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

*Actuarial Valuation and Review*
*as of July 1, 2004*

SEGAL

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*October 7, 2004*

*Board of Administration*
*The Water and Power Employees' Retirement Plan of the City of Los Angeles*
*111 North Hope Street, Room 357*
*Los Angeles, California 90012*

*Dear Board Members:*

*We are pleased to submit this Actuarial Valuation and Review as of July 1, 2004. It summarizes the actuarial data used in the valuation, establishes the funding requirements for fiscal 2004-2005 and analyzes the preceding year's experience.*

*The census 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 Andy Yeung, 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, FSA, MAAA*
*Vice President and Actuary*

*Andy Yeung, ASA, MAAA*
*Associate Actuary*

*cc:* *Manoj B. Desai, CPA*
*Robert K. Rozanski*
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*KYB/hy*

## SECTION 1

### VALUATION SUMMARY



## SECTION 2

### VALUATION RESULTS



## SECTION 3

### SUPPLEMENTAL INFORMATION



## SECTION 4

### REPORTING INFORMATION

### 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, 2004. The valuation was performed to determine whether 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 census of covered active members, inactive vested members, and retired members and beneficiaries as of March 31, 2004, provided by the Retirement Office;
- The assets of the Plan as of June 30, 2004, 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 market value of assets earned a return of 11.22% for the July 1, 2003 to June 30, 2004 plan year. The actuarial value of assets earned a return of 5.52% for the July 1, 2003 to June 30, 2004 plan year due to the recognition of prior investment losses. This resulted in an actuarial loss of $149.5 million when measured against the assumed rate of return of 8.00%. This actuarial investment loss increased the Plan's required contribution by 2.89% of compensation.
- The salaries for continuing actives increased by 8.6% from the rate in effect on March 31, 2003 to the rate in effect on March 31, 2004. 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 $57.3 million for the current year, which increased the Plan's required contribution by 1.11% of compensation. Part of this salary increase is due to 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 until the next experience study.
- Under the Plan's funding policy, the required contribution rate continues to be larger than the mandatory 110% matching of the employee contribution. The required contribution for the 2004-2005 plan year is 13.45% of pay, which is estimated to be $78.2 million. This includes amortization of the Plan's unfunded actuarial accrued liability (UAAL) over various fixed periods.

- The total unrecognized return (i.e., the difference between the market value of assets and the actuarial value of assets) decreased by $355.9 million during the plan year from -$706.9 million in 2003 to -$351.0 million in 2004. This unrecognized return represents deferred market value losses that will be recognized over the next four years. Once recognized, the -$351.0 million reserve will increase the required contribution by 6.89% of pay.
- This year, the balance in the General Reserve and the Reserve for Investment Gains and Losses increased from $137 million as of June 30, 2003 to $1,314 million as of June 30, 2004. These two reserves track changes in the book value of assets. We understand that this increase took place because of significant turnover in the Plan's portfolio. In prior years, these two reserves were excluded from the valuation assets.
- Effective with this valuation, based on our discussions with Plan staff, we have been instructed to include all but $61 million (approximately 1% of the end of year market value of assets) of the end of year General Reserve and Reserve for Investment Gains and Losses as valuation assets.
- For the first time since 1997, the actuarial accrued liability exceeds the actuarial value of assets. This results in an unfunded actuarial accrued liability (UAAL) of $170.4 million. The Board's funding policy determines the Department's required contribution as the normal cost increased or offset by a UAAL amortization charge or credit. Under this funding policy, the Plan's UAAL is amortized over various 15 year periods, each beginning with the year that each portion or base of the UAAL was first identified and amortized.
- The amortization bases were combined into a single surplus (i.e., credit) base in our July 1, 2000 valuation. Since then there have been significant new bases including three large experience losses, a Plan amendment and a change in the asset valuation method. The current net amortization charge is $12,230,620. At this payment level, it would take over 40 years to pay off the UAAL. In practice what will happen is that the net amortization charge will increase substantially in 11 years, when the year 2000 surplus is fully amortized.
- To obtain a more level cost pattern, we are recommending a "fresh start" approach where the current bases are once again combined into a single base and amortized over 15 years, consistent with the current policy. Under this approach the new single amortization payment is $18,432,327, and the recommended contribution for the 2004-2005 plan year would be 14.56% of payroll.

- Governmental Accounting Standards Board Statement No. 25 (GASB 25) requires calculation of a measure of Plan cost called the Annual Required Contribution (ARC). Like the Board's required contribution, the GASB 25 ARC is determined as the normal cost increased or offset by a UAAL amortization charge or credit. However, GASB 25 requires that the net amortization charge be sufficient to amortize any UAAL over no longer than 40 years. As noted above, under the Board's current funding policy, the net amortization charge of $12,230,620 does not meet this 40 year standard. For that reason we have determined the ARC using a 40 year amortization payment of $13,230,711.

## Summary of Key Valuation Results

| | 2004 | 2003 |
|---|---|---|
| **Contributions for plan year beginning July 1:** | | |
| Required under funding policy | $ 78,160,617 | $ 44,614,638 |
| Percentage of payroll | 13.45% | 8.45% |
| Recommended ("fresh start" 15 year amortization / employer normal cost) | 84,610,392 | 59,777,306 |
| Percentage of payroll | 14.56% | 11.33% |
| **Funding elements for plan year beginning July 1:** | | |
| Total normal cost | $ 95,837,510 | $87,003,918 |
| Market value of assets | 5,961,400,238 | 5,558,765,969 |
| Actuarial value of assets | 6,251,421,125 | 6,128,375,723 |
| Actuarial accrued liability | 6,421,813,922 | 6,042,086,785 |
| Unfunded/(overfunded) actuarial accrued liability | 170,392,797 | -86,288,938 |
| **GASB 25/27 for plan year beginning July 1:** | | |
| Annual pension cost | $ 86,026,697 | $ 50,773,126 |
| Actual contributions | -- | 55,804,924 |
| Percentage contributed | -- | 109.91% |
| Funded ratio | 97.35% | 101.43% |
| Covered payroll | 581,038,783 | 527,787,469 |
| **Demographic data for plan year beginning July 1:** | | |
| Number of retired participants and beneficiaries | 8,973 | 9,161 |
| Number of vested former members | 1,525 | 1,445 |
| Number of active members | 7,893 | 7,731 |
| Total projected compensation | $ 581,038,783 | $ 527,787,469 |
| Projected average compensation | 73,614 | 68,269 |

## A. MEMBER DATA

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

This section presents a summary of significant statistical data on these member 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 member population has changed over the past eight valuations can be seen in this chart.*

**CHART 1**

**Member Population: 1997 – 2004**

| Year Ended June 30 | Active Members | Vested Terminated Members* | Retired Participants and Beneficiaries | Ratio of Non-Actives to Actives |
|---|---|---|---|---|
| 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 |
| 2004 | 7,893 | 1,525 | 8,973 | 1.33 |

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

**Active Members**

Plan costs are affected by the age, years of service and compensation of active members. In this year's valuation, there were 7,893 active members with an average age of 46.9, average years of service of 16.8 years and average projected compensation of $73,614. The 7,731 active members in the prior valuation had an average age of 46.3, average service of 16.3 years and average projected compensation of $68,269.

**Inactive Members**

In this year's valuation, there were 1,525 members with a vested right to a deferred or immediate vested monthly benefit or entitled to a return of their member 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, 2004**

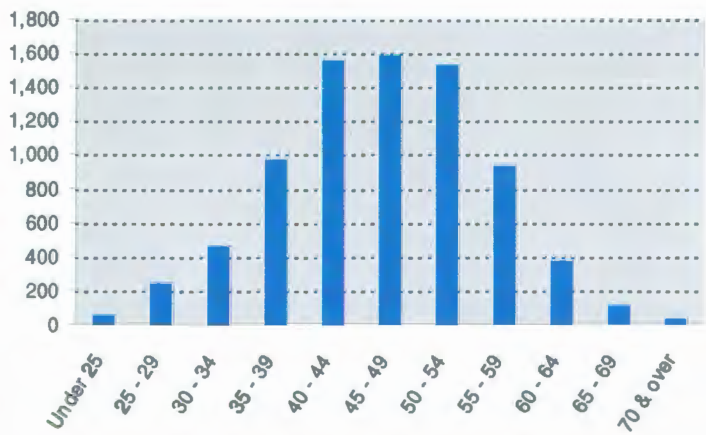
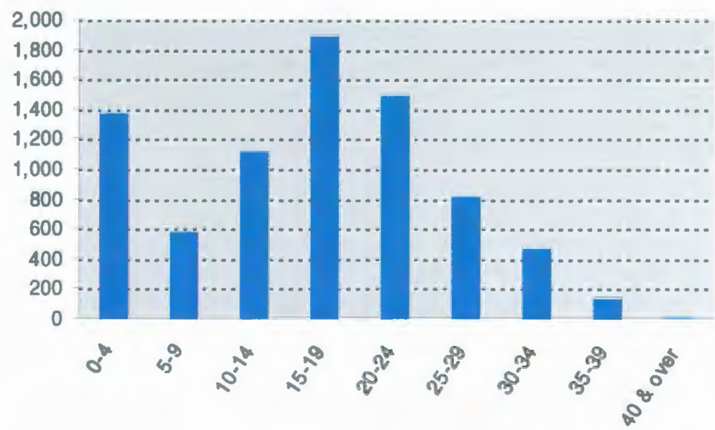



**CHART 3**

**Distribution of Active Members by Years of Service as of June 30, 2004**



**Retired Participants and Beneficiaries**
As of June 30, 2004, 6,745 retired participants and 2,228 beneficiaries were receiving total monthly benefits of $25,857,076. For comparison, in the previous valuation, there were 6,932 retired participants and 2,229 beneficiaries receiving monthly benefits of $25,299,559.

*These graphs show a distribution of the current retired participants and beneficiaries based on their monthly amount and age.*

**CHART 4**

**Distribution of Retired Participants and Beneficiaries by Monthly Amount as of June 30, 2004**

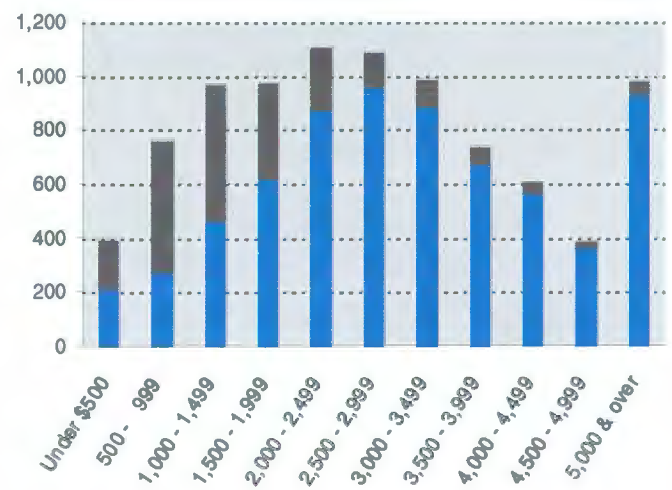
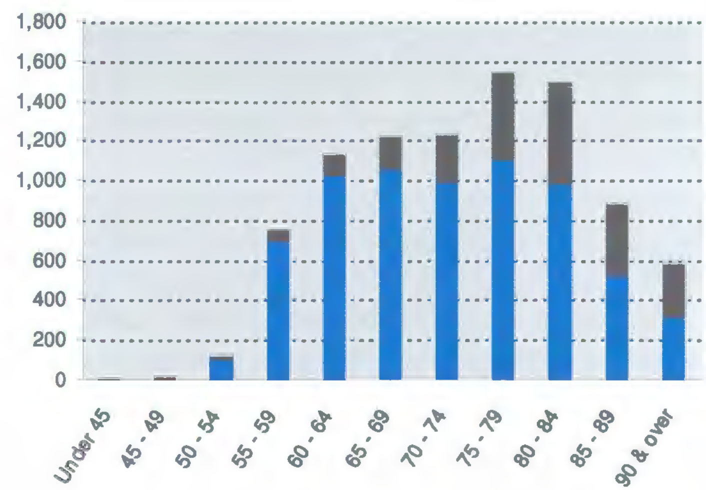



**CHART 5**

**Distribution of Retired Participants and Beneficiaries by Type and by Age as of June 30, 2004**




■ Beneficiaries
■ Retired Members

## B. FINANCIAL INFORMATION

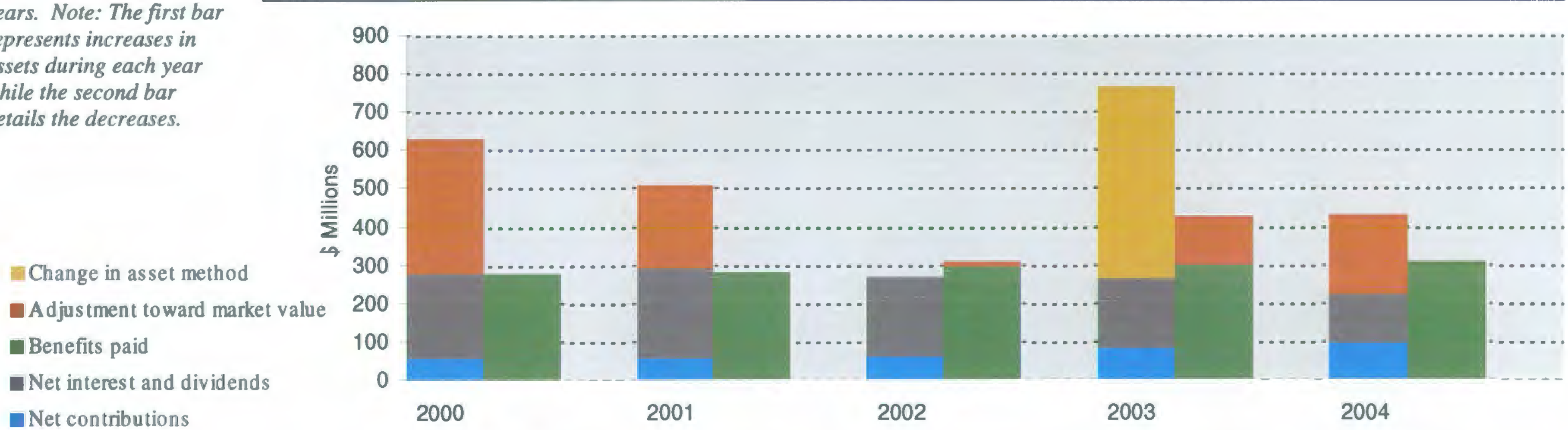
Retirement plan funding anticipates that, over the long term, both net contributions and net investment earnings (less investment fees and administrative expenses) will be needed to cover benefit payments.

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 five years. Note: The first bar represents increases in assets during each year while the second bar details the decreases.*

**CHART 6**

**Comparison of Increases and Decreases in the Actuarial Value of Assets for Years Ended June 30, 2000 – 2004**



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.

Please note that as instructed by Plan staff, we have included all but $61.0 million (approximately 1% of the end of year market value of assets) in the General Reserve and Reserve for Investments Gains and Losses as valuation assets.

*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, 2004**

| | | | | |
|---|---|---|---|---|
| 1 | Market value of assets, June 30, 2004 | | | $ 5,961,400,238 |
| | | Original | Unrecognized | |
| 2 | Calculation of Unrecognized Return | Amount* | Return** | |
| | (a) Year ended June 30, 2004 | $178,199,134 | $142,559,307 | |
| | (b) Year ended June 30, 2003 | -334,674,490 | -200,804,694 | |
| | (c) Year ended June 30, 2002 | -731,938,750 | -292,775,500 | |
| | (d) Total Unrecognized Return | | | -351,020,887 |
| 3 | Gross actuarial value: (1) - (2d) | | | 6,312,421,125 |
| 4 | Portion of General Reserve and Reserve for Investment Gains and Losses not included as valuation asset | | | 61,000,000 |
| 5 | Net actuarial value as of June 30, 2004: (3) – (4) | | | $6,251,421,125 |
| 6 | Net actuarial value as a percentage of market value: (5) / (1) | | | 104.9% |

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

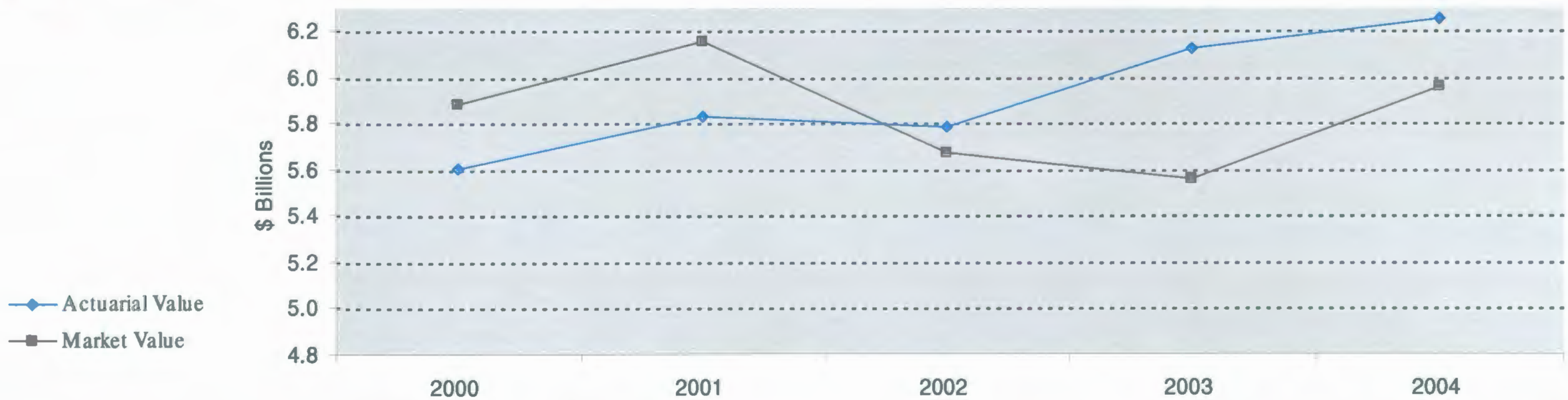
***Recognition at 20% per year over 5 years*

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 these assets to determine what portion, if any, remains unfunded. Amortization of the unfunded actuarial accrued 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 five years.*

**CHART 8**

**Actuarial Value of Assets vs. Market Value of Assets as of June 30, 2000 – 2004**



## 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 of ($269,775,964) are shown below. The net experience variation from individual sources other than investments was 1.9% 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.*

**CHART 9**

**Actuarial Experience for Year Ended June 30, 2004**

| | | |
|---|---|---|
| 1. | Net gain/(loss) from investments* | -$149,504,841 |
| 2. | Net gain/(loss) from salaries | -57,263,133 |
| 3. | Net gain/(loss) from other experience | -63,007,990 |
| 4. | Net experience gain/(loss): (1) + (2) | -$269,775,964 |

** Details in Chart 10*

**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 on an actuarial basis for the 2004 plan year was 5.52%.

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, 2004 with regard to its investments.

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

**CHART 10**

**Actuarial Value Investment Experience for Year Ended June 30, 2004**

| | | |
|---|---|---|
| 1. | Actual return | $332,391,378 |
| 2. | Average value of assets | 6,023,702,735 |
| 3. | Actual rate of return: (1) ÷ (2) | 5.52% |
| 4. | Assumed rate of return | 8.00% |
| 5. | Expected return: (2) x (4) | $481,896,219 |
| 6. | Actuarial gain/(loss): (1) – (5) | -$149,504,841 |

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 five years.

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

**CHART 11**

**Investment Return – Actuarial Value vs. Market Value: 2000 - 2004**

| Year Ended June 30 | Net Interest and Dividend Income | | Recognition of Capital Appreciation | | Change in Asset Method | | Actuarial Value Investment Return | | Market Value Investment 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 | 182,004,368 | 3.20% | -127,029,513 | -2.23% | $503,018,121 | 8.85% | 557,992,976 | 9.82% | 107,504,970 | 1.93% |
| 2004 | 126,468,819 | 2.10% | 205,922,559 | 3.42% | - - | - - | 332,391,378 | 5.52% | 611,980,245 | 11.22% |
| Total | $969,920,652 | | $633,799,039 | | $503,018,121 | | $2,106,737,812 | | $983,222,335 | |

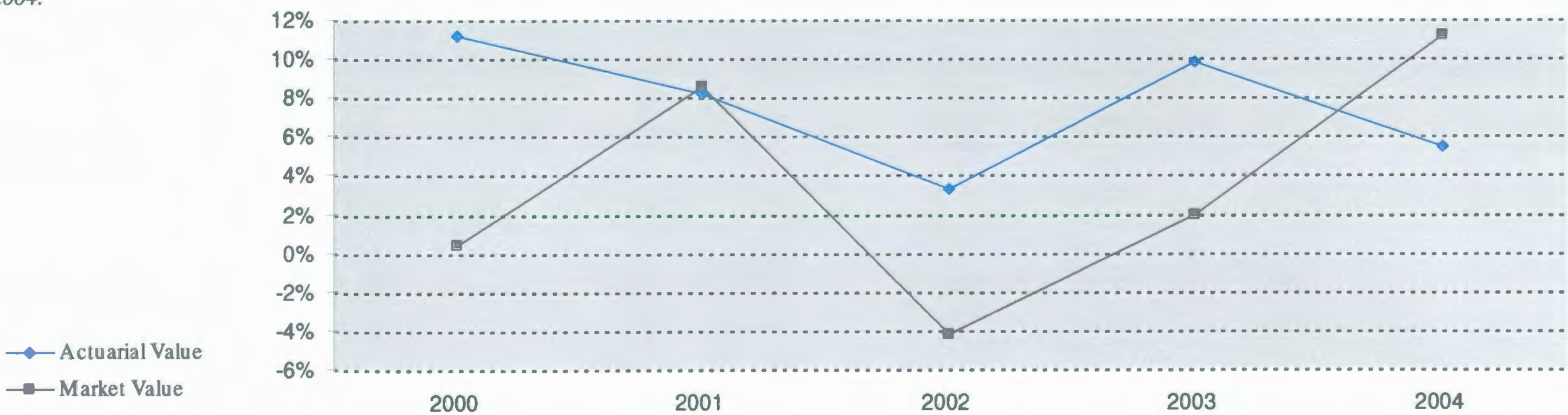
*Note: Each year's yield is weighted by the average asset value in that year.*

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.

*This chart illustrates how this leveling effect has actually worked over the years 2000 - 2004 .s 2000 – 2004.*

**CHART 12**

**Market and Actuarial Rates of Return for Years Ended June 30, 2000 - 2004**



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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, 2004 amounted to ($120,271,123) which is 1.9% of the actuarial accrued liability.

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

## 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. In prior years, the Department was funding the normal cost as a percentage of pay offset by the dollar amount of a net amortization credit. This year the Plan has an unfunded liability which is amortized over various periods. This produces a net amortization charge of $12,230,620.

With only this amortization payment it would take over 40 years to pay off the unfunded actuarial accrued liability. Therefore, we are recommending that the bases be combined into a single base and amortized over 15 years, consistent with the current policy. The amortization charge would then be $18,432,327.

Even under the current funding policy, the Department's required contribution rate increased as a percentage of pay. This was primarily the result of the investment return being less than assumed, higher than expected of salary increases for active members and other unfavorable actuarial experience.

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

**CHART 13**

**Required Contribution**

| Year Beginning July 1: | 2004 | | 2003 | |
|---|---|---|---|---|
| | Amount | % of Payroll | Amount | % of Payroll |
| 1. Total normal cost | $95,837,510 | 16.49% | $87,003,918 | 16.48% |
| 2. Expected employee contributions | -32,913,691 | -5.66% | -29,525,739 | -5.59% |
| 3. Employer normal cost: (1) + (2) | $62,923,819 | 10.83% | $57,478,179 | 10.89% |
| 4. Actuarial accrued liability | 6,421,813,922 | | 6,042,086,785 | |
| 5. Actuarial value of assets | 6,251,421,125 | | 6,128,375,723 | |
| 6. Unfunded/(overfunded) actuarial accrued liability: (4) - (5) | $170,392,797 | | -$86,288,938 | |
| 7. Amortization of projected unfunded/(overfunded) actuarial accrued liability | | | | |
| a. Under current policy (all bases amortized separately) | $12,230,620 | 2.10% | -$14,579,489 | -2.76% |
| b. Under recommended policy (single base amortized over 15 years) | 18,432,327 | 3.17% | - - | - - |
| 8. Total required contribution: (3) + (7a), adjusted for timing* | 78,160,617 | 13.45% | 44,614,638 | 8.45% |
| 9. Employer match (110% of (2)), adjusted for timing* | 37,653,262 | 6.48% | 32,478,313 | 6.15% |
| 10. Greater of employer match (9) or total required contribution (8) | $78,160,617 | 13.45% | $44,614,638 | 8.45% |
| 11. Recommended contribution: (3) + (7b), adjusted for timing* | $84,610,392 | 14.56% | - - | - - |
| 12. Projected compensation | $581,038,783 | | $527,787,469 | |

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

The contribution rates as of July 1, 2004 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.

**Reconciliation of Required Contribution**
The chart below details the changes in the recommended 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 14**

**Reconciliation of Required Contribution from July 1, 2003 to July 1, 2004**

| | |
|---|---|
| **Required Contribution as of July 1, 2003** | 8.45% |
| Effect of gains and losses on salary experience | 1.11% |
| Effect of contributions more than recommended contribution | -0.42% |
| Effect of investment (gain)/loss | 2.89% |
| Effect of other gains and losses on accrued liability | 1.42% |
| **Total change** | 5.00% |
| **Required Contribution as of July 1, 2004** | 13.45% |

## 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 actuarial value of assets to the actuarial accrued 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, IV, and V.

*These graphs show key GASB factors.*

**CHART 15**

**Required Versus Actual Contributions**

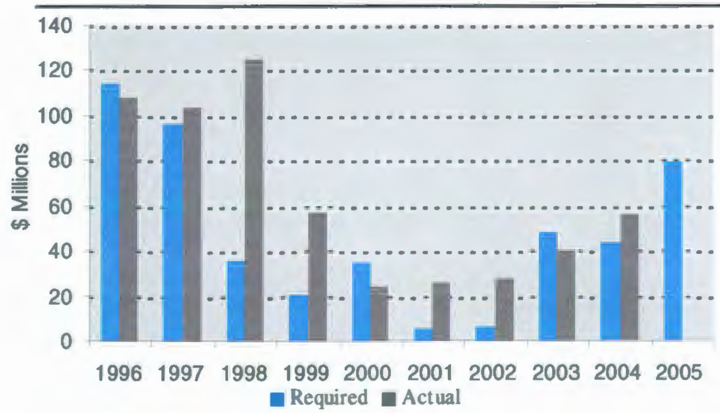
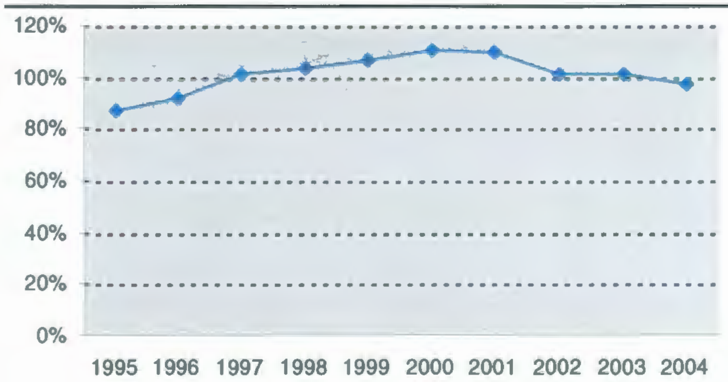



**CHART 16**

**Funded Ratio**



## EXHIBIT A

### Table of Plan Coverage

| Category | Year Ended June 30 2004 | Year Ended June 30 2003 | Change From Prior Year |
|---|---|---|---|
| **Active members in valuation:** | | | |
| Number | 7,893 | 7,731 | 2.1% |
| Average age | 46.9 | 46.3 | N/A |
| Average service | 16.8 | 16.3 | N/A |
| Projected total compensation | $581,038,783 | $527,787,469 | 10.1% |
| Projected average compensation | 73,614 | 68,269 | 7.8% |
| Account balances | 542,056,027 | 483,480,002 | 12.1% |
| **Vested terminated members:** | | | |
| Number | 1,525 | 1,445 | 5.5% |
| Average age | 47.7 | 47.2 | N/A |
| Average member account balances | $32,670 | $31,503 | 3.7% |
| **Retired members:** | | | |
| Number in pay status | 6,745 | 6,932 | -2.7% |
| Average age | 72.2 | 71.9 | N/A |
| Average monthly benefit | $3,232 | $3,100 | 4.3% |
| **Beneficiaries:** | | | |
| Number in pay status | 2,228 | 2,229 | 0.0% |
| Average age | 78.9 | 78.7 | N/A |
| Average monthly benefit | $1,822 | $1,708 | 6.7% |

## EXHIBIT B

### Members in Active Service as of June 30, 2004
### By Age, Years of Service, and Projected Average Compensation

| | | Years of Service | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Age | Total | 0-4 | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | 30-34 | 35-39 | 40 & over |
| Under 25 | 55 | 55 | - - | - - | - - | - - | - - | - - | - - | - - |
| | $56,741 | $56,741 | - - | - - | - - | - - | - - | - - | - - | - - |
| 25 - 29 | 244 | 209 | 35 | - - | - - | - - | - - | - - | - - | - - |
| | 58,692 | 58,582 | $59,352 | - - | - - | - - | - - | - - | - - | - - |
| 30 - 34 | 460 | 266 | 121 | 69 | 4 | - - | - - | - - | - - | - - |
| | 61,902 | 58,279 | 62,465 | $74,896 | $61,666 | - - | - - | - - | - - | - - |
| 35 - 39 | 975 | 275 | 146 | 315 | 235 | 4 | - - | - - | - - | - - |
| | 69,393 | 58,539 | 64,952 | 78,052 | 73,365 | $62,361 | - - | - - | - - | - - |
| 40 - 44 | 1,562 | 217 | 118 | 301 | 625 | 293 | 7 | 1 | - - | - - |
| | 73,479 | 60,903 | 66,921 | 72,109 | 76,336 | 80,703 | $77,705 | $57,274 | - - | - - |
| 45 - 49 | 1,596 | 158 | 72 | 203 | 413 | 580 | 159 | 11 | - - | - - |
| | 76,594 | 63,456 | 69,509 | 71,960 | 74,367 | 82,771 | 81,536 | 83,730 | - - | - - |
| 50 - 54 | 1,538 | 114 | 42 | 119 | 324 | 344 | 373 | 213 | 9 | - - |
| | 76,904 | 66,024 | 67,586 | 73,994 | 72,836 | 77,432 | 82,018 | 81,921 | $92,333 | - - |
| 55 - 59 | 935 | 59 | 27 | 65 | 172 | 183 | 199 | 159 | 70 | 1 |
| | 77,959 | 72,401 | 75,872 | 69,463 | 73,023 | 75,631 | 75,486 | 86,365 | 97,507 | $76,741 |
| 60 - 64 | 382 | 18 | 12 | 37 | 83 | 64 | 61 | 55 | 46 | 6 |
| | 77,662 | 86,117 | 89,738 | 70,198 | 67,281 | 72,547 | 77,860 | 80,112 | 96,085 | 106,590 |
| 65 - 69 | 110 | 2 | 5 | 11 | 31 | 20 | 16 | 15 | 8 | 2 |
| | 68,221 | 56,407 | 57,769 | 61,119 | 61,346 | 73,767 | 74,010 | 67,615 | 80,128 | 106,934 |
| 70 & over | 36 | 1 | 1 | 2 | 6 | 3 | 2 | 14 | 4 | 3 |
| | 58,449 | 42,873 | 55,374 | 80,129 | 63,685 | 78,522 | 58,307 | 29,458 | 89,112 | 114,171 |
| Total | 7,893 | 1,374 | 579 | 1,122 | 1,893 | 1,491 | 817 | 468 | 137 | 12 |
| | $73,614 | $60,925 | $66,197 | $73,812 | $73,924 | $79,633 | $79,771 | $81,180 | $95,429 | $106,055 |

## EXHIBIT C

### Reconciliation of Member Data

| | Active Members | Vested Former Members | Pensioners | Beneficiaries | Total |
|---|---|---|---|---|---|
| Number as of July 1, 2003 | 7,731 | 1,445 | 6,932 | 2,229 | 18,337 |
| New members | 427 | N/A | N/A | N/A | 427 |
| Terminations – with vested rights | -123 | 123 | 0 | 0 | 0 |
| Retirements | -94 | -15 | 109 | N/A | 0 |
| Return to work | 0 | -44 | 0 | N/A | -44 |
| Died with beneficiary | -8 | -1 | -114 | 123 | 0 |
| Died without beneficiary | 0 | 0 | -184 | -138 | -322 |
| Rehired | 39 | 0 | 0 | N/A | 39 |
| Data adjustments | 0 | 51 | 2 | 14 | 67 |
| Contribution refunds | -79 | -34 | 0 | 0 | -113 |
| Number as of July 1, 2004 | 7,893 | 1,525 | 6,745 | 2,228 | 18,391 |

## EXHIBIT D

### Summary Statement of Income and Expenses on an Actuarial Value Basis

| | Year Ended June 30, 2004 | | Year Ended June 30, 2003 | |
|---|---|---|---|---|
| **Contribution income:** | | | | |
| Employer contributions | $55,804,924 | | $40,560,882 | |
| Employee contributions | 38,045,999 | | 36,490,767 | |
| Other contributions | 2,452,293 | | 2,623,157 | |
| Net contribution income | | $96,303,216 | | $79,674,806 |
| **Investment income:** | | | | |
| Interest, dividends and other income | $130,311,380 | | $184,616,510 | |
| Adjustment toward market value | 205,922,559 | | -127,029,513 | |
| Less investment and administrative fees | -3,842,561 | | -2,612,142 | |
| Net investment income | | 332,391,378 | | 54,974,855 |
| **Total income available for benefits** | | $428,694,594 | | $134,649,661 |
| **Less benefit payments:** | | | | |
| Retirement benefits paid | -$302,063,849 | | -$295,587,105 | |
| Refund of members' contributions | -3,585,343 | | -3,967,902 | |
| Net benefit payments | | -$305,649,192 | | -$299,555,007 |
| **Change in actuarial asset method** | | $ 0 | | $503,018,121 |
| **Change in reserve for future benefits** | | $123,045,402 | | $338,112,775 |

## EXHIBIT E

### Table of Financial Information

| | Year Ended June 30, 2004 | | Year Ended June 30, 2003 | |
|---|---|---|---|---|
| **Cash equivalents** | | $561,545 | | $120,659,649 |
| **Accounts receivable:** | | | | |
| Accrued investment income | $25,383,421 | | $32,249,120 | |
| Other | 4,686,071 | | 11,000,796 | |
| Securities lending - collateral | 104,913,701 | | 445,260,999 | |
| Total accounts receivable | | 134,983,193 | | 488,510,915 |
| **Investments:** | | | | |
| Fixed income | $1,183,263,850 | | $1,390,992,908 | |
| Equities | 3,872,738,548 | | 3,065,296,752 | |
| Other assets | 876,826,520 | | 947,050,540 | |
| Total investments at market value | | 5,932,828,918 | | 5,403,340,200 |
| **Total assets** | | $6,068,373,656 | | $6,012,510,764 |
| **Less accounts payable:** | | | | |
| Department of Water and Power | $149,483 | | -$7,770,046 | |
| Accounts payable | -1,910,234 | | -713,750 | |
| Security lending - collateral | -104,913,701 | | -445,260,999 | |
| Total accounts payable | | -$106,923,418 | | -$453,744,795 |
| **Net assets at market value** | | $5,961,400,238 | | $5,558,765,969 |
| **Net assets at actuarial value** | | $6,251,421,125 | | $6,128,375,723 |

## EXHIBIT F

### Development of the Fund Through June 30, 2004

| Year Ended June 30 | Employer Contributions | Employee Contributions | Other Contributions | Net Investment Return* | Benefit Payments | Actuarial Value of Assets at End of Year |
|---|---|---|---|---|---|---|
| 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 |
| 2004 | 55,804,924 | 38,045,999 | 2,452,293 | 332,391,378 | 305,649,192 | 6,251,421,125 |

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

## EXHIBIT G

### Development of Unfunded/(Overfunded) Actuarial Accrued Liability for Year Ended June 30, 2004

| | | |
|---|---|---|
| 1. Unfunded/(overfunded) actuarial accrued liability at beginning of year | | -$86,288,938 |
| 2. Normal cost at beginning of year | | 87,003,918 |
| 3. Total contributions | | -96,303,216 |
| 4. Interest | | |
| (a) For whole year on (1) + (2) | $57,198 | |
| (b) For half year on (3) | -3,852,129 | |
| (c) Total interest | | -3,794,931 |
| 5. Expected unfunded/(overfunded) actuarial accrued liability | | -$99,383,167 |
| 6. Changes due to: | | |
| (a) (Gain)/loss | $269,775,964 | |
| (b) Total changes | | 269,775,964 |
| 7. Unfunded/(overfunded) actuarial accrued liability at end of year | | $170,392,797 |

## EXHIBIT H

### Table of Amortization Bases

| Type | Date Established | Initial Years | Initial Amount | Annual Payment * | Years Remaining | Outstanding Balance |
|---|---|---|---|---|---|---|
| Initial base | 07/01/2000 | 15 | -$522,896,000 | -$56,564,539 | 11.00 | -$436,117,197 |
| Experience gain | 07/01/2001 | 15 | -23,373,868 | -2,528,480 | 12.00 | -20,579,208 |
| Experience loss | 07/01/2002 | 15 | 214,187,988 | 23,169,894 | 13.00 | 197,780,020 |
| Change in assumptions | 07/01/2002 | 15 | 1,844,794 | 199,562 | 13.00 | 1,703,473 |
| Plan amendment | 07/01/2002 | 15 | 213,581,253 | 23,104,260 | 13.00 | 197,219,763 |
| Experience loss | 07/01/2003 | 15 | 484,897,697 | 52,454,053 | 14.00 | 467,039,136 |
| Change in asset method | 07/01/2003 | 15 | -503,018,121 | -54,414,239 | 14.00 | -484,492,193 |
| Experience loss | 07/01/2004 | 15 | 247,839,003 | 26,810,109 | 15.00 | 247,839,003 |
| Total | | | | $12,230,620 | | $170,392,797 |

* *Level dollar amount. If bases are combined into a single amortization base and amortized over 15 years, the total outstanding balance would be unchanged; however, the annual payment would be $18,432,327.*

## EXHIBIT I

### Section 415 Limitations

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 $165,000 for 2004. 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.

## EXHIBIT J
### Definitions of Pension Terms

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 that 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 the interest that 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 recognizing the unfunded (or overfunded) actuarial accrued liability, from meeting the interest accrual only to amortizing it over a specific period of time.

**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 market gains and losses to avoid significant swings in the value of assets from one year to the next.

## 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 | | June 30, 2004 | June 30, 2003 |
| 1. | Total actuarial value of assets | $6,251,421,125 | $6,128,375,723 |
| 2. | Present value of future contribution by members | 312,753,563 | 287,686,382 |
| 3. | Present value of future Department contributions for: | | |
| | (a) entry age normal cost | 605,250,347 | 566,280,572 |
| | (b) unfunded actuarial accrued liability | 170,392,797 | (86,288,938) |
| 4. | Total current and future assets | $7,339,817,832 | $6,896,053,739 |
| Liabilities | | June 30, 2004 | June 30, 2003 |
| 5. | Present value of benefits already granted: | $3,546,778,348 | $3,503,126,411 |
| 6. | Present value of benefits to be granted: | $3,793,039,484 | $3,392,927,328 |
| 7. | Total liabilities | $7,339,817,832 | $6,896,053,739 |

## EXHIBIT L

### Reserves and Designated Balances

| | | June 30, 2004 | June 30, 2003 |
|---|---|---|---|
| 1. | Reserve for retirement allowance for retired members | $3,607,116,305 | $3,521,712,710 |
| 2. | Contribution accounts: | | |
| | (a) members (excluding additional contributions) | 624,801,663 | 562,002,102 |
| | (b) Department of Water and Power | (619,997,826) | (544,306,611) |
| 3. | General Reserve and Reserve for Investment Gains and Losses* | 1,313,916,635 | 137,293,088 |
| 4. | Total | $4,925,836,777 | $3,676,701,289 |

*Out of the total General Reserve and Reserve for Investment Gains and Losses, $61,000,000 is not included as valuation assets as of June 30, 2004.

## EXHIBIT M
## Adjusted Reserves

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.

| Adjusted Reserves | June 30, 2004 | June 30, 2003 |
|---|---|---|
| 1. Retired reserve balance | $3,607,116,305 | $3,521,712,710 |
| 2. Actuarially computed present value | 3,546,778,348 | 3,503,126,411 |
| 3. Actuarial gain (loss): (1) – (2) | 60,337,957 | 18,586,299 |
| 4. Transfer from (to) DWP contribution accounts from retired reserves: | (60,337,957) | (18,586,299) |

**EXHIBIT I**

**Summary of Actuarial Valuation Results**

| | | | |
|---|---|---|---|
| **The valuation was made with respect to the following data supplied to us:** | | | |
| 1. | Retired participants as of the valuation date (including 2,228 beneficiaries in pay status) | | 8,973 |
| 2. | Members inactive during year ended June 30, 2004 with vested rights | | 1,525 |
| 3. | Members active during the year ended June 30, 2004 | | 7,893 |
| **The actuarial factors as of the valuation date are as follows:** | | | |
| 1. | Total normal cost | | $95,837,510 |
| 2. | Present value of future benefits | | 7,339,817,832 |
| 3. | Present value of future normal costs | | 918,003,910 |
| 4. | Actuarial accrued liability | | 6,421,813,922 |
| | Retired participants and beneficiaries | $3,546,778,348 | |
| | Inactive members with vested rights | 104,627,204 | |
| | Active members | 2,770,408,370 | |
| 5. | Actuarial value of assets ($5,961,400,238 at market value as reported by Retirement Office) | | 6,251,421,125 |
| 6. | Unfunded actuarial accrued liability | | $170,392,797 |

## EXHIBIT I (continued)

### Summary of Actuarial Valuation Results

The determination of the required and recommended contributions is as follows:

| | | Dollar Amount | % of Payroll |
|---|---|---|---|
| 1. | Total normal cost | $ 95,837,510 | 16.49% |
| 2. | Expected employee contributions | -32,913,601 | -5.66% |
| 3. | Employer normal cost: (1) + (2) | 62,923,819 | 10.83% |
| 4. | Amortization of unfunded/(overfunded) actuarial accrued liability | | |
| | a. Under current policy (all bases amortized separately) | 12,230,620 | 2.10% |
| | b. Under recommended policy (single base amortized over 15 years) | 18,432,327 | 3.17% |
| 5. | Total required contribution: (3) + (4a), adjusted for timing* | 78,160,617 | 13.45% |
| 6. | Employer match (110% of (2)), adjusted for timing* | 37,653,262 | 6.48% |
| 7. | Greater of employer match (6) or total required contribution (5) | 78,160,617 | 13.45% |
| 8. | Recommended contribution: (3) + (4b), adjusted for timing* | 84,610,392 | 14.56% |
| 9. | Projected payroll | 581,038,783 | |

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

**EXHIBIT II**

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

| Plan Year Ended June 30 | Annual Required Contribution | Annual Pension Cost | Actual Contributions | Actual Contributions / Annual Required Contributions | Actual Contributions / Annual Pension Cost |
|---|---|---|---|---|---|
| 1996 | $111,231,502 | $113,839,086 | $107,839,613 | 97.0% | 94.7% |
| 1997 | 93,776,790 | 96,210,507 | 103,836,661 | 110.7% | 107.9% |
| 1998 | 31,514,506 | 35,516,124 | 124,470,502 | 395.0% | 350.5% |
| 1999 | 0 | 20,198,833 | 57,458,271 | -- | 284.5% |
| 2000 | 0 | 34,578,361 | 24,426,465 | -- | 70.6% |
| 2001 | 0 | 5,378,281 | 25,763,218 | -- | 479.0% |
| 2002 | 0 | 6,132,578 | 27,241,801 | -- | 444.2% |
| 2003 | 40,910,299 | 47,823,973 | 40,560,882 | 99.1% | 84.8% |
| 2004 | 44,128,205 | 50,773,126 | 55,804,924 | 126.5% | 109.9% |
| 2005 | 79,200,711 | 86,026,697 | -- | -- | -- |

**EXHIBIT III**

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

| Actuarial Valuation Date | Actuarial Value of Assets (a) | Actuarial Accrued Liability (AAL) (b) | Unfunded/ (Overfunded) AAL (UAAL) (b) - (a) | Funded Ratio (a) / (b) | Covered Payroll (c) | UAAL as a Percentage of Covered Payroll* [(b) - (a) / (c)] |
|---|---|---|---|---|---|---|
| 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% |
| 07/01/2004 | 6,251,421,125 | 6,421,813,922 | 170,392,797 | 97.35% | 581,038,783 | 29.33% |

** Not less than zero*

## EXHIBIT IV

### Supplementary Information Required by the GASB

| | |
|---|---|
| Valuation Date | July 1, 2004 |
| 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 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 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 | 8,973 |
| Terminated plan members entitled to, but not yet receiving benefits | 1,525 |
| Active plan members | 7,893 |
| Total | 18,391 |

## 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) |
|---|---|---|---|---|---|---|---|---|
| 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 | 44,128,205 | 55,804,924 | -13,558,251 | -20,203,172 | 8.8887 | 50,773,126 | 5,031,798 | -184,611,520 |
| 2005 | 79,200,711** | 78,160,617* | -13,938,151 | -20,769,262 | 8.8887 | 86,026,697 | 7,866,080 | -176,745,440 |

**The amount indicated for June 30, 2005 assumes the actual employer contribution for the year is equal to the contribution requirement under the Board's current funding policy.*

***ARC for year end June 30, 2005 is calculated by taking the greater of the contribution requirement determined under the Board's current funding policy and an amount based on the GASB requirement that the aggregate UAAL contribution be no less than an amount sufficient to amortize the total UAAL over a 40 year period. That minimum ARC is determined as follows:*

| | | Dollar Amount | % of Payroll |
|---|---|---|---|
| 1. | Employer Normal Cost | $62,923,819 | 10.83% |
| 2. | Amortization of unfunded actuarial accrued liability over 40 years | 13,230,711 | 2.28% |
| 3. | Total minimum ARC contributions (1) + (2), adjusted for timing | 79,200,711 | 13.63% |
| 4. | Projected payroll | 581,038,783 | |

**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:**

| | Rate (%) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Mortality | | Disability | | Ordinary Withdrawal* | | Vested Withdrawal* | |
| Age | Male | Female | Male | Female | Male | 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.*

**Retirement Rates:**

| Age | Retirement Probability Under 30 Years of Service | Retirement Probability Over 30 Years of Service |
|---|---|---|
| 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 Vesteds:** 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.

| | |
|---|---|
| **Future Benefit Accruals:** | 1.0 year of service per year. |
| **Other Government Service:** | (a) 30% of the employees with less than 10 years of service will purchase an average of four years of service.<br>(b) 41.25% of the employees with 10 years of service or more will purchase an average of four years of service. |
| **Consumer Price Index:** | Increase of 4.0% per year; benefit increases due to CPI subject to 3.0% maximum. |
| **Employee Contribution and Matching Account Crediting Rate:** | 8.00% |
| **Net Investment Return:** | 8.00% |
| **Salary Increases:** | 5.50% |
| **Actuarial Value of Assets:** | 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. |
| **Actuarial Cost Method:** | 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. |

| | |
|---|---|
| **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. |

## EXHIBIT VII

### Summary of Plan Provisions

This exhibit summarizes the major provisions of the LADWP 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 |
| **Formula Retirement Benefit:** | |
| *Age & Service Requirement* | Age 60 with 5 years of service<br>Age 55 with 10 years of service in the last 12 years<br>Any age with 30 year of service; or<br>Receiving permanent total disability benefits from the Plan.<br>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 unmodifed 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.

**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

| Attained Age at Actual Retirement | Exact Age | +3 Months | +6 Months | +9 Months |
|---|---|---|---|---|
| 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.

**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% |

**Department Current Service Contributions:**

The Department of Water and Power makes contributions that are a minimum of 110% of employee contributions.

**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.

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

| | |
|---|---|
| *Age & Service Requirement* | 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. |
| *Amount* | 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.

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