Kent County Retiree Health Care Plan

Actuarial Valuation Report

December 31, 2018

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May 14, 2019

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, 2018.

This report was prepared at the request of the Board and is intended for use by the Retiree Health Care Plan and those designated or approved by the Board. This report may be provided to parties other than the System only in its entirety and only with the permission of the Board. GRS is not responsible for unauthorized use of this report.

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, 2020. This report should not be relied on for any purpose other than the purposes described herein. Determinations of financial results, associated with the benefits described in this report, for purposes other than those identified above may be significantly different. This report does not satisfy the disclosure requirements of GASB Statements No. 74 and No. 75, which are issued in a separate report.

The contribution rate in this report is determined using the actuarial assumptions and methods disclosed in Section E of this report. This report includes risk metrics on pages A-7 and A-8 but does not include a more robust assessment of the risks of future experience not meeting the actuarial assumptions. Additional assessment of risks was outside the scope of this assignment.

This valuation assumed the continuing ability of the plan sponsor to make the contributions necessary to fund this plan. A determination regarding whether or not the plan sponsor is actually able to do so is outside our scope of expertise and was not performed.

The findings in this report are based on data and other information through December 31, 2018. The valuation was based upon information furnished by the County concerning Retiree Health Care Plan benefits, financial transactions, plan provisions and active members, terminated members, retirees and beneficiaries. We checked for internal reasonability and year-to-year consistency, but did not audit the data. We are not responsible for the accuracy or completeness of the information provided by the County.

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This report was prepared using assumptions adopted by the Board. The assumptions are established by the Board after consulting with the actuary. All actuarial assumptions used in this report are reasonable for the purposes of this valuation. The actuarial methods and assumptions used in the actuarial valuation are summarized in Section E of this report.

This report has been prepared by actuaries who have substantial experience valuing public employee retirement systems. To the best of our knowledge the information contained in this report is accurate and fairly presents the actuarial position of the Kent County Retiree Health Care plan as of the valuation date. All calculations have been made in conformity with generally accepted actuarial principles and practices, and with the Actuarial Standards of Practice issued by the Actuarial Standards Board.

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.

The signing actuaries are independent of the plan sponsor.

Respectfully submitted,

James D. Anderson

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

Derek Henning

Derek Henning, ASA, MAAA

Abra D. Hill

Abra D. Hill, ASA, FCA, MAAA

JDA/DH/ADH:sc

EXECUTIVE SUMMARY

Executive Summary

Actuarially Determined Contribution

The Actuarially Determined Contribution (ADC) for the fiscal year ending December 31, 2020 is $3,513,339 or 3.34% 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 $3,200,877 for the fiscal year beginning January 1, 2020. This amount reflects the retiree only premium rates and the implicit subsidy for retirees and covered spouses. The expected employer portion is comprised of $1,720,890 in County benefits to retirees and $1,479,987 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 $1,720,890 and the County contributes $2,033,352 (the difference between the total ADC of $3,513,339 and $1,479,987 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.

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 May 10, 2019 complies with the actuarial requirements of GASB Statement No. 74 and Statement No. 75 beginning with the fiscal year ending December 31, 2018.

Liabilities and Assets

The present value of all benefits expected to be paid to current plan members as of December 31, 2018 is $69,468,449. The actuarial accrued liability, which is the portion of the $69,468,449 attributable to service accrued by plan members as of December 31, 2018, is $58,948,727. As of December 31, 2018, there is $28,509,900 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, 2018 is 48.4%. This is an increase from 47.8% as of December 31, 2017.

At the February 20, 2019 Board Meeting, the VEBA board adopted a 4-year asset smoothing method. Please see page D-4 for the development of the funding value of assets.

Executive Summary

Assumption Changes

The December 31, 2018 valuation incorporates assumption changes in accordance with the Pension Experience Study dated November 8, 2018 and adopted by the Board on November 14, 2018. Further the healthcare specific assumptions were investigated in the Experience Study dated February 8, 2018. The adopted changes are summarized below:

- 6.75% Investment Return Assumption
- 3.50% Wage Inflation Assumption
- MP-2018 Mortality Projection Scale
- Decrease Retirement Rates
- Decrease Withdrawal Rates
- Lowered Election Percentage Assumptions
- Public Act 202 Healthcare Trend Assumption

The overall impact of the assumption changes increased the contribution rate by 0.25% and slightly reduced the funded ratio.

Benefit Change

For the December 31, 2018 valuation a benefit change was reflected for future retirees: the maximum monthly flat dollar stipend increased from $350 to $400. The benefit change increased the employer contribution rate by 0.18% and slightly reduced the funded ratio.

Excise Tax

The Patient Protection and Affordable Care Act includes an excise tax on high cost (Cadillac) health plans beginning in 2022. The excise tax is 40% of costs above a threshold. Possible excise taxes beginning in 2022 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, 2020

Contributions for	Development of the Actuarially Determined Contribution for January 1, 2020 - December 31, 2020
Normal Cost	
Normal Retirement	$ 1,178,125
Early Retirement	168,304
Death-in-Service	42,076
Disability	52,595
Future Refund of Member Contributions	0
Total Normal Cost	$ 1,441,100
Annual Active Member Contribution	0
Employer Normal Cost	$ 1,441,100
Amortization of Unfunded Actuarial Accrued Liabilities (Amortized over 22 years)	$ 2,072,239
Actuarially Determined Contribution (ADC)	**$ 3,513,339**
Projected Payroll for the Fiscal Year Ending December 31, 2020	$105,189,776
ADC as a Percentage of Projected Payroll	**3.34%**
ADC Per Active Participant (1,530 Actives)	$ 2,296

The unfunded actuarial accrued liabilities were amortized as a level percent of active member payroll over a period of 22 years.

Determination of Unfunded Actuarial Accrued Liability as of December 31, 2018

A.	Present Value of Future Benefits	
	1. Retirees and Beneficiaries	$27,316,358
	2. Vested Terminated Members	0
	3. Active Members	42,152,091
	Total Present Value of Future Benefits	$69,468,449
B.	Present Value of Future Employer Normal Costs	10,519,722
C.	Present Value of Future Contributions from Current Active Members	0
D.	Actuarial Accrued Liability (A.-B.-C.)	58,948,727
E.	Actuarial Value of Assets	28,509,900
F.	Unfunded Actuarial Accrued Liability (D.-E.)	$30,438,827
G.	Funded Status (E./D.)	48.4%

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, 2018 and Normal Cost Projected to Fiscal Year Ending December 31, 2020

Group	Actuarial Accrued Liability			Normal Cost		
	Indirect	Direct	Total	Indirect	Direct	Total
Active	$ 17,970,814	$ 13,661,555	$ 31,632,369	$ 904,632	$ 536,468	$ 1,441,100
Pre-65 Retirees	6,500,276	2,819,662	9,319,938			
Post-65 Retirees		17,996,420	17,996,420			
Total	$ 24,471,090	$ 34,477,637	$ 58,948,727	$ 904,632	$ 536,468	$ 1,441,100

For this purpose, "direct" costs represent the plan provided employer subsidy (e.g., $400/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 6.75%, as adopted by the Board.

COMMENT B: Due to the Board's use of a four-year smoothed market asset valuation method, lower than expected market returns were only 25% recognized, and combined with the scheduled phase-in of the prior three years unrecognized investment income. As a result, the market value of assets returned -6.20% in 2018 while the return on valuation assets was 3.70%. The ratio of the funding value of assets to the market value of assets is 110.1% this year. The ratio of the funding value of assets to actuarial accrued liabilities increased from 47.8% last year to 48.4% this year, and the Health Care Plan's valuation liabilities exceed valuation assets by $30 million for funding purposes. The ratio of the market value of assets to actuarial accrued liabilities decreased from 47.8% last year to 43.9% this year.

Given annual investment returns of 6.75% going forward, net investment losses are scheduled for the next three years (see page D-4 for further details.) Over time, this will exert upward pressure on computed County contribution rates and downward pressure on the funded ratio. If the computed employer contribution of 3.34% (see page A-1) had been determined using the market value of assets rather than the funding value of assets, the computed employer contribution rate would have been 3.51%.

COMMENT C: The ADC shown in this report has been calculated to increase at the same rate as the projected increase in active member payroll (3.5% per year).

COMMENT D: The contribution rates shown include amortization of the unfunded actuarial accrued liability over 22 years.

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

COMMENT F: 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 $1,720,890 and the County contributes $2,033,352 (the difference between $3,513,339 and $1,479,987) to the trust, then the ADC will be met.

COMMENT G: 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.

Comments (Concluded)

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

- 6.75% Investment Return Assumption
- 3.50% Wage Inflation Assumption
- MP-2018 Mortality Projection Scale
- Decrease Retirement Rates
- Decrease Withdrawal Rates
- Lowered Election Percentage Assumptions
- Public Act 202 Healthcare Trend Assumption
- 4-Year Asset Smoothing

These changes had an upward impact on the contribution rate and a downward impact on the funded ratio.

COMMENT I: 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 2022. 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.

COMMENT J: Michigan Public Act 202 of 2017 created new reporting and other requirements for local units of government. The valuation report satisfies current Public Act 202 uniform assumptions.

Other Observations

General Implications of Contribution Allocation Procedure or Funding Policy on Future Expected System Contributions and Funded Status

Given the Plan's contribution allocation procedure, if all actuarial assumptions are met (including the assumption of the Plan earning 6.75% on the funding value of assets), it is expected that:

(1) The employer normal cost as a percentage of pay will be sufficient to finance benefits accruing each year,
(2) The Unfunded Actuarial Accrued Liabilities (UAAL) will be fully amortized after 22 years (December 31, 2041), and
(3) The funded status of the plan will increase gradually towards a 100% funded ratio.

The above statements assume that the full Actuarially Determined Employer Contribution (ADC) is contributed each year.

Limitations of Funded Status Measurements

Unless otherwise indicated, a funded status measurement presented in this report is based upon the actuarial accrued liability and the actuarial value of assets. Unless otherwise indicated, with regard to any funded status measurements presented in this report:

(1) The measurement is inappropriate for assessing the sufficiency of System assets to cover the estimated cost of settling the System's benefit obligations, for example: transferring the liability to an unrelated third party in a market value type transaction.
(2) The measurement is dependent upon the actuarial cost method which, in combination with the System's amortization policy (funding policy), affects the timing and amounts of future contributions. The amounts of future contributions will most certainly differ from those assumed in this report due to future actual experience differing from assumed experience based upon the actuarial assumptions. Even if the funded status measurement in this report was 100%, it would not be synonymous with no required future contributions. If the funded status were 100%, the Plan would still require future normal cost contributions (i.e., contributions to cover the cost of the active membership accruing an additional year of service credit).

Risks Associated with Measuring the Accrued Liability and Actuarially Determined Contribution

The determination of the accrued liability and the actuarially determined contribution requires the use of assumptions regarding future economic and demographic experience. Risk measures, as illustrated in this report, are intended to aid in the understanding of the effects of future experience differing from the assumptions used in the course of the actuarial valuation. Risk measures may also help with illustrating the potential volatility in the accrued liability and the actuarially determined contribution that result from the differences between actual experience and the actuarial assumptions.

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 due to changing conditions; 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. The scope of an actuarial valuation does not include an analysis of the potential range of such future measurements.

Examples of risk that may reasonably be anticipated to significantly affect the plan's future financial condition include:

1. **Investment Risk** – actual investment returns may differ from the expected returns;
2. **Asset/Liability Mismatch Risk** – changes in asset values may not match changes in liabilities, thereby altering the gap between the accrued liability and assets and consequently altering the funded status and contribution requirements;
3. **Contribution Risk** – actual contributions may differ from expected future contributions. For example, actual contributions may not be made in accordance with the plan's funding policy or material changes may occur in the anticipated number of covered employees, covered payroll, or other relevant contribution base;
4. **Salary and Payroll Risk** – actual salaries and total payroll may differ from expected, resulting in actual future accrued liability and contributions differing from expected;
5. **Longevity Risk** – members may live longer or shorter than expected and receive benefits for a period of time other than assumed; and
6. **Other Demographic Risks** – members may terminate, retire or become disabled at times or with benefits other than assumed resulting in actual future accrued liability and contributions differing from expected.

The effects of certain trends in experience can generally be anticipated. For example if the investment return since the most recent actuarial valuation is less (or more) than the assumed rate, the cost of the plan can be expected to increase (or decrease). Likewise if longevity is improving (or worsening), increases (or decreases) in cost can be anticipated.

Plan Maturity Measures

Risks facing a retiree health plan evolve over time. A young plan with virtually no investments and paying few benefits may experience little investment risk. An older plan with a large number of members in pay status and a significant trust may be much more exposed to investment risk. Generally accepted plan maturity measures include the following:

	Health Care Plan	
	2018	**2017**
Ratio of the market value of assets to total payroll	0.26	0.27
Ratio of actuarial accrued liability to payroll	0.29	0.27
Ratio of actives to retirees and beneficiaries	2.35	2.37
Ratio of net cash flow to market value of assets	8.6%	8.4%
Duration of the actuarial accrued liability	12.69	12.32

Ratio of Market Value of Assets to Payroll

The relationship between assets and payroll is a useful indicator of the potential volatility of contributions. For example, if the market value of assets is 2.0 times the payroll, a return on assets 5% different than assumed would equal 10% of payroll. A higher (lower) or increasing (decreasing) level of this maturity measure generally indicates a higher (lower) or increasing (decreasing) volatility in plan sponsor contributions as a percentage of payroll.

Ratio of Actuarial Accrued Liability to Payroll

The relationship between actuarial accrued liability and payroll is a useful indicator of the potential volatility of contributions for a fully funded plan. A funding policy that targets a funded ratio of 100% is expected to result in the ratio of assets to payroll and the ratio of liability to payroll converging over time.

The ratio of liability to payroll may also be used as a measure of sensitivity of the liability itself. For example, if the actuarial accrued liability is 2.5 times the payroll, a change in liability 2% other than assumed would equal 5% of payroll. A higher (lower) or increasing (decreasing) level of this maturity measure generally indicates a higher (lower) or increasing (decreasing) volatility in liability (and also plan sponsor contributions) as a percentage of payroll.

Ratio of Actives to Retirees and Beneficiaries

A young plan with many active members and few retirees will have a high ratio of active to retirees. A mature open plan may have close to the same number of actives to retirees resulting in a ratio near 1.0. A super-mature or closed plan may have significantly more retirees than actives resulting in a ratio below 1.0.

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 2016 through December 2018, 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, 2019 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	$496.13	$684.72
50	646.02	795.83
55	850.08	928.17
60	1,097.93	1,081.08

For Those Eligible for Medicare		
Age	**Male**	**Female**
65	$228.65	$215.66
70	249.08	241.02
75	267.52	261.04

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

James E. Pranschke, FSA, MAAA

5/14/2019

Date

SECTION C

SUMMARY OF BENEFIT PROVISIONS

Summary of Benefit Provisions as of December 31, 2018

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	$400
11	APAA – Prosecuting Attorneys	$400
12	POLC – Court Reporters	$400
20	UAW	$400
22	TPOAM	$400
55	Teamsters - Parks	$400
50	Teamsters - PHN	$400
31	FOP	$400
30	KCDSA	$400
60	MPP	$400
65	Judges	$400
70	Elected Officials	$400
75	Commissioners	$400
60	Non- Exempt MPP	$400
17	Circuit Court Referees	$400

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, 2018

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.

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. 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, 2018

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.

Eligibility	Benefit Paid by County
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, 2018
by Attained Age and Years of Service

Attained Age	Years of Service to Valuation Date							Totals	
	0-4	5-9	10-14	15-19	20-24	25-29	30 Plus	No.	Valuation Payroll
20-24	27							27	$ 1,140,707
25-29	129	9	1					139	6,925,337
30-34	112	51	23					186	10,770,778
35-39	67	37	64	41	1			210	13,117,371
40-44	47	28	45	85	27	1		233	15,913,306
45-49	17	23	24	83	103	10		260	18,681,534
50-54	19	22	17	47	56	24	3	188	13,114,107
55-59	16	12	25	38	40	11	11	153	9,866,504
60-64	9	5	5	31	19	21	7	97	6,274,806
65 & Over	3	2	5	10	4	6	7	37	2,391,332
Totals	**446**	**189**	**209**	**335**	**250**	**73**	**28**	**1,530**	**$98,195,782**

There are 2 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:	43.9	years
Service:	12.7	years
Annual Pay:	$64,180	

Total Retired Members as of December 31, 2018
by Attained Age

Attained Age	Number of Retirees and Surviving Spouses			Average Flat Dollar Subsidy (Monthly)
	Male	Female	Total	
Under 55	15	17	32	$265.11
55-59	24	31	55	306.41
60-64	52	80	132	244.11
65 & Over	209	224	433	164.82
Totals	**300**	**352**	**652**	**$197.74**

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, 2018
Cash & equivalents	$ 632,366
Receivables & accruals	154,272
Stocks	13,966,115
Bonds & government securities	11,144,609
Other -Accounts Payable	(6,250)
Total Current Assets	**$25,891,112**

Revenues and Expenditures

	2018
Balance – December 31, 2017	$ 25,315,572
Adjustment	-
Balance – January 1	$ 25,315,572
Revenues:	
Employees' contributions	-
Employer contributions	$ 3,765,098
Investment income	(1,530,691)
Total	$ 2,234,407
Expenditures:	
Benefit payments	$ 1,547,545
Refund of member contributions	-
Administrative and investment expenses	111,322
Total	$ 1,658,867
Balance - December 31	$25,891,112
Rate of Return	(6.2)%

Development of Funding Value of Assets

Year Ended December 31:	2018	2019	2020	2021
A. Funding Value Beginning of Year	$ 25,315,572			
B. Market Value End of Year *	25,891,112			
C. Market Value Beginning of Year	25,315,572			
D. Non-Investment Net Cash Flow	2,217,553			
E. Investment Income:				
E1. Expected Rate of Return	7.00%	6.75%	6.75%	6.75%
E2. Market Total: B - C - D	(1,642,013)			
E3. Amount for Immediate Recognition: E1*(D/2+A)	1,849,704			
E4. Amount for Phased-In Recognition: E2-E3	(3,491,717)			
F. Phased-In Recognition of Investment Income:				
F1. Current Year: 0.25 x E4	(872,929)			
F2. First Prior Year	-	$ (872,929)		
F3. Second Prior Year	-	-	$ (872,929)	
F4. Third Prior Year	-	-	-	$ (872,929)
F5. Total Recognized Investment Gain	(872,929)	(872,929)	(872,929)	(872,929)
G. Funding Value End of Year: A + D + E3 + F5	**28,509,900**			
H. Difference between Market & Funding Value	(2,618,788)			
I. Recognized Rate of Return	3.7%			
J. Market Rate of Return	(6.2)%			
K. Ratio of Funding to Market Value	110.1%			

* *Unaudited amount.*

The Funding Value of Assets recognizes assumed investment income (line E3) fully each year. Differences between actual and assumed investment income (line E4) are phased-in over a closed 4-year period. During periods when investment performance exceeds the assumed rate, Funding Value of Assets will tend to be less than market value. During periods when investment performance is less than the assumed rate, Funding Value of Assets will tend to be greater than market value. The Funding Value of Assets is **unbiased** with respect to Market Value. At any time it may be either greater or less than Market Value. If actual and assumed rates of investment income are exactly equal for 3 consecutive years, the Funding Value will become equal to Market Value.

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 funding value of assets smoothed over 4-years as of 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 22 years. The 22-year amortization factor used was 15.6910.

Actuarial Assumptions

The rate of investment return was 6.75% a year, compounded annually net of expenses. The assumed real rate of return (the net return in excess of the wage inflation rate) is 3.25%.

The wage inflation assumption, or base rate of salary increase, used for individual members was 3.5% 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 3.5% annually, the base portion of the individual salary increase assumptions. The payroll growth rate for financing Unfunded Actuarial Accrued Liabilities was assumed to be 3.5% 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.

	Salary Increase Assumptions For an Individual Member		
Sample Ages	**Merit & Seniority**	**Base (Economic)**	**Increase Next Year**
20	7.0 %	3.5 %	10.5 %
25	5.8	3.5	9.3
30	3.5	3.5	7.0
35	2.1	3.5	5.6
40	1.4	3.5	4.9
45	1.1	3.5	4.6
50	0.8	3.5	4.3
55	0.5	3.5	4.0
60	0.2	3.5	3.7
65	0.0	3.5	3.5

Actuarial Assumptions (Continued)

The mortality table used was the RP-2014 Mortality Tables with 2-dimensional, fully generational improvements projected with the MP-2018 Mortality Improvement Scales. The projection tables were first used for the December 31, 2018 valuation.

Attained Age in 2018*	Percent Dying Next Year		Future Life Expectancy (Years)	
	Men	Women	Men	Women
50	0.4154%	0.2771%	34.10	36.73
55	0.5898%	0.3905%	29.39	31.82
60	0.8281%	0.5853%	24.87	27.10
65	1.1871%	0.8593%	20.60	22.61
70	1.7532%	1.3204%	16.58	18.31
75	2.7895%	2.1665%	12.84	14.29
80	4.6961%	3.7056%	9.51	10.69

* *Mortality and life expectancy for a person retired in 2018. 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	40
35	60
36	60
37	60
38	60
39	60
40	100

Age and Service Based			
	Active Members Retiring Next Year		
	Normal		
Retirement Ages	**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	40	
65	20	60	
66-69	30	60	
70-74	35	100	
75	100	100	

For members Captains and Lieutenants, KCDSA and FOP members hired after a certain date who are subject to the 55 & 25 or 50 & 25 retirement eligibility conditions, the “age and service” retirement rates for these groups be set to the “service based” retirement rates shown above.

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	18.00 %
	1	13.00
	2	10.00
	3	8.00
	4	7.00
25	5 & Over	5.40
30		5.40
35		4.86
40		3.96
45		3.33
50		3.00
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:

	Medical and Drug Trend Rates	
Year	**Non-Medicare**	**Medicare**
2019	8.50%	7.00%
2020	8.25	6.75
2021	8.00	6.50
2022	7.75	6.25
2023	7.50	6.00
2024	7.25	5.75
2025	7.00	5.50
2026	6.75	5.25
2027	6.50	5.00
2028	6.25	4.75
2029	6.00	4.50
2030	5.75	4.50
2031	5.50	4.50
2032	5.25	4.50
2033	5.00	4.50
2034	4.75	4.50
2035 & Later	4.50	4.50

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 37% of female retirees and 52% of male retirees would choose not to receive retiree health care benefits through the County. Of those assumed to elect coverage, 33% 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, 2018
Actuarial Cost Method	Individual Entry Age
Amortization Method	Level Percent-of-Payroll Closed
Remaining Amortization Periods	22 Years
Asset Valuation Method	4-Year Smoothed
Actuarial Assumptions:	
Investment Rate of Return	6.75%
Projected Salary Increases	3.5% - 10.5%
Health Care Cost Trend Rate	
Non-Medicare	8.5% Initial to 4.5% Ultimate over 16 years
Medicare	7.0% Initial to 4.5% Ultimate over 10 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%
12/31/2018	28,509,900	58,948,727	30,438,827	48.4%	98,195,782	31.0%

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
12/31/2018	12/31/2020	3,513,339

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."

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.

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.

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.

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.

Glossary (Concluded)

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.