

**THE WATER AND POWER EMPLOYEES' RETIREMENT PLAN OF  
THE CITY OF LOS ANGELES**

*Actuarial Valuation and Review as of June 30, 2001*

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*The Segal Company  
120 Montgomery Street  
San Francisco, CA 94104  
(415) 263-8200*

*November 26, 2001*

*Board of Administration  
Water and Power Employees' Retirement Plan  
Los Angeles Department of Water and Power  
111 North Hope Street  
Los Angeles, California 90012*

*Dear Members of the Board:*

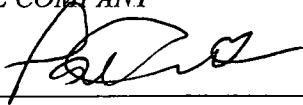
*We are pleased to submit the Actuarial Valuation and Review as of June 30, 2001. This valuation is based on financial statements and employee data furnished by the Retirement Office. We would like to take this opportunity to express our appreciation for the courtesy and cooperation accorded to us by the Retirement Office during the course of our work.*

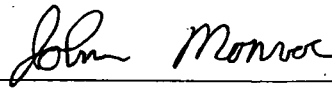
*This is to certify that The Segal Company has prepared an Actuarial Valuation of the Plan as of June 30, 2001, in accordance with generally accepted actuarial principles and practices. To the best of my knowledge, the information supplied in this Actuarial Valuation is complete and accurate and in my opinion the assumptions used, (a) are reasonable and (b) represent my best estimate of anticipated experience under the Plan. We look forward to reviewing this report with you at your next meeting and to answering any questions you may have.*

*Sincerely,*

*THE SEGAL COMPANY*

*By:*

  
*Paul Angelo, F.S.A., M.A.A.A., F.C.A.  
Vice President and Actuary*

  
*John Monroe, M.A.A.A.  
Associate Actuary*

## SECTION 1

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**SECTION 1:**

**Valuation Summary for the Water and  
Power Employees' Retirement Plan of  
the City of Los Angeles**

**SECTION 1: Valuation Summary for the Water and Power Employees' Retirement Plan of the City of Los Angeles**

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**SIGNIFICANT ISSUES IN VALUATION YEAR:**

- The salaries for continuing actives increased by 7.0% from the rate in effect on March 31, 2000 to the rate in effect on March 31, 2001. Since this increase is larger than the assumed rate of 5.5%, the plan experienced an actuarial loss from salary increases. This loss amounted to \$15.2 million for the current year.
- The actuarial value of assets earned a return of approximately 8.2% for the June 30, 2000 to June 30, 2001 plan year. This resulted in an actuarial gain of \$13 million when measured against the assumed rate of return of 8.0%.
- Once again, the required contribution rate is zero before the mandatory 110% matching of the employee contribution. The required contribution for the 2002-2003 year is estimated to be \$26.3 million or 5.8% of pay. Actual contributions will be calculated as 110% of employee contributions.
- This report reflects the second year of the new policy for amortizing any surplus or unfunded actuarial accrued liability, as adopted by the Board. This policy is based on 15 year amortization periods and is described in Section 4, Exhibit 3 (page 4-8).

**SECTION 1: Valuation Summary for the Water and Power Employees' Retirement Plan of the City of Los Angeles**

**Summary of Key Valuation Results**

	June 30, 2001	June 30, 2000
<b>Department Contributions:</b>		
Recommended	\$ 26,317,260	\$ 23,087,698
As a percent of pay	5.84%	5.70%
Actual (net of reversions)	--	25,763,218
<b>Funding Elements:</b>		
Net Normal cost	\$ 47,941,025	\$ 42,910,840
Market value of assets	6,111,875,957*	5,887,764,096
Actuarial value of assets	5,833,274,582	5,605,856,078
Actuarial accrued liability	5,306,262,736	5,082,960,078
Excess of assets over actuarial accrued liability	527,011,846	522,876,000
Present value of accrued benefit – FASB 35	4,448,476,216	4,295,693,183
<b>Demographic Data:</b>		
Number of retired members & beneficiaries	9,576	9,749
Number of vested former members	1,415	1,387
Number of active members	7,250	6,807
Total compensation for upcoming Plan Year	\$450,390,169	\$405,209,934
Average compensation	62,123	59,528
Net Total Employee Contributions*	24,814,812	22,155,177

\* Estimated by Retirement Office

**SECTION 2:**

**Valuation Results for the Water and  
Power Employees' Retirement Plan of  
the City of Los Angeles**

**SECTION 2: Valuation Results for the Water and Power Employees' Retirement Plan of the City of Los Angeles**

**A. SUMMARY OF MEMBERSHIP**

The Actuarial Valuation and Review considers the number and demographics of covered participants, including active participants, inactive vested participants, pensioners and beneficiaries.

This section presents a summary of significant statistical data on these participant groups. More detailed information for this valuation year can be found in Section 4, Exhibits 2 and 3.

**CHART 1**

**Summary of Membership**

	March 31, 2001	March 31, 2000	Percent Increase
<b>I. Active Members</b>			
1. Number	7,250	6,807	6.5%
2. Monthly salary	\$35,575,845	\$32,007,104	11.1%
3. Average monthly salary	\$4,907	\$4,702	4.4%
4. Average age	45.5	44.8	-
5. Average years of service	15.4	15.4	-
<b>II. Terminated Vested Members</b>			
1. Number	1,415	1,387	2.0%
2. Average member account balance	\$27,222	\$26,637	2.2%
<b>III. Retired Members</b>			
1. Number	9,576	9,749	(1.8)%
2. Monthly allowances			
(a) basic service benefits and continuance to surviving eligible spouse benefits	\$17,036,090	\$16,999,040	0.2%
(b) cost-of-living benefits	<u>5,864,020</u>	<u>5,532,058</u>	6.0%
(c) total	\$22,900,110	\$22,531,098	1.6%
3. Average total allowance	\$2,391	\$2,311	3.5%



**SECTION 2: Valuation Results for the Water and Power Employees' Retirement Plan of the City of Los Angeles**

**Active Members**

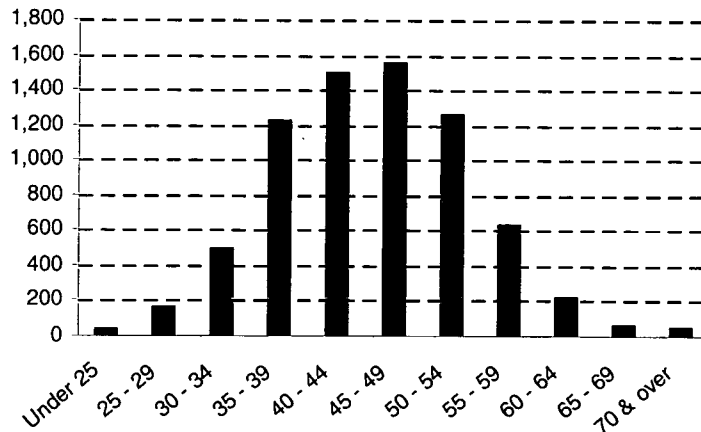
Plan costs are affected by the age, years of service and salary of active members. After adjusting the data to June 30, in this year's valuation, there are 7,250 active members with an average age of 45.8, average years of service of 15.6 years and average salary of \$62,123. The 6,807 active members in the prior valuation after adjusting the data to June 30 had an average age of 45.1, average service of 15.7 years and average salary of \$59,528.

**Inactive Participants**

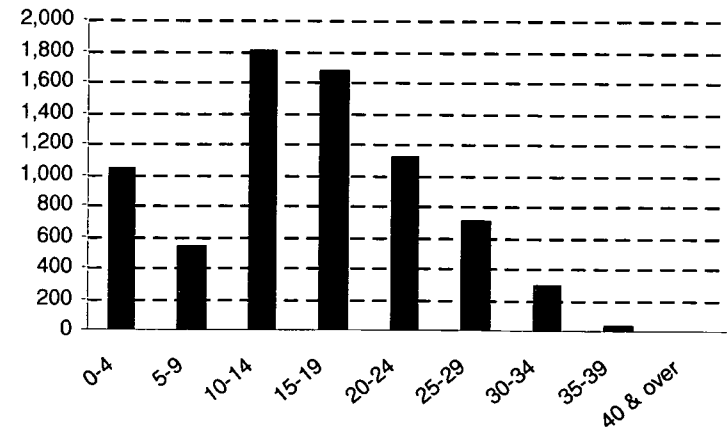
In this year's valuation, there were 1,415 members with a vested right to a deferred or immediate vested benefit.

*These graphs show a distribution of active members by age and by years of service.*

**CHART 2**  
**Distribution of Active Members by Age as of June 30, 2001**



**CHART 3**  
**Distribution of Active Members by Years of Service as of June 30, 2001**



**SECTION 2: Valuation Results for the Water and Power Employees' Retirement Plan of the City of Los Angeles**

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**B. PROJECTED CONTRIBUTION AND RESERVE ACCOUNTS**

The actuarial valuation is based on financial statements that the Retirement Office provided.

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**CHART 4**

**Projected Contribution and Reserve Accounts**

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	June 30, 2001	June 30, 2000
1. Reserve for retirement allowance for retired members	\$3,445,150,799	\$3,408,139,712
2. Contribution accounts:		
(a) members (excluding additional contributions)	443,189,695	392,838,570
(b) Department of Water and Power	(444,629,634)	(403,506,043)
3. Reserve for investment losses	5,541,524	4,565,754
4. General reserve	<u>202,418,917</u>	<u>112,065,935</u>
5. Total	<u>\$3,651,671,301</u>	<u>\$3,514,103,928</u>

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**SECTION 2: Valuation Results for the Water and Power Employees' Retirement Plan of the City of Los Angeles**

**C. UNFUNDED ACTUARIAL ACCRUED LIABILITY**

The actuarial value of assets (using the asset smoothing method) has increased from \$5,605,856,078 on June 30, 2000 to \$5,833,274,582 June 30, 2001.

The actuarial accrued liability (using the entry age method) is a measure of the liability for prior service, and includes a projection of salaries. The actuarial accrued liability has increased from \$5,082,960,078 on June 30, 2000 to \$5,306,262,736 on June 30, 2001.

The actuarial accrued liability less the actuarial value of assets is called the unfunded actuarial accrued liability (UAAL). For the last four years this amount has been negative (actuarial value of assets exceed the actuarial accrued liability).

The change in UAAL is analyzed below. The change in UAAL attributable to 2000-2001 experience was measured using the data provided by the Retirement Plan Manager.

*The chart shows the development and reconciliation of the UAAL*

**CHART 5**

**Determination of Unfunded Actuarial Accrued Liability; Reconciliation of UAAL**

<u>Determination of UAAL</u>		
	<u>June 30, 2001</u>	<u>June 30, 2000</u>
1. Actuarial accrued liability	\$5,306,262,736	\$5,082,960,078
2. Actuarial value of assets	5,833,274,582	5,605,856,078
3. Unfunded actuarial accrued liability (UAAL): (1) – (2)	(527,011,846)	(522,896,000)
4. Funding Ratio: (2)/(1)	109.9%	110.3%
<u>Reconciliation of UAAL</u>		
1. UAAL on June 30, 2000		\$(522,896,000)
2. Expected decrease, due to normal experience of the plan		(28,410,236)
3. Decrease due to investment return more than 8%		(13,258,172)
4. Increase due to salary increases over 5.5%		15,188,067
5. Increase due to non-investment actuarial experience		<u>22,364,495</u>
6. UAAL on June 30, 2000: (1) + (2) + (3) + (4) + (5)		\$(527,011,846)

**SECTION 2: Valuation Results for the Water and Power Employees' Retirement Plan of the City of Los Angeles**

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**D. ACTUARIAL EXPERIENCE**

To calculate the cost requirements of the plan, assumptions are made about future events that affect the amount and timing of benefits to be paid and assets to be accumulated. Each year actual experience is measured against the assumptions and, to the extent that there are differences in that year, the contribution requirement is adjusted. If assumptions are changed, the contribution requirement is adjusted to take into account a change in experience anticipated for all future years.

Taking account of experience gains or losses in one year without making a change in assumptions reflects the belief that the single year's experience was a short term development and that, over the long run, experience will return to that originally assumed. For contribution requirements to remain stable, assumptions should approximate experience.

When compared to the expected actuarial accrued liability, the net experience variation was not significant. On the following page is a discussion of the investment component of the actuarial experience.

*The chart provides a summary of the prior year's actuarial experience.*

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**CHART 6**

**Actuarial Experience for Year Ended June 30, 2001**

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1. Net gain/(loss) from investments*	\$ 13,258,172
2. Net gain/(loss) from salary increases	(15,188,067)
3. Net gain/(loss) from other Plan experience	<u>(22,364,495)</u>
4. Net experience gain/(loss): (1) + (2) + (3)	<u>\$(24,294,380)</u>

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\* Details in Chart 7

**SECTION 2: Valuation Results for the Water and Power Employees' Retirement Plan of the City of Los Angeles**

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**E. INVESTMENT EXPERIENCE**

Because earnings on investments significantly affect the cost of the Plan, an assumption is made about the rate of return on Plan assets. The rate of return is investment income net of investment expenses, expressed as a percentage of the average actuarial value of assets during the year.

Investment income, for the purposes of the actuarial valuation, consists of interest and dividend income, and a four year phase in of realized and unrealized gains and losses.

*This chart shows the portion of the gain/(loss) due to investment experience.*

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**CHART 7**

**Investment Experience for Year Ended June 30, 2001**

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1	Net investment return	\$ 452,714,806
2	Average actuarial value of assets	5,493,207,927
3	Rate of return: (1) ÷ (2)	8.24%
4	Assumed rate of return	8.00%
5	Expected net investment return: (2) x (4)	439,456,634
6	Actuarial gain/(loss): (1) – (5)	\$ 13,258,172

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**SECTION 2: Valuation Results for the Water and Power Employees' Retirement Plan of the City of Los Angeles**

**F. CONTRIBUTION REQUIREMENTS**

The recommended Department contribution is made up of (a) normal – the cost of benefits earned this year, and (b) amortization of the UAAL – the portion of liability assigned to actuarial accrued liability that has not yet been funded. The Plan is said to be fully funded when the UAAL is negative or assets exceed actuarial accrued liability. The Department is now funding the normal cost as a percentage of pay and is funding the dollar amount of the amortization payment. The Plan has a surplus as of June 30, 2001 which is amortized over various periods. This produces an amortization credit of \$61,466,921 for actuarial surplus this year. This amortization credit is large enough to fully offset the Department's normal cost. As a minimum, the Department contributes the matching 110% of employee contributions.

Therefore, the total expected contributions to the plan will amount to the expected employee contribution of \$23,924,782 plus the expected matching 110% of employee contributions or \$26,317,260 for a total of \$50,242,042. Additional detail can be found in Section 3, Exhibit F.

The Department's theoretical contribution rate increased as a percentage of pay (i.e., became a smaller negative rate). This was primarily the result of the investment return being greater than assumed offset by some non-investment actuarial losses (mainly salary increases greater than assumed). An analysis of the change from the June 30, 2000 rate to the June 30, 2001 rate is shown below.

*The chart summarizes the contribution information for the valuation year.*

**CHART 8  
Contribution Requirements and Reconciliation of Recommended Contribution Rate**

Department Contributions	June 30, 2001	June 30, 2000
Normal cost	10.64%	10.59%
Unfunded (surplus) amortization*	(13.65%)	(14.52%)
Total**	0.00%	0.00%
Employer 110% Contribution Rate	5.84%	5.70%
<b>Reconciliation of contribution rate***</b>		
June 30, 2000 rate		(3.93%)
Increase due to non-investment actuarial losses		0.87%
Increase due to salary loss		0.38%
Decrease due to investment gain		<u>(0.33%)</u>
June 30, 2001 rate***		(3.01%)

\* See Section 4, Exhibit 1.

\*\* The recommended contribution rate cannot be less than 0.0% of pay.

\*\*\* The reconciliation is shown using the underlying negative rates for illustration purposes only.

**SECTION 3:**

**Supplementary Information for the Water  
and Power Employees' Retirement Plan  
of the City of Los Angeles**

**SECTION 3: Supplementary Information for the Water and Power Employees' Retirement Plan of the City of Los Angeles**

**EXHIBIT A**

**The Actuarial Value of Assets**

June 30 Year	Market Value Equities	Book Value Equities	Unrealized Gains	Change in Unrealized Gains	Book Value Total Fund	Reserve for Investment Losses	General Reserve
2001	\$3,623,361,493	\$1,232,243,186	\$2,391,118,307	\$69,584,484	\$3,641,929,133	\$5,541,524	\$202,418,917
2000	3,490,328,856	1,168,795,033	2,321,533,823	(285,848,808)	3,514,103,929	4,565,754	112,065,935
1999	3,834,125,994	1,226,743,363	2,607,382,631	330,193,832	3,230,951,816	34,289,503	(2,939,439)
1998	3,505,970,723	1,228,781,924	2,277,188,799	649,758,698	3,176,151,852	4,591,642	39,146,448
1997	2,872,657,054	1,245,226,953	1,627,430,101	639,187,772	2,973,400,243	0	29,572,429

(1)	Book value of total fund	\$3,641,929,133
(2)	Book value of equities	1,232,243,186
(3)	Reserve for investment losses	5,541,524
(4)	General reserve	<u>202,418,917</u>
(5)	Actuarial value of assets for nonequities: (1) – (2) – (3) – (4)	\$2,201,725,506
(6)	Market value of equities, June 30, 2001	\$3,623,361,493
(7)	.75 x 2001 change in unrealized gains	52,188,363
(8)	.50 x 2000 change in unrealized gains	(142,924,404)
(9)	.25 x 1999 change in unrealized gains	<u>82,548,458</u>
(10)	Actuarial value of equities, June 30, 2001: (6) – (7) – (8) – (9)	\$3,631,549,076
(11)	Total Actuarial value of assets: (5) + (10)	\$5,833,274,582



**SECTION 3: Supplementary Information for the Water and Power Employees' Retirement Plan of the City of Los Angeles**

**EXHIBIT B**

**Actuarial Balance Sheet**

An overview of your Plan's funding is given by an Actuarial Balance Sheet. In this approach, we first determine the amount and timing of all future payments that will be made by the Plan for current participants. We then discount these payments at the valuation interest rate to the date of the valuation, thereby determining their present value. We refer to this present value as the "liability" of the Plan.

Second, we determine how this liability will be met. These actuarial "assets" include the net amount of assets already accumulated by the Plan, the present value of future member contributions, the present value of future Department normal cost contributions, and the present value of future Department amortization payments.

**Actuarial Balance Sheet**

**Assets**

	<u>June 30, 2001</u>	<u>June 30, 2000</u>
1. Total actuarial value of assets	\$5,833,274,582	\$5,605,856,078
2. Present value of future contribution by members	247,305,813	222,025,060
3. Present value of future Department contributions for:		
(a) entry age normal cost	478,271,822	437,929,359
(b) unfunded actuarial accrued liability	(527,011,846)	(522,896,000)
4. Total current and future assets	\$6,031,840,371	\$5,742,914,497

**Liabilities**

	<u>June 30, 2001</u>	<u>June 30, 2000</u>
5. Present value of benefits already granted:	\$3,385,192,912	\$3,374,531,483
6. Present value of benefits to be granted:	\$2,646,647,459	\$2,368,383,014
7. Total liabilities	\$6,031,840,371	\$5,742,914,497

**SECTION 3: Supplementary Information for the Water and Power Employees' Retirement Plan of the City of Los Angeles**

**EXHIBIT C  
Recommended Contributions**

Department contributions have been determined on the basis of the entry age normal cost funding method. The entry age normal method defines the normal cost as the level percentage of salary necessary to fund the projected future benefit over the period from the date of entry (i.e., employment) to the date of retirement. The normal cost percentage is subdivided into two parts. The first part is the percentage of salary specified as the member contribution; the second part, the Department portion, is the balance after deducting the member contribution percentage from the total normal cost percentage. The actuarial accrued liability is equal to the excess of total

present value of benefits (earned and unearned with respect to all current members) over the present value of future member contributions, and the present value of future Department normal costs with respect to current members. The excess (shortfall) of the actuarial accrued liability over the actuarial value of assets is called the unfunded (surplus) actuarial accrued liability and is amortized over various periods by level contributions.

The recommended contribution rates for the various types of benefits provided by the Plan set forth below are based on salaries as of June 30, 2001.

**Recommended Department Contributions**

	June 30, 2001		June 30, 2000
	Dollar amount	As a percent of pay	As a percent of pay
1. Total Normal Cost	\$71,865,807	15.96%	15.77%
2. Expected Member Contribution	<u>23,924,782</u>	<u>5.31</u>	<u>5.18</u>
3. Net Normal Cost: (1) - (2)	\$47,941,025	10.64	10.59
4. Amortization of UAAL (surplus)*	(61,456,739)	(13.65)	(14.52)
5. Required Employer Contribution	0	0.00%	0.00%
6. Employer Match	26,317,260	5.84%	5.70%
7. Greater of Required Employer Contribution or Employer Match	26,317,260	5.84%	5.70%

The recommended contribution rate cannot be less than 0.0% of pay. The actual contribution is at least the mandatory 110% of employees contributions.

\*See Section 4, Exhibit 1.

**SECTION 3: Supplementary Information for the Water and Power Employees' Retirement Plan of the City of Los Angeles**

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**EXHIBIT D**

**Accounting Pension Cost – GASB No. 27**

The Department adopted Government Accounting Standards Board Statement No. 27 (GASB 27) in accounting for costs under the Retirement Plan. This statement requires that the Department expense in each

year the actuarial recommended contribution adjusted for the amortization of any Net Pension Obligation existing at the start of the year. The following table shows the costs for the current and prior fiscal years.

<u>Accounting Pension Cost - Estimated</u>		<u>Fiscal Year Ending June 30, 2002</u>	<u>Fiscal Year Ending June 30, 2001</u>
1.	Actuarial recommended contribution	\$ 0	\$ 0
2.	Adjustment	<u>6,132,578</u>	<u>5,378,281</u>
3.	Pension cost	\$6,132,578	\$5,378,281

**SECTION 3: Supplementary Information for the Water and Power Employees' Retirement Plan of the City of Los Angeles**

**EXHIBIT E**

**Value of Earned Benefits – FASB 35**

The third view of your Plan is an approach similar to that in Exhibit C. This approach was promulgated by the Financial Accounting Standards Board (FASB) in its Standard No. 35. Under this standard, the plan's financial statement must contain the "present value of accumulated benefits" (the ABO) determined in accordance with FASB No. 35.

FASB No. 35 requires a straightforward determination of the present value of accrued benefits except for one change to the definition used in the traditional view that no projection of future salary increases be made. Using this approach, we determined the following.

<u>Funding Ratio – FASB 35</u>	<u>June 30, 2001</u>	<u>June 30, 2000</u>
1. Present value of benefits earned to date	\$4,448,476,216	\$4,295,693,183
2. Actuarial value of assets	5,833,274,582	5,605,856,078
3. Unfunded present value of benefits: (1) – (2)	(1,384,798,366)	(1,310,162,895)
4. Funding ratio: (2)/(1)	131.1%	130.5%

**SECTION 3: Supplementary Information for the Water and Power Employees' Retirement Plan of the City of Los Angeles**

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**EXHIBIT F**

**Adjusted Reserves**

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Each year the Retirement Board adjusts its retired reserves to agree with the value calculated during the valuation. The following table presents the required transfers.

<u>Adjusted Reserves</u>	<u>June 30, 2001</u>	<u>June 30, 2000</u>
1. Retired reserve balance	\$3,445,150,799	\$3,408,139,712
2. Actuarially computed present value	3,385,192,912	3,374,531,483
3. Actuarial gain (loss): (1) – (2)	59,957,887	33,608,229
4. Transfer from (to) DWP contribution accounts from retired reserves:	(59,957,887)	(33,608,229)

**SECTION 3: Supplementary Information for the Water and Power Employees' Retirement Plan of the City of Los Angeles**

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**EXHIBIT G**

**Section 415 Limitations**

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Section 415 of the Internal Revenue Code specifies the maximum benefits that may be paid to an individual from a plan maintained for its employees by any state or political subdivision.

These rules do not apply to "qualified participants". A qualified participant is defined as a participant who first became a participant in the plan maintained by the employer before January 1, 1990.

A qualified pension plan may not pay benefits in excess of the Section 415 limits. The ultimate penalty for non-compliance is participants could be taxed on their vested benefits.

In particular, Section 415(b) of the IRC limits the maximum annual benefit payable at the Social Security Normal Retirement Age to:

A dollar limit of \$90,000 indexed for inflation. The dollar limit (\$90,000, indexed for inflation) is \$135,000 for plan year ending June 30, 2001 and \$ 140,000 for plan year ending June 30, 2002. This is the limit in simplified terms. It must be adjusted based on each participant's circumstances, for such things as age at retirement and form of benefits chosen.

While the actual determination of the exact limits applicable to each participant's benefit can only be done when the individual retires and applies for benefits, the overall impact of the limits has been reflected in this valuation.

Fund Counsel's review and interpretation of the law and regulations must be sought in this area as well.

**SECTION 4:**

**Amortization Bases, Statistics,  
Assumptions and Plan Provisions for the  
Water and Power Employees' Retirement  
Plan of the City of Los Angeles**

**SECTION 4: Amortization Bases, Statistics, Assumptions, and Plan Provisions for the Water and Power Employees' Retirement Plan of the City of Los Angeles**

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**EXHIBIT I**

**Maintenance Schedule of Amortization Bases as of July 1, 2001**

<b>Type of Base</b>	<b>Date Established</b>	<b>Amortization Amount</b>	<b>Years Remaining</b>	<b>Outstanding Balance</b>
Initial Base	07/01/2000	\$(58,827,120)	14	\$(503,637,978)
Experience Gain	07/01/2001	<u>(2,629,619)</u>	15	<u>(23,373,868)</u>
Total		\$(61,456,739)		\$(527,011,846)



**SECTION 4: Amortization Bases, Statistics, Assumptions, and Plan Provisions for the Water and Power Employees' Retirement Plan of the City of Los Angeles**

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**EXHIBIT 2  
Pensions in Pay Status on March 31, 2001**

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<u>Age</u>	<u>Number</u>	<u>Monthly Amount</u>	<u>Number</u>
Under 50	33	Under \$ 500	619
50 - 54	467	\$500 - 999	1,163
55 - 59	978	1,000 - 1,499	1,257
60 - 64	1,115	1,500 - 1,999	1,276
65 - 69	1,214	2,000 - 2,499	1,341
70 - 74	1,454	2,500 - 2,999	1,152
75 - 79	1,689	3,000 - 3,499	863
80 - 84	1,314	3,500 - 3,999	640
85 & Over	1,312	4,000 - 4,499	408
		4,500 & over	857
<u>Total</u>	<u>9,576</u>	<u>Total</u>	<u>9,576</u>

**SECTION 4: Amortization Bases, Statistics, Assumptions, and Plan Provisions for the Water and Power Employees' Retirement Plan of the City of Los Angeles**

**EXHIBIT 3**

**Participants in Active Service on June 30, 2001 by Age and by Service**

Age	Years of Service									
	Total	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 & over
Under 25	42	42	--	--	--	--	--	--	--	--
	43,461	43,461	--	--	--	--	--	--	--	--
25 - 29	170	155	14	1	--	--	--	--	--	--
	45,382	44,323	56,989	47,113	--	--	--	--	--	--
30 - 34	505	201	139	158	7	--	--	--	--	--
	55,192	47,044	62,016	59,539	55,543	--	--	--	--	--
35 - 39	1,227	206	156	578	271	15	1	--	--	--
	60,186	48,770	58,700	62,319	65,629	52,409	52,510	--	--	--
40 - 44	1,499	163	101	429	548	253	5	--	--	--
	63,127	50,703	58,104	60,874	67,580	67,279	64,775	--	--	--
45 - 49	1,563	113	63	303	419	417	233	15	--	--
	64,152	55,364	59,616	60,299	64,813	67,107	67,523	74,193	--	--
50 - 54	1,262	62	37	200	237	257	326	143	--	--
	65,278	56,725	63,422	58,595	63,034	65,044	68,044	76,651	--	--
55 - 59	636	38	20	86	124	124	113	104	25	2
	65,931	54,471	70,366	55,571	62,240	64,079	67,044	77,925	86,765	81,368
60 - 64	225	12	14	35	52	41	27	27	16	1
	63,270	55,434	61,304	54,028	59,875	58,892	63,953	73,957	91,729	102,019
65 - 69	65	9	2	16	14	8	7	6	2	1
	58,138	27,013	52,965	60,915	56,155	64,099	61,975	80,909	77,224	82,606
70 & over	56	41	--	2	3	2	3	2	1	2
	34,023	22,120	--	62,327	50,619	50,955	66,370	88,265	55,952	94,172
Total	7,250	1,042	546	1,808	1,675	1,117	715	297	44	6
	62,123	48,100	60,289	60,481	65,119	65,786	67,451	76,892	87,437	89,284

**SECTION 4: Amortization Bases, Statistics, Assumptions, and Plan Provisions for the Water and Power Employees' Retirement Plan of the City of Los Angeles**

**EXHIBIT 4**

**Reconciliation of Member Data**

	<b>Active Members</b>	<b>Vested Former Members</b>	<b>Pensioners</b>	<b>Beneficiaries</b>	<b>Total</b>
Number as of July 1, 2000	6,807	1,387	7,501	2,248	17,943
New Members	641	--	--	--	641
Terminations – with vested rights	-68	68	--	--	--
Retirements	-51	-19	70	--	--
Return to work	32	-30	-2	--	--
Died with beneficiary	-3	-1	-115	119	--
Died without beneficiary	--	--	-156	-119	-275
Lump sum payouts	-108	-64	--	--	-172
Data adjustments	<u>--</u>	<u>74</u>	<u>17</u>	<u>13</u>	<u>104</u>
Number as of July 1, 2001	7,250	1,415	7,315	2,261	18,241

**SECTION 4: Amortization Bases, Statistics, Assumptions, and Plan Provisions for the Water and Power Employees' Retirement Plan of the City of Los Angeles**

**EXHIBIT 5  
Actuarial Assumptions and Actuarial Cost Method**

Termination rates before retirement:

Rate (%)

**Male**

<b>Age</b>	<b>Mortality</b>	<b>Disability</b>	<b>Ordinary Withdrawal</b>	<b>Vested Withdrawal</b>
25	0.04	0.006	5.728	0.888
30	0.06	0.012	4.296	0.700
35	0.10	0.012	2.920	0.563
40	0.15	0.018	2.000	0.463
45	0.25	0.030	1.144	0.325
50	0.43	0.054	0.639	0.188
55	0.70	0.126	0.360	0.088
60	1.11	0.240	0.070	0.050
65	0.00	0.000	0.070	0.000

**Female**

<b>Age</b>	<b>Mortality</b>	<b>Disability</b>	<b>Ordinary Withdrawal</b>	<b>Vested Withdrawal</b>
25	0.03	0.000	8.416	1.338
30	0.05	0.006	6.224	1.050
35	0.08	0.036	4.576	0.838
40	0.11	0.072	3.048	0.700
45	0.15	0.102	2.080	0.488
50	0.19	0.138	1.233	0.275
55	0.29	0.168	0.690	0.138
60	0.45	0.000	0.150	0.075
65	0.00	0.000	0.080	0.000

**SECTION 4: Amortization Bases, Statistics, Assumptions, and Plan Provisions for the Water and Power Employees' Retirement Plan of the City of Los Angeles**

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**EXHIBIT 5 – Continued**

**Actuarial Assumptions and Actuarial Cost Method**

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**Retirement Rates:**

Age	Retirement Probability	Retirement Probability
	Male	Female
50	0.51	0.36
51	0.73	1.08
52	1.24	0.72
53	1.39	0.72
54	4.02	3.25
55	9.14	7.22
56	7.68	3.60
57	8.40	5.77
58	8.78	7.22
59	9.87	8.66
60	18.28	11.54
61	16.44	10.82
62	17.54	17.31
63	18.28	14.43
64	25.58	21.64
65	38.38	36.07
66	31.07	25.25
67	31.07	36.07
68	31.07	36.07
69	38.38	36.07
70	100.00	100.00

**SECTION 4: Amortization Bases, Statistics, Assumptions, and Plan Provisions for the Water and Power Employees' Retirement Plan of the City of Los Angeles**

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**EXHIBIT 5 – Continued**

**Actuarial Assumptions and Actuarial Cost Method**

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<b>50/30 Open Window:</b>	During the window period, retirement rates increased to 20% per year between ages 50 and 55.
<b>Retirement Age and Benefit for Inactive Vested Participants:</b>	Assume an immediate refund of employee normal contribution account plus department matching contribution account.
<b>Post Retirement Mortality Rates:</b>	Healthy: 1983 GAM Set back one year Disabled: Based on Plan experience
<b>Future Benefit Accruals:</b>	1.0 year of service per year
<b>Other Government Service:</b>	(a) 30% of the employees with less than 10 years of service will purchase an average of four years of service.  (b) 41.25% of the employees with 10 years or more of service will purchase an average of four years of service.
<b>Unknown Data for Participants:</b>	Same as those exhibited by participants with similar known characteristics. If not specified, participants are assumed to be male.
<b>Definition of Active Participants:</b>	First day of biweekly payroll period following employment for new Department employees. Immediately following transfer from other City departments.
<b>Exclusion of Inactive Vested:</b>	All inactive participants are included in the valuation.
<b>Percent Married/Domestic Partner:</b>	85% or male participants; 60% of female participants.
<b>Age of Spouse/Domestic Partner:</b>	Female spouses are 4 years younger than their spouses.

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**SECTION 4: Amortization Bases, Statistics, Assumptions, and Plan Provisions for the Water and Power Employees' Retirement Plan of the City of Los Angeles**

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**EXHIBIT 5 – Continued**

**Actuarial Assumptions and Actuarial Cost Method**

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<b>Net Investment Return:</b>	8.00%
<b>Employee Contribution and Matching Account Crediting Rate:</b>	8.00%
<b>Salary Scale:</b>	5.50%
<b>Consumer Price Index:</b>	Increase of 4.0% per year; benefit increases due to CPI subject to 3.0% maximum.
<b>Actuarial Value of Assets:</b>	The actuarial value of assets is determined by phasing in equity unrealized capital gains and losses over a four-year period.
<b>Actuarial Cost Method:</b>	Entry Age Normal Actuarial Cost Method. Entry Age is the age at the time the participant would have commenced participation if the plan had always been in existence. Normal Cost and Actuarial Accrued Liability are calculated on an individual basis and are allocated by salary.
<b>Funding Policy:</b>	<p>The Department of Water and Power makes contributions equal to the Normal Cost adjusted by amounts to amortize any Surplus or Unfunded Actuarial Accrued Liability. Both the Normal Cost and the Actuarial Accrued Liability are determined under the Entry Age Normal cost method. The June 30, 2000 Surplus Actuarial Accrued Liability is amortized over the fifteen year period commencing July 1, 2000. Any subsequent changes in Surplus or Unfunded Actuarial Accrued Liability are amortized over separate fifteen year periods. All amortization amounts are determined in equal dollar amounts over the amortization period. The Board may, by resolution, adopt a separate period of not more than thirty years to amortize the change in Surplus or Unfunded Actuarial Accrued Liability resulting from an unusual event, plan amendment or change in assumptions or methods.</p> <p>Finally, the Department of Water and Power contribution is not less than the matching contribution of 110% of member contributions.</p>

**SECTION 4: Amortization Bases, Statistics, Assumptions, and Plan Provisions for the Water and Power Employees' Retirement Plan of the City of Los Angeles**

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**EXHIBIT 6**  
**Summary of Plan Provisions**

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This exhibit summarizes the major provisions of the Plan included in the valuation. It is not intended to be, nor should it be interpreted as, a complete statement of all plan provisions.

**Plan Year:** July 1 through June 30

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**Formula Retirement Benefit:**

<i>Age &amp; Service Requirement</i>	Age 60 with 5 years of service Age 55 with 10 years of service in the last 12 years Any age with 30 year of service; or Receiving permanent total disability benefits from the Plan. Note: To be eligible, the employee must have worked or been paid disability four of the last five years immediately preceding eligibility to retire, or while eligible to retire.
<i>Amount</i>	The greater of 2.1% of the Monthly Salary Base or \$9.50 per year of service.
<i>Monthly Salary Base</i>	Equivalent of monthly average salary of highest continuous 26 biweekly payroll periods (one year).
<i>Cost of Living benefit</i>	Based on changes to Los Angeles area consumer price index to a maximum of 3% per year.
<i>Death after retirement</i>	50% of retiree's unmodified allowance continued to eligible spouse or domestic partner (reduced if difference in ages is greater than five years).

Defined benefit paid monthly for life. If the money purchase annuity amount exceeds the monthly amount of the formula retirement benefit and the retiree meets the eligibility requirements for the formula retirement benefit, the amount of the money purchase annuity is paid and the cost-of-living and death after retirement continuance features of the formula retirement benefit are also paid.



**SECTION 4: Amortization Bases, Statistics, Assumptions, and Plan Provisions for the Water and Power Employees' Retirement Plan of the City of Los Angeles**

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**EXHIBIT 6 Continued**

**Summary of Plan Provisions**

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**Member Normal Contributions:**

If an employee became a plan member after June 1, 1984, the member normal contribution rate is 6%.

If an employee became a plan member before June 1, 1984 or transferred from CERS with an entry age contribution rate, sample rates by entry age are as follows:

Entry Age	Rate
20	2.601%
25	3.102%
30	3.611%
35	4.161%
40	4.742%
45	5.381%
50	6.042%
55	6.762%
59	7.332%

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**Department Current Service Contributions:**

The Department of Water and Power makes contributions that match employee contributions at the rate of 110%.

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**Disability:**

Disability benefits are paid from the Disability Fund. However, if a member is receiving permanent and total disability benefits, he may elect to retire. Other than a nominal amount, no service credit during disability is earned for the 2.1% formula; however, credit is earned during disability toward the \$9.50 minimum formula.

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**SECTION 4: Amortization Bases, Statistics, Assumptions, and Plan Provisions for the Water and Power Employees' Retirement Plan of the City of Los Angeles**

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**EXHIBIT 6– Continued**

**Summary of Plan Provisions**

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**Deferred Withdrawal Retirement Benefit (Vested):**

<i>Age &amp; Service Requirement</i>	Age 60 with one-year contributing membership; or Age 55 with 10-years of contributing membership in the 12 years prior to separation from service.
<i>Amount</i>	Value of employee normal contribution account plus Department matching contribution (called current service contribution) account at retirement date

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**Death Before Retirement:**

Refund of employee contributions with interest. On the death of a member who is eligible for service retirement but who has not yet retired or who has 25 years of service, the member's spouse may elect a monthly allowance payable during the spouse's lifetime in lieu of return of the member's total accumulated contributions. The monthly allowance payable to the surviving spouse is the amount the spouse would have received had the member retired on the day before the member's death and elected a full joint and survivor allowance.

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**Withdrawal of Contributions Benefit (Ordinary Withdrawal):**

Refund of employee contributions with interest.

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**Money Purchase Annuity:**

Value of employee normal contribution account plus Department matching contribution (called current service contribution) account at retirement date.

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