

Required Supplementary Information

THE COUNTY COMMISSIONERS OF CARROLL COUNTY
Westminster, Maryland
SCHEDULE OF CHANGES IN THE NET PENSION LIABILITY AND RELATED RATIOS
FOR THE CARROLL COUNTY EMPLOYEE PENSION PLAN
Last 10 Fiscal Years

(Dollar amounts in thousands)

	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008
Total pension liability										
Service cost	\$ 3,860	\$ 3,513	\$ 3,301	\$ 3,085						
Interest	5,345	4,825	4,377	3,955						
Differences between expected and actual experience	768	(953)	(100)	-						
Changes of assumptions	-	1,635	-	-						
Benefit payments including refunds of member contributions	(1,856)	(1,300)	(1,086)	(925)						
Net change in total pension liability	<u>8,117</u>	<u>7,720</u>	<u>6,492</u>	<u>6,115</u>						
Total pension liability- beginning	<u>77,291</u>	<u>69,571</u>	<u>63,079</u>	<u>56,964</u>						
Total pension liability- ending	<u>\$ 85,408</u>	<u>\$ 77,291</u>	<u>\$ 69,571</u>	<u>\$ 63,079</u>						
Plan fiduciary net position										
Contributions-employer	\$ 2,636	\$ 2,542	\$ 2,558	\$ 2,367						
Contributions-member	1,773	1,688	1,619	1,573						
Net investment income	7,683	1,306	2,645	7,867						
Benefit payments, including refund of member contributions	(1,856)	(1,300)	(1,086)	(925)						
Administrative expense	(43)	(37)	(57)	(45)						
Net change in plan fiduciary net position	<u>10,193</u>	<u>4,199</u>	<u>5,699</u>	<u>10,837</u>						
Plan fiduciary net position- beginning	<u>66,714</u>	<u>62,515</u>	<u>56,816</u>	<u>45,979</u>						
Plan fiduciary net position- ending	<u>\$ 76,907</u>	<u>\$ 66,714</u>	<u>\$ 62,515</u>	<u>\$ 56,816</u>						
Net pension liability - ending	<u>\$ 8,501</u>	<u>\$ 10,577</u>	<u>\$ 7,056</u>	<u>\$ 6,263</u>						
Plan fiduciary net position as a percentage of the total pension liability	115.28%	106.72%	110.03%	123.57%						
Covered- payroll	\$ 34,841	\$ 33,047	\$ 32,278	\$ 30,699						
Net pension liability as a percentage of covered- payroll	24.40%	32.01%	21.86%	20.40%						
Expected average remaining service years for all participants	5	5	6	6						

Information for FY 13 and earlier is not available

Notes to Schedule:
Benefit changes:
Changes of Assumptions:
There were no changes for FY 2017
There were no changes for FY 2017

THE COUNTY COMMISSIONERS OF CARROLL COUNTY
Westminster, Maryland
SCHEDULE OF CARROLL COUNTY'S CONTRIBUTIONS
FOR THE CARROLL COUNTY EMPLOYEE PENSION PLAN
Last 10 Fiscal Years
(Dollar amounts in thousands)

	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008
Actuarially determined contribution	\$ 2,636	\$ 2,542	\$ 2,538	\$ 2,366	\$ 2,253	\$ 2,550	\$ 2,810	\$ 1,302	\$ 878	\$ 921
Contributions in relation to the actuarially determined contribution	2,636	2,542	2,538	2,367	2,586	2,741	3,000	2,660	958	985
Contribution deficiency (excess)	\$ -	\$ -	\$ (20)	\$ (1)	\$ (333)	\$ (191)	\$ (190)	\$ (1,358)	\$ (80)	\$ (64)
Covered-payroll	\$ 34,841	\$ 33,047	\$ 32,278	\$ 30,699	\$ 30,414	\$ 32,267	\$ 34,986	\$ 32,402	\$ 29,792	\$ 26,845
Contributions as a percentage of covered-payroll	7.57%	7.69%	7.92%	7.71%	8.50%	8.49%	8.57%	8.21%	3.22%	3.67%

Valuation date:
Actuarially determined contribution amounts are calculated as of the beginning of the fiscal year (July 1) for the year immediately following the fiscal year.
Actuarial valuations are performed every year.

Methods and assumptions used to determine contribution rates:

Actuarial cost method	Projected Unit Credit
Amortization method	Level Percentage of Payroll
Remaining amortization period	20 years for gains and losses (closed), 20 years for prior plan and assumption changes
Asset valuation method	5-year smoothed market
Inflation	3.0 percent
Salary increases	Rates vary by participant age
Investment rate of return	7.0 percent, net of pension plan investment expense, including inflation
Retirement age	100% when first eligible for unreduced benefits
Mortality	RP-2014 with generational projection using scale MP-2014

THE COUNTY COMMISSIONERS OF CARROLL COUNTY
Westminster, Maryland
SCHEDULE OF INVESTMENT RETURNS
FOR THE CARROLL COUNTY EMPLOYEE PENSION PLAN
Last 10 Fiscal Years

2017 2016 2015 2014 2013 2012 2011 2010 2009 2008

Annual money-weighted rate of return,
net of investment expense

11.19% 2.08% 4.53% 16.32% Information for FY 2013 and earlier is not available

**THE COUNTY COMMISSIONERS OF CARROLL COUNTY
Westminster, Maryland
SCHEDULE OF CHANGES IN THE NET PENSION LIABILITY AND RELATED RATIOS
FOR THE CARROLL COUNTY CERTIFIED LAW OFFICERS PENSION PLAN**

**Last 10 Fiscal Years
(Dollar amounts in thousands)**

	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008
Total pension liability										
Service cost	\$ 1,090	\$ 1,000	\$ 983	\$ 904						
Interest	887	813	726	630						
Differences between expected and actual experience	560	(380)	(242)	-						
Change of assumption	-	(115)	-	-						
Benefit payments, including refunds of member contributions	(260)	(244)	(199)	(124)						
Net change in total pension liability	<u>2,277</u>	<u>1,074</u>	<u>1,268</u>	<u>1,410</u>						
Total pension liability- beginning	<u>12,807</u>	<u>11,733</u>	<u>10,465</u>	<u>9,055</u>						
Total pension liability- ending	<u>\$ 15,084</u>	<u>\$ 12,807</u>	<u>\$ 11,733</u>	<u>\$ 10,465</u>						
Plan fiduciary net position										
Contribution-employer	\$ 799	\$ 681	\$ 835	\$ 870						
Contributions-member	619	416	415	580						
Net investment income	1,196	191	368	978						
Benefit payments, including refund of member contributions	-	-	-	#####						
Administrative expense	(260)	(244)	(199)	(124)						
Net change in plan fiduciary net position	<u>(8)</u>	<u>(7)</u>	<u>(7)</u>	<u>(7)</u>						
	2,346	1,037	1,412	2,297						
Plan fiduciary net position- beginning	<u>10,142</u>	<u>9,105</u>	<u>7,693</u>	<u>5,396</u>						
Plan fiduciary net position- ending	<u>12,488</u>	<u>10,142</u>	<u>9,105</u>	<u>7,693</u>						
Net pension liability - ending	<u>\$ 2,596</u>	<u>\$ 2,665</u>	<u>\$ 2,628</u>	<u>\$ 2,772</u>						

Information for FY 13 and earlier is not available

Notes to Schedule
Benefit changes:

There were no changes for FY. There were no changes for FY 2017

Changes of Assumptions:
RP-2014 with generational pro RP-2014 with generational projection using scale MP 2014

Plan fiduciary net position as a percentage of the total pension liability	82.79%	79.19%	77.60%	73.51%						
Covered- payroll	\$ 5,586	\$ 4,974	\$ 5,552	\$ 5,295						
Net pension liability as a percentage of covered-employee payroll	46.48%	53.58%	47.33%	52.35%						
Expected average remaining service years of all participants	10	10	10	10						

THE COUNTY COMMISSIONERS OF CARROLL COUNTY
Westminster, Maryland
SCHEDULE OF CARROLL COUNTY'S CONTRIBUTIONS
FOR THE CARROLL COUNTY CERTIFIED LAW OFFICERS PENSION PLAN
Last 10 Fiscal Years
(Dollar amounts in thousands)

	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008
Actuarially determined contribution	\$ 645	\$ 683	\$ 686	\$ 558	\$ 505	\$ 520	\$ 544	\$ -		
Contributions in relation to the actuarially determined contribution	799	681	835	870	787	700	590	250		
Contribution deficiency (excess)	<u>\$ (154)</u>	<u>\$ 2</u>	<u>\$ (149)</u>	<u>\$ (312)</u>	<u>\$ (282)</u>	<u>\$ (180)</u>	<u>\$ (46)</u>	<u>\$ (250)</u>		
Covered - payroll	\$ 5,586	\$ 4,974	\$ 5,552	\$ 5,295	\$ 5,295	\$ 5,295	\$ 5,295	\$ 5,295		
Contributions as a percentage of covered payroll	14.30%	13.69%	15.04%	16.43%	14.86%	13.22%	11.14%	4.72%		

1 Per GASB 82, the amounts shown reflect pensionable earnings only
 The Carroll County Certified Law Officers Pension Plan started in fiscal year 2010.

Notes to Schedule

Valuation date:

Actuarially determined contribution amounts are calculated as of the beginning of the fiscal year (July 1) for the year immediately following the fiscal year.
 Actuarial valuations are performed every year.

Methods and assumptions used to determine contribution rates:

- Actuarial cost method
 - Amortization method
 - Remaining amortization period
 - Asset valuation method
 - Salary increases
 - Investment rate of return
 - Retirement age
 - Mortality
- Projected Unit Credit (Entry Age used for GASB 67 purposes)
 - Level Percentage of Payroll
 - 20 years for gains and losses (closed), 20 years for prior plan and assumption changes 5-year smoothed market
 - 3.0 percent
 - Rates vary by participant age
 - 7.0 percent, net of pension plan investment expense, including inflation
 - 100% when first eligible for unreduced benefits
 - RP-2014 with generational projection using scale MP2014

THE COUNTY COMMISSIONERS OF CARROLL COUNTY
Westminster, Maryland
SCHEDULE OF INVESTMENT RETURNS
FOR THE CARROLL COUNTY CERTIFIED LAW OFFICERS PENSION PLAN
Last 10 Fiscal Years
(Dollar amounts in thousands)

	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008
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Annual money-weighted rate of return,
net of investment expense

10.99%	2.11%	4.51%	15.33%	Information for FY 13 and earlier is not available						
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Schedules of Required Supplementary information
SCHEDULE OF CHANGES IN THE VOLUNTEER FIREMEN PENSION PLAN
LIABILITY AND RELATED RATIOS
Last 10 Fiscal Years
(Dollar amounts in thousands)

	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008
Total pension liability										
Service cost	\$ 147	\$ 151	\$ 146							
Interest	681	672	661							
Difference between actual and expected	(44)									
Benefit payments, including refunds of member contributions	(701)	(687)	(988)							
Net change in total pension liability	83	136	(181)							
Total pension liability- beginning	9,722	9,586	9,767							
Total pension liability- ending	<u>9,805</u>	<u>9,722</u>	<u>9,586</u>							
Plan fiduciary net position										
Contribution-employer	\$ 100	\$ 50	\$ 250							
Contributions-member										
Net investment income	766	484	874							
Benefit payments, including refund of member contributions	(700)	(687)	(988)							
Administrative expense	(9)	(6)	(20)							
Net change in plan fiduciary net position	157	(159)	116							
Plan fiduciary net position- beginning	8,305	8,464	8,348							
Plan fiduciary net position- ending	<u>8,462</u>	<u>8,305</u>	<u>8,464</u>							
Net pension liability ending	<u>\$ 1,343</u>	<u>\$ 1,417</u>	<u>\$ 1,122</u>							
Plan fiduciary net position as a percentage of the total pension liability	86.30%	85.42%	88.30%							
Covered payroll	N/A	N/A	N/A							
Net pension liability as a percentage of covered-employee payroll	N/A	N/A	N/A							
Expected average remaining service years of all participants	8	8	8							

Notes to Schedule:

Benefit changes: There were no changes for FY2017.
Change of Assumptions: There were no changes for FY2017.

**Schedules of Required Supplementary information
SCHEDULE OF CARROLL COUNTYS' CONTRIBUTIONS
FOR THE VOLUNTEER FIREMEN PENSION PLAN
Last 10 Fiscal Years
(Dollar amounts in thousands)**

	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008
Actuarially determined contribution	\$ 276	\$ 276	\$ 436	\$ 436	\$ 436	\$ 380	\$ 380	\$ 380	\$ -	\$ -
Contributions in relation to the actuarially determined contribution	100		250	250	-	-	-	-	1,000	-
Contribution deficiency (excess)	\$ 176	\$ 226	\$ 186	\$ 186	\$ 436	\$ 380	\$ 380	\$ 380	\$ (1,000)	\$ -
Covered-payroll	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Contributions as a percentage of covered payroll	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Notes to Schedule

- Valuation date:**
 A actuarially determined contribution amounts are calculated as of the beginning of the calendar year (January 1) for the following two fiscal years.
 Actuarial valuations are expected to be performed every other year.
 Methods and assumptions used to determine contribution rates:
- Actuarial cost method: Unit Credit (Entry Age used for GASB 67 purposes)
 - Amortization method: Level payments over a period of 10 years
 - Remaining amortization period: 10 years
 - Asset valuation method: Market Value
 - Inflation: 3.0%
 - Salary increases: Not Applicable
 - Investment rate of return: 7.0%, net of pension plan investment expense, including inflation
 - Retirement age: The later of 25 years of service and age 60
 - Mortality: RP-2000 Combined Healthy tables with Blue Collar adjustment, blended 75% male and generational projection using Scale AA

**Schedules of Required Supplementary information
 SCHEDULE OF INVESTMENT RETURNS
 FOR THE VOLUNTEER FIREMEN PENSION PLAN
 Last 10 Fiscal Years
 (Dollar amounts in thousands)**

	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008
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Annual money-weighted rate of return,
 net of investment expense

9.57%

6.08%

4.43%

Information for FY 14 and earlier is not available

THE COUNTY COMMISSIONERS OF CARROLL COUNTY
Westminster, Maryland
SCHEDULE OF PROPORTIONATE SHARE OF THE NET PENSION LIABILITY (NPL)
FOR THE STATE OF MARYLAND – CARROLL COUNTY ELECTED/APPOINTED OFFICIALS PENSION PLAN
Last 10 Fiscal Years

	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008
County's proportionate share (%) of collective net pension liability	0.0011831%	0.0009711%	0.0000795%							
County's proportionate share (\$) of collective net pension liability	\$ 279,129	\$ 201,819	\$ 141,030							
County's covered- payroll (\$)	144,568	140,701	131,805							
County's proportionate share (%) of collective net pension liability of its covered payroll	193.08%	143.44%	107.00%							
Plan fiduciary net position as a percentage of the total pension liability	65.79%	68.78%	71.87%							

Information for FY 14 and earlier is not available

SCHEDULE OF PENSION PLAN CONTRIBUTIONS
FOR THE STATE OF MARYLAND – CARROLL COUNTY ELECTED/APPOINTED OFFICIALS PENSION PLAN
Last 10 Fiscal Years

	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008
Contractually required contribution	\$ 23,047	\$ 20,469	\$ 18,519							
Contributions in relation to the contractually required contribution	23,047	20,469	18,519							
Contribution deficiency (excess)	\$ -	\$ -	\$ -							
Covered payroll	\$ 144,568	\$ 140,701	\$ 131,805							
Contributions as a percentage of covered- payroll	15.94%	14.55%	14.05%							

Information for FY 14 and earlier is not available

THE COUNTY COMMISSIONERS OF CARROLL COUNTY
Westminster, Maryland
SCHEDULE OF PROPORTIONATE SHARE OF THE NET PENSION LIABILITY (NPL)
FOR THE STATE OF MARYLAND – CARROLL COUNTY SOIL CONSERVATION DISTRICT PENSION PLAN
Last 10 Fiscal Years

	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008
County's proportionate share (%) of collective net pension liability	0.0010065%	0.0012214%	0.0011016%							
County's proportionate share (\$) of collective net pension liability	\$ 237,464	\$ 253,830	\$ 195,496							
County's covered-payroll (\$)	261,489	225,564	260,994							
County's proportionate share (%) of collective net pension liability of its covered payroll	90.81%	112.53%	74.90%							
Plan fiduciary net position as a percentage of the total pension liability	65.79%	68.78%	71.87%							

Information for FY 14 and earlier is not available

SCHEDULE OF PENSION PLAN CONTRIBUTIONS
FOR THE STATE OF MARYLAND – CARROLL COUNTY SOIL CONSERVATION DISTRICT PENSION PLAN
Last 10 Fiscal Years

	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008
Contractually required contribution	\$ 19,607	\$ 25,744	\$ 25,671							
Contributions in relation to the contractually required contribution	19,607	25,744	25,671							
Contribution deficiency (excess)	\$ -	\$ -	\$ -							
Covered-payroll Contributions as a percentage of covered-payroll	7.50%	11.41%	9.84%							

Information for FY 14 and earlier is not available

THE COUNTY COMMISSIONERS OF CARROLL COUNTY
Westminster, Maryland
SCHEDULE OF CHANGES IN THE NET OPEB LIABILITY AND RELATED RATIOS
FOR THE RETIREE BENEFIT TRUST, BOARD OF COUNTY COMMISSIONER OF CARROLL COUNTY,
MARYLAND
Last 10 Fiscal Years

	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008
Total OPEB liability										
Service cost	\$ 3,871,389									
Interest	12,894,546									
Differences between expected and actual experience	-									
Changes of assumptions	(4,099,405)									
Benefit payments including refunds of member contributions	12,666,530									
Net change in total OPEB liability										
Total OPEB liability- beginning	<u>186,257,497</u>									
Total OPEB liability- ending	<u>\$ 198,924,027</u>									
Plan fiduciary net position										
Contribution-employer	\$ 10,103,580									
Net investment income	7,460,623									
Benefit payments	(4,099,405)									
Administrative expense	-									
Net change in plan fiduciary net position	<u>13,464,798</u>									
Plan fiduciary net position- beginning	<u>66,532,596</u>									
Plan fiduciary net position- ending	<u>\$ 79,997,394</u>									
Net OPEB liability - ending	<u>\$ 118,926,633</u>									
Plan fiduciary net position as a percentage of the total OPEB liability	40.22%									
Covered- payroll	\$ -									
Net OPEB liability as a percentage of covered-payroll (1)	0.00%									
Expected average remaining service years for all participants	6									
Notes to Schedule:										
Benefit changes:	None									
Changes of Assumptions:	None									
Discount Rate:	7%									
	6/30/2016									
	6/30/2017									

Information for FY 16 and earlier is not available

THE COUNTY COMMISSIONERS OF CARROLL COUNTY
Westminster, Maryland
SCHEDULE OF CARROLL COUNTY'S CONTRIBUTIONS
FOR THE RETIREE BENEFIT TRUST, BOARD OF COUNTY COMMISSIONER OF CARROLL COUNTY,
MARYLAND
Last 10 Fiscal Years

	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008
Actuarially determined contribution	\$ 11,353,000									
Contributions in relation to the actuarially determined contribution	10,103,580									
Contribution deficiency (excess)	<u>\$ 1,249,420</u>									
Covered payroll 1	N/A									
Contributions as a percentage of covered-payroll	N/A									

Information for FY2016 and earlier is not available

Notes to Schedule

Contributions as a percentage of covered employee payroll¹

1 -Because this OPEB plan does not depend on salary, we do not have salary information.

THE COUNTY COMMISSIONERS OF CARROLL COUNTY
Westminster, Maryland
SCHEDULE OF INVESTMENT RETURNS
FOR THE RETIREEE BENEFIT TRUST, BOARD OF COUNTY COMMISSIONER OF CARROLL COUNTY,
MARYLAND
Last 10 Fiscal Years

	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008
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Annual money-weighted rate of return,
net of investment expense

27.39% Information for FY 2016 and earlier is not available

**THE COUNTY COMMISSIONERS OF CARROLL COUNTY
SCHEDULES OF FUNDING PROGRESS AND EMPLOYER
CONTRIBUTIONS FOR OTHER POST-EMPLOYMENT
BENEFITS**

For the Year Ended June 30, 2017

The Schedule of funding progress from the current and two preceding actuarial valuations, presents trend information about whether the actuarial value of plan assets is increasing or decreasing over time relative to the actuarial accrued liabilities for benefits.

Schedule of Funding Progress:

Actuarial Valuation Date	Actuarial Value of Assets (1)	Actuarial Accrued Liability (AAL) (2)	Percentage Funded (1)/(2) (3)	Unfunded AAL (UAAL) (2)-(1) (4)	Annual Covered Payrol (5)	UAAL as a Percentage of Covered Payroll ((2-1)/5) (6)
July 1, 2010	\$ 12,612,050	\$ 132,526,000	9.52%	\$ 119,913,950	\$ 44,405,390	270.04%
July 1, 2012	25,999,300	132,709,000	19.60%	106,709,700	44,548,939	239.53%
July 1, 2014	47,996,872	144,903,000	33.12%	96,906,128	47,677,710	203.25%
July 1, 2016	66,532,596	174,401,000	38.15%	107,868,404	51,577,434	209.14%

Schedule of Employer Contributions:

Year Ended June 30:	Annual Required Contribution	Amount Contributed by Employer	Percentage Contributed by Employer	Federal Subsidy	Total Percentage Contributed
2011	\$ 11,937,000	\$ 7,298,000	61%	\$ 172,559	63%
2012	11,661,000	7,852,800	67%	184,061	69%
2013	10,142,000	8,438,080	83%	197,696	85%
2014	10,457,000	10,056,900	96%	226,975	98%
2015	10,111,000	9,632,900	95%	251,701	98%
2016	10,474,000	10,103,580	96%	-	96%
2017	11,353,000	10,578,580	89%	-	89%