December 2009

Elective State Officers Retirement Fund

Actuarial Valuation Report as of July 1, 2009

MERCER



Contents

| Hi | ghlights | 1 |
|-----|--|----|
| Pri | ncipal Valuation Results | 3 |
| Ce | rtification | 4 |
| Su | pplemental Information | 6 |
| Pla | nn Assets | 7 |
| | Statement of Plan Net Assets for Year Ended June 30, 2009 | |
| • | Reconciliation of Plan Assets | |
| • | Actuarial Asset Value. | |
| M | embership Data | 10 |
| • | Distribution of Service Retirements | 10 |
| • | Distribution of Survivors | 11 |
| • | Reconciliation of Members | 12 |
| De | velopment of Costs | 13 |
| | Actuarial Valuation Balance Sheet | 13 |
| | Determination of Unfunded Actuarial Accrued Liability and Supplemental Contribution Amount | 14 |
| • | Changes in Unfunded Actuarial Accrued Liability | 15 |
| | Determination of Contribution Sufficiency/(Deficiency) | 16 |
| Ac | tuarial Basis | 17 |
| - | Actuarial Cost Method | 17 |
| = | Summary of Actuarial Assumptions | |
| = | Summary of Plan Provisions | |
| Pla | un Accounting Under GASB 25 (as amended by GASB 50) | 22 |
| • | Schedule of Funding Progress Under Entry Age Normal Method | |
| • | Schedule of Contributions from the Employer and Other Contributing Entities | |
| G1 | ossarv | 24 |

Highlights

This report has been prepared by Mercer for the Minnesota State Retirement System to:

- Present the results of a valuation of the Elective State Officers Retirement Fund as of July 1, 2009.
- Review experience under the Plan for the year ended June 30, 2009.
- Provide reporting and disclosure information for governmental agencies and other interested parties.

Contributions

The following table summarizes important contribution information as described in the "Development of Costs" section.

Actuarial Valuation as of

| | Actuarial valuation as of | | | | | | |
|--|---------------------------|-----------|----|--------------|--|--|--|
| Contributions | July 1, 2009 | | | July 1, 2008 | | | |
| Statutory Contributions – Chapter 352C | \$ | 0 | \$ | 0 | | | |
| Required Contributions - Chapter 356 | | 601,274 | | 557,643 | | | |
| Sufficiency / (Deficiency) | | (601,274) | | (557,643) | | | |

This plan has a funding ratio of only 5.5%. The Chapter 356 Required Contribution shown above represents the estimated annual contribution amount that would be needed in order for this plan to attain 100% funding by July 1, 2017, based upon the prescribed assumptions. Actual contributions have been less than the required amount since 1998. Without a change in contribution policy, the funding target identified by Chapter 356 will not be met.

This plan is currently funded on a pay-as-you go basis by annual appropriations from the General Fund approximately equal to the amount of annual benefit payments. The expected benefit payments for the next 10 years are:

| Fiscal Year Ending | Expected Annual Benefit Payments |
|--------------------|----------------------------------|
| 2010 | \$ 463,000 |
| 2011 | 452,000 |
| 2012 | 443,000 |
| 2013 | 432,000 |
| 2014 | 421,000 |
| 2015 | 408,000 |
| 2016 | 395,000 |
| 2017 | 380,000 |
| 2018 | 365,000 |
| 2019 | 349,000 |

Highlights

The estimated benefit payments, actuarial accrued liability, and required contribution are based on prescribed assumptions. The economic assumptions are prescribed by Statute, and the remaining assumptions are adopted by the MSRS Directors and the Legislative Commission on Pensions and Retirement. We have a number of concerns about the prescribed assumptions. First, the current contribution and investment policy of this plan does not seem to support an investment return assumption of 8.5%. For contribution calculations, a significantly lower discount rate, perhaps even 0%, would be more consistent with the recent experience of the plan and lack of any expected future investment earnings due to the current pay-as-you-go contribution policy. Second, the prescribed mortality table is not a modern table and has been producing a consistent pattern of mortality losses. We recommend that all assumptions be reviewed and updated, if possible, before the next actuarial valuation. Lowering the discount rate and the mortality table will increase the actuarial accrued liability. Finally, please note that the current assumptions may not comply with GASB standards for financial reporting.

The "Plan Assets" section provides detail on the plan assets used for the valuation. The plan assets did not earn any investment income for the plan year ending June 30, 2009 as compared to the prescribed assumed rate of 8.5%.

Participant reconciliation and statistics are detailed in the "Membership Data" section. The "Actuarial Basis" section includes a summary of plan provisions and actuarial methods and assumptions used for the calculations in this report. The "Plan Accounting" section details the required accounting information for the Plan under GASB Statement No. 25 (as amended by GASB 50).

There were no changes in valuation methods or actuarial assumptions since the July 1, 2008 valuation. Changes in plan provisions are reflected in this report and summarized in the Actuarial Basis section. Plan provisions were changed to reflect that, in conjunction with the Minnesota Post Retirement Investment Fund (MPRIF) dissolution, benefit recipients will receive future annual 2.5% cost-of-living adjustments (COLA). The waiting period and proration schedule for the COLA paid in the first year of retirement were also revised. These changes did not have an impact on plan liabilities.

Principal Valuation Results

A summary of principal valuation results from the current valuation and the prior valuation follows. Any changes in plan provisions, actuarial assumptions or valuation methods and procedures between the two valuations are described after the summary.

| | Actuarial Valuation as of | | | | | |
|---|---------------------------|--------------|----|--------------|--|--|
| | | July 1, 2009 | | July 1, 2008 | | |
| Contributions | | | | | | |
| Statutory – Chapter 352C | \$ | 0 | \$ | 0 | | |
| Required – Chapter 356 | | 601,274 | | 557,643 | | |
| Sufficiency / (Deficiency) | | (601,274) | | (557,643) | | |
| Funding Ratios | | | | | | |
| Accrued Benefit Funding Ratio | | | | | | |
| - Current assets (AVA) | \$ | 213,165 | \$ | 212,336 | | |
| Current benefit obligations | | 3,885,951 | | 3,907,991 | | |
| - Funding ratio | | 5.49% | | 5.43% | | |
| Accrued Liability Funding Ratio | | | | | | |
| - Current assets (AVA) | \$ | 213,165 | \$ | 212,336 | | |
| Actuarial accrued liability | | 3,885,951 | | 3,907,991 | | |
| - Funding ratio | | 5.49% | | 5.43% | | |
| Projected Benefit Funding Ratio | | | | | | |
| - Current and expected future assets | \$ | 213,165 | \$ | 212,336 | | |
| Current and expected future benefit obligations | | 3,885,951 | | 3,907,991 | | |
| Funding ratio | | 5.49% | | 5.43% | | |
| Participant Data | | • | | | | |
| Active members | | 0 | | 0 | | |
| Service retirements | | 11 | | 11 | | |
| Survivors | | 4 | | 4 | | |
| Disability retirements | | 0 | | 0 | | |
| Deferred retirements | | 1 | | 1 | | |
| Terminated other non-vested | | 0 | | 0 | | |
| Total | | 16 | | 16 | | |

Certification

Mercer has prepared this report exclusively for the Board of Directors of the Minnesota State Retirement System Retirement Fund and the Legislative Commission on Pensions and Retirement (LCPR) for the following purposes:

- Present the results of a valuation of the Elective State Officers Retirement Fund as of July 1, 2009 as required by Minnesota Statutes, Section 356.215 and the Standards of Actuarial Work established by the State of Minnesota Legislative Commission on Pensions and Retirement
- Review plan experience for the year ended June 30, 2009
- Provide the Annual Required Contribution for the period beginning July 1, 2009
- Provide reporting and disclosure information for financial statements for governmental agencies pursuant to GASB Statements Number 25 (as amended by GASB Number 50) and 27.

This valuation report may not be relied upon for any other purpose or by any party other than the Board of Directors, the LCPR, or the Plan's auditors solely for the purpose of completing an audit related to the matters herein. Mercer is not responsible for the consequences of any unauthorized use.

A valuation report is a snapshot of a plan's estimated financial condition at a particular point in time; it does not predict a plan's future financial condition or its ability to pay benefits in the future.

Over time, a plan's total cost will depend on a number of factors, including the amount of benefits the plan pays, the number of people paid benefits, plan expenses and the amount earned on any assets invested to pay the benefits. These amounts and other variables are uncertain and unknowable at the valuation date, but are predicted to fall within a reasonable range of possibilities.

To prepare this report, *Actuarial Assumptions*, as described in the Actuarial Basis section, are used to select a single scenario from a range of possibilities. The results of that single scenario are included in this report. However, the future is uncertain and the plan's actual experience will differ from those assumptions; these differences may be significant or material. In addition, different assumptions or scenarios may also be within the reasonable range and results based on those assumptions would be different. Actuarial assumptions may also be changed from one valuation to the next because of changes in mandated requirements, plan experience, changes in expectations about the future and other factors. Due to the limited scope of our assignment, we did not perform, nor do we present, an analysis of the potential range of future possibilities and scenarios.

Because actual plan experience will differ from the assumptions, decisions about benefit changes, investment policy, funding amounts, benefit security and/or benefit-related issues should be made only after careful consideration of alternative future financial conditions and scenarios, and not solely on the basis of a valuation report or reports.

Data and plan provisions

To prepare this report, Mercer has used and relied on financial data submitted by the Minnesota State Retirement System as of June 30, 2009, as well as participant data supplied by the Minnesota State Retirement System as of June 30, 2009. We have reviewed the financial and participant data for internal consistency and general reasonableness, but we have not verified or audited any of the data or information provided. We have also used and relied on the Statutes and summary of plan provisions supplied by the Minnesota State Retirement System. A summary of the plan provisions valued is presented in our report. The Board of Directors are solely responsible for the accuracy, validity and comprehensiveness of this information. If the data or plan provisions supplied are not accurate and complete, the valuation results may differ significantly from the results that would be obtained with accurate and complete information; this may require a later revision of this report.

Certification

Actuarial Calculations, Methods and Assumptions

To the best of our knowledge and belief, this report is complete and accurate and all costs, liabilities and other factors under the plan were determined in accordance with generally accepted actuarial principles and procedures, in accordance with the requirements of Minnesota Statutes Section 356.215 and the requirements of the Standards of Actuarial Work established by the LCPR. The economic assumptions, including discount rates, are set in Minnesota Statutes, and the remaining assumptions are adopted by the Directors and the LCPR. This valuation is based on assumptions, plan provisions, methods and other parameters as summarized in this report. If this information is inaccurate or incomplete or does not reflect current statutes, regulations or Board directives, the reader of this report should not rely on the valuation results and should notify Mercer promptly. In our opinion, this report discloses the actuarial position of the plan on this mandated basis. Note that other assumptions may be more appropriate for GASB disclosures and funding purposes, as discussed elsewhere in this report.

Professional qualifications

We are available to answer any questions on the material in this report or to provide explanations or further details as appropriate. The undersigned credentialed actuaries meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained in this report. In addition, Mr. Dickson meets the requirements of "approved actuary" under Minnesota Statutes, Section 356.215, Subdivision 1, Paragraph (c). We are not aware of any direct or material indirect financial interest or relationship, including investments or other services that could create a conflict of interest, that would impair the objectivity of our work.

The information contained in this document (including any attachments) is not intended by Mercer to be used, and it cannot be used, for the purpose of avoiding penalties under the Internal Revenue Code that may be imposed on the taxpayer.

Gary D. Dickson, FSA, EA, MAAA

Principal

Bonita J. Wurst, ASA, EA, MAAA

Principal

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Date

12/9/2009

Supplemental Information

The remainder of the report includes information supporting the results presented in the previous sections.

- Plan assets presents information about the plan's assets as reported by the Minnesota State Retirement System and the Minnesota State Board of Investments. The assets represent the portion of total fund liabilities that has been funded.
- Membership data presents and describes the membership data used in the valuation.
- Development of costs shows the liabilities for plan benefits and the derivation of the contribution amount.
- Actuarial basis describes the plan provisions, as well as the methods and assumptions used to value the plan. The valuation is based on the premise that the plan is ongoing.
- Plan accounting under GASB 25 (as amended by GASB 50) shows the disclosures required by GASB Statement No. 25 as amended by GASB Statement No. 50.
- Glossary defines the terms used in this report.

Plan Assets

Statement of Plan Net Assets for Year Ended June 30, 2009

| | Market Valu | | |
|--|-------------|---------|--|
| Assets in Trust | | | |
| Cash, equivalents, short term securities | \$ | 0 | |
| Fixed income | | 0 | |
| Equity | | 0 | |
| Other | | 0 | |
| Total assets in trust | \$ | 0 | |
| Assets Receivable | | 214,003 | |
| Total Assets | \$ | 214,003 | |
| Amounts Payable | | (838) | |
| Net Assets held in trust for pension benefits | \$ | 213,165 | |

Plan Assets

Reconciliation of Plan Assets

The following exhibit shows the revenue, expenses and resulting assets of the Fund as reported by the Minnesota State Board of Investment, for the Plan's Fiscal Year July 1, 2008 to June 30, 2009.

| Change in Assets | Market Value |
|---|-----------------|
| 1. Fund balance at market value at July 1, 2008 | \$ 212,336 |
| 2. Contributions | |
| a. Member | 0 |
| b. Employer | 442,099 |
| c. Other sources | 0 |
| d. Total contributions | \$ 442,099 |
| 3. Investment income | |
| a. Investment income/(loss) | \$ 0 |
| b. Investment expenses | 0 |
| c. Total investment income/(loss) | \$ 0 |
| 4. Other | 0 |
| 5. Total income $(2.d. + 3.c. + 4.)$ | \$ 442,099 |
| 6. Benefits paid | |
| a. Annuity benefits | \$ (440,432) |
| b. Refunds | 0 |
| c. Total benefits paid | \$ (440,432) |
| 7. Expenses | , |
| a. Other | \$ 0 |
| b. Administrative | (838) |
| c. Total expenses | \$ (838) |
| 8. Total disbursements (6.c. + 7.c.) | \$ (441,270) |
| 9. Other changes in reserves | |
| a. Annuities awarded | \$ 0 |
| b. Transfer between reserves | . 0 |
| c. Change in assumptions | 0 |
| d. Total other changes | \$ 0 |
| 10. Fund balance at market value at June 30, 2009 (1 + 5. + 8. + 9.d.) | 213,165 |

Plan Assets

Actuarial Asset Value

Actuarial Asset Value is equal to Market Value.

Membership Data

Distribution of Service Retirements

| | Years Retired as of June 30, 2009 | | | | | | | | | | |
|--------------|-----------------------------------|-------|--------|---------|---------|---------|-----|--------|--|--|--|
| Age | <1 | 1 – 4 | 5 – 9 | 10 – 14 | 15 – 19 | 20 – 24 | 25+ | Total | | | |
| <55 | | | | | | | | 0 | | | |
| Avg. Benefit | | | | | | | | N/A | | | |
| 55 – 59 | | | | | | | | 0 | | | |
| Avg. Benefit | | | | | | | | N/A | | | |
| 60 – 64 | | | | | | | | 0 | | | |
| Avg. Benefit | | | | | | | | N/A | | | |
| 65 – 69 | | 2 | 1 | | | | | 3 | | | |
| Avg. Benefit | | 9,080 | 51,185 | | | | | 23,115 | | | |
| 70 – 74 | | | | 2 | | • | | 2 | | | |
| Avg. Benefit | | | | 72,181 | | | | 72,181 | | | |
| 75 – 79 | | | | 2 | 3 | | | 5 | | | |
| Avg. Benefit | | | | 18,559 | 28,277 | | | 24,390 | | | |
| 80 – 84 | | | | 1 | | | | 1 | | | |
| Avg. Benefit | | | | 17,273 | | | | 17,273 | | | |
| 85 – 89 | | | | | | | | 0 | | | |
| Avg. Benefit | | | | | | | | N/A | | | |
| 90+ | | | | | | | | 0 | | | |
| Avg. Benefit | | | | | | | | N/A | | | |
| Total | 0 | 2 | 1 | 5 | 3 | 0 | 0 | 11 | | | |
| Avg. Benefit | N/A | 9,080 | 51,185 | 39,751 | 28,277 | N/A | N/A | 32,085 | | | |

In each cell, the top number is the count of retired participants for the age/years retired combination and the bottom number is the average annual benefit amount.

Membership Data

Distribution of Survivors

| Y | ears | Since | Death | as c | of June | 30, | 2009 |
|---|------|-------|-------|------|---------|-----|------|
| | | | | | | | |
| | | | | | | | |

| Age _ | <1 | 1 – 4 | 5 – 9 | 10 – 14 | 15 – 19 | 20 – 24 | 25+ | Total |
|------------------|-----|-------|-------|---------|---------|---------|--------|--------|
| <55 | | | | | | | | 0 |
| Avg. Benefit | | | | | | | | N/A |
| | | | | | | | | * • |
| 55 – 59 | | | | | | | | 0 |
| Avg. Benefit | | | | | | | | N/A |
| | | | | | | | | |
| 60 – 64 | | | | | | | | 0 |
| Avg. Benefit | | | | | | | | N/A |
| | | | | | | | | |
| 65 – 69 | | | | | 1 | | | 1 |
| Avg. Benefit | | | | | 8,673 | | | 8,673 |
| 70 – 74 | | | | | | | | 0 |
| Avg. Benefit | | | | | | | | N/A |
| Avg. benefit | | | | | | | | 11/74 |
| 75 – 79 | | | | 1 | | | | 1 |
| Avg. Benefit | | | | 49,982 | | | | 49,982 |
| ,g. 20 | | | | .0,002 | | | | .0,002 |
| 80 – 84 | | | | | | | | . 0 |
| Avg. Benefit | | | | | | | | N/A |
| _ | | | | | | | | |
| 85 – 89 | | | | | | | | 0 |
| Avg. Benefit | | | | | | | | N/A |
| | | | | | | | | |
| 90+ | | | | | 1 | | 1 | 2 |
| Avg. Benefit | | | | | 23,414 | | 10,870 | 17,142 |
| 77° 4 = 1 | • | • | _ | | _ | • | | |
| Total | 0 | 0 | 0 | 10.000 | 2 | 0 | 10.070 | 4 |
| Avg. Benefit | N/A | N/A | N/A | 49,982 | 16,043 | N/A | 10,870 | 23,235 |

In each cell, the top number is the count of survivor participants for the age/years since death combination and the bottom number is the average annual benefit amount.

Membership Data

Reconciliation of Members*

| | | Term | inated | | Recipients | | |
|-----------------------|---------|------------------------|---------------------|------------------------|---------------------------|-----------|-------|
| | Actives | Deferred Retirement | Other Non-vested | Service Retirements | Disability Retirements | Survivors | Total |
| Members on 7/1/2008 | 0 | 1 | 0 | 11 | 0 | 4 | 16 |
| New entrants | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Return to active | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Terminated non-vested | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Service retirements | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Terminated deferred | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Terminated refund | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Deaths | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| New beneficiary | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Disabled | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Benefits expired | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Data correction | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Net change | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Members on 6/30/2009 | 0 | 1 | 0 | 11 | 0 | 4 | 16 |

^{*} Provided by Minnesota State Retirement System and checked for reasonableness.

Terminated deferred retirement statistics

| •, | Average age | 63.5 years |
|----|--|------------|
| | Average service | 8.1 years |
| • | Average monthly benefit as of July 1, 2009 | \$1,443 |

Actuarial Valuation Balance Sheet

The actuarial balance sheet is based on the fundamental equation that at any given time the present value of benefits to be paid in the future must be equal to the assets on hand plus the present value of future contributions to be received. Because this plan is funded on a pay-as-you-go basis, the present value of future member and employer contributions is zero, and the present value of benefits is not equal to the assets on hand, as shown in the exhibit below.

| | | | | | | J | une 30, 2009 |
|----|--|---------|------------|-------|---------------|--------|--------------|
| A. | Actuarial Value of Assets | | | | | \$ | 213,165 |
| B. | Expected future assets | | | | | | |
| | 1. Present value of expected future statutory supple | emental | contributi | ons | | \$ | . 0 |
| | 2. Present value of future normal cost contribution | S | | | | | 0 |
| | 3. Total present value of future contributions (1. + | 2.) | | | | \$ | 0 |
| C. | Total current and expected future assets $(A. + B.3.)$ | | | | | \$ | 213,165 |
| | - - | Non- | -Vested | | <u>Vested</u> | | <u>Total</u> |
| D. | Current benefit obligations | | | | | | |
| | 1. Benefit recipients | | | | | | |
| | a. Service retirements | \$ | 0 | \$ | 2,970,130 | \$ | 2,970,130 |
| | b. Disability | | 0 | | 0 | | 0 |
| | c. Survivors | | 0 | | 600,232 | | 600,232 |
| | 2. Deferred retirements with augmentation | | 0 | | 315,589 | | 315,589 |
| | 3. Former members without vested rights | | 0 | | 0 | | 0 |
| | 4. Active members | | 0 | | 0 | _ | 0 |
| | 5. Total Current Benefit Obligations | \$ | 0 | - \$_ | 3,885,951 | _ \$ _ | 3,885,951 |
| E. | Expected Future Benefit Obligations | | | | | \$ | 0 |
| F. | Total Current and Expected Future Benefit | | | | | | |
| | Obligations | | | | | \$ | 3,885,951 |
| G. | Unfunded Current Benefit Obligations (D.5. $-A$.) | | | | | \$ | 3,672,786 |
| H. | Unfunded Current and Future Benefit Obligations | | | | | Φ. | 0.070.700 |
| | (F C.) | | | | | \$ | 3,672,78 |

Determination of Unfunded Actuarial Accrued Liability and Supplemental Contribution Amount

| | Actuarial Preser Value of Projecte Benefits | | | | Actuarial Accrued Liability | |
|--|---|-----------|----|---|-----------------------------------|-----------|
| A. Determination of Actuarial Accrued Liability (AAL) | | | - | | | |
| 1. Active members | \$ | 0 | \$ | 0 | \$ | 0 |
| 2. Deferred retirements with future augmentation | | 315,589 | | 0 | | 315,589 |
| 3. Former members without vested rights | | 0 | | 0 | | 0 |
| 4. Benefit recipients | | 3,570,362 | | 0 | | 3,570,362 |
| 5. Total | \$ | 3,885,951 | \$ | 0 | \$ | 3,885,951 |
| B. Determination of Unfunded Actuarial Accrued Liability | y (UA. | AL) | | | | |
| 1. Actuarial accrued liability | | | | | \$ | 3,885,951 |
| 2. Current assets (AVA) | | | | | | 213,165 |
| 3. Unfunded actuarial accrued liability | | | | | \$ | 3,672,786 |
| C. Determination of Supplemental Contribution Amount | | | | | | |
| Current unfunded actuarial accrued liability to be amortized by July 1, 2017 | | | | | \$ | 3,672,786 |
| 2. Supplemental contribution amount | | | | | \$ | 600,274 |

Changes in Unfunded Actuarial Accrued Liability (UAAL)

| | | ear Ending ine 30, 2009 |
|---|----------------|----------------------------|
| A. Unfunded actuarial accrued liability at beginning of year | \$ | 3,695,655 |
| B. Changes due to interest requirements and current rate of funding | | |
| 1. Normal cost and actual administrative expenses | \$ | 838 |
| 2. Contributions | | (442,099) |
| 3. Interest on A., B.1. and B.2. | | 295,377 |
| 4. Total $(B.1. + B.2. + B.3.)$ | \$ | (145,884) |
| C. Expected unfunded actuarial accrued liability at end of year (A. + B.4.) | \$ | 3,549,771 |
| D. Increase (decrease) due to actuarial losses (gains) because of experience from expected | deviations | |
| 1. Salary increases | \$ | 0 |
| 2. Investment return | | 18,957 |
| 3. Mortality of benefit recipients | | 114,224 |
| 4. Other items | | (10,166) |
| 5. Total | \$ | 123,015 |
| E. Unfunded actuarial accrued liability at end of year before plan amendme changes in actuarial assumptions $(C. + D.5.)$ | ents and \$ | 3,672,786 |
| F. Change in unfunded actuarial accrued liability due to changes in plan pro | rovisions \$ | 0 |
| G. Change in unfunded actuarial accrued liability due to changes in actuaria assumptions | al \$ | 0 |
| H. Change in unfunded actuarial accrued liability due to changes in method | ds \$ | 0 |
| I. Unfunded actuarial accrued liability at end of year $(E. + F. + G. + H.)$ | \$ | 3,672,786 |

Determination of Contribution Sufficiency/(Deficiency)*

| | Dollar Amount |
|--|------------------|
| A. Statutory contributions – Chapter 352C | |
| 1. Employee contributions | \$ 0 |
| 2. Employer contributions | 0 |
| 3. Total | \$ 0 |
| B. Required contributions – Chapter 356 | |
| 1. Normal cost | \$ 0 |
| Supplemental contribution amortization by July 1, 2017 of Unfunded Actuarial Accrued Liability | \$ 600,274 |
| 3. Allowance for expenses | \$ 1,000 |
| 4. Total | \$ 601,274 |
| C. Contribution Sufficiency/(Deficiency) (A.3. – B.4.) | \$ (601,274) |

^{*}Plan is funded by annual appropriations from the General Fund. Estimated benefit payments of \$463,000 are expected to be paid during the upcoming fiscal year.

Actuarial Cost Method

Liabilities and contributions in this report are computed using the Individual Entry Age Normal Cost Method. This method is prescribed by Minnesota Statutes.

The objective under this method is to fund each member's benefits under the Plan as payments which are level as a percentage of salary, starting at original participation date (or employment date), and continuing until the assumed date of retirement termination, disability or death.

At any given date, a liability is calculated equal to the contributions which would have been accumulated if this method of funding had always been used, the current plan provisions had always been in place, and all assumptions had been precisely accurate. The difference between this liability and the assets (if any) which are held in the fund is the unfunded liability. The unfunded liability is typically funded over a chosen period in accordance with the amortization schedule.

A detailed description of the calculation follows:

The normal cost for each active member under the assumed retirement age is determined by applying to earnings the level percentage of salary which, if contributed each year from date of entry into the Plan until the assumed retirement (termination, disability or death) date, is sufficient to provide the full value of the benefits expected to be payable.

- The present value of present value of future normal costs is the total of the discounted values of all active members' normal cost, assuming these to be paid in each case from the valuation date until retirement (termination, disability or death) date.
- The present value of projected benefits is calculated as the value of all benefit payments expected to be paid to the Plan's current members, including active and retired members, beneficiaries, and terminated members with vested rights.
- The accrued liability is the excess of the present value of projected benefits over the present value of future normal costs.
- The unfunded liability is the excess of the accrued liability over the assets of the fund, and represents that part of the accrued liability which has not been funded by accumulated past contributions.
- Since this is a closed plan with no active members, normal cost and present value of future notmal costs is \$0.

Asset Method

Market Value

Payment on the Unfunded Actuarial Accrued Liability

A level dollar amount each year to the statutory amortization date of July 1, 2017. If there is a negative Unfunded Actuarial Accrued Liability, the surplus amount shall be amortized over 30 years.

Summary of Actuarial Assumptions

The following economic assumptions were used in valuing the liabilities and benefits under the plan.

| Investment return: | 6.0% compounded annually post-retirement.8.5% compounded annually pre-retirement. | | | | | | |
|---|---|--|--|--|--|--|--|
| Benefit increases after retirement | Payment of annual 2.5% post retirement benefit increases accounted for by using a 6.00% post-retirement assumption, as required by statute. For those not yet in pay status, a 5.00% post-retirement interest rate is used to account for the one-time adjustment applicable at retirement. | | | | | | |
| Mortality | | | | | | | |
| Healthy Pre-retirement | 1983 Group Annuity Mortality for males set back four years. 1983 Group Annuity Mortality for females set back two years. | | | | | | |
| Healthy Post-retirement | 1983 Group Annuity Mortality for males.1983 Group Annuity Mortality for females. | | | | | | |
| Disabled | Male: N/A Female: N/A | | | | | | |
| Retirement | Age 62 or if over age 62, one year from valuation date. | | | | | | |
| Allowances for combined service annuity | Liabilities for former members not in pay status are increased by 30% to account for the effect of some participants having eligibility for a Combined Service Annuity. | | | | | | |
| Administrative expenses | \$1,000 per year. | | | | | | |
| Refund of contributions | All employees withdrawing after eight years of service were assumed to leave their contributions on deposit and receive a deferred annuitant benefit. | | | | | | |
| Percentage married | 85.00% of members are assumed to be married. | | | | | | |
| Age of spouse | Females are assumed to be three years younger than males. | | | | | | |
| Eligible children | Members are assumed to have two dependent children depending upon member's age. Assumed first child born at member's age 28 and second child is born at member's age 31. | | | | | | |
| Changes in actuarial assumptions | There have been no changes in the actuarial assumptions or actuarial cost methods since the prior valuation. | | | | | | |

Summary of Plan Provisions

This summary of provisions reflects the interpretation of applicable Statutes for purposes of preparing this valuation. This interpretation is not intended to create or rescind any benefit rights in conflict with any Minnesota Statutes.

| Plan year | July 1 through June 30 | | | | |
|---------------------------|---|--|--|--|--|
| Eligibility | Must be employed as a "Constitutional Officer" elected prior to July 1, 1997 AND must elect to retain coverage under this plan (i.e., does not elect Social Security coverage). Plan is closed to new members. | | | | |
| Contributions | Plan is funded by annual appropriations from the General Fund. | | | | |
| Allowable service | Service while in an eligible position. | | | | |
| Salary | Salary upon which Elective State Officers Retirement Fund contributions have been made. | | | | |
| Average salary | Average of the five highest consecutive years of salary. | | | | |
| Retirement | | | | | |
| Normal retirement benefit | | | | | |
| Age/service requirements | Age 62 and eight years of Allowable Service. | | | | |
| Amount | 2.50% of Average Salary for each year of Allowable Service. For members who were employed as of June 30, 1997 and are still employed on July 1, 1997, an actuarial increase shall be made for the change in the post-retirement interest rates from 5.00% to 6.00%. | | | | |
| Early retirement benefit | | | | | |
| Age/Service requirements | Age 60 and eight years of Allowable Service. | | | | |
| Form of payment | Normal retirement benefit based on Allowable Service and Average Salary at retirement date with reduction of 0.50% for each month the member is under age 62 at the time of retirement. | | | | |
| Form of payment | Life annuity. | | | | |
| Benefit increases | Benefit recipients will receive future annual 2.5% cost-of-living adjustments. A benefit recipient who has been receiving a benefit for at least 12 full months as of December 31 will receive a full increase. Members receiving benefits for at least one full month but less than 12 full months will receive a pro-rata increase. | | | | |
| Disability | No additional benefits provided beyond standard plan. Treated as retirement or termination, depending on age and Allowable Service as of disablement. | | | | |

Summary of Plan Provisions (continued)

| Death | | | | | |
|--------------------------------|--|--|--|--|--|
| Surviving spouse benefit | | | | | |
| Age/service requirement | Death while active, or after retirement, or after termination but prior to retirement with at least eight years of Allowable Service. | | | | |
| Amount | Survivor payments of 50% of the retirement benefit of the member assuming the member had attained age 62 and had a minimum of eight years of Allowable Service. A former member's benefit is augmented as a Deferred Annuity to date of death before determining the portion payable to the spouse. | | | | |
| | If a member dies prior to July 1, 1997 and the beneficiary was not eligible to commence a survivor benefit as of July 1, 1997, an actuarial increase shall be made for the change in the post-retirement interest rates from 5.00% to 6.00%. | | | | |
| Benefit increases | Same as for retirement. | | | | |
| Surviving dependent children's | <u>benefit</u> | | | | |
| Age/service requirement | Same as spouse's benefit. | | | | |
| Amount | Benefit for first child is 25.00% of the retirement benefit (computed as for surviving spouse) with 12.50% for each additional eligible child. Maximum payable (including spouse) is 100.00% of the retirement benefit. Benefits cease when a child marries or attains age 18 (22 if a full-time student). | | | | |
| Benefit increases | Same as for retirement. | | | | |
| Termination | | | | | |
| Refund of contributions | | | | | |
| Age/service requirement | Termination of service. | | | | |
| Amount | Member's contributions with 5.00% interest compounded annually if termination occurred before May 16, 1989 and 6.00% interest compounded annually if termination occurred on or after May 16, 1989. A deferred annuity may be elected in lieu of a refund. | | | | |
| Deferred benefit | | | | | |
| Age/service requirement | Eight years of Allowable Service. | | | | |

Summary of Plan Provisions (continued)

| Termination (continued) | | | | | | |
|----------------------------|---|--|--|--|--|--|
| Deferred benefit | | | | | | |
| Amount | Benefit computed under law in effect at termination and increased by the following annual percentage: | | | | | |
| | (a) 0.00% before July 1, 1979; | | | | | |
| | (b) 5.00% from July 1, 1979 to January 1, 1981; | | | | | |
| | (c) 3.00% until age 55; and | | | | | |
| | (d) 5.00% thereafter until the annuity begins. | | | | | |
| | If a member terminated prior to July 1, 1997 but was not eligible to commence his or her pension before July 1, 1997, an actuarial increase shall be made for the change in the post-retirement interest rates from 5.00% to 6.00%. | | | | | |
| Changes in plan provisions | The following changes in plan provisions are reflected in this valuation: | | | | | |
| | In conjunction with the Minnesota Post Retirement Investment Fund (MPRIF) dissolution, benefit recipients will receive future annual 2.5% cost-of-living adjustments (COLA). The waiting period and proration schedule for the COLA paid in the first year of retirement were also revised. These changes did not have an impact on plan liabilities. | | | | | |

Plan Accounting Under GASB 25 (as amended by GASB 50)

Provided below is information required under GASB Statement No. 25 as amended by GASB Statement No. 50. Financial Reporting for Defined Benefit Pension Plans and Note Disclosures for Defined Contribution Plans as amended by GASB Statement No. 50.

Schedule of Funding Progress¹

| Actuarial Valuation Date | Actuarial Value of Assets (a) | Actuarial Accrued Liability (AAL) (b) | Unfunded (Overfunded) AAL (UAAL) (b) – (a) | Funded Ratio (a)/(b) | Actual Covered Payroll (Previous FY) (c) | UAAL as a Percentage of Covered Payroll (b) - (a) (c) |
|--------------------------------|-------------------------------------|---|--|----------------------------|---|---|
| 07/01/1991 | \$ 308,000 | \$ 2,249,000 | \$ 1,941,000 | 13.69% | \$ 422,000 | 459.95% |
| 07/01/1992 | 334,000 | 2,380,000 | 2,046,000 | 14.03% | 378,000 | 541.27% |
| 07/01/1993 | 322,000 | 2,689,000 | 2,367,000 | 11.97% | 500,000 | 473.40% |
| 07/01/1994 | 361,000 | 2,848,000 | 2,487,000 | 12.68% | 411,000 | 605.11% |
| 07/01/1995 | 378,000 | 2,948,000 | 2,570,000 | 12.82% | 422,000 | 609.00% |
| 07/01/1996 | 412,000 | 2,983,000 | 2,571,000 | 13.81% | 456,000 | 563.82% |
| 07/01/1997 | 456,000 | 3,214,000 | 2,758,000 | 14.19% | 467,000 | 590.58% |
| 07/01/1998 | 500,000 | 3,369,000 | 2,869,000 | 14.84% | 461,000 | 622.34% |
| 07/01/1999 | 198,000 | 3,373,000 | 3,175,000 | 5.87% | 291,000 | 1,091.07% |
| 07/01/2000 | 199,000 | 3,535,000 | 3,336,000 | 5.63% | 0 | N/A |
| 07/01/2001 | 201,000 | 3,775,000 | 3,574,000 | 5.32% | 0 | N/A |
| 07/01/2002 | 201,000 | 4,075,000 | 3,874,000 | 4.93% | 0 | N/A |
| 07/01/2003 ² | | | *** | | | *** |
| 07/01/2004 | 203,566 | 4,001,787 | 3,798,221 | 5.09% | 0 | N/A |
| 07/01/2005 | 204,297 | 4,065,308 | 3,861,011 | 5.03% | 0 | N/A |
| 07/01/2006 | 207,099 | 3,969,766 | 3,762,667 | 5.22% | 0 | N/A |
| 07/01/2007 | 211,540 | 3,969,250 | 3,757,710 | 5.33% | 0 | N/A |
| 07/01/2008 | 212,336 | 3,907,991 | 3,695,655 | 5.43% | 0 | N/A |
| 07/01/2009 | 213,165 | 3,885,951 | 3,672,786 | 5.49% | 0 | N/A |

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22

¹ Information prior to 2008 provided by The Segal Company.

² An actuarial valuation was not completed as of July 1, 2003.

Plan Accounting Under GASB 25 (as amended by GASB 50)

Schedule of Contributions from the Employer and Other Contributing Entities¹

The GASB Statement No. 25 (as amended by GASB 50) required and actual contributions are as follows:

| Plan Year Ended June 30 | F Cc | ctuarially Required Intribution te/Amount ² (a) | Co | Actual vered Payroll (b) | ual Member ntributions (c) | Annual Required Contributions ³ [(a)x(b)] – (c) = (d) | | Actual Employer Contributions ⁴ (e) | | Percentage Contributed (e) / (d) | |
|-------------------------------|---------|--|----|--------------------------------|--------------------------------------|--|---------|---|---------|--|--|
| 1991 | | 34.84% | \$ | 422,000 | \$ 38,000 | \$ | 109,000 | \$ | 40,000 | 36.70% | |
| 1992 | | 33.28% | | 378,000 | 34,000 | | 92,000 | | 111,000 | 120.65% | |
| 1993 | | 36.23% | | 500,000 | 45,000 | | 136,000 | | 88,000 | 64.71% | |
| 1994 | | 38.64% | | 411,000 | 37,000 | | 122,000 | | 164,000 | 134.43% | |
| 1995 | | 42.00% | | 422,000 | 38,000 | | 139,000 | | 165,000 | 118.71% | |
| 1996 | | 43.58% | | 456,000 | 41,000 | | 158,000 | | 151,000 | 95.57% | |
| 1997 | | 43.49% | | 467,000 | 42,000 | | 161,000 | | 167,000 | 103.73% | |
| 1998 | | 51.07% | | 461,000 | 42,000 | | 193,000 | | 175,000 | 90.67% | |
| 1999 | | 51.66% | | 291,000 | 26,000 | | 124,000 | | 40,000 | 32.26% | |
| 2000 | \$ | 321,000 | | 0 | 0 | | 321,000 | | 306,000 | 95.33% | |
| 2001 | | 340,000 | | 0 | 0 | | 340,000 | | 330,000 | 97.06% | |
| 2002 | | 371,000 | | 0 | 0 | | 371,000 | | 354,000 | 95.42% | |
| 2003 ⁵ | | 412,000 | | 0 | 0 | | 412,000 | | 371,000 | 90.12% | |
| 2004 ⁶ | | 412,000 | | 0 | 0 | | 412,000 | | 382,679 | 92.88% | |
| 2005 | | 436,594 | | 0 | 0 | | 436,594 | | 394,561 | 90.37% | |
| 2006 | | 464,671 | | 0 | 0 | | 464,671 | | 416,638 | 89.66% | |
| 2007 | | 477,221 | | 0 | 0 | | 477,221 | | 427,468 | 89.57% | |
| 2008 | | 506,141 | | 0 | 0 | | 506,141 | | 434,894 | 85.92% | |
| 2009 | | 557,643 | | 0 | 0 | | 557,643 | | 442,099 | 79.28% | |
| 2010 | | 601,274 | | • | | | | | | | |

¹ Information prior to 2008 provided by The Segal Company.

² Shown as a percent of payroll for years before 2000.

³ For years after 1999, the AnnualRrequired Contribution is the dollar amount shown in (a).

⁴ Includes contributions from other sources (if applicable).

⁵ Actuarially Required Contribution Rate/Amount prior to change in Actuarial Assumptions was \$389,000.

⁶ Actuarially Required Contribution Rate/Amount is equal to prior year's amount since an actuarial valuation was not completed as of July 1, 2003.

Glossary

Actuarial Asset Value. The value of assets used in calculating the required contributions. The actuarial asset value may be equal to the fair market value of assets, or it may spread the recognition of certain investment gains or losses over a period of years in accordance with an asset valuation method. The goal of an asset valuation method is to produce a relatively stable asset value thereby reducing year-to-year volatility in contribution requirements.

Actuarial Cost Method. Sometimes called "funding method," a particular technique used by actuaries to establish the amount and incidence of the annual actuarial cost of pension plan benefits, or normal cost, and the related unfunded actuarial accrued liability. Ordinarily, the annual contribution to the plan comprises the normal cost and an amount for amortization of the unfunded actuarial accrued liability.

Annual Pension Cost. A measure of the periodic cost of an employer's participation in a defined benefit pension plan.

Annual Required Contributions (ARC). The employer's periodic required contributions to a defined benefit pension plan, calculated in accordance with the parameters of GASB 25 (as amended by GASB 50) or GASB 27.

ASA. Associate of the Society of Actuaries.

Current Benefit Obligations. The present value of benefits earned to the valuation date, based on current service and including future salary increases to retirement.

EA. Enrolled Actuary

FSA. Fellow of the Society of Actuaries.

MAAA. Member of the American Academy of Actuaries.

Normal Cost. The annual cost assigned to the current year, under the actuarial cost method in use.

Present Value. Sometimes called "actuarial present value," the current worth (on the valuation date) of an amount or series of amounts payable or receivable in the future. The present value is determined by discounting the future payments at a predetermined rate of interest, taking into account the probability of payment.

Statement No. 25 of the Governmental Accounting Standards Board (GASB 25). The accounting standard governing the financial reporting for defined benefit pension plans and note disclosures for defined contribution plans.

Statement No. 27 of the Governmental Accounting Standards Board (GASB 27). The accounting standard governing a state or local governmental employer's accounting for pensions.

Statement No. 50 of the Governmental Accounting Standards Board (GASB 50). The accounting standard amending both GASB 25 and GASB 27 to require a schedule of funding progress under the Entry Age Normal method for plans that use the aggregate funding method to determine the Annual Required Contribution.

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