



TO: Plymouth District Library Board **DATE:** May 11, 2022
RE: 2021 VEBA Actuarial Report **FROM:** Shauna Anderson,
Director

We received the 2021 VEBA Actuarial Report from our contractors at Watkins Ross, which we are legally mandated to perform under regular intervals (by GASB and PA 202) to keep up with our long-term OPEB liabilities.

This report concludes that that our liabilities are decreasing, suggesting an actuarially defined contribution rate of \$0 for this fiscal year.

April 20, 2022

PERSONAL & CONFIDENTIAL

Shauna Anderson
Plymouth District Library
223 South Main Street
Plymouth, MI 48170-1687

RE: Plymouth District Library Voluntary Employees Beneficiary Association

Dear Shauna:

Transmitted via email, this is a copy of your OPEB accounting report for the fiscal year ending December 31, 2021. This information is intended to assist you in complying with Governmental Accounting Standards Board Statement No. 74 (GASB 74) Financial Reporting for Postemployment Benefit Plans Other than Pension Plans, and Statement No. 75 (GASB 75) Accounting and Financial Reporting for Postemployment Benefits Other than Pensions.

The State of Michigan under Public Act (PA) 202 requires that Other Post-Employment Benefit (OPEB) Plans covering 100 or more members have a peer review or change of actuaries once every 8 years. In addition, the Act requires an actuarial study be performed once every 5 years. Watkins Ross satisfies those requirements by virtue of having three credentialed OPEB actuaries on staff providing peer review for each other and, when necessary, rotating certification of our OPEB actuarial valuations. Additionally, Watkins Ross completes full actuarial valuations for all of our OPEB Plan clients once every two years including an analysis of the sources of actuarial gains and losses (actuarial experience study) and evaluates whether or not changes in assumptions are warranted (see Comments section of this report for more detail).

If you have any questions about this report, please call me at (616) 742-9244.

Sincerely,



Christian R. Veenstra, FCA, ASA, MAAA
President / Enrolled Actuary

Enclosure

Plymouth District Library Voluntary Employees Beneficiary Association

Accounting Report

for the Period Ending December 31, 2021
under GASB Statement 74 & 75



WATKINS ROSS | 200 OTTAWA AVE N.W. | SUITE 600 | GRAND RAPIDS, MI 49503 | 616.456.9696

Report presented by:



April 2022

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INTRODUCTION AND CERTIFICATION

The schedules included in this report have been prepared in order to provide the information necessary to comply with Governmental Accounting Standards Board (GASB) Statement Nos. 74 and 75. This information may, at the discretion of management of the plan sponsor and its auditor, be used for the preparation of its financial statements. The calculations herein have been made based on our understanding of GASB 74 and 75, and may be inappropriate for other purposes.

The calculations summarized in this report involve actuarial calculations that require assumptions about future events. We believe that the assumptions used in the report are within the range of possible assumptions that are reasonable and appropriate for the purposes for which they have been used. However, other assumptions are also reasonable and appropriate and their use would produce different results.

This report contains additional information and details related to plan provisions and recommended contribution calculations.

This report was prepared on the basis of participant data and asset values as reported to us by the plan sponsor. Watkins Ross relied upon the data as submitted, and has no reason to believe that any information, which would have a material effect on the results of this valuation, was not considered in the preparation of the report.

The actuary certifying this report represents himself as meeting the Qualification Standards of the American Academy of Actuaries to render actuarial opinions contained in the report.

Reviewed by:



Glen W. Bradley
Senior Pension Analyst

Prepared & Certified by:



Joseph Shackelford, ASA, MAAA
Actuary

COMMENTS

Purpose of Governmental Accounting Standards Board (GASB) Reporting

The objective of GASB is to provide guidelines and requirements for accounting and financial reporting by state and local governments for postemployment benefits other than pensions (OPEB). This statement establishes standards for recognizing and measuring liabilities, deferred inflows and outflows of resources and methods and assumptions that are required to be used to project benefit payments and discount those payments to their actuarial present value.

State of Michigan Public Act 202

Public Act 202 (PA 202) was drafted to address the underfunded status of pension and retiree healthcare plans of local governments in Michigan. Accordingly, PA 202 included transparency and funding requirements. In addition, in order that the plans' funded status be reported on a consistent basis, Uniform Assumptions were published. While all of the Uniform Assumptions have a sound and reasonable basis, some might not be appropriate for each plan and therefore may be different than what is used for funding. Additionally, some of the assumptions may differ from what is required for reporting under GASB.

PA 202 further requires that plans covering 100 or more Plan Members – active and inactive:

1. **At least every 5 years, the local unit of government (city, village, township, county, county road commission or other districts, authorities created by the state or 1 or more these entities) shall have an actuarial experience study conducted by the plan actuary for each retirement system of the local unit of government and**
2. **At least every 8 years, the local unit of government shall do at least 1 of the following:**
 - a. **Have a peer actuarial audit conducted by an actuary that is not the plan actuary**
 - b. **Replace the plan actuary**

Actuarial Experience Study – N/A; the plan has fewer than 100 participants

Gain/Loss analysis

There was an actuarial gain (decrease in liability) of \$140,832, primarily due to demographic changes and pre/post-Medicare medical premiums being 12.4%/15.5% lower than expected. The combination of actuarial assumption changes, described in the "Assumptions and Methods for Calculation of Actuarially Determined Contribution" section of this report, generated a decrease in liability of \$27,209.

Peer Review and rotation of Certifying Actuary

Current year Certifying Actuary: Joey Shackelford

Peer reviewed/change in Actuary: 12/31/2021

PLAN DESCRIPTION

Summary of Significant Accounting Policies

For purposes of measuring the net Other Post-Employment Benefits (OPEB) liability, deferred outflows of resources and deferred inflows of resources related to OPEB, and OPEB expenses, information about the fiduciary net position of the Plymouth District Library Voluntary Employees Beneficiary Association and additions to/deductions from the Employer's fiduciary net position have been determined on the same basis as they are reported by the Plymouth District Library. For this purpose, benefit payments (including refunds of employee contributions) are recognized when due and payable in accordance with the benefit terms. Investments are reported at fair value.

Plan Description

Plymouth District Library Voluntary Employees Beneficiary Association is a single employer plan established and administered by **Plymouth District Library** and can be amended at its discretion.

Benefits Provided

A summary of the benefits provided is available in the Plan Provisions section of the report.

Summary of Plan Participants

As of December 31, 2021, Retirement Plan membership consisted of the following:

| | |
|----------------------------|----|
| | |
| Active members | 15 |
| Inactive members | 1 |
| Retirees and beneficiaries | 8 |
| Total members | 24 |

Contributions

The Plymouth District Library Voluntary Employees Beneficiary Association was established and is being funded under the authority of the Employer. The plan's funding policy is that the employer will contribute any required amounts as determined by an annual actuarial valuation as a reference but not as a definitive requirement. Currently, benefit payments are made from the plan trust. There are no long-term contracts for contributions to the plan.

ASSUMPTIONS AND METHODS

The Plymouth District Library's OPEB liability was measured as of December 31, 2021.

Actuarial Assumptions

The total OPEB liability was determined by an actuarial valuation as of December 31, 2021. The following actuarial assumptions were used in the measurement:

| | |
|--------------------------------|--|
| Inflation | Included in the Investment Rate of Return |
| Salary increases | 3.00% (for purpose of allocating liability) |
| Investment rate of return | 7.04% (including inflation) |
| 20-year Aa Municipal bond rate | 2.25% (S&P Municipal Bond 20-Year High Grade Rate Index) |
| Mortality | 2010 Public General Employees and Healthy Retirees, Headcount weighted |
| Improvement Scale | MP-2021 |

The long-term expected rate of return on retirement plan investments was determined using a building-block method in which best-estimate ranges of expected future rates of return (expected returns, net of retirement plan investment expense, but including inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future rates of return by the target asset allocation percentage. Best estimates of arithmetic rates of return for each major asset class included in the retirement plan's target asset allocation are summarized in the following table:

| Asset Class | Target Allocation | Long-Term Expected Rate of Return |
|----------------------|-------------------|-----------------------------------|
| US Large Cap | 44.0% | 6.00% |
| US Small Cap | 11.0% | 6.40% |
| Foreign Equity | 12.0% | 7.00% |
| Taxable Fixed Income | 28.0% | 1.80% |
| Money Market | 5.0% | 1.00% |

The sum of each target allocation times its long-term expected rate, including inflation, is 7.04%.

Discount Rate

The discount rate used to measure the total OPEB liability was **7.04%**. The projection of cash flows used to determine the discount rate assumed that the Employer will make no further contributions to the trust. Based on this assumption, the retirement plan's fiduciary net position was projected to be sufficient to make all projected future benefit payments of current plan members. Therefore, the single equivalent discount rate was calculated to be equivalent to the investment rate of return. This discount rate is used to determine the Total OPEB Liability. As of December 31, 2019 the discount rate used to value OPEB liabilities was 7.00%.

RECONCILIATION AND RECOGNITION OF NET OPEB LIABILITY

Changes in the Net OPEB Liability

| | Total OPEB Liability (a) | Plan Fiduciary Net Position (b) | Net OPEB Liability (a) - (b) |
|--|--------------------------------|--|------------------------------------|
| Balance at December 31, 2020 | \$1,464,818 | \$2,587,807 | \$(1,122,989) |
| Changes during the Year | | | |
| Service Cost | 53,832 | | 53,832 |
| Interest | 102,602 | | 102,602 |
| Experience (Gains)/Losses | (140,832) | | (140,832) |
| Change in plan terms | 0 | | 0 |
| Change in actuarial assumptions | (27,209) | | (27,209) |
| Contributions to OPEB trust | | 0 | 0 |
| Contributions/benefit from general operating funds | | 58,153 | (58,153) |
| Employee Contributions | | 0 | 0 |
| Net Investment Income | | 413,689 | (413,689) |
| Benefit Payments; Including Refunds of Employee Contributions | (80,457) | (80,457) | 0 |
| Administrative Expenses | | (15,575) | 15,575 |
| Other Changes | | 0 | 0 |
| Total Changes | (92,064) | 375,810 | (467,874) |
| Balance at December 31, 2021 | \$1,372,754 | \$2,963,617 | \$(1,590,863) |

Net OPEB Liability – Discount and Trend Rate Sensitivities

The following presents the net OPEB liability (NOL) of the Employer, calculated using trend and discount rates 1% higher and lower than base assumptions:

| Discount | 1% Decrease | Current Rate | 1% Increase |
|-----------------------------|---------------|---------------|---------------|
| Total OPEB Liability | \$1,558,137 | \$1,372,754 | \$1,220,215 |
| Plan Fiduciary Net Position | 2,963,617 | 2,963,617 | 2,963,617 |
| Net OPEB Liability | \$(1,405,480) | \$(1,590,863) | \$(1,743,402) |

| Trend | 1% Decrease | Current Rate | 1% Increase |
|-----------------------------|---------------|---------------|---------------|
| Total OPEB Liability | \$1,203,657 | \$1,372,754 | \$1,582,225 |
| Plan Fiduciary Net Position | 2,963,617 | 2,963,617 | 2,963,617 |
| Net OPEB Liability | \$(1,759,960) | \$(1,590,863) | \$(1,381,392) |

RECONCILIATION AND RECOGNITION OF NET OPEB LIABILITY

OPEB Expense

Below are the components of the Total OPEB Expense:

| | Fiscal Year Ending 12/31/2021 |
|---|----------------------------------|
| Service Cost | \$53,832 |
| Interest on Total OPEB Liability | 102,602 |
| Experience (Gains)/Losses | (63,779) |
| Changes in Plan Terms | 0 |
| Changes in Assumptions | (112,893) |
| Employee Contributions | 0 |
| Projected Earnings on OPEB Plan Investments | (178,280) |
| Investment Earnings (Gains)/Losses | (138,032) |
| Administrative Expenses | 15,575 |
| Other Changes in Fiduciary Net Position | 0 |
| Total OPEB Expense | \$(320,975) |

OPEB Plan Fiduciary Net Position

The OPEB Plan Fiduciary Net Position as of December 31, 2021 is \$2,963,617.

Deferred Inflows and Outflows of Resources Related to OPEB Plan

| | Deferred Outflows Of Resources | Deferred Inflows Of Resources |
|------------------------------------|-----------------------------------|----------------------------------|
| Experience (Gains)/Losses | 20,735 | 237,392 |
| Changes of Assumptions | 27,036 | 171,278 |
| Investment Earnings (Gains)/Losses | 0 | 367,482 |
| Total | \$47,771 | \$776,152 |

Amounts reported as deferred outflows of resources and deferred inflows of resources related to OPEB will be recognized in OPEB expense as follows:

| Year Ended December 31, | Amount Recognized |
|----------------------------|----------------------|
| 2022 | \$(248,830) |
| 2023 | (232,377) |
| 2024 | (125,020) |
| 2025 | (70,323) |
| 2026 | (23,242) |
| Thereafter | (28,589) |

RECONCILIATION AND RECOGNITION OF NET OPEB LIABILITY

Reconciliation of Net OPEB Liability

| | Net OPEB Liability |
|---|----------------------|
| Net OPEB Liability December 31, 2020 | \$(1,122,989) |
| Total OPEB expense | (320,975) |
| Contributions | (58,153) |
| Change in deferred outflows of resources | (30,343) |
| Change in deferred inflows of resources | (58,403) |
| Net OPEB Liability December 31, 2021 | \$(1,590,863) |

Total OPEB Liability by Participant Status

| | Total OPEB Liability |
|-----------------------------|----------------------|
| Active participants | \$605,577 |
| Inactive participants | 0 |
| Retirees and beneficiaries | 767,177 |
| Total OPEB Liability | \$1,372,754 |

SCHEDULES OF REQUIRED SUPPLEMENTARY INFORMATION

Description of Actuarially Determined Contributions

Although not required as part of GASB reporting, we have included an Actuarially Determined Contribution in order to provide information for funding. This recommended contribution is designed to eventually fund your plan enough that you can pay retiree benefits directly from the trust instead of general operating funds. The amortization period is based on average future working years for active employees.

| Actuarially Determined Contribution (ADC) ¹ | Fiscal Year Ending December 31, | |
|--|---------------------------------|----------------|
| | 2022 | 2021 |
| Discount rate | 7.04% | 6.94% |
| Amortization period | 11 years | 9 years |
| Amortization method | Level % of pay | Level % of pay |
| Normal cost | 72,848 | 53,832 |
| Amortization of Net OPEB Liability | (174,010) | (141,705) |
| Interest to end of year | (7,122) | (6,098) |
| Total ADC | \$0 | \$0 |

PA 202 was issued by the State of Michigan and requires the calculation of other “contribution” amounts. These are

1. The Actuarially Determined Contribution (ADC) using Assumptions for financial reporting and
2. The minimum required amount to be deposited into an OPEB trust

The first of these contributions as shown above, \$0, is an amount required to be reported to the State of Michigan and may be used to determine whether a Corrective Action Plan (CAP) must be adopted if one hasn’t yet been implemented. *It is not a required contribution.*

The second of these numbers is the actual minimum amount the State of Michigan requires you to deposit into a trust and it is based on the normal cost (actuarially calculated) for those covered by your plan and hired after June 30, 2018. The 2021 normal cost for these new hires is \$46,166, and the 2022 normal cost for these new hires is \$46,019.

Accordingly, to the extent past contributions have been sufficient to cover the past service liability and normal cost for those hired after June 30, 2018, this contribution requirement has been met.

Plan funds are sufficient to make benefit payments from the OPEB trust.

¹ ADC for 2021 and 2022 is based on actuarial assumptions consistent with reporting as of December 31, 2021 and December 31, 2022, respectively.

SCHEDULES OF REQUIRED SUPPLEMENTARY INFORMATION

State of Michigan Public Acts 530 and 202 Information

| Financial information | 2021 |
|---|-----------|
| Assets (Fiduciary net position) | 2,963,617 |
| Liabilities (Total OPEB Liability) | 1,372,754 |
| Funded ratio for the Plan Year | 215.89% |
| Actuarially Determined Contribution | \$0 |
| Is ADC calculated in compliance with No. Letter 2018-3? | Yes |

| Membership | 2021 |
|--|----------|
| Number of active members | 15 |
| Number of inactive members | 1 |
| Number of retirees and beneficiaries | 8 |
| Premiums paid on behalf of the retirants | \$58,153 |

| Investment Performance |
|---|
| This information is available from the Investment Manager |

| Actuarial Assumptions | 2021 |
|---|----------------|
| Actuarially assumed rate of investment return | 7.04% |
| Discount rate | 7.04% |
| Amortization method used for funding unfunded liability | Level % of Pay |
| Amortization period used for funding unfunded liability | 9 years |
| Is each division closed to new employees | No |
| Healthcare inflation assumption next year | 7.50% |
| Healthcare inflation assumption - long term | 4.50% |

| Uniform Assumptions | 2021 |
|---|-----------|
| Actuarial value of assets using uniform assumptions | 2,963,617 |
| Actuarial accrued liability using uniform assumptions | 1,392,246 |
| Funded ratio using uniform assumptions | 212.87% |
| Actuarially Determined Contribution (ADC) using uniform assumptions | \$0 |

SCHEDULES OF REQUIRED SUPPLEMENTARY INFORMATION

Changes in Net OPEB Liability and Related Ratios

| Fiscal Year Ending | 12/31/2021 | 12/31/2020 | 12/31/2019 | 12/31/2018 | 12/31/2017 |
|---|----------------------|----------------------|--------------------|--------------------|------------------|
| Total OPEB Liability | | | | | |
| Service Cost | \$53,832 | \$52,819 | \$75,405 | \$94,042 | \$97,344 |
| Interest | 102,602 | 95,954 | 103,600 | 92,131 | 85,860 |
| Changes of Benefit Terms | 0 | 0 | 0 | 0 | (148,180) |
| Difference between Expected and Actual Experience | (140,832) | 43,964 | (257,855) | (11,433) | (13,595) |
| Change of Assumptions | (27,209) | 0 | (194,336) | (438,433) | 133,476 |
| Benefit Payments (Including Refunds of Employee Contributions) | (80,457) | (91,210) | (40,593) | (24,539) | (19,003) |
| Net Change in Total OPEB Liability | (92,064) | 101,257 | (313,779) | (288,232) | 135,902 |
| Total OPEB Liability – Beginning | 1,464,818 | 1,363,561 | 1,677,340 | 1,965,572 | 1,829,670 |
| Total OPEB Liability – Ending (a) | \$1,372,754 | \$1,464,818 | \$1,363,561 | \$1,677,340 | \$1,965,572 |
| Plan Fiduciary Net Position | | | | | |
| Contributions to OPEB trust | \$0 | \$62,723 | \$117,100 | \$118,216 | \$38,000 |
| Contributions/benefit payments made from general operating funds | 58,153 | 47,391 | 0 | 0 | 0 |
| Net Investment Income | 413,689 | 321,137 | 400,655 | (91,637) | 245,450 |
| Benefit Payments (Including Refunds of Employee Contributions) | (80,457) | (91,210) | (40,593) | (24,539) | (19,003) |
| Administrative Expenses | (15,575) | (13,545) | (12,814) | (11,321) | (11,207) |
| Other | 0 | 0 | 0 | 0 | 0 |
| Net Change in Fiduciary Net Position | 375,810 | 326,496 | 464,348 | (9,281) | 253,240 |
| Plan Fiduciary Net Position – Beginning | 2,587,807 | 2,261,311 | 1,796,963 | 1,806,244 | 1,553,004 |
| Plan Fiduciary Net Position – Ending (b) | 2,963,617 | 2,587,807 | 2,261,311 | 1,796,963 | 1,806,244 |
| Net OPEB Liability – Ending (a)-(b) | \$(1,590,863) | \$(1,122,989) | \$(897,750) | \$(119,623) | \$159,328 |
| Plan Fiduciary Net Position as a Percentage of Total OPEB Liability | 215.89% | 176.66% | 165.84% | 107.13% | 91.89% |
| Covered Employee Payroll | Not available | \$1,680,051 | \$924,565 | Not available | Not available |
| Net OPEB Liability as Percentage of Payroll | Not available | (66.6)% | (97.1)% | Not available | Not available |
| Actuarially Determined Contribution | \$0 | \$0 | \$62,723 | \$118,615 | \$131,652 |
| Employer Contribution/benefit payments | (58,153) | (62,723) | (117,100) | (118,216) | (38,000) |
| Contribution Deficiency/(Excess) | \$(58,153) | \$(62,723) | \$(54,377) | \$399 | \$93,652 |
| ADC as a Percentage of Covered Payroll | Not available | (3.2)% | 6.8% | Not available | Not available |
| Employer Contribution as a Percentage of Covered Payroll | Not available | 6.6% | 12.7% | Not available | Not available |

SCHEDULES OF REQUIRED SUPPLEMENTARY INFORMATION

Assumptions and Methods for Calculation of Actuarially Determined Contribution

Valuation date December 31, 2021

Measurement date December 31, 2021

Reporting date December 31, 2021

Actuarial Methods

Cost method Entry Age Normal (level percentage of compensation)

Asset valuation method Market value

Actuarial Assumptions

Discount Rate – 7.0% for 2021 contribution, 7.04% for 2021 liability and 2022 contribution

Rationale – Blended rate based on long term expected return and the 20-year Aa Municipal Bond rate

20-year Aa Municipal Bond Rate – 2.25%

Rationale – 20-year bond rate (based on information published by Bartel Associates, LLC as of December 31, 2021)

Salary Scale – 3.0%

Rationale – Per employer experience and expectations

Return on Plan Assets – 7.04%

Rationale – Consistent with plan investment experience

Mortality Rates – Public General 2010 Healthy Employee and Retiree, headcount weighted, 2021 improvement

Rationale – Current mortality rates available for municipalities

Utilization – 100% of future retirees will elect coverage at retirement; actual coverage used for non-active

Rationale – historical

Termination Rates – Crocker-Sarason-Straight T-5, sample rates below:

| Age | Rates | Age | Rates |
|-----|-------|-----|-------|
| 25 | 7.72% | 45 | 3.98% |
| 30 | 7.22 | 50 | 2.56 |
| 35 | 6.28 | 55 | 0.94 |
| 40 | 5.15 | 60 | 0.09 |

Rationale – Based on past employer experience

Retirement Rates – see rates below

| Age | Rates | Age | Rates |
|-----|--------|-----|--------|
| 55 | 10.84% | 63 | 35.44% |
| 56 | 11.83 | 64 | 39.18 |
| 57 | 11.92 | 65 | 51.80 |
| 58 | 13.51 | 66 | 52.37 |
| 59 | 15.83 | 67 | 45.90 |
| 60 | 19.07 | 68 | 45.84 |
| 61 | 25.10 | 69 | 46.67 |
| 62 | 33.25 | 70 | 100.00 |

Rationale – These rates were chosen based on this plan's historical experience

SCHEDULES OF REQUIRED SUPPLEMENTARY INFORMATION

Marital Assumption – 70% of participants will have a covered spouse at retirement with males 3 years older than females; actual marital status used for retirees

Rationale – Consistent with experience

Claims Costs – see rates (monthly) below:

| Age | Rates | Age | Rates |
|-----|----------|-----|----------|
| 55 | \$650.36 | 61 | \$819.51 |
| 56 | 680.40 | 62 | 837.88 |
| 57 | 710.73 | 63 | 860.92 |
| 58 | 743.10 | 64 | 874.92 |
| 59 | 759.14 | 65+ | 526.19 |
| 60 | 791.51 | | |

Rationale – Actual age-graded premiums

Implicit Subsidy – Not applicable; premiums are age-graded

Medical Trend – Pre-Medicare 7.50% graded down to 4.5% by 0.25% per year; Post-Medicare, 5.75% graded down to 4.5% by 0.25% per year

Rationale – Based on State of Michigan trend survey

Data Collection

Date and form of data - All personnel and asset data was prepared by the plan sponsor or a representative and was generally relied upon as being correct and complete without audit by Watkins Ross

Assumption changes since prior valuation

- Mortality Improvement Scale updated from 2019 to 2021
- Trend rates updated to those prescribed by PA 202 for year 2021
- Salary scale updated from 3.5% to 3.0%
- Discount rate updated from 7.00% to 7.04%

Assumptions used for PA 202 Reporting

Mortality Improvement Scale – MP-2019 improvement scale

Discount rate – 7.00%

All other assumptions are the same as used for GASB

SCHEDULES OF REQUIRED SUPPLEMENTARY INFORMATION

Schedule of Difference between Actual and Expected Experience

| Year | Difference between expected and actual Experience | Recognition period (years) | Amount Recognized in Year Ended December 31, | | | | | | | Deferred Outflow of Resources | Deferred Inflow of Resources |
|--------------------------------|--|----------------------------------|--|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|-------------------------------------|------------------------------------|
| | | | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027+ | | |
| 2017 | (13,595) | 6.27 | (2,168) | (2,168) | (587) | - | | - | - | - | (2,755) |
| 2018 | (11,433) | 4.68 | (2,443) | (1,661) | | - | | | | - | (1,661) |
| 2019 | (257,855) | 5.29 | (48,744) | (48,744) | (48,744) | (14,135) | | | | - | (111,623) |
| 2020 | 38,845 | 4.29 | 9,055 | 9,055 | 9,055 | 2,625 | | - | - | 20,735 | - |
| 2021 | (140,832) | 7.23 | (19,479) | (19,479) | (19,479) | (19,479) | (19,479) | (19,479) | (23,958) | - | (121,353) |
| Net recognized in OPEB expense | | | <u>\$ (63,779)</u> | <u>\$ (62,997)</u> | <u>\$ (59,755)</u> | <u>\$ (30,989)</u> | <u>\$ (19,479)</u> | <u>\$ (19,479)</u> | <u>\$ (23,958)</u> | <u>\$ 20,735</u> | <u>\$ (237,392)</u> |

Schedule of Changes in Assumptions

| Year | Changes in Assumptions | Recognition period (years) | Amount Recognized in Year Ended December 31, | | | | | | | Deferred Outflow of Resources | Deferred Inflow of Resources |
|--------------------------------|---------------------------|----------------------------------|--|--------------------|--------------------|--------------------|-------------------|-------------------|-------------------|-------------------------------------|------------------------------------|
| | | | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027+ | | |
| 2017 | 133,476 | 6.27 | 21,288 | 21,288 | 5,748 | | | | | 27,036 | - |
| 2018 | (438,433) | 4.68 | (93,682) | (63,704) | - | - | | | | - | (63,704) |
| 2019 | (194,336) | 5.29 | (36,736) | (36,736) | (36,736) | (10,656) | | | | - | (84,128) |
| 2020 | - | 4.29 | - | - | - | - | - | - | - | - | - |
| 2021 | (27,209) | 7.23 | (3,763) | (3,763) | (3,763) | (3,763) | (3,763) | (3,763) | (4,631) | - | (23,446) |
| Net recognized in OPEB expense | | | <u>\$ (112,893)</u> | <u>\$ (82,915)</u> | <u>\$ (34,751)</u> | <u>\$ (14,419)</u> | <u>\$ (3,763)</u> | <u>\$ (3,763)</u> | <u>\$ (4,631)</u> | <u>\$ 27,036</u> | <u>\$ (171,278)</u> |

Schedule of Differences between Projected and Actual Earnings on OPEB Plan Investments

| Year | Difference between expected and actual earnings on OPEB assets | Recognition period (years) | Amount Recognized in Year Ended December 31, | | | | | | | Deferred Outflow of Resources | Deferred Inflow of Resources |
|--------------------------------|---|----------------------------------|--|---------------------|---------------------|--------------------|--------------------|------|-------|-------------------------------------|------------------------------------|
| | | | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027+ | | |
| 2017 | (175,565) | 5.00 | (35,113) | | | | | | | - | - |
| 2018 | 174,771 | 5.00 | 34,954 | 34,955 | | | | | | 34,955 | - |
| 2019 | (291,293) | 5.00 | (58,259) | (58,259) | (58,257) | | | | | - | (116,516) |
| 2020 | (162,658) | 5.00 | (32,532) | (32,532) | (32,532) | (32,530) | | | | - | (97,594) |
| 2021 | (235,409) | 5.00 | (47,082) | (47,082) | (47,082) | (47,082) | (47,081) | | | - | (188,327) |
| Net recognized in OPEB expense | | | <u>\$ (138,032)</u> | <u>\$ (102,918)</u> | <u>\$ (137,871)</u> | <u>\$ (79,612)</u> | <u>\$ (47,081)</u> | | | <u>\$ 34,955</u> | <u>\$ (402,437)</u> |

Total Deferred Outflow/(Inflow) of Resources

| | Amount Recognized in Year Ended December 31, | | | | | |
|--|--|-----------|-----------|----------|----------|----------|
| | 2022 | 2023 | 2024 | 2025 | 2026 | 2027+ |
| Total Deferred Outflow/(Inflow) of Resources | (248,830) | (232,377) | (125,020) | (70,323) | (23,242) | (28,589) |

TRUSTEE AND FORM 5720 INFORMATION

Projected benefit payments and contributions

Form 5720 (the Form) – Corrective Action Plan Monitoring: Application for Certification of Compliance, Section 4 asks for supporting documentation that shows projected benefit payments and contributions as a percentage of projected governmental fund revenues over the next five years. A link to a spreadsheet is provided with the Form, and within the spreadsheet, there is a link to instructions on how to complete the spreadsheet.

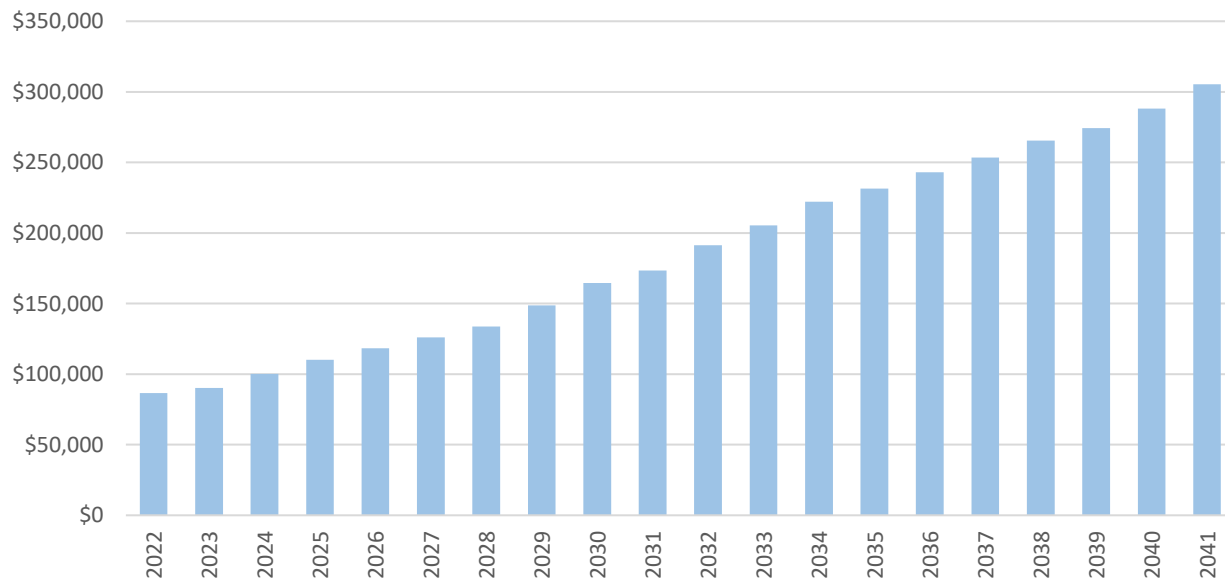
To assist in completing that section of the Form, below is a table of benefit payments as shown for the current fiscal year and projected for the next four. In addition, if a Corrective Action Plan (CAP) has been adopted that includes scheduled contributions to an OPEB trust, those are shown for the same period as either reported to us or developed with assistance from Watkins Ross:

| Fiscal Year | Total OPEB Benefit Payment Amount (All Systems) | Additional OPEB Contributions (All Systems) |
|-------------|---|---|
| 2021 | \$58,153 | |
| 2022 | 86,621 | |
| 2023 | 90,121 | |
| 2024 | 100,260 | |
| 2025 | 110,070 | |

In addition to the benefit payments shown above, a graphic illustration of 20 years of projected benefit payments for the current group of covered lives is shown below. Plans open to new participants could see higher than expected payments if new members are hired and are eligible to retire during the projection period.

The chart below reflects expected cash flows to pay benefits for current plan participants.

20-Year Expected Payouts



SUMMARY OF PLAN PROVISIONS

| | |
|--------------------------------------|--|
| Plan name | Plymouth District Library Voluntary Employees Beneficiary Association |
| Benefit eligibility | Retirement with a pension under the Municipal Employees' Retirement System of Michigan on or after age 60 with 10 years of service, or age 55 with 25 years of service |
| Employer benefits | The Plymouth District Library will contribute towards the cost of medical benefits for eligible retirees and their dependents based on the service earned at the time of retirement and the portion of costs currently paid by the Library for active employees; based on the current provisions, the Library will contribute 90% of the retiree premium for retirees who have earned 20 years of service; for retirees with at least 10 but less than 20 years of service, the Library will contribute 50% of the retiree premium; payment towards premiums continues conditional on enrollment for the life of the retiree and the life of the spouse. |
| Retiree contribution | The retiree is required to pay the balance between the actual premiums and the Library's contribution |
| Changes since prior valuation | None |

GLOSSARY

A number of special terms and concepts are used in connection with OPEB plans and the OPEB accounting report. The following list reviews a number of these terms and provides a brief discussion of their meaning.

Actuarially Determined Contribution (ADC) – A target or recommended contribution for the reporting period, determined in conformity with Actuarial Standards of Practice based on the most recent measurement available when the contribution for the reporting period was adopted.

Actuarial Cost Method – This is a mathematical formula which is used to allocate the present value of projected benefits to past and future plan years.

Amortization – The difference between actual and expected investment returns, the difference between actual and expected experience, and the impact of any plan or assumption changes will be amortized and paid over future years.

Depletion Date (Cross-over Point) – The projected date (if any) where plan assets, including future contributions, are no longer sufficient to pay Projected Benefit Payments to current members.

Long-term expected rate of return – The rate of return based on the nature and mix of current and expected plan investments and over the time period from when an employee is hired to when all benefits to the employee have been paid.

Market Value of Assets – The market value of all assets in the fund including any accrued contribution for the previous plan year, which was not paid by the end of the year.

Measurement Date – The date the Total OPEB Liability, Fiduciary Net Position, and Net OPEB Liability are determined.

Net OPEB Liability (NOL) – The Total OPEB Liability less the Plan Fiduciary Net Position.

Normal Cost – For GASB 74/75 purposes, normal cost is the equivalent of service cost (see definition of service cost).

Other Post-Employment Benefits (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.

OPEB Expense (OE) – The change in the Net OPEB Liability (NOL) recognized in the current measurement period. Changes to the NOL not fully recognized in a given year's OPEB expense will be maintained as deferred inflows and deferred outflows. These will be recognized incrementally in the OPEB expense over time.

GLOSSARY

Plan assets – Stocks, bonds and other investments that have been segregated and restricted (usually in a trust) to provide for post-retirement benefits. Assets not segregated in a trust, or otherwise effectively restricted so that they cannot be used by the employer for other purposes, are not plan assets, even though it may be intended that those assets be used to provide post-retirement benefits.

Plan Fiduciary Net Position – The market value of plan assets as of the measurement date.

Present Value – The present value of a future payment or a series of payments is the amount of each payment, discounted to recognize the time value of money, and further reduced for the probability that the payment might not be made because of death, disability or termination of employment.

Projected Benefit Payments – All benefits projected to be payable to current active and inactive participants as a result of their past service and their expected future service.

Real Rate of Return – The rate of return on an investment after the adjustment to eliminate inflation.

Reporting Date – The date that represents the fiscal year end for the plan or employer.

Service Cost – The value of portion of Total OPEB Liability earned during the current year computed in accordance with GAAP accounting rules.

Single Equivalent Discount Rate – The single rate that gives the same total present value as discounting the Projected Benefit Payments with the long-term expected rate of return until the Depletion Date and discounting any remaining Projected Benefit Payments with the yield on a 20-year AA/Aa tax-exempt municipal bond index.

Total OPEB Liability (TOL) – The actuarial present value of the accrued benefit determined under the Entry Age actuarial cost method calculated using the blended Single Equivalent Discount Rate.

Valuation Date – The date as of which an actuarial valuation is performed.