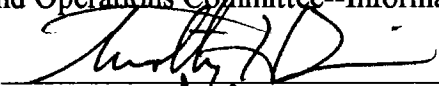
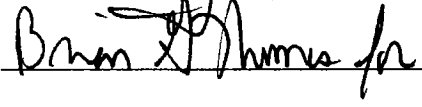




June 19, 1997

To: Board of Directors (Water Planning and Resources Committee--Information)
(Engineering and Operations Committee--Information)

From: *for* General Manager 

Submitted by: Debra C. Man, Chief Planning and Resources 

Subject: Fiscal Year 1996-97 Fourth Quarter Status Report on the Local Projects and Groundwater Recovery Programs

RECOMMENDATION

For information only.

EXECUTIVE SUMMARY

Metropolitan has entered into agreements to provide financial assistance for up to 230,984 acre-feet per year of production from 42 water recycling and 11 groundwater treatment projects. Thirty seven of these projects are in operation. Since 1982, Metropolitan has provided approximately \$42.0 million to support about 270,000 acre-feet of water production. This locally developed water improves regional water supply reliability by displacing requirements for future Metropolitan capital improvements and water importation.

DETAILED REPORT

Introduction

Metropolitan's three programs, the Local Projects Program (LPP), the Groundwater Recovery Program (GRP) and the temporary Local Resources Program (LRP), provide financial assistance for local water development as listed below:

	<u>LPP</u>	<u>LRP</u>	<u>GRP</u>
Type of Production	Recycled Water	Recycled Water	Recovered Groundwater
Financial Assistance	\$154/AF	\$0 to \$250/AF	\$0 to \$250/AF

Locally developed water, under these programs, improves regional water supply reliability by reducing requirements for future Metropolitan capital improvements and water importation. Since 1982, these three programs have supported 270,000 acre-feet (AF) of recycled water and recovered groundwater (Figure 1).

Quarterly Highlights

- The U.S. Bureau of Reclamation (Bureau) conducted a workshop to help establish program requirements and funding allocation procedures for recycling and groundwater recovery projects authorized under Title 16 of Public Law 102-575, as amended. Approximately 27 projects in Southern California could receive federal funding under this authority. To date the Bureau has contributed \$58 million to 16 projects in our region.
- The WaterReuse Association of California and the University of California (UC) sponsored a workshop which provided an overview of water recycling research taking place within the UC system. This kickoff workshop was held to define the research agenda for the UC WaterReuse Research Program which was recently established by the State Legislature. Under the Program, Metropolitan has committed to contribute \$10,000 per year for five years for water recycling research and associated public outreach.

Water Recycling Status

Metropolitan has entered into 42 LPP agreements to assist recycled water production of up to 190,300 acre-feet per year (AFY) (Table 1). Thirty projects are operating and expected to increase production from about 43,000 AF in fiscal year 1995-96 to about 48,000 AF this fiscal year. Since inception of its programs, Metropolitan has contributed approximately \$31.7 million supporting nearly 210,400 AF of recycled water production under LPP and LRP for landscape irrigation, nurseries, seawater barriers, and industrial uses. Figure 2 illustrates the annual recycled water production pattern over the last two calendar years for participating projects. The large amount of summer production is especially helpful in reducing peak demands on Metropolitan's system.

Groundwater Recovery Status

Metropolitan has entered into 11 agreements that will recover about 40,700 AFY of degraded groundwater (Table 2). Seven projects are operating, while the remaining four are in design or construction. Production is expected to increase from about 11,400 AF in fiscal year 1995-96 to 15,000 AF this fiscal year. Since inception of this program, Metropolitan has contributed approximately \$10.3 million, supporting about 59,600 AF of recovered groundwater production for municipal uses.

Projects Under Consideration

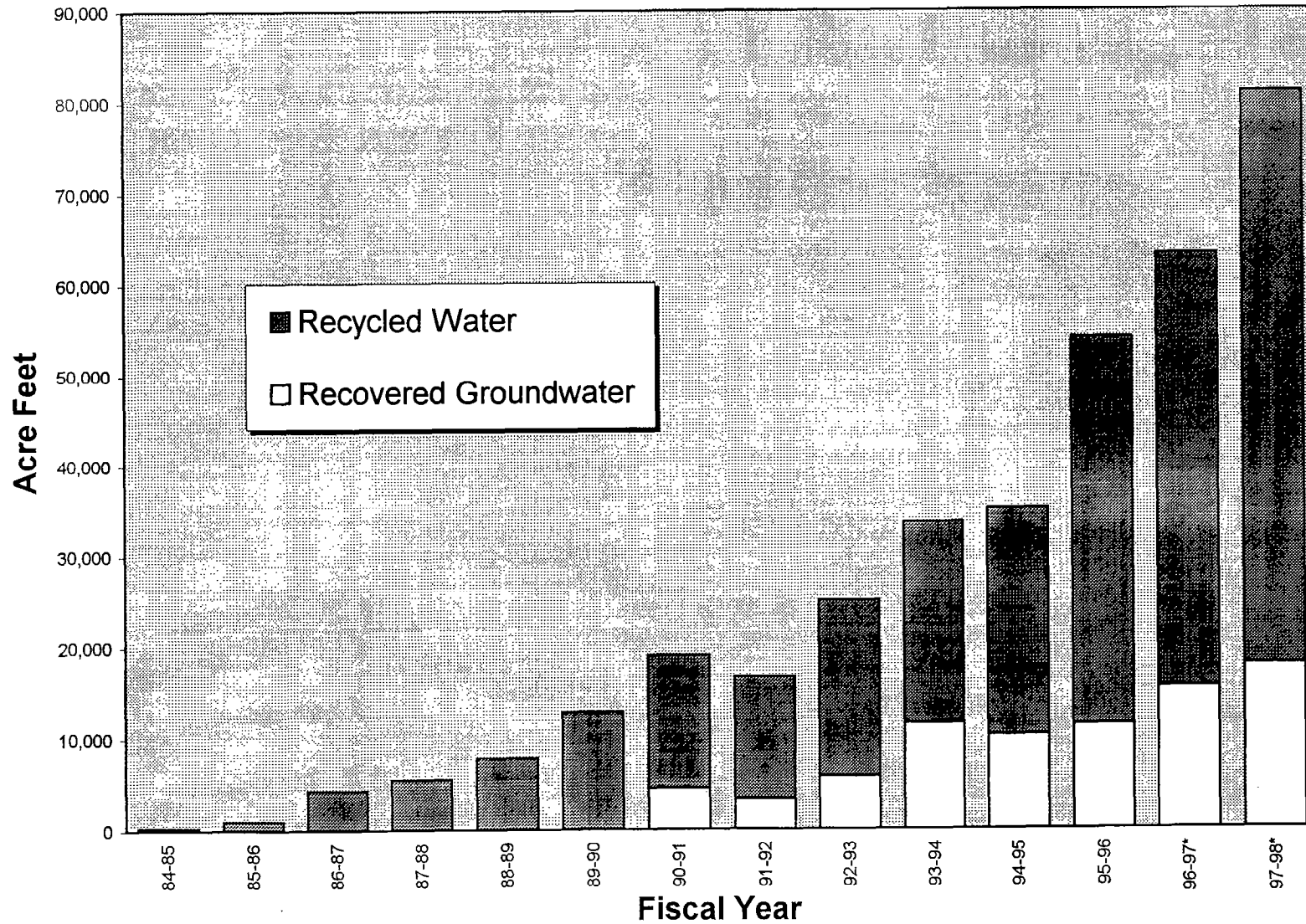
Applications have been received for 11 new water recycling projects and six new groundwater recovery projects which would collectively yield of about 96,600 AFY (Table 4).

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Attachments

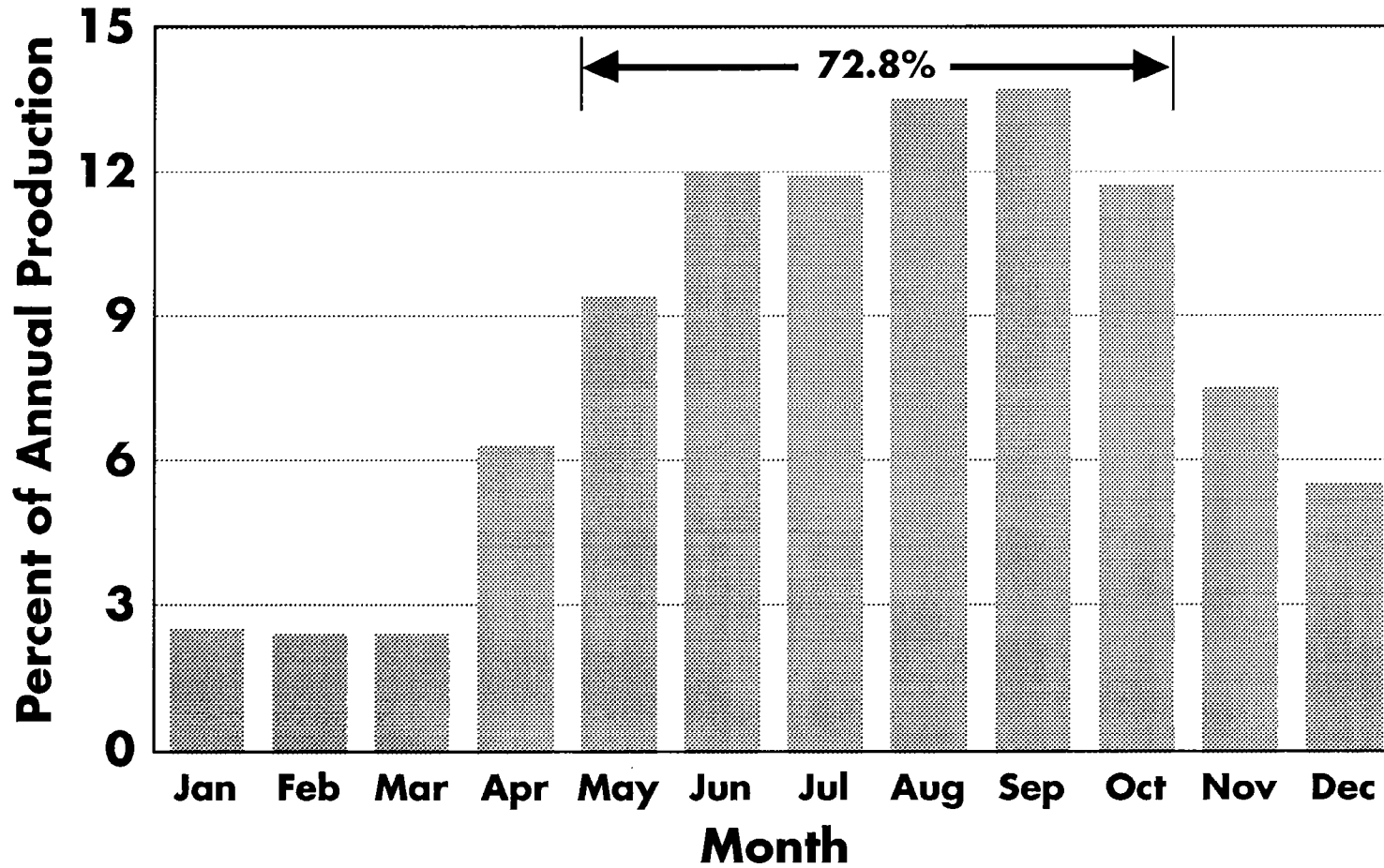
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**FIGURE 1
MET RECYCLING AND
GROUNDWATER RECOVERY PRODUCTION**



* Estimated

Figure 2
PRODUCTION PATTERN FOR RECYCLED WATER PROJECTS*



*Calendar Years 1995/1996 data for 28 projects

**TABLE 1
RECYCLING CONTRACTS**

MEMBER AGENCY	PROJECT	CONTRACT YIELD (AFY)	FY 95-96 YIELD (AFY)	FY 96-97 ¹ YIELD (AFY)	TOTAL TO DATE ¹	
					YIELD (AFY)	Contribution (\$)
LOCAL PROJECTS PROGRAM:						
Calleguas MWD	1. Oak Park/North Ranch Reclaimed Water Dist. System	1,300	260	786	1,058	162,994
Central Basin MWD	2. Cerritos Reclaimed Water Extension Project	260	254	212	823	126,711
	3. Lakewood Water Reclamation Project	440	440	355	3,190	491,306
Chino Basin MWD	4. Carbon Canyon Reclamation Project	13,500	0	0	0	0
Coastal MWD	5. San Clemente Water Reclamation Project	4,000	355	267	2,413	371,617
	6. South Laguna Reclamation Expansion Project	700	0	0	54	8,239
	7. South Laguna Reclamation Project	860	776	617	8,835	610,167
Eastern MWD	8. Rancho California Reclamation Expansion Project	6,000	1,473	1,736	5,882	905,766
	9. Eastern Regional Reclaimed Water System	4,830	0	0	0	0
	10. Eastern Reach 1, Phase II Water Reclamation Project	1,700	0	0	0	0
City of Glendale	11. Glendale Water Reclamation Expansion Project	600	306	246	1,608	247,601
Las Virgenes MWD	12. Calababas Reclaimed Water System Extension Project	700	491	367	2,966	456,810
	13. Las Virgenes MWD Reclamation Project	2,700	2,968	1,756	29,394	2,806,369
City of Long Beach	14. Long Beach Reclamation Project	1,700	1,260	1,187	9,676	1,396,980
	15. Long Beach Reclaimed Water Master Plan Phase I	2,750	0	0	0	0
City of Los Angeles	16. Los Angeles Greenbelt Project	1,610	791	651	2,817	433,864
	17. Sepulveda Basin Water Reclamation Project	1,900	0	0	0	0
MWD of Orange County	18. Irvine Reclamation Project	10,000	10,000	9,517	68,294	9,219,778
	19. Moulton Niguel Water Reclamation Project	8,000	1,594	1,452	5,386	829,506
	20. Santa Margarita Water Reclamation Project	3,600	1,801	1,652	12,349	1,827,685
	21. Trabuco Canyon Reclamation Expansion Project	800	412	241	1,386	213,459
San Diego County Water Authority	22. Encina Water Pollution Control Reclamation Project	165	163	165	650	100,146
	23. Oceanside Water Reclamation Project	300	18	26	102	15,770
	24. Santa Maria Water Reclamation Project	1,600	0	0	0	0
	25. Shadowridge Water Reclamation Project	375	338	295	1,520	234,065
Three Valleys MWD	26. Walnut Valley Water Reclamation Expansion Project	500	500	107	1,201	184,877
Subtotal		70,890	24,201	21,635	159,604	20,643,711
TEMPORARY LOCAL RESOURCE PROGRAM:³						
City of Burbank	27. Burbank Reclaimed Water System Expansion Project	850	186	399	584	145,860
Central Basin MWD	28. Century Reclamation Program	5,500	2,736	2,484	9,349	1,876,665
	29. Rio Hondo Water Reclamation Program	5,000	170	217	488	109,157
Coastal MWD	30. Green Acres Reclamation Project (Coastal MWD) ²	800	0	0	0	0
City of Glendale	31. Glendale Brand Park Reclaimed Water Project	225	0	0	0	0
	32. Glendale Verdugo-Scholl Reclaimed Water Project	2,000	217	378	594	145,497
MWD of Orange County	Green Acres Reclamation Project (MWDOC) ²	5,400	1,186	830	4,229	818,506
San Diego County Water Authority	33. Encina Basin Water Reclamation Project Phase I	2,050	1,245	1,172	4,510	810,751
	34. Escondido Regional Reclaimed Water Project	2,800	0	0	0	0
	35. Fallbrook Public Utility District Water Reclamation Project	1,200	507	614	2,204	434,344
	36. North City Water Reclamation Project	17,500	0	0	0	0
	37. Otay Water Reclamation Project Phase I	1,500	919	768	4,023	749,621
	38. Padre Dam MWD Reclaimed Water System Phase I	850	0	0	0	0
	39. Rancho Santa Fe Reclaimed Water System	220	0	0	0	0
	40. San Elijo Water Reclamation System	1,600	0	0	0	0
	41. San Pasqual Water Reclamation Project	1,100	244	175	494	111,343
City of Santa Ana	Green Acres Reclamation Project (Santa Ana) ²	800	134	259	511	114,734
West Basin MWD	42. West Basin Water Reclamation Program	70,000	10,881	12,651	23,793	5,762,250
Subtotal		119,395	18,425	19,947	50,779	11,078,728
Total		190,285	42,626	41,582	210,382	31,722,438

1. Reported totals through May 1997 have been updated to reflect deliveries reported to date - not all information is complete.

2. Green Acres Reclamation Project is approved as one project to deliver water to Coastal MWD, MWDOC, and Santa Ana.

3. Contribution subject to change based on annual reconciliation of actual project cost.

**TABLE 2
GROUNDWATER RECOVERY CONTRACTS**

MEMBER AGENCY	PROJECT	CONTRACT YIELD (AFY)	FY 95-96 YIELD (AF)	FY 96-97 YIELD* (AF)	TOTAL TO DATE ¹	
					YIELD (AF)	Contribution (\$)
GROUNDWATER RECOVERY PROGRAM:						
City of Santa Monica	1. Santa Monica Groundwater Treatment Plant	1,800	1,800.0	1,500.0	8,470.0	0.0
City of Burbank	2. Burbank Lake St. GAC Treatment Plant	2,744	2,225.8	1,349.0	9,068.7	528,362.6
West Basin MWD	3. West Basin Desalter Project	1,524	1,114.9	1,224.4	5,539.5	1,384,900.0
San Diego CWA	4. Oceanside Desalter Project	2,000	2,269.6	1,810.6	6,675.8	1,568,729.9
	5. Lower Sweetwater River Groundwater Demineralization Project, Phase I	3,600	0.0	0.0	0.0	0.0
MWD of Orange County	6. Tustin Desalter Project	3,271	0.0	1,477.2	1,477.2	101,926.8
	7. Irvine Desalter Project	6,700	0.0	0.0	0.0	0.0
Western MWD/ Chino Basin MWD	8. Chino Basin Desalination Program, Phase I	8,000	0.0	0.0	0.0	0.0
Eastern MWD	9. Meniffee Basin Desalter Project	3,360	0.0	0.0	0.0	0.0
	Subtotal	32,999	7,410.3	7,361.2	31,231.2	3,583,919.4
LOCAL PROJECTS PROGRAM:						
Foothill MWD	10. Glenwood Nitrate Water Reclamation Project	1,600	1,196.7	799.3	3,800.5	585,270.8
Western MWD	11. Arlington Basin Groundwater Desalter Project	6,100	2,770.6	4,665.5	24,527.6	6,123,553.1
	Subtotal	7,700	3,967.3	5,464.8	28,328.1	6,708,823.9
	Total	40,699	11,377.6	12,826.0	59,559.3	10,292,743.3

1. Reported totals through May 1997 have been updated to reflect deliveries reported to date - not all information is complete.

**TABLE 3
GROUNDWATER RECOVERY PROGRAM
Board-Approved Projects Under Negotiation**

MEMBER AGENCY	PROJECT	OPERATING AGENCY	MAXIMUM YIELD (AFY)
Three Valleys MWD	1. Rowland Groundwater Treatment Project	Three Valleys MWD	516
Total			516

**TABLE 4
APPLICATIONS UNDER REVIEW**

MEMBER AGENCY	PROJECT	OPERATING AGENCY	MAXIMUM YIELD (AFY)
GROUNDWATER PROJECTS:			
City of Beverly Hills	1. Beverly Hills Desalter	City of Beverly Hills	2,688
MWD of Orange County	2. Capistrano Beach Desalter	Capistrano Beach CWD	1,372
	3. San Juan Basin Desalter	San Juan Basin Authority	2,200
Three Valleys MWD	4. Baldwin Park Operable Unit (San Gabriel Basin)	Three Valleys MWD	24,100
San Diego CWA	5. Oceanside Desalter Phase II	City of Oceanside	4,500
	6. Bonsall Desalter	Rainbow MWD	2,000
Subtotal			36,860
RECYCLING PROJECTS:			
Calleguas MWD	7. Conejo Creek Diversion Project	Calleguas MWD	14,000
	8. Olsen Road Reclaimed Water Project	City of Thousand Oaks	225
Central Basin MWD	9. Alamitos Barrier Reclaimed Water Project	Water Replenishment District of So. California	3,000
City of Los Angeles	10. Harbor Water Recycling Project	City of Los Angeles	5,000
City of Pasadena	11. Pasadena Reclaimed Water Project	City of Pasadena	4,000
Chino Basin MWD	12. Chino Basin RP-4 Reclamation Project	Chino Basin MWD	7,102
San Diego CWA	13. San Pasqual Groundwater Management Project	City of San Diego	8,000
	14. Rincon Del Diablo Reclaimed Water Distribution Project	Rincon Del Diablo	450
	15. Water Repurification Project	City of San Diego	15,000
	16. Southeast Quadrant Reclaimed Water Project	Olivenhain MWD	2,150
	17. Northwest Quadrant Reclaimed Water Project	Olivenhain MWD	800
Subtotal			59,727
Total			96,587