

Kent County Retiree Health Care Plan

Actuarial Valuation Report

December 31, 2017



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May 14, 2018

Mr. Stephen W. Duarte
Fiscal Services Director
Kent County Retiree Health Care Plan
300 Monroe Avenue, N.W.
Grand Rapids, Michigan 49503-2222

Dear Mr. Duarte:

Submitted in this report are the results of an Actuarial Valuation of the assets and benefit values associated with the employer financed retiree health benefits provided by Kent County. The date of the valuation was December 31, 2017, from which the Actuarially Determined Contribution was developed for the fiscal year January 1, 2019 through December 31, 2019. This report was prepared at the request of Kent County.

The purposes of the valuation are to measure the Plan's funding progress and to determine the employer contribution rate for the fiscal year ending December 31, 2019. Determinations of the financial results associated with the benefits described in this report in a manner other than the intended purpose may produce significantly different results. This report does not satisfy the disclosure requirements of GASB Statements No. 74 and No. 75. Please see the report dated February 26, 2018 for information related to GASB Statement No. 74 and No. 75 reporting.

The actuarial methods and assumptions used in the actuarial valuation are summarized in Section E of this report. The assumptions are established by the Board after consulting with the actuary.

This report should not be relied on for any purpose other than those described above. It was prepared at the request of the Board and is intended for use by the County and those designated or approved by the Board. This report may be provided to parties other than the County only in its entirety and only with the permission of the Board. GRS is not responsible for unauthorized use of this report.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the plan's funded status); and changes in plan provisions or applicable law.

Mr. Stephen W. Duarte
May 14, 2018
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The valuation was based upon information, furnished by the County, concerning retiree health benefits, individual members, and financial data. Data was checked for internal consistency, but was not audited by us. We are not responsible for the accuracy or completeness of the information provided by the County.

To the best of our knowledge, this report is complete and accurate and was made in accordance with generally recognized actuarial methods.

The signing actuaries are independent of the plan sponsor.

James D. Anderson, Derek Henning, and Abra D. Hill are Members of the American Academy of Actuaries (MAAA) and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained herein.

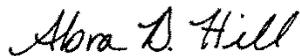
Respectfully submitted,



James D. Anderson, FSA, EA, FCA, MAAA



Derek Henning, ASA, MAAA



Abra D. Hill, ASA, MAAA

JDA/DH/ADH:sc



EXECUTIVE SUMMARY

Executive Summary

Actuarially Determined Contribution

The Actuarially Determined Contribution (ADC) for the fiscal year beginning January 1, 2019 is \$2,908,628 or 2.92% of projected payroll. Actual claims and premiums paid on behalf of retirees from outside of the plan assets may be treated as employer contributions in relation to the ADC. The expected employer portion of the claims and premium amounts paid is estimated to be \$2,950,272 for the fiscal year beginning January 1, 2019. This amount reflects the retiree only premium rates and the implicit subsidy for retirees and covered spouses. The expected employer portion is comprised of \$1,675,876 in County benefits to retirees and \$1,274,396 in retiree health care costs in excess of the premiums charged.

If the employer portion of premiums for existing retirees is paid from existing plan assets, the County can still treat the associated implicit subsidy as contributions toward the ADC. Therefore, if the actual premiums and flat dollar subsidies paid from plan assets turn out to be equal to the estimate of \$1,675,876 and the County contributes \$1,634,232 (the difference between the total ADC of \$2,908,628 and \$1,274,396) to the trust, then the ADC will be met.

Per capita costs and illustrative rates were developed from the premiums, claims and enrollment data provided to us. The process used to determine these per capita costs and the results of these calculations are provided in Section B.

Executive Summary

Additional OPEB Reporting Requirements

Please note that beginning with the fiscal year ending December 31, 2017, GASB Statement No. 43 was replaced by GASB Statement No. 74. Also, beginning with the fiscal year ending December 31, 2018, GASB Statement No. 45 will be replaced by GASB Statement No. 75. The report dated February 26, 2018 complies with the actuarial requirements of GASB Statement No. 74 and Statement No. 75 beginning with the fiscal year ending December 31, 2017.

Liabilities and Assets

The present value of all benefits expected to be paid to current plan members as of December 31, 2017 is \$60,649,289. The actuarial accrued liability, which is the portion of the \$60,649,289 attributable to service accrued by plan members as of December 31, 2017, is \$52,996,963. As of December 31, 2017, there is \$25,315,572 in valuation assets available to offset the liabilities of the plan.

The funded status of the plan, which is the ratio of plan assets to actuarial accrued liability, as of December 31, 2017 is 47.8%. This is an increase from 36.4% as of December 31, 2016.

Excise Tax

The Patient Protection and Affordable Care Act includes an excise tax on high cost (Cadillac) health plans beginning in 2020. The excise tax is 40% of costs above a threshold. Possible excise taxes beginning in 2020 have not been reflected in the results presented in this report.

SECTION A

VALUATION RESULTS

Development of the Actuarially Determined Contribution for Other Postemployment Benefits Fiscal Year Beginning January 1, 2019

Contributions for	Development of the Actuarially Determined Contribution for January 1, 2019 - December 31, 2019
Normal Cost	
Normal Retirement	\$ 916,417
Early Retirement	129,494
Death-in-Service	29,883
Disability	39,844
Future Refund of Member Contributions	<u>0</u>
Total Normal Cost	\$ 1,115,638
Annual Active Member Contribution	0
Employer Normal Cost	\$ 1,115,638
Amortization of Unfunded Actuarial Accrued Liabilities (Amortized over 23 years)	\$ 1,792,990
Actuarially Determined Contribution (ADC)	\$ 2,908,628
Projected Payroll for the Fiscal Year Beginning January 1, 2019	\$99,610,530
ADC as a Percentage of Projected Payroll	2.92%
ADC Per Active Participant (1,503 Actives)	\$ 1,935

The unfunded actuarial accrued liabilities were amortized as a level percent of active member payroll over a period of 23 years. A 30-year amortization period for unfunded actuarial accrued liabilities is the maximum period that complies with Governmental Accounting Standards Board (GASB) requirements.

Determination of Unfunded Actuarial Accrued Liability as of December 31, 2017

A. Present Value of Future Benefits	
1. Retirees and Beneficiaries	\$27,246,247
2. Vested Terminated Members	0
3. Active Members	<u>33,403,042</u>
Total Present Value of Future Benefits	\$60,649,289
B. Present Value of Future Employer Normal Costs	7,652,326
C. Present Value of Future Contributions from Current Active Members	0
D. Actuarial Accrued Liability (A.-B.-C.)	52,996,963
E. Actuarial Value of Assets	25,315,572
F. Unfunded Actuarial Accrued Liability (D.-E.)	\$27,681,391
G. Funded Status (E./D.)	47.8%

The Unfunded Actuarial Accrued Liability (UAAL) is not booked as an expense all in one year and does not appear in the Employer's Statement of Net Assets. Nevertheless, it is reported in the Notes to the Financial Statements and in the Required Supplementary Information. These are information sections within the employer's financial statements.

Direct and Indirect Components of Actuarial Accrued Liability as of December 31, 2017 and Normal Cost Projected to Fiscal Year Ending December 31, 2019

Group	Actuarial Accrued Liability			Normal Cost		
	Indirect	Direct	Total	Indirect	Direct	Total
Active	\$ 12,998,829	\$ 12,751,887	\$ 25,750,716	\$ 617,585	\$ 498,053	\$ 1,115,638
Pre-65 Retirees	5,520,907	3,042,943	8,563,850			
Post-65 Retirees		18,682,397	18,682,397			
Total	\$ 18,519,736	\$ 34,477,227	\$ 52,996,963	\$ 617,585	\$ 498,053	\$ 1,115,638

For this purpose, “direct” costs represent the plan provided employer subsidy (e.g., \$350/mo). “Indirect” costs represent additional employer costs due to the difference between the total cost of retiree benefits and the portion covered by the sum of “direct” costs and retiree contributions.

Comments

COMMENT A: One of the key assumptions used in any valuation of the cost of postemployment benefits is the long-term rate of investment return on plan assets. We have calculated the actuarial accrued liability and the resulting Actuarially Determined Contribution (ADC) using an assumed investment return of 7.0%, as adopted by the Board.

COMMENT B: The ADC shown in this report has been calculated to increase at the same rate as the projected increase in active member payroll (4.0% per year).

COMMENT C: The contribution rates shown include amortization of the unfunded actuarial accrued liability over 23 years.

COMMENT D: Retirees who are currently waiving coverage through the County are assumed to continue waiving coverage indefinitely.

COMMENT E: If the employer portion of premiums for existing retirees is paid from existing plan assets, the County can still treat the associated implicit subsidy as contributions toward the ADC. Therefore, if the actual premiums and flat dollar subsidies paid from plan assets turn out to be \$1,675,876 and the County contributes \$1,634,232 (the difference between \$2,908,628 and \$1,274,396) to the trust, then the ADC will be met.

COMMENT F: Currently, no trend is being applied to the monthly flat dollar subsidy, as it is not expected to be increased in the future. If the amount of the flat dollar subsidy is expected to increase, then application of a trend may be appropriate.

COMMENT G: There were several assumption and method changes to the assumptions and methods for this valuation, including:

- Reduced the assumed rate of return from 7.5% to 7.0%
- Changed the amortization period from 30 years open to 23 years closed
- Reset the Health Care Trend Rate to increase by 9.0% in 2018 and trending down to 4.0% in 2028

These changes had an upward impact on the contribution rate and a downward impact on the funded ratio. However, a high rate of return on the market value of assets for the 2017 fiscal year along with favorable premium experience yielded overall actuarial gains serving to decrease the ADC and increase the funded ratio.

Comments (Concluded)

COMMENT H: The “Cadillac” tax is a 40% excise tax paid by the coverage provider (employer and/or insurer) on the value of health plan costs in excess of certain thresholds. The thresholds are \$10,200 for one-person coverage or \$27,500 for family coverage in 2020. Many plans are below the thresholds today, but are likely to exceed them in the next decade. The thresholds will be indexed at CPI-U, which is lower than the medical inflation rates affecting the cost of the plans. There is considerable uncertainty about how the tax would be applied, and considerable latitude in grouping of participants for tax purposes. Combining early retiree and Medicare eligible (post-65) retiree costs are allowed and can keep plans under the thresholds for a longer period of time. For this valuation, health care liabilities have not been loaded for future or current retirees to reflect expected future excise tax liability due to projected “Cadillac Plan” status. As additional guidance on the legislation is issued, we will review and monitor the impact.

SECTION B

RETIREE PREMIUM RATE DEVELOPMENT

Retiree Premium Rate Development

For the self-insured plans, initial premium rates were developed separately for each class (pre-65 and post-65). The rates were calculated by using actual claims and exposure data for the period of January 2015 through December 2017, plus the load for administration fees. The self-insured medical and prescription drug data were provided by the County. Prescription drug claims and the medical claims were analyzed separately since they exhibit different trends and claim payment patterns. Prescription drug claims are also split between pre-65 and post-65 participants since claim costs between these segments is very significant. Using appropriate assumptions, the medical data is split between the pre-65 and post-65 participants since Medicare is available for the post-65 participants and has a significant impact on the claim experience.

For the fully-insured plans, initial premium rates were developed for the two classes of retirees (pre-65 and post-65). The January 1, 2018 fully-insured rates provided by Kent County were utilized to determine the appropriate per capita costs. The pre-65 fully-insured medical premiums are blended rates based on the combined experience of active and pre-65 retired members; therefore, there is an implicit employer subsidy for the non-Medicare eligible retirees since the average costs of providing health care benefits to retirees under age 65 is higher than the average cost of providing health care benefits to active employees. The true per capita cost for the pre-65 retirees is developed by adjusting the demographic differences between the active employees and retirees to reflect this implicit rate subsidy for the retirees. For the post-65 retirees, the fully-insured premium rate is used as the basis of the initial per capita cost without adjustments since the rate reflects the demographics of the post-65 retiree group.

The medical and prescription drug claims experience was better than expected leading to lower than expected self-insured medical per capita costs. Fully-insured drug premiums decreased since the last valuation. The aggregate effect of these elements has led to lower than expected increases in the per capita rates used in the valuation.

The per capita costs shown on the following page are the weighted average costs of the fully-insured and self-insured premiums based on the actual enrollment by plan as of the valuation date.

Retiree Premium Rate Development

Age graded and sex distinct premiums are utilized in this valuation. The premiums developed by the preceding process are appropriate for the unique age and sex distribution currently existing. Over the future years covered by this valuation, the age and sex distribution will most likely change. Therefore, our process “distributes” the average premium over all age/sex combinations and assigns a unique premium for each combination. The age/sex specific costs more accurately reflect the health care utilization and cost at that age.

The tables below show the resulting medical and prescription drug one-person monthly premiums at select ages. The premium (or per capita costs) rates shown below reflect the use of age grading.

For Those Not Eligible for Medicare		
Age	Male	Female
45	\$ 474.00	\$ 654.18
50	617.20	760.33
55	812.16	886.76
60	1,048.95	1,032.86

For Those Eligible for Medicare		
Age	Male	Female
65	\$241.10	\$227.41
70	262.65	254.15
75	282.09	275.25

James E. Pranschke is a Member of the American Academy of Actuaries (MAAA) and meets the Qualification Standards of the American Academy of Actuaries to certify the per capita retiree health care rates shown above.



James E. Pranschke, FSA, MAAA

5/14/2018

Date

SECTION C

SUMMARY OF BENEFIT PROVISIONS

Summary of Benefit Provisions as of December 31, 2017

Plan Participants

Members of Kent County with continued employee/retiree participation in employer sponsored health care plans are eligible to receive retiree health care benefits.

Health Care Benefit Provided

Pension Group	OPEB Group	Monthly Flat Dollar Subsidy Amount
35	POLC – Captains/ Lieutenants	\$350
11	APAA – Prosecuting Attorneys	\$350
12	POLC – Court Reporters	\$350
20	UAW	\$350
22	TPOAM	\$350
55	Teamsters - Parks	\$350
50	Teamsters - PHN	\$350
31	FOP	\$350
30	KCDSA	\$350
60	MPP	\$350
65	Judges	\$350
70	Elected Officials	\$350
75	Commissioners	\$350
60	Non- Exempt MPP	\$350
17	Circuit Court Referees	\$350

Subsidy prorated for service less than 25 years.

Pension Groups 11, 20, 35, 50, 60, 65, 70 and 75 – Employees hired on or after January 1, 2016, upon their retirement, will be in a separate group for retiree health premium rating purposes.

Pension Group 22 – Employees hired on or after July 1, 2016, upon their retirement, will be in a separate group for retiree health premium rating purposes.

Normal Retirement Eligibility

Age 60 with 5 years of service or 25 years of service regardless of age. Military service may be purchased.

For members hired on or after January 1, 2011, age 62 with 5 years of service or age 60 (age 55 for Captains/Lieutenants) with 25 years of service, for the following groups: MPP, UAW, TPOAM, Court Reporters, Teamsters-PHN, and Prosecuting Attorneys.

For members hired on or after January 1, 2012, age 62 with 5 years of service or age 60 with 25 years of service, for the following groups: Teamsters-Parks and Circuit Court Referees.

For KCDSA members hired on or after January 1, 2013, age 60 with 5 years of service or age 50 with 25 years of service.

For FOP members hired on or after January 1, 2015, age 60 with 5 years of service or age 50 with 25 years of service.

Summary of Benefit Provisions as of December 31, 2017

Early Retirement Eligibility

Members who retire at age 55 or older with 15 or more years of service are eligible for the flat dollar subsidy above, pro-rated for service less than 25 years.

Deferred Retirement Eligibility

Retirees who terminate employment prior to eligibility for early or normal retirement are not eligible for retiree health care benefits.

Duty Disability Eligibility

Employees who retire under a duty disability retirement are immediately eligible for full subsidy. The County pays a pro-rated amount of the flat dollar subsidy on page C-1 for groups 35, 60, 65, 70 and 75.

Non-Duty Disability Eligibility

Members who become disabled with ten or more years of service will receive the flat dollar on page C-1, pro-rated for service less than 25 years for groups 30, 31 and 35. All other employees are covered by the Long-Term Disability Plan.

Death-in-Service Eligibility

Survivors of employees who become deceased while employed are eligible to purchase retiree health care benefits at full rates.

Benefit for Spouses of Retired Members

Spouses of retired employees are eligible to purchase health care through the County. Surviving spouses of deceased retirees are also eligible to purchase health care through the County if receiving a pension benefit from the Kent County Retirement Plan.

Non-Medicare and Medicare-Eligible Provisions

Retiree and spouse are required to enroll in Medicare once eligible. Retiree and spouse pay the Medicare Part B premiums.

Vision and Dental Insurance Eligibility

The County offers fully-insured retiree vision and dental plans to retirees. Retirees pay full cost of premiums.

Dental and Life Insurance Eligibility

The County does not offer dental or life insurance coverage for retirees or their dependents.

This is a brief summary of the Kent County provisions. In the event that any description contained herein differs from the actual eligibility or benefit, the appropriate employee contract or governing document will prevail.

Designated MPP Parks Unit Members

Summary of Benefit Provisions as of December 31, 2017

Plan Participants

Designated Members of Kent County MPP Parks Bargaining Unit with continued employee/retiree participation in employer sponsored health care plans are eligible to receive retiree health care benefits.

Health Care Benefit Provided

The County pays 80% of the retiree health care premiums for eligible retirees and spouse named at retirement. Dental and Drug coverage ceases at age 65.

Normal Retirement Eligibility

Members are eligible for retiree health care at age 55 with 20 years of service or at age 55 if the sum of age and service is 75 or greater.

Early Retirement Eligibility

Members who retire under early retirement are eligible for a reduced benefit.

<u>Eligibility</u>	<u>Benefit Paid by County</u>
Age 55 and service sum to 70-74	75% of premium
Age 55 and service sum to 65-69	50% of premium

Benefit for Spouses of Retired Members

Spouses of retired employees are eligible to purchase health care through the County.

Non-Medicare and Medicare-Eligible Provisions

Retiree and spouse are required to enroll in Medicare once eligible. Retiree and spouse pay the Medicare Part B premiums.

Dental Eligibility

The County provides 100% paid dental until the age of 65.

Vision Insurance Eligibility

The County offers a fully insured retiree vision plan to retirees. Retirees pay full cost of premiums.

Life Insurance Eligibility

The County does not offer life insurance coverage for retirees or their dependents.

This is a brief summary of the Kent County provisions for the designated MPP Parks Unit. In the event that any description contained herein differs from the actual eligibility or benefit, the appropriate employee contract or governing document will prevail.

SECTION D

SUMMARY OF VALUATION DATA

Total Active Members as of December 31, 2017 by Attained Age and Years of Service

Attained Age	Years of Service to Valuation Date							Totals	Valuation Payroll
	0-4	5-9	10-14	15-19	20-24	25-29	30 Plus	No.	
20-24	19							19	\$ 696,255
25-29	110	12						122	5,613,034
30-34	89	59	19	2				169	9,137,528
35-39	65	44	69	44				222	13,745,142
40-44	40	29	49	90	26	1		235	14,938,776
45-49	22	21	36	79	91	13		262	18,181,145
50-54	17	21	22	39	49	25	4	177	11,418,372
55-59	10	20	25	38	40	15	13	161	10,165,904
60-64	6	6	11	26	19	23	8	99	5,917,979
65 & Over	2		8	8	6	3	10	37	2,281,399
Totals	380	212	239	326	231	80	35	1,503	\$92,095,534

There are 3 MPP members in the above totals.

While not used in the financial computations, the following group averages are computed and shown because of their general interest.

Age: 44.3 years
Service: 13.1 years
Annual Pay: \$61,274

Total Retired Members as of December 31, 2017 by Attained Age

Attained Age	Number of Retirees and Surviving Spouses			Average Flat Dollar Subsidy (Monthly)
	Male	Female	Total	
Under 55	22	19	41	\$279.79
55-59	23	29	52	303.52
60-64	61	73	134	242.89
65 & Over	193	214	407	156.98
Totals	299	335	634	\$195.10

The number counts above only include those retirees who receive retiree health care coverage through the Kent County Retiree Health Care Plan. However, some of the retirees included above are paying the full “premium” for health care coverage.

Asset Information

Balance Sheet

Reported Assets – Market Value	
	December 31, 2017
Cash & equivalents	\$ 562,447
Receivables & accruals	142,671
Stocks	15,099,383
Bonds & government securities	9,517,321
Other -Accounts Payable	(6,250)
Total Current Assets	\$25,315,572

Revenues and Expenditures

	2017
Balance – December 31, 2016	\$ 19,656,145
Adjustment	-
Balance – January 1	\$ 19,656,145
Revenues:	
Employees' contributions	-
Employer contributions	\$ 3,650,062
Investment income	3,616,481
Total	\$ 7,266,543
Expenditures:	
Benefit payments	\$ 1,516,295
Refund of member contributions	-
Administrative and investment expenses	90,821
Total	\$ 1,607,116
Balance - December 31	<u>\$25,315,572</u>
Rate of Return	17.01%

SECTION E

ACTUARIAL COST METHOD AND ACTUARIAL ASSUMPTIONS

Actuarial Cost Method

Normal cost and the allocation of benefit values between service rendered before and after the valuation date was determined using an individual **entry-age normal cost** method having the following characteristics:

- (i) the annual normal costs for each individual active member, payable from the date of employment to the date of retirement, are sufficient to accumulate the value of the member's benefit at the time of retirement; and
- (ii) each annual normal cost is a constant percentage of the member's year-by-year projected covered pay.

Asset Valuation Method. Valuation assets are the market value of assets on the valuation date.

Financing of Unfunded Actuarial Accrued Liabilities. Unfunded actuarial accrued liabilities were amortized by level (principal & interest combined) percent-of-payroll contributions over a closed period of 23 years. The 23-year amortization factor used was 16.5563.

Actuarial Assumptions

The rate of investment return was 7.0% a year, compounded annually net of expenses. The assumed real rate of return (the net return in excess of the wage inflation rate) is 3.0%.

The wage inflation assumption, or base rate of salary increase, used for individual members was 4.0% per year.

The price inflation assumption was 2.5% (not explicit in the valuation).

The number of active members is assumed to remain constant in the future.

If the number of active members remains constant, then the total active payroll is expected to increase 4.0% annually, the base portion of the individual salary increase assumptions. The payroll growth rate for financing Unfunded Actuarial Accrued Liabilities was assumed to be 4.0% per year.

The rates of salary increase used for individual members are in accordance with the following table. This assumption is used to project a member's current salary to the salaries upon which benefit amounts will be based.

Sample Ages	Salary Increase Assumptions For an Individual Member		
	Merit & Seniority	Base (Economic)	Increase Next Year
20	7.0 %	4.0 %	11.0 %
25	5.8	4.0	9.8
30	3.5	4.0	7.5
35	2.1	4.0	6.1
40	1.4	4.0	5.4
45	1.1	4.0	5.1
50	0.8	4.0	4.8
55	0.5	4.0	4.5
60	0.2	4.0	4.2
65	0.0	4.0	4.0

Actuarial Assumptions (Continued)

The mortality table was the RP-2014 Mortality Tables with 2-dimensional, fully generational improvements projected with the MP-2015 Mortality Improvement Scales. These tables were first used for the December 31, 2015 valuation.

Attained Age in 2017*	Percent Dying Next Year		Future Life Expectancy (Years)	
	Men	Women	Men	Women
	50	0.3736%	0.2600%	35.12
55	0.5508%	0.3652%	30.32	32.78
60	0.7625%	0.5255%	25.74	27.98
65	1.0717%	0.7869%	21.35	23.35
70	1.6392%	1.2578%	17.17	18.95
75	2.6692%	2.0758%	13.32	14.87
80	4.5009%	3.5271%	9.92	11.22

* Mortality and life expectancy for a person retired in 2017. Retirements in future years will reflect improvements in life expectancy.

This assumption is used to measure the probabilities of each benefit payment being made after retirement. A margin for future mortality improvements is included in these tables.

Actuarial Assumptions (Continued)

The rates of retirement used to measure the probability of eligible members retiring during the next year were as follows:

Service Based	
Years of Service	Active Members Retiring Next Year
25	25 %
26	20
27	15
28	15
29	20
30	20
31	20
32	30
33	40
34	60
35	100

Age and Service Based			
Retirement Ages	Active Members Retiring Next Year		
	Eligible at Age 60	Eligible at Age 55	Early
55		25%	5%
56		20	5
57		15	5
58		15	5
59		20	5
60	20%	20	5
61	20	20	5
62	20	30	
63	20	40	
64	20	60	
65	20	100	
66	25		
67	25		
68	25		
69	25		
70	100		

Actuarial Assumptions (Continued)

Rates of separation from active membership were as shown below (rates do not apply to members eligible to retire). This assumption measures the probabilities of members remaining in employment.

Sample Ages	Years of Service	% of Active Members Separating Within Next Year
ALL	0	20.00 %
	1	15.00
	2	10.00
	3	8.00
	4	7.00
25	5 & Over	6.00
30		6.00
35		5.40
40		4.40
45		3.70
50		3.20
55		3.00
60	3.00	

Rates of disability among active members.

Sample Ages	% of Active Members Becoming Disabled Within Next Year
20	0.02 %
25	0.03
30	0.04
35	0.07
40	0.10
45	0.14
50	0.23
55	0.38
60	0.55

Twenty-five percent of disabilities were assumed to be duty related.

Actuarial Assumptions (Concluded)

Health cost increases – See table below:

Year	Medical and Drug Trend Rates
2018	9.00%
2019	8.50
2020	8.00
2021	7.50
2022	7.00
2023	6.50
2024	6.00
2025	5.50
2026	5.00
2027	4.50
2028 & Later	4.00

Miscellaneous and Technical Assumptions

Decrement Operation:	Disability and mortality decrements do not operate during the first 5 years of service. Disability and withdrawal do not operate during retirement eligibility.
Decrement Timing:	Decrements of all types are assumed to occur mid-year.
Eligibility Testing:	Eligibility for benefits is determined based upon the age nearest birthday and service nearest whole year on the date the decrement is assumed to occur.
Incidence of Contributions:	Contributions are assumed to be received continuously throughout the year based upon the computed percent of payroll shown in this report, and the actual payroll payable at the time contributions are made.
Marriage Assumption:	Male spouses are assumed to be three years older than female spouses for active member valuation purposes.
Pay Increase Timing:	Beginning of (Fiscal) year. This is equivalent to assuming that reported pays represent amounts paid to members during the year ended on the valuation date.
Medicare Coverage:	Assumed to be available for all covered employees on attainment of age 65. Disabled retirees were assumed to be eligible for Medicare coverage at age 65.
Election Percentage:	It was assumed that 30% of female retirees and 50% of male retirees would choose not to receive retiree health care benefits through the County. Of those assumed to elect coverage, 30% of males and 21% of females were assumed to elect two-person coverage, if eligible. For those that elect two-person coverage, it was assumed that coverage would continue to 10% of the surviving spouses upon death of the retiree, if eligible.
Employer Cost:	The employer's portion of the per capita cost is assumed to be the implicit subsidy and the applicable flat dollar subsidy. All flat dollar subsidies are assumed to remain level.

SECTION F

ADDITIONAL DISCLOSURE INFORMATION

GASB Statements No. 74 and No. 75 are the accounting standards which replaced GASB Statements No. 43 and No. 45. A separate GASB Statements No. 74 and No. 75 report has been issued outside of this report. This section contains historical GASB Statements No. 43 and No. 45 reporting information for prior fiscal years and illustrative information for fiscal year 2017 and after.

Supplementary Information

Valuation Date	December 31, 2017
Actuarial Cost Method	Individual Entry Age
Amortization Method	Level Percent-of-Payroll Closed
Remaining Amortization Periods	23 Years
Asset Valuation Method	Market Value
Actuarial Assumptions:	
Investment Rate of Return	7.00%
Projected Salary Increases	4.0% - 11.0%
Health Care Cost Trend Rate	9.0% Initial to 4% Ultimate over 11 years

Schedule of Funding Progress and Schedule of Employer Contributions

Schedule of Funding Progress

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) (b)	Unfunded AAL (UAAL) (b-a)	Funded Ratio (a/b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll ((b-a)/c)
12/31/2006	\$ -	\$ 40,650,129	\$ 40,650,129	0.0%	\$ 91,300,604	44.5%
12/31/2007	2,522,191	31,652,880	29,130,689	8.0%	91,856,607	31.7%
12/31/2008	4,201,774	38,377,399	34,175,625	10.9%	94,065,929	36.3%
12/31/2009	6,467,528	39,171,891	32,704,363	16.5%	95,198,853	34.4%
12/31/2010	9,003,067	45,864,042	36,860,975	19.6%	92,734,218	39.7%
12/31/2011	10,531,436	44,257,602	33,726,166	23.8%	91,139,213	37.0%
12/31/2012	12,605,625	48,975,067	36,369,442	25.7%	91,421,357	39.8%
12/31/2013	15,178,339	50,174,616	34,996,277	30.3%	91,589,536	38.2%
12/31/2014	16,705,220	52,899,776	36,194,556	31.6%	90,860,847	39.8%
12/31/2015	17,140,234	55,167,726	38,027,492	31.1%	96,580,051	39.4%
12/31/2016	19,656,145	53,997,661	34,341,516	36.4%	88,846,626	38.7%
12/31/2017	25,315,572	52,996,963	27,681,391	47.8%	92,095,534	30.1%

Schedule of Employer Contributions

Valuation Date	Fiscal Year Ending	Annual Required Contribution
12/31/2006	12/31/2008	\$ 3,940,154
12/31/2007	12/31/2009	2,811,665
12/31/2008	12/31/2010	3,367,650
12/31/2009	12/31/2011	3,284,650
12/31/2010	12/31/2012	3,600,818
12/31/2011	12/31/2013	3,193,869
12/31/2012	12/31/2014	3,401,518
12/31/2013	12/31/2015	3,318,618
12/31/2014	12/31/2016	3,351,181
12/31/2015	12/31/2017	3,394,981
12/31/2016	12/31/2018	3,151,965
12/31/2017	12/31/2019	2,908,628

APPENDIX

OVERVIEW

Glossary

Accrued Service - The service credited under the plan, which was rendered before the date of the actuarial valuation.

Actuarial Accrued Liability - The difference between (i) the actuarial present value of future plan benefits, and (ii) the actuarial present value of future normal cost. Sometimes referred to as "accrued liability" or "past service liability."

Actuarial Assumptions - Estimates of future plan experience with respect to rates of mortality, disability, turnover, retirement, rate or rates of investment income and salary increases. Decrement assumptions (rates of mortality, disability, turnover and retirement) are generally based on past experience, often modified for projected changes in conditions. Economic assumptions (salary increases and investment income) consist of an underlying rate in an inflation-free environment plus a provision for a long-term average rate of inflation.

Actuarial Cost Method - A mathematical budgeting procedure for allocating the dollar amount of the "actuarial present value of future plan benefits" between the actuarial present value of future normal cost and the actuarial accrued liability. Sometimes referred to as the "actuarial funding method."

Actuarially Determined Contribution (ADC) - The ADC is the normal cost plus the portion of the unfunded actuarial accrued liability to be amortized in the current period. The ADC is an amount that is actuarially determined in accordance with the requirements so that, if paid on an ongoing basis, it would be expected to provide sufficient resources to fund both the normal cost for each year and the amortized unfunded liability.

Actuarial Equivalent - A single amount or series of amounts of equal value to another single amount or series of amounts, computed on the basis of the rate(s) of interest and mortality tables used by the plan.

Actuarial Present Value - The amount of funds presently required to provide a payment or series of payments in the future. It is determined by discounting the future payments at a predetermined rate of interest, taking into account the probability of payment.

Amortization - Paying off an interest-bearing liability by means of periodic payments of interest and principal, as opposed to paying it off with a lump sum payment.

Glossary (Concluded)

Governmental Accounting Standards Board (GASB) - GASB is the private, nonpartisan, nonprofit organization that works to create and improve the rules U.S. state and local governments follow when accounting for their finances and reporting them to the public.

Medical Trend Rate (Health Care Inflation) - The increase in the cost of providing health care benefits over time. Trend includes such elements as pure price inflation, changes in utilization, advances in medical technology, and cost shifting.

Normal Cost - The annual cost assigned, under the actuarial funding method, to current and subsequent plan years. Sometimes referred to as "current service cost". Any payment toward the unfunded actuarial accrued liability is not part of the normal cost.

Other Postemployment Employee Benefits (OPEB) - OPEB are postemployment benefits other than pensions. OPEB generally takes the form of health insurance and dental, vision, prescription drugs or other health care benefits.

Reserve Account - An account used to indicate that funds have been set aside for a specific purpose and are not generally available for other uses.

Unfunded Actuarial Accrued Liability - The difference between the actuarial accrued liability and valuation assets. Sometimes referred to as "unfunded accrued liability".

Valuation Assets - The value of current plan assets recognized for valuation purposes.