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MEMORANDUM

TO: Karen Davis
Executive Director, Orange County Manager's Association

FROM: Jonathan Hassen and Kelly Lambert

DATE: March 5, 2013

RE: Orange County Employees' Retirement System – Plan Analysis for OCMA

As requested, we have examined the retirement contribution issues facing the Orange County Manager's Association (OCMA). Following is a summary of our analysis including the impact of alternative contribution structures as well as a brief summary of the Public Employees' Pension Reform Act of 2013 and its anticipated future impact on the OCMA.

PEPRA Summary

The Public Employees' Pension Reform Act of 2013 (PEPRA) was signed on September 12, 2012 by Governor Brown. Provided below is a brief synopsis of the highlights of PEPRA as it applies to new and current employees of the Orange County Employees' Retirement System (OCERS).

New Employees

New employees include OCERS hires on or after January 1, 2013 who are:

- First-time members of any public retirement system.
- Previous members of any other public retirement system but could not establish reciprocity prior to January 1, 2013.
- Previous members of OCERS but returned with a new employer after a break-in-service exceeding 6 months.

PEPRA requires the following changes apply to new non-Safety employees:

- A new benefit formula of 2.00%@62 with specified reductions for early retirements and specified increases for later retirements up to 2.50%@67.

- Annual pensionable compensation shall be limited to the Social Security Wage Base (for those covered by Social Security) and 120% of the Social Security Wage Base (for those not covered by Social Security).

- Annual pensionable compensation shall be based on the normal rate of pay or base pay. It cannot include: conversion of in kind compensation to cash payments, one-time or ad-hoc payments, cash out of unused leave time, overtime pay, or bonuses on top of the normal monthly rate of pay or base pay.

- Average pensionable compensation for purposes of calculating retirement benefits must be based on, at minimum, 36 consecutive months of earnings.

- New members must pay at least 50% of the normal costs attributable to new member benefits. The effective date of the 50% cost-sharing arrangement may be deferred until the current MOU expires. Note that, by MOU, employees may pay more than 50% of normal costs if agreed to in collective bargaining.

With respect to the benefit formula requirement, PEPRA includes an exception provision which allows the employer's existing benefit formula to remain in effect if the existing formula has a lower benefit factor at normal retirement age and a lower normal cost than the required PEPRA formula. Although specifics of determining the plan's normal retirement age are not included in PEPRA, it is generally understood to be the earliest age at which the highest benefit factor takes effect. For plans that meet the PEPRA exception provision, the annual pensionable compensation limitation (Social Security Wage Base or 120% of Social Security Wage Base) does not apply. However, the 36-month consecutive earnings requirement does apply for all new employees regardless of the plan formula adopted. If a plan does not meet the qualification standards to maintain the existing formula, the plan may alternatively tweak the existing benefit formula to the extent it satisfies the PEPRA exception provision.

Current Employees

Current employees are defined as any employee not otherwise identified as a new employee. As it relates to OCERS, our understanding is that current employees are entitled to maintain their benefits under current plan provisions with the exception of the following requirements:

- Cost sharing for current employees increases to 50% of normal costs no later than January 1, 2018. In the absence of an MOU in place by January 1, 2018, the County may only increase general member contributions by 14% over the existing normal rate.

- Anti-spiking provisions which require pensionable compensation exclude: conversion of in kind compensation to cash payments, one-time or ad-hoc payments, cash out of unused leave time, overtime pay and bonuses on top of normal monthly rates of pay or base pay.

- Enhancements to benefits may only apply to future service. Past service enhancements are not permitted.

Additional Highlights

In addition to the requirements applicable to new and current employees, there are a few additional noteworthy requirements with respect to PEPRA. PEPRA stipulates that:

- Pension plan contributions, for each fiscal year, must be at least equal to the plan's normal cost for that year unless the plan's funding ratio exceeds 120%. Certain exceptions apply.

- Retirees returning to work must have their benefits suspended unless re-employment is considered an emergency or the retiree has special skills needed, re-employment hours are limited to 960 hours per calendar/fiscal year and re-employment cannot occur within 180 days after the retiree's previous employment ended. Other exceptions apply.

Note that there are additional provisions of PEPRA that apply to public retirement systems. The information provided in this memorandum only discusses the highlights of PEPRA.

Impact on OCMA

Our understanding is that the 1.62%@65 basic formula available to current OCMA employees is compliant with the PEPRA benefit formula exception provision and will be utilized for all new employees of the OCMA on or after January 1, 2013. Note that, under existing provisions, current employees electing the existing 2.70%@55 "enhanced" formula pay for both the additional employee and employer costs associated with this benefit over the 1.67%@57.5 original basic benefit. This removes all liability associated with the enhanced benefit formula from the County and puts the additional costs in the hands of the employees.

Due to the Plan's current level of underfunding and recent changes in actuarial assumptions and demographics, employee and employer contribution rates associated with the basic 1.62% and "enhanced" 2.70% formulas have increased in recent years. Rate increases associated with the "enhanced" 2.70% formula have been relatively higher due to the additional benefit layer along with increased levels of underfunding. While member contribution rates are based on specified rates dependent on the age of entry, reverse pick-up rates are further impacted by levels of underfunding to the extent actuarial losses occur such as investment returns falling short of expectations or demographic changes or actuarial assumption modifications. This results in an associated increase in the employer rate which reverts to the employee. In compliance with PEPRA, new employees of the OCMA will receive the basic 1.62% retirement formula and will be required to contribute at least 50% of normal costs. Our understanding is that the salary limitation required under PEPRA <u>will not</u> apply since the existing "basic" formula is compliant with PEPRA.

The implementation of PEPRA will provide new OCMA employees with a lower level of retirement security than current employees due to the lower benefit factor at retirement. In the absence of providing other post-retirement benefits such as defined contribution monies or enhanced medical benefits, such changes could impact the incoming pool of new managers and negatively influence retention issues in the future. In addition, employee education regarding PEPRA will continue to be important for current employees to prevent run-on-the-bank retirement scenarios. Volatility in employee retention patterns can negatively impact future financial results and future employee contribution rates.

In the absence of a decision to spread the costs of the "enhanced" 2.70% formula to new employees, new employees under PEPRA would only be required to pay the employee basic contribution rate which would be 50% of normal costs. This represents a change in calculation methodology from the existing basic member rate determination which is calculated based on an expected annuity value (i.e., average annuity at age 60 equal to 1/120 of final average salary).

With the implementation of PEPRA, all new employees of the OCMA will be receiving the 1.62%@65 basic formula. Based on information provided by the County and the Actuary (Segal), below is a table summarizing the employee normal contribution rates by entry age based on the current 2.70%@55 and 1.62%@65 benefit formulas in comparison to the post-PEPRA 1.62%@65 member contribution rate.

	OCERS Employee Normal Contribution Rate (by Entry Age)		
Age	***2.70%@55 Formula***	***1.62%@65 Formula (Pre-PEPRA)***	***1.62%@65 Formula (Post-PEPRA)***
30	10.02%	6.51%	5.25%
35	11.02%	7.15%	5.75%
40	12.08%	7.86%	6.25%
45	13.30%	8.62%	6.75%
50	13.95%	9.48%	7.50%
55	14.67%	9.94%	8.00%
60	14.67%	10.46%	8.25%

PEPRA does not contain any reference to the methodology currently used by many public retirement systems for determining member rates (i.e. average annuity at age 60 equal to 1/120 of final average salary) which can make it difficult to correlate pre-PEPRA member rates with post-PEPRA member rates. The post-PEPRA model for determining member contributions has gained support since it involves a more current determination of costs based on recent demographics and year-to-date benefit accruals. Please note that, under PEPRA requirements, employers and new employees will split annual normal costs evenly. Based on information provided by the Actuary, this will result in an associated reduction in the member contribution rate for employees under the 1.62%@65 formula. Correspondingly, employer contribution rates under this formula are expected to increase from previous levels.

Based on data provided from the OCMA, manager statistics as of January 1, 2013 show that the average manager entered at age 34 and is currently age 50 with 16 years of service. However, considering only recent manager statistics[1], the average manager's entry age has increased to age 42. As illustrated above, the employee normal rate for a 35-year old entrant under the 2.70%@55 "enhanced" formula is 11.02% (including COLA) and the employee normal rate for an age 40-45 entrant ranges from 12.08% to 13.30%. Correspondingly, the employer's normal cost rate for the 2.70%@55 enhanced formula as indicated in the December

1 New manager statistics were calculated based on age statistics of new hires from 2006-2008.

31, 2010 actuarial valuation report[1] (Plans I, J non-OCFA) is 11.55% including COLA. This suggests that current managers are paying anywhere in the range of 49-53% of total annual normal costs. The introduction of PEPRA and resulting reduction in benefit formula will have varied effects on the OCMA. Based on information provided from the Actuary, the average member rate under the 1.62%@65 formula is expected to decrease from 7.51% to 5.78% of salary effective January 1, 2013 with a decrease in the total Normal Cost of approximately 1% (12.61% total down to 11.56% total, split 50% between employer and employee).

<u>Analysis of Retirement Formulas</u>

We have reviewed the monthly benefits projected to be paid at the expected retirement age for current managers based on the current 2.70%@55 and 1.62%@65 formulas as well as the PEPRA standard formula (2.00%@62). Based on discussions with the OCMA, we have used an average expected retirement age of 55[2] for employees under the "enhanced" benefit formula (2.70%@55) and an average expected retirement age of 62 for employees under the basic benefit formula (1.62%@65). In accordance with the changes required under PEPRA, the Actuary has further revised the retirement rate assumptions for employers adopting the PEPRA-mandated formula to reflect lower expected rates of retirement at younger retirement-eligible ages and higher expected rates of retirement at older retirement-eligible ages. We calculate an average expected retirement age of 63 for new employees subject to the PEPRA standard formula based on these assumptions. This is due, in part, to a reduction in benefit levels, a lengthened average salary averaging period for some groups and restrictions on pensionable compensation.

On the following page is a table that illustrates the projected monthly benefits under all three formulas and all three expected retirement ages for manager employees including projected salary replacement ratios at retirement assuming average future salary increases of 3.50%[3]. For comparison purposes, we've also included an additional table illustrating projected benefits for new managers based on new manager statistics.

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[1] Actuarial valuation results as of December 31, 2010 are used to determine Fiscal Year 2012-2013 rates (18-month delay).

[2] Based on retiree rate assumptions in the December 31, 2011 actuarial valuation report, the average expected retirement age for employees under the "enhanced" benefit formula is age 60.

[3] Based on salary scale assumptions in the December 31, 2011 actuarial valuation report, the salary increase assumption ranges from 4.75% to 13.75% (3.50% inflation, 0.25% across-the-board, 1%-10% for merit and promotion).

Benefit Formula	Projected Monthly Retirement Benefit (All Managers)[1]			Initial Salary Replacement Ratio[2]
	Age 55 Retirement	***Age 62 Retirement***	***Age 63 Retirement***	
2.70%@55	**$6,500**	$10,300	$11,000	**61%**
1.62%@65	$2,400	**$5,300**	$5,900	**40%**
PEPRA (2.00%@62)[3]	$3,100	$7,500	**$8,400**	**62%**

Benefit Formula	Projected Monthly Retirement Benefit (New Managers)[1]			Initial Salary Replacement Ratio[2]
	Age 55 Retirement	***Age 62 Retirement***	***Age 63 Retirement***	
2.70%@55	**$4,700**	$9,200	$10,000	**35%**
1.62%@65	$1,700	**$4,700**	$5,400	**28%**
PEPRA (2.00%@62)[3]	$2,200	$6,500	**$7,400**	**43%**

Based on information from the Actuary, the average entry age of new members under the enhanced benefit formula (2.70%@55) is age 32 with an average salary of $64k and the average entry age of new members under the basic benefit formula (1.62%@65) is age 35 with an average salary of $55k. Comparing this to OCMA, new managers are entering at an average age of 42 with an average salary of $110k while all managers, on average, are entering at an age of 34 with a $61k starting salary[4]. Although salary replacement ratios for new managers are lower than for all managers, it could be assumed that new managers are receiving pension income from other sources prior to managerial entry.

2.7% Enhanced Benefit Formula Analysis

Our understanding is that nearly all current members of the OCMA have elected to receive the 2.70%@55 "enhanced" retirement benefit formula. The cost associated with the

1 Amounts in bold illustrate the projected monthly benefits at expected retirement based on the respective formula.

2 Initial salary replacement ratios are based on the benefit amount at the participant's expected date of retirement. The salary replacement ratios will increase based on cost-of-living adjustments following retirement. Salary replacement ratios are lower for new managers due to older entry ages and a shorter expected working lifetime.

3 The PEPRA standard formula incorporates an imposed salary cap limitation of the Social Security Wage Base for those covered by Social Security and 120% of the Social Security Wage Base for those who are not.

4 New manager statistics were calculated based on age statistics of new hires in 2006-2008 and hourly rates of new hires from 2009-2012. Annual salaries assume hourly rates of pay are based on a 40-hour work week and 52 work weeks per year.

enhanced benefit is the excess of the 2.70%@55 formula **above that** of the original 1.67%@57.5 benefit formula. Based on information from the County, the cost of the enhanced benefit has been determined as a "relative ratio" of the cost of the total benefit. The relative ratio concept is a generally accepted accounting principle and has been utilized by the County for several years. Based on information provided by the County, the relative ratio of the enhanced benefit was determined to be 25.25% of the total cost of the 2.70%@55 benefit, or 7.24% of salary. Accordingly, our calculations of the cost of the enhanced benefit in this report reflect this 7.24% figure.

Below is a comparison of the additional value of the enhanced benefit in relation to the additional accumulated contributions made during a manager's working lifetime to pay for the enhanced benefit. As previously indicated, note that the average manager is approximately 50 with 16 years of service (age 34 entry age) while new managers enter at an average age of 42.

Enhanced Benefit Value Comparison[1,2]	***All Managers***	***New Managers***
2.70%@55 Expected Monthly Benefit at Age 55	$6,500	$4,700
1.67%@57.5 Expected Monthly Benefit at Age 55	$3,600	$2,600
Additional Monthly Benefit at Age 55	**$2,900**	**$2,100**
Value of Additional Monthly Benefit at Age 55	$511,000	$403,000
Accumulated Additional Employee Contributions for Enhanced Benefit at Age 55 (7.24% rate based on "relative ratio")	$219,000	$175,000
Difference in Value	**$292,000**	**$228,000**
Break-Even Contribution Rate	**17.25%**	**17.00%**

As illustrated above, our calculation estimates show that the value of the additional monthly benefit exceeds the value of the additional employee contributions with interest paid over a manager's career. We calculate a break-even contribution rate for the OCMA of 17.25% based on statistics for all managers and 17.00% based on statistics for new managers. A break-even contribution rate means that the accumulated additional employee contributions are equal in value to the additional monthly benefit earned from the enhanced 2.70%@55 benefit including

1 Calculations based on actuarial assumptions in the December 31, 2011 valuation report including a 7.75% investment return, 3.00% annual COLA, RP-2000 Combined Healthy Mortality Table setback 3-years, 5.00% interest crediting rate (compounded semi-annually). Mortality is not incorporated in the calculation of the accumulated employee contributions.

2 Assumes that the increased member contribution rate to pay for the enhanced benefit was in effect for all employment years.

subsequent COLA increases.

Currently, the average manager is paying an additional 7.24% for the enhanced 2.70%@55 formula. A reverse pick-up study provided by the County[1] suggests that, with an open group of employees, average reverse pick-up rates will range from 6.24% to 4.36% over the next 20 years. Should reverse pick-up rates only be applied to a closed group of employees as of January 1, 2013, average reverse pick-up rates under OCERS assumptions are expected to increase from 6.24% to 14.14% over the next 20 years. Based on the current 7.24% cost of the enhanced benefit for managers, our projections show that the reverse pick-up rate for managers in 20 years will approach the break-even threshold if the reverse pick-up rate for managers is only applied to a closed group of employees and all actuarial assumptions are realized.

In theory, a Plan that is 100% funded and projected to remain at or near 100% funding would not see an escalation in contribution rates from year to year. However, to the extent actuarial assumptions are not realized due to increased turnover rates or investment returns falling short of expectations, the associated reverse pick-up rate would increase and be passed to the employees. The rates associated with a closed group population, however, will tend to be more volatile to the extent actual experience differs from expectations due to a decreasing total payroll and diminishing group of employees from which to collect reverse pick-up contributions.

It is important to note that the 2.70%@55 formula includes early retirement subsidies to the extent employees retire earlier than expected. A "run on the bank" retirement scenario would cause an escalation in pickup rates to cover expected retirement costs over an extended period while retirement patterns that are lower than expectations (employees working past expected retirement ages) would lower the associated reverse pick-up rates. Correspondingly, investment returns in comparison to expectations have a large influence on future costs. Lower than expected investment returns will increase the amount of money needed to pay for future benefits and cause an escalation in reverse pick-up rates. If this increase in cost is shared by new employees, the reverse pick-up rates will be lower for current employees than it would be if new employees did not share in the cost. New employees are essentially subsidizing the cost of retirees and current managers.

[1] As determined by Bartel Associates on December 6, 2012.

Reverse Pick-up Rate Analysis for New and Existing Managers

The member contribution rate for new and existing managers will be affected by OCMA's decision to either spread the reverse pick-up rate to new managers hired on or after January 1, 2013 or to limit the reverse pick-up contribution rate solely to existing managers. As previously discussed, all new employees hired on or after January 1, 2013 will receive the 1.62%@65 benefit formula and be further subjected to PEPRA provisions requiring contributions equal to 50% of normal costs. Our understanding is that the PEPRA salary limitation will not apply to new OCMA employees since the 1.62%@65 basic benefit formula satisfies the PEPRA benefit exception provision.

The following chart illustrates the estimated contribution rates to be paid by new managers at an assumed **entry age of 40** (average entry age based on current statistics is 42) if the reverse pick-up is/isn't paid by new managers and the employee basic portion remains level for all future years.

New Manager Contribution Rates

1.62%@65 Formula for New Managers[1]	***New Managers Do Not Pay Reverse Pick-Up***			***New Managers Do Pay Reverse Pick-Up***		
	Employee Portion	***Reverse Pick-Up***	***Total***	***Employee Portion***	***Reverse Pick-Up***	***Total***
Current	6.25%	0.00%	6.25%	6.25%	7.24%	13.49%
1 Year	6.25%	0.00%	6.25%	6.25%	7.24%	13.49%
5 Years	6.25%	0.00%	6.25%	6.25%	7.24%	13.49%
10 Years	6.25%	0.00%	6.25%	6.25%	7.01%	13.26%
15 Years	6.25%	0.00%	6.25%	6.25%	5.06%	11.31%
20 Years	6.25%	0.00%	6.25%	6.25%	5.06%	11.31%

1 Based on rates for the 2012-2013 Fiscal Year provided by the County.

The following compares the value of the monthly retirement benefit with accumulated contributions under both contribution options. The calculations assumed an expected retirement age of 62 with entry at 42 and salary at entry of $110k.

Benefit Value Comparison for New Managers[1,2]	***New Managers <u>Do Not</u> Pay Reverse Pick-Up***	***New Managers <u>Do</u> Pay Reverse Pick-Up***	***Difference***
1.62%@65 Expected Monthly Benefit at Age 62	$4,700	$4,700	
Value of Expected Monthly Benefit at Age 62	$784,000	$784,000	
Accumulated Employee Contributions **<u>without</u>** Interest for 1.62%@65 Benefit at Age 62	$194,000	$389,000	($195,000)
Accumulated Employee Contributions **<u>with</u>** interest for 1.62%@65 Benefit at Age 62	$312,000	$635,000	($323,000)

Please note that because new managers receiving the 1.62%@65 formula are required to pay 50% of normal costs under PEPRA over the employee's expected working lifetime, the employer is liable for the remaining 50% including any unfunded actuarial accrued liabilities attributable to investment losses, demographic changes and assumption/plan provision changes. If new managers were also asked to pay the reverse pick-up rate, an estimated additional $195,000 in contributions without interest ($323,000 with interest) would be paid over the course of the new manager's expected working lifetime to fund the basic 1.62%@65 retirement benefit.

The chart on the following page illustrates the estimated contribution rates to be paid by <u>existing managers</u> at an assumed **entry age of 35** (average entry age based on current statistics is 34) if the reverse pick-up is/isn't paid by new managers and the employee basic portion remains level for all future years. Note that, based on information provided by the County, the cost of the enhanced benefit is 7.24% determined as a "relative ratio". Accordingly, we've determined the employee's cost of the basic benefit as the difference between the total employee rate and the 7.24% enhanced benefit cost. Based on an entry age of 35, the total employee rate for the 2.70%@55 benefit as provided by the County is 16.58%. This results in an employee basic cost of 9.34% as illustrated on the following page.

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1 Calculations based on actuarial assumptions in December 31, 2011 valuation report including a 7.75% investment return, 3.00% annual COLA, RP-2000 Combined Healthy Mortality Table setback 3-years, 5.00% interest crediting rate (compounded semi-annually). Mortality is not incorporated in the calculation of the accumulated employee contributions.

2 Assumes that the applicable member contribution rate was in effect for all employment years.

Existing Manager Contribution Rates

2.70%@55 Formula for Existing Managers[1]	***New Managers Do Not Pay Reverse Pick-Up***			***New Managers Do Pay Reverse Pick-Up***		
	Basic Cost	***Reverse Pick-Up***	***Total***	***Basic Cost***	***Reverse Pick-Up***	***Total***
Current	9.34%	7.24%	16.58%	9.34%	7.24%	16.58%
1 Year	9.34%	7.52%	16.86%	9.34%	7.24%	16.58%
5 Years	9.34%	8.84%	18.18%	9.34%	7.24%	16.58%
10 Years	9.34%	11.24%	20.58%	9.34%	7.01%	16.35%
15 Years	9.34%	10.96%	20.30%	9.34%	5.06%	14.40%
20 Years	9.34%	16.41%	25.75%	9.34%	5.06%	14.40%

The following compares the value of the monthly retirement benefit with accumulated contributions under both contribution options. The calculations assumed an expected retirement age of 55 with entry at 34 and salary at entry of $61k.

Benefit Value Comparison for Existing Managers[2,3]	***New Managers Do Not Pay Reverse Pick-Up***	***New Managers Do Pay Reverse Pick-Up***	***Difference***
2.70%@55 Expected Monthly Benefit at Age 55	$6,500	$6,500	
Value of Expected Monthly Benefit at Age 55	$1.24 million	$1.24 million	
Accumulated Employee Contributions **without** Interest for 2.70%@55 Benefit at Age 55	$380,000	$286,000	$94,000
Accumulated Employee Contributions **with** interest for 2.70%@55 Benefit at Age 55	$602,000	$477,000	$125,000

1 Based on rates for the 2012-2013 Fiscal Year provided by the County.

2 Calculations based on actuarial assumptions in December 31, 2011 valuation report including a 7.75% investment return, 3.00% annual COLA, RP-2000 Combined Healthy Mortality Table setback 3-years, 5.00% interest crediting rate (compounded semi-annually). Mortality is not incorporated in the calculation of the accumulated employee contributions.

3 Assumes that the applicable member contribution rate was in effect for all employment years.

If the OCMA decides not to spread the reverse pick-up contributions to new managers, it is estimated that current employees would ultimately contribute 25.75% of salary towards the 2.70%@55 enhanced benefit formula in 20+ years. Note that this assumes all actuarial assumptions are realized. Should assumptions such as turnover increase due to a run-on-the bank or other scenarios, the figures shown would significantly increase. As an example, if participants were to exit the population at rates 10% higher than actuarial expectations and new members do not pay the reverse pick-up rate, the total manager contribution rate would increase from an estimated level of 25.75% in 20+ years to 147% of salary in 20+ years. It is unlikely that rates of turnover at this level would occur but it's indicative of the sensitivity of the figures to changes in actuarial expectations.

2% vs. 3% COLA

Currently, cost-of-living adjustments are limited to 3% per year and are subject to Consumer Price Index yearly inflationary adjustments. Our understanding is that the County is reviewing the impact of reducing the maximum annual COLA adjustment to 2%. A change in the annual COLA limitation would have a proportionate effect on member contribution rates for both existing managers and new managers. We estimate that a reduction in the annual COLA adjustment to 2% would drop the member rate for existing managers by approximately 1% and would drop the rate for new managers by approximately 0.5%.

In terms of impacting the break-even point for current managers and new managers, a reduction in the annual COLA to 2% would reduce the break-even point for all managers from **17.25%** to **14.75%** and would reduce the break-even point for new managers from **17.00%** to **14.50%**. This reduction would be directly due to the smaller annual increase in monthly benefits following retirement. We can provide further details if you'd like additional information.

If you have any questions regarding the information provided or would like to discuss the information provided further, please let us know.

APPENDIX

ORANGE COUNTY MANAGER'S ASSOCIATION

STATEMENT OF ACTUARIAL OPINION

The analysis presented in this memorandum is based on the information included in the actuarial valuation reports for the Orange County Employees' Retirement System for the 2011 and 2012 Plan Years as well as supporting documents provided by the County and the Orange County Manager's Association. All methods and assumptions are the same as used in the December 31, 2011 actuarial valuation, except where noted otherwise. All data used was as provided by the Orange County Manager's Association.

Future actuarial measurements may differ significantly from the current measurements presented in this memorandum due to factors such as 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 and changes in plan provisions or applicable law. Due to the limited scope of our assignment, we did not perform an analysis of the potential range of future measurements.

Actuarial computations presented in this letter are for purposes of evaluating benefits provided to employees of the Orange County Manager's Association as part of the Orange County Employees' Retirement System. The calculations in this letter have been made on a basis consistent with our understanding of OCERS plan provisions, actuarial assumptions and the associated funding requirements. Determinations for purposes other than meeting these requirements may be significantly different from the results contained in this letter. Accordingly, additional determinations may be needed for other purposes. Rael & Letson's work is prepared solely for the internal business uses of the Orange County Manager's Association. Rael & Letson's advice is not intended to be a substitute for qualified legal or accounting counsel. Note that we have not explored any legal issues with respect to the proposed funding policy options.

On the basis of the foregoing, I hereby certify that, to the best of my knowledge and belief, this plan analysis memorandum is complete and accurate and has been prepared in accordance with generally recognized and accepted actuarial principles and practices. I am an actuary for Rael & Letson, a member of the American Academy of Actuaries and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.

Certified by: ______________________________ E.A., F.C.A., M.A.A.A.
Jonathan Hassen
Enrolled Actuary No. 11-07913

RAEL & LETSON
CONSULTANTS AND ACTUARIES