



Andy Yeung, ASA, MAAA, FCA, EA  
Vice President & Actuary  
T 415.263.8283  
ayeung@segalco.com

180 Howard Street, Suite 1100  
San Francisco, CA 94105-6147  
segalco.com

## Via Email

June 5, 2020

Mr. Steve Delaney  
Chief Executive Officer  
Orange County Employees Retirement System  
2223 Wellington Avenue  
Santa Ana, CA 92701-3101

**Re: Orange County Employees Retirement System (OCERS)  
Addendum to Governmental Accounting Standards Board (GASB) Statement 67  
Actuarial Valuation as of December 31, 2019**

Dear Steve:

In our Governmental Accounting Standards Board (GASB) Statement 67 report dated May 6, 2020, we provide the Net Pension Liability (NPL) and other elements that are required for completing the Plan's financial reporting requirements under Statement 67. In this letter, we have provided as an Addendum to that report two additional schedules that the American Institute of Certified Public Accountants (AICPA) State and Local Government Expert Panel recommends be prepared by the Retirement System's actuary (Segal) for use in allocating the NPL and pension expense by employer before we issue the full companion report for the employer's financial reporting for OCERS under GASB Statement 68. It should be pointed out that we have prepared these schedules under our contract with OCERS. All statements made in this letter (and our full report for GASB 68) are statements by Segal and not the responsibility of OCERS.

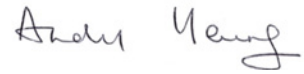
These two schedules have been developed based on the assumptions, methods and results shown in our earlier GASB 67 report dated May 6, 2020. Exhibits A1 and A2 show the method used for allocating the NPL along with the NPL amounts allocated amongst all of the employers in OCERS as of December 31, 2018 and December 31, 2019, respectively. Exhibit B is a summary that shows the allocated NPL, deferred outflows and inflows of resources and pension expense by employer. Further information regarding GASB 68 including additional information that employers will need to disclose will be provided in a separate report.

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

Mr. Steve Delaney  
June 5, 2020  
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Please give us a call if you have any questions.

Sincerely,



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

JY/bbf  
Enclosures

cc: Tracy Bowman  
Brenda Shott

## Schedule of Employer Allocations as of December 31, 2018

Actual Contributions (Excluding Employer Paid Member Contributions and not Reduced for Discount due to Prepaid Contributions)  
by Employer and Rate Group January 1, 2018 to December 31, 2018

Employer	Rate Group #1	Rate Group #1 Percentage	Rate Group #2	Rate Group #2 Percentage	Rate Group #3	Rate Group #3 Percentage
Orange County	\$13,361,000	98.591%	\$252,306,000	87.908%	\$0	0.000%
O.C. Cemetery District	0	0.000%	0	0.000%	0	0.000%
O.C. Law Library	0	0.000%	0	0.000%	0	0.000%
O.C. Vector Control District	0	0.000%	0	0.000%	0	0.000%
O.C. Retirement System	0	0.000%	2,187,000	0.762%	0	0.000%
O.C. Fire Authority	0	0.000%	0	0.000%	0	0.000%
Cypress Recreation and Parks	0	0.000%	0	0.000%	0	0.000%
Department of Education	0	0.000%	0	0.000%	0	0.000%
Transportation Corridor Agency	0	0.000%	0	0.000%	0	0.000%
City of San Juan Capistrano	0	0.000%	2,437,000	0.849%	0	0.000%
O.C. Sanitation District	0	0.000%	0	0.000%	7,728,000	100.000%
O.C. Transportation Authority	0	0.000%	0	0.000%	0	0.000%
U.C.I.	0	0.000%	0	0.000%	0	0.000%
O.C. Children and Families Comm.	0	0.000%	185,000	0.064%	0	0.000%
Local Agency Formation Comm.	0	0.000%	120,000	0.042%	0	0.000%
Rancho Santa Margarita	0	0.000%	0	0.000%	0	0.000%
O.C. Superior Court	0	0.000%	29,779,000	10.375%	0	0.000%
O.C. IHSS Public Authority	<u>191,000</u>	<u>1.409%</u>	<u>0</u>	<u>0.000%</u>	<u>0</u>	<u>0.000%</u>
<b>Total for all Employers</b>	<b>\$13,552,000</b>	<b>100.000%</b>	<b>\$287,014,000</b>	<b>100.000%</b>	<b>\$7,728,000</b>	<b>100.000%</b>

Note: Results may not total due to rounding.

## Schedule of Employer Allocations as of December 31, 2018

Actual Contributions (Excluding Employer Paid Member Contributions and not Reduced for Discount due to Prepaid Contributions)  
by Employer and Rate Group January 1, 2018 to December 31, 2018

Employer	Rate Group #4	Rate Group #4 Percentage	Rate Group #5	Rate Group #5 Percentage	Rate Group #9	Rate Group #9 Percentage
Orange County	\$0	0.000%	\$0	0.000%	\$0	0.000%
O.C. Cemetery District	0	0.000%	0	0.000%	0	0.000%
O.C. Law Library	0	0.000%	0	0.000%	0	0.000%
O.C. Vector Control District	0	0.000%	0	0.000%	0	0.000%
O.C. Retirement System	0	0.000%	0	0.000%	0	0.000%
O.C. Fire Authority	0	0.000%	0	0.000%	0	0.000%
Cypress Recreation and Parks	0	0.000%	0	0.000%	0	0.000%
Department of Education	0	0.000%	0	0.000%	0	0.000%
Transportation Corridor Agency	0	0.000%	0	0.000%	1,641,000	100.000%
City of San Juan Capistrano	0	0.000%	0	0.000%	0	0.000%
O.C. Sanitation District	0	0.000%	0	0.000%	0	0.000%
O.C. Transportation Authority	0	0.000%	24,725,000	100.000%	0	0.000%
U.C.I.	0	0.000%	0	0.000%	0	0.000%
O.C. Children and Families Comm.	0	0.000%	0	0.000%	0	0.000%
Local Agency Formation Comm.	0	0.000%	0	0.000%	0	0.000%
Rancho Santa Margarita	0	100.000%	0	0.000%	0	0.000%
O.C. Superior Court	0	0.000%	0	0.000%	0	0.000%
O.C. IHSS Public Authority	<u>0</u>	<u>0.000%</u>	<u>0</u>	<u>0.000%</u>	<u>0</u>	<u>0.000%</u>
<b>Total for all Employers</b>	<b>\$0</b>	<b>100.000%</b>	<b>\$24,725,000</b>	<b>100.000%</b>	<b>\$1,641,000</b>	<b>100.000%</b>

Note: Results may not total due to rounding.

## Schedule of Employer Allocations as of December 31, 2018

Actual Contributions (Excluding Employer Paid Member Contributions and not Reduced for Discount due to Prepaid Contributions)  
by Employer and Rate Group January 1, 2018 to December 31, 2018

Employer	Rate Group #10	Rate Group #10 Percentage	Rate Group #11	Rate Group #11 Percentage	Rate Group #12	Rate Group #12 Percentage
Orange County	\$0	0.000%	\$0	0.000%	\$0	0.000%
O.C. Cemetery District	0	0.000%	171,000	100.000%	0	0.000%
O.C. Law Library	0	0.000%	0	0.000%	169,000	100.000%
O.C. Vector Control District	0	0.000%	0	0.000%	0	0.000%
O.C. Retirement System	0	0.000%	0	0.000%	0	0.000%
O.C. Fire Authority	8,206,000	100.000%	0	0.000%	0	0.000%
Cypress Recreation and Parks	0	0.000%	0	0.000%	0	0.000%
Department of Education	0	0.000%	0	0.000%	0	0.000%
Transportation Corridor Agency	0	0.000%	0	0.000%	0	0.000%
City of San Juan Capistrano	0	0.000%	0	0.000%	0	0.000%
O.C. Sanitation District	0	0.000%	0	0.000%	0	0.000%
O.C. Transportation Authority	0	0.000%	0	0.000%	0	0.000%
U.C.I.	0	0.000%	0	0.000%	0	0.000%
O.C. Children and Families Comm.	0	0.000%	0	0.000%	0	0.000%
Local Agency Formation Comm.	0	0.000%	0	0.000%	0	0.000%
Rancho Santa Margarita	0	0.000%	0	0.000%	0	0.000%
O.C. Superior Court	0	0.000%	0	0.000%	0	0.000%
O.C. IHSS Public Authority	<u>0</u>	<u>0.000%</u>	<u>0</u>	<u>0.000%</u>	<u>0</u>	<u>0.000%</u>
<b>Total for all Employers</b>	<b>\$8,206,000</b>	<b>100.000%</b>	<b>\$171,000</b>	<b>100.000%</b>	<b>\$169,000</b>	<b>100.000%</b>

Note: Results may not total due to rounding.

## Schedule of Employer Allocations as of December 31, 2018

Actual Contributions (Excluding Employer Paid Member Contributions and not Reduced for Discount due to Prepaid Contributions)  
by Employer and Rate Group January 1, 2018 to December 31, 2018

Employer	Rate Group #6	Rate Group #6 Percentage	Rate Group #7	Rate Group #7 Percentage	Rate Group #8	Rate Group #8 Percentage
Orange County	\$28,033,000	100.000%	\$143,462,000	100.000%	\$0	0.000%
O.C. Cemetery District	0	0.000%	0	0.000%	0	0.000%
O.C. Law Library	0	0.000%	0	0.000%	0	0.000%
O.C. Vector Control District	0	0.000%	0	0.000%	0	0.000%
O.C. Retirement System	0	0.000%	0	0.000%	0	0.000%
O.C. Fire Authority	0	0.000%	0	0.000%	59,905,000	100.000%
Cypress Recreation and Parks	0	0.000%	0	0.000%	0	0.000%
Department of Education	0	0.000%	0	0.000%	0	0.000%
Transportation Corridor Agency	0	0.000%	0	0.000%	0	0.000%
City of San Juan Capistrano	0	0.000%	0	0.000%	0	0.000%
O.C. Sanitation District	0	0.000%	0	0.000%	0	0.000%
O.C. Transportation Authority	0	0.000%	0	0.000%	0	0.000%
U.C.I.	0	0.000%	0	0.000%	0	0.000%
O.C. Children and Families Comm.	0	0.000%	0	0.000%	0	0.000%
Local Agency Formation Comm.	0	0.000%	0	0.000%	0	0.000%
Rancho Santa Margarita	0	0.000%	0	0.000%	0	0.000%
O.C. Superior Court	0	0.000%	0	0.000%	0	0.000%
O.C. IHSS Public Authority	<u>0</u>	<u>0.000%</u>	<u>0</u>	<u>0.000%</u>	<u>0</u>	<u>0.000%</u>
<b>Total for all Employers</b>	<b>\$28,033,000</b>	<b>100.000%</b>	<b>\$143,462,000</b>	<b>100.000%</b>	<b>\$59,905,000</b>	<b>100.000%</b>

Note: Results may not total due to rounding

## Schedule of Employer Allocations as of December 31, 2018

Actual Contributions (Excluding Employer Paid Member Contributions and not Reduced for Discount due to Prepaid Contributions)  
by Employer and Rate Group January 1, 2018 to December 31, 2018

Employer	Total Contributions <sup>1</sup>	Total Percentage
Orange County	\$437,162,000	76.079%
O.C. Cemetery District	171,000	0.030%
O.C. Law Library	169,000	0.029%
O.C. Vector Control District	0	0.000%
O.C. Retirement System	2,187,000	0.381%
O.C. Fire Authority	68,111,000	11.854%
Cypress Recreation and Parks	0	0.000%
Department of Education	0	0.000%
Transportation Corridor Agency	1,641,000	0.286%
City of San Juan Capistrano	2,437,000	0.424%
O.C. Sanitation District	7,728,000	1.345%
O.C. Transportation Authority	24,725,000	4.303%
U.C.I.	0	0.000%
O.C. Children and Families Comm.	185,000	0.032%
Local Agency Formation Comm.	120,000	0.021%
Rancho Santa Margarita	0	0.000%
O.C. Superior Court	29,779,000	5.183%
O.C. IHSS Public Authority	<u>191,000</u>	<u>0.033%</u>
<b>Total for all Employers</b>	<b>\$574,606,000</b>	<b>100.000%</b>

Note: Results may not total due to rounding.

<sup>1</sup> Excludes additional contributions of \$23,437,000 made by O.C. Fire Authority towards the reduction of their UAALs, combined contributions of \$3,916,000 made by Cypress Recreation and Parks, Department of Education and U.C.I. and combined employer pick-up contributions of \$164,000.

## Schedule of Employer Allocations as of December 31, 2018

### Allocation of December 31, 2018 Net Pension Liability

Employer	Rate Group #1	Rate Group #1 Percentage	Rate Group #2	Rate Group #2 Percentage	Rate Group #3	Rate Group #3 Percentage
Orange County	\$71,865,137	62.935%	\$3,246,653,910	87.685%	\$0	0.000%
O.C. Cemetery District	0	0.000%	0	0.000%	0	0.000%
O.C. Law Library	0	0.000%	0	0.000%	0	0.000%
O.C. Vector Control District <sup>2</sup>	2,492,695	2.183%	0	0.000%	0	0.000%
O.C. Retirement System	0	0.000%	28,844,760	0.779%	0	0.000%
O.C. Fire Authority	0	0.000%	0	0.000%	0	0.000%
Cypress Recreation and Parks <sup>2</sup>	408,781	0.358%	0	0.000%	0	0.000%
Department of Education <sup>2</sup>	3,517,372	3.080%	0	0.000%	0	0.000%
Transportation Corridor Agency	0	0.000%	0	0.000%	0	0.000%
City of San Juan Capistrano	0	0.000%	32,142,058	0.868%	0	0.000%
O.C. Sanitation District	0	0.000%	0	0.000%	29,029,145	100.000%
O.C. Transportation Authority	0	0.000%	0	0.000%	0	0.000%
U.C.I. <sup>2</sup>	34,808,679	30.483%	0	0.000%	0	0.000%
O.C. Children and Families Comm.	0	0.000%	630,610	0.017%	0	0.000%
Local Agency Formation Comm.	0	0.000%	1,582,703	0.043%	0	0.000%
Rancho Santa Margarita	0	0.000%	0	0.000%	0	0.000%
O.C. Superior Court	0	0.000%	392,760,910	10.608%	0	0.000%
O.C. IHSS Public Authority	<u>1,097,009</u>	<u>0.961%</u>	<u>0</u>	<u>0.000%</u>	<u>0</u>	<u>0.000%</u>
<b>Total for all Employers</b>	<b>\$114,189,673</b>	<b>100.000%</b>	<b>\$3,702,614,951</b>	<b>100.000%</b>	<b>\$29,029,145</b>	<b>100.000%</b>

Note: Results may not total due to rounding.

<sup>2</sup> In determining the NPLs for the O.C. Vector Control District, Cypress Recreation and Parks, Department of Education and U.C.I., we first start by rolling forward the VVAs of these employers as of December 31, 2017 to December 31, 2018 for the actual contributions, benefit payments and return on their VVAs during 2018. Those VVAs are then marked to the Plan's Fiduciary Net Position as of December 31, 2018. The TPLs for these employers are obtained from internal valuation results (by rolling forward their TPLs from December 31, 2017).



## Schedule of Employer Allocations as of December 31, 2018

### Allocation of December 31, 2018 Net Pension Liability

Employer	Rate Group #4	Rate Group #4 Percentage	Rate Group #5	Rate Group #5 Percentage	Rate Group #9	Rate Group #9 Percentage
Orange County	\$0	0.000%	\$0	0.000%	\$0	0.000%
O.C. Cemetery District	0	0.000%	0	0.000%	0	0.000%
O.C. Law Library	0	0.000%	0	0.000%	0	0.000%
O.C. Vector Control District	0	0.000%	0	0.000%	0	0.000%
O.C. Retirement System	0	0.000%	0	0.000%	0	0.000%
O.C. Fire Authority	0	0.000%	0	0.000%	0	0.000%
Cypress Recreation and Parks	0	0.000%	0	0.000%	0	0.000%
Department of Education	0	0.000%	0	0.000%	0	0.000%
Transportation Corridor Agency	0	0.000%	0	0.000%	13,253,632	100.000%
City of San Juan Capistrano	0	0.000%	0	0.000%	0	0.000%
O.C. Sanitation District	0	0.000%	0	0.000%	0	0.000%
O.C. Transportation Authority	0	0.000%	269,788,642	100.000%	0	0.000%
U.C.I.	0	0.000%	0	0.000%	0	0.000%
O.C. Children and Families Comm.	0	0.000%	0	0.000%	0	0.000%
Local Agency Formation Comm.	0	0.000%	0	0.000%	0	0.000%
Rancho Santa Margarita	1,284	100.000%	0	0.000%	0	0.000%
O.C. Superior Court	0	0.000%	0	0.000%	0	0.000%
O.C. IHSS Public Authority	<u>0</u>	<u>0.000%</u>	<u>0</u>	<u>0.000%</u>	<u>0</u>	<u>0.000%</u>
<b>Total for all Employers</b>	<b>\$1,284</b>	<b>100.000%</b>	<b>\$269,788,642</b>	<b>100.000%</b>	<b>\$13,253,632</b>	<b>100.000%</b>

Note: Results may not total due to rounding.

## Schedule of Employer Allocations as of December 31, 2018

### Allocation of December 31, 2018 Net Pension Liability

Employer	Rate Group #10	Rate Group #10 Percentage	Rate Group #11	Rate Group #11 Percentage	Rate Group #12	Rate Group #12 Percentage
Orange County	\$0	0.000%	\$0	0.000%	\$0	0.000%
O.C. Cemetery District	0	0.000%	962,119	100.000%	0	0.000%
O.C. Law Library	0	0.000%	0	0.000%	573,252	100.000%
O.C. Vector Control District	0	0.000%	0	0.000%	0	0.000%
O.C. Retirement System	0	0.000%	0	0.000%	0	0.000%
O.C. Fire Authority	55,836,641	100.000%	0	0.000%	0	0.000%
Cypress Recreation and Parks	0	0.000%	0	0.000%	0	0.000%
Department of Education	0	0.000%	0	0.000%	0	0.000%
Transportation Corridor Agency	0	0.000%	0	0.000%	0	0.000%
City of San Juan Capistrano	0	0.000%	0	0.000%	0	0.000%
O.C. Sanitation District	0	0.000%	0	0.000%	0	0.000%
O.C. Transportation Authority	0	0.000%	0	0.000%	0	0.000%
U.C.I.	0	0.000%	0	0.000%	0	0.000%
O.C. Children and Families Comm.	0	0.000%	0	0.000%	0	0.000%
Local Agency Formation Comm.	0	0.000%	0	0.000%	0	0.000%
Rancho Santa Margarita	0	0.000%	0	0.000%	0	0.000%
O.C. Superior Court	0	0.000%	0	0.000%	0	0.000%
O.C. IHSS Public Authority	<u>0</u>	<u>0.000%</u>	<u>0</u>	<u>0.000%</u>	<u>0</u>	<u>0.000%</u>
<b>Total for all Employers</b>	<b>\$55,836,641</b>	<b>100.000%</b>	<b>\$962,119</b>	<b>100.000%</b>	<b>\$573,252</b>	<b>100.000%</b>

Note: Results may not total due to rounding.

## Schedule of Employer Allocations as of December 31, 2018

### Allocation of December 31, 2018 Net Pension Liability

Employer	Rate Group #6	Rate Group #6 Percentage	Rate Group #7	Rate Group #7 Percentage	Rate Group #8	Rate Group #8 Percentage
Orange County	\$289,061,877	100.000%	\$1,310,995,988	100.000%	\$0	0.000%
O.C. Cemetery District	0	0.000%	0	0.000%	0	0.000%
O.C. Law Library	0	0.000%	0	0.000%	0	0.000%
O.C. Vector Control District	0	0.000%	0	0.000%	0	0.000%
O.C. Retirement System	0	0.000%	0	0.000%	0	0.000%
O.C. Fire Authority	0	0.000%	0	0.000%	410,894,885	100.000%
Cypress Recreation and Parks	0	0.000%	0	0.000%	0	0.000%
Department of Education	0	0.000%	0	0.000%	0	0.000%
Transportation Corridor Agency	0	0.000%	0	0.000%	0	0.000%
City of San Juan Capistrano	0	0.000%	0	0.000%	0	0.000%
O.C. Sanitation District	0	0.000%	0	0.000%	0	0.000%
O.C. Transportation Authority	0	0.000%	0	0.000%	0	0.000%
U.C.I.	0	0.000%	0	0.000%	0	0.000%
O.C. Children and Families Comm.	0	0.000%	0	0.000%	0	0.000%
Local Agency Formation Comm.	0	0.000%	0	0.000%	0	0.000%
Rancho Santa Margarita	0	0.000%	0	0.000%	0	0.000%
O.C. Superior Court	0	0.000%	0	0.000%	0	0.000%
O.C. IHSS Public Authority	<u>0</u>	<u>0.000%</u>	<u>0</u>	<u>0.000%</u>	<u>0</u>	<u>0.000%</u>
<b>Total for all Employers</b>	<b>\$289,061,877</b>	<b>100.000%</b>	<b>\$1,310,995,988</b>	<b>100.000%</b>	<b>\$410,894,885</b>	<b>100.000%</b>

Note: Results may not total due to rounding.

## Schedule of Employer Allocations as of December 31, 2018

### Allocation of December 31, 2018 Net Pension Liability

Employer	Total NPL	Total Percentage
Orange County	\$4,918,576,912	79.367%
O.C. Cemetery District	962,119	0.016%
O.C. Law Library	573,252	0.009%
O.C. Vector Control District <sup>2</sup>	2,492,695	0.040%
O.C. Retirement System	28,844,760	0.465%
O.C. Fire Authority	466,731,526	7.531%
Cypress Recreation and Parks <sup>2</sup>	408,781	0.007%
Department of Education <sup>2</sup>	3,517,372	0.057%
Transportation Corridor Agency	13,253,632	0.214%
City of San Juan Capistrano	32,142,058	0.519%
O.C. Sanitation District	29,029,145	0.468%
O.C. Transportation Authority	269,788,642	4.353%
U.C.I. <sup>2</sup>	34,808,679	0.562%
O.C. Children and Families Comm.	630,610	0.010%
Local Agency Formation Comm.	1,582,703	0.026%
Rancho Santa Margarita	1,284	0.000%
O.C. Superior Court	392,760,910	6.338%
O.C. IHSS Public Authority	<u>1,097,009</u>	<u>0.018%</u>
<b>Total for all Employers</b>	<b>\$6,197,202,089</b>	<b>100.000%</b>

Note: Results may not total due to rounding.

<sup>2</sup> In determining the NPLs for the O.C. Vector Control District, Cypress Recreation and Parks, Department of Education and U.C.I., we first start by rolling forward the VVAs of these employers as of December 31, 2017 to December 31, 2018 for the actual contributions, benefit payments and return on their VVAs during 2018. Those VVAs are then marked to the Plan's Fiduciary Net Position as of December 31, 2018. The TPLs for these employers are obtained from internal valuation results (by rolling forward their TPLs from December 31, 2017).

## Schedule of Employer Allocations as of December 31, 2018

### Notes:

1. Based on the January 1, 2018 through December 31, 2018 employer contributions as provided by OCERS. These contributions have been adjusted to exclude employer paid member contributions and they have not been reduced for discount due to prepaid contributions. (It should be noted that we would also have included transfers made from the County Investment Account had those transfers been made in 2018.)
- 2a. The Net Pension Liability (NPL) for each Rate Group is the Total Pension Liability (TPL) minus the Plan's Fiduciary Net Position (plan assets). The TPL for each Rate Group is obtained from internal valuation results. The Plan's Fiduciary Net Position for each Rate Group is estimated by adjusting the Valuation Value of Assets (VVA) for each membership class by the ratio of the total OCERS Plan's Fiduciary Net Position (excluding the balance of the County Investment Account) to total OCERS VVA. As previously directed by OCERS, the County Investment Account is then allocated among the four County Rate Groups using the proportions of County POB contributions made during 2018. Again, as there were no such County POB contributions made during 2018, we have continued to apply the same proportions determined in 2014 for each of the four County Rate Groups to allocate the \$131,890,000 in the County Investment Account as of December 31, 2018. These amounts are provided in item 3. The O.C. Sanitation District UAAL Deferred Account is allocated entirely to Rate Group #3 and the remaining balance of \$14,589,000 in that account has been transferred at the end of the year to partially offset the actuarial losses (primarily from investment after smoothing) during 2018. The balance of the O.C. Sanitation District UAAL Deferred Account is \$0 at the end of the year after the transfer.
- b. Each of General Rate Groups #3, #4, #5, #9, #10, #11 and #12 and Safety Rate Groups #6, #7 and #8 have only one active employer, so all of the NPL for that Rate Group is allocated to the corresponding employer.
- c. For General Rate Groups #1 and #2, the NPL is allocated based on the actual employer contributions within the General Rate Group.
  - The NPL for Rate Group #1 was adjusted by the NPLs for the O.C. Vector Control District, Cypress Recreation and Parks, Department of Education and U.C.I. prior to allocating the net NPL to the other employers in Rate Group #1 as the NPLs for these four employers were calculated separately.
  - Calculate ratio of employer's contributions to the total contributions for the Rate Group. For this purpose, the employer contributions exclude the following amounts:
    - (i) Rate Group #1 (Department of Education):                      \$301,000

(ii) Rate Group #1 (U.C.I.): \$2,875,000

(iii) Rate Group #1 (Cypress Recreation and Parks): \$740,000

- Multiply this ratio (unrounded) by the NPL for the Rate Group to determine the employer's proportionate share of the NPL for the Rate Group.
- The UAAL contributions referenced in (i), (ii) and (iii) above are adjusted with interest to December 31, 2018 and are used to reduce the NPL for the three employers as of December 31, 2018.

3. The percentages of contributions by employer are not exactly equal to the percentages we use to allocate the NPL by employer because the NPL for the County has been reduced to reflect the portion of the County Investment Account that has been allocated among the four County Rate Groups. The amounts of the County Investment Account that have been allocated to those Rate Groups are as follows:

Rate Group #1:	\$4,873,766
Rate Group #2:	81,058,036
Rate Group #6:	8,424,297
Rate Group #7:	<u>37,533,901</u>
Total:	\$131,890,000

In addition, the NPL for Rate Group #2 was allocated prior to applying the adjusted balance of the \$1,744,454 in additional UAAL contributions made by O.C. Children and Families Commission on November 15, 2017. That balance is equal to \$1,809,390 as of December 31, 2018 when adjusted with interest for the entire year and UAAL contribution offset starting from July 1, 2018 to December 31, 2018. We would continue to maintain the outstanding balance of the additional UAAL contributions for use in determining the NPL for this employer.

4. If the employer is in several Rate Groups, the employer's total allocated NPL is the sum of its allocated NPL from each Rate Group. Proportionate share of total plan NPL is then the ratio of the employer's total allocated NPL to the total NPL of all employers.

## Schedule of Employer Allocations as of December 31, 2019

Actual Contributions (Excluding Employer Paid Member Contributions and not Reduced for Discount due to Prepaid Contributions)  
by Employer and Rate Group January 1, 2019 to December 31, 2019

Employer	Rate Group #1	Rate Group #1 Percentage	Rate Group #2	Rate Group #2 Percentage	Rate Group #3	Rate Group #3 Percentage
Orange County	\$13,232,000	98.599%	\$264,402,000	87.836%	\$0	0.000%
O.C. Cemetery District	0	0.000%	0	0.000%	0	0.000%
O.C. Law Library	0	0.000%	0	0.000%	0	0.000%
O.C. Vector Control District	0	0.000%	0	0.000%	0	0.000%
O.C. Retirement System	0	0.000%	2,503,000	0.832%	0	0.000%
O.C. Fire Authority	0	0.000%	0	0.000%	0	0.000%
Cypress Recreation and Parks	0	0.000%	0	0.000%	0	0.000%
Department of Education	0	0.000%	0	0.000%	0	0.000%
Transportation Corridor Agency	0	0.000%	0	0.000%	0	0.000%
City of San Juan Capistrano	0	0.000%	2,444,000	0.812%	0	0.000%
O.C. Sanitation District	0	0.000%	0	0.000%	8,056,000	100.000%
O.C. Transportation Authority	0	0.000%	0	0.000%	0	0.000%
U.C.I.	0	0.000%	0	0.000%	0	0.000%
O.C. Children and Families Comm.	0	0.000%	106,000	0.035%	0	0.000%
Local Agency Formation Comm.	0	0.000%	139,000	0.046%	0	0.000%
Rancho Santa Margarita	0	0.000%	0	0.000%	0	0.000%
O.C. Superior Court	0	0.000%	31,424,000	10.439%	0	0.000%
O.C. IHSS Public Authority	<u>188,000</u>	<u>1.401%</u>	<u>0</u>	<u>0.000%</u>	<u>0</u>	<u>0.000%</u>
<b>Total for all Employers</b>	<b>\$13,420,000</b>	<b>100.000%</b>	<b>\$301,018,000</b>	<b>100.000%</b>	<b>\$8,056,000</b>	<b>100.000%</b>

Note: Results may not total due to rounding.

## Schedule of Employer Allocations as of December 31, 2019

Actual Contributions (Excluding Employer Paid Member Contributions and not Reduced for Discount due to Prepaid Contributions)  
by Employer and Rate Group January 1, 2019 to December 31, 2019

Employer	Rate Group #4	Rate Group #4 Percentage	Rate Group #5	Rate Group #5 Percentage	Rate Group #9	Rate Group #9 Percentage
Orange County	\$0	0.000%	\$0	0.000%	\$0	0.000%
O.C. Cemetery District	0	0.000%	0	0.000%	0	0.000%
O.C. Law Library	0	0.000%	0	0.000%	0	0.000%
O.C. Vector Control District	0	0.000%	0	0.000%	0	0.000%
O.C. Retirement System	0	0.000%	0	0.000%	0	0.000%
O.C. Fire Authority	0	0.000%	0	0.000%	0	0.000%
Cypress Recreation and Parks	0	0.000%	0	0.000%	0	0.000%
Department of Education	0	0.000%	0	0.000%	0	0.000%
Transportation Corridor Agency	0	0.000%	0	0.000%	1,248,000	100.000%
City of San Juan Capistrano	0	0.000%	0	0.000%	0	0.000%
O.C. Sanitation District	0	0.000%	0	0.000%	0	0.000%
O.C. Transportation Authority	0	0.000%	26,415,000	100.000%	0	0.000%
U.C.I.	0	0.000%	0	0.000%	0	0.000%
O.C. Children and Families Comm.	0	0.000%	0	0.000%	0	0.000%
Local Agency Formation Comm.	0	0.000%	0	0.000%	0	0.000%
Rancho Santa Margarita	0	100.000%	0	0.000%	0	0.000%
O.C. Superior Court	0	0.000%	0	0.000%	0	0.000%
O.C. IHSS Public Authority	<u>0</u>	<u>0.000%</u>	<u>0</u>	<u>0.000%</u>	<u>0</u>	<u>0.000%</u>
<b>Total for all Employers</b>	<b>\$0</b>	<b>100.000%</b>	<b>\$26,415,000</b>	<b>100.000%</b>	<b>\$1,248,000</b>	<b>100.000%</b>

Note: Results may not total due to rounding.



## Schedule of Employer Allocations as of December 31, 2019

Actual Contributions (Excluding Employer Paid Member Contributions and not Reduced for Discount due to Prepaid Contributions)  
by Employer and Rate Group January 1, 2019 to December 31, 2019

Employer	Rate Group #10	Rate Group #10 Percentage	Rate Group #11	Rate Group #11 Percentage	Rate Group #12	Rate Group #12 Percentage
Orange County	\$0	0.000%	\$0	0.000%	\$0	0.000%
O.C. Cemetery District	0	0.000%	187,000	100.000%	0	0.000%
O.C. Law Library	0	0.000%	0	0.000%	118,000	100.000%
O.C. Vector Control District	0	0.000%	0	0.000%	0	0.000%
O.C. Retirement System	0	0.000%	0	0.000%	0	0.000%
O.C. Fire Authority	8,578,000	100.000%	0	0.000%	0	0.000%
Cypress Recreation and Parks	0	0.000%	0	0.000%	0	0.000%
Department of Education	0	0.000%	0	0.000%	0	0.000%
Transportation Corridor Agency	0	0.000%	0	0.000%	0	0.000%
City of San Juan Capistrano	0	0.000%	0	0.000%	0	0.000%
O.C. Sanitation District	0	0.000%	0	0.000%	0	0.000%
O.C. Transportation Authority	0	0.000%	0	0.000%	0	0.000%
U.C.I.	0	0.000%	0	0.000%	0	0.000%
O.C. Children and Families Comm.	0	0.000%	0	0.000%	0	0.000%
Local Agency Formation Comm.	0	0.000%	0	0.000%	0	0.000%
Rancho Santa Margarita	0	0.000%	0	0.000%	0	0.000%
O.C. Superior Court	0	0.000%	0	0.000%	0	0.000%
O.C. IHSS Public Authority	0	0.000%	0	0.000%	0	0.000%
<b>Total for all Employers</b>	<b>\$8,578,000</b>	<b>100.000%</b>	<b>\$187,000</b>	<b>100.000%</b>	<b>\$118,000</b>	<b>100.000%</b>

Note: Results may not total due to rounding.

## Schedule of Employer Allocations as of December 31, 2019

Actual Contributions (Excluding Employer Paid Member Contributions and not Reduced for Discount due to Prepaid Contributions)  
by Employer and Rate Group January 1, 2019 to December 31, 2019

Employer	Rate Group #6	Rate Group #6 Percentage	Rate Group #7	Rate Group #7 Percentage	Rate Group #8	Rate Group #8 Percentage
Orange County	\$30,025,000	100.000%	\$151,060,000	100.000%	\$0	0.000%
O.C. Cemetery District	0	0.000%	0	0.000%	0	0.000%
O.C. Law Library	0	0.000%	0	0.000%	0	0.000%
O.C. Vector Control District	0	0.000%	0	0.000%	0	0.000%
O.C. Retirement System	0	0.000%	0	0.000%	0	0.000%
O.C. Fire Authority	0	0.000%	0	0.000%	61,888,000	100.000%
Cypress Recreation and Parks	0	0.000%	0	0.000%	0	0.000%
Department of Education	0	0.000%	0	0.000%	0	0.000%
Transportation Corridor Agency	0	0.000%	0	0.000%	0	0.000%
City of San Juan Capistrano	0	0.000%	0	0.000%	0	0.000%
O.C. Sanitation District	0	0.000%	0	0.000%	0	0.000%
O.C. Transportation Authority	0	0.000%	0	0.000%	0	0.000%
U.C.I.	0	0.000%	0	0.000%	0	0.000%
O.C. Children and Families Comm.	0	0.000%	0	0.000%	0	0.000%
Local Agency Formation Comm.	0	0.000%	0	0.000%	0	0.000%
Rancho Santa Margarita	0	0.000%	0	0.000%	0	0.000%
O.C. Superior Court	0	0.000%	0	0.000%	0	0.000%
O.C. IHSS Public Authority	<u>0</u>	<u>0.000%</u>	<u>0</u>	<u>0.000%</u>	<u>0</u>	<u>0.000%</u>
<b>Total for all Employers</b>	<b>\$30,025,000</b>	<b>100.000%</b>	<b>\$151,060,000</b>	<b>100.000%</b>	<b>\$61,888,000</b>	<b>100.000%</b>

Note: Results may not total due to rounding.

## Schedule of Employer Allocations as of December 31, 2019

Actual Contributions (Excluding Employer Paid Member Contributions and not Reduced for Discount due to Prepaid Contributions)  
by Employer and Rate Group January 1, 2019 to December 31, 2019

Employer	Total Contributions <sup>3</sup>	Total Percentage
Orange County	\$458,719,000	76.197%
O.C. Cemetery District	187,000	0.031%
O.C. Law Library	118,000	0.020%
O.C. Vector Control District	0	0.000%
O.C. Retirement System	2,503,000	0.416%
O.C. Fire Authority	70,466,000	11.705%
Cypress Recreation and Parks	0	0.000%
Department of Education	0	0.000%
Transportation Corridor Agency	1,248,000	0.207%
City of San Juan Capistrano	2,444,000	0.406%
O.C. Sanitation District	8,056,000	1.338%
O.C. Transportation Authority	26,415,000	4.388%
U.C.I.	0	0.000%
O.C. Children and Families Comm.	106,000	0.018%
Local Agency Formation Comm.	139,000	0.023%
Rancho Santa Margarita	0	0.000%
O.C. Superior Court	31,424,000	5.220%
O.C. IHSS Public Authority	<u>188,000</u>	<u>0.031%</u>
<b>Total for all Employers</b>	<b>\$602,013,000</b>	<b>100.000%</b>

Note: Results may not total due to rounding.

<sup>3</sup> Excludes combined additional contributions of \$69,858,000 made by O.C. Fire Authority, Transportation Corridor Agency and O.C. Sanitation District towards the reduction of their UAALs, combined contributions of \$3,934,000 made by O.C. Vector Control District, Department of Education and U.C.I. and combined employer pick-up contributions of \$35,000.

## Schedule of Employer Allocations as of December 31, 2019

### Allocation of December 31, 2019 Net Pension Liability

Employer	Rate Group #1	Rate Group #1 Percentage	Rate Group #2	Rate Group #2 Percentage	Rate Group #3	Rate Group #3 Percentage
Orange County	\$45,068,171	57.238%	\$2,741,111,450	87.527%	\$0	0.000%
O.C. Cemetery District	0	0.000%	0	0.000%	0	0.000%
O.C. Law Library	0	0.000%	0	0.000%	0	0.000%
O.C. Vector Control District <sup>4</sup>	(625,500)	(0.794%)	0	0.000%	0	0.000%
O.C. Retirement System	0	0.000%	26,824,264	0.857%	0	0.000%
O.C. Fire Authority	0	0.000%	0	0.000%	0	0.000%
Cypress Recreation and Parks <sup>4</sup>	262,415	0.333%	0	0.000%	0	0.000%
Department of Education <sup>4</sup>	3,099,339	3.936%	0	0.000%	0	0.000%
Transportation Corridor Agency	0	0.000%	0	0.000%	0	0.000%
City of San Juan Capistrano	0	0.000%	26,191,970	0.836%	0	0.000%
O.C. Sanitation District	0	0.000%	0	0.000%	(49,446,617)	100.000%
O.C. Transportation Authority	0	0.000%	0	0.000%	0	0.000%
U.C.I. <sup>4</sup>	30,213,739	38.373%	0	0.000%	0	0.000%
O.C. Children and Families Comm.	0	0.000%	(646,472)	(0.021%)	0	0.000%
Local Agency Formation Comm.	0	0.000%	1,489,642	0.048%	0	0.000%
Rancho Santa Margarita	0	0.000%	0	0.000%	0	0.000%
O.C. Superior Court	0	0.000%	336,766,149	10.753%	0	0.000%
O.C. IHSS Public Authority	<u>719,301</u>	<u>0.914%</u>	<u>0</u>	<u>0.000%</u>	<u>0</u>	<u>0.000%</u>
<b>Total for all Employers</b>	<b>\$78,737,465</b>	<b>100.000%</b>	<b>\$3,131,737,003</b>	<b>100.000%</b>	<b>\$(49,446,617)</b>	<b>100.000%</b>

Note: Results may not total due to rounding.

<sup>4</sup> In determining the NPLs for the O.C. Vector Control District, Cypress Recreation and Parks, Department of Education and U.C.I., we first start by rolling forward the VVAs of these employers as of December 31, 2018 to December 31, 2019 for the actual contributions, benefit payments and return on their VVAs during 2019. Those VVAs are then marked to the Plan's Fiduciary Net Position as of December 31, 2019. The TPLs for these employers are obtained from internal valuation results (by rolling forward their TPLs from December 31, 2018).

## Schedule of Employer Allocations as of December 31, 2019

### Allocation of December 31, 2019 Net Pension Liability

Employer	Rate Group #4	Rate Group #4 Percentage	Rate Group #5	Rate Group #5 Percentage	Rate Group #9	Rate Group #9 Percentage
Orange County	\$0	0.000%	\$0	0.000%	\$0	0.000%
O.C. Cemetery District	0	0.000%	0	0.000%	0	0.000%
O.C. Law Library	0	0.000%	0	0.000%	0	0.000%
O.C. Vector Control District	0	0.000%	0	0.000%	0	0.000%
O.C. Retirement System	0	0.000%	0	0.000%	0	0.000%
O.C. Fire Authority	0	0.000%	0	0.000%	0	0.000%
Cypress Recreation and Parks	0	0.000%	0	0.000%	0	0.000%
Department of Education	0	0.000%	0	0.000%	0	0.000%
Transportation Corridor Agency	0	0.000%	0	0.000%	(1,753,164)	100.000%
City of San Juan Capistrano	0	0.000%	0	0.000%	0	0.000%
O.C. Sanitation District	0	0.000%	0	0.000%	0	0.000%
O.C. Transportation Authority	0	0.000%	224,284,548	100.000%	0	0.000%
U.C.I.	0	0.000%	0	0.000%	0	0.000%
O.C. Children and Families Comm.	0	0.000%	0	0.000%	0	0.000%
Local Agency Formation Comm.	0	0.000%	0	0.000%	0	0.000%
Rancho Santa Margarita	(2,214)	100.000%	0	0.000%	0	0.000%
O.C. Superior Court	0	0.000%	0	0.000%	0	0.000%
O.C. IHSS Public Authority	<u>0</u>	<u>0.000%</u>	<u>0</u>	<u>0.000%</u>	<u>0</u>	<u>0.000%</u>
<b>Total for all Employers</b>	<b>\$(2,214)</b>	<b>100.000%</b>	<b>\$224,284,548</b>	<b>100.000%</b>	<b>\$(1,753,164)</b>	<b>100.000%</b>

Note: Results may not total due to rounding.

## Schedule of Employer Allocations as of December 31, 2019

### Allocation of December 31, 2019 Net Pension Liability

Employer	Rate Group #10	Rate Group #10 Percentage	Rate Group #11	Rate Group #11 Percentage	Rate Group #12	Rate Group #12 Percentage
Orange County	\$0	0.000%	\$0	0.000%	\$0	0.000%
O.C. Cemetery District	0	0.000%	(228,119)	100.000%	0	0.000%
O.C. Law Library	0	0.000%	0	0.000%	(74,515)	100.000%
O.C. Vector Control District	0	0.000%	0	0.000%	0	0.000%
O.C. Retirement System	0	0.000%	0	0.000%	0	0.000%
O.C. Fire Authority	32,453,715	100.000%	0	0.000%	0	0.000%
Cypress Recreation and Parks	0	0.000%	0	0.000%	0	0.000%
Department of Education	0	0.000%	0	0.000%	0	0.000%
Transportation Corridor Agency	0	0.000%	0	0.000%	0	0.000%
City of San Juan Capistrano	0	0.000%	0	0.000%	0	0.000%
O.C. Sanitation District	0	0.000%	0	0.000%	0	0.000%
O.C. Transportation Authority	0	0.000%	0	0.000%	0	0.000%
U.C.I.	0	0.000%	0	0.000%	0	0.000%
O.C. Children and Families Comm.	0	0.000%	0	0.000%	0	0.000%
Local Agency Formation Comm.	0	0.000%	0	0.000%	0	0.000%
Rancho Santa Margarita	0	0.000%	0	0.000%	0	0.000%
O.C. Superior Court	0	0.000%	0	0.000%	0	0.000%
O.C. IHSS Public Authority	<u>0</u>	<u>0.000%</u>	<u>0</u>	<u>0.000%</u>	<u>0</u>	<u>0.000%</u>
<b>Total for all Employers</b>	<b>\$32,453,715</b>	<b>100.000%</b>	<b>\$(228,119)</b>	<b>100.000%</b>	<b>\$(74,515)</b>	<b>100.000%</b>

Note: Results may not total due to rounding.

## Schedule of Employer Allocations as of December 31, 2019

### Allocation of December 31, 2019 Net Pension Liability

Employer	Rate Group #6	Rate Group #6 Percentage	Rate Group #7	Rate Group #7 Percentage	Rate Group #8	Rate Group #8 Percentage
Orange County	\$235,494,376	100.000%	\$1,102,538,243	100.000%	\$0	0.000%
O.C. Cemetery District	0	0.000%	0	0.000%	0	0.000%
O.C. Law Library	0	0.000%	0	0.000%	0	0.000%
O.C. Vector Control District	0	0.000%	0	0.000%	0	0.000%
O.C. Retirement System	0	0.000%	0	0.000%	0	0.000%
O.C. Fire Authority	0	0.000%	0	0.000%	321,941,742	100.000%
Cypress Recreation and Parks	0	0.000%	0	0.000%	0	0.000%
Department of Education	0	0.000%	0	0.000%	0	0.000%
Transportation Corridor Agency	0	0.000%	0	0.000%	0	0.000%
City of San Juan Capistrano	0	0.000%	0	0.000%	0	0.000%
O.C. Sanitation District	0	0.000%	0	0.000%	0	0.000%
O.C. Transportation Authority	0	0.000%	0	0.000%	0	0.000%
U.C.I.	0	0.000%	0	0.000%	0	0.000%
O.C. Children and Families Comm.	0	0.000%	0	0.000%	0	0.000%
Local Agency Formation Comm.	0	0.000%	0	0.000%	0	0.000%
Rancho Santa Margarita	0	0.000%	0	0.000%	0	0.000%
O.C. Superior Court	0	0.000%	0	0.000%	0	0.000%
O.C. IHSS Public Authority	0	0.000%	0	0.000%	0	0.000%
<b>Total for all Employers</b>	<b>\$235,494,376</b>	<b>100.000%</b>	<b>\$1,102,538,243</b>	<b>100.000%</b>	<b>\$321,941,742</b>	<b>100.000%</b>

Note: Results may not total due to rounding.

## Schedule of Employer Allocations as of December 31, 2019

### Allocation of December 31, 2019 Net Pension Liability

Employer	Total NPL	Total Percentage
Orange County	\$4,124,212,240	81.254%
O.C. Cemetery District	(228,119)	(0.004%)
O.C. Law Library	(74,515)	(0.001%)
O.C. Vector Control District <sup>4</sup>	(625,500)	(0.012%)
O.C. Retirement System	26,824,264	0.529%
O.C. Fire Authority	354,395,457	6.982%
Cypress Recreation and Parks <sup>4</sup>	262,415	0.005%
Department of Education <sup>4</sup>	3,099,339	0.061%
Transportation Corridor Agency	(1,753,164)	(0.035%)
City of San Juan Capistrano	26,191,970	0.516%
O.C. Sanitation District	(49,446,617)	(0.974%)
O.C. Transportation Authority	224,284,548	4.419%
U.C.I. <sup>4</sup>	30,213,739	0.595%
O.C. Children and Families Comm.	(646,472)	(0.013%)
Local Agency Formation Comm.	1,489,642	0.029%
Rancho Santa Margarita	(2,214)	(0.000%)
O.C. Superior Court	336,766,149	6.635%
O.C. IHSS Public Authority	<u>719,301</u>	<u>0.014%</u>
<b>Total for all Employers</b>	<b>\$5,075,682,463</b>	<b>100.000%</b>

Note: Results may not total due to rounding.

<sup>4</sup> In determining the NPLs for the O.C. Vector Control District, Cypress Recreation and Parks, Department of Education and U.C.I., we first start by rolling forward the VVAs of these employers as of December 31, 2018 to December 31, 2019 for the actual contributions, benefit payments and return on their VVAs during 2019. Those VVAs are then marked to the Plan's Fiduciary Net Position as of December 31, 2019. The TPLs for these employers are obtained from internal valuation results (by rolling forward their TPLs from December 31, 2018).



## Schedule of Employer Allocations as of December 31, 2019

### Notes:

1. Based on the January 1, 2019 through December 31, 2019 employer contributions as provided by OCERS. These contributions have been adjusted to exclude employer paid member contributions and they have not been reduced for discount due to prepaid contributions. (It should be noted that we would also have included transfers made from the County Investment Account had those transfers been made in 2019.)
- 2a. The Net Pension Liability (NPL) for each Rate Group is the Total Pension Liability (TPL) minus the Plan's Fiduciary Net Position (plan assets). The TPL for each Rate Group is obtained from internal valuation results. The Plan's Fiduciary Net Position for each Rate Group is estimated by adjusting the Valuation Value of Assets (VVA) for each membership class by the ratio of the total OCERS Plan's Fiduciary Net Position (excluding the balance of the County Investment Account and the O.C. Sanitation District UAAL Deferred Account) to total OCERS VVA. As previously directed by OCERS, the County Investment Account is then allocated among the four County Rate Groups using the proportions of County POB contributions made during 2019. Again, as there were no such County POB contributions made during 2019, we have continued to apply the same proportions determined in 2014 for each of the four County Rate Groups to allocate the \$150,416,000 in the County Investment Account as of December 31, 2019. These amounts are provided in item 3. The O.C. Sanitation District UAAL Deferred Account is allocated entirely to Rate Group #3 and the balance of that account has been reduced by from \$30,688,000 to \$12,057,000 at the end of the year to mitigate the additional UAAL due to actuarial losses (and that UAAL was measured on a VVA basis). Nonetheless, the balance of the O.C. Sanitation District UAAL Deferred Account was used to reduce the NPL for the O.C. Sanitation District as of the measurement date.
- b. Each of General Rate Groups #3, #4, #5, #9, #10, #11 and #12 and Safety Rate Groups #6, #7 and #8 have only one active employer, so all of the NPL for that Rate Group is allocated to the corresponding employer.
- c. For General Rate Groups #1 and #2, the NPL is allocated based on the actual employer contributions within the General Rate Group.
  - The NPL for Rate Group #1 was adjusted by the NPLs for the O.C. Vector Control District, Cypress Recreation and Parks, Department of Education and U.C.I. prior to allocating the net NPL to the other employers in Rate Group #1 as the NPLs for these four employers were calculated separately.
  - Calculate ratio of employer's contributions to the total contributions for the Rate Group. For this purpose, the employer contributions exclude the following amounts:

- (i) Rate Group #1 (Department of Education): \$267,000
- (ii) Rate Group #1 (U.C.I.): \$2,789,000
- (iii) Rate Group #1 (O.C. Vector Control District): \$878,000

- Multiply this ratio (unrounded) by the NPL for the Rate Group to determine the employer's proportionate share of the NPL for the Rate Group.
- The UAAL contributions referenced in (i), (ii) and (iii) above are adjusted with interest to December 31, 2019 and are used to reduce the NPL for the three employers as of December 31, 2019.

The percentages of contributions by employer are not exactly equal to the percentages we use to allocate the NPL by employer because the NPL for the County has been reduced to reflect the portion of the County Investment Account that has been allocated among the four County Rate Groups. The amounts of the County Investment Account that have been allocated to those Rate Groups are as follows:

Rate Group #1:	\$5,558,363
Rate Group #2:	92,443,896
Rate Group #6:	9,607,620
Rate Group #7:	<u>42,806,121</u>
Total:	\$150,416,000

In addition, the NPL for Rate Group #2 was allocated prior to applying the adjusted balance of the \$1,744,454 in additional UAAL contributions made by O.C. Children and Families Commission on November 15, 2017. That balance is equal to \$1,809,390 as of December 31, 2018 as shown on Exhibit A1 and is equal to \$1,782,458 as of December 31, 2019 when adjusted with interest for the entire year and UAAL contribution offset starting from January 1, 2019 to December 31, 2019. We would continue to maintain the outstanding balance of the additional UAAL contributions for use in determining the NPL for this employer.

4. If the employer is in several Rate Groups, the employer's total allocated NPL is the sum of its allocated NPL from each Rate Group. Proportionate share of total plan NPL is then the ratio of the employer's total allocated NPL to the total NPL of all employers.

## Schedule of Pension Amounts by Employer as of December 31, 2019 Measurement Date

Deferred Outflows of Resources	Orange County	O.C. Cemetery District	O.C. Law Library	O.C. Vector Control District	O.C. Retirement System
Differences Between Expected and Actual Experience	\$13,982,779	\$103,588	\$43,407	\$170,770	\$0
Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	587,160,184	556,607	580,153	1,491,917	3,773,899
Changes of Assumptions	322,870,826	244,428	214,778	435,411	2,018,023
Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	<u>18,170,596</u>	<u>0</u>	<u>9,214</u>	<u>0</u>	<u>3,962,866</u>
<b>Total Deferred Outflows of Resources</b>	<b>\$942,184,385</b>	<b>\$904,623</b>	<b>\$847,552</b>	<b>\$2,098,098</b>	<b>\$9,754,788</b>
<b>Deferred Inflows of Resources</b>					
Differences Between Expected and Actual Experience	\$206,914,979	\$582,255	\$409,176	\$1,511,789	\$1,273,114
Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	997,095,584	911,694	921,702	2,404,780	6,362,377
Changes of Assumptions	6,642,961	5,895	30,514	0	62,731
Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	<u>4,789,699</u>	<u>0</u>	<u>449,137</u>	<u>0</u>	<u>218,343</u>
<b>Total Deferred Inflows of Resources</b>	<b>\$1,215,443,223</b>	<b>\$1,499,844</b>	<b>\$1,810,529</b>	<b>\$3,916,569</b>	<b>\$7,916,565</b>
<b>Net Pension Liability as of December 31, 2018</b>	<b>\$4,918,576,912</b>	<b>\$962,119</b>	<b>\$573,252</b>	<b>\$2,492,695</b>	<b>\$28,844,760</b>
<b>Net Pension Liability as of December 31, 2019</b>	<b>\$4,124,212,240</b>	<b>\$(228,119)</b>	<b>\$(74,515)</b>	<b>\$(625,500)</b>	<b>\$26,824,264</b>
<b>Pension Expense Excluding That Attributable to Employer-Paid Member Contributions</b>					
Proportionate Share of Allocable Plan Pension Expense	\$449,535,284	\$127,197	\$232,335	\$(351,264)	\$2,317,279
Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	<u>6,270,138</u>	<u>0</u>	<u>(372,508)</u>	<u>0</u>	<u>1,153,331</u>
<b>Total Employer Pension Expense Excluding That Attributable to Employer-Paid Member Contributions</b>	<b>\$455,805,422</b>	<b>\$127,197</b>	<b>\$(140,173)</b>	<b>\$(351,264)</b>	<b>\$3,470,610</b>

## Schedule of Pension Amounts by Employer as of December 31, 2019 Measurement Date

Deferred Outflows of Resources	O.C. Fire Authority	Cypress Recreation and Parks	Department of Education	Transportation Corridor Agency	City of San Juan Capistrano
Differences Between Expected and Actual Experience	\$24,478,887	\$2,252,572	\$380,618	\$615,484	\$0
Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	85,355,117	211,982	540,022	1,872,077	3,684,941
Changes of Assumptions	29,267,911	70,336	177,787	880,388	1,970,455
Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>887,243</u>
<b>Total Deferred Outflows of Resources</b>	<b>\$139,101,915</b>	<b>\$2,534,890</b>	<b>\$1,098,427</b>	<b>\$3,367,949</b>	<b>\$6,542,639</b>
<b>Deferred Inflows of Resources</b>					
Differences Between Expected and Actual Experience	\$38,937,675	\$0	\$678,741	\$940,190	\$1,243,105
Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	144,282,784	1,844,790	858,174	3,760,486	6,212,405
Changes of Assumptions	130,986	0	10,085	28,116	61,252
Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>1,975,710</u>
<b>Total Deferred Inflows of Resources</b>	<b>\$183,351,445</b>	<b>\$1,844,790</b>	<b>\$1,547,000</b>	<b>\$4,728,792</b>	<b>\$9,492,472</b>
<b>Net Pension Liability as of December 31, 2018</b>	<b>\$466,731,526</b>	<b>\$408,781</b>	<b>\$3,517,372</b>	<b>\$13,253,632</b>	<b>\$32,142,058</b>
<b>Net Pension Liability as of December 31, 2019</b>	<b>\$354,395,457</b>	<b>\$262,415</b>	<b>\$3,099,339</b>	<b>\$(1,753,164)</b>	<b>\$26,191,970</b>
<b>Pension Expense Excluding That Attributable to Employer-Paid Member Contributions</b>					
Proportionate Share of Allocable Plan Pension Expense	\$67,124,196	\$4,345	\$271,328	\$1,376,160	\$2,262,657
Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>(298,375)</u>
<b>Total Employer Pension Expense Excluding That Attributable to Employer-Paid Member Contributions</b>	<b>\$67,124,196</b>	<b>\$4,345</b>	<b>\$271,328</b>	<b>\$1,376,160</b>	<b>\$1,964,282</b>

## Schedule of Pension Amounts by Employer as of December 31, 2019 Measurement Date

Deferred Outflows of Resources	O.C. Sanitation District	O.C. Transportation Authority	U.C.I.	O.C. Children and Families Comm.	Local Agency Formation Comm.
Differences Between Expected and Actual Experience	\$9,606,499	\$2,331,117	\$1,790,493	\$0	\$0
Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	39,421,678	39,326,279	4,449,052	(90,952)	209,577
Changes of Assumptions	12,311,067	21,920,909	1,425,191	(48,635)	112,068
Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	<u>449,137</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>246,158</u>
<b>Total Deferred Outflows of Resources</b>	<b>\$61,788,381</b>	<b>\$63,578,305</b>	<b>\$7,664,736</b>	<b>\$(139,587)</b>	<b>\$567,803</b>
<b>Deferred Inflows of Resources</b>					
Differences Between Expected and Actual Experience	\$5,416,832	\$21,768,391	\$2,432,087	\$(30,682)	\$70,700
Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	64,842,567	66,279,519	7,119,985	(153,335)	353,324
Changes of Assumptions	372,978	595,454	79,608	(1,512)	3,484
Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	<u>9,214</u>	<u>0</u>	<u>0</u>	<u>1,652,118</u>	<u>77,447</u>
<b>Total Deferred Inflows of Resources</b>	<b>\$70,641,591</b>	<b>\$88,643,364</b>	<b>\$9,631,680</b>	<b>\$1,466,589</b>	<b>\$504,955</b>
<b>Net Pension Liability as of December 31, 2018</b>	<b>\$29,029,145</b>	<b>\$269,788,642</b>	<b>\$34,808,679</b>	<b>\$630,610</b>	<b>\$1,582,703</b>
<b>Net Pension Liability as of December 31, 2019</b>	<b>\$(49,446,617)</b>	<b>\$224,284,548</b>	<b>\$30,213,739</b>	<b>\$(646,472)</b>	<b>\$1,489,642</b>
<b>Pension Expense Excluding That Attributable to Employer-Paid Member Contributions</b>					
Proportionate Share of Allocable Plan Pension Expense	\$10,009,584	\$26,336,223	\$2,168,623	\$(55,847)	\$128,686
Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	<u>372,508</u>	<u>0</u>	<u>0</u>	<u>(539,747)</u>	<u>58,155</u>
<b>Total Employer Pension Expense Excluding That Attributable to Employer-Paid Member Contributions</b>	<b>\$10,382,092</b>	<b>\$26,336,223</b>	<b>\$2,168,623</b>	<b>\$(595,594)</b>	<b>\$186,841</b>

## Schedule of Pension Amounts by Employer as of December 31, 2019 Measurement Date

Deferred Outflows of Resources	Rancho Santa Margarita	O.C. Superior Court	O.C. IHSS Public Authority	Total for all Employers
Differences Between Expected and Actual Experience	\$1,242	\$0	\$0	\$55,757,456
Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	3,008	47,379,540	243,386	816,168,467
Changes of Assumptions	480	25,335,345	173,542	419,380,310
Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	<u>0</u>	<u>4,270,636</u>	<u>84,750</u>	<u>28,080,600</u>
<b>Total Deferred Outflows of Resources</b>	<b>\$4,730</b>	<b>\$76,985,521</b>	<b>\$501,678</b>	<b>\$1,319,386,833</b>
<b>Deferred Inflows of Resources</b>				
Differences Between Expected and Actual Experience	\$5,388	\$15,983,355	\$237,210	\$298,374,305
Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	5,535	79,876,681	396,090	1,383,375,142
Changes of Assumptions	29	787,559	3,713	8,813,853
Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	<u>0</u>	<u>18,899,874</u>	<u>9,058</u>	<u>28,080,600</u>
<b>Total Deferred Inflows of Resources</b>	<b>\$10,952</b>	<b>\$115,547,469</b>	<b>\$646,071</b>	<b>\$1,718,643,900</b>
<b>Net Pension Liability as of December 31, 2018</b>	<b>\$1,284</b>	<b>\$392,760,910</b>	<b>\$1,097,009</b>	<b>\$6,197,202,089</b>
<b>Net Pension Liability as of December 31, 2019</b>	<b>\$(2,214)</b>	<b>\$336,766,149</b>	<b>\$719,301</b>	<b>\$5,075,682,463</b>
<b>Pension Expense Excluding That Attributable to Employer-Paid Member Contributions</b>				
Proportionate Share of Allocable Plan Pension Expense	\$(95)	\$29,092,356	\$169,172	\$590,748,219
Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	<u>0</u>	<u>(6,685,009)</u>	<u>41,507</u>	<u>0</u>
<b>Total Employer Pension Expense Excluding That Attributable to Employer-Paid Member Contributions</b>	<b>\$(95)</b>	<b>\$22,407,347</b>	<b>\$210,679</b>	<b>\$590,748,219</b>

## Schedule of Pension Amounts by Employer as of December 31, 2019 Measurement Date

### Notes:

Amounts shown in this exhibit were allocated by employer based on the Employer Allocation Percentage calculated in Exhibit A2.

In determining the pension expense:

- Any differences between projected and actual investment earnings on pension plan investments are recognized over a period of five years beginning with the year in which they occur.
- Current-period (i.e., 2019) differences between expected and actual experience and changes of assumptions are recognized over the average of the expected remaining service lives of all employees that are provided with pensions through OCERS determined as of December 31, 2018 (the beginning of the measurement period ending December 31, 2019) and is 5.86 years.
- Prior-period differences between expected and actual experience and changes of assumptions are continued to be recognized based on the expected remaining service lives of all employees calculated as of those prior measurement dates.

The average of the expected remaining service lives of all employees was determined by:

- Calculating each active employee's expected remaining service life as the present value of \$1 per year of future service at zero percent interest.
- Setting the remaining service life to zero for each nonactive or retired members.
- Dividing the sum of the above amounts by the total number of active employee, nonactive and retired members.

There was a decrease in the total employer pension expense from \$783.7 million calculated last year to \$590.7 million calculated this year. The primary cause of the decrease was due to an investment gain of \$1.2 billion with \$234.2 million being recognized in this year's expense.

Note: Results may not total due to rounding.