

**ST. JOHN'S RIVER POWER PARK SYSTEM  
EMPLOYEES' RETIREMENT PLAN**

ACTUARIAL VALUATION REPORT  
OCTOBER 1, 2015

**ANNUAL EMPLOYER CONTRIBUTION  
IS DETERMINED BY THIS VALUATION  
TO BE PAID IN THE EMPLOYER FISCAL YEAR ENDING  
SEPTEMBER 30, 2017**



May 16, 2016

The SJRPP Pension Committee

Dear Committee Members:

Gabriel, Roeder, Smith and Company (GRS) is pleased to submit herein our October 1, 2015 Actuarial Valuation Report for the St. John's River Power Park System Employees' Retirement Plan (Plan). The contribution requirements apply to the Employer's fiscal year ending September 30, 2017.

This report was prepared at the request of the Plan sponsor, St. Johns River Power Park System and JEA (SJRPP/JEA) and the Plan's Administrative Committee (Committee). This report is intended for use by SJRPP/JEA and Committee officials and those designated or approved by SJRPP/JEA and Committee. This report may be provided to parties other than SJRPP/JEA officials only in its entirety and only with the permission of designated SJRPP/JEA officials. GRS is not responsible for unauthorized use of this report.

The purpose of the valuation is to measure the Plan's funding progress and to determine the employer contribution for the fiscal year ending September 30, 2017 and to comply with certain state disclosure requirements. Disclosures for the Pension Plan financial statement under the GASB Statement Nos. 67 and 68 will be developed separately. Certain other state disclosures required pursuant to Ch. 112.664, F.S., are filed and presented in a separate report. Determinations of financial results associated with the benefits described in this report, for purposes other than those identified above may be significantly different.

The findings in this report are based on data or other information through September 30, 2015. 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 economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the Plan's funded status); and changes in Plan provisions or applicable law. The scope of an actuarial valuation does not include an analysis of the potential range of such future measurements.

This valuation assumed the continuing ability of the plan sponsor to make the contributions necessary to fund this plan. A determination regarding whether or not the plan sponsor is actually able to do so is outside our scope of expertise and was not performed.

The valuation was based upon information furnished by SJRPP/JEA, concerning Plan benefits, funding objective, financial transactions, Plan provisions and active members, terminated members, retirees and beneficiaries. We checked for internal and year-to-year consistency, but did not otherwise audit the data. We are not responsible for the accuracy or completeness of the information provided by the SJRPP/JEA.

In addition, this report was prepared using assumptions approved by the Board as described in the section of this report entitled Actuarial Assumptions and Methods.

This report has been prepared by actuaries who have substantial experience valuing public employee retirement systems. To the best of our knowledge the information contained in this report is accurate and fairly presents the actuarial position of the Retirement Plan as of the valuation date. All calculations have been made in conformity with generally accepted actuarial principles and practices, with the Actuarial Standards of Practice issued by the Actuarial Standards Board and with applicable statutes.

James J. Rizzo and Piotr Krekora are Members of the American Academy of Actuaries (MAAA) and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.

The signing actuaries are independent of the Plan sponsor.

This actuarial valuation and/or cost determination was prepared and completed by me or under my direct supervision, and I acknowledge responsibility for the results. To the best of our knowledge, the results are complete and accurate. In our opinion, the techniques and assumptions used are reasonable, meet the requirements and intent of Part VII, Chapter 112, Florida Statutes, and are based on generally accepted actuarial principles and practices. There is no benefit or expense to be provided by the plan and/or paid from the plan's assets for which liabilities or current costs have not been established or otherwise taken into account in the valuation. All known events or trends which may require a material increase in plan costs or required contribution rates have been taken into account in the valuation.

Gabriel, Roeder, Smith & Company will be pleased to answer questions pertaining to the valuation and to meet with you to review this Report.

Respectfully submitted,

GABRIEL, ROEDER, SMITH AND COMPANY



James J. Rizzo, ASA, MAAA  
Senior Consultant & Actuary



Piotr Krekora, ASA, MAAA  
Consultant & Actuary

**STATEMENT BY ENROLLED ACTUARY**

This actuarial valuation and/or cost determination was prepared and completed by me or under my direct supervision, and I acknowledge responsibility for the results. To the best of my knowledge, the results are complete and accurate. In my opinion, the techniques and assumptions used are reasonable, meet the requirements and intent of Part VII, Chapter 112, Florida Statutes, and are based on generally accepted actuarial principles and practices. There is no benefit or expense to be provided by the Plan and/or paid from the Plan's assets for which liabilities or current costs have not been established or otherwise taken into account in the valuation. All known events or trends which may require a material increase in Plan costs or required contribution rates have been taken into account in the valuation.



\_\_\_\_\_  
Signature

\_\_\_\_\_  
May 16, 2016  
Date

\_\_\_\_\_  
14-03355  
Enrollment Number

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**SECTION A**  
**EXECUTIVE SUMMARY**

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## EXECUTIVE SUMMARY

### **Funding Objective**

According to the Administrative Committee, the funding objective of the Plan is to establish and receive contributions, which are intended to bring the Plan's funding ratio to 100% by October 1, 2019.

### **Comparison of Actuarially Determined Employer Contributions**

The following is a comparison of required contributions developed in this year's and the last actuarial valuations:

	<b>For FYE 9/30/2017 Based on 10/01/15 Valuation</b>	<b>For FYE 9/30/2016 Based on 10/01/14 Valuation*</b>	<b>Increase (Decrease)</b>
Gross Contribution Requirement	\$ 8,664,206	\$ 2,771,388	\$ 5,892,818
As % of Expected Payroll	49.74 %	15.37 %	34.37 %
Expected Employee Contribution	\$ 696,806	\$ 721,447	\$ (24,641)
As % of Expected Payroll	4.00 %	4.00 %	0.00 %
Required Employer Contribution (If Made in Equal Bi-weekly Installments)	\$ 7,967,400	\$ 2,049,941	\$ 5,917,459
As % of Expected Payroll	45.74 %	11.37 %	34.37 %

\*October 1, 2014 Valuation results are updated to reflect the adoption of Amendments 6 through 11.

### **Actuarially Determined Contribution**

As illustrated in the preceding table, the contribution necessary for the fiscal year ending September 30, 2017 to support the current benefits for the St. John's River Power Park System Employees under the current funding objectives is \$7,967,400, up from \$2,049,941 for the fiscal year ending September 30, 2016. This contribution is computed in accordance with the Plan's current funding policy, which includes the goal of achieving a 100% funded ratio by October 1, 2019. Please note that the Employer Contribution for the 2017 fiscal year is developed *assuming* it would be deposited in bi-weekly intervals throughout the year.

Of the Employer Contribution of \$7,967,400 (45.74% of pay), the portion attributable to the employer-paid Normal Cost is \$696,630 (4.00% of pay) and the amortization of the Unfunded Actuarial Accrued Liability fully paid by the employer is \$7,270,770 (41.74% of pay).

### **Contribution Volatility**

The substantial increase in contribution requirement resulted primarily from the unfavorable investment experience of the Plan assets during the year ended September 30, 2015. Given the funding objective stated above, the losses for the year ending September 30, 2015 will need to be amortized within three years. The Plan's funding target of achieving a 100% funded ratio by October 1, 2019 is the main source of volatility in Employer Contributions.

Results of the this annual valuation will be used to determine the contribution for year ending September 30, 2017, the last contribution year before the target date.



## **Recommendations**

The Actuarially Determined Contribution was developed according to a short term funding goal of achieving a 100% funded ratio within the next four years (including the year ending 9/30/2016 with contribution determined in the previous valuation). For a long term planning purposes, it is recommended that the Committee (or the JEA management) considers undertaking the process of designing a funding policy intended to take effect once the funding goal is attained and tailored around the long term financial goals of the JEA.

## **Revisions in Benefits**

The plan has been restated since the last annual valuation. This restatement was reflected in our October 1, 2014 actuarial impact statement dated January 17, 2016, including Amendment 6, which increased the cash balance pay credit rate to 8.5% effective October 1, 2015, and Amendment 11 which applies an early payment reduction to the excess benefit of the traditional defined benefit plan for members retiring upon attaining Normal Retirement Age but before age 65.

## **Revisions in Actuarial Assumptions and Methods**

The assumed mortality rates have been revised for this valuation from RP-2000 Combined Healthy Mortality Tables for Males and Females generationally projected from the year 2000 using Mortality Projection Scale AA used in the previous valuation to rates developed in a recent comprehensive assumption review by the Florida Retirement System. Rates for female participants are taken from RP2000 Healthy Annuitants Tables with 100% White Collar adjustment. Rates for male participants are taken from RP2000 Healthy Annuitants Tables with 50% White Collar / 50% Blue Collar adjustment. All rates are generationally projected from year 2000 using Scale BB. These rates will be mandated by the State Statutes to be used in actuarial valuations as of October 1, 2016. As such, amortization payments developed in accordance with the funding objective need to automatically reflect this anticipated change in assumption.

Furthermore, subsequent to presenting preliminary valuation results at the Pension Committee meeting on May 3, 2016, we were requested to adopt those mortality rates for all purposes to maintain consistency between assumptions. Combined with an accelerated amortization, this change in assumptions and methods had an increasing impact on October 1, 2015 Unfunded Actuarial Accrued Liability and on the ADC determined for the year ending September 30, 2017.

## **One Plan**

The Summary of Plan Provisions (Section E) describes two tiers of employees and benefits. Some employees are entitled only to a monthly pension benefit, some are entitled only to a cash balance benefit, and others are entitled to both a frozen pension benefit and a cash balance benefit.

All assets of this Plan are intended to be available for the payment of all types of benefits. Plan assets constitute an undivided whole, without any allocation of assets to different employee groups or to different benefit structures. While this Plan has two different benefit structures, it is one plan.

## **Actuarial Experience**

Actuarial gains occur in a year whenever the experience of the Plan is more favorable than was assumed. For example, if investment performance were better than the level being assumed in the actuarial valuation and costing process, then an actuarial gain results and would have the effect of lowering the Actuarially Determined Contribution for the year. Whenever more employees terminate employment than were assumed would terminate, fewer employees are then expected to actually retire from the Employer, resulting in an actuarial gain for the Plan.

Actuarial losses occur in a year whenever the experience of the Plan is less favorable than was assumed. In the

examples given above, if the reverse were to occur, then actuarial losses would result. As another example, if salary increases in one year were higher than had been assumed, an actuarial loss would occur.

The actuarial valuation cost method, which determines the Actuarially Determined Contribution, is designed to produce the normal cost for any given active Plan member which remains level as a percent of payroll whenever the experience of the Plan matches the actuarial assumptions used. Contribution requirements are also level whenever actuarial losses exactly offset actuarial gains and there is no history of recent Plan changes (SJRPP's Plan has been recently amended to roll back accruals for new employees and as such the Normal Cost is expected to drift downward as a percent of pay).

This goal of level percent of pay contributions is intended to be achieved prior to the suspension date and after the suspension date. After the Unfunded Actuarial Accrued Liability is expected to be paid down to zero at October 1, 2019, the contribution requirements are expected to be reduced substantially to the level of the normal cost. However, actuarial gains and losses occur each year resulting in contribution requirements that are lower or higher than expected.

### **Analysis of Change in Employer Contribution**

The components of change in the Actuarially Determined Contribution are as follows:

Contribution rate last year	11.37 %
Experience (gain)/loss	112.23
Change in administrative expense	0.05
Change in normal cost before expenses	(0.63)
Revision in benefits	0.00
Revision in assumptions/methods	<u>(77.28)</u>
Contribution rate this year	45.74 %

There was a net actuarial loss this year mainly due to the lower than expected investment return (-0.2% return vs. 7.0% assumed for the year ending September 30, 2015), faster than expected pay increases (3.4% expected vs. 4.5% actual) as well as higher than expected rates of retirement.

The remainder of this Report includes detailed actuarial valuation results, financial information, miscellaneous information and statistics, and a summary of plan provisions.

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## **SECTION B**

### **VALUATION RESULTS**

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<b>PARTICIPANT DATA</b>		
	<b>October 1, 2015</b>	<b>October 1, 2014</b>
<b>ACTIVE MEMBERS</b>		
Number	226	240
Covered Annual Payroll	\$ 16,664,648	\$ 17,253,952
Average Annual Pay	\$ 73,737	\$ 71,891
Average Age	48.3	48.6
Average Past Service	14.6	14.8
Average Age at Hire	33.7	33.8
<b>RETIREES &amp; BENEFICIARIES</b>		
Number	273	258
Annual Benefits	\$ 8,599,994	\$ 7,837,255
Average Annual Benefit	\$ 31,502	\$ 30,377
Average Age	66.9	66.2
<b>TERMINATED VESTED MEMBERS</b>		
Number	52	52
Annual Benefits	\$ 767,560	\$ 724,326
Average Annual Benefit	\$ 14,761	\$ 13,929
Average Age	57.5	57.0

**ACTUARIALLY DETERMINED CONTRIBUTION (ADC)**

	October 1, 2015 <i>With FRS Mortality And 2019 Target Date</i>	October 1, 2015 <i>With Old Mortality And 2017 Target Date</i>	October 1, 2014 <i>After Adoption of Amendments 6 - 11</i>
A. Valuation Date			
B. ADC to Be Paid During Fiscal Year Ending	9/30/2017	9/30/2017	9/30/2016
C. Assumed Date(s) of Employer Contribution(s)	Bi-Weekly	Bi-Weekly	Bi-Weekly
D. Actuarially Determined Contribution (ADC)			
1. Total Normal Cost as of the Valuation Date	\$ 1,256,604	\$ 1,276,489	\$ 1,419,531
2. Amount as of the Valuation Date to Amortize Unfunded Actuarial Liability by 10/1/2019	6,556,799	18,677,564	1,079,714
3. Interest Through Contribution Dates	<u>850,803</u>	<u>2,172,801</u>	<u>272,144</u>
4. Total ADC as of the Contribution Dates	8,664,206	22,126,854	2,771,389
5. Estimated Employee Contributions made as of the Contribution Dates	<u>(696,806)</u>	<u>(696,806)</u>	<u>(721,447)</u>
6. Net Employer Contribution	\$ 7,967,400	\$ 21,430,048	\$ 2,049,942
7. Net Contribution as % of Expected Covered Payroll	45.74 %	123.02 %	11.37 %
E. Expected Covered Payroll for the Contribution Year	17,420,154	17,420,154	18,036,174

*In order to achieve the current funding objective of accumulating enough assets to eliminate unfunded liability by October 1, 2019, the amortization payment was developed to pay for any investment and other actuarial losses experienced by the plan through the year ending September 30, 2015 during the next three years. Furthermore, it reflects a mandated change in assumed mortality rates. As a result, amortization installment amount shown above is substantially higher than in the previous year.*

**CALCULATION OF NORMAL COST**

A. Valuation Date	October 1, 2015 <i>With FRS Mortality And 2019 Target Date</i>	October 1, 2015 <i>With Old Mortality And 2017 Target Date</i>	October 1, 2014 <i>After Adoption of Amendments 6 - 11</i>
B. Total (Employer/Employee) Normal Cost as of the Valuation Date for:			
1. Active Members' Benefits			
a. Service Retirement Benefits	\$ 1,034,024	\$1,079,939	\$ 1,217,906
b. Termination Benefits	83,931	85,902	89,945
c. Disability Benefits	17,094	21,931	25,463
d. Preretirement Death Benefits	55,324	22,486	24,860
f. Total	<u>1,190,373</u>	<u>1,210,258</u>	<u>1,358,174</u>
2. Administrative Expenses	<u>66,231</u>	<u>66,231</u>	<u>61,357</u>
3. Total (Employer/Employee) Normal Cost as of the Valuation Date	1,256,604	1,276,489	1,419,531

**Schedule of Amortization Payments**

Item Description	Number of Payments Remaining*	Amortization Payment	Current Unfunded
Unfunded Actuarial Accrued Liabilities	3	\$6,556,799	\$20,359,518
<b>TOTAL</b>		<b>\$6,556,799</b>	<b>\$20,359,518</b>

*\*There are three amortization payments remaining resulting from this valuation (in addition to an amortization payment included in the contribution for the year ending September 30, 2016). The final amortization payment will be made during the yearended September 30, 2019. The payment amount has been determined with consideration given to the contributions scheduled to be made during the year ending September 30, 2016.*

**ACTUARIAL VALUE OF BENEFITS AND ASSETS**

A. Valuation Date	October 1, 2015 <i>With FRS Mortality And 2019 Target Date</i>	October 1, 2015 <i>With Old Mortality And 2017 Target Date</i>	October 1, 2014 <i>After Adoption of Amendments 6 - 11</i>
<b>B. Actuarial Present Value of All Projected Benefits for</b>			
1. Active Members			
a. Service Retirement Benefits	\$ 57,965,191	\$58,321,911	\$ 63,195,981
b. Termination Benefits	594,762	610,159	613,693
c. Disability Benefits	531,406	633,263	740,302
d. Preretirement Death Benefits	1,506,828	650,270	729,831
f. Total	<u>60,598,187</u>	<u>60,215,603</u>	<u>65,279,807</u>
2. Inactive Members			
a. Retirees & Beneficiaries	101,751,246	98,941,842	89,906,058
c. Terminated Vested Members	5,101,692	5,014,087	4,595,915
d. Total	<u>106,852,938</u>	<u>103,955,929</u>	<u>94,501,973</u>
3. Total for All Members	167,451,125	164,171,532	159,781,780
<b>C. Actuarial Accrued (Past Service) Liability</b>	159,261,274	155,755,038	150,493,864
<b>D. Actuarial Value of Accumulated Plan Benefits per FASB No. 35</b>	154,689,339	151,315,326	144,982,233
<b>E. Plan Assets</b>			
1. Market Value	138,901,756	138,901,756	145,425,186
2. Actuarial Value	138,901,756	138,901,756	145,425,186
<b>F. Actuarial Present Value of Projected Covered Payroll</b>	138,137,046	140,821,073	144,070,997
<b>G. Actuarial Present Value of Projected Member Contributions</b>	5,525,482	5,632,843	5,762,840

## FINANCIAL SOUNDNESS

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The purpose of this portion of the Report is to provide certain measures which indicate the financial soundness of the program. These measures relate to short term solvency and long term solvency.

The various percentages listed in this Section as of a single valuation date are not that significant by themselves. What is significant, however, is the trend of the rates over a period of years. It is also important to keep in mind that each time benefits or assumptions are revised; the value of actuarial liabilities are created or diminished. Any newly created liabilities are financed systematically over a period of future years. All actuarially computed values in this analysis are based on the actuarial assumptions utilized in the respective years' actuarial valuations.

### Short Term Solvency

The ultimate test of financial soundness is the program's ability to pay all promised benefits when due. The program's progress in accumulating assets to pay all promised benefits can be measured by comparing the market value of assets with:

1. The actuarial present value of projected benefits payable to those already receiving benefits and to vested terminations, and
2. The actuarial present value of accrued benefits payable to active participants. This amount is based on benefits earned to date without future credited service or salary increases.

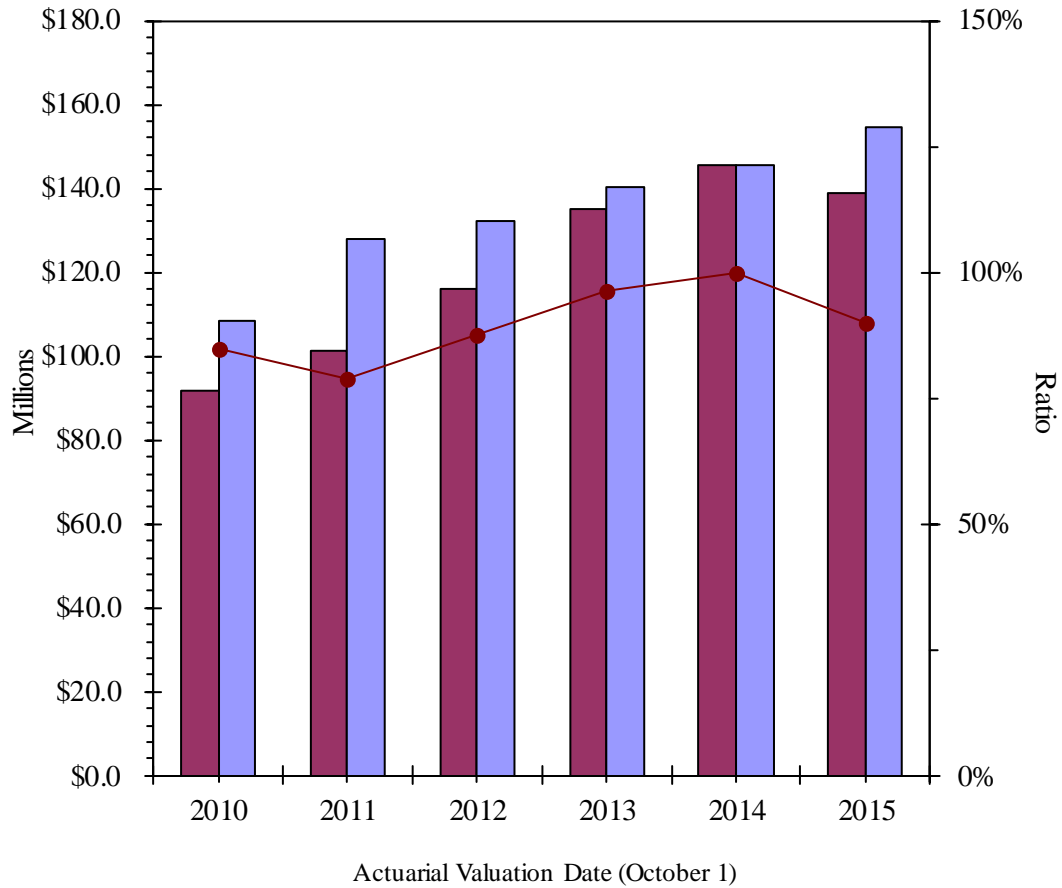
The total of the two items should generally be fully covered by assets. That portion of the total of the two items covered by assets should increase over time assuming an ongoing plan. Often assets continue to grow beyond the actuarial present value of these two items.

Retroactive increases in benefits will, of course, adversely affect the trend in the years when such increases are first reflected in the actuarial values. Although different actuarial assumptions would be used in the event of a termination of the program, this test shows how much of the benefits accrued to date might be covered by assets in the event of a Plan freeze using the valuation assumptions.

	Power Park System Employees		
	10/1/15	10/01/14	10/01/13
1. Accumulated Contributions of Active Members	\$ 5,346,245	\$ 5,736,502	\$ 5,704,794
2. APV of Projected Benefits in Pay Status and for Vested Terminations	106,852,938	95,111,515	83,956,991
3. APV of Accrued Benefits for Active Participants (Employer Portion)	<u>42,490,156</u>	<u>44,796,349</u>	<u>50,751,359</u>
4. Total	154,689,339	145,644,366	140,413,144
5. Market Value of Assets	138,901,756	145,425,186	135,019,133
6. Assets as % of Total	90 %	100 %	96 %



## Ratio of Market Value of Assets to Present Value of Accrued Benefits



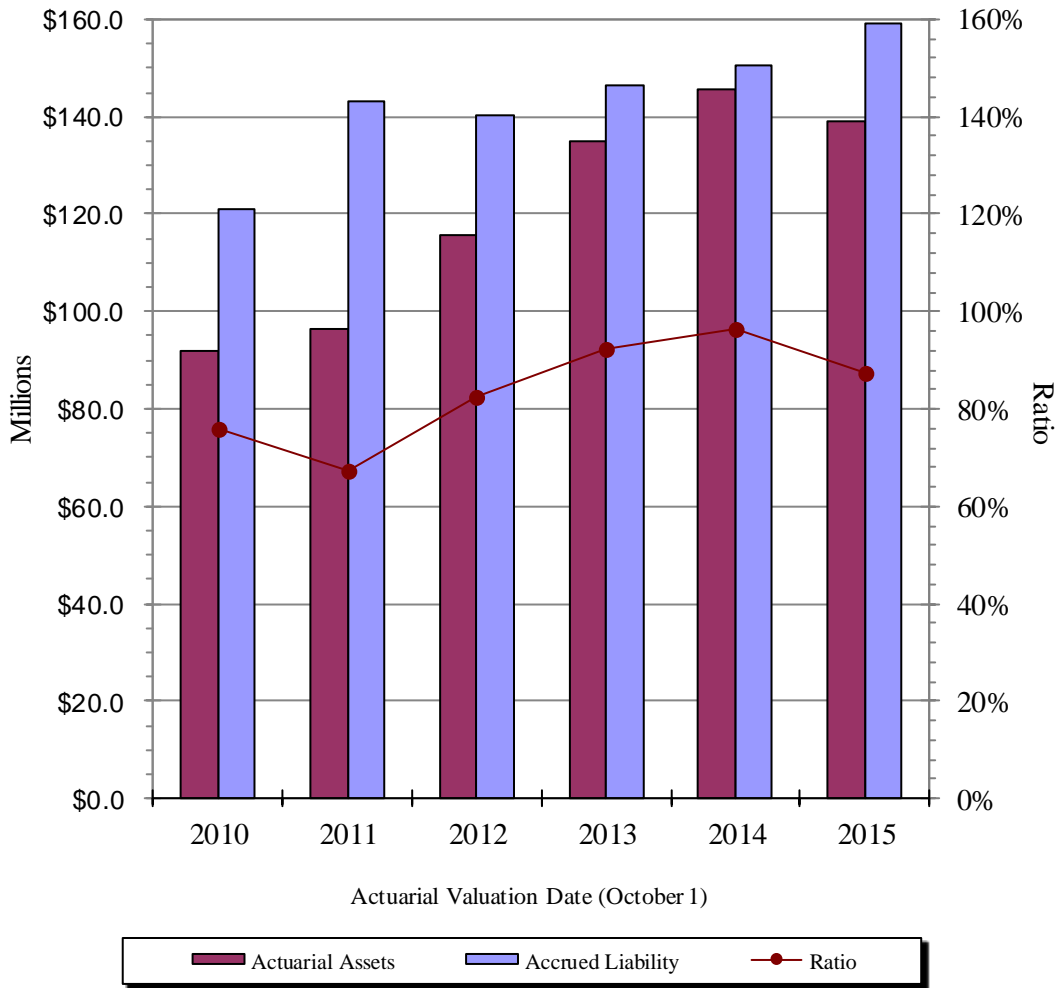
## Long Term Solvency

Over the longer term, the solvency of an ongoing Plan can be measured by comparing the Actuarial Value of Assets to an amount known as the Actuarial Accrued Liability (AAL) under the Entry Age Actuarial Cost Method. This item has often been called the "past service liability". Its derivation differs from the short term solvency value derivation in several ways. The short term solvency liability number is based on the benefits accrued to date by the participants while the long term solvency liability number is based on the normal costs accrued to date by the employer. As in the case of the short term solvency values, the AAL is affected immediately by any revisions in benefits or assumptions. The accumulation of assets to equal the AAL can be considered a long range funding goal.

<b>Valuation Date</b>	<b>Actuarial Value of Assets (in Thousands)</b>	<b>Actuarial Accrued Liability (in Thousands)</b>	<b>% of AAL Covered by Assets</b>
10/1/09	\$ 73,884	\$ 113,512	65 %
10/1/10	91,975	120,940	76
10/1/11	96,511	143,203	67
10/1/12	115,815	140,281	83
10/1/13	135,019	146,521	92
10/1/14	145,425	150,494	97
10/1/15	138,902	159,261	87

\*October 1, 2014 Valuation results are updated to reflect the adoption of Amendments 6 through 11.

## Ratio of Actuarial Value of Assets to Actuarial Accrued Liability



## ACTUARIAL GAINS AND LOSSES

The assumptions used to anticipate mortality, employment turnover, investment income, expenses, salary increases, and other factors have been based on long range trends and expectations. Actual experience can vary from these expectations. The variance is measured by the gain and loss for the period involved. If significant long term experience reveals consistent deviation from what has been expected and that deviation is expected to continue, the assumptions should be modified. The net actuarial gain (loss) for the past year is computed as follows:

Derivation of Experience Gain (Loss)		
1.	Last Year's UAAL	\$ 5,068,678
2.	Last Year's Normal Cost	1,419,531
	Last Year's Expected Employee Contributions	690,158
	Last Year's Employer Normal Cost	729,373
3.	Last Year's Actual Employer Contribution	3,508,587
4.	Interest at the assumed rate:	
	a. on 1 for one year	354,807
	b. on 2 for one year	51,056
	c. on 3 from dates paid	122,801
	d. a + b - c	283,062
5.	This Year's Expected UAAL	
	1 + 2 - 3 + 4d	2,572,526
6.	This Year's Actual UAAL (before any changes in benefits or assumptions)	16,853,282
7.	Net Actuarial Gain (Loss): (5) - (6)	(14,280,756)
8.	Gain (Loss) due to investments	(10,226,599)
9.	Gain (Loss) due to other sources	(4,054,157)

Net actuarial gains in previous years have been as follows:

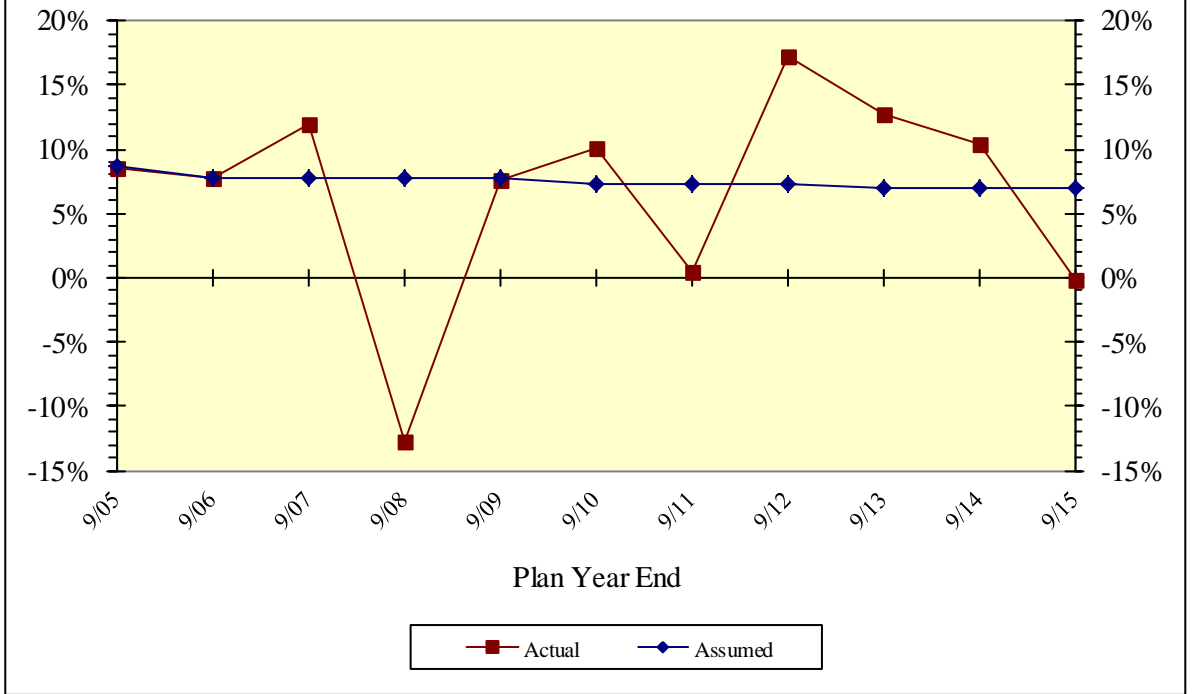
<b>Year Ended</b>	<b>Actuarial Gain (Loss)</b>	<b>Cumulative Gain (Loss)</b>
9/30/2010	\$ (1,058,645)	\$
9/30/2011	(12,002,660)	(13,061,305)
9/30/2012	12,570,367	(490,938)
9/30/2013	3,388,019	2,897,081
9/30/2014	2,313,420	5,210,501
9/30/2015	(14,280,756)	(9,070,255)

The fund earnings and salary increase assumptions have considerable impact on the cost of the Plan so it is important that they are in line with the actual experience. The following table shows the history of actuarial fund earnings and salary increase rates compared to the assumed rates:

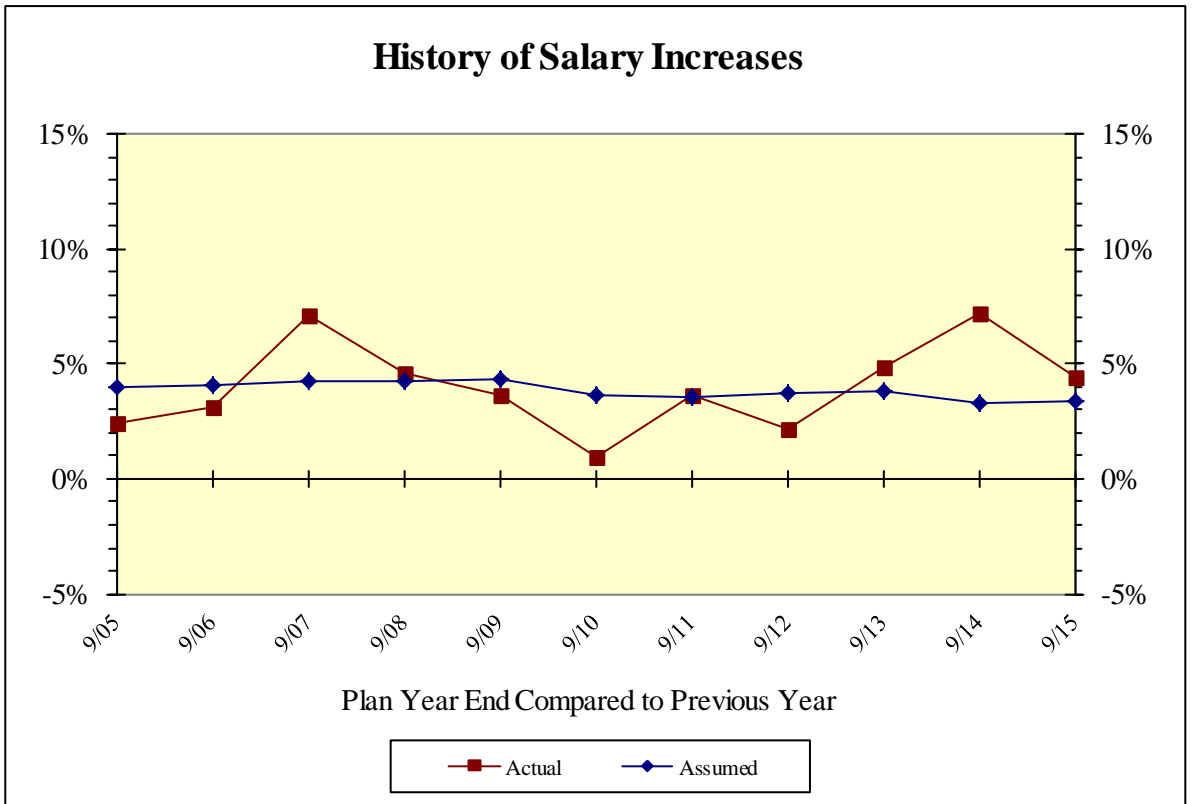
<b>Year Ending</b>	<b>Investment Return</b>		<b>Salary Increases</b>	
	<b>Actual</b>	<b>Assumed</b>	<b>Actual</b>	<b>Assumed</b>
9/30/2005	8.59	8.75	2.39	4.02 %
9/30/2006	7.77	7.75	3.15	4.09
9/30/2007	11.89	7.75	7.08	4.29
9/30/2008	(12.67)	7.75	4.63	4.29
9/30/2009	7.60	7.75	3.62	4.38
9/30/2010	10.14	7.25	0.98	3.66
9/30/2011	0.41	7.25	3.65	3.57
9/30/2012	17.17	7.25	2.20	3.76
9/30/2013	12.64	7.00	4.90	3.79
9/30/2014	10.32	7.00	7.19	3.29
9/30/2015	(0.19)	7.00	4.47	3.38
Average	6.40 %	---	4.01 %	---

The actuarial investment return rates shown above are based on the actuarial value of assets, which has been the same as fair market value since at least 2007 (and possibly earlier). The actual salary increase rates shown above are the increases received by those active members who were included in the actuarial valuations both at the beginning and the end of each year.

### History of Investment Return



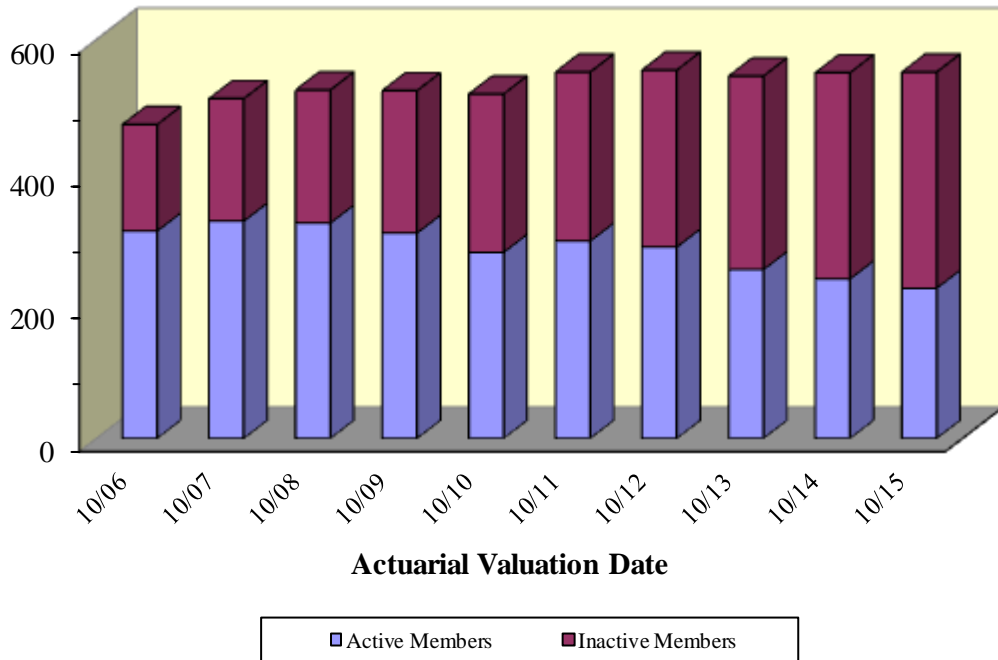
### History of Salary Increases



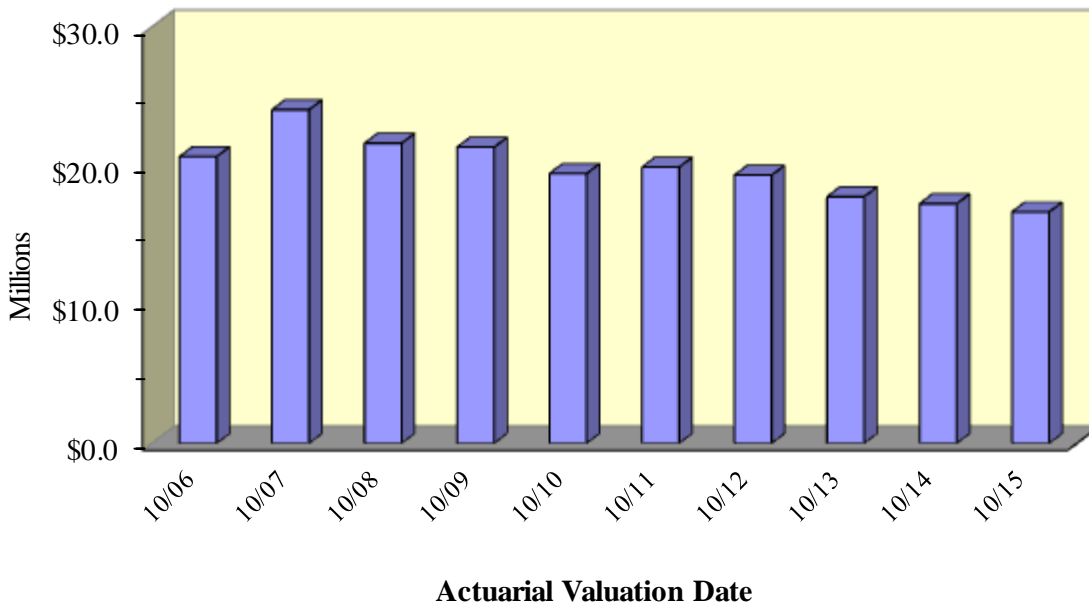
<b>RECENT HISTORY OF VALUATION RESULTS</b>							
<b>Valuation Date</b>	<b>Number of</b>		<b>Reported Annual Payroll (in Thousands)</b>	<b>Actuarial Value of Assets (in Thousands)</b>	<b>UAAL (in Thousands)</b>	<b>Total Normal Cost</b>	
	<b>Active Members</b>	<b>Inactive Members</b>				<b>Amount (in Thousands)</b>	<b>% of Payroll</b>
10/1/06	312	160	20,648	51,498	35,035	2,004	9.7 %
10/1/07	327	184	24,027	61,029	34,995	2,252	9.4
10/1/08	324	200	21,609	60,998	47,680	2,222	10.3
10/1/09	309	214	21,327	73,884	39,628	2,277	10.7
10/1/10	280	238	19,431	91,975	28,966	2,470	12.7
10/1/11	297	254	19,895	96,511	46,692	2,418	12.2
10/1/12	288	266	19,318	115,815	24,466	1,718	8.9
10/1/13	254	291	17,761	135,019	11,502	1,611	9.1
10/1/14	240	310	17,254	145,425	5,069	1,420	8.2
10/1/15	226	325	16,665	138,902	20,360	1,257	7.5

\*October 1, 2014 Valuation results are updated to reflect the adoption of Amendments 6 through 11.

### Recent History of Number of Members



### Recent History of Covered Annual Payroll





**RECENT HISTORY OF ACTUARIALLY DETERMINED AND ACTUAL CONTRIBUTIONS**

Valuation	End of Year To Which Valuation Applies	Actuarially Determined Contributions		Actual Contributions
		Employer Portion	% of Expected Payroll	
10/1/05	9/30/07	\$ 4,181,312	18.35 %	\$ 4,305,105
10/1/06	9/30/08	10,044,998	46.89	10,080,963
10/1/07	9/30/09	10,238,757	48.54	10,398,136
10/1/08	9/30/10	13,452,946	60.01	13,565,335
10/1/09	9/30/11	8,919,354	40.31	9,027,932
10/1/10	9/30/12	7,995,205	41.15	8,005,178
10/1/11	9/30/13	11,845,434	56.96	11,884,513
10/1/12	9/30/14	5,396,838	26.72	5,558,821
10/1/13	9/30/15	3,413,998	18.39	3,508,587
10/1/14	9/30/16	2,049,942	11.37	---
10/1/15	9/30/17	7,967,400	45.74	---

\*October 1, 2014 Valuation results are updated to reflect the adoption of Amendments 6 through 11.

# ACTUARIAL ASSUMPTIONS AND COST METHOD

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## Valuation Methods

**Actuarial Cost Method** - The actuarial cost method is a procedure for allocating the actuarial present value of benefits and expenses to time periods. Normal cost and the allocation of benefit values between service rendered before and after the valuation date were determined using the **Individual Entry Age Actuarial Cost Method**. The entry-age actuarial cost method allocates the actuarial present value of each member's projected benefits on a level basis over the member's pensionable compensation between the entry age of the member and the estimated active status exit ages. The portion of the actuarial present value allocated to the valuation year is called the normal cost. The portion of the actuarial present value not provided for by the actuarial present value of future normal costs is called the actuarial accrued liability. Deducting accrued assets from the actuarial accrued liability determines the unfunded actuarial accrued liability.

**Financing of Unfunded Actuarial Accrued Liabilities** - The unfunded actuarial accrued liability was financed as a level dollar.

We have applied a goal-oriented amortization schedule designed to pay off the Unfunded Actuarial Accrued Liability by October 1, 2019. Our goal is to set the amortization schedule for the current and next few years so as to expect the Plan assets (including all employer contributions scheduled to be made) as of October 1, 2019 to be equal to the expected Actuarial Accrued Liability derived in an open group projection for the October 1, 2019 actuarial valuation. These two numbers are certain not to be equal on that date. However, the amortization schedule for the next few years is designed to aim at achieving that agreed objective on the basis of best estimates.

**Actuarial Value of Assets** - The Market Value of Plan assets.

## Valuation Assumptions

**The actuarial assumptions used** in the valuation are shown in this Section. Several of the assumptions used in this valuation have been adopted by the SJRPP Pension Committee as recommended in the actuarial assumptions review report dated March 4, 2013. These recommendations were based on the demographic experience from 2004 through 2012 and economic forecasts available at the time the report was issued.

## Economic Assumptions

**The investment return rate** assumed in the valuation is 7.00% per year, compounded annually (net of investment expenses).

The **wage inflation rate** assumed in this valuation is 3.0% per year. The Wage Inflation Rate is defined to be the portion of total pay increases for an individual that are due to macroeconomic forces including productivity, price inflation, and labor market conditions. The wage inflation rate does not include pay changes related to individual merit and seniority effects applicable to individuals. The **price inflation rate** assumed in this valuation is 2.5% per year.

*The rates of salary increases* (including price inflation) used in the valuation are illustrated in the following tables.

<b>Annual Rates of Salary Increase</b>	
<b>Years of Service</b>	<b>Assumed Increase</b>
0-1	12.50%
2	7.50%
3	5.50%
4	4.50%
5-6	3.50%
7-9	3.00%
10-14	2.75%
15+	2.50%

## Demographic Assumptions

**Rates of mortality** were updated from the RP-2000 mortality tables for males and females, with generational projections using Scale AA to mortality rates used by the Florida Retirement System, described as follows:

Healthy Mortality (Pre-Retirement and Post-Retirement) rates used:

*Female Non-Disabled:* RP2000 Generational, 100% Annuitant White Collar, generationally projected from year 2000 using Scale BB

*Male Non-Disabled (other than Special Risk):* RP2000 Generational, 50% Annuitant White Collar / 50% Annuitant Blue Collar, generationally projected from year 2000 using Scale BB.

Disabled Mortality rates used:

*Female Disabled:* RP2000, 100% Disabled Female set forward two years, no projection scale

*Male Disabled:* RP2000, 100% Disabled Male setback four years, no projection scale

These rates were developed by the Florida Retirement System in a recent experience study and are different than rates used in the previous valuation will be mandated by the State Statutes for funding valuations beginning with 2016 valuations.

The following table illustrates assumed rates projected to the valuation year:

Ages	Previous Assumptions				New Assumptions			
	Future Life Expectancy (Years)		Mortality Rates		Future Life Expectancy (Years)		Mortality Rates	
	Men	Women	Men	Women	Men	Women	Men	Women
45	39.59	40.48	0.12%	0.09%	39.22	42.80	0.39%	0.15%
50	34.40	35.68	0.16%	0.13%	34.51	38.17	0.55%	0.23%
55	29.27	30.95	0.27%	0.24%	29.88	33.63	0.60%	0.32%
60	24.33	26.39	0.52%	0.47%	25.21	29.20	0.77%	0.48%
65	19.71	22.10	1.02%	0.90%	20.69	24.86	1.16%	0.75%
70	15.50	18.13	1.74%	1.55%	16.45	20.72	1.81%	1.25%
75	11.69	14.47	3.02%	2.47%	12.60	16.85	3.01%	2.12%
80	8.44	11.07	5.48%	4.10%	9.28	13.27	5.10%	3.55%

This assumption is used to measure probabilities of each benefit payment being made after retirement. Rates of mortality after retirement are based on tables for healthy annuitants. All deaths before retirement are assumed to be non-service connected.

*The rates of retirement* are used to measure the probability of eligible members retiring under normal retirement eligibility during the next year were as follows:

<b>Rates of Retirement</b>	
<b>Year of Eligibility</b>	<b>Retirement Rates</b>
0 - 0.999	20.0%
1 - 1.999	17.5%
2 - 2.999	15.0%
3 - 3.999	13.0%
4 - 4.999	11.0%
5 +	10.0%

Employees are assumed to retire no later than upon attaining age 70.

In addition, 75% of employees eligible to elect BackDROP at retirement are assumed to do so. In the following table we illustrate the assumed period of BackDROP for employees electing this option.

<b>BackDROP Assumptions</b>	
<b>Year Since First Eligibility</b>	<b>BackDROP Period (Years)</b>
0	0
1	0.5
2	1
3	1.5
4	2
5 +	2.5

There is no separate assumption for electing Tier 1 partial lump sum distributions as these are deemed to be actuarially equivalent to underlying annuity payments. All Tier Two (cash balance accounts) benefits are assumed to be paid in a lump sum upon termination of employment.

*Rates of separation from active membership* were as shown below (rates do not apply to members eligible to retire and do not include separation on account of death or disability).

<b>Rates of Separating from Active Employment</b>			
<b>Service</b>	<b>Regardless of Age</b>	<b>Sample Ages</b>	<b>5+ Years of Service</b>
0 - 0.999	13.00%	25	5.60%
1 - 1.999	11.00%	30	4.30%
2 - 2.999	9.00%	35	3.00%
3 - 3.999	7.00%	40	2.20%
4 - 4.999	5.00%	45	1.40%
		50	0.95%
		55	0.50%

*Rates of disability* among active members (0% of disabilities are assumed to be service-connected).

<b>Percent Becoming Disabled Within Next Year</b>		
<b>Sample Ages</b>	<b>Men</b>	<b>Women</b>
25	0.022%	0.013%
30	0.031%	0.026%
35	0.040%	0.039%
40	0.066%	0.063%
45	0.092%	0.087%
50	0.168%	0.151%
55	0.243%	0.215%

## Miscellaneous and Technical Assumptions

<b><i>Administrative &amp; Investment Expenses</i></b>	Annual administrative expenses are assumed to be equal to the actual expenses paid during the preceding fiscal year. Investment expenses are offset against gross investment income. Assumed administrative expenses are added to the Normal Cost.
<b><i>Benefit Service</i></b>	Exact fractional service is used to determine the amount of benefit payable.
<b><i>Decrement Operation</i></b>	Disability and mortality decrements do not operate during the first 5 years of service. Disability and separation do not operate during retirement eligibility.
<b><i>Decrement Timing</i></b>	Decrements of all types are assumed to occur at mid-year.
<b><i>Eligibility Testing</i></b>	Eligibility for benefits is determined based upon the age nearest birthday and service nearest whole year on the date the decrement is assumed to occur.
<b><i>Forfeitures</i></b>	Vested members who terminate with a benefit worth less than 100% of their own accumulated contributions were assumed to forfeit their vested benefit.
<b><i>Incidence of Contributions</i></b>	Employer contributions are assumed to be received in 12 equal monthly installments, unless otherwise specified. Member contributions are assumed to be received continuously throughout the year based upon the computed percent of payroll shown in this report, and the actual payroll payable at the time contributions are made.
<b><i>Marriage Assumption</i></b>	75% of members are assumed to be married for purposes of death-in-service benefits and retirement benefits. Male spouses are assumed to be three years older than female participants and female spouses are assumed to be three years younger than male participants for active member valuation purposes.
<b><i>Normal Form of Benefit</i></b>	The normal form of benefit is 75% Joint and Survivor Annuity.
<b><i>Pay Increase Timing</i></b>	Beginning of fiscal year. This is equivalent to assuming that reported pays represent the actual amount paid during the previous fiscal year.
<b><i>Service Credit Accruals</i></b>	It is assumed that members accrue one year of service credit per year.

## GLOSSARY OF TERMS

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<b>Actuarial Accrued Liability</b>	Actuarial Accrued Liability is the actuarial present value of projected future benefits that are attributable to an employees' service to date. Sometimes it is expressed as the difference between the actuarial present value of all future benefit payments and the actuarial present value of future normal costs.
<b>Accrued Benefit</b>	For the Tier 1 benefits, the accrued benefit is calculated according to a formula described in the Summary of Plan Provisions using service and salary history through the valuation date. For a Tier 2 benefits, the accrued benefit is a hypothetical account balance with interest reflecting pay history through the valuation date.
<b>Accrued Service</b>	The service credited under the Plan which was rendered before the date of the actuarial valuation.
<b>Actuarial Assumptions</b>	These are factors for estimating expected future experience with respect to occurrences of mortality, disability, turnover, retirement, rates of investment income and salary increases, etc.
<b>Actuarial Cost Method</b>	This is a mathematical budgeting procedure for allocating the dollar amount of the "actuarial present value of future benefit payments" between future normal costs and actuarial accrued liabilities. It is often referred to as the "Actuarial Funding Method" or "Actuarial Valuation Cost Method".
<b>Actuarial Equivalent</b>	A single amount or series of amounts of equal present value to another single amount or series of amounts, computed on the basis of the rate(s) of interest and mortality tables used by the Plan.
<b>Actuarial Present Value</b>	Actuarial Present Value of a series of payments (or a single payment) is the amount of funds currently required to provide those payments in the future. This amount is determined by discounting future payments at predetermined rates of interest, taking into account the probability of payment. It is also referred to as "Present Value."
<b>Amortization</b>	Amortization is a process of paying off, or recognizing, an interest-discounted amount with periodic payments of interest and principal, (similar to paying off an installment loan) -- as opposed to paying it off with a single sum.
<b>Experience Gain (Loss)</b>	A measure of the difference between actual experience and expected experience based upon a set of actuarial assumptions during the period between two actuarial valuation dates, in accordance with the actuarial cost method being used.
<b>Normal Cost</b>	Normal Cost is the actuarial cost of a portion of projected future benefits allocated to the current year by the actuarial cost method. It is sometimes referred to as "Current Service Cost."
<b>Reserve Account</b>	An account used to indicate that funds have been set aside for a specific purpose and is not generally available for other uses.
<b>Unfunded Actuarial Accrued Liability</b>	UAAL is the difference between actuarial accrued liability and the actuarial value of Plan assets.
<b>Valuation Assets</b>	The value of current Plan assets recognized for valuation purposes. Sometimes based on market value plus a portion of unrealized appreciation or depreciation.

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**SECTION C**  
**PENSION FUND INFORMATION**

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<b>SUMMARY OF ASSETS</b>		
	<b>9/30/2015</b>	<b>9/30/2014</b>
<b>Cash and Securities - Market Value</b>		
Cash and Cash Equivalents	\$ 3,824,691	\$ 3,599,830
US Government Bonds & Notes	19,608,073	19,603,285
Corporate Bonds	22,502,739	18,086,770
Mortgage/Asset-Backed Securities	14,200,053	8,287,266
Common & Preferred Stocks	39,264,655	42,649,393
Mutual Funds	<u>39,278,752</u>	<u>54,022,740</u>
Total	138,678,963	146,249,284
<b>Receivables and Accruals</b>		
Employer Contribution	0	0
Interest and Dividends	372,380	308,149
Due from Brokers	<u>0</u>	<u>73,334</u>
Total	372,380	381,483
<b>Payables</b>		
Due to Revenue Fund	0	611,325
Due to Brokers	<u>149,587</u>	<u>594,256</u>
Total	149,587	1,205,581
<b>Net Assets - Market Value</b>	<b>\$ 138,901,756</b>	<b>\$ 145,425,186</b>

<b>PENSION FUND INCOME AND DISBURSEMENTS</b>		
	<b>Year Ending 9/30/2015</b>	<b>Year Ending 9/30/2014</b>
<b>Market Value at Beginning of Period</b>	\$ 145,425,186	\$ 135,019,133
<b>Income</b>		
Member Contributions	648,068	654,941
Employer Contribution	3,508,587	5,558,821
Interest and Dividends	2,442,959	2,377,711
Realized and Unrealized Gain (Loss)	(2,279,808)	11,787,614
Total Income	4,319,806	20,379,087
<b>Disbursements</b>		
Benefit Payments	10,348,003	9,509,425
Investment Related Expenses	429,002	402,252
Other Administrative Expenses	66,231	61,357
Total Disbursements	10,843,236	9,973,034
<b>Net Increase During Period</b>	\$ (6,523,430)	\$ 10,406,053
<b>Market Value at End of Period</b>	\$ 138,901,756	\$ 145,425,186

## INVESTMENT RATE OF RETURN

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*The investment rate of return* has been calculated on the Market Value basis: interest, dividends, realized gains (losses) and unrealized appreciation (depreciation) divided by the beginning market value of the fund, adjusted for cash flow during the year. This figure is normally called the Total Rate of Return.

Year Ended	Investment Rate of Return Market Value Basis
9/30/05	8.59 %
9/30/06	7.77
9/30/07	11.89
9/30/08	(12.67)
9/30/09	7.60
9/30/10	10.14
9/30/11	0.41
9/30/12	17.17
9/30/13	12.64
9/30/14	10.32
9/30/15	(0.19)
Average Compounded	
Rate of Return for	
5 Years	7.85 %
All Years	6.40 %

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**SECTION D**

**MISCELLANEOUS INFORMATION**

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<b>RECONCILIATION OF MEMBERSHIP DATA</b>		
	<b>From 10/01/14 To 10/01/15</b>	<b>From 10/01/13 To 10/01/14</b>
<b>A. Active Members</b>		
1. Number Included in Last Valuation	240	254
2. New Members Included in Current Valuation	10	18
3. Non-Vested Employment Terminations	(5)	(11)
4. Vested Employment Terminations	(2)	(2)
5. Service Retirements	(17)	(19)
6. Disability Retirements	0	0
7. Deaths	0	0
8. Other -- Data Adjustment	0	0
9. Number Included in This Valuation	<u>226</u>	<u>240</u>
<b>B. Terminated Vested Members</b>		
1. Number Included in Last Valuation	52	50
2. Additions from Active Members	2	2
3. Lump Sum Payments/Withdrawals	0	0
4. Payments Commenced	(1)	(2)
5. Deaths	(1)	0
6. Other	0	2
7. Number Included in This Valuation	<u>52</u>	<u>52</u>
<b>C. Service Retirees, Disability Retirees &amp; Beneficiaries</b>		
1. Number Included in Last Valuation	258	241
2. Additions from Active Members	17	19
3. Additions from Terminated Vested Members	1	2
4. Deaths Resulting in No Further Payments	(3)	(3)
5. Deaths Resulting in New Survivor Benefits	0	0
6. End of Certain Period - No Further Payments	0	(1)
7. Other -- Data Adjustment	0	0
8. Number Included in This Valuation	<u>273</u>	<u>258</u>

**STATISTICAL DATA**

**Active Members as of October 1, 2015**

<b>Age Group</b>	<b>0-4</b>	<b>5-9</b>	<b>10-14</b>	<b>15-19</b>	<b>20-24</b>	<b>25-29</b>	<b>30 &amp; Up</b>	<b>Totals</b>	<b>Avg. Pay</b>
Under 25	2	1	0	0	0	0	0	3	59,620
25-29	12	5	0	0	0	0	0	17	60,291
30-34	12	12	1	0	0	0	0	25	65,714
35-39	4	10	1	0	0	0	0	15	67,672
40-44	7	6	4	0	0	0	0	17	71,840
45-49	7	12	5	0	0	5	0	29	73,656
50-54	6	9	8	0	0	9	8	40	75,838
55-59	2	8	0	0	0	20	15	45	80,215
60-64	2	4	0	0	0	9	13	28	78,658
65&UP	<u>0</u>	<u>1</u>	<u>0</u>	<u>0</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>7</u>	<u>85,717</u>
<b>TOTALS</b>	54	68	19	0	1	45	39	226	
<b>Avg. Pay</b>	60,397	74,643	75,632	0	111,114	77,072	84,902		73,737

**Inactive Members as of October 1, 2015**

<b>Age Group</b>	<b>Retirees and Survivors</b>	<b>Avg. Annual Benefit</b>	<b>Terminated Vested</b>	<b>Avg. Annual Benefit</b>
Under 45	1	3,977	1	9,924
45-49	1	65,506	3	15,151
50-54	5	26,686	14	21,145
55-59	34	42,257	17	12,015
60-64	69	35,506	14	14,315
65-69	87	33,770	2	3,698
70-74	45	23,647	1	4,080
75-79	18	20,593	0	0
80-84	10	12,055	0	0
85&UP	<u>3</u>	<u>5,690</u>	<u>0</u>	<u>0</u>
TOT	273	31,502	52	14,761



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**SECTION E**  
**SUMMARY OF PLAN PROVISIONS**

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**ST. JOHN'S RIVER POWER PARK SYSTEM  
EMPLOYEES' RETIREMENT PLAN**

**SUMMARY OF PLAN PROVISIONS**

**A. Governing Document**

Plan established by the St. John's River Power Park System and was most recently amended under Amendment No. 5 passed and adopted on February 26, 2013. The Plan is also governed by certain provisions of the Internal Revenue Code.

**B. Effective Date**

The original effective date is October 1, 1984. More recently, the Plan was amended and restated effective October 1, 2002, with additional amendments thereafter. Effective February 25, 2013, the Plan was amended to consist of two tiers. Tier One is the traditional pension benefits tier, while Tier Two is the cash balance tier of benefits.

**C. Plan Year**

October 1 through September 30

**D. Type of Plan**

Qualified, governmental defined benefit retirement plan; for GASB purposes it is a single employer plan.

**E. Eligibility Requirements**

Employees who are actively working for SJRPP, except temporary and contract employees, are eligible to participate. Additionally, employees whose employment was transferred from SJRPP to JEA and who elected to continue participating in the Plan or employees who transferred from JEA to SJRPP and elected to participate in this Plan instead of the City of Jacksonville General Employees' Pension Plan are eligible to participate. Eligible employees' participation begins on the first day of the month following the employees' date of hire. Reemployed former participants participate immediately.

Effective February 25, 2013 *Tier One* is closed to all new employees hired on or after February 25, 2013. Effective February 25, 2013, the Plan provisions are continued only for employees who as of February 24, 2013 have reached age 60 with 5 years of service, or who have completed 20 years of service regardless of age. All participants who do not meet the criteria listed in the prior sentence shall have Tier One benefit accruals frozen and will have established individual *Tier Two* Cash Balance Accounts as of February 25, 2013. *Distribution of frozen Tier One Benefits shall be governed by the provisions applicable to Tier One*

## **F. Vesting/Benefit Service**

The total number of years of employment determined as of each employment anniversary date in which a participant works at least 1000 hours. An employee may purchase service credit for years of prior service as a temporary, contract or co-op employee in which 1000 hours of employment were earned by paying an amount equal to the then applicable employee contribution rate times Earnings as of the date of purchase.

For transfers from JEA to SJRPP who elect to participate in this Plan, Vesting Service includes service with the non-participating affiliate. Such service will not be counted as Benefit Service for purpose of benefit accrual. For transfers from SJRPP to JEA who elect to join the City's Plan, Benefit Service and Final Average Earnings are frozen under this Plan at the date of transfer, but Vesting Service will continue to accrue while working at JEA.

## **G. Earnings**

Monthly base salary as of the last day of the month coincident with or next preceding termination of employment, excluding bonuses, overtime, expense allowances, severance pay or other extra forms of remuneration.

## **H. Social Security Average Wages**

The average of the maximum amount of annual earnings subject to Social Security tax for the 35 years preceding the Social Security Normal Retirement Age, determined according to the table in effect at termination of employment.

## **I. Final Average Earnings (FAE)**

The average of Earnings over the highest 36 consecutive complete months out of the last 120 months of participation immediately preceding retirement or termination.

## **J. Normal Retirement**

Eligibility: A participant may retire on the first day of the month coincident with or next following the earlier of:

- (1) age 65 with 5 years of Vesting Service, or
- (2) age 55 with 20 years of Vesting Service, or
- (3) 30 years of Vesting Service regardless of age.

In the event of plant shut down, the Normal Retirement date is the date the participant attains age 55 regardless of service.

### **Tier One**

Benefit: 2.0% of FAE multiplied by years of Benefit Service not to exceed 15 years; plus  
2.4% of FAE multiplied by years of Benefit Service in excess of 15 years, but not to exceed 30 years; plus  
0.65% of the excess of FAE over the Social Security Average Wages multiplied by years of Benefit Service, not to exceed 35 years and reduced by 1/144 for each of the first 36 months and 1/288 for each of the next 84 months by which the Normal Retirement date precedes age 65.

Benefit is guaranteed not to be less than the accrued benefit on September 30, 2003 under the Plan provisions in effect on that date.

All Tier Two participants of the Plan shall have their Tier One benefits frozen. Distribution of frozen Tier One Benefits shall be governed by the provisions applicable to Tier One.

Normal Form of  
Tier One Benefit:

75% Joint & Survivor Annuity; other options are also available.  
Benefits are payable bi-weekly.

COLA:

For participants retired on or after October 1, 2003; 1.0% annual increase beginning each October 1 following the fifth anniversary of payment commencement.

Tier Two

Benefit:

Employees receive annual pay credits to their Cash Balance accounts in the amount of 6.0% of Earnings for that year for service prior to October 1, 2015 and 8.5% of Earnings for that year for service on or after October 1, 2015. Cash Balance Accounts shall be credited with interest at the rate of 4% per year.

Form of Benefit:

Benefits may be distributed as a lump sum, by rollover in accordance with the Internal Revenue Code or as an annuity, at the election of the Participant

#### **K. Early Retirement**

Eligibility:

A participant may elect to retire earlier than the Normal Retirement Eligibility upon attainment of age 55 with 10, but less than 20, years of Vesting Service.

However, participants who were actively employed on or before October 1, 1989 and whose birth date is on or before December 31, 1934, can retire early upon the attainment of age 55 with 5 years of Vesting Service.

Tier One Benefit:

The Normal Retirement Benefit is reduced by 1/144 for each of the first 36 months and 1/288 for each of the next 84 months by which the Early Retirement date precedes age 65.

Normal Form of

Tier One Benefit:

75% Joint & Survivor Annuity; other options are also available.  
Benefits are payable bi-weekly.

COLA:

For participants retired on or after October 1, 2003; 1.0% annual increase beginning on each October 1 following the fifth anniversary of payment commencement.

Tier Two Benefit:

Tier Two participants shall be eligible to retire and receive distribution of the Cash Balance Account on the later of age 55 and the completion of 10 years of service, provided the participant has separated from service. There shall be no early retirement actuarial reduction in the Tier Two benefit.

## **L. Delayed Retirement**

Same as Normal Retirement taking into account compensation earned and service credited until the date of actual retirement.

## **M. Disability (duty or non-duty related)**

**Eligibility:** Any participant who has met the requirements for Early Retirement and becomes totally and permanently disabled is immediately eligible for a disability benefit.

**Benefit:** Accrued Normal Retirement Benefit taking into account compensation earned and service credited until the date of disability. Tier One benefit is reduced for Early Retirement.

Normal Form of

Tier One Benefit: 75% Joint & Survivor Annuity payable bi-weekly; other options are also available.

## **N. Death Benefit (duty or non-duty related)**

**Eligibility:** Married participants with an eligible spouse are eligible for survivor benefits after the completion of 5 or more years of Vesting Service.

**Tier One Benefit:** The survivor benefit payable to the spouse is 75% of the participant's accrued Normal Retirement Benefit as of the date of death. The beneficiary of a Plan participant with less than 5 years of Credited Service will receive a refund of the participant's accumulated contributions.

Normal Form of

Tier One Benefit: Benefit is payable as though the participant terminated employment on the date of death, survived and worked to the participant's Early Retirement date and elected benefits in the form of a 75% Joint & Survivor Annuity, but applying early retirement reduction factors from age 65 to what would have been the participant's Normal Retirement Date.

Tier Two Benefit: Distribution of the Cash Balance Account.

## **Post Retirement Death**

Benefit determined by the form of benefit elected upon retirement.

## **O. Optional Forms**

In lieu of electing the Normal Form of benefit, the optional forms of benefits available to all retirees are the Life Annuity option, the 10 Year Certain and Life Annuity or the 50%, 66 2/3% or 100% Joint and Survivor Annuity options.

Retirees also have the option of electing a partial lump sum up to 15% of the actuarial present value of their accrued benefit with the remaining value of benefits to be paid according to one of the other annuity options elected by the retiree. Retirees who elect this option cannot participate in the BACKDROP.

If the actuarial equivalent single lump sum of the participant's accrued benefit is less than \$10,000, the participant, or their surviving spouse, can elect a single-sum settlement.

### **Termination Benefit (Vesting)**

**Eligibility:** A participant has earned a non-forfeitable right to Plan benefits after the completion of 5 years of Vesting Service.

**Benefit:** The benefit is the participant's accrued Normal Retirement Benefit as of the date of termination and is payable on the first day of the month coincident with or next following age 65. Participants with 10 or more years of Vesting Service can elect to take a reduced Early Retirement benefit on or after age 55.

Plan members with less than 5 years of Credited Service will receive a refund of the member's accumulated contributions.

**Normal Form of Tier One Benefit:**

75% Joint & Survivor Annuity; other options are also available. Benefits are payable bi-weekly.

**Tier Two Benefit:** Distribution of the Cash Balance Account.

### **Q. Refunds**

**Eligibility:** All participants terminating employment with less than 5 years of Vesting Service are eligible. Optionally, vested participants (those with 5 or more years of Vesting Service) or their beneficiaries may elect a refund in lieu of the vested benefits otherwise due.

**Benefit:** Refund of the participant's contributions.

### **R. Member Contributions**

4.0% of Earnings paid by SJRPP under the "employer pick-up" provisions of IRC Section 414(h).

### **S. Employer Contributions**

Any additional amount determined by the actuary needed to fund the Plan properly according to State and Federal laws.

### **T. Cost of Living Increases**

For participants retired on or after October 1, 2003; 1.0% annual increase beginning on each October 1 following the fifth anniversary of payment commencement.

### **U. Changes from Previous Valuation**

See page A-2 of the Valuation Report and our October 1, 2014 Actuarial Impact Statement dated January 17, 2016.

### **V. 13<sup>th</sup> Check**

Not Applicable

## **W. BACKDROP**

**Eligibility:** Plan participants are eligible for the BACKDROP after the attainment of any of the following Normal Retirement dates:

- (1) age 65 with 5 years of Vesting Service, or
- (2) age 55 with 20 years of Vesting Service, or
- (3) 30 years of Vesting Service regardless of age

Employees who have completed 20 years of service as of February 24, 2013, but are less than 55 years of age on that date, shall continue to participate in Tier One but the BACKDROP option will not be available to them.

Participants must make a written election to participate in the BACKDROP.

**Benefit:** Retirement benefits are calculated as if the retiree elected to retire up to 5 years earlier. Benefit is based upon the FAE and Benefit Service as of the beginning of the BACKDROP period and is equal to the accumulation of the retirement benefits that the participant would have received over the BACKDROP period plus interest.

**Maximum  
BACKDROP**

Period: 60 months

**Interest**

**Credited:** Each year interest is credited or debited to the BACKDROP based upon the Plan's Actuarial rate of return for that year. Rate is guaranteed to be no less than (4.0%) and no more than 4.0% per annum.

**Normal Form**

**of Benefit:** Lump sum

**COLA:** 1.0% annual increase beginning on each October 1 following the fifth anniversary of payment commencement (not 5 years after the start of the BACKDROP).

## **Y. Other Ancillary Benefits**

There are no ancillary retirement type benefits not required by statutes but which might be deemed a St. John's River Power Park System Employees' Retirement liability if continued beyond the availability of funding by the current funding source.

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**SECTION F**

**COMPARATIVE SUMMARY OF PRINCIPAL  
VALUATION RESULTS**

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COMPARATIVE SUMMARY OF PRINCIPAL VALUATION RESULTS	October 1, 2015	October 1, 2015	October 1, 2014 (Reflecting AIS)
	<i>With FRS Mortality And 2019 Target Date</i>	<i>With Old Mortality And 2017 Target Date</i>	
<b>A. Participant Data</b>			
Number Included:			
Actives	226	226	240
Service Retirees & Beneficiaries	273	273	258
Disability Retirees	0	0	0
Terminated Vested Members	52	52	52
Total Members and Beneficiaries	551	551	550
Total Annual Payroll	\$16,664,648	\$16,664,648	\$17,253,952
Annual Valuation Payroll	16,664,648	16,664,648	17,253,952
Expected Annual Payroll in Contribution Year	17,420,154	17,420,154	18,036,174
Total Annualized Benefits			
Retirees & Beneficiaries	8,599,994	8,599,994	7,847,384
Terminated Vested Members	767,560	767,560	724,326
<b>B. Assets (Market Value)</b>			
Cash and Cash Equivalents	\$ 3,824,691	\$ 3,824,691	\$ 3,599,830
US Government Bonds & Notes	19,608,073	19,608,073	19,603,285
Corporate Bonds	22,502,739	22,502,739	18,086,770
Mortgage/Asset-Backed Securities	14,200,053	14,200,053	8,287,266
Common & Preferred Stocks	39,264,655	39,264,655	42,649,393
Mutual Funds	39,278,752	39,278,752	54,022,740
Net Receivables & Payables	222,793	222,793	(824,098)
Total	138,901,756	138,901,756	145,425,186
Actuarial Value	138,901,756	138,901,756	145,425,186
Assets include:			
Accumulated active member contributions (with interest if applicable)	5,346,245	5,346,245	5,736,502
<b>C. Actuarial present value of accrued benefits</b>			
(i) Vested accrued benefits			
Retired members and beneficiaries	101,751,246	98,941,842	89,906,058
Terminated members	5,101,692	5,014,087	4,595,915
Active members (includes non-forfeitable members contributions of 5,346,245 and 5,736,502)	44,932,666	44,402,068	44,865,926
Total	151,785,604	148,357,997	139,367,899
(ii) Non-vested accrued benefits	2,903,735	2,957,329	5,614,334
(iii) Total actuarial p.v. of accrued benefits	154,689,339	151,315,326	144,982,233
(iv) Actuarial p.v. of accrued benefits at begin. of year	144,982,233	145,137,927	140,413,144
(v) Changes attributable to:			
Amendments	0	none	(662,133)
Assumption change	3,374,013	none	0
Operation of decrements	16,681,096	16,525,402	14,740,647
Benefit payments	(10,348,003)	(10,348,003)	(9,509,425)
Other	none	none	none
(vi) Net change (PVAB measurement Method Change)	9,707,106	6,177,399	4,569,089
(vii) Actuarial p.v. of accr. benefits at end of year	154,689,339	151,315,326	144,982,233

<b>COMPARATIVE SUMMARY OF PRINCIPAL VALUATION RESULTS</b>	<b>October 1, 2015</b>	<b>October 1, 2015</b>	<b>October 1, 2014 (Reflecting AIS)</b>
	<i>With FRS Mortality And 2019 Target Date</i>	<i>With Old Mortality And 2017 Target Date</i>	
<b>C. Liabilities- Actuarial Present Value of Future Benefits</b>			
<b>1. Active Members</b>			
Service Retirement Benefits	\$57,965,191	\$58,321,911	\$63,195,981
Termination Benefits	594,762	610,159	613,693
Disability Benefits	531,406	633,263	740,302
Preretirement Death Benefits	1,506,828	650,270	729,831
Total Actives	60,598,187	60,215,603	65,279,807
<b>2. Inactive Members</b>			
Service Retirees & Beneficiaries	101,751,246	98,941,842	89,906,058
Terminated Vested Members	5,101,692	5,014,087	4,595,915
Total Inactive Members	106,852,938	103,955,929	94,501,973
<b>3. Total Present Value for All Members</b>	167,451,125	164,171,532	159,781,780
Total Present Value of:			
Future Salaries	138,137,046	140,821,073	144,070,997
Future Employee Contributions	5,525,482	5,632,843	5,762,840
Future Contributions from Other Sources	23,023,887	19,636,933	7,685,501
<b>Derivation of Current Employer Unfunded Actuarial Accrued Liability (UAAL)</b>			
a. Total UAAL for Prior Valuation Date	\$5,068,678	\$5,068,678	\$11,501,579
b. Employer Normal Cost for this period	729,373	729,373	901,037
c. Interest accrued on (a) and (b)	405,863	405,863	868,184
d. Contributions for this period	3,508,587	3,508,587	5,558,821
e. Interest accrued on (d)	122,801	122,801	194,559
f. Changes due to:			
Plan Amendment	0	0	(135,322)
Assumption Changes	3,506,236	0	0
Asset Method	0	0	0
Actuarial (Gain) Loss	14,280,756	14,280,756	(2,313,420)
g. Total Current UAAL: a+b+c-d-e+f	20,359,518	16,853,282	5,068,678

COMPARATIVE SUMMARY OF PRINCIPAL VALUATION RESULTS	October 1, 2015	October 1, 2015	October 1, 2014 (Reflecting AIS)														
	<i>With FRS Mortality And 2019 Target Date</i>	<i>With Old Mortality And 2017 Target Date</i>															
D. Pension Cost																	
Entry Age Normal Cost for:																	
Service Retirement Benefits	\$1,034,024	\$1,079,939	\$1,217,906														
Vesting Benefits	83,931	85,902	89,945														
Disability Benefits	17,094	21,931	25,463														
Preretirement Death Benefits	55,324	22,486	24,860														
Total Actives	1,190,373	1,210,258	1,358,174														
Administrative Expenses	66,231	66,231	61,357														
Total Normal Cost	1,256,604	1,276,489	1,419,531														
Payment Required to Amortize Unfunded Actuarial Accrued Liability	6,556,799	18,677,564	1,079,714														
Total Contribution at Valuation Date (EE + ER)	7,813,403	19,954,053	2,010,320														
Employer Contribution Adjusted for Frequency of Payments and Interest to Next Following Fiscal Year	7,967,400	21,430,048	2,049,942														
% of Expected Payroll	45.74%	123.02%	11.37%														
Amount Expected to be Contributed by Members Next FY	696,806	696,806	721,447														
% of Expected Payroll	4.00%	4.00%	4.00%														
E. Past Contributions- For the Fiscal Years Ended September 30 of 2014 and 2015																	
Required Contribution Determined in the Valuation as of		<u>October 1, 2013</u>	<u>October 1, 2012</u>														
by the Plan Sponsor		\$3,413,998	\$5,396,838														
by Members		\$742,657	\$807,768														
Actual Contribution for the Fiscal Year ended		<u>9/30/2015</u>	<u>9/30/2014</u>														
by the Plan Sponsor		\$3,508,587	\$5,558,821														
by Members		\$648,068	\$654,941														
F. Net experience (gain) loss during year:		\$14,280,756	(\$2,313,420)														
G. 1. Plan to Amortize Unfunded Actuarial Accrued Liability																	
Payments determined to fully amortize all of the Unfunded Actuarial Accrued Liability by October 1, 2017.																	
2. Schedule Illustrating the Amortization of the Unfunded Actuarial Accrued Liability (UAAL)																	
	<table border="1"> <thead> <tr> <th style="text-align: center;">Year</th> <th style="text-align: center;">Projected UAAL</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">2015 (peak)</td> <td style="text-align: right;">\$20,359,518</td> </tr> <tr> <td style="text-align: center;">2016</td> <td style="text-align: right;">\$20,205,965</td> </tr> <tr> <td style="text-align: center;">2017</td> <td style="text-align: right;">\$13,936,180</td> </tr> <tr> <td style="text-align: center;">2018</td> <td style="text-align: right;">\$7,239,219</td> </tr> <tr> <td style="text-align: center;">2019</td> <td style="text-align: right;">\$0</td> </tr> <tr> <td style="text-align: center;">2020</td> <td style="text-align: right;">\$0</td> </tr> </tbody> </table>	Year	Projected UAAL	2015 (peak)	\$20,359,518	2016	\$20,205,965	2017	\$13,936,180	2018	\$7,239,219	2019	\$0	2020	\$0		
Year	Projected UAAL																
2015 (peak)	\$20,359,518																
2016	\$20,205,965																
2017	\$13,936,180																
2018	\$7,239,219																
2019	\$0																
2020	\$0																
3. Action taken since last actuarial valuation.																	
Contribution sufficient to satisfy the total required contribution.																	

## COMPARATIVE SUMMARY OF PRINCIPAL VALUATION RESULTS

H. 1. Three-Year Comparison of Actual and Assumed Salary Increases (Annualized)

Year Ended	Actual	Assumed
9/30/2015	4.5%	3.4%
9/30/2014	7.2%	3.3%
9/30/2013	4.9%	3.8%

2. Three-Year Comparison of Investment Return (Actuarial Value)

Year Ended	Actual	Assumed
9/30/2015	-0.19%	7.00%
9/30/2014	10.32%	7.00%
9/30/2013	12.64%	7.00%

3. Average Annual Growth in Payroll, Last Ten Years (if applicable)

Valuation Date	Total Payroll	
9/30/2004	N/A	
9/30/2005	N/A	
9/30/2006	20,647,693	
9/30/2007	24,026,644	
9/30/2008	21,609,264	
9/30/2009	21,327,140	
9/30/2010	19,430,971	
9/30/2011	19,895,174	
9/30/2012	19,318,374	
9/30/2013	17,761,203	
9/30/2014	17,253,952	
9/30/2015	16,664,648	
Total % Increase Last Nine Years		-19.29%
Annual % Increase		-2.35%
Thirty-year Forecast		3.00%

I. Benefits and Expenses of Plan not Explicitly or Implicitly Provided in Valuation

NONE

J. Trends not taken into Account but which are likely to Result in Future Cost Increases

NONE