

Maine Public Employees Retirement System

**Retiree Group Life Insurance Program** 

Participating Local Districts (PLDs) Actuarial Valuation and GASB Statement No. 74 Report as of June 30, 2019

Presented by Cheiron October 2019

# TABLE OF CONTENTS

Section	<u>Page</u>
Letter of Transmittal	i
Summary of Key Results	1
Determination of Discount Rate	3
Projection of Total OPEB Liability	5
Note Disclosures	6
Required Supplementary Information	8

# <u>Appendices</u>

Appendix A	Participant Data	11
Appendix B	Details on interest rate calculation	12
Appendix C	Assumptions, and Methods	18
Appendix D	Summary of Key Plan Provisions	22
Appendix E	Glossary of Terms	23





### Via Electronic Mail and UPS Delivery

October 15, 2019

Board of Trustees Maine Public Employees Retirement System P.O. Box 349 Augusta, Maine 04332-0349

### Re: Maine Public Employees Retirement System Retiree Group Life Insurance Program Actuarial Valuation Report for Participating Local Districts Plans.

Dear Members of the Board:

The purpose of this report is to provide accounting and financial reporting information under Governmental Accounting Standards Board (GASB) Statement No. 74 and present the estimated Postretirement Group Life Insurance obligations as of June 30, 2019, for the Maine Public Employees Retirement System (MainePERS or System) based on a roll-forward of the obligations as of June 30, 2018.

This report covers the participants of Participating Local Districts Plans (PLDs).

This report includes:

- Determination of the discount rate,
- Projection of the Total OPEB Liability (TOL) from the valuation date to the measurement date,
- Calculation of the Net OPEB Liability (NOL) at the discount rate as well as discount rates one percentage higher and lower than the discount rate, and
- Changes in the Net OPEB Liability.

We have determined the costs and liabilities for the substantive plan using actuarial assumptions and methods that we consider reasonable. The information shown in this report is primarily for financial disclosure purposes since the biennial full valuations are used to actually adjust funding strategies.

The current premium rates reflect rate changes adopted by the Board of Trustees based on a premium study conducted in 2016. The premiums were unchanged for PLD employees. PLD employees pay \$0.46 monthly per \$1,000 in coverage. Additional increases in future years will be determined by the next premium study in 2020.

In preparing our report, we relied on information (some oral and some written) supplied by the System. This information includes, but is not limited to, the plan provisions, employee data, and financial information. We performed an informal examination of the obvious characteristics of the data for reasonableness and consistency in accordance with Actuarial Standard of Practice No. 23.

Board of Trustees Maine Public Employees Retirement System October 15, 2019 Page ii

Future actuarial measurements may differ significantly from the current measurements due to such factors as the following: plan experience differing from that anticipated by the assumptions; changes in assumptions; and changes in plan provisions or applicable law.

This report and its contents have been prepared in accordance with generally recognized and accepted actuarial principles and practices and our understanding of the Code of Professional Conduct and applicable Actuarial Standards of Practice set out by the Actuarial Standards Board as well as applicable laws and regulations. Furthermore, as credentialed actuaries, we meet the Qualification Standards of the American Academy of Actuaries to render the opinion contained in this report. This report does not address any contractual or legal issues. We are not attorneys, and our firm does not provide any legal services or advice.

This report was prepared for the Maine Public Employees Retirement System for the purposes described herein and for the use by the Plan auditor in completing an audit related to the matters herein. Other users of this report are not intended users as defined in the Actuarial Standards of Practice, and Cheiron assumes no duty or liability to such other users.

Sincerely, Cheiron

John Colberg, FSA, MAAA, EA Principal Consulting Actuary

Ugan Beniter

Ryan Benitez, ASA, MAAA Associate Actuary



### SUMMARY OF KEY RESULTS

## **Section I – Funding Results**

The table below shows the results on a funding basis which reflects a discount rate of 6.750% in 2018 and 2019.

Table I-1 Result Reflecting Funding Assumptions for PLDs								
	As of	June 30, 2018	As of	f June 30, 2019				
Actuarial Liability								
- Active Employees	\$	9,540,327	\$	10,324,090				
- Retirees	\$	18,733,810	\$	18,521,645				
Total	\$	28,274,137	\$	28,845,735				
Less: Assets at Valuation Date <sup>1</sup>	\$	15,821,928	\$	16,259,162				
Unfunded Actuarial Liability (UAL)	\$	12,452,209	\$	12,586,573				

<sup>1</sup> The assets shown have been adjusted to reflect only assets dedicated to retiree benefits.



### SUMMARY OF KEY RESULTS

## Section II – Financial Reporting Results

This report is the third report under the Governmental Accounting Standards Board (GASB) Statement No. 74. The reporting date for the Maine Public Employees Retirement System Retiree Group Life Insurance Program presented in this report is June 30, 2019. Measurements as of the reporting date are based on the fair value of assets as of June 30, 2019 and the Total OPEB Liability (TOL) as of the valuation date June 30, 2018 using a blended discount rate of 5.13% rolled forward to June 30, 2019 and adjusted to a blended discount rate of 4.98%. There were no significant events between the valuation date and the measurement date, so the update procedures only included the change in discount rate, the addition of service cost and interest cost offset by actual benefit payments as permitted under GASB No. 74.

Beginning of year measurements presented in this report are based on the actuarial valuation as of June 30, 2018 rolled forward to June 30, 2019. Because the beginning and ending values are based on the same actuarial valuation and there were no significant events, no liability gains or losses due to experience are reported in either year shown in this report. During full valuation years, liability gains and losses will be reported reflecting the liability gains and losses between actuarial valuation dates as well as any significant events during the update period.

Table II - 1       Summary of Results							
Measurement DateMeasurement Date06/30/201806/30/2019							
Total OPEB Liability	\$	36,022,905	\$	37,656,642			
Plan Fiduciary Net Position		15,821,928		16,259,162			
Net OPEB Liability	\$	20,200,977	\$	21,397,480			

Table II-1 below provides a summary of the key results during this reporting period ending on June 30, 2019.

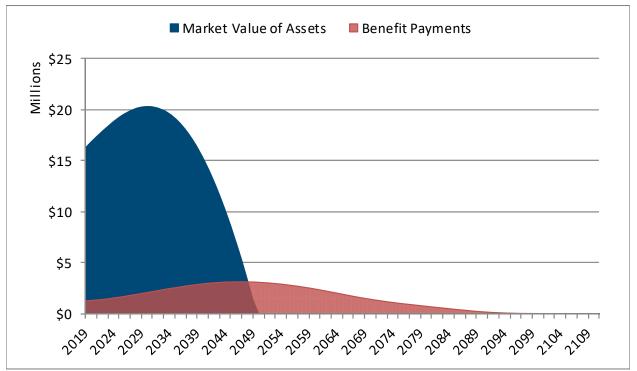


## **DETERMINATION OF DISCOUNT RATE**

MainePERS's funding policy is for PLD employees to pay \$0.46 monthly per \$1,000 in coverage for all participants. Of the \$0.46 for actives, \$0.22 is allocated to fund retiree benefits.

The discount rate at June 30, 2019 is 6.750% for funding purposes, which is the assumed long-term expected rate of return on plan investments. We have performed a formal cash flow projection as described under Paragraphs 48-53 of GASB Statement 74.

The discount rate used to measure the Total OPEB Liability was 4.98% which is a blend of the assumed long-term expected rate of return of 6.750% on the Plan's investments and a municipal bond index rate of 3.50% based on the Bond Buyer GO 20-Year Municipal Bond Index as of June 30, 2019. Following the procedures described in paragraphs 43 - 53 of GASB Statement 74, projections of the System's fiduciary net position have indicated that it is not expected to be sufficient to make projected benefit payments for current plan members after 2050. Therefore the portion of future projected benefit payments after 2050 are discounted at the municipal bond index rate. The results of these projections are shown in the chart below.



This discount rate is intended to be used for accounting and financial reporting, but is not appropriate for estimating the price to settle the plan's liability.

A similar calculation was made as of June 30, 2018 using a blend of the assumed long-term expected rate of return of 6.750% on the System's investments and a municipal bond index rate of 3.87%. This calculation resulted in a blended discount rate of 5.13%.



## **DETERMINATION OF DISCOUNT RATE**

The projection of cash flows used to determine the discount rate assumed that employer contributions continued to be made in accordance with the contribution policy in effect for the July 1, 2018 Actuarial Valuation.

Appendix B shows the details of this calculation as of June 30, 2019.



## **PROJECTION OF TOTAL OPEB LIABILITY**

The TOL at the beginning of the current measurement year is measured as of a valuation date of June 30, 2018. The TOL at the end of the measurement year, June 30, 2019 is measured as of a valuation date of June 30, 2018 and projected to June 30, 2019. This is a roll forward valuation, and full valuations are completed at least every two years. There were no significant events during the current projection period of which we are aware. The table below shows the projection of the TOL at discount rates equal to the rate used for disclosure purposes as of June 30, 2019 and plus and minus one percent from that rate. The TOL has been determined using the entry age actuarial cost method as described in paragraph 54 of GASB Statement 74.

Table 2 projects the June 30, 2018 TOL recalculated using the June 30, 2019 discount rate as well as for plus and minus one percent of this discount rate. The liabilities are then rolled forward to June 30, 2019.

Total OPEB Liability Se		ole II - 2 ity at 6/30/201	. <b>9</b> I	Measurement	Da	te		
Discount Rate		3.98% 4.98%				5.98%		
<b>Total OPEB Liability, 6/30/2018</b> Actives	\$	17,463,896	\$	13,881,055	\$	11,175,996		
Deferred Vested Retirees	Ŷ	0 26,164,694		0 23,017,793		0 20,426,084		
Total	\$	43,628,590	\$	36,898,848	\$			
Service Cost, Beginning of Year Service Cost at Valuation Date Service Cost Rate Expected Payroll During Year Service Cost	\$ \$	735,022 0.27% 276,287,000 735,022	·	515,025 0.19% 276,287,000 515,025		0.13% 276,287,000		
Benefit Payments	\$	(1,581,540)	\$	(1,581,540)	\$	(1,581,540)		
Interest	\$	1,734,506	\$	1,824,309	\$	1,864,918		
Change in Benefits Change in Assumptions Other Significant Events		0 0 0		0 0 0		0 0 0		
Total OPEB Liability, 6/30/2019	\$	44,516,578	\$	37,656,642	\$	32,248,580		



### **NOTE DISCLOSURES**

Table 3 below shows the changes in TOL, the plan fiduciary net position (i.e., fair value of plan assets), and the Net OPEB Liability during the measurement year. There were no significant changes in benefits during the year. As previously noted we did not modify assumptions, except for the discount rate required under GASB 74, or adjust the participant data for this report. Therefore, no differences between expected and actual experience, i.e., experience adjustments, are included in this report.

Table II - 3 Change in Net OPEB Liability - PLD								
	Increase (Decrease)							
	ŗ	Fotal OPEB Liability (a)		an Fiduciary let Position (b)		Net OPEB Liability (a) - (b)		
Balances at 06/30/2018	\$	36,022,905	\$	15,821,928	\$	20,200,977		
Changes for the year:								
Service cost		488,545				488,545		
Interest		1,832,881				1,832,881		
Changes of benefits		0				0		
Changes of assumptions		893,851				893,851		
Differences between expected and actual experience		0				0		
Contributions - employer				1,100,509		(1,100,509)		
Contributions - member				0		0		
Net investment income				1,037,784		(1,037,784)		
Benefit payments		(1,581,540)		(1,581,540)		0		
Administrative expense		0		(119,519)		119,519		
Net changes		1,633,737		437,234		1,196,503		
Balances at 6/30/2019	\$	37,656,642	\$	16,259,162	\$	21,397,480		



### **NOTE DISCLOSURES**

Changes in the discount rate would affect the measurement of the TOL. Lower discount rates produce a higher TOL and higher discount rates produce a lower TOL. Because the discount rate does not affect the measurement of assets, the percentage change in the NOL can be very significant for a relatively small change in the discount rate. Table 4 shows the sensitivity of the TOL and NOL to the discount rate.

Table II - 4           Sensitivity of Net OPEB Liability to Changes in Discount Rate									
		1% Decrease 3.98%		Discount Rate 4.98%		1% Increase 5.98%			
Total OPEB Liability Plan Fiduciary Net Position	\$	44,516,578 16,259,162	\$	37,656,642 16,259,162	\$	32,248,580 16,259,162			
Collective Net OPEB Liability Plan Fiduciary Net Position as a Percentage of the Total OPEB Liability	\$	<u>28,257,416</u> 36.5%	\$	<u>21,397,480</u> 43.2%	\$	<u>15,989,418</u> 50.4%			

A one percent decrease in the discount rate increases the TOL by approximately 18.2% and increases the NOL by approximately 32.1%. A one percent increase in the discount rate decreases the TOL by approximately 14.4% and decreases the NOL by approximately 25.3%.



### **REQUIRED SUPPLEMENTARY INFORMATION**

Table II - 5 Schedule of Changes in Net OPEB Liability and Related	Ratio	98
		FY 2019
Total OPEB Liability		
Service cost (BOY)	\$	488,545
Interest (includes interest on service cost)		1,832,881
Changes of benefit terms		0
Differences between expected and actual experience		0
Changes of assumptions		893,851
Benefit payments, including refunds of member contributions		(1,581,540)
Net change in total OPEB liability		1,633,737
Total OPEB liability - beginning		36,022,905
Total OPEB liability - ending	\$	37,656,642
Plan fiduciary net position		
Contributions - employer	\$	1,100,509
Contributions - member		0
Net investment income		1,037,784
Benefit payments, including refunds of member contributions		(1,581,540)
Administrative expense		(119,519)
Net change in plan fiduciary net position	\$	437,234
Plan fiduciary net position - beginning		15,821,928
Plan fiduciary net position - ending	\$	16,259,162
Net OPEB liability - ending	<u>\$</u>	21,397,480
Plan fiduciary net position as a percentage of the total OPEB liability		43.18%
Covered employee payroll (projected for FY 2019)	\$	283,884,893
Net OPEB liability as a percentage of covered employee payroll		7.54%

Notes to Schedule of Changes in Net OPEB Liability and Related Ratios None.

A ten-year schedule of changes in NOL and related ratios is to be included within the CAFR for MainePERS. However, based on GASB guidance, this ten-year history can be built one year at a time following implementation. We have shown only the current year of this *Schedule of Changes in Net OPEB Liability and Related Ratios* above and believe that you can accumulate these individual years in the MainePERS CAFR to build this schedule to show the full ten-year schedule over time. Notes to this schedule should be included for any factors significantly impacting the trends reported within the period shown in this schedule at that time. As of June 30, 2019, we have included such a note in the *Notes to Schedule of Changes in Net OPEB Liability and Related Ratios* above. However, it is our expectation that System staff will make the final determination regarding any notes needed for this schedule and are available to provide any information they may need for this purpose.



### **REQUIRED SUPPLEMENTARY INFORMATION**

If an Actuarially Determined Contribution is calculated, the following schedule is required. An Actuarially Determined Contribution is a contribution amount determined in accordance with Actuarial Standards of Practice.

Table II - 6 Schedule of Employer Contributions During Fiscal Year 2019	
	PLD
Actuarially Determined Contribution Contributions in Relation to the Actuarially Determined Contribution	\$ 1,287,098 1,100,509
Contribution Deficiency/(Excess)	\$ 186,589
Covered Payroll*	\$ 283,884,893
Contributions as a Percentage of Covered Payroll	0.39%
* Projected payroll for roll-forward year	

### Notes to Schedule

Valuation Date: June 30, 2016

Timing: The ADC is calculated based on the prior biennial valuation, in this case, ADCs for 2018 and 2019 are based on the June 30, 2016 valuation.

## Key Methods and Assumptions Used to Determine Contribution Rates for FY 2019

Actuarial Cost Method:	Entry Age Normal
Asset Valuation Method:	Market Value
Amortization Method:	Level percent closed with 12 years remaining for FY 2019
Discount Rate:	6.875%
Salary Inflation:	2.750%
Administrative Expense Load:	8.66%

A complete description of the methods and assumptions used to determine contribution rates for the year ending June 30, 2019 can be found in the June 30, 2016 Actuarial Valuation report.



### **REQUIRED SUPPLEMENTARY INFORMATION**

Table II-7 that follows is provided in this report at the request of MainePERS staff, showing the development of the average remaining service life for the Program. GASB 75 requires some items be recognized by employers into OPEB expense over a period "equal to the average of the expected remaining service lives of all employees that are provided with OPEB through the OPEB plan (active employees and inactive employees) determined as of the beginning of the measurement period." For the current measurement year ending on June 30, 2019, these values are thus developed based on the prior full biennial valuation data as of June 30, 2018. The development of this value is shown below, including reflection of the decision by MainePERS to round the resulting value to the nearest whole year.

Table II - 7 Average Expected Remaining Service Life For Measurement Year Ending June 30, 2019								
Status	Total Expected Future Service	Count	Average Remaining Service Life					
Actives	51,268	5,495	9					
Inactives	<u>0</u>	<u>2,850</u>	<u>0</u>					
Total Membership	51,268	8,345	6					



## **APPENDIX A – PARTICIPANT DATA**

## Participant Data as of June 30, 2018

TABLE A-1ACTIVE MEMBER DATAAverageAverage								
Group	Count	Age	Servi	ce	Avera	ge Salary		
PLDs	5,495	5 49.	5 1	0.7	\$	50,280		
	NON-AO Group PLDs	TABL CTIVE M Count 2,850		A B	ATA verage enefit <sup>1</sup> 17,136			

<sup>1</sup>Ultimate benefit (40% of initial base benefit)

Note that all assumptions are based on the MainePERS Pension assumptions, which were updated after the experience study performed two years ago except for the discount rate which was lowered for last year's valuation.



### **APPENDIX B – DETAILS OF INTEREST RATE CALCULATION**

#### Table B-1 - Projection of Contributions

Projections Commence June 30, 2019

\* Total covered-employee payroll increases 2.75% per year

Year	Payroll for Current Employees	Payroll for Future Employees	Total Employee Payroll*	Premium Contribution Rate	UAL Rate	Employer Contributions for Current Employees	Contributions Related to Payroll of Future Employees	Total Contributions
	(a)	(b)	(c) = (a) + (b)	(d)	(e)	(f) = (a) x (d)	(g) = (b) x (e)	(h) = (f) + (g)
1	\$ 283,884,893	\$ 0	\$ 283,884,893	0.26%	0.16%	\$ 738,101	\$ 0	\$ 738,101
2	243,455,282	48,236,445	291,691,727	0.26%	0.16%	632,984	76,818	709,802
3	223,818,994	75,894,255	299,713,250	0.26%	0.16%	581,929	120,864	702,794
4	206,869,990	101,085,373	307,955,364	0.26%	0.16%	537,862	160,982	698,844
5	191,244,668	125,179,468	316,424,136	0.26%	0.16%	497,236	199,353	696,589
6	177,160,822	147,964,979	325,125,800	0.26%	0.16%	460,618	235,639	696,258
7	163,689,572	170,377,188	334,066,760	0.26%	0.16%	425,593	271,332	696,925
8	151,347,221	191,906,375	343,253,596	0.26%	0.16%	393,503	305,618	699,120
9	139,970,326	212,722,743	352,693,069	0.26%	0.16%	363,923	338,768	702,691
10	129,210,473	233,181,656	362,392,129	0.26%	0.16%	335,947	371,350	707,297
11	118,744,255	253,613,657	372,357,912	0.26%	0.16%	308,735	403,889	712,624
12	109,535,892	273,061,863	382,597,755	0.26%	0.16%	284,793	434,861	719,654
13	100,719,874	292,399,320	393,119,193	0.26%	0.16%	261,872	465,656	727,528
14	92,488,128	311,441,843	403,929,971	0.26%	0.16%	240,469	495,982	736,451
15	84,341,497	330,696,548	415,038,045	0.26%	0.16%	219,288	526,646	745,934
16	76,355,422	350,096,170	426,451,591	0.26%	0.16%	198,524	557,541	756,065
17	69,605,822	368,573,189	438,179,010	0.26%	0.16%	180,975	586,966	767,941
18	63,176,350	387,052,583	450,228,933	0.26%	0.16%	164,259	616,395	780,653
19	57,685,333	404,924,896	462,610,229	0.26%	0.16%	149,982	644,857	794,839
20	51,919,634	423,412,376	475,332,010	0.26%	0.16%	134,991	674,299	809,290
21	46,651,427	441,752,213	488,403,640	0.26%	0.16%	121,294	703,506	824,800
22	41,620,680	460,214,060	501,834,740	0.26%	0.16%	108,214	732,907	841,121
23	37,566,834	478,068,361	515,635,196	0.26%	0.16%	97,674	761,341	859,015
24	33,354,334	496,460,830	529,815,164	0.26%	0.16%	86,721	790,631	877,353
25	29,029,861	515,355,220	544,385,081	0.26%	0.16%	75,478	820,721	896,199
26	25,046,391	534,309,279	559,355,670	0.26%	0.16%	65,121	850,906	916,027
27	21,065,884	553,672,067	574,737,951	0.26%	0.16%	54,771	881,742	936,514
28	18,235,415	572,307,829	590,543,245	0.26%	0.16%	47,412	911,420	958,833
29	15,704,542	591,078,642	606,783,184	0.26%	0.16%	40,832	941,314	982,145
30	13,191,904	610,277,818	623,469,722	0.26%	0.16%	34,299	971,889	1,006,188
31	11,625,683	628,989,456	640,615,139	0.26%	0.16%	30,227	1,001,688	1,031,915
32	10,052,621	648,179,434	658,232,055	0.26%	0.16%	26,137	1,032,249	1,058,385
33	8,628,666	667,704,771	676,333,437	0.26%	0.16%	22,435	1,063,343	1,085,778
34	7,312,125	687,620,482	694,932,606	0.26%	0.16%	19,012	1,095,060	1,114,071
35	6,054,765	707,988,488	714,043,253	0.26%	0.16%	15,742	1,127,497	1,143,239
36	4,942,526	728,736,917	733,679,443	0.26%	0.16%	12,851	1,160,539	1,173,390
37	4,127,744	749,727,883	753,855,627	0.26%	0.16%	10,732	1,193,968	1,204,700
38	3,193,608	771,393,049	774,586,657	0.26%	0.16%	8,303	1,228,471	1,236,774
39	2,409,957	793,477,833	795,887,790	0.26%	0.16%	6,266	1,263,641	1,269,907
40	1,971,096	815,803,608	817,774,704	0.26%	0.16%	5,125	1,299,196	1,304,321
41	1,617,987	838,645,522	840,263,509	0.26%	0.16%	4,207	1,335,573	1,339,779
42	1,121,222	862,249,533	863,370,755	0.26%	0.16%	2,915	1,373,163	1,376,078
43	819,337	886,294,114	887,113,451	0.26%	0.16%	2,130	1,411,455	1,413,585
44	569,112	910,939,959	911,509,071	0.26%	0.16%	1,480	1,450,704	1,452,184
45	395,753	936,179,817	936,575,570	0.26%	0.16%	1,029	1,490,899	1,491,928
46	282,435	962,048,963	962,331,398	0.26%	0.16%	734	1,532,097	1,532,831
47	182,794	988,612,718	988,795,512	0.26%	0.16%	475	1,574,401	1,574,876
48	99,409	1,015,887,980	1,015,987,388	0.26%	0.16%	258	1,617,837	1,618,096
49	50,147	1,043,876,895	1,043,927,042	0.26%	0.16%	130	1,662,411	1,662,541
50	21,134	1,072,613,902	1,072,635,035	0.26%	0.16%	55	1,708,176	1,708,230



### **APPENDIX B – DETAILS OF INTEREST RATE CALCULATION**

#### Table B-1 - Projection of Contributions

Projections Commence June 30, 2019

\* Total covered-employee payroll increases 2.75% per year

Year	Payroll for Current Employees	Payroll for Future Employees	Total Employee Payroll*	ER Rate	AL Rate	Employer Contributions for Current Employees	Related to Payroll of Future Employees	Total Contributions
	(a)	(b)	(c) = (a) + (b)	(e)	(f)	(h) = (a) x (e)	(i) = (b) x (f)	(j) = (g) + (h) +
51	9,810	1,102,122,689	1,102,132,499	0.26%	0.16%	26	1,755,169	(i) 1,755,195
52	1,457	1,132,439,686	1,132,441,142	0.26%	0.16%	4	1,803,450	1,803,454
53	1,157	1,163,583,274	1,163,583,274	0.26%	0.16%	0	1,853,047	1,853,047
54	0	1,195,581,814	1,195,581,814	0.26%	0.16%	0	1,904,006	1,904,006
55	0	1,228,460,314	1,228,460,314	0.26%	0.16%	ů 0	1,956,366	1,956,366
56	ů 0	1,262,242,972	1,262,242,972	0.26%	0.16%	ů 0	2,010,167	2,010,167
57	0	1,296,954,654	1,296,954,654	0.26%	0.16%	0	2,065,446	2,065,446
58	0	1,332,620,907	1,332,620,907	0.26%	0.16%	0	2,122,246	2,122,246
59	0	1,369,267,982	1,369,267,982	0.26%	0.16%	0	2,180,608	2,180,608
60	0	1,406,922,852	1,406,922,852	0.26%	0.16%	0	2,240,574	2,240,574
61	0	1,445,613,230	1,445,613,230	0.26%	0.16%	0	2,302,190	2,302,190
62	0	1,485,367,594	1,485,367,594	0.26%	0.16%	0	2,365,500	2,365,500
63	0	1,526,215,203	1,526,215,203	0.26%	0.16%	0	2,430,552	2,430,552
64	0	1,568,186,121	1,568,186,121	0.26%	0.16%	0	2,497,392	2,497,392
65	0	1,611,311,239	1,611,311,239	0.26%	0.16%	0	2,566,070	2,566,070
66	0	1,655,622,298	1,655,622,298	0.26%	0.16%	0	2,636,637	2,636,637
67	0	1,701,151,911	1,701,151,911	0.26%	0.16%	0	2,709,145	2,709,145
68	0	1,747,933,589	1,747,933,589	0.26%	0.16%	0	2,783,646	2,783,646
69	0	1,796,001,763	1,796,001,763	0.26%	0.16%	0	2,860,196	2,860,196
70	0	1,845,391,811	1,845,391,811	0.26%	0.16%	0	2,938,852	2,938,852
71	0	1,896,140,086	1,896,140,086	0.26%	0.16%	0	3,019,670	3,019,670
72	0	1,948,283,938	1,948,283,938	0.26%	0.16%	0	3,102,711	3,102,711
73	0	2,001,861,747	2,001,861,747	0.26%	0.16%	0	3,188,036	3,188,036
74	0	2,056,912,945	2,056,912,945	0.26%	0.16%	0	3,275,707	3,275,707
75	0	2,113,478,051	2,113,478,051	0.26%	0.16%	0	3,365,788	3,365,788
76	0	2,171,598,697	2,171,598,697	0.26%	0.16%	0	3,458,348	3,458,348
77	0	2,231,317,661	2,231,317,661	0.26%	0.16%	0	3,553,452	3,553,452
78 70	0	2,292,678,897	2,292,678,897	0.26%	0.16%	0	3,651,172	3,651,172
79 80	0	2,355,727,567	2,355,727,567	0.26%	0.16%	0	3,751,579	3,751,579
80 81	0	2,420,510,075 2,487,074,102	2,420,510,075 2,487,074,102	0.26% 0.26%	0.16% 0.16%	0 0	3,854,748 3,960,753	3,854,748 3,960,753
81	0	2,487,074,102	2,487,074,102	0.26%	0.16%	0	4,069,674	4,069,674
82 83	0	2,625,744,027	2,625,744,027	0.26%	0.16%	0	4,181,590	4,181,590
83	0	2,697,951,988	2,697,951,988	0.26%	0.16%	0	4,181,590	4,296,584
85	0	2,772,145,667	2,772,145,667	0.26%	0.16%	0	4,414,740	4,414,740
86	0	2,848,379,673	2,848,379,673	0.26%	0.16%	0	4,536,145	4,536,145
87	0	2,926,710,114	2,926,710,114	0.26%	0.16%	0	4,660,889	4,660,889
88	0	3,007,194,642	3,007,194,642	0.26%	0.16%	0	4,789,064	4,789,064
89	0	3,089,892,495	3,089,892,495	0.26%	0.16%	0	4,920,763	4,920,763
90	ů 0	3,174,864,539	3,174,864,539	0.26%	0.16%	0	5,056,084	5,056,084
91	ů 0	3,262,173,314	3,262,173,314	0.26%	0.16%	ů 0	5,195,126	5,195,126
92	0	3,351,883,080	3,351,883,080	0.26%	0.16%	0	5,337,992	5,337,992
93	0	3,444,059,864	3,444,059,864	0.26%	0.16%	0	5,484,787	5,484,787
94	0	3,538,771,511	3,538,771,511	0.26%	0.16%	0	5,635,619	5,635,619
95	0	3,636,087,727	3,636,087,727	0.26%	0.16%	0	5,790,598	5,790,598
96	0	3,736,080,140	3,736,080,140	0.26%	0.16%	0	5,949,840	5,949,840
97	0	3,838,822,344	3,838,822,344	0.26%	0.16%	0	6,113,460	6,113,460
98	0	3,944,389,958	3,944,389,958	0.26%	0.16%	0	6,281,580	6,281,580
99	0	4,052,860,682	4,052,860,682	0.26%	0.16%	0	6,454,324	6,454,324



### **APPENDIX B – DETAILS OF INTEREST RATE CALCULATION**

## Table B-2 - Projection of the Pension Plan's Fiduciary Net Position

Projections Commence June 30, 2019

\* From Table 1 - Projection of Contributions, column (h)

Year	Projected Beginning Fiduciary Net Postion (a)	Projected Total Contributions* (b)	Projected Benefit Payments (c)	Projected Investment Earnings (d)	Projected Ending Fiduciary Net Position (e) = (a) + (b) - (c) + (d)
1	\$ 16,259,162	\$ 738,101	\$ 1,249,827	\$ 1,080,505	\$ 16,827,941
2	16,827,941	709,802	1,296,227	1,116,417	17,357,933
3	17,357,933	702,794	1,345,064	1,150,338	17,866,001
4	17,866,001	698,844	1,393,604	1,182,890	18,354,130
5	18,354,130	696,589	1,444,657	1,214,069	18,820,130
6	18,820,130	696,258	1,524,740	1,242,854	19,234,502
7	19,234,502	696,925	1,610,074	1,268,013	19,589,366
8	19,589,366	699,120	1,695,999	1,289,187	19,881,674
9	19,881,674	702,691	1,785,466	1,306,066	20,104,966
10	20,104,966	707,297	1,880,961	1,318,121	20,249,423
11	20,249,423	712,624	1,978,531	1,324,809	20,308,325
12	20,308,325	719,654	2,075,100	1,325,813	20,278,692
13	20,278,692	727,528	2,171,086	1,320,887	20,156,021
14	20,156,021	736,451	2,265,804	1,309,759	19,936,426
15	19,936,426	745,934	2,362,013	1,292,057	19,612,404
16	19,612,404	756,065	2,455,098	1,267,431	19,180,802
17	19,180,802	767,941	2,545,842	1,235,680	18,638,581
18	18,638,581	780,653	2,632,106	1,196,638	17,983,767
19	17,983,767	794,839	2,714,039	1,150,189	17,214,756
20	17,214,756	809,290	2,790,634	1,096,218	16,329,630
21 22	16,329,630 15,327,778	824,800 841,121	2,861,292 2,924,007	1,034,641 965,475	15,327,778 14,210,368
22	14,210,368	859,015	2,924,007	888,800	12,978,625
23 24	12,978,625	877,353	3,027,243	804,683	11,633,417
24	11,633,417	896,199	3,064,987	713,254	10,177,884
26	10,177,884	916,027	3,094,772	614,675	8,613,814
20	8,613,814	936,514	3,115,531	509,091	6,943,889
28	6,943,889	958,833	3,127,201	396,725	5,172,245
29	5,172,245	982,145	3,129,713	277,830	3,302,507
30	3,302,507	1,006,188	3,121,878	152,681	1,339,498
31	1,339,498	1,031,915	3,105,738	21,567	0
32	0	1,058,385	3,080,945	0	0
33	0	1,085,778	3,047,728	0	0
34	0	1,114,071	3,007,027	0	0
35	0	1,143,239	2,958,655	0	0
36	0	1,173,390	2,902,194	0	0
37	0	1,204,700	2,837,926	0	0
38	0	1,236,774	2,766,777	0	0
39	0	1,269,907	2,689,702	0	0
40	0	1,304,321	2,607,282	0	0
41	0	1,339,779	2,519,533	0	0
42	0	1,376,078	2,426,432	0	0
43	0	1,413,585	2,329,235	0	0
44	0	1,452,184	2,228,110	0	0
45	0	1,491,928	2,123,757	0	0
46	0	1,532,831	2,017,793	0	0
47	0	1,574,876	1,911,044	0	0
48	0	1,618,096	1,804,594	0	0
49	0	1,662,541	1,699,425	0	0
50	0	1,708,230	1,597,503	0	0



### **APPENDIX B – DETAILS OF INTEREST RATE CALCULATION**

Year	Projected Beginning Fiduciary Net Postion	Projected Total Contributions*	Projected Benefit Payments	Projected Investment Earnings	Projected Ending Fiduciary N Position
	(a)	(b)	(c)	(e)	(f) = (a) + (b) (c) -(d) + (e)
51	0	1,755,195	1,500,600	0	(c) -(u) + (c
52	0	1,803,454	1,409,254	0	
53	0	1,853,047	1,323,787	0	
54	0	1,904,006	1,244,296	0	
55	0	1,956,366	1,169,646	0	
56	0	2,010,167	1,099,023	0	
57	0	2,065,446	1,031,751	0	
58	0	2,122,246	967,403	0	
59	0	2,122,210	905,009	ů 0	
60	0	2,240,574	843,724	0	
61	0	2,302,190	783,409	0	
62	0	2,365,500	724,422	0	
63	0	2,430,552	665,589	0	
64	0	2,497,392	607,288	0	
65	0		-	0	
		2,566,070	550,387		
66	0	2,636,637	493,995	0	
67	0	2,709,145	438,372	0	
68	0	2,783,646	383,493	0	
69	0	2,860,196	330,467	0	
70	0	2,938,852	279,871	0	
71	0	3,019,670	232,547	0	
72	0	3,102,711	189,186	0	
73	0	3,188,036	150,542	0	
74	0	3,275,707	117,150	0	
75	0	3,365,788	88,852	0	
76	0	3,458,348	65,856	0	
77	0	3,553,452	47,619	0	
78	0	3,651,172	33,573	0	
79	0	3,751,579	23,074	0	
80	0	3,854,748	15,437	0	
81	0	3,960,753	10,048	0	
82	0	4,069,674	6,350	0	
83	0	4,181,590	3,897	0	
84	0	4,296,584	2,319	0	
85	0	4,414,740	1,339	0	
86	0	4,536,145	748	0	
87	0	4,660,889	406	0	
88	0	4,789,064	214	0	
89	ů 0	4,920,763	109	ů 0	
90	0	5,056,084	54	0	
91	0	5,195,126	27	0	
92	0	5,337,992	13	0	
92 93	0	5,484,787	6	0	
93 94	0	5,635,619	3	0	
94 95					
	0	5,790,598	1	0	
96 07	0	5,949,840	1	0	
97 08	0	6,113,460	0	0	
98 99	0 0	6,281,580 6,454,324	0 0	0 0	



### **APPENDIX B – DETAILS OF INTEREST RATE CALCULATION**

#### Table B-3 - Actuarial Present Values of Projected Benefit Payments

Projections Commence June 30, 2019

\* From Table 2 - Projection of the Pension Plan's Fiduciary Net Position, column (a)

\*\* From Table 2 - Projection of the Pension Plan's Fiduciary Net Position, column (c)

	-	Projected	-				
Year	Projected Beginning Fiduciary Net Position*	Benefit Payments for current Plan participants**	"Funded" Portion of Benefit Payments	"Unfunded " Portion of Benefit Payments	Present Value of "Funded" Benefit Payments	Present Value of "Unfunded" Benefit Payments	Present Value o Benefit Paymen Using the Single Discount Rate
(a)	(b)	(c)	(d) = (c) if (b) >= (c)	(e) = (c) - (d)	$(f) = (d) / (1+6.75\%)^{(a)}$	(g) = (e) / (1+3.50%)^(a)	(h) = (c) / (1+4.98%)^(a)
1	\$ 16,259,162	\$ 1,249,827	\$ 1,249,827	\$ 0	\$ 1,209,667	\$ 0	\$ 1,219,84
2	16,827,941	1,296,227	1,296,227	0	1,175,247	0	1,205,15
3	17,357,933	1,345,064	1,345,064	0	1,142,413	0	1,191,28
4	17,866,001	1,393,604	1,393,604	0	1,108,796	0	1,175,76
5	18,354,130	1,444,657	1,444,657	0	1,076,736	0	1,161,05
6	18,820,130	1,524,740	1,524,740	0	1,064,566	0	1,167,32
7	19,234,502	1,610,074	1,610,074	0	1,053,063	0	1,174,22
8	19,589,366	1,695,999	1,695,999	0	1,039,122	0	1,178,25
9	19,881,674	1,785,466	1,785,466	0	1,024,765	0	1,181,60
10	20,104,966	1,880,961	1,880,961	0	1,011,312	0	1,185,79
11	20,249,423	1,978,531	1,978,531	0	996,506	0	1,188,17
12	20,308,325	2,075,100	2,075,100	0	979,058	0	1,187,09
13	20,278,692	2,171,086	2,171,086	0	959,574	0	1,183,13
14	20,156,021	2,265,804	2,265,804	0	938,115	0	1,176,21
15	19,936,426	2,362,013	2,362,013	0	916,111	0	1,168,03
16	19,612,404	2,455,098	2,455,098	0	892,004	0	1,156,51
17	19,180,802	2,545,842	2,545,842	0	866,486	0	1,142,40
18	18,638,581	2,632,106	2,632,106	0	839,200	0	1,125,12
19	17,983,767	2,714,039	2,714,039	0	810,607	0	1,105,15
20	17,214,756	2,790,634	2,790,634	0	780,781	0	1,082,47
21	16,329,630	2,861,292	2,861,292	0	749,930	0	1,057,27
22	15,327,778	2,924,007	2,924,007	0	717,908	0	1,029,22
23	14,210,368	2,979,557	2,979,557	0	685,290	0	999,06
24	12,978,625	3,027,243	3,027,243	0	652,232	0	966,93
25	11,633,417	3,064,987	3,064,987	0	618,608	0	932,58
26	10,177,884	3,094,772	3,094,772	0	585,124	0	897,00
27	8,613,814	3,115,531	3,115,531	0	551,802	0	860,21
28	6,943,889	3,127,201	3,127,201	0	518,847	0	822,50
29	5,172,245	3,129,713	3,129,713	0	486,429	0	784,14
30	3,302,507	3,121,878	3,121,878	0	454,531	0	745,10
31	1,339,498	3,105,738	1,339,498	1,766,240	182,693	618,542	706,11
32	0	3,080,945	0	3,080,945	0	1,042,469	667,27
33	0	3,047,728	0	3,047,728	0	996,357	628,78
34	0	3,007,027	0	3,007,027	0	949,808	590,97
35	0	2,958,655	0	2,958,655	0	902,926	553,90
36	0	2,902,194	0	2,902,194	0	855,744	517,58
37	0	2,837,926	0	2,837,926	ů 0	808,497	482,12
38	0	2,766,777	0	2,766,777	ů 0	761,572	447,75
39	0	2,689,702	0	2,689,702	0	715,321	414,65
40	0	2,607,282	0	2,607,282	0	669,953	382,89
41	ů 0	2,519,533	0	2,519,533	0	625,512	352,46
42	0	2,426,432	0	2,426,432	0	582,028	323,34
43	0	2,329,235	0	2,329,235	0	539,819	295,68
44	0	2,228,110	0	2,228,110	0	498,921	269,43
45	0	2,123,757	0	2,123,757	0	459,472	244.64
46	0	2,017,793	0	2,017,793	0	421,785	221,41
47	0	1,911,044	0	1,911,044	0	385,962	199,76
48	0	1,804,594	0	1,804,594	0	352,138	179,69
49	0	1,699,425	0	1,699,425	0	320,402	161,20
50	0	1,597,503	0	1,597,503	0	291,001	144,34



### **APPENDIX B – DETAILS OF INTEREST RATE CALCULATION**

#### Table B-3 - Actuarial Present Values of Projected Benefit Payments

Projections Commence June 30, 2019

\* From Table 2 - Projection of the Pension Plan's Fiduciary Net Position, column (a)

\*\* From Table 2 - Projection of the Pension Plan's Fiduciary Net Position, column (c)

(ear	Projected Beginning Fiduciary Net Position*	Benefit Payments for current Plan participants**	"Funded" Portion of Benefit Payments	"Unfunded " Portion of Benefit Payments	Present Value of "Funded" Benefit Payments	Present Value of "Unfunded" Benefit Payments	Present Value Benefit Payme Using the Sing Discount Rat
(a)	(b)	(c)	(d) = (c) if (b) >= (c)	(e) = (c) - (d)	(f) = (d) / (1+6.75%)^(a)	(g) = (e) / (1+3.50%)^(a)	(h) = (c) / (1+4.98%)^(a
51	\$ 0	\$ 1,500,600	\$ 0	\$1,500,600	\$ 0	\$ 264,105	\$ 129,1
52	0	1,409,254	0	1,409,254	0	239,641	115,5
53	0	1,323,787	0	1,323,787	0	217,495	103,3
54	0	1,244,296	0	1,244,296	0	197,522	92,5
55	0	1,169,646	0	1,169,646	0	179,393	82,9
56	0	1,099,023	0	1,099,023	0	162,861	74,2
57	0	1,031,751	0	1,031,751	0	147,722	66,3
58	0	967,403	0	967,403	0	133,825	59,2
59	0	905,009	0	905,009	0	120,960	52,8
60	0	843,724	0	843,724	0	108,956	46,9
61	0	783,409	0	783,409	0	97,746	41,4
62	0	724,422	0	724,422	0	87,329	36,5
63	0	665,589	0	665,589	0	77,524	31,9
64	0	607,288	0	607,288	0	68,341	27,8
65	0	550,387	0	550,387	0	59,843	24,0
66	0	493,995	0	493,995	0	51,896	20,5
67	0	438,372	0	438,372	0	44,495	17,3
68	0	383,493	0	383,493	0	37,608	14,4
69	0	330,467	0	330,467	0	31,312	11,8
70	0	279,871	0	279,871	0	25,621	9,5
71	ů 0	232,547	0	232,547	0	20,569	7,5
72	0	189,186	0	189,186	0	16,168	5,8
73	ů 0	150,542	0	150,542	0	12,430	4,4
74	ů 0	117,150	0	117,150	0	9,346	3,3
75	0	88,852	0	88,852	0	6,849	2,3
76	0	65,856	0	65,856	0	4,905	1,0
77	0	47,619	0	47,619	0	3,426	1,1
78	0	33,573	0	33,573	0	2,334	1,1
79	0	23,074	0	23,074	0	1,550	4
80	0	15,437	0	15,437	0	1,002	
81	0	10,048	0	10,048	0	630	-
82	0	6,350	0	6,350	0	385	-
83	0	3,897	0	3,897	0	228	
83 84	0	2,319	0	2,319	0	131	
85	0	1,339	0	1,339	0	73	
86	0	748	0	748	0	40	
87	0	406	0	406	0	21	
88	0	214	0	214	0	11	
89	0	109	0	109	0	5	
89 90	0	54	0	54	0	3	
90 91	0	27	0	27	0	5	
91 92	0	13	0	13	0	1	
92 93	0	10	0	10	0	1	
93 94	0	6 3	0	6 3	0	0	
	0	3	•	3	0	0	
95	0	1	0	1	0	0	
96 07	0	1	0	1	0	0	
97	0	0	0	0	0	0	
98	0	0	0	0	0	0	
99	0	0	0	0	\$ <b>26,087,521</b>	0	



### **APPENDIX C – ASSUMPTIONS, AND METHODS**

## **Economic Assumptions**

Valuation Date:June 30, 2018Funding Investment Return:6.750% per yearGASB Beginning of Year Liability Return:5.13% per yearGASB End of Year Liability Return:4.98% per year

*Cost-of-Living Increases in Life Benefits:* N/A. Unlike pension benefits, Life Benefits do <u>not</u> increase with Cost of Living.

Premium Expense Assumption:

To reflect administrative expenses associated with the distribution of benefits, the following loads have been added to the liabilities, normal cost, and benefit payments.

PLDs: 8.66% of claims

Rates of Salary Increase (Experience-based sample rates by service including both merit scale increase and yearly increase):

Service	PLD
0	9.00%
5	2.75%
10	2.75%
15	2.75%
20	2.75%
25+	2.75%

## **Demographic Assumptions**

Rates of Termination (Experience-based sample rates by service):

Service	PLDs	PLDs Special
0	25.00%	25.00%
5	9.00	4.00
10	6.00	2.50
15	4.00	2.50
20	2.50	2.50
25	2.50	2.50



### **APPENDIX C – ASSUMPTIONS, AND METHODS**

## **Rates of Mortality**

### PLD Healthy Employees:

Rates for Active PLD employees are based on 104% and 120% of the RP-2014 Total Dataset Employee Mortality Table, respectively, for males and females, using the RP-2014 Total Dataset Healthy Annuitant Mortality Table rates after the end of the Total Employee Mortality Table, both projected from the 2006 base rates using the RPEC\_2015 model, with an ultimate rate of 0.85% for ages 20-85, grading down to an ultimate rate of 0.00% for ages 111-120, and convergence to the ultimate rate in the year 2020.

Rates for Retiree PLD employees are based on 104% and 120% of the RP-2014 Total Dataset Healthy Annuitant Mortality Table, respectively, for males and females, using the RP-2014 Total Dataset Employee Mortality Table for ages prior to start of the Healthy Annuitant Mortality Table, both projected from the 2006 base rates using the RPEC\_2015 model, with an ultimate rate of 0.85% for ages 20-85 grading down to an ultimate rate of 0.00% for ages 111-120, and convergence to the ultimate rate in the year 2020.

	PLD			
Age	Male	Female		
20	4	2		
30	4	3		
40	6	5		
50	18	13		
60	80	64		
65	114	98		
70	177	158		
75	289	259		
80	486	437		
85	845	773		
90	1,479	1,374		
95	2,326	2,253		

Sample Rates – Number of deaths per 10,000 members, showing values in 2015. Ages 20-50 show sample rates for actives, ages 60+ show sample rates for retirees.



### **APPENDIX C – ASSUMPTIONS, AND METHODS**

Rates of Retirement (Experience-based sample retirements per 1,000 members by age):

PLD Regular:

Age	Tier 1	Tier 2
45	50	50
50	50	50
55	50	50
60	200	50
65	250	200
70	1,000	1,000

## PLD Special:

Age	Assumption
20	400
21-24	300
25	400
26-29	300
30	400
31-34	300
35+	1,000

## Participants who are not members of MainePERS: Age 62

Rates of Disability (Experience-based sample disablements per 10,000 members by service):

Age	PLDs
25	1.8
30	2.4
35	3.0
40	4.2
45	9.0
50	19.8
55	36.6
60	65.0

Participation Percent for Future Retirees:

100% of those currently enrolled (unique to this valuation).



### **APPENDIX C – ASSUMPTIONS, AND METHODS**

## **Other Assumptions (Unique to this Valuation)**

*Conversion Charges:* Applies to the cost of active group life insurance, not retiree group life insurance.

Form of Benefit Payment: Lump Sum

## **Actuarial Cost Method**

The individual entry age normal method is used to determine liabilities. Under this funding method, a normal cost rate is calculated for each member. This rate is determined by taking the value, as of age at entry into the Program, of the member's projected future benefits, and dividing it by the value, also as of the member's entry age of his expected future salary. The normal cost for each member is the product of their annual salary at the valuation date and their normal cost rate. The normal cost amount for the group is then the sum of the normal costs for all members.

The Actuarial Liability is defined as the present value of future benefits, as of the valuation date, for all current members less the present value of future normal costs for all current members. For funding purposes, the Unfunded Actuarial Liability is then equal to the Actuarial Liability, less the actuarial value of the System's assets.

The discount rate used reflects the long-term funding policy to fully fund the benefits on an actuarial basis by FY 2031 for PLDs.

## **Asset Valuation Methods**

Figures were reported by MainePERS without audit or change.

## **Rationale for Assumptions**

The MainePERS Pension assumptions were adopted by the Board of Trustees at their July 14, 2016 meeting. The demographic assumptions adopted are based on an experience study covering the period from June 30, 2012 through June 30, 2015 and the economic assumptions are based on this experience study along with the advice of the MainePERS investment consultants.

## **Changes Since Last Valuation**

The blended rate decreased from 5.13% to 4.98%, to reflect the blending of projections between the long term investment return assumption of 6.750% and the Bond Buyer GO 20-Year Municipal Bond Index: 3.50% as of June 30, 2019.



## **APPENDIX D – SUMMARY OF KEY PLAN PROVISIONS**

## Membership

Service Retirement:	A retiree must have participated in the group life insurance program for at least ten years and possess coverage just prior to retirement.
Disability Retirement:	An employee must have participated in the group life insurance program immediately prior to disablement.

## **Basic Insurance**

Average final compensation calculated for retirement purposes.

## Amount of Insurance for a Retiree

Service Retirement:	The Basic Insurance will be reduced by 15% per year until the amount equal to the greater of (a) 40% of the initial Basic Insurance, or (b) \$2,500.
Disability Retirement:	The amount of basic life insurance in force prior to retirement will be continued until normal retirement age. At normal retirement age, the amount of insurance will be reduced as for service retirement.

## **Retiree Contribution**

PLD Employees: PLD must pay \$0.46 per month per \$1,000 of base benefit, based on the coverage amounts declining from 100% to 40%.

## Normal Retirement Age

The specified age, the years of service requirement or any age and years of service combination at which a participant may become eligible for unreduced service retirement benefits.

## **Discontinued Coverages at Retirement**

- Supplemental Life
- Accidental Death and Dismemberment
- Dependent Life

(Discontinued coverage may be ported to another group term product or converted to an individual policy. MainePERS is charged a fee for those active employees who convert to an individual policy upon termination from employment. Conversion charges are considered a cost of active, not retiree group life insurance. Therefore, it is not included in these liabilities.)



### **APPENDIX E – GLOSSARY OF TERMS**

## 1. Actuarially Determined Contribution

A target or recommended contribution for the reporting period, determined in conformity with Actuarial Standards of Practice based on the most recent measurement available when the contribution for the reporting period was adopted.

## 2. Actuarial Valuation Date

The date as of which an actuarial valuation is performed. This date may be up to 24 months prior to the measurement date and up to 30 months prior to the employer's reporting date.

## 3. Entry Age Actuarial Cost Method

The actuarial cost method required for GASB 74 and 75 calculations. Under this method, the actuarial present value of the projected benefits of each individual, included in an actuarial valuation, is allocated on a level basis over the earnings of the individual between entry age and assumed exit ages. The portion of this actuarial present value allocated to a valuation year is called the Service Cost. The portion of this actuarial present value not provided for at a valuation date by the actuarial present value of future service costs is called the Total OPEB Liability.

## 4. Measurement Date

The date as of which the Total OPEB Liability and Plan Fiduciary Net Position are measured. The Total OPEB Liability may be projected from the Actuarial Valuation Date to the Measurement Date. The Measurement Date must be the same as the Reporting Date for the plan.

## 5. Net OPEB Liability

The liability of employers and non-employer contributing entities for employees for benefits provided through a defined benefit OPEB plan. It is calculated as the Total OPEB Liability less the Plan Fiduciary Net Position.

## 6. Plan Fiduciary Net Position

The fair or market value of assets.

## 7. Reporting Date

The last day of the Plan or employer's fiscal year.



### **APPENDIX E – GLOSSARY OF TERMS**

## 8. Service Cost

The portion of the actuarial present value of projected benefit payments that is attributed to the current period of employee service in conformity with the requirements of GASB 74 and 75. The Service Cost is the normal cost calculated under the entry age actuarial cost method.

## 9. Total OPEB Liability

The portion of the actuarial present value of projected benefit payments that is attributed to past periods of employee service in conformity with the requirements of GASB 74 and 75. The Total OPEB Liability is the actuarial liability calculated under the entry age actuarial cost method.

