

**The Water and Power Employees' Retirement Plan of the City  
of Los Angeles**

*Actuarial Valuation and Review  
as of July 1, 2003*

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January 7, 2004

*Board of Administration*

*The Water and Power Employees' Retirement Plan of the City of Los Angeles*

*111 North Hope Street*

*Los Angeles, California 90012*

*Dear Board Members:*

*We are pleased to submit this Actuarial Valuation and Review as of July 1, 2003. It summarizes the actuarial data used in the valuation, establishes the funding requirements for fiscal 2003-2004 and analyzes the preceding year's experience.*

*The census and financial information on which our calculations were based was prepared by the Retirement Office. That assistance is gratefully acknowledged. The actuarial calculations were completed under the supervision of John Monroe, MAAA, Enrolled Actuary.*

*This actuarial valuation has been completed in accordance with generally accepted actuarial principles and practices. To the best of our knowledge, the information supplied in this actuarial valuation is complete and accurate. Further, in our opinion, the assumptions as approved by the Board are reasonably related to the experience of and the expectations for the Plan.*

*We look forward to reviewing this report at your next meeting and to answering any questions.*

*Sincerely,*

THE SEGAL COMPANY

By:

  
Paul Angelo

Vice President and Actuary

  
John Monroe, MAAA

Associate Actuary

DZY/czr

## SECTION 1

### VALUATION SUMMARY

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

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**Purpose**

This report has been prepared by The Segal Company to present a valuation of the The Water and Power Employees' Retirement Plan of the City of Los Angeles as of July 1, 2003. The valuation was performed to determine if the assets and contributions are sufficient to provide the prescribed benefits. The contribution requirements presented in this report are based on:

- The benefit provisions of the Pension Plan, as administered by the Board,
- The characteristics of covered active members, inactive vested members, and retired members and beneficiaries as of July 1, 2003, provided by the Board;
- The assets of the Plan as of June 30, 2003, provided by the Retirement Office;
- Economic assumptions regarding future salary increases and investment earnings; and
- Other actuarial assumptions, regarding employee terminations, retirement, death, etc.

**Significant Issues in Valuation Year**

- The actuarial value of assets earned a return of 0.97% for the July 1, 2002 to June 30, 2003 Plan Year. This resulted in an actuarial loss of \$399.5 million when measured against the assumed rate of return of 8.00%. This actuarial investment loss increased the Plan's required contribution by 8.54% of compensation. This was more than offset by the change in asset smoothing method that lowered current year plan costs by 10.73% of compensation.
- The salaries for continuing actives increased by 7.4% from the rate in effect on March 31, 2002 to the rate in effect on March 31, 2003. 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 \$38.3 million for the current year, which increased the Plan's required contribution by 0.82% of compensation. This salary increase is part of the negotiated benefit package that provided for some pay increases based on years of service. We have maintained our assumed rate of 5.5% salary increases.
- The required contribution rate continues to be larger than the mandatory 110% matching of the employee contribution. The required contribution for the 2003-2004 plan year is estimated to be \$44.6 million or 8.45% of pay.
- The results shown in this valuation do not take into account any post June 30, 2003 declines or increases in the Plan's assets. To get a sense of the sensitivity of the required contributions to the actuarial value of assets, if the current year's actuarial value of assets were 10% lower, the required contribution of \$44.6 million (8.45% of pay) would have increased by \$69.0 million (13.07% of pay) to \$113.6 million (21.52% of pay).

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

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- A revised actuarial value of assets (asset smoothing method) was adopted by the Board on December 17, 2003. Under the new method any total market value return above or below the assumed return is recognized over five valuations. This method is implemented as though it had been in effect for two years prior to June 30, 2003; however, prior year results are not affected. The net effect of this change was to lower plan costs by \$56.6 million (10.73% of pay).
- The asset reserve (i.e., the difference between the market value of assets and the actuarial value of assets) decreased by \$450.5 million during the plan year from -\$119.1 million in 2002 to -\$569.6 million in 2003, including the effect of the new method. Under the asset method adopted for use in this actuarial valuation, this asset reserve represents deferred market value losses that will be recognized over the next four years. Once recognized, the -\$569.6 million reserve will increase the required contribution by 12.14% of pay.
- Under the new asset method, the actuarial value of assets exceeds the accrued liability by \$86.3 million. In determining the required contribution, this surplus is amortized as an offset to the current year cost (normal cost). This amortization credit of 2.88% of pay reduces the required contribution from 11.33% (normal cost) to 8.45%. However, as noted just above, the Plan has about \$570 million in deferred losses under its asset smoothing method. Unless these deferred losses are offset by future gains, over the next four valuations the surplus will turn into a substantial unfunded liability, and the contribution rate will increase significantly.

Because the Plan's surplus/unfunded liability position is in such a state of transition, we recommend that the board consider a funding policy for the current year based solely on the Plan normal cost, with no amortization charges or credits. This would produce a required contribution of \$59.8 million, or 11.33% of pay. This policy would be reviewed and reconsidered at the June 30, 2004 valuation.

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

**Summary of Key Valuation Results**

|   | 2003           | 2002           |
|---|----------------|----------------|
| <b>Contributions for plan year beginning July 1:</b>            |                |                |
| Required  | \$ 44,614,638  | \$ 41,416,662  |
| Percentage of payroll   | 8.45%          | 8.66%          |
| Employer normal cost (middle of year)                           | \$ 59,777,306  | \$ 54,540,738  |
| Percentage of Payroll   | 11.33%         | 11.40%         |
| <b>Funding elements for plan year beginning July 1:</b>         |                |                |
| Total normal cost (beginning of year)                           | \$ 87,003,918  | \$ 78,756,217  |
| Market value of assets  | 5,558,765,969  | 5,671,141,200  |
| Actuarial value of assets                                       | 6,128,375,723  | 5,790,262,948  |
| Actuarial accrued liability                                     | 6,042,086,785  | 5,714,524,649  |
| Unfunded/(Overfunded) actuarial accrued liability               | (86,288,938)   | (75,738,299)   |
| Present value of accrued benefit – FASB 35                      | 4,925,820,974  | 4,700,062,140  |
| <b>GASB 25/27 for plan year beginning July 1:</b>               |                |                |
| Annual required contributions                                   | \$ 51,259,559  | \$ 47,823,973* |
| Actual contributions  | --             | 40,560,882     |
| Percentage contributed  | --             | 84.81%         |
| Funded ratio  | 101.43%        | 101.33%        |
| Covered payroll   | 527,787,469    | 430,397,884    |
| <b>Demographic data for plan year beginning July 1:</b>         |                |                |
| Number of retired members and beneficiaries                     | 9,161          | 9,353          |
| Number of vested former members                                 | 1,445          | 1,426          |
| Number of active members  | 7,731          | 7,403          |
| Total projected compensation                                    | \$ 527,787,469 | \$ 478,280,925 |
| Projected average compensation                                  | 68,269         | 64,606         |
| Net total employee contribution (estimate by Retirement Office) | 32,517,595     | 25,776,423     |

\* Adjusted for actual covered payroll



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

**A. MEMBER DATA**

The Actuarial Valuation and Review considers the number and demographics of covered members, including active members, vested terminated members, retired members and beneficiaries.

This section presents a summary of significant statistical data on these participant groups.

More detailed information for this valuation year and the preceding valuation can be found in Section 3, Exhibits A, B, and C.

*A historical perspective of how the participant population has changed over the past seven valuations can be seen in this chart.*

**CHART 1**  
**Participant Population: 1997 – 2003**

| <b>Year Ended<br/>June 30</b> | <b>Active<br/>Members</b> | <b>Vested Terminated<br/>Members*</b> | <b>Retired Members<br/>and Beneficiaries</b> | <b>Ratio of Non-Actives<br/>to Actives</b> |
|-------------------------------|---------------------------|---------------------------------------|--|--|
| 1997                          | 8,695                     | 1,111                                 | 8,399  | 1.09                                       |
| 1998                          | 8,345                     | 1,184                                 | 8,213  | 1.13                                       |
| 1999                          | 6,518                     | 1,450                                 | 9,967  | 1.75                                       |
| 2000                          | 6,807                     | 1,387                                 | 9,749  | 1.64                                       |
| 2001                          | 7,250                     | 1,415                                 | 9,576  | 1.52                                       |
| 2002                          | 7,403                     | 1,426                                 | 9,353  | 1.46                                       |
| 2003                          | 7,731                     | 1,445                                 | 9,161  | 1.37                                       |

\* Includes terminated participants due a refund of employee contributions.

**SECTION 2: Valuation Results for the 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 compensation of active members. In this year's valuation, there are 7,731 active members with an average age of 46.3, average years of service of 16.3 years and average projected compensation of \$68,269. The 7,403 active members in the prior valuation had an average age of 46.0, average service of 16.0 years and average compensation of \$64,606.

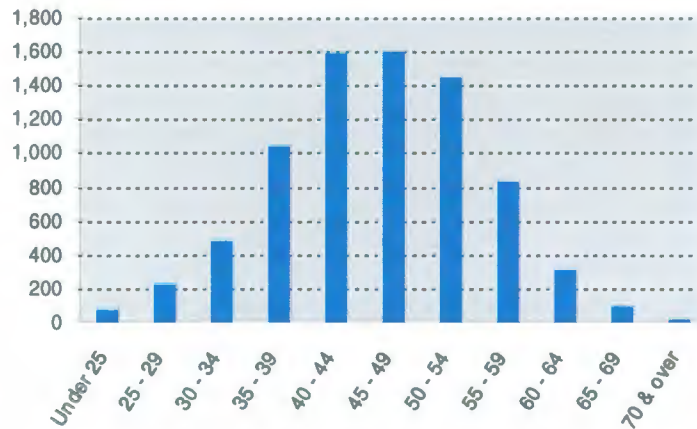
**Inactive Participants**

In this year's valuation, there were 1,445 members with a vested right to a deferred or immediate vested monthly benefit or entitled to a return of their employee contributions.

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

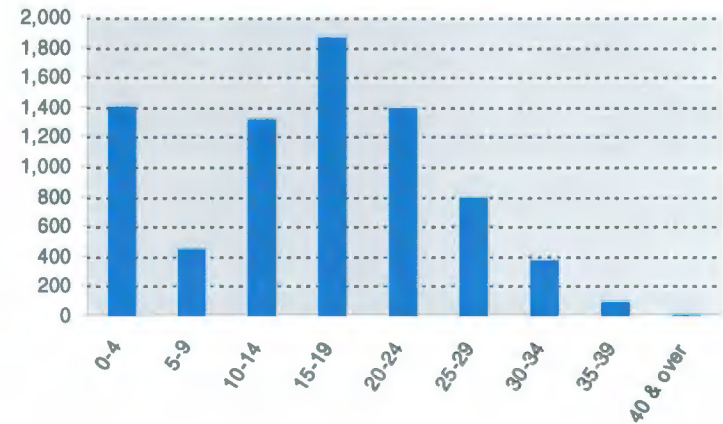
**CHART 2**

**Distribution of Active Members by Age as of June 30, 2003**



**CHART 3**

**Distribution of Active Members by Years of Service as of June 30, 2003**





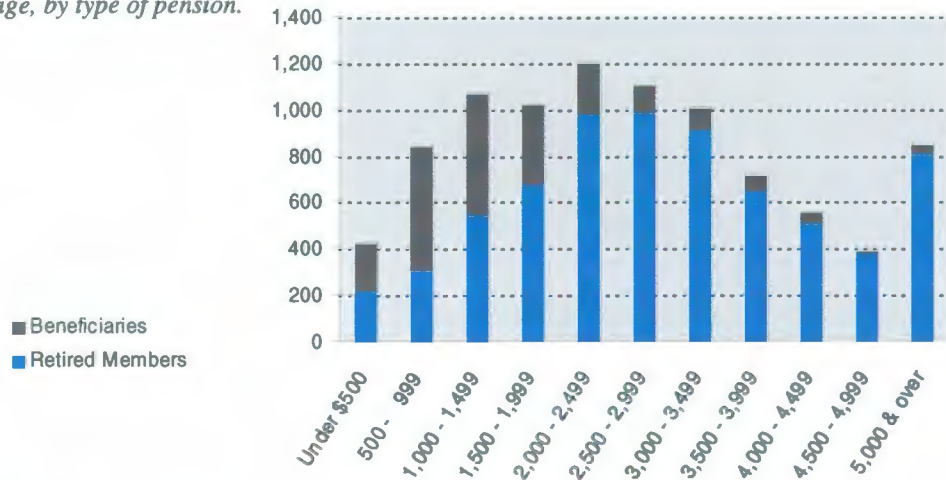
**SECTION 2: Valuation Results for the The Water and Power Employees' Retirement Plan of the City of Los Angeles**

**Retired Members and Beneficiaries**

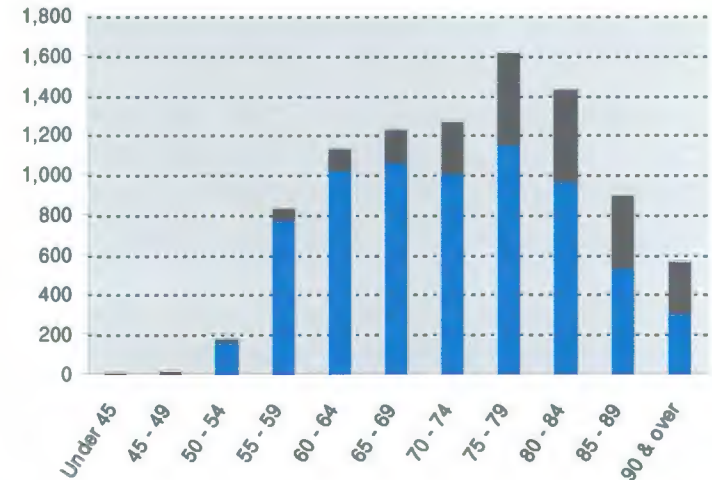
As of June 30, 2003, 6,932 retired members and 2,229 beneficiaries were receiving total monthly benefits of \$25,299,559. For comparison, in the previous valuation, there were 7,102 retired members and 2,251 beneficiaries receiving monthly benefits of \$24,830,909.

*These graphs show a distribution of the current retired members and beneficiaries based on their monthly amount and age, by type of pension.*

**CHART 4**  
**Distribution of Retired Members and Beneficiaries by Type and by Monthly Amount as of June 30, 2003**



**CHART 5**  
**Distribution of Retired Members and Beneficiaries by Type and by Age as of June 30, 2003**



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

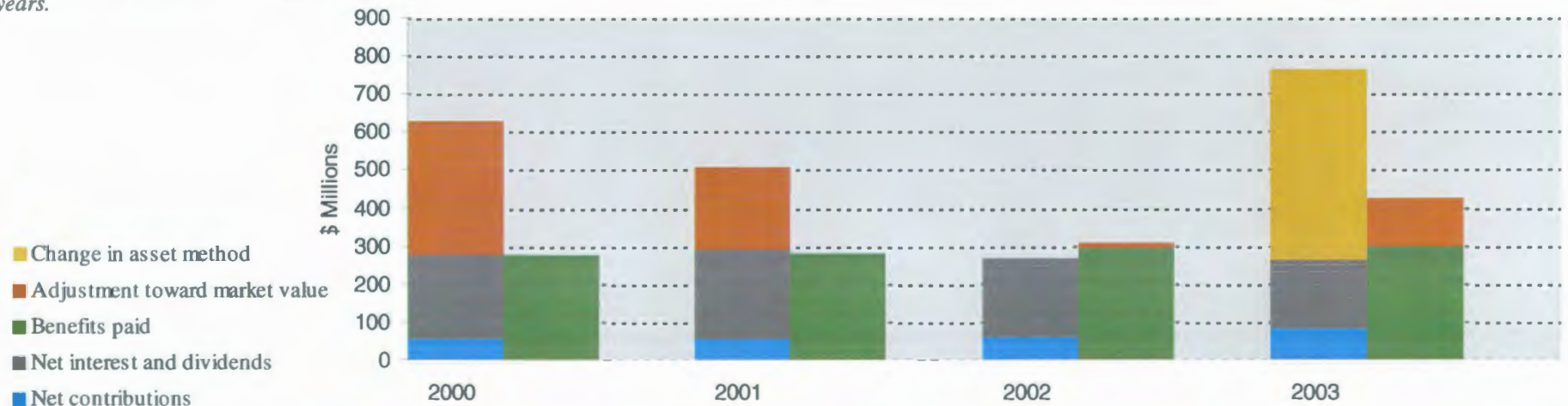
**B. FINANCIAL INFORMATION**

Retirement plan funding anticipates that, over the long term, both net contributions and net investment earnings (less investment fees and administrative expenses) will be needed to cover benefit payments.

Retirement plan assets change as a result of the net impact of these income and expense components. Additional financial information, including a summary of these transactions for the valuation year, is presented in Section 3, Exhibits D, E and F.

*The chart depicts the components of changes in the actuarial value of assets over the last four years.*

**CHART 6**  
**Comparison of Increases and Decreases in the Actuarial Value of Assets for Years Ended June 30, 2000 – 2003**



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

It is desirable to have level and predictable plan costs from one year to the next. For this reason, the Board has approved an asset valuation method that gradually adjusts to market value. Under this valuation method, the full value of market fluctuations is not recognized in a single year and, as a result, the asset value and the plan costs are more stable.

The amount of the adjustment to recognize market value is treated as income, which may be positive or negative. Realized and unrealized gains and losses are treated equally and, therefore, the sale of assets has no immediate effect on the actuarial value.

On December 17, 2003, the Board adopted a new asset smoothing method. A discussion of the new and the old asset smoothing method is provided in Section 4, Exhibit VI.

*The chart shows the determination of the actuarial value of assets as of the valuation date.*

**CHART 7**  
**Determination of Actuarial Value of Assets as of June 30, 2003**

|   |  |                     |                          |                         |
|---|--|---------------------|--------------------------|-------------------------|
| 1 | Market value of assets, June 30, 2003                          |                     |                          | \$ 5,558,765,969        |
| 2 | Calculation of Unrecognized Return                             | Original<br>Amount* | Unrecognized<br>Return** |                         |
|   | (a) Year ended June 30, 2003                                   | -\$334,674,490      | -\$267,739,592           |                         |
|   | (b) Year ended June 30, 2002                                   | <u>-731,938,750</u> | <u>-439,163,250</u>      |                         |
|   | (c) Total Unrecognized Return                                  |                     |                          | -706,902,842            |
| 3 | Gross actuarial value: (1) - (2c)                              |                     |                          | 6,265,668,811           |
| 4 | Reserve for investment gains and losses                        |                     |                          | 5,547,909               |
| 5 | General reserve  |                     |                          | 131,745,179             |
| 6 | Net actuarial value as of June 30, 2003: (3) - (4) - (5)       |                     |                          | <u>\$ 6,128,375,723</u> |
| 7 | Net actuarial value as a percentage of market value: (6) / (1) |                     |                          | 110.2%                  |

\*Total return minus expected return on a market value basis

\*\*Recognition at 20% per year over 5 years



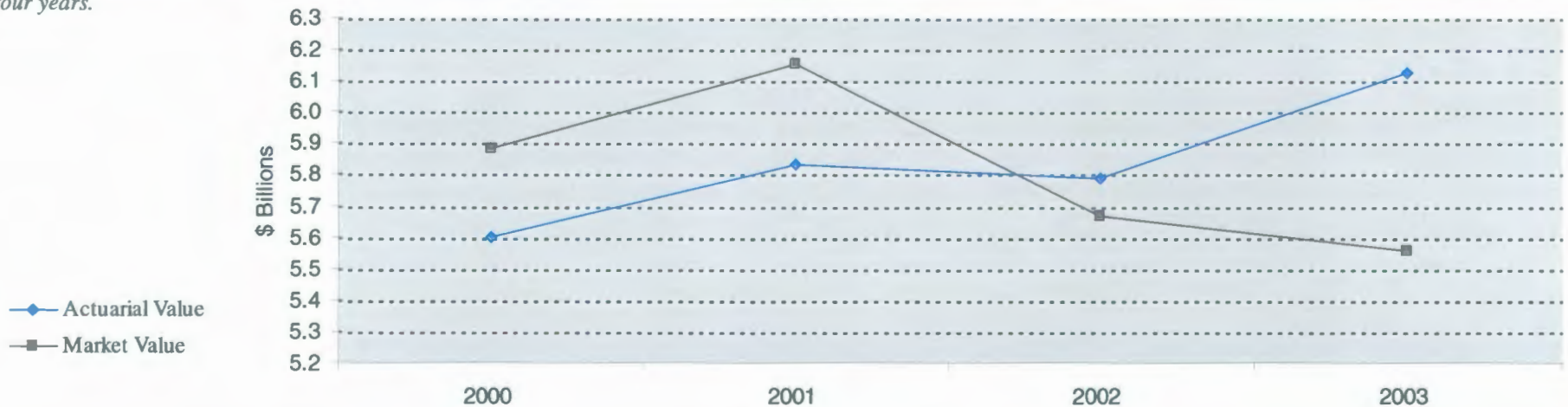
**SECTION 2: Valuation Results for the The Water and Power Employees' Retirement Plan of the City of Los Angeles**

Both the actuarial value and market value of assets are representations of the LADWP's financial status. As investment gains and losses are gradually taken into account, the actuarial value of assets tracks the market value of assets. The actuarial asset value is significant because the LADWP's liabilities are compared to its assets to determine what portion, if any, remains unfunded. Amortization of the unfunded liability (or surplus) is an important element in determining the contribution requirement.

*This chart shows the change in the actuarial value of assets versus the market value over the past four years.*

**CHART 7**

**Actuarial Value of Assets vs. Market Value of Assets for Years Ended June 30, 2000 – 2003**





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

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**C. ACTUARIAL EXPERIENCE**

To calculate the required contribution, 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. If overall experience is more favorable than anticipated (an actuarial gain), the contribution requirement will decrease from the previous year. On the other hand, the contribution requirement will increase if overall actuarial experience is less favorable than expected (an actuarial loss).

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 term, experience will return to the original assumptions. For contribution requirements to remain stable, assumptions should approximate experience.

If assumptions are changed, the contribution requirement is adjusted to take into account a change in experience anticipated for all future years.

The components of the total loss is (\$496,331,630) are shown below. The net experience variation from individual sources other than investments was 1.6% of the actuarial accrued liability. A discussion of the major components of the actuarial experience is on the following pages.

*This chart provides a summary of the actuarial experience during the past year.*

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**CHART 8**  
**Actuarial Experience for Year Ended June 30, 2003**

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|  |                    |
|--|--------------------|
| 1. Net gain/(loss) from investments*     | -\$399,450,973     |
| 2. Net gain/(loss) from salaries         | -\$38,340,715      |
| 3. Net gain/(loss) from other experience | <u>-58,539,942</u> |
| 4. Net experience gain/(loss): (1) + (2) | -\$496,331,630     |

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\* Details in Chart 9



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

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**Investment Rate of Return**

A major component of projected asset growth is the assumed rate of return. The assumed return should represent the expected long-term rate of return, based on the LADWP's investment policy. For valuation purposes, the assumed rate of return on the actuarial value of assets is 8.00%. The actual rate of return for the 2003 plan year was 0.97%.

Since the actual return for the year was less than the assumed return, the LADWP experienced an actuarial loss during the year ended June 30, 2003 with regard to its investments. This loss was more than offset by the change in asset smoothing method that resulted in an offset of \$503,018,121.

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

**CHART 9  
Investment Experience for Year Ended**

|                                     | <b>June 30, 2003</b>  |
|-------------------------------------|-----------------------|
| 1. Actual return                    | \$ 54,974,855         |
| 2. Average value of assets          | 5,680,322,848         |
| 3. Actual rate of return: (1) ÷ (2) | 0.97%                 |
| 4. Assumed rate of return           | 8.00%                 |
| 5. Expected return: (2) x (4)       | 454,425,828           |
| 6. Actuarial gain/(loss): (1) - (5) | <u>-\$399,450,973</u> |

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

Because actuarial planning is long term, it is useful to see how the assumed investment rate of return has followed actual experience over time. The chart below shows the rate of return on an actuarial basis compared to the market value investment return for the last four years.

Based upon this experience and future expectations, we have maintained the assumed rate of return of 8.00%.

**CHART 10**

**Investment Return – Actuarial Value vs. Market Value: 2000 - 2003**

| Year Ended<br>June 30 | Net Interest and<br>Dividend Income |         | Recognition of Capital<br>Appreciation |         | Change in Asset Method |         | Actuarial Value<br>Investment Return |         | Market Value Investment<br>Return |         |
|-----------------------|-------------------------------------|---------|--|---------|------------------------|---------|--------------------------------------|---------|-----------------------------------|---------|
|                       | Amount                              | Percent | Amount                                 | Percent | Amount                 | Percent | Amount                               | Percent | Amount                            | Percent |
| 2000                  | \$222,306,427                       | 4.32    | \$351,743,541                          | 6.84    | --                     | --      | \$ 574,049,968                       | 11.22   | \$ 22,463,396                     | 0.39    |
| 2001                  | 232,814,492                         | 4.24    | 217,489,958                            | 3.96    | --                     | --      | 450,304,450                          | 8.20    | 492,327,362                       | 8.52    |
| 2002                  | 206,326,546                         | 3.61    | -14,327,506                            | -0.25   | --                     | --      | 191,999,040                          | 3.36    | -251,053,638                      | -4.16   |
| 2003                  | <u>182,004,368</u>                  | 3.20    | <u>-127,029,513</u>                    | -2.23   | <u>\$503,018,121</u>   | 8.85    | <u>557,992,976</u>                   | 9.82    | <u>107,504,970</u>                | 1.93    |
| Total                 | \$843,451,833                       |         | \$427,876,480                          |         | \$503,018,121          |         | \$1,774,346,434                      |         | \$371,242,090                     |         |

*Note: Each year's yield is weighted by the average asset value in that year.*

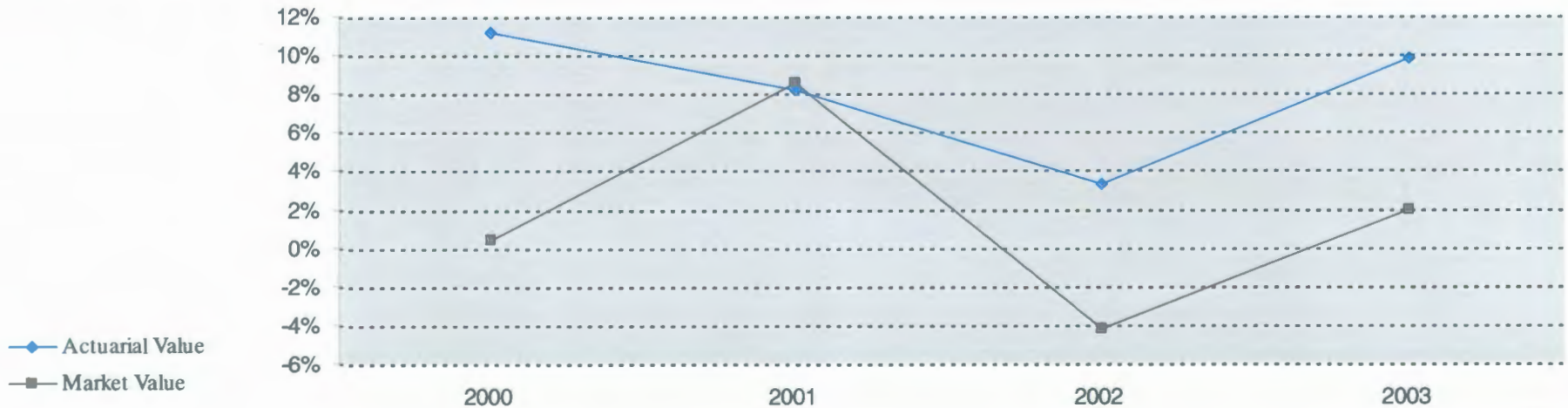
**SECTION 2: Valuation Results for the The Water and Power Employees' Retirement Plan of the City of Los Angeles**

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Subsection B described the actuarial asset valuation method that gradually takes into account fluctuations in the market value rate of return. The effect of this is to stabilize the actuarial rate of return, which contributes to leveling pension plan costs. The return shown for 2003 includes the change in asset method.

*This chart illustrates how this leveling effect has actually worked over the years 2000 - 2003 .*

**CHART 11**  
**Market and Actuarial Rates of Return for Years Ended June 30, 2000 - 2003**





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

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**Other Experience**

There are other differences between the expected and the actual experience that appear when the new valuation is compared with the projections from the previous valuation. These include:

- the extent of turnover among the participants,
- retirement experience (earlier or later than expected),
- mortality (more or fewer deaths than expected),

- the number of disability retirements, and
- salary increases different than assumed.

The net loss from this other experience for the year ended June 30, 2003 amounted to \$96,880,657 which is 1.6% of the actuarial accrued liability.

This loss is primarily due to salary increases higher than was expected.

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

**D. REQUIRED CONTRIBUTION**

The required Department contribution is made up of (a) normal cost and (b) amortization of the unfunded or overfunded actuarial accrued liability. The Plan is said to be fully funded when the assets exceed the actuarial accrued liability. The Department is now funding the normal cost as a percentage of pay offset by the dollar amount of the amortization credit. The Plan has a surplus as of June 30, 2003, which is amortized over various periods. This produces an amortization credit of \$14,579,489. This amortization credit is not large enough to fully offset the Department's normal cost.

The total expected contributions to the plan are \$44,614,638 (8.45% of projected payroll) which is the normal cost less the amortization credit.

The Department's required contribution rate decreased slightly as a percentage of pay. This was primarily the result of the investment return being less than assumed, offset by the change in the asset smoothing method.

*The chart compares this valuation's required contribution with the prior valuation.*

**CHART 12  
Required Contribution**

|  | Year Beginning July 1 |               |                      |               |
|--|-----------------------|---------------|----------------------|---------------|
|  | 2003                  |               | 2002                 |               |
|  | Amount                | % of Payroll  | Amount               | % of Payroll  |
| 1. Total normal cost   | \$ 87,003,918         | 16.48%        | \$78,756,217         | 16.47%        |
| 2. Expected employee contributions   | <u>-29,525,739</u>    | <u>-5.59%</u> | <u>-26,313,200</u>   | <u>-5.50%</u> |
| 3. Employer normal cost: (1) + (2)   | 57,478,179            | 10.89%        | 52,443,017           | 10.96%        |
| 4. Actuarial accrued liability   | 6,042,086,785         |               | 5,714,524,649        |               |
| 5. Actuarial value of assets   | <u>6,128,375,723</u>  |               | <u>5,790,262,948</u> |               |
| 6. Unfunded/(overfunded) actuarial accrued liability: (4) - (5)                | (86,288,938)          |               | -75,738,299          |               |
| 7. Amortization of projected unfunded/(overfunded) actuarial accrued liability | (14,579,489)          | -2.76%        | -12,619,304          | -2.64%        |
| 8. Total required contribution: (3) + (7), adjusted for timing*                | <u>44,614,638</u>     | <u>8.45%</u>  | <u>41,416,662</u>    | <u>8.66%</u>  |
| 9. Employer match (110% of (2))  | 32,478,313            | 6.15%         | 28,944,520           | 6.05%         |
| 10. Greater of employer match (9) or total required contribution (8)           | <u>44,614,638</u>     | <u>8.45%</u>  | <u>41,416,662</u>    | <u>8.66%</u>  |
| 11. Employer normal cost, adjusted for timing                                  | 59,777,306            | 11.33%        | 54,540,738           | 11.40%        |
| 12. Projected compensation   | \$527,787,469         |               | \$478,280,925        |               |

\*Required contributions are assumed to be paid at the middle of every year.

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

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The contribution rates as of July 1, 2003 are based on all of the data described in the previous sections, the actuarial assumptions described in Section 4, and the Plan provisions adopted at the time of preparation of the Actuarial Valuation. They include all changes affecting future costs, adopted benefit changes, actuarial gains and losses and changes in the actuarial assumptions. Included for the first time is a change in the asset smoothing method.



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

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**Reconciliation of Required Contribution**

The chart below details the changes in the required contribution from the prior valuation to the current year's valuation.

*The chart reconciles the contribution from the prior valuation to the amount determined in this valuation.*

**CHART 13**

**Reconciliation of Required Contribution from July 1, 2002 to July 1, 2003**

|  |                |
|--|----------------|
| <b>Required Contribution as of July 1, 2002</b>                      | 8.66%          |
| Effect of gains and losses on mortality (fewer deaths than expected) | 0.29%          |
| Effect of gains and losses on salary experience                      | 0.82%          |
| Effect of investment (gain)/loss                                     | 8.54%          |
| Effect of other gains and losses on accrued liability                | 0.87%          |
| Effect of change in asset method                                     | <u>-10.73%</u> |
| <b>Total change</b>  | <u>-0.21%</u>  |
| <b>Required Contribution as of July 1, 2003</b>                      | 8.45%          |

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

**E. INFORMATION REQUIRED BY THE GASB**

Governmental Accounting Standards Board (GASB) reporting information provides standardized information for comparative purposes of governmental pension plans. This information allows a reader of the financial statements to compare the funding status of one governmental plan to another on relatively equal terms.

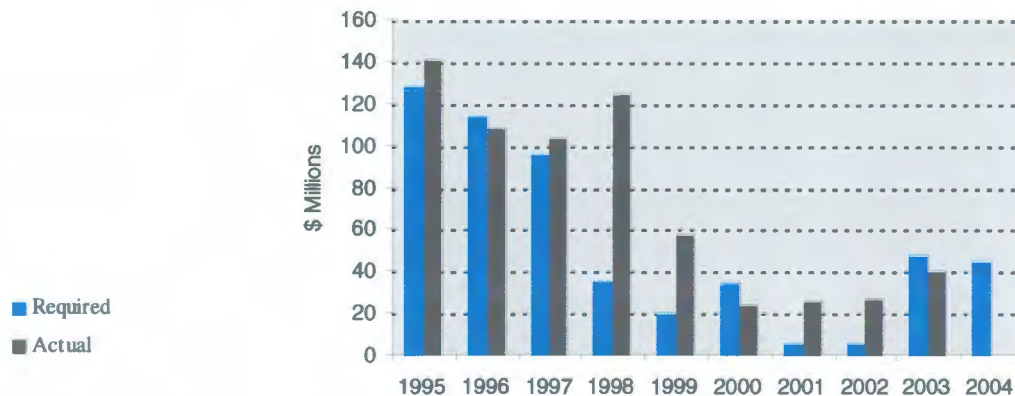
Critical information to GASB is the historical comparison of the GASB required contribution to the actual contributions. This comparison demonstrates whether a plan is being funded on an actuarially sound basis and in accordance with the GASB funding requirements. Chart 15 below presents a graphical representation of this information for the Plan.

The other critical piece of information regarding the Plan's financial status is the funded ratio. This ratio compares the assets of the plan to the liabilities of the plan as calculated under GASB. High ratios indicate a well-funded plan with assets sufficient to pay most benefits. Lower ratios may indicate recent changes to benefit structures, funding of the plan below actuarial requirements, poor asset performance, or a variety of other changes.

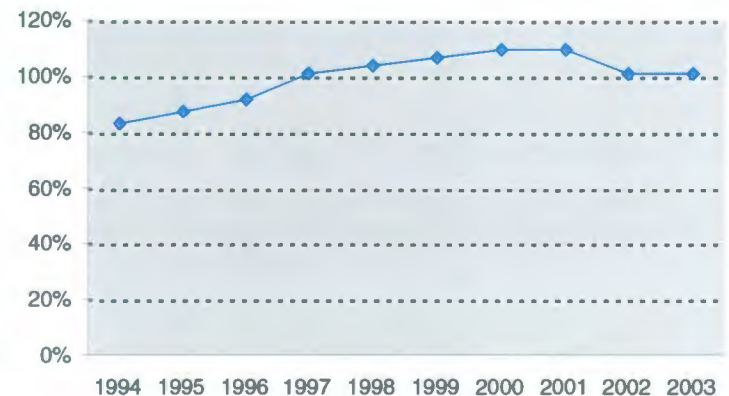
The details regarding the calculations of these values and other GASB numbers may be found in Section 4, Exhibits II, III, and IV.

*These graphs show key GASB factors.*

**CHART 14**  
**Required Versus Actual Contributions**



**CHART 15**  
**Funded Ratio**



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

**EXHIBIT A**

**Table of Plan Coverage**

| <b>Category</b>                     | <b>Year Ended June 30</b> |               | <b>Change From Prior Year</b> |
|-------------------------------------|---------------------------|---------------|-------------------------------|
|                                     | <b>2003</b>               | <b>2002</b>   |                               |
| <b>Active members in valuation:</b> |                           |               |                               |
| Number                              | 7,731                     | 7,403         | 4.4%                          |
| Average age                         | 46.3                      | 46.0          | N/A                           |
| Average service                     | 16.3                      | 16.0          | N/A                           |
| Projected total compensation        | \$527,787,469             | \$478,280,925 | 10.4%                         |
| Projected average compensation      | 68,269                    | 64,606        | 5.7%                          |
| Account balances                    | 483,480,002               | 430,831,401   | 12.2%                         |
| <b>Vested terminated members:</b>   |                           |               |                               |
| Number                              | 1,445                     | 1,426         | 1.3%                          |
| Average age                         | 47.2                      | 46.6          | N/A                           |
| Average member account balances     | \$31,503                  | \$29,856      | 5.5%                          |
| <b>Retired members:</b>             |                           |               |                               |
| Number in pay status                | 6,932                     | 7,102         | -2.4%                         |
| Average age                         | 71.9                      | 71.5          | N/A                           |
| Average monthly benefit             | \$3,100                   | \$2,979       | 4.1%                          |
| <b>Beneficiaries:</b>               |                           |               |                               |
| Number in pay status                | 2,229                     | 2,251         | -1.0%                         |
| Average age                         | 78.7                      | 78.4          | N/A                           |
| Average monthly benefit             | \$1,708                   | \$1,631       | 4.7%                          |



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

**EXHIBIT B**

**Members in Active Service During Year Ended June 30, 2003  
By Age, Years of Service, and Projected Average Compensation**

| 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  | 74               | 74       | --       | --       | --       | --       | --       | --       | --       | --        |
|           | \$47,868         | \$47,868 | --       | --       | --       | --       | --       | --       | --       | --        |
| 25 - 29   | 224              | 208      | 16       | --       | --       | --       | --       | --       | --       | --        |
|           | 51,274           | 50,751   | \$58,072 | --       | --       | --       | --       | --       | --       | --        |
| 30 - 34   | 484              | 290      | 96       | 94       | 4        | --       | --       | --       | --       | --        |
|           | 57,030           | 52,870   | 60,467   | \$66,448 | \$54,892 | --       | --       | --       | --       | --        |
| 35 - 39   | 1,041            | 270      | 118      | 395      | 254      | 4        | --       | --       | --       | --        |
|           | 65,218           | 54,334   | 64,590   | 69,671   | 70,157   | \$65,094 | --       | --       | --       | --        |
| 40 - 44   | 1,593            | 238      | 91       | 346      | 600      | 310      | 7        | 1        | --       | --        |
|           | 67,987           | 55,330   | 62,713   | 65,838   | 71,513   | 74,636   | \$78,335 | \$54,548 | --       | --        |
| 45 - 49   | 1,598            | 156      | 54       | 222      | 441      | 530      | 188      | 7        | --       | --        |
|           | 70,916           | 56,744   | 65,156   | 68,095   | 69,175   | 76,565   | 75,929   | 67,906   | --       | --        |
| 50 - 54   | 1,454            | 106      | 36       | 138      | 304      | 309      | 369      | 184      | 8        | --        |
|           | 71,833           | 62,972   | 65,173   | 65,687   | 67,722   | 71,636   | 76,316   | 80,680   | \$78,772 | --        |
| 55 - 59   | 830              | 50       | 26       | 79       | 158      | 164      | 175      | 129      | 47       | 2         |
|           | 73,304           | 64,030   | 76,169   | 65,355   | 67,776   | 72,837   | 70,987   | 83,489   | 95,820   | \$73,740  |
| 60 - 64   | 317              | 12       | 10       | 31       | 82       | 59       | 45       | 38       | 36       | 4         |
|           | 71,614           | 84,741   | 62,544   | 59,931   | 63,904   | 67,464   | 75,855   | 74,003   | 90,196   | 127,042   |
| 65 - 69   | 95               | 6        | 3        | 14       | 23       | 15       | 12       | 13       | 7        | 2         |
|           | 64,275           | 49,986   | 53,364   | 61,689   | 57,186   | 71,435   | 62,301   | 70,514   | 75,388   | 101,799   |
| 70 & over | 21               | 1        | --       | 2        | 5        | 2        | 4        | 2        | 2        | 3         |
|           | 73,471           | 38,660   | --       | 71,331   | 61,498   | 72,969   | 64,943   | 91,721   | 80,390   | 101,386   |
| Total     | 7,731            | 1,411    | 450      | 1,321    | 1,871    | 1,393    | 800      | 374      | 100      | 11        |
|           | \$68,269         | \$54,822 | \$63,762 | \$67,188 | \$69,275 | \$74,125 | \$74,784 | \$80,367 | \$90,693 | \$105,764 |

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

**EXHIBIT C**

**Reconciliation of Member Data**

|                                   | <b>Active<br/>Members</b> | <b>Vested Former<br/>Members</b> | <b>Pensioners</b> | <b>Beneficiaries</b> | <b>Total</b> |
|-----------------------------------|---------------------------|----------------------------------|-------------------|----------------------|--------------|
| Number as of July 1, 2002         | 7,403                     | 1,426                            | 7,102             | 2,251                | 18,182       |
| New members                       | 543                       | N/A                              | N/A               | N/A                  | 543          |
| Terminations – with vested rights | -89                       | 89                               | 0                 | 0                    | 0            |
| Retirements                       | -97                       | -12                              | 109               | N/A                  | 0            |
| Return to work                    | 0                         | -44                              | 0                 | N/A                  | -44          |
| Died with beneficiary             | -1                        | -1                               | -120              | 122                  | 0            |
| Died without beneficiary          | 0                         | 0                                | -169              | -158                 | -327         |
| Rehired                           | 44                        | 0                                | 0                 | N/A                  | 44           |
| Data adjustments                  | 0                         | 30                               | 10                | 14                   | 54           |
| Contribution refunds              | <u>-72</u>                | <u>-43</u>                       | <u>0</u>          | <u>0</u>             | <u>-115</u>  |
| Number as of July 1, 2003         | 7,731                     | 1,445                            | 6,932             | 2,229                | 18,337       |

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

**EXHIBIT D**

**Summary Statement of Income and Expenses**

|  | Year Ended June 30, 2003 | Year Ended June 30, 2002 |
|--|--------------------------|--------------------------|
| <b>Contribution income:</b>                  |                          |                          |
| Employer contributions                       | \$ 40,560,882            | \$ 27,241,801            |
| Employee contributions                       | 36,490,767               | 30,002,271               |
| Other contributions                          | <u>2,623,157</u>         | <u>2,214,752</u>         |
| Net contribution income                      | \$79,674,806             | \$59,458,824             |
| <b>Investment income:</b>                    |                          |                          |
| Interest, dividends and other income         | \$184,616,510            | \$208,529,336            |
| Adjustment toward market value               | -127,029,513             | -14,327,506              |
| Less investment and administrative fees      | <u>-2,612,142</u>        | <u>-2,202,790</u>        |
| Net investment income                        | 54,974,855               | 191,999,040              |
| <b>Total income available for benefits</b>   | <b>\$134,649,661</b>     | <b>\$251,457,864</b>     |
| <b>Less benefit payments:</b>                |                          |                          |
| Retirement benefits paid                     | \$295,587,105            | \$290,243,650            |
| Refund of members' contributions             | <u>3,967,902</u>         | <u>4,225,848</u>         |
| Net benefit payments                         | -299,555,007             | -294,469,498             |
| <b>Change in asset method</b>                | <b>\$503,018,121</b>     | <b>\$ 0</b>              |
| <b>Change in reserve for future benefits</b> | <b>\$338,112,775</b>     | <b>-\$43,011,634</b>     |



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

**EXHIBIT E  
Table of Financial Information**

|                                      | Year Ended June 30, 2003 | Year Ended June 30, 2002 |
|--------------------------------------|--------------------------|--------------------------|
| <b>Cash equivalents</b>              | \$ 120,659,649           | \$ 145,357               |
| <b>Accounts receivable:</b>          |                          |                          |
| Accrued investment income            | \$ 32,249,120            | \$ 40,839,263            |
| Other                                | 11,000,796               | 7,291,289                |
| Securities lending - collateral      | <u>445,260,999</u>       | <u>396,326,120</u>       |
| Total accounts receivable            | \$488,510,915            | \$444,456,672            |
| <b>Investments:</b>                  |                          |                          |
| Fixed income                         | \$1,390,992,908          | \$1,704,489,657          |
| Equities                             | 3,065,296,752            | 3,269,832,081            |
| Short-term investment                | <u>947,050,540</u>       | <u>653,699,652</u>       |
| Total investments at market value    | <u>5,403,340,200</u>     | <u>5,628,021,390</u>     |
| <b>Total assets</b>                  | \$6,012,510,764          | \$6,072,623,419          |
| <b>Less accounts payable:</b>        |                          |                          |
| Department of Water and Power        | -\$7,770,046             | -\$4,298,142             |
| Accounts payable                     | -713,750                 | -857,957                 |
| Security lending - collateral        | <u>-445,260,999</u>      | <u>-396,326,120</u>      |
| Total accounts payable               | -453,744,795             | -401,482,219             |
| <b>Net assets at market value</b>    | <u>\$5,558,765,969</u>   | <u>\$5,671,141,200</u>   |
| <b>Net assets at actuarial value</b> | <u>\$6,128,375,723</u>   | <u>\$5,790,262,948</u>   |

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

**EXHIBIT F**

**Development of the Fund Through June 30, 2003**

| <b>Year Ended<br/>June 30</b> | <b>Employer<br/>Contributions</b> | <b>Employee<br/>Contributions</b> | <b>Other<br/>Contributions</b> | <b>Net<br/>Investment<br/>Return*</b> | <b>Benefit<br/>Payments</b> | <b>Actuarial<br/>Value of<br/>Assets at<br/>End of Year</b> |
|-------------------------------|-----------------------------------|-----------------------------------|--------------------------------|---------------------------------------|-----------------------------|---|
| 2000                          | \$26,128,536                      | \$24,426,465                      | \$2,561,645                    | \$574,049,968                         | \$275,403,607               | \$5,605,856,078   |
| 2001                          | 25,763,218                        | 27,688,883                        | 2,406,582                      | 450,304,450                           | 278,744,629                 | 5,833,274,582   |
| 2002                          | 27,241,801                        | 30,002,271                        | 2,214,752                      | 191,999,040                           | 294,469,498                 | 5,790,262,948   |
| 2003                          | 40,560,882                        | 36,490,767                        | 2,623,157                      | 557,992,976                           | 299,555,007                 | 6,128,375,723   |

*\* Net of investment and administration expenses. Includes a change in asset method of \$503 million for 2003.*

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

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**EXHIBIT G**

**Development of Unfunded/(Overfunded) Actuarial Accrued Liability**

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|   | <b>Year Ended June 30, 2003</b> |
|---|---------------------------------|
| 1. Unfunded/(Overfunded) actuarial accrued liability at beginning of year | -\$75,738,299                   |
| 2. Total normal cost at beginning of year                                 | 78,756,217                      |
| 3. Total contributions (employer and employee)                            | -79,674,806                     |
| 4. Interest   |                                 |
| (a) For whole year on (1) + (2)   | \$ 241,433                      |
| (b) For half year on (3)  | -3,186,992                      |
| (c) Total interest  | <u>-2,945,559</u>               |
| 5. Expected unfunded/(overfunded) actuarial accrued liability             | -\$79,602,447                   |
| 6. Changes due to:  |                                 |
| (a) (Gain)/Loss   | \$496,331,630                   |
| (b) Change in asset method  | <u>-503,018,121</u>             |
| (c) Total changes: (a) + (b)  | <u>-6,686,491</u>               |
| 7. Unfunded/(Overfunded) actuarial accrued liability at end of year       | <u><u>-\$86,288,938</u></u>     |

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

**EXHIBIT H**

**Table of Amortization Bases**

| <b>Type</b>            | <b>Date Established</b> | <b>Initial Years</b> | <b>Initial Amount</b> | <b>Annual Payment*</b> | <b>Years Remaining</b> | <b>Outstanding Balance</b> |
|------------------------|-------------------------|----------------------|-----------------------|------------------------|------------------------|----------------------------|
| Initial Base           | 07/01/2000              | 15                   | -\$522,896,000        | -\$56,564,539          | 12.00                  | -\$460,376,758             |
| Experience Gain        | 07/01/2001              | 15                   | -23,373,868           | -2,528,480             | 13.00                  | -21,583,302                |
| Experience Loss        | 07/01/2002              | 15                   | 214,187,988           | 23,169,894             | 14.00                  | 206,299,542                |
| Change in Assumptions  | 07/01/2002              | 15                   | 1,844,794             | 199,562                | 14.00                  | 1,776,852                  |
| Plan Amendment         | 07/01/2002              | 15                   | 213,581,253           | 23,104,260             | 14.00                  | 205,715,152                |
| Experience Loss        | 07/01/2003              | 15                   | 484,897,697           | 52,454,053             | 15.00                  | 484,897,697                |
| Change in asset method | 07/01/2003              | 15                   | -503,018,121          | <u>-54,414,239</u>     | 15.00                  | <u>-503,018,121</u>        |
| Total                  |                         |                      |                       | -\$14,579,489          |                        | -\$86,288,938              |

\* Level dollar amount.

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

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**EXHIBIT I**

**Section 415 Limitations**

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Section 415 of the Internal Revenue Code (IRC) specifies the maximum benefits that may be paid to an individual from a defined benefit plan and the maximum amounts that may be allocated each year to an individual's account in a defined contribution plan.

A qualified pension plan may not pay benefits in excess of the Section 415 limits. The ultimate penalty for non-compliance is disqualification: active participants could be taxed on their vested benefits and the IRS may seek to tax the income earned on the plan's assets.

In particular, Section 415(b) of the IRC limits the maximum annual benefit payable at the Normal Retirement Age to a dollar limit indexed for inflation. That limit is \$160,000 for 2003. Normal Retirement Age for these purposes is age 62. These are the limits in simplified terms. They must be adjusted based on each participant's circumstances, form of benefits chosen and after tax contributions.

Benefits in excess of the limits may be paid through a qualified governmental excess plan that meets the requirements of Section 415(m).

Legal Counsel's review and interpretation of the law and regulations should be sought on any questions in this regard.

Contribution rates determined in this valuation have not been reduced for the Section 415 limitations. Actual limitations will result in gains as they occur.

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

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**EXHIBIT J**

**Definitions of Pension Terms**

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The following list defines certain technical terms for the convenience of the reader:

**Assumptions or Actuarial**

**Assumptions:**

The estimates on which the cost of the Plan is calculated including:

- (a) Investment return — the rate of investment yield which the Plan will earn over the long-term future;
- (b) Mortality rates — the death rates of employees and pensioners; life expectancy is based on these rates;
- (c) Retirement rates — the rate or probability of retirement at a given age;
- (d) Turnover rates — the rates at which employees of various ages are expected to leave employment for reasons other than death, disability, or retirement.

**Normal Cost:**

The amount of contributions required to fund the level cost allocated to the current year of service.

**Actuarial Accrued Liability**

**For Actives:**

The accumulated value of normal costs allocated to the years before the valuation date.

**Actuarial Accrued Liability**

**For Pensioners:**

The single sum value of lifetime benefits to existing pensioners. This sum takes account of life expectancies appropriate to the ages of the pensioners and of the interest which the sum is expected to earn before it is entirely paid out in benefits.

**Unfunded (Overfunded) Actuarial**

**Accrued Liability:**

The extent to which the actuarial accrued liability of the Plan exceeds (or is exceeded by) the assets of the Plan. There is a wide range of approaches to paying off the unfunded or overfunded actuarial accrued liability, from meeting the interest accrual only to amortizing it over a specific period of time.

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

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**Amortization of the Unfunded  
(Overfunded) Actuarial  
Accrued Liability:**

Payments made over a period of years equal in value to the Plan's unfunded or overfunded actuarial accrued liability.

**Investment Return:**

The rate of earnings of the Plan from its investments, including interest, dividends and capital gain and loss adjustments, computed as a percentage of the average value of the fund. For actuarial purposes, the investment return often reflects a smoothing of the capital gains and losses to avoid significant swings in the value of assets from one year to the next.



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

**EXHIBIT K  
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 or credits.

**Actuarial Balance Sheet**

**Assets**

1. Total actuarial value of assets
2. Present value of future contribution by members
3. Present value of future Department contributions for:
  - (a) entry age normal cost
  - (b) unfunded actuarial accrued liability
4. Total current and future assets

June 30, 2003

\$6,128,375,723  
287,686,382  
566,280,572  
(86,288,938)  
\$6,896,053,739

June 30, 2002

\$5,790,262,948  
261,959,093  
527,213,387  
(75,738,299)  
\$6,503,697,129

**Liabilities**

5. Present value of benefits already granted:
6. Present value of benefits to be granted:
7. Total liabilities

June 30, 2003

\$3,503,126,411  
\$3,392,927,328  
\$6,896,053,739

June 30, 2002

\$3,469,318,055  
\$3,034,379,074  
\$6,503,697,129

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

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**EXHIBIT L**

**Reserves and Designated Balances**

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|   | June 30, 2003          | June 30, 2002          |
|---|------------------------|------------------------|
| 1. Reserve for retirement allowance for retired members | \$3,521,712,710        | \$3,480,765,362        |
| 2. Contribution accounts:                               |                        |                        |
| (a) members (excluding additional contributions)        | 562,002,102            | 495,968,903            |
| (b) Department of Water and Power                       | (544,306,611)          | (496,110,171)          |
| 3. Reserve for investment losses                        | 5,547,909              | 5,548,684              |
| 4. General reserve                                      | <u>131,745,179</u>     | <u>125,891,883</u>     |
| 5. Total  | <u>\$3,676,701,289</u> | <u>\$3,612,064,661</u> |

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

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**EXHIBIT M**  
**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, 2003</u> | <u>June 30, 2002</u> |
|--|----------------------|----------------------|
| 1. Retired reserve balance   | \$3,521,712,710      | \$3,480,765,362      |
| 2. Actuarially computed present value                                  | 3,503,126,411        | 3,469,318,055        |
| 3. Actuarial gain (loss): (1) – (2)                                    | 18,586,299           | 11,447,307           |
| 4. Transfer from (to) DWP contribution accounts from retired reserves: | (18,586,299)         | (11,447,307)         |

**SECTION 4: Reporting Information for The Water and Power Employees' Retirement Plan of the City of Los Angeles**

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**EXHIBIT I**

**Summary of Actuarial Valuation Results**

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The valuation was made with respect to the following data supplied to us:

|  |       |
|--|-------|
| 1. Pensioners as of the valuation date (including 2,229 beneficiaries in pay status) | 9,161 |
| 2. Members inactive during year ended June 30, 2003 with vested rights               | 1,445 |
| 3. Members active during the year ended June 30, 2003                                | 7,731 |

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The actuarial factors as of the valuation date are as follows:

|  |                 |               |
|--|-----------------|---------------|
| 1. Total normal cost   |                 | \$ 87,003,918 |
| 2. Present value of future benefits                            |                 | 6,896,053,739 |
| 3. Present value of future normal costs                        |                 | 853,966,954   |
| 4. Actuarial accrued liability                                 |                 | 6,042,086,785 |
| Pensioners and beneficiaries                                   | \$3,503,126,411 |               |
| Inactive participants with vested rights                       | 95,596,574      |               |
| Active participants  | 2,443,363,800   |               |
| 5. Actuarial value of assets (\$5,558,765,969 at market value) |                 | 6,128,375,723 |
| 6. Unfunded actuarial accrued liability                        |                 | -\$86,288,938 |

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**SECTION 4: Reporting Information for The Water and Power Employees' Retirement Plan of the City of Los Angeles**

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**EXHIBIT I (continued)**

**Summary of Actuarial Valuation Results**

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The determination of the required contribution is as follows:

|  | <b>Dollar Amount</b> | <b>% of Payroll</b> |
|--|----------------------|---------------------|
| 1. Total normal cost   | \$ 87,003,918        | 16.48%              |
| 2. Expected employee contributions                                   | -29,525,739          | -5.59%              |
| 3. Employer normal cost: (1) + (2)                                   | 57,478,179           | 10.89%              |
| 4. Amortization of unfunded/(overfunded) actuarial accrued liability | -14,579,489          | -2.76%              |
| 5. Total required contribution: (3) + (4), adjusted for timing       | 44,614,638           | 8.45%               |
| 6. Employer match (110% of (2))                                      | 32,478,313           | 6.15%               |
| 7. Greater of employer match (6) or total required contribution (5)  | 44,614,638           | 8.45%               |
| 8. Projected payroll   | 527,787,469          |                     |

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**SECTION 4: Reporting Information for The Water and Power Employees' Retirement Plan of the City of Los Angeles**

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**EXHIBIT II**

**Supplementary Information Required by the GASB – Schedule of Employer Contributions**

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| <b>Plan Year<br/>Ended June 30</b> | <b>Annual Required<br/>Contributions</b> | <b>Actual<br/>Contributions</b> | <b>Percentage<br/>Contributed</b> |
|------------------------------------|--|---------------------------------|-----------------------------------|
| 1995                               | \$128,600,024                            | \$141,225,839                   | 109.8%                            |
| 1996                               | 113,839,086                              | 107,839,613                     | 94.7%                             |
| 1997                               | 96,210,507                               | 103,836,661                     | 107.9%                            |
| 1998                               | 35,516,124                               | 124,470,502                     | 350.5%                            |
| 1999                               | 20,198,833                               | 57,458,271                      | 284.5%                            |
| 2000                               | 34,578,361                               | 24,426,465                      | 70.6%                             |
| 2001                               | 5,378,281                                | 25,763,218                      | 479.0%                            |
| 2002                               | 6,132,578                                | 27,241,801                      | 444.2%                            |
| 2003                               | 47,823,973                               | 40,560,882                      | 84.8%                             |
| 2004                               | 51,259,559                               | --                              | --                                |

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**SECTION 4: Reporting Information for The Water and Power Employees' Retirement Plan of the City of Los Angeles**

**EXHIBIT III**

**Supplementary Information Required by the GASB – Schedule of Funding Progress**

| <b>Actuarial Valuation Date</b> | <b>Actuarial Value of Assets (a)</b> | <b>Actuarial Accrued Liability (AAL) (b)</b> | <b>Unfunded/ (Overfunded) AAL (UAAL) (b) - (a)</b> | <b>Funded Ratio (a) / (b)</b> | <b>Covered Payroll (c)</b> | <b>UAAL as a Percentage of Covered Payroll* [(b) - (a) / (c)]</b> |
|---------------------------------|--------------------------------------|--|--|-------------------------------|----------------------------|---|
| 07/01/1994                      | \$2,756,000,000                      | \$3,309,000,000                              | \$553,000,000                                      | 83.29%                        | \$470,000,000              | 117.66%   |
| 07/01/1995                      | 3,066,000,000                        | 3,501,000,000                                | 435,000,000  | 87.57%                        | 469,000,000                | 92.75%  |
| 07/01/1996                      | 3,399,925,821                        | 3,698,581,230                                | 298,655,409  | 91.93%                        | 431,000,000                | 69.29%  |
| 07/01/1997                      | 3,850,530,272                        | 3,811,880,519                                | -38,649,753  | 101.01%                       | 430,000,000                | 0.00%   |
| 07/01/1998                      | 4,513,684,692                        | 4,339,885,313                                | -173,799,379                                       | 104.00%                       | 431,000,000                | 0.00%   |
| 07/01/1999                      | 5,254,093,071                        | 4,911,443,303                                | -342,649,768                                       | 106.98%                       | 355,000,000                | 0.00%   |
| 07/01/2000                      | 5,605,856,078                        | 5,082,960,078                                | -522,896,000                                       | 110.29%                       | 368,000,000                | 0.00%   |
| 07/01/2001                      | 5,833,274,582                        | 5,306,262,736                                | -527,011,846                                       | 109.93%                       | 403,265,472                | 0.00%   |
| 07/01/2002                      | 5,790,262,948                        | 5,714,524,649                                | -75,738,299  | 101.33%                       | 430,397,884                | 0.00%   |
| 07/01/2003                      | 6,128,375,723                        | 6,042,086,785                                | -86,288,938  | 101.43%                       | 527,787,469                | 0.00%   |

\* Not less than zero





**SECTION 4: Reporting Information for The Water and Power Employees' Retirement Plan of the City of Los Angeles**

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**EXHIBIT IV**

**Supplementary Information Required by the GASB**

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|   |   |
|---|---|
| Valuation Date  | July 1, 2003  |
| Actuarial Cost Method   | Entry Age Normal Cost Method  |
| Amortization Method   | Level dollar amortization   |
| Remaining Amortization Period                                       | The June 30, 2000 surplus Actuarial Accrued Liability is amortized over the fifteen-year period commencing July 1, 2000. Any subsequent changes in Actuarial Accrued Liability are amortized over separate fifteen-year periods.  |
| Asset Valuation Method  | The market value of asset less unrecognized returns in each of the last five years (but not before July 1, 2001). Unrecognized return is equal to the difference between the actual and the expected returns on a market value basis and is recognized over a five year period. |
| Actuarial Assumptions:  |   |
| Investment Rate of Return   | 8.00%   |
| Projected Salary Increases  | 5.50%   |
| Cost of Living Adjustments  | 3.00%   |
| Membership of the Plan  |   |
| Retirees and Beneficiaries receiving benefits                       | 9,161   |
| Terminated plan members entitled to, but not yet receiving benefits | 1,445   |
| Active plan members   | <u>7,731</u>  |
| Total   | 18,337  |

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**SECTION 4: Reporting Information for The Water and Power Employees' Retirement Plan of the City of Los Angeles**

**EXHIBIT V**

**Development of the Net Pension Obligation and the Annual Pension Cost Pursuant to GASB 27**

| Plan Year Ended June 30 | Employer Annual Required Contribution (a) | Employer Amount Contributed* (b) | Interest on NPO (c) | ARC Adjustment (h) / (e) (d) | Amortization Factor (e) | Pension Cost (a) + (c) - (d) (f) | Change in NPO (f) - (b) (g) | NPO Balance NPO + (g) (h) |
|-------------------------|---|----------------------------------|---------------------|------------------------------|-------------------------|----------------------------------|-----------------------------|---------------------------|
| 1995                    | \$127,392,521                             | \$141,225,839                    | -\$1,110,037        | -\$2,317,540                 | 6.4872                  | \$128,600,024                    | -\$12,625,815               | -\$27,660,052             |
| 1996                    | 111,231,502                               | 107,839,613                      | -2,027,405          | -4,634,989                   | 5.9677                  | 113,839,086                      | 5,999,473                   | -21,660,579               |
| 1997                    | 93,776,790                                | 103,836,661                      | -1,572,594          | -4,006,311                   | 5.4066                  | 96,210,507                       | -7,626,154                  | -29,286,733               |
| 1998                    | 31,514,506                                | 124,470,502                      | -2,098,917          | -6,100,535                   | 4.8007                  | 35,516,124                       | -88,954,378                 | -118,241,111              |
| 1999                    | 0   | 57,458,271                       | -8,318,592          | -28,517,425                  | 4.1463                  | 20,198,833                       | -37,259,438                 | -155,500,549              |
| 2000                    | 0   | 24,426,465                       | -10,631,644         | -45,210,005                  | 3.4395                  | 34,578,361                       | 10,151,896                  | -145,348,653              |
| 2001                    | 0   | 25,763,218                       | -10,973,809         | -16,352,090                  | 8.8887                  | 5,378,281                        | -20,384,937                 | -165,733,590              |
| 2002                    | 0   | 27,241,801                       | -12,512,869         | -18,645,447                  | 8.8887                  | 6,132,578                        | -21,109,223                 | -186,842,813              |
| 2003                    | 40,910,299                                | 40,560,882                       | -14,106,614         | -21,020,288                  | 8.8887                  | 47,823,973                       | 7,263,091                   | -179,579,722              |
| 2004                    | 44,614,638                                | 44,614,638                       | -13,558,251         | -20,203,172                  | 8.8887                  | 51,259,559                       | 6,644,921                   | -172,934,801              |

\* The amount indicated for June 30, 2004 assumes the actual employer contribution for the year is equal to the employer annual required contribution.

**SECTION 4: Reporting Information for The Water and Power Employees' Retirement Plan of the City of Los Angeles**

**EXHIBIT VI**

**Actuarial Assumptions and Actuarial Cost Method**

**Mortality Rates:**

*After Service Retirement  
and Pre-retirement:*

1983 Group Annuity Mortality Table, with ages set back one year.

*After Disability Retirement*

1983 Group Annuity Mortality Table, with ages set back one year.

**Termination Rates before Retirement:**

| Age | Mortality |        | Rate (%)   |        |                      |        | Vested Withdrawal* |        |
|-----|-----------|--------|------------|--------|----------------------|--------|--------------------|--------|
|     | Male      | Female | Disability | Female | Ordinary Withdrawal* | Female | Male               | Female |
| 25  | 0.044     | 0.024  | 0.006      | 0.000  | 5.728                | 6.689  | 0.888              | 1.035  |
| 30  | 0.057     | 0.032  | 0.012      | 0.016  | 4.296                | 6.211  | 0.700              | 1.011  |
| 35  | 0.079     | 0.044  | 0.012      | 0.036  | 2.920                | 5.260  | 0.563              | 1.017  |
| 40  | 0.113     | 0.062  | 0.018      | 0.072  | 2.000                | 4.182  | 0.463              | 0.968  |
| 45  | 0.193     | 0.092  | 0.030      | 0.102  | 1.144                | 3.097  | 0.325              | 0.878  |
| 50  | 0.351     | 0.151  | 0.054      | 0.138  | 0.639                | 1.981  | 0.188              | 0.582  |
| 55  | 0.566     | 0.232  | 0.126      | 0.168  | 0.360                | 0.755  | 0.088              | 0.184  |
| 60  | 0.838     | 0.382  | 0.240      | 0.000  | 0.070                | 0.052  | 0.050              | 0.038  |
| 65  | 1.387     | 0.639  | 0.000      | 0.000  | 0.070                | 0.000  | 0.000              | 0.000  |

\* Withdrawal rates are zero for members expected to retire.

**SECTION 4: Reporting Information for The Water and Power Employees' Retirement Plan of the City of Los Angeles**

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| <b>Retirement Rates:</b> | <b>Age</b> | <b>Retirement Probability Under<br/>30 Years of Service</b> | <b>Retirement Probability Over 30<br/>Years of Service</b> |
|--------------------------|------------|---|--|
|                          | 50         | 0.00%   | 60.00%   |
|                          | 51         | 0.00  | 15.00  |
|                          | 52         | 0.00  | 20.00  |
|                          | 53         | 0.00  | 5.00   |
|                          | 54         | 0.00  | 5.00   |
|                          | 55         | 5.00  | 25.00  |
|                          | 56         | 4.00  | 10.00  |
|                          | 57         | 1.00  | 10.00  |
|                          | 58         | 1.00  | 10.00  |
|                          | 59         | 2.00  | 10.00  |
|                          | 60         | 2.00  | 10.00  |
|                          | 61         | 3.00  | 5.00   |
|                          | 62         | 3.00  | 5.00   |
|                          | 63         | 3.00  | 20.00  |
|                          | 64         | 3.00  | 10.00  |
|                          | 65         | 100.00  | 100.00   |

**50/30 Open Window:** Rates included in the above retirement rates (for eligible members through September 30, 2005).

**Retirement Age and Benefit for Inactive**

**Vested Participants:** Assume an immediate refund of employee normal contribution account plus department matching contribution account.

**Exclusion of Inactive Vested:** All inactive participants are included in the valuation.

**Definition of Active Members:** First day of biweekly payroll following employment for new department employees or immediately following transfer from other city department.

**Unknown Data for Members:** Same as those exhibited by Members with similar known characteristics. If not specified, Members are assumed to be male.

**Percent Married/Domestic Partner:** 85% of male participants; 60% of female participants.

**Age of Spouse:** Female spouses 4 years younger than their spouses.



**SECTION 4: Reporting Information for The Water and Power Employees' Retirement Plan of the City of Los Angeles**

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|   |   |
|---|---|
| <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.<br><br>(b) 41.25% of the employees with 10 years of service or more will purchase an average of four years of service.   |
| <b>Consumer Price Index:</b>                                      | Increase of 4.0% per year; benefit increases due to CPI subject to 3.0% maximum.  |
| <b>Employee Contribution and Matching Account Crediting Rate:</b> | 8.00%   |
| <b>Net Investment Return:</b>                                     | 8.00%   |
| <b>Salary Increases:</b>  | 5.50%   |
| <b>Actuarial Value of Assets:</b>                                 | The market value of assets less unrecognized returns in each of the last five years (but not before July 1, 2001). Unrecognized return is equal to the difference between the actual and expected returns on a market value basis and is recognized over a five year period.  |
| <b>Actuarial Cost Method:</b>                                     | Entry Age Normal Actuarial Cost Method. Entry Age equals attained age less years of service. Normal Cost and Actuarial Accrued Liability are calculated on an individual basis and are allocated by salary, as if the current benefit accrual rate had always been in effect. |

**SECTION 4: Reporting Information for The Water and Power Employees' Retirement Plan of the City of Los Angeles**

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**Funding Policy:**

The Department of Water and Power makes contributions equal to the Normal Cost adjusted by amount 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 Liability is amortized over the fifteen year period commencing July 1, 2000. Any subsequent change 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. Finally, the Department of Water and Power contribution is not less than the matching contribution of 110% of member contributions.

**Changes in Assumptions:**

There have been no changes in actuarial assumptions since the last valuation.

**Changes in Actuarial Cost Method:**

The actuarial value of asset method was changed. In the previous method, the actuarial value of assets was determined by phasing in equity unrealized capital gains and losses over a four-year period. All other investments were at book value.

**SECTION 4: Reporting Information for The Water and Power Employees' Retirement Plan of the City of Los Angeles**

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**EXHIBIT VII**

**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

**Census Date:** March 31

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**Formula Retirement Benefit:**

*Age & Service Requirement*

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.

*Amount*

The greater of 2.1% of the Monthly Salary Base or \$9.50 per year of service. For those age 55 or older with 30 or more years of service the factor is 2.3% of the Monthly Salary Base.

*Monthly Salary Base*

Equivalent of monthly average salary of highest continuous 26 biweekly payroll periods (one year).

*Cost of Living benefit*

Based on changes to Los Angeles area consumer price index to a maximum of 3% per year.

*Death after retirement*

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: Reporting Information for The Water and Power Employees' Retirement Plan of the City of Los Angeles**

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**Sample Early Retirement**

**Reduction Factors:** The early retirement factor is determined by the attained age on the effective date of retirement. Every three months of attained age will affect the factor

| <b>Attained Age at Actual Retirement</b> | <b>Exact Age</b> | <b>+3 Months</b> | <b>+6 Months</b> | <b>+9 Months</b> |
|--|------------------|------------------|------------------|------------------|
| 48                                       | .7150            | .7225            | .7300            | .7375            |
| 49                                       | .7450            | .7525            | .7600            | .7675            |
| 50                                       | .7750            | .7825            | .7900            | .7975            |
| 51                                       | .8050            | .8125            | .8200            | .8275            |
| 52                                       | .8350            | .8425            | .8500            | .8575            |
| 53                                       | .8650            | .8725            | .8800            | .8875            |
| 54                                       | .8950            | .9025            | .9100            | .9175            |
| 55                                       | .9250            | .92875           | .9325            | .93625           |
| 56                                       | .9400            | .94375           | .9475            | .95125           |
| 57                                       | .9550            | .95875           | .9625            | .96625           |
| 58                                       | .9700            | .97375           | .9775            | .98125           |
| 59                                       | .9850            | .98875           | .9925            | .99625           |
| 60 & Over                                | 1.0000           |                  |                  |                  |

The factor is 1.0000 for those retiring at age 55 or later with at least 30 years of service or those at age 50 or later with at least 30 years of service who retire before September 30, 2005.



**SECTION 4: Reporting Information for The Water and Power Employees' Retirement Plan of the City of Los Angeles**

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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:

| <u>Entry Age</u> | <u>Rate</u> |
|------------------|-------------|
| 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 are a minimum of 110% of employee contributions.

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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.

**SECTION 4: Reporting Information for The Water and Power Employees' Retirement Plan of the City of Los Angeles**

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

|                                      |   |
|--------------------------------------|---|
| <i>Age &amp; Service Requirement</i> | Age 60 with one-year contributing membership; or<br>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  |

**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.

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

Refund of employee contributions with interest.

**Money Purchase Annuity:**

A monthly lifetime benefit equal in value to the employee normal contribution account plus Department matching contribution (called current service contribution) account at retirement date.

**Changes in Plan Provisions:** There have been no changes in plan provisions since the last valuation.

171009/04175.003