SEWERAGE & WATER BOARD OF NEW ORLEANS

PENSION COMMITTEE MEETING
WEDNESDAY, NOVEMBER 11, 2020
10:30 AM

November 2020 Pension Attendee Link

Call In #: +1 504-224-8698   United States, New Orleans (Toll)

Conference ID: 395 620 921#

PUBLIC COMMENT WILL BE ACCEPTED VIA EMAIL TO BOARDRELATIONS@SWBNO.ORG. ALL PUBLIC COMMENTS MUST BE RECEIVED PRIOR TO 11:00 AM ON November 11, 2020. COMMENTS WILL BE READ VERBATIM INTO THE RECORD.

Joseph Peychaud, Chair • Councilmember Jay H. Banks

Ralph Johnson• Alejandra Guzman • Dr. Maurice Sholas

• Adam Kay • Christopher Bergeron

• Latressia Matthews • Harold Heller

FINAL AGENDA

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1. **ROLL CALL**
2. **PRESENTATION ITEM**
   - 2020 Actuary Report – Rudd & Wisdom
   - 2020 Cost of Living Adjustment – Rudd & Wisdom
3. **ACTION ITEM**
   - Resolution (R-113-2020) January 1, 2020 Cost of Living Adjustment for Board Pensioners
   - Resolution (R-141-2020) 2020 Sewerage and Water Board's Contribution to the Employees' Retirement System of the Sewerage and Water Board of New Orleans
   - Resolution (R-140-2020) The Board of Directors of the Sewerage and Water Board of New Orleans in Reference to the Employees' Retirement System of the Sewerage and Water Board
   - Resolution (R-142-2020) Acceptance of the 2020 Experience Study of Rudd & Wisdom
4. **PUBLIC COMMENT**

   Public comments received until 30 minutes after the presentation of the Agenda will be read into the record.
5. **INFORMATION ITEM**
   - Actuarial Valuation as of January 1, 2020 – Rudd & Wisdom
6. **ADJOURNMENT**

This teleconference meeting is being held pursuant to and in accordance with the provisions of Section 4 of Proclamation Number JBE 2020-30, extended by Proclamation 110 JBE 2020, pursuant to Section 3 of Act 302 of 2020.

R-113-2020

JANUARY 1, 2020 COST OF LIVING ADJUSTMENT FOR BOARD PENSIONERS

WHEREAS, as provided in Article VI, Section 6.1(d)(1) of the Rules and Regulations of the Employees' Retirement System of the Sewerage and Water Board of New Orleans; it is policy to provide a Cost of Living Adjustment to pensioners over age 65 based on the change in inflation for the 12-month period ending in August of the preceding year, with a maximum increase of no more than 2%; and

WHEREAS, the change in inflation Consumer Price Index (CPI) for Urban Wage Earners for the period of August 2018 to August 2019 was 1.533%; and

WHEREAS, the total annual increase to the Pension Fund of the Sewerage and Water Board of New Orleans to implement the January 1, 2020 Cost of Living Adjustment to 817 eligible pensioners is approximately $75,096.36; and

WHEREAS, such funds to provide for a Cost of Living Adjustment to eligible pensioners are to be made available by the Pension Fund of the Sewerage and Water Board of New Orleans; and

NOW THEREFORE, BE IT RESOLVED, by the Board of Trustees, that: the Pension Fund of the Sewerage and Water Board of New Orleans implement a 1.533% Cost of Living Adjustment increase on the first ten-thousand dollars ($10,000) of eligible pensioners' original Retirement Allowance (that is, the annual pension benefit paid at the time of retirement), effective January 1, 2020, for eligible pensioners who attained age 65 on or before December 31, 2019. The Cost of Living Adjustment increase for a partial year of retirement after age 65 shall be pro-rated based on the actual number of days retired and over age 65 during the twelve-month period ending December 31, 2019 (that is, the number of days elapsed between attainment of age 65 and December 31, 2019).

I, Ghassan Korban, Executive Director, Sewerage and Water Board of New Orleans, do hereby certify that the above and foregoing is a true and correct copy of a resolution adopted at the regular meeting of said Board, duly called and held, according to law, on November 18, 2020.

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Ghassan Korban
Executive Director
Sewerage and Water Board of New Orleans

THE 2020 SEWERAGE AND WATER BOARD'S CONTRIBUTION TO THE EMPLOYEES' RETIREMENT SYSTEM OF THE SEWERAGE AND WATER BOARD OF NEW ORLEANS

WHEREAS, the Employees' Retirement System if the Sewerage and Water Board of New Orleans ("Plan") is an actuarially funded qualified government defined benefit pension plan under the Internal Revenue Code; and

WHEREAS, an annual Actuarial Valuation report of the Plan was presented as of December 31, 2019; and

WHEREAS, the aforementioned actuarial report reflects an actuarial valuation using the Entry Age Normal funding method; and

WHEREAS, the adopted "minimum contribution" for a plan year equals the Normal Cost plus the amount necessary to amortize the Unfunded Actuarial Liability; and

WHEREAS, the Normal Cost for the plan year beginning January 1, 2020 is $4,947,747; and

WHEREAS, the net annual charge required for amortization of the Unfunded Actuarial Liability over a 30-year period beginning January 1, 2020 is $7,746,757; and

WHEREAS, the total Plan contribution as of January 1, 2020 is $12,694,504 (Normal Cost - $4,947,747 plus Unfunded Actuarial Liability - $7,746,757), which is 26.112% of the projected Earnable Compensation of $48,616,122; and

WHEREAS, the annual estimated employee plan contribution as of January 1, 2020 is $2,430,806, which is 5% of the projected Earnable Compensation based on Board Resolution R-248-2014, although actual employee contributions are 6% of projected Earnable Compensation; and

WHEREAS, the annual Employer Contribution reflecting the continued utilization of the Entry Age Normal funding method less the Plan determined employee contribution is $10,263,698 for 2020, which has been displayed as a percentage contribution of 21.112% of the projected Earnable Compensation; and

WHEREAS, the Actuarial Valuation report includes the required "amortization" contribution for the Plan to amortize the Unfunded Actuarial Liability of $99,176,322 over a 30-year amortization period, effective on each valuation date at 7% annual interest; and

NOW, THEREFORE, BE IT RESOLVED, that the Board of Trustees of the Sewerage & Water Board of New Orleans hereby approves the employer contribution of the projected Earnable Compensation to be $10,263,698 for the Plan Year beginning January 1, 2020 and will be collected through active payroll based on a percentage of 21.112% for the remainder of Plan Year 2020.

I, Ghassan Korban, Executive Director,
Sewerage and Water Board of New Orleans, do hereby
certify that the above and foregoing is a true and
correct copy of a resolution adopted at the regular
monthly meeting of said Board, duly called and held,
according to law, on November 18, 2020.

GHASSAN KORBAN,
EXECUTIVE DIRECTOR
SEWERAGE AND WATER BOARD OF NEW ORLEANS

R-140-2020

RESOLUTION OF THE BOARD OF DIRECTORS OF THE SEWERAGE AND WATER BOARD OF NEW ORLEANS IN REFERENCE TO THE EMPLOYEES' RETIREMENT SYSTEM OF THE SEWERAGE AND WATER BOARD

WHEREAS, the Board of Trustees desires an amendment to the Funding Policy of the Employees' Retirement System of the Sewerage and Water Board of New Orleans ("Retirement System") that would to commit to a Recommended Closed Amortization Period in Layers between 15 and 30 years ("Closed Amortization") as Recommended by Rudd and Wisdom, Inc. in the presentation to the Pension Committee on September 10, 2020; and

WHEREAS, The Sewerage and Water Board of New Orleans ("Board"), under the proposed Closed Amortization, will increase its annual contribution to the Retirement System for the year ended 2020 and possibly beyond; and

WHEREAS, as long as the Board is committed to the Closed Amortization for the Retirement System, the Member contribution shall be counted at its full contribution (currently, 6% of Earnable Compensation) and no less than 6 %; and

WHEREAS, the intent of recognizing the full amount of the Members' Contribution is to reduce and shall be continued to reduce the Unfunded Accrued Liability of the Retirement System and to follow accepted actuarial practices.

NOW THEREFORE, BE IT RESOLVED, that the Pension Committee recommends approval and the Board of Trustees approves that effective after December 31, 2020, the Retirement System's actuary will produce various calculations of the Annual Contribution to the Retirement System based on a full Member Contribution of (currently, 6% of Earnable Compensation).

I, Ghassan Korban, Executive Director,
Sewerage and Water Board of New Orleans, do hereby
certify that the above and foregoing is a true and
correct copy of a Resolution adopted at the
Meeting of said Board of Trustees duly called and held,
according to law, on November 18, 2020.

GHASSAN KORBAN
EXECUTIVE DIRECTOR
SEWERAGE AND WATER BOARD OF NEW ORLEANS

R-142-2020

ACCEPTANCE OF THE 2020 EXPERIENCE STUDY OF RUDD & WISDOM

WHEREAS, on January 23, 2019 the Sewerage and Water Board of New Orleans ("Board") issued a Request for Proposal (RFP) to obtain actuarial consulting services to support the Employees' Retirement System and activities of the Sewerage and Water Board of New Orleans; and

WHEREAS, on February 27, 2019, the Board's Selection Evaluation Committee held an open public meeting and evaluated and ranked the submitted proposals; and

WHEREAS, as a result of the review and evaluation conducted, Rudd & Wisdom, Inc. received the highest scores and the Selection Evaluation Committee recommended the firm be awarded the contract to perform actuarial consulting services for the Sewerage and Water Board of New Orleans; and

WHEREAS, on March 20, 2019, the Board approved a contract with Rudd & Wisdom, and a contract between the parties was executed on April 9, 2019; and

WHEREAS, Rudd & Wisdom performed an Experience Study at the request of and no behalf of the Board; and

NOW, THEREFORE BE IT RESOLVED,, the Employees' Retirement System of the Sewerage and Water Board of New Orleans accepts the 2020 Experience Study as recommended by Rudd & Wisdom, as the Retirement System's actuary, in the presentation to the Pension Committee on September 10, 2020: and

BE IT FURTHER RESOLVED, the updated data and metrics of the 2020 Experience Study will become effective after December 31, 2020

I, Ghassan Korban, Executive Director,
Sewerage and Water Board of New Orleans, do hereby
certify that the above and foregoing is a true and
correct copy of a resolution adopted at the Regular
Monthly Meeting of said Board of Trustees duly called and held,
according to law, on November 18, 2020.

GHASSAN KORBAN, EXECUTIVE DIRECTOR
SEWERAGE AND WATER BOARD OF NEW ORLEANS

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

ACTUARIAL VALUATION

AS OF

JANUARY 1, 2020

Rudd and Wisdom, Inc.

Rudd and Wisdom, Inc.

CONSULTING ACTUARIES

November 2, 2020

PERSONAL AND CONFIDENTIAL

Board of Trustees
Sewerage and Water Board of New Orleans
625 St. Joseph Street
New Orleans, Louisiana 70165

Re: Actuarial Valuation as of January 1, 2020

Members of the Board of Trustees:

Enclosed is the Actuarial Valuation of the Employees' Retirement System of the Sewerage and Water Board of New Orleans (the "Plan") as of January 1, 2020. The purpose of this report is to evaluate the funded status of the plan and to determine an actuarially reasonable contribution level that comports with the employer's funding policy for the plan year beginning January 1, 2020.

Note: This report may be provided to third parties only if distributed in its entirety.

Funding Policy

The ultimate goal of a funding policy is to ensure that plan assets will be sufficient to pay all benefits to all plan participants and their beneficiaries as payments come due. A funding policy that requires contributions that are sufficient to pay the plan's Normal Cost and to amortize the plan's Unfunded Accrued Liability (UAL) over a reasonable period of time should be adequate to achieve this goal, subject to the risks inherent in any pension plan as further discussed below.

The Sewerage and Water Board of New Orleans has utilized a funding policy that determines the Normal Cost and Accrued Liability using the Entry Age Normal (EAN) funding method. The UAL is the difference between this Entry Age Normal Accrued Liability and the Actuarial Value of Plan Assets as of the valuation date. The employer's funding policy requires annual contributions sufficient to fund the sum of the Normal Cost under the EAN funding method and a level dollar amortization of the UAL over an open 30-year period.

The annual Employer Contribution reflecting the continued utilization of this funding policy for the 2020 plan year is $10,263,698. This amount is in addition to Employee Contributions of 6.0% of "Earnable Compensation" as defined under the terms of the Rules and Regulations

of the Plan. See page III-1 of this report for the development of the employer contribution and page VI-11 for the definition of "Earnable Compensation". The Board may elect to contribute more than this funding policy amount. At the request of the employer, we have also determined a contribution amount for 2020 that would fund the Normal Cost plus a level dollar amortization of the UAL over a 15-year period.

	Funding Scenario	
	Funding Policy (30-year Amortization of UAL)	**Funding Alternative (15-year Amortization of UAL)**
1. Normal Cost[1]	$ 4,947,747	$ 4,947,747
2. Amortization of UAL[1]	7,746,757	10,554,539
3. Total[1]	$ 12,694,504	$ 15,502,286
4. Employee Funding Policy Contribution[2]	(2,430,806)	(2,430,806)
5. Employer Contribution	$ 10,263,698	$ 13,071,480
6. Employer Contribution as a Percent of Pension Payroll[3]	21.112%	26.887%

1 Includes interest assuming monthly payments at the end of each month.
2 In accordance with Board Resolution R-248-2014, since the plan is not 100% funded, the Employer Contribution is determined assuming employees contribute 5% of Earnable Compensation. Actual Employee Contributions are 6% of Earnable Compensation.
3 Based on projected 2020 Earnable Compensation of $48,616,122. Earnable Compensation is not equal to Total Compensation. For example, Earnable Compensation excludes overtime pay. (See page VI-11 of this report for the definition of Earnable Compensation.)

Action Items

The following list contains certain action items for company management:

1. Review the Management Summary (Section II) of this report.

2. Make a contribution of at least $10,263,698 to the trust for the twelve months ending December 31, 2020 in order to follow the employer's funding policy.

3. Notify us of any activities during the remainder of the 2020 plan year that could require updates to the next valuation on January 1, 2021 (e.g., a plan amendment, a change in the funding policy, a change in the investment policy or a material change in employment or compensation practices related to the COVID-19 pandemic).

Variability in Future Actuarial Measurement and Related Risks

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following:

- Plan experience differing from that anticipated by the current economic or demographic assumptions;

- Increases or decreases expected as part of the natural operation of the methodology used for these measurements;

- Changes in economic or demographic assumptions; and

- Changes in plan provisions.

Risks that may reasonably be anticipated to significantly affect the plan's future financial condition include:

- Investment Risk (i.e., the potential that investment returns will be different than expected);

  Adverse investment experience can increase employer contribution requirements in future years. Favorable investment experience can have the opposite effect.

- Asset/Liability mismatch (i.e., the potential that changes in asset values are not matched by changes in the value of liabilities);

  Mismatches can produce effects similar to adverse investment experience, but they can be amplified by assets and liabilities moving in opposite directions. This plan's assets are not matched to its liabilities. Instead, the employer has elected to invest with an asset mix intended to produce higher long-term returns on average than might be expected with an asset/liability matched portfolio, but this will frequently produce short term variances between asset growth and liability growth.

- Longevity and other demographic risks (i.e., the potential that mortality or other demographic experience will be different than expected);

  Adverse longevity and other demographic experience can increase employer contribution requirements in future years. Favorable demographic experience can have the opposite effect.

- Contribution risk (i.e., the potential that actual future contributions deviate from expected future contributions).

  If employer contributions are made below the level required by the funding policy contemplated in this valuation, the employer contribution requirements will grow in the future, compounded with interest.

We can provide more detailed assessments of one or more of the above risks upon request. Assessment methods may include, but are not limited to, scenario tests and sensitivity tests. We have not been asked to perform and have not performed any stochastic or deterministic sensitivity analyses of the potential ranges of such future measurements, nor any of the more detailed assessments described above. If you have an interest in the results of any such analysis, please let us know.

If you have any questions concerning this information, please do not hesitate to call or write.

Respectfully submitted,

RUDD AND WISDOM, INC.

Mitchell L. Bilbe, F.S.A.

Christopher S. Johnson, F.S.A.

MLB/CSJ:ph
Enclosures
cc: Yolanda Grinstead
Ghassan Korban
LaBarron McClendon
Sonji Skipper

RptFund_SWBNO_DB_2020_FUNDVAL.docx

ACTUARIAL VALUATION

AS OF

JANUARY 1, 2020

RUDD AND WISDOM, INC.
AUSTIN, TEXAS

NOVEMBER 2020

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Section I – Certification of Actuarial Valuation as of January 1, 2020

At the request of the Sewerage and Water Board of New Orleans, we have performed an actuarial valuation of the Employees' Retirement System of the Sewerage and Water Board of New Orleans as of January 1, 2020. The purpose of this report is to evaluate the funded status of the plan and to determine an actuarially reasonable contribution level for the plan year ending December 31, 2020 that comports with the employer's funding policy.

We have based our valuation on current employee, former employee and retiree data as of January 1, 2020 provided by the Sewerage and Water Board of New Orleans and asset information as of January 1, 2020 provided by Capital One, Whitney Hancock and LAMP. We have used the actuarial methods and assumptions described in Section V of this report. The actuarial valuation has been performed on the basis of the plan benefits described in Section VI.

To the best of our knowledge, all current employees eligible to participate in the plan as of the valuation date and all other individuals who have a remaining vested benefit or a remaining nonvested benefit under the plan have been included in the valuation. Further, all plan benefits have been considered in the development of plan costs.

The plan sponsor remains solely responsible for the accuracy and comprehensiveness of the data provided. However, to the best of our knowledge, no material biases exist with respect to any imperfections in the data provided by these sources. To the extent that any data imperfections exist in the historical compensation database, we have addressed the imperfections by application of the increase assumptions specified in Section V. To the extent any imperfections exist in service records, we have relied on best estimates provided by the employer. We have not audited the data provided, but have reviewed it for reasonableness and consistency relative to previously provided information.

To the best of our knowledge, the actuarial information supplied in this report is complete and accurate. In our opinion the assumptions used, in the aggregate and individually, are reasonably related to the experience of the plan and to reasonable expectations. The assumptions represent a reasonable estimate of anticipated experience of the plan over the long-term future, and their selection complies with the applicable actuarial standards of practice.

We hereby certify that we are members of the American Academy of Actuaries who meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained herein.

Mitchell L. Bilbe, F.S.A.
Enrolled Actuary Number 20-6302
Member of American Academy of Actuaries

Christopher S. Johnson, F.S.A.
Enrolled Actuary Number 20-7100
Member of American Academy of Actuaries

Section II – Management Summary

All employer liabilities presented throughout this report have been determined based upon the actuarial methods and assumptions outlined in Section V and the plan provisions outlined in Section VI.

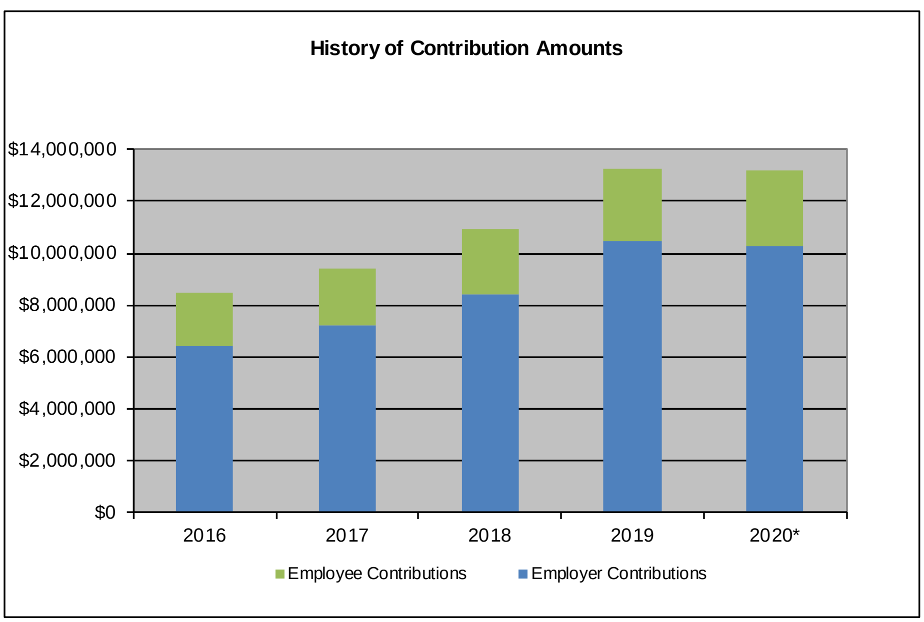
A. Contribution Amount Under Employer's Funding Policy

	Annual Contribution	
	2019	**2020**
1. **Total Funding Policy Contribution**		
a. Normal Cost	$ 4,964,967	$ 4,947,747
b. UAL Amortization	7,572,820	7,746,757
c. Total	$ 12,537,787	$ 12,694,504
2. **Employee Funding Policy Contribution**[1]	(2,381,086)	(2,430,806)
3. **Employer Funding Policy Contribution**	$ 10,156,701	$ 10,263,698
4. **Employer Funding Policy Contribution as a Percent of Payroll**[2]	21.328%	21.112%

1 In accordance with Board Resolution R-248-2014, since the plan is not 100% funded, the Employer Contribution is determined assuming employees contribute 5% of Earnable Compensation. Actual Employee Contributions are 6% of Earnable Compensation.

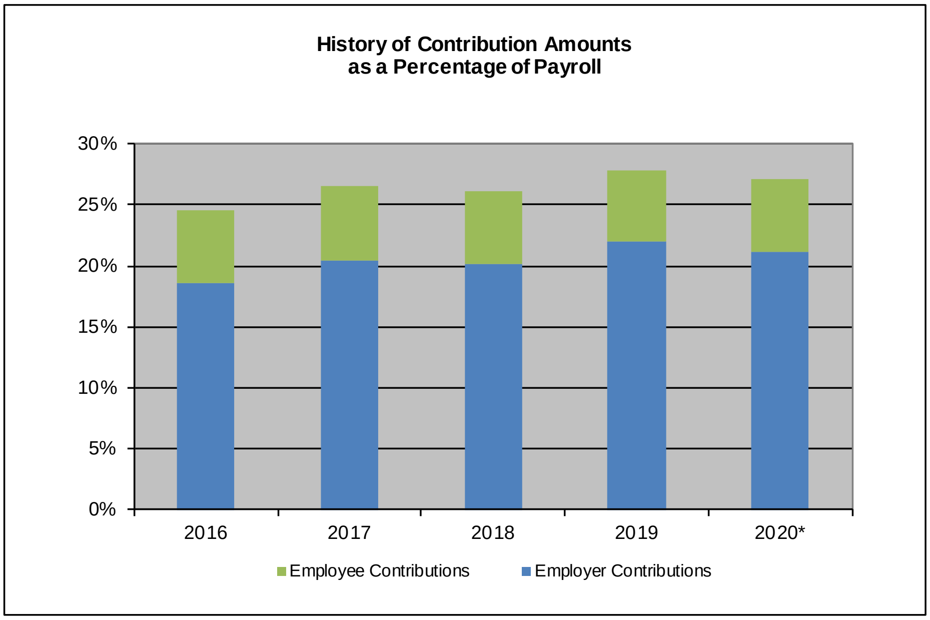
2 Based on projected Earnable Compensation of $47,621,715 for 2019 and $48,616,122 for 2020.

The employer's Funding Policy determines the annual contribution amount as the sum of the **Normal Cost** and a 30-year amortization of the **Unfunded Accrued Liability** (UAL), where the UAL is the difference between the **Actuarial Value of Assets** and the **Actuarial Accrued Liability** (AAL). The AAL and the Normal Cost are determined using the **Entry Age Normal** (EAN) actuarial funding method as described in Section V.A. of this report. A 5-year history of the plan's contribution amounts under the employer's Funding Policy is shown below.



* Assuming the funding policy contribution from this report is contributed by employer.

Below is the plan's contribution history again but shown as a percentage of payroll (i.e., estimated Earnable Compensation for the valuation year).



* Assuming the funding policy contribution from this report is contributed by employer.

While the 2020 Employer Contribution under the Funding Policy increased by $100,000 over the 2019 contribution, this represents a 0.216% decrease as a percentage of pay as shown in the table on page II-1.

B. Participant Demographics as of January 1, 2020

Participants	Number	Estimated Payroll for 2020
Actives	**1,185**	**$ 48,616,122**
Vested Terminated	**40**	**N/A**
Nonvested Terminated	**136** [1]	**N/A**
Retirees and Beneficiaries	**909** [2]	**N/A**
Total	**2,270**	**$ 48,616,122**

1 Nonvested Terminated employees whose employee contribution account balances have not yet been refunded as of the valuation date.

2 Includes 90 DROP participants whose period of participation in the DROP has not yet expired as of the valuation date and 34 DROP participants whose period of participation in the DROP has expired but whose DROP balance has not yet been paid as of the valuation date.

C. Funding Liabilities and Assets

	As of January 1, 2019	As of January 1, 2020
1. a. Market Value of Assets	$ 215,279,783	$ 239,677,702
b. Actuarial Value of Assets	$ 242,203,725	$ 246,441,104
2. Discount Rate	7.00%	7.00%
3. Present Value of Future Benefits		
a. Actives	$ 123,698,224	$ 130,076,226
b. Retirees[1] and Beneficiaries	176,742,836	170,174,532
c. DROP[2] Retirees	57,242,828	63,410,024
d. Disabled Retirees	9,748,445	9,481,297
e. Vested Terminated	1,772,254	2,832,400
f. Nonvested Terminated	217,151	237,291
g. Total	$ 369,421,738	$ 376,211,770
h. Funded Status [1.b./3.g.]	65.56%	65.51%
4. Entry Age Normal Accrued Liabilities		
a. Actives	$ 93,429,734	$ 99,481,882
b. Retirees[1] and Beneficiaries	176,742,836	170,174,532
c. DROP[2] Retirees	57,242,828	63,410,024
d. Disabled Retirees	9,748,445	9,481,297
e. Vested Terminated	1,772,254	2,832,400
f. Nonvested Terminated	217,151	237,291
g. Total	$ 339,153,248	$ 345,617,426
h. Funded Status [1.b./4.g.]	71.41%	71.30%

[1] Excludes DROP Retirees whose DROP balance has not been paid as of the valuation date.
[2] DROP Retirees whose DROP balance has not been paid as of the valuation date.

1. Liabilities

The **Present Value of Future Benefits** (PVFB) is the actuarial present value of the cost to finance projected benefits payable in the future, discounted to reflect the expected effects of the time value (present value) of money and the probabilities of payment.

The **Entry Age Normal Accrued Liability** attributes a portion of the PVFB to the past service of each individual, where the amount attributed to each year is spread on a level basis over the earnings of an individual from their plan entry date to their assumed exit dates from the plan.

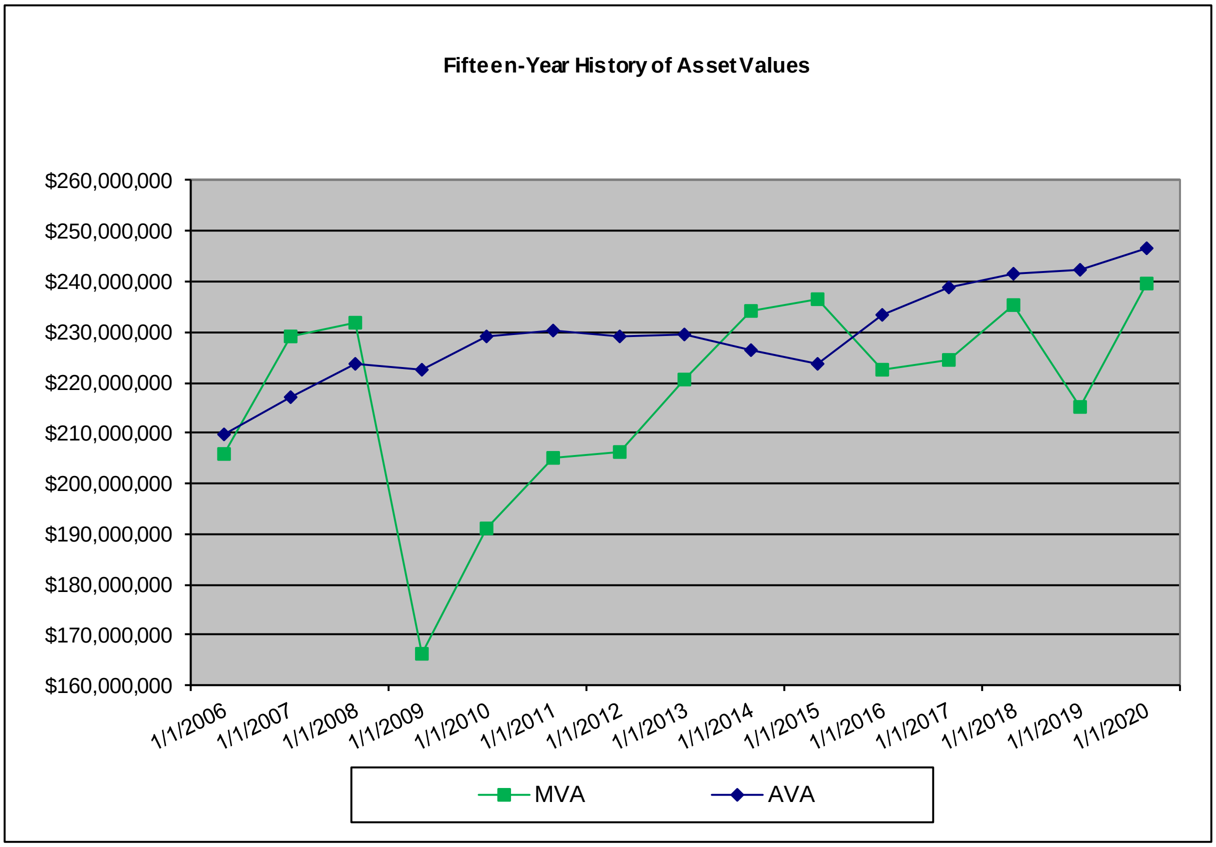
The liability measurements in this report are not appropriate for assessing the sufficiency of plan assets to cover the cost of settling plan obligations in the event the plan is terminated.

Further, additional contributions from the employer could be needed in the future even if asset values were equal to 100% of liabilities as measured for funding purposes.

2. Assets

The **Actuarial Value of Assets (AVA)** smooths the volatility of the Market Value of Assets (MVA) by deferring recognition of asset gains or losses over a seven-year period. This smoothing of the MVA in turn reduces the year over year fluctuation of Employer Contributions and can make it easier for the employer to budget its contribution each year.

Below is a 15-year history of the MVA and the AVA.



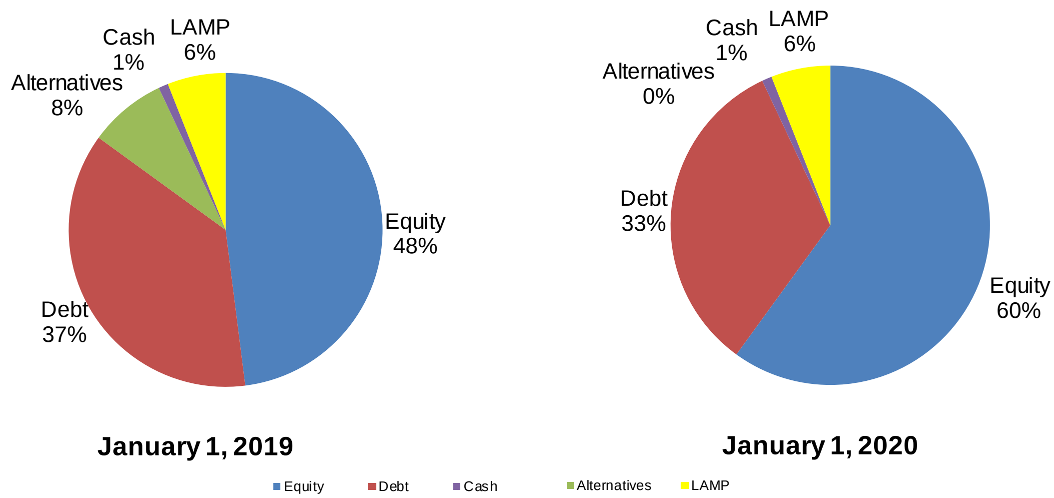
The investment policy's targeted weighted-average asset allocations by asset class are as follows:

Investment Policy Targeted Asset Allocations			
Asset Class	**Minimum Allocation**	**Target Allocation**	**Maximum Allocation**
Equity Securities	**0.0%**	**47.0%**	**65.0%**
Debt Securities	**31.5%**	**35.0%**	**38.5%**
Alternatives[1]	**0.0%**	**17.0%**	**21.0%**
Cash	**0.0%**	**1.0%**	**5.0%**
Total	**N/A**	**100.0%**	**N/A**

[1] Real Estate/REITs and Hedge Funds.

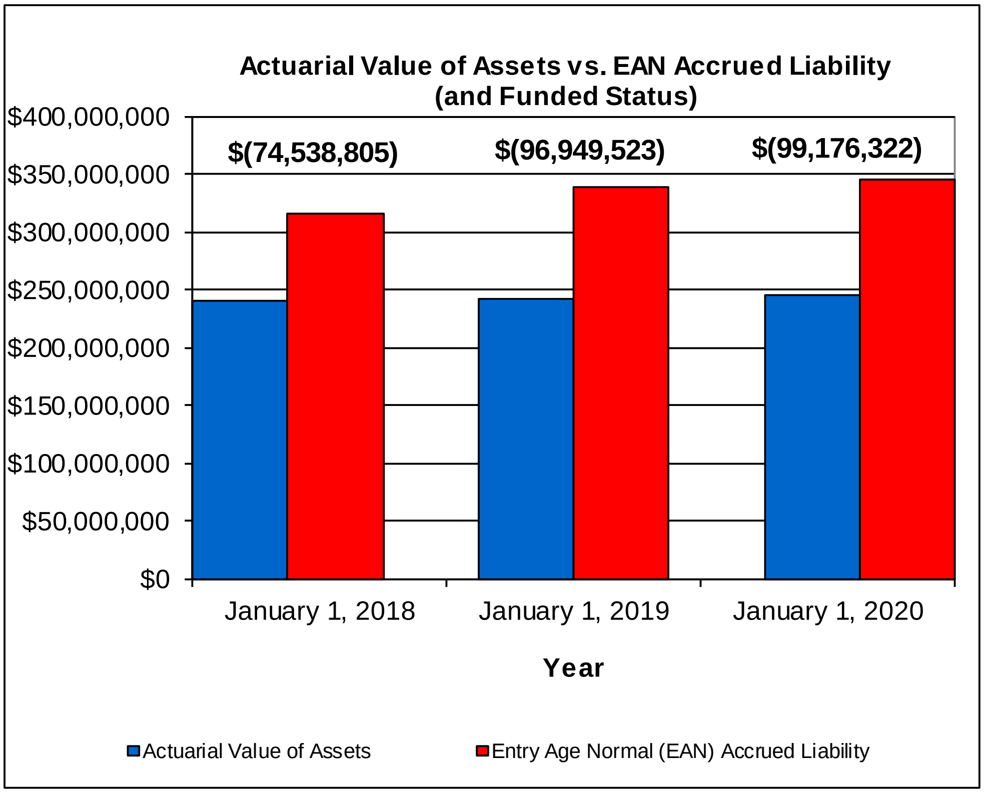
The target asset allocation above should be reviewed periodically against actual asset allocations as shown below. Furthermore, from time to time the plan's investment policy itself should be reviewed to ensure that the objectives stated in the policy are consistent with the plan sponsor's investment goals and risk tolerance, particularly as the plan approaches the point at which the value of plan assets equals or exceeds PVFB.

Asset Allocation as of Prior and Current Valuation Dates



D. Funded Status Based on Entry Age Normal Accrued Liability

The **Funded Status** compares a measure of a plan's liabilities to its assets. The graph below compares the Actuarial Value of Assets to the EAN Accrued Liability for each of the last three years. The corresponding Funded Status (or Unfunded Accrued Liability) is shown above each year's column.



E. Changes in Plan Provisions

This valuation reflects different plan provisions from those recognized in the prior valuation prepared for the plan. Prior to the amendment, 100% vesting occurred at the earlier of (a) the completion of 5 years of Credited Service or (b) the attainment of age 65. The plan was amended to remove condition (b) above, and effective August 21, 2019 100% vesting occurs only upon the completion of 5 years of Credited Service. This amendment had a negligible effect on the valuation as it only reduced the January 1, 2020 Actuarial Accrued Liability by approximately $60,000 or 0.02%. Plan provisions are summarized in Section VI.

F. No Changes in Actuarial Assumptions

This valuation reflects identical actuarial assumptions to those recognized in the prior valuation prepared for the plan. Actuarial methods and assumptions are summarized in Section V.

G. Plan Maturity Measures

The following measures as of January 1, 2020 may help the employer assess the relative risks associated with a particular asset mix for the trust's portfolio, a particular funding policy, whether to consider or reconsider asset/liability matching for all or a portion of the portfolio, and other risks disclosed in the transmittal letter to this report.

Measure	Calculation	Result
1. Ratio of Retired Life Accrued Liability to Total Accrued Liability	$\frac{243{,}065{,}853}{345{,}617{,}426}$	70.3%
2. Ratio of Expected Annual Benefit Payments to Market Value of Assets	$\frac{29{,}417{,}913}{239{,}677{,}702}$	12.3%
3. Ratio of Expected Annual Benefit Payments to Expected Annual Contributions	$\frac{29{,}417{,}913}{12{,}694{,}504}$	231.7%
4. Duration of Accrued Liability[1]	$[1 - \frac{345{,}617{,}426}{353{,}539{,}673}] / (0.0025)$	9.0

[1] Modified duration of the plan's Accrued Liability (AL) estimated by examining the impact of a 25 basis point shift in discount rates on AL. We used the following formula for this purpose:

$$[1 - (\frac{AL_1}{AL_2})] / (i_1 - i_2)$$

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Section III – Detailed Actuarial Valuation Results

A. Determination of Employer Contribution

	January 1, 2020	As a % of Payroll
1. **Projected Participant Compensation for Current Plan Year**	$ 48,616,122	
2. **Present Value of Future Benefits**	$ 376,211,770	
3. **Accrued Liability**	$ 345,617,426	
4. **Actuarial Value of Assets**	$ 246,441,104	
5. **Unfunded Accrued Liability (UAL) (Item 3. – Item 4.)**	$ 99,176,322	
6. **Present Value of Future Normal Costs (Item 2. – Item 3.)**	$ 30,594,344	
7. **Normal Cost**	$ 4,795,762	9.865%
8. **Total Funding Policy Annual Contribution**		
a. Normal Cost[1]	$ 4,947,747	
b. Level Dollar Amortization of UAL[2]	7,746,757	
c. Total	$ 12,694,504	26.112%
9. **Employee Funding Policy Annual Contribution[3] (Item 1. x 5%)**	$ 2,430,806	5.000%
10. **Employer Funding Policy Annual Contribution (Item 8.c. – Item 9.)**	$ 10,263,698	21.112%

1 Includes interest assuming monthly payments at the end of each month.
2 Calculated using a 30-year amortization period and assuming monthly payments at the end of each month.
3 In accordance with Board Resolution R-248-2014, since the plan is not 100% funded, the Employer Contribution is determined assuming employees contribute 5% of Earnable Compensation. Actual employee contributions are 6% of Earnable Compensation.

B. Present Value of Accrued Benefits (PVAB)

The Present Value of Accrued Benefits (PVAB) only considers past service and past pay in the determination of the plan's liabilities. This cost method would not be as useful for determining the funding policy contribution since it does not consider the effect of future pay and service accruals on the plan's liabilities. However, the PVAB is useful in determining how the funded status of the plan is progressing relative to the current level of accrued benefits since it determines the present value of the plan benefits as if plan benefits were frozen on the valuation date.

1. **PVAB as of January 1, 2020**	$ 321,019,096
2. **Actuarial Value of Assets as of January 1, 2020**	$ 246,441,104
3. **Funded Status of PVAB [Item 2. ÷ Item 1.]**	76.77%

Section IV – Summary of Assets

A. Summary of Market Value of Assets as of January 1, 2020

1. Assets	
a. Cash equivalents	$ 442,289
b. Receivables:	
i. Employee and Employer Contributions	$ 401,557
ii. Due from broker for investments sold	0
iii. Investment income	37,385
iv. Due from other funds	343,344
v. Total receivables	$ 782,286
c. Investments:	
i. Money Market	$ 2,544,817
ii. LAMP	14,215,086
iii. Debt Securities	78,673,129
iv. Hedge Funds	0
v. Equities	144,197,695
vi. Total investments	$239,630,727
d. Total assets	$240,855,302
2. Liabilities	
a. Payables:	
i. Investment management fees	$ 0
ii. Due to broker for investments purchased	0
iii. Due to other fund	(1,177,600)
b. Total liabilities	$ (1,177,600)
3. Market Value of Assets as of January 1, 2020	$239,677,702

B. Income Statement for Market Value of Assets

	2019
1. Additions	
a. Contributions:	
i. Employer	$ 10,466,009
ii. Member	2,793,158
iii. City annuity and other transfers in	337,103
iv. Total contributions	$ 13,596,270
b. Investment income:	
i. Net appreciation in market value of investments	$ 32,715,180
ii. Interest income	95,423
iii. Dividend income	1,622,096
iv. Less investment expenses	(769,908)
v. Net investment income	$ 33,662,791
c. Other	$ 0
d. Total additions	$ 47,259,061
2. Deductions	
a. Benefit payments including refunds of member contributions	$ (22,861,142)
b. Administrative expenses	0
c. Other	0
d. Total deductions	$ (22,861,142)
3. Net increase/(decrease) in Market Value	$ 24,397,919
4. Market Value of Assets	
a. Beginning of Year	$ 215,279,783
b. End of Year	$ 239,677,702

C. Development of Actuarial Value of Assets

1. **Calculation of Adjusted Market Value of Assets**	**01/01/14 - 01/01/20**	**01/01/15 – 01/01/20**	**01/01/16 – 01/01/20**	**01/01/17 – 01/01/20**	**01/01/18 – 01/01/20**	**01/01/19 – 01/01/20**
a. Market Value of Assets (MVA) at beginning of period	$ 234,358,049	$ 236,556,671	$ 222,427,527	$ 224,356,261	$ 235,284,317	$ 215,279,783
b. Net cash flows	(63,581,334)	(54,425,214)	(44,440,211)	(33,799,344)	(21,401,127)	(9,264,872)
c. Expected investment return	102,925,635	84,929,423	62,386,353	46,589,752	32,477,557	14,750,799
d. Adjusted Market Value of Assets at end of period	$ 273,702,350	$ 267,060,880	$ 240,373,669	$237,146,669	$ 246,360,747	$ 220,765,710

2. **Calculation of Actuarial Value of Assets**	
a. Market Value of Assets as of January 1, 2020	$ 239,677,702
b. Actuarial Value of Assets as of January 1, 2020 (Average of Items 1.d. and 2.a.)	$ 246,441,104
c. Ratio of Actuarial Value of Assets to MVA (Item 2.b. ÷ Item 2.a.)	102.82%

Section V – Actuarial Methods and Assumptions

A. Actuarial Methods

1. Actuarial Funding Method

The Entry Age Normal actuarial funding method is used in determining the contribution requirements for the plan. The actuarial funding method is the procedure by which the actuary annually identifies a series of annual contributions which, along with current assets and future investment earnings, will fund the expected plan benefits. The Entry Age Normal funding method compares the excess of the present value of expected future plan benefits over the current value of plan assets. This difference represents the expected present value of current and future contributions that will be paid into the plan. The contributions are divided into two components: an annual normal cost (or current cost) and an amortization charge for the unfunded accrued liability.

The normal cost for the plan is the sum of individually determined normal costs for each active participant. Each active participant's normal cost is the current annual contribution in a series of annual contributions which, if made throughout the participant's total period of employment, would fund his expected benefits from the plan. Each participant's normal cost is calculated to be an annual constant percentage of his expected compensation in each year of employment.

The plan's current accrued liability is the excess of the present value of expected future benefits over the present value of all future remaining normal cost contributions of active participants.

2. Actuarial Value of Assets

Assets are valued at the average market value as reported by the trustee as of the valuation date, including any receivable contributions made for a prior plan year which were not recognized by the trustee as of the asset valuation date, and the adjusted market value of assets determined for the six immediately preceding valuation dates. The adjusted market value of assets for a prior valuation date is the market value of assets on that date, increased for contributions included in the plan's asset balance on the current valuation date that were not included in the plan's asset balance on the prior valuation date increased by assumed investment return at a rate of 7.00%, and reduced for benefits and administrative expenses paid from plan assets during the same period.

B. Actuarial Assumptions

1. ***Mortality***: The active, vested terminated and retired participants of the plan are expected to exhibit mortality in accordance with the following published mortality tables:

a.	Pre-retirement Mortality:	1994 Uninsured Pensioner (UP-94) mortality table, projected to 2002 using Scale AA, gender distinct
b.	Post-retirement Mortality:	1994 Uninsured Pensioner (UP-94) mortality table, projected to 2002 using Scale AA, gender distinct

2. ***Termination:*** The active members are assumed to terminate their employment for causes other than death, disability or retirement in accordance with annual rates as illustrated below.

Rate of Decrement Due to Termination Per 100 Members	
Age	Rate
20	33.29
25	25.07
30	16.91
35	10.61
40	6.68
45	4.78
50	4.12
≥52	4.00

3. ***Interest Rate***: 7.00% (net of expenses) per annum.

4. ***Earnings Progression***: The increase in the levels of participant compensation is assumed to increase at an annual rate of 5.00%.

5. ***Retirement Age***: It has been assumed that employees retire at the earliest age at which they would be eligible to retire (with reduced benefits, if applicable) except: (a) if the earliest age of retirement eligibility is prior to age 55 for eligibilities other than the "Rule of 80", the assumed age at retirement is the earliest age plus one year, or (b) if the earliest age of retirement eligibility occurs due to the "Rule of 80" eligibility, the assumed age at retirement is the earliest age plus three years.

6. ***Disability***: Active members are expected to become disabled as defined under the plan in accordance with annual rates as illustrated below.

Annual Disability Retirement Rates Per 100 Members	
Age	Rate
20	0.11
30	0.11
40	0.30
50	1.11
55	1.90
60	3.45
65	5.10

7. ***Recognition of IRC Benefit and Compensation Limitations***: The benefit limitations under IRC Sections 415(b) and 401(a)(17) have been reflected in the determination of plan costs, and these limits are assumed to increase at the annual rate of 2.50%.

8. ***Cost of Living Increase***: Retirement and Survivor's Benefits are assumed to receive annual Cost of Living Increases at the capped level of 2.00% per year of the original retirement amount for all years after age 65.

9. ***Withdrawal of Employee Contributions:*** 20% of participants terminating with a vested right were assumed to withdraw their accumulated contributions upon termination, while 80% were assumed to retain their vested deferred benefits by leaving contributions on deposit.

10. ***Marital Status***: 85% of participants are assumed to be married at the time of separation from service. Spouses are assumed to be the same age as the member.

11. ***Assumed Form of Payment***: Upon separation from service for causes other than death, 100% of active participants are assumed to elect the normal form of payment.

    Surviving spouses of employees who separate from service due to death are assumed to commence payment in the normal form of annuity at the spouse's age 62.

    Dependent children of employees who separate from service due to death are assumed to receive a temporary annuity for a period of 7 years following the participant's death.

    Current deferred vested participants who terminated prior to August 1, 2012 are assumed to elect the normal form at age 62.

    Current deferred vested participants who terminated after July 31, 2012 are assumed to elect the normal form at age 65.

12. ***Interest on Employee Contributions:*** Accumulated employee contributions are credited with 2% interest compounded annually in accordance with the terms of the plan.

Section VI – Outline of Principal Plan Eligibility and Benefit Provisions

A. Identifying Data

1. Plan name: Employees' Retirement System of the Sewerage and Water Board of New Orleans
2. Type of plan: Defined Benefit Pension Plan
3. Plan sponsor: Sewerage and Water Board of New Orleans
4. Plan Year: January 1 - December 31
5. Employer: Sewerage and Water Board of New Orleans (the "Board")

B. Membership

1. An Employee enters the plan and becomes a Member on the first day he or she becomes an Employee.

2. An Employee:

   a. includes any officer or other individual who the Personnel Department classifies as an Employee of the Board, but

   b. excludes any individual who the Personnel Department classifies as an individual who regularly works less than 17.5 hours per week, a contract employee, a transient employee, a temporary employee (no matter how long the individual works with the Board), an emergency appointment, an independent contractor, or an employee of a contractor or independent contractor.

3. Membership ceases on:

   a. separation from service, except if a terminated Member leaves his Accumulated Contributions on deposit and becomes an Inactive Member or if an Employee leaves the service of the Board to join the uniformed services and returns to the service of the Board within the applicable timeframe, or

   b. the Employee enters the DROP program; however, Membership can resume under certain circumstances if the DROP Participant continues employment after the end of the DROP period and is rehired by the Board.

4. An Inactive Member is a Member who terminates employment with the Board and whose Accumulated Contributions remain on deposit in the Retirement System.

C. Contributions

1. Member: each Member shall contribute:

   a. 4% of Earnable Compensation paid before January 1, 2013,

b. 5% of Earnable Compensation after December 31, 2012 and before January 1, 2015, and

c. 6% of Earnable Compensation paid after December 31, 2014;

d. however, any Member who has accumulated 34 years, 4 months and 15 days of Credited Service shall cease contributions to the Retirement System;

e. Member contributions shall be accumulated with 2% Credited Interest compounded annually, where the sum of the contributions and credited interest is referred to as Accumulated Contributions.

2. Employer: The annual Total Contribution is actuarially determined amount expressed as a percentage of Earnable Compensation based on the Normal Cost and an amortization of the Unfunded Accrued Liability of the Retirement System; the Employer's Contribution percentage is equal to the Total Contribution percentage offset by the Employee Contribution percentage, where such Employee Contribution percentage shall be calculated as if the Employee Contribution percentage is 5% rather than its current level of 6% until the Retirement System is 100% funded (per Board Resolution R-248-2014)

D. Eligibility for Retirement

1. Normal Retirement: age 65 (first of month coincident with or next following)

2. Retirement Allowance Eligibility:

a. 30 or more years of Credited Service regardless of age, or

b. age 60 and Vested, or

c. age 65 and 5 or more years of Credited Service (effective January 1, 1996), or

d. age 70 regardless of the number of years of Credited Service, or

e. the sum of age and years of Credited Service is at least 80 years

3. Early Retirement Eligibility: must be eligible for Retirement Allowance, and:

a. Unreduced Early Retirement if:

1) age 62, or
2) 30 years of Credited Service, or
3) the sum of age and years of Credited Service is at least 80 years

b. Reduced Early Retirement if:

1) age 60 with less than 30 years of Credited Service, or
2) age 60 but the sum of age and years of Credited Service is less than 80 years

4. Disability Retirement: 10 or more years of Credited Service and Pension Committee approves disability application

E. Retirement Benefit Monthly Amounts

1. Normal Retirement Allowance:

   a. 2.5% of the Member's Average Compensation times years of Credited Service up to 25 years, plus

   b. 4.0% of the Member's Average Compensation times years of Credited Service in excess of 25 years, where such total is subject to the limit described in (c.) below:

   c. In no event shall the total Retirement Allowance, including the supplemental Retirement Allowance earned following a rehired employment period, exceed 100% of a Member's Average Compensation.

2. Late Retirement:

   Same formula as Normal Retirement Allowance.

3. Early Retirement:

   If the Member is eligible for a Retirement Allowance and is age 62, or has 30 years of Credited Service, or their age plus years of Credited Service is at least 80 years then there is no reduction to the Retirement Allowance for early retirement.

   If the Member is eligible for a Retirement Allowance but does not meet the above conditions for unreduced early retirement, then the Early Retirement Allowance is equal to the Retirement Allowance determined at the Early Retirement Date reduced 3% for each year his age at Early Retirement rounded to the nearest day precedes age 62.

   See "Vested Termination Benefits" below for a summary of early commencement benefits for vested members who terminate prior to Early Retirement Eligibility.

4. Disability:

   The Disability Retirement Allowance is equal to the greater of (a) and (b) offset by (c):

   a. A monthly annuity that is actuarially equivalent to the Member's Accumulated Contributions with interest at the time of retirement, or

   b. A monthly annuity based on 75% of the Member's Accrued Benefit determined by crediting the Disabled Member with years and days of Credited Service that would have been credited to the Member had the Member worked until age 62.

   c. The benefit provided above shall be offset by any worker's compensation benefits which the Member receives.

F. Normal Form of Monthly Payment

Life Annuity payable bi-weekly

G. Optional Forms of Payment

Other optional forms of payment are available that are actuarially equivalent to the Normal Form. Optional Retirement Allowance forms of payment include:

- Joint and X% Contingent Annuity[1,2], where X% is any multiple of 5% from Joint and 5% up to and including Joint and 100%
- Joint and X% Contingent Annuity[1,3] with Pop-up, where X% is any multiple of 5% from Joint and 5% with Pop-up up to and including Joint and 100% with Pop-up

[1] Only available with the Member's Spouse as the Contingent Annuitant (i.e., non-spouse beneficiaries are not permitted).
[2] Reduces to the contingent survivor percentage only upon the death of the retiree (i.e., does not reduce if the contingent annuitant pre-deceases the retiree).
[3] Reduces to the contingent survivor percentage only upon the death of the retiree. However, if the contingent annuitant pre-deceases the retiree, the retiree's monthly benefit pops-up to original amount of the Life Annuity.

H. Vested Termination Benefits

1. Vesting Schedule:

Years of Credited Service	Vesting Percent
Less than 5	0%
5 or more	100%

2. Non-Vested Terminations: A Member who terminates not Vested may remain an Inactive Member of the Retirement System for up to 5 years after the termination by not withdrawing his Accumulated Contributions. If the Inactive Participant does not become reemployed before the end of the 5-year period, the Retirement System will pay the Accumulated Contributions with interest.

3. Refund of Contributions for Vested Members: A member who terminates employment may elect to be paid the amount of Accumulated Contributions with interest. A Member who makes this election shall not be entitled to receive a Retirement Allowance, unless such Member is reemployed and repays the Accumulated Contributions plus additional interest accruals.

4. Separation Retirement Allowance for Vested Terminations:

   a. Pre-August 1, 2012 Terminations: Any Vested Member who terminated employment before August 1, 2012, other than by Retirement, and before attaining age 60 who remained an Inactive Member by not withdrawing his Accumulated Contributions is entitled to receive a Retirement Allowance beginning on or after age 60 based on his Accrued Benefit at the time of termination subject to the pre-62 early retirement reductions.

   b. Post-July 31, 2012 Terminations: Any Vested Member who terminated employment on or after August 1, 2012, other than by Retirement, and before attaining age 60 who remained an Inactive Member by not withdrawing his Accumulated Contributions is entitled to receive a Retirement Allowance beginning at age 65 based on the Accrued Benefit at the time of termination.

I. Pre-retirement Death Benefits

1. Death While Eligible for Retirement: If a Member dies while eligible to begin receiving a Retirement Allowance (whether or not actively at work at the time of death), then:

    a. if the Member has a Spouse, the Spouse shall be entitled to elect and receive retirement benefits had the Member retired on the date he died and elected the Optional Allowance with the 100% continuation percentage to the Spouse. If the Spouse elects this benefit, then the Accumulated Contributions shall not be refunded.

    b. If the member has Eligible Dependents but no Spouse, the Eligible Dependents shall have the option of selecting either:

        i. 65% of the Disability Retirement Allowance which would have been payable had the Member Retired on Disability before his death payable until the last child ceases to be an Eligible Dependent, or

        ii. 25% of the Member's Earnable Compensation for the last complete calendar year, plus the Member's Accumulated Contributions with interest.

2. Death with 10 Years of Credited Service: If the Member dies while he is still an Employee with at least 10 Years of Credited Service but before he is Eligible for a Retirement Allowance:

    a. Regular Spousal Benefit: the Spouse, if any, is entitled to receive 80% of the Member's Accrued Benefit determined at death commencing at the later of, the Member's death or the Spouse's age 62, or

    b. Reduced Early Spousal Benefit: if the Member dies before the Spouse attains age 62, in lieu of the Regular Spousal Benefit, the Spouse may elect the Actuarial Equivalent of the Member's Accrued Benefit at death commencing at any time after the Member's death.

    c. Spouse with Eligible Dependents: If a Member dies before the Spouse reaches age 62 and there are Eligible Dependents, and the Spouse does not elect the Reduced Early Spousal Benefit, the Spouse may receive 65% of the Disability Retirement Allowance which would have been payable had the Member Retired on Disability before his death payable until the earliest of (i) the Spouse attains age 62, (ii) last child ceases to be an Eligible Dependent or (iii) the Spouse applies for or commences the Reduced Early Spousal Benefit.

    d. Eligible Dependents but no Spouse: If there is no Spouse, the surviving Eligible Dependents shall have the option of selecting:

        i. 65% of the Disability Retirement Allowance which would have been payable had the Member Retired on Disability before his death payable until the last child ceases to be an Eligible Dependent, or

        ii. 25% of the Member's Earnable Compensation for the last complete calendar year, plus the Member's Accumulated Contributions with interest.

e. Disabled Spouse with No Eligible Dependents: If the Member's Spouse is Disabled and there are no Eligible Dependents and if the Spouse does not elect to receive the Reduced Early Spousal Benefit, then 65% of the Disability Retirement Allowance which would have been payable had the Member Retired on Disability before his death will be payable to the Disabled Spouse until the Spouse attains age 62 or the Spouse applies for or commences the Reduced Early Spousal Benefit. If the Spouse is able to return to gainful employment this benefit shall be discontinued.

f. No Spouse and No Eligible Dependents: If there is no Spouse or Eligible Dependents, the Member's Beneficiary shall be entitled to receive 25% of the Member's Earnable Compensation for the last complete calendar year, plus the Member's Accumulated Contributions with interest.

3. Death with 3 to 10 Years of Credited Service: If the Member dies while he is still an Employee but before he is Eligible for a Retirement Allowance and the Member has at least 3 but less than 10 years of Credited Service, the Member's Beneficiary shall receive 25% of the Member's Earnable Compensation for the last complete calendar year, plus the Member's Accumulated Contributions with interest.

4. Death with less than 3 Years of Credited Service: If the Member dies while he is still an Employee and with less than 3 years of Credited Service, the Member's Beneficiary shall receive a refund of the Member's Accumulated Contributions with interest.

5. Death while on Active Military Duty: If the death occurs while on a granted leave of absence for the purpose of joining the armed forces, the death occurs during the performance of qualified military service, and the death occurs after January 1, 2007, the Employee's Spouse, Eligible Dependents and/or Beneficiary will be entitled to any death benefits that would be payable had the Employee resumed employment the day before his death. Furthermore, the qualified military service will be counted as additional years of Service for vesting but not for purposes of calculating his Accrued Benefit.

6. Death of Inactive Member Prior to Retirement Allowance Eligibility (whether or not Vested): Accumulated Contributions with interest shall be paid to the Beneficiary of such an Inactive Member and no other benefits shall be payable.

J. <u>Post-Retirement Death Benefits</u>

1. Regular Retiree (i.e., a retiree who did not retire under the Retirement System's Disability provisions):

a. If a Retiree elected an Optional Allowance, then his spouse shall be entitled to receive continued payments based on the continuation percentage provided under the Optional Allowance elected.

b. If a Retiree is receiving a Life Annuity, then their Beneficiary shall only be entitled to receive the value of the Retiree's Accumulated Contributions at the time of Retirement less the value of the payments that the Retiree received before death. However, if such Retiree dies within 30 days of retirement and has a Spouse, then the Spouse shall be entitled to the death benefit payable to a Member who is Eligible for Retirement but has not yet retired.

2. Disabled Retiree (i.e., a retiree who retired under the Retirement System's Disability provisions)

   a. Regular Spousal Benefit: the Spouse is entitled to 80% of the Member's Disability Retirement Allowance commencing at the later of the Member's date of death or the Spouse's attainment of age 62.

   b. Reduced Early Spousal Benefit: If the Spouse is under age 62 at the time of the Retiree's death, the Spouse can commence an amount that is actuarially equivalent the Member's Accrued Benefit.

   c. Spouse with Eligible Dependents: if the Disabled Retiree dies before the Spouse reaches age 62 and there are Eligible Dependents, and the Spouse does not elect to receive the Reduced Early Spousal Benefit, then 65% of the Disability Retirement Allowance will continue to the Spouse until the first of the following occurs: the last child ceases to be an Eligible Dependent, the Spouse attains age 62 or the Spouse commences or applies for the Reduced Early Spousal Benefit.

   d. No Spouse but Eligible Dependents: if there is no Surviving Spouse, the surviving Eligible Dependents (or their legal representatives), if any, may select either:

      i. The benefit provided to the Spouse with Eligible Dependents, or
      ii. 25% of the Member's Earnable Compensation for the last complete calendar year, plus the Member's Accumulated Contributions with interest

   e. Disabled Spouse with no Eligible Dependents: if the Disabled Member dies before the Spouse is age 62, the Spouse is Disabled, and there are no Eligible Dependents, then if the Spouse does not elect to receive the Reduced Early Spousal Benefit, 65% of the Disability Retirement Allowance will continue to the Spouse until the Spouse reaches age 62 or until the Spouse commences or applies to receive the Reduced Early Spousal Benefit.

   f. Non-Disabled Spouse with No Eligible Dependents: in lieu of the other benefits available to the Surviving Spouse, the Spouse may elect to receive 25% of the Member's Earnable Compensation for the last complete calendar year, plus the Member's Accumulated Contributions with interest

   g. No Spouse and No Eligible Dependents: if there is no Spouse or Eligible Dependents, the Member's Beneficiary shall be entitled to the Member's Accumulated Contributions with interest in excess of the Disability Retirement Allowance payments made to the Member prior to death.

K. <u>Basis of Actuarial Equivalence</u>

The 1971 Group Annuity Mortality Table using the Male Table for all Members and the Female Table for all Spouses/Beneficiaries, regardless of the actual sex of the Member or Spouse/Beneficiary, and an interest rate of 6.0%.

L. Cost-of-Living Adjustments

The Retirement Allowance for Members over age 65 shall be subject to a Cost-of-Living Adjustment (COLA) each January based on the 12-month change for CPI for Urban Wage Earners utilizing the prior August index; if the change in the CPI is negative or zero, then no COLA shall be given, otherwise if the CPI increase exceeds 2%, then the COLA shall be limited to 2%. The COLA is not compounded annually and is only applied to the first $10,000 of a Member's original annual Retirement Allowance for periods after age 65. Adjustments for partial years of retirement after age 65 are prorated based on the actual number of days retired over age 65 during the 12-month period ending December 31.

COLAs shall also be applied to optional dependent benefits following the same rules beginning on the first day of the year after the dependent reaches age 65. However, Spouses receiving benefits following the death of a Disabled Retiree shall receive COLAs after the Spouse reaches age 62 rather than age 65 per Section 6.3(b)(1) of the Rules and Regulations.

M. Average Compensation

1. For an Employee who became eligible for Retirement on or before December 31, 2014, regardless of whether the Employee actually retires before or after December 31, 2014, the average of Earnable Compensation over 36 consecutive months of service during which Earnable Compensation was the highest.

2. For an Employee who became eligible for Retirement on or after January 1, 2015 and retires on or after January 1, 2015 and before January 1, 2017, the average of Earnable Compensation over 36 consecutive months of service during which Earnable Compensation was the highest.

3. For an Employee who became eligible for Retirement on or after January 1, 2015 and retires on or after January 1, 2017 but before January 1, 2018, the average of Earnable Compensation over 48 consecutive months of service during which Earnable Compensation was the highest.

4. For an Employee who became eligible for Retirement on or after January 1, 2015 and retires on or after January 1, 2018, the average of Earnable Compensation over 60 consecutive months of service during which Earnable Compensation was the highest.

N. Credited Service

1. Credited Service is granted for all service an Employee renders and on account of which all contributions have been made as required under the terms of the Retirement System. However, service while on leave without pay shall not count towards Credited Service, unless it is to perform service in the uniformed services (as further enumerated under the terms of the Retirement System) or unless it is compensable under workers compensation laws.

2. Unused Leave

   a. Unused Sick Leave: A Member shall receive Credited Service for Unused Sick Leave on a proportional basis where one year of Credited Service is granted for each 250 days of Unused Sick Leave. Such credit is used in computing the Retirement Allowance and can be used to satisfy eligibility requirements for Retirement benefits, except for the requirement to become Vested. In applying for a Retirement Allowance, a Member shall be required to use all of his Unused Sick Leave towards meeting the eligibility requirements of Credited Service component of Retirement Allowance condition of 80 years based on the sum of age and years of Credited Service.

b. Unused Annual Leave: A Member shall receive Credited Service for Unused Annual Leave subject to a maximum of 111 days of unused leave provided the Member is Vested prior to including this service. Credit is granted on a proportional basis where one year of Credited Service is equivalent to 250 days of Unused Annual Leave. Such credit is used in computing the Retirement Allowance and can be used to satisfy eligibility requirements for Retirement benefits, except for the requirement to become Vested.

3. Purchase of Credited Service

a. Military Service: A Member who has not yet Retired and has not yet elected to participate in the DROP program may purchase additional days of Credited Service up to 4 years for each day of Active Duty Military Service subject to the conditions outlined under the terms of the Retirement System, including the payment of missed contributions with interest during the time specified under the terms of the Retirement System. If the Member does not purchase the Credited Service within the required timeframe, the Member may still be eligible to purchase Credited Service provided the Member served in the Armed Forces and meets additional terms of the Retirement System.

b. Transfers Between Retirement Systems: Pursuant to Louisiana Revised Statutes (La. R.S.) 11:141-43 to the extent it does not conflict with La. R.S. 11:3822, transfers of credits and funds between the Retirement System and any other retirement system authorized under these Transfer Statutes, including the Retirement System of the City of New Orleans, is permitted subject to the terms of the Retirement System.

c. Repayment After Reemployment: A former Member, who previously received a distribution of his Accumulated Contributions, becomes reemployed for a period of at least 18 months may repay the Retirement System in a single lump sum the refund previously distributed plus interest at 7% compounded annually in order to have the entire period of Credited Service restored.

d. Hurricane Katrina: Any Member placed on disaster leave by the Employer beginning October 1, 2005 due to Hurricane Katrina and who returned to work prior to April 1, 2006 may purchase days of Credited Service for the period from October 1, 2005 to the date the Member returned to full time employment but for a period no longer than the 6 months ending March 31, 2006. For each day of Credited Service purchased, the Member must contribute an amount equal to 4% of the Member's daily Base Pay as in effect on October 1, 2005 plus interest at 7% compounded annually from October 4, 2005 through the date of purchase.

All Credited Service shall be combined and rounded to the nearest full day for Retirement Allowance purposes.

O. Deferred Retirement Option Plan (DROP)

1. Participation: In lieu of terminating employment and receiving a Retirement Allowance, any Member who is Eligible for a Retirement Allowance may elect to participate in the DROP program by giving at least 90 days' notice in advance of commencing in the DROP program. The participant must elect the duration of participation for a period not to exceed 5 years. The Member shall be required to make the same type of elections as he would be required had he Retired and such elections shall be irrevocable.

2. Benefits: During the period of the DROP, the Member shall remain employed but his Average Compensation and Credited Service shall remain as they existed on the date of commencement in the DROP program, and no further Employee contributions shall be made. The participant's DROP account shall receive a Retirement Allowance based on any optional elections made, and without regard to any cost-of-living adjustments during the period of the DROP. (However, payments following the termination of participation in the DROP shall be subject to the cost-of-living adjustments under the normal terms of the Retirement System.) Each DROP participant's DROP account shall be credited the actual earnings earned on the DROP account as of the last day of each calendar month, where such earnings may be zero but may never be negative.

3. Termination of Employment: On termination of employment at the end of the specified DROP period (or for any reason before the end of the DROP period including Disability), the participant shall receive a lump sum equal to the balance of the DROP account. Furthermore, the participants Retirement Allowance shall commence in lieu of being deposited into the DROP account.

4. Death: If a DROP participant dies during the period of participation in the DROP, a lump sum payment equal to his DROP account balance shall be paid to his DROP Beneficiary. In addition, normal survivor benefits payable to Beneficiaries of retirees shall be payable.

5. Reemployment: A DROP participant may request to continue employment with the Board beyond his elected period of participation in the DROP program by reapplying with the Board. If the DROP participant is rehired by the Board, the DROP participant will receive a lump sum distribution of his DROP account balance as if he had retired. For DROP participants rehired on a full-time basis after April 20, 2005, the Retirement Allowance that had been paid into the DROP participant's DROP account shall be suspended while re-employed, and the provisions of Section 6.6 shall be applicable. For DROP participants rehired on a part-time basis after April 20, 2005, the Retirement Allowance that had been paid into the DROP participant's DROP account shall not be suspended while re-employed and will be paid to the participant as if he had not been rehired. For purposes of this provision, full-time employment shall be defined as working 17.5 hours or more per week. For purposes of this provision, part-time employment shall be defined as working less than 17.5 hours per week.

P. Worker's Compensation Offset

Any amounts paid or payable under the provisions of any worker's compensation statute or similar law to a Member or the dependents of a Member due to any accidental death or accidental disability shall be offset against and payable in lieu of any benefits payable by the Retirement System on account of any accidental disability or death provision, including any benefit paid under the unreduced early commencement provisions of the Retirement System. This offset shall not deprive a Member or his Beneficiary of a right to receive a refund of Accumulated Contributions.

Q. Earnable Compensation

The regular annual compensation paid to an Employee which shall not include on-call pay, stand-by pay, or over-time. For computing retirement benefits only, Earnable Compensation includes shift differential pay and longevity pay as part of an Employee's base pay.

Earnable Compensation shall be limited as required under Code section 401(a)(17); in general, for Plan Years beginning on or after January 1, 1996, Earnable Compensation shall be limited to $150,000 adjusted annually in accordance with Code Section 401(a)(17), as applicable to governmental plans. The determination period is the calendar year. If the determination period includes a fraction of a calendar year, the annual compensation limit is the otherwise applicable annual limit multiplied by a fraction, the numerator of which is the number of months in the short year and the denominator of which is twelve.

Notwithstanding the above, for any Plan Year beginning after December 31, 2001, Earnable Compensation shall not exceed $200,000 (adjusted for cost-of-living increases in accordance with Code Section 401(a)(17), as applicable to governmental plans.

R. Reemployment Provisions

1. Retirees: Any Retiree receiving a Retirement Allowance shall become a Member of the Retirement System again on re-employment.

    a. Retirement Allowance Suspended: During re-employment, no Retirement Allowance payments will be made, but the vesting, the amount and the form of the prior Retirement Allowance will resume upon subsequent retirement in the same amount and form frozen at the original calculation.

    b. Additional Benefit: Upon subsequent retirement, the Member shall be entitled to an additional separate Retirement Allowance based on additional years of Credited Service and Average Compensation during re-employment. The additional percentage of additional Retirement Allowance earned shall consider prior Credited Service earned during the original period of employment.

    c. Death While Re-Employed: If a Member dies while re-employed, the Spouse shall be entitled to the Optional Allowance, if any, previously elected by the Member at original retirement, plus any additional benefits under the death benefit terms of the Retirement System based on the Member's Accumulated Contributions and Retirement Allowance earned since re-employment.

2. Other Re-employments

   a. If re-employed after attaining age 50 and period of non-employment is at least 2 years (5 years if employment was involuntarily terminated due to a Civil Service mandated layoff), then Retirement Allowance shall not exceed the sum of:

      i. The benefit based on Credited Service and Average Compensation before re-employment (provided Accumulated Contributions previously distributed are repaid with interest, subject to the 18-month required period of re-employment applicable to other re-employments), and

      ii. The benefit based on Credited Service and Average Compensation accrued after re-employment.

   b. If re-employed and do not meet the conditions outlined in (a.) immediately above, then:

      i. if the Member did not previously receive a distribution of Accumulated Contributions, then the entire period of Credited Service is restored

      ii. if the Member previously received a distribution of his Accumulated Contributions, becomes re-employed for a period of at least 18 months, the Member may repay the Accumulated Contributions previously distributed plus interest in order to have the entire period of Credited Service restored

      iii. if the Member previously received a distribution of his Accumulated Contributions and does not repay the Retirement System the amount of the Accumulated Contributions with interest, then the benefits accrued will be based solely on Earnable Compensation and Credited Service accrued following the re-employment

   c. DROP Participants: See Item O.5. above.

S. Eligible Dependent

A dependent who is a child of a Member, either natural or adopted, and who is under age 18 (or age 25 if the child attends school full-time) or who is mentally or physically disabled, as determined by the Pension Committee in its sole discretion, provided such disability occurred before the date the child reached age 18.

T. Pension Supplement

For a closed group of former employees who were hired prior to 1996, a supplemental pension benefit (the Pension Supplement) is provided in addition to the Retirement Allowance from retirement to the earliest of death, attainment of age 65 or the member's receipt of their first Social Security check. This temporary Pension Supplement is only payable to the member and is not subject to the Optional Allowance. For retirees receiving this benefit and Vested Terminated members entitled to this benefit at a future retirement date, the Pension Supplement is based on the records of the employer.

Section VII – Summary of Participant Data

A. Participant Data Reconciliation

		Active Participants	Current Payment Status	Vested Terminated	Nonvested Terminated	Total
1.	**As of January 1, 2019**	1,210	918	24	92	2,244
2.	**Change of status**					
a.	**retirement**	(4)	4	0	0	0
b.	**DROP retirement**	(11)	11	0	0	0
c.	**disability**	0	0	0	0	0
d.	**death**	(1)	(20)	0	0	(21)
e.	**nonvested termination**	(141)	0	0	141	0
f.	**vested termination**	(25)	0	25	0	0
g.	**completion of payment**	0	0	(12)	(92)	(104)
h.	**rehires**	6	(4)	(1)	(1)	0
i.	**other**	0	0	4[3]	(4)[3]	0
j.	**net changes**	(176)	(9)	16	44	(125)
3.	**New participants**	151	0	0	0	151
4.	**As of January 1, 2020**	1,185	909[1]	40	136[2]	2,270

1 Includes 90 DROP participants whose DROP participation period had not expired as of January 1, 2020 and 34 DROP participants whose period of participation in the DROP has expired but whose DROP balance has not yet been paid as of the valuation date.

2 Nonvested terminated members who had not received a refund of their employee contribution account balances as of January 1, 2020.

3 Correction for members that were listed as nonvested terminated last year, but were actually vested terminated.

B. Age/Service Headcount Table for Actives as of January 1, 2020

	Current Years of Service										Age	Percent
Current Age	*t<1*	*1 <= t < 5*	*5 <= t < 10*	*10 <= t < 15*	*15 <= t < 20*	*20 <= t < 25*	*25 <= t < 30*	*30 <= t < 35*	*35 <= t < 40*	*40 <= t*	*Totals*	*of Total*
x < 25	26	24	1	0	0	0	0	0	0	0	51	4.30%
25 <= x < 30	18	106	17	1	0	0	0	0	0	0	142	11.98%
30 <= x < 35	16	106	54	15	1	0	0	0	0	0	192	16.21%
35 <= x < 40	13	87	29	23	3	0	0	0	0	0	155	13.08%
40 <= x < 45	13	67	22	12	10	5	1	0	0	0	130	10.97%
45 <= x < 50	10	37	16	19	7	11	16	0	0	0	116	9.79%
50 <= x < 55	8	45	18	16	9	21	23	8	3	1	152	12.83%
55 <= x < 60	7	53	17	14	9	11	15	7	7	4	144	12.15%
60 <= x < 65	2	22	16	11	4	4	3	8	2	4	76	6.41%
65 <= x < 70	2	2	8	2	0	1	1	0	0	2	18	1.52%
x >= 70	1	3	1	2	1	1	0	0	0	0	9	0.76%
Service Totals	116	552	199	115	44	54	59	23	12	11	1,185	100.00%
Percent of Total	9.79%	46.59%	16.79%	9.70%	3.71%	4.56%	4.98%	1.94%	1.01%	0.93%	100.00%	

Average Age: 42.98

Average Service: 8.055

C. Age/Service Average Pensionable Earnings Table for Actives as of January 1, 2020

	Current Years of Service										Row	Percent
Current Age	*t<1*	*1 <= t < 5*	*5 <= t < 10*	*10 <= t < 15*	*15 <= t < 20*	*20 <= t < 25*	*25 <= t < 30*	*30 <= t < 35*	*35 <= t < 40*	*40 <= t*	*Averages*	*of Total*
x < 25	$29,273	$30,112	$33,525	$0	$0	$0	$0	$0	$0	$0	$29,752	3.11%
25 <= x < 30	33,949	33,027	37,409	31,117	0	0	0	0	0	0	33,655	9.78%
30 <= x < 35	41,247	38,729	42,270	42,166	53,750	0	0	0	0	0	40,281	15.83%
35 <= x < 40	41,875	36,703	44,595	45,314	49,898	0	0	0	0	0	40,147	12.74%
40 <= x < 45	33,179	40,743	40,830	35,860	49,797	44,500	42,980	0	0	0	40,409	10.75%
45 <= x < 50	34,191	36,665	36,436	38,668	50,925	45,337	61,857	0	0	0	41,906	9.95%
50 <= x < 55	25,887	36,319	37,068	42,263	61,950	49,752	52,579	46,544	67,265	40,897	43,497	13.53%
55 <= x < 60	61,826	43,311	39,429	41,359	40,995	39,551	53,489	59,014	50,578	46,260	45,390	13.38%
60 <= x < 65	102,622	57,643	35,827	35,161	50,819	43,115	66,972	50,695	38,320	74,439	49,868	7.76%
65 <= x < 70	117,821	35,989	40,183	60,695	0	66,389	53,087	0	0	47,782	53,639	1.98%
x >= 70	101,281	76,539	54,422	38,906	69,771	46,306	0	0	0	0	64,357	1.19%
Column Averages	$39,067	$38,239	$40,267	$40,974	$51,305	$46,041	$55,904	$51,783	$52,707	$56,296	$41,223	100.00%
Percent of Total	9.28%	43.21%	16.40%	9.65%	4.62%	5.09%	6.75%	2.44%	1.29%	1.27%	100.00%	

Average Annual Payrate: $41,223

D. Summary of Vested Terminated Participants as of January 1, 2020

Age	Count	Sum of Monthly Benefits	Average Monthly Benefits
x < 35	4	$ 2,568	$ 642
35 <= x < 40	7	4,528	$ 647
40 <= x < 45	1	1,662	$ 1,662
45 <= x < 50	4	4,320	$ 1,080
50 <= x < 55	6	8,458	$ 1,410
55 <= x < 60	10	12,692	$ 1,269
60 <= x < 65	6	6,456	$ 1,076
x >= 65	2	1,484	$ 742
Total	40	$ 42,168	$ 1,054

E. Summary of Nonvested Terminated Participants as of January 1, 2020

Count[1]	Sum of Employee Contribution Account Balances	Average of Employee Contribution Account Balances
136	$ 237,291	$ 1,745

[1] Sewerage and Water Board of New Orleans did not provide dates of birth for Nonvested Terminated Employees. However, date of birth is not needed for the valuation since the plan liability for these individuals is equal to their employee contribution account balances.

F. Summary of Retirees and Beneficiaries as of January 1, 2020

Age	Count	Sum of Monthly Benefits	Average Monthly Benefits
x < 45	4	$ 4,886	$ 1,222
45 <= x < 50	4	7,596	$ 1,899
50 <= x < 55	18	57,003	$ 3,167
55 <= x < 60	96	286,865	$ 2,988
60 <= x < 65	192	468,353	$ 2,439
65 <= x < 70	236	500,437	$ 2,120
70 <= x < 75	164	314,301	$ 1,916
75 <= x < 80	97	174,211	$ 1,796
80 <= x < 85	54	73,410	$ 1,359
85 <= x < 90	30	36,817	$ 1,227
90 <= x < 95	12	12,434	$ 1,036
95 <= x	2	2,158	$ 1,079
Total	909	$ 1,938,471	$ 2,133

Section VIII – Glossary of Actuarial Terms

Accrued Liability	This is computed differently under different actuarial cost methods. Generally, the Accrued Liability represents the portion of the Present Value of Future Benefits attributed to periods of service preceding the valuation date.
Actuarial Gain (Loss)	A measure of the difference between actual experience and that expected based on the actuarial assumptions during the period between two actuarial valuation dates, as determined in accordance with the particular actuarial cost method used.
Actuarial Value of Assets	The value of Plan Assets used by an actuary for an actuarial valuation. *(See the Actuarial Methods and Assumptions section of this report for a description of the methodology used to determine the Actuarial Value of Assets used in this report.)*
Entry Age Normal Actuarial Cost Method	An actuarial cost method under which the Present Value of Future Benefits of each individual included in an actuarial valuation is allocated on a level basis over the earnings or service of the individual between entry age and assumed exit ages. The portion of this actuarial present value allocated to the year of service during the valuation year is called the Normal Cost. The portion of this present value not provided for at a valuation date by the Present Value of Future Normal Costs is called the Accrued Liability.
Normal Cost	Computed differently under different actuarial cost methods, the Normal Cost generally represents the portion of the Actuarial Present Value of Future Benefits attributed to the current year of service for active employees.
Present Value of Accrued Benefits	The actuarial present value of all accrued benefits (i.e., all benefits attributed by the pension benefit formula to employee service and compensation rendered prior to the valuation date).
Present Value of Future Benefits	Future benefits include all benefits estimated to be payable to plan members (retirees and beneficiaries, terminated employees entitled to benefits but not yet receiving them, and current active members) as a result of their service through the valuation date and their expected future service. The actuarial Present Value of Future Benefits as of the valuation date is the present value of the cost to finance benefits payable in the future, discounted to reflect the expected effects of the time value (present value) of money and the probabilities of payment.
Present Value of Future Normal Costs	The difference between the Present Value of Future Benefits and the Accrued Liability under a given actuarial cost method.
Unfunded Accrued Liability	The excess, if any, of the Accrued Liability over the Actuarial Value of Assets.