

FILED by order  
of the Board of Directors of  
The Metropolitan Water District  
of Southern California  
at its meeting held FEB 8 1994

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**MWD**

METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

*Loren E. Duff*  
Executive Secretary

9-1(ii)

January 13, 1994

To: Board of Directors  
From: General Manager  
Subject: Operating Data for December 1993

The following tables contain December 1993 data on Metropolitan's water and power sales and purchases, treatment plant operations, reservoir storage, financial status, construction, and employment; Los Angeles Civic Center rainfall and temperature readings; and a forecast of unimpaired runoff in Sacramento Valley river basins.

WATER SALES

	December <u>1993</u> AF	November <u>1993</u> AF	December <u>1992</u> AF	Total Fiscal <u>Year to Date</u> AF
<b>TOTAL WATER SALES</b>	130,223	159,779	166,110	1,004,044
<b>REVENUE</b>	41,718,672	52,939,405	43,726,639	331,395,863
<b>BASIC SERVICE</b>	84,750	129,165	114,309	751,468
<b>AGRICULTURAL</b>	2,825	1,267	2,623	15,314
<b>SPREADING</b>	0	0	0	0
<b>BARRIER INJECTION</b>	2,405	2,512	2,712	16,388
<b>SEASONAL STORAGE</b>				
Spreading	1,970	1,845	36,199	28,370
Reservoir Storage	3,924	1,913	1,012	9,770
In-Lieu	33,262	20,715	8,173	170,109
<b>RECLAIMED</b>	1,087	2,362	1,082	12,625
<b>TREATED</b>	91,041	103,771	83,259	698,440
<b>UNTREATED</b>	38,095	53,646	81,769	292,979

(See Tables A, B, and C for details.)

METROPOLITAN'S STATE WATER PROJECT (SWP)  
CHARGES AND PAYMENTS--FISCAL YEAR 1993/94

The following table shows a comparison of totals from July 1, 1993, through December 31, 1993:

<u>Components*</u>	<u>SWP Statement of Charges to Date**</u>	<u>1993/94 Annual Budget to Date</u>	<u>Amount Paid to Date**</u>
Capital	66,295,312	66,250,000	66,295,312
Minimum	46,163,207	48,468,000	46,163,207
Power	<u>76,480,709</u>	<u>57,316,000</u>	<u>14,640,541</u>
Total	<u>\$188,939,228</u>	<u>\$172,034,000</u>	<u>\$127,099,060</u>

\* The component designations combine the Delta Water Charge and Transportation Charge components with similar names except that power charges and credits have been excluded from the minimum components and combined with other power charges and credits under the "Power" components.

\*\* The difference between the Statement of Charges to Date and the Amount Paid to Date is due to changes in the Variable OMP&R water quantities, revised off-aqueduct power charges, and the application of power credits.

POWER FOR PUMPING

The following quantities of electric energy were generated for Metropolitan's pumping system in December 1993:

<u>Colorado River Energy</u>	<u>Kwh</u>
Hoover Power Plant	100,845,000
Parker Power Plant	<u>11,396,000</u>
Subtotal	112,241,000
Southern California Edison (SCE)	
Benefit Energy	14,801,909
SCE Exchange Energy	0
SCE Purchased Energy	35,955,000
California Department of Water	
Resources (DWR) Purchased Energy	7,407,000
Other Purchased Energy	<u>49,857,000</u>
Total Generated for Metropolitan	220,261,909
Colorado River Aqueduct (CRA)	
Power Available to DWR	0
CRA Power Available to SCE	0

HYDROELECTRIC POWER RECOVERY PLANTS--FISCAL YEAR 1993/94  
ENERGY AND REVENUE ACCOUNT

December 1993

<u>PLANT</u>	<u>Energy Sales (Kwh)</u>		<u>Gross Energy Revenue</u>	
	<u>This Month</u>	<u>F.Y. to Date</u>	<u>This Month</u>	<u>F.Y. to Date</u>
PHASE I				
Greg Avenue	0	2,026,019	\$0.00	\$91,211.37
Lake Mathews	2,796,000	16,849,954	125,875.92	758,584.93
Foothill Feeder	3,792,000	31,081,370	170,715.84	1,399,283.28
San Dimas	1,224,000	19,849,929	55,104.48	893,643.80
Yorba Linda	<u>3,066,000</u>	<u>16,264,048</u>	<u>138,031.32</u>	<u>732,207.44</u>
Subtotals	10,878,000	86,071,320	489,727.56	3,874,930.82
PHASES II-IV				
Sepulveda Canyon	816,000	16,488,000	30,645.58	975,839.84
Venice	0	9,792,000	0.00	594,650.71
Temescal	1,959,000	10,287,000	73,918.06	509,908.37
Corona	1,839,000	10,020,000	69,227.69	496,037.38
Perris	0	0	0.00	0.00
Rio Hondo	742,000	6,114,000	28,089.56	318,982.85
Coyote Creek	1,560,000	8,883,000	58,906.30	435,398.67
Red Mountain	0	5,712,000	0.00	343,283.97
Valley View	<u>0</u>	<u>4,108,000</u>	<u>0.00</u>	<u>246,677.24</u>
Subtotals	6,916,000	71,404,000	260,787.19	3,920,779.03
Total	<u>17,794,000</u>	<u>157,475,320</u>	<u>750,514.75</u>	<u>7,795,709.85</u>

WATER QUALITY--FILTRATION PLANT EFFLUENT (Average for Month)

<u>Quality</u>		<u>Diemer</u>	<u>Jensen</u>	<u>Weymouth</u>	<u>Skinner Plant 1</u>	<u>Skinner Plant 2</u>	<u>Mills</u>
Hardness--mg/l as CaCO <sub>3</sub>	Dec. 93	312*	190*	313*	329*	329*	91*
	Nov. 93	292	195	295	327	332	89
	Dec. 92	319	169	322	312	312	135
Total Dissolved Solids--mg/l	Dec. 93	665**	415**	664**	698**	696**	211**
	Nov. 93	621	419	622	693	697	203
	Dec. 92	680	430	682	671	671	441

\* Preliminary

\*\* Estimate

(See Table D for Analysis of Water Supplies.)

WATER PROCESSED

		<u>Diemer</u> AF	<u>Jensen</u> AF	<u>Weymouth</u> AF	<u>Skinner</u> AF	<u>Mills</u> AF
<u>Individual Plant</u>	Dec. 1993	33,732	12,317	26,789	14,864	3,554
	Nov. 1993	39,864	13,002	28,908	18,391	41,067
	Dec. 1992	27,578	14,960	24,002	15,377	2,421
		<u>Avg.</u> <u>Rate</u> cfs	<u>Ann.</u> <u>Diff.</u> %	<u>Treated</u> AF		<u>Total Fiscal</u> <u>Year to Date</u> AF
<u>Total all Plants</u>	Dec. 1993	1,484	+8	91,256		742,224
	Nov. 1993	2,374	+37	141,232		650,968
	Dec. 1992	1,372	-11	84,338		696,612

RESERVOIR STORAGE

	<u>Usable</u> <u>Storage</u> %	<u>Dec.</u> <u>1993</u> AF	<u>Nov.</u> <u>1993</u> AF	<u>Dec.</u> <u>1992</u> AF	<u>Annual</u> <u>Difference</u> AF
<u>Distribution</u>					
Lake Mathews	70	126,795	123,983	117,154	9,641
Lake Skinner	87	38,220	34,651	37,184	1,036

Colorado River Basin

Upper Basin	78	24,223,000	24,720,000	18,755,000	5,468,000
Lower Basin	82	23,487,000	23,332,000	21,902,000	1,585,000

(See Table E for details.)

State Water Project

Oroville	68	2,400,300	2,597,424	1,372,410	1,027,890
San Luis (State)	99	1,062,556	907,062	379,762	682,794
Pyramid	93	155,501	156,074	156,423	(922)
Castaic	68	207,156	184,651	220,831	(13,675)
Silverwood	77	54,763	68,039	61,171	(6,408)
Perris	91	116,497	116,947	110,904	5,593

Central Valley Project

Clair Engle	77	1,882,480	1,871,480	679,580	1,202,900
Shasta	64	2,846,110	2,804,410	1,972,910	873,200
Folsom	39	393,100	429,600	259,900	133,200
New Melones	31	747,500	709,000	115,600	631,900
San Luis (federal)	94	916,894	779,694	144,644	772,250

FINANCE INVESTMENT PORTFOLIO (FACE VALUE AT MATURITY)

<u>Securities</u>	<u>12-31-93 Balance</u>	<u>Percent</u>
U.S. Treasury Obligations	\$ 266,409,000	23.4
U.S. Guarantees - GNMA's	4,180,000	.4
Federal Agency Obligations	168,907,000	14.9
Repurchase Agreements	246,736,000	21.7
Bankers Acceptances	-	-
Commercial Paper	191,153,000	16.8
Negotiable Certificates of Deposit	46,209,000	4.1
Local Agency Investment Fund	215,000,000	18.9
California G.O. Bond (SWP)	35,000	-
Cash and Equivalents:		
MWD Federal Credit Union	100,000	-
Demand Accounts	\$ 1,172,000	
Petty Cash and Draft Account	68,000	
Overnight Investments	<u>(\$2,969,000)</u>	<u>(.2)</u>
<b>TOTAL</b>	<b><u>\$ 1,137,000,000</u></b>	<b><u>100.0</u></b>

Yield Comparisons (Percent)

	11-30-93	12-31-93
	<u>(12-Month Moving Average)</u>	
1-Year Treasury Bill	3.4	3.6
1-Year Time Deposit	3.0	3.0
6-Month Treasury Bill	3.3	3.3
6-Month Time Deposit	2.8	2.8
Portfolio Yield (Range)	3.9	3.9 (3.0% to 10.3%)

(See Tables F for financial summaries.)

CONSTRUCTION PROGRESS FOR DECEMBER 1993

Contract Administration Branch, Field Inspection Branch, and Technical Support Branch continued their respective work-related duties through the month, in conjunction with 11 construction contracts having a contract value in excess of \$206.2 million. Contract earnings under these contracts were approximately \$6,035,069 during the month. Status of these contracts at the end of the month follows:

	<u>PERCENT COMPLETED</u>	<u>ESTIMATED COMPLETION</u>
Cathodic Protection System for East Orange County Feeder No. 2	86	January 1994
Etiwanda Power Plant	94	February 1994

Construction of San Diego Canal Relocation	77	February 1994
Seismic Upgrading of La Verne Maintenance Shop Building	27	March 1994
Lake Skinner Outlet Tower and Bypass Lines Chlorination Project	55	May 1994
Electrolysis Monitoring Stations at Metro Blue Line Crossings	0	May 1994
Joseph Jensen Filtration Plant Expansion No. 1	84	December 1994
Henry J. Mill Filtration Plant Expansion No. 2	3	August 1996

There was one construction contract awarded during the month. A contract in the amount of \$1,232,351 was awarded to Inland Asphalt and Coating, and Space Leasing Co., Inc., a Joint Venture, covering the construction of a field office at Domenigoni Valley Reservoir site.

There were two construction contracts completed during the month. Site preparation for the Henry J. Mills Filtration Plant Expansion No. 2 was completed by Kiewit Pacific Company on December 6, 1993, and construction of the maintenance building and operations building annex at the Mills Plant was completed on December 10, 1993.

DECEMBER RAINFALL AT LOS ANGELES CIVIC CENTER (INCHES)

During the Month	0.78
Total for Season (Fiscal Year)	1.60
Normal for Season to Date	4.42
Difference from Normal	-2.82
Percent of Normal	36

DECEMBER TEMPERATURES AT LOS ANGELES CIVIC CENTER (DEGREES F)

Average Maximum	71.5
Average Minimum	50.1
Average	60.8
30-Year Normal	58.3

EMPLOYMENTRegular Employees by Division/Department

	<u>Dec. 1992</u>	<u>Dec. 1993</u>	<u>Difference</u>
Engineering	379	409	+ 30
Operations	963	949	- 14
Other Divisions and Departments	<u>710</u>	<u>715</u>	<u>+ 5</u>
<u>Total Regular Employees</u>	2,052	2,073	+ 21
<u>Full-Time Equivalent (FTE)--</u> <u>Temporary Employees*</u>	75	77	+ 2
<u>Total Sunset Employees</u>	628	122	-506
<u>Total California Plaza Employees</u>	4	715	+711
<u>Total Pasadena Employees</u>	172	32	-140
<u>Minority Applicants</u>	306	386	+ 80
<u>Minority New Hires</u>	2	5	+ 3
<u>Non-Minority Applicants</u>	276	380	+104
<u>Non-Minority New Hires</u>	1	6	+ 5

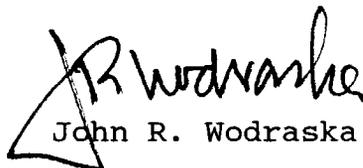
\* Full-Time Equivalent Positions (approximate)--based on hours worked by temporary employees.

SACRAMENTO VALLEY FOUR BASIN INDEX\*

The January 1, 1994 DWR forecast of the Four Basin Index is 13.0 million acre-feet, assuming median conditions for the remainder of the water year. This classifies the water year as below normal \*\* according to the State Water Resources Control Board Decision 1485.

\* Forecast of the total unimpaired runoff in the Sacramento, Feather, Yuba, and American River basins--the principal Delta inflow sources. Preliminary forecasts are made by DWR December through April.

\*\* Last year being classied as a critical year, a different classification scale is being used for Fish and Wildlife standards for this year. The 13.0 million acre-feet would classify the year as below normal. For Agricultural, Municipal and Industrial standards this year would be classified as a below normal water year.

  
John R. Wodraska

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Attachments

METROPOLITAN WATER DISTRICT OF SO. CAL.  
 Billing Activity Report for the Month of December 1993  
 TABLE A

AGENCY	BASIC SERVICE	AGRIC	SPREADING	(NOTE 1) INJECTION	--- SEASONAL STORAGE (NOTE 2) --- RESERVOIR	IN-LIEU	SPREADING	RECLAIMED	(NOTE 3) SPECIALS (\$)	DOLLAR AMOUNT
CITY OF ANAHEIM	179.0	7.5	0.0	0.0	0.0	0.0	0.0	0.0	0.00	71,802.50
CITY OF BURBANK	1376.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-101,986.50	427,850.50
BEVERLY HILLS	940.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	362,208.00
CITY OF COMPTON	450.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	173,596.50
CALLEGUAS MWD	6372.1	269.7	0.0	0.0	0.0	0.0	0.0	0.0	0.00	2,397,763.60
CHINO BASIN MWD	2874.8	0.0	0.0	0.0	0.0	0.0	622.1	0.0	0.00	1,043,583.20
CENTRAL BASIN MWD	3290.1	0.0	0.0	390.3	0.0	3887.0	1348.0	116.9	-46,672.00	2,616,074.40
COASTAL MWD	4319.7	0.0	0.0	0.0	0.0	0.0	0.0	23.0	0.00	1,659,542.50
EASTERN MWD	2836.0	0.0	0.0	0.0	0.0	0.0	0.0	119.2	0.00	1,099,077.10
CITY OF FULLERTON	342.4	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	132,594.00
FOOTHILL MWD	388.4	0.0	0.0	0.0	0.0	298.6	0.0	42.4	0.00	218,550.20
CITY OF GLENDALE	1911.6	0.0	0.0	0.0	0.0	0.0	0.0	8.4	0.00	734,672.40
CITY OF LOS ANGELES	8793.8	0.0	0.0	0.0	0.0	16584.0	0.0	0.0	0.00	6,595,793.70
CITY OF LONG BEACH	2592.2	0.0	0.0	0.0	0.0	2111.8	0.0	30.5	0.00	1,527,585.40
LAS VIRGENES MWD	1129.5	0.0	0.0	0.0	0.0	0.0	0.0	91.1	0.00	420,828.10
ORANGE COUNTY MWD	9467.0	127.4	0.0	0.0	0.0	4503.4	0.0	618.9	0.00	4,701,070.40
CITY OF PASADENA	626.6	0.0	0.0	0.0	0.0	1700.0	0.0	0.0	0.00	671,341.00
THREE VALLEYS MWD	3063.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-15,000.00	1,114,978.10
CITY OF SANTA ANA	941.3	0.0	0.0	0.0	0.0	1145.3	0.0	0.0	0.00	652,161.40
SAN DIEGO CWA	21740.6	0.0	0.0	0.0	3924.2	0.0	0.0	36.8	0.00	8,627,913.40
CITY OF SAN FERNANDO	13.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	5,043.50
CITY OF SANTA MONICA	296.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	114,191.00
CITY OF SAN MARINO	117.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	45,276.00
CITY OF TORRANCE	1385.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	533,456.00
SAN GABRIEL VALLEY	579.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	223,261.50
WEST BASIN MWD	8479.9	0.0	0.0	2014.3	0.0	3032.0	0.0	0.0	-59,514.00	4,747,849.00
RIVERSIDE	240.6	2418.6	0.0	0.0	0.0	0.0	0.0	0.0	-143,100.20	800,358.80
SPC CONT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	250.00	250.00
<b>TOTALS :</b>	<b>84749.6</b>	<b>2825.2</b>	<b>0.0</b>	<b>2404.6</b>	<b>3924.2</b>	<b>33262.1</b>	<b>1970.1</b>	<b>1087.2</b>	<b>-366,022.70</b>	

GRAND TOTAL SALES: 130,223.0 ACRE FEET

TOTAL NET INVOICE \$ 41,718,672.20

NOTE 1: INJECTION INCLUDES SEA WATER BARRIER AND GROUND WATER REPLENISHMENT BY INJECTION.

NOTE 2: AGRICULTURAL, ADJUSTMENTS AND RECLASSIFICATIONS BY SEASONAL STORAGE (SSS) BILLING MAY BE FOR A PAST MONTH BECAUSE MUCH OF THE WATER IS CERTIFIED FOR UP TO FOUR MONTHS AFTER DELIVERY.

NOTE 3: SPECIALS REPRESENT MONETARY DEBITS AND CREDITS FOR CONSERVATION, I.I.C.P., ETC.

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METROPOLITAN WATER DISTRICT OF SO. CAL.  
 Year to date Water sales in A.F. to Month of December 1993  
 TABLE A YEAR TO DATE

AGENCY	BASIC SERVICE	AGRIC	SPREADING	(NOTE 1) INJECTION	--- SEASONAL STORAGE (NOTE 2) --- RESERVOIR	IN-LIEU	SPREADING	RECLAIMED	(NOTE 3) SPECIALS (\$)	DOLLAR AMOUNT
CITY OF ANAHEIM	6242.5	112.6	0.0	0.0	0.0	5318.1	0.0	0.0	0.00	2,516,544.50
CITY OF BURBANK	10392.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-247,324.00	3,753,788.50
BEVERLY HILLS	6867.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	2,643,910.50
CITY OF COMPTON	2618.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	1,007,930.00
CALLEGUAS MWD	48225.1	2154.6	0.0	0.0	738.8	0.0	0.0	0.0	-76,033.68	18,363,689.52
CHINO BASIN MWD	15334.8	0.0	0.0	0.0	0.0	14781.0	1267.9	0.0	0.00	8,277,313.60
CENTRAL BASIN MWD	27891.0	0.0	0.0	2468.1	0.0	20612.0	3991.3	988.9	-61,672.00	17,570,813.00
COASTAL MWD	37307.7	0.0	0.0	0.0	0.0	0.0	0.0	270.6	0.00	14,321,792.10
EASTERN MWD	32354.8	0.0	0.0	0.0	0.0	0.0	0.0	700.4	-35,189.00	12,501,556.70
CITY OF FULLERTON	1393.7	19.1	0.0	0.0	0.0	3432.4	0.0	0.0	0.00	1,456,946.40
FOOTHILL MWD	4146.7	0.0	0.0	0.0	0.0	604.5	0.0	215.8	-828.00	1,715,356.80
CITY OF GLENDALE	14486.2	0.0	0.0	0.0	0.0	0.0	0.0	223.4	0.00	5,542,783.40
CITY OF LOS ANGELES	98267.4	0.0	0.0	0.0	0.0	62597.8	0.0	511.9	0.00	46,931,753.50
CITY OF LONG BEACH	20031.5	0.0	0.0	0.0	0.0	14474.8	0.0	630.1	0.00	11,305,894.50
LAS VIRGENES MWD	9419.2	0.0	0.0	0.0	27.2	0.0	0.0	302.3	0.00	3,587,073.00
ORANGE COUNTY MWD	79492.3	1155.4	0.0	0.0	0.0	12819.5	19082.3	7105.9	-83,468.00	36,822,688.40
CITY OF PASADENA	4056.1	0.0	0.0	0.0	54.0	6400.0	-54.0	0.0	0.00	3,180,798.50
THREE VALLEYS MWD	33192.8	56.7	0.0	0.0	0.0	2404.2	0.0	192.7	-30,000.00	12,759,394.50
CITY OF SANTA ANA	3255.3	0.0	0.0	0.0	0.0	8594.0	0.0	13.1	0.00	3,456,366.40
SAN DIEGO CWA	204144.2	0.0	0.0	0.0	8950.4	0.0	0.0	1469.9	-227,569.41	74,200,047.39
CITY OF SAN FERNANDO	70.0	0.0	0.0	0.0	0.0	680.0	0.0	0.0	0.00	200,912.70
CITY OF SANTA MONICA	2437.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	938,360.50
CITY OF SAN MARINO	976.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	375,991.00
CITY OF TORRANCE	10974.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	4,224,373.30
SAN GABRIEL VALLEY	4087.5	0.0	0.0	0.0	0.0	0.0	4082.0	0.0	0.00	2,422,743.50
WEST BASIN MWD	65955.4	0.0	0.0	13920.2	0.0	14778.5	0.0	0.0	-215,141.00	34,311,335.90
RIVERSIDE	7847.6	11815.9	0.0	0.0	0.0	2612.2	0.0	0.0	-484,639.62	7,004,204.88
SPC CONT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1,500.00	1,500.00
<b>TOTALS :</b>	<b>751467.6</b>	<b>15314.3</b>	<b>0.0</b>	<b>16388.3</b>	<b>9770.4</b>	<b>170109.0</b>	<b>28369.5</b>	<b>12625.0</b>	<b>-1,460,364.71</b>	

GRAND TOTAL SALES: 1,004,044.1 ACRE FEET

TOTAL NET INVOICE \$ 331,395,862.99

NOTE 1: INJECTION INCLUDES SEA WATER BARRIER AND GROUND WATER REPLENISHMENT BY INJECTION.

NOTE 2: AGRICULTURAL, ADJUSTMENTS AND RECLASSIFICATIONS BY SEASONAL STORAGE (SSS) BILLING MAY LAG ACTUAL DELIVERIES BECAUSE MUCH OF THE WATER IS CERTIFIED FOR UP TO FOUR MONTHS AFTER DELIVERY.

NOTE 3: SPECIALS REPRESENT MONETARY DEBITS AND CREDITS FOR CONSERVATION, I.I.C.P., ETC.

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METROPOLITAN WATER DISTRICT OF SO. CAL.  
 WATER SALES IN ACRE-FEET FOR THE MONTH OF DECEMBER 1993  
 TABLE B

AGENCY	TREATED(NOTE)				AF AMOUNT	UNTREATED(NOTE)				AF AMOUNT	RECLAIMED	TOTAL AF AMOUNT
	BASIC SERVICE	AGRIC	SEASONAL	GWR		BASIC SERVICE	AGRIC	SEASONAL	GWR			
CITY OF ANAHEIM	179.0	7.5	0.0	0.0	186.5	0.0	0.0	0.0	0.0	0.0	0.0	186.5
CITY OF BURBANK	1376.2	0.0	0.0	0.0	1376.2	0.0	0.0	0.0	0.0	0.0	0.0	1376.2
BEVERLY HILLS	940.8	0.0	0.0	0.0	940.8	0.0	0.0	0.0	0.0	0.0	0.0	940.8
CITY OF COMPTON	450.9	0.0	0.0	0.0	450.9	0.0	0.0	0.0	0.0	0.0	0.0	450.9
CALLEGUAS MWD	6372.1	269.7	0.0	0.0	6641.8	0.0	0.0	0.0	0.0	0.0	0.0	6641.8
CHINO BASIN MWD	0.0	0.0	0.0	0.0	0.0	2874.8	0.0	622.1	0.0	3496.9	0.0	3496.9
CENTRAL BASIN MWD	3290.1	0.0	3887.0	390.3	7567.4	0.0	0.0	1348.0	0.0	1348.0	116.9	9032.3
COASTAL MWD	4319.7	0.0	0.0	0.0	4319.7	0.0	0.0	0.0	0.0	0.0	23.0	4342.7
EASTERN MWD	3217.7	0.0	0.0	0.0	3217.7	-381.7	0.0	0.0	0.0	-381.7	119.2	2955.2
CITY OF FULLERTON	342.4	2.0	0.0	0.0	344.4	0.0	0.0	0.0	0.0	0.0	0.0	344.4
FOOTHILL MWD	388.4	0.0	298.6	0.0	687.0	0.0	0.0	0.0	0.0	0.0	42.4	729.4
CITY OF GLENDALE	1911.6	0.0	0.0	0.0	1911.6	0.0	0.0	0.0	0.0	0.0	8.4	1920.0
CITY OF LOS ANGELES	3104.4	0.0	3153.3	0.0	6257.7	5689.4	0.0	13430.7	0.0	19120.1	0.0	25377.8
CITY OF LONG BEACH	2592.2	0.0	2111.8	0.0	4704.0	0.0	0.0	0.0	0.0	0.0	30.5	4734.5
LAS VIRGENES MWD	1129.5	0.0	0.0	0.0	1129.5	0.0	0.0	0.0	0.0	0.0	91.1	1220.6
ORANGE COUNTY MWD	9044.8	0.0	4503.4	0.0	13548.2	422.2	127.4	0.0	0.0	549.6	618.9	14716.7
CITY OF PASADENA	626.6	0.0	1700.0	0.0	2326.6	0.0	0.0	0.0	0.0	0.0	0.0	2326.6
THREE VALLEYS MWD	2326.1	0.0	0.0	0.0	2326.1	737.2	0.0	0.0	0.0	737.2	0.0	3063.3
CITY OF SANTA ANA	941.3	0.0	1145.3	0.0	2086.6	0.0	0.0	0.0	0.0	0.0	0.0	2086.6
SAN DIEGO CWA	13185.1	0.0	454.1	0.0	13639.2	8555.5	0.0	3470.1	0.0	12025.6	36.8	25701.6
CITY OF SAN FERNANDO	13.1	0.0	0.0	0.0	13.1	0.0	0.0	0.0	0.0	0.0	0.0	13.1
CITY OF SANTA MONICA	296.6	0.0	0.0	0.0	296.6	0.0	0.0	0.0	0.0	0.0	0.0	296.6
CITY OF SAN MARINO	117.6	0.0	0.0	0.0	117.6	0.0	0.0	0.0	0.0	0.0	0.0	117.6
CITY OF TORRANCE	1385.6	0.0	0.0	0.0	1385.6	0.0	0.0	0.0	0.0	0.0	0.0	1385.6
SAN GABRIEL VALLEY	579.9	0.0	0.0	0.0	579.9	0.0	0.0	0.0	0.0	0.0	0.0	579.9
WEST BASIN MWD	8479.9	0.0	3032.0	2014.3	13526.2	0.0	0.0	0.0	0.0	0.0	0.0	13526.2
RIVERSIDE	-378.2	1838.4	0.0	0.0	1460.2	618.8	580.2	0.0	0.0	1199.0	0.0	2659.2
SPC CONT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>TOTAL:</b>	<b>66233.4</b>	<b>2117.6</b>	<b>20285.5</b>	<b>2404.6</b>	<b>91041.1</b>	<b>18516.2</b>	<b>707.6</b>	<b>18870.9</b>	<b>0.0</b>	<b>38094.7</b>	<b>1087.2</b>	<b>130223.0</b>

NOTE: GROUND WATER REPLENISHMENT (GWR) INCLUDES SPREADING AND INJECTION. WATER DELIVERIES UNDER SPREADING ARE BILLED AS SEASONAL STORAGE DURING PERIODS THAT PROGRAM IS ACTIVE.

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METROPOLITAN WATER DISTRICT OF SO. CAL.  
 Year to date Water sales in A.F. to Month of December 1993  
 TABLE B YEAR TO DATE

AGENCY	BASIC SERVICE	AGRIC	SPREADING	INJECTION (NOTE 1)	SEASONAL STORAGE (NOTE 2) RESERVOIR	IN-LIEU	SPREADING	RECLAIMED	AGENCY TOTAL (A.F.)
CITY OF ANAHEIM	6242.5	112.6	0.0	0.0	0.0	5318.1	0.0	0.0	11,673.2
CITY OF BURBANK	10392.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10,392.5
BEVERLY HILLS	6867.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6,867.3
CITY OF COMPTON	2618.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2,618.0
CALLEGUAS MWD	48225.1	2154.6	0.0	0.0	738.8	0.0	0.0	0.0	51,118.5
CHINO BASIN MWD	15334.8	0.0	0.0	0.0	0.0	14781.0	1267.9	0.0	31,383.7
CENTRAL BASIN MWD	27891.0	0.0	0.0	2468.1	0.0	20612.0	3991.3	988.9	55,951.3
COASTAL MWD	37307.7	0.0	0.0	0.0	0.0	0.0	0.0	270.6	37,578.3
EASTERN MWD	32354.8	0.0	0.0	0.0	0.0	0.0	0.0	700.4	33,055.2
CITY OF FULLERTON	1393.7	19.1	0.0	0.0	0.0	3432.4	0.0	0.0	4,845.2
FOOTHILL MWD	4146.7	0.0	0.0	0.0	0.0	604.5	0.0	215.8	4,967.0
CITY OF GLENDALE	14486.2	0.0	0.0	0.0	0.0	0.0	0.0	223.4	14,709.6
CITY OF LOS ANGELES	98267.4	0.0	0.0	0.0	0.0	62597.8	0.0	511.9	161,377.1
CITY OF LONG BEACH	20031.5	0.0	0.0	0.0	0.0	14474.8	0.0	630.1	35,136.4
LAS VIRGENES MWD	9419.2	0.0	0.0	0.0	27.2	0.0	0.0	302.3	9,748.7
ORANGE COUNTY MWD	79492.3	1155.4	0.0	0.0	0.0	12819.5	19082.3	7105.9	119,655.4
CITY OF PASADENA	4056.1	0.0	0.0	0.0	54.0	6400.0	-54.0	0.0	10,456.1
THREE VALLEYS MWD	33192.8	56.7	0.0	0.0	0.0	2404.2	0.0	192.7	35,846.4
CITY OF SANTA ANA	3255.3	0.0	0.0	0.0	0.0	8594.0	0.0	13.1	11,862.4
SAN DIEGO CWA	204144.2	0.0	0.0	0.0	8950.4	0.0	0.0	1469.9	214,564.5
CITY OF SAN FERNANDO	70.0	0.0	0.0	0.0	0.0	680.0	0.0	0.0	750.0
CITY OF SANTA MONICA	2437.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2,437.3
CITY OF SAN MARINO	976.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	976.6
CITY OF TORRANCE	10974.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10,974.1
SAN GABRIEL VALLEY	4087.5	0.0	0.0	0.0	0.0	0.0	4082.0	0.0	8,169.5
WEST BASIN MWD	65955.4	0.0	0.0	13920.2	0.0	14778.5	0.0	0.0	94,654.1
RIVERSIDE	7847.6	11815.9	0.0	0.0	0.0	2612.2	0.0	0.0	22,275.7
SPC CONT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTALS :	751467.6	15314.3	0.0	16388.3	9770.4	170109.0	28369.5	12625.0	

GRAND TOTAL SALES (A.F.) 1,004,044.1

NOTE 1: INJECTION INCLUDES SEA WATER BARRIER AND GROUND WATER REPLENISHMENT BY INJECTION.

NOTE 2: AGRICULTURAL, ADJUSTMENTS AND RECLASSIFICATIONS BY SEASONAL STORAGE (SSS) BILLING MAY LAG ACTUAL DELIVERIES BECAUSE MUCH OF THE WATER IS CERTIFIED FOR UP TO FOUR MONTHS AFTER DELIVERY.

NOTE 3: THIS REPORT WILL NOT REFLECT INTERRUPTIBLE TRANSACTIONS THAT OCCURRED PRIOR TO JULY 1992.

40005

METROPOLITAN WATER DISTRICT OF SO. CAL.  
 WATER SALES IN DOLLARS FOR THE MONTH OF DECEMBER 1993  
 TABLE C

AGENCY	---BASIC---TREATED------(NOTE 1)-				DOLLAR AMOUNT	--BASIC--UNTREATED------(NOTE 1)-				DOLLAR AMOUNT RECLAIMED	(NOTE 2) SPECIAL	TOT DOLLAR (\$ ) AMOUNT	
	SERVICE	AGRIC	SEASONAL	GWR		SERVICE	AGRIC	SEASONAL	GWR				
CITY OF ANAHEIM	68915	2887	0	0	71802	0	0	0	0	0	0	71802	
CITY OF BURBANK	529837	0	0	0	529837	0	0	0	0	0	-101986	427850	
BEVERLY HILLS	362208	0	0	0	362208	0	0	0	0	0	0	362208	
CITY OF COMPTON	173596	0	0	0	173596	0	0	0	0	0	0	173596	
CALLEGUAS MWD	2293929	103834	0	0	2397763	0	0	0	0	0	0	2397763	
CHINO BASIN MWD	0	0	0	0	0	914186	0	129396	0	1043583	0	1043583	
CENTRAL BASIN MWD	1266688	0	983411	150265	2400365	0	0	280384	0	280384	-18002	2616074	
COASTAL MWD	1663084	0	0	0	1663084	0	0	0	0	0	-3542	1659542	
EASTERN MWD	1238814	0	0	0	1238814	-121380	0	0	0	-121380	-18356	1099077	
CITY OF FULLERTON	131824	770	0	0	132594	0	0	0	0	0	0	132594	
FOOTHILL MWD	149534	0	75545	0	225079	0	0	0	0	0	-6529	218550	
CITY OF GLENDALE	735966	0	0	0	735966	0	0	0	0	0	-1293	734672	
CITY OF LOS ANGELES	1195194	0	797784	0	1992978	1809229	0	2793585	0	4602814	0	6595793	
CITY OF LONG BEACH	997997	0	534285	0	1532282	0	0	0	0	0	-4697	1527585	
LAS VIRGENES MWD	434857	0	0	0	434857	0	0	0	0	0	-14029	420828	
ORANGE COUNTY MWD	3482248	0	1139360	0	4621608	134259	40513	0	0	174772	-95310	4701070	
CITY OF PASADENA	241241	0	430100	0	671341	0	0	0	0	0	0	671341	
THREE VALLEYS MWD	895548	0	0	0	895548	234429	0	0	0	234429	0	1114978	
CITY OF SANTA ANA	362400	0	289760	0	652161	0	0	0	0	0	0	652161	
SAN DIEGO CWA	5076263	0	114887	0	5191150	2720649	0	721780	0	3442429	-5667	8627913	
CITY OF SAN FERNANDO	5043	0	0	0	5043	0	0	0	0	0	0	5043	
CITY OF SANTA MONICA	114191	0	0	0	114191	0	0	0	0	0	0	114191	
CITY OF SAN MARINO	45276	0	0	0	45276	0	0	0	0	0	0	45276	
CITY OF TORRANCE	533456	0	0	0	533456	0	0	0	0	0	0	533456	
SAN GABRIEL VALLEY	223261	0	0	0	223261	0	0	0	0	0	0	223261	
WEST BASIN MWD	3264761	0	767096	775505	4807363	0	0	0	0	0	-59514	4747849	
RIVERSIDE	-145607	707784	0	0	562177	196778	184503	0	0	381282	0	800358	
SPC CONT	0	0	0	0	0	0	0	0	0	0	250	250	
<b>TOTAL:</b>	<b>25340529</b>	<b>815276</b>	<b>5132231</b>	<b>925771</b>	<b>\$32213808</b>	<b>5888151</b>	<b>225016</b>	<b>3925147</b>	<b>0</b>	<b>\$10038315</b>	<b>-167428</b>	<b>-366022</b>	<b>\$41718672</b>

NOTE 1: GROUND WATER REPLENISHMENT (GWR) INCLUDES SPREADING AND INJECTION. WATER DELIVERIES UNDER SPREADING ARE BILLED AS SEASONAL STORAGE DURING PERIODS THAT PROGRAM IS ACTIVE.

NOTE 2: SPECIALS REPRESENT MONETARY DEBITS AND CREDITS FOR CONSERVATION, I.I.C.P., ETC.

40005

## The Metropolitan Water District of Southern California

**TABLE D**  
**MONTHLY ANALYSES OF THE DISTRICT WATER SUPPLIES--NOVEMBER 1993**

CONSTITUENTS	SYMBOLS AND UNITS	SOURCE WATERS							FILTRATION PLANT EFFLUENTS					
		LAKE HAVASU NEAR WHIT- SETT INTAKE	SAN JACINTO TUNNEL WEST PORTAL	LAKE MATH- EWS	CASTAIC LAKE	SILVER- WOOD LAKE	LAKE PERRIS	LAKE SKIN- NER	WEY- MOUTH PLANT	DIEMER PLANT	JENSEN PLANT	SKIN- NER PLANT NO. 1	SKIN- NER PLANT NO. 2	MILLS PLANT
MONTH OR DAY OF SAMPLING		11/2/93	11/2/93	11/2/93	NOV 93	11/2/93	11/2/93	NOV 93	NOV 93	NOV 93	NOV 93	NOV 93	NOV 93	NOV 93
SILICA	SiO <sub>2</sub> mg/L	9.1	7.8	10.6	15.0	15.2	1.6	8.7	9.8	10.1	14.7	8.6	8.4	14.4
CALCIUM	Ca mg/L	83	82	79	45	20	29	80	72	69	45	80	81	19
MAGNESIUM	Mg mg/L	31.5	30.5	31	20	10.5	19.5	32	28	29	20	31	31.5	10
SODIUM	Na mg/L	111	113	113	63	35	94	106	96	95	65	106	106	36
POTASSIUM	K mg/L	5.5	6.2	5.8	3.4	2.4	5.5	4.9	4.6	4.4	3.4	5.0	4.9	2.3
CARBONATE	CO <sub>3</sub> mg/L	0	1	1	0	0	0	4	0	0	0	0	0	0
BICARBONATE	HCO <sub>3</sub> mg/L	163	157	154	122	84	133	145	143	144	128	151	151	84
SULFATE	SO <sub>4</sub> mg/L	297	298	295	132	34	57	290	250	252	133	290	292	32
CHLORIDE	Cl mg/L	97	100	101	72	44	134	94	89	88	72	96	97	45
NITRATE	NO <sub>3</sub> mg/L	0.75	0.65	0.5	2.0	2.15	<0.05	0.85	1.35	1.25	1.55	0.7	0.65	2.5
FLUORIDE	F mg/L	0.31	0.30	0.30	0.32	0.08	0.14	0.31	0.23	0.23	0.28	0.24	0.23	0.09
BORON	B mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--
TOTAL DISSOLVED SOLIDS	TDS mg/L	717	718	714	414	205	407	693	622	621	419	693	697	203
TOTAL HARDNESS AS CaCO <sub>3</sub>	mg/L	337	330	325	195	93	153	332	295	292	195	327	332	89
TOTAL ALKALINITY AS CaCO <sub>3</sub>	mg/L	134	131	128	100	69	109	125	117	118	105	124	124	69
FREE CARBON DIOXIDE	CO <sub>2</sub> mg/L	1.4	1.2	1.0	3.0	1.8	1.8	1.2	1.9	2.2	1.5	3.4	3.3	0.7
H+ CONCENTRATION	pH	8.30	8.36	8.43	7.83	7.90	8.10	8.34	8.09	8.04	8.15	7.87	7.88	8.29
SPECIFIC CONDUCTANCE	µmho/cm	1096	1086	1076	713	350	745	1111	1027	1012	724	1120	1120	374
COLOR	CU	--	--	--	--	--	--	--	2	1	2	1	3	2
FILTER EFFLUENT TURBIDITY	NTU	--	--	--	--	--	--	--	0.07	0.06	0.07	0.08	--	0.10
TURBIDITY	NTU	3.3	0.93	1.5	0.66	2.9	0.40	2.2	0.07	0.06	0.07	0.08	0.07	0.10
TEMPERATURE	°C	20	20	21	18	18	20	18	18	19	18	18	19	16
BROMIDE	Br mg/L	0.10	0.10	0.10	0.22	0.12	0.40	0.09	--	--	--	--	--	--
TOTAL TRIHALOMETHANES	TTHMs µg/L	--	--	--	--	--	--	--	37	40	74	31	27	52
PCT. STATE PROJECT WATER	% SPW %	0	0	0	100	100	100	0	12	14	100	0	0	100

TABLE E, GENERAL MANAGER'S MONTHLY REPORT

Dec 1993

## Storage in Colorado River Basin Reservoirs at End of Month

(1,000 acre-feet)

Reservoir	Usable Contents Above Lowest Outlet	Percent of Usable Capacity	Usable Contents Above Min. Power Head	Change * in Contents During Month	Change * in Contents Since Dec 1992
<i>Upper Basin</i>					
Fontenelle	213	62	18	(55)	46
Flaming Gorge	3,318	89	3,085	(67)	304
Blue Mesa	595	72	514	(51)	14
Morrow Point	112	96	37	(2)	(2)
Crystal	15	85	4	(2)	(1)
Navajo	1,567	92	---	(29)	39
Powell	18,403	76	14,406	(291)	5,068
Subtotal	24,223	78	18,064	(497)	5,468
<i>Lower Basin</i>					
Mead	21,324	82	11,300	41	1,595
Mohave	1,612	89	1,395	103	(11)
Havasu	551	89	112	11	1
Subtotal	23,487	82	12,807	155	1,585
Basin Total	47,710	80	30,871	(342)	7,053

\* Numbers within ( ) are negative numbers.

TABLE F  
 FINANCIAL SUMMARY  
 FISCAL YEAR 1993-94  
 CASH BASIS  
 (\$ in Millions)

	ACTUAL THRU DEC. 1993	BUDGET THRU DEC. 1993	VARIANCE DOLLARS + / (-)	PROJECTED YEAR END	ANNUAL BUDGET	VARIANCE DOLLARS + / (-)
<u>RECEIPTS</u>						
WATER SALES	\$337.9	\$338.2	(\$0.3)	\$590.9	\$588.2	\$2.7
POWER RECOVERIES	8.7	8.0	0.7	19.6	19.0	0.6
TAXES	37.4	43.4	(6.0)	82.5	90.0	(7.5)
INTEREST	10.3	12.6	(2.3)	17.8	20.0	(2.2)
WATER STANDBY CHARGES	14.5	14.5	0.0	50.0	50.0	0.0
OTHER RECEIPTS	1.1	0.4	0.7	1.5	0.8	0.7
<b>TOTAL RECEIPTS</b>	<b>409.9</b>	<b>417.1</b>	<b>(7.2)</b>	<b>762.3</b>	<b>768.0</b>	<b>(5.7)</b>
<u>EXPENDITURES</u>						
STATE WATER CONTRACT	102.9	172.0	69.1	249.8	312.9	63.1
WATER TRANSFERS/OPTIONS	0.5	5.0	4.5	12.5	12.0	(0.5)
COLORADO RIV. SUPPLIES	27.6	34.9	7.3	64.4	87.7	23.3
MWD CAPITAL PROGRAM	53.1	61.8	8.7	160.1	172.1	12.0
MWD O&M	112.1	112.3	0.2	216.6	219.8	3.2
<b>TOTAL EXPENDITURES</b>	<b>296.2</b>	<b>386.0</b>	<b>89.8</b>	<b>703.4</b>	<b>804.5</b>	<b>101.1</b>
<b>INCREASE (DECREASE) in CASH and INVESTMENTS</b>	<b>\$113.7</b>	<b>\$31.1</b>	<b>\$82.6</b>	<b>\$58.9</b>	<b>(\$36.5)</b>	<b>\$95.4</b>

Minor differences are due to rounding.

ACRE-FEET SALES IN THOUSANDS

	ACTUAL	BUDGETED	DIFFERENCE
CUMULATIVE MAY TO OCTOBER	1,048.2	1,041.1	7.1
NOVEMBER DELIVERIES	159.8	142.6	17.2
DECEMBER DELIVERIES	130.0	139.8	(9.8)

The Metropolitan Water District of Southern California

**MONTHLY PROGRESS REPORT  
OF CONSTRUCTION AND PROCUREMENT CONTRACTS**

December 1993

SUMMARY OF PROGRESS

	<u>Construction Contracts</u>	<u>Procurement Contracts</u>
<b>Number of Contracts</b>	11	3
<b>Total Bid Amount of Contracts in Progress</b>	\$ 206,363,849	\$ 10,189,978
<b>Number of Contracts Awarded this Month</b>	1	0
<b>Total Bid Amount of Contracts Awarded this Month</b>	1,232,351	0
<b>Contract Gross Earnings this Month</b>	6,035,069	0

There was one construction contract awarded during the month of December 1993. Contract 1421, in the amount of \$1,232,351 was awarded to Inland Asphalt and Coating and Space Leasing Co., Inc., A Joint Venture, covering the Construction of a Field Office at Domenigoni Valley Reservoir Site.

Two construction contracts were completed during the month of December 1993. Contract No. 1410 covering the Site Preparation for Henry J. Mills Filtration Plant Expansion No. 2 was completed by the prime contractor Kiewit Pacific Company and accepted by the District on December 6, 1993. Contract No. 1411 covering the construction of the Maintenance Building and the Operations Building Annex at the Mills Plant was completed by the prime contractor, Tilden-Coil Constructors, Inc., and accepted by District personnel on December 13, 1993.

A tabular summary of current construction contracts is included as page 3 of this report. Details of the status of current construction contracts are shown on pages 6 through 16 of this report.

Tabular summaries of construction contracts completed this month and of construction contracts which have been completed but have final payments pending are included on page 4 of this report.

There were no procurement contracts awarded or completed during the month of December 1993.

A tabular summary of procurement contracts is included on page 5 of this report.

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THE METROPOLITAN WATER DISTRICT  
OF SOUTHERN CALIFORNIA

**SUMMARY OF CONSTRUCTION CONTRACTS**

Cont. No.	Spec. No.	Feature	Contractor	Bid Amount	Earnings This Month	Earnings To Date	Start Date	Contract Completion Date	Estimated Completion Date	Estimated Percent Complete	Percent Contract Time Elapsed
1408	1230	Etiwanda Power Plant	Advanco Constructors	\$3,820,000	\$464,670	\$3,761,123	8/28/92	01/14/94	02/94	94	96
1393	1200	Joseph Jensen Filtration Plant Expansion No. 1	Hyman/JWP West, A Joint Venture	101,986,000	3,165,815	87,949,212	9/05/91	09/21/94	12/94	84	74
1418	1238 A	Henry J. Mills Filtration Plant Expansion No. 2	M. A. Mortenson Company	69,943,000	700,000	2,200,000	10/07/93	08/19/96	08/96	3	7
1414	1247	San Diego Canal Relocation	Kasler Corporation	9,872,635	1,100,127	7,652,115	03/22/93	02/10/94	02/94	77	85
1416	1262	Lake Skinner Outlet Tower and Bypass Lines Chlorination Project	Pro Contracting Corp.	1,062,200	448,546	583,746	10/06/93	05/30/94	05/94	55	35
1415	1258	Cathodic Protection System for East Orange County Feeder No. 2	Harco Technologies Corporation	375,925	93,981	324,663	06/02/93	01/05/94	01/94	86	99
1417	1221 A	Seismic Modifications La Verne Maintenance Shop Building	Ed Layton Construction Company, Inc.	240,834	6,998	64,551	10/22/93	03/29/94	03/94	27	39
1420	1267	Electrolysis Monitoring Stations at Metro Blue Lines Crossings	American Construction and Supply	41,814	0	0	12/31/93	05/10/94	05/94	0	0
1421	1264	Field Office at Domenigoni Valley Reservoir Site	Inland Asphalt and Coating and Space Leasing Co., Inc., a Joint Venture	1,232,351	-	-	-	-	-	-	-

THE METROPOLITAN WATER DISTRICT  
OF SOUTHERN CALIFORNIA

**SUMMARY OF CONSTRUCTION CONTRACTS COMPLETED THIS MONTH**

Cont. No.	Spec. No.	Feature	Contractor	Bid Amount	Estimated Final Earnings	Date Work Accepted	Date Notice of Completion Recorded	Date Final Payment Due
1410	1237	Site Preparation for Henry J. Mills Filtration Plant for Expansion No. 2	Kiewit Pacific Company	\$15,219,400	\$15,611,905	12-06-93	12-16-93	01-20-94
1411	1192A	Maintenance Building and Operations Building Annex at Mills Plant	Tilden-Coil Constructors	\$ 2,569,690	\$ 2,698,036	12-13-93	12-16-93	01-20-94

**SUMMARY OF CONSTRUCTION CONTRACTS WHICH HAVE BEEN COMPLETED BUT HAVE FINAL PAYMENTS PENDING**

Cont. No.	Spec. No.	Feature	Contractor	Bid Amount	Estimated Final Earnings	Date Work Accepted	Date Notice of Completion Recorded	Date Final Payment Due

THE METROPOLITAN WATER DISTRICT  
OF SOUTHERN CALIFORNIA

**SUMMARY OF PROCUREMENT CONTRACTS**

Cont. No.	Spec. No.	Equipment or Material	Contractor	Contract Price	Earnings This Month	Earnings To Date	Starting Date	Delivery Date	Remarks
1355	1146	Conical Plug Valves for Etiwanda Control Facility and Power Plant	Willamette Valve Co., Inc.	\$ 3,999,978	—	\$ 3,904,584	7/28/89	2/22/91	
1396	1207	Four Computer-Based Control Systems	JWP Controls	6,670,000	—	1,211,871	3/12/92	—	
1403	1240	Nine Hydrofoil Flocculators for Jensen Expansion No. 1	Chemineer, Inc.	230,023	—	230,023	6/02/92	1/27/93	

The Metropolitan Water District of Southern California

**MONTHLY CONSTRUCTION PROGRESS REPORT**

December 1993

<b>CONSTRUCTION OF</b>	Etiwanda Power Plant		
<b>CONTRACTOR</b>	Advanco Constructors		
<b>SPECIFICATIONS NO.</b>	1230	<b>BID</b>	\$ 3,820,000
<b>CONTRACT NO.</b>	1408	<b>EXTRA WORK TO DATE</b>	199,816
<b>CONTRACT STARTING DATE</b>	August 31, 1992	<b>EARNINGS THIS MONTH</b>	464,670
<b>CONTRACT COMPLETION DATE</b>	January 14, 1994	<b>EARNINGS TO DATE</b>	3,761,123
<b>ESTIMATED COMPLETION DATE</b>	February 1994	<b>ESTIMATED PERCENT COMPLETE</b>	94
		<b>PERCENT CONTRACT TIME ELAPSED</b>	96

**SCOPE OF WORK**

Construction of a power plant with a 25,200 KVA A.C. generator, maintenance building, a switchyard, and all appurtenant work located near the intersection of Arrow Highway and Etiwanda Avenue in the City of Rancho Cucamonga, California, San Bernardino County.

**CONSTRUCTION PROGRESS**

Installation of reinforcing steel and placement of concrete for minor structures continued as required in the powerhouse. Grouting of the exhaust vent and piping wall penetrations was also in progress during the month. Repair of the epoxy coating for the discharge pit liner and pit cover were continue as required.

Remedial work continued on the six power nozzles to allow proper closing of the installed nozzles. Installation of ducting for the exhaust vents and power exhaust hoods was also in progress at the powerhouse. Installation of CO<sub>2</sub> safety system was also in progress during the month.

Installation of lighting fixtures, electrical receptacles, conduit, cabling and various items of electrical equipment was in progress throughout the month.

Installation of the generator control panel in the pressure control facility was started during the month.

Installation of redwood headers, crushed aggregate base, and asphalt concrete paving is in progress at various locations throughout the jobsite as required.

Installation of floor and wall tile and application of plaster for walls and ceilings were continued throughout the maintenance building.

Contractor personnel, including employees of subcontractors, averaged 19 persons during the month of December 1993.

The Metropolitan Water District of Southern California

**MONTHLY CONSTRUCTION PROGRESS REPORT**

December 1993

<b>CONSTRUCTION OF</b>	Joseph Jensen Filtration Plant--Expansion No. 1		
<b>CONTRACTOR</b>	Hyman/JWP West, A Joint Venture		
<b>SPECIFICATIONS NO.</b>	1200	<b>BID</b>	\$ 101,986,000
<b>CONTRACT NO.</b>	1393	<b>EXTRA WORK TO DATE</b>	431,942
<b>CONTRACT STARTING DATE</b>	September 5, 1991	<b>EARNINGS THIS MONTH</b>	3,165,815
<b>CONTRACT COMPLETION DATE</b>	September 21, 1994	<b>EARNINGS TO DATE</b>	87,949,212
<b>ESTIMATED COMPLETION DATE</b>	December 1994	<b>ESTIMATED PERCENT COMPLETE</b>	84
		<b>PERCENT CONTRACT TIME ELAPSED</b>	74

**SCOPE OF WORK**

Construction of 510-million-gallon-per-day expansion of the existing plant including influent and effluent pipelines, filter modules, flocculation basins, chemical mixing storage facilities, plant control units, washwater reclamation facilities, finished water reservoirs, and appurtenant work location at 13100 Balboa Boulevard, Granada Hills, California.

**CONSTRUCTION PROGRESS**

Construction of formwork, erection of reinforcing steel and placement of concrete continued in Module No. 3, Finished Water Reservoir No. 2, the Dry Polymer Building, and the concrete pipeway. Concrete repairs continued in Module No. 2, and the concrete pipeway and were started in the Finished Water Reservoir No. 2.

Installation of piping, pipe supports, and pipe embeds continued in Module No. 3, Washwater Reclamation Plant No. 2, and the concrete pipeway.

Installation of conduit, pull boxes, embedded conduit and supports, and ground wire continued in Module No. 3, and Washwater Reclamation Plant No. 2.

Start-up and testing of inlet gates, traveling bridges, and filter valves were started in Module No. 2. Installation of traveling bridge sweep arms continued throughout the month. Installation of required flocculators and flocculator drive units was completed during the month in Washwater Reclamation Plant.

Coating of miscellaneous metal, piping, and mechanical equipment continued in Module No. 2.

Contractor personnel, including employees of subcontractors, averaged 160 persons during the month of December 1993.

# MONTHLY CONSTRUCTION PROGRESS REPORT

December 1993

<b>CONSTRUCTION OF</b>	Henry J. Mills Filtration Plant Expansion No. 2		
<b>CONTRACTOR</b>	M. A. Mortenson Company		
<b>SPECIFICATIONS NO.</b>	1238A	<b>BID</b>	\$ 69,943,000
<b>CONTRACT NO.</b>	1418	<b>EXTRA WORK TO DATE</b>	0
<b>CONTRACT STARTING DATE</b>	October 7, 1993	<b>EARNINGS THIS MONTH</b>	700,000
<b>CONTRACT COMPLETION DATE</b>	August 19, 1996	<b>EARNINGS TO DATE</b>	2,200,000
<b>ESTIMATED COMPLETION DATE</b>	August 1996	<b>ESTIMATED PERCENT COMPLETE</b>	3
		<b>PERCENT CONTRACT TIME ELAPSED</b>	7

## SCOPE OF WORK

Construction of 220-million-gallon-per-day expansion to the existing plant, including influent and effluent conduits, filtration modules, chemical mixing and storage facilities, plant control structures, washwater reclamation facilities, and all appurtenant work located at 550 East Alessandro Boulevard, Riverside, California.

## CONSTRUCTION PROGRESS

Mobilization of equipment and yard facilities was continued throughout the month. Construction of wall and slab forms in the contractor's form yard was started during the month.

Installation of temporary underground conduit and wiring for construction power to various work areas throughout the jobsite was completed during the month.

Excavation for the filters, used washwater channels, and basins for both modules was in progress throughout the month. Placement of crushed rock base progressed in the used washwater channels.

Off-site fabrication of type "K" piping and various other large quantities of construction materials and equipment required for the expansion program has been started.

Contractor personnel, including employees of subcontractors, averaged 20 persons during the month of December 1993.

The Metropolitan Water District of Southern California

**MONTHLY CONSTRUCTION PROGRESS REPORT**

December 1993

<b>CONSTRUCTION OF</b>	Site Preparation for Henry J. Mills Filtration Plant Expansion No. 2		
<b>CONTRACTOR</b>	Kiewit Pacific Company		
<b>SPECIFICATIONS NO.</b>	1237	<b>BID</b>	\$ 15,219,400
<b>CONTRACT NO.</b>	1410	<b>EXTRA WORK TO DATE</b>	525,855
<b>CONTRACT STARTING DATE</b>	October 6, 1992	<b>EARNINGS THIS MONTH</b>	3,000
<b>CONTRACT COMPLETION DATE</b>	December 20, 1993	<b>EARNINGS TO DATE</b>	15,611,905
<b>ACTUAL COMPLETION DATE</b>	December 6, 1993	<b>ESTIMATED PERCENT COMPLETE</b>	100
		<b>PERCENT CONTRACT TIME ELAPSED</b>	100

**SCOPE OF WORK**

Excavation, installation of District-furnished equipment including large diameter pipe, removal and installation of pipelines, site preparation and grading, construction of an under drain system, and other appurtenant work for Expansion No. 2 of the Henry J. Mills Filtration Plant at 550 East Alessandro Boulevard, Riverside, California.

**CONSTRUCTION PROGRESS**

All work required under the contract was completed by the prime contractor, Kiewit Pacific Company and accepted by District forces on December 6, 1993.

The Notice of Completion was recorded by the Riverside County Recorder on December 16, 1993.

The Metropolitan Water District of Southern California

**MONTHLY CONSTRUCTION PROGRESS REPORT**

December 1993

<b>CONSTRUCTION OF</b>	Maintenance Building and Operations Building Annex at Henry J. Mills Filtration Plant		
<b>CONTRACTOR</b>	Tilden-Coil Constructors, Inc.		
<b>SPECIFICATIONS NO.</b>	1192A	<b>BID</b>	\$ 2,569,690
<b>CONTRACT NO.</b>	1411	<b>EXTRA WORK TO DATE</b>	126,346
<b>CONTRACT STARTING DATE</b>	October 14, 1992	<b>EARNINGS THIS MONTH</b>	51,932
<b>CONTRACT COMPLETION DATE</b>	October 8, 1993	<b>EARNINGS TO DATE</b>	2,696,036
<b>ACTUAL COMPLETION DATE</b>	December 13, 1993	<b>ESTIMATED PERCENT COMPLETE</b>	100
		<b>PERCENT CONTRACT TIME ELAPSED</b>	100

**SCOPE OF WORK**

Construction of an approximately 7,700 square foot addition to the existing Operations Building and construction of an approximately 9,600 square foot new Maintenance Building and all appurtenant work located at 550 East Alessandro Boulevard in the City of Riverside, California.

**CONSTRUCTION PROGRESS**

All work required under the contract was completed by the prime contractor, Tilden-Coil Constructors, Inc., and accepted by District forces on December 13, 1993.

The Notice of Completion was recorded by the Riverside County Recorder on December 16, 1993.

The Metropolitan Water District of Southern California

**MONTHLY CONSTRUCTION PROGRESS REPORT**

December 1993

<b>CONSTRUCTION OF</b>	Construction of the San Diego Canal Relocation		
<b>CONTRACTOR</b>	Kasler Corporation		
<b>SPECIFICATIONS NO.</b>	1247	<b>BID</b>	\$ 9,872,685
<b>CONTRACT NO.</b>	1414	<b>EXTRA WORK TO DATE</b>	20,195
<b>CONTRACT STARTING DATE</b>	March 22, 1993	<b>EARNINGS THIS MONTH</b>	1,100,127
<b>CONTRACT COMPLETION DATE</b>	February 10, 1994	<b>EARNINGS TO DATE</b>	7,652,115
<b>ESTIMATED COMPLETION DATE</b>	February 1994	<b>ESTIMATED PERCENT COMPLETE</b>	77
		<b>PERCENT CONTRACT TIME ELAPSED</b>	85

**SCOPE OF WORK**

Relocation of approximately 1.4 miles of existing San Diego Canal and construction of two siphons, a radial gate structure, and a turn-out structure and appurtenant work located at Newport Road, 2 miles east of Highway 79, Hemet, Riverside County, California.

**CONSTRUCTION PROGRESS**

Demolition and grading at the former dairy site were completed during the month. Canal embankment operations were continued at the south end of the jobsite. Placement of backfill material at structures throughout the relocation area has essentially been completed.

Structural concrete operations have essentially completed except for a portion of the south siphon transition and the stilling wells.

Placement and grouting of rip-rap lining continued where required. Placement of canal lining was started during the month and is approximately 56 percent complete.

Installation of underground electrical ductbanks continued. Installation of electrical building equipment, conduit runs to required piezometers, and installation of light post foundations were started during the month.

Contractor personnel, including employees of subcontractors, averaged 90 persons during the month of December 1993.

The Metropolitan Water District of Southern California

**MONTHLY CONSTRUCTION PROGRESS REPORT**

December 1993

<b>CONSTRUCTION OF</b>	Lake Skinner Outlet Tower and Bypass Lines Chlorination Project		
<b>CONTRACTOR</b>	Pro Contracting Corporation		
<b>SPECIFICATIONS NO.</b>	1262	<b>BID</b>	\$ 1,062,200
<b>CONTRACT NO.</b>	1416	<b>EXTRA WORK TO DATE</b>	0
<b>CONTRACT STARTING DATE</b>	October 6, 1993	<b>EARNINGS THIS MONTH</b>	448,546
<b>CONTRACT COMPLETION DATE</b>	May 30, 1994	<b>EARNINGS TO DATE</b>	583,746
<b>ESTIMATED COMPLETION DATE</b>	May 1994	<b>ESTIMATED PERCENT COMPLETE</b>	55
		<b>PERCENT CONTRACT TIME ELAPSED</b>	35

**SCOPE OF WORK**

Construction of three small buildings, including installation of approximately 20,000 linear feet of 6-inch-diameter PVC chlorine lines, 10-inch-diameter water lines, and 8-inch-diameter double-wall fiberglass chlorine line; located at the Skinner Plant, 33740 Borel Road, Winchester, California.

**CONSTRUCTION PROGRESS**

Excavation for and installation of the required 8-inch-diameter and 6-inch-diameter PVC piping were started during the month. Approximately 6,800 lineal feet of pipeline was installed, backfilled, and compacted during the month.

Placement of concrete slab-on-grades for three injection buildings was completed during the month. Masonry work for these three buildings is now in progress.

Contractor personnel, including employee of subcontractors, averaged 15 persons during the month of December 1993.

The Metropolitan Water District of Southern California

**MONTHLY CONSTRUCTION PROGRESS REPORT**

December 1993

<b>CONSTRUCTION OF</b>	Cathodic Protection System for East Orange County Feeder No. 2		
<b>CONTRACTOR</b>	Harco Technologies Corporation		
<b>SPECIFICATIONS NO.</b>	1258	<b>BID</b>	\$ 375,925
<b>CONTRACT NO.</b>	1415	<b>EXTRA WORK TO DATE</b>	0
<b>CONTRACT STARTING DATE</b>	July 2, 1993	<b>EARNINGS THIS MONTH</b>	93,981
<b>CONTRACT COMPLETION DATE</b>	January 5, 1994	<b>EARNINGS TO DATE</b>	324,663
<b>ESTIMATED COMPLETION DATE</b>	January, 1994	<b>ESTIMATED PERCENT COMPLETE</b>	26
		<b>PERCENT CONTRACT TIME ELAPSED</b>	99

**SCOPE OF WORK**

Installation of 11 deep well anode assemblies, including rectifiers and other appurtenances, along the East Orange County Feeder No. 2, located at various sites within the cities of Yorba Linda, Placentia, Anaheim, Tustin, Orange, Santa Ana, and Irvine--all in Orange County, California.

**CONSTRUCTION PROGRESS**

All work has been completed at deep well anode assemblies No. 1 through No. 6 and No. 9 and No. 10.

At Sites No. 8 and No. 11 the contractor completed drilling and installation of anodes and vent piping. Placement of AC conduit is in progress at these two sites. Concrete pads and cabinets were installed at Site No. 11. Boring and installations of DC conduit was completed at Site No. 8.

Contractor personnel, including employees of subcontractors, averaged five persons during the month of December 1993.

The Metropolitan Water District of Southern California

**MONTHLY CONSTRUCTION PROGRESS REPORT**

December 1993

<b>CONSTRUCTION OF</b>	Seismic Upgrading the La Verne Maintenance Shop Building		
<b>CONTRACTOR</b>	Ed Layton Construction Company, Inc.		
<b>SPECIFICATIONS NO.</b>	1221A	<b>BID</b>	\$ 204,834
<b>CONTRACT NO.</b>	1417	<b>EXTRA WORK TO DATE</b>	0
<b>CONTRACT STARTING DATE</b>	October 22, 1993	<b>EARNINGS THIS MONTH</b>	6,998
<b>CONTRACT COMPLETION DATE</b>	March 29, 1994	<b>EARNINGS TO DATE</b>	64,551
<b>ESTIMATED COMPLETION DATE</b>	March 1994	<b>ESTIMATED PERCENT COMPLETE</b>	27
		<b>PERCENT CONTRACT TIME ELAPSED</b>	39

**SCOPE OF WORK**

Add braces in the structural framing of the roof, add shear connections to walls and slabs, strengthen steel frames and pilasters and other support members for the seismic upgrading of the existing Maintenance Shop Building at the Weymouth filtration Plant, 700 North Moreno Avenue, La Verne, California.

**CONSTRUCTION PROGRESS**

The contractor completed epoxy embedment of dowels in shop walls and slabs during the month.

Placement of drypack is now in progress in the shop walls and slabs as required.

Contractor personnel, including employees subcontractors, averaged two persons during the month of December 1993.

The Metropolitan Water District of Southern California

**MONTHLY CONSTRUCTION PROGRESS REPORT**

December 1993

<b>CONSTRUCTION OF</b>	Electrolysis Monitoring Stations at Metro Blue Line Crossings		
<b>CONTRACTOR</b>	American Construction and Supply, Inc.		
<b>SPECIFICATIONS NO.</b>	1267	<b>BID</b>	\$ 41,814
<b>CONTRACT NO.</b>	1420	<b>EXTRA WORK TO DATE</b>	0
<b>CONTRACT STARTING DATE</b>	December 31, 1993	<b>EARNINGS THIS MONTH</b>	0
<b>CONTRACT COMPLETION DATE</b>	May 10, 1994	<b>EARNINGS TO DATE</b>	0
<b>ESTIMATED COMPLETION DATE</b>	May 1994	<b>ESTIMATED PERCENT COMPLETE</b>	0
		<b>PERCENT CONTRACT TIME ELAPSED</b>	0

**SCOPE OF WORK**

Installation of six electrolysis monitoring stations and all appurtenances at these specified locations located along the Metro Blue Line located in the cities of Los Angeles and Compton.

**CONSTRUCTION PROGRESS**

The Notice to Proceed with all work required under the contract was mailed to the contractor on December 29, 1993.

The Metropolitan Water District of Southern California

**MONTHLY CONSTRUCTION PROGRESS REPORT**

December 1993

<b>CONSTRUCTION OF</b>	Field Office at Domenigoni Valley Reservoir Site		
<b>CONTRACTOR</b>	Inland Asphalt and Coating, and Leasing Co., Inc., a Joint Venture		
<b>SPECIFICATIONS NO.</b>	1264	<b>BID</b>	\$1,232,351
<b>CONTRACT NO.</b>	1421	<b>EXTRA WORK TO DATE</b>	-
<b>CONTRACT STARTING DATE</b>	-	<b>EARNINGS THIS MONTH</b>	-
<b>CONTRACT COMPLETION DATE</b>	-	<b>EARNINGS TO DATE</b>	-
<b>ESTIMATED COMPLETION DATE</b>	-	<b>ESTIMATED PERCENT COMPLETE</b>	-
		<b>PERCENT CONTRACT TIME ELAPSED</b>	-

**SCOPE OF WORK**

Design, fabrication, and installation of a factory manufactured modular field office, and pre-engineered metal storage building plus all site work, located at Newport Road, one mile east of Highway 79, Riverside County.

**CONSTRUCTION PROGRESS**

Contract No. 1421 was awarded to Inland Asphalt and Coating A General Partnership, and Space Leasing, Co., Inc., a California Corporation, a Joint Venture on December 7, 1993, for the construction of a field office for the Domenigoni Valley Reservoir Project, in the amount of \$1,323,351.