

***City of Marysville
Retiree Health Care Fund***

Actuarial Information for GASB Statements 74/75

June 30, 2018

October 26, 2018

City of Marysville
1111 Delaware Ave.
P.O. Box 389
Marysville, MI 48040

Attention: Renee Warnke, City Clerk/Finance Director

Re: Retiree Health Care Fund
GASB 74/75 Actuarial Report

This document contains actuarial information required for Plan reporting purposes pursuant to Governmental Accounting Standards Board Statements No. 74/75 effective for the Fiscal Year ended June 30, 2018.

Respectfully submitted,



Denise M. Jones
Senior Consultant



Sandra W. Rodwan
Member, American Academy of Actuaries

Net Pension Liability

Total OPEB liability	\$23,812,556
Plan fiduciary net position	14,280,442
City's net OPEB liability	\$9,532,114
Plan fiduciary net position as a percentage of the total OPEB liability	59.97%

Actuarial assumptions. The total OPEB liability was determined based on the data used for the OPEB valuation for June 30, 2017, rolled forward to June 30, 2018. The following actuarial assumptions were applied to compute the total OPEB liability:

Actuarial cost method	Entry Age
Pre-retirement Medical Inflation	6% for the year of valuation, graded down to 5% in 0.1% increments
Salary Increases	N/A
Mortality	RP 2000 Combined Healthy Annuitant Mortality Table Projected to 2014

Discount rate. The discount rate used to measure the total OPEB liability was 7.50%. The projection of cash flows used to determine the discount rate assumed that Plan contributions would equal the actuarially determined contributions. Based on these assumptions, the 7.50% discount rate is the single rate of return that, when applied to all projected benefit payments, results in an actuarial present value of projected benefit payments equal to the total of the actuarial present values determined in conformity with GASB 74.

Sensitivity of Discount Rate

	1% Decrease 6.50%	GASB 74 Discount Rate 7.50%	1% Increase 8.50%
Plan's net OPEB liability	\$12,545,218	\$9,532,114	\$7,058,648

Medical Inflation rate. The medical inflation rate used to measure the total OPEB liability was 6.0% the first year, decreasing in 0.1% increments over the following 10 years to an ultimate assumed rate of 5.0%.

	1% Decrease 5.00%-4.00%	GASB 74 Med. Inflation Rate 6.00%-5.00%	1% Increase 7.00%-6.00%
Plan's net OPEB liability	\$6,929,699	\$9,532,114	\$12,706,499

Schedule of Changes in the Plan's Net OPEB Liability and Related Ratios

	Year Ended <u>6/30/2018</u>
Total OPEB liability	
Service cost	\$314,689
Interest	1,764,689
Changes in benefit terms	-
Differences between expected and actual experience	(1,064,942)
Changes of assumptions	
Interest Assumption	-
Mortality Assumption	-
Total Assumptions	-
Benefit payments, including refunds of member contributions	(1,147,449)
Net change in total OPEB liability	(\$133,013)
Total OPEB liability-beginning	23,945,569
Total OPEB liability-ending (a)	23,812,556
Plan fiduciary net position	
Contributions-employer	
Contributions-member	-
Net investment income	1,280,669
Benefit payments, including refunds of member contributions	(1,147,449)
Administrative Expense	-
Other	47,670
Net change in plan fiduciary net position	180,890
Plan fiduciary net position-beginning	14,099,552
Plan fiduciary net position-ending (b)	14,280,442
Plan's net OPEB liability-ending (a)-(b)	\$9,532,114
Plan fiduciary net position as a percentage of the total OPEB liability	59.97%

Additional Required Disclosures

Total expected remaining service lives	<u>06/30/2018</u>
Active Participants	312.1
Inactive Participants	0
(a) Total expected remaining service lives	312.1
 Number of Participants	
Active	49
Inactive	69
(b) Total	118
 Average of expected remaining service lives of all (c) active and inactive participants (a)/(b)	2.6
 Difference between expected and actual demographic (d1) experience	(1,064,942)
(d2) Portion allocated to expense (d1)/(c)	(409,593)
(d3) Deferred portion (d1)-(d2)	(655,349)
 (e1) Changes in assumptions	-
(e2) Portion allocated to expense (e1)/(c)	-
(e3) Deferred portion (e1)-(e2)	-
 Difference between expected and actual investment (f1) experience	(264,444)
(f2) Portion allocated to expense (f1)/(5)	(52,889)
(f3) Deferred portion (f1)-(f2)	(211,555)
 (g) Total Deferred Portion	(866,904)

**SCHEDULE OF PLAN CONTRIBUTIONS
LAST 10 FISCAL YEARS
Year Ended June 30**

	2018	2017
Actuarially determined contribution	\$ 1,118,744	\$ 810,015
Plan Contributions	\$ -	\$ 810,015
Contribution excess (deficiency)	(1,118,744)	-
 Covered employee payroll	 \$ 3,395,113	 \$ 3,408,007
 Actual Contributions as a percentage of covered payroll	 0.00%	 23.77%

Notes to Schedule

Valuation date: June 30, 2017
Covered employee payroll is as of June 30 of the current fiscal year.

Methods and assumptions used to determine contribution rates:

Actuarial cost method	Entry age
Amortization method	Level percentage of payroll, closed
Remaining amortization period	30 years
Asset valuation method	Market
Pre-retirement Medical Inflation	6% for the year of valuation, graded down to 5% in 0.1% increments
Salary increases	N/A
Investment rate of return	5.0%, net of plan investment expense
Mortality Table	RP 2000 Combined Healthy Annuitant Mortality Table Projected to 2014

Table 1
Projection of Total Contributions*
Assuming 30 Year Closed Amortization of UAAL

Year Beg. 7/1	Projected Entry Age AAL	Projected Funding Value of Assets	UAAL	30 Year Closed Amortization	Projected Employer Normal Cost	Employer Contribution	Employee Contribution	Total Contributions
2018	\$23,812,551	\$14,280,442	\$9,532,109	\$778,262	\$334,703	\$1,112,965	\$0	\$1,112,965
2019	24,582,944	15,105,274	9,477,670	781,374	326,722	1,108,096	0	1,108,096
2020	25,355,134	15,937,128	9,418,006	784,693	333,942	1,118,635	0	1,118,635
2021	26,152,478	16,800,839	9,351,639	788,153	277,889	1,066,042	0	1,066,042
2022	26,816,531	17,532,577	9,283,954	792,274	264,682	1,056,956	0	1,056,956
2023	27,452,395	18,242,552	9,209,843	796,705	217,954	1,014,659	0	1,014,659
2024	27,965,987	18,834,030	9,131,957	801,762	222,859	1,024,621	0	1,024,621
2025	28,487,160	19,443,029	9,044,131	807,003	219,267	1,026,270	0	1,026,270
2026	28,993,391	20,047,083	8,946,308	812,522	182,537	995,059	0	995,059
2027	29,387,306	20,546,247	8,841,059	818,671	150,830	969,501	0	969,501
2028	29,682,244	20,955,882	8,726,362	825,408	134,843	960,251	0	960,251
2029	29,907,036	21,307,512	8,599,524	832,638	119,937	952,575	0	952,575
2030	30,067,871	21,609,156	8,458,715	840,359	102,458	942,817	0	942,817
2031	30,149,740	21,847,014	8,302,726	848,648	95,437	944,085	0	944,085
2032	30,198,572	22,070,636	8,127,936	857,361	74,683	932,044	0	932,044
2033	30,169,853	22,235,822	7,934,031	866,714	66,016	932,730	0	932,730
2034	30,093,497	22,375,920	7,717,577	876,633	52,000	928,633	0	928,633
2035	29,933,082	22,455,530	7,477,552	887,345	44,753	932,098	0	932,098
2036	29,718,542	22,508,559	7,209,983	898,792	25,672	924,464	0	924,464
2037	29,429,120	22,516,467	6,912,653	911,185	18,462	929,647	0	929,647
2038	29,070,678	22,488,721	6,581,957	924,642	18,869	943,511	0	943,511
2039	28,693,600	22,481,404	6,212,196	939,077	8,218	947,295	0	947,295
2040	28,248,211	22,446,994	5,801,217	955,042	8,399	963,441	0	963,441
2041	27,773,668	22,430,971	5,342,697	972,667	0	972,667	0	972,667
2042	27,233,395	22,400,763	4,832,632	992,787	0	992,787	0	992,787

Table 1 (Continued)
Projection of Total Contributions*
Assuming 30 Year Closed Amortization of UAAL

Year Beg. 7/1	Projected Entry Age AAL	Projected Funding Value of Assets	UAAL	30 Year Closed Amortization	Projected Employer Normal Cost	Employer Contribution	Employee Contribution	Total Contributions
2043	\$26,655,459	\$22,392,133	\$4,263,326	\$1,016,099	\$0	\$1,016,099	\$0	\$1,016,099
2044	26,042,929	22,416,106	3,626,823	1,044,167	0	1,044,167	0	1,044,167
2045	25,394,405	22,481,332	2,913,073	1,080,168	0	1,080,168	0	1,080,168
2046	24,709,459	22,601,478	2,107,981	1,132,053	0	1,132,053	0	1,132,053
2047	23,998,441	22,810,703	1,187,738	1,231,205	0	1,231,205	0	1,231,205
2048	23,255,339	23,160,533	94,806	98,276	0	98,276	0	98,276
2049	22,480,032	22,385,609	94,423	97,879	0	97,879	0	97,879
2050	21,668,191	21,574,564	93,627	97,053	0	97,053	0	97,053
2051	20,820,197	20,727,494	92,703	96,096	0	96,096	0	96,096
2052	19,941,724	19,850,269	91,455	94,802	0	94,802	0	94,802
2053	19,030,223	18,940,009	90,214	93,515	0	93,515	0	93,515
2054	18,088,388	17,999,579	88,809	92,059	0	92,059	0	92,059
2055	17,119,907	17,032,760	87,147	90,336	0	90,336	0	90,336
2056	16,129,587	16,044,345	85,242	88,362	0	88,362	0	88,362
2057	15,123,407	15,040,352	83,055	86,094	0	86,094	0	86,094
2058	14,108,133	14,027,565	80,568	83,516	0	83,516	0	83,516
2059	13,091,056	13,013,261	77,795	80,642	0	80,642	0	80,642
2060	12,079,885	12,005,193	74,692	77,425	0	77,425	0	77,425
2061	11,082,425	11,011,067	71,358	73,969	0	73,969	0	73,969
2062	10,106,398	10,038,666	67,732	70,211	0	70,211	0	70,211
2063	9,159,117	9,095,196	63,921	66,260	0	66,260	0	66,260
2064	8,247,313	8,187,379	59,934	62,127	0	62,127	0	62,127
2065	7,376,992	7,321,195	55,797	57,839	0	57,839	0	57,839
2066	6,553,203	6,501,598	51,605	53,494	0	53,494	0	53,494
2067	5,779,888	5,732,476	47,412	49,147	0	49,147	0	49,147

Table 1 (Continued)
Projection of Total Contributions*
Assuming 30 Year Closed Amortization of UAAL

Year Beg. 7/1	Projected Entry Age AAL	Projected Funding Value of Assets	UAAL	30 Year Closed Amortization	Projected Employer Normal Cost	Employer Contribution	Employee Contribution	Total Contributions
2068	\$5,060,027	\$5,016,797	\$43,230	\$44,812	\$0	\$44,812	\$0	\$44,812
2069	4,395,707	4,356,584	39,123	40,555	0	40,555	0	40,555
2070	3,788,134	3,753,007	35,127	36,413	0	36,413	0	36,413
2071	3,237,485	3,206,204	31,281	32,426	0	32,426	0	32,426
2072	2,743,126	2,715,506	27,620	28,631	0	28,631	0	28,631
2073	2,303,780	2,279,608	24,172	25,057	0	25,057	0	25,057
2074	1,917,451	1,896,499	20,952	21,719	0	21,719	0	21,719
2075	1,581,390	1,563,400	17,990	18,648	0	18,648	0	18,648
2076	1,292,190	1,276,916	15,274	15,833	0	15,833	0	15,833
2077	1,046,130	1,033,283	12,847	13,317	0	13,317	0	13,317
2078	839,154	828,457	10,697	11,088	0	11,088	0	11,088
2079	666,927	658,112	8,815	9,138	0	9,138	0	9,138
2080	525,164	517,975	7,189	7,452	0	7,452	0	7,452
2081	409,738	403,946	5,792	6,004	0	6,004	0	6,004
2082	316,722	312,088	4,634	4,804	0	4,804	0	4,804
2083	242,473	238,801	3,672	3,806	0	3,806	0	3,806
2084	183,739	180,856	2,883	2,989	0	2,989	0	2,989
2085	137,737	135,499	2,238	2,320	0	2,320	0	2,320
2086	102,073	100,353	1,720	1,783	0	1,783	0	1,783
2087	74,670	73,360	1,310	1,358	0	1,358	0	1,358
2088	53,879	52,892	987	1,023	0	1,023	0	1,023
2089	38,272	37,538	734	761	0	761	0	761
2090	26,718	26,170	548	568	0	568	0	568
2091	18,328	17,938	390	404	0	404	0	404
2092	12,359	12,085	274	284	0	284	0	284

Table 1 (Continued)
Projection of Total Contributions*
 Assuming 30 Year Closed Amortization of UAAL

Year Beg. 7/1	Projected Entry Age AAL	Projected Funding Value of Assets	UAAL	30 Year Closed Amortization	Projected Employer Normal Cost	Employer Contribution	Employee Contribution	Total Contributions
2093	\$8,180	\$7,988	\$192	\$199	\$0	\$199	\$0	\$199
2094	5,306	5,177	129	134	0	134	0	134
2095	3,375	3,291	84	87	0	87	0	87
2096	2,090	2,034	56	58	0	58	0	58
2097	1,258	1,220	38	39	0	39	0	39
2098	731	705	26	27	0	27	0	27
2099	412	399	13	13	0	13	0	13
2100	205	193	12	12	0	12	0	12
2101	109	105	4	4	0	4	0	4
2102	56	54	2	2	0	2	0	2
2103	29	28	1	1	0	1	0	1
2104	12	11	1	1	0	1	0	1
2105	0	0	0	0	0	0	0	0
2106	0	0	0	0	0	0	0	0
2107	0	0	0	0	0	0	0	0
2108	0	0	0	0	0	0	0	0
2109	0	0	0	0	0	0	0	0
2110	0	0	0	0	0	0	0	0
2111	0	0	0	0	0	0	0	0
2112	0	0	0	0	0	0	0	0
2113	0	0	0	0	0	0	0	0
2114	0	0	0	0	0	0	0	0
2115	0	0	0	0	0	0	0	0
2116	0	0	0	0	0	0	0	0
2117	0	0	0	0	0	0	0	0

*The Projection of Contributions uses the plan's actuarial valuation interest and mortality assumptions. Employer contributions were assumed to be the actuarially determined rate.

Table 2: Projection of the Pension Plan's Fiduciary Net Position

Year Beg. 7/1	Projected Beginning Fiduciary Net Position (a)	Projected Total Contributions* (b)	Projected Benefit Payments** (c)	Projected Administrative Expense*** (d)	Projected Investment Earnings**** (e)	Projected Fiduciary Ending Net Position (a)+(b)+(c)+(d)+(e)
2018	\$14,280,442	\$1,112,965	\$(1,350,267)	\$0	\$1,062,134	\$15,105,274
2019	15,105,274	1,108,096	(1,398,257)	0	1,122,015	15,937,128
2020	15,937,128	1,118,635	(1,438,224)	0	1,183,300	16,800,839
2021	16,800,839	1,066,042	(1,575,271)	0	1,240,967	17,532,577
2022	17,532,577	1,056,956	(1,640,058)	0	1,293,077	18,242,552
2023	18,242,552	1,014,659	(1,763,298)	0	1,340,117	18,834,030
2024	18,834,030	1,024,621	(1,799,130)	0	1,383,508	19,443,029
2025	19,443,029	1,026,270	(1,849,569)	0	1,427,353	20,047,083
2026	20,047,083	995,059	(1,963,124)	0	1,467,229	20,546,247
2027	20,546,247	969,501	(2,059,943)	0	1,500,077	20,955,882
2028	20,955,882	960,251	(2,136,214)	0	1,527,593	21,307,512
2029	21,307,512	952,575	(2,202,136)	0	1,551,205	21,609,156
2030	21,609,156	942,817	(2,275,664)	0	1,570,705	21,847,014
2031	21,847,014	944,085	(2,307,848)	0	1,587,385	22,070,636
2032	22,070,636	932,044	(2,368,296)	0	1,601,438	22,235,822
2033	22,235,822	932,730	(2,405,105)	0	1,612,473	22,375,920
2034	22,375,920	928,633	(2,469,437)	0	1,620,414	22,455,530
2035	22,455,530	932,098	(2,504,277)	0	1,625,208	22,508,559
2036	22,508,559	924,464	(2,543,967)	0	1,627,411	22,516,467
2037	22,516,467	929,647	(2,584,087)	0	1,626,694	22,488,721
2038	22,488,721	943,511	(2,576,254)	0	1,625,426	22,481,404
2039	22,481,404	947,295	(2,605,623)	0	1,623,918	22,446,994
2040	22,446,994	963,441	(2,601,559)	0	1,622,095	22,430,971
2041	22,430,971	972,667	(2,623,299)	0	1,620,424	22,400,763
2042	22,400,763	992,787	(2,620,437)	0	1,619,020	22,392,133

Table 2: Projection of the Pension Plan's Fiduciary Net Position (Continued)

Year Beg. 7/1	Projected Beginning Fiduciary Net Position (a)	Projected Total Contributions* (b)	Projected Benefit Payments** (c)	Projected Administrative Expense*** (d)	Projected Investment Earnings**** (e)	Projected Fiduciary Ending Net Position (a)+(b)+(c)+(d)+(e)
2043	\$22,392,133	\$1,016,099	\$(2,611,701)	\$0	\$1,619,575	\$22,416,106
2044	22,416,106	1,044,167	(2,601,740)	0	1,622,799	22,481,332
2045	22,481,332	1,080,168	(2,589,521)	0	1,629,499	22,601,478
2046	22,601,478	1,132,053	(2,564,232)	0	1,641,404	22,810,703
2047	22,810,703	1,231,205	(2,542,986)	0	1,661,611	23,160,533
2048	23,160,533	98,276	(2,519,446)	0	1,646,246	22,385,609
2049	22,385,609	97,879	(2,497,846)	0	1,588,922	21,574,564
2050	21,574,564	97,053	(2,473,113)	0	1,528,990	20,727,494
2051	20,727,494	96,096	(2,439,987)	0	1,466,666	19,850,269
2052	19,850,269	94,802	(2,407,120)	0	1,402,058	18,940,009
2053	18,940,009	93,515	(2,369,111)	0	1,335,166	17,999,579
2054	17,999,579	92,059	(2,325,107)	0	1,266,229	17,032,760
2055	17,032,760	90,336	(2,274,309)	0	1,195,558	16,044,345
2056	16,044,345	88,362	(2,215,898)	0	1,123,543	15,040,352
2057	15,040,352	86,094	(2,149,529)	0	1,050,648	14,027,565
2058	14,027,565	83,516	(2,075,199)	0	977,379	13,013,261
2059	13,013,261	80,642	(1,992,991)	0	904,281	12,005,193
2060	12,005,193	77,425	(1,903,464)	0	831,913	11,011,067
2061	11,011,067	73,969	(1,807,204)	0	760,834	10,038,666
2062	10,038,666	70,211	(1,705,266)	0	691,585	9,095,196
2063	9,095,196	66,260	(1,598,748)	0	624,671	8,187,379
2064	8,187,379	62,127	(1,488,862)	0	560,551	7,321,195
2065	7,321,195	57,839	(1,377,055)	0	499,619	6,501,598
2066	6,501,598	53,494	(1,264,811)	0	442,195	5,732,476
2067	5,732,476	49,147	(1,153,354)	0	388,528	5,016,797

Table 2: Projection of the Pension Plan's Fiduciary Net Position (Continued)

Year Beg. 7/1	Projected Beginning Fiduciary Net Position (a)	Projected Total Contributions* (b)	Projected Benefit Payments** (c)	Projected Administrative Expense*** (d)	Projected Investment Earnings**** (e)	Projected Fiduciary Ending Net Position (a)+(b)+(c)+(d)+(e)
2068	\$5,016,797	\$44,812	\$(1,043,822)	\$0	\$338,797	\$4,356,584
2069	4,356,584	40,555	(937,250)	0	293,118	3,753,007
2070	3,753,007	36,413	(834,754)	0	251,538	3,206,204
2071	3,206,204	32,426	(737,162)	0	214,038	2,715,506
2072	2,715,506	28,631	(645,075)	0	180,546	2,279,608
2073	2,279,608	25,057	(559,110)	0	150,944	1,896,499
2074	1,896,499	21,719	(479,875)	0	125,057	1,563,400
2075	1,563,400	18,648	(407,794)	0	102,662	1,276,916
2076	1,276,916	15,833	(342,967)	0	83,501	1,033,283
2077	1,033,283	13,317	(285,435)	0	67,292	828,457
2078	828,457	11,088	(235,164)	0	53,731	658,112
2079	658,112	9,138	(191,784)	0	42,509	517,975
2080	517,975	7,452	(154,803)	0	33,322	403,946
2081	403,946	6,004	(123,743)	0	25,881	312,088
2082	312,088	4,804	(98,003)	0	19,912	238,801
2083	238,801	3,806	(76,919)	0	15,168	180,856
2084	180,856	2,989	(59,781)	0	11,435	135,499
2085	135,499	2,320	(45,991)	0	8,525	100,353
2086	100,353	1,783	(35,055)	0	6,279	73,360
2087	73,360	1,358	(26,389)	0	4,563	52,892
2088	52,892	1,023	(19,646)	0	3,269	37,538
2089	37,538	761	(14,432)	0	2,303	26,170
2090	26,170	568	(10,394)	0	1,594	17,938
2091	17,938	404	(7,342)	0	1,085	12,085
2092	12,085	284	(5,107)	0	726	7,988

Table 2: Projection of the Pension Plan's Fiduciary Net Position (Continued)

Year Beg. 7/1	Projected Beginning Fiduciary Net Position (a)	Projected Total Contributions* (b)	Projected Benefit Payments** (c)	Projected Administrative Expense*** (d)	Projected Investment Earnings**** (e)	Projected Fiduciary Ending Net Position (a)+(b)+(c)+(d)+(e)
2093	\$7,988	\$199	\$(3,486)	\$0	\$476	\$5,177
2094	5,177	134	(2,326)	0	306	3,291
2095	3,291	87	(1,536)	0	192	2,034
2096	2,034	58	(990)	0	118	1,220
2097	1,220	39	(624)	0	70	705
2098	705	27	(373)	0	40	399
2099	399	13	(240)	0	21	193
2100	193	12	(111)	0	11	105
2101	105	4	(61)	0	6	54
2102	54	2	(31)	0	3	28
2103	28	1	(19)	0	1	11
2104	11	1	(13)	0	0	0
2105	0	0	0	0	0	0
2106	0	0	0	0	0	0
2107	0	0	0	0	0	0
2108	0	0	0	0	0	0
2109	0	0	0	0	0	0
2110	0	0	0	0	0	0
2111	0	0	0	0	0	0
2112	0	0	0	0	0	0
2113	0	0	0	0	0	0
2114	0	0	0	0	0	0
2115	0	0	0	0	0	0
2116	0	0	0	0	0	0
2117	0	0	0	0	0	0

*From Table 1.

**Assumed Mortality for Benefit Payout Projection was based on the RP 2000 Combined Healthy Mortality Table projected to 2014.

***Administrative expense was assumed to be 0.00% of benefit payout.

****Assumed rate of return used to project the Fiduciary Net Position was 7.50%.

Table 3: Actuarial Present Values of Projected Benefit Payments

Year (a)	Projected Beginning Fiduciary Net Position* (b)	Projected Benefit Payments* (c)	"Funded" Portion of Benefit Payments (d)	"Unfunded" Portion of Benefit Payments (e)	Present Value of "Funded" Benefits Payments** (f)	Present Value of "Unfunded" Benefit Payments*** (g)=(e)/(1+x.xx%)^(a)	Present Value Using the Single Discount Rate**** (h) = (c)/(1 + y.yy%)^(a)
1	\$14,280,442	\$1,350,267	\$1,350,267	\$0	\$1,256,062	\$0	\$1,256,062
2	15,105,274	1,398,257	1,398,257	0	1,209,957	0	1,209,957
3	15,937,128	1,438,224	1,438,224	0	1,157,714	0	1,157,714
4	16,800,839	1,575,271	1,575,271	0	1,179,564	0	1,179,564
5	17,532,577	1,640,058	1,640,058	0	1,142,397	0	1,142,397
6	18,242,552	1,763,298	1,763,298	0	1,142,549	0	1,142,549
7	18,834,030	1,799,130	1,799,130	0	1,084,434	0	1,084,434
8	19,443,029	1,849,569	1,849,569	0	1,037,057	0	1,037,057
9	20,047,083	1,963,124	1,963,124	0	1,023,933	0	1,023,933
10	20,546,247	2,059,943	2,059,943	0	999,472	0	999,472
11	20,955,882	2,136,214	2,136,214	0	964,166	0	964,166
12	21,307,512	2,202,136	2,202,136	0	924,576	0	924,576
13	21,609,156	2,275,664	2,275,664	0	888,788	0	888,788
14	21,847,014	2,307,848	2,307,848	0	838,472	0	838,472
15	22,070,636	2,368,296	2,368,296	0	800,404	0	800,404
16	22,235,822	2,405,105	2,405,105	0	756,134	0	756,134
17	22,375,920	2,469,437	2,469,437	0	722,194	0	722,194
18	22,455,530	2,504,277	2,504,277	0	681,287	0	681,287
19	22,508,559	2,543,967	2,543,967	0	643,800	0	643,800
20	22,516,467	2,584,087	2,584,087	0	608,328	0	608,328
21	22,488,721	2,576,254	2,576,254	0	564,171	0	564,171
22	22,481,404	2,605,623	2,605,623	0	530,793	0	530,793
23	22,446,994	2,601,559	2,601,559	0	492,991	0	492,991
24	22,430,971	2,623,299	2,623,299	0	462,429	0	462,429
25	22,400,763	2,620,437	2,620,437	0	429,697	0	429,697

Table 3: Actuarial Present Values of Projected Benefit Payments (Continued)

Year (a)	Projected Beginning Fiduciary Net Position* (b)	Projected Benefit Payments* (c)	"Funded" Portion of Benefit Payments (d)	"Unfunded" Portion of Benefit Payments (e)	Present Value of "Funded" Benefits Payments** (f)	Present Value of "Unfunded" Benefit Payments*** (g)=(e)/(1+x.xx%)^(a)	Present Value Using the Single Discount Rate**** (h) = (c)/(1 + y.yy%)^(a)
26	\$22,392,133	\$2,611,701	\$2,611,701	\$0	\$398,385	\$0	\$398,385
27	22,416,106	2,601,740	2,601,740	0	369,178	0	369,178
28	22,481,332	2,589,521	2,589,521	0	341,808	0	341,808
29	22,601,478	2,564,232	2,564,232	0	314,856	0	314,856
30	22,810,703	2,542,986	2,542,986	0	290,462	0	290,462
31	23,160,533	2,519,446	2,519,446	0	267,696	0	267,696
32	22,385,609	2,497,846	2,497,846	0	246,885	0	246,885
33	21,574,564	2,473,113	2,473,113	0	227,386	0	227,386
34	20,727,494	2,439,987	2,439,987	0	208,689	0	208,689
35	19,850,269	2,407,120	2,407,120	0	191,514	0	191,514
36	18,940,009	2,369,111	2,369,111	0	175,340	0	175,340
37	17,999,579	2,325,107	2,325,107	0	160,077	0	160,077
38	17,032,760	2,274,309	2,274,309	0	145,656	0	145,656
39	16,044,345	2,215,898	2,215,898	0	132,014	0	132,014
40	15,040,352	2,149,529	2,149,529	0	119,126	0	119,126
41	14,027,565	2,075,199	2,075,199	0	106,982	0	106,982
42	13,013,261	1,992,991	1,992,991	0	95,576	0	95,576
43	12,005,193	1,903,464	1,903,464	0	84,914	0	84,914
44	11,011,067	1,807,204	1,807,204	0	74,995	0	74,995
45	10,038,666	1,705,266	1,705,266	0	65,828	0	65,828
46	9,095,196	1,598,748	1,598,748	0	57,410	0	57,410
47	8,187,379	1,488,862	1,488,862	0	49,734	0	49,734
48	7,321,195	1,377,055	1,377,055	0	42,790	0	42,790
49	6,501,598	1,264,811	1,264,811	0	36,560	0	36,560
50	5,732,476	1,153,354	1,153,354	0	31,013	0	31,013

Table 3: Actuarial Present Values of Projected Benefit Payments (Continued)

Year (a)	Projected Beginning Fiduciary Net Position* (b)	Projected Benefit Payments* (c)	"Funded" Portion of Benefit Payments (d)	"Unfunded" Portion of Benefit Payments (e)	Present Value of "Funded" Benefits Payments** (f)	Present Value of "Unfunded" Benefit Payments*** (g)=(e)/(1+x.xx%)^(a)	Present Value Using the Single Discount Rate**** (h) = (c)/(1 + y.yy%)^(a)
51	\$5,016,797	\$1,043,822	\$1,043,822	\$0	\$26,109	\$0	\$26,109
52	4,356,584	937,250	937,250	0	21,808	0	21,808
53	3,753,007	834,754	834,754	0	18,068	0	18,068
54	3,206,204	737,162	737,162	0	14,842	0	14,842
55	2,715,506	645,075	645,075	0	12,082	0	12,082
56	2,279,608	559,110	559,110	0	9,741	0	9,741
57	1,896,499	479,875	479,875	0	7,778	0	7,778
58	1,563,400	407,794	407,794	0	6,148	0	6,148
59	1,276,916	342,967	342,967	0	4,810	0	4,810
60	1,033,283	285,435	285,435	0	3,724	0	3,724
61	828,457	235,164	235,164	0	2,854	0	2,854
62	658,112	191,784	191,784	0	2,165	0	2,165
63	517,975	154,803	154,803	0	1,626	0	1,626
64	403,946	123,743	123,743	0	1,209	0	1,209
65	312,088	98,003	98,003	0	891	0	891
66	238,801	76,919	76,919	0	650	0	650
67	180,856	59,781	59,781	0	470	0	470
68	135,499	45,991	45,991	0	336	0	336
69	100,353	35,055	35,055	0	239	0	239
70	73,360	26,389	26,389	0	167	0	167
71	52,892	19,646	19,646	0	116	0	116
72	37,538	14,432	14,432	0	79	0	79
73	26,170	10,394	10,394	0	53	0	53
74	17,938	7,342	7,342	0	35	0	35
75	12,085	5,107	5,107	0	23	0	23

Table 3: Actuarial Present Values of Projected Benefit Payments (Continued)

Year (a)	Projected Beginning Fiduciary Net Position* (b)	Projected Benefit Payments* (c)	"Funded" Portion of Benefit Payments (d)	"Unfunded" Portion of Benefit Payments (e)	Present Value of "Funded" Benefits Payments** (f)	Present Value of "Unfunded" Benefit Payments*** (g)=(e)/(1+x.xx%)^(a)	Present Value Using the Single Discount Rate**** (h) = (c)/(1 + y.yy%)^(a)
76	\$7,988	\$3,486	\$3,486	\$0	\$14	\$0	\$14
77	5,177	2,326	2,326	0	9	0	9
78	3,291	1,536	1,536	0	5	0	5
79	2,034	990	990	0	3	0	3
80	1,220	624	624	0	2	0	2
81	705	373	373	0	1	0	1
82	399	240	240	0	1	0	1
83	193	111	111	0	0	0	0
84	105	61	61	0	0	0	0
85	54	31	31	0	0	0	0
86	28	19	19	0	0	0	0
87	11	13	11	2	0	0	0
88	0	0	0	0	0	0	0
89	0	0	0	0	0	0	0
90	0	0	0	0	0	0	0
91	0	0	0	0	0	0	0
92	0	0	0	0	0	0	0
93	0	0	0	0	0	0	0
94	0	0	0	0	0	0	0
95	0	0	0	0	0	0	0
96	0	0	0	0	0	0	0
97	0	0	0	0	0	0	0
98	0	0	0	0	0	0	0
99	0	0	0	0	0	0	0
100	0	0	0	0	0	0	0
					\$25,912,301	\$0	\$25,912,301

* From Table 2.

**7.50% was the assumed rate of return used to project the plan's fiduciary net position and is the discount rate used for column (f).

***3.13% S&P Municipal Bond 20 Year High Grade Index as of June 30, 2017 (YTW).

****7.50% was the single discount rate that produces a total actuarial present value that equals the sum of the actuarial present values of "funded" and "unfunded" benefit payments in columns (f) and (g).