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VIA E-MAIL and USPS

June 1, 2018

Mr. Steve Delaney  
Chief Executive Officer  
Orange County Employees Retirement System  
2223 Wellington Avenue  
Santa Ana, CA 92701

**Re: Orange County Employees Retirement System  
Reconciliation of the Plan's December 31, 2017 Net Pension Liability (NPL) and  
Unfunded Actuarial Accrued Liability (UAAL)**

Dear Steve:

We have been requested by the Retirement System to reconcile, for each Rate Group, the December 31, 2017 Net Pension Liability (NPL) and the Unfunded Actuarial Accrued Liability (UAAL) as shown in the December 31, 2017 Governmental Accounting Standards Board (GASB) Statement 67 addendum letter and funding valuation report, respectively. (The breakdown of the NPL as disclosed in the GASB 67 addendum letter also appears in our GASB 68 financial report.)

The reconciliation is provided in Attachment A of this letter. The difference between the NPL and the UAAL is a direct result of the different liability and asset values we used in those developments.

#### **LIABILITY**

The Total Pension Liability (TPL) shown in the GASB 67 addendum letter was measured based on the December 31, 2016 demographic data by: (i) revaluing the TPL as of December 31, 2016 (before the roll forward) using the actuarial assumptions adopted for the December 31, 2017 funding valuation, (ii) rolling forward the liability from December 31, 2016 to December 31, 2017 and (iii) assuming that the actuarial experience of the System would match with that anticipated by the demographic assumptions. On the other hand, the Actuarial Accrued Liability (AAL) shown in the funding valuation report was measured based on the December 31, 2017 demographic data.

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The differences between the TPL and the AAL were primarily due to: (a) actuarial gains/losses on the liability items as documented on pages 144 and 145 of the December 31, 2017 funding valuation report for each Rate Group and (b) differences between the rolled forward liabilities and the actual liabilities.

#### ASSETS

The Plan Fiduciary Net Position shown in the GASB 67 report as of December 31, 2017 (that we subsequently used for our GASB 67 addendum letter) was based on the plan's Market Value of Assets (MVA) including the proceeds available in the County Investment Account and remaining O.C. Sanitation District (OCSD) UAAL Deferred Account. On the other hand, the funding valuation report used the Valuation Value of Assets (VVA) after adjusting the MVA for asset smoothing and excluding the non-valuation reserve.

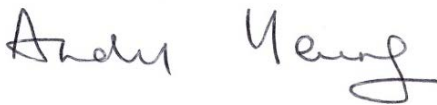
The differences between the Plan Fiduciary Net Position and the VVA were primarily due to adjustment of deferred investment gain and the non-valuation reserve.

The NPL and UAAL were calculated by taking the TPL and the AAL and subtracting the Plan Fiduciary Net Position and the VVA, respectively.

The undersigned is a member of the American Academy of Actuaries and meets the Qualification Standard of the American Academy of Actuaries to render the actuarial opinion contained herein.

Please let us know if you have any questions or comments.

Sincerely,



Andy Yeung

AW/bbf  
Enclosure

cc: Tracy Bowman  
Brenda Shott

**Attachment A**  
**All Rate Groups (Results are as of December 31, 2017)**

(A) Liability Reconciliation	Rate Group #1	Rate Group #2	Rate Group #3	Rate Group #4
(1) Total Pension Liability Included in the development of the GASB 67 Addendum Letter	\$484,749,429	\$11,008,619,691	\$663,786,781	\$47,220
(2) (Gain)/Loss from (Lower)/Higher than Expected Salary Increases*	\$2,805,000	(\$43,129,000)	\$1,667,000	\$0
(3) (Gain)/Loss from (Lower)/Higher than Expected COLA Increases*	(\$2,168,000)	(\$50,225,000)	(\$2,859,000)	\$0
(4) Other Experience (Gain)/Loss*	(\$1,137,000)	\$22,091,000	\$3,531,000	(\$2,000)
(5) Difference in Impact from Assumption Changes**	\$309,465	\$10,671,648	\$935,768	\$1,043
(6) Other (Gain)/Loss from Rolled Forward Liabilities to Actual Liabilities	<u>(\$220,894)</u>	<u>(\$72,339)</u>	<u>\$23,451</u>	<u>\$1,737</u>
(7) Actuarial Accrued Liability Included in the Funding Valuation Report (1) + (2) + (3) + (4) + (5) + (6)	\$484,338,000	\$10,947,956,000	\$667,085,000	\$48,000

\* These actuarial gain/loss items can be found on pages 144 and 145 of our draft December 31, 2017 funding valuation report.

\*\* There is a difference between applying the new assumptions in measuring the liability using the membership data as of December 31, 2017 (in the funding valuation) and the rolled forward liability using the membership data as of December 31, 2016 (in the financial reporting valuation.)

(B) Asset Reconciliation	Rate Group #1	Rate Group #2	Rate Group #3	Rate Group #4
(1) Market Value of Assets Excluding County Investment Account and OCSD UAAL Deferred Account	\$400,855,757	\$7,922,923,156	\$688,486,883	\$49,540
(2) County Investment Account and OCSD UAAL Deferred Account	<u>\$4,967,147</u>	<u>\$82,611,101</u>	<u>\$14,871,000</u>	<u>\$0</u>
(3) Plan's Fiduciary Net Position Included in the development of the GASB 67 Addendum Letter (1) + (2)	\$405,822,904	\$8,005,534,257	\$703,357,883	\$49,540
(4) Adjustment for Deferred Investment Return and Non-Valuation Reserve	<u>(\$12,460,757)</u>	<u>(\$246,287,156)</u>	<u>(\$21,401,883)</u>	<u>(\$1,540)</u>
(5) Valuation of Assets Included in the Funding Valuation Report (1) + (4)	\$388,395,000	\$7,676,636,000	\$667,085,000	\$48,000

	Rate Group #1	Rate Group #2	Rate Group #3	Rate Group #4
Net Pension Liability Shown in the GASB 67 Addendum Letter (A1) - (B3)	\$78,926,525	\$3,003,085,434	(\$39,571,102)	(\$2,320)
Unfunded Actuarial Accrued Liability Shown in the Funding Valuation Report (A7) - (B5)	\$95,943,000	\$3,271,320,000	\$0	\$0

**Attachment A**  
**All Rate Groups (Results are as of December 31, 2017)**

(A) Liability Reconciliation	Rate Group #5	Rate Group #9	Rate Group #10	Rate Group #11
(1) Total Pension Liability Included in the development of the GASB 67 Addendum Letter	\$928,331,979	\$44,217,899	\$230,763,322	\$9,739,477
(2) (Gain)/Loss from (Lower)/Higher than Expected Salary Increases*	(\$5,421,000)	\$274,000	(\$793,000)	\$134,000
(3) (Gain)/Loss from (Lower)/Higher than Expected COLA Increases*	(\$3,465,000)	(\$170,000)	(\$1,043,000)	(\$23,000)
(4) Other Experience (Gain)/Loss*	(\$3,004,000)	(\$187,000)	\$1,598,000	\$6,000
(5) Difference in Impact from Assumption Changes**	(\$287,991)	(\$92,849)	\$101,245	\$28,957
(6) Other (Gain)/Loss from Rolled Forward Liabilities to Actual Liabilities	<u>\$41,012</u>	<u>(\$8,050)</u>	<u>(\$50,567)</u>	<u>\$566</u>
(7) Actuarial Accrued Liability Included in the Funding Valuation Report (1) + (2) + (3) + (4) + (5) + (6)	\$916,195,000	\$44,034,000	\$230,576,000	\$9,886,000

\* These actuarial gain/loss items can be found on pages 144 and 145 of our draft December 31, 2017 funding valuation report.

\*\* There is a difference between applying the new assumptions in measuring the liability using the membership data as of December 31, 2017 (in the funding valuation) and the rolled forward liability using the membership data as of December 31, 2016 (in the financial reporting valuation.)

(B) Asset Reconciliation	Rate Group #5	Rate Group #9	Rate Group #10	Rate Group #11
(1) Market Value of Assets Excluding County Investment Account and OCSD UAAL Deferred Account	\$716,214,817	\$33,975,130	\$181,043,818	\$9,913,154
(2) County Investment Account and OCSD UAAL Deferred Account	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>
(3) Plan's Fiduciary Net Position Included in the development of the GASB 67 Addendum Letter (1) + (2)	\$716,214,817	\$33,975,130	\$181,043,818	\$9,913,154
(4) Adjustment for Deferred Investment Return and Non-Valuation Reserve	<u>(\$22,263,817)</u>	<u>(\$1,056,130)</u>	<u>(\$5,627,818)</u>	<u>(\$308,154)</u>
(5) Valuation of Assets Included in the Funding Valuation Report (1) + (4)	\$693,951,000	\$32,919,000	\$175,416,000	\$9,605,000

	Rate Group #5	Rate Group #9	Rate Group #10	Rate Group #11
Net Pension Liability Shown in the GASB 67 Addendum Letter (A1) - (B3)	\$212,117,162	\$10,242,769	\$49,719,504	(\$173,677)
Unfunded Actuarial Accrued Liability Shown in the Funding Valuation Report (A7) - (B5)	\$222,244,000	\$11,115,000	\$55,160,000	\$281,000

**Attachment A**  
**All Rate Groups (Results are as of December 31, 2017)**

(A) Liability Reconciliation	Rate Group #12	Rate Group #6	Rate Group #7	Rate Group #8	Total
(1) Total Pension Liability Included in the development of the GASB 67 Addendum Letter	\$10,353,659	\$838,283,136	\$3,870,370,850	\$1,664,730,958	\$19,753,994,401
(2) (Gain)/Loss from (Lower)/Higher than Expected Salary Increases*	(\$169,000)	(\$6,385,000)	\$560,000	(\$15,942,000)	(\$66,399,000)
(3) (Gain)/Loss from (Lower)/Higher than Expected COLA Increases*	(\$29,000)	(\$2,771,000)	(\$24,422,000)	(\$8,621,000)	(\$95,796,000)
(4) Other Experience (Gain)/Loss*	(\$84,000)	(\$1,158,000)	(\$5,331,000)	\$1,025,000	\$17,348,000
(5) Difference in Impact from Assumption Changes**	\$9,157	\$356,744	\$7,960,297	\$6,347,441	\$26,340,925
(6) Other (Gain)/Loss from Rolled Forward Liabilities to Actual Liabilities	<u>(\$816)</u>	<u>\$114,120</u>	<u>\$236,853</u>	<u>(\$126,399)</u>	<u>(\$61,326)</u>
(7) Actuarial Accrued Liability Included in the Funding Valuation Report (1) + (2) + (3) + (4) + (5) + (6)	\$10,080,000	\$828,440,000	\$3,849,375,000	\$1,647,414,000	\$19,635,427,000

\* These actuarial gain/loss items can be found on pages 144 and 145 of our draft December 31, 2017 funding valuation report.

\*\* There is a difference between applying the new assumptions in measuring the liability using the membership data as of December 31, 2017 (in the funding valuation) and the rolled forward liability using the membership data as of December 31, 2016 (in the financial reporting valuation.)

(B) Asset Reconciliation	Rate Group #12	Rate Group #6	Rate Group #7	Rate Group #8	Total
(1) Market Value of Assets Excluding County Investment Account and OCSD UAAL Deferred Account	\$10,389,976	\$591,711,585	\$2,753,267,390	\$1,343,775,794	\$14,652,607,000
(2) County Investment Account and OCSD UAAL Deferred Account	<u>\$0</u>	<u>\$8,585,705</u>	<u>\$38,253,047</u>	<u>\$0</u>	<u>\$149,288,000</u>
(3) Plan's Fiduciary Net Position Included in the development of the GASB 67 Addendum Letter (1) + (2)	\$10,389,976	\$600,297,290	\$2,791,520,437	\$1,343,775,794	\$14,801,895,000
(4) Adjustment for Deferred Investment Return and Non-Valuation Reserve	<u>(\$322,976)</u>	<u>(\$18,393,585)</u>	<u>(\$85,586,390)</u>	<u>(\$41,771,794)</u>	<u>(\$455,482,000)</u>
(5) Valuation of Assets Included in the Funding Valuation Report (1) + (4)	\$10,067,000	\$573,318,000	\$2,667,681,000	\$1,302,004,000	\$14,197,125,000

	Rate Group #12	Rate Group #6	Rate Group #7	Rate Group #8	Total
Net Pension Liability Shown in the GASB 67 Addendum Letter (A1) - (B3)	(\$36,317)	\$237,985,846	\$1,078,850,413	\$320,955,164	\$4,952,099,401
Unfunded Actuarial Accrued Liability Shown in the Funding Valuation Report (A7) - (B5)	\$13,000	\$255,122,000	\$1,181,694,000	\$345,410,000	\$5,438,302,000