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1 MARC A. LEVINSON (STATE BAR NO. 57613)
 malevinson@orrick.com
 2 NORMAN C. HILE (STATE BAR NO. 57299)
 nhile@orrick.com
 3 PATRICK B. BOCASH (STATE BAR NO. 262763)
 pbocash@orrick.com
 4 ORRICK, HERRINGTON & SUTCLIFFE LLP
 400 Capitol Mall, Suite 3000
 5 Sacramento, California 95814-4497
 Telephone: +1-916-447-9200
 6 Facsimile: +1-916-329-4900

7 JEFFERY D. HERMANN (STATE BAR NO. 90445)
 jhermann@orrick.com
 8 JOHN A. FARMER (STATE BAR NO. 242775)
 jfarmer@orrick.com
 9 ORRICK, HERRINGTON & SUTCLIFFE LLP
 777 South Figueroa Street, Suite 3200
 10 Los Angeles, California 90017-5855
 Telephone: +1-213-629-2020
 11 Facsimile: +1-213-612-2499

12 Attorneys for Debtor and Defendant
 City of Stockton, California
 13

14 UNITED STATES BANKRUPTCY COURT
 15 EASTERN DISTRICT OF CALIFORNIA
 16 SACRAMENTO DIVISION
 17

18 In re:
 19 CITY OF STOCKTON, CALIFORNIA,
 20 Debtor.

Case No. 12-32118
 Chapter 9
 Adv. No. 2013-02315

21 WELLS FARGO BANK, NATIONAL
 22 ASSOCIATION, FRANKLIN HIGH
 23 YIELD TAX-FREE INCOME FUND,
 24 AND FRANKLIN CALIFORNIA
 HIGH YIELD MUNICIPAL FUND,

Plaintiffs,

v.

26 CITY OF STOCKTON, CALIFORNIA,
 27 Defendant.
 28

**SUBMISSION BY THE CITY OF
 STOCKTON OF REBUTTAL EXPERT
 REPORT OF KIM NICHOLL**

Exhibit A

**Rebuttal Report of Kim Nicholl, FSA, MAAA, EA
April 4, 2014**

1. Introduction

I have been retained by Orrick, Herrington & Sutcliffe LLP as an expert in pension plan financing in connection with the plan of adjustment filed in the City of Stockton's chapter 9 case. This Rebuttal Report is submitted in response to the March 26, 2014 Expert Report of Charles M. Moore (the "Report" prepared by "Moore").

I am a Senior Vice President and Public Sector Retirement Practice Leader for Segal Consulting. I have performed actuarial work for over 30 years and have consulted to numerous public sector clients. My expertise is in public sector retirement plan financing.

Attached collectively as Exhibit 1 are my Curriculum Vitae, statement of compensation, listing of other cases in which I have testified as an expert or fact witness at trial or by deposition during the past four years, and a listing of publications I have authored in the previous 10 years. The analysis performed in connection with this engagement has been performed by me or under my supervision by employees of Segal Consulting. Attached as Exhibit 2 are the documents I reviewed to prepare this Rebuttal Report.

2. Qualifications and Professional Experience

I have extensive training in actuarial science and in providing actuarial consulting services for large governmental retirement systems. I am a Fellow of the Society of Actuaries, an Enrolled Actuary under ERISA, and a Member of the American Academy of Actuaries. I have been employed by Segal Consulting since May 2010. Prior to joining Segal Consulting in 2010, I was employed by PricewaterhouseCoopers for three years as leader of its Public Sector Retirement Consulting practice. Prior to joining PricewaterhouseCoopers, I was the Public Sector Retirement Practice Leader at Buck Consultants, where I worked from 1993 to 2007. I began my career at the Wyatt Company (now known as Towers Watson), where I was a Consulting Actuary.

I have served as lead actuary and as consultant to municipal and state public pension systems throughout the country, including local governments that participate in large public pension systems. In the course of such engagements, I have performed actuarial valuations, actuarial audits, cost analyses and projections for a number of public agencies and pension systems including:

- Alaska Retirement Management Board
- Arizona State Universities
- Employees' Retirement System of Baltimore County
- California State Teachers' Retirement System (CalSTRS)
- Chicago Housing Authority Pension Fund
- Chicago Teachers' Pension Fund
- Teachers Retirement System of the State of Illinois
- Illinois Municipal Retirement Fund
- Illinois State Universities Retirement Systems
- Indiana Public Employees' Retirement Fund
- City of Kansas City, Missouri
- Michigan Public School Employees' Retirement System
- City of Milwaukee Employees' Retirement System
- Milwaukee County
- Milwaukee County Employees' Retirement System
- Missouri Public School and Education Employee Retirement Systems
- Public Employees' Retirement System of Nevada
- New Jersey Education Association
- North Dakota Teachers' Fund for Retirement
- Ohio Police & Fire Pension Fund
- The State Teachers Retirement System of Ohio
- Pennsylvania Public School Employees' Retirement System
- City of Phoenix
- Regional Transportation Authority of Chicago
- City of St. Louis
- City of St. Louis Firefighters' Retirement Plan
- City of Stockton
- City of Scottsdale
- City of Tempe
- Tennessee Consolidated Retirement System
- Texas Employees Retirement System
- Texas County & District Retirement System
- Wisconsin Retirement System

I am currently an actuary to the Retiree Committee in the City of Detroit's chapter 9 case.

3. Conclusion

This Rebuttal Report addresses several issues in the Report. My analysis focuses on three main points:

- Based on his analysis, Moore does not appear to understand how contributions to pension plans are determined. This makes all his analysis and conclusions suspect.
- Moore's comparison of the Segal projections of contributions to the California Public Employees' Retirement System ("CalPERS") projections of contributions does not disclose or discuss the difference in assumptions between the two sets of projections. When those differences are recognized, Segal's projections are validated.
- While Moore opines that Stockton's pension contributions are unsustainably high, the Report does not discuss the ramifications of Stockton defaulting on its CalPERS contract and offers no suggestions of how to enable Stockton to provide pension benefits to current employees other than through CalPERS.

4. Principles Involved for Financing Public Sector Pension Systems

The City of Stockton participates in CalPERS. CalPERS actuaries annually determine the contributions that the City is required to pay to the Miscellaneous Plan and the Safety Plan. These contributions are based upon actuarial valuations, using actuarial assumptions and funding methods. A key objective for funding state wide employee pension systems like CalPERS is to strive for pre-funded benefits. This means that the contributions are made during the working career of the employee with the objective that at the time the employee retires, those contributions, and the investment returns on them, are sufficient to provide the employee's pension benefit.

The City's contributions vary from year to year depending on the investment returns and actuarial calculations that determine the amount of assets necessary to pay current and future benefits. Employer contributions each year are an estimate of the amount needed based upon the estimated liabilities and assets as of the valuation date. The employer contributions are determined on an annual basis through the actuarial valuation.

Purpose of an Actuarial Valuation in Setting Employer Contributions

An actuarial valuation measures plan assets and liabilities to determine the funding progress, and to determine the employer contribution needed to meet the funding progress goal. The valuation determines the annual amount of employer contributions that will be necessary to pay for the costs of current benefits (normal cost) as well as the amount that will be contributed to amortize the unfunded actuarial accrued liability. The unfunded actuarial accrued liability is the excess of the present value of benefits attributable to past service (the actuarial accrued liability) over the value of assets.

Actuarial Methods and Funding Policies

Over time, contributions plus investment earnings must equal benefits plus expenses. Employer and employee contributions flow into a trust fund whose purpose is the payment of benefits. These contributions earn investment returns while benefits and expenses are paid out of the fund.

The actuarial assumptions and funding policies adopted by the pension plan determine how and when contributions will be paid. Changes in those assumptions or policies can increase or decrease the contribution requirements. It is important to note that the ultimate cost of the pension plan will depend solely on its actual experience, regardless of what is assumed to happen.

The actuarial funding method is a technique that allocates the cost of funding the total present value of the members' future benefits into the past, the current year, and future years. The present value of future benefits (PVB) is the total cost of benefits accrued throughout an employee's career as of the valuation date. The PVB is divided into two parts: costs that are allocated to past years and the present value of costs of benefits allocated to future years.

If the system has assets equal to the PVB, and all assumptions come true, then no future contributions would be needed to provide future benefits for current active and retired members - even including future service and salary increases for active members. The actuarial methods and funding policies determine how much of the PVB should be

contributed to the current year and future years so that, together with the assets, the entire PVB will be funded.

The normal cost is the portion of the active members' PVB that is allocated to each year of service, both past and future. If the normal cost is paid for each year of service, all actuarial assumptions are met, and there are no benefit changes, the employees' pension benefit will be fully funded at the time of retirement.

The actuarial cost method used by CalPERS is the "entry age normal" cost method, which spreads the normal cost evenly across the employees' working years. Under this method, the normal cost is determined for each employee by assigning an equal portion of the PVB during each year of service, so that the normal cost is a level dollar amount or a level percentage of the employee's salary from year to year.

The accrued liability is the value today of all past normal costs. Retired employees are no longer accruing additional service, so their accrued liability is the entire value of the benefit.

Actuaries usually determine a market-related or actuarial value of assets in order to determine the contribution requirements. The actuarial value of assets is a smoothed value, which spreads investment gains or losses over a period of time. The objective of using an actuarial value of assets is to produce a less volatile pattern of contributions than would result from using the market value. In connection with an overall change to the CalPERS contribution calculation approach, beginning with the June 30, 2013, valuations that set the 2015-16 contribution rates, CalPERS will no longer use an actuarial value of assets. Instead, the market value of assets will be used to determine the unfunded actuarial accrued liability and resulting contribution rates. Prior to this change, the actuarial asset valuation method spread investment returns over a 15-year period.

The difference between the accrued liability and the actuarial value of assets is called the unfunded actuarial accrued liability. If the actuarial accrued liability is greater than the assets, then the employer contribution is equal to the normal cost plus a charge to fund, or amortize, the shortfall. When a pension plan has a surplus, the employer contribution is equal to the normal cost minus a credit to amortize the excess.

A pension plan's amortization policy determines how to either fund the unfunded accrued liability or take credit of a surplus if one exists. Amortization policies vary in terms of length and in terms of whether there is one amortization period for the entire unfunded accrued liability, or separate amortization periods for different parts of the unfunded accrued liability. CalPERS is modifying its amortization policy effective with the June 30, 2013, actuarial valuations that set the 2015-16 contribution rates. CalPERS will employ an amortization and smoothing policy that will pay for all gains and losses over a fixed 30-year period with the increases or decreases in the rate spread directly over a five-year period. Prior to this change, CalPERS amortized experience gains and losses over a rolling 30-year period.

The changes that CalPERS is making to its actuarial value of assets method and amortization policy accelerate the contributions that the City will make to CalPERS. Changing from a rolling 30-year amortization policy to a fixed 30-year amortization policy means that, if actual experience is as expected, the unfunded actuarial accrued liability will be fully amortized in 30 years. This means that the contributions will be equal to the normal cost rate, which Segal has projected to be 7.07% for the Safety Plan and 7.06% for the Miscellaneous Plan (Exhibit 3). Moore fails to acknowledge how Segal has properly projected the City's contributions to CalPERS given these changes.

Actuarial Assumptions

Demographic assumptions determine when and for how long members are expected to receive various types of benefits. Demographic assumptions are primarily rates or probabilities of decrement — what percentage of members at each age will die, retire, become disabled, or withdraw/terminate.

Economic assumptions predict how the assets and benefits will grow over time. The key economic assumptions are investment return, salary increases, and inflation. Because the three are related — inflation affects both the investment return and salary increases — the assumptions should be consistent. The investment return assumption is composed of inflation, the real rate of return, and expenses. If the investment return assumption is lowered, contributions will increase.

The assumptions are selected so that they fall within a range of reasonableness. There is no one correct set of assumptions for any valuation. As a result, the liabilities and contributions that result from valuations also fall within a range of reasonableness. Actuarial valuations provide estimates of liabilities.

Actuarial science is not a precise science, but rather provides the basis for determining liabilities and contributions that are reasonable. Actuaries estimate the long term liabilities of the system and determine the amount of employer contribution that should be funded.

The actual experience of a pension plan will almost never match the actuarial assumptions and, as a result, the pension plan's funding methodology will recognize the difference between actual experience and expected experience. If the actual experience is better than expected, the contributions that must be made to the pension plan will be lower and if actual experience is worse than expected, the contributions that must be made to the pension plan will be greater.

Changes in Contribution Rates from Year to Year

Moore states that CalPERS estimated contribution rates have tended to increase year over year. He compares the estimated contribution determined in CalPERS 2010, 2011 and 2012 valuations and notes that the estimated contributions have increased with each valuation. However, he fails to note the reasons for the contribution increases. For example, he ignores that CalPERS had a net experience loss for the year ended June 30, 2012, which increased the Safety Plan's contribution by 2.151%. Actual asset and demographic experience will generate actuarial gains and losses each year, which will affect the contributions. In addition, the CalPERS amortization and smoothing policies will change effective with the June 30, 2013, valuations. The City's projected contributions to CalPERS that are shown in the 2012 actuarial valuations reflect the change in amortization and smoothing policies and that is one of the major reasons for the increase in estimated contributions year over year. The Segal projections consider all these factors.

5. Moore's Comparison of Segal's Contribution Projections to CalPERS Contribution Projections

Moore compares the CalPERS and City projections of future contribution rates in Exhibit 8 of the Report. He states that the City appears to have attempted to factor anticipated increases into its Long Range Financial Plan, noting that the City's projected contribution rates are greater than the CalPERS projected contribution rates until 2019-20. Moore implies that the City's upward adjustments are arbitrary and that they were made because the projected rates typically are higher than the rates included in the CalPERS actuarial reports. The City's projected contribution rates (attached as Exhibit 3) are based on an analysis prepared by Segal. The Segal analysis, which was prepared prior to the issuance of the CalPERS June 30, 2012, actuarial valuation report, uses different assumptions than the CalPERS projections. These differences are as follows:

- A decrease in the discount rate from 7.5% to 7.25%. – At the time that Segal prepared its projections, CalPERS had an asset allocation study scheduled to be prepared that CalPERS indicated could influence future discount rates. The City used a more conservative discount rate, even though to date CalPERS has not modified its discount rate assumption.
- Fully generational mortality tables – the City used a more conservative assumption in anticipation of a CalPERS experience study that was scheduled for the fall of 2013. In February 2014, CalPERS adopted new demographic assumptions, including an update to the mortality table. These will be reflected in the upcoming June 30, 2013, actuarial valuation.
- 12.5% return on market value of assets for the year ending June 30, 2013, compared to the actuarial assumption of 7.5% (and an actual outcome of 13.2%).
- Adjustments to active demographics to reflect lower known headcount/payroll subsequent to the June 30, 2011, valuation date. A secondary effect is that contributions as a percentage of payroll are relatively higher.
- New hires replacing existing terminating/retiring members and being covered under the Tier 2/PEPRA formula – the impact of PEPRA was included in Segal's projections and the resulting City budget. PEPRA will first be reflected in the June 30, 2013 CalPERS actuarial reports. Since the benefits provided under PEPRA are lower, the

pension contribution rates will be lower over time as new hires replace existing active members.

- Members added via the Marshall Plan – the City’s projections account for the addition of 120 officers to the Safety Plan and 5 administrative personnel to the Miscellaneous Plan. Subsequently, a broader-scale Marshall Plan was implemented that will ultimately fund 43 administrative and support positions.

Once these differences are taken into account, the net effect is higher projected contribution rates than those shown in the CalPERS 2012 valuation report, which is reflected in the Segal projections.

Moore goes on to opine that the City is unable to accurately predict the CalPERS Safety Plan contribution rate. This statement is misleading, at best. It wrongly assumes that *any* City could perfectly project what its contribution rate will be years into the future. By their nature, estimated contributions will change each year as actual experience differs from expected. Numerous factors outside the City’s control affect annual changes in the contribution rate, including investment performance, active retirement and turnover experience, and mortality experience of retirees. On top of those factors, CalPERS itself may affect the contribution rates by changing its economic assumptions, demographic assumptions, or unfunded liability amortization methods.

Nevertheless, despite these uncertainties, the City’s projections are reasonable. The City based its estimate on projections that include expected updates to CalPERS actuarial assumptions and headcounts. By reflecting the items previously outlined, the City’s projected contributions take into consideration best estimates of future experience in the derivation of the normal cost and amortization contribution, rather than allowing adverse future experience to simply be recognized after the fact. The City’s projections are a very reasonable and prudent estimate of future contributions based on information known as of the date the projections were made.

To me, the fact that Moore seems to believe that the City (or any other entity) should be able to predict contribution rates with 100% accuracy demonstrates that he does not understand how contributions for public sector pension plans are determined.

The estimated contributions for all CalPERS employers have increased due to the changes that CalPERS has made to its actuarial asset method and amortization policy. What Moore fails to acknowledge is that Stockton has reduced the impact of the estimated contribution increases covering new employees by adjusting future normal cost rates to account for the lower value, Tier 2/PEPRA arrangement these members will be covered under. The City has required safety employees to contribute 9% of payroll and miscellaneous employees to contribute 7% of payroll. Along with reduced compensation, such actions have resulted in lower pension costs for the City. In addition, Stockton eliminated its retiree health care obligation, further reducing costs for retirement benefits.

Moore also compares the Stockton contribution rates to certain peer cities and opines that the Stockton contribution rates are higher than those of these peer cities. But Moore fails to recognize that the benefits provided by what he deems peer cities may be different than those provided by Stockton. CalPERS offers a defined benefit plan, which provides benefits that are calculated using a defined formula, rather than contributions and earnings to a savings plan. Retirement benefits are calculated using a member's years of service credit, age at retirement, and final compensation (average salary for a defined period of employment). There are a variety of retirement formulas that are determined by the member's employer (State, school, or local public agency); occupation (miscellaneous (general office and others), safety, industrial, or peace officer/firefighter); and the specific provisions in the contract between CalPERS and the employer.

In addition to differences in benefit provisions, Stockton employees are not covered by Social Security, while other cities' employees might be. All of these differences should be part of any comparative analysis. Because Moore's comparison of the Stockton contribution rates to those of its peer cities does not account for these factors, it is very likely an "apples to oranges" comparison.

6. Moore's Report Offers No Suggestions to Address the Level of Stockton's Pension Contributions

While Moore opines that Stockton's pension contributions will be unsustainably high, the Report neither backs that assertion with data nor offers any suggestions on how to remedy

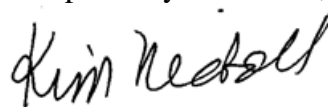
the situation while still enabling Stockton to provide pension benefits to current employees. Moreover, the Report simply ignores that if Stockton were to choose to terminate its relationship with CalPERS, or were to stop paying its contribution, CalPERS would assess a massive termination liability. The hypothetical termination liability, assuming the termination occurred as of June 30, 2012, is shown in the June 30, 2012, actuarial valuation reports. The total estimated termination liability for the Miscellaneous and Safety Plans combined would be in excess of \$1.6 billion – \$575,931,065 for the Miscellaneous Plan and \$1,042,390,452 for the Safety Plan.

The assets and liabilities for each agency covered by CalPERS are segregated. CalPERS therefore cannot use assets from another agency to pay the Stockton benefits. As a result, if Stockton does not pay the termination liability, then the benefits for its active employees and retired members would be reduced pro rata based upon the amount of the termination liability that is not paid. In this case, Stockton's members would have severely reduced pension benefits and active employees would receive no future accruals. New employees would not be covered under any pension plan. Under this scenario, Stockton would have difficulty retaining its existing employees and hiring new employees, as other cities in California cover their employees under pension plans.

Summary

Moore has not demonstrated an understanding of how contributions to pension plans are determined. The Report's comparison of the Segal projections of contributions to the CalPERS projections of contributions does not disclose the difference in assumptions between the two sets of projections. While Moore opines that Stockton's pension contributions are unsustainably high, his Report offers no suggestions of how to remedy the situation while enabling Stockton to provide pension benefits to current employees.

Respectfully Submitted,



Kim Nicholl

Exhibit 1 – Curriculum Vitae

KIM NICHOLL, FSA, FCA, MAAA, EA

*Senior Vice President, Consulting Actuary,
National Public Sector Retirement Practice Leader, Chicago*

Expertise

Ms. Nicholl is a Senior Vice President and Consulting Actuary in Segal's Chicago office and is also the firm's National Public Sector Retirement Practice Leader. She has over 25 years of experience supporting the design and financing of retirement and other employee benefit programs for the public sector.

Ms. Nicholl has consulted on the design and interpretation of plan provisions for defined benefit and defined contribution retirement plans, and on their relationship to ERISA, IRS regulations and new legislation. Her experience includes all aspects of employee benefit programs.

Ms. Nicholl's specialized expertise includes:

- Supervising, reviewing, and certifying actuarial valuations and studies for defined benefit retirement plans and postretirement health care plans.
- Analyzing benefits provided from defined benefit, defined contribution and postretirement health care plans for purposes of restating retirement income policies, with recommendations based on client goals.
- Performing plan design analyses for public pension and postretirement health care plans.
- Performing experience analysis studies resulting in changes to actuarial assumptions used in the actuarial valuations of defined benefit retirement plans.
- Performing asset/liability modeling studies for large retirement plans.

Professional Background

Prior to joining Segal in May 2010, Ms. Nicholl served as National Leader of Public Sector Retirement Consulting at PricewaterhouseCoopers from June 2007 to May 2010. From April 1993 to June 2007, Ms. Nicholl served as Consulting Actuary and National Public Sector Retirement Leader at Buck Consultant. Prior to Buck, Ms. Nicholl was a Consulting Actuary at the Wyatt Company (now Towers Watson).

Education/Professional Designations

Ms. Nicholl graduated *magna cum laude* from Loyola University with a BS degree in Mathematics. She is a Fellow of the Society of Actuaries, a Fellow of the Conference of Consulting Actuaries, a Member of the American Academy of Actuaries and an Enrolled Actuary under ERISA.

Cases Worked on – Expert & Fact Witness Deposition & Trial Testimony

- Thomas A. Paulsen, et al v. Towers, Perrin, Forster & Crosby Case No. C 03-3960 (JW) (2010 – 2011- Representing defendant in a malpractice case)
- The Firemen’s Retirement System of St. Louis, et al v. The City of St. Louis, Circuit Court of the City of St. Louis (2012 – 2013 - Representing the City of St. Louis in a pension system dispute with the Retirement System)
- Engaged with Susman Godfrey in Milwaukee County Employees' Retirement System vs. Mercer (United States District Court Eastern District of Wisconsin) (2007 – 2009 - Representing Milwaukee County on an actuarial malpractice case)
- Engaged with Reinhart Boerner in Milliman vs. Maryland Retirement Systems (Maryland State Board of Contract Appeals) (2008 – 2009 - Representing the Milliman defendant in a malpractice case)
- Engaged with Foley & Lardner and Jones Day in Former Participants v. S. C. Johnson in ERISA cash balance whipsaw litigation (United States District Court for the Western District of Wisconsin) (Representing S.C. Johnson)

Published Work/Speeches

Ms. Nicholl speaks and presents frequently at professional organizations, including the National Council on Teacher Retirement, the National Association of State Retirement Administrators the National Conference on Public Employee Retirement Systems, the International Foundation of Employee Benefits and the Conference of Consulting Actuaries. Additionally, she has provided educational sessions for the Boards and Staff of public pension retirement systems. Ms. Nicholl has testified before state legislative bodies in Illinois, Maryland, Ohio, Pennsylvania and Texas. She currently serves on the American Academy of Actuaries Public Pensions Subcommittee.

Recent presentations and publications include:

- “Public-Sector Pension Plans Major Challenges & Common-Sense Solutions” Kim Nicholl, *Government Finance Review*, April 2013
- “GASB Approves New Accounting Standards for Public Sector Pension Plans and Sponsoring Employers,” Kim Nicholl and Paul Angelo, *Pension Section News*, November 2012

- “Hybrids in the Public Sector,” *IFEBP 58th Annual Employee Benefits Conference*, November 2012
- “GASB’s Proposed Changes to Pension Accounting Standards for Public Sector Employers,” Paul Angelo, Rocky Joyner and Kim Nicholl, *Benefit Magazine (IFEPA)*, June 2012
- “Planning a Successful Pension Funding Policy,” Kim M. Nicholl, Paul Angelo, and Cathie G. Eitelberg, *Segal Public Sector Letter*, November 2011
- “Public Pension Plans,” *SOA 2011 Annual Meeting & Exhibit*, October 2011
- “Actual Cost vs. Market Price: Does Market Valuation of Pension Liabilities Fit the Public Sector?,” Paul Angelo, Kim M. Nicholl and Cathie G. Eitelberg, *Segal Public Sector Letter*, June 2011
- “Pension Plan Design and Costs,” *Pew Center on the States Public Pension Conference*, June 2011



Statement of Compensation

Segal consulting is being compensated at its usual and customary billing rates for all work performed based on actual hours incurred and for any out-of-pocket expenses. These rates range from \$225 per hour for staff working under my direction to \$550 per hour for my time. Segal Consulting's compensation is not in any way dependent upon the outcome of the case.

Exhibit 2 — Materials Reviewed by Kim Nicholl

- Expert Report of Charles M. Moore, CPA, CTP, CFF
- City’s Supplemental Memorandum of Law in Support of Confirmation of the First Amended Plan for the Adjustment of Debts of the City of Stockton, California
- CalPERS’ Response to Franklin’s Objection to the Confirmation of the City of Stockton’s First Amended Plan of Adjustment
- Memorandum of the Stockton Police Officers Association in Support of Confirmation of the City’s First Amended Plan of Adjustment
- The Stockton City Employees Association, Stockton Professional Firefighters – Local 456 and Operating Engineers Local No. 3 Statement in Support of Plan of Adjustment of the City of Stockton and in Response to the Objections of Franklin
- Actuarial Valuation as of June 30, 2012 for the Safety Plan of the City of Stockton
- Actuarial Valuation as of June 30, 2011 for the Safety Plan of the City of Stockton
- Actuarial Valuation as of June 30, 2010 for the Safety Plan of the City of Stockton
- Actuarial Valuation as of June 30, 2012 for the Miscellaneous Plan of the City of Stockton
- Actuarial Valuation as of June 30, 2011 for the Miscellaneous Plan of the City of Stockton
- Actuarial Valuation as of June 30, 2010 for the Miscellaneous Plan of the City of Stockton

Exhibit 3 – Segal Analysis

Safety Plan, Without Hardship Exemption

(\$ in million)

Reflects the following changes for the 2015/2016 fiscal year:

- * Change in smoothing method/amortization approach
- * Decrease in discount rate from 7.50% to 7.25%
- * Fully generational mortality tables
- * Preliminary market return of 12.5% for FYE 6/30/2013
- * 120 officers added by FYE 2017 via Marshall Plan

Valuation Date	06/30/2009	06/30/2010	06/30/2011	06/30/2012	06/30/2013	06/30/2014	06/30/2015	06/30/2016	06/30/2017	06/30/2018	06/30/2019	06/30/2020	06/30/2021
Contribution for Fiscal Year	2011/2012	2012/2013	2013/2014	2014/2015	2015/2016	2016/2017	2017/2018	2018/2019	2019/2020	2020/2021	2021/2022	2022/2023	2023/2024
Net Normal Cost	\$ 13.1	\$ 12.5	\$ 11.7	\$ 10.7	\$ 11.8	\$ 11.5	\$ 11.7	\$ 12.3	\$ 12.8	\$ 12.7	\$ 12.4	\$ 12.2	\$ 11.9
Unfunded Contribution	<u>5.7</u>	<u>6.7</u>	<u>7.5</u>	<u>9.6</u>	<u>15.4</u>	<u>17.3</u>	<u>19.3</u>	<u>21.4</u>	<u>23.7</u>	<u>24.4</u>	<u>25.1</u>	<u>25.9</u>	<u>26.6</u>
Net Employer Contribution	\$ 18.8	\$ 19.2	\$ 19.2	\$ 20.3	\$ 27.2	\$ 28.8	\$ 31.0	\$ 33.7	\$ 36.5	\$ 37.0	\$ 37.6	\$ 38.1	\$ 38.6
Projected Payroll	\$ 64.5	\$ 60.3	\$ 55.7	\$ 49.5	\$ 50.6	\$ 51.7	\$ 56.0	\$ 60.5	\$ 65.1	\$ 66.1	\$ 67.1	\$ 68.1	\$ 69.1
Net Normal Cost %	20.26%	20.67%	21.03%	21.68%	23.37%	22.20%	20.85%	20.26%	19.66%	19.14%	18.55%	17.97%	17.29%
Unfunded Contribution %	<u>8.84%</u>	<u>11.12%</u>	<u>13.51%</u>	<u>19.35%</u>	<u>30.38%</u>	<u>33.46%</u>	<u>34.47%</u>	<u>35.42%</u>	<u>36.37%</u>	<u>36.87%</u>	<u>37.42%</u>	<u>37.96%</u>	<u>38.54%</u>
Net Employer Contribution %	29.10%	31.79%	34.53%	41.03%	53.75%	55.66%	55.32%	55.69%	56.03%	56.01%	55.97%	55.93%	55.83%

Safety Plan, Without Hardship Exemption

(\$ in million)

Reflects the following changes for the 2015/2016 fiscal year:

- * Change in smoothing method/amortization approach
- * Decrease in discount rate from 7.50% to 7.25%
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- * 120 officers added by FYE 2017 via Marshall Plan

06/30/2022 2024/2025	06/30/2023 2025/2026	06/30/2024 2026/2027	06/30/2025 2027/2028	06/30/2026 2028/2029	06/30/2027 2029/2030	06/30/2028 2030/2031	06/30/2029 2031/2032	06/30/2030 2032/2033	06/30/2031 2033/2034	06/30/2032 2034/2035	06/30/2033 2035/2036	06/30/2034 2036/2037
\$ 11.6	\$ 11.2	\$ 10.9	\$ 10.5	\$ 10.2	\$ 9.8	\$ 9.5	\$ 9.2	\$ 8.9	\$ 8.5	\$ 8.3	\$ 8.0	\$ 7.7
<u>27.4</u>	<u>28.3</u>	<u>29.1</u>	<u>30.0</u>	<u>30.9</u>	<u>31.8</u>	<u>32.8</u>	<u>31.5</u>	<u>32.5</u>	<u>30.6</u>	<u>31.6</u>	<u>24.7</u>	<u>25.4</u>
\$ 39.1	\$ 39.5	\$ 40.0	\$ 40.5	\$ 41.0	\$ 41.6	\$ 42.3	\$ 40.7	\$ 41.3	\$ 39.2	\$ 39.8	\$ 32.7	\$ 33.1
\$ 70.1	\$ 71.2	\$ 72.4	\$ 73.7	\$ 75.0	\$ 76.6	\$ 78.2	\$ 79.9	\$ 81.8	\$ 83.6	\$ 85.7	\$ 87.9	\$ 90.2
16.58%	15.79%	15.02%	14.31%	13.54%	12.85%	12.16%	11.49%	10.87%	10.21%	9.64%	9.07%	8.53%
<u>39.12%</u>	<u>39.69%</u>	<u>40.22%</u>	<u>40.69%</u>	<u>41.16%</u>	<u>41.53%</u>	<u>41.89%</u>	<u>39.43%</u>	<u>39.70%</u>	<u>36.63%</u>	<u>36.81%</u>	<u>28.11%</u>	<u>28.21%</u>
55.70%	55.49%	55.24%	55.00%	54.70%	54.38%	54.05%	50.92%	50.57%	46.84%	46.46%	37.18%	36.74%

Safety Plan, Without Hardship Exemption

(\$ in million)

Reflects the following changes for the 2015/2016 fiscal year:

- * Change in smoothing method/amortization approach
- * Decrease in discount rate from 7.50% to 7.25%
- * Fully generational mortality tables
- * Preliminary market return of 12.5% for FYE 6/30/2013
- * 120 officers added by FYE 2017 via Marshall Plan

06/30/2035 2037/2038	06/30/2036 2038/2039	06/30/2037 2039/2040	06/30/2038 2040/2041	06/30/2039 2041/2042	06/30/2040 2042/2043	06/30/2041 2043/2044	06/30/2042 2044/2045	06/30/2043 2045/2046	06/30/2044 2046/2047	06/30/2045 2047/2048	06/30/2046 2048/2049	06/30/2047 2049/2050
\$ 7.5	\$ 7.3	\$ 7.2	\$ 7.2	\$ 7.4	\$ 7.6	\$ 7.9	\$ 8.1	\$ 8.4	\$ 8.6	\$ 8.9	\$ 9.2	\$ 9.5
<u>26.2</u>	<u>23.9</u>	<u>24.6</u>	<u>25.4</u>	<u>18.7</u>	<u>14.3</u>	<u>11.5</u>	<u>3.3</u>	-	-	-	-	-
\$ 33.7	\$ 31.2	\$ 31.9	\$ 32.6	\$ 26.1	\$ 22.0	\$ 19.3	\$ 11.4	\$ 8.4	\$ 8.6	\$ 8.9	\$ 9.2	\$ 9.5
\$ 92.7	\$ 95.4	\$ 98.3	\$ 101.4	\$ 104.6	\$ 107.9	\$ 111.3	\$ 114.8	\$ 118.4	\$ 122.1	\$ 125.9	\$ 129.9	\$ 134.0
8.05%	7.67%	7.35%	7.12%	7.07%	7.07%	7.07%	7.07%	7.07%	7.07%	7.07%	7.07%	7.07%
<u>28.27%</u>	<u>25.07%</u>	<u>25.06%</u>	<u>25.02%</u>	<u>17.89%</u>	<u>13.29%</u>	<u>10.31%</u>	<u>2.90%</u>	<u>0.00%</u>	<u>0.00%</u>	<u>0.00%</u>	<u>0.00%</u>	<u>0.00%</u>
36.32%	32.73%	32.40%	32.14%	24.95%	20.36%	17.38%	9.97%	7.07%	7.07%	7.07%	7.07%	7.07%

Safety Plan, Without Hardship Exemption

(\$ in million)

Reflects the following changes for the 2015/2016 fiscal year:

- * Change in smoothing method/amortization approach
- * Fully generational mortality tables
- * Preliminary market return of 12.5% for FYE 6/30/2013
- * 120 officers added by FYE 2017 via Marshall Plan

Valuation Date	06/30/2009	06/30/2010	06/30/2011	06/30/2012	06/30/2013	06/30/2014	06/30/2015	06/30/2016	06/30/2017	06/30/2018	06/30/2019	06/30/2020	06/30/2021
Contribution for Fiscal Year	2011/2012	2012/2013	2013/2014	2014/2015	2015/2016	2016/2017	2017/2018	2018/2019	2019/2020	2020/2021	2021/2022	2022/2023	2023/2024
Net Normal Cost	\$ 13.1	\$ 12.5	\$ 11.7	\$ 10.7	\$ 10.9	\$ 10.5	\$ 10.7	\$ 11.2	\$ 11.7	\$ 11.6	\$ 11.4	\$ 11.2	\$ 10.9
Unfunded Contribution	<u>5.7</u>	<u>6.7</u>	<u>7.5</u>	<u>9.6</u>	<u>13.3</u>	<u>15.2</u>	<u>17.2</u>	<u>19.3</u>	<u>21.6</u>	<u>22.2</u>	<u>22.9</u>	<u>23.6</u>	<u>24.3</u>
Net Employer Contribution	\$ 18.8	\$ 19.2	\$ 19.2	\$ 20.3	\$ 24.2	\$ 25.7	\$ 27.9	\$ 30.6	\$ 33.3	\$ 33.8	\$ 34.3	\$ 34.8	\$ 35.2
Projected Payroll	\$ 64.5	\$ 60.3	\$ 55.7	\$ 49.5	\$ 50.6	\$ 51.7	\$ 56.0	\$ 60.5	\$ 65.1	\$ 66.1	\$ 67.1	\$ 68.1	\$ 69.1
Net Normal Cost %	20.26%	20.67%	21.03%	21.68%	21.47%	20.33%	19.07%	18.56%	18.04%	17.54%	16.99%	16.45%	15.80%
Unfunded Contribution %	<u>8.84%</u>	<u>11.12%</u>	<u>13.51%</u>	<u>19.35%</u>	<u>26.34%</u>	<u>29.48%</u>	<u>30.76%</u>	<u>31.97%</u>	<u>33.13%</u>	<u>33.59%</u>	<u>34.09%</u>	<u>34.58%</u>	<u>35.11%</u>
Net Employer Contribution %	29.10%	31.79%	34.53%	41.03%	47.81%	49.81%	49.83%	50.53%	51.17%	51.13%	51.08%	51.02%	50.91%

Safety Plan, Without Hardship Exemption

(\$ in million)

Reflects the following changes for the 2015/2016 fiscal year:

- * Change in smoothing method/amortization approach
- * Fully generational mortality tables
- * Preliminary market return of 12.5% for FYE 6/30/2013
- * 120 officers added by FYE 2017 via Marshall Plan

06/30/2022 2024/2025	06/30/2023 2025/2026	06/30/2024 2026/2027	06/30/2025 2027/2028	06/30/2026 2028/2029	06/30/2027 2029/2030	06/30/2028 2030/2031	06/30/2029 2031/2032	06/30/2030 2032/2033	06/30/2031 2033/2034	06/30/2032 2034/2035	06/30/2033 2035/2036	06/30/2034 2036/2037
\$ 10.6	\$ 10.2	\$ 9.9	\$ 9.6	\$ 9.2	\$ 8.9	\$ 8.6	\$ 8.3	\$ 8.0	\$ 7.6	\$ 7.4	\$ 7.1	\$ 6.8
<u>25.0</u>	<u>25.7</u>	<u>26.5</u>	<u>27.3</u>	<u>28.1</u>	<u>29.0</u>	<u>29.8</u>	<u>28.5</u>	<u>29.3</u>	<u>27.4</u>	<u>28.2</u>	<u>25.4</u>	<u>26.1</u>
\$ 35.6	\$ 36.0	\$ 36.4	\$ 36.9	\$ 37.3	\$ 37.9	\$ 38.4	\$ 36.7	\$ 37.3	\$ 35.0	\$ 35.5	\$ 32.5	\$ 32.9
\$ 70.1	\$ 71.2	\$ 72.4	\$ 73.7	\$ 75.0	\$ 76.6	\$ 78.2	\$ 79.9	\$ 81.8	\$ 83.6	\$ 85.7	\$ 87.9	\$ 90.2
15.14%	14.39%	13.66%	12.99%	12.27%	11.61%	10.96%	10.33%	9.75%	9.13%	8.59%	8.05%	7.54%
<u>35.64%</u>	<u>36.16%</u>	<u>36.64%</u>	<u>37.07%</u>	<u>37.49%</u>	<u>37.83%</u>	<u>38.16%</u>	<u>35.63%</u>	<u>35.87%</u>	<u>32.71%</u>	<u>32.87%</u>	<u>28.89%</u>	<u>28.99%</u>
50.78%	50.55%	50.30%	50.06%	49.76%	49.45%	49.13%	45.96%	45.62%	41.84%	41.46%	36.94%	36.54%

Safety Plan, Without Hardship Exemption

(\$ in million)

Reflects the following changes for the 2015/2016 fiscal year:

- * Change in smoothing method/amortization approach
- * Fully generational mortality tables
- * Preliminary market return of 12.5% for FYE 6/30/2013
- * 120 officers added by FYE 2017 via Marshall Plan

06/30/2035 2037/2038	06/30/2036 2038/2039	06/30/2037 2039/2040	06/30/2038 2040/2041	06/30/2039 2041/2042	06/30/2040 2042/2043	06/30/2041 2043/2044	06/30/2042 2044/2045	06/30/2043 2045/2046	06/30/2044 2046/2047	06/30/2045 2047/2048	06/30/2046 2048/2049	06/30/2047 2049/2050
\$ 6.6	\$ 6.4	\$ 6.3	\$ 6.3	\$ 6.5	\$ 6.7	\$ 6.9	\$ 7.1	\$ 7.3	\$ 7.5	\$ 7.8	\$ 8.0	\$ 8.3
<u>26.9</u>	<u>24.6</u>	<u>25.3</u>	<u>26.1</u>	<u>19.2</u>	<u>14.8</u>	<u>11.8</u>	<u>3.4</u>	-	-	-	-	-
\$ 33.5	\$ 31.0	\$ 31.6	\$ 32.4	\$ 25.7	\$ 21.4	\$ 18.7	\$ 10.5	\$ 7.3	\$ 7.5	\$ 7.8	\$ 8.0	\$ 8.3
\$ 92.7	\$ 95.4	\$ 98.3	\$ 101.4	\$ 104.6	\$ 107.9	\$ 111.3	\$ 114.8	\$ 118.4	\$ 122.1	\$ 125.9	\$ 129.9	\$ 134.0
7.09%	6.73%	6.43%	6.21%	6.17%	6.17%	6.17%	6.17%	6.17%	6.17%	6.17%	6.17%	6.17%
<u>29.05%</u>	<u>25.78%</u>	<u>25.77%</u>	<u>25.73%</u>	<u>18.40%</u>	<u>13.68%</u>	<u>10.61%</u>	<u>2.99%</u>	<u>0.00%</u>	<u>0.00%</u>	<u>0.00%</u>	<u>0.00%</u>	<u>0.00%</u>
36.14%	32.51%	32.19%	31.94%	24.57%	19.85%	16.78%	9.16%	6.17%	6.17%	6.17%	6.17%	6.17%