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# The Town of Smithfield

## Fire Department Pension Plan

Actuarial Valuation Report

Plan Year July 1, 2015 – June 30, 2016

October 2015

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*Principal, Retirement*

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October 9, 2015

Mr. Randy R. Rossi
Finance Director
Town of Smithfield
64 Farnum Pike
Smithfield, RI 02917

Dear Randy:

Buck Consultants, LLC (Buck) was retained to complete this actuarial valuation of the Town of Smithfield Fire Department Pension Plan. This report presents the results of the valuation for the plan year and the fiscal year ending June 30, 2016, including the recommended contribution.

## Purpose of this Report

The plan sponsor may use this report to determine plan contributions. The report may also be used to prepare the plan's and the plan sponsor's audited financial statements.

Use of this report for any other purpose or by anyone other than the plan sponsor or the auditor may not be appropriate and may result in mistaken conclusions because of failure to understand applicable assumptions, methods, or inapplicability of the report for that purpose. No one may make any representations or warranties based on any statements or conclusions contained in this report without Buck Consultants' written consent.

Future actuarial measurements may differ significantly from current measurements due to plan experience differing from that anticipated by the economic and demographic assumptions, increases or decreases expected as part of the natural operation of the methodology used for these measurements, and changes in plan provisions or applicable law. Buck performed no analysis of the potential range of such future differences other than the sensitivity to possible changes in the discount rate, as an analysis of the potential range of such future differences is beyond the scope of this valuation.

## Recent Guidance

This report reflects information required as part of GASB Statements Nos. 67 and 68, which were issued in 2012. GASB Statement No. 67 applies to fiscal years beginning after June 15, 2013, and GASB Statement No. 68 applies to fiscal years beginning after June 30, 2014.

## Data Used

Buck performed the valuation using participant and financial data supplied by the Town and John Hancock. Buck did not audit the data, although they were reviewed for reasonableness and consistency with the prior year data. The accuracy of the results of the valuation is dependent on the accuracy of the data.

## Actuarial Certification

The plan sponsor selected the assumptions used for the accounting results and funding policy calculations in the report with our advice and are reflected in the experience study performed in May 2015. We believe that these assumptions are reasonable and comply with the requirements of GASB Statements 67 and 68. We prepared this report's accounting exhibits in accordance with the requirements of these standards.

Based on the individually reasonable assumptions used in the preparation of this report, and on the data furnished us, we certify that projection of the costs under this plan has been made using generally accepted actuarial principles and practices, and that our recommended contributions make adequate provision for the funding of future benefits.

The report was prepared under the supervision of David L. Driscoll. We are members of the Society of Actuaries and of the American Academy of Actuaries. We meet the Qualification Standards of the Academy to render the actuarial opinions contained in this report. This report has been prepared in accordance with all applicable Actuarial Standards of Practice, and we are available to answer questions about it.

The Table of Contents, which immediately follows, outlines the material contained in the report.

Respectfully submitted,

BUCK CONSULTANTS, LLC

David L. Driscoll

Jonathan E. Dobbs

David L. Driscoll, FSA, EA, MAAA
Principal, Consulting Actuary

Jonathan E. Dobbs, ASA, EA, MAAA
Director, Retirement Actuary

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cc: Mr. Dennis Finlay

# Table of Contents

# Section 1 – Summary

This report presents the results of the actuarial valuation of the Town of Smithfield Fire Department Pension Plan for the plan year beginning July 1, 2015. In summary, the following is a comparison of the recommended contributions, expenses, assets, liabilities, and participant data for the plan year beginning July 1, 2015, and the prior plan year.

| | 2014 Plan Year | 2015 Plan Year |
|---|---|---|
| Normal Cost | $ 375,878 | $ 293,773 |
| Accrual Rate | 17.14% | 12.96% |
| Valuation Payroll | $ 2,192,989 | $ 2,266,764 |
| Recommended Employer Contributions | | |
| Recommended Employer Contribution | $ 1,336,605 | $ 1,294,057 |
| % of Valuation Payroll | 60.95% | 57.09% |
| Minimum Recommended Employer Contribution | $ 1,105,415 | $ 1,030,435 |
| % of Valuation Payroll | 50.41% | 45.46% |
| Actuarial Value of Assets | $ 19,240,197 | $ 20,259,031 |
| Unfunded Actuarial Accrued Liability | $ 8,505,808 | $ 8,686,072 |
| Present Value of Future Benefits | $ 33,512,555 | $ 33,432,149 |
| | **June 30, 2014** | **June 30, 2015** |
| GASB 67 and 68 Information | | |
| Discount rate | 5.96% | 6.88% |
| Total pension liability | $ 39,211,819 | $ 35,615,775 |
| Fiduciary net position | $ 19,523,856 | $ 20,313,875 |
| Net pension liability | $ 19,687,963 | $ 15,301,900 |
| Pension expense | $ N/A | $ 359,485 |

# Section 1 – Summary (continued)

## Recommended Contribution

The recommended contribution for the 2015 year has been developed using the Frozen Initial Liability Actuarial Cost Method, which develops contributions that are expected to remain approximately level as a percentage of covered pay assuming that actual experience is in line with expected experience.  The net result of 2014 plan experience and assumption changes was a decrease in the normal cost rate, expressed as a percentage of compensation, from 17.14% to 12.96%.

The plan is expected to be funded through Town contributions based on 21.6% of payroll and member contributions of 9% of pay per the current collective bargaining agreement.  The valuation indicates that such contributions will not be sufficient to fund the future benefit accruals and the existing unfunded liability.

Details regarding the recommended contribution are shown in Section 2.

## Plan Assets

John Hancock furnished the financial data.  The actuarial value of plan assets increased from $19,240,197 as of June 30, 2014 to $20,259,031 as of June 30, 2015.

Details regarding plan assets are shown in Section 3, Statement of Fiduciary Net Position.

## Plan Participants

The plan sponsor and John Hancock provided the data concerning plan participants as of the valuation date.

| VALUATION DATE | July 1, 2014 | July 1, 2015 |
|---|---|---|
| Number of Participants | | |
| Active | 44 | 44 |
| Terminated Vested | 4 | 3 |
| Disabled | 5 | 5 |
| Retirees and Beneficiaries | 30 | 30 |
| Total | 83 | 82 |
| Active Participant Demographics (averages) | | |
| Attained Age | 40.8 | 41.8 |
| Hire Age | 27.2 | 27.2 |
| Participation Entry Age | 27.2 | 27.2 |

A reconciliation of the plan participants and a summary of participant characteristics are included in Section 5 of this report.

# Section 1 – Summary (continued)

## Actuarial Assumptions and Methods

The economic and demographic assumptions used in this actuarial valuation are based upon a review of the existing portfolio and current economic conditions as well as the experience study that was performed in 2015 and published in May, 2015.

The basis for the mortality assumption this year has been changed. The mortality rates used for the prior year were based on RP-2000 Mortality Table with projections specified by IRS Regulation 1.430(h)(3)-1, as applicable to the valuation year using a combined static table for both annuitants and non-annuitants. The mortality assumption was changed to: for male annuitants and non-annuitants, 115% of RP-2000 Combined Healthy for Males with White Collar adjustments, projected generationally with Scale AA from 2000, and for female annuitants and non-annuitants, 95% of RP-2000 Combined Healthy for Females with White Collar adjustments, projected generationally with Scale AA from 2000.

In addition, the salary scale assumption has been changed from 5.50% to 4.00%.

The mortality and salary scale changes were made in accordance with the experience study published in May, 2015. These changes decreased the actuarial accrued liability by $371,344.

The discount rate assumption used for GASB 67 and 68 purposes has been changed from 5.96% to 6.88%.

The rest of the actuarial assumptions and methods are the same as those used in the prior actuarial valuation.

Section 6 contains a summary of the actuarial assumptions and methods used in this actuarial valuation.

## Plan Provisions

The actuarial valuation results contained in this report are based on the plan provisions in effect on July 1, 2015. These plan provisions are the same as those used in the prior actuarial valuation. A summary of the plan provisions is in Section 7.

## Plan Experience

Plan experience in the 2014-2015 plan year was more favorable than that anticipated under the funding assumptions used in the valuation, which led to the development of an overall experience gain for the year.

The primary sources of the gain were fewer-than-expected retirements during the year and salary increases that were lower than anticipated. These gains were offset somewhat by losses resulting from fewer-than-expected participant deaths during the year and unfavorable investment experience. The plan experienced a rate of return on the actuarial value of assets of approximately 7.95%, compared to the assumed 8.50%. Thus, the value of the actuarial value of assets at July 1, 2015 is $100,190 lower than expected.

The following table quantifies the various sources of gains and losses.

| Source (positive numbers indicate a gain, negative numbers a loss) | Effect on Employer Liability | Effect on NC Rate |
|---|---|---|
| Demographic | | |
| • Inactive mortality | $ (98,210) | 0.42% |
| • Active mortality | 5,768 | (0.03%) |
| • Retirement | 218,399 | (0.96%) |
| • Termination | (33,164) | 0.15% |
| • Disability | 25,261 | (0.11%) |
| • Other (e.g., data changes) | 58,017 | (0.26%) |
| • Total | $ 176,071 | (0.79%) |
| Salary growth | 136,234 | (0.60%) |
| Investment growth | (100,190) | 0.44% |
| Total experience gain/(loss) | $ 212,115 | (0.95%) |

## Section 2 – Recommended Contribution

| Development of the Unfunded Actuarial Accrued Liability | July 1, 2014 | July 1, 2015 |
|---|---|---|
| 1. Unfunded Actuarial Accrued Liability at beginning of prior year | $ 7,692,955 | $ 8,505,808 |
| 2. Normal Cost for the prior plan year | 593,223 | 375,878 |
| 3. Interest on (1) and (2) to end of plan year | 704,325 | 754,943 |
| 4. Employer Contributions for the prior plan year | (499,542) | (556,062) |
| 5. Interest on Contributions to the end of plan year | (20,798) | (23,151) |
| 6. Additional Unfunded Actuarial Accrued Liability at valuation date due to plan amendment | 0 | 0 |
| 7. Additional Unfunded Actuarial Accrued Liability at valuation date due to assumption changes | 35,645 | (371,344) |
| 8. Additional Unfunded Actuarial Accrued Liability at valuation date due to change in funding method | 0 | 0 |
| 9. Unfunded Actuarial Liability at valuation date: Sum of (1) through (8), not less than zero | $ 8,505,808 | $ 8,686,072 |

| Development of the Normal Cost Under the Frozen Initial Liability Actuarial Cost Method | July 1, 2014 | July 1, 2015 |
|---|---|---|
| 1. Present value of future benefits: | | |
| a. Retired participants and beneficiaries | $ 13,115,557 | $ 13,325,344 |
| b. Non-contributing and terminated participants entitled to deferred vested pensions | 245,648 | 130,256 |
| c. Disabled participants | 2,749,634 | 2,821,856 |
| d. Contributing active participants | 17,401,716 | 17,154,693 |
| e. Total present value of future benefits | $ 33,512,555 | $ 33,432,149 |
| 2. Present value of future employee contributions | $ 1,770,091 | $ 1,781,425 |
| 3. Actuarial value of assets | $ 19,240,197 | $ 20,259,031 |
| 4. Unfunded Actuarial Liability | $ 8,505,808 | $ 8,686,072 |
| 5. Present value of future normal costs (1e) – (2) – (3) – (4) | $ 3,996,459 | $ 2,705,621 |
| 6. Present value of future compensation | $ 23,320,245 | $ 20,870,085 |
| 7. Normal cost accrual rate (5) ÷ (6) | 17.14% | 12.96% |
| 8. Annual covered payroll | $ 2,192,989 | $ 2,266,764 |
| 9. Normal cost (7) × (8) | $ 375,878 | $ 293,773 |

## Section 2 – Recommended Contribution (continued)

| Recommended Employer Contribution | July 1, 2014 | July 1, 2015 |
|---|---|---|
| 1. Normal cost | $ 375,878 | $ 293,773 |
| 2. Expected expenses | $ 19,000 | $ 15,000 |
| 3. 16-year (17 years for prior year) amortization of unfunded actuarial liability | $ 888,304 | $ 933,561 |
| 4. Recommended employer contribution (1.) + (2.) + (3.) | $ 1,283,182 | $ 1,242,334 |
| 5. Adjustment for interest to mid-year | $ 53,423 | $ 51,723 |
| 6. Total recommended employer contribution: (4.) + (5.) | $ 1,336,605 | $ 1,294,057 |

| Minimum Recommended Employer Contribution | July 1, 2014 | July 1, 2015 |
|---|---|---|
| 1. Normal cost | $ 375,878 | $ 293,773 |
| 2. Expected expenses | $ 19,000 | $ 15,000 |
| 3. Interest on unfunded actuarial liability, discounted to beginning of year | $ 666,354 | $ 680,476 |
| 4. Minimum recommended employer contribution (1.) + (2.) + (3.) | $ 1,061,232 | $ 989,249 |
| 5. Adjustment for interest to mid-year | $ 44,183 | $ 41,186 |
| 6. Total minimum recommended employer contribution (4.) + (5.) | $ 1,105,415 | $ 1,030,435 |

| Employee Contributions | July 1, 2014 | July 1, 2015 |
|---|---|---|
| Estimated employee contributions | $ 174,519 | $ 203,004 |

# Section 3 – Statement of Fiduciary Net Position

## Reconciliation of Actuarial Value of Assets

| | IPG Contract | S&P 500 Stock Index Fund 1A | Diversified Stock Fund 1K | Total |
|---|---|---|---|---|
| 1. Assets as of July 1, 2014 | | | | |
| a. Fund assets as of July 1, 2014 | $ 1,175,543 | $ 9,380,188 | $ 8,625,051 | $ 19,180,782 |
| b. Receivables (employer) | 0 | 21,329 | 21,328 | 42,657 |
| c. Receivables (employee) | 0 | 8,379 | 8,379 | 16,758 |
| d. Actuarial Value of assets | $ 1,175,543 | $ 9,409,896 | $ 8,654,758 | $ 19,240,197 |
| 2. Income | | | | |
| a. Employer Contributions | $ 0 | $ 251,496 | $ 251,496 | $ 502,992 |
| b. Employee Contributions | 0 | 110,110 | 110,111 | 220,221 |
| c. Investment Return | 69,419 | 703,435 | 811,629 | 1,584,483 |
| d. Transfers | 1,300,000 | (650,000) | (650,000) | 0 |
| e. Total | $ 1,369,419 | $ 415,041 | $ 523,236 | $ 2,307,696 |
| 3. Expenses | | | | |
| a. Benefit Payments | $ 1,275,432 | $ 0 | $ 0 | $ 1,275,432 |
| b. Administrative Expense | 14,522 | 0 | 0 | 14,522 |
| c. Investment Expense | 0 | 19,781 | 55,383 | 75,164 |
| d. Total | $ 1,289,954 | $ 19,781 | $ 55,383 | $ 1,365,118 |
| 4. Assets as of June 30, 2015 | | | | |
| a. Fund assets (1d. + 2e. - 3d.) | $ 1,255,008 | $ 9,805,156 | $ 9,122,611 | $ 20,182,775 |
| b. Receivables (employer) | 0 | 26,535 | 26,535 | 53,070 |
| c. Receivables (employee) | 0 | 11,593 | 11,593 | 23,186 |
| d. Actuarial Value of assets | $ 1,255,008 | $ 9,843,284 | $ 9,160,739 | $ 20,259,031 |

## Determination of Market Value of Assets

| | IPG Contract Book Value | Market Value Adjustment for IPG | IPG Contract Market Value | Separate Stock Funds | Total Market Value |
|---|---|---|---|---|---|
| | (a) | (b) | (c) = (a) x [1 + (b)] | (d) | (c) + (d) |
| 1. Assets as of July 1, 2014 | $ 1,175,543 | 24.13% | $ 1,459,202 | $18,064,654 | $ 19,523,856 |
| 2. Assets as of July 1, 2015 | $ 1,255,008 | 4.37% | $ 1,309,852 | $19,004,023 | $ 20,313,875 |

# Section 3 – Statement of Fiduciary Net Position (continued)

| Statement of Changes in Fiduciary Net Position | 2015 |
|---|---|
| **Additions** | |
| Contributions | |
| Employer | $ 556,062 |
| Member | 243,407 |
| Total contributions | $ 799,469 |
| Net investment income | 1,280,504 |
| Other | 0 |
| Total additions | $ 2,079,973 |
| **Deductions** | |
| Benefit payments | $ 1,275,432 |
| Administrative expense | 14,522 |
| Other | 0 |
| Total deductions | $ 1,289,954 |
| **Net increase in net position** | $ 790,019 |
| **Net position restricted for pensions** | |
| Beginning of the year | $ 19,523,856 |
| End of the year | $ 20,313,875 |

# Section 4 – GASB 67 and 68 Information (continued)

## A. Summary of Significant Accounting Policies

### Method used to value investments

Investments are reported at fair value.

### Actuarial cost method

Entry age normal, with individual normal costs developed as a level percentage of pay.

## B. Plan Description

### Plan administration

The Town of Smithfield, Rhode Island administers the Town of Smithfield Fire Department Pension Plan (Plan), a single-employer defined benefit pension plan that provides pensions for members of the Fire Department. The plan was closed to new entrants on December 31, 2010.

### Plan membership

At June 30, 2015, pension plan membership consisted of the following:

| Membership Status | Count | Total Expected Future Working Lifetime | Average Expected Future Working Lifetime |
|---|---|---|---|
| Inactive plan members or beneficiaries currently receiving | 35 | 0 | |
| Inactive plan members entitled to but not yet receiving | 3 | 0 | |
| Active plan members | 44 | 443 | |
| Total | 82 | 443 | 5.40 |

### Benefits provided

Please see Section 7 of the report for a summary of plan provisions.

### Contributions

The Town establishes contributions based on an actuarially determined contribution recommended by an independent actuary. The actuarially determined contribution is developed using the Frozen Initial Liability Actuarial Cost Method, which develops contributions that are expected to remain approximately level as a percentage of covered pay assuming that actual experience is in line with expected experience. For the year ended June 30, 2015, the Town contributed $556,062 to the plan.

## C. Investments

### Rate of return

For the year ended June 30, 2015, the annual money-weighted rate of return on pension plan investments, net of pension plan investment expense, was 6.73%. The money-weighted rate of return expresses investment performance, net of investment expense, adjusted for the changing amounts actually invested.

## D. Receivables

Employer and employee contributions made for the month of June that are actually paid in July are counted as receivables for purposes of this valuation.

## Section 4 – GASB 67 and 68 Information (continued)

### E. Net Pension Liability

The components of the net pension liability at June 30, 2015, were as follows:

| Components of Net Pension Liability | |
|---|---|
| Total pension liability | $ 35,615,775 |
| Plan fiduciary net position | (20,313,875) |
| Net pension liability | $ 15,301,900 |
| Plan fiduciary net position as a percentage of the total pension liability | 57.04% |

### F. Pension Expense as of June 30, 2015

| Pension Expense | Fiscal Year Ending June 30, 2015 |
|---|---|
| Service Cost | $ 824,891 |
| Interest Cost on Total Pension Liability | 2,348,730 |
| Differences between Expected and Actual Experience | (17,780) |
| Changes of Assumptions | (1,000,084) |
| Contributions-Member | (243,407) |
| Projected Earnings on Plan Investments | (1,639,108) |
| Differences between Projected and Actual Earnings | 71,721 |
| Administrative Expenses | 14,522 |
| Other | 0 |
| Total Pension Expense | $ 359,485 |

The difference between projected and actual investment earnings is recognized over five years, in accordance with the provisions of GASB 68. Differences due to assumption changes and experience are amortized over the expected future working lifetime of all participants which is 5.40 years.

### G. Actuarial assumptions

The total pension liability was determined by an actuarial valuation as of June 30, 2015, using the following actuarial assumptions, applied to all periods included in the measurement:

| Actuarial Assumptions | |
|---|---|
| Inflation | 3.00% |
| Salary increases | 4.00% (changed from 5.50% for the prior year) |
| Investment rate of return | 8.50%, net of pension plan investment expenses. This is based on an average inflation rate of 3.00% and a real rate of return of 5.50%. |

The mortality assumption was changed to: for male annuitants and non-annuitants, 115% of RP-2000 Combined Healthy for Males with White Collar adjustments, projected generationally with Scale AA from 2000, and for female annuitants and non-annuitants, 95% of RP-2000 Combined Healthy for Females with White Collar adjustments, projected generationally with Scale AA from 2000.

The long-term expected rate of return on pension plan investments was determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of pension plan investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. Best estimates of arithmetic rates of return for each major asset class included in the pension plan's target asset allocation as of June 30, 2015 are summarized in the following table (note that the rates shown below include the inflation component):

| Asset Class | Long-Term Expected Rate of Return |
|---|---|
| Domestic equity | 12.2% |
| International equity | 10.5% |
| Fixed income | 5.7% |
| Real estate | 9.9% |
| Cash | 4.1% |

### Discount rate

The discount rate used to measure the total pension liability was 6.88%. The projection of cash flows used to determine the discount rate assumed that Town contributions will continue to follow the pattern of contributions observed over the last five years. During that period, the Town contributed 36.0% of the cumulative recommended contribution level. Accordingly, the fiduciary net position was projected assuming that 36.0% of future recommended contribution levels will be contributed. Based on those assumptions, the pension plan's fiduciary net position was projected to be available to make all projected future benefit payments of current plan members until the year 2058. A municipal bond rate of 3.73% was used in the development of the blended GASB discount rate after that point. The 3.73% rate is based on the S&P Municipal Bond 20 Year High Grade Rate Index. Based on the long-term rate of return of 8.50% and the municipal bond rate of 3.73%, the blended GASB discount rate is 6.88%.

### Sensitivity of the net pension liability to changes in the discount rate

The following presents the net pension liability, calculated using the discount rate of 6.88%, as well as what the Town's net pension liability would be if it were calculated using a discount rate that is 1-percentage-point lower (5.88%) or 1-percentage-point higher (7.88%) than the current rate:

| | 1% Decrease (5.88%) | Current Discount Rate (6.88%) | 1% Increase (7.88%) |
|---|---|---|---|
| Net Pension Liability | $20,818,610 | $ 15,301,900 | $10,886,390 |

# Section 4 – GASB 67 and 68 Information (continued)

## Schedules of Required Supplementary Information

## Schedule of Changes in Town's Net Pension Liability and Related Ratios

| | 2015 |
|---|---|
| **Total pension liability** | |
| Service cost | $ 824,891 |
| Interest | 2,348,730 |
| Changes of benefit terms | 0 |
| Changes of assumptions | (5,398,258) |
| Differences between expected and actual experience | (95,975) |
| Benefit payments | (1,275,432) |
| Net change in total pension liability | $ (3,596,044) |
| Total pension liability-beginning | $ 39,211,819 |
| Total pension liability-ending (a) | $ 35,615,775 |
| **Plan fiduciary net pension** | |
| Contributions-employer | $ 556,062 |
| Contributions-employee | 243,407 |
| Net investment income | 1,280,504 |
| Benefit payments, including refunds of employee contributions | (1,275,432) |
| Administrative expense | (14,522) |
| Other | 0 |
| Net change in plan fiduciary net position | $ 790,019 |
| Plan fiduciary net position-beginning | $ 19,523,856 |
| Plan fiduciary net position-ending (b) | $ 20,313,875 |
| Net pension liability-ending (a)-(b) | $ 15,301,900 |
| Plan fiduciary net position as a percentage of the total pension liability | 57.04% |
| Covered-employee payroll | $ 2,266,764 |
| Net pension liability as a percentage of covered-employee payroll | 675.05% |

### Notes to Schedule:

**A. Benefit changes**

None.

# Section 4 – GASB 67 and 68 Information (continued)

### B. Changes of assumptions

In 2015, amounts reported as changes of assumptions resulted from 1) the change in discount rate from 5.96% to 6.88%, 2) the change in the salary increase assumption from 5.50% to 4.00%, and 3) the change in the mortality assumption. The mortality rates used for the prior year were based on RP-2000 Mortality Table with projections specified by IRS Regulation 1.430(h)(3)-1, as applicable to the valuation year using a combined static table for both annuitants and non-annuitants. The mortality assumption was changed to: for male annuitants, 115% of RP-2000 Combined Healthy for Males with White Collar adjustments, projected generationally with Scale AA from 2000, and for female annuitants, 95% of RP-2000 Combined Healthy for Females with White Collar adjustments, projected generationally with Scale AA from 2000. The mortality and salary scale changes were made in accordance with the experience study performed in 2015 and published in May, 2015.

## Schedules of Required Supplementary Information (continued)

## Schedule of Town Contributions

| | 2015 |
|---|---|
| Actuarially determined contribution | $ 1,336,605 |
| Contributions related to the actuarially determined contribution | 556,062 |
| Contribution deficiency (excess) | $ 780,543 |

### Notes to Schedule:

### A. Valuation date

Actuarially determined contribution rates are calculated as of July 1, in the fiscal year in which contributions are reported. That is, the contribution calculated as of July 1, 2015 will be made during the fiscal year ended June 30, 2016.

### B. Methods and assumptions used to determine contribution rates:

Actuarial cost method

Frozen Initial Liability

Amortization method

Level dollar

Amortization period

20 years beginning in 2011

Asset valuation method

The book value of the IPG assets and the market value of all other assets.

Inflation

3.00% per annum.

Salary increases

4.00% per annum.

Investment rate of return

8.50%, net of pension plan investment expenses. This is based on an average inflation rate of 3.00% and a real rate of return of 5.50%.

Retirement age

25% assumed to retire upon the attainment of 20 years of service and the remainder at 25 years.

## Section 4 – GASB 67 and 68 Information (continued)

### Mortality

For male annuitants and non-annuitants, 115% of RP-2000 Combined Healthy for Males with White Collar adjustments, projected generationally with Scale AA from 2000, and for female annuitants and non-annuitants, 95% of RP-2000 Combined Healthy for Females with White Collar adjustments, projected generationally with Scale AA from 2000.

### Other information

Please see Section 7 of the report.

### Schedule of Investment Returns

| | 2015 |
|---|---|
| Annual money-weighted rate of return, net of investment expenses | 6.73% |

# Section 4 – GASB 67 and 68 Information (continued)

### Table 1 – Projection of Fiduciary Net Position (000's omitted)

| Fiscal Year Ending 6/30 | Beginning Fiduciary Net Position | Member Contributions | Employer Contributions | Benefit Payments | Administrative Expenses | Investment Earnings | Ending Fiduciary Net Position |
|---|---|---|---|---|---|---|---|
| 2016 | $ 20,314 | $ 203 | $ 466 | $ 1,625 | $ 15 | $ 1,682 | $ 21,025 |
| 2017 | 21,025 | 208 | 505 | 1,677 | 16 | 1,738 | 21,785 |
| 2018 | 21,785 | 206 | 544 | 1,770 | 16 | 1,797 | 22,545 |
| 2019 | 22,545 | 202 | 588 | 1,868 | 17 | 1,858 | 23,308 |
| 2020 | 23,308 | 207 | 640 | 1,919 | 17 | 1,923 | 24,142 |
| 2021 | 24,142 | 213 | 703 | 1,960 | 18 | 1,997 | 25,077 |
| 2022 | 25,077 | 214 | 771 | 2,042 | 18 | 2,078 | 26,080 |
| 2023 | 26,080 | 212 | 852 | 2,135 | 19 | 2,166 | 27,156 |
| 2024 | 27,156 | 201 | 944 | 2,287 | 19 | 2,257 | 28,250 |
| 2025 | 28,250 | 201 | 1,060 | 2,368 | 20 | 2,353 | 29,476 |
| 2026 | 29,476 | 201 | 1,211 | 2,447 | 20 | 2,461 | 30,882 |
| 2027 | 30,882 | 191 | 1,403 | 2,593 | 21 | 2,582 | 32,444 |
| 2028 | 32,444 | 174 | 1,669 | 2,773 | 22 | 2,718 | 34,210 |
| 2029 | 34,210 | 138 | 2,066 | 3,092 | 22 | 2,870 | 36,171 |
| 2030 | 36,171 | 132 | 2,809 | 3,191 | 23 | 3,063 | 38,961 |
| 2031 | 38,961 | 100 | 4,741 | 3,469 | 24 | 3,368 | 43,676 |
| 2032 | 43,676 | 59 | 37 | 3,798 | 24 | 3,557 | 43,509 |
| 2033 | 43,509 | 34 | 22 | 4,027 | 25 | 3,532 | 43,045 |
| 2034 | 43,045 | 23 | 14 | 4,164 | 26 | 3,486 | 42,377 |
| 2035 | 42,377 | 12 | 10 | 4,295 | 26 | 3,423 | 41,501 |
| 2036 | 41,501 | 6 | 10 | 4,390 | 27 | 3,344 | 40,445 |
| 2037 | 40,445 | 0 | 566 | 4,487 | 28 | 3,273 | 39,769 |
| 2038 | 39,769 | 0 | 590 | 4,542 | 29 | 3,215 | 39,003 |
| 2039 | 39,003 | 0 | 614 | 4,592 | 30 | 3,148 | 38,144 |
| 2040 | 38,144 | 0 | 640 | 4,638 | 31 | 3,074 | 37,189 |

## Section 4 – GASB 67 and 68 Information (continued)

### Table 1 – Projection of Fiduciary Net Position (000’s omitted)

| Fiscal Year Ending 6/30 | Beginning Fiduciary Net Position | Member Contributions | Employer Contributions | Benefit Payments | Administrative Expenses | Investment Earnings | Ending Fiduciary Net Position |
|---|---|---|---|---|---|---|---|
| 2041 | 37,189 | 0 | 666 | 4,684 | 32 | 2,992 | 36,132 |
| 2042 | 36,132 | 0 | 694 | 4,723 | 33 | 2,902 | 34,972 |
| 2043 | 34,972 | 0 | 722 | 4,757 | 34 | 2,803 | 33,706 |
| 2044 | 33,706 | 0 | 752 | 4,787 | 35 | 2,696 | 32,332 |
| 2045 | 32,332 | 0 | 783 | 4,812 | 36 | 2,579 | 30,846 |
| 2046 | 30,846 | 0 | 816 | 4,897 | 37 | 2,450 | 29,178 |
| 2047 | 29,178 | 0 | 849 | 4,841 | 38 | 2,312 | 27,461 |
| 2048 | 27,461 | 0 | 885 | 4,845 | 39 | 2,168 | 25,630 |
| 2049 | 25,630 | 0 | 921 | 4,841 | 40 | 2,014 | 23,684 |
| 2050 | 23,684 | 0 | 959 | 4,829 | 41 | 1,850 | 21,624 |
| 2051 | 21,624 | 0 | 999 | 4,808 | 42 | 1,678 | 19,451 |
| 2052 | 19,451 | 0 | 1,041 | 4,777 | 44 | 1,496 | 17,166 |
| 2053 | 17,166 | 0 | 1,084 | 4,737 | 45 | 1,305 | 14,774 |
| 2054 | 14,774 | 0 | 1,129 | 4,686 | 46 | 1,106 | 12,276 |
| 2055 | 12,276 | 0 | 1,176 | 4,626 | 48 | 898 | 9,676 |
| 2056 | 9,676 | 0 | 1,225 | 4,556 | 49 | 682 | 6,978 |
| 2057 | 6,978 | 0 | 1,277 | 4,477 | 51 | 458 | 4,184 |
| 2058 | 4,184 | 0 | 1,330 | 4,389 | 52 | 226 | 1,299 |
| 2059 | 1,299 | 0 | 1,386 | 4,291 | 54 | 12 | 0 |
| 2060 | 0 | 0 | 1,374 | 4,184 | 55 | 0 | 0 |
| 2061 | 0 | 0 | 1,307 | 4,068 | 57 | 0 | 0 |
| 2062 | 0 | 0 | 1,240 | 3,943 | 59 | 0 | 0 |
| 2063 | 0 | 0 | 1,172 | 3,809 | 61 | 0 | 0 |
| 2064 | 0 | 0 | 1,104 | 3,670 | 62 | 0 | 0 |
| 2065 | 0 | 0 | 1,037 | 3,525 | 64 | 0 | 0 |

# Section 4 – GASB 67 and 68 Information (continued)

### Table 1 – Projection of Fiduciary Net Position (000's omitted)

| Fiscal Year Ending 6/30 | Beginning Fiduciary Net Position | Member Contributions | Employer Contributions | Benefit Payments | Administrative Expenses | Investment Earnings | Ending Fiduciary Net Position |
|---|---|---|---|---|---|---|---|
| 2066 | 0 | 0 | 970 | 3,374 | 66 | 0 | 0 |
| 2067 | 0 | 0 | 904 | 3,218 | 68 | 0 | 0 |
| 2068 | 0 | 0 | 839 | 3,058 | 70 | 0 | 0 |
| 2069 | 0 | 0 | 776 | 2,895 | 72 | 0 | 0 |
| 2070 | 0 | 0 | 714 | 2,727 | 75 | 0 | 0 |
| 2071 | 0 | 0 | 654 | 2,558 | 77 | 0 | 0 |
| 2072 | 0 | 0 | 597 | 2,387 | 79 | 0 | 0 |
| 2073 | 0 | 0 | 541 | 2,216 | 81 | 0 | 0 |

# Section 4 – GASB 67 and 68 Information (continued)

### Table 2 – Actuarial Present Values of Projected Benefit Payments (000's omitted)

| | | | Benefit Payments | | Present Value of Benefit Payments | | |
|---|---|---|---|---|---|---|---|
| Fiscal Year Ending 6/30 | Beginning Fiduciary Net Position | Benefit Payments | Funded Portion | Unfunded Portion | Funded Portion at 8.50% | Unfunded Portion at 3.73% | Using a Single Discount Rate of 6.88% |
| 2016 | 20,314 | 1,625 | 1,625 | 0 | 1,560 | 0 | 1,571 |
| 2017 | 21,025 | 1,677 | 1,677 | 0 | 1,484 | 0 | 1,517 |
| 2018 | 21,785 | 1,770 | 1,770 | 0 | 1,443 | 0 | 1,499 |
| 2019 | 22,545 | 1,868 | 1,868 | 0 | 1,404 | 0 | 1,480 |
| 2020 | 23,308 | 1,919 | 1,919 | 0 | 1,329 | 0 | 1,422 |
| 2021 | 24,142 | 1,960 | 1,960 | 0 | 1,251 | 0 | 1,359 |
| 2022 | 25,077 | 2,042 | 2,042 | 0 | 1,201 | 0 | 1,325 |
| 2023 | 26,080 | 2,135 | 2,135 | 0 | 1,158 | 0 | 1,296 |
| 2024 | 27,156 | 2,287 | 2,287 | 0 | 1,143 | 0 | 1,299 |
| 2025 | 28,250 | 2,368 | 2,368 | 0 | 1,091 | 0 | 1,258 |
| 2026 | 29,476 | 2,447 | 2,447 | 0 | 1,039 | 0 | 1,217 |
| 2027 | 30,882 | 2,593 | 2,593 | 0 | 1,015 | 0 | 1,206 |
| 2028 | 32,444 | 2,773 | 2,773 | 0 | 1,000 | 0 | 1,207 |
| 2029 | 34,210 | 3,092 | 3,092 | 0 | 1,028 | 0 | 1,259 |
| 2030 | 36,171 | 3,191 | 3,191 | 0 | 978 | 0 | 1,216 |
| 2031 | 38,961 | 3,469 | 3,469 | 0 | 980 | 0 | 1,237 |
| 2032 | 43,676 | 3,798 | 3,798 | 0 | 988 | 0 | 1,267 |
| 2033 | 43,509 | 4,027 | 4,027 | 0 | 966 | 0 | 1,257 |
| 2034 | 43,045 | 4,164 | 4,164 | 0 | 921 | 0 | 1,216 |
| 2035 | 42,377 | 4,295 | 4,295 | 0 | 875 | 0 | 1,173 |
| 2036 | 41,501 | 4,390 | 4,390 | 0 | 824 | 0 | 1,122 |
| 2037 | 40,445 | 4,487 | 4,487 | 0 | 777 | 0 | 1,073 |
| 2038 | 39,769 | 4,542 | 4,542 | 0 | 725 | 0 | 1,016 |

## Section 4 – GASB 67 and 68 Information (continued)

### Table 2 – Actuarial Present Values of Projected Benefit Payments (000's omitted)

| | | | Benefit Payments | | Present Value of Benefit Payments | | |
|---|---|---|---|---|---|---|---|
| Fiscal Year Ending 6/30 | Beginning Fiduciary Net Position | Benefit Payments | Funded Portion | Unfunded Portion | Funded Portion at 8.50% | Unfunded Portion at 3.73% | Using a Single Discount Rate of 6.88% |
| 2039 | 39,003 | 4,592 | 4,592 | 0 | 675 | 0 | 961 |
| 2040 | 38,144 | 4,638 | 4,638 | 0 | 628 | 0 | 909 |
| 2041 | 37,189 | 4,684 | 4,684 | 0 | 585 | 0 | 858 |
| 2042 | 36,132 | 4,723 | 4,723 | 0 | 544 | 0 | 810 |
| 2043 | 34,972 | 4,757 | 4,757 | 0 | 505 | 0 | 763 |
| 2044 | 33,706 | 4,787 | 4,787 | 0 | 468 | 0 | 719 |
| 2045 | 32,332 | 4,812 | 4,812 | 0 | 434 | 0 | 676 |
| 2046 | 30,846 | 4,897 | 4,897 | 0 | 407 | 0 | 644 |
| 2047 | 29,178 | 4,841 | 4,841 | 0 | 371 | 0 | 595 |
| 2048 | 27,461 | 4,845 | 4,845 | 0 | 342 | 0 | 557 |
| 2049 | 25,630 | 4,841 | 4,841 | 0 | 315 | 0 | 521 |
| 2050 | 23,684 | 4,829 | 4,829 | 0 | 289 | 0 | 486 |
| 2051 | 21,624 | 4,808 | 4,808 | 0 | 266 | 0 | 453 |
| 2052 | 19,451 | 4,777 | 4,777 | 0 | 243 | 0 | 421 |
| 2053 | 17,166 | 4,737 | 4,737 | 0 | 222 | 0 | 391 |
| 2054 | 14,774 | 4,686 | 4,686 | 0 | 203 | 0 | 362 |
| 2055 | 12,276 | 4,626 | 4,626 | 0 | 184 | 0 | 334 |
| 2056 | 9,676 | 4,556 | 4,556 | 0 | 167 | 0 | 308 |
| 2057 | 6,978 | 4,477 | 4,477 | 0 | 152 | 0 | 283 |
| 2058 | 4,184 | 4,389 | 0 | 4,389 | 0 | 926 | 260 |
| 2059 | 1,299 | 4,291 | 0 | 4,291 | 0 | 872 | 237 |
| 2060 | 0 | 4,184 | 0 | 4,184 | 0 | 820 | 217 |
| 2061 | 0 | 4,068 | 0 | 4,068 | 0 | 769 | 197 |

## Section 4 – GASB 67 and 68 Information (continued)

### Table 2 – Actuarial Present Values of Projected Benefit Payments (000's omitted)

| | | | Benefit Payments | | Present Value of Benefit Payments | | |
|---|---|---|---|---|---|---|---|
| Fiscal Year Ending 6/30 | Beginning Fiduciary Net Position | Benefit Payments | Funded Portion | Unfunded Portion | Funded Portion at 8.50% | Unfunded Portion at 3.73% | Using a Single Discount Rate of 6.88% |
| 2062 | 0 | 3,943 | 0 | 3,943 | 0 | 718 | 179 |
| 2063 | 0 | 3,809 | 0 | 3,809 | 0 | 669 | 162 |
| 2064 | 0 | 3,670 | 0 | 3,670 | 0 | 621 | 146 |
| 2065 | 0 | 3,525 | 0 | 3,525 | 0 | 575 | 131 |
| 2066 | 0 | 3,374 | 0 | 3,374 | 0 | 531 | 117 |
| 2067 | 0 | 3,218 | 0 | 3,218 | 0 | 488 | 105 |
| 2068 | 0 | 3,058 | 0 | 3,058 | 0 | 447 | 93 |
| 2069 | 0 | 2,895 | 0 | 2,895 | 0 | 408 | 82 |
| 2070 | 0 | 2,727 | 0 | 2,727 | 0 | 371 | 73 |
| 2071 | 0 | 2,558 | 0 | 2,558 | 0 | 335 | 64 |
| 2072 | 0 | 2,387 | 0 | 2,387 | 0 | 302 | 56 |
| 2073 | 0 | 2,216 | 0 | 2,216 | 0 | 270 | 48 |

# Section 5 – Plan Participant Data

## A. Reconciliation of Participant Data

| | Actives | Terminated Vesteds | Retirees and Beneficiaries | Disabled Participants | Total |
|---|---|---|---|---|---|
| Participants as of July 1, 2014 | 44 | 4 | 30 | 5 | 83 |
| New entrants | 0 | 0 | 0 | 0 | 0 |
| Rehires | 0 | 0 | 0 | 0 | 0 |
| Vested terminations | 0 | 0 | 0 | 0 | 0 |
| Non-vested terminations | 0 | 0 | 0 | 0 | 0 |
| Lump sum distributions | 0 | (1) | 0 | 0 | (1) |
| Retirements | 0 | 0 | 0 | 0 | 0 |
| Deaths | 0 | 0 | 0 | 0 | 0 |
| New beneficiaries | 0 | 0 | 0 | 0 | 0 |
| New alternate payees per QDRO | 0 | 0 | 0 | 0 | 0 |
| Benefits expired | 0 | 0 | 0 | 0 | 0 |
| Data corrections | 0 | 0 | 0 | 0 | 0 |
| Participants as of July 1, 2015 | 44 | 3 | 30 | 5 | 82 |

## B. Inactive Participant Statistics – Average Annual Benefits

| | July 1, 2014 | July 1, 2015 |
|---|---|---|
| Terminated Vested Participants[1] | $ 14,084 | $ 11,295 |
| Retirees | $ 41,875 | $ 43,154 |
| Beneficiaries | $ 12,169 | $ 12, 374 |
| Disabled Participants | $ 38,281 | $ 39,430 |

[1] Stated average for 2014 is for two participants entitled to annuity benefits in the future and for 2015 is for one participant entitled to annuity benefits in the future. There are two others in 2014 and in 2015 who are entitled only to a refund of employee contributions.

# Section 6 – Actuarial Assumptions and Methods

## Actuarial Assumptions

### Interest rate for funding

8.50% per annum.

### Interest rate for accounting

6.88% per year, compounded annually. Projected benefit payments that are expected to be paid from available plan assets are discounted at the valuation interest rate of 8.50%. After the point where plan assets are not available to pay benefits, projected benefit payments are discounted at the municipal bond rate. The valuation rate for accounting purposes is the effective rate resulting from this process.

### Municipal bond rate

3.73%. This rate is based on the S&P Municipal Bond 20 Year High Grade Rate Index.

### Salary increases

4.00% per annum.

### Mortality

For male annuitants, 115% of RP-2000 Combined Healthy for Males with White Collar adjustments, projected generationally with Scale AA from 2000, and for female annuitants, 95% of RP-2000 Combined Healthy for Females with White Collar adjustments, projected generationally with Scale AA from 2000.

### Withdrawal

50% of Sarason Table T-1

### Disability

200% of United Auto Workers 1955 Table. All disablements assumed to be duty-related.

### Loading for expenses

Prior year's administrative expenses increased by 4%, rounded to the nearest thousand

### Retirement age

25% assumed to retire upon the attainment of 20 years of service and the remainder at 25 years.

### Asset valuation method

For purposes of determining the recommended contribution level, the actuarial value of assets consists of the book value of the IPG assets and the market value of all other assets.

For accounting purposes, the fair value of assets is used.

### Form of payment

Joint and 67.5% survivor annuity.

### Married participants

90% of males and 75% of females are married, with males four years older than their female spouse.

# Section 6 – Actuarial Assumptions and Methods

## Changes from prior valuation

The mortality assumption was changed to: for male annuitants, 115% of RP-2000 Combined Healthy for Males with White Collar adjustments, projected generationally with Scale AA from 2000, and for female annuitants, 95% of RP-2000 Combined Healthy for Females with White Collar adjustments, projected generationally with Scale AA from 2000. This change was made in accordance with the experience study performed in 2015 and published in May, 2015.

The salary scale assumption was changed from 5.50% to 4.00% in accordance with the experience study published in May, 2015.

## Actuarial Cost Method

For purposes of determining the recommended contribution level, the Frozen Initial Liability is used.

The Entry Age Normal method is required to be used for GASB accounting results.

### Normal Cost

At each valuation date the excess of the Actuarial Present Value of Projected Benefits of eligible employees over the sum of the Actuarial Value of Assets plus the Unfunded Actuarial Accrued Liability, is allocated on a level basis over the compensation of active employees between the valuation date and the assumed date they leave active employment.  This allocation by year is performed for the group as a whole, not as a sum of individual allocations.  The Initial Actuarial Accrued Liability is determined using the Entry Age Normal Actuarial Cost Method.  The portion of the Actuarial Present Value allocated to a valuation year is called the Normal Cost.

### Unfunded Actuarial Accrued Liability

The Unfunded Actuarial Accrued Liability at plan inception, and each subsequent increase or decrease in the Unfunded Actuarial Accrued Liability, is determined using the Entry Age Normal Actuarial Cost Method.

Under the Entry Age Normal Actuarial Cost Method, the Actuarial Present Value of the Projected Benefits of each individual included in an Actuarial Valuation is allocated as a level percent of compensation between date of hire and assumed date they cease active employment.  The portion of this Actuarial Present Value not provided for at the valuation date by the Actuarial Present Value of Future Entry Age Normal Cost is called the Accrued Liability.

# Section 7 – Summary of Plan Provisions

### Eligibility

Plan participation commences on the first day of the month following the date the employee is hired. Employees hired after January 1, 2011 will not be eligible to participate in this plan.

### Final Average Salary

Average annual salary for the three consecutive years producing the highest such average in the last ten years preceding Normal Retirement Date. Includes base pay only.

### Normal Retirement

#### Eligibility

The first day of the month coincident with or next following the earlier of the attainment of age 65 or completion of 20 years of service.

#### Benefit

(a) plus (b), but not more than (c), where:

- (a) 2.5% of Final Average Salary multiplied by service up to 20 years
- (b) 2.0% of Final Average Salary multiplied by service in excess of 20 years
- (c) 75% of Final Average Salary

### Late Retirement

#### Eligibility

Continued employment beyond normal retirement date.

#### Benefit

Accrued benefit at late retirement date.

### Disability Benefit

#### Eligibility

Completion of seven years of service, if the total and permanent disability is not due to occupational causes. If the participant becomes totally and permanently disabled due to occupational causes, no age or service requirement applies.

#### Benefit

If disability is not due to occupational causes, the benefit is 50% of Final Average Salary. Benefit is adjusted to the accrued benefit once the Normal Retirement Date is reached.

If disability is due to occupational causes, the benefit is 66-2/3% of Final Average Salary. Benefit is not adjusted at Normal Retirement Date.

### Pre-Retirement Spouse's Benefit

#### Eligibility

Death occurs while employee is still in the service of the employer.

#### Benefit

40% of Final Average Salary to the surviving spouse plus 10% of Final Average Salary for any dependent children under age 18, with a maximum of 50% of Final Average Salary. If no spouse, 15% of Final Average Salary for each dependent child under age 18 with maximum of 45% of Final Average Salary.

### Lump Sum Death Benefit

Active or disabled employees: greater of

(a) accumulated contributions or

(b) $400 times years of service (minimum $2,000, maximum $8,000)

Retired employees who were active or disabled immediately prior to retirement: greater of

(a) excess of accumulated contributions over benefits received, or

(b) $400 times years of service (minimum $2,000, maximum $8,000), reduced 25% per year retired, but not less than $2,000.

Terminated vested employees (Pre- and post-retirement): accumulated contributions in excess of benefits received.

### Vesting

100% vested upon the completion of ten years of service.

### Employee Contributions

9% of annual base earnings, not including overtime pay.

Employee contributions for all participants are credited with interest at the rate of 5.50% per year.

### Normal Form of Payment

Contingent annuitant form, which provides continuation to surviving spouses at 67½% of the original annuity amount. This benefit is fully subsidized, so there is no reduction to the initial amount to reflect this coverage. Applies to Disability as well as Retirement benefits.

### Cost-of-Living Adjustments

Employees retiring or becoming disabled after July 1, 1988 shall receive an increase of 3% in their benefit on each anniversary date of retirement. Pre-retirement survivor beneficiaries are eligible for these increases also.

# Section 8 – Deferred Outflows/Inflows

| Schedule of Difference Between Actual and Expected Experience | | Outflows | Inflows | Total |
|---|---|---|---|---|
| Measurement Year: | 2015 | | | |
| Amount Established: | (95,975) | | | |
| Recognition Period: | 5.40 | | | |
| Annual Recognition: | (17,780) | | | |
| Amount Recognized | | | | |
| 2015 | (17,780) | 0 | (17,780) | (17,780) |
| 2016 | (17,780) | 0 | (17,780) | (17,780) |
| 2017 | (17,780) | 0 | (17,780) | (17,780) |
| 2018 | (17,780) | 0 | (17,780) | (17,780) |
| 2019 | (17,780) | 0 | (17,780) | (17,780) |
| 2020 | (7,075) | 0 | (7,075) | (7,075) |
| 2021 | 0 | 0 | 0 | 0 |
| 2022 | 0 | 0 | 0 | 0 |
| 2023 | 0 | 0 | 0 | 0 |
| 2024 | 0 | 0 | 0 | 0 |
| 2025 | 0 | 0 | 0 | 0 |
| 2026 | 0 | 0 | 0 | 0 |
| 2027 | 0 | 0 | 0 | 0 |
| Deferred Balance | | | | |
| 2015 | (78,195) | 0 | (78,195) | (78,195) |
| 2016 | (60,415) | 0 | (60,415) | (60,415) |
| 2017 | (42,635) | 0 | (42,635) | (42,635) |
| 2018 | (24,855) | 0 | (24,855) | (24,855) |
| 2019 | (7,075) | 0 | (7,075) | (7,075) |
| 2020 | 0 | 0 | 0 | 0 |
| 2021 | 0 | 0 | 0 | 0 |
| 2022 | 0 | 0 | 0 | 0 |
| 2023 | 0 | 0 | 0 | 0 |
| 2024 | 0 | 0 | 0 | 0 |
| 2025 | 0 | 0 | 0 | 0 |
| 2026 | 0 | 0 | 0 | 0 |
| 2027 | 0 | 0 | 0 | 0 |

# Section 8 – Deferred Outflows/Inflows

| Schedule of Changes in Assumptions | | Outflows | Inflows | Total |
|---|---|---|---|---|
| Measurement Year: | 2015 | | | |
| Amount Established: | (5,398,258) | | | |
| Recognition Period: | 5.40 | | | |
| Annual Recognition: | (1,000,084) | | | |
| Amount Recognized | | | | |
| 2015 | (1,000,084) | 0 | (1,000,084) | (1,000,084) |
| 2016 | (1,000,084) | 0 | (1,000,084) | (1,000,084) |
| 2017 | (1,000,084) | 0 | (1,000,084) | (1,000,084) |
| 2018 | (1,000,084) | 0 | (1,000,084) | (1,000,084) |
| 2019 | (1,000,084) | 0 | (1,000,084) | (1,000,084) |
| 2020 | (397,838) | 0 | (397,838) | (397,838) |
| 2021 | 0 | 0 | 0 | 0 |
| 2022 | 0 | 0 | 0 | 0 |
| 2023 | 0 | 0 | 0 | 0 |
| 2024 | 0 | 0 | 0 | 0 |
| 2025 | 0 | 0 | 0 | 0 |
| 2026 | 0 | 0 | 0 | 0 |
| 2027 | 0 | 0 | 0 | 0 |
| Deferred Balance | | | | |
| 2015 | (4,398,174) | 0 | (4,398,174) | (4,398,174) |
| 2016 | (3,398,090) | 0 | (3,398,090) | (3,398,090) |
| 2017 | (2,398,006) | 0 | (2,398,006) | (2,398,006) |
| 2018 | (1,397,922) | 0 | (1,397,922) | (1,397,922) |
| 2019 | (397,838) | 0 | (397,838) | (397,838) |
| 2020 | 0 | 0 | 0 | 0 |
| 2021 | 0 | 0 | 0 | 0 |
| 2022 | 0 | 0 | 0 | 0 |
| 2023 | 0 | 0 | 0 | 0 |
| 2024 | 0 | 0 | 0 | 0 |
| 2025 | 0 | 0 | 0 | 0 |
| 2026 | 0 | 0 | 0 | 0 |
| 2027 | 0 | 0 | 0 | 0 |

# Section 8 – Deferred Outflows/Inflows

| Schedule of Differences Between Projected and Actual Earnings | | Outflows | Inflows | Total |
|---|---|---|---|---|
| Measurement Year: | 2015 | | | |
| Amount Established: | 358,604 | | | |
| Recognition Period: | 5.00 | | | |
| Annual Recognition: | 71,721 | | | |
| Amount Recognized | | | | |
| 2015 | 71,721 | 71,721 | 0 | 71,721 |
| 2016 | 71,721 | 71,721 | 0 | 71,721 |
| 2017 | 71,721 | 71,721 | 0 | 71,721 |
| 2018 | 71,721 | 71,721 | 0 | 71,721 |
| 2019 | 71,720 | 71,720 | 0 | 71,720 |
| 2020 | 0 | 0 | 0 | 0 |
| 2021 | 0 | 0 | 0 | 0 |
| 2022 | 0 | 0 | 0 | 0 |
| 2023 | 0 | 0 | 0 | 0 |
| 2024 | 0 | 0 | 0 | 0 |
| 2025 | 0 | 0 | 0 | 0 |
| 2026 | 0 | 0 | 0 | 0 |
| 2027 | 0 | 0 | 0 | 0 |
| Deferred Balance | | | | |
| 2015 | 286,883 | 286,883 | 0 | 286,883 |
| 2016 | 215,162 | 215,162 | 0 | 215,162 |
| 2017 | 143,441 | 143,441 | 0 | 143,441 |
| 2018 | 71,720 | 71,720 | 0 | 71,720 |
| 2019 | 0 | 0 | 0 | 0 |
| 2020 | 0 | 0 | 0 | 0 |
| 2021 | 0 | 0 | 0 | 0 |
| 2022 | 0 | 0 | 0 | 0 |
| 2023 | 0 | 0 | 0 | 0 |
| 2024 | 0 | 0 | 0 | 0 |
| 2025 | 0 | 0 | 0 | 0 |
| 2026 | 0 | 0 | 0 | 0 |
| 2027 | 0 | 0 | 0 | 0 |