RETIREMENT PLAN FOR THE MANAGEMENT EMPLOYEES
OF THE CITY OF COOPER CITY
(REVISED)

ACTUARIAL VALUATION AS OF OCTOBER 1, 2014

DETERMINES THE CONTRIBUTION FOR THE 2014/15 FISCAL YEAR



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March 26, 2015

#### Introduction

This report presents the revised results of the October 1, 2014 actuarial valuation of the Retirement Plan for the Management Employees of the City of Cooper City. The report is based on the participant data and asset information provided by the pension plan administrator and, except for a cursory review for reasonableness including a comparison to the data provided for the previous valuation, we have not attempted to verify the accuracy of this information. The revision reflects the use of a 15-year funding period, the elimination of the investment phase-in for determining the actuarial value of assets, and the immediate application of the advance employer contribution.

The primary purpose of this report is to provide a summary of the funded status of the plan as of October 1, 2014 and to determine the minimum required contribution under Chapter 112, Florida Statutes, for the 2014/15 plan year. In addition, this report provides a projection of the long-term funding requirements of the plan, accounting disclosures pursuant to Governmental Accounting Standards Board Statement Nos. 25 and 27 (GASB 25/27), statistical information concerning the assets held in the trust, statistical information concerning the participant population, and a summary of any recent plan changes.

The liabilities and cost presented in this report are based on numerous assumptions concerning the cost of benefits to be provided in the future, long-term investment returns, and the future demographic experience of the current participants. Anyone referring to this report should remember that the cost developed herein is only an <u>estimate</u> of the true cost of providing post-employment pension benefits. No one can predict with certainty whether the true cost will be higher or lower than the cost presented in this report. The calculated cost is entirely dependent upon the assumptions that are described in Table V-A. If any of the assumptions is changed, then the cost shown in this report will change accordingly. Likewise, if any of the assumptions is not completely realized, then the cost shown in this report will change in the future.

Certain assumptions play a bigger role than others in determining the cost of the post-employment pension benefits. In some cases, relatively small changes in a particular assumption can have a dramatic impact on the anticipated cost of benefits. Although a thorough analysis of the impact of such changes is beyond the scope of this report, Table I-B illustrates the impact that alternative long-term investment returns would have on the normal cost rate.

#### Minimum Required Contribution

Table I-A shows the development of the minimum required contribution for the 2014/15 plan year. The minimum required contribution is \$183,587, which represents a decrease of \$137,002 from the prior valuation.

Table I-C provides a breakdown of the sources of change in the contribution rate. Significantly, the rate decreased by 134.73% of payroll due to investment gains, decreased by another 9.98% of payroll due to demographic experience, increased by 197.52% of payroll due to the assumption changes described below, and decreased by 64.23% of payroll



due to the method changes described below. The market value of assets earned 17.26% during the 2011/12 plan year, 11.66% during the 2012/13 plan year, and 7.86% during the 2013/14 plan year, whereas an 8.00% annual investment return was required to maintain a stable contribution rate.

Chapter 112, Florida Statutes, sets forth the rules concerning the minimum required contribution for public pension plans within the state. Essentially, the City must contribute an amount equal to the annual normal cost of the plan minus the expected employee contributions plus an amortization payment towards the unfunded liability, where the amortization period is no longer than 30 years and where all amounts are adjusted as necessary for administrative expenses and to reflect interest on any delayed payment of the contribution beyond the valuation date. On this basis, the City's 2014/15 minimum required contribution will be equal to \$183,587.

Based on the current assets, participant data, and actuarial assumptions and methods that are used to value the plan, the present-day value of the total long-term funding requirement is \$4,935,857 excluding any adjustments for future administrative expenses. As illustrated in Table I-A, current assets are sufficient to cover \$3,363,042 of this amount, the employer's 2014/15 expected contribution will cover \$183,587 of this amount, and future employee contributions are expected to cover \$71,258 of this amount, leaving \$1,317,970 to be covered by future employer funding beyond the 2014/15 fiscal year. Again, demographic and investment experience that differs from that assumed will either increase or decrease the future employer funding requirement.

#### Amortization of the Unfunded Liability

This plan uses the entry age normal cost method to develop an unfunded liability each year. The unfunded liability is then amortized or "paid off" over a period of time. The period over which the unfunded liability is amortized is often referred to as the "funding period" of the plan. Although under Chapter 112 the maximum allowable funding period is 30 years, the unfunded liability should be paid off within a period that does not exceed the expected future working life of the active employees who are covered by the plan or, if there are no active employees covered by the plan, the expected future lifetime of the retired participants. Table I-I shows the various components of the unfunded liability and the respective funding period for each component. We have used a closed 15-year funding period beginning October 1, 2014 to amortize all components of the unfunded liability.

### Contents of the Report

Tables I-D through I-I provide a detailed breakdown of various liability amounts by type of benefit and by participant group. Tables II-A through II-C provide information needed by both the plan's and the employer's accountants in order to prepare the relevant financial statements that cover the period October 1, 2013 through September 30, 2014. Tables III-A through III-F provide information concerning the assets of the trust fund. Specifically, Table III-A shows the development of the actuarial value of assets, which is based on the market value. Tables IV-A through IV-G provide statistical information concerning the plan's participant population. In particular, Table IV-G gives a 10-year projection of the cash that is expected to be required from the trust fund in order to pay benefits to the current group of participants. Finally, Tables V-A through VI-B provide a summary of the actuarial assumptions and methods that are



used to value the plan's benefits and of the relevant plan provisions as of October 1, 2014, as well as a summary of the changes that have occurred since the previous valuation report was prepared.

#### Assumption and Method Changes

Since the previous valuation was completed, we have changed several assumptions and methods. First, we have shortened the amortization period for all bases from 22 years as of October 1, 2014 to 15 years. Second, we have decreased the assumed interest rate from 8.00% per annum to 7.00% per annum. Third, we have updated the mortality basis from the unprojected RP-2000 Mortality Table to the RP-2000 Mortality Table, projected to 2015 by Scale AA. Fourth, we have eliminated the decrements for termination of employment and disability. Fifth, we have changed the assumed retirement age to normal retirement age, but no earlier than one year after the valuation date. Sixth, we have increased the assumed administrative expenses from \$5,000 per year to \$7,500 per year. Finally, we have eliminated the four-year phase-in of investment gains and losses for purposes of determining the actuarial value of assets.

#### Non-Qualified Retirement Payments

One retiree is entitled to a monthly pension benefit that exceeds the amount that is allowed to be paid from the qualified plan pursuant to Internal Revenue Code (IRC) section 415. The allowable amount increases from time to time such that the amount to be paid by the qualified pension plan increases over time, while the amount remaining to be paid by the City on a non-qualified basis under the "excess" benefit plan decreases over the same period. For the past several years, the qualified plan has paid less than the allowable benefit to this retiree, whereas the City has paid more of his benefit from the excess benefit plan than was required to be paid on that basis. We have treated the amounts paid on behalf of the qualified plan by the City as an additional City contribution to the plan. The amount paid directly to the retiree on behalf of the qualified plan was \$25,073 during the period January 1, 2009 through September 30, 2014 and we have adjusted the City contributions, retiree benefit payments, and actuarial value of assets accordingly.

#### GASB 67/68 and Chapter 2013-100, Florida Statutes

A new accounting standard, the Governmental Accounting Standards Board Statements Nos. 67 and 68 (GASB 67/68), became effective for the plan's financial statements as of September 30, 2014 and will become effective for the City's financial statements as of September 30, 2015. GASB 67/68 replaces GASB 25/27, makes major changes to the calculation of the accounting cost of the pension plan, and mandates numerous new disclosures. A separate GASB 67/68 report will be prepared that will provide the accounting cost of the plan for the 2014/15 plan year.

In addition, Chapter 2013-100, Florida Statutes, is effective for the plan year ending on September 30, 2014. This new State law requires disclosures that are similar to some of the disclosures required under GASB 67/68 and requires plan cost to be presented based on two alternative valuation bases. First, plan cost must be disclosed based on the same



assumptions and methods used to calculate the GASB 67/68 accounting cost, but using the RP-2000 Combined Mortality Table with generational mortality projections. Second, plan cost must be disclosed on the same basis as described in the previous sentence, but using an interest rate that is 2.00% lower than the funding valuation interest rate. The Division of Retirement is expected to issue formatting guidelines for this purpose. Because these guidelines have not yet been issued, a separate electronic report will be prepared at a later date that will provide the disclosures required under Chapter 2013-100, Florida Statutes.

#### Certification

This actuarial valuation was prepared 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 and, in my opinion, the techniques and assumptions used are reasonable and meet the requirements and intent of Chapter 112, Florida Statutes. 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 change in plan costs or required contribution rates have been taken into account in the valuation.

For the firm,

Charl S. Ca

Charles T. Carr Consulting Actuary Southern Actuarial Services Company, Inc.

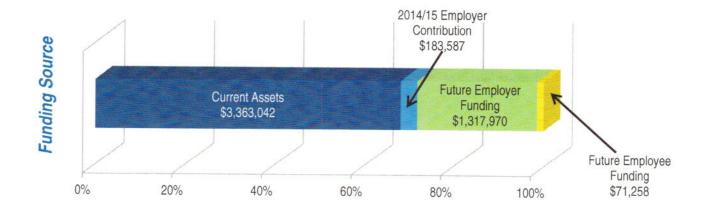
Enrolled Actuary No. 14-04927

The individual above is a member of the American Academy of Actuaries and meets the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.



## Minimum Required Contribution

### Table I-A



#### For the 2014/15 Plan Year

Minimum Required Contribution Rate	68.98%
Expected Payroll	÷ \$266,146
Minimum Required Contribution	\$183,587
Employer Contribution as of the Beginning of the Plan Year Adjustment to Reflect Monthly Employer Contributions	\$177,014 \$6,573
Expense Allowance Expected Employee Contribution	\$7,500 (\$29,276)
Entry Age Normal Cost Unfunded Liability Amortization Payment	\$51,781 \$147,009

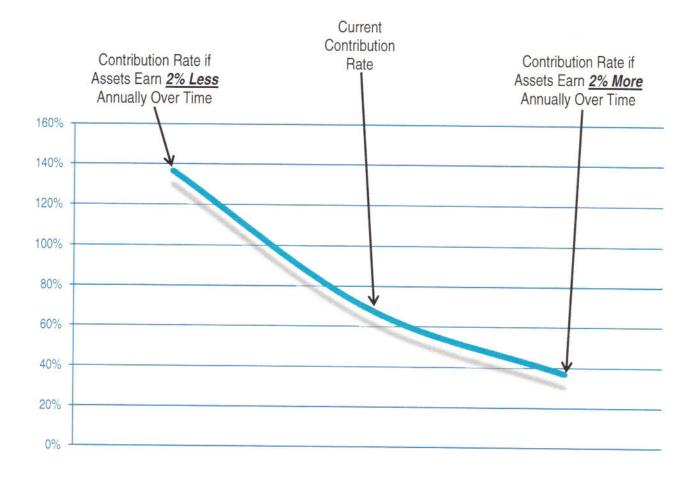
#### Additional Disclosures

Present Value of Future Compensation	\$647,801
Present Value of Future Employer Contributions	\$1,501,557
Present Value of Future Employee Contributions	\$71,258



## Sensitivity Analysis

Table I-B



The line above illustrates the sensitivity of the contribution rate to changes in the long-term investment return.



## Gain and Loss Analysis

Table I-C

## Source of Change in the Contribution Rate

Previous minimum required contribution rate	80.40%
Increase (decrease) due to investment gains and losses Increase (decrease) due to demographic experience	
Increase (decrease) due to assumption changes Increase (decrease) due to plan amendments Increase (decrease) due to actuarial method changes	197.52% 0.00% -64.23%
Current minimum required contribution rate	68.98%
Source of Change in the Unfunded Liability	
Previous unfunded liability	\$2,509,168
Increase due to employer normal cost for the prior year Increase due to interest on normal cost and unfunded liability  Decrease due to employer contributions  Decrease due to interest on employer contributions  Expected unfunded liability	\$227,101 \$710,642 (\$1,420,085) (\$48,366) \$1,978,460
Increase (decrease) due to plan experience Increase (decrease) due to plan amendments Increase (decrease) due to actuarial assumption changes Increase (decrease) due to actuarial method changes	(\$757,416) \$0 \$491,063 (\$279,440)
Current unfunded liability	\$1,432,667



# **Funding Results**

## Present Value of Future Benefits

Table I-D

	New Assumptions	New Assumptions	New Assumptions
	Prior Val. Date	Current Val. Date	New Plan
Activaly Employed Porticinants			
Actively Employed Participants Retirement benefits	¢1 010 700	4050.000	
Termination benefits	\$1,249,780	\$958,662	\$958,662
	\$0	\$0	\$0
Disability benefits  Death benefits	\$0	\$0	\$0
Refund of employee contributions	\$0	\$0	\$0
Sub-total	\$0	\$0	\$0
Sub-total	\$1,249,780	\$958,662	\$958,662
Deferred Vested Participants			
Retirement benefits	\$0	\$0	\$0
Termination benefits	\$0	\$0	\$0
Disability benefits	\$0	\$0	\$0
Death benefits	\$0	\$0	\$0
Refund of employee contributions	\$0	\$0	\$0
Sub-total	\$0	\$0	\$0
Due a Refund of Contributions	\$0	\$0	\$0
Deferred Beneficiaries	\$0	\$0	\$0
Retired Participants			
Service retirements	\$3,557,178	\$3,441,754	\$3,441,754
Disability retirements	\$0	\$0	\$0
Beneficiaries receiving	\$240,907	\$0	\$0
DROP participants	\$0	\$527,941	\$527,941
Sub-total	\$3,798,085	\$3,969,695	\$3,969,695
Grand Total	\$5,047,865	\$4,928,357	\$4,928,357
Present Value of Future Payroll	\$1,176,075	\$647,801	\$647,801
Present Value of Future Employee Contribs.	\$129,369	\$71,258	\$71,258
Present Value of Future Employer Contribs.	\$1,562,954	\$1,501,557	\$1,501,557
		The second section of the sect	,



## Present Value of Accrued Benefits

Table I-E

	New Assumptions Prior Val. Date	New Assumptions Current Val. Date	New Assumptions New Plan
Actively Employed Participants			
Retirement benefits	\$906,679	\$749,717	\$749,717
Termination benefits	\$0	\$0	\$0
Disability benefits	\$0	\$0	\$0
Death benefits	\$0	\$0	\$0
Refund of employee contributions	\$0	\$0	\$0
Sub-total	\$906,679	\$749,717	\$749,717
Deferred Vested Participants			
Retirement benefits	\$0	\$0	\$0
Termination benefits	\$0	\$0	\$0
Disability benefits	\$0	\$0	\$0
Death benefits	\$0	\$0	\$0
Refund of employee contributions	\$0	\$0	\$0
Sub-total	\$0	\$0	\$0
Due a Refund of Contributions	\$0	\$0	\$0
<u>Deferred Beneficiaries</u>	\$0	\$0	\$0
Retired Participants			
Service retirements	\$3,557,178	\$3,441,754	\$3,441,754
Disability retirements	\$0	\$0	\$0
Beneficiaries receiving	\$240,907	\$0	\$0
DROP participants	\$0	\$527,941	\$527,941
Sub-total	\$3,798,085	\$3,969,695	\$3,969,695
Grand Total	\$4,704,764	<u>\$4,719,412</u>	\$4,719,412



## Present Value of Vested Benefits

Table I-F

	New Assumptions <a href="Prior Val">Prior Val</a> . Date	New Assumptions Current Val. Date	New Assumptions New Plan
Actively Employed Participants			
Retirement benefits	\$906,679	\$749,717	\$749,717
Termination benefits	\$0	\$0	\$0
Disability benefits	\$0	\$0	\$0
Death benefits	\$0	\$0	\$0
Refund of employee contributions	\$0	\$0	\$0
Sub-total	\$906,679	\$749,717	\$749,717
Deferred Vested Participants			
Retirement benefits	\$0	\$0	\$0
Termination benefits	\$0	\$0	\$0
Disability benefits	\$0	\$0	\$0
Death benefits	\$0	\$0	\$0
Refund of employee contributions	\$0	\$0	\$0
Sub-total	\$0	\$0	\$0
Due a Refund of Contributions	\$0	\$0	\$0
<u>Deferred Beneficiaries</u>	\$0	\$0	\$0
Retired Participants			
Service retirements	\$3,557,178	\$3,441,754	\$3,441,754
Disability retirements	\$0	\$0	\$0
Beneficiaries receiving	\$240,907	\$0	\$0
DROP participants	\$0	\$527,941	\$527,941
Sub-total	\$3,798,085	\$3,969,695	\$3,969,695
Grand Total	\$4,704,764	<u>\$4,719,412</u>	\$4,719,412



# Entry Age Normal Accrued Liability

Table I-G

	New Assumptions Prior Val. Date	New Assumptions Current Val. Date	New Assumptions New Plan
Actively Employed Participants			
Retirement benefits	\$1,002,351	\$826,014	\$826,014
Termination benefits	\$0	\$0	\$0
Disability benefits	\$0	\$0	\$0
Death benefits	\$0	\$0	\$0
Refund of employee contributions	\$0	\$0	\$0
Sub-total	\$1,002,351	\$826,014	\$826,014
Deferred Vested Participants			
Retirement benefits	\$0	\$0	\$0
Termination benefits	\$0	\$0	\$0
Disability benefits	\$0	\$0	\$0
Death benefits	\$0	\$0	\$0
Refund of employee contributions	\$0	\$0	\$0
Sub-total	\$0	\$0	\$0
Due a Refund of Contributions	\$0	\$0	\$0
<u>Deferred Beneficiaries</u>	\$0	\$0	\$0
Retired Participants			
Service retirements	\$3,557,178	\$3,441,754	\$3,441,754
Disability retirements	\$0	\$0	\$0
Beneficiaries receiving	\$240,907	\$0	\$0
DROP participants	\$0	\$527,941	\$527,941
Sub-total	\$3,798,085	\$3,969,695	\$3,969,695
Grand Total	\$4,800,436	\$4,795,709	<u>\$4,795,709</u>
less Actuarial Value of Assets	(\$1,901,446)	(\$3,363,042)	(\$3,363,042)
Unfunded Accrued Liability	\$2,898,990	\$1,432,667	\$1,432,667



# Entry Age Normal Cost

Table I-H

	New Assumptions <a href="Prior Val. Date">Prior Val. Date</a>	New Assumptions Current Val. Date	New Assumptions New Plan
Actively Employed Participants			
Retirement benefits	\$75,082	\$51,781	\$51,781
Termination benefits	\$0	\$0	\$0
Disability benefits	\$0	\$0	\$0
Death benefits	\$0	\$0	\$0
Refund of employee contributions	\$0	\$0	\$0
Sub-total	\$75,082	\$51,781	\$51,781
Deferred Vested Participants			
Retirement benefits	\$0	\$0	\$0
Termination benefits	\$0	\$0	\$0
Disability benefits	\$0	\$0	\$0
Death benefits	\$0	\$0	\$0
Refund of employee contributions	\$0	\$0	\$0
Sub-total	\$0	\$0	\$0
Due a Refund of Contributions	\$0	\$0	\$0
<u>Deferred Beneficiaries</u>	\$0	\$0	\$0
Retired Participants			
Service retirements	\$0	\$0	\$0
Disability retirements	\$0	\$0	\$0
Beneficiaries receiving	\$0	\$0	\$0
DROP participants	\$0	\$0	\$0
Sub-total	\$0	\$0	\$0
Grand Total	\$75,082	<u>\$51,781</u>	<u>\$51,781</u>



# **Funding Results**

# Unfunded Liability Bases

Table I-I

Description	Original <u>Amount</u>	Outstanding Balance	Amortization <u>Payment</u>	Years Rem.
	Total	\$1,432,667	\$147,009	
10/1/2014 Fresh Start	\$1,432,667	\$1,432,667	\$147.009	15



### GASB 25/27 Results

Table II-A

### Development of the Net Pension Obligation (Asset)

Net Pension Obligation (Asset) as of October 1, 2013 \$0

Annual Pension Cost for the 2013/14 Plan Year \$205,751

Employer Contributions for the 2013/14 Plan Year (\$1,137,679)

Net Increase (Decrease) in NPO (\$931,928)

Net Pension Obligation (Asset) as of October 1, 2014 (\$931,928)



### GASB 25/27 Disclosures

Table II-B

#### Schedule of Employer Contributions

	Annual		Annual	
Year Ended	Required	%	Pension	%
September 30	Contribution	Contrib.	Cost	Contrib
2009	\$114,656	100%	\$114,656	100%
2010	\$406,963	100%	\$406,963	100%
2011	\$254,238	100%	\$254,238	100%
2012	\$320,114	100%	\$320,114	100%
2013	\$262,829	100%	\$262,829	100%
2014	\$205,751	407%	\$205,751	407%

#### Schedule of Funding Progress

	(1)	(2) Actuarial	(3)	(4)	(5)	(6)
Actuarial	Actuarial	Accrued	Unfunded			UAAL as % of
Valuation	Value of	Liability	AAL	Funded	Covered	Covered
Date	Assets	(AAL)	(UAAL)	Ratio	Payroll	Payroll
			(2) - (1)	$(1) \div (2)$		(3) ÷ (5)
Not Applicable	N/A	N/A	N/A	N/A	N/A	N/A
Not Applicable	N/A	N/A	N/A	N/A	N/A	N/A
October 1, 2011	\$1,901,446	\$4,410,614	\$2,509,168	43.11%	\$398,743	629.27%
Not Applicable	N/A	N/A	N/A	N/A	N/A	N/A
Not Applicable	N/A	N/A	N/A	N/A	N/A	N/A
October 1, 2014	\$3,363,042	\$4,795,709	\$1,432,667	70.13%	\$266,146	538.30%

#### Additional Information

Valuation Date October 1, 2014

Actuarial Cost Method Entry age normal
Amortization Method Level dollar, closed
Remaining Amortization Period 15 years
Asset Valuation Method Market value
Discount Rate 7.00%

Salary Increase Rate 4.00%



## SFAS 35 Disclosures

Table II-C

### **Actuarial Present Value of Accrued Benefits**

	As of October 1, 2011	As of October 1, 2014
Vested Benefits		
Participants currently receiving benefits	\$3,258,064	\$3,969,695
Other participants	\$894,166	\$749,717
Sub-total	\$4,152,230	\$4,719,412
Non-Vested Benefits	\$252,787	\$0
<u>Total Benefits</u>	\$4,405,017	\$4,719,412
Funded Percentage (based on the market value of assets)	47.53%	71.26%

### Statement of Change in Actuarial Present Value of Accrued Benefits

Actuarial Present Value as of October 1, 2011	\$4,405,017
Increase (Decrease) Due To:	
Interest	\$1,144,036
Benefits accumulated	(\$392,265)
Benefits paid	(\$814,971)
Plan amendments	\$0
Changes in actuarial methods and assumptions	\$377,595
Net increase (decrease)	\$314,395
Actuarial Present Value as of October 1, 2014	\$4,719,412



### Actuarial Value of Assets

### Table III-A

Market Value of	Assets as o	of October 1	, 2014	\$3,432,921
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Minus DROP account credits	(\$69,879)
Plus/minus advance employer contribution	\$0

Actuarial Value of Assets as of October 1, 2014	\$3,363,042
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#### **Historical Actuarial Value of Assets** October 1, 2005 N/A October 1, 2006 N/A October 1, 2007 N/A October 1, 2008 \$1,630,122 October 1, 2009 \$1,514,782 October 1, 2010 \$1,751,612 October 1, 2011 \$1,901,446 October 1, 2012 \$2,125,637 October 1, 2013 \$2,327,326 October 1, 2014 \$3,363,042

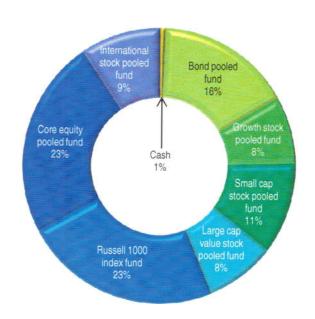


### Market Value of Assets

### Table III-B

#### As of October 1, 2014

Market Value of Assets	\$3,432,921
Cash	\$20,591
Bond pooled fund	\$549,090
Growth stock pooled fund	\$274,545
Small cap stock pooled fund	\$374,068
Large cap value stock pooled fund	\$281,409
Russell 1000 index fund	\$803,045
Core equity pooled fund	\$803,044
International stock pooled fund	\$326,022
Employee contribution receivable	\$1,107



#### **Historical Market Value of Assets** October 1, 2005 \$816,707 October 1, 2006 \$1,120,923 October 1, 2007 \$1,551,601 October 1, 2008 \$1,448,704 October 1, 2009 \$1,544,277 October 1, 2010 \$1,892,938 October 1, 2011 \$2,093,553 October 1, 2012 \$2,529,990

\$2,926,262

\$3,432,921

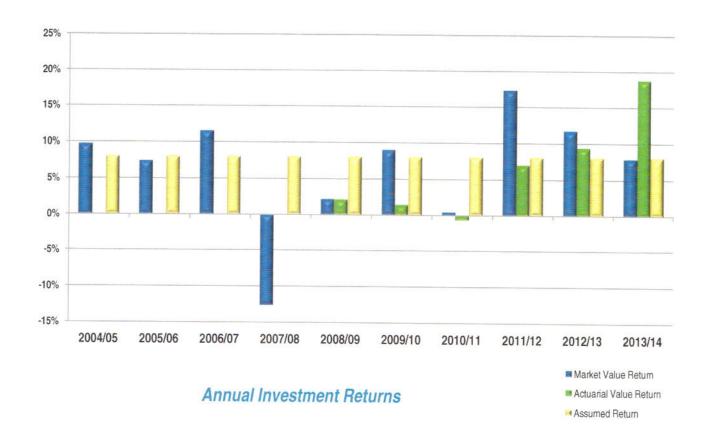
October 1, 2013

October 1, 2014



## Investment Return

## Table III-C



Plan	Market Value	Actuarial Value	Assumed
Year	Return	Return	1925 173
2004/05	9.65%	N/A	<u>Return</u> 8.00%
2005/06	7.37%	N/A	8.00%
2006/07	11.47%	N/A	8.00%
2007/08	-12.60%	N/A	8.00%
2008/09	2.15%	2.16%	8.00%
2009/10	8.96%	1.45%	8.00%
2010/11	0.44%	-0.69%	8.00%
2011/12	17.26%	7.00%	8.00%
2012/13	11.66%	9.41%	8.00%
2013/14	7.86%	18.77%	8.00%
10yr. Avg.	6.12%	6.16%	8.00%



Asset Reconciliation		Table III-D
	Market Value	Actuarial Value
As of October 1, 2011	\$2,093,553	\$1,901,446
Increases Due To:		
Employer Contributions	\$1,143,939	\$1,143,939
Employee Contributions Service Purchase Contributions Total Contributions	\$107,906 \$0 \$1,251,845	\$107,906 \$0 \$1,251,845
Interest and Dividends Realized Gains (Losses) Unrealized Gains (Losses) Total Investment Income	\$0 \$0 \$908,446 \$908,446	\$824,407
Other Income  Total Income	\$0 \$2,160,291	\$2,076,252
Decreases Due To:		
Monthly Benefit Payments Refund of Employee Contributions DROP Credits Total Benefit Payments	(\$795,628) \$0 ———————————————————————————————————	(\$795,628) \$0 (\$69,879) (\$865,507)
Investment Expenses Administrative Expenses	\$0 (\$25,295)	(\$25,295)
Advance Employer Contribution		\$276,146
Total Expenses	(\$820,923)	(\$614,656)
As of October 1, 2014	\$3,432,921	\$3,363,042



## Historical Trust Fund Detail

Table III-E

In	00	M	10
111	LL	,,,	ıe

			Service		Realized	Unrealized	
Plan	Employer	Employee	Purchase	Interest /	Gains /	Gains /	Other
Year	Contribs.	Contribs.	Contribs.	<b>Dividends</b>	Losses	Losses	Income
2004/05	\$188,375	\$129,633	\$0	\$0	\$0	\$60,024	\$0
2005/06	\$195,016	\$92,065	\$0	\$0	\$0	\$68,859	\$0
2006/07	\$257,999	\$82,825	\$0	\$0	\$0	\$144,956	\$0
2007/08	\$188,741	\$78,245	\$0	\$0	\$0	-\$201,797	\$0
2008/09	\$277,319	\$55,316	\$0	\$0	\$0	\$31,810	\$0
2009/10	\$333,836	\$56,451	\$0	\$0	\$0	\$147,429	\$0
2010/11	\$343,155	\$52,073	\$0	\$0	\$0	\$8,789	\$0
2011/12	\$301,131	\$43,797	\$0	\$0	\$0	\$367,360	\$0
2012/13	\$336,520	\$35,959	\$0	\$0	\$0	\$300,561	\$0
2013/14	\$506,288	\$28,150	\$0	\$0	\$0	\$240,525	\$0

#### Expenses

#### Other Actuarial Adjustments

lvance
ployer
ntribs.
N/A
N/A
N/A
N/A
12,737
12,044
29,271
18,983
73,691
30,854
2 6 6 6

Note: Information was not available to separate the investment expenses from the investment income nor was information available to separate the investment income by source.



## Other Reconciliations

## Table III-F

### **DROP Account Reconciliation**

DROP Balance as of October 1, 2011	\$0
DROP Benefit Credits DROP Investment Credits	\$0 \$0
DROP Benefits Paid Out	\$0
Net DROP Credit	\$0
DROP Balance as of October 1, 2012	\$0
DROP Benefit Credits	\$19,343
<b>DROP Investment Credits</b>	\$1,084
DROP Benefits Paid Out	\$0
Net DROP Credit	\$20,427
DROP Balance as of October 1, 2013	\$20,427
DROP Benefit Credits	\$46,424
<b>DROP Investment Credits</b>	\$3,028
<b>DROP Benefits Paid Out</b>	\$0
Net DROP Credit	\$49,452
DROP Balance as of October 1, 2014	\$69,879



## Other Reconciliations

Table III-F (continued)

### Advance Employer Contribution

Advance Employer Contribution as of October 1, 2011	\$276,146
Additional Employer Contribution	\$301,131
Minimum Required Contribution	(\$320,114)
Net Increase in Advance Employer Contribution	(\$18,983)
Advance Employer Contribution as of October 1, 2012	\$257,163
Additional Employer Contribution	\$336,520
Minimum Required Contribution	(\$262,829)
Net Increase in Advance Employer Contribution	\$73,691
Advance Employer Contribution as of October 1, 2013	\$330,854
Additional Employer Contribution	\$506,288
One-Time Application of the Advance Employer Contribution	(\$631,391)
Minimum Required Contribution	(\$205,751)
Net Increase in Advance Employer Contribution	(\$330,854)
Advance Employer Contribution as of October 1, 2014	\$0

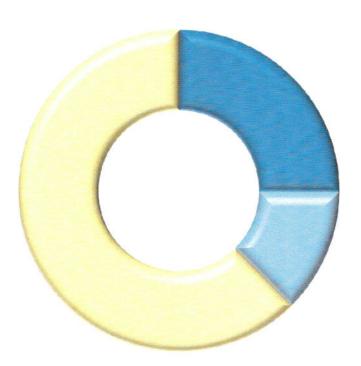


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## Summary of Participant Data

### Table IV-A

As of October 1, 2014



### Participant Distribution by Status

#### Actively Employed Participants Active Participants 2 **DROP** Participants 1 Inactive Participants Deferred Vested Participants 0 Due a Refund of Contributions 0 Deferred Beneficiaries 0 Participants Receiving a Benefit Service Retirements 5 Disability Retirements 0 Beneficiaries Receiving 0

**Total Participants** 

Number	of Participant	s Included	in Prior Va	luations	
	Active	DROP	Inactive	Retired	Total
October 1, 2005	N/A	N/A	N/A	N/A	N/A
October 1, 2006	8	0	0	2	10
October 1, 2007	N/A	N/A	N/A	N/A	N/A
October 1, 2008	4	0	0	6	10
October 1, 2009	N/A	N/A	N/A	N/A	N/A
October 1, 2010	N/A	N/A	N/A	N/A	N/A
October 1, 2011	3	0	0	6	9
October 1, 2012	N/A	N/A	N/A	N/A	N/A
October 1, 2013	N/A	N/A	N/A	N/A	N/A
October 1, 2014	2	1	0	5	8



# Data Reconciliation Table IV-B

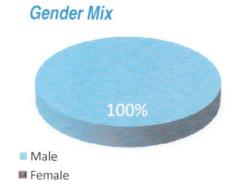
	<u>Active</u>	DROP	Deferred Vested	Due a Refund	Def. Benef.	Service Retiree	Disabled Retiree	Benef. Rec'v.	Total
October 1, 2011	3	0	0	0	0	5	0	1	9
Change in Status Re-employed Terminated Retired									
Participation Ended Transferred Out Cashed Out Died	(1)	1						(1)	(1)
Participation Began Newly Hired Transferred In New Beneficiary									
Other Adjustment									
October 1, 2014	2	1	0	0	0	5	0	0	8



# Active Participant Data

## Table IV-C

### As of October 1, 2014

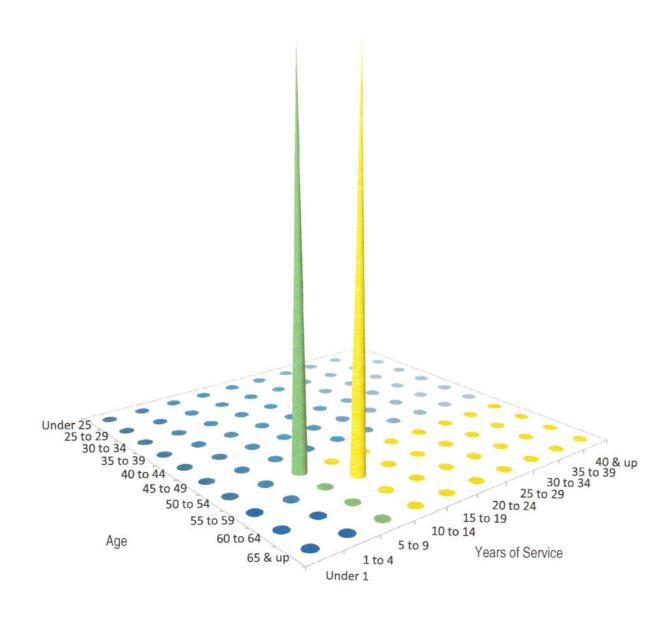


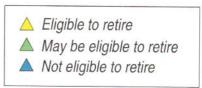
Average Age	53.5 years
Average Service	11.5 years
Total Annualized Compensation for the Prior Year	\$255,909
Total Expected Compensation for the Current Year	\$266,146
Average Increase in Compensation for the Prior Year	2.40%
Expected Increase in Compensation for the Current Year	4.00%
Accumulated Contributions for Active Employees	\$283,315



Ad	tive Participant	Statistics	From Prior V	aluations	
				Average	Average
				Expected	Actual
	Average	Average	Average	Salary	Salary
	Age	Service	Salary	Increase	Increase
October 1, 2005	N/A	N/A	N/A	N/A	N/A
October 1, 2006	54.1	14.8	\$126,727	4.00%	12.20%
October 1, 2007	N/A	N/A	N/A	N/A	N/A
October 1, 2008	N/A	N/A	N/A	N/A	N/A
October 1, 2009	54.3	13.5	\$121,251	4.00%	3.20%
October 1, 2010	55.3	14.5	\$123,688	4.00%	2.00%
October 1, 2011	54.7	10.4	\$127,802	4.00%	0.90%
October 1, 2012	N/A	N/A	N/A	N/A	N/A
October 1, 2013	N/A	N/A	N/A	N/A	N/A
October 1, 2014	53.5	11.5	\$127,955	4.00%	2.40%









# Active Age-Service-Salary Table

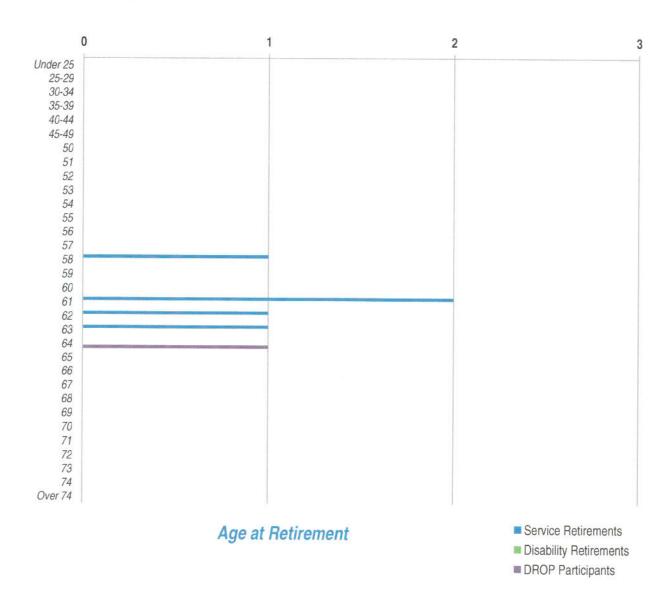
Table IV-E

Attained					Complet	ed Years o	f Service	_			
Age	Under 1	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 & up	Total
						-			100		
Under 25 Avg.Pay	0	0	0	0	0	0	0	0	0	0	0
Avy.ray	0	0	0	0	0	0	0	0	0	0	0
25 to 29	0	0	0	0	0	0	0	0	0	0	0
Avg.Pay	0	0	0	0	0	0	0	0	0	0	0
30 to 34	0	0	0	0	0	0	0	0	0	0	0
Avg.Pay	0	0	0	0	0	0	0	0	0	0	0
35 to 39	0	0	0	0	0	0	0	0	0	0	0
Avg.Pay	0	0	0	0	0	0	0	0	0	0	0
							100				
40 to 44	0	0	0	0	0	0	0	0	0	0	0
Avg.Pay	0	0	0	0	0	0	0	0	0	0	0
45 to 49	0	0	0	0	0	0	0	0	0	0	0
Avg.Pay	0	0	0	0	0	0	0	0	0	0	0
			124				-			J	ŭ
50 to 54	0	0	1	0	0	0	0	0	0	0	1
Avg.Pay	0	0	137,287	0	0	0	0	0	0	0	137,287
55 to 59		0									
Avg.Pay	0	<b>0</b>	<b>0</b> 0	1 118,622	0	0	0	0	0	0	1 110 000
, wg.r dy	Ĭ			110,022	· ·	· ·	١	0	0	0	118,622
60 to 64	0	0	0	0	0	0	0	0	0	0	0
Avg.Pay	0	0	0	0	0	0	0	0	0	0	0
					37903			5000	9500		
65 & up Avg.Pay	0	0	0	0	0	0	0	0	0	0	0
Avg.Fay	U	U	0	0	0	0	0	0	0	0	0
Total	0	0	1	1	0	0	0	0	0	0	2
Avg.Pay	0	0	137,287	118,622	0	0	0	0	0	0	127,955



## Inactive Participant Data

## Table IV-F



### Average Monthly Benefit

Service Retirements	\$4,655.90
Disability Retirements	Not applicable
Beneficiaries Receiving	Not applicable
<b>DROP</b> Participants	\$3,868.69

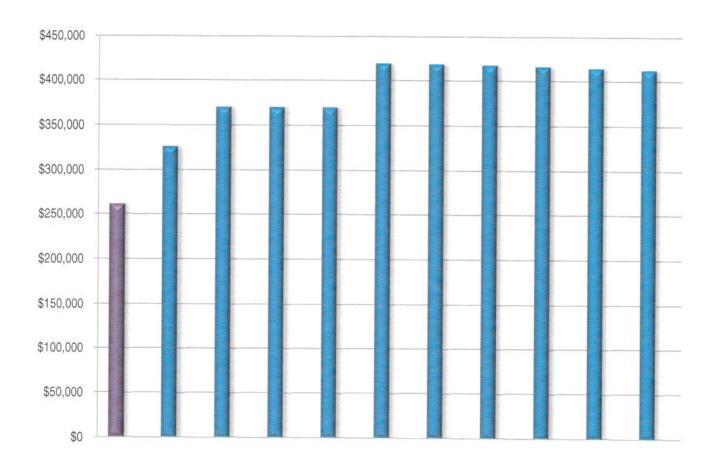
Deferred Vested Participants Not applicable

Deferred Beneficiaries Not applicable



# Projected Benefit Payments

## Table IV-G



A	0	+	11	1	1	
М	U	ι	и	a	I	

For the period October 1, 2013 through September 30, 2014	\$261,166
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#### Projected

For the period October 1, 2014 through September 30, 2015	\$325,844
For the period October 1, 2015 through September 30, 2016	\$370,062
For the period October 1, 2016 through September 30, 2017	\$369,783
For the period October 1, 2017 through September 30, 2018	\$369,383
For the period October 1, 2018 through September 30, 2019	\$419,150
For the period October 1, 2019 through September 30, 2020	\$418,259
For the period October 1, 2020 through September 30, 2021	\$417,193
For the period October 1, 2021 through September 30, 2022	\$415,834
For the period October 1, 2022 through September 30, 2023	\$414,185
For the period October 1, 2023 through September 30, 2024	\$412,109



### Summary of Actuarial Methods and Assumptions

Table V-A

#### Actuarial Cost Method

Individual entry age normal cost method. Under this actuarial cost method, a level funding cost is developed with respect to each benefit for each participant. The level funding cost for each benefit applies to the period beginning when the participant's service commences and ending when the participant is assumed to cease active participation due to each respective decrement. The actuarial accrued liability is equal to the accumulated level funding cost to the valuation date for all participants. The normal cost is equal to the level funding cost for the year immediately following the valuation date for all active participants.

#### 2. Amortization Method

The unfunded actuarial accrued liability is amortized as a level dollar amount over a closed period of 15 years from October 1, 2014.

#### Asset Method

The actuarial value of assets is equal to the market value of assets.

#### 4. Interest (or Discount) Rate

7.00% per annum

#### 5. Salary Increases

Plan compensation is assumed to increase at the rate of 4.00% per annum, unless actual plan compensation is known for a prior plan year.

#### 6. Decrements

Pre-retirement mortality: None is assumed.

Post-retirement mortality: Sex-distinct rates set forth in the RP-2000 Mortality Table for annuitants,

projected to 2015 by Scale AA, as published by the Internal Revenue Service (IRS) for purposes of Internal Revenue Code (IRC) section 430; future

generational improvements in mortality have not been reflected.

Disability: None is assumed.

Termination: None is assumed.



## Summary of Actuarial Methods and Assumptions

Table V-A

(continued)

· Retirement:

Retirement is assumed to occur at the later of normal retirement age or one year after the valuation date.

#### 7. Form of Payment

Future retirees have been assumed to select the single life annuity.

#### 8. Expenses

Administrative expenses are assumed to be \$7,500 per year. In addition, the interest rate set forth in item 4. above is assumed to be net of investment expenses and commissions.



## Changes in Actuarial Methods and Assumptions

Table V-B

Since the previous valuation was prepared, the following assumptions have been changed:

- (1) We have shortened the amortization period for all bases from 22 years as of October 1, 2014 to 15 years.
- (2) We have decreased the assumed interest rate from 8.00% per annum to 7.00% per annum.
- (3) We have updated the mortality basis from the unprojected RP-2000 Mortality Table to the RP-2000 Mortality Table, projected to 2015 by Scale AA.
- (4) We have eliminated the decrements for termination of employment and disability.
- (5) We have changed the assumed retirement age to normal retirement age, but no earlier than one year after the valuation date.
- (6) We have increased the assumed administrative expenses from \$5,000 per year to \$7,500 per year.
- (7) We have eliminated the four-year phase-in of investment gains and losses for purposes of determining the actuarial value of assets.



Table VI-A

#### 1. Monthly Accrued Benefit

2.25% of Average Monthly Earnings multiplied by Credited Service, plus \$20.00 multiplied by years of Credited Service

(Note: The police and fire chiefs receive a 2.00% benefit formula multiplied unless they purchase a higher benefit accrual rate by paying the full actuarial cost thereof within three months of the determination.)

#### 2. Normal Retirement Age and Benefit

Age

Age 55 with at least six years of Credited Service

Amount

Monthly Accrued Benefit

Form of Payment

Single life annuity (optional);

Actuarially reduced 10-year certain and life annuity (normal form of payment);

Actuarially reduced 50% joint and contingent annuity (optional);

Actuarially reduced 663/3% joint and contingent annuity (optional);

Actuarially reduced 75% joint and contingent annuity (optional):

Actuarially reduced 100% joint and contingent annuity (optional); or

Any other actuarially equivalent form of payment approved by the Board of Trustees (optional)

(Note: All forms of payment guarantee at least the return of the member's Accumulated Contributions.)

#### 3. Early Retirement Age and Benefit

Age

Age 50 with at least six years of Credited Service

Amount

Monthly Accrued Benefit (payable at Normal Retirement Age); or

Monthly Accrued Benefit reduced 0.50% for each month by which the member's Early Retirement Date precedes his Normal Retirement Date (payable at Early Retirement Age)

Form of Payment

Same as for Normal Retirement



Table VI-A

(continued)

#### Delayed Retirement Age and Benefit

Age

After Normal Retirement Age

Amount

Monthly Accrued Benefit

Form of Payment

Same as for Normal Retirement

#### Disability Eligibility and Benefit

Eligibility

The member is eligible if he becomes totally and permanently disabled from bodily injury, disease, or a mental disorder such that he is incapable of employment and remains so disabled for a period of at least six months.

Amount Payable

Monthly Accrued Benefit

Form of Payment

Same as for Normal Retirement

#### Deferred Vested Benefit

Age

Any age with at least six years of Credited Service

Amount

Monthly Accrued Benefit (payable at Normal Retirement Age); or

Monthly Accrued Benefit reduced 0.50% for each month by which the member's Early Retirement Date precedes his Normal Retirement Date (payable at Early Retirement Age)

Form of Payment

Same as for Normal Retirement



Table VI-A

(continued)

#### 7. Pre-Retirement Death Benefits

#### Vested Member

Upon the death prior to retirement of a vested member, the member's beneficiary receives the member's Monthly Accrued Benefit reduced to reflect an immediate 100% joint and contingent form of payment. In any event, the pre-retirement death benefit guarantees at least the return of the member's Accumulated Contributions.

#### Non-Vested Member

In the case of the death of a non-vested member prior to retirement, his beneficiary will receive the member's Accumulated Contributions.

#### 8. Average Monthly Earnings

Average monthly earnings during the highest three years preceding the determination (or career average, if higher); for this purpose, earnings include total compensation other than overtime, sick pay, lump sum payments, and vacation pay.

#### Credited Service

The elapsed time calculated in completed years and months from the member's date of hire until his date of termination, retirement, or death, excluding periods during which the member does not make the required contribution

#### 10. Membership Requirement

All management employees of the City of Cooper City, Florida automatically become a member of the plan on the later of their date of hire or their promotion to a management position.

#### 11. Accumulated Contributions

Member Contributions accumulated without interest; if the member terminates his employment with less than six years of Credited Service, then he receives a refund of his Accumulated Contributions.

#### 12. Member Contributions

11.00% of earnings on a pre-tax basis for all members other than the police and fire chiefs



Table VI-A

(continued)

#### 13. Definition of Actuarially Equivalent

Interest Rate

8.00% per annum

Mortality Table

1994 Group Annuity Reserving Table, projected to 2002 by Scale AA

#### 14. Plan Effective Date

The plan was originally effective on November 1, 2002.

### 15. <u>Deferred Retirement Option Program (DROP)</u>

A participant who has earned at least 15 years of Credited Service who is otherwise eligible for Early or Normal Retirement may elect to enter the DROP for a period of up to 60 months. DROP accounts may be self-directed and are credited with interest at the actual rate of return earned by the pension fund less a 0.50% administrative charge.



## Summary of Plan Amendments

Table VI-B

No significant plan changes were adopted since the completion of the previous valuation.

