# ACTUARIAL VALUATION REPORT 

AS OF JANUARY 1, 2011

Dear Committee Members:

Enclosed is our report on the Actuarial Valuation of the MARTA / ATU Local 732 Employees Retirement Plan for the Plan Year beginning January 1, 2011. The valuation results are based on the benefits in effect January 1, 2011, the participant census data submitted as of January 1, 2011, the financial information provided as of December 31, 2010 and the actuarial assumptions and methods described in this report. The participant data was provided by American Benefit Plan Administrators, Inc. We wish to acknowledge their help and cooperation in supplying us with that information. Financial information was extracted from the Audit Report prepared by Mauldin \& Jenkins, LLC.

The purpose of the report is to present the Committee a picture of the financial condition of the MARTA / ATU Local 732 Employees Retirement Plan as of January 1, 2011 and to provide disclosure information to the Fund Auditor as well as governmental or other interested parties. Included in the presentation of the financial picture are the valuation results and development of the contribution requirements; the funded status of the Plan relating to the adequacy on an ongoing basis (FASB 35); a disclosure of the financial position (GASB 25 and 50) and the Net Pension Obligation (GASB 27) of the fund, and an analysis of Plan experience.

Sincerely,
J. Scott Haynsworth, A.S.A., M.A.A.A., E.A. Principal

Harry S. Lutz, F.S.A., M.A.A.A., E.A.
Senior Actuary
SECTION CONTENT ..... PAGE
1 SUMMARY ..... 1
2 VALUATION RESULTS ..... 7
3 FINANCIAL INFORMATION ..... 14
4 CENSUS CHARACTERISTICS5 HISTORY AND PLAN PROVISIONS30
6 ACTUARIAL ASSUMPTIONS ..... 36
7 SUPPLEMENTAL INFORMATION ..... 38

## SECTION 1 - SUMMARY

## HIGHLIGHTS

The results of the January 1, 2011 Actuarial Valuation indicate that the combined Employer and Employee Required Contributions are $10.29 \%$ of Payroll as compared with $11.05 \%$ for the prior valuation. At a minimum, the Employer and Employee Contributions must currently represent $4.48 \%$ and $2.45 \%$ respectively, of total pensionable pay for the Plan Year ( $6.93 \%$ in total) as specified in the Plan. Our initial projections indicate the required percentage will be pressured to increase over the next 5 years, as net asset losses are recognized with the smoothing method. However, significant asset gains such as those experienced in 2009 and 2010 will help to mitigate that effect.

The Total Required Contribution decreased $0.76 \%$ when expressed as a percentage of Covered Payroll. The decrease is primarily attributable to the decrease in covered members from the prior year associated with the workforce reductions. The Actuarial Value of Assets return was $5.0 \%$ in 2010 which is lower than the $7.5 \%$ assumed rate of return, reflecting the continuing delayed recognition of the investment losses incurred in 2008 through the smoothing method. This resulted in a $0.70 \%$ increase in the required percentage. Actuarial experience not related to investments was very favorable and decreased the required percentage by $1.46 \%$. Actuarial experience includes the actual rates of mortality, disability, retirement and termination occurrences, the demographics of new entrants and who they replace in the Plan, the rate of conversion from temporary to total and permanent disability, and the workforce reduction in 2010 along with the actual salary increases of the Participants. Payroll of participants not expected to retire (Covered Payroll) decreased by $8.5 \%$ during the last year. The combination of all these factors resulted in a net decrease in the required percentage.

MARTA and ATU Local 732 recently finalized an increase in the contribution rates for both parties. The contribution rates will increase from $4.48 \%$ and $2.45 \%$ to $8.09 \%$ and $4.41 \%$ for MARTA and the participants respectively beginning in May 2011. Therefore the combined contribution rate of $12.5 \%$ should exceed the minimum required amount for 2012 of $10.28 \%$. However, MARTA contributed an extra amount in 2010 necessary to ensure proper minimum funding under State law. Accordingly, because the Plan Document stipulates contributions be shared on an 11 to 6 ratio, MARTA and the union have also agreed to temporarily reduce the MARTA percentage for 2012 by approximately $2.0 \%$ to balance those ratios again.

## SECTION 1 - SUMMARY

| Plan Year Beginning | 01/01/2011 |  | 01/01/2010 |  |
| :---: | :---: | :---: | :---: | :---: |
| FUNDING LEVEL |  |  |  |  |
| 1. Applicable Payroll for the Current Plan Year | \$ | 106,680,000 | \$ | 116,600,000 |
| 2. Development of Unfunded Actuarial Accrued Liabilities (UAAL) |  |  |  |  |
| a. Actuarial Accrued Liabilities | \$ | 468,650,000 | \$ | 457,060,000 |
| b. Actuarial Value of Assets |  | 461,400,000 |  | 454,140,000 |
| c. UAAL | \$ | 7,250,000 | \$ | 2,920,000 |
| 3. Amortization of UAAL midyear | \$ | 490,000 | \$ | 190,000 |
| \% of Payroll |  | 0.46\% |  | 0.17\% |
| 4. Normal Cost of Benefits at midyear | \$ | 10,490,000 | \$ | 12,690,000 |
| \% of Payroll |  | 9.83\% |  | 10.88\% |
| 5. Required Contribution as a Percent of Payroll |  | 10.29\% |  | 11.05\% |

6. Development of the Required Contribution for the next Plan Year
a. Projected Covered Payroll for Plan Year
b. Expected Contributions for the Plan Year

| For the 2012 Plan Year |  |
| :--- | ---: |
|  |  |
| $\$$ | $108,590,000$ |
| $\$$ | $11,170,000$ |

These calculations use a different measure of the Assets than the Market Value referred to as the Actuarial Value (AVA). The AVA smooths out some of the year to year volatility of the Market Value.

If the Market Value of Assets were used, the Plan would appear in a less favorable position with a Required Contribution percentage of $10.85 \%$ of Payroll compared to $13.41 \%$ for the prior year.

Some numbers have been rounded for ease of communication.

## SECTION 1-SUMMARY

| Plan Year Beginning |  |  |  |
| :--- | :--- | :--- | :--- |
| FUNDED STATUS |  | $01 / 01 / 2011$ |  |

These calculations measure the liability of benefits on a termination basis, disregarding current interest rate differentials for terminal annuities, and assume no additional benefits are earned in future years.

## INVESTMENT RETURNS

| 1. Market Value of Assets - One Year Rate of Return | $13.6 \%$ | $20.9 \%$ |
| :--- | :---: | :---: |
| Five Year Average Rate of Return | $4.7 \%$ |  |
| 2. Actuarial Value of Assets - One Year Rate of Return | $5.0 \%$ | $10.2 \%$ |
| Five Year Average Rate of Return | $5.4 \%$ |  |

Some numbers have been rounded for ease of communication.

## SECTION 1-SUMMARY

| Plan Year Beginning |  |  |
| :--- | :--- | :--- | :--- | :--- |
| PARTICIPATION |  |  |

1. Active Employees

| Vested | 1,719 |  | 1,826 |
| :--- | :---: | :---: | :---: |
| Non-Vested | 976 |  | 1,072 |
|  |  | 2,695 |  |
| Total |  | 2,898 |  |

2. Inactive Employees Receiving Benefits

Number of Lives

| Normal \& Early Retirees | 1,152 | 1,063 |
| :--- | :---: | :---: |
| Disability Retirees | 236 | 225 |
| Beneficiaries | 169 | 171 |
|  | 1,557 | 1,459 |

Average Annual Benefit

| Normal \& Early Retirees | $\$$ | 18,500 | $\$$ | 18,700 |
| :--- | :---: | :---: | :---: | :---: |
| Disability Retirees | 11,800 | 11,800 |  |  |
| Beneficiaries | 10,400 | 10,000 |  |  |
| Combined Average | $\$$ | 16,600 | $\$$ | 16,600 |

3. Terminated Vested Deferred

Number of Lives
Average Annual Benefit

|  | 184 |  | 196 |
| :--- | ---: | ---: | ---: |
| $\$$ | 11,500 | $\$$ | 10,500 |

Some numbers have been rounded for ease of communication.

## CONTRIBUTIONS AND EXPENSES

The primary sources of income for a pension plan are investment earnings and contributions. The primary forms of expense are benefit payments and operating expenses.

This is a "Mature Plan" where expenses exceed contributions. The additional funds necessary to cover expenses must be taken from investment returns and/or begin to draw on the principal invested.

Provided below is a graphical comparison of the historical differences in the actual annual contributions and the actual annual expenses.

Comparison of Contributions and Expenses


## Plan Year

## ASSETS AND LIABILITIES

To determine the proper funding requirements of the Plan, a comparison is made between the Assets and the Present Value of Benefits. The portion of that difference allocated to the upcoming Plan Year is the required contribution commonly referred to as the Normal Cost. Investment returns above the assumed rate are used to help pay the difference and reduce the Annual Required Contribution.

Provided below is a graphical comparison of the historical differences in the Assets and the Present Value of Benefits. While year to year funding is measured using the Actuarial Value, the Market Value provides a more accurate assessment of the Plan's actual funded status over time.

## Comparison of Assets and Liabilities



Plan Year

## SECTION 2 - VALUATION RESULTS

In order to provide appropriate time for budgeting, the Total Required Contribution for the current Plan Year is based on the rate developed in the 2010 Actuarial Valuation or $11.05 \%$. Accordingly, the $10.29 \%$ of Covered Payroll will apply to the 2012 Plan Year. Based on projected Covered Payroll for 2012 of about $\$ 108.6$ million, the total required contribution for the 2012 Plan Year is approximately $\$ 11.2$ million. The final requirement will be based on actual 2012 Pensionable Pay.

It is assumed that as long as the combined contributions made by MARTA and the Employees meet the $11.05 \%$ of payroll target the Plan will not generate a net Pension Obligation. However, because the rate was not increased for the entire Plan Year the Annual Required Contribution for 2010 and for 2011 must be determined based on actual Covered Payroll. The actual Annual Required Contribution (ARC) as outlined in the GASB disclosures for 2010 will be based on the $11.05 \%$ of 2011 Pensionable Payroll. The Plan faced complex funding issues during 2010, including the workforce reduction, a contractual total percentage of pay of $6.93 \%$ compared with the required $11.37 \%$, and the lump sum contribution by MARTA in December 2010 to ensure State funding requirements were met. We have calculated the GASB funding information considering these factors and the material differences in payroll during the first and second halves of the year due to the workforce reduction. Because the mandated percentage was less than the required percentage and the Authority contributed an additional $\$ 6$ million in late 2010, the Plan has a Net Pension Asset for the first time of about $\$ 1.4$ million. This should be temporary and will likely be absorbed in 2011.

We also report on the progress of the funding of accrued benefits on the FASB 35 Statement of Accumulated Plan Benefits page. This display provides the Committee with an alternative view of the funding progress. The present values are obtained using long-range actuarial assumptions and are not indicative of the results that would be obtained if the plan actually terminated as of the valuation date. The Statement shows that the Market Value of Assets is $123.1 \%$ of the Present Value of Vested Accumulated Benefits and $107.0 \%$ of the Present Value of Total Accumulated Benefits. The displays on that page have been designed to facilitate the preparation of government forms and to supply the Plan's auditor with the information that is required to comply with financial accounting standards.

## SECTION 2 - VALUATION RESULTS

## ACTUARIAL CERTIFICATION

The information and valuation results shown in this report are, to the best of my knowledge, complete and accurate, are determined in accordance with generally accepted actuarial principles and standards of practice, and are consistent with the precepts of the actuarial code of professional conduct. The results are based upon:

1. Employee census data as of January 1, 2011, submitted by American Benefit Plan Administrators, Inc. This data was not audited by us, but appears sufficient and reliable for purposes of the report.
2. Financial information as of December 31, 2010, submitted by Mauldin \& Jenkins, LLC. This data was determined to be sufficient and reliable for purposes of the report.
3. Actuarial assumptions which are reasonably related to the experience of the Plan and to reasonable expectations, and which represent our firm's best estimate of anticipated experience under the Plan.
4. Actuarial methods as stated in the report and our firm's interpretation of Plan provisions as summarized in the report.

## BHA CONSULTING LLC

J. Scott Haynsworth<br>Principal<br>Enrolled Actuary No. 11-06106

Date Signed

Under requirements imposed by the IRS, we inform you that any advice concerning one or more U.S. federal tax issues is not intended or written to be used, and cannot be used, for the purpose of (1) avoiding penalties under the Internal Revenue Code or (2) promoting, marketing or recommending to another party any transaction or taxrelated matter addressed herein.

## SECTION 2-VALUATION RESULTS AS OF JANUARY 1, 2011

## TOTAL REQUIRED CONTRIBUTION (ENTRY AGE NORMAL)

## A. Development of the Total Required Contribution

Counts Results

1. Actuarial Present Value of Benefits for:
a. Inactive Participants Receiving Benefits
b. Vested Terminated Participants

1,557
c. Active Participants
d. Total: a. + b. + c.
2. Present Value of Future Normal Costs
3. Actuarial Accrued Liability: 1.d. - 2 .
4. Actuarial Value of Assets
5. Unfunded Actuarial Accrued Liability (UAAL)
6. UAAL Amortization Payment (midyear)
7. Normal Cost of Benefits including administrative expenses (midyear)
8. 2011 Payroll of Participants not Expected to Retire during the Plan Year
9. Total Required Contribution Percentage
10.29\%
B. Development of Expected Contributions for 2012 Plan Year

1. Expected Participant Payroll for the 2012 Plan Year
2. Total Required Contribution for the 2012 Plan Year (midyear)
3. Total Required Contribution Percentage
\$ 108,587,200 *

11,173,623 *
10.29\%

* To provide adequate time for budgeting increases in the required contribution, the results as a percentage of payroll in the current valuation will apply to the projected payroll of the subsequent Plan Year. The Total Required Contribution shall be based on actual Payroll for the Plan Year.


## FASB 35 - STATEMENT OF ACCUMULATED BENEFITS

## A. Present Value of Accumulated Plan Benefits*

1. Vested Benefits by Participant Category
a. Inactive Participants Receiving Benefits
b. Vested Terminated Participants

Counts Results
c. Vested Active Participants
d. Total: a. + b. + c.

| 1,557 |  | $\$$ |
| :---: | ---: | ---: |
| 184 |  | $248,603,832$ |
| 1,719 |  | $5,456,550$ |
|  |  | $113,564,488$ |

2. Non-Vested Active Participants
3. Total Vested and Non-Vested Participants: 1.d. +2 .

| 976 | 55,284,902 |
| :---: | :---: |
| 4,436 | 422,909,772 |

5. Vested Accumulated Benefits Ratio: 4. / 1.d.
6. Total Accumulated Benefits Ratio: 4. / 3.
107.0\%
B. Statement of Changes in Accumulated Plan Benefits
7. Present Value of Accumulated Plan Benefits on January 1, 2010
8. Increase (Decrease) during the year attributable to:
a. Plan Amendments
b. Changes in Actuarial Assumptions
c. Benefits Accumulated and Actuarial Experience (Gain)/Loss

9,435,170
d. Interest on Accumulated Plan Benefits at 7.5\%

29,867,714
e. Benefits Paid
f. Net Change: a. + b. $+\mathrm{c} .+\mathrm{d} .+\mathrm{e}$.
\$ 412,345,942
3. Present Value of Accumulated Plan Benefits on December 31, 2010: 1. + 2.f.
\$ 422,909,772

[^0]
## SECTION 2 - VALUATION RESULTS AS OF JANUARY 1, 2011

## ANALYSIS OF PLAN EXPERIENCE

A. (Gain) or Loss in Investments

1. Actual Actuarial Value of Assets (AVA) as of January 1, 2010
2. Interest Adjustment to End of Year at $7.5 \%$
3. Net Cash Flow
4. Interest Adjustment to End of Year at $7.5 \%$
5. Expected AVA as of January 1, 2011: 1. + 2. + 3. + 4.
6. Actual AVA as of January 1,2011
7. Investment (Gains) or Losses for the January 1, 2010 Plan Year: 5. - 6.
B. Change in Total Required Contribution as a Percentage of Payroll
8. Required Contribution Percentage for the 2010 and 2011 Plan Years
9. Effect of Method Change
10. Effect of Assumption Changes
11. Effect of Actuarial Experience
12. Effect of Investment (Gains) or Losses
13. Required Contribution Percentage for the 2012 Plan Year
C. Development of Amortization of Unfunded Actuarial Accrued Liability

| Year |  | UAAL | Period | Amortization |  | Interest Rate | Payroll Growth |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2011 | \$ | 7,251,445 | 24 | \$ | 473,065 | 7.50\% | 3.00\% |

## SECTION 2 - VALUATION RESULTS AS OF JANUARY 1, 2011

## GASB 25 AND 27 DISCLOSURE INFORMATION

## A. Schedule of Funding Progress

Beginning with the 2009 Fiscal Year the Actuarial Cost Method was changed from the Frozen Entry Age to the Entry Age Normal. The Frozen Entry Age Method is required to demonstrate the systematic amortization of the frozen Unfunded Actuarial Accrued Liability. The new method separately identifies an Actuarial Accrued Liability and calculates a traditional UAAL.
$\left.\begin{array}{crrrc}\begin{array}{c}\text { Valuation } \\ \text { Date }\end{array} & \begin{array}{c}\text { Actuarial Value } \\ \text { of Assets }\end{array} & & \begin{array}{c}\text { Actuarial Accrued } \\ \text { Liability (AAL) }\end{array} & \end{array} \begin{array}{c}\text { Funded } \\ \text { Ratio }\end{array}\right]$
B. Schedule of Required Contributions*
$\left.\begin{array}{crccc}\text { Plan } & \begin{array}{c}\text { Annual } \\ \text { Required Employer } \\ \text { Contribution }\end{array} & & \begin{array}{c}\text { Annual } \\ \text { Employer } \\ \text { Contribution }\end{array} & \end{array} \begin{array}{c}\text { Percentage } \\ \text { Contributed }\end{array}\right]$

[^1]
## SECTION 2 - VALUATION RESULTS AS OF JANUARY 1, 2011

## GASB 25 AND 27 DISCLOSURE INFORMATION (CONT'D)

## C. Net Pension Obligation Five Year Trend Information

$\left.\begin{array}{ccccc}\begin{array}{c}\text { Plan } \\ \text { Year }\end{array} & \begin{array}{c}\text { Annual Pension } \\ \text { Cost (APC) }\end{array} & & \begin{array}{c}\% \text { of APC } \\ \text { Contributed }\end{array} & \end{array} \begin{array}{c}\text { Net Pension } \\ \text { Obligation (Asset) }\end{array}\right]$

The Annual Required Employer Contribution cannot be less than the amount required based on the rates specified in the Plan, $4.48 \%$ until May 2011 then $8.09 \%$.

## GASB 50 DISCLOSURE INFORMATION

D. Alternate Schedule of Funding Progress

Beginning with the 2008 Fiscal Year the Funded Status will be required to be reported using the Entry Age Normal Cost Method if the Actuarial Cost Method used to develop the Annual Required Contribution does not directly compute the Actuarial Accrued Liability. This requirement is mandated by GASB 50. The information below is what would have been reported using the Entry Age Normal Cost Method.

| Valuation <br> Date |
| :---: |
| $01 / 01 / 2007$ |
| $01 / 01 / 2008$ |
| $01 / 01 / 2009$ |
| $01 / 01 / 2010$ |
| $01 / 01 / 2011$ |
|  |
| Valuation |
| Date |

01/01/2007
01/01/2008
01/01/2009
01/01/2010
01/01/2011

| Actuarial Value <br> of Assets |
| :---: |
| $444,445,443$ |
| $471,360,803$ |
| $430,448,670$ |
| $454,137,043$ |
| $461,402,615$ |

Unfunded
Actuarial Accrued

$$
\underline{\text { Liability (UAAL) }}
$$

$$
(38,658,853)
$$

$$
(47,376,475)
$$

11,688,397
2,924,622

$$
7,251,445
$$

| Actuarial Accrued <br> Liability (AAL) |
| :---: |
| $405,786,590$ |
| $423,984,328$ |
| $442,137,067$ |
| $457,061,665$ |
| $468,654,060$ |


|  | UAAL as a <br> Percentage of <br> Covered Payroll |
| :---: | :---: |
|  |  |
| $105,030,841$ | $-36.8 \%$ |
| $108,030,686$ | $-43.9 \%$ |
| $116,743,782$ | $10.0 \%$ |
| $116,601,118$ | $2.5 \%$ |
| $106,684,664$ | $6.8 \%$ |

## SECTION 3-FINANCIAL INFORMATION

The financial section of the report shows the Market and Actuarial Values of the Assets of the pension fund as of December 31, 2010. The Actuarial Value of Assets is used for long-term funding for comparison with the Actuarial Accrued Liability of the Plan to calculate the Unfunded Actuarial Accrued Liability, which must be amortized in future years. The Market Value of Assets is used in comparison with the Present Value of Accumulated Plan Benefits to measure the financial stability and funding progress of the Fund. The financial information has been extracted from the audit as of December 31, 2010.

The approximate rate of net investment return for the 2010 Plan Year was $13.6 \%$ based on the Market Value of Assets and $5.0 \%$ based on the Actuarial Value of Assets compared to an assumed $7.5 \%$ rate. Net operating expenses for the Plan Year were $\$ 540,855$ in 2010 as compared to $\$ 500,000$ assumed. It should be pointed out that the $13.6 \%$ return coupled with a $20.9 \%$ return in 2009 still does not indicate a complete recovery from the negative $22.7 \%$ return from 2008. The actual 3 year annualized return is $2.0 \%$, which is significantly less than the $7.5 \%$ net investment assumption.

To properly perform our duties for the Committee, we must sometimes discuss certain aspects of the investment process. Neither BHA Consulting LLC nor any of its employees are investment experts. We do not charge for, nor do we render, investment advice. The Committee should not consider us as operating in a fiduciary capacity regarding the investment process. We are available to answer any questions the Committee may have regarding this report.

## SECTION 3-FINANCIAL INFORMATION

PENSION FUND BALANCE *


## ACTUARIAL VALUE

1. Market Value
2. Deferred Gains / (Losses)
3. Actuarial Value of Assets: 1. - 2 .

$$
\begin{array}{cc}
\$ & 452,527,965 \\
& (8,874,650) \\
\hline \$ & 461,402,615
\end{array}
$$

102.0\% of Market Value

[^2]
## SECTION 3-FINANCIAL INFORMATION

## FLOW OF FUNDS *

## (Market Value)

|  | Plan Year Beginning January 1, |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2010 |  | 2009 |  | 2008 |  |
| Balance at the Beginning of the Plan Year | \$ | 412,531,497 | \$ | 358,707,225 | \$ | 482,382,536 |
| Employer Contributions |  | 11,359,770 |  | 5,392,330 |  | 5,428,918 |
| Employee Contributions |  | 2,668,790 |  | 2,846,988 |  | 2,842,722 |
| Investment Income |  | 9,773,148 |  | 10,835,522 |  | 13,499,093 |
| Realized and Unrealized Gains/(Losses) |  | 47,646,908 |  | 64,061,358 |  | $(118,737,437)$ |
| Miscellaneous Income |  | 0 |  | 0 |  | 0 |
| Total Additions |  | 71,448,616 |  | 83,136,198 |  | (96,966,704) |
| Benefits |  | 28,739,054 |  | 26,884,699 |  | 23,771,096 |
| Investment Expenses |  | 2,172,239 |  | 1,909,275 |  | 2,302,008 |
| Administrative Expenses |  | 540,855 |  | 517,952 |  | 509,963 |
| Transfers to Non-Represented Plan |  | 0 |  | 0 |  | 125,540 |
| Miscellaneous Expense |  | 0 |  | 0 |  | 0 |
| Total Disbursements |  | 31,452,148 |  | 29,311,926 |  | 26,708,607 |
| Additions Less Disbursements |  | 39,996,468 |  | 53,824,272 |  | $(123,675,311)$ |
| Balance at the End of the Plan Year | \$ | 452,527,965 | \$ | 412,531,497 | \$ | 358,707,225 |
| Rate of Investment Return |  | 13.6\% |  | 20.9\% |  | -22.7\% |

[^3]
## SECTION 3-FINANCIAL INFORMATION

## FLOW OF FUNDS

Balance at the Beginning of the Plan Year

Employer Contributions
Employee Contributions
Investment Income
Actuarial Investment Return
Miscellaneous Income

Total Additions

Benefits
Investment Expenses
Administrative Expenses
Transfers to Non-Represented Plan
Miscellaneous Expense

Total Disbursements

Additions Less Disbursements

Balance at the End of the Plan Year

Rate of Investment Return

## (Actuarial Value)

Plan Year Beginning January 1,

| 2010 | 2009 | 2008 |
| :---: | :---: | :---: |
| \$ 454,137,043 | \$ 430,448,670 | \$ 471,360,803 |
| 11,359,770 | 5,392,330 | 5,428,918 |
| 2,668,790 | 2,846,988 | 2,842,722 |
| 9,773,148 | 10,835,522 | 13,499,093 |
| 14,916,012 | 33,925,459 | (35,974,259) |
| 0 | 0 | 0 |
| 38,717,720 | 53,000,299 | (14,203,526) |
| 28,739,054 | 26,884,699 | 23,771,096 |
| 2,172,239 | 1,909,275 | 2,302,008 |
| 540,855 | 517,952 | 509,963 |
| 0 | 0 | 125,540 |
| 0 | 0 | 0 |

26,708,607
$\underline{7,265,572}$
$\$ 461,402,615 \quad \$ \quad 454,137,043 \quad \$ \quad 430,448,670$
5.0\%
$10.2 \%$
$-5.4 \%$

## SECTION 3-FINANCIAL INFORMATION

## 5 YEAR SMOOTHING OF INVESTMENT GAINS AND LOSSES

In order to minimize the year to year fluctuations in the Market Value of Assets, any excess or shortfall in the actual return compared to the assumed return during any Plan Year is allocated to the current Plan Year and in equal amounts to each of the next four successive Plan Years ( $20 \%$ each year). The Market Value of Assets are assumed to return $7.5 \%$ per year after consideration of net cash flows (contributions received, benefit payments made and expenses paid).

The adjusted Market Value shall be termed the "Actuarial Value", except that the amount can be no less than $80 \%$ nor any more than $120 \%$ of the Market Value, as of the determination date.
A. Development of Investment Gains and (Losses)

| Plan Year Beginning January 1, | 2010 | 2009 | 2008 | 2007 |
| :---: | :---: | :---: | :---: | :---: |
| 1. Actual MVA at BOY | 412,531,497 | \$ 358,707,225 | \$ 482,382,536 | \$ 464,279,970 |
| 2. Interest Adjustment to EOY | 30,939,862 | 26,903,042 | 36,178,690 | 34,820,998 |
| 3. Net Cash Flows midyear | (15,251,349) | $(19,163,333)$ | $(16,134,959)$ | (18,080,504) |
| 4. Interest Adjustment to EOY | $(561,586)$ | $(705,634)$ | $(594,123)$ | $(665,762)$ |
| 5. Expected MVA at EOY | 427,658,424 | 365,741,300 | 501,832,144 | 480,354,702 |
| 6. Actual Market Value at EOY | 452,527,965 | 412,531,497 | 358,707,225 | 482,382,536 |
| 7. Gains or (Losses): 6. - 5. | 24,869,541 | 46,790,197 | (143,124,919) | 2,027,834 |

B. Investment Gains or (Losses) to be Allocated in Future Plan Years

1. $80 \%$ of 2010 Gains or (Losses)
\$ 19,895,633
28,074,118
2. $60 \%$ of 2009 Gains or (Losses)
$(57,249,968)$
3. $40 \%$ of 2008 Gains or (Losses)

| 405,567 |
| :--- |
| $\$ \quad(8,874,650)$ |

4. $20 \%$ of 2007 Gains or (Losses)
5. Deferred Gains or (Losses)
C. Limit Adjustment to $20 \%$ of Market Value
6. Market Value Corridor: $=$ A.6. $\times 20 \%$
(90,505,593)
7. Deferred Gains or (Losses): Minimum of B.5 or C.1.
$\$ \quad(8,874,650)$

## SECTION 3-FINANCIAL INFORMATION

HISTORY OF NET INVESTMENT RETURNS AND OPERATING EXPENSES


## SECTION 3-FINANCIAL INFORMATION

PROJECTION OF BENEFIT DISBURSEMENTS

| YEAR | PROJECTED <br> PAYMENT | YEAR | PROJECTED <br> PAYMENT | YEAR | PROJECTED <br> PAYMENT |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 2011 | $\$ 30,878,000$ | 2021 | $\$ 42,609,000$ | 2031 | $\$ 50,282,000$ |
| 2012 | $32,336,000$ | 2022 | $43,830,000$ | 2032 | $50,236,000$ |
| 2013 | $33,759,000$ | 2023 | $44,940,000$ | 2033 | $50,135,000$ |
| 2014 | $35,064,000$ | 2024 | $46,089,000$ | 2034 | $49,703,000$ |
| 2015 | $36,297,000$ | 2025 | $47,221,000$ | 2035 | $48,961,000$ |
| 2016 | $37,445,000$ | 2026 | $48,446,000$ | 2036 | $47,869,000$ |
| 2017 | $38,416,000$ | 2027 | $49,546,000$ | 2037 | $46,546,000$ |
| 2018 | $39,457,000$ | 2028 | $50,199,000$ | 2038 | $45,020,000$ |
| 2019 | $40,362,000$ | 2029 | $50,504,000$ | 2039 | $43,240,000$ |
| 2020 | $41,383,000$ | 2030 | $50,447,000$ | 2040 | $41,344,000$ |

To assist with cash flow planning, we have included in the valuation report a projection of anticipated benefit payments for each of the next 30 years. The projection is based upon the current Plan provisions and the population of known Plan Participants including Retirees and Beneficiaries, Active Participants, and Terminated Vested Participants.

## PROJECTED PAYMENTS



## SECTION 4-CENSUS CHARACTERISTICS

The following comments will highlight certain trends in the census data described in this report based on the results of the January 1, 2011 Actuarial Valuation compared with the report as of January 1, 2010:

The number of active Participants has decreased from 2,898 to 2,695 since the last valuation. The average past service for active lives has increased from 9.4 years to 9.8 years, while the average age of active Participants has increased from 46.6 to 47.5 and the average pensionable pay has decreased from $\$ 40,040$ to $\$ 39,728$. Salary increases for continuing actives averaged $2.2 \%$ for the year which includes pay raises, increases in hours worked and compensation increases associated with a position change.

The number of retirees, including disability retirees, and beneficiaries receiving payments from the Fund has continued to increase from 1,459 to 1,557 since the last valuation. The average monthly benefit decreased slightly from $\$ 1,384$ a year ago to $\$ 1,383$ in the current year. The average age of Participants receiving benefits has increased from 66.0 to 66.3 .

The number of Inactive Vested Participants has decreased from 196 to 184, while the average estimated monthly benefit has increased from $\$ 875$ to $\$ 957$ since the last valuation. The average age has decreased from 47.0 to 46.4 over the same period. This group includes 121 participants who transferred from this Plan to the MARTA NonRepresented Retirement Plan. Additionally, the benefits for those transferred participants are assumed to increase over time, and the rate wages are specified to increase in the applicable labor agreements.

## SECTION 4-CENSUS CHARACTERISTICS

ACTIVE PARTICIPANTS

| Plan Year Beginning | 01/01/2011 |  | 01/01/2010 |  | 01/01/2009 |  | 01/01/2008 |  | 01/01/2007 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Vested |  | 1,719 |  | 1,826 |  | 1,871 |  | 1,855 |  | 1,912 |
| Non-Vested |  | 976 |  | 1,072 |  | 1,116 |  | 921 |  | 752 |
| Total Number of Lives |  | 2,695 |  | 2,898 |  | 2,987 |  | 2,776 |  | 2,664 |
| Average Age |  | 47.5 |  | 46.6 |  | 46.2 |  | 46.0 |  | 46.1 |
| Average Service |  | 9.8 |  | 9.4 |  | 8.9 |  | 9.1 |  | 9.5 |
| Average Annual Pay | \$ | 39,728 | \$ | 40,040 | \$ | 38,927 | \$ | 38,836 | \$ | 39,104 |




ACTIVE LIVES - AGE / SERVICE TABLE

| Age | Service |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | <1 | 1-4 | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | 30-34 | 35+ | Total |
| <25 | 4 | 15 |  |  |  |  |  |  |  | 19 |
|  | \$25,829 | \$31,325 |  |  |  |  |  |  |  | \$30,168 |
| 25-29 | 16 | 86 | 13 | 1 |  |  |  |  |  | 116 |
|  | \$27,402 | \$32,667 | \$36,643 | \$31,973 |  |  |  |  |  | \$32,380 |
| 30-34 | 23 | 99 | 45 | 20 |  |  |  |  |  | 187 |
|  | \$27,994 | \$34,392 | \$39,741 | \$40,703 |  |  |  |  |  | \$35,567 |
| 35-39 | 26 | 124 | 69 | 75 | 10 |  |  |  |  | 304 |
|  | \$29,174 | \$36,565 | \$38,774 | \$42,489 | \$41,642 |  |  |  |  | \$38,063 |
| 40-44 | 24 | $135$ | $108$ | $112$ | $28$ | 6 |  |  |  | $413$ |
|  | \$30,932 | \$36,918 | \$40,618 | \$42,096 | \$43,268 | \$44,378 |  |  |  | \$39,481 |
| 45-49 | 42 | 118 | 115 | 126 | 66 | 19 | 11 | 1 |  | 498 |
|  | \$31,546 | \$37,434 | \$40,452 | \$42,178 | \$43,273 | \$43,532 | \$45,456 | \$44,612 |  | \$40,033 |
| 50-54 | 21 | 101 | 86 | 119 | 72 | 52 | 21 | 11 |  | 483 |
|  | \$32,395 | \$38,638 | \$41,254 | \$41,718 | \$42,737 | \$45,803 | \$45,204 | \$45,986 |  | \$41,426 |
| 55-59 | 14 | 85 | 67 | 82 | 67 | 54 | 33 | 8 | 2 | 412 |
|  | \$31,254 | \$39,377 | \$40,732 | \$42,278 | \$43,542 | \$45,190 | \$45,451 | \$46,600 | \$45,094 | \$41,992 |
| 60-64 | 3 | 31 | 29 | 63 | 38 | 23 | 10 | 11 | 5 | 213 |
|  | \$32,522 | \$36,846 | \$39,801 | \$41,530 | \$43,711 | \$43,149 | \$46,201 | \$46,419 | \$45,161 | \$41,607 |
| $65+$ |  | 9 | 9 | 13 | 6 | 9 | 1 | 2 | 1 | 50 |
|  |  | \$38,458 | \$42,829 | \$41,456 | \$43,332 | \$43,384 | \$45,122 | \$44,942 | \$44,959 | \$42,019 |
| TOTAL | 173 | 803 | 541 | 611 | 287 | 163 | 76 | 33 | 8 | 2695 |
|  | \$30,213 | \$36,559 | \$40,287 | \$41,978 | \$43,203 | \$44,775 | \$45,478 | \$46,174 | \$45,119 | \$39,728 |



## SECTION 4-CENSUS CHARACTERISTICS

NORMAL AND EARLY RETIREES

| Plan Year Beginning | 01/01/2011 |  | 01/01/2010 |  | 01/01/2009 |  | 01/01/2008 |  | 01/01/2007 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Number of Lives |  | 1,152 |  | 1,063 |  | 1,019 |  | 985 |  | 910 |
| Average Age |  | 66.5 |  | 66.1 |  | 66.1 |  | 65.7 |  | 65.7 |
| Average Age at Retirement |  | 58.4 |  | 58.3 |  | 58.3 |  | 58.5 |  | 58.0 |
| Average Annual Benefit | \$ | 18,480 | \$ | 18,687 | \$ | 18,449 | \$ | 18,364 | \$ | 18,644 |




## SECTION 4-CENSUS CHARACTERISTICS

## DISABLED RETIREES

| Plan Year Beginning | 01/01/2011 | 01/01/2010 | 01/01/2009 | 01/01/2008 | 01/01/2007 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Number of Lives | 236 | 225 | 233 | 239 | 226 |
| Average Age | 61.9 | 61.5 | 61.0 | 60.6 | 60.2 |
| Average Age at Retirement | 52.8 | 52.9 | 53.0 | 53.2 | 53.4 |
| Average Annual Benefit | \$11,833 | \$11,776 | \$11,819 | \$12,013 | \$12,180 |




## SECTION 4-CENSUS CHARACTERISTICS

BENEFICIARIES

| Plan Year Beginning | 01/01/2011 |  | 01/01/2010 |  | 01/01/2009 |  | 01/01/2008 |  | 01/01/2007 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Number of Lives |  | 169 |  | 171 |  | 162 |  | 161 |  | 156 |
| Average Age |  | 71.2 |  | 71.2 |  | 71.3 |  | 70.8 |  | 70.9 |
| Average Age at Retirement |  | 57.2 |  | 56.3 |  | 57.0 |  | 57.1 |  | 57.5 |
| Average Annual Benefit | \$ | 10,368 | \$ | 9,999 | \$ | 9,876 | \$ | 9,773 | \$ | 9,636 |




## SECTION 4-CENSUS CHARACTERISTICS

## ALL INACTIVE EMPLOYEES RECEIVING BENEFITS

| Plan Year Beginning | 01/01/2011 |  | 01/01/2010 |  | 01/01/2009 |  | 01/01/2008 |  | 01/01/2007 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Retirees |  | 1,152 |  | 1,063 |  | 1,019 |  | 985 |  | 910 |
| Disabled Retirees |  | 236 |  | 225 |  | 233 |  | 239 |  | 226 |
| Beneficiaries |  | 169 |  | 171 |  | 162 |  | 161 |  | 156 |
| Total Number of Lives |  | 1,557 |  | 1,459 |  | 1,414 |  | 1,385 |  | 1,292 |
| Average Age |  | 66.3 |  | 66.0 |  | 65.8 |  | 65.4 |  | 65.3 |
| Average Age at Retirement |  | 57.4 |  | 57.2 |  | 57.3 |  | 57.4 |  | 57.1 |
| Average Annual Benefit | \$ | 16,592 | \$ | 16,603 | \$ | 16,374 | \$ | 16,269 | \$ | 16,426 |




## SECTION 4-CENSUS CHARACTERISTICS

| Plan Year Beginning |  | 01/01/2011 |  | 01/01/2010 |  | 1/2009 |  | 1/2008 | 01/01/2007 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Terminated Vested |  | 63 |  | 82 |  | 72 |  | 58 |  | 44 |
| Transfers |  | 121 |  | 114 |  | 120 |  | 117 |  | 65 |
| Total Number of Lives |  | 184 |  | 196 |  | 192 |  | 175 |  | 109 |
| Average Age |  | 46.4 |  | 47.0 |  | 46.5 |  | 45.5 |  | 45.4 |
| Average Annual Benefit | \$ | \$ 11,483 |  | \$ 10,504 | \$ | 10,887 | \$ | 11,005 | \$ | 9,900 |




CURRENT YEAR CENSUS DATA


| Normal \& Early Retirees |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Number |  | 105 |  | 84 |  | 55 |  | 79 |  | 79 |
| Average Age |  | 59.4 |  | 59.5 |  | 57.8 |  | 58.2 |  | 59.0 |
| Average Monthly Benefit | \$ | 1,438 | \$ | 1,654 | \$ | 1,564 | \$ | 1,307 | \$ | 1,471 |
| Average Partial Lump Sum | \$ | 33,625 | \$ | 41,429 | \$ | 21,798 | \$ | 22,395 | \$ | 37,506 |
| Disability Retirees |  |  |  |  |  |  |  |  |  |  |
| Number |  | 10 |  | 12 |  | 23 |  | 21 |  | 16 |
| Average Age |  | 54.0 |  | 53.6 |  | 51.6 |  | 53.2 |  | 52.9 |
| Average Monthly Benefit | \$ | 950 | \$ | 889 | \$ | 873 | \$ | 858 | \$ | 1,122 |
| Beneficiaries |  |  |  |  |  |  |  |  |  |  |
| Number |  | 12 |  | 21 |  | 8 |  | 10 |  | 10 |
| Average Age |  | 63.4 |  | 72.5 |  | 66.9 |  | 62.5 |  | 61.8 |
| Average Monthly Benefit | \$ | 1,055 | \$ | 857 | \$ | 962 | \$ | 1,010 | \$ | 816 |

Total New Participants Receiving Benefits

| Number | 127 |  | 117 | 86 | 110 | 105 |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Average Age | 59.4 |  | 61.2 |  | 57.0 | 57.6 | 58.3 |
| Average Monthly Benefit | $\$$ | 1,363 | $\$$ | 1,432 | $\$$ | 1,323 | $\$$ |
|  |  |  | 1,194 | $\$$ | 1,355 |  |  |

Vested Terminations

| Number |  | 9 |  | 43 |  | 28 | 29 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Average Age |  | 42.3 |  | 47.3 |  | 47.2 | 46.8 |
| Average Monthly Benefit | $\$$ | 802 | $\$$ | 552 | $\$$ | 692 | $\$$ |

Transfers
Number
Average Age
Average Monthly Benefit

|  | 15 |  | 2 |  | 4 |  | 60 |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
|  | 41.8 |  | 50.7 |  | 52.9 |  | 43.9 |  |
| $\$$ | 911 | $\$$ | 674 | $\$$ | 813 | $\$$ | 668 | $\$$ |
| $\$$ | 1,435 | $\$$ | 1,062 | $\$$ | 1,147 | $\$$ | 1,198 | $\$$ |

## SECTION 5 - HISTORY AND PLAN PROVISIONS

## PRINCIPAL PLAN DEFINITIONS

Average Highest Monthly Compensation: The average of the Participant's monthly compensation received during the three (3) highest complete years out of the last eight (8) prior to retirement.

Committee: The Plan is administered by six members, three appointed by the Employer and three appointed by the Union.

Compensation: Participant's compensation shall include wages, salary, bonuses, overtime pay, and vacation pay and is limited to the first 2,300 hours within the Plan Year.

Contribution Rate: At a minimum, Employees shall contribute $2.45 \%$ of Pensionable Earnings; the Employer shall contribute $4.48 \%$ of Pensionable Earnings. These rates were changed effective May 2011 to $4.41 \%$ and $8.09 \%$ respectively.

Credited Service: A Participant shall be credited with service calculated from date of hire to the nearest number of completed months.

Plan Year: The twelve (12) month period beginning January 1 and ending December 31.
Participant: An employee will become eligible to participate following the completion of two months of full time service. Service is granted from date of hire.

Points: The sum of a Participant's age and Credited Service both rounded down to the nearest number of years and completed months.

Vested Participant: A Participant who has earned five years of Pension Credit will be partially vested. Those with 10 or more years of credited service are fully vested. Vesting is based on the schedule below.

| Years of Credited Service | Vesting Percentage |
| :---: | :---: |
| Less than 5 | $0 \%$ |
| Between 5 and 6 | $50 \%$ |
| Between 6 and 7 | $60 \%$ |
| Between 7 and 8 | $70 \%$ |
| Between 8 and 9 | $80 \%$ |
| Between 9 and 10 | $90 \%$ |
| 10 or greater | $100 \%$ |

BENEFIT OUTLINE

| BENEFIT | ELIGIBILITY | AMOUNT | FORM |
| :---: | :---: | :---: | :---: |
| NORMAL | Age 65 and 5 years of Credited Service. | Fewer than 25 years of Credited Service: $2.0 \%$ per year times Average Highest Monthly Earnings. | Monthly Benefit Payable for Life. |
|  |  | 25 or more years of Credited Service: 2.4\%* per year times Average Highest Monthly Earnings. |  |
| MINIMUM | Attainment of Normal Retirement. | Fewer than 25 years of Credited Service: $\$ 650$ reduced proportionately for less than 10 years of Credited Service. | Monthly Benefit Payable for Life. |
|  |  | 25 or more years of Credited Service: $\$ 85$ per year of Credited Service. |  |
| EARLY | Attainment of 52 points. Plan provides for Unreduced Early upon attainment of 85 points or age 52 and 80 points. | Normal Pension, reduced by $3.0 \%$ times the total number of points less than 85 , unless eligible for normal retirement. | Same as Normal. |
| DISABILITY, TOTAL \& PERMANENT | 5 Years of Credited Service (10 Years if NonService related). | Maximum of Normal Pension with no reduction for Early Retirement and $\$ 1,000$. Offset by outside earnings. | Monthly Benefit Payable for Life. |
| DISABILITY, <br> TEMPORARY | 5 Years of Credited Service (10 Years if NonService related). | \$1,000 (\$650 if NonService related). | Maximum of 36 months. |

[^4]| BENEFIT | $\underline{\text { ELIGIBILITY }}$ |
| :---: | :---: |
| VESTED | Graded Schedule. 0\% for less than 5 years of Credited Service, 50\% for 5 years of service increased by $10 \%$ for each additional year up to 10 years. |
| $\begin{aligned} & \text { PRE- } \\ & \text { RETIREMENT } \\ & \underline{\text { DEATH }} \end{aligned}$ | Death of Active Participant who is not yet eligible for Early or Normal retirement. |
| $\begin{aligned} & \text { PRE- } \\ & \text { RETIREMENT } \\ & \underline{\text { SURVIVING }} \\ & \underline{\text { SPOUSE }} \end{aligned}$ | Death of Vested Participant eligible for Early or Normal Retirement. |
|  | a) attainment of 66 points or Normal Retirement Date but not yet 85 points. <br> b) after attainment of 85 points. |
| $\begin{aligned} & \frac{\text { POST- }}{\text { DISABILITY }} \\ & \underline{\text { DEATH }} \end{aligned}$ | Participant receiving disability benefit. |
| $\begin{aligned} & \text { POST- } \\ & \text { RETIREMENT } \\ & \underline{\text { DEATH }} \end{aligned}$ | Death of Participant receiving Normal, Early or Vested Benefit. |
| $\begin{aligned} & \text { JOINT AND } \\ & \text { SURVIVOR } \end{aligned}$ | Normal or Early Retirement |

## AMOUNT

Accrued Normal Pension or refund of Employee
Contributions with interest of $5.0 \%$ per annum for less than 5 years of Credited Service.

Refund of Employee Contributions with interest of $5.0 \%$ per annum.

As if Participant elected Joint and $100 \%$ Survivor Pension and died the next day. Not reduced for Early Retirement.

In accordance with option selected by Participant prior to death or as a Joint and 100\% Survivor Pension as stated above if no selection is made.

The excess of the PreRetirement Single Sum Death Benefit at date of disability over the total amount of disability payments received.

In accordance with option selected. Minimum of total contributions accumulated.

Accrued Pension reduced for alternate option.

## FORM

Same as Normal or reduced for Early, if eligible.

Single Lump Sum Death Benefit payable to Named Beneficiary.

Monthly Benefit Payable to Spouse for Life. Spouse may elect Single Lump Sum Death Benefit instead.

Monthly Benefit Payable in the form selected by the Participant prior to death. Spouse may elect Single Lump Sum Death Benefit.

Single sum payment to Designated Beneficiary.

In accordance with option selected.

Joint and Survivor including five year Pop-Up provision.

## SECTION 5 - HISTORY AND PLAN PROVISIONS

## HISTORICAL BENEFIT MODIFICATIONS

Effective Date: December 1, 1985
Effective Date: December 1, 1985

Effective Date: May 19, 1989

Effective Date: January 1, 1992

Effective Date: January 1, 1992

Effective Date: January 1, 1992

Effective Date: January 1, 1992

Effective Date: January 1, 1993

Effective Date: January 1, 1994

Effective Date: January 1, 1995

Effective Date: January 1, 1995

Increase the Minimum Normal Retirement Benefit from $\$ 385$ to $\$ 450$.
Increase the monthly benefit for all retirees receiving benefits as of June 22, 1984 by $\$ 65.00$ adjusted for benefits taken under an alternate form of payment.

Decrease the Employee Contribution Rate from $4.02 \%$ of Compensation to $3.09 \%$ of Compensation. Decrease the Employer Contribution Rate from $7.36 \%$ of Compensation to $5.66 \%$ of Compensation.

Decrease the Employee Contribution Rate from 3.09\% of Compensation to $2.45 \%$ of Compensation. Decrease the Employer Contribution Rate from $5.66 \%$ of Compensation to $4.48 \%$ of Compensation.

Change the benefit formula for all future retirees to be $1.75 \%$ per year for total service less than 25 years and $2.0 \%$ per year for total service 25 years or greater.

Increase the monthly benefit for all retirees receiving a monthly benefit as of January 1,1992 by $5.0 \%$ if the monthly benefit is less than $\$ 500$, by $4.0 \%$ for monthly benefits between $\$ 500$ and $\$ 1,000$ and by $3.0 \%$ for monthly benefits over $\$ 1,000$.

Employees retiring with ten years or more of continuous employment shall have accumulated personal paid time (PPT) and (sick leave) credited as time worked for pension benefit calculations.

Increase the monthly benefit for all retirees receiving a monthly benefit as of January 1,1993 by $5.0 \%$ if the monthly benefit is less than $\$ 500$, by $4.0 \%$ for monthly benefits between $\$ 500$ and $\$ 1,000$ and by $3.0 \%$ for monthly benefits over $\$ 1,000$.

Increase the monthly benefit for all retirees receiving a monthly benefit as of January 1,1994 by $5.0 \%$ if the monthly benefit is less than $\$ 500$, by $4.0 \%$ for monthly benefits between $\$ 500$ and $\$ 1,000$ and by $3.0 \%$ for monthly benefits over $\$ 1,000$.

Increase the monthly benefits beginning January 1, 1995 for all retirees receiving a monthly benefit as of January 1, 1994 by $4.0 \%$ if the monthly benefit is less than $\$ 700$, by $3.0 \%$ for monthly benefits between $\$ 700$ and $\$ 1,400$, and by $2.0 \%$ for monthly benefits over $\$ 1,400$.

Increase the benefit rate for future retirees with more than 31 years of service from $2.0 \%$ to $2.10 \%$

## SECTION 5 - HISTORY AND PLAN PROVISIONS

## HISTORICAL BENEFIT MODIFICATIONS

Effective Date: January 1, 1995

Effective Date: January 1, 1996

Effective Date: January 1, 1997

Effective Date: October 17, 1997

Effective Date: October 17, 1997

Effective Date: January 1, 1998

Effective Date: January 1, 1998

Effective Date: January 1, 1999

Effective Date: January 1, 1999

Effective Date: January 1, 2000

Effective Date: March 26, 2001

Effective Date: March 26, 2001

Reduce the period for determining average compensation from the highest 4 years out of the last 8 to the highest 3 years out of the last 8 .

Increase the monthly benefits for all current retirees as of January 1, 1994 by $4.0 \%$ if the monthly benefit is less than $\$ 700$, by $3.0 \%$ for monthly benefits between $\$ 700$ and $\$ 1,400$, and by $2.0 \%$ for monthly benefits over $\$ 1,400$.

Increase the monthly benefits for all retirees receiving a monthly benefit as of January 1,1994 by $4.0 \%$ if the monthly benefit is less than $\$ 700$, by $3.0 \%$ for monthly benefits between $\$ 700$ and $\$ 1,400$, and by $2.0 \%$ for monthly benefits over $\$ 1,400$.

If the total payments made prior to your demise are less than the value of your accumulated contributions with interest through your date of termination the balance will be paid in a lump sum to your beneficiary.

If you retire and elect a Joint and Survivor benefit form and your spouse dies within two years after you have begun receiving payments your future benefit payments will be increased to the amount you would have received if you had elected a Life Annuity when you retired.

Increase the benefit rate for future retirees with between 25 and 30 years of service from $2.0 \%$ to $2.05 \%$.

Increase the monthly benefit for all retirees receiving benefits as of July 1, 1998 by $3.0 \%$ beginning January 1, 1998.

Increase the monthly benefit for all retirees receiving benefits as of July 1, 1999 by $3.0 \%$ beginning January 1, 1999.

Permit the Employer Contributions of $4.48 \%$ of Payroll to be suspended from January 1, 1999 to June 30, 1999.

Increase the monthly benefit for all retirees receiving benefits as of July 1, 1999 by $3.0 \%$ beginning January 1, 2000.

Increase the benefit rate for future retirees with fewer than 25 years of Credited Service from $1.75 \%$ to $2.0 \%$. Increase the benefit rate for future retirees with 25 or more years of Credited Service from $2.05 \%$ to $2.4 \%$.

Increase the minimum monthly benefit for future retirees with fewer than 25 years of Credited Service from $\$ 450$ to $\$ 650$. Increase the minimum monthly benefit for future retirees with 25 or more years of Credited Service from $\$ 450$ to $\$ 85$ per month per year of Credited Service.

## SECTION 5 - HISTORY AND PLAN PROVISIONS

## HISTORICAL BENEFIT MODIFICATIONS

Effective Date: March 26, 2001

Effective Date: March 26, 2001

Effective Date: March 26, 2001

Effective Date: March 26, 2001

Effective Date: July 2004

Effective Date: August 2005

Effective Date: November, 2006

Effective Date: July 1, 2007

Effective Date: July 1, 2007

Effective Date: January 1, 2009

Effective Date: April 26, 2011

Increase the minimum disability benefit for future disabled retirees from $\$ 450$ to $\$ 1,000$ per month.

All disabled retirees beginning March 26, 2001 will no longer have benefits reduced for workers compensation settlements.

Increase the monthly benefit for all retirees receiving benefits by $5.0 \%$ beginning April 1, 2001, by $2.0 \%$ beginning April 1, 2002 and by $2.0 \%$ beginning April 1, 2003.

Provide each normal, early, or disability retiree and each beneficiary with a $\$ 500$ or $\$ 300$ additional payment respectively for all who are receiving benefits as of March 26, 2001.

Provide each normal, early, or disability retiree who retired before March 26, 2001 with an additional $\$ 500$ payment.

Provide each normal, early, or disability retiree who retired before March 26, 2001 with an additional $\$ 500$ payment.

Provide each normal, early, or disability retiree, with an additional $\$ 700$ payment or an additional $\$ 350$ payment for retirement before or after March 26, 2001.

Increase Temporary Disability to 36 months, eliminate 12 -month, increase Eligibility Requirement for Non-Service-Related Disability to 10 years. Limit Maximum Temporary Disability Benefit to $\$ 1,000$ and $\$ 650$ for Service and Non- Service-Related Disability.

Permit purchase of part-time service at $1 \%$ of Final Average Earnings (up to 3 years) at retirement using partial lump sum distribution for a one time fee of $4 \%$ of FAE.

Increase the Benefit Service Percentage to $2.44 \%$ for 27 years of service, $2.46 \%$ for 28 years of service, $2.48 \%$ for 29 years of service and $2.50 \%$ for 30 years of service.

Increase the Employee Contribution Rate from $2.45 \%$ of Compensation to $4.41 \%$ of Compensation. Increase the Employer Contribution Rate from $4.48 \%$ of Compensation to $8.09 \%$ of Compensation.

## SECTION 6 - ACTUARIAL ASSUMPTIONS

1. Future Rate of Net Investment Return
2. Mortality Rates a. healthy
b. disabled
3. Withdrawal Rates - Sample Rates as shown
4. Disability Rates - Sample Rates as shown
5. Retirement Ages - Sample Rates as shown

Overriding Assumption (sample summary)
$7.5 \%$ compounded annually

RP 2000 Mortality with sex distinct rates and blue collar adjustment projected to 2007
1983 Group Annuity Mortality with sex distinct rates

| Age | Rate |  |  |
| :---: | :---: | :---: | :---: |
|  | $\leq 2$ Years | 2-4 Years | 4+ Years |
| 20 | 16.19\% | 10.86\% | 0.00\% |
| 25 | 19.57\% | 13.11\% | 9.91\% |
| 30 | 16.75\% | 10.39\% | 6.42\% |
| 35 | 15.10\% | 8.43\% | 5.47\% |
| 40 | 14.32\% | 7.92\% | 4.60\% |
| 45 | 13.93\% | 7.24\% | 4.45\% |
| 50 | 14.04\% | 6.81\% | 4.07\% |
| 55 | 12.17\% | 5.98\% | 1.98\% |
| 60 | 12.27\% | 6.00\% | 1.62\% |


| Age | $\underline{\text { Rate }}$ |
| :---: | :---: |
| 20 | $0.08 \%$ |
| 25 | $0.12 \%$ |
| 30 | $0.15 \%$ |
| 35 | $0.20 \%$ |
| 40 | $0.30 \%$ |
| 45 | $0.49 \%$ |
| 50 | $0.83 \%$ |
| 55 | $1.39 \%$ |
| 60 | $2.24 \%$ |
|  |  |
| Age | $\underline{\text { Rate }}$ |
| $52-54$ | $4 \%$ |
| $55-59$ | $6 \%$ |
| 60 | $10 \%$ |
| 61 | $20 \%$ |
| 62 | $50 \%$ |
| $63-64$ | $20 \%$ |
| 65 | $100 \%$ |

$50 \%$ at age 52 and 80 points and 25 years
$60 \%$ at age 58 and 80 points and 27 years
$70 \%$ at age 60 and 80 points and 27 years
$80 \%$ at age 63 and 80 points and 27 years
$100 \%$ at age 56 and 80 points and 30 years
6. Allowance for Administrative Expenses
7. Salary Scale
8. Age of Participants with unrecorded dates of birth
9. Withdrawal Benefit
10. Sick Leave Credits
11. Minimum Compensation
12. Actuarial Value of Assets
13. Asset Valuation Method
14. Actuarial Cost Method
15. Prior Year Pay Adjustment
16. Payroll Growth
17. Data Adjustment
18. Disability Benefit Adjustment
19. Service-related Disabilities Incidence
20. Temporary Disabilities Incidence
$\$ 500,000$.
$2.0 \%$ for 2011, $4.5 \%$ compounded annually thereafter.
Average age of Participants with recorded dates of birth and the same vested status.
$90 \%$ of Employees are assumed to take a refund of contributions with interest; $10 \%$ are assumed to retain a deferred vested benefit if greater.
$1.5 \%$ load of Present Value of Benefits for Actives.

All Participants are assumed to have annualized pay for the prior Plan Year of no less than $\$ 28,000$.

The differences in the expected return and the actual return are spread evenly over 5 years, adjusted if necessary to within $20 \%$ of Market Value.

The Actuarial Value of Assets is used for determining the contribution requirements. The Market Value of Assets is used for measuring the funded status of the Plan.

Entry Age Normal.
Prior Year Pay is increased $3.0 \%$ over the prior Plan Year Pensionable Earnings.

Payroll Growth for amortization purposes is expected to be $3.0 \%$ annually.
$3.0 \%$ load of Present Value of Benefits to account for Data issues and Transfer Liabilities.

Inactive Disability Benefits are increased $9.0 \%$ to account for conversion from Temporary to Total and Permanent Benefits.
$80 \%$ of disablements are assumed to be Service-related.
$20 \%$ of disablements are assumed to be Temporary (i.e., do not extend beyond 36 months).

## SECTION 7 - SUPPLEMENTAL INFORMATION

## PURPOSE OF REPORT

This Actuarial Valuation Report has been prepared for the Trustees as of the beginning of the current plan year. Its primary purpose is to determine and describe the financial status of the pension plan as of the valuation date. Other purposes of the report are to:

1. Determine whether the anticipated contributions for the current plan year are sufficient to fund the Plan;
2. Report on the progress of the funding of accrued benefits;
3. Provide information concerning the plan's Unfunded Vested Benefits (UVB), which are the primary basis for determining the liability in the event of a Plan termination;
4. Disclose certain actuarial information to the fund auditor so that he may comply with the requirements of FASB 35 and other standards of financial accounting;
5. Disclose certain actuarial information to the fund auditor so that he may comply with the requirements of GASB 25, GASB 27, GASB 50 and other standards of governmental accounting;
6. Summarize current plan experience through a series of statistical tables which display census and financial information. A review of such experience over a period of time will be used, in part, to justify changes in actuarial assumptions pertaining to future expected plan experience;
7. Provide enough statistical information and other details to enable other knowledgeable independent persons to determine the reasonableness of the valuation results and the reasonableness of the recommendations made; and
8. Provide a basis for calculating the costs of making any changes in plan provisions.

## SECTION 7 - SUPPLEMENTAL INFORMATION

## ACTUARIAL VALUATION PROCEDURE

The actuarial valuation procedure begins by obtaining census and financial information from the plan administrator. Census information is obtained on current as well as past plan Participants. Each Participant is classified with respect to his status as an "active" or "inactive" plan Participant depending upon evidence of current participation. Each Participant is also classified with respect to his vested status using the eligibility requirements for vesting contained in the Plan.

An accrued or accumulated pension benefit is determined for each individual in accordance with the terms of the pension plan based on service to the valuation date. Future benefit accruals are determined using assumed levels of participation following the valuation date and actuarial assumptions regarding the age at retirement. Projected pension benefits are then determined for each individual. These benefits are the sum of accrued and future pension benefits. Calculations for the ancillary benefits such as disability, termination or death benefits follow the same procedure and take account of the various future payment dates.

An Actuarial Present Value of accrued benefits and projected benefits is calculated for each individual. A present value is the worth, as of the valuation date, of a future benefit or series of benefits based on a particular set of actuarial assumptions.

Actuarial assumptions are assumptions concerning the occurrence of future events affecting pension costs and consider such factors as mortality, withdrawal, disablement and retirement. The future rate of investment return and the value of the pension fund balance are considered as well as other relevant items. In selecting assumptions, the actuary takes account of the actual experience of the covered group to the extent information is available and applicable, but in recognition of the nature of a pension plan, the assumptions must reflect expected long term future trends rather than give undue weight to recent plan experience. Actuarial assumptions reflect the actuary's best judgment of future events affecting plan costs and, in the actuary's opinion, are reasonably related to the experience of the plan in the aggregate and, in combination, represent his best estimate of anticipated experience.

## SECTION 7 - SUPPLEMENTAL INFORMATION

## GLOSSARY

Accrued Vested Benefits - Accrued Vested Benefits are the amounts of Vested Benefits earned to the date as of which the determination is made according to the Plan's vesting schedule based on service earned at that date. The Present Value of Accrued Vested Benefits is determined for purposes of financial reporting.

Accumulated Plan Benefits - Accumulated Plan Benefits are the benefits, whether vested or not, that have been earned by the individuals covered by the Plan to the date as of which the determination is made. The Present Value of Accumulated Plan Benefits, as of the valuation date, is determined for purposes of financial reporting. For that purpose it includes values for any death or disability benefits provided under the plan, even though not yet awarded.

Actuarial Accrued Liability - This entity is computed differently under different Actuarial Cost Methods. Generally, the Actuarial Accrued Liability represents the value of the portion of the Participants' anticipated retirement, termination and/or death and disability benefits accrued as of the valuation date.

Actuarial Assumptions - Actuarial Assumptions are the estimates of future events affecting pension costs. They include projections of mortality, withdrawals, disability, ages at retirement, rates of investment earnings, plan expenses, and other relevant items.

Actuarial Cost Method - The Actuarial Cost Method, sometimes called the "funding method", is a particular technique used by actuaries for establishing the amount of the annual actuarial cost of pension plan benefits (Normal Cost) and the related Unfunded Actuarial Accrued Liability. Ordinarily, the annual contribution to the plan is comprised of: (a) the Normal Cost, plus (b) a payment towards the Unfunded Actuarial Accrued Liability. The number of years from the valuation date until such time as the Actuarial Accrued Liability is fully funded (i.e. until the Unfunded Actuarial Accrued Liability is zero) is called the "funding period" or "amortization period".

Actuarial Gain or Loss - From one plan year to the next, if the experience of the Plan differs from that anticipated by the actuarial assumptions, an actuarial gain or loss occurs. For example, an actuarial gain would occur if the assets in the trust earned $12 \%$ for a year while the assumed rate of return used in the valuation was $6.50 \%$.

Actuarial Value of Assets - Actuarial Value of Assets is the value of cash, investments, and other property belonging to a pension plan, as used by the actuary for the purpose of an actuarial valuation.

Entry Age Normal Actuarial Cost Method - A method under which the Present Value of Future Benefits of each individual included in the actuarial valuation is allocated on a level basis over the earnings of the individual between entry age and the assumed age of benefit commencement. That portion of the Present Value of Future Benefits allocated to the current valuation year is called the Normal Cost. This amount is added along with administrative expenses for the year to the Amortization Payment required to pay off the Unfunded Actuarial Accrued Liability systematically over a fixed period to determine the Total Required Contribution for the Plan Year. The Plan's Actuarial Accrued Liability is equal to the portion of the Present Value of Future Benefits not provided for by the Present Value of Future Normal Costs.

## SECTION 7 - SUPPLEMENTAL INFORMATION

## GLOSSARY

Normal Cost - Computed differently under different Actuarial Cost Methods, the Normal Cost generally represents the value of the portion of the Participants' anticipated retirement, termination and/or death and disability benefits accrued during the current Plan Year.

Participant - A Participant is a person covered by a pension plan in accordance with its terms. "Active Participant" is a Participant who is active in covered employment. "Inactive Participant" is a Participant who is no longer active in covered employment. "Inactive Vested Participant" is an inactive Participant who holds a vested right to a deferred pension. It may also include a pensioner, unless the context indicates otherwise.

Present Value - Present Value is the value of an amount or series of amounts payable or receivable at various times, determined as of a given date by the application of actuarial assumptions. It is a single sum. It reflects the time value of money (through discounts for investment yield) and the probabilities of payment (taking account of death, disability, withdrawal, and age at retirement, etc.).

Present Value of Accumulated Plan Benefits - Computed in accordance with the Financial Accounting Standards Board Statement No. 35, this quantity is determined independently from the plan's actuarial cost method. Basically, this is the present value of a Participant's accrued benefit as of the valuation date, assuming the Participant will earn no more credited service.

Present Value of Future Benefits - The Present Value of Future Benefits is the single sum amount which, if accumulated in a fund in accordance with the Actuarial Assumptions, would be sufficient to pay all benefits expected to be earned by present Participants for past and future service as they fall due. The fund would be exhausted upon disbursement of the last benefit payment.

Rate of Return - Rate of Return is the actual or expected investment income, including interest, dividends, and changes in capital values, as a percentage of a plan's average assets. The rate can be measured on various bases, e.g., an actuarial rate based on the Actuarial Value of Assets; a market rate based on the Market Value of Assets, etc.

Unfunded Actuarial Accrued Liability - An Unfunded Actuarial Accrued Liability is the excess of the Actuarial Accrued Liability over the Actuarial Value of Assets. It is adjusted from year to year to reflect Actuarial Gains or Losses, Plan Amendments, Assumption Changes, and Method Changes.

Vested Benefit - Vested Benefit is an earned benefit that is not cancelled if the Participant suffers a permanent break in service. A Vested Benefit is guaranteed for payment following the Participant's attainment of the Plan's specified retirement age, if the Participant has fulfilled certain conditions (such as meeting the graded 10 year schedule in this Plan). Consistent with the law, the exact requirements for such protection against forfeiture are defined in the Plan.

Sometimes the term "Vested Benefits" is used in the limited sense of "deferred benefits," that is, benefits to which a Participant is entitled, but payment of which will not begin before attainment of a later age. If used in that sense, the context will make it clear.


[^0]:    * The Present Values are calculated using a 7.5\% assumption of net investment return.

[^1]:    * The Annual Required Employer Contribution cannot be less than the amount contributed based on the rate specified in the Plan, $4.48 \%$ until May 2011 then $8.09 \%$. The amount for 2011 is estimated based on Percentage of Payroll and will be revised after the final payroll is determined.

[^2]:    * Financial information was extracted from Audit Reports prepared by Mauldin \& Jenkins, LLC.

[^3]:    * Financial information was extracted from Audit Reports prepared by Mauldin \& Jenkins, LLC.

[^4]:    * Effective January 1, 2009 percentage changes to $2.44 \%$ with 27 years, $2.46 \%$ with 28 years, $2.48 \%$ with 29 years and $2.50 \%$ with 30 or more years.

