Segal Consulting

San Diego County Employees Retirement Association (SDCERA)

Governmental Accounting Standards (GAS) 74 Actuarial Valuation and Review of Health Insurance Allowance (HIA) Plan as of June 30, 2017

Segal Consulting
100 Montgomery Street Suite 500 San Francisco, CA 94104-4308
T 415.263.8200 www.segalco.com

November 9, 2017

Gregory J. Bych
Chief Financial Officer
San Diego County Employees Retirement Association
2275 Rio Bonito Way, Suite 200
San Diego, CA 92108-1685

Dear Greg:

We are pleased to submit this Governmental Accounting Standards (GAS) 74 Actuarial Valuation as of June 30, 2017. It contains various information that will need to be disclosed in order to comply with GAS 74.

This report was prepared in accordance with generally accepted actuarial principles and practices at the request of SDCERA to assist in administering the Plan. The census and financial information on which our calculations were based was prepared by SDCERA. That assistance is gratefully acknowledged.

The measurements shown in this actuarial valuation may not be applicable for other purposes. Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; and changes in plan provisions or applicable law.

The actuarial calculations were completed under the supervision of Dave Bergerson, ASA, MAAA, FCA, Enrolled Actuary and Thomas Bergman, ASA, MAAA, Enrolled Actuary. We are members of the American Academy of Actuaries and we meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion herein. To the best of our knowledge, the information supplied in the actuarial valuation is complete and accurate. Further, in our opinion, the assumptions as approved by the Board are reasonably related to the experience of and expectations for the Plan.

We look forward to reviewing this report at your next meeting and to answering any questions.

Sincerely,

Segal Consulting, a Member of The Segal Group, Inc.

By:

Paul Angelo, FSA, MAAA, FCA, EA
Senior Vice President and Actuary

Andy Yeung, ASA, MAAA, FCA, EA
Vice President and Actuary

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Purpose

This report has been prepared by Segal Consulting (Segal) to present certain disclosure information required by Governmental Accounting Standards (GAS) 74 as of June 30, 2017. This valuation is based on:

- The benefit provisions of SDCERA, as administered by the Board of Retirement;
- The characteristics of covered active members, inactive vested members, and retired members and beneficiaries as of June 30, 2017, provided by SDCERA;
- The market value of assets of the Plan as of June 30, 2017, provided by SDCERA;
- Economic assumptions regarding future salary increases and investment earnings as of June 30, 2017; and
- Other actuarial assumptions, regarding employee terminations, retirement, death, etc., as of June 30, 2017.

General Observations on GAS 74 Actuarial Valuations

The following points should be considered when reviewing this GAS 74 report:

- The Governmental Accounting Standards Board (GASB) rules only define OPEB liability and expense for financial reporting purposes, and do not apply to contribution amounts for OPEB funding purposes. Employers and plans can still develop and adopt funding policies under current practices.
- When measuring OPEB liability, GASB uses the same actuarial cost method (Entry Age) and, for benefits that are being fully funded on an actuarial basis, the same expected return on Plan assets as SDCERA uses for funding. This means that the Total OPEB Liability (TOL) measure for financial reporting shown in this report is determined on the same basis as SDCERA's HIA Actuarial Accrued Liability (AAL) measure for funding.
- The Net OPEB Liability (NOL) is equal to the difference between the TOL and the Plan's Fiduciary Net Position. The Plan's Fiduciary Net Position is equal to the market value of assets. The NOL reflects all investment gains and losses as of the measurement date.

Key Findings in Valuation Year

The following findings were the results of this actuarial valuation.

- SDCERA has a practice of requiring a biennial valuation and the last valuation prepared using that two-year cycle was as of June 30, 2016. However, in order to obtain the results to comply with the new accounting standards under GAS 74, the Association has decided to perform this out of cycle valuation as of June 30, 2017.
- The discount rate used to determine the TOL and NOL as of June 30, 2017 and 2016 is 7.25%, which is the assumed investment return on Plan assets used in the June 30, 2017 funding valuation.
- Because SDCERA is funding on an actuarial basis and the layered amortization approach would require all of the Plan's Unfunded Actuarial Accrued Liability (UAAL) be paid off over periods of 20 years or less, Plan assets, when projected in accordance with the method prescribed by GAS 74, are expected to be sufficient to make all future benefit payments for current Plan members.
- The NOL has decreased from $151.6 million as of June 30, 2016 to $142.7 million as of June 30, 2017. The primary reason for the decrease in NOL was due to contributions made towards funding the UAAL exceeding the benefit payments.

Summary of Key Valuation Results

	2017	2016
Disclosure elements for fiscal year ending June 30:		
1. Prior year Service cost[1]	$38,305	$41,775
2. Total OPEB Liability	153,345,628	159,417,107
3. Plan Fiduciary Net Position	10,612,786	7,789,709
4. Net OPEB Liability	142,732,842	151,627,398
Schedule of contributions for fiscal year ending June 30:		
5. Actuarially determined contributions	$20,408,644	$19,719,477
6. Actual contributions	20,408,644	19,719,477
7. Contribution deficiency (excess)	0	0
Demographic data for plan year ending June 30[2]:		
8. Number of retired members and beneficiaries receiving an HIA	4,564	4,742
9. Number of vested terminated members	153	172
10. Number of active members	23	25
Key assumptions as of June 30:		
11. Discount rate	7.25%	7.25%
12. Health Insurance Allowance (HIA) subsidy increase[3]	0.00%	0.00%

(1) *The service cost is based on the previous year's valuation, meaning the 2017 and 2016 values are based on the valuations as of June 30, 2016 and June 30, 2014, respectively. Prior to June 30, 2016, HIA valuations were performed every other year.*

(2) *See Exhibit 1 for description of members eligible for the HIA.*

(3) *Because almost all members' premiums exceed the HIA, the health care trend assumption has little impact on liabilities.*

Important Information about Actuarial Valuations

An actuarial valuation is a budgeting tool with respect to the financing of future projected obligations of a post retirement health plan. It is an estimated forecast – the actual long-term cost of the plan will be determined by the actual benefits and expenses paid and the actual investment experience of the plan.

In order to prepare an actuarial valuation, "Segal" relies on a number of input items. These include:

- **Plan of benefits.** Plan provisions define the rules that will be used to determine benefit payments, and those rules, or the interpretation of them, may change over time. It is important to keep Segal informed with respect to plan provisions and administrative procedures, and to review the plan description in this report (as well as the plan summary included in our funding valuation report) to confirm that Segal has correctly interpreted the plan provisions.
- **Participant data.** An actuarial valuation for a plan is based on data provided to the actuary by SDCERA. Segal does not audit such data for completeness or accuracy, other than reviewing it for obvious inconsistencies compared to prior data and other information that appears unreasonable. It is important for Segal to receive the best possible data and to be informed about any known incomplete or inaccurate data.
- **Assets.** This valuation is based on the market value of assets as of the valuation date, as provided by SDCERA.
- **Actuarial assumptions.** In preparing an actuarial valuation, Segal projects the benefits to be paid to existing plan participants for the rest of their lives and the lives of their beneficiaries. This projection requires actuarial assumptions as to the probability of death, disability, withdrawal, and retirement of each participant for each year. In addition, the benefits projected to be paid for each of those events in each future year reflect actuarial assumptions as to medical plan enrollment and spouse coverage. The projected benefits are then discounted to a present value, based on the assumed rate of return that is expected to be achieved on the plan's assets. There is a reasonable range for each assumption used in the projection and the results may vary materially based on which assumptions are selected. It is important for any user of an actuarial valuation to understand this concept. Actuarial assumptions are periodically reviewed to ensure that future valuations reflect emerging plan experience. While future changes in actuarial assumptions may have a significant impact on the reported results, that does not mean that the previous assumptions were unreasonable.

The user of Segal's actuarial valuation (or other actuarial calculations) should keep the following in mind:

- The valuation is prepared at the request of the SDCERA Board of Retirement. Segal is not responsible for the use or misuse of its report, particularly by any other party.
- An actuarial valuation is a measurement of the plan's assets and liabilities at a specific date. Accordingly, except where otherwise noted, Segal did not perform an analysis of the potential range of future financial measures. The actual long-term

cost of the plan will be determined by the actual benefits and expenses paid and the actual investment experience of the plan.

- If the Association is aware of any event or trend that was not considered in this valuation that may materially change the results of the valuation, Segal should be advised, so that we can evaluate it.
- Segal does not provide investment, legal, accounting, or tax advice. Segal's valuation is based on our understanding of applicable guidance in these areas and of the plan's provisions, but they may be subject to alternative interpretations. The Board should look to their other advisors for expertise in these areas.

As Segal has no discretionary authority with respect to the management or assets of SDCERA, it is not a fiduciary in its capacity as actuaries and consultants with respect to SDCERA.

EXHIBIT 1

General Information – "Financial Statements", Note Disclosures and Required Supplementary Information for a Cost-Sharing OPEB Plan

Plan Description

Plan administration. The San Diego County Employees Retirement Association (SDCERA) was established by the County of San Diego on July 1, 1939. SDCERA is administered by the Board of Retirement and governed by the County Employees' Retirement Law of 1937 (California Government Code Section 31450 et. seq.) SDCERA is a cost-sharing multiple employer public employee retirement system whose main function is to provide service retirement, disability, death and survivor benefits to the General and Safety members employed by the County of San Diego. SDCERA also provides retirement benefits to the employee members of the Superior Court, San Dieguito River Valley Joint Powers Authority, Local Agency Formation Commission and San Diego County Office of Education.

The management of SDCERA is vested with the San Diego County Board of Retirement. The Board consists of nine members and two alternates made up of member-elected representatives, Board of Supervisors-appointed representatives and the County Treasurer-Tax Collector who is elected by the general public and a member of the Board of Retirement by law. All members of the Board of Retirement serve terms of three years except for the County Treasurer-Tax Collector whose term runs concurrent with his term as County Treasurer.

Plan membership. At June 30, 2017, Health Insurance Allowance (HIA) plan membership consisted of the following:

Retired members or beneficiaries currently receiving benefits	4,564
Vested terminated members entitled to, but not yet receiving benefits	153
Active members	23
Total	4,740

Benefits provided. SDCERA provides HIA benefits to eligible employees after retirement. All General and Safety Tier I and Tier II members are in the membership classifications eligible for the HIA. The HIA Plan is closed to members in the other Tiers.

For non-disabled retirees, 10 years of SDCERA service credit upon retirement. Reciprocal service credit and purchased service credit from work in a prior public agency do not count toward the total service credit used to determine the level of allowance. Members who receive a retirement benefit based on a disability are eligible for an allowance regardless of years of service credit.

The HIA may be used toward retiree insurance premiums for the SDCERA-sponsored health plan(s) chosen, or toward insurance premium(s) paid to providers elected outside of SDCERA-sponsored health plans.

The allowance may not be used toward dependents' premiums, nor can it be used to cover any additional medical expenses incurred. It may not be used toward expenses for vision insurance, office visits or prescription co-payments. An allowance (or any portion of an allowance) that the retiree is unable to use, is forfeited.

Upon the retiree's death, the HIA may be transferred to the retiree's eligible spouse or registered domestic partner. The duration of coverage is lifetime for retiree plus continuance to an eligible surviving spouse or registered domestic partner for life. The level of HIA payable to the survivor is the same as that payable to the retiree.

The HIA is not a vested benefit and is not guaranteed. The allowance may be reduced or discontinued at any time.

Benefit Amount for Non-Disabled Retirees

Years of SDCERA Service Credit*	Monthly Allowance if Not Eligible for Medicare	Monthly Allowance If Eligible for Medicare
Less than 10	$0	$0
10	$200	
11	220	
12	240	
13	260	$300
14	280	In addition to the allowance, $93.50 will be reimbursed to use toward the cost of the monthly Medicare Part B premium.
15	300	
16	320	
17	340	
18	360	
19	380	
20 or more	400	

* *Members who retired on or before September 30, 1991 may be eligible for the maximum allowance.*

Members who were granted a disability retirement and determined to be totally disabled are eligible for the maximum allowance. Members with less than 10 years of service credit who were granted a disability retirement and determined to be partially disabled are eligible for the minimum HIA. (If the retiree has more than 10 years of service credit, use the chart above to determine the amount.)

EXHIBIT 2

Net OPEB Liability

The components of the Net OPEB Liability are as follows:

	June 30, 2017	June 30, 2016
Total OPEB Liability	$153,345,628	$159,417,107
Plan Fiduciary Net Position	10,612,786	7,789,709
Net OPEB Liability	$142,732,842	$151,627,398
Plan Fiduciary Net Position as a percentage of the Total OPEB Liability	6.92%	4.89%

The Net OPEB Liability (NOL) was measured as of June 30, 2017 and 2016. The Plan's Fiduciary Net Position (plan assets) was valued as of the measurement date, and the Total OPEB Liability (TOL) was determined based upon the results of the funding actuarial valuations as of June 30, 2017 and 2016, respectively.

Plan provisions. The plan provisions used in the measurement of the TOL as of June 30, 2017 and 2016 are the same as those used in the SDCERA funding valuations as of June 30, 2017 and 2016, respectively.

Actuarial assumptions. The TOL as of June 30, 2017 and June 30, 2016 was determined by an actuarial valuation as of June 30, 2017. The actuarial assumptions used in the June 30, 2017 valuation were based on the results of an experience study for the period from July 1, 2012 through June 30, 2015. They are the same as the assumptions used in the June 30, 2017 funding actuarial valuation for SDCERA HIA. In particular, the following actuarial assumptions were applied to all periods included in the measurement:

Inflation	3.00%
Salary increases	General: 4.50% to 9.75%, including inflation
Discount rate	7.25%
Other assumptions	Same as those used in the June 30, 2017 actuarial valuation
Health care trend	6.50% graded to ultimate 4.50% over 8 years
HIA subsidy increases	0.00%

The long-term expected rate of return on pension plan investments was determined using a building-block method in which expected future real rates of return (expected returns, net of inflation) are developed for each major asset class. These returns are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage, adding expected inflation and subtracting expected investment expenses and a risk margin. The target allocation and projected arithmetic real rates of return for each major asset class, after deducting inflation, but before deducting investment expenses, used in the derivation of the long-term expected investment rate of return assumption are summarized in the following table:

Asset Class	Target Allocation	Long-Term (Arithmetic) Expected Real Rate of Return
Large Cap U.S. Equity	17.685%	5.80%
Small Cap U.S. Equity	1.965%	6.47%
Developed International Equity	16.200%	6.97%
Emerging Markets Equity	9.150%	8.93%
U.S. Core Bonds	10.000%	0.84%
High Yield Bonds	5.000%	3.47%
Global Bonds	2.000%	0.49%
Bank Loan	5.000%	2.34%
Cash & Equivalents	2.000%	-0.46%
Real Estate	4.500%	4.45%
Value Added Real Estate	4.500%	7.10%
Hedge Fund (Fund to Funds)	8.000%	4.40%
Private Real Asset	6.000%	9.00%
Private Equity	8.000%	9.00%
Total	100.000%	

Discount rate: The discount rates used to measure the TOL was 7.25% as of June 30, 2017 and 2016. The projection of cash flows used to determine the discount rate assumed that employer contributions will be made at rates equal to the actuarially determined contribution rates. For this purpose, only employer contributions that are intended to fund benefits for current plan members and their beneficiaries are included. Projected employer contributions that are intended to fund the service costs (if any) for future plan members and their beneficiaries, as well as projected contributions (if any) from future plan members, are not included. Based on those assumptions, the Plan's Fiduciary Net Position was projected to be available to make all projected future benefit payments for current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the TOL as of both June 30, 2017 and 2016.

Sensitivity of the Net OPEB Liability to changes in the discount rate. The following presents the NOL of SDCERA as of June 30, 2017, calculated using the discount rate of 7.25%, as well as what SDCERA's NOL would be if it were calculated using a discount rate that is 1-percentage-point lower (6.25%) or 1-percentage-point higher (8.25%) than the current rate:

	1% Decrease (6.25%)	Current Discount (7.25%)	1% Increase (8.25%)
Net OPEB Liability as of June 30, 2017	$154,084,326	$142,732,843	$132,790,433

Sensitivity of the Net OPEB Liability to changes in the trend rate:

	1% Decrease*	Current Trend*	1% Increase*
Net OPEB Liability as of June 30, 2017	$142,299,197	$142,732,843	$143,148,976

**Because current benefits for most members are limited by the fixed dollar HIA levels, the trend assumption has little effect on the NOL.*

EXHIBIT 3

Schedules of Changes in SDCERA's Net OPEB Liability – Last Two Fiscal Years

	2017	2016
Total OPEB Liability		
Service cost(1)	$38,305	$41,775
Interest	10,922,719	11,453,690
Change of benefit terms	0	0
Changes due to experience gain and assumption changes	561,922	4,469,163
Benefit payments	-17,594,425	-18,443,230
Net change in Total OPEB Liability	-$6,071,479	-$2,478,602
Total OPEB Liability – beginning	159,417,107	161,895,709
Total OPEB Liability – ending (a)	$153,345,628	$159,417,107
Plan Fiduciary Net Position		
Employer contributions	$20,408,644	$19,719,477
Net investment income	215,137	-56,695
Benefit payments	-17,594,425	-18,443,230
Administrative expense	-840,317	0
Other – Retiree Contributions	634,038	0
Net change in Plan Fiduciary Net Position	$2,823,077	$1,219,552
Plan Fiduciary Net Position – beginning	7,789,709	6,570,157
Plan Fiduciary Net Position – ending (b)	$10,612,786	$7,789,709
Plan's Net OPEB Liability – ending (a) – (b)	$142,732,842	$151,627,398
Plan Fiduciary Net Position as a percentage of the Total OPEB Liability	6.92%	4.89%
Covered employee payroll(2)(3)	$1,181,479,673	$1,140,882,516
Plan Net OPEB Liability as percentage of covered payroll	12.08%	13.29%

(1) *The service cost is based on the previous year's valuation, meaning the 2017 and 2016 values are based on the valuations as of June 30, 2016 and June 30, 2014, respectively. Prior to June 30, 2016, HIA valuations were performed every other year.*

(2) *Covered employee payroll represents compensation earnable and pensionable compensation. Only compensation earnable and pensionable compensation that would possibly go into the determination of retirement benefits are included.*

(3) *Includes payroll for active employees who will not be eligible for a benefit from the HIA Plan.*

EXHIBIT 4

Schedule of Employer's Contributions – Last Ten Fiscal Years

Year Ended June 30	Actuarially Determined Contributions[1]	Contributions in Relation to the Actuarially Determined Contributions	Contribution Deficiency (Excess)	Covered-Employee Payroll[2][3]	Contributions as a Percentage of Covered-Employee Payroll
2008	$23,616,209	$23,616,209	$0	$1,051,372,914	2.25%
2009	23,237,000	23,237,000	0	1,102,242,435	2.11%
2010	18,789,098	18,789,098	0	1,050,985,450	1.79%
2011	18,027,576	18,027,576	0	1,036,693,162	1.74%
2012	19,198,186	19,198,186	**0**	1,047,414,147	1.83%
2013	19,024,841	19,024,841	0	1,028,420,277	1.85%
2014	20,208,132	20,208,132	0	1,072,896,037	1.88%
2015	21,110,711	21,110,711	0	1,120,001,088	1.88%
2016	19,719,477	19,719,477	0	1,140,882,516	1.73%
2017	20,408,644	20,408,644	0	1,181,479,673	1.73%

See accompanying notes to this exhibit on next page.

(1) *All "Actuarially Determined Contributions" through June 30, 2016 were determined as the "Annual Required Contribution" under GAS 43 and 45.*

(2) *Covered employee payroll represents compensation earnable and pensionable compensation. Only compensation earnable and pensionable compensation that would possibly go into the determination of retirement benefits are included.*

(3) *Includes payroll for active employees who will not be eligible for a benefit from the HIA Plan.*

Notes to Exhibit 4

Methods and assumptions used to establish "actuarially determined contribution" rates:	
Valuation date	Actuarially determined contribution rates are calculated as of June 30, one year prior to the end of the fiscal year in which contributions are reported
Actuarial cost method	Entry Age Level Percent of Pay Actuarial Cost Method
Amortization method	Separate declining 20-year bases starting June 30, 2007, amortized as level dollar amounts
Remaining amortization period	Various
Asset valuation method	Market value
Actuarial assumptions:	
June 30, 2014 valuation	
(for year ended 2017 ADC)	
Investment rate of return	7.75%, net of pension plan investment expense, including inflation
Inflation rate	3.25%
Real across-the-board salary increases	0.75%
Projected salary increases	General: 4.75% to 10.00%
HIA Subsidy Increase	0.00%
Other assumptions	Same as those used in the June 30, 2014 funding actuarial valuation.

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