



nyhart  
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# FUNDING ACTUARIAL VALUATION

As of December 31, 2021

## St. Clair County

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**January 18, 2023**

**Tami Rumsey  
St. Clair County  
200 Grand River Avenue, Ste. 206  
Port Huron, MI 48060**

This report summarizes the funding recommendations for calendar years 2021 and 2022 for St. Clair County. To the best of our knowledge, the report presents a fair position of the funded status of the plan in accordance with GASB Statement No. 74 (Financial Reporting for Post-Employment Benefit Plans Other Than Pension Plans).

The information presented herein is based on the actuarial assumptions and substantive plan provisions summarized in this report and participant information furnished to us by the Plan Sponsor. We have reviewed the employee census provided by the Plan Sponsor for reasonableness when compared to the prior information provided but have not audited the information at the source, and therefore do not accept responsibility for the accuracy or the completeness of the data on which the information is based. When relevant data may be missing, we may have made assumptions we feel are neutral or conservative to the purpose of the measurement. We are not aware of any significant issues with and have relied on the data provided.

The discount rate, other economic assumptions, and demographic assumptions have been selected by the Plan Sponsor, with the concurrence of Nyhart. In our opinion, the actuarial assumptions are individually reasonable and in combination represent our estimate of anticipated experience of the Plan. All calculations have been made in accordance with generally accepted actuarial principles and practice.

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); and
- changes in plan provisions or applicable law.

We did not perform an analysis of the potential range of future measurements due to the limited scope of our engagement.

To our knowledge, there have been no significant events prior to the current year's measurement date or as of the date of this report that could materially affect the results contained herein.



Neither Nyhart nor any of its employees has any relationship with the plan or its sponsor that could impair or appear to impair the objectivity of this report. Our professional work is in full compliance with the American Academy of Actuaries "Code of Professional Conduct" Precept 7 regarding conflict of interest. The undersigned meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.

Should you have any questions please do not hesitate to contact us.

A handwritten signature in black ink that reads "John Mallows".

John Mallows, FSA, MAAA  
Actuary

A handwritten signature in black ink that reads "Cody Kocher".

Cody Kocher, ASA, MAAA  
Actuary

# Executive Summary

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St. Clair County as of December 31, 2021

## Summary of Results

Presented below is the summary of results as of December 31, 2021 compared to results from the prior year funding valuation as of December 31, 2020.

	FY 2021	FY 2022
<b>Annual Employer Contribution<sup>1</sup></b>	\$ 2,557,918	\$ 2,504,398

	As of December 31, 2020	As of December 31, 2021
<b>Expected Return on Assets</b>	5.25%	5.25%

	As of December 31, 2020	As of December 31, 2021
<b>Total Active Participants</b>	473	437
<b>Total Retiree Participants</b>	586	562

The active participants' number above may include active employees who currently have no health care coverage. Refer to Summary of Participants section for an accurate breakdown of active employees with and without coverage.

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<sup>1</sup> Expected for FY 2022. This should be updated once actual contributions are available after the end of the fiscal year.

# GASB Disclosures

St. Clair County as of December 31, 2021

## Schedule of Employer Contributions

The Actuarially Determined Contributions (ADC) shown below prior to FY 2017 are based on the Annual Required Contribution (ARC) calculated in the prior GASB 45 actuarial valuations as shown in the County's financial statements.

	FY 2022	FY 2021	FY 2020	FY 2019	FY 2018
Actuarially Determined Contribution (ADC)	\$ 5,221,344	\$ 5,065,216	\$ 6,081,383	\$ 5,675,678	\$ 5,529,716
Contributions in relation to the ADC <sup>2</sup>	2,504,398	2,557,918	2,475,409	2,686,003	2,869,913
Contribution deficiency / (excess)	\$ 2,716,946	\$ 2,507,298	\$ 3,605,974	\$ 2,989,675	\$ 2,659,803
Covered employee payroll	\$ 28,214,243	\$ 30,632,700	\$ 31,487,706	\$ 31,771,895	\$ 32,739,763
Contribution as a % of covered employee payroll	8.9%	8.4%	7.9%	8.5%	8.8%
	FY 2017	FY 2016	FY 2015	FY 2014	FY 2013
Actuarially Determined Contribution (ADC)	\$ 10,720,206	\$ 12,980,909	\$ 10,682,722	\$ 10,420,633	\$ 11,211,597
Contributions in relation to the ADC	2,368,393	2,401,311	3,591,579	2,900,392	1,326,721
Contribution deficiency / (excess)	\$ 8,351,813	\$ 10,579,598	\$ 7,091,143	\$ 7,520,241	\$ 9,884,876
Covered employee payroll	\$ 35,368,535	\$ 37,205,389	\$ 36,573,262	\$ 37,222,197	\$ 40,053,245
Contribution as a % of covered employee payroll	6.7%	6.5%	9.8%	7.8%	3.3%

<sup>2</sup> Expected for FY 2022. This should be updated once actual contributions are available after the end of the fiscal year.

# Asset Information

St. Clair County as of December 31, 2021

## Asset Breakdown – Market Value Basis

Asset Breakdown as of	December 31, 2020	December 31, 2021
<b>Assets</b>		
Cash and cash equivalents	\$ 4,550,077	\$ 5,176,742
Securities lending cash collateral	0	0
Total cash	\$ 4,550,077	\$ 5,176,742
Receivables		
Contributions	\$ 94,226	\$ 60,188
Accrued interest	10,949	10,795
Total receivables	\$ 105,175	\$ 70,983
Investments		
Fixed Income	\$ 20,075,046	\$ 7,061,511
Equities	31,840,502	24,589,764
Other assets	428,800	26,056,827
Total investments	\$ 52,344,348	\$ 57,708,102
Total assets	\$ 56,999,600	\$ 62,955,827
<b>Liabilities</b>		
Payables		
Accounts payable	\$ (12,062)	\$ (14,458)
Due to other funds	0	0
Total liabilities	\$ (12,062)	\$ (14,458)
<b>Net position restricted to OPEB</b>	<b>\$ 56,987,538</b>	<b>\$ 62,941,369</b>

# Asset Information

St. Clair County as of December 31, 2021

## Reconciliation of Assets – Market Value Basis

	FY 2020	FY 2021
<b>Additions</b>		
Contributions received		
Employer	\$ 2,475,409	\$ 2,922,597
Employee	402,509	378,810
Total contributions	\$ 2,877,918	\$ 3,301,407
Investment income		
Net increase in fair value of investments	\$ 5,486,970	\$ 5,601,496
Interests and dividends	986,142	892,528
Investment expense, other than from securities lending	(145,165)	(166,190)
Securities lending income	0	0
Securities lending expense	0	0
Other investment income	6,787	917
Net investment income	\$ 6,334,734	\$ 6,328,751
Total additions	\$ 9,212,652	\$ 9,630,158
<b>Deductions</b>		
Benefit payments (including employee refunds)	\$ (3,407,736)	\$ (3,675,146)
Administrative expenses	(433)	(1,181)
Other	0	0
Total deductions	\$ (3,408,169)	\$ (3,676,327)
<b>Net increase in net position</b>	\$ 5,804,483	\$ 5,953,831
<b>Net position restricted to OPEB</b>		
Beginning of year	\$ 51,183,055	\$ 56,987,538
End of year	\$ 56,987,538	\$ 62,941,369



# Asset Information

## St. Clair County as of December 31, 2021

The Trust assets are actuarially adjusted to reduce the impact of market-based fluctuations when determining future funding requirements. The adjusted assets are referred to as the “funding value of assets”. The actuarial smoothing method essentially spreads investment gains and losses over a five-year period. Below is a schedule with the calculation details for this adjustment.

<i>Year Ended December 31,</i>	<i>2020</i>	<i>2021</i>	<i>2022<sup>3</sup></i>	<i>2023<sup>3</sup></i>
A. Funding value as of beginning of year	\$ 47,021,738	\$ 50,522,707	\$ 54,851,604	\$ 58,493,614
B. Market value as of end of year	\$ 56,987,538	\$ 62,941,369	\$ 65,193,725	\$ 67,039,341
C. Market value as of beginning of year	\$ 51,183,055	\$ 56,987,538	\$ 62,941,369	\$ 65,193,725
D. Non-investment net cash flow	\$ (675,416)	\$ (541,110)	\$ (1,025,491)	\$ (1,537,219)
E. Investment income:				
E1. Reflecting actual market conditions (B – C – D)	\$ 6,479,899	\$ 6,494,941	\$ 3,277,847	\$ 3,382,835
E2. Amount for immediate recognition <sup>4</sup>	\$ 2,801,042	\$ 2,638,238	\$ 2,852,790	\$ 3,030,563
E3. Amount for phased-in recognition (E1 – E2)	\$ 3,678,857	\$ 3,856,703	\$ 425,057	\$ 352,272
F. Phased-in recognition of investment income				
F1. Current year (E3 / 5)	\$ 735,771	\$ 771,341	\$ 85,011	\$ 70,454
F2. First prior year	1,040,714	735,771	771,341	85,011
F3. Second prior year	(818,126)	1,040,714	735,771	771,341
F4. Third prior year	502,069	(818,126)	1,040,714	735,771
F5. Fourth prior year	(85,085)	502,069	(818,126)	1,040,714
F6. Total recognized gain recognized in current period	\$ 1,375,343	\$ 2,231,769	\$ 1,814,711	\$ 2,703,291
G. Funding value as of end of year (A + D + E2 + F6)	\$ 50,522,707	\$ 54,851,604	\$ 58,493,614	\$ 62,690,249
H. Recognized rate of return using funding value	8.9%	9.4%	8.6%	9.9%
I. Rate of return using market value of assets (net of expenses)	12.4%	11.2%	4.9%	4.9%
J. Ratio funding value to market value (G / B)	88.7%	87.1%	89.7%	93.5%

<sup>3</sup> CY 2022 and 2023 non-investment net cash flow is based on estimated contributions and benefit payments. The end of year fair market value is projected from the beginning of year fair market value assuming a 5.25% asset rate of return.

<sup>4</sup> 6.00% in 2020, 5.25% in 2021-2023.

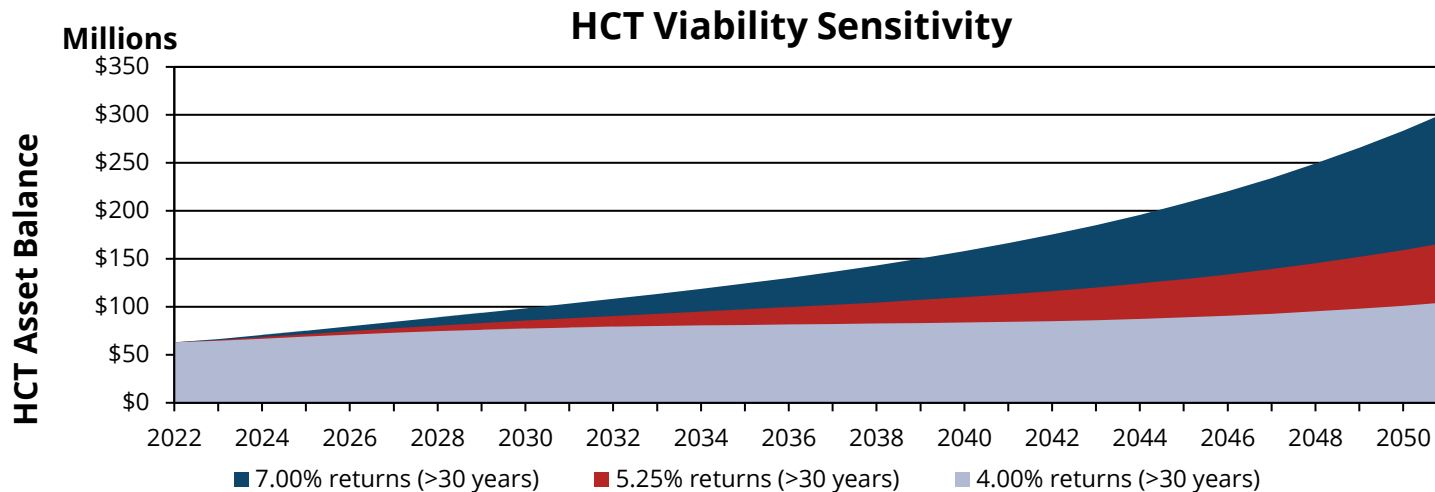
# Health Care Trust Projections

St. Clair County as of December 31, 2021

St. Clair County established a Health Care Trust (HCT) for the purpose of funding future retiree health benefits. Currently both the County and its employees (except for Road Commission) contribute a percentage of salary to this Trust, and payments for retirees' premiums are made from this Trust annually.

The viability of this Trust is highly sensitive to the investment return earned and future Trust contribution. Below is a comparison of the viability of the Trust under three different investment return scenarios:

1. Low return (4.00%) – the HCT will be depleted in over 30 years.
2. Medium return (5.25%) – the HCT will be depleted in over 30 years.
3. High return (7.00%) – the HCT will be depleted in over 30 years.



Additional assumptions made in our analysis:

1. Market value of assets of \$62,941,369 as of January 1, 2022.
2. Active employee contributions to HCT effective on 1/1/2023 as shown on page 21 of this report.
3. Flat dollar employer contributions determined based on the average contribution in the past six fiscal years (projected for FY 2022 and all other future years): \$797,000 for the County (including Sheriff), \$282,000 for Mental Health Authority, and \$1,425,000 for Road Commission.
4. Projected future retiree health costs using assumptions as shown in the Actuarial Methods and Assumptions section of this report.

# Actuarially Determined Contributions

St. Clair County as of December 31, 2021

The Actuarially Determined Contributions calculated below are recommended target contributions and assumes that the County has the ability to contribute these amounts on an annual basis. The County has the responsibility to decide how much it should contribute after considering its other needs and the OPEB participants' needs.

**Actuarially Determined Contribution (ADC)** is the target or recommended contribution to a defined benefit OPEB plan, which if paid on an ongoing basis, will provide sufficient resources to fund future costs for services to be earned and liabilities attributed to past services. This is typically higher than the pay-as-you-go cost because it includes recognition of employer costs expected to be paid in future accounting periods.

FY 2022	Total	St. Clair County	Mental Health	Road Commission
Discount rate	5.25%	5.25%	5.25%	5.25%
Payroll growth factor used for amortization	Varies	N/A	3.5%	3.5%
Actuarial cost method	Entry Age Normal Level % of Salary	Entry Age Normal Level % of Salary	Entry Age Normal Level % of Salary	Entry Age Normal Level % of Salary
Amortization type	Varies	Level Dollar	Level % of Pay	Level % of Pay
Amortization period	8 years	8 years	8 years	8 years
AAL as of January 1, 2022	\$ 75,940,906	\$ 50,961,974	\$ 14,258,537	\$ 10,720,395
AVA as of January 1, 2022	(54,851,604)	(27,947,137)	(21,114,584)	(5,789,883)
Unfunded AAL as of January 1, 2022	\$ 21,089,302	\$ 23,014,837	\$ (6,856,047)	\$ 4,930,512
Funded Ratio	72.2%	54.8%	148.1%	54.0%
Normal cost as of beginning of year	\$ 1,170,172	\$ 770,818	\$ 275,311	\$ 124,043
Reduction for employee contributions	(357,684)	(266,173)	(91,511)	0
Net normal cost	\$ 812,488	\$ 504,645	\$ 183,800	\$ 124,043
Amortization of UAAL	3,162,498	3,417,549	(908,133)	653,082
Total normal cost plus amortization	\$ 3,974,986	\$ 3,922,194	\$ (724,333)	\$ 777,125
Interest to end of year	208,687	205,915	(38,027)	40,799
Actuarially Determined Contribution (ADC) - Preliminary	\$ 4,183,673	\$ 4,128,109	\$ (762,360)	\$ 817,924
<b>Final Recommended ADC<sup>5</sup></b>	<b>\$ 5,221,344</b>	<b>\$ 4,128,109</b>	<b>\$ 275,311</b>	<b>\$ 817,924</b>

<sup>5</sup> If fully-funded under the long-term expected discount rate, as shown above for the Mental Health group, an entity could contribute \$0. However, for long-term sustainability purposes, Nyhart would recommend contributing the normal cost plus interest for years in which that entity is fully funded.

# Actuarially Determined Contributions

St. Clair County as of December 31, 2021

The Actuarially Determined Contributions calculated below are recommended target contributions and assumes that the County has the ability to contribute these amounts on an annual basis. The County has the responsibility to decide how much it should contribute after considering its other needs and the OPEB participants' needs.

**Actuarially Determined Contribution (ADC)** is the target or recommended contribution to a defined benefit OPEB plan, which if paid on an ongoing basis, will provide sufficient resources to fund future costs for services to be earned and liabilities attributed to past services. This is typically higher than the pay-as-you-go cost because it includes recognition of employer costs expected to be paid in future accounting periods.

FY 2023 (Projected)	Total	St. Clair County	Mental Health	Road Commission
Discount rate	5.25%	5.25%	5.25%	5.25%
Payroll growth factor used for amortization	Varies	N/A	3.5%	3.5%
Actuarial cost method	Entry Age Normal Level % of Salary	Entry Age Normal Level % of Salary	Entry Age Normal Level % of Salary	Entry Age Normal Level % of Salary
Amortization type	Varies	Level Dollar	Level % of Pay	Level % of Pay
Amortization period	7 years	7 years	7 years	7 years
Expected AAL as of January 1, 2023	\$ 66,019,204	\$ 44,307,718	\$ 12,428,417	\$ 9,283,068
Expected AVA as of January 1, 2023 <sup>6</sup>	(58,493,614)	(28,884,857)	(22,577,856)	(7,030,901)
Expected unfunded AAL as of January 1, 2023	\$ 7,525,589	\$ 15,422,861	\$ (10,149,439)	\$ 2,252,167
Funded Ratio	88.6%	65.2%	181.7%	75.7%
Normal cost as of beginning of year	\$ 1,016,572	\$ 664,254	\$ 242,735	\$ 109,583
Reduction for employee contributions	(478,161)	(394,138)	(84,023)	0
Net normal cost	\$ 538,411	\$ 270,116	\$ 158,712	\$ 109,583
Amortization of UAAL	1,369,702	2,555,416	(1,523,860)	338,146
Total normal cost plus amortization	\$ 1,908,113	\$ 2,825,532	\$ (1,365,148)	\$ 447,729
Interest to end of year	100,176	148,340	(71,670)	23,506
Actuarially Determined Contribution (ADC) - Preliminary	\$ 2,008,289	\$ 2,973,872	\$ (1,436,818)	\$ 471,235
<b>Final Recommended ADC<sup>7</sup></b>	<b>\$ 3,832,714</b>	<b>\$ 2,973,721</b>	<b>\$ 242,735</b>	<b>\$ 616,107</b>

<sup>6</sup> Estimated as of January 1, 2023

<sup>7</sup> If fully-funded under the long-term expected discount rate, as shown above for the Mental Health group, an entity could contribute \$0. However, for long-term sustainability purposes, Nyhart would recommend contributing the normal cost plus interest for years in which that entity is fully funded.

# Actuarially Determined Contributions

St. Clair County as of December 31, 2021

The Actuarially Determined Contributions calculated below are recommended target contributions and assumes that the County has the ability to contribute these amounts on an annual basis. The County has the responsibility to decide how much it should contribute after considering its other needs and the OPEB participants' needs.

**Actuarially Determined Contribution (ADC)** is the target or recommended contribution to a defined benefit OPEB plan, which if paid on an ongoing basis, will provide sufficient resources to fund future costs for services to be earned and liabilities attributed to past services. This is typically higher than the pay-as-you-go cost because it includes recognition of employer costs expected to be paid in future accounting periods.

FY 2024 (Projected)	Total	St. Clair County	Mental Health	Road Commission
Discount rate	5.25%	5.25%	5.25%	5.25%
Payroll growth factor used for amortization <sup>3</sup>	Varies	N/A	3.5%	3.5%
Actuarial cost method	Entry Age Normal Level % of Salary	Entry Age Normal Level % of Salary	Entry Age Normal Level % of Salary	Entry Age Normal Level % of Salary
Amortization type	Varies	Level Dollar	Level % of Pay	Level % of Pay
Amortization period	6 years	6 years	6 years	6 years
Expected AAL as of January 1, 2024	\$ 67,110,132	\$ 45,097,769	\$ 12,758,670	\$ 9,253,693
Expected AVA as of January 1, 2024 <sup>8</sup>	(62,690,249)	(30,167,107)	(24,222,201)	(8,300,940)
Expected unfunded AAL as of January 1, 2024	\$ 4,419,883	\$ 14,930,662	\$ (11,463,531)	\$ 952,752
Funded Ratio	93.4%	66.9%	189.8%	89.7%
Normal cost as of beginning of year	\$ 1,039,445	\$ 679,200	\$ 248,197	\$ 112,049
Reduction for employee contributions	(448,540)	(367,273)	(81,267)	0
Net normal cost	\$ 590,905	\$ 311,927	\$ 166,930	\$ 112,049
Amortization of UAAL	991,216	2,817,255	(1,991,561)	165,522
Total normal cost plus amortization	\$ 1,582,121	\$ 3,129,182	\$ (1,824,631)	\$ 277,571
Interest to end of year	83,061	164,282	(95,793)	14,572
Actuarially Determined Contribution (ADC) - Preliminary	\$ 1,665,182	\$ 3,293,464	\$ (1,920,424)	\$ 292,143
<b>Final Recommended ADC<sup>9</sup></b>	<b>\$ 4,132,973</b>	<b>\$ 3,293,464</b>	<b>\$ 248,197</b>	<b>\$ 591,313</b>

<sup>8</sup> Estimated as of January 1, 2024.

<sup>9</sup> If fully-funded under the long-term expected discount rate, as shown above for the Mental Health group, an entity could contribute \$0. However, for long-term sustainability purposes, Nyhart would recommend contributing the normal cost plus interest for years in which that entity is fully funded.

# Discussion of Discount Rates

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## St. Clair County as of December 31, 2021

Under GASB 74, for purposes of calculating the Actuarially Determined Contribution (ADC), the discount rate used in valuing OPEB liabilities for funded plans as of the Measurement Date must be based on the long-term expected rate of return on OPEB plan investments that are expected to be used to finance future benefit payments.

The long-term expected rate of return on OPEB plan investment is assumed to be 5.25%. This was determined using a building block method in which expected future real rates of return (expected returns, net of OPEB plan investment expense and inflation) are developed for each major asset class. These expected future real rates of return are then combined to produce the long-term expected rate of return by weighting them based on the target asset allocation percentage and adding in expected inflation (2.00%). The best estimates of arithmetic nominal rates of return over a 30-year horizon for each major asset class included in the OPEB Plan's target asset allocation as of December 31, 2021 are summarized in the following table (provided by the County's asset advisor).

Asset Class	Target Allocation	L/T Expected ROR
Fixed Income	48.00%	3.00%
Domestic Equity	40.00%	8.00%
International Equity	7.50%	9.00%
Real Estate	2.50%	6.30%
Cash	2.00%	2.00%
Total	100.00%	

# Summary of Plan Participants

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St. Clair County as of December 31, 2021

## Active Employees

Actives	Total	Avg. Age	Avg. Svc	Salary
St. Clair County	261	50.9	19.4	\$ 16,679,446
Mental Health Authority	136	50.1	14.2	\$ 8,904,798
Road Commission	40	54.0	23.0	\$ 2,629,999
<b>Total actives</b>	<b>437</b>	<b>50.9</b>	<b>18.1</b>	<b>\$ 28,214,243</b>

Active enrollment above includes employees that are eligible for retiree health benefits only. Employees hired after the cut-off date as noted on pages 19 and 20 of this report are not eligible for retiree health benefits.

# Summary of Plan Participants

St. Clair County as of December 31, 2021

## Active Age-Service Distribution

All Groups (including those eligible for retiree health benefits only)

Age	Years of Service										Total	
	< 1	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 & up		
Under 25												0
25 to 29												0
30 to 34			5	2								7
35 to 39			10	13	13							36
40 to 44			8	15	41	5	1					70
45 to 49			7	13	37	22	3					82
50 to 54			4	16	32	29	19	2				102
55 to 59			5	9	21	27	4	5	6			77
60 to 64			4	8	19	9	4		1			45
65 to 69			1	2	3	3	1	1				11
70 & up			1	1	2			1	1	1		7
<b>Total</b>	<b>0</b>	<b>0</b>	<b>45</b>	<b>79</b>	<b>168</b>	<b>95</b>	<b>32</b>	<b>9</b>	<b>8</b>	<b>1</b>		<b>437</b>



# Summary of Plan Participants

St. Clair County as of December 31, 2021

## Active Age-Service Distribution (Continued)

St. Clair County (including those eligible for retiree health benefits only)

Age	Years of Service										Total
	< 1	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 & up	
Under 25											0
25 to 29											0
30 to 34				1							1
35 to 39				9	10						19
40 to 44				11	35	4	1				51
45 to 49				7	24	16	1				48
50 to 54				6	20	20	10	2			58
55 to 59				4	17	16	2	4	5		48
60 to 64				4	13	7	2				26
65 to 69				2	3	1	1				7
70 & up					1			1		1	3
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>44</b>	<b>123</b>	<b>64</b>	<b>17</b>	<b>7</b>	<b>5</b>	<b>1</b>	<b>261</b>

# Summary of Plan Participants

St. Clair County as of December 31, 2021

## Active Age-Service Distribution (Continued)

**Mental Health Authority** (including those eligible for retiree health benefits only)

Age	Years of Service										Total
	< 1	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 & up	
Under 25											0
25 to 29											0
30 to 34			5								5
35 to 39			10	4	2						16
40 to 44			8	4	4	1					17
45 to 49			7	6	9	4					26
50 to 54			4	10	11	4	6				35
55 to 59			5	5	3	5					18
60 to 64			4	4	5	1					14
65 to 69			1					1			2
70 & up			1	1					1		3
<b>Total</b>	<b>0</b>	<b>0</b>	<b>45</b>	<b>34</b>	<b>34</b>	<b>15</b>	<b>6</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>136</b>

# Summary of Plan Participants

St. Clair County as of December 31, 2021

## Active Age-Service Distribution (Continued)

**Road Commission** (including those eligible for retiree health benefits only)

Age	Years of Service										Total
	< 1	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 & up	
Under 25											0
25 to 29											0
30 to 34				1							1
35 to 39					1						1
40 to 44					2						2
45 to 49					4	2	2				8
50 to 54					1	5	3				9
55 to 59					1	6	2	1	1		11
60 to 64					1	1	2		1		5
65 to 69						2					2
70 & up					1						1
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>11</b>	<b>16</b>	<b>9</b>	<b>1</b>	<b>2</b>	<b>0</b>	<b>40</b>

# Summary of Plan Participants

St. Clair County as of December 31, 2021

## Inactives

	Retirees <sup>10</sup>		Terminated Vested <sup>11</sup>	
	Total	Avg. Age	Total	Avg. Age
St. Clair County	365	72.1	33	54.8
Mental Health Authority	81	71.1	22	54.1
Road Commission	116	73.4	6	54.3
<b>Total</b>	<b>562</b>	<b>72.2</b>	<b>61</b>	<b>54.5</b>

## Retiree Age Distribution

Age	Retirees
< 45	
45 to 49	
50 to 54	8
55 to 59	34
60 to 64	84
65 to 69	106
70 to 74	135
75 to 79	94
80 to 84	48
85 to 89	29
90 & up	24
<b>Total</b>	<b>562</b>

<sup>10</sup> Includes disabled retirees and beneficiaries but excludes all those without coverage.

<sup>11</sup> Out of 83 terminated vested employees, 22 of them are not eligible for retiree health benefits. Those 22 ineligible participants are not included above.

# Substantive Plan Provisions

St. Clair County as of December 31, 2021

## Eligibility

Retiree health benefits eligibility requirements:

1. Original Plan members – earlier of:
  - a. Age 55 (or age 50 for Sheriff) with 25 years of service
  - b. Age 60 with 8 years of service
  - c. 25 years of service and 80 points
2. Modified Plan members – earlier of:
  - a. Age 55 (or age 50 for Sheriff) with 25 years of service
  - b. Age 60 with 20 years of service
  - c. 25 years of service and 80 points

Employees hired after the eligibility cut-off date shown below are not eligible for retiree health benefits.

Union Code	Union Name	Retiree Health Eligibility Cut-Off Date
CBSO	Bailiff and Court Security Officers Association	Hired after 7/1/2012
	Road Commission	
RC	Production and Op Eng	Hired after 9/14/2011
	Clerical and TPOAM	Hired after 8/23/2011
CDCO	Communication Officers POAM	
FOCP	Friend of the Court Supervisors	Hired after 7/1/2011
PCCL	Probate Clerical	
SDEI	Correction Officers and Support Staff	Hired after 10/21/2009
PSE	Public Service Employees	Hired after 6/29/2011
FOCE	Friend of the Court	Hired after 5/11/2011
PCJC	Probate Court Juvenile Counselors	Hired after 12/16/2009
DCE	District Court AFSCME	Hired after 8/19/2009
CMH	Mental Health	Hired after 1/1/2016
SDEE	Sheriff's Deputies	Hired after 1/6/2011

# Substantive Plan Provisions

St. Clair County as of December 31, 2021

## Eligibility (continued)

Employees hired after the eligibility cut-off date shown below are not eligible for retiree health benefits.

Union Code	Union Name	Retiree Health Eligibility Cut-Off Date
BDMB	Board Member	
CANUE	CANUE Non-Affiliated	
COMM	Commissioners	
SDCO	Correction Officers Supervisors	
ELEC	Elected Officials	
HRE	Human Resources Clerks and Specialists	
JDGS	Judges	Hired after 1/1/2009
PCSP	Probate Court Supervisors	
PAPE	Prosecuting Attorneys	
PHNS	Public Health Nurse Supervisors	
PHNA	Public Health Nurses	
CPEA	Circuit Court Probate Court Employee Associates	
SDSP	Sheriff Deputies Supervisors	Based on lower unit cut-off date

## Terminated Vested Employees

Employees who terminated employment with vested pension benefits are eligible for retiree health benefits commencing at age 55 if they have at least 25 years of service at termination or at age 60 if they have fewer than 25 years of service at termination. Upon benefits commencement, contribution requirements follow regular retirees.

## Disability Retirement

Employees disabled in the line of duty are eligible for retiree health benefits without any age or service requirement. Employees disabled under any other circumstances are eligible for retiree health benefits if they have at least ten years of service at time of disability. Retiree contribution requirements follow regular retirees.

## Spouse Benefit

Surviving spouse can continue coverage upon death of the retiree or active employees who have at least ten years of service at time of death. Surviving spouse contribution requirement follows member's contribution requirements prior to their death.

# Substantive Plan Provisions

St. Clair County as of December 31, 2021

## Health Care Trust Contributions

Health Care Trust contribution requirements as a % of salary while actively employed are as shown below:

Union Code	Union Name	Eff. 1/1/2017
CBSO	Bailiff and Court Security Officers Association	
COMM	Commissioners	
ELEC	Elected Officials	
JDGS	Judges	
CDCO	Communication Officers POAM	
SDEI	Correction Officers and Support Staff	
SDCO	Correction Officers Supervisors	
FOCE	Friend of the Court	
FOCP	Friend of the Court Supervisors	
PCCL	Probate Clerical	
PCJC	Probate Court Juvenile Counselors	2.50%*
PCSP	Probate Court Supervisors	
PAPE	Prosecuting Attorneys	
SDEE	Sheriff Deputies	
SDSP	Sheriff Deputies Supervisors	
CPEA	Circuit Court Probate Court Employee Associates	
PSE	Public Service Employees	
BDMB	Board Member	
CANUE	CANUE Non-Affiliated	
DCE	District Court AFSCME	
HRE	Human Resources Clerks and Specialists	
CMH	Mental Health	2.00%
PHNS	Public Health Nurse Supervisors	2.50%
PHNA	Public Health Nurses	

\* Limited to the first \$50,000 of salary.

Road Commission employees are not required to contribute to the Health Care Trust.

# Substantive Plan Provisions

St. Clair County as of December 31, 2021

## Retiree Contributions

Employees are eligible for retiree health benefits if they meet all of the following requirements:

1. Original Plan members – have at least 8 years of service at retirement and contribute to Health Care Trust (HCT) while actively employed if it's required in their Collective Bargaining Unit (CBA).
2. Modified Plan members – have at least 20 years of service at retirement and contribute to HCT while actively employed if it's required in their CBA.

Any employees may purchase retiree health benefits at retirement if they have at least 11 years of service at retirement regardless of whether they contribute to HCT while actively employed.

## Medical Benefit

All health plans are self-insured except for the Medicare Advantage plan. The monthly retiree illustrative rates for medical and prescription drug benefits (excluding dental) by suffix are as shown below. These illustrative rates are calculated based on the blended claims experience for active employees and retirees.

Pre-65 Suffix <sup>12</sup>	Group (Non-Hardship)	Eff. 1/1/2022	
		Single	2-person
900/40/54/2000	St. Clair County Retirees	\$ 559.21	\$ 1,342.12
920/44/56/2002	Mental Health Retirees	\$ 559.21	\$ 1,342.12
910/42/55/2001	Road Commission Retirees	\$ 559.21	\$ 1,342.12

Post-65 (Medicare Advantage Plan)		Rates Per Person	
Suffix	Group	Eff. 1/1/2021	Eff. 1/1/2022
600/601/602	Non-Hardship Retirees	\$ 105.61	\$ 105.61

## Dental Benefit

Dental monthly illustrative rates effective for all ages on January 1 for all locations are as shown below.

	Single	2-person
1/1/2022	\$ 23.31	\$ 44.34

<sup>12</sup> There are separate illustrative rates for hardship retirees. Hardship retirees are those with annual household incomes of \$24,999 or less and have at least 20 years of service at retirement. Annual household income means any and all income (taxable or not) received by a retired member and/or their spouse residing in the same household. For purposes of this valuation, all retirees are assumed to be non-hardship.



# Actuarial Methods and Assumptions

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## St. Clair County as of December 31, 2021

The actuarial assumptions used in this report represent a reasonable long-term expectation of future OPEB outcomes. As national economic and County experience change over time, the assumptions will be tested for ongoing reasonableness and, if necessary, updated.

The discount rate, other economic assumptions, and demographic assumptions have been selected by the Plan Sponsor with the concurrence of Nyhart. In our opinion, the actuarial assumptions are individually reasonable and in combination represent our estimate of anticipated experience of the Plan. All calculations have been made in accordance with generally accepted actuarial principles and practice.

There have been changes to the actuarial methods and assumptions since the last GASB valuation, which was as of December 31, 2020. Please refer to the Detailed Actuary's Notes in the appendix for complete information on these changes. For the current year GASB valuation, we have also updated the per capita costs.

### Measurement Date

For fiscal year ending December 31, 2021, December 31, 2021 measurement date was used.

### Actuarial Valuation Date

December 31, 2021. Liabilities as of January 1, 2023 are based on an actuarial valuation date of December 31, 2021 with results projected on a "no gain/no loss" basis to January 1, 2023.

### Discount Rate

5.25% as of January 1, 2021 and 5.25% as of December 31, 2021 for funding disclosure purposes (in calculating the Actuarially Determined Contribution)  
Refer to the Discussion of Discount Rates section for more information on selection of the discount rate.

### Payroll Growth

The assumptions from these state-wide valuations provide reasonable estimates of experience for municipal employers such as St. Clair County. 2.25% for general inflation plus merit increases as follows (based on the December 2019 Pension Experience Study).

<b>YOS</b>	<b>Rates</b>
0 - 1	4.75%
2	3.75%
3	2.75%
4	1.75%
5	0.75%
6+	0.00%

### Inflation Rate

2.25% per year (wage inflation for payroll growth assumption)  
2.00% per year (expected inflation on OPEB plan investments, as provided by County's investment advisor)

The inflation rate is based on the current economic environment and future expectations.

# Actuarial Methods and Assumptions

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St. Clair County as of December 31, 2021

## Cost Method

Allocation of Actuarial Present Value of Future Benefits for services prior and after the Measurement Date was determined using Entry Age Normal Level % of Salary method where:

- Service Cost for each individual participant, payable from date of employment to date of retirement, is sufficient to pay for the participant's benefit at retirement; and
- Annual Service Cost is a constant percentage of the participant's salary that is assumed to increase according to the Payroll Growth.

## Census Data

Census information was provided by the County as of April 2022. We have reviewed it for reasonableness and no material modifications were made.

## Employer Funding Policy

Partial pre-funding at the County's discretion

## Asset Valuation Method

Actuarial value of assets with a five-year smoothing

## Disability

Annual sample rates are as shown below. Disability benefit is only valued for the Sheriff group (CDCO, SDEI, SDCO, SDEE, and SDSP unions) and 25% of disability is assumed to be duty-related. The assumptions from these state-wide valuations provide reasonable estimates of experience for municipal employers such as St. Clair County.

<u>Age</u>	<u>Rates</u>	<u>Age</u>	<u>Rates</u>
20	0.08%	45	0.27%
25	0.08%	50	0.49%
30	0.08%	55	0.89%
35	0.08%	60	1.41%
40	0.20%		

# Actuarial Methods and Assumptions

St. Clair County as of December 31, 2021

## Mortality

Group	Healthy Retirees	Disabled Retirees	Surviving Beneficiaries
General	Pub-2010 General Headcount-weighted Morality Table fully generational using scale MP-2021	Pub-2010 Non-Public Safety Headcount-weighted Disabled Morality Table fully generational using scale MP-2021	Pub-2010 General Headcount-weighted Morality Table fully generational using scale MP-2021
Sheriff	Pub-2010 Public Safety Headcount-weighted Morality Table fully generational using scale MP-2021	Pub-2010 Public Safety Headcount-weighted Disabled Morality Table fully generational using scale MP-2021	Pub-2010 General Headcount-weighted Morality Table fully generational using scale MP-2021
Mental Health	Pub-2010 General Headcount-weighted Morality Table fully generational using scale MP-2021	Pub-2010 Non-Public Safety Headcount-weighted Disabled Morality Table fully generational using scale MP-2021	Pub-2010 General Headcount-weighted Morality Table fully generational using scale MP-2021
Road Commission	RPH-2006 Blue Collar Mortality Table fully generational using scale MP-2021	RPH-2006 Disabled Mortality Table fully generational using scale MP-2021	Pub-2010 General Headcount-weighted Morality Table fully generational using scale MP-2021

## Turnover Rate

Assumption used to project terminations (voluntary and involuntary) prior to meeting minimum retirement eligibility for retiree health coverage. The rates represent the probability of termination in the next 12 months. These are based on the December 2019 Pension Experience Study. The assumptions from these state-wide valuations provide reasonable estimates of experience for municipal employers such as St. Clair County.

YOS	General / Mental Health	Sheriff	Road Commission
0	15.0%	5.0%	2.0%
1 – 5	9.0%	5.0%	2.0%
6+	4.0% <sup>13</sup>	2.0%	2.0%

<sup>13</sup> Annual turnover rate before age 45 for employees with at least 6 years of service is 6.0%.

# Actuarial Methods and Assumptions

St. Clair County as of December 31, 2021

## Retirement Rate

Annual rates of retirement by group are as shown below, based on the December 2019 Pension Experience Study:

Age	General / Mental Health	Road Commission	Sheriff <sup>14</sup>					
			Age	<25 YOS	25 YOS	26 - 27 YOS	28 - 29 YOS	30+ YOS
50 - 54	20%	25%	40 - 59	0%	50%	15%	25%	100%
55 - 59	40%	25%	60 - 61	15%	15%	15%	15%	100%
60	20%	15%	62	40%	40%	40%	40%	100%
61	20%	15%	63 - 64	20%	20%	20%	20%	100%
62	20%	40%	65+	100%	100%	100%	100%	100%
63	30%	20%						
64	35%	20%						
65	35%	100%						
66 - 69	25%	100%						
70+	100%	100%						

<sup>14</sup> Applies to CDCO, SDEI, SDCO, SDEE, and SDSP unions.

# Actuarial Methods and Assumptions

St. Clair County as of December 31, 2021

## Health Care Trend Rates

FYE	Pre-Medicare Rates	Post-Medicare Rates
2022	7.5%	6.50%
2023	7.0%	6.25%
2024	6.5%	6.00%
2025	6.0%	5.75%
2026	5.5%	5.50%
2027	5.0%	5.25%
2028	4.5%	5.00%
2029	4.5%	4.75%
2030+	4.5%	4.50%

The initial trend rate was based on a combination of employer history, national trend surveys, and professional judgment.

The ultimate trend rate was selected based on historical medical CPI information.

\* Annual health care trend rates for the Medicare Advantage plan for FYE 2022-2023 are based on projected premium increases due to plan design changes, which is -32.7% from 2022 to 2023 for all entities.

## Retiree Contributions

Retiree contributions are assumed to increase according to health care trend rates.

## Health Care Coverage Election Rate

Active employees eligible for retiree health benefits are assumed to elect coverage according to the table below, which is based on the December 2019 OPEB Experience Study:

Group	Rates
County General	90%
County Police	80%
Mental Health	75%
Road Commission	85%

All retirees that currently have coverage are assumed to continue coverage in the future.  
All retirees that currently have no coverage are assumed never to elect coverage in the future.

## Spousal Coverage

Spousal coverage and age for current retirees is based on actual data. 75% of male and 60% of female employees are assumed to be married at retirement, based on the December 2019 OPEB Experience Study. Husbands are assumed to be three years older than wives.

# Actuarial Methods and Assumptions

St. Clair County as of December 31, 2021

## Per Capita Costs<sup>15</sup>

Annual per capita costs were calculated based on the County's non-hardship illustrative rates effective on January 1, 2022 actuarially increased using health index factors and current enrollment. The costs are assumed to increase with health care trend rates. Annual per capita costs applicable to all groups are as shown below:

Age	Male	Female
< 55	\$ 6,700	\$ 7,700
55 - 59	\$ 9,100	\$ 8,800
60 - 64	\$ 11,900	\$ 10,700
65 - 69	\$ 900	\$ 900
70 - 74	\$ 1,200	\$ 1,200
75 - 79	\$ 1,400	\$ 1,400
80+	\$ 1,600	\$ 1,600

Annual dental per capita costs are \$280 and they are assumed to increase with dental trend rates.

## Explicit Subsidy

The difference between (a) the illustrative rate and (b) the retiree contribution. Below is an example of the monthly explicit subsidies for a County retiree in the Modified plan enrolled in the non-hardship plan with 20 years of service at retirement.

	Illustrative Rate	Retiree Contribution	Explicit Subsidy
	A	B	C = A - B
Retiree	\$ 559.21	\$ 0.00	\$ 559.21
Spouse	\$ 782.91	\$ 0.00	\$ 782.91

The per capita costs represent the cost of coverage for a retiree-only population.

Actuarial standards require the recognition of higher inherent costs for a retired population versus an active population.

<sup>15</sup> Nyhart used the 2022 County's illustrative rates without adjustment in our calculations. The rates were provided by BCBS and were assumed to represent the expected cost of claims and administrative expenses under the self-insured health plan. To the extent the rates do not reflect the full cost of coverage, our actuarial results will need to be revisited. Common reasons for rates not reflecting the full costs are (1) use of asset reserves to pay a portion of the expected costs which leads to lower rates than required based on claims experience and (2) use of maximum claim exposure under the plan's aggregate stop-loss policy to set rates which overstate the expected costs for GASB 74/75 purposes.

# Actuarial Methods and Assumptions

St. Clair County as of December 31, 2021

## Implicit Subsidy

The difference between (a) the per capita cost and (b) the illustrative rate. Below is an example of the monthly implicit subsidies for a male County retiree age 60 in the Modified plan enrolled in the non-hardship plan with a spouse of the same age.

	Per Capita Cost	Premium Rate	Implicit Subsidy
	A	B	C = A - B
Retiree	\$ 991.67	\$ 559.21	\$ 432.46
Spouse	\$ 891.67	\$ 782.91	\$ 108.76

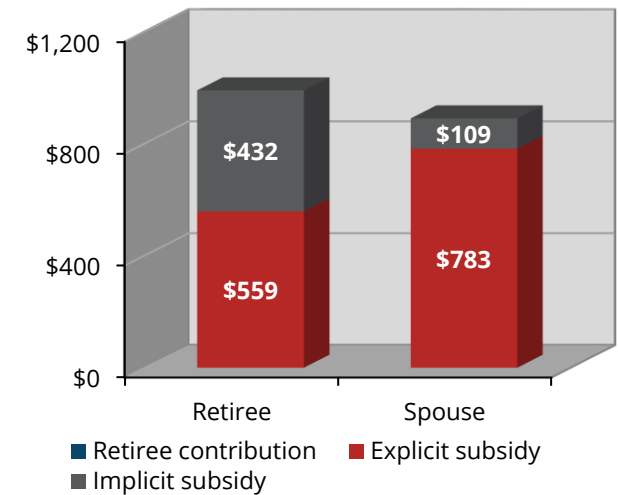
All employers that utilize premium rates based on blended active/retiree claims experience will have an implicit subsidy. There is an exception for Medicare plans using a true community-rated premium rate.

## GASB Subsidy Breakdown

Below is a breakdown of the GASB 45 monthly total cost for a male County retiree age 60 in the Modified plan and his / her spouse of the same age enrolled in the non-hardship plan.

	Retiree	Spouse
Retiree contribution	\$ 0.00	\$ 0.00
Explicit subsidy	\$ 559.21	\$ 782.91
Implicit subsidy	\$ 432.46	\$ 108.76
Total monthly cost	\$ 991.67	\$ 891.67

GASB Subsidy Breakdown



# APPENDIX

The background features a complex geometric design. It consists of several overlapping, semi-transparent shapes. A large, solid red shape is prominent in the lower right quadrant. To its left, there are various shades of gray and white shapes, some of which are semi-transparent, creating a layered effect. The overall composition is clean and modern, with sharp lines and a limited color palette.



# Appendix

St. Clair County as of December 31, 2021

## Comparison of Participant Demographic Information

The active participants' number below may include active employees who currently have no health care coverage. Refer to the Summary of Participants section for an accurate breakdown of active employees with and without coverage.

	<i>As of December 31, 2021</i>	<i>As of December 31, 2021</i>
Active Participants	473	437
Retired Participants <sup>16</sup>	586	562
Averages for Active		
Age	50.6	50.9
Service	17.4	18.1
Salary	\$ 64,763	\$ 64,563
Averages for Inactive		
Age	72.0	72.2

<sup>16</sup> Retired participants' enrollment includes only those who have medical coverage.

# Appendix

St. Clair County as of December 31, 2021

## Detailed Actuary's Notes

There have been no substantive plan provision changes since the last full valuation, which was as of December 31, 2020.

However, the following assumptions have also been updated:

1. Mortality generational improvement scales have been updated from MP-2020 to MP-2021:

Group	Healthy Retirees	Disabled Retirees	Surviving Beneficiaries
General	Pub-2010 General Headcount-weighted Morality Table fully generational using scale MP-2021	Pub-2010 Non-Public Safety Headcount-weighted Disabled Morality Table fully generational using scale MP-2021	Pub-2010 General Headcount-weighted Morality Table fully generational using scale MP-2021
Sheriff	Pub-2010 Public Safety Headcount-weighted Morality Table fully generational using scale MP-2021	Pub-2010 Public Safety Headcount-weighted Disabled Morality Table fully generational using scale MP-2021	Pub-2010 General Headcount-weighted Morality Table fully generational using scale MP-2021
Mental Health	Pub-2010 General Headcount-weighted Morality Table fully generational using scale MP-2021	Pub-2010 Non-Public Safety Headcount-weighted Disabled Morality Table fully generational using scale MP-2021	Pub-2010 General Headcount-weighted Morality Table fully generational using scale MP-2021
Road Commission	RPH-2006 Blue Collar Mortality Table fully generational using scale MP-2021	RPH-2006 Disabled Mortality Table fully generational using scale MP-2021	Pub-2010 General Headcount-weighted Morality Table fully generational using scale MP-2021

The impact of this change is a slight increase in liabilities.

2. Pre-65 health care trend rates have been reset to an initial rate of 7.5% decreasing by 0.5% annually to an ultimate rate of 4.5%. Additionally, the post-65 trend has been updated to an initial rate of 6.5% decreasing by 0.25% annually to an ultimate rate of 4.5%. The impact of this change was an increase in liabilities.

In addition, actual Medicare Advantage premium changes for FYE 2022/23 and per capita claims costs were reflected, resulting in a significant decrease in liabilities. The updated census data resulted in a slight decrease in liabilities.

# Appendix

St. Clair County as of December 31, 2021

## Actuarial Value of Asset Allocations by Group

2021		Total	St. Clair County	Mental Health	Road Commission
A.	Actuarial Value of Assets as of BOY	\$ 50,522,707	\$ 25,918,525	\$ 20,006,358	\$ 4,597,824
B.	Employee contributions	378,810	297,250	81,560	0
C.	Employer contributions	2,922,597	1,306,023	216,171	1,400,403
D.	Benefit payments (including employee refunds)	(3,675,146)	(1,978,269)	(1,023,684)	(673,193)
E.	Professional expenses	(167,371)	(85,862)	(66,277)	(15,232)
F.	Investment income allocation	4,870,007	2,489,470	1,900,456	480,081
G.	Actuarial Value of Assets as of EOY	\$ 54,851,604	\$ 27,947,137	\$ 21,114,584	\$ 5,789,883

2022 (Projected)		Total	St. Clair County	Mental Health	Road Commission
A.	Actuarial Value of Assets as of BOY	\$ 54,851,604	\$ 27,947,137	\$ 21,114,584	\$ 5,789,883
B.	Expected employee contributions	357,684	266,173	91,511	0
C.	Expected employer contributions	2,504,398	797,398	282,000	1,425,000
D.	Expected benefit payments (including employee refunds)	(3,698,749)	(2,369,958)	(636,786)	(692,005)
E.	Professional expenses	(188,824)	(96,207)	(72,686)	(19,931)
F.	Investment income allocation	4,667,501	2,340,314	1,799,233	527,954
G.	Actuarial Value of Assets as of EOY	\$ 58,493,614	\$ 28,884,857	\$ 22,577,856	\$ 7,030,901

2023 (Projected)		Total	St. Clair County	Mental Health	Road Commission
A.	Actuarial Value of Assets as of BOY	\$ 58,493,614	\$ 28,884,857	\$ 22,577,856	\$ 7,030,901
B.	Estimated employee contributions	499,707	419,104	80,603	0
C.	Estimated employer contributions <sup>17</sup>	2,694,670	1,096,086	186,298	1,412,285
D.	Expected benefit payments (including employee refunds)	(4,536,015)	(2,930,423)	(761,424)	(844,168)
E.	Professional expenses	(195,581)	(96,580)	(75,492)	(23,509)
F.	Investment income allocation	5,733,854	2,794,063	2,214,360	725,431
G.	Actuarial Value of Assets as of EOY	\$ 62,690,249	\$ 30,167,107	\$ 24,222,201	\$ 8,300,940

<sup>17</sup> Estimated based on the prior three years of experience (2020, 2021, and projected 2022). This will need to be updated once actual values are available.

# GLOSSARY

The background features a complex geometric design. It consists of several overlapping, semi-transparent shapes. A large, solid red shape is prominent in the lower right quadrant. To its left, there are various shades of gray and white shapes, some of which are semi-transparent, creating a layered effect. The overall composition is clean and modern.

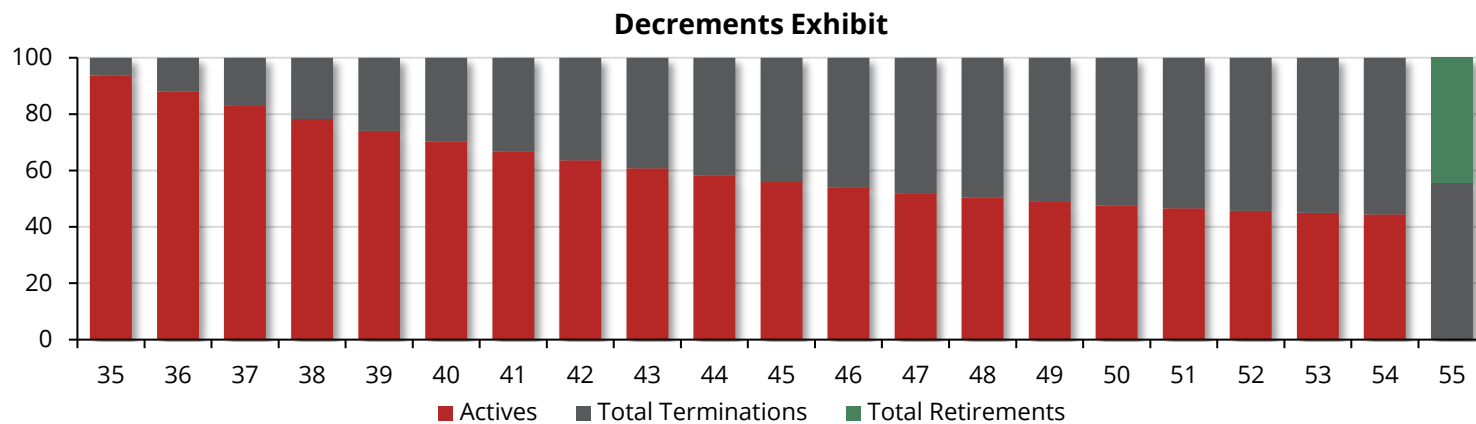
# Glossary – Decrements Exhibit

St. Clair County as of December 31, 2021

The table below illustrates how actuarial assumptions can affect a long-term projection of future liabilities. Starting with 100 employees at age 35, the illustrated actuarial assumptions show that 44.43 employees out of the original 100 are expected to retire and could elect retiree health benefits at age 55.

Age	# Remaining Employees	# of Terminations per Year <sup>18</sup>	# of Retirements per Year	Total Decrements
35	100.000	6.276	0.000	6.276
36	93.724	5.677	0.000	5.677
37	88.047	5.136	0.000	5.136
38	82.911	4.648	0.000	4.648
39	78.262	4.209	0.000	4.209
40	74.053	3.814	0.000	3.814
41	70.239	3.456	0.000	3.456
42	66.783	3.131	0.000	3.131
43	63.652	2.835	0.000	2.835
44	60.817	2.564	0.000	2.564
45	58.253	2.316	0.000	2.316

Age	# Remaining Employees	# of Terminations per Year	# of Retirements per Year	Total Decrements
46	55.938	2.085	0.000	2.085
47	53.853	1.866	0.000	1.866
48	51.987	1.656	0.000	1.656
49	50.331	1.452	0.000	1.452
50	48.880	1.253	0.000	1.253
51	47.627	1.060	0.000	1.060
52	46.567	0.877	0.000	0.877
53	45.690	0.707	0.000	0.707
54	44.983	0.553	0.000	0.553
55	44.430	0.000	44.430	44.430



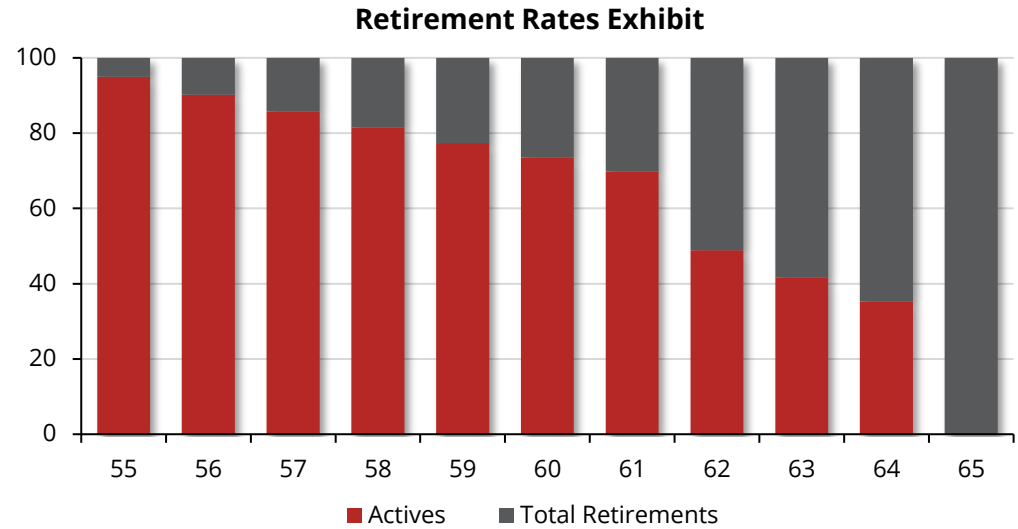
<sup>18</sup> The above rates are illustrative rates and are not used in our GASB calculations.

# Glossary – Retirement Rates Exhibit

St. Clair County as of December 31, 2021

The table below illustrates how actuarial assumptions can affect a long-term projection of future liabilities. The illustrated retirement rates show the number of employees who are assumed to retire annually based on 100 employees age 55 who are eligible for retiree health care coverage. The average age at retirement is 62.0.

Age	Active Employees BOY	Annual Retirement Rates*	# Retirements per Year	Active Employees EOY
55	100.000	5.0%	5.000	95.000
56	95.000	5.0%	4.750	90.250
57	90.250	5.0%	4.513	85.738
58	85.738	5.0%	4.287	81.451
59	81.451	5.0%	4.073	77.378
60	77.378	5.0%	3.869	73.509
61	73.509	5.0%	3.675	69.834
62	69.834	30.0%	20.950	48.884
63	48.884	15.0%	7.333	41.551
64	41.551	15.0%	6.233	35.318
65	35.318	100.0%	35.318	0.000



\* The above rates are illustrative rates and are not used in our GASB calculations.

# Glossary – Definitions

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St. Clair County as of December 31, 2021

GASB 75 defines several unique terms not commonly employed in the funding of pension and retiree health plans. The definitions of the terms used in the GASB actuarial valuations are noted below.

1. **Actuarial Assumptions** – Assumptions as to the occurrence of future events affecting health care costs, such as: mortality, withdrawal, disablement and retirement; changes in compensation and Government provided health care benefits; rates of investment earnings and asset appreciation or depreciation; procedures used to determine the Actuarial Value of Assets; characteristics of future entrants for Open Group Actuarial Cost Methods; and other relevant items.
2. **Actuarial Cost Method** – A procedure for determining the Actuarial Present Value of Future Benefits and expenses and for developing an actuarially equivalent allocation of such value to time periods, usually in the form of a Service Cost and a Total OPEB Liability.
3. **Actuarially Determined Contribution** - A target or recommended contribution to a defined benefit OPEB plan for the reporting period, determined in accordance with the parameters and in conformity with Actuarial Standards of Practice.
4. **Actuarial Present Value** – The value of an amount or series of amounts payable or receivable at various times, determined as of a given date by the application of a particular set of Actuarial Assumptions. For purposes of this standard, each such amount or series of amounts is:
  - a. adjusted for the probable financial effect of certain intervening events (such as changes in compensation levels, Social Security, marital status, etc.);
  - b. multiplied by the probability of the occurrence of an event (such as survival, death, disability, termination of employment, etc.) on which the payment is conditioned; and
  - c. discounted according to an assumed rate (or rates) of return to reflect the time value of money.
5. **Deferred Outflow / (Inflow) of Resources** – represents the following items that have not been recognized in the OPEB Expense:
  - a. Differences between expected and actual experience of the OPEB plan
  - b. Changes in assumptions
  - c. Differences between projected and actual earnings in OPEB plan investments (for funded plans only)
6. **Explicit Subsidy** – The difference between (a) the amounts required to be contributed by the retirees based on the premium rates and (b) actual cash contribution made by the employer.
7. **Funded Ratio** – The actuarial value of assets expressed as a percentage of the Total OPEB Liability.

# Glossary – Definitions

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St. Clair County as of December 31, 2021

8. **Healthcare Cost Trend Rate** – The rate of change in the per capita health claims costs over time as a result of factors such as medical inflation, utilization of healthcare services, plan design, and technological developments.
9. **Implicit Subsidy** – In an experience-rated healthcare plan that includes both active employees and retirees with blended premium rates for all plan members, the difference between (a) the age-adjusted premiums approximating claim costs for retirees in the group (which, because of the effect of age on claim costs, generally will be higher than the blended premium rates for all group members) and (b) the amounts required to be contributed by the retirees.
10. **OPEB** – Benefits (such as death benefits, life insurance, disability, and long-term care) that are paid in the period after employment and that are provided separately from a pension plan, as well as healthcare benefits paid in the period after employment, regardless of the manner in which they are provided. OPEB does not include termination benefits or termination payments for sick leave.
11. **OPEB Expense** – Changes in the Net OPEB Liability in the current reporting period, which includes Service Cost, interest cost, changes of benefit terms, expected earnings on OPEB Plan investments, reduction of active employees' contributions, OPEB plan administrative expenses, and current period recognition of Deferred Outflows / (Inflows) of Resources.
12. **Pay-as-you-go** – A method of financing a benefit plan under which the contributions to the plan are generally made at about the same time and in about the same amount as benefit payments and expenses becoming due.
13. **Per Capita Costs** – The current cost of providing postretirement health care benefits for one year at each age from the youngest age to the oldest age at which plan participants are expected to receive benefits under the plan.
14. **Present Value of Future Benefits** – Total projected benefits include all benefits estimated to be payable to plan members (retirees and beneficiaries, terminated employees entitled to benefits but not yet receiving them, and current active members) as a result of their service through the valuation date and their expected future service. The actuarial present value of total projected benefits as of the valuation date is the present value of the cost to finance benefits payable in the future, discounted to reflect the expected effects of the time value (present value) of money and the probabilities of payment. Expressed another way, it is the amount that would have to be invested on the valuation date so that the amount invested plus investment earnings will provide sufficient assets to pay total projected benefits when due.
15. **Real Rate of Return** – the rate of return on an investment after adjustment to eliminate inflation.



# Glossary – Definitions

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## St. Clair County as of December 31, 2021

16. **Select and Ultimate Rates** – Actuarial assumptions that contemplate different rates for successive years. Instead of a single assumed rate with respect to, for example, the investment return assumption, the actuary may apply different rates for the early years of a projection and a single rate for all subsequent years. For example, if an actuary applies an assumed investment return of 8% for year 20W0, then 7.5% for 20W1, and 7% for 20W2 and thereafter, then 8% and 7.5% select rates, and 7% is the ultimate rate.
17. **Service Cost** – The portion of the Actuarial Present Value of projected benefit payments that are attributed to a valuation year by the Actuarial Cost Method.
18. **Substantive Plan** – The terms of an OPEB plan as understood by the employer(s) and plan members.
19. **Total OPEB Liability** – That portion, as determined by a particular Actuarial Cost Method, of the Actuarial Present Value of Future Benefits which is attributed to past periods of employee service (or not provided for by the future Service Costs).