

STATE OF MAINE STATE EMPLOYEES' RETIREE HEALTHCARE PLAN



GASBS 74 Plan Accounting Information Fiscal Year Ending June 30, 2017

Bartel Associates, LLC Joseph R. D'Onofrio, FSA Cathy Wandro, Assistant Vice President & Actuary December 14, 2017

CONTENTS

Торіс	Page
Accounting Policy	
Applicable Dates and Periods	1
Notes to Financial Information	
• Covered Employees	2
Significant Actuarial Assumptions	
> Economic and Demographic	3
> Projected Cash Flow	5
> Expected Long-Term Rate of Return	6
• Net OPEB Liability	8
Net OPEB Liability Sensitivity	9
Required Supplementary Information	
• 10-Year Schedule of Changes in Total OPEB Liability	10
• 10-Year Schedule of Changes in Plan Fiduciary Net Position	11
• 10-Year Schedule of Net OPEB Liability	12
• 10-Year Schedule of Employer Contributions	13
• 10-Year Schedule of Actual Employer Contributions	14
• 10-Year Schedule of Money-Weighted Rate of Return	15
Actuarial Certification	16
Exhibits	17

ACCOUNTING POLICY

Applicable Dates and Periods

Fiscal Year End	June 30, 2017
■ Reporting Date ¹	June 30, 2017
■ Reporting Period	2016/17
■ Valuation Date ²	June 30, 2017 ³

³ Rolled back 12 months to provide basis for the beginning of the Reporting Period.



December 14, 2017

1



NOTES TO FINANCIAL STATEMENT

Covered Employees

Covered Employees	June 30, 2017	June 30, 2016 ⁴
■ Inactives currently receiving benefit payments ⁵	N/A	10,160
■ Inactives entitled to but not yet receiving benefit payments ⁶	N/A	0
■ Active employees	<u>N/A</u>	12,299
■ Total covered employees	N/A	22,459

⁴ The June 30, 2017 interim actuarial valuation used the June 30, 2016 census data. Full valuations are done biennially.

⁶ None reported by the State.





¹ Plan's fiscal year-end.

² No earlier than 24 months prior to the Plan's fiscal year-end.

⁵ Includes former employees, surviving spouses, and beneficiaries.

Significant Actuarial Assumptions Economic and Demographic

	June 30, 2017	June 30, 2017
Assumption	Accounting	Valuation
■ Discount Rate	6.75%	6.93% for 2017/18,
- Discount Rate	0.7370	7.25% thereafter
■ Expected Long-Term Rate of Return ⁷	6.75%	7.25%
■ Municipal Bond Rate	n/a ⁸	n/a
■ Source of Municipal Bond Rate	n/a	n/a
■ General Inflation	2.75%	3.00%
■ Aggregate Payroll Increases	3.00%	3.25%
■ Merit Payroll Increases	MainePERS 2012-2015 Experience Study	
■ Mortality, Termination, Disability,	MainePERS 2012-2015 Experience Study	
Retirement	Widilici LIKS 2012-20	713 Experience Study

⁷ Expected nominal long-term rate of return derived from stochastic projections of expected long-term real rates of return net of investment expenses under various economic scenarios using expected geometric real rates of return and correlations for fund asset classes plus inflation. The assumption was updated for the June 30, 2017 accounting information.

⁸ The OPEB trust is projected to have sufficient assets to pay all benefits under the State's current funding policy.



December 14, 2017

3



NOTES TO FINANCIAL STATEMENT

Significant Actuarial Assumptions Economic and Demographic

Assumption		June 30 Accour	'			June 30 Valua	·	
■ Mortality Improvement Scale ⁹	Modified MP-2015							
■ Medical Trend	Inc	rease from	Prior Y	ear	Inc	rease from	Prior Y	ear
		HMO		Medicare		HMO		Medicare
	Year	Choice	Year	<u>Plan</u>	Year	Choice	Year	<u>Plan</u>
	2017/18	Premium	2017	Premium	2017/18	Premium	2017	Premium
	2018/19	5.75%	2018	5.85%	2018/19	6.0%	2018	6.1%
	2019/20	5.25%	2019	5.35%	2019/20	5.5%	2019	5.6%
	2020/21+	4.75%	2020+	4.75%	2020/21+	5.0%	2020+	5.0%

Note: The June 30, 2017 accounting information is based on the June 30, 2017 interim actuarial valuation but with updated expected long-term rate of return and inflation assumptions. (The inflation assumption also impacts the aggregate payroll and healthcare trend assumptions.) With the exception of the differences shown in the tables above, the remaining assumptions and benefit terms are the same as detailed in the June 30, 2017 interim actuarial valuation report.

⁹ Mortality Improvement Scale MP-2015 modified to converge to ultimate rate of 0.85% for ages 20-85 grading down to 0.00% for ages 111-120 with convergence to the ultimate rates in 2020.





Significant Actuarial Assumptions Projected Cash Flow

Fiscal Year End	June 30, 2017
■ Contributions	 The Actuarially Determined Contribution (ADC) is the closed group Normal Cost plus an amortization of Unfunded Actuarial Accrued Liability (UAAL) over a declining period (varies by UAAL base, but not more than 30 years) as a constant percentage of payroll For purposes of the cash flow projection, ADCs were projected assuming actuarial valuations are done annually rather than biennially and the State contributes the ADCs determined from those projected valuations Administrative Expenses0025% of assets capped at current administrative expenses increased for inflation Employees - No active employee contributions
■ Cost Sharing	Participating retirees pay the premium cost in excess of the cash subsidy provided by the State
■ Discount Rate Years	 Expected long-term rate of return - All projection years Municipal bond rate - n/a¹⁰

¹⁰ The OPEB trust is projected to have sufficient assets to pay all benefits under the State's current contribution policy.



December 14, 2017

5



NOTES TO FINANCIAL STATEMENT

Significant Actuarial Assumptions Expected Long-Term Rate of Return

Long-Term Target Asset Allocation	Expected Geometric Real Return ¹¹	Target Asset Allocation
■ U.S. Equity	4.82%	45%
■ International Equity	4.82%	25%
■ Real Estate	3.04%	5%
■ Fixed Income	1.47%	25%
■ Total Assets		100%

¹¹ Based on 2017 Bartel Associates stochastic analysis, taking into account capital market assumptions of several investment and advisory firms.





Significant Actuarial Assumptions Expected Long-Term Rate of Return

	Target
	Asset
Long-Term Rate of Return ¹²	Allocation
■ Expected Long-Term Real Rate of Return	4.35%
■ Assumed Long-Term Rate of Inflation	2.75%
■ Assumed Long-Term Investment Expenses	0.30%
■ Expected Long-Term Net Rate of Return ¹³	6.75%

¹³ Rounded to nearest 0.25%.



December 14, 2017

7



NOTES TO FINANCIAL STATEMENT

Net OPEB Liability June 30, 2017 Reporting Date

(Amounts in 000's)

Net OPEB Liability	6/30/17
■ Total OPEB Liability	\$1,161,320
■ Plan Fiduciary Net Position ¹⁴	233,596
■ Net OPEB Liability	927,724
■ Net OPEB Liability Funded Percentage	20.1%

¹⁴ Provided by the State.





 $^{^{12}}$ A revised long-term rate of return stochastic analysis was performed for this GASBS 74 report and will be used for the 6/30/18 actuarial valuation. The prior long-term rate of return stochastic analysis was prepared for the 3/31/11 actuarial valuation and used through the 6/30/17 actuarial valuation.

Net OPEB Liability Sensitivity¹⁵

June 30, 2017 Reporting Date

(Amounts in 000's)

Discount Rate	-1% 5.75%	Assumption 6.75%	+1% 7.75%
Total OPEB Liability	\$1,306,516	\$1,161,320	\$1,040,314
Plan Fiduciary Net Position	233,596	233,596	233,596
Net OPEB Liability	1,072,920	927,724	806,718

Medical Trend	-1%	Assumption	+1%
Total OPEB Liability	\$1,034,915	\$1,161,320	\$1,313,852
Plan Fiduciary Net Position	233,596	233,596	233,596
Net OPEB Liability	801,319	927,724	1,080,256

¹⁵ For Net OPEB liability sensitivity, only the Net OPEB Liability and not its components need to be included in the Notes to the Financial Statement.



December 14, 2017

9



REQUIRED SUPPLEMENTARY INFORMATION

10-Year Schedule of Changes in Total OPEB Liability¹⁶

(Amounts in 000's)

	Fiscal Year Ending
Changes in Total OPEB Liability	6/30/17
■ Discount Rate	6.75%
■ Service Cost at Beginning of Year	\$ 12,246
■ Interest on Total OPEB Liability (Exhibit E-1)	75,650
■ Benefit Payments (Exhibit E-3)	(70,118)
■ Expected versus Actual Experience	0
■ Changes of Assumptions	0
■ Changes of Benefit Terms	0
■ Net Changes	17,778
■ Total OPEB Liability at Beginning of Year	<u>1,143,542</u>
■ Total OPEB Liability at End of Year	1,161,320

¹⁶ GASBS 74 requires this information be reported in the Plan's Required Supplementary Information for 10 years or as many years as are available upon implementation.





REQUIRED SUPPLEMENTARY INFORMATION

10-Year Schedule of Changes in Plan Fiduciary Net Position¹⁷

(Amounts in 000's)

Changes in Plan Fiduciary Net Position ¹⁸	Fiscal Year Ending 6/30/17
■ Employer Contributions (Exhibit E-2)	\$ 74,118
■ Employee Contributions (Exhibit E-2)	0
■ Net Investment Income	26,513
■ Benefit Payments (Exhibit E-3)	(70,118)
■ Administrative Expenses	(6)
■ Net Changes	30,508
■ Plan Fiduciary Net Position at Beginning of Year	<u>203,088</u>
■ Plan Fiduciary Net Position at End of Year	233,596

¹⁷ GASBS 74 requires this information be reported in the Plan's Required Supplementary Information for 10 years or as many years as are available upon implementation. Changes in Plan Fiduciary Net Position for 2016/17 were provided by the State.
¹⁸ The 2016/17 Employer Contribution and the Benefit Payments shown here include estimated implied subsidy benefit payments of \$17,000,000 determined by the 6/30/16 actuarial valuation and actual cash benefit payments of \$53,118,000.



December 14, 2017

11



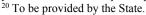
REQUIRED SUPPLEMENTARY INFORMATION

10-Year Schedule of Net OPEB Liability¹⁹

(Amounts in 000's)

Net OPEB Liability	Fiscal Year Ending 6/30/17
■ Discount Rate	6.75%
■ Total OPEB Liability	\$1,161,320
■ Plan Fiduciary Net Position	<u>233,596</u>
■ Net OPEB Liability	927,724
■ Net OPEB Liability Funded Percentage	20.1%
■ Covered Employee Payroll ²⁰	N/A
■ Net OPEB Liability Percent of Payroll	N/A

¹⁹ GASBS 74 requires this information be reported in the Plan's Required Supplementary Information for 10 years or as many years as are available upon implementation.





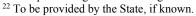


REQUIRED SUPPLEMENTARY INFORMATION

10-Year Schedule of Employer Contributions²¹ (Amounts in 000's)

Fiscal	Actuarially			Covered	Actual Contribution
Year	Determined	Actual	Deficiency	Employee	Percent of
Ending	Contribution	Contribution	(Excess)	Payroll ²²	Payroll
6/30/17	\$69,000	\$74,118	\$ (5,118)	N/A	N/A
6/30/16	88,000	67,142	20,858	N/A	N/A
6/30/15	84,000	64,506	19,494	N/A	N/A
6/30/14	99,000	62,932	36,068	N/A	N/A
6/30/13	94,000	67,828	26,172	N/A	N/A
6/30/12	126,000	72,607	53,393	N/A	N/A
6/30/11	120,000	85,043	34,957	N/A	N/A
6/30/10	90,000	55,408	34,592	N/A	N/A
6/30/09	77,000	50,384	26,616	N/A	N/A
6/30/08	111,000	166,388	(55,388)	N/A	N/A

²¹ GASBS 74 requires this information for plans funding with OPEB trusts be reported in the plan's Required Supplementary Information for 10 years or as many years as are available upon implementation. The State established an OPEB trust and started prefunding the Plan during 2007/08.





December 14, 2017

13



REQUIRED SUPPLEMENTARY INFORMATION

10-Year Schedule of Actual Employer Contributions²³

(Amounts in 000's)

Fiscal	Employer Benefit Payments				
Year	Cash	Implied	Total	Trust	Actual
Ending	Subsidy	Subsidy	Payments	Pre-Funding	Contribution
6/30/17	\$53,118	\$17,000	\$70,118	\$4,000	\$74,118
6/30/16	48,142	15,000	63,142	4,000	67,142
6/30/15	48,921	14,000	62,921	1,585	64,506
6/30/14	47,932	15,000	62,932	0	62,932
6/30/13	51,988	14,000	65,988	1,840	67,828
6/30/12	44,607	22,000	66,607	6,000	72,607
6/30/11	48,632	22,000	70,632	14,411	85,043
6/30/10	42,408	13,000	55,408	0	55,408
6/30/09	38,384	12,000	50,384	0	50,384
6/30/08	41,388	25,000	66,388	100,000	166,388

²³ Back-up to 10-Year Schedule of Employer Contributions; not needed for financial statement disclosure.





REQUIRED SUPPLEMENTARY INFORMATION

10-Year Schedule of Annual Money-Weighted Rate of Return²⁴

(Amounts in 000's)

Fiscal	Annual
Year	Money-Weighted
Ending	Rate of Return
6/30/17	N/A ²⁵

²⁵ To be determined by the Plan.



December 14, 2017

15



ACTUARIAL CERTIFICATION

This report presents reporting and disclosure information for the State of Maine State Employees' Retiree Healthcare Plan ("Plan") for the fiscal year ending June 30, 2017 to assist the Plan and its auditor prepare the financial statement information in accordance with Statement No. 74 of the Governmental Accounting Standards Board (GASBS 74), "Financial Reporting for Post Employment Benefits Plan Other Than Pension Plans." The Plan implemented GASBS 74 for the fiscal year ending June 30, 2017.

The actuarial information provided in this report was derived from the interim actuarial valuation as of June 30, 2017, modified to update the inflation and real rate of return assumptions. The June 30, 2017 interim actuarial valuation and the GASBS 74 financial information provided in this report were based on the June 30, 2016 participant data and June 30, 2017 financial information provided by the State, which we relied on and did not audit. This report includes a summary of significant actuarial methods and assumptions. The June 30, 2017 interim actuarial valuation report contains complete information about the actuarial methods and assumptions not summarized in this report and a summary of benefits used for the actuarial valuation.

The Plan and its auditor should change or supplement the information provided in this report as needed to properly prepare the Plan's financial statement information in accordance with GASBS 74. The use of this information for any purpose other than GASBS 74 financial reporting and disclosure may be inappropriate.

The actuarial valuation and reporting and disclosure information provided in this report were prepared using generally accepted actuarial principles and practices and, to the best of our knowledge, complies with the requirements of GASBS 74 and Actuarial Standards of Practice.

The undersigned are members of the American Academy of Actuaries and meet the Academy's Qualification Standards to render the actuarial results and opinions in this report.

Respectfully submitted,

Joseph R. D'Onofrio, FSA, EA, MAAA, FCA

Assistant Vice President Bartel Associates, LLC December 14, 2017

Joseph J'Ordier

Catherine a. Wandro

Catherine A. Wandro, ASA, MAAA, FCA Assistant Vice President & Actuary Bartel Associates, LLC December 14, 2017



²⁴ GASBS 74 requires this information be reported in the Plan's Required Supplementary Information for 10 years or as many years as are available upon implementation.

EXHIBITS

Topic	Page
Accounting Results	
• Interest on Total OPEB Liability	E-1
• Contributions	E-2
Benefit Payments	E-3
Projected Cash Flow	
 Projected Fiduciary Net Position 	E-4
• Projected Sources of Benefit Payments	E-7
Benefit Summary	E-9



December 14, 2017

17



EXHIBITS



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ACCOUNTING RESULTS

Interest on Total OPEB Liability 2016/17 Reporting Period

(Amounts in 000's)

	Dollar	Discount	Portion of	
Interest on Total OPEB Liability	Amount	Rate	Year	Interest
■ Total OPEB Liability Beginning of Year	\$1,143,542	6.75%	1.00	\$77,189
■ Service Cost at Beginning of Year	12,246	6.75%	1.00	827
■ Benefit Payments (Exhibit E-3) ²⁶	(70,118)	6.75%	0.50	(2,366)
■ Interest on Total OPEB Liability				75,650

²⁶ The Benefit Payments include estimated implied subsidy benefit payments of \$17,000,000 determined by the 6/30/16 actuarial valuation and actual cash benefit payments of \$53,118,000 provided by the State.



December 14, 2017

E-1



ACCOUNTING RESULTS

Contributions 2016/17 Reporting Period

(Amounts in 000's)

Contributions	Employer	Active Employees
■ Trust Prefunding	\$ 4,000	\$0
■ Cash Subsidy Payments Outside Trust	53,118	0
■ Implied Subsidy Payments Outside Trust	<u>17,000</u>	<u>0</u>
■ Total Contributions	74,118	0





ACCOUNTING RESULTS

Benefit Payments

2016/17 Reporting Period (Amounts in 000's)

Benefit Payments	Employer	Active Employees
■ Trust Benefit Payments	\$ 0	\$0
■ Cash Subsidy Payments Outside Trust	53,118	0
■ Implied Subsidy Payments Outside Trust	<u>17,000</u>	<u>0</u>
■ Total Benefit Payments	70,118	0



December 14, 2017

E-3



PROJECTED CASH FLOW

Projected Cash Flow 1,200 FNP Beginning of Year 1,000 Benefit Payments Millions of Dollars Contributions 800 600 400 200 0 2018 2028 2058 2038 2048 2068 2078 2088 2098 **Fiscal Year End**



PROJECTED CASH FLOW

Projected Fiduciary Net Position²⁷

June 30, 2017 Reporting Date - June 30, 2017 Measurement Date

(Amounts in 000's)

Fiscal Year	Beginning Fiduciary	Projected	Projected Benefit	Projected Admin	Projected	Ending Fiduciary
Ending	Net Position	Contributions	Payments ²⁸	Expense	Earnings	Net Position
2018	\$233,596	\$65,902	\$65,015	\$6	\$13,597	\$248,072
2023	284,192	65,024	78,955	7	16,504	286,758
2028	372,225	117,794	92,438	8	22,013	419,586
2033	643,233	144,238	103,381	9	39,940	724,021
2038	1,141,804	2,727	106,063	10	73,566	1,112,025
2043	975,034	1,622	101,401	12	62,461	937,705
2048	782,855	902	88,844	14	49,900	744,800
2053	599,230	441	72,318	14	38,051	565,390
2058	443,109	157	55,238	10	28,078	416,096
2063	320,413	38	41,692	7	20,244	298,997

²⁷ Exhibit shows change in Fiduciary Net Position every fifth year. This is a closed group projection. It assumes benefit payments made directly by the State are contributed to and paid from the trust.
²⁸ Cash subsidy and implied subsidy.



December 14, 2017

E-5



PROJECTED CASH FLOW

Projected Fiduciary Net Position²⁹ **June 30, 2017 Reporting Date - June 30, 2017 Measurement Date**

(Amounts in 000's)

Fiscal Year	Beginning Fiduciary	Projected	Projected Benefit	Projected Admin	Projected	Ending Fiduciary
Ending	•	Contributions		Expense	Earnings	•
2068	\$221,127	\$9	\$31,551	\$5	\$13,879	\$203,458
2073	139,736	3	22,816	3	8,675	125,595
2078	76,746	2	14,875	2	4,687	66,558
2083	34,160	1	8,086	1	2,037	28,111
2088	11,235	0	3,288	0	649	8,596
2093	2,464	0	883	0	137	1,718
2098	328	0	141	0	17	204
2103	24	0	12	0	1	13
2108	1	0	1	0	0	0
2113	0	0	0	0	0	0

²⁹ Exhibit shows change in Fiduciary Net Position every fifth year.

³⁰ Includes implied subsidy.



PROJECTED CASH FLOW

Projected Sources of Benefit Payment³¹

June 30, 2017 Reporting Date - June 30, 2017 Measurement Date (Amounts in 000's)

Fiscal Year	Projected Benefit	Projected Paid By	Projected Not Paid By
Ending	Payments ³²	Trust	Trust
2018	\$65,015	\$65,015	\$0
2023	78,955	78,955	0
2028	92,438	92,438	0
2033	103,381	103,381	0
2038	106,063	106,063	0
2043	101,401	101,401	0
2048	88,844	88,844	0
2053	72,318	72,318	0
2058	55,238	55,238	0
2063	41,692	41,692	0

³¹ Exhibit shows projected sources of benefit payments every fifth year.
³² Includes implied subsidy.



December 14, 2017

E-7



PROJECTED CASH FLOW

Projected Sources of Benefit Payment³³ June 30, 2017 Reporting Date - June 30, 2017 Measurement Date (Amounts in 000's)

Fiscal Year	Projected Benefit	Projected Paid By	Projected Not Paid By
Ending	Payments ³⁴	Trust	Trust
2068	\$31,551	\$31,551	\$0
2073	22,816	22,816	0
2078	14,875	14,875	0
2083	8,086	8,086	0
2088	3,288	3,288	0
2093	883	883	0
2098	141	141	0
2103	12	12	0
2108	1	1	0
2113	0	0	0

³³ Exhibit shows projected sources of benefit payments every fifth year.

³⁴ Includes implied subsidy.



BENEFIT SUMMARY

■ Eligibility

- MainePERS normal retirement:
 - > Regular Plan:
 - Normal retirement age and 1 year of service³⁵:
 - o 60 if \geq 10 years of service on 7/1/93 (Tier 1)
 - o 62 if < 10 years of service on 7/1/93 or hire $\geq 7/1/93$ (Tier 2)
 - \circ 65 if < 5 years of service on 7/1/11 or hire \geq 7/1/11 (Tier 3)
 - 25 years of service if earlier
 - > Special Plans:
 - 1998 Special Plan 55&10 or 25 years
 - 25 & Out Plan 25 years
 - State Police, Marine Resource Officers, and Inland Fisheries Wildlife Officers Plans 20 years
 - State Prison Plan 50 & 20
 - Forest Rangers Plan 50 & 25
- MainePERS disability retirement
- Former employees with 25 years of service at normal retirement age
- Part-time employees receive full benefits³⁶

³⁶ Substantive Plan per State.



December 14, 2017

E-9



BENEFIT SUMMARY

■ Retiree Medical Benefit

DOH ≤ 7/1/91	7/1/91 < Hired < 7/1/11		DOH ≥ 7/1/11	
100% of Retiree Premium	Years in Medical ³⁷ < 5 5 6 7 8 9 > 10	% Retiree Premium 0% 50% 60% 70% 80% 90% 100%	Years in Medical ₃₇ < 10 10-14 15-19 ≥ 20	% Retiree Premium 0% 50% 75% 100%

- Percent of retiree premium above based on:
 - > Single rate for single and employee + child(ren) coverage
 - > 50% of 2-party rate for 2-party and family coverage
- No State cash subsidy until retiree reaches normal retirement age for non-special plan service retirements ≥ 1/1/12
- Disability retirement benefits are 100% vested and cash subsidy begins at disability retirement

³⁷ Continuous years of group health plan participation before retirement.





³⁵ Service as used in this section is MainePERS creditable service.

BENEFIT SUMMARY

■ Self-Pay	 Retirees eligible for State cash subsidy can pay additional premium for spouses and dependents Retirees not eligible for State cash subsidy can participate by paying full premium for themselves, spouses, and dependents Surviving spouses and surviving dependents can participate by paying full premium
■ Waived Retirees	Waived retirees not allowed to rejoin medical plan
■ Other OPEB	No State contribution for dental, vision, life insurance, Medicare Part B premium, or pre-retirement death benefit
■ Implied Subsidy	 Retirees pay blended medical premiums rather than expected medical costs by age and gender Active premiums subsidize non-Medicare eligible retiree medical costs ("implied subsidy") Implied subsidy included with valuation results

Note: This benefit summary was taken from the 6/30/17 actuarial valuation report.



December 14, 2017

E-11



BENEFIT SUMMARY



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