

April 4, 2011

Mr. Shawn Boyle Finance and Administrative Services Director City of Winter Springs 1126 East State Road 434 Winter Springs, Florida 32708

Re: City of Winter Springs Defined Benefit Plan Actuarial Study as of October 1, 2009 – Phase III

Dear Shawn:

As requested, we are pleased to enclose six (6) copies of *Phase III* of our Actuarial Study including ten (10) year projections for the City of Winter Springs Defined Benefit Plan.

If you should have any question concerning the above or if we may be of further assistance with this matter, please do not hesitate to contact us.

Sincerest regards,

Lawrence F. Wilson, A.S.A.

Senior Consultant and Actuary

Peter N. Strong, A.S.A. Consultant and Actuary

**Enclosures** 



### CITY OF WINTER SPRINGS DEFINED BENEFIT PLAN

ACTUARIAL STUDY - PHASE III

April 4, 2011



### **TABLE OF CONTENTS**

		Page
I.	Executive Summary	1
II.	Projection Results	6
III.	Outline of Principal Provisions of the Retirement Plan	30
IV.	Actuarial Assumptions and Cost Methods	33

#### **EXECUTIVE SUMMARY**

At the request of the City of Winter Springs, we have completed ten (10) year projections illustrating the financial impact of several proposed plan provisions of the City of Winter Springs Defined Benefit Plan (Plan).

<u>Background</u> – The benefit accrual rate is currently three percent (3.0%) for each year of credited service - maximum thirty (30) years.

Final average salary (FAS) used to calculate retirement benefits is currently the average of the highest three (3) consecutive years of total compensation during employment with the City/County. Total compensation includes but is not limited to commissions, overtime pay and bonuses.

Vesting of benefits is currently phased in from three (3) to seven (7) years at twenty percent (20%) per year of service – twenty percent (20%) vesting after three (3) years of service, forty percent (40%) vesting after four (4) years - grading to one hundred percent (100%) vesting upon completion of seven (7) years of service.

Employees are currently eligible for early retirement benefits upon the earlier of (a) attainment of age fifty-five (55) with completion of ten (10) years of service or (b) completion of twenty-five (25) years of service. Benefits are unreduced if early retirement occurs after attainment of age fifty-five (55). Early retirement benefits are actuarially reduced for benefit commencement prior to age fifty-five (55).

<u>Proposed Changes</u> – We understand the City wishes to determine the effect on current and future City and County's Plan contributions of the following proposed changes.

- Scenario 1 Change the final average salary (FAS) used to calculate retirement benefits to the average of the highest five (5) consecutive years of *basic compensation* out of the last ten (10) years not less than the average of the highest three (3) consecutive years of *total compensation* as of September 30, 2009. Basic compensation *excludes* commissions, overtime pay and bonuses.
- ➤ Scenario 2 Change the vesting schedule for future benefit accruals to a seven (7) year cliff vesting schedule. Under this schedule, members are zero percent (0%) vested until completion of seven (7) years of service. Upon completion of seven (7) years of service members are one hundred percent (100%) vested.

Accrued benefits as of September 30, 2009 remain subject to the current graded vesting schedule of twenty percent (20%) upon completion of three (3) years of service increasing 20% per year until 100% vested upon completion of seven (7) years of service.

- ➤ Scenario 3 Reduce the benefit accrual rate for General Employees to two and a half percent (2.5%) per year of credited service after September 30, 2009 maximum thirty (30) years of total service.
- Scenario 4 Change the unreduced early retirement eligibility for newly hired Police Officers to attainment of age sixty-two (62) with completion of fifteen (15) years of service.
- ➤ <u>Scenario 5</u> Create a Defined Contribution (DC) Plan for <u>all newly hired employees</u>. The City will provide matching contributions of up to 5% of *basic compensation*.
- ➤ <u>Scenario 6</u> Create a Defined Contribution (DC) Plan for <u>newly hired General Employees</u>. The City will provide matching contributions of up to 5% of *basic compensation*.

In addition to projections of the above described individual Scenarios, we understand the City wishes to determine the effect on current and future City and County's Plan contributions of the following combined Proposals.

- > <u>Proposal 1</u> Combination of Scenarios 1 and 2 for all current employees and Scenario 5 for all newly hired employees.
- ➤ <u>Proposal 2</u> Combination of Scenarios 1 and 2 for all current employees and newly hired Police Officers, Scenario 3 for current General Employees, Scenario 4 for future Police Officers and Scenario 6 for newly hired General Employees.

<u>Results</u> – The table on the following page shows the current net City and County contribution (cost) and the sum of the projected net City and County contributions (costs) over the next ten (10) years for the baseline (current Plan) forecast and for each Scenario described above separately and combined as a dollar amount (\$thousands) and as a percentage of projected covered payroll, respectively.



	Net City / County Cost - Accumulated Net City / County Cost			County Cost
	Next 1		(\$thousands) Next 10 Years	
D 1' (C (D)	Amount	(Decrease)	Amount	(Decrease)
Baseline (Current Plan)	Φ 2746	37/4	Φ 21.00σ	27/4
- Net City and County Cost	\$ 2,746	N/A	\$ 31,806	N/A
- Covered Payroll	\$ 11,083	37/1	\$ 125,652	27/4
- % of Covered Payroll	24.8%	N/A	25.3%	N/A
Scenario 1: FAS Based on Average				
of Highest 5 Years of Base Pay				
- Net City and County Cost	\$ 2,381	(\$ 365)	\$ 27,982	(\$ 3,824)
- Covered Payroll	\$ 10,175		\$ 116,508	
- % of Covered Payroll	23.4%	(3.6%)	24.0%	(3.3%)
Scenario 2: 7-Year Cliff Vesting				
for Future Service				
- Net City and County Cost	\$ 2,744	(\$ 2)	\$ 31,773	(\$ 33)
- Covered Payroll	\$ 11,083		\$ 125,652	
- % of Covered Payroll	24.8%	(0.0%)	25.3%	(0.0%)
Scenario 3: 2.5% Benefit Accrual				
Rate for Future Service for General				
Employees				
- Net City and County Cost	\$ 2,622	(\$ 124)	\$ 30,212	(\$ 1,594)
- Covered Payroll	\$ 11,083		\$ 125,652	
- % of Covered Payroll	23.7%	(1.1%)	24.0%	(1.3%)
Scenario 4: Revised Early				
Retirement Eligibility for Newly				
Hired Police Officers (62&15)				
- Net City and County Cost	\$ 2,738	(\$ 8)	\$ 31,354	(\$ 452)
- Covered Payroll	\$ 11,083		\$ 125,652	
- % of Covered Payroll	24.7%	(0.1%)	25.0%	(0.4%)
Scenario 5: DC Plan for All Newly		, ,		
Hired Employees				
- Net City and County Cost	\$ 2,704	(\$ 42)	\$ 29,783	(\$ 2,023)
- Covered Payroll	\$ 11,053	(+ '-)	\$ 124,161	(+ -,==)
- % of Covered Payroll	24.5%	(0.4%)	24.0%	(1.6%)
Scenario 6: DC Plan for Newly		(011,0)	,	(210,1)
Hired General Employees				
- Net City and County Cost	\$ 2,711	(\$ 35)	\$ 30,221	(\$ 1,585)
- Covered Payroll	\$ 11,068	(ψ 33)	\$ 125,004	(ψ 1,5 05)
- % of Covered Payroll	24.5%	(0.3%)	24.2%	(1.3%)
Proposal 1: Scenarios 1, 2 and 5	24.570	(0.570)	24.270	(1.570)
Combined.				
- Net City and County Cost	\$ 2,341	(\$ 405)	\$ 26,103	(\$ 5,703)
- Covered Payroll	\$ 10,175	(ψ -τυ3)	\$ 116,508	(ψ 5,705)
- % of Covered Payroll	23.0%	(4.0%)	22.4%	(4.9%)
Proposal 2: Scenarios 1, 2, 3, 4 and	25.070	(7.070)	22.470	(7.7/0)
6 Combined.				
- Net City and County Cost	\$ 2,238	(\$ 508)	\$ 25,213	(\$ 6,593)
- Net City and County Cost - Covered Payroll	\$ 2,238 \$ 10,175	(\$ 508)	\$ 23,213	(φ 0,373)
		(5 (00/1)		(5.70/)
- % of Covered Payroll	22.0%	(5.0%)	21.6%	(5.7%)



<u>Actuarial Assumptions and Methods, System Provisions, Financial Data and Member Census</u>
<u>Data</u> – The actuarial assumptions and methods, system provisions, financial data and member census data employed for purposes of our Actuarial Study are the same actuarial assumptions and methods, system provisions, financial data and member census data utilized for the October 1, 2009 Actuarial Valuation with the following modifications.

• For Scenario 4 and Proposal 2, assumed retirement rates for newly hired Police Officers are based upon rates from the Tables below.

		Years of Service					
<u>Age</u>	<u>0-14</u>	<u>15</u>	<u>16-24</u>	<u>25-30</u>	30 or more		
Under 55	0%	0%	0%	4%	50%		
55 - 61	0%	0%	0%	10%	50%		
62	0%	40%	40%	40%	50%		
62 - 64	0%	40%	20%	20%	50%		
65	100%	100%	100%	100%	100%		

• For Proposals 1 and 2 we have assumed newly hired employees will fully participate in the proposed defined contribution at a level to fully earn the proposed 5% match.

Throughout the forecast period new Police Officer and General Employee members are assumed to be hired each year at a rate sufficient to maintain a constant active Police Officer and General Employee headcount – stationary population. Active Firefighters are assumed not to be replaced by new active Firefighters. New employees are assumed to have the same average demographic characteristics (age, gender, salary – adjusted each year for inflation) as those members hired over the past five (5) years.

Projections are deterministic - throughout the projection period Plan experience is expected to match the assumptions – including a market value 8% annual investment return. In Phase II we modeled the current Plan under an 8% +/- 1% to assess sensitivity to investment return.

This Projection Study is intended to describe the estimated future financial effects of the proposed benefit changes on the Plan and is not intended as a recommendation in favor of the change nor in opposition to the change.

These calculations are based upon assumptions regarding future events. However, the Plan's long term costs will be determined by actual future events, which may differ materially from the assumptions made.

If you have reason to believe the assumptions used are unreasonable, the Plan provisions are incorrectly described or referenced, important Plan provisions relevant to this Actuarial Study are not described or that conditions have changed since the calculations were made, you should contact the undersigned prior to relying on information in this Projection Study. If you have reason to believe that the information provided in this Actuarial Study is inaccurate, or is in any way incomplete, or if you need further information in order to make an informed decision on the subject matter of this report, please contact the undersigned prior to making such decision.



The undersigned are Members of the American Academy of Actuaries and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.

If you should have any question concerning the above or if we may be of further assistance with this matter, please do not hesitate to contact us.

Sincerest regards,

Lawrence F. Wilson, A.S.A.

Senior Consultant and Actuary

Peter N. Strong, A.S.A. Consultant and Actuary

Pete Strong

**Enclosures** 

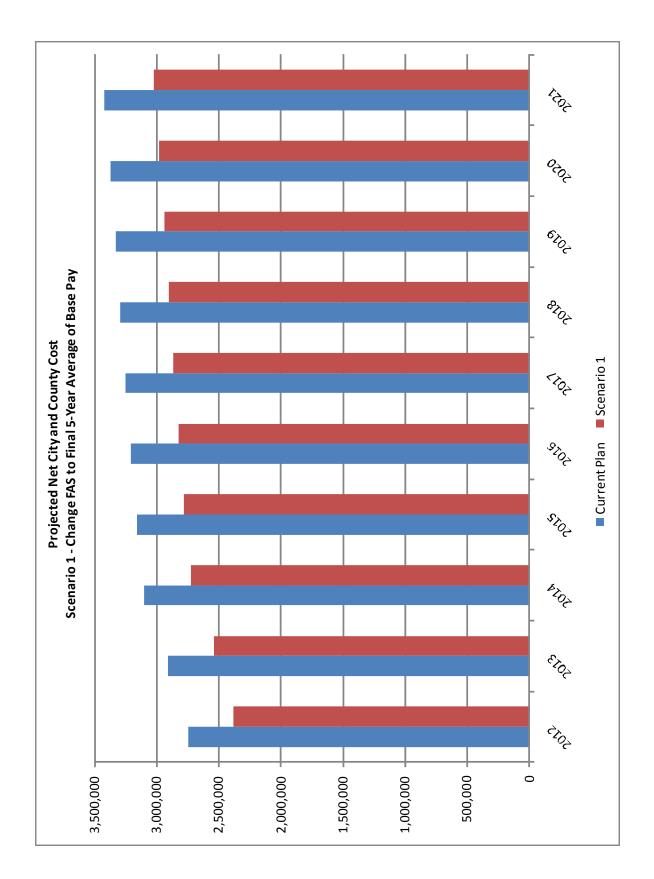
### PROJECTION RESULTS

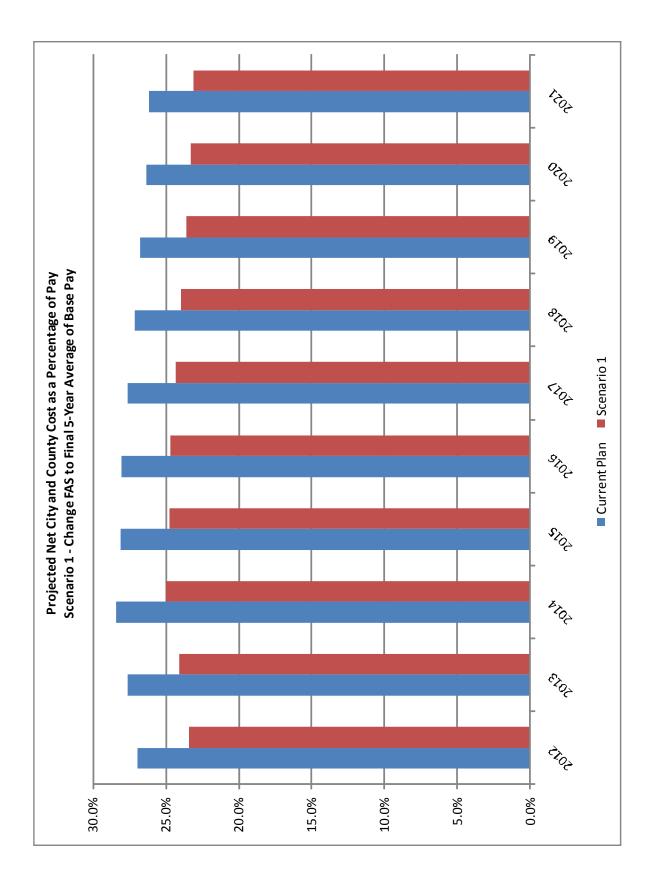
Scenario 1 – Change the final average salary (FAS) used to calculate retirement benefits to the average of the highest five (5) consecutive years of **basic compensation** out of the last ten (10) years - not less than the average of the highest three (3) consecutive years of **total compensation** as of October 1, 2009.

The following Table shows the projected payroll and a comparison of the projected City and County costs under the baseline forecast versus Scenario 1.

		Projected	Projected		Cumulative
Fiscal		City and	City and	Reduction in	Reduction in
Year	Covered	<b>County Cost</b>	<b>County Cost</b>	City and	City and
<b>End</b>	<b>Payroll</b>	<b>Current Plan</b>	Scenario 1	<b>County Cost</b>	<b>County Cost</b>
2012	10,175,174	2,746,240	2,381,457	364,783	364,783
2013	10,541,214	2,913,424	2,542,722	370,702	735,485
2014	10,897,174	3,101,952	2,725,767	376,185	1,111,670
2015	11,230,744	3,158,995	2,781,141	377,854	1,489,524
2016	11,444,263	3,210,571	2,827,992	382,579	1,872,103
2017	11,784,431	3,254,552	2,868,229	386,323	2,258,426
2018	12,117,217	3,294,074	2,905,405	388,669	2,647,095
2019	12,438,434	3,329,127	2,939,459	389,668	3,036,763
2020	12,798,163	3,373,902	2,980,923	392,979	3,429,742
2021	13,081,179	3,422,843	3,028,813	394,030	3,823,772
<b>5</b> Voor					
5 Year	5.4.200 5.00	15 121 102	12.250.050	1 050 100	
Totals	54,288,569	15,131,182	13,259,079	1,872,103	
10 Year					
Totals	116,507,993	31,805,680	27,981,908	3,823,772	
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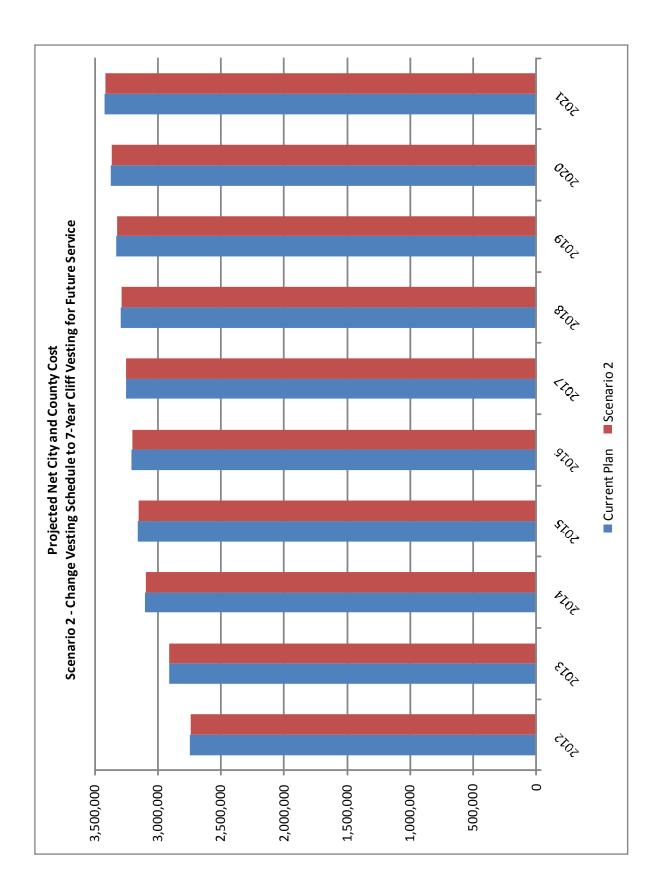


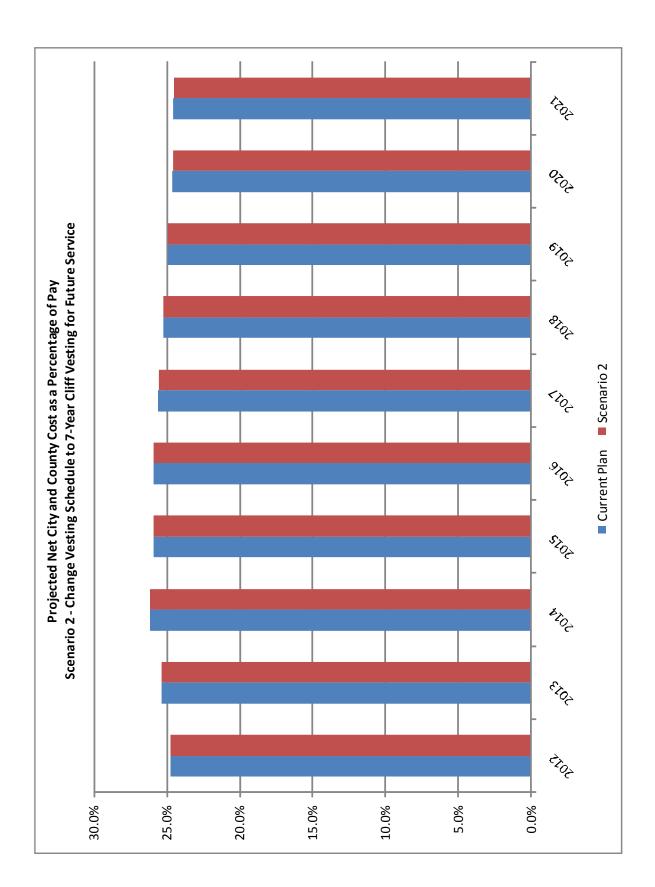
Scenario 2 – Change the vesting schedule for future benefit accruals to a seven (7) year cliff vesting schedule. Members are zero percent (0%) vested until completion of seven (7) years of service. Members are one hundred percent (100%) vested upon completion of seven (7) years of service.

The following Table shows the projected payroll and a comparison of the projected City and County costs under the baseline forecast versus Scenario 2.

Fiscal Year	Covered	Projected City and County Cost	Projected City and County Cost	Reduction in City and	Cumulative Reduction in City and
<b>End</b>	<b>Payroll</b>	<b>Current Plan</b>	Scenario 2	<b>County Cost</b>	<b>County Cost</b>
2012	11,083,213	2,746,240	2,743,913	2,327	2,327
2013	11,467,759	2,913,424	2,910,818	2,606	4,933
2014	11,842,171	3,101,952	3,099,104	2,848	7,781
2015	12,177,484	3,158,995	3,156,099	2,896	10,677
2016	12,369,938	3,210,571	3,207,502	3,069	13,746
2017	12,708,207	3,254,552	3,251,201	3,351	17,097
2018	13,039,669	3,294,074	3,290,533	3,541	20,638
2019	13,336,686	3,329,127	3,325,293	3,834	24,472
2020	13,693,343	3,373,902	3,369,744	4,158	28,630
2021	13,933,458	3,422,843	3,418,418	4,425	33,055
5 Year					
Totals	58,940,565	15,131,182	15,117,436	13,746	
10 Year					
Totals	125,651,928	31,805,680	31,772,625	33,055	
	125,651,928	31,805,680	31,772,625	33,055	







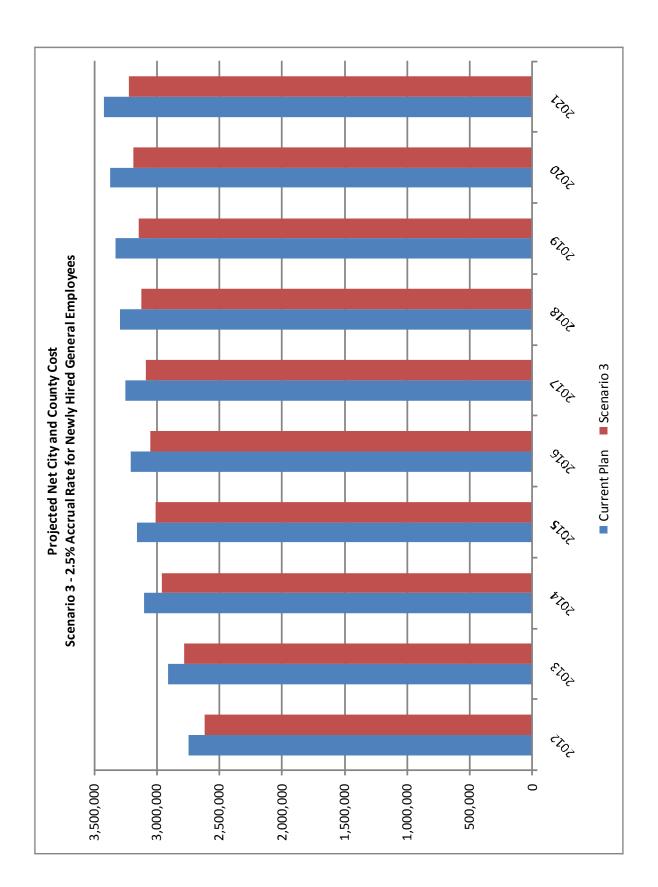


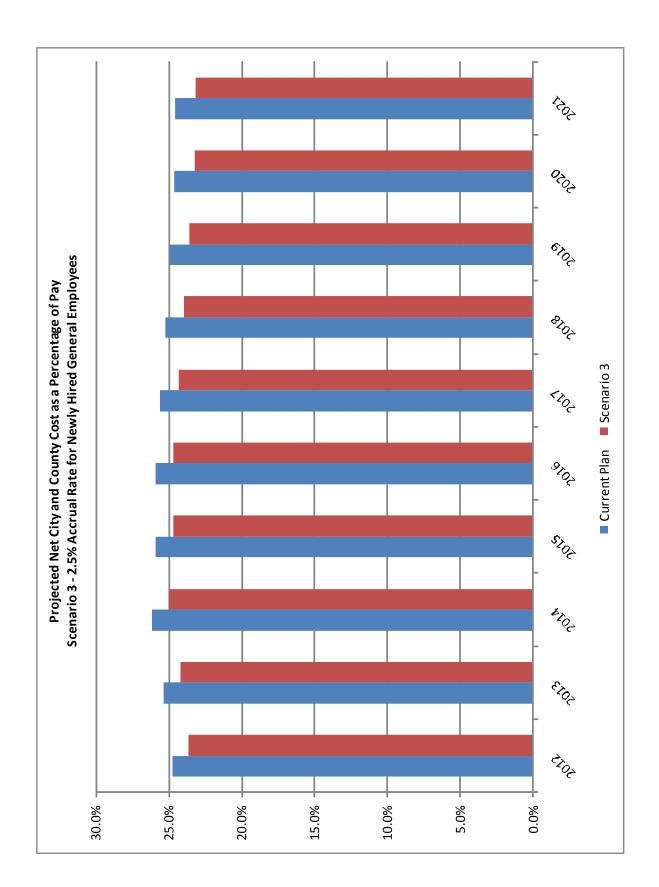
**Scenario** 3 – Reduce the benefit accrual rate for General Employees to two and a half percent (2.5%) per year of credited service after September 30, 2009 - maximum thirty (30) years total service.

The following Table shows the projected payroll and a comparison of the projected City and County costs under the baseline forecast versus Scenario 3.

		Projected	Projected		Cumulative
Fiscal		City and	City and	Reduction in	Reduction in
Year	Covered	<b>County Cost</b>	<b>County Cost</b>	City and	City and
<u>End</u>	<u>Payroll</u>	<b>Current Plan</b>	Scenario 3	<b>County Cost</b>	<b>County Cost</b>
2012	11,083,213	2,746,240	2,622,458	123,782	123,782
2013	11,467,759	2,913,424	2,780,548	132,876	256,658
2014	11,842,171	3,101,952	2,961,577	140,375	397,033
2015	12,177,484	3,158,995	3,012,905	146,090	543,123
2016	12,369,938	3,210,571	3,055,243	155,328	698,451
2017	12,708,207	3,254,552	3,091,579	162,973	861,424
2018	13,039,669	3,294,074	3,123,515	170,559	1,031,983
2019	13,336,686	3,329,127	3,150,068	179,059	1,211,042
2020	13,693,343	3,373,902	3,186,833	187,069	1,398,111
2021	13,933,458	3,422,843	3,226,920	195,923	1,594,034
5 Year					
Totals	58,940,565	15,131,182	14,432,731	698,451	
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10 Year					
Totals	125,651,928	31,805,680	30,211,646	1,594,034	





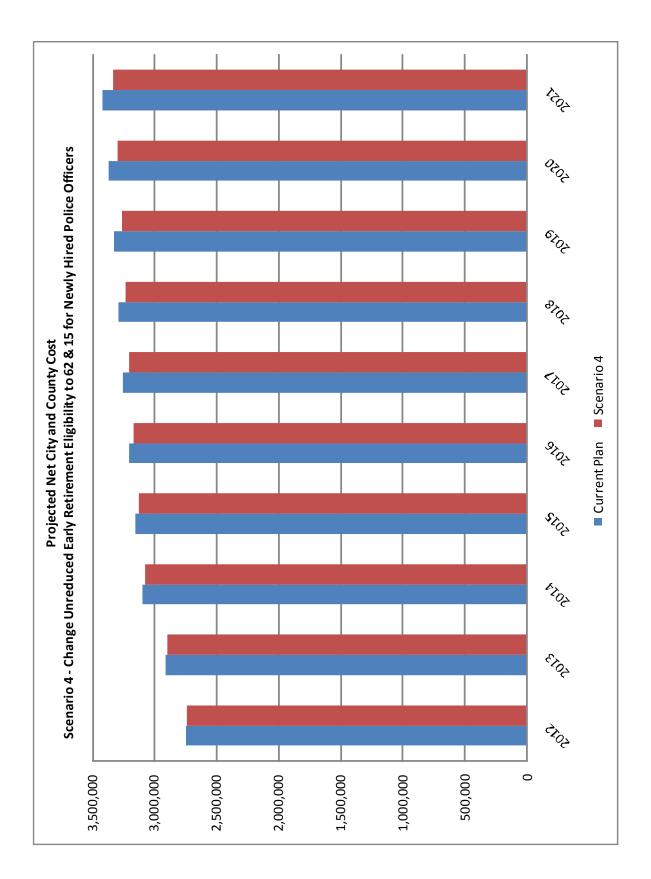




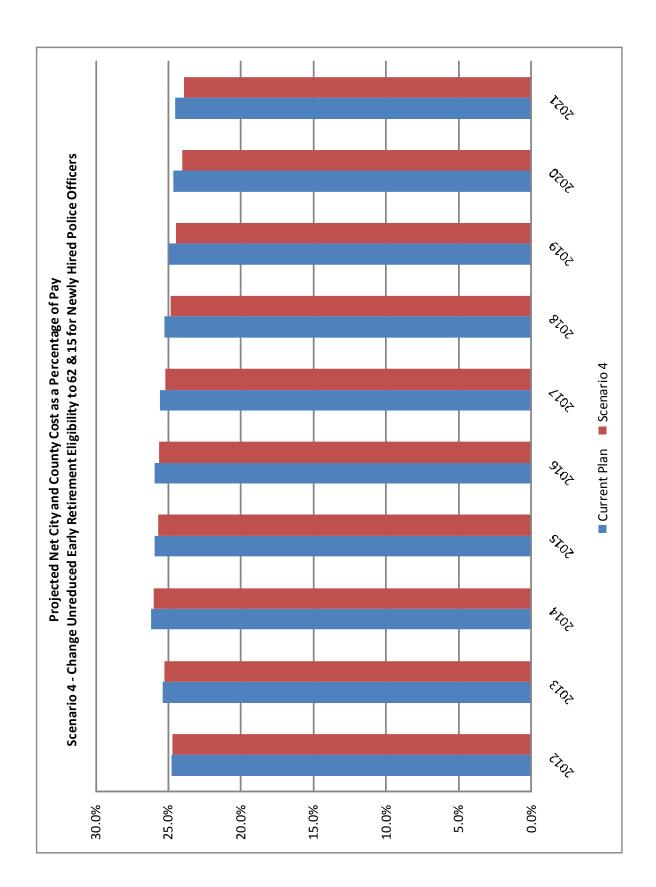
*Scenario 4* – Change the unreduced early retirement eligibility for newly hired Police Officers to attainment of age sixty-two (62) with completion of fifteen (15) years of service.

The following Table shows the projected payroll and a comparison of the projected City and County costs under the baseline forecast versus Scenario 4.

		Projected	Projected		Cumulative
Fiscal		City and	City and	Reduction in	Reduction in
Year	Covered	<b>County Cost</b>	<b>County Cost</b>	City and	City and
<u>End</u>	<u>Payroll</u>	<b>Current Plan</b>	Scenario 4	<b>County Cost</b>	<b>County Cost</b>
2012	11,083,213	2,746,240	2,738,410	7,830	7,830
2013	11,467,759	2,913,424	2,898,178	15,246	23,076
2014	11,842,171	3,101,952	3,078,604	23,348	46,424
2015	12,177,484	3,158,995	3,127,692	31,303	77,727
2016	12,369,938	3,210,571	3,171,993	38,578	116,305
2017	12,708,207	3,254,552	3,206,052	48,500	164,805
2018	13,039,669	3,294,074	3,236,905	57,169	221,974
2019	13,336,686	3,329,127	3,262,693	66,434	288,408
2020	13,693,343	3,373,902	3,297,231	76,671	365,079
2021	13,933,458	3,422,843	3,336,243	86,600	451,679
5 Year					
Totals	58,940,565	15,131,182	15,014,877	116,305	
I Otters	20,7 10,202	10,101,102	10,011,077	110,000	
10 Year					
Totals	125,651,928	31,805,680	31,354,001	451,679	





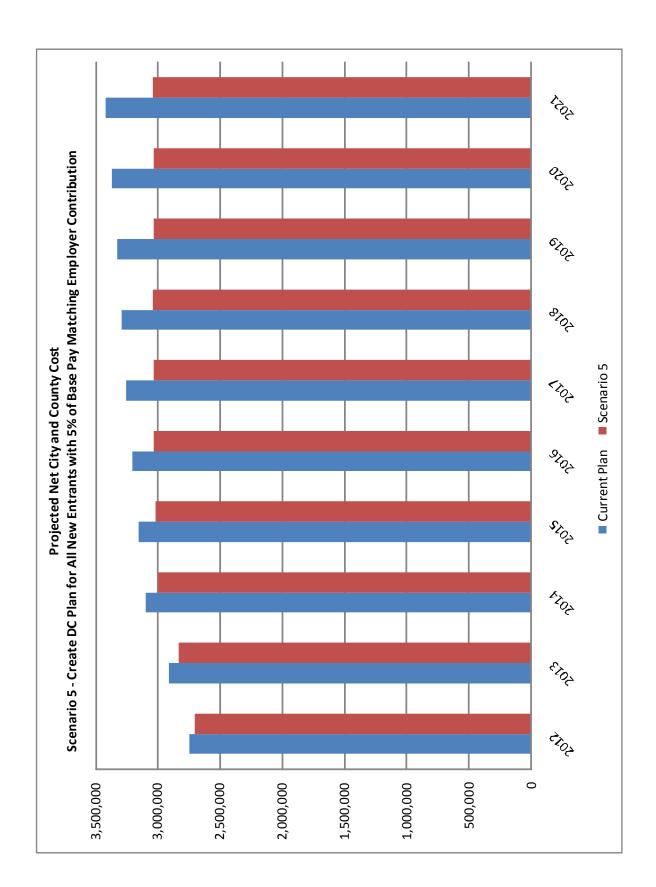




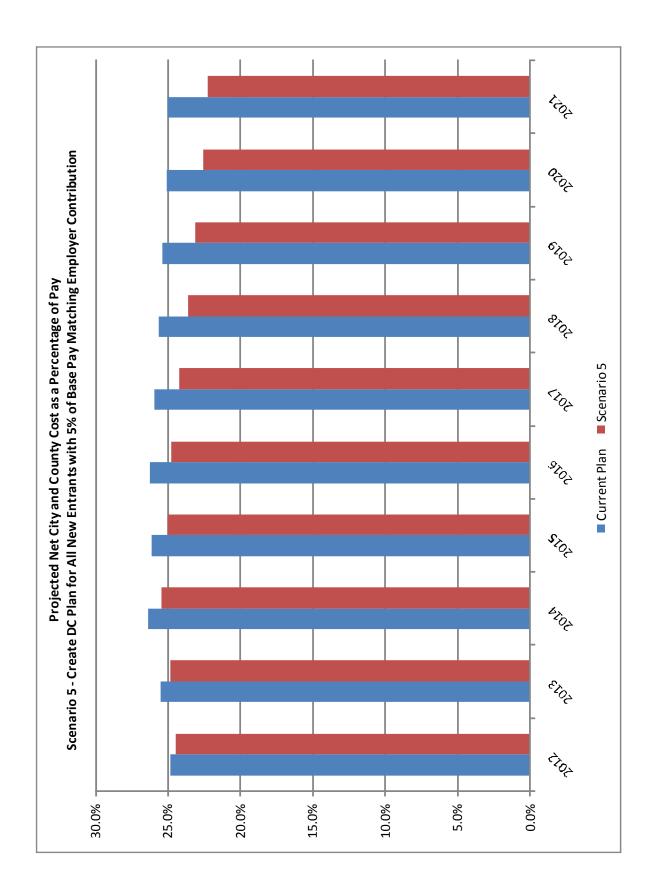
*Scenario 5* – Create a Defined Contribution (DC) Plan for all newly hired Employees. The City will provide a matching contribution of up to 5% of *basic compensation*.

The following Table shows the projected payroll and a comparison of the projected City and County costs under the baseline forecast versus Scenario 5.

Fiscal Year <u>End</u>	Covered <u>Payroll</u>	Projected City and County Cost Current Plan	Projected City and County Cost Scenario 5	Reduction in City and County Cost	Cumulative Reduction in City and County Cost
2012	11,053,406	2,746,240	2,704,000	42,240	42,240
2013	11,411,461	2,913,424	2,837,054	76,370	118,610
2014	11,760,574	3,101,952	2,997,661	104,291	222,901
2015	12,071,166	3,158,995	3,022,528	136,467	359,368
2016	12,237,861	3,210,571	3,034,037	176,534	535,902
2017	12,547,341	3,254,552	3,038,474	216,078	751,980
2018	12,852,208	3,294,074	3,039,258	254,816	1,006,796
2019	13,120,940	3,329,127	3,033,056	296,071	1,302,867
2020	13,447,994	3,373,902	3,036,018	337,884	1,640,751
2021	13,658,230	3,422,843	3,041,132	381,711	2,022,462
5 Year Totals	58,534,468	15,131,182	14,595,280	535,902	
10 Year Totals	124,161,181	31,805,680	29,783,218	2,022,462	



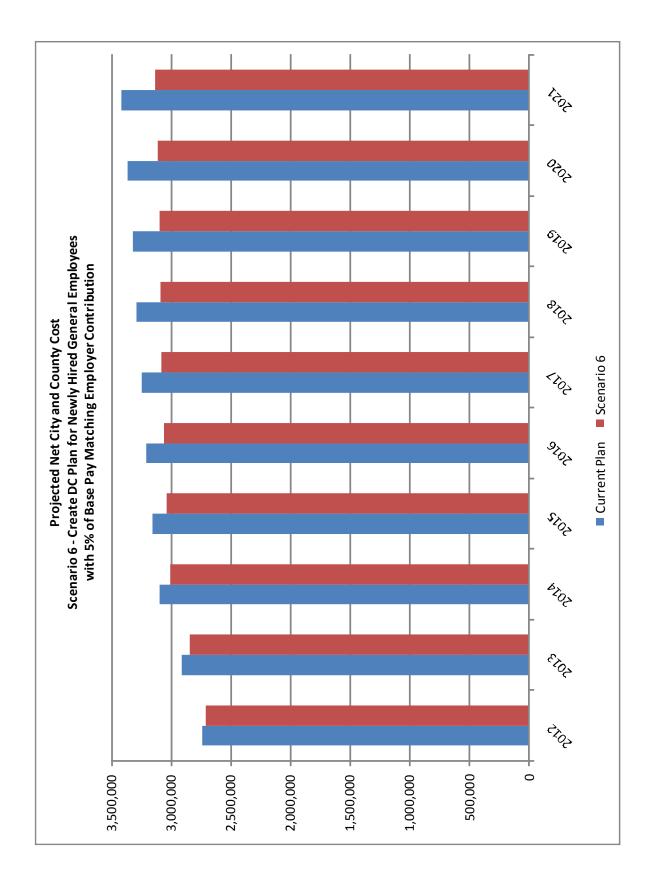




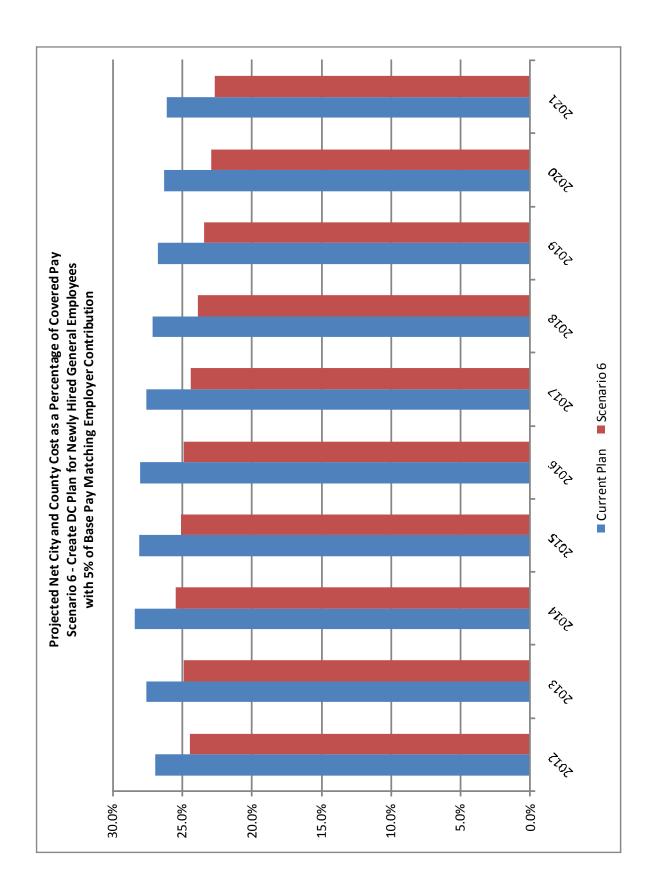
*Scenario 6* – Create a Defined Contribution (DC) Plan for newly hired General Employees. The City will provide a matching contribution of up to 5% of *basic compensation*.

The following Table shows the projected payroll and a comparison of the projected City and County costs under the baseline forecast versus Scenario 6.

		Projected	Projected		Cumulative
Fiscal		City and	City and	Reduction in	Reduction in
Year	Covered	<b>County Cost</b>	<b>County Cost</b>	City and	City and
<u>End</u>	<b>Payroll</b>	<b>Current Plan</b>	Scenario 6	<b>County Cost</b>	<b>County Cost</b>
2012	11,068,183	2,746,240	2,710,949	35,291	35,291
2013	11,440,161	2,913,424	2,847,954	65,470	100,761
2014	11,804,446	3,101,952	3,011,637	90,315	191,076
2015	12,129,882	3,158,995	3,044,194	114,801	305,877
2016	12,310,085	3,210,571	3,065,526	145,045	450,922
2017	12,638,008	3,254,552	3,083,426	171,126	622,048
2018	12,958,884	3,294,074	3,096,097	197,977	820,025
2019	13,244,694	3,329,127	3,102,678	226,449	1,046,474
2020	13,590,572	3,373,902	3,119,804	254,098	1,300,572
2021	13,818,971	3,422,843	3,138,758	284,085	1,584,657
5 Year					
Totals	58,752,757	15,131,182	14,680,260	450,922	
10 Year					
Totals	125,003,886	31,805,680	30,221,023	1,584,657	





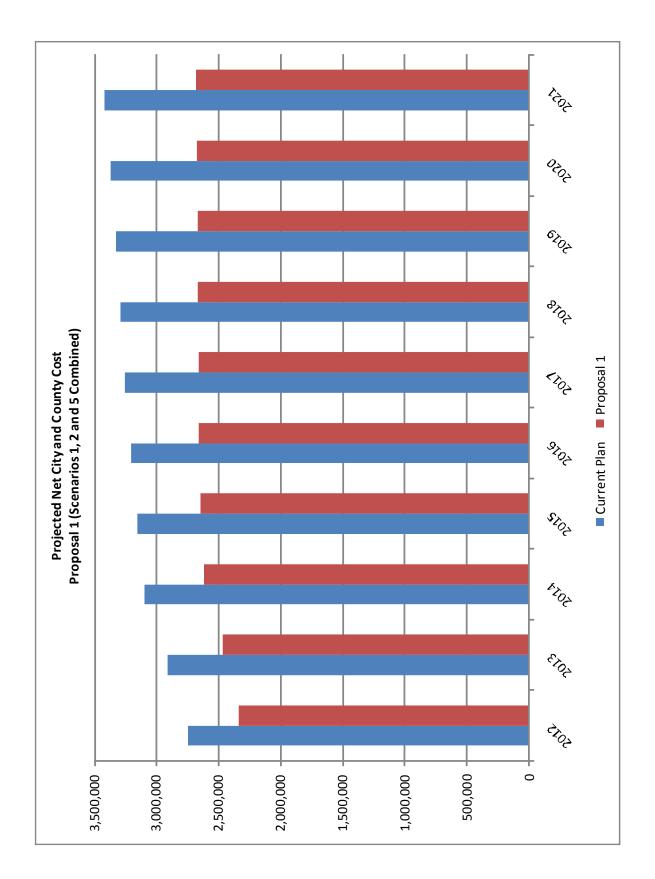




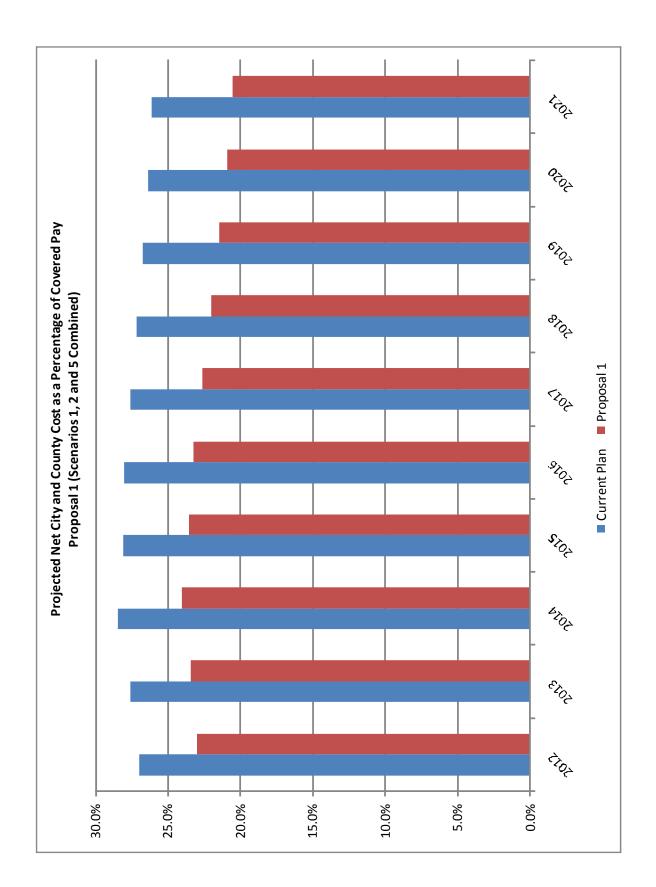
**Proposal 1** – Scenarios 1, 2 and 5 combined.

The following Table shows the projected payroll and a comparison of the projected City and County costs under the baseline forecast versus Proposal 1.

Fiscal Year	Covered	Projected City and County Cost	Projected City and County Cost	Reduction in City and	Cumulative Reduction in City and
<b>End</b>	<u>Payroll</u>	Current Plan	Proposal 1	<b>County Cost</b>	<b>County Cost</b>
2012	10,175,174	2,746,240	2,340,886	405,354	405,354
2013	10,541,214	2,913,424	2,468,048	445,376	850,730
2014	10,897,174	3,101,952	2,620,849	481,103	1,331,833
2015	11,230,744	3,158,995	2,646,513	512,482	1,844,315
2016	11,444,263	3,210,571	2,659,230	551,341	2,395,656
2017	11,784,431	3,254,552	2,666,011	588,541	2,984,197
2018	12,117,217	3,294,074	2,670,374	623,700	3,607,897
2019	12,438,434	3,329,127	2,669,430	659,697	4,267,594
2020	12,798,163	3,373,902	2,675,515	698,387	4,965,981
2021	13,081,179	3,422,843	2,686,294	736,549	5,702,530
5 Year					
Totals	54,288,569	15,131,182	12,735,526	2,395,656	
10 Year					
Totals	116,507,993	31,805,680	26,103,150	5,702,530	





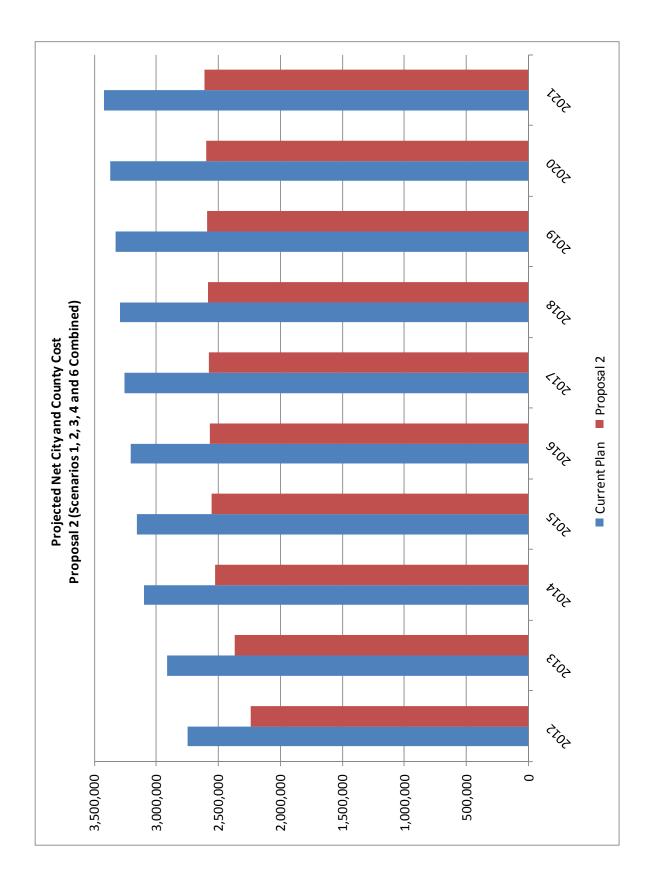


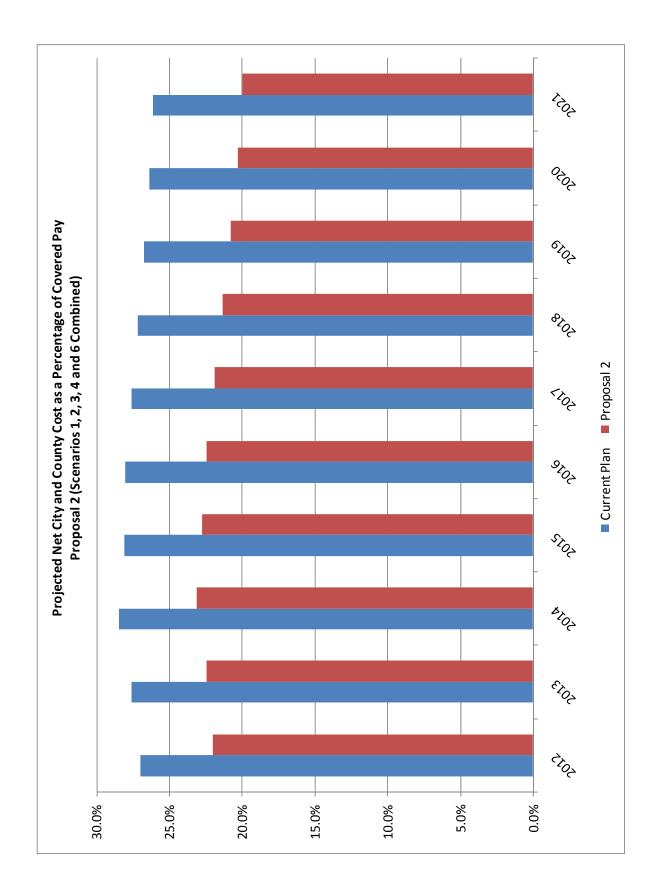


*Proposal 2* – Scenarios 1, 2, 3, 4 and 6 combined.

The following Table shows the projected payroll and a comparison of the projected City and County costs under the baseline forecast versus Proposal 2.

Fiscal Year	Covered	Projected City and County Cost	Projected City and County Cost	Reduction in City and	Cumulative Reduction in City and
<u>End</u>	<u>Payroll</u>	Current Plan	Proposal 2	<b>County Cost</b>	<b>County Cost</b>
2012	10,175,174	2,746,240	2,238,329	507,911	507,911
2013	10,541,214	2,913,424	2,368,084	545,340	1,053,251
2014	10,897,174	3,101,952	2,523,329	578,623	1,631,874
2015	11,230,744	3,158,995	2,552,948	606,047	2,237,921
2016	11,444,263	3,210,571	2,568,297	642,274	2,880,195
2017	11,784,431	3,254,552	2,578,214	676,338	3,556,533
2018	12,117,217	3,294,074	2,585,861	708,213	4,264,746
2019	12,438,434	3,329,127	2,588,147	740,980	5,005,726
2020	12,798,163	3,373,902	2,597,740	776,162	5,781,888
2021	13,081,179	3,422,843	2,612,068	810,775	6,592,663
5 Year					
Totals	54,288,569	15,131,182	12,250,987	2,880,195	
10 Year					
Totals	116,507,993	31,805,680	25,213,017	6,592,663	







### OUTLINE OF PRINCIPAL PROVISIONS OF THE RETIREMENT PLAN

#### A. Effective Date

Plan adopted as a Money Purchase Floor Offset plan on October 1, 1997. Plan amended and restated as a Defined Benefit Plan effective October 1, 2000. Plan most recently amended by Resolution 2007-20 effective April 23, 2007.

### B. Eligibility Requirements

Employees working 30 or more hours per week are eligible to join the Plan on the first day of the month following completion of six (6) months of service.

#### C. Accrual Service

Years of Accrual Service are any Plan Year during which an Employee completes at least 1,000 hours of service, including years of service completed prior to participation in the Plan.

### D. Total Compensation

Wages, salaries and other amounts received (whether or not paid in cash) for personal services actually rendered in the course of employment. This includes but is not limited to commissions, overtime pay and bonuses.

#### E. Final Average Compensation

Average earnings during the three (3) highest consecutive compensation periods during employment with the City.

#### F. Normal Retirement

#### 1. Eligibility

- (a) Attainment of age 65; or
- (b) Completion of 30 years of service and determined to be disabled under the City's long term disability insurance policy.

#### 2. Benefit

3.00% times Final Average Compensation multiplied by Accrual Service, up to a maximum of 30 years.



#### G. Early Retirement

### 1. Eligibility

- (a) Attainment of age 55 and completion of ten (10) years of service; or
- (b) Completion of 25 years of service.

#### 2. Benefit

Benefit accrued to date of early retirement, actuarially reduced for each year early retirement benefit commencement precedes age 55.

#### H. Late Retirement

#### 1. Eligibility

Continued employment beyond Normal Retirement Date.

#### 2. Benefit

Greater of (a) and (b):

- (a) Accrued benefit calculated as for Normal Retirement based upon service and pay at Late Retirement Date.
- (b) Actuarially increased benefit as of Late Retirement Date.

#### I. <u>Disability Retirement</u>

#### 1. Eligibility

Completion of 30 years of service and determined to be disabled under the City's long term disability insurance policy.

#### 2. Benefit

3.00% times Final Average Compensation multiplied by Accrual Service.

#### J. Death Benefit

Beneficiary entitled to a monthly benefit supported by the present value of the non-forfeitable accrued benefit at the time of the participant's death. If death occurs after actual retirement, the beneficiary receives whatever is payable under the form of benefit option elected.



### K. Participant Contributions

Three percent (3%) of compensation for General Employees and Police Officers.

### L. <u>Vested Benefit Upon Termination</u>

100% vested in required participant contributions. Participant contributions made after October 1, 2000 are included in the deferred vested benefit payable at normal or early retirement date.

Upon termination of service prior to normal or early retirement date a participant shall be entitled to a benefit payable at normal or early retirement date calculated as for normal retirement. Based on pay and service at date of termination multiplied by a percentage from the following table.

Years of Service	Vested Percentage
Less than 3	0%
3	20%
4	40%
5	60%
6	80%
7	100%

### M. Normal Form of Retirement Income

Monthly benefit payable for life.

#### Other Options

Actuarially equivalent joint and survivor at 50%, 75%, 100%; or ten (10) years certain and life.

### **ACTUARIAL ASSUMPTIONS AND METHODS**

### A. Mortality

For healthy General Employee participants, the RP-2000 Combined Mortality Table was used with separate rates for males and females and fully generational mortality improvements projected to each future decrement date.

For healthy Firefighter and Police Officer participants, the RP-2000 Combined Mortality Table with Blue Collar Adjustment was used with separate rates for males and females and fully generational mortality improvements projected to each future decrement date.

For disabled participants, the RP-2000 Combined Disabled Mortality Table was used with separate rates for males and females and fully generational mortality improvements projected to each future decrement date.

#### B. Investment Return

8.0%, compounded annually, net of investment expenses.

### C. Allowances for Expenses or Contingencies

Prior year's actual administrative expenses are included in Normal Cost.

#### D. Salary Increase Factors

Current salary is assumed to increase at a rate based on the table below per year until retirement.

<u>Service</u>	General <u>Employees</u>	Firefighters and Police Officers
Less than 5 years	6.5%	7.5%
5 – 9 years	5.5%	5.5%
10 – 14 years	4.5%	5.5%
15+ years	3.0%	3.5%

### E. Employee Withdrawal Rates

1. Withdrawal rates for male General Employees were used in accordance with the following illustrative example:

				With	drawal R	ates per 1	00 Empl	oyees			
						Service					
<u>Age</u>	<u>0</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>	<u>8</u>	<u>9</u>	<u>10+</u>
20	32.8	25.4	22.7	18.4	15.8	11.7	11.1	11.1	11.0	10.0	9.8
25	27.2	18.5	17.2	14.6	12.7	9.7	8.5	8.4	7.7	6.3	6.2
30	25.8	15.4	14.0	13.2	11.8	8.8	7.8	7.1	6.4	5.5	4.7
35	25.8	14.3	12.8	12.6	10.9	8.5	7.5	6.8	6.2	5.3	4.2
40	24.4	12.6	12.0	10.7	9.0	7.4	6.7	6.2	5.8	5.3	3.0
45	24.4	12.5	11.6	10.3	8.8	6.8	6.5	6.0	5.1	5.1	2.7
50	23.4	12.2	10.7	9.4	7.9	6.0	5.5	5.3	4.6	4.6	3.0
55	27.4	12.2	10.7	9.3	7.8	6.8	5.4	5.2	4.4	4.3	4.5
60	27.4	12.2	10.7	9.3	7.8	6.8	5.4	5.1	4.3	4.2	5.3
65	27.4	12.2	10.7	9.3	7.8	6.8	5.4	5.1	4.3	4.2	3.7

2. Withdrawal rates for female General Employees were used in accordance with the following illustrative example:

				With	drawal R	ates per 1	00 Emplo	oyees			
						Service					
<u>Age</u>	<u>0</u>	1	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>	<u>8</u>	<u>9</u>	<u>10+</u>
20	30.3	25.8	22.1	17.4	15.4	13.5	11.4	11.3	10.5	10.2	11.6
25	26.6	19.8	17.1	13.0	12.9	10.7	9.7	9.2	7.8	7.1	5.3
30	25.4	16.9	14.5	11.6	11.3	9.4	8.7	8.1	7.1	6.5	5.4
35	25.4	15.9	13.5	11.2	10.9	9.0	8.0	7.8	6.8	6.2	4.6
40	24.4	14.0	12.1	10.0	9.1	7.0	6.5	6.3	6.1	5.0	3.3
45	24.4	13.9	11.9	9.8	8.8	6.7	6.5	6.1	5.8	4.7	3.0
50	23.2	13.4	11.0	8.8	8.4	6.2	5.9	5.5	5.5	4.6	3.0
55	23.2	13.4	11.0	8.7	8.3	6.1	5.8	5.4	5.4	4.5	3.0
60	23.2	13.4	11.0	8.7	8.3	6.1	5.8	5.4	5.4	4.5	3.0
65	23.2	13.4	11.0	8.7	8.3	6.1	5.8	5.4	5.4	4.5	3.0

The withdrawal assumptions are the withdrawal assumptions used in the July 1, 2009 Florida Retirement System (FRS) Actuarial Valuation.

3. Withdrawal rates for male Firefighters and Police Officers were used in accordance with the following illustrative example:

				With	drawal R	ates per 1	00 Emplo	<u>oyees</u>			
						Service					
<u>Age</u>	0	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>	<u>8</u>	<u>9</u>	<u>10+</u>
20	21.4	10.3	8.6	8.4	7.5	5.3	5.2	3.1	2.9	2.6	2.3
25	20.6	9.8	8.1	7.9	7.0	5.3	5.2	3.1	2.9	2.6	2.3
30	20.6	9.5	7.7	7.5	6.7	5.3	5.2	3.1	2.9	2.6	2.1
35	20.6	8.8	7.4	7.2	6.5	5.3	5.1	3.1	2.9	2.6	2.0
40	20.6	8.0	6.8	6.7	6.0	4.8	4.6	3.1	2.9	2.6	1.9
45	20.6	7.3	6.0	6.0	5.5	4.3	4.1	3.1	2.9	2.6	1.8
50	20.6	6.5	5.3	5.3	5.0	3.8	3.6	3.1	2.9	2.6	1.8
55	20.6	5.8	4.7	4.7	4.6	3.3	3.2	3.1	2.9	2.6	1.8
60	20.6	5.3	4.7	4.7	4.6	3.3	3.2	3.1	2.9	2.6	1.8
65	20.6	5.3	4.7	4.7	4.6	3.3	3.2	3.1	2.9	2.6	1.8

4. Withdrawal rates for female Firefighters and Police Officers were used in accordance with the following illustrative example:

				With	drawal R	ates per 1	00 Empl	oyees			
						Service					
Age	<u>0</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>	<u>8</u>	<u>9</u>	<u>10+</u>
20	21.3	15.5	12.3	10.3	9.7	6.1	5.9	5.0	4.2	4.2	1.9
25	21.3	14.2	11.6	9.8	9.2	6.1	5.9	5.0	4.2	4.2	1.9
30	21.3	13.2	10.6	9.3	8.7	6.1	5.9	5.0	4.2	4.2	1.7
35	21.3	12.2	9.6	8.8	8.4	6.1	5.9	5.0	4.2	4.1	1.5
40	21.3	11.2	8.6	8.3	7.6	6.1	5.9	5.0	4.1	4.1	2.5
45	21.3	10.2	7.6	7.6	7.0	6.1	5.9	5.0	4.1	4.1	2.5
50	21.3	9.2	6.6	6.6	6.4	6.1	5.9	5.0	4.1	4.0	1.6
55	21.3	8.4	5.8	5.6	5.4	5.3	5.1	5.0	4.1	4.0	4.0
60	21.3	8.4	5.8	5.6	5.4	5.3	5.1	5.0	4.1	4.0	4.0
65	21.3	8.4	5.8	5.6	5.4	5.3	5.1	5.0	4.1	4.0	4.0

The withdrawal assumptions are the withdrawal assumptions used in the July 1, 2009 FRS Actuarial Valuation.

### F. Disability Rates

1. Line-of-duty disability rates for General Employees were used in accordance with the following illustrative example.

Age	<u>Male</u>	<u>Female</u>
20	0.002%	0.000%
25	0.002%	0.001%
30	0.003%	0.001%
35	0.005%	0.003%
40	0.009%	0.005%
45	0.014%	0.008%
50	0.022%	0.010%
55	0.034%	0.016%
60	0.048%	0.022%
65	0.050%	0.020%

2. Non-duty disability rates for General Employees were used in accordance with the following illustrative example.

Age	<u>Male</u>	<u>Female</u>
20	0.0000/	0.0000/
20	0.000%	0.000%
25	0.027%	0.010%
30	0.053%	0.026%
35	0.066%	0.049%
40	0.092%	0.070%
45	0.122%	0.114%
50	0.203%	0.184%
55	0.339%	0.294%
60	0.445%	0.419%
65	0.215%	0.105%

The withdrawal assumptions are the withdrawal assumptions used in the July 1, 2009 FRS Actuarial Valuation.

3. Line-of-duty disability rates for Firefighters and Police Officers were used in accordance with the following illustrative example.

Age	<u>Male</u>	<u>Female</u>
20	0.012%	0.008%
25	0.012%	0.008%
30	0.017%	0.016%
35	0.029%	0.037%
40	0.051%	0.068%
45	0.087%	0.106%
50	0.138%	0.153%
55	0.215%	0.152%
60	0.301%	0.151%
65	0.231%	0.143%

4. Non-duty disability rates for Firefighters and Police Officers were used in accordance with the following illustrative example.

Age	<u>Male</u>	<u>Female</u>
20	0.037%	0.036%
25	0.037%	0.036%
30	0.043%	0.046%
35	0.055%	0.075%
40	0.087%	0.118%
45	0.140%	0.209%
50	0.292%	0.254%
55	0.244%	0.328%
60	0.206%	0.328%
65	0.206%	0.328%

The withdrawal assumptions are the withdrawal assumptions used in the July 1, 2009 FRS Actuarial Valuation.

### G. Assumed Retirement Age

Retirement rates were used in accordance with the following tables.

1. For members with less than ten (10) years of service:

Age	General Employees	Firefighters and Police Officers
Under 65	0%	0%
65 and above	100%	100%

2. For members with ten (10) or more years, but less than twenty-five (25) years of service:

Age	General Employees	Firefighters and Police Officers
55 – 64	10%	20%
65 and above	100%	100%

3. For members with twenty-five (25) or more years of service:

General <u>Employees</u>	Firefighters and Police Officers
2% 25%	5% 50%
5%	20%
100%	100%
	Employees  2% 25% 5%

<u>Note</u>: For Scenario 4 and Proposal 2, retirement rates for newly hired Police Officers were used in accordance with the following table.

	Years of Service				
<u>Age</u>	<u>0-14</u>	<u>15</u>	<u>16-24</u>	<u>25-30</u>	30 or more
Under 55	0%	0%	0%	4%	50%
55 - 61	0%	0%	0%	10%	50%
62	0%	40%	40%	40%	50%
62 - 64	0%	40%	20%	20%	50%
65	100%	100%	100%	100%	100%

### H. Marital Assumptions

- 1. 100% of active members are assumed to be married.
- 2. Females are assumed to be three (3) years younger than their male spouses.

### I. <u>Interest on Future Participant Contributions</u>

3.75%, compounded annually.

#### J. Asset Valuation Method

The method used for determining the actuarial value of assets phases in the deviation between the expected and actual return on assets at the rate of 20% per year. The actuarial value of assets will be further adjusted to the extent necessary to fall within the corridor whose lower limit is 80% of the fair market value of plan assets and whose upper limit is 120% of the fair market value of plan assets.

#### K. Cost Method

Normal Retirement, Termination, Disability, and Death Benefits: Entry Age Normal Cost Method

Under this method the normal cost for each active employee is the amount which is calculated to be a level percentage of pay that would be required annually from his entry age to his assumed retirement age to fund his estimated benefits, assuming the Plan had always been in effect. The normal cost for the Plan is the sum of such amounts for all employees. The actuarial accrued liability as of any valuation date for each active employee or inactive employee who is eligible to receive benefits under the Plan is the excess of the actuarial present value of future benefits over the actuarial present value of current and future normal costs. The unfunded actuarial accrued liability as of any valuation date is the excess of the actuarial accrued liability over Plan assets.