## EXHIBIT I ACTUARIAL EQUIVALENCE TABLES (Retiree Coverage Only)

### Actuarial Equivalent Value of Reduction in Retiree Contribution for Each Additional Year of Service – Total Less Than 20

Age at Retirement	Retirements Commencing from July 1, 2019 through June 30, 2020	Retirements Commencing from July 1, 2020 through June 30, 2021
40	\$8,766	\$9,227
41	8,584	9,037
42	8,398	8,843
43	8,207	8,643
44	8,012	8,439
45	7,812	8,230
46	7,607	8,016
47	7,398	7,797
48	7,183	7,573
49	6,963	7,343
50	6,737	7,107
51	6,506	6,865
52	6,269	6,618
53	6,027	6,364
54	5,779	6,104
55	5,526	5,839
56	5,269	5,568
57	5,009	5,293
58	4,745	5,015
59	4,478	4,732
60	4,209	4,732
61	3,937	
62	3,664	4,158
63	3,390	3,868 3,576
64		
65	3,115 2,840	3,283 2,989
66		•
67	2,752 2,664	2,897 2,805
68		2,713
69	2,576 2,487	2,713
70		
	2,397	2,525
71 72	2,307	2,431
72	2,216	2,336
73 74	2,126	2,242
75	2,035 1,945	2,147 2,053
75 76		
	1,856	1,959
77	1,767	1,866
78 70	1,680	1,774
79	1,594	1,684
80	1,509	1,596

### EXHIBIT II CALCULATION EXAMPLES

Example 1:	Errore	nla	1.
	cxam	ne	1:

Retirement Date:

August 1, 2019

Age at Retirement

Service at retirement, before addition of service

14

Actuarial equivalent cost per additional year of service

\$4,745

#### Example 2:

Retirement date:

Age at retirement

67

Service at retirement, before addition of 3 years of Service

10

Actuarial equivalent cost of 3 additional years of service

\$8,415 (3 X \$2,805)

### Example 3:

Retirement date:

Age at retirement

Service at retirement, before addition of Service

Actuarial equivalent cost per additional year of service

\$3,868

#### Example 4:

Retirement Date:

Age at Retirement

60

Service at Retirement, before addition of Service

22

Actuarial equivalent cost per additional year of service

Not Eligible

### EXHIBIT III ACTUARIAL ASSUMPTIONS

Service Purchase does not apply to the spousal subsidy rate.

**Discount Rate:** 7.25%

#### **Mortality Rates:**

The mortality basis for the actuarial equivalence is a weighted average of the healthy post-retirement mortality rates from the June 30, 2018 GASB 74 and 75 valuations:

30% PERA Healthy Male 20% PERA Healthy Female 15% ERB Healthy Male\* 35% ERB Healthy Female\*

Below is a series of sample rates:

-	1
Age	Mortality Rate (%)
40	0.1017
45	0.1432
50	0.1921
55	0.2715
60	0.4363
65	0.7877
70	1.3159
75	2.2557
80	4.1047
85	7.5339
90	13.6610

<sup>\*</sup> The ERB mortality tables were changed from a generational projection in the valuation to static projection to 2018 for the service purchase calculation.

### EXHIBIT III ACTUARIAL ASSUMPTIONS

### Retiree Contribution Increments Used for Actuarial Equivalence

Reduction in annual retiree contribution for additional year of service, when total years of service does not exceed 20:

### **Under Age 65**

12-month period from July 1, 2019 through June 30, 2020	\$ 360.75	
12-month period from July 1, 2020 through June 30, 2021	\$ 387.81	
Age 65 and Older		
12-month period from July 1, 2019 through June 30, 2020	\$ 165.67	
12-month period from July 1, 2020 through June 30, 2021	\$ 177.27	

#### **Assumed Increases in Future Retiree Contributions**

Assumed Rate of Increase Over Preceding 12-month Period

	12 monut i chou	
Year Ended June 30,	Non-Medicare	Medicare
2022	7.25%	6.75%
2023	7.00%	6.50%
2024	6.75%	6.25%
2025	6.50%	6.00%
2026	6.25%	5.75%
2027	6.00%	5.50%
2028	5.75%	5.25%
2029	5.50%	5.00%
2030	5.25%	4.75%
2031	5.00%	4.50%
2032	4.75%	4.50%
2033 and Later	4.50%	4.50%