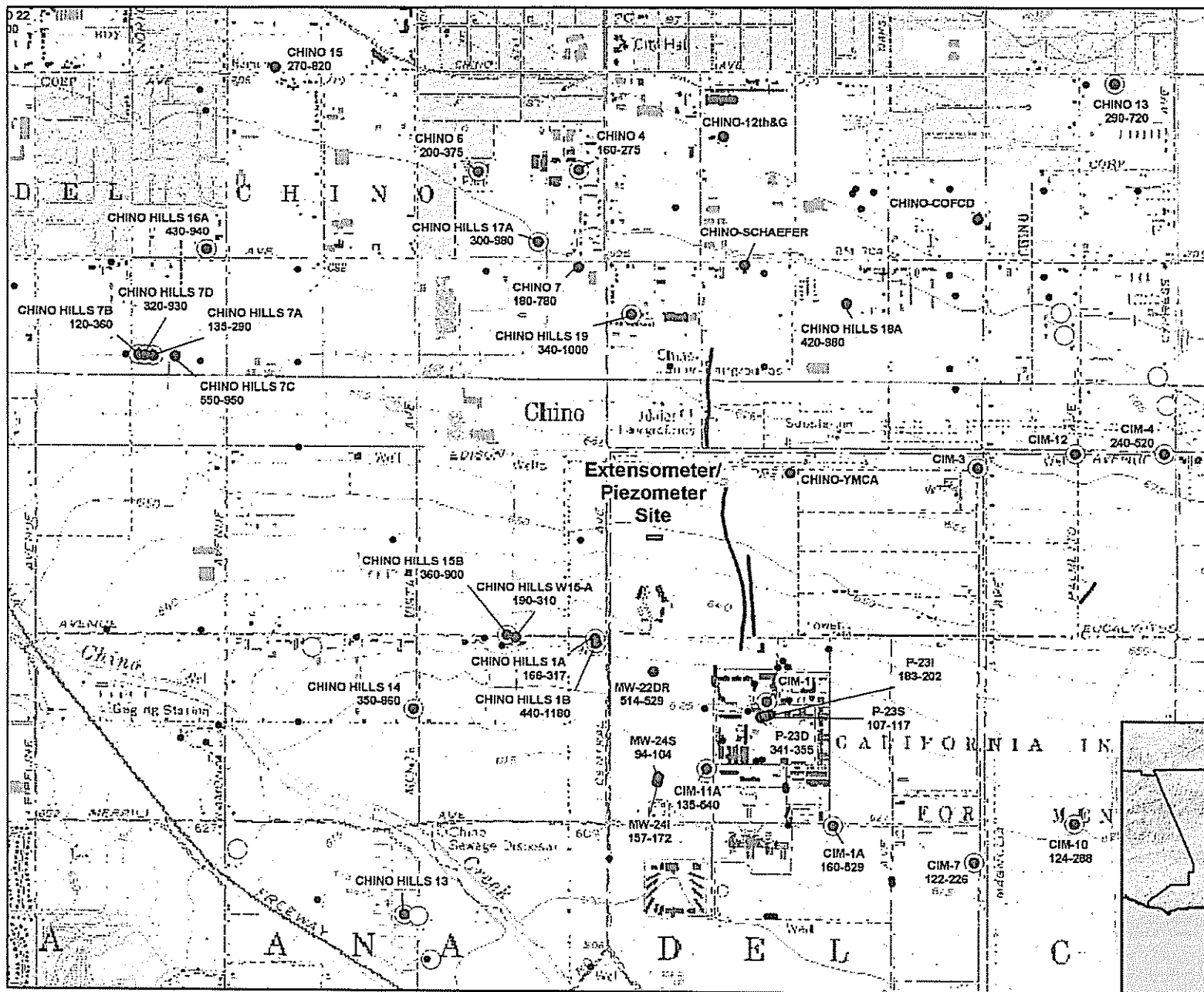
Not to scale



- Material List**
- 1: 10'x-1" PVC pipe w/ 1 end capped w/ 5/8" hole. Other end is taped closed and pipe filled with food grade grease. Pipe installed cap end up. ( we will provide)
  - 1: Aluminum logo ring with lid. ( we will provide)
  - 1: 5" schedule 40 PVC x 3'
  - Approx. 1 bags play sand
  - Approx. 1 bag sand and cement mix

9/16" stainless steel rod driven to refusal will be done by HGCSO

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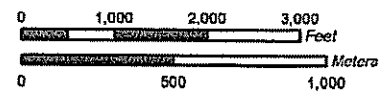
- Main Map Features**
- Reconnaissance Test Well
  - Active Well
  - Inactive or Destroyed Well
  - ~ Ground Fissure (1994)

**DRAFT**

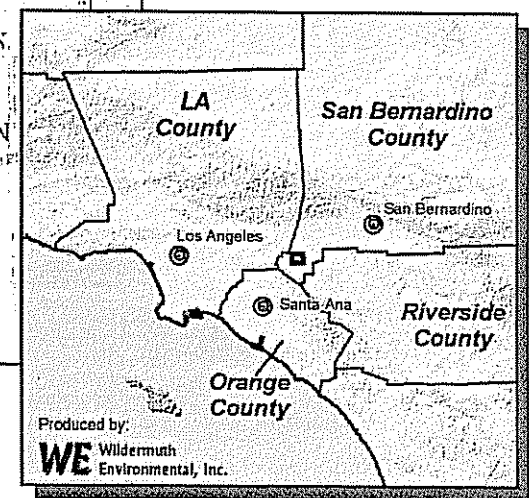
Reconnaissance Monitoring Program  
M2-1 Interim Plan Monitoring Program



Figure 3

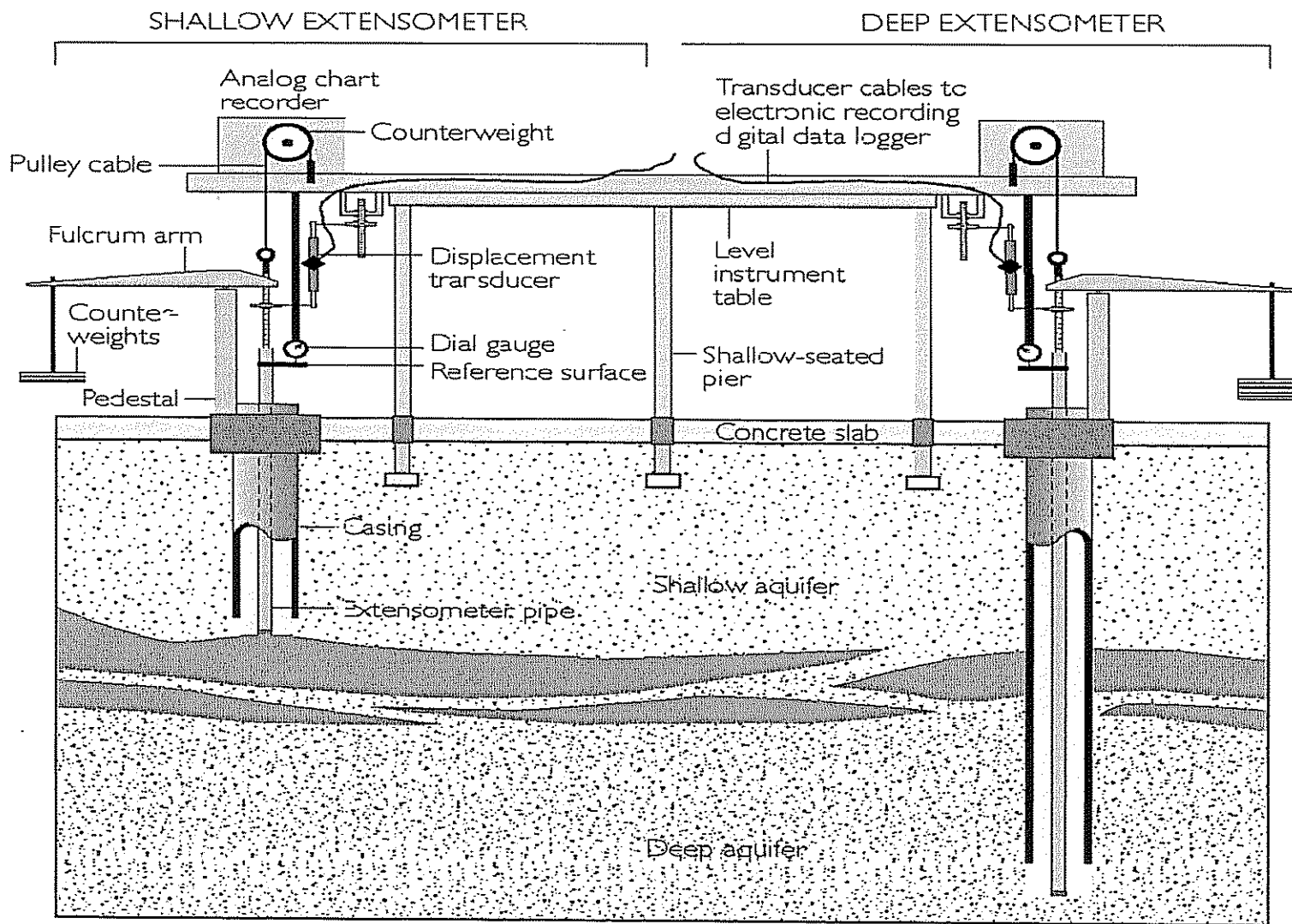


Author: AEM  
Date: 20021011  
File: Recon\_Program.mxd



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**Figure 4**  
**Schematic of Dual-Borehole Extensometer**

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**Table 1**  
**Work Breakdown Structure and Budget-Level Cost Estimate to Conduct MZ-1 Monitoring Program at Outlying Wells**  
**FY 2002/2003**

Task/Subtask/Description	Labor Cost							Other Direct Costs					Total for Project	Task Totals	
	Principal	Supervising	Senior	Field Tech / Clerical <sup>(1)</sup>	Task Repetition Multiplier	Total Labor		Travel	New Equipment and Expendables	Subconsultants	Reproduction	Misc			Total ODC
						Person Days	Cost								
<b>Task 1 -- Installation and Setup</b>															
1.1 Program design and equipment order	1	1	5		1	7	\$5,840						\$0	\$5,840	
1.2 Installation of 37 transducers		5	5	10	1	20	\$13,600	\$1,284	\$18,000				\$19,284	\$32,884	
1.3 Construct database for data storage and retrieval		5	1		1	6	\$4,960						\$0	\$4,960	\$43,684
<b>Task 2 -- Aquifer-System Monitoring and Testing</b>															
2.1 Data collection and organization															
Download data from transducers (1/03)			1		1	1	\$760	\$48					\$48	\$808	
Download data from transducers (2/03)			2.5		1	2.5	\$1,900	\$48					\$48	\$1,948	
Download data from transducers (4/03-6/03)			3.5		2	7	\$5,320	\$95					\$95	\$5,415	
Process and upload data to database		1	2		4	12	\$9,440						\$0	\$9,440	
2.2 Reconnaissance Aquifer-System Testing									\$1,000				\$1,000	\$1,000	
Design and coordinate pumping tests		1	2		1	3	\$2,360	\$48					\$48	\$2,408	
Data analysis	0.25	1	2		1	3.25	\$2,660						\$0	\$2,660	\$23,678
<b>Task 3 -- Ground-Level Surveys</b>															
3.1 Final design/specs/contract of benchmark network		2	2		1	4	\$3,200	\$48					\$48	\$3,248	
3.2 Spring 2003 ground-level survey			2		1	2	\$1,520			\$47,350			\$47,350	\$48,870	
3.3 Construct database for data storage and retrieval		1			1	1	\$840						\$0	\$840	
3.4 Process and upload data to database		1	1		1	2	\$1,600						\$0	\$1,600	\$54,558
<b>Task 4 -- InSAR</b>															
4.1 Final specs/contract for InSAR analysis	2		2		1	4	\$3,920	\$57					\$57	\$3,977	
4.2 Reconnaissance historical InSAR analysis			1		1	1	\$760			\$5,000			\$5,000	\$5,760	
4.3 Process and upload data to database			2		1	2	\$1,520						\$0	\$1,520	\$11,257
<b>Task 5 -- Data Analysis and Reports</b>															
5.1 Data Analysis															
Piezometric data	0.5	2	3		2	11	\$9,120						\$0	\$9,120	
Survey data			1		1	1	\$760						\$0	\$760	
InSAR data			3		1	3	\$2,280						\$0	\$2,280	
5.2 Progress reports to Tech Committee and Court															
Prepare draft report and summary for Court	0.25	1	3		2	8.5	\$6,840				\$200		\$200	\$7,040	
Prepare draft final report and summary for Court	0.25	0.5	1.5		2	4.5	\$3,720				\$200		\$200	\$3,920	\$23,120
<b>Task 6 -- Meetings</b>															
6.1 Scheduled MZ-1 Technical Committee meetings		2	2		3	12	\$9,600	\$1,943			\$300		\$2,243	\$11,843	
6.2 Ad Hoc meetings		1	2		2	6	\$4,720	\$1,295			\$200		\$1,495	\$6,215	\$18,058
<b>Contingencies</b>															
Maintenance/replacement of transducers				3	1	3	\$1,680	\$48	\$800				\$848	\$2,528	
Other													\$0	\$0	\$2,528
<b>Total</b>						126.75	\$98,920						\$77,961	\$176,881	

(1) May be Watermaster staff