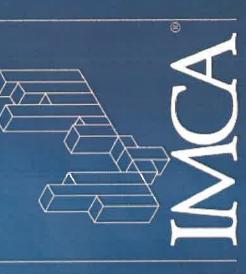
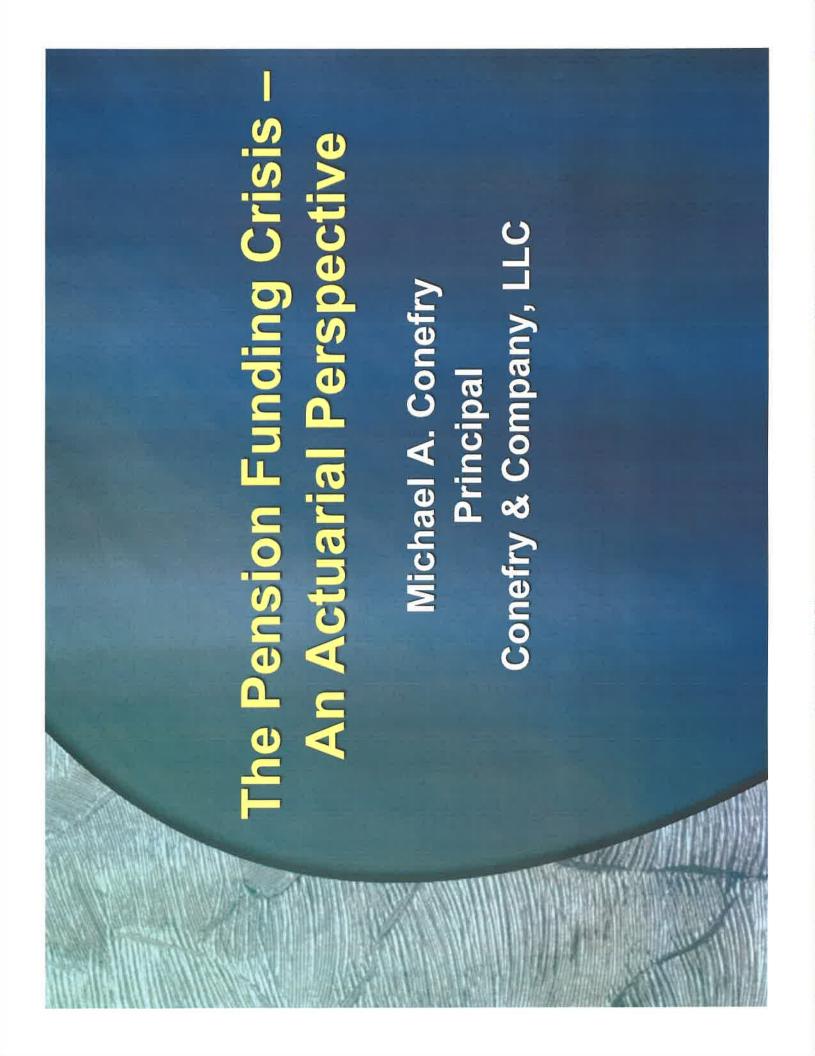
INVESTIMENT MANAGEMENT CONSULTANTS ASSOCIATION



Investors and Practitioners: Chicago Consultants Conference What The Future Holds

November 3-4, 2005



Defined Benefit Plans

 Private Sector Plans Originated About 1930

 Early Corporate Plans Fully Insured **Group Annuity Contracts**

"Career Average Plans"



Defined Benefit Plans

 Public Sector Plans Developed Mostly After WWII

· "Pay as You Go" Was Not Uncommon

 By 1960's Actuarial Funding was the Norm



Valuation Perspectives

 Budgeting: Plan Contribution **Determination**

Accounting/Disclosure

Plan Termination

Budgeting: Plan Contribution Determination

- Primary goal of annual actuarial valuation
- Annually self-adjusting process

Accounting/Disclosure

- GASB/FASB Rules
- "Funding Progress"
- "Funded Status"

Plan Termination

Limited applicability in Public Sector

 Actuarial value of accrued benefits vs. plan assets

Actuarial Fundamentals

"Actuarial Present Value"

Basic building block of actuarial mathematics

Residential Mortgage Analogy

- \$100,000 30 year mortgage loan at 5%
- Monthly payment is \$536.82
- month for 30 years at 5% annual interest \$100,000 is present value of \$536.82 per
- Life annuity value is simply an extension of this concept



Actuarial Basis

- Actuarial assumptions
- Interest, mortality, turnover, salary scale, etc.
- Actuarial cost method
- Entry age normal, unit credit, projected unit credit, aggregate, etc.
- Actuarial Value of Assets



Actuarial assumptions

- Relative degree of impact: 0
- Interest and mortality: entire spectrum of members' and beneficiaries' lives
- · Salary scale, turnover, disability incidence, retirement rates: only active work lifetime



- Unit Credit
- Projected Unit Credit
- Entry Age Normal (FIL)
- Aggregate Level Cost

Actuarial Value of Assets

MV must be "taken into account"

Smoothing highly desirable

I prefer seven year averaging technique

Application of Actuarial Basis

Varies with "perspective"

 Application for FASB/GASB disclosure quite different from Plan Contribution **Determination**

Plan Contribution Determination

- Relates PV of benefits to PV of Pay
- Apportion funding cost on behalf of past and current
- relationship and apportionment in a Each cost method uses this PV different way



Plan Contribution Determination

Mature Plan "Leveraging" Effect

Results in serious fluctuations and funding instability Asset value smoothing mitigates one cause of problem IMCA

Accounting/Disclosure

- Projected Benefit Obligation (PBO)
- Snapshot proration of actuarial value of all plan benefits
- Includes future salary increases and turnover
- Uses service to valuation date divided by service to retirement



Accounting/Disclosure

Relates PV of benefits to plan assets or active payroll

 Funding Progress: UAL to active payroll Funded status: plan assets to PBO



Plan Termination

 Relates PV of vested accrued benefits to plan assets Public sector vesting concept different from private sector

"Pension Funding Crisis"

- Combination of low interest rates and recent years' poor investment performance
- Unrealistically low interest rates result in overstatement of Liability
- understatement (converse true 5 years ago) Failure to "smooth" asset value results in



"Pension Funding Crisis"

Marking to Market Inflates Liabilities

Depresses Asset Value Down Investment Cycle

Conflict Between IRS Rules: Funding vs. Termination



"The Great Controversy"

- Traditional Actuarial View
- Financial Economics View

Traditional Actuarial View

Pension Plan is Ongoing Concern

· "Long Term" is 60+ Years

Term Expected Return on Assets (ROA) "Interest Rate" Assumption is Long



Financial Economics View

- Snapshot "Mark to Market" Valuation of Liabilities
- "Long Term" Effectively Ignored
- Asset Value Smoothing Abhorred



Nature of "Great Controversy"

Financial Economist Viewpoint:

Actuaries Have it all Wrong

Traditional Actuarial Viewpoint:

Financial Economists are Short-sighted Consider only "Now"



FASB/GASB

- F.E.'s Highly Critical
- FAS 87 Especially Hit
- for Liabilities Ridiculed by F.E.'s Use of ROA as Discount Rate

"Pension Funding Crisis"

Marking to Market Inflates Liabilities

Depresses Asset Value Down Investment Cycle

 Conflict Between IRS Rules: Funding vs. Termination



"Pension Funding Crisis"

- Actuary Takes "Cosmic" View for Funding
- for Disclosure Market Appraisal F.E. Takes Instantaneous View

Who's Right, who's wrong?

They're both right! (With Provisos)

Consider the Valuation Perspective

Equity Among Stakeholders

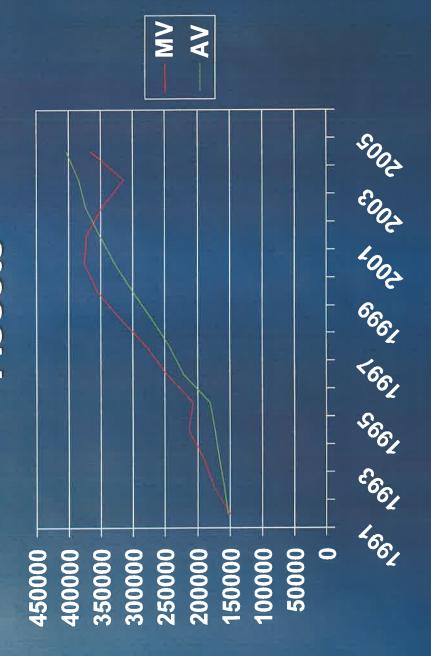
Employees/beneficiaries, Shareholders, Private Sector: Management, Government, Creditors

Current and Future Administrations, Employees/beneficiaries, Taxpayer, Public Sector: Trustees, **Government, Creditors**



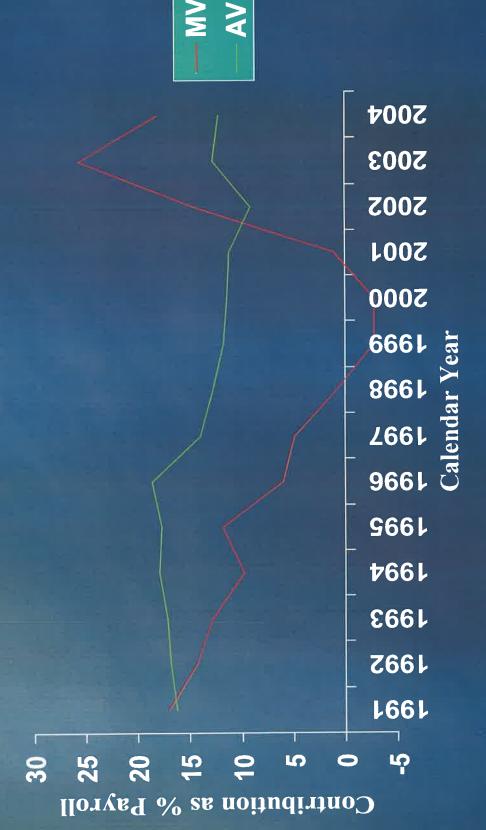
Effect of Asset Smoothing on Funding

7 yr. Smoothing vs. Market Value of Assets



IMCA





"Pension Funding Crisis"

- Consider early 1980's
- Prime rate
- Zero-coupon Treasury bonds
- GIC's
- "Immortalization of the present"



What is Reality?

- Pension funding must accommodate 60+ year cycles
- Equity performance in rolling 60 year cycles •
- Fixed income investment performance in rolling 60 year cycles
- Alternative investments



IMCA

Summary and Conclusions

- Contribution Levels Warranted? Is a Profound Change in
- Are Changes in IRS Funding Rules Warranted?
- Are Changes in Disclosure Rules Warranted?

CONEFRY & COMPANY, L.L.C.

160 Pleasant Ridge Drive Belle Chasse, LA 70037-4502

Tel. 504.392.8853 Facsimile 504.392.4430

May 24, 2017

Mr. Cedric S. Grant
Executive Director
Sewerage and Water Board of New Orleans
625 St. Joseph Street
New Orleans, LA 70165

Re: January 1, 2017 Actuarial Valuation

Dear Mr. Grant:

This letter and report supersede the letter and report dated April 30, 2017. The actuarial valuation was revised because of revised financial statements of the plan. Enclosed is the revised actuarial valuation report of the Employees' Retirement System of the Sewerage and Water Board of New Orleans as of December 31, 2016.

This actuarial valuation has been performed on a basis consistent with that which was performed as of December 31, 2015.

It should be noted that Exhibit III contains the Schedule of Funding Progress according to the requirements formerly mandated by Statement No. 25 (as modified by Statement No. 50) of the Governmental Accounting Standards Board (GASB #25 and #50). As described in that Exhibit III, these statements have been replaced by GASB Statements #67 and #68 and are addressed in a separate report.

Summarized below are the principal results of the actuarial valuation.

Summary of Valuation Results

| | | 12/31/2015 | 12/31/2016 |
|----|--|---------------|---------------|
| 1. | Number of Active Participants | 971 | 998 |
| 2. | Total Active Annual Payroll | \$ 33,672,902 | \$ 35,363,156 |
| 3. | Plan 10 Year "Amortization" Contribution as a Percentage of Active Payroll | 37.073% | 36.175% |
| 4 | Expected Employee Contribution as a Percentage of Active Payroll (See p. 12 of report) | 5.000% | 5.000% |
| 5. | Employer 10 Year "Amortization" Contribution as a Percentage of Active Payroll | 32.073% | 31.175% |

| | | 12/31/2015 | 12/31/2016 |
|-----|--|----------------|----------------|
| 6. | Plan 30 Year Amortization (Minimum) Contribution as a Percentage of Active Payroll | 25.690% | 25.235% |
| 7 | Expected Employee Contribution as a Percentage of Active Payroll (See p. 12 of report) | 5.000% | 5.000% |
| 8. | Employer 30 Year Amortization (Minimum) Contribution as a Percentage of Active Payroll | 20.690% | 20.235% |
| 9, | Market Value of Plan Assets | \$ 222,427,527 | \$ 224,356,261 |
| 10. | Actuarial Value of Plan Assets (Adjusted Market Value Basis) | \$ 233,572,291 | \$ 238,715,902 |
| 11. | Valuation Unfunded Actuarial Liability | \$ 63,996,458 | \$ 64,592,033 |
| 12. | Ratio of UAL to Valuation Payroll | 190.1% | 182.7% |
| 13. | Funded Ratio | 80.7% | 81.3% |

There have not been plan amendments or any changes to the actuarial assumptions or method since the immediately preceding valuation. The plan amendments adopted on November 19, 2014 involving definition of "average compensation" and employee contributions are the most recent substantive amendments to the plan's provisions which would have a material effect on the actuarial valuation results (see page 12, Exhibit I of the report).

Yours truly,

Michael A. Conefry, FCA, ASA, MAAA*

Actuary

MAC:wp Enclosures

^{*} Member of the American Academy of Actuaries and qualified to render the Statements of Actuarial Opinion contained herein.

ACTUARIAL VALUATION REPORT

EMPLOYEES' RETIREMENT SYSTEM OF THE SEWERAGE AND WATER BOARD OF NEW ORLEANS

Annual Actuarial Valuation as of January 1, 2017

CONEFRY & COMPANY, LLC

ACTUARIAL AND EMPLOYEE BENEFIT CONSULTING
NEW ORLEANS, LOUISIANA

INTRODUCTION

We present in this report the results of our actuarial valuation of the Employees' Retirement System of the Sewerage and Water Board of New Orleans as of January 1, 2017. The plan is an actuarially funded qualified governmental defined benefit pension under the Internal Revenue Code, and we have performed this actuarial valuation using conventional and generally accepted actuarial methods, assumptions, and principles applicable to qualified defined benefit pension plans. We have performed the actuarial valuation using the Entry Age Normal Cost Method. A full description of the funding method is contained in Section II of the report.

The Summary of Plan Provisions presented in the Appendix is intended to describe the principal benefits provided by the plan, particularly from the perspective of their significance in affecting the actuarial liability and cost of the plan. The summary is not, of course, intended to be a comprehensive or complete description of all benefits payable under all circumstances under the pension plan.

EMPLOYEES' RETIREMENT SYSTEM

OF THE SEWERAGE AND WATER BOARD OF NEW ORLEANS

SUMMARY

| I. | FINANCIAL AND ACTUARIAL STATUS As of January 1, 2017 | | |
|--------|--|----------------|---------------------|
| | Market Value of Assets | \$ 224,356,261 | Page 1 |
| | Actuarial Value of Assets | \$ 238,715,902 | Page 2 |
| П. | EMPLOYER AND EMPLOYEE CONTRIBUTION For the Plan Year Beginning January 1, 2017 | | |
| | Total "Amortization" Contribution (As % of Payroll) \$ | 12,792,556 (30 | 5.175%) Page 8 |
| | Expected Total Employee Contributions (As % of Payroll) \$ | 1,768,158 (5 | 5.000%) Page 8 |
| | Employer "Amortization" Contribution (As % of Payroll) \$ | 11,024,398 (33 | 1.175%) Page 8 |
| | Total "Minimum" Contribution (As % of Payroll) \$ | 8,923,945 (25 | 5.235%) Page 9 |
| | Expected Total Employee Contributions (As % of Payroll) \$ | 1,768,158 (| 5.000%) Page 9 |
| | Employer "Minimum" Contribution (As % of Payroll) \$ | 7,155,787 (20 | 0.235%) Page 9 |
| | Net Actuarial Experience | | Page 10 |
| APPENI | <u>OIX</u> | | |
| | Summary of Plan Provisions | | Exhibit I - P. 12 |
| | Statement of Actuarial Basis for Funding Purposes | | Exhibit II - P. 20 |
| | Statement of Accounting Information for Financial Statements | | Exhibit III - P. 24 |
| | Active and Inactive Participant Profiles | | Exhibit IV - P. 25 |
| | Market Value and Actuarial Value Investment | Performance | Exhibit V - P. 32 |
| CERTIF | CATION | | Page 36 |

I. FINANCIAL AND ACTUARIAL STATUS as of January 1, 2017

We have conducted this actuarial valuation using employee data and asset information furnished by the administrative office of the System. This section of the report presents a summary of the assets of the plan at Market Value, as well as the development of the Actuarial Value of Assets used in the funding method. The funding method used to determine the actuarial liabilities is described in Section II and the actuarial assumptions upon which the liabilities are based are summarized in Exhibit II of the report.

ASSETS

The following table showing the composition of the assets as of December 31, 2015 is based on information supplied by the administrative office and the auditors of the System.

Table 1

Statement of Assets
as of December 31, 2016

| <u>Assets</u> | Market Value |
|--|-----------------------------|
| Cash Investments | \$ 40,495 |
| Total Invested Assets Plus accounts receivable Less accounts payable | 224,290,951 +65,310 0 |
| Total Assets | \$ 224,356,261 * |

^{*} The actuarial value of assets used in this valuation is Adjusted Market Value as determined in Table 2. D.R.O.P. account balances are included in the foregoing Assets and shown as an actuarial liability in Table 4, item (2)f.

ACTUARIAL VALUE OF ASSETS

Beginning with the January 1, 1998 actuarial valuation, the method of determining the actuarial value of assets was changed to adjusted market value from the former adjusted book value basis. The change had been necessitated because the former method, in our opinion and that of the auditors, was not "market value related" within the meaning of Statement No. 25 of the Government Accounting Standards Board (GASB #25) and its successor GASB Statements.

This revised method reflects actual market value performance over a seven year period ending on the valuation date. The market value performance is averaged over the seven year period by reflecting the actual external cash flow and adjusting each prior year's market value to the current valuation date using the actuarial interest assumption.

The following table develops the Adjusted Market Value of Assets to be used as the Actuarial Value of Assets in the actuarial valuation.

Table 2
Actuarial Value of Assets
As of December 31, 2016

| Plan Beginni Year Marke Ending Value | t Cash Flow | | | Market Va Performan For Yea | |
|--|--|---|--|--|--|
| 2010 191,024,143 2011 205,240,285 2012 206,093,756 2013 220,704,055 2014 234,358,049 2015 236,556,671 | -8,114,890 -8,472,301 -9,525,020 -9,143,898 | 8,968,361 23,082,600 23,179,014 11,342,520 | 205,240,285 206,093,756 220,704,055 234,358,049 236,556,671 222,427,527 | 12.0053% 4.4578% 11.4351% 10.7339% 4.9416% -1.7896% | 239,776,118 232,596,117 244,324,533 254,195,277 248,773,859 226,989,147 |
| 2016 222,427,527 Years Included: 7 | -10,642,132 | | 224,356,261 | 5.7902% Adj. MV: | 224,356,261 \$238,715,902 |

for the Plan Year Beginning January 1, 2017

DESCRIPTION OF ACTUARIAL COST METHOD

Under the Entry Age Normal Cost Method, the normal cost of the plan is designed to be a level percentage of payroll, calculated on an aggregate basis, spread over the entire working lifetime of the participants. The future working lifetime is determined from each participant's hypothetical entry age into the plan assuming the plan had always been in existence, to his expected retirement date. The actuarial accrued liability is the amount of total liability not covered by future entry age normal costs. This amount is composed of the actuarial value of benefits already funded (assets) and those not yet funded (unfunded actuarial liability).

The plan's funding cost for the year is the sum of the Entry Age Normal Cost and the amount necessary to amortize the remaining unfunded actuarial liability as of the valuation date over the adopted amortization period.

Beginning with the January 1, 2007 actuarial valuation, a new amortization basis was established. The former amortization basis used a level dollar amortization for a ten (10) year "closed" (that is, with the remaining period reducing by one each year) amortization period from January 1, 2003 through December 31, 2012. This has been replaced by a level dollar amortization for an "open" (that is, a constant number of years) ten (10) year amortization period effective on each valuation date. This open ten (10) year amortization amount is developed later in this section and presented in Table 5.

Table 3 Entry Age Normal Cost for Plan Year Beginning January 1, 2017

| (1) | Actuarial Present Value at Entry Age of Expected Benefits to Plan Participants | \$ | 16,915,000 |
|-----|--|----|-------------|
| (2) | Actuarial Present Value at Entry Age of Future Payroll of Active Participants | 1 | 159,107,959 |
| (3) | Normal Cost as a Percentage of Payroll: (1) divided by (2) | | 10.631% |
| (4) | Current Payroll of Active Participants * | | 35,363,156 |
| (5) | Normal Cost: (3) x (4) (Assumed payable January 1, 2017) | \$ | 3,759,457 |
| (6) | Normal Cost, adjusted for monthly payments | \$ | 3,878,600 |

^{*} There are 998 active participants: 513-fully vested; 0-partially vested; 485-not vested.

Table 4 Unfunded Actuarial Liability as of January 1, 2017

| (1) | Actuarial Present Value of Expected Benefits to Active Plan Participants (a) Basic and Supplemental Retirement Benefit (b) Death and Survivor Benefit (c) Disability Benefit (Inc. suppl & surv.) (d) Vesting Benefit (e) Refund of Employee Contributions Total Active | \$ 96,397,447 7,232,607 6,994,526 7,122,155 1.848,314 | \$ 119,595,049 |
|-----|---|---|----------------|
| (2) | Actuarial Present Value of Expected Benefits to Inactive Plan Participants (a) Regular Retirees (b) Disability Retirement (c) Survivors (d) Terminated Vested (e) D.R.O.P. Retirees (Future Benefits) (f) D.R.O.P. Retirees (Account Balances) Total Inactive | \$ 129,379,206 7,324,044 7,382,961 1,122,569 47,405,127 11,328,708 | \$ 203,942,615 |
| (3) | Total Actuarial Present Value of Expected Benefits to All Plan Participants (1) + (2) | | 323,537,664 |
| (4) | Actuarial Present Value of Future Payroll of Active Participants | | 190,289,991 |
| (5) | Normal Cost as a Percentage of Payroll: (From Table 3) | | 10.631% |
| (6) | Actuarial Present Value of Future Normal Cost Contributions: (4) x (5) | | 20,229,729 |
| (7) | Actuarial Value of Assets (from Table 2) | | 238,715,902 |
| (8) | Unfunded Actuarial Liability: (3) - (6) - (7) | | 64,592,033 |

TOTAL CONTRIBUTION FOR PLAN YEAR BEGINNING January 1, 2017

CONTRIBUTION TO AMORTIZE UNFUNDED ACTUARIAL LIABILITY

The adopted "amortization" contribution for a plan year equals the normal cost plus the level dollar amount necessary to amortize the Unfunded Actuarial Liability over ten (10) years. The annual amount required to amortize the Unfunded Actuarial Liability of \$64,592,033 over 10 years at 7% annual interest (assuming monthly payments) is \$8,913,956.

Table 5 Total Required "Amortization" Contribution for the Plan Year Beginning January 1, 2017

- (1) Normal Cost (From Table 3; assumed payable monthly) \$ 3,878,600
- (2) Net Annual charge Required for
 Amortization of Unfunded Actuarial Liability
 Over 10 year period beginning January 1, 2017
 (See Above; Assumed payable monthly) 8,923,945
- (3) Total Plan Contribution as of January 1, 2017: (1) + (2) \$ 12,792,556 (36.175%) *
- (4) Annual Employee Plan Contributions as of January 1, 2017 (See note below) \$ 1,768,158 (5.000%)
- (5) Employer Contribution as of January 1, 2017: (3) (4) \$ 11,024,398 (31.175%) * (Assumed payable monthly)
- * Expressed as a percentage of annual participant payroll of \$35,363,156.

Note: Current actual employee contribution is 6% of payroll effective January 1, 2015. By Board Resolution R-248-2014, as long as the Retirement System is not 100% funded, the Employer Contribution percentage shall be calculated as if the Employee Contribution percentage has remained at 5% of payroll.

"MINIMUM" CONTRIBUTION

GASB Statements 25 and 27 required that the Unfunded Actuarial Liability be amortized over a period not longer than 30 years. Although those statements are not any longer applicable, we present the contribution on that basis for historical continuity. The contribution for a plan year equals the normal cost plus the amount necessary to amortize the Unfunded Actuarial Liability over the thirty (30) year period which begins on the valuation date. Using a level dollar, open period amortization method, the annual amount required to amortize the Unfunded Actuarial Liability of \$64,592,033 over the 30 year period beginning January 1, 2017 at 7% annual interest (assuming monthly payments) is \$5,045,345.

Table 6 Total Required "Minimum" Contribution for the Plan Year Beginning January 1, 2017

- (1) Normal Cost (From Table 3; assumed payable monthly) \$ 3,878,600
- (2) Net Annual Charge Required for Amortization of Unfunded Actuarial Liability Over 30 year period beginning January 1, 2017 (see above)
 (Assumed payable monthly)

Assumed payable monthly) 5,045,345

- (3) Total Plan Contribution as of January 1, 2017: (1) + (2)
- \$ 8,923,945 (25.235%)
- (4) Annual Employee Plan Contributions as of January 1, 2017 (See note below)
- \$ 1,768,158 (5.000%) *

(5) Employer Contribution as of January 1, 2017: (3) - (4) (Assumed payable monthly)

- \$ 7,155,787 (20.235%) *
- * Expressed as a percentage of annual participant payroll of \$35,363,156.

Note: Current actual employee contribution is 6% of payroll effective January 1, 2015. By Board Resolution R-248-2014, as long as the Retirement System is not 100% funded, the Employer Contribution percentage shall be calculated as if the Employee Contribution percentage has remained at 5% of payroll.

NET ACTUARIAL EXPERIENCE

for the Plan Year Beginning January 1, 2016

Actuarial experience refers to the comparison of actuarial results of each valuation with those expected from the previous valuation according to the actuarial assumptions. A decrease or increase in the Total Plan Contribution as a percentage of payroll is indicative of favorable (gains) or unfavorable (losses) experience, respectively. If the overall experience follows the general pattern indicated by the assumptions presented in the Appendix, the Total Plan Contribution (on a given amortization basis) as a percentage of payroll will remain relatively stable, except for routine fluctuations.

The Total "Amortization" Contribution as a percentage of payroll decreased from 37.073% for the plan year beginning January 1, 2016 to 36.175% for the plan year beginning January 1, 2017. The Total "Minimum" Contribution as a percentage of payroll decreased from 25.690% for the plan year beginning January 1, 2016 to 25.235% for the plan year beginning January 1, 2017. These decreases of 0.898% and 0.455% of payroll, respectively, are indicative of an overall actuarial gain for the most recent plan year. This gain represents the net decrease in the total plan contribution as the combined result of actuarial experience and the change in total plan contribution attributable to plan amendments, as shown in the following table.

Table 7

Effect on Total "Amortization" and "Minimum"

Contributions by Component

for the Plan Year Ending December 31, 2016

| | "Amortization" | "Minimum" |
|----------------------------------|----------------------|----------------------|
| Component | Gain (-) or Loss (+) | Gain (-) or Loss (+) |
| Interest | +0.376% | +0.211% |
| Salary Scale | -0.211% | -0.116% |
| New retirements | +0.385% | +0.213% |
| Net from All Other Sources | 1.445% | -0.763% |
| Net change from actuarial exper- | ience -0.898% | -0.455% |
| Net change from Plan Amendme | ents <u>0.000%</u> | 0.000% |
| Overall Total Gain(-)/Loss(+) | -0.898% | 0.455% |

APPENDIX

EXHIBIT I

EMPLOYEES' RETIREMENT SYSTEM OF THE SEWERAGE AND WATER BOARD OF NEW ORLEANS

SUMMARY OF PLAN PROVISIONS

EFFECTIVE DATE:

Authorized by Act Number 551, effective January 1, 1957; Last Restatement for Plan Qualification, January 27, 2011; Latest Restatement, April 17, 2013; last amendment date as of the date of performance of this valuation, November 19, 2014.

MEMBERSHIP:

Employees who become members as a condition of employment.

CREDITABLE SERVICE:

Prior service plus membership service for which credit is allowable. Also, one year service credit given for every 250 days of unused sick and annual leave. Credit for prior military service may be purchased (maximum 4 years) by active contributing member who is vested; lump sum payment required based on 4% of excess over first \$100 monthly average for each month claimed plus 7% compound interest. Military service available only to those who will not receive a benefit from another retirement system (except Social Security). There are also provisions for restoring service on behalf of certain leaves without pay such as for Katrina Disaster Leave and Workers' Compensation.

EARNABLE COMPENSATION:

Annual compensation paid to an employee; excluding oncall and stand-by pay or over-time.

AVERAGE COMPENSATION:

Average annual earned compensation of a member for highest thirty-six successive months of service as a member, minus \$1,200. For employees hired after December 31, 1995, the \$1,200 reduction was not applicable. Effective June 19, 2002, the \$1,200 reduction was eliminated for all employees. Periods without compensation are not used in determining the average compensation. For employees not yet eligible to retire as of December 31, 2014, the thirty-six month period was changed to forty-eight months effective January 1, 2017 and sixty months effective January 1, 2018.

EMPLOYEE CONTRIBUTIONS:

4% of earnable compensation through December 31, 2012; effective January 1, 2013, 5% of earnable compensation; effective January 1, 2015, 6% of earnable compensation. By Board Resolution R-248-2014, as long as the Retirement System is not 100% funded, the Employer Contribution percentage shall be calculated as if the Employee Contribution percentage has remained at 5% of payroll.

EMPLOYER CONTRIBUTIONS:

RETIREMENT BENEFITS:

Eligibility:

Benefits:

Certain percentage of earnable compensation of each member, determined on basis of regular interest and mortality tables adopted by the Board, and additional percentage of earnable compensation, determined by actuary.

Any age with 30 years of Service; age 60 and 10 years of Service; effective January 1, 1996, age 65 and 5 years of Service; age 70 with any Service. Effective June 19, 2002, age 60 and vested (with actuarial reduction) and any member whose age and service total 80 or more years may retire without reduction for age.

Retirement allowance, consisting of (1) and (2) below:

- 1) An annuity, which is the actuarial equivalent of employee's accumulated contribution; plus
- 2) An annual pension, which, together with above annuity, provides total retirement allowance equal to 2% of average compensation times first 10 years, plus 2 1/2% of average compensation times next 10 years, plus 3% of average compensation times next 10 years, plus 4% of average compensation times creditable service over 30 years. Effective June 19, 2002, the above percentages were changed to 2.5% for the first 25 years plus 4% for years over 25 years.
- 3) An additional annual pension equal to 2% of \$1,200 times first 10 years, plus 2 1/2% of \$1,200 times next 10 years, plus 3% of \$1,200 times next 10 years, plus 4% of \$1,200 times service over 30 years; if the employee was hired prior to 1996 and retires prior to age 65 on retirement allowance. Ceases at age 65 or receipt of first Social Security check, whichever comes first. Effective June 19, 2002, this additional benefit no longer applies except to those who retired prior to that date.
- 4) For service retirement prior to age 62 with less than 30 years of Service, (2) and (3) above are reduced by 3% for each year rounded to nearest day below the age of 62.
- 5) Effective January 1, 1997, a member may retire after 30 years of service, regardless of age, with no reduction in his benefit.
- 6) Maximum Benefit: Benefit no greater than 100% of average compensation, unless member has already accrued a larger benefit as of April 13, 1977.

- 7) Form of Benefit: Modified cash refund annuity. If a member dies after retirement and before receiving the amount of his accumulated contributions in annuity and pension payments, then lump sum balance of his contributions is paid to beneficiary.
- 8) Cost-of-Living: Effective July 1, 1992, for members that retired prior to January 1, 1984, if funds are available, each July 1st a 2% increase times the number of years retired will be given to members over age 65.

For members that retired on or after January 1, 1984, and are over age 65, each January 1st, increases in benefits based on the increase in the CPI, not to exceed 2%.

Spouses receiving a Joint and Survivor Annuity that have reached the age of 65 shall also receive an increase, based on the increase in the CPI, not to exceed 2%.

DISABILITY BENEFITS:

Eligibility:

Benefits:

- 10 years of credited service. (certified by physician nominated by Board).
- 1) A retirement allowance equal to the greater of: An annuity, which is the actuarial equivalent of the member's accumulated contributions at retirement; or
- 2) An annual pension equal to 75% of the accrued benefit based on service credits to the member had he continued in service until age 62.
- 3) Benefit offset by Workmen's Compensation benefits.
- 4) Effective 1/1/84, disability allowance is subject to the same COLA after age 65 as regular retirement.

DEATH BENEFITS:

Eligibility:

Benefits:

Death of member in active service.

Employee's accumulated contributions paid to beneficiary.

1) If member has 3 years Creditable Service, but less than 10 years, a lump sum benefit equal to the Member's accumulated contributions and 25% of the member's prior year earned compensation is payable to the designated beneficiary or estate.

- 2) If member dies in active service with less than three years Creditable Service, a Lump Sum Benefit equal to the Member's accumulated contributions is payable to the designated beneficiary or estate.
- 3) If, at date of death, member was eligible for retirement and leaves Surviving Spouse, Surviving Spouse shall be eligible for a Joint and 100% benefit or a lump sum refund of Employee's contributions.
- 4) If, at date of death, member was ineligible for retirement, but had at least 10 or more years of creditable service, then surviving spouse shall receive benefit equal to 80% of the former member's accrued benefit at death, payable at the later of the member's death or spouse's attainment of age 62.
- 5) If, at date of death, member was receiving a disability benefit and dies, his spouse shall receive 80% of the former member's disability retirement allowance payable at the later of the retiree's death or spouse's attainment of age 62. Eligible children shall receive 65% of the disability benefit payable until they reach age 18, age 25 if the child attends school full time or is mentally or physically disabled or until the spouse attains age 62.
- 6) The spouse's benefit shall be subject to the COLA after attaining age 65 as for a regular retiree.
- 1) A member that withdraws from service before age 60 with 10 years of Creditable Service may allow his accumulated contributions to remain on deposit until he is eligible to receive a separation retirement allowance. Effective June 19, 2002, only 5 years of Creditable Service is required.
- 2) Upon withdrawal without 10 years Creditable Service (or, after June 19, 2002, 5 years) Employee is entitled to a refund of his accumulated contributions or may allow contributions to remain on deposit for maximum of five years. In case of employee's death, accumulated contribution are paid to designated beneficiary.

If employee re-enters after receipt of refund and continues service thereafter for 18 months, he may repay amount of refund plus the amount of employee contributions, with interest at a rate of 4% for service prior to 1970 and 7% compounded annually to date of payment for service after January 1, 1970, to receive prior creditable service again.

SEPARATION BENEFITS:

Note:

OPTIONAL FORMS OF BENEFIT:

- 1) A member shall receive a retirement allowance payable for life. If he dies before receiving, in annuity payments, the value of his annuity at the time of his retirement, the balance is payable to his beneficiary.
- 2) A reduced benefit payable for the life of the member and continued to beneficiary after member's death. A specific percentage is chosen by the member at the time of retirement. Such percentage shall be an integral multiple of 5%, to a maximum of 100%.
- 3) A reduced benefit payable for the life of the member and 100% of that amount is paid to the spouse after member's death.

Effective July 16, 1974, provisions made for reciprocal transfers of service and funds between this System and Employees' Retirement System of the City of New Orleans, in the event an employee transfers from one employing agency to the other; service credits were transferred from sending system to receiving system provided all employee contributions plus earned interest and all employer contributions plus agreed-upon interest were transferred; effective September 23, 1993 (retroactive for transfers on and after October 17, 1988), agreement was amended to provide for a transfer from the sending system to the receiving system equal to the GASB #5 liability of the sending system at 7% interest, 5% salary scale, the remaining GASB #5 actuarial assumptions and the salary and benefit structure in effect for the sending system at time of transfer.

Effective January 1, 1996, any member who is eligible for a service retirement under Section 6(1) can participate in the DROP program:

- 1) A member can only participant once, and only up to three years. Effective June 19, 2002, the allowable period was increased to 5 years.
- 2) When a member joins the DROP, he stops contributing to and earning benefits in the system. Employer contributions also stop. His retirement benefit begins being paid into his DROP account.

RECIPROCITY:

DROP ACCOUNT:

- 3) Interest is credited to the separately invested DROP accounts at the actually earned rate at the end of each month (not including the month of withdrawal unless on the last day of the month), but not below zero. Members of the DROP receive no cost-of-living increases.
- 4) Upon termination of employment at the end of the specified period of DROP participation, the DROP account is paid out in a lump sum.
- 5) Continued employment after the end of the DROP period is possible only by reapplication to the Board by the employee. If rehired, that employee shall receive a lump sum of his DROP account balance as if he had retired. For DROP participants rehired after April 20, 2005, the retirement allowance that had been paid into the participant's DROP account shall be suspended while re-employed and the participant shall be treated in the same manner as a re-employed retiree.

SUMMARY OF SUBSTANTIVE PLAN CHANGES IN RECENT YEARS HAVING AN IMPACT ON ACTUARIAL VALUATION RESULTS

September 23, 1993: Reciprocity agreement with City of New Orleans

amended, retroactive for transfers on and after October

17, 1988.

January 8, 1994: Allows for purchase of credit for prior military service.

December 13, 1995: Plan amended for qualification under Internal Revenue

Code for Governmental Plans.

January 1, 1996: The Deferred Retirement Option Plan was adopted to allow members terminating employment and accepting a service retirement allowance under plan section 6(1) to

participate in this program.

Average Compensation amended to remove the \$1,200 reduction for employees hired after December 31, 1995.

Any member with 5 years of Creditable Service and

attainment of age 65 may retire.

January 1, 1997: For members retiring on or after January 1, 1997 and choose a Joint and Survivor option, if the beneficiary

predeceases the retiree, the reduced benefit reverts back to the maximum amount upon the death of the spouse.

A member with 30 years of creditable service may retire,

regardless of age, with no reduction in benefits.

Death benefit payable to the spouse of a deceased disabled retiree is now available immediately upon the

retiree's death, on an actuarially equivalent basis.

June 21, 2000: Disability benefit equal to 75% of the member's accrued benefit based on service credits to the member had he

continued in service until age 62.

Eligible Dependent amended to add age 25 if the child attends school full-time or if the child is mentally or

physically disabled.

P. 19

SUMMARY OF SUBSTANTIVE PLAN CHANGES IN RECENT YEARS HAVING AN IMPACT ON ACTUARIAL VALUATION RESULTS

June 21, 2000: Death benefit payable to designated beneficiary or estate when there is no spouse or eligible dependents equal to

the member's accumulated contributions at death plus 25% of the member's prior year's earnable compensation

payable from the Trust fund.

January 1, 2001: Any retiree with less than 30 years of Credited Service and under age 62, the benefit is reduced by 3% for each

year of age rounded to the nearest day below age 62.

February 25, 2001:

Plan amended for the Uruguay Round Agreements Act, the Small Business Job Protection Act of 1996, Uniformed Services Employment & Reemployment Rights Act of 1994, the Taxpayer Relief Act of 1997, the

Internal Revenue Service Restructuring and Reform Act of 1998 and the Community Renewal Tax Relief Act of

2000, (GUST).

June 19, 2002:

Benefit formula amended to 2.5% of first 25 years of service, plus 4.0% for each year of service in excess of 25 years, up to a maximum of 100% of pay. A Rule of 80 retirement eligibility (age plus years of service greater

than or equal to 80) without age reduction was added. Eligibility to leave employee accumulated contributions on deposit for Separation Retirement was changed from 10 years to 5 years; the exclusion of the first \$1,200 of annual pay was eliminated; D.R.O.P. period was extended

from 3 to 5 years.

January 31, 2011: Interest on DROP accounts changed from "Credited Interest" to that actually earned on the separately invested

DROP accounts, but not below zero.

January 1, 2013: Employee contribution formula amended from 4% to 5%

of earnable compensation.

November 19, 2014: Employee contribution formula amended from 5% to 6% of earnable compensation effective January 1, 2015 (but

see explanation on page 12). Period used in determining average compensation changed for employees not yet eligible to retire as of December 31, 2014, was changed to forty-eight months effective January 1, 2017 and sixty

months effective January 1, 2018.

EXHIBIT II

EMPLOYEES' RETIREMENT SYSTEM OF THE SEWERAGE AND WATER BOARD OF NEW ORLEANS

STATEMENT OF ACTUARIAL BASIS FOR FUNDING PURPOSES

Actuarial Funding Method:

Cost Method:

Entry Age Normal Cost Method.

Asset Valuation Method:

Adjusted Market Value. Refer to the explanation on page

2 of the report and development in Table 2.

Actuarial Assumptions

Interest:

7% compounded annually.

Mortality:

1971 Group Annuity Mortality Table for males and females. (See chart in the following pages for specific

rates by age and sex).

Turnover:

Table developed from the 1977-1980 Actuarial Experience Study, as used by the prior actuary. (See chart in the

following pages for specific rates by age).

Salary Increases:

5.0% compounded annually.

Cost of Living Increases:

Actuarial liabilities for future cost of living increases were

included for both active and inactive participants as per

the appropriate sections of the plan.

STATEMENT OF ACTUARIAL BASIS FOR FUNDING PURPOSES

Actuarial Assumptions (Continued)

Retirement:

It has been assumed that employees retire at a variation of the earliest age at which they would be eligible to retire (with reduced benefits, if applicable) as follows; if the earliest age of retirement eligibility is less than or equal to age 55, the assumed age at retirement is the earliest age plus one year, but not beyond age 55; if the earliest age of retirement eligibility is greater than age 55, the assumed age at retirement is the earliest age of

retirement eligibility.

Disability Incidence: The rates utilized in the 14th actuarial valuation of the

U.S. Railroad Retirement System. (See chart in the

following pages for specific rates by age).

Survivor Benefits: 85% of active participants are assumed to be married to spouses of equal age. Children's survivor benefits and spouses's disability benefits (in the guest of the death of

spouse's disability benefits (in the event of the death of a member on disability) were estimated to be 10% of the related benefits giving rise to the secondary benefits being

valued.

Other assumptions: 20% of participants terminating with a vested right were assumed to withdraw their accumulated contributions upon

assumed to withdraw their accumulated contributions upon termination, while 80% were assumed to retain their vested deferred benefits by leaving contributions on

deposit.

Accumulated employee contributions are credited with 2%

interest compounded annually.

SEWERAGE AND WATER BOARD OF NEW ORLEANS RETIREMENT SYSTEM JANUARY 1, 2017 ACTUARIAL VALUATION

ASSUMED RATES OF MORTALITY, WITHDRAWAL AND DISABILITY INCIDENCE BY AGE AND GENDER

MORTALITY

| | MORTALITY | | | DISABILITY |
|-----|-----------|---------|------------|------------|
| AGE | MALE | FEMALE | WITHDRAWAL | INCIDENCE |
| 15 | .000433 | .000193 | .368600 | .001100 |
| 16 | .000444 | -000205 | .368600 | .001100 |
| 17 | .000457 | .000218 | .368600 | .001100 |
| 18 | .000471 | .000231 | .358700 | .001100 |
| 19 | .000486 | .000245 | .346600 | .001100 |
| 20 | .000503 | .000260 | .332900 | .001100 |
| 21 | .000522 | .000275 | .317800 | .001100 |
| 22 | .000544 | .000292 | .301800 | .001100 |
| 23 | .000566 | .000309 | .285100 | .001100 |
| 24 | .000591 | .000327 | .268000 | .001100 |
| 25 | .000619 | .000347 | .250700 | .001100 |
| 26 | .000650 | .000368 | .233600 | .001100 |
| 27 | .000684 | .000390 | .216700 | .001100 |
| 28 | .000722 | .000414 | .200200 | .001100 |
| 29 | .000763 | .000440 | .184300 | .001100 |
| 30 | .000809 | .000469 | .169100 | .001100 |
| 31 | .000860 | .000499 | .154700 | .001100 |
| 32 | .000916 | .000533 | .141200 | .001100 |
| 33 | .000978 | .000569 | .128500 | .001100 |
| 34 | .001046 | -000608 | .116800 | .001100 |
| 35 | .001122 | .000651 | .106100 | .001300 |
| 36 | .001204 | .000698 | .096300 | .001500 |
| 37 | .001295 | .000750 | .087600 | .001800 |
| 38 | .001397 | .000807 | .079800 | .002100 |
| 39 | .001509 | .000869 | .072800 | .002400 |
| 40 | .001633 | .000938 | .066800 | .003000 |
| 41 | .001789 | .001013 | .061600 | .003600 |
| 42 | .002000 | -001094 | .057200 | .004200 |
| 43 | .002260 | .001186 | .053500 | .004800 |
| 44 | .002569 | .001286 | .050400 | .005500 |
| 45 | .002922 | .001397 | .047800 | .006400 |
| 46 | .003318 | .001519 | .045800 | .007400 |
| 47 | .003754 | .001654 | .044200 | .008200 |
| 48 | .004228 | .001802 | .042900 | .009000 |
| 49 | .004740 | .001967 | .041900 | .009700 |
| 50 | .005285 | .002151 | .041200 | .011100 |
| 51 | .005867 | .002324 | .040500 | .012600 |
| 52 | .006480 | .002520 | .040000 | .014000 |
| 53 | .007127 | .002738 | .040000 | .015800 |
| 54 | .007806 | .002982 | -040000 | .017600 |
| 55 | .008519 | .003256 | .040000 | .019000 |
| 56 | .009262 | -003574 | .040000 | .020000 |
| 57 | .010039 | .003948 | .040000 | .021500 |
| 58 | .010889 | .004388 | .040000 | .025000 |
| 59 | .011924 | .004901 | .040000 | .029500 |
| 60 | .013119 | .005489 | .040000 | .034500 |
| 61 | .014440 | .006156 | .040000 | .039000 |
| 62 | .015863 | .006898 | .040000 | .051000 |
| 63 | .017413 | .007712 | .040000 | .051000 |
| 64 | .019185 | .008608 | .040000 | .051000 |
| 65 | .021260 | .009563 | .040000 | .051000 |
| | | | | |

SEWERAGE AND WATER BOARD OF NEW ORLEANS RETTREMENT SYSTEM JANUARY 1, 2017 ACTUARIAL VALUATION

ASSUMED RATES OF MORTALITY, WITHDRAWAL AND DISABILITY INCIDENCE BY AGE AND GENDER

MORTALITY

| | MORIALITI | • | | DISABILITY |
|----------|--------------------|--------------------|---------------------|------------|
| AGE | MALE | FEMALE | WITHDRAWAL | INCIDENCE |
| 66 | .023643 | .010565 | .040000 | .051000 |
| 67 | .026316 | .011621 | .040000 | .051000 |
| 58 | .029188 | .012877 | .040000 | .051000 |
| 69 | .032435 | .014461 | .040000 | .051000 |
| 70 | .036106 | .016477 | .040000 | .051000 |
| 71 | .040008 | -019000 | 0.000000 | .051000 |
| 72 | .043827 | .021911 | 0.000000 | .051000 |
| 73 | .047489 | .025112 | 0.000000 | .051000 |
| 74 | .051221 | .028632 | 0.000000 | .051000 |
| 75 | .055293 | .032385 | 0.000000 | .051000 |
| 76 | .060068 | .036408 | 0.000000 | .051000 |
| 77 | .065924 | .040769 | 0.000000 | .051000 |
| 78 | .072595 | .045472 | 0.000000 | .051000 |
| 79 | .079692 | .050616 | 0.000000 | .051000 |
| 80 | .087431 | .056085 | 0.000000 | .051000 |
| 81 | .095445 | .061853 | 0.000000 | .051000 |
| 82 83 | .103691 .112303 | .067936 | 0.000000 | .051000 |
| 83 84 | .121116 | .074351 .081501 | 0.000000 0.00000 | .051000 |
| 85 | .130102 | .089179 | 0.00000 | .051000 |
| 86 | .139315 | .097468 | 0.00000 | .051000 |
| 87 | .148714 | .106452 | 0.000000 | .051000 |
| 88 | .158486 | .116226 | 0.000000 | .051000 |
| 89 | .168709 | .126893 | 0.000000 | .051000 |
| 90 | .179452 | .138577 | 0.000000 | .051000 |
| 91 | .190489 | .151192 | 0.000000 | .051000 |
| 92 | .201681 | .165077 | 0.000000 | .051000 |
| 93 | .212986 | .180401 | 0.000000 | .051000 |
| 94 | .226535 | .197349 | 0.000000 | .051000 |
| 95 | .241164 | .216129 | 0.000000 | .051000 |
| 96 | .256204 | .236970 | 0.000000 | .051000 |
| 97 | .272480 | .258059 | 0.000000 | .051000 |
| 98 | .290163 | .280237 | 0.000000 | .051000 |
| 99 | .309125 | .304679 | 0.000000 | .051000 |
| 100 | .329825 | .331630 | 0.000000 | .051000 |
| | | | | |

EXHIBIT III

December 31, 2016 DISCLOSURE INFORMATION ON FUNDING PROGRESS

This section is included to provide information which had been historically required by the Governmental Accounting Standards Board Statements Number 25 and 27 and is provided for historical continuity and consistency. GASB Statements 25 and 27 have been replaced by GASB Statements 67 and 68. These two statements have made extensive and fundamental changes in the nature of the financial disclosure requirements and have effectively removed the actual funding aspects of the plan from any direct involvement. The effective date of GASB 67 (with respect to the plan itself) is the first Plan Year beginning after June 15, 2013 (namely, the Plan Year beginning January 1, 2014). The effective date of GASB 68 (with respect to the Sewerage & Water Board as sponsoring employer) is the first Fiscal Year beginning after June 15, 2014 (namely, the Fiscal Year beginning January 1, 2015). The actuarial information for financial disclosure as required by these GASB Statements is presented in a separate report.

The Projected Benefit Obligation (PBO) as of December 31, 2016 is based on all of the assumptions outlined in Exhibit II including future salary growth. The Unfunded Accrued Liability (UAL) is that used in funding the plan and is developed in Table 4.

SCHEDULE OF FUNDING PROGRESS

| | 12/31/2015 | 12/31/2016 |
|--|-------------------------------|------------------------------|
| Interest Assumption | 7.00% | 7.00% |
| RATIO OF UAL TO VALUATION PAYROLL: | | |
| [1] Unfunded Accrued Liability (UAL) [2] Valuation Annual Payroll | \$ 63,996,458 33,672,902 | \$ 64,592,033 35,363,156 |
| [3] Ratio: [1] divided by [2] | 190.1% | 182.7% |
| FUNDED RATIO: | | |
| [1] Projected Benefit Obligation (PBO) Inactive Plan Participants Active Plan Participants | \$ 197,041,228 _92,267,868 | \$ 203,942,615 89,744,429 |
| Total PBO | \$ 289,309,096 | \$ 293,687,044 |
| [2] Actuarial Value of Assets | 233,572,291 | 238,715,902 |
| [3] Funded Ratio: [2] divided by [1] | 80.7% | 81.3% |

EXHIBIT IV

ACTIVE AND INACTIVE PARTICIPANT PROFILES

EMPLOYEES RETIREMENT SYSTEM OF THE SEWERAGE AND WATER BOARD OF NEW ORLEANS 01/1/2017 ACTIVE PARTICIPANT AGE VS SERVICE GRID JANUARY 1, 2017 ACTUARIAL VALUATION

| | | | | 15 | ALL | L ACTIVE | ACTIVE PARTICIPANTS | NTS | : | | | |
|------|-----|-----|-------|-------|----------------------|---|---------------------|-------|-----|-------|---|---------------------------------|
| AGE | 4-0 | : | 10-14 | 15-19 | EARS OF SER 20-24 | SERVICE 4 25-29 | 30-34 | 35-39 | +0+ | TOTAL | TOTAL ANNUAL SALARIES | AVERAGE |
| : | | | : | | : | 1 | | | 1 | | | : |
| 0-24 | 52 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 52 | 1,242,651.30 | 23,897.14 |
| 5-29 | 109 | 52 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 134 | 3,906,967.89 | 29,156.48 |
| 0-34 | 96 | 69 | 60 | 0 | 0 | 0 | 0 | 0 | 0 | 153 | 5,008,833.75 | 32,737.48 |
| 5-39 | 52 | 20 | 10 | 4 | - | 0 | 0 | 0 | 0 | 87 | 2,883,209.12 | 33,140,33 |
| 29-0 | 9 9 | 22 | 60 | 4 | 15 | 0 | 0 | 0 | 0 | 95 | 3,074,323.23 | 32,361.30 |
| 5-49 | 33 | 21 | 11 | 11 | 25 | 10 | 0 | 0 | 0 | 111 | 4,016,984.37 | 36,189,05 |
| 0-54 | 52 | 22 | 10. | ස | 25 | 19 | 19 | 0 | 0 | 160 | 6,255,237.02 | 39,095.23 |
| 5-59 | 29 | 28 | 11 | 10 | 15 | 24 | 12 | М | 0 | 128 | 5,307,429.14 | 41,464.29 |
| 79-0 | 21 | 14 | • | M | 7 | 7 | 2 | 0 | 0 | 09 | 2,697,481.76 | 44,958.03 |
| 69-9 | ın | - | _ | 4 | - | - | 6 | 0 | - | 15 | 778,039.16 | 51,869.28 |
| 0-74 | 0 | - | - | - | 0 | 0 | 0 | 0 | 0 | M | 192,004.79 | 64,001.60 |
| | : | | | i | | : | : | * | | : | 1 | 1 0 0 1 1 1 1 |
| | 495 | 203 | 7.1 | 41 | Ø, | 61 | 34 | m | • | 866 | 35,363,161.53 | 35,434.03 |

| | | AVERAGE ANNUAL BENEFIT | 34,720.68 | 34,820.18 | 32,198.55 | 26,509.96 | 27,493.43 | 22,183.44 | 21,155.50 | 16,371.42 | 18,318.53 | 12,637.30 | | | |
|--|----------|------------------------------|-----------|------------|--------------|--------------|--------------|--------------|--------------|------------|------------|------------|---|---|--|
| SN | | TOTAL ANNUAL BENEFIT | 34,720.68 | 243,741.24 | 1,577,729.16 | 3,578,845.08 | 4,124,015.16 | 2,506,729.20 | 1,163,552.52 | 687,599.64 | 439,644.60 | 126,372.96 | | | |
| NEW ORLEAN | | TOTAL | - | _ | 67 | 135 | 150 | 113 | 55 | 42 | 54 | 10 | | | |
| BOARD OF | | 404 | 0 | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | : | | |
| AND WATER NT PROFILE VALUATION | : | 35-39 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | - | i | | |
| SEWERAGE PARTICIPA ACTUARIAL | RETIREES | 30-34 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 9 | : | | |
| EMPLOYEES RETIREMENT SYSTEM OF THE SEWERAGE AND WATER 01/1/2017 INACTIVE PARTICIPANT PROFILI JANUARY 1, 2017 ACTUARIAL VALUATION | REGULAR | -29 | 0 | 0 | 0 | 0 | - | - | 0 | 80 | 0. | 2 | | | |
| | | INCE RETIREMENT 20-24 25 | 0 | 0 | 0 | 0 | 0 | 9 | 12 | 14 | 9 | 0 | į | | |
| | | YEARS SIM | 0 | 0 | 0 | 34 | 20 | 20 | 22 | 19 | 7 | 0 | 1 | | |
| | | | 10-14 | 0 | D | M | 42 | 52 | 99 | 5 | - | - | 0 | : | |
| | | 6-5 | 0 | ~ | 33 | 99 | 7.0 | 20 | - | 0 | 0 | - | : | | |
| | | 7-0 | - | ĸ | 13 | 54 | 7 | 2 | - | 0 | 0 | 0 | : | | |
| 70 | 27 | AGE | 69-59 | 50-54 | 55-59 | 99-09 | 69-69 | 70-74 | 75-79 | 80-84 | 85-89 | +06 | : | | |

14,482,950.24

10

21

33

88

181

Conefry & Company, LLC

| P. | | | EMPLOYEES | œ | ETIREMENT SYSTEM OF 01/1/2017 INACT JANUARY 1, 2 | EM OF THE SEWERAGE AND WATER BOARD INACTIVE PARTICIPANT PROFILE 1, 2017 ACTUARIAL VALUATION | SEWERAGE Participa Ctuarial | AND WATER NT PROFIL VALUATION | BOARD OF | NEW ORLEAN | S | |
|-------|-----|---------------|-----------|-----------|--|---|-----------------------------------|-------------------------------------|----------|------------|----------------------------|---------------------------|
| 28 | | | | | ***** | DISABLED | RETIREES | | | | | |
| AGE | 0-4 | 0-4 5-9 10-14 | 10-14 | YEARS SIN | YEARS SINCE RETIREMENT 15-19 20-24 25 | MENT 25-29 | 30-34 | 35-39 | +07 | TOTAL | TOTAL ANNUAL BENEFIT | AVERAG ANNUA BENEFI |
| 79-07 | 0 | - | 0 | 0 | 0 | 0 | | 0 | 0 | - | 21,581.52 | |
| 62-65 | 0 | - | N | 0 | 0 | 0 | 0 | 0 | 0 | м | 58,004.88 | 19,334. |
| 50-54 | 0 | ĸ | 0 | 0 | 0 | 0 | 0 | 0 | 0 | м | 51,594.48 | 17,198. |
| 25-59 | 0 | τυ | 7 | 2 | 0 | 0 | 0 | 0 | 0 | - | 185,182.56 | 16,834. |
| 79-09 | 0 | īV | ΙΩ | м | 2 | 350 | 0 | 0 | 0 | 16 | 190,986.84 | 11,936. |
| 69-59 | 0 | 0 | 9 | M | M | 0 | 0 | a | 0 | 12 | 129,360,96 | 10,780. |
| 70-74 | 0 | 0 | - | 2 | 4 | 0 | 0 | 0 | 0 | 7 | 67,994.76 | 9,713. |
| | : | • | | : | * | : | : | : | : | : | | |
| | 0 | 15 | 18 | 10 | 6 | 57 | 0 | 0 | 0 | 53 | 704,706.00 | 13,296. |

.52 .96 .16 .08 .08

| | | AVERAGE ANNUAL BENEFIT | 8,188,92 | 2,527.20 | 4,198.72 | 8,696.35 | 9,109.64 | 6,945.95 | 6,216.19 | 11,163.37 | 5,076.20 | 13,308.60 | 8,042.40 | | 8,265.47 |
|---|-----------|------------------------------|-----------|----------|-----------|-----------|------------|------------|-----------|------------|-----------|------------|-----------|---|------------|
| | | TOTAL ANNUAL BENEFIT | 16,377.84 | 2,527.20 | 12,596.16 | 95,659.80 | 182,192.76 | 118,081.20 | 68,378.04 | 133,960.44 | 50,762.04 | 106,468.80 | 64,339.20 | | 851,343.48 |
| NEW ORLEANS | | TOTAL | 2 | - | М | 11 | 20 | 17 | 1.2 | 12 | 10 | E J | EO. | ; | 103 |
| BOARD OF | | +07 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | - | | ē |
| AND WATER NT PROFIL VALUATION | i | 35-39 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | - | | - |
| SEWERAGE AND WATER PARTICIPANT PROFILE ACTUARIAL VALUATION | SURVIVORS | 30-34 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | * | 0 |
| EMPLOYEES RETIREMENT SYSTEM OF THE O1/1/2017 INACTIVE JANUARY 1, 2017 A JANUARY 1, SURV | į | MENT 25-29 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 2 | 0 | į | 4 |
| | | INCE RETIREMEN 20-24 | 0 | 0 | 0 | 0 | 0 | F | 0 | 0 | 0 | 4 | 0 | | 2 |
| | | YEARS SIN 15-19 | • | 0 | 0 | 0 | • | U | M | 0 | - | 0 | 0 | : | 9 |
| | | 10-14 | 0 | 0 | 0 | 23 | - | 7 | - | - | 4 | 0 | 4 | : | 17 |
| | | 5-9 | - | 0 | N | M | 7 | M | 9 | ın | €1 | M | 2 | į | 4 K |
| | | 7-0 | 0 | - | ~ | 9 | = | 6 | - | 4 | м | 2 | 0 | • | 33 |
| | | AGE | 0-19 | 5-49 | 0-54 | 5-59 | 9-0- | 69-5 | 92-0 | 5-79 | 0-84 | 5-89 | +0 | | |

EMPLOYEES RETIREMENT SYSTEM OF

| | | AVERAGE ANNUAL BENEFIT | 39,291.96 | 43,425.39 | 29,930.87 | 42,205.27 | i | 37,668.11 |
|---|---------------|--|------------|--------------|--------------|------------|-----|--------------|
| | | AVERAGE ANNUAL BENEFIT | 39,2 | 43,4 | 29,9 | 42,2 | | 37,6 |
| ANS | | TOTAL ANNUAL BENEFIT | 589,379.40 | 1,997,568.12 | 1,346,889.12 | 548,668.56 | 1 | 4,482,505.20 |
| NEW ORLE | | TOTAL | 15 | 9 7 | 45 | 13 | : | 119 |
| R BOARD OF | | 40+ | 0 | 0 | 0 | 0 | : | 0 |
| AND WATER ANT PROFII | 1 | -29 30-34 35-39 40+ | 0 | 0 | 0 | 0 | t | 0 |
| SEWERAGE PARTICIP ACTUARIAL | DROP RETIREES | 30-34 | ٥ | 0 | 0 | 0 | | 0 |
| EMPLOYEES KETIKEMENI SYSTEM OF THE SEMERAGE AND WATER BOARD OF NEW ORLEANS 01/1/2017 INACTIVE PARTICIPANT PROFILE JANUARY 1, 2017 ACTUARIAL VALUATION | DROP | EMENT 25-29 | 0 | 0 | 0 | 0 | (A) | 0 |
| | 1 | YEARS SINCE RETIREMENT 15-19 20-24 25 | 0 | 0 | 0 | 0 | : | 0 |
| | | | 0 | 0 | 0 | 0 | : | 0 |
| | | 0-4 5-9 10-14 | 0 | 0 | 0 | 0 | | 0 |
| | | 0- IN | 0 | 0 | 0 | 0 | | 0 |
| | | 5-0 | 15 | 9 7 | 45 | n F | : | 119 |
| p s | 30 | AGE | 50-54 | 55-59 | 60-64 | 69-59 | | |

| | ACCUMULATED EMPLOYEE | ONTRIB | 447.1 | ,004.6 | 2 | ,156.7 | 833.9 | ,605,6 | 9.096 | 376.0 | 196.6 | 034.3 | 099.3 | 6.967 | 767.3 | 182.4 | 383.7 | 0.0 | 4,593.5 | 21,895.91 | 289,575,30 |
|------------------------------------|-------------------------|-------------|-----------|--------|--------|--------|-------|--------|-------|-------|----------|-------|----------|-------|-------|--------|--------|--------|---------|-----------|--------------|
| | SUPPL. MONTHLY | N N | Ġ. | 0.0 | 26.25 | 0. | 0.0 | N | 0 | 0, | 0. | 0. | 2,5 | 7 | 0.0 | 7 | 1.8 | 0.0 | 'n | 0. | 231.64 |
| ERRED BENEFITS | (BASIC) CURR, MO. | ENEFIT | 1,812.14 | 8 | 4 | N | _ | 0 | 9- | 0 | _ | M | Ф | - | -2 | M | 9 | M | 40 | ľ | 16,585.30 |
| W ORLEANS RETIR LOYEES WITH DEF | (BASIC) INIT, MO. | ENEFIT | - | 0.0 | 250.44 | 0.0 | 0.0 | Ġ, | 0. | 0. | 0. | 0.0 | 5. 80 | 30.1 | 0.0 | 099.3 | ,086.6 | 0 - 0 | 9. | 0.0 | 6,761.06 |
| R BOARD OF NE ED VESTED EMP | DATE | TERMINATION | 3/24/2001 | /04/2 | 1/11/1 | 708/2 | /08/2 | /13/1 | /13/2 | /16/2 | 759/5 | /11/2 | 7/08/1 | 124/1 | 12112 | /21/1 | /04/2 | /10/2 | /07/2 | /31/2 | |
| AND WATE | DATE | BIRTH | /02/ | 119/7 | 10 | 12416 | 129/6 | 129/6 | /25/5 | 9/90/ | /17/7 | /30/5 | /25/6 | 122/5 | /13/6 | 7/27/6 | 122/5 | 1/14/6 | 124/6 | /17/6 | TOTALS: |
| SEWERAGE 12/31/2016 | SЭШ | × | I | Σ | ¥ | I | Ξ | Ŧ | X | Σ | <u>.</u> | Σ | ı | u. | Σ | Ŧ | I | Œ | £ | Ξ | |
| | EMPLOYEE ID | NUMBER | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | 18 |
| | | | | | | | | | | | | | | | | | | | | | TOTAL COUNT: |
| | | | | | | | | | | | | | | | | | | | | | TOTAL |

NAME

EXHIBIT V

MARKET VALUE AND ACTUARIAL VALUE ASSET INVESTMENT PERFORMANCE

MVBVHIS1.R1

EMPLOYEES' RETIREMENT SYSTEM OF THE SEWERAGE AND WATER BOARD OF NEW ORLEANS
ESTIMATED MARKET VALUE INVESTMENT PERFORMANCE
BY CALENDAR YEAR

| MARKET VALUE INV. PERFORMANCE FOR YEAR | 19 9208% 8.3601% 11,1120% -3.1217% 26.5680% | 11,9605% 17,9341% 9,5535% 10,1745% 3,2780% | -,9465% -8,9231% 23,5304% 10,5204% 3,8459% | 14,1391% 3,8324% -25,8553% 19,6067% 12,0053% | 4,4578% 11,4351% 10,7339% 4,9416% -1,7896% | 5.7902% |
|--|---|---|---|---|---|-------------|
| ENDING MARKET VALUE | 68,744,768 75,594,235 85,353,305 83,851,322 107,091,635 | 121,423,557 143,989,481 157,759,037 173,022,534 177,861,109 | 175,008,925 155,948,501 187,395,857 202,855,173 205,998,745 | 229, 184, 172 231, 792, 424 166, 418, 096 191, 024, 143 205, 240, 285 | 206, 093, 756 220, 704, 055 234, 358, 049 236, 556, 671 222, 427, 527 | 224,356,261 |
| MARKET VALUE INV. INCOME FOR YEAR | 11,331,152 5,789,535 8,471,584 -2,602,002 22,390,520 | 12,894,655 21,841,187 13,756,662 16,013,013 5,658,247 | -1,677,973 -15,455,327 36,142,887 19,502,120 7,713,678 | 28,734,146 8,667,155 59,122,504 31,912,755 22,439,431 | 8,968,361 23,082,600 23,179,014 11,354,742 -4,144,141 | 12,570,866 |
| NET EXTERNAL CASH FLOW FOR YEAR | 1,065,263 1,105,696 1,287,486 1,180,899 849,793 | 1,437,267 724,737 12,894 -749,516 -819,672 | -1,174,211 -3,605,097 -4,695,531 -4,042,804 -4,570,106 | -5,548,719 -6,058,903 -6,251,824 -7,306,708 -8,223,289 | -8,114,890 -8,472,301 -9,525,020 -9,156,120 -9,985,003 | -10,642,132 |
| TRANSFERS OUT FOR YEAR | 00000 | 00000 | 00000 | 00000 | 00000 | D |
| TOTAL BENEFIT PAYMENTS FOR YEAR | 4,460,555 4,988,329 4,678,593 5,220,801 5,733,411 | 5,704,458 6,410,573 6,573,992 6,928,999 7,317,215 | 7,625,745 7,625,705 9,184,249 8,884,614 10,177,467 | 12,231,855 12,812,727 13,269,799 14,231,876 15,409,624 | 15,947,090 17,406,238 18,002,573 18,748,955 20,244,603 | 20,742,211 |
| TRANSFERS IN FOR YEAR | | | 714,343 | 2,357,005 1,854,239 958,605 516,393 849,540 | 1,233,504 1,690,683 1,065,165 2,001,222 1,847,259 | 1,629,756 |
| EMPLOYEE CONTRIBUTIONS FOR YEAR | 1,001,436 1,113,066 1,092,713 1,298,780 1,395,149 | 1,463,218 1,202,021 1,138,063 1,028,094 1,053,495 | 1,040,68C 1,089,543 1,097,183 1,120,776 1,176,637 | 982,418 1,014,461 1,143,858 1,161,744 1,190,714 | 1,161,996 1,128,257 1,465,774 1,535,723 1,905,689 | 2,063,122 |
| EMPLOYER CONTRIBUTIONS FOR YEAR | 4,524,382 4,980,959 4,873,366 5,102,920 5,188,055 | 5,678,507 5,933,289 5,448,823 5,151,389 5,444,048 | 5,417,854 2,931,065 3,391,535 3,721,034 3,716,381 | 3,343,713 3,885,124 4,915,512 5,247,031 5,146,081 | 5,436,700 6,114,997 5,946,614 6,055,890 6,506,652 | 6,407,201 |
| BEGINNING MARKET VALUE | 56,348,353 68,699,004 75,594,235 85,353,305 83,851,322 | 107,091,635 121,423,557 143,989,481 157,759,037 173,022,534 | 177,861,109 175,008,925 155,948,501 187,395,857 202,855,173 | 205, 998, 745 229, 184, 172 231, 792, 424 166, 418, 096 191, 024, 143 | 205,240,285 206,093,756 220,704,055 234,358,049 236,556,671 | 222,427,527 |
| PLAN YEAR ENDING | 12/31/91 12/31/92 12/31/93 12/31/94 12/31/95 | 12/31/96 12/31/97 12/31/98 12/31/99 12/31/00 | 12/31/01 12/31/02 12/31/03 12/31/04 12/31/05 | 12/31/06 12/31/07 12/31/08 12/31/09 12/31/10 | 12/31/11 12/31/12 12/31/13 12/31/14 12/31/15 | 12/31/16 |

269,331,483

-101,277,811

Number of Years Included: 26

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| | S III | STIMATED INVESTM | ENT PERFORMANC | E BY MARKET VA | LUE AND ACTUARIAL AR | VALUE OF ASSETS |
|--|---|--|---|---|---|--|
| YEAR ENDING | ENDING MARKET VALUE | MARKET VALUE INV. PERF. FOR YEAR | MARKET VALUE MEAN FUND | ACTUARIAL VALUE MEAN FUND | ENDING ACTUARIAL VALUE OF ASSETS | ACTUARIAL ASSETS INV. PERF. FOR YR |
| 12/31/1991 12/31/1992 12/31/1993 12/31/1994 12/31/1995 | 68,744,768 75,594,235 85,353,305 83,851,322 107,091,635 | 19.9208% 8.3601% 11.1120% -3.1217% 26.5680% | 56,880,985 69,251,852 76,237,978 85,943,755 84,276,219 | 58,063,594 65,474,680 73,185,712 82,522,872 88,382,798 | 64,921,832 72,541,969 81,932,422 87,957,901 100,059,569 | 10.8943% 9.9496% 11.0718% 5.8706% |
| 12/31/1996 12/31/1997 12/31/1998 12/31/1999 12/31/2000 | 121,423,557 143,989,481 157,759,037 173,022,534 177,861,109 | 11.9605% 17.9341% 9.5535% 10.1745% 3.2780% | 107,810,269 121,785,926 143,995,928 157,384,279 172,612,698 | 100,778,203 115,167,581 120,917,702 134,526,473 | 114,805,212 120,911,255 134,901,231 149,976,441 164,845,672 | 13.2056% 4.6726% 11.5592% 11.7633% |
| 12/31/2001 12/31/2002 12/31/2003 12/31/2004 12/31/2005 | 175,008,925 155,948,501 187,395,857 202,855,173 205,998,745 | 9465% -8.9231% 23.5304% 10.5204% 3.8459% | 177,274,004 173,206,377 153,600,736 185,374,455 200,570,120 | 164,258,567 178,934,580 185,544,953 194,676,030 202,421,399 | 180,737,128 187,892,718 196,697,432 204,706,452 209,829,340 | 10.3895% 6.0138% 7.2760% 6.1907% 4.7885% |
| 12/31/2006 12/31/2007 12/31/2008 12/31/2009 12/31/2010 | 229,184,172 231,792,424 166,418,096 191,024,143 205,240,285 | 14.1391% 3.8324% -25.8553% 19.6067% 12.0053% | 203,224,386 226,154,721 228,666,512 162,764,742 186,912,499 | 207,054,981 214,114,272 220,457,677 218,945,286 224,888,016 | 217,143,723 223,583,589 222,598,640 228,999,660 230,298,898 | 6.2124% 5.8374% 2.3891% 6.2608% 4.2343% |
| 12/31/2011 12/31/2012 12/31/2013 12/31/2014 12/31/2015 | 206,093,756 220,704,055 234,358,049 236,556,671 222,427,527 | 4.4578% 11.4351% 10.7339% 4.9416% -1.7896% | 201,182,840 201,857,606 215,941,545 229,779,989 231,564,170 | 226,241,453 224,901,549 224,870,900 221,845,834 218,697,146 | 229,137,699 229,633,410 226,423,894 223,689,647 233,572,291 | 3.0736% 3.9875% 2.8085% 2.8947% 9.0845% |
| 12/31/2016 | 224,356,261 | 5.7902% | 217,106,461 | 228,251,225 | 238,715,902 | 6.9160% |

PERFMAST.R1

EMPLOYEES' RETIREMENT SYSTEM OF THE SEWERAGE AND WATER BOARD OF NEW ORLEANS
ESTIMATED INVESTMENT PERFORMANCE
BY CALENDAR YEAR

| | YEAR | ENM40 | 97890 | 13 13 13 13 13 | 16 17 18 20 | 22 23 24 25 | 56 |
|---|------------|---|---|---|---|---|-------------|
| ACTUARIAL ASSET VALUE INVESTMENT PERFORMANCE | AVERAGE | 10.89% 10.42% 10.64% 9.43% | 10.59% 9.73% 9.96% 10.15% | 10.21% 9.85% 9.40% 9.09% | 8.72% 8.36% 8.25% | 7.80% 7.63% 7.41% 7.22% 7.29% | 7.29% |
| | CUMULATIVE | 10,89% 21,93% 35,43% 43,38% 61,63% | 82.98% 91.52% 113.66% 138.80% | 191.26% 208.77% 231.24% 251.75% 268.59% | 291,49% 314,34% 324,24% 350,80% 369,89% | 384.33% 403.64% 417.79% 432.78% 481.18% | 523.31% |
| | FOR YEAR | 10.89% 9.95% 11.07% 5.87% 12.73% | 13.21% 4.67% 11.56% 11.76% 10.49% | 10.39% 6.01% 7.28% 6.19% 4.79% | 6.21% 2.39% 6.26% 6.26% | 3.07% 3.99% 2.81% 2.89% 9.08% | 7.25% |
| ANCE | AVERAGE | 19.92% 13.99% 13.03% 8.75% | 12.08% 12.90% 12.22% 11.29% | 10.12% 8.39% 9.48% 9.56% | 9.47% 9.13% 6.81% 7.45% | 7.52% 7.69% 7.82% 7.70% | 7.25% |
| MARKET VALUE INVESTMENT PERFORMANCE | CUMULATIVE | 19.92% 29.95% 44.39% 39.88% 77.04% | 98.22% 133.77% 156.10% 182.15% 191.40% | 162.89% 162.89% 224.75% 258.91% 272.72% | 325.42% 341.72% 227.51% 291.72% 338.75% | 358.31% 410.72% 465.54% 493.49% 482.87% | 516.61% |
| | FOR YEAR | 19.9208% 8.3601% 11.1120% -3.1217% 26.5680% | 11.9605% 17.9341% 9.5535% 10.1745% 3.2780% | .9465% -8.9231% 23.5304% 10.5204% 3.8459% | 14,1391% 3,8324% -25,8553% 19,6067% 12,0053% | 4,4578% 11,4351% 10,7339% 4,9416% -1,7896% | 5.7902% |
| E ENDING MARKET VALUE | | 68,744,768 75,594,235 85,353,305 83,851,322 107,091,635 | 121,423,557 143,989,481 157,759,037 173,022,534 177,861,109 | 175,008,925 155,948,501 187,395,857 202,855,173 205,998,745 | 229, 184, 172 231, 792, 424 166, 418, 096 191, 024, 143 205, 240, 285 | 206,093,756 220,704,055 234,358,049 236,556,671 222,427,527 | 224,356,261 |
| MARKET VALUE | | 11,331,152 5,789,535 8,471,584 -2,682,882 22,390,520 | 12,894,655 21,841,187 13,756,662 16,013,013 5,658,247 | -1,677,973 -15,455,327 36,142,887 19,502,120 7,713,678 | 28,734,146 8,667,155 -59,122,504 31,912,755 22,439,431 | 8,968,361 23,082,600 23,179,014 11,354,742 | 12,570,866 |
| NET EXTERNAL CASH FLOW FOR YEAR | | 1,065,263 1,105,696 1,287,486 1,180,899 849,793 | 1,437,267 724,737 12,894 -749,516 -819,672 | -1,174,211 -3,605,097 -4,695,531 -4,042,804 -4,570,106 | -5,548,719 -6,058,903 -6,251,824 -7,306,708 -8,223,289 | -8,114,890 -8,472,301 -9,525,020 -9,156,120 | -10,642,132 |
| BEGINNING MARKET VALUE | | 56,348,353 68,699,004 75,594,235 85,353,305 83,851,322 | 107,091,635 121,423,557 143,989,481 157,759,037 173,022,534 | 177,861,109 175,008,925 155,948,501 187,395,857 202,855,173 | 205,998,745 229,184,172 231,792,424 166,418,096 191,024,143 | 205,240,285 206,093,756 220,704,055 234,358,049 236,556,671 | 222,427,527 |
| PLAN YEAR ENDING I | | 12/31/91 12/31/92 12/31/93 12/31/94 12/31/95 | 12/31/96 12/31/97 12/31/98 12/31/99 12/31/00 | 12/31/01 12/31/02 12/31/03 12/31/04 | 12/31/06 12/31/07 12/31/08 12/31/09 12/31/10 | 12/31/11 12/31/12 12/31/13 12/31/14 | 12/31/16 |

Number of Years Included: 26

CERTIFICATION

The foregoing report presents fairly the actuarial position of the Employees' Retirement System of the Sewerage and Water Board of New Orleans as of January 1, 2017 in accordance with generally accepted actuarial principles applied on a basis consistent with the preceding valuation, except where noted. In our opinion, the assumptions used in preparing the liabilities and estimated costs are reasonably related to the experience of the plan and to reasonable expectations and represent our best estimate of anticipated experience under the plan.

CONEFRY & COMPANY, L.L.C.

Mush of the

Michael A. Conefry, FCA, ASA, MAAA, MSPA

Enrollment Number 17-1235

New Orleans, Louisiana May, 2017 V201612

Sewerage & Water Board of New Orleans Employees' Retirement System Historical Funded Ratios

| Year | Projected Benefit | | Asset Value | [Funded Ratio] | |
|--|--|---|---|---|---|
| Ending | Obligation | Market Va | lue | Actuarial | Value |
| 12/31/1999 | 140,305,927 | 173,022,534 | [123.3%] | 149.976,441 | [106.90%] |
| 12/31/2000 12/31/2001 12/31/2002 12/31/2003 12/31/2004 12/31/2005 12/31/2006 12/31/2007 | 139,590,552 150,152,672 180,839,908 190,010,559 204,539,624 211,586,246 223,274,416 230,930,670 | 177.861.109 175.008.925 155.948.501 187.395.857 202.855,173 205.998.745 229.184.172 231.792.424 166.418.096 | [127.4%] [116.6%] [86.2%] [98.6%] [99.2%] [97.4%] [102.6%] [100.4%] [66.6%] | 164,845,672 180,737,128 187,892,718 196,697,432 204,706,452 209,829,340 217,143,723 223,583,589 222,598,640 | [118.10%] [120.40%] [103.90%] [103.50%] [100.10%] [99.20%] [97.30%] [96.80%] [89.10%] |
| 12/31/2008 12/31/2009 | 249,694,251 259,623,463 | 191.024.143 | [73.6%] | 228,999.660 | [88.20%] |
| 12/31/2010 12/31/2011 12/31/2012 12/31/2013 12/31/2014 | 261.931.765 277.475.462 280.402.207 284.742.986 285.247.682 | 205,240,285 206,093,756 220,704,055 234,358,049 236,556,671 | [78.4%] [74.3%] [78.7%] [82.3%] [82.9%] | 230,298,898 229,137,699 229,633,410 226,423,894 223,689,647 | [87.90%] [82.60%] [81.90%] [79.50%] [78.40%] |
| 12/31/2015 12/31/2016 | 289,309,096 293,687,044 | 222,427,527 224,356,261 | [76.9%] [76.4%] | 233,572,291 238,715,902 | [80.70%] [81.30%] |

D.R.O.P. - "Deferred Retirement Option Plan"

- Originated in 1981 by Baton Rouge City Parish System
- Adopted by more plans throughout Gulf South Region and eventually in much of the remainder of country by the 1990's

First, Consider D.R.O.P. - In "Purest" Sense

- From the perspective of system and actuarial funding is identical to retirement
- Must be eligible to retire at date of D.R.O.P. entry; benefit is calculated and irrevocably established based on credited service, average compensation, optional form of benefit, etc., exactly same as for retirement

"Cost Neutral" So Far? - Yes! Same as retirement

- How about D.R.O.P. being incentive to retire earlier (and costlier) than otherwise?
- Not really "retiring earlier" but "working longer"
- Possible exceptions: LASERS and TRSL allow D.R.O.P. only when first eligible to retire

Next question: what happens to accumulation of monthly payments into D.R.O.P. account?

- Segregated account separately invested or by individual member direction - still "pure" and cost neutral
- Bookkeeping account within fund earning some variation of fund's return, stipulated investment return and/or guaranteed minimum return - first element of possible actuarial "cost"

Guaranteed principal (no negative return to D.R.O.P. account balance)

- Historical typical fund returns from late 1980's through 1999: only 1 negative year (1994) and 1 other year less than the level of most actuarial assumptions (1990)
- Attorney General 2002 Opinion
- Extreme example: 8% average compound return two different ways: [1] at 8% every year, [2] at -8%/+27% alternating year after year and [3] at 0%/27% alternating year after year
- Result: after ten years, \$1,000 invested at time 0 is \$1,159 under [1], \$1,177 under [2] and \$2,304 under [3]

Using Fund average return over several years

- Mitigates but does not eliminate problem; still possible to have negative average (2008)
- "Run on bank" syndrome (after 2000-2002 near-zero and negative returns) after re-bound in following years
- Possible alternative: hypothetical D.R.O.P. sub-fund developed using actual D.R.O.P. cash flow (monthly payments in and distributions out) and actual fund performance then temper D.R.O.P. return by the return on this hypothetical sub-portfolio in concert with contingency charge

"Reverse" or "Back" D.R.O.P.

- In "pure" sense, intended to retrospectively reproduce D.R.O.P. account balance as if D.R.O.P. had been elected at the beginning of hypothetical D.R.O.P. period
- Explicit anti-selection (e.g., investment return)
- Implicit anti-selection (e.g., won't elect unless favorable from average compensation perspective: "Winners" and "losers")
- Many other variations incorrectly called by this name

Other D.R.O.P. issues

- Continued member contributions during D.R.O.P. period
- Shortening D.R.O.P. period (say, from five to three years)
- Continued employment beyond D.R.O.P. period expiration

Summary

Wealth and Asset Management Overview

January 17th, 2018

Presented to: Sewerage & Water Board of New Orleans

Presented by:

Janice M. Leaumont

Senior Institutional Trust Officer

Wealth and Asset Management

504.533.2559

Janice.Leaumont@capitalone.com

WEALTH AND ASSET MANAGEMENT





WHY CAPITAL ONE?

THE RIGHT PARTNER

Proven Strength and Reputation

- Headquartered in McLean, Virginia
- Capital One Financial ranks as a Fortune 200 company
- \$350 billion in total assets*
- Capital One Bank is one of the ten largest banks in the U.S.
- 130+ years of banking experience, including its predecessors

Wealth and Asset Management Heritage

- Over 80 years experience in wealth and asset management, including its predecessors
- Partnership approach equips us to develop lasting relationships
- Experienced local talent with a global perspective
- A consultative, hands-on approach that delivers consistent results
- Skills and expertise in investment management
- Over \$10.7 billion in assets under administration*
- Over \$4.1 billion in assets under management*



CONSULTATIVE SOLUTIONS

approach with customized solutions to help non-profits, individuals, businesses and their owners and The Wealth and Asset Management group at Capital One N.A. (CONA) provides a consultative, hands-on institutions grow, manage, protect and transfer wealth. Those solutions include:

Institutional Client Services

- Investment Management
- Outsourced CIO Services
- Foundation and Endowment Services
- Custody & Escrow Services

Retirement Benefits Consulting

- Plan Consultation
- Plan Governance
- Investment Advice
- Education and Enrollment
- Cost Analysis
- RFP Process

Personal Client Services

- Investment Management
- Trust Administration
- Real Estate and Mineral Management
- Wealth Planning
- Estate Settlement
- Individual Retirement Planning





ADMINISTRATION AND REPORTING

INVESTMENT AND ADMINISTRATION SERVICES

As one of the nation's ten largest banks, Capital One, N.A. offers the following custodial solutions:

- Safekeeping of securities
- Trade settlements
- Transaction management
- Accounting & reporting (including online reporting)
- Collection and crediting of interest and dividends
- Securing electronic transfers

Clients have entrusted over \$10.7 billion* to Capital One N.A.'s care and custody. Our professionals have provided customized solutions for institutional clients for more than 80 years, including predecessors.



Please see accompanying disclosures

CUSTOMIZATION TO MATCH CLIENT NEEDS

As a Capital One Wealth and Asset In an increasingly consolidated, one-size-fits-all industry, Capital One Wealth and Asset Management provides customized services tailored to our clients' needs. Management client, you decide the following:

- Cost basis reporting you select the reporting method you prefer, including the average cost or specific lots methods
- Trade date/settlement date you select the reporting you prefer
- Real time access to data you have access to asset and transaction data via download from Portfolio On Line TM
- Reporting on accrual or cash basis you select the reporting basis you prefer
- Statement frequency* you select the frequency of accounting of all assets and transactions monthly, quarterly, annually, or any combination thereof.



*For discretionary investment management accounts, minimum statement frequency is quarterly.

BMO Securities Lending overview

- BMO Securities Lending offers institutional clients the opportunity to enhance market returns on securities held in their portfolio. BMO develops a customized program in partnership with clients that aligns with the client's objectives and risk tolerance. Clients look at securities lending as an extension of their overall investment
- BMO's client base includes corporate retirement plans, foundations and endowments, health care providers, insurance companies, mutual funds, public funds and Taft-Hartley funds.
- The client retains all rights of ownership except the ability to vote proxies. Client has the ability to recall securities for proxy voting.
- The client's account(s) at the custody bank is credited with the monthly earnings.
- Sewerage & Water Board has earned \$1.92 million in securities lending revenue since inception (2001-2017).





BIOS



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Senior Institutional Trust Officer

Leaumont is responsible for the daily management and administration of large institutional client relationships. In this role, she provides client service, reviews new business opportunities and documentation, assists in closing new business, and New Orleans area. Ms. Leaumont earned her B.S. in Business Administration from Prior to joining Capital One, she was a institutional trust officer for Hancock/Whitney Bank, JPMorgan and it's predecessors' and Hibernia National Bank, all in the greater administers institutional investment management, custody, and escrow accounts. Ms. Leaumont has more than 25 years of trust and banking experience. Louisiana State University.

