Michigan Department of Treasury
5720 (03-20)

Protecting Local Government Retirement and Benefits Act
Corrective Action Plan Monitoring: Application for Certification of Compliance

Issued under the authority of Public Act 202 of 2017

LOCAL GOVERNMENT INFORMATION

Local Government Name: JACKSON DISTRICT LIBRARY Six-Digit Muni Code: 388000

Defined Benefit Retirement System Name: JACKSON DISTRICT LIBRARY OPEB PLAN

System Type: ○ Pension ⦿ Retirement Health Care (OPEB)

Contact Name (Administrative Officer): SARILDA TACKETT

Title (if not Administrative Officer): DIRECTOR Telephone: 517-788-4099

Email (Communication will be sent here): baldwinvk@myjdl.com

Fiscal Year System was Determined to be Underfunded: 2017

I. GENERAL INFORMATION

Corrective Action Plan Monitoring: The Municipal Stability Board (the Board) shall monitor each underfunded local government's compliance with Public Act 202 of 2017 (the Act) and any approved corrective action plan (CAP). The Board shall adopt a schedule, not less than every 2 years, to certify that the underfunded local government is in substantial compliance with the Act.

Due Date: The local government has **90 days from the date the CAP Monitoring Form is sent** to return the form to the Board.

Filing: The submitted monitoring form must demonstrate through distinct supporting documentation that the local government is addressing its underfunded status in accordance with its CAP and the Act. Consistent with the Board's best practices document, supporting documentation utilized should include a projection within their annual valuation that includes, but is not limited to, actuarially determined contributions (ADC), retirement benefit payments, assets, liabilities, and discount rates.

The completed monitoring form must be submitted via email to Treasury at LocalRetirementReporting@michigan.gov for review by the Board. **If you have CAPs for multiple systems, you are required to complete separate monitoring forms and send a separate email for each CAP.** Please attach each plan as a separate PDF document in addition to all applicable supporting documentation.

The subject line of each email should be in the following format: **Corrective Action Plan Monitoring, Local Government Name, Retirement System Name, System Type** (e.g. Corrective Action Plan Monitoring, City of Lansing, Employee Retirement System, Pension). Treasury will send an automatic reply acknowledging receipt of the email. Your individual email settings must allow for receipt of Treasury's automatic reply. This will be the only notification confirming receipt of the form.

Municipal Stability Board: The Board shall certify and vote whether each local government is compliant with their CAP and the Act. If a CAP is certified as compliant, the Board will continue to monitor the CAP and review the local government's compliance with the Act not less than every two years.

Review Process: After receiving your submitted CAP monitoring form, Treasury will provide it to the Board to review and certify the local government for compliance with the Act.

CAP Monitoring Approval Criteria: A CAP may be certified as compliant by meeting the Board approved CAP monitoring criteria. In general, certification of compliance by the Board will occur if a local government is able to demonstrate through distinct supporting documentation that the CAP addresses:

1) **Underfunded Status:** The local government continues to address underfunded status in a reasonable timeframe (60% funded for pension systems or 40% funded for OPEB systems OR; if the local government is a city, village, township, or county, the ADC as a percentage of governmental fund revenues is less than 10% for pensions or 12% for OPEB);
2) **Substantial Changes:** The actions documented in the CAP remain substantially the same, OR alternative actions have been implemented to address underfunded status;
3) **Sustainability:** The local government and the Board certify that the projected payments remain sustainable and affordable both now and into the future.

Certification of Compliance: Following a review of the monitoring process for each CAP, the Board will certify a local government as one of the following:

- *Compliant:* A local government certified as compliant has met all published criteria from the Board.
- *Complaint with Conditions:* A local government certified as compliant with conditions has met the published criteria, but the Board has determined that the local government's plan(s) may not be sustainable or the Board is unable to reasonably confirm future sustainability. With this certification, the local government will have until the next monitoring period to address the stated concerns regarding the plan(s).
- *Noncompliant:* A local government certified as noncompliant failed to meet one or more of the Board's published criteria for monitoring certification of compliance or failed to file the monitoring form. If voted noncompliant, the Board shall notify the local government within 15 days, detailing the reasons for the determination for noncompliance. The local government has 60 days to address the determination of noncompliance.

2. UNDERFUNDED STATUS CERTIFICATION

Previously, local governments demonstrated that they would be addressing their underfunded status within a reasonable timeframe in accordance with the Board's *Corrective Action Plan Development: Best Practices and Strategies* guide. The purpose of this section is for the local government to certify that their plan is still addressing its underfunded status within this approved timeframe.

Please check the applicable answer:

1. Referencing supporting documentation, is the local government addressing its underfunded status in the same timeframe or less than the CAP?

   ◉ **Yes, we are addressing underfunded status by fiscal year** 2018 **as originally approved.**

   ○ **No, underfunded status will be now be addressed by fiscal year _______, which is within the Board's required timeframe.**

   Required timeframe: As general guidance, a local government with a severely underfunded pension system (45% funded or less) should reach a funded ratio of 60% within 20 years of the original determination of underfunded status. A local government with a severely underfunded retirement health care system (25% funded or less) should reach a funded ratio of 40% within 30 years of the original determination of underfunded status.

   If no, provide additional explanation:

3. SUBSTANTIAL CHANGES CERTIFICATION

The Board recognizes that as a local government implements the prospective actions in their CAP, specific solutions may need to be adjusted to continue to address its underfunded status. This section asks the local government to certify that the corrective actions documented in the plan to address underfunded status remain substantially the same.

Please check the applicable answer:
Does the CAP remain substantially the same as the originally approved submission?

- ◉ **Yes**
- ○ **No** *(If no, please complete a revised Form 5597 for OPEB or Form 5598 for pension and attach to this form)*

Please check all that apply:

☒ **Actions Implemented from CAP** – What actions included in the CAP has the local government implemented?

Sample Statement: *In **June 2019**, our local government began making additional payments of $100,000 per year above its ADC to the **General Employees' Retirement System**, as stated in our CAP. Page **8** of our actuarial valuation (attachment 2a) shows our pension will be **62%** funded by **fiscal year 2028**.*

THE LIBRARY MADE SUBSTANTIAL CONTRIBUTIONS TO THE PLAN IN 2018 AND 2019 TO FUND, THE PLAN WAS FUNDED AT 47% IN 2018 AND 97% IN 2019.

☐ **Actions Not Implemented from CAP** – What corrective actions has the local government failed to implement since the plan was approved?

Sample Statement: *In the **June 2019** contract negotiations, our local government sought to lower the system's multiplier for current employees from 2.5X to 2X for the **General Employees' Retirement System**. We were able to negotiate to a 2.25X multiplier. On page **8** of our actuarial valuation (attachment 2a), it shows we will be **62%** funded by **fiscal year 2028 instead of 2024**, as outlined in our CAP. The revised fiscal year remains within the Board's required timeline.*

☐ **Additional Actions Approved** – What additional actions has the local government implemented or planned to implement to supplement the CAP since the plan was originally approved? **(Provide proof of governing body approval for all additional actions)**

Sample Statement: *Since our local government was unable to lower the multiplier to 2X as outlined in our CAP, we implemented additional actions to address our underfunded status within the Board's required timeframe. Beginning in **fiscal year 2020**, we will begin amortizing the unfunded portion of the pension liability using a **level-dollar amortization method over a closed period of 10 years**. This will allow the retirement system to reach a funded status of **62%** by fiscal year **2028** as shown on page 8 of the actuarial analysis (attachment 2a).*

4. SUSTAINABILITY CERTIFICATION

The local government must certify the plan is still affordable through detailed supporting documentation. This includes documentation that the local government's retirement costs are not increasing at a rate greater than what can be afforded through reasonable revenue growth. Retirement costs also must not have substantially increased above the original projection in the CAP.

The Board recommends that supporting documentation include a projection of all annual retirement payments (Pension ADC(s) + OPEB Benefit Payment(s) + all additional contributions) as a percentage of projected governmental fund revenues over the next five years. A local government should project governmental fund revenues using a reasonable forecast based on historical trends and projected rates of inflation. This analysis may include projected enterprise funds specifically allocated to pay retirement costs.

What is the highest combined annual retirement payment as a percentage of your projected governmental revenues over the next five fiscal years? (Examples and Worksheet)

Fiscal year: ____________

1. Total pension ADC(s): ______________
2. Total OPEB benefit payment(s): ______________
3. Total additional contributions for pension: ______________
4. Total additional contributions for OPEB: ______________
5. Total governmental fund revenues: ______________
6. Enterprise funds used to pay retirement costs (if applicable): ______________

Total percentage [(Payments #1-4)/(Revenues #5-6)]: ______________

Do the projected annual payments increase by an amount greater than an average of 5% per year over the next five fiscal years?

- ○ **Yes** (Explain and list actions implemented or planned to implement to address increased payments)
- ○ **No**

Utilizing a projection of all annual retirement payments, do the approved corrective actions listed in this plan allow for the local government to continue to make, at a minimum, the ADC payment for the defined benefit pension system(s) and/or any applicable statutorily required payments for retirement health benefit system(s), according to your long-term budget forecast? Note: For retirement health benefit systems, local governments are required to make all retiree premium payments, as well as any applicable normal cost payments for employees first hired after June 30, 2018 in accordance with Section 4(1) of Public Act 202 of 2017.

- ◉ **Yes**
- ○ **No** (Explain and list actions implemented or planned to implement to address increased payments)

5. REQUIRED DOCUMENTATION

Documentation should be attached as a PDF with this monitoring form. The documentation should detail and confirm the claims made in this document regarding the CAP that is being implemented to adequately address the local government's underfunded status. Please check all documents that are included as part of this form and attach in successive order as provided below. When attaching documents, please use the naming convention below:

Naming Convention	Type of Document
☒ Attachment – 1	**(Required) This CAP monitoring form;**
☒ Attachment – 2a	**(Required) An actuarial projection, an actuarial valuation, or an internally developed analysis (in accordance with GASB and/or actuarial standards of practice), which illustrates how and when the local government will reach the Act's required funded ratio. Or, if the local government is a city, village, township, or county, how and when the ADC as a percentage of governmental revenues will be less than the Act's requirements. The Board recommends that supporting documentation show a projection for the duration of the CAP that includes, but is not limited to, assets, liabilities, funded ratios, normal cost payments (if applicable), actuarial assumptions, and retiree benefit payments, using reasonable calculations;**
☐ Attachment – 2b	**(Required) An actuarial projection, an actuarial valuation, or an internally developed analysis (in accordance with GASB and/or actuarial standards of practice), which projects all annual retirement payments (Pension ADC(s) + OPEB Benefit Payments(s) + all additional contributions) as a percentage of projected governmental fund revenues over the next five fiscal years. A local government should project governmental fund revenues using a reasonable forecast based on historical trends and projected rates of inflation. This analysis *may* include projected enterprise funds specifically allocated to pay retirement costs;**
☐ Attachment – 3	**(Required if applicable)** Documentation from the governing body approving additional corrective actions including documentation of commitment to additional payments or actions not previously included in the CAP (e.g. resolution, ordinance);
☐ Attachment – 4	**(Required if applicable)** In the event that the previous plan is no longer substantially in effect, a separate CAP to address its underfunded status which includes documentation of prior actions, prospective actions, governing body approval, and the positive impact on the system's funded ratio;
☐ Attachment – 5	Other documentation not categorized above.

6. CORRECTIVE ACTION PLAN CRITERIA

Please confirm that each of the CAP monitoring criteria listed below have been satisfied when submitting this document. Specific detail on CAP criteria can be found in the Corrective Action Plan Monitoring: Policy and Procedures document.

CAP Monitoring Criteria	Description
☐ Underfunded Status	The local government certifies that there is adequate supporting documentation showing that the CAP will continue to address the local government's underfunded status in a reasonable timeframe;
☐ Substantial Changes	The local government certifies that the corrective actions documented in the CAP remain substantially the same OR; the local government has implemented or planned to implement additional actions to continue to address their underfunded status;
☒ Sustainability	The CAP continues to allow the local government to make all required annual retirement payments, without increasing to a level that is unsustainable.

7. LOCAL GOVERNMENT'S ADMINISTRATIVE OFFICER APPROVAL OF CORRECTIVE ACTION PLAN MONITORING FORM

I, SARILDA TACKETT, as the government's administrative officer (Ex. City/Township Manager, Executive Director, Chief Executive Officer, etc.) **(insert title)** DIRECTOR approve this *Corrective Action Plan Monitoring: Application for Certification of Compliance* and will continue to implement the actions of the CAP.

I confirm to the best of my knowledge that because of the actions referenced within this form, one of the following statements will occur:

☒ The JACKSON DISTRICT LIBRARY **(insert retirement system name)** will achieve a funded status (60% for pension or 40% for OPEB) by fiscal year COMPLETE as demonstrated by required supporting documentation listed in Section 5.

OR, if the local government is a city, village, township, or county:

☐ The ADC for all defined benefit pension or retirement health benefit (OPEB) systems as a percentage of governmental fund revenues will be less than the Act's underfunded status threshold (10% for pension or 12% for OPEB) by fiscal year ________ as demonstrated by required supporting documentation listed in Section 5.

Signature: Sarilda Tackett Date: 12-3-20

ACTUARIAL VALUATION OF
OTHER POST-EMPLOYMENT BENEFITS
AS OF DECEMBER 31, 2019
UNDER GASB STATEMENTS NO. 74 AND 75
JACKSON DISTRICT LIBRARY
RETIREE HEALTH CARE PLAN

July 17, 2020

Prepared By:

CBIZ Retirement Plan Services
6050 Oak Tree Blvd. S, Suite 500
Cleveland, OH 44141
Phone (330) 644-2044
Fax (330) 644-2705

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We are pleased to submit this report of OPEB Expense and Net OPEB Liability disclosure items for the December 31, 2019 fiscal year end reporting, as required by GASB Statements No. 74 and 75 for the Jackson District Library Retiree Health Care Plan. Below is an outline of the sections included in this report.

CBIZ Retirement Plan Services
CBIZ Benefits Insurance Services, Inc.
6050 Oak Tree Boulevard, Suite 500
Cleveland, OH 44131
Ph: 216.447.9000 F: 216.447.9007
http://retirement.cbiz.com

July 17, 2020

Vicki Baldwin
Finance Manager
Jackson District Library
244 W. Michigan Avenue
Jackson, MI 49201-2275

RE: Actuarial Valuation of Other Post-Employment Benefits under GASB Statements No. 74 and 75 as of December 31, 2019

Dear Vicki,

Enclosed are the results of the Actuarial Valuation of Other Post-Employment Benefits (OPEBs) under GASB Statements No. 74 and 75 for the Jackson District Library Retiree Health Care Plan.

The Fiduciary Net Position (FNP) realized a gain in 2019, as the actual return on the irrevocable trust assets was approximately 13% compared to a 7.75% expectation. This will be recognized as a Deferred Inflow of Resources in the OPEB Expense.

The Total OPEB Liability (TOL) decreased compared to the prior year ($1.08 million vs. $1.47 million). The 12/31/2018 TOL was "rolled-forward" from 12/31/2017 and did not incorporate any updates in liability experience, assumptions, or demographics. The 12/31/2019 TOL decreased mainly as a result of two factors. First, the expected pre-65 fully-insured premiums for retirees decreased. Second, the expected retirement rates were updated from assuming 100% retirement at eligibility age (age 60 with 12 years of service) to the retirement rates used in the most recent MERS pension valuation. The update in retirement rates was done to better reflect anticipated experience from the plan. The overall decrease in TOL was slightly offset by the updated pre-65 healthcare trend assumption, which was updated to align with the Uniform Assumptions associated with Public Act 202 of 2017 (PA 202).

The Net OPEB Liability decreased as a result of the decrease in TOL and an increase in FNP as a result of the asset return and $300,000 contribution made to the trust.

The enclosed report includes the Actuarially Determined Contribution ("ADCs") for the fiscal years ending December 31, 2020 and December 31, 2021. These ADCs are in compliance with the Numbered Letter 2018-3 under PA 202 of 2017. For GASB 74/75 purposes, we have also provided the Actuarially Determined Contributions based on the funding policy. These amounts are different under each scenario because of the mandated Uniform Assumptions for PA 202 purposes (7.00% for Expected Return on Assets (EROA), 3.50% for Salary Scale), which is different than those used for GASB 74/75 purposes (7.75% for EROA, 3.00% for Salary Scale). You'll also notice a decrease in the ADCs compared to the prior year because of the decrease in TOL and increase in FNP, which has lowered the amount of unfunded actuarial accrued liability to amortize.

Also Included in the enclosed report is an estimated GASB 75 disclosure for the fiscal years ending December 31, 2020 and December 31, 2021. It will be finalized once actual experience is realized and an updated actuarial valuation is completed.

Please review the results thoroughly. If you have any further questions or concerns, feel free to reach out to me by phone at 614.793.2577, or by email me at james.budai@cbiz.com.

Respectfully,

James Budai

James W. Budai, FSA, FCA, MAAA, EA
Consulting Actuary

SUMMARY OF VALUATION RESULTS

Valuation Date		**12/31/2019**
Participant Data		
Active plan members		11
Inactive not receiving payments		0
Inactive currently receiving payments (includes spouses)		25
Total		36
Total OPEB Liability (TOL)		
Active plan members	$	369,840
Inactive not receiving payments		0
Inactive currently receiving payments (includes spouses)		715,869
Total	$	1,085,709
Fiduciary Net Position (FNP)		1,051,772
Net OPEB Liability (Asset)	$	33,937
FNP as a % of TOL		96.87%

Implicit Liability
The premiums used for the valuation are fully-insured and not age adjusted by the insurer. Therefore, there is no implicit liability recognized in the valuation.

Actuarially Determined Contribution (ADC) for Year Ending		
December 31, 2020	$	17,327
December 31, 2021		17,614
Estimated OPEB Expense (Income) for Year Ending		
December 31, 2020	$	(63,675)
December 31, 2021		(63,511)
Long-Term Rate of Return on Plan Assets		7.75%
Municipal Bond Rate		3.26%
Year Assets Depleted		N/A
Single Equivalent Discount Rate		7.75%

IMPORTANT NOTICES

PURPOSE AND USE OF THIS REPORT

CBIZ has prepared this report exclusively for the Jackson District Library subject to this limitation; the Jackson District Library may direct us to provide this report to its auditors in connection with audits of the plan or its sponsoring entities used in satisfying accounting reporting requirements or as required due to public record disclosure laws. CBIZ is not responsible for use of this report by any other party.

The only purposes of this report are to:

- Provide the Actuarially Determined Contribution for the fiscal years ending December 31, 2020 and December 31, 2021;

- Provide the GASB Statements No. 74 and 75 disclosure as of December 31, 2019;

- Provide the estimated GASB Statements No. 74 and 75 disclosures as of December 31, 2020 and December 31, 2021 (subject to change once actual experience is realized), and;

- Provide the information necessary for Public Act 202 of 2017 reporting purposes.

This report may not be used for any other purpose; CBIZ is not responsible for the consequences of any unauthorized use. All parts of this report, including any documents incorporated by reference, are integral to understanding and explaining its contents; no part may be taken out of context, used or relied upon without reference to the report as a whole. Its content may not be modified, incorporated into or used in other material, sold or otherwise provided, in whole or in part, to any other person or entity without CBIZ's permission.

HOW VALUATIONS IMPACT PLAN COSTS AND CONTRIBUTIONS

Valuations do not affect the ultimate cost of the Plan, only the timing of contributions into the Plan. Plan funding occurs over time. Contributions not made this year, for whatever reason, including errors, remain the responsibility of the Plan sponsor and can be made in later years. If the actuarially calculated contribution amounts are lower or higher than necessary over a period of years, it is normal and expected practice for adjustments to be made to future contribution amounts to account for this, with a view to funding the plan over time.

LIMITATIONS OF THE VALUATION PROCESS

It is important to note that calculations shown in this report are mathematical estimates based upon assumptions regarding future events, which may or may not materialize. Actuarial calculations can and do vary from one valuation year to the next, sometimes significantly if the group valued is small. As a result, valuation results may fluctuate over time as the demographics of the group change.

IMPORTANT NOTICES (CONT.)

LIMITATIONS OF THE VALUATION PROCESS (CONTINUED)

To prepare an actuarial valuation, actuarial assumptions are used in a forward looking financial and demographic model to present a single scenario from a wide range of possibilities. The future is uncertain and the plan's actual experience will differ from those assumptions; these differences may be significant or material because actuarial estimates can be very sensitive to the assumptions made and, in some cases, to the interaction between the assumptions. Different assumptions or scenarios within the range of possibilities may also be considered reasonable and results based on those assumptions would be different. Two different actuaries could, quite reasonably, arrive at different results based on the same data and different views of the future. A "sensitivity analysis" shows the degree to which results would be different if alternative assumptions were substituted from the range of reasonable alternative possibilities, from those used in this report. We have provided the GASB required sensitivity analysis on the NOL, but have not been engaged to perform any other type of sensitivity analysis. Therefore, the results of such an analysis other than that required by GASB are not included in this report. CBIZ is available to perform such an analysis upon request. Assumptions may also be changed from one valuation to the next because of changes in mandated requirements, plan experience, changes in expectations about the future and other factors. A change in assumptions is not an indication that prior estimates were unreasonable when made.

DATA, ASSUMPTIONS, METHODS, AND PLAN PROVISIONS

In preparing our report, we have relied on employee census, financial information, claims and/or premium data, and plan provisions provided by the Jackson District Library. While we have not audited the data, we have reviewed it for reasonableness and consistency in accordance with Actuarial Standards of Practice No. 23.

Certain actuarial assumptions, such as the discount rate, are prescribed by regulation or statute. Based on the information provided to us, we believe the remaining actuarial assumptions are reasonable for the purposes described in this report (taking into account the experience of the plan and reasonable expectations) and such other assumptions, in combination, represent our best estimate of the plan's anticipated experience with respect to those assumptions. The Jackson District Library is responsible for reviewing the assumptions referenced and advising CBIZ as to any information it deems worthy of consideration in the determination of assumptions.

IMPORTANT NOTICES (CONT.)

The methods used for the results contained herein are consistent with our understanding of those required by GASB. Computations for purposes other than these standards may be significantly different from these results and may not be appropriate. Because modeling all aspects of a situation is not possible or practical, we may use summary information, estimates, or simplifications of calculations to facilitate the modeling of future events in an efficient and cost-effective manner. We may also exclude factors or data that are immaterial in our judgment. Use of such simplifying techniques does not, in our judgment, affect the reasonable of the valuation results.

CBIZ has relied on the plan provisions provided by the Jackson District Library. The Jackson District Library is solely responsible for the validity, accuracy and comprehensiveness of this information. If any plan provisions supplied are not accurate and complete, the results of any calculation may differ significantly from the results that would be obtained with accurate and complete information, and this report may need to be revised. A summary of our understanding of the plan provisions is provided in this report.

Our advice is purely actuarial in nature. It is not intended to service as a substitute for legal, accounting, or investment advice.

PROFESSIONAL QUALIFICATIONS
I am available to answer any questions on the material presented in this report or to provide explanations or further details as appropriate. The undersigned credentialed actuary meets the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained in this report. I am not aware of any direct or material indirect financial interest or relationship, including investments or other services that could create a conflict of interest, that would impair or appear to impair the objectivity of this work.

James Budai

James W. Budai, FSA, FCA, EA, MAAA
Consulting Actuary

7/17/2020
Date

FIDUCIARY NET POSITION

Statement of Changes in Fiduciary Net Position	1/1/2019 - 12/31/2019		
	OPEB Trust	Pay-as-you-go	Total
Balance as of Beginning of Year	$ 685,785	$ -	$ 685,785
Employer Contributions	300,000	30,163	330,163
Participant Contributions	-	6,158	6,158
Investment Income, net of investment expenses	105,327	-	105,327
Total Additions	$ 405,327	$ 36,321	$ 441,648
Benefit Payments	(37,800)	(36,321)	(74,121)
Non-Investment Expenses	(1,540)	-	(1,540)
Total Deductions	$ (39,340)	$ (36,321)	$ (75,661)
Net Changes	$ 365,987	$ -	$ 365,987
Balance as of End of Year	$ 1,051,772	$ -	$ 1,051,772
Money-Weighted Rate of Return	12.97%	N/A	12.97%

ACTUARIALLY DETERMINED CONTRIBUTION (UNDER PA 202 OF 2017)

Consistent with Public Act 202 of 2017, the Actuarially Determined Contribution (ADC) must be calculated in the same manner as the Act's Annual Required Contribution (ARC), which is defined as the sum of the normal cost payment and the annual amortization payment for past service costs to fund the Unfunded Actuarial Accrued Liability.

The ADC calculated below is in compliance with Public Act 202 of 2017, which also requires an amortization period no greater than 30 years and a level dollar method for plans that are closed to new hires. All actuarial assumptions that may be used in the calculation of the ADC are discussed below.

Development of Annual Required Contribution (ARC) under the Act

Year Ending:	**12/31/2021**	**12/31/2020**
Normal Cost Component	(Projected)	
Normal Cost at beginning of year	$ 7,931	$ 7,663
Interest through end of year	555	536
Expected Administrative Expenses	1,540	1,540
Total Normal Cost	$ 10,026	$ 9,739
Amortization Component		
Actuarial Accrued Liability at beginning of year		$ 1,145,933
Assets at beginning of year		1,051,772
Unfunded Actuarial Accrued Liability at beginning of year		94,161
Amortization Factor		13.2777
Amortization Payment	$ 7,092	$ 7,092
Interest through end of year	496	496
Total Amortization Payment	$ 7,588	$ 7,588
Actuarial Cost Method	Entry Age Normal as a Percentage of Payroll	
Discount Rate	7.00%	7.00%
Salary Scale	3.50%	3.50%
Amortization Method	Level Dollar over a Closed 30 years	
Actuarially Determined Contribution	**$ 17,614**	**$ 17,327**
Expected Covered Payroll	423,843	493,663
ADC as a % of Covered Payroll	4.16%	3.51%

ACTUARIALLY DETERMINED CONTRIBUTION

Absent of Public Act 202 of 2017, the Actuarially Determined Contribution (ADC) is calculated in accordance with the Employer's funding and investment policies. Under GASB Statements No. 74 & 75, if the Employer does not have a formal, written funding policy, but has irrevocable assets, the ADC is calculated based on the 5-year average of historical contributions as a percentage of either the ADC or Covered Payroll.

The funding policy of the Plan is to fund the Other Post-Employment Benefits (OPEB) through the annual budgeting process. Funds will be placed into a trust to assure the cost of the OPEB will be funded in an equitable and sustainable manner. Through an annual valuation, Jackson District Library has committed to annual progress towards a fully funded status for the liabilities. To that end, the ADC based on the funding policy is equal to the Normal Cost plus an Amortization of the Unfunded Total OPEB Liability.

Development of ADC under GASB Statements No. 74 & 75, based on the employer's funding policy.

Year Ending:	**12/31/2021**	**12/31/2020**
Normal Cost Component	(Projected)	
Normal Cost at beginning of year	$ 6,351	$ 6,166
Interest through end of year	492	478
Expected Administrative Expenses	1,540	1,540
Total Normal Cost	$ 8,383	$ 8,184
Amortization Component		
Actuarial Accrued Liability at beginning of year		$ 1,085,709
Assets at beginning of year		1,051,772
Unfunded Actuarial Accrued Liability at beginning of year		33,937
Amortization Factor		12.4221
Amortization Payment	$ 2,732	$ 2,732
Interest through end of year	212	212
Total Amortization Payment	$ 2,944	$ 2,944
Actuarial Cost Method	Entry Age Normal as a Percentage of Payroll	
Discount Rate	7.75%	7.75%
Salary Scale	3.00%	3.00%
Amortization Method	Level Dollar over a Closed 30 years	
Actuarially Determined Contribution	**$ 11,327**	**$ 11,128**
Expected Covered Payroll	423,843	493,663
ADC as a % of Covered Payroll	2.67%	2.25%

Since expected actuarially determined contributions made by the Jackson District Library are expected to be sufficient to finance the payment of benefits solely from the trust, the discount rate used for GASB Statements No. 74 & 75 accounting purposes (shown in the following sections) should be based on the long-term rate of return on trust assets.

GASB STATEMENTS NO. 74 & 75

The following exhibit provides the OPEB Expense (Income) for the fiscal years ending December 31, 2018 and December 31, 2019 based on actual cash flows during this time period.

	FYE 12/31/2019	FYE 12/31/2018
OPEB Expense (Income)		
Service Cost	$ 8,348	$ 7,869
Interest Cost	111,862	108,679
Non-Investment Administrative Expenses	1,540	1,612
Employee Contributions	0	0
Projected Earnings on Fiduciary Net Position	(63,249)	(47,642)
Recognition of Deferred Outflows (Inflows) related to:		
Net difference between projected and actual earnings.	12,915	21,331
Difference between expected and actual experience	(52,129)	0
Changes in assumptions	(35,152)	0
Contributions subsequent to the measurement date	0	0
Ad Hoc Postemployment Benefit Changes	0	0
OPEB Expense (Income)	$ (15,865)	$ 91,849
Key Assumptions for OPEB Expense (Income)		
Discount Rate	7.75%	7.75%
Salary Scale	3.00%	3.00%
Expected Return on Assets	7.75%	7.75%

GASB STATEMENTS NO. 74 & 75

The following exhibit provides the development of the Amortization Schedules for the Deferred Outflows / (Inflows) used in the OPEB Expense (Income) for the fiscal years ending December 31, 2018 and December 31, 2019 based on actual cash flows during this time period.

Deferred Outflows/(Inflows) - Amortization Schedules

Fiscal Year Established	Original Amount	Original Amortization Period	Amortization Amount	Outstanding Balance at 12/31/2019	Outstanding Balance at 12/31/2018
Net difference between projected and actual earnings					
12/31/2018	$ 106,655	5.00	$ 21,331	$ 63,993	$ 85,324
12/31/2019	(42,078)	5.00	(8,416)	(33,662)	N/A
	64,577		12,915	30,331	85,324
Differences between expected and actual experience					
12/31/2018	$ 0		$	$ 0	$ 0
12/31/2019	(262,731)	5.04	(52,129)	(210,602)	N/A
	(262,731)		(52,129)	(210,602)	
Changes in assumptions					
12/31/2018	$ 0		$	$ 0	$ 0
12/31/2019	(177,167)	5.04	(35,152)	(142,015)	N/A
	(177,167)		(35,152)	(142,015)	

GASB STATEMENTS NO. 74 & 75 (CONT.)

The following exhibit provides a reconciliation of the Total OPEB Liability and Fiduciary Net Position for the fiscal years ending December 31, 2018 and December 31, 2019 based on actual cash flows during this time period.

	FYE 12/31/2019	FYE 12/31/2018
Reconciliation of Total OPEB Liability (TOL)		
TOL at Beg. Of Year	$ 1,473,360	$ 1,440,219
Service Cost	8,348	7,869
Interest Cost	111,862	108,679
Ad Hoc Postemployment Benefit Changes	0	0
Differences between expected and actual experience	(262,731)	0
Changes in assumptions	(177,167)	0
Net Benefits Paid By Employer	(67,963)	(83,407)
TOL at End of Year	$ 1,085,709	$ 1,473,360
Reconciliation of Fiduciary Net Position (FNP)		
FNP at Beg. Of Year	$ 685,785	$ 504,609
Projected Earnings on FNP	63,249	47,642
Net difference between projected and actual earnings	42,078	(106,655)
Employer Contributions	330,163	325,207
Participant contributions	6,158	5,315
Total Benefits Paid	(74,121)	(88,721)
Non-Investment Administrative Expenses	(1,540)	(1,612)
FNP at End of Year	$ 1,051,772	$ 685,785
Money-Weighted Rate of Return	12.97%	-9.00%
Net OPEB Liability (Asset)		
Total OPEB Liability	$ 1,085,709	$ 1,473,360
Fiduciary Net Position	1,051,772	685,785
Net OPEB Liability	$ 33,937	$ 787,575
FNP as a % of TOL	96.87%	46.55%
Key Assumptions for Net OPEB Liability (NOL)		
Discount Rate	7.75%	7.75%
Salary Scale	3.00%	3.00%
Expected Return on Assets	7.75%	7.75%

GASB STATEMENTS NO. 74 & 75 (CONT.)

The following exhibit details the Net OPEB Liability (NOL) as of December 31, 2018 and December 31, 2019 and provides a Sensitivity Analysis of the NOL due to a 1% increase or decrease in either the Discount Rate or Healthcare Trend Rates.

	FYE 12/31/2019	FYE 12/31/2018
Net OPEB Liability (Asset)		
Total OPEB Liability	$ 1,085,709	$ 1,473,360
Fiduciary Net Position	1,051,772	685,785
Net OPEB Liability	$ 33,937	$ 787,575
Discount Rate	7.75%	7.75%
Sensitivity Analysis on Net OPEB Liability (Asset)		
Discount Rate Sensitivity		
NOL - 1% Increase in Discount Rate	$ (40,664)	$ 677,810
NOL - 1% Decrease in Discount Rate	118,704	884,080
Healthcare Trend Sensitivity		
NOL - 1% Increase in Healthcare Trend	42,373	799,023
NOL - 1% Decrease in Healthcare Trend	26,189	777,061
Discount Rate Sensitivity		
Decrease in NOL due to a 1% Increase in Discount Rate	$ 74,601	$ 109,765
Increase in NOL due to a 1% Decrease in Discount Rate	84,767	96,505
Healthcare Trend Sensitivity		
Increase in NOL due to a 1% Increase in Trend Rates	8,436	11,448
Decrease in NOL due to a 1% Decrease in Trend Rates	7,748	10,514

GASB STATEMENTS NO. 74 & 75 (CONT.)

The following exhibit provides the Deferred Outflows / Inflows for the fiscal years ending December 31, 2018 and December 31, 2019 based on actual cash flows during this time period.

	FYE 12/31/2019	FYE 12/31/2018
Deferred Inflows of Resources Related to OPEB		
Net difference between projected and actual earnings	$ 33,662	$ 0
Difference between expected and actual experience	210,602	0
Changes in assumptions	142,015	0
Total	$ 386,279	$ 0
Deferred Outflows of Resources Related to OPEB		
Net difference between projected and actual earnings	$ 63,993	$ 85,324
Difference between expected and actual experience	0	0
Changes in assumptions	0	0
Total	$ 63,993	$ 85,324

Schedule of Deferred Outflows (Inflows)

Amounts reported as deferred outflows or deferred inflows as of:

FYE 12/31/2019		FYE 12/31/2018	
2020	$ (74,366)	2019	$ 21,331
2021	(74,366)	2020	21,331
2022	(74,366)	2021	21,331
2023	(95,695)	2022	21,331
2024	(3,493)	2023	0
2025+	0	2024+	0

PROJECTED
GASB STATEMENTS NO. 74 & 75

The following exhibit provides the Projected OPEB Expense (Income) for the fiscal years ending December 31, 2020 and December 31, 2021 using expected cash flows. These amounts will be updated once actual experience is realized.

	FYE 12/31/2021	FYE 12/31/2020
Projected OPEB Expense (Income)		
Service Cost	$ 6,843	$ 6,644
Interest Cost	79,060	80,465
Non-Investment Administrative Expenses	1,540	1,540
Employee Contributions	0	0
Projected Earnings on Fiduciary Net Position	(76,588)	(77,958)
Recognition of Deferred Outflows (Inflows) related to:		
Net difference between projected and actual earnings	12,915	12,915
Difference between expected and actual experience	(52,129)	(52,129)
Changes in assumptions	(35,152)	(35,152)
Contributions subsequent to the measurement date	0	0
Ad Hoc Postemployment Benefit Changes	0	0
OPEB Expense (Income)	$ (63,511)	$ (63,675)

Key Assumptions for Projected OPEB Expense (Income)		
Discount Rate	7.75%	7.75%
Salary Scale	3.00%	3.00%
Expected Return on Assets	7.75%	7.75%

PROJECTED
GASB STATEMENTS NO. 74 & 75

The following exhibit provides the projected amortization schedule for the Deferred Outflows / (Inflows) used in the Projected OPEB Expense (Income) for the fiscal years ending December 31, 2020 and December 31, 2021 using expected cash flows. These amounts will be updated once actual experience is realized.

Projected Deferred Outflows/(Inflows) - Amortization Schedules

Fiscal Year Established	Original Amount	Original Amortization Period	Amortization Amount	Outstanding Balance at 12/31/2021	Outstanding Balance at 12/31/2020
Net difference between projected and actual earnings					
12/31/2018	$ 106,655	5.00	$ 21,331	$ 21,331	$ 42,662
12/31/2019	(42,078)	5.00	(8,416)	(16,830)	(25,246)
	64,577		12,915	4,501	17,416
Differences between expected and actual experience					
12/31/2019	(262,731)	5.04	(52,129)	(106,344)	(158,473)
	(262,731)		(52,129)	(106,344)	(158,473)
Changes in assumptions					
12/31/2019	(177,167)	5.04	(35,152)	(71,711)	(106,863)
	(177,167)		(35,152)	(71,711)	(106,863)

PROJECTED
GASB STATEMENTS NO. 74 & 75 (CONT.)

The following exhibits provide a projected reconciliation of the Total OPEB Liability and Fiduciary Net Position for the fiscal years ending December 31, 2020 and December 31, 2021. These results will be updated once actual experience is realized.

	FYE 12/31/2021	FYE 12/31/2020
Projected Reconciliation of Total OPEB Liability (TOL)		
TOL at Beg. Of Year	$ 1,071,515	$ 1,085,709
Service Cost	6,843	6,644
Interest Cost	79,060	80,465
Ad Hoc Postemployment Benefit Changes	0	0
Differences between expected and actual experience	0	0
Changes in assumptions	0	0
Net Benefits Paid By Employer	(109,350)	(101,303)
TOL at End of Year	$ 1,048,068	$ 1,071,515
Projected Reconciliation of Fiduciary Net Position (FNP)		
FNP at Beg. Of Year	$ 1,038,015	$ 1,051,772
Projected Earnings on FNP	76,588	77,958
Net difference between projected and actual earnings	0	0
Employer Contributions	11,327	11,128
Participant contributions	0	0
Total Benefits Paid	(109,350)	(101,303)
Non-Investment Administrative Expenses	(1,540)	(1,540)
FNP at End of Year	$ 1,015,040	$ 1,038,015
Projected Net OPEB Liability (Asset)		
Total OPEB Liability	$ 1,048,068	$ 1,071,515
Fiduciary Net Position	1,015,040	1,038,015
Net OPEB Liability	$ 33,028	$ 33,500
FNP as a % of TOL	96.85%	96.87%
Key Assumptions for Projected NOL		
Discount Rate	7.75%	7.75%
Salary Scale	3.00%	3.00%
Expected Return on Assets	7.75%	7.75%

PROJECTED
GASB STATEMENTS NO. 74 & 75 (CONT.)

The following exhibits provide the projected Deferred Outflows / Inflows for the fiscal years ending December 31, 2020 and December 31, 2021. These results will be updated once actual experience is realized.

	FYE 12/31/2021	FYE 12/31/2020
Deferred Inflows of Resources Related to OPEB		
Net difference between projected and actual earnings	$ 16,830	$ 25,246
Difference between expected and actual experience	106,344	158,473
Changes in assumptions	71,711	106,863
Total	$ 194,885	$ 290,582
Deferred Outflows of Resources Related to OPEB		
Net difference between projected and actual earnings	$ 21,331	$ 42,662
Difference between expected and actual experience	0	0
Changes in assumptions	0	0
Total	$ 21,331	$ 42,662

Schedule of Deferred Outflows (Inflows)

Amounts reported as deferred outflows or deferred inflows as of:

FYE 12/31/2021			FYE 12/31/2020		
2022	$	(74,366)	2021	$	(74,366)
2023		(95,695)	2022		(74,366)
2024		(3,493)	2023		(95,695)
2025		0	2024		(3,493)
2026		0	2025		0
2027+	$	0	2026+		0

REQUIRED SUPPLEMENTARY INFORMATION

Schedule of Funding Progress*

Actuarial Valuation Date	12/31/2019	12/31/2018	12/31/2017
a. Fiduciary Net Position	$ 1,051,772	$ 685,785	$ 504,609
b. Total OPEB Liability	1,085,709	1,473,360	1,440,219
c. Net OPEB Liability (b. - a.)	33,937	787,575	935,610
d. Funded Ratio (a. / b.)	96.87%	46.55%	35.04%
e. Net Annual Covered Payroll	$ 653,827	$ 874,679	$ 849,203
f. Net OPEB Liability as a Percentage of Payroll (c. / e.)	5.19%	90.04%	110.18%

*Completed using information in our records, which may not contain the complete history of the plan.

REQUIRED SUPPLEMENTARY INFORMATION (CONT.)

Schedule of Employer Contributions*

Fiscal Year Ended	Actuarially Determined Contribution (a)	Actual Contribution (b)	Contribution Deficiency Excess (a) - (b)	Covered Payroll (c)	Contribution as a % of Covered Payroll (b) / (c)
12/31/2018	$ 82,671	$ 325,207	$ (242,536)	$ 874,679	37.18%
12/31/2019	85,152	330,163	(245,011)	653,827	50.50%
12/31/2020	17,327	11,128	6,199	493,663	2.25%
12/31/2021	17,614	11,327	6,287	423,843	2.67%

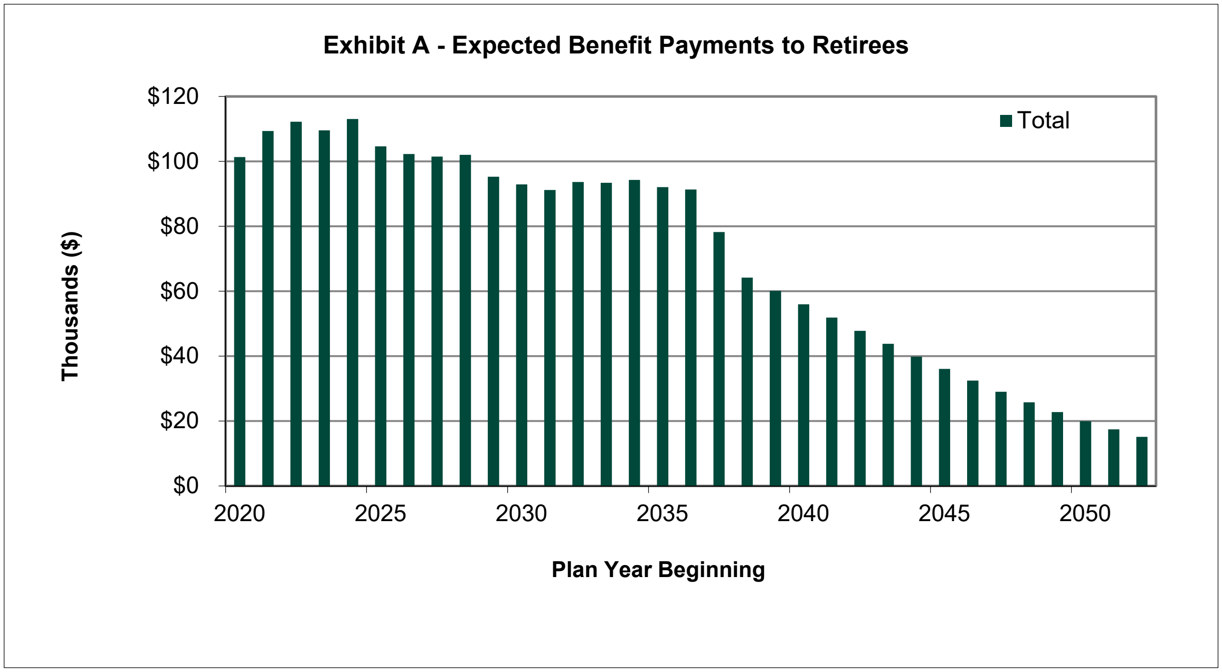
*Completed using information in our records, which may not contain the complete history of the plan.

Fiscal Years Ending 12/31/2020 and 12/31/2021 actual contributions and covered payroll have been estimated.

Beginning Fiscal Year Ending 2020, the ADC is calculated in accordance with the requirements of Public Act 202 of 2017, namely Numbered Letter 2018-3. For Fiscal Years Ended 2018 and 2019, the ADC is calculated in accordance with the Employer's funding policy, substantive or otherwise. Prior to Fiscal Year Ending 2018, the ADC is equal to the Annual Required Contribution (ARC) as calculated under GASB No. 45.

PROJECTED
RETIREE BENEFIT PAYMENTS

Exhibit A is a graph that shows the projection of expected benefit payments under the OPEB plan for all locations. These payments only reflect those participants who have already been hired or who are retired. Expected benefit payments are equal to the number of retirees each year times the per retiree cost to the employer, and it includes the implicit liability, if applicable. The first year's projected benefit payments total is $101,303. As the last participants retire and then reach the end of their benefit period, the benefit payments decline and eventually would reach zero. Exhibit B is a table showing the first 10 years of expected benefit payments.



Plan Year Beginning January 1		Total
2020	$	101,303
2021		109,350
2022		112,204
2023		109,532
2024		113,034
2025		104,628
2026		102,265
2027		101,479
2028		102,020
2029	$	95,257

PUBLIC ACT 202 OF 2017
FORM 5572 COMPLIANCE GUIDE

Line	Description		Valuation Information
Measurement Date			12/31/2019
Valuation Date			12/31/2019
	Descriptive Information		
1	Is this unit a primary unit (County, Twp, City, Village)?		Yes
2	Name of Retirement Health Care System		Jackson District Library
3	**Financial Information**		
4	Actuarial Value of Assets (AVA)	$	1,051,772
5	Actuarial Accrued Liability (AAL)		1,085,709
6	Funded Ratio: (4) / (5)		96.87%
7	Actuarially Determined Contribution (ADC)	$	11,128
7a	Is ADC calculated in compliance with Numbered Letter 2018-3		Yes
8	Governmental Fund Revenues*	$	9,162,995
9	ADC as a % of Governmental Revenues: (7) / (8)		0.12%
10	**Membership****		
11	Number of Active Members		11
12	Number if Inactive Members (entitled to future benefits)		0
13	Number of Retirees and Beneficiaries		25
14	Net Benefits Paid on Behalf of the Retirees and Beneficiaries	$	74,121
15	**Investment Performance**		
16	Actual Rate of Return - Prior 1-year period		12.97%
17	Actual Rate of Return - Prior 5-year period		Contact Investment Advisors
18	Actual Rate of Return - Prior 10-year period		Contact Investment Advisors
19	**Actuarial Assumptions**		
20	Assumed Rate of Investment Return		7.75%
21	Discount Rate		7.75%
22	Amortization Method for Funding the Unfunded Accrued Liability		Level Dollar
23	Amortization Period as of Valuation Date		30
24	Is Plan Closed to New Participants?		Yes
25	Immediate Health Care Trend Assumption (as of Valuation Date)		8.50%
26	Ultimate Health Care Trend Assumptions (as of Valuation Date)		4.50%
27	**Uniform Assumptions**		
28	Actuarial Value of Assets (AVA) using Uniform Assumptions		1,051,772
29	Actuarial Accrued Liability (AAL) using Uniform Assumptions	$	1,145,933
30	Funded Ratio: (28) / (29)		91.78%
31	Actuarially Determined Contribution (ADC)	$	11,128
32	ADC as a % of Governmental Revenues: (31) / (8)		0.12%

36	Does Plan Trigger "Unfunded Status"?	No

Primary Units: Yes, if Funded Ratio is less than 40% AND ARC is greater than 12% of Governmental Fund Revenues
Non- Primary Units: Yes, if Funded Ratio is less than 40%

PUBLIC ACT 202 OF 2017
FORM 5572 COMPLIANCE GUIDE

Development of Actuarially Determined Contribution (ADC) using Uniform Assumptions

Year Ending:		**12/31/2021**		**12/31/2020**
Normal Cost Component		(Projected)		
Normal Cost at beginning of year	$	7,931	$	7,663
Interest through end of year		555		536
Expected Administrative Expenses		1,540		1,540
Total Normal Cost	$	10,026	$	9,739
Amortization Component				
Actuarial Accrued Liability at beginning of year			$	1,145,933
Assets at beginning of year				1,051,772
Unfunded Actuarial Accrued Liability at beginning of year				94,161
Amortization Factor				13.2777
Amortization Payment	$	7,092	$	7,092
Interest through end of year		496		496
Total Amortization Payment	$	7,588	$	7,588
Total Actuarially Determined Contribution (ADC) at End of Year	**$**	**17,614**	**$**	**17,327**
Discount Rate:		7.00%		7.00%
Salary Scale:		3.50%		3.50%
Amortization Period (years):		29		30
Amortization Method:		Level Dollar		Level Dollar
Plan Type (Open vs. Closed)		Closed		Closed

**Revenues are as disclosed in the most recently available Comprehensive Annual Financial Report; amount must be updated to actual revenues upon completion of Form 5572.*

***Membership is based on participant data provided as of the valuation date. For interim-years, counts may need updated by the Employer upon completion of Form 5572.*

DESCRIPTION OF CENSUS DATA

Valuation Census Data

CBIZ Retirement Plan Services has used and relied upon participant data supplied by the plan sponsor as of the valuation date. The Plan Sponsor is responsible for providing an accurate description of all participants eligible for benefits under the plan as of the valuation date and ensuring that the data provided is sufficiently comprehensive and accurate for its intended purpose. Inaccurate data or data not sufficiently comprehensive for its intended purposes may cause the results of our calculations to differ significantly from the results provided herein. Although CBIZ Retirement Plan Services has reviewed the suitability of the data for its intended use in accordance with Actuarial Standard of Practice No. 23, CBIZ Retirement Plan Services has not verified or audited any of the data or information provided.

Participants included in the valuation as of:	12/31/2019
Active plan members	11
Inactive plan members not receiving payments	0
Inactive plan members currently receiving payments	25
Total participants	36

ACTUARIAL ASSUMPTIONS

Long-Term Rate of Return on Assets (for GASB 74/75 purposes)

7.75%

The Long-Term Rate of Return on Assets is chosen by the plan sponsor, along with their investment advisors, and reflects their view of the long-term rate of return on assets based on current and target asset allocations.

Rationale: The investment policy of the Employer is determined based on the goals and objectives of the Plan and the risk tolerance of the Employer. As new information regarding the economic environment becomes available the investment policy may need to be revised. Asset allocations fluctuate due to market performance, however, the targeted OPEB asset allocation is as described below.

Assets are held in the MERS Retirement Health Funding Vehicle and are invested in the MERS Total Market Portfolio. The MERS Total Market Portfolio is a fully diversified portfolio combining traditional stocks and bonds with alternative asset classes including real estate, private equity, and commodities. The objective is to provide current income and capital appreciation while minimizing the volatility of the capital markets.

The main asset classes held in the MERS Total Market Portfolio are provided below. The target allocations and best estimates of arithmetic real rates of return for each asset class are summarized in the following table.

Asset Class	Target Allocation (a)	Long Term Expected (b)	Real Rate of Return (a x b)
Global Equity	55.50%	8.65%	4.80%
Global Fixed Income	18.50%	3.76%	0.70%
Private Markets	26.00%	8.65%	2.25%
Total	100.00%		7.75%

Long-Term Rate of Return on Assets (for PA 202 purposes)

7.00%.

A lower rate of 7.00% has been selected to comply with the maximum Long-Term Rate of Return on Assets set forth in the Uniform Assumptions published by the Michigan Department of Treasury under Public Act 202 of 2017.

ACTUARIAL ASSUMPTIONS

Municipal Bond Rate

3.26% as of December 31, 2019

3.64% as of December 31, 2018

Rationale: Based on the S&P Municipal Bond 20-Year High Grade Rate Index as of the measurement date.

Discount Rate (for GASB 74/75 purposes)

7.75% as of December 31, 2019

7.75% as of December 31, 2018

Rationale: Since expected actuarially determined contributions based on the funding policy are expected to be sufficient to finance payment of benefits solely from the trust, the discount rate used for accounting purposes is based on the Long-Term Rate of Return on trust assets.

Discount Rate (for PA 202 purposes)

7.00% as of December 31, 2019

Rationale: Since expected actuarially determined contributions based on the funding policy are expected to be sufficient to finance payment of benefits solely from the trust, the discount rate used for accounting purposes is based on the lesser of 7.00% or the Long-Term Rate of Return on trust assets.

Annual Wage Increases (for GASB 74/75 purposes)

3.00% per year.

Rationale: The current assumption has been selected based on the Employer's expectations of future compensation increases.

Annual Wage Increases (for PA 202 purposes)

3.50% per year.

Rationale: The current assumption has been selected to comply with the Uniform Assumptions published by the Michigan Department of Treasury under Public Act 202 of 2017.

Inflation

2.50% per year.

Rationale: The current assumption has been selected based on the results published in the 2019 Long-Term Capital Market Assumptions published by JP Morgan Asset Management.

ACTUARIAL ASSUMPTIONS

Administrative Expenses	$1,540 is added to the Normal Cost when determining the Actuarially Determined Contribution. Rationale: Administrative expenses are equal to the prior year amounts paid out of the irrevocable trust.

ACTUARIAL ASSUMPTIONS

Healthy Participant Mortality

The mortality assumption is a 50% Male - 50% Female blend of the following tables:

1. RP-2014 Healthy Annuitant Mortality Tables, with rates multiplied by 105%
2. RP-2014 Employee Mortality Tables
3. RP-2014 Juvenile Mortality Tables

For ages 0-17, the rates in Table 3 are used. For ages 18-49, the rates in Table 2 are used. For ages 50-69, a blend of Table 2 and Table 1 rates are used, as follows:

a. Age 50, use 60% of Table 2 and 40% of Table 1
b. Age 51, use 57% of Table 2 and 43% of Table 1
c. etc…
d. Age 69, use 3% of Table 2 and 97% of Table 1

The mortality assumptions include a 10% margin for future mortality improvements. Sample rates are as follows:

Age	Rates
20	0.03%
25	0.03%
30	0.03%
35	0.04%
40	0.05%
45	0.08%
50	0.23%
55	0.37%
60	0.58%
65	0.94%
70	1.56%
75	2.51%
80	4.18%

Rationale: Because the Employer does not have enough data to conduct a fully credible experience analysis with respect to mortality, the current assumption is based on those used in the most recent actuarial valuation of pension benefits through MERS. Said assumptions are based on an experience study conducted using actual MERS experience from 2009 - 2013.

ACTUARIAL ASSUMPTIONS

Disabled Participant Mortality

The MERS Disabled Participant Mortality assumption used in the December 31, 2015 pension valuation. This is based on a 50% Male - 50% Female blend of the RP-2014 Disabled Retiree Mortality Tables. The mortality assumptions include a 10% margin for future mortality improvements. Sample rates are as follows:

Age	Rates
20	0.47%
25	0.54%
30	0.55%
35	0.65%
40	0.82%
45	1.30%
50	1.62%
55	1.89%
60	2.18%
65	2.63%

Rationale: Because the Employer does not have enough data to conduct a fully credible experience analysis with respect to mortality, the current assumption is based on those used in the most recent actuarial valuation of pension benefits through MERS. Said assumptions are based on an experience study conducted using actual MERS experience from 2009 - 2013.

ACTUARIAL ASSUMPTIONS

Withdrawal Rates

Participants are assumed to terminate employment for reasons other than death, disability, or retirement in accordance with the MERS Base withdrawal assumptions used in the most recent pension valuation, which are annual rates varying by years of service. Sample rates are as follows:

Years of Service	Base Rate
0	19.60%
1	16.30%
2	13.30%
3	10.50%
4	8.60%
5	6.90%
10	4.60%
15	3.40%
20	2.60%
25	2.20%
30+	2.20%

Rationale: Because the Employer does not have enough data to conduct a fully credible experience analysis with respect to withdrawal rates, the current assumption is based on those used in the most recent actuarial valuation of pension benefits through MERS. Said assumptions are based on an experience study conducted using actual MERS experience from 2009 - 2013.

ACTUARIAL ASSUMPTIONS

Disability Incidence

Participants are assumed to terminate employment due to disability in accordance with the MERS disability incidence assumption, which are annual rates varying by age. Sample rates are as follows:

Age	Rates
20	0.02%
25	0.02%
30	0.02%
35	0.05%
40	0.08%
45	0.20%
50	0.29%
55	0.38%
60	0.39%
65	0.39%

Rationale: Because the Employer does not have enough data to conduct a fully credible experience analysis with respect to disability incidence, the current assumption is based on those used in the most recent actuarial valuation of pension benefits through MERS. Said assumptions are based on an experience study conducted using actual MERS experience from 2009 - 2013.

ACTUARIAL ASSUMPTIONS

Retirement Rates

Participants are assumed to retire in accordance with annual rates varying by years of service. Sample rates are as follows.

Years of Service	Rates	Years of Service	Rates
1	5.00%	27-28	25.00%
2	6.00%	29	27.00%
3	8.00%	30	38.00%
4	11.00%	31	31.00%
5	12.00%	32	33.00%
6	15.00%	33	34.00%
7	16.00%	34	36.00%
8	18.00%	35	39.00%
9	19.00%	36	41.00%
10-17	20.00%	37	44.00%
18-22	21.00%	38	46.00%
23	22.00%	39	49.00%
24-26	24.00%	40+	50.00%

In lieu of the above rates, 100% retirement is assumed at age 70.

Rationale: Because the Employer does not have enough data to conduct a fully credible experience analysis with respect to retirement rates, the current assumption is based on those used in the most recent actuarial valuation of pension benefits through MERS. Said assumptions are based on an experience study conducted using actual MERS experience from 2009 - 2013. MERS retirement rates are based on pension replacement ratios; for purposes of this valuation, they have been converted to service-related rates to reflect similar expectations.

Annual Per Capita Claims Costs

The estimated annual per capita claims costs are shown below. The amounts prior to age 65 are the fully-insured premiums developed by the provider. The amounts after attainment of age 65 are the stipends provided to retirees.

Age	Retirees	Spouses
60	8,932	12,313
61	8,932	12,313
62	8,932	12,313
63	8,932	12,313
64	8,932	12,313
65+	3,600	1,800

ACTUARIAL ASSUMPTIONS

Health Care Claims (Cost) Trend Rates

The estimated increase in Annual Claims Costs are assumed to be as follows:

Years After Valuation	Medical / Rx Pre-65
1	8.50%
2	8.25%
3	8.00%
4	7.75%
5	7.50%
6	7.25%
7	7.00%
8	6.75%
9	6.50%
10	6.25%
11	6.00%
12	5.75%
13	5.50%
14	5.25%
15	5.00%
16	4.75%
17+	4.50%

Trend Rates do not apply to the post-65 stipend.

Rationale: The medical / pharmacy baseline trend increases are the Uniform Assumptions published in accordance with Public Act 202 of 2017. They are based on a survey of over 100 health insurers, managed care organizations, pharmacy benefit managers, and third party administrators, about forecasted health plan cost trends. Respondents included the five largest health insurance payers in the U.S., the five largest pharmacy benefits managers in the U.S., and the largest health insurance plan in the State of Michigan. The healthcare trend survey was published by Segal Consulting in Fall 2017.

ACTUARIAL ASSUMPTIONS

Election Rates

Future Retirees:
100% of future retirees are assumed to elect coverage at retirement.

Current Retirees:
Based on current coverage election. It is assumed no one will opt-in or opt-out of coverage once initial retirement election has been made.

Rationale: The assumed rate of participation incorporated into these measurements is based on observations of the plan's past experience, the actuary's experience with plans of a similar size, plan design and retiree contribution level.

Spousal Election Rates

Future Retirees:
40% of participants are assumed to be married at retirement. 100% of future married retirees are assumed to elect to cover their spouse under the same plan at retirement.

Current Retirees and Spouses:
Based on current coverage election. It is assumed no one will opt-in or opt-out of coverage once initial retirement election has been made.

Rationale: The assumed rate of participation incorporated into these measurements is based on observations of the plan's past experience, the actuary's experience with plans of a similar size, plan design and retiree contribution level.

Spouse Age

Females are assumed to be 3 years younger than males.

Rationale: The spousal assumptions incorporated into these measurements is based on observations of the plan's past experience, the actuary's experience with plans of a similar size, plan design and retiree contribution level.

Morbidity

None assumed.

Rationale: Given the small plan size and average age of the participants, morbidity was not assumed.

Decrement Timing

Mid-year.

ACTUARIAL ASSUMPTIONS

Changes in Actuarial Assumptions since the prior valuation

The Pre-65 Annual Per Capita Claims Costs were updated to reflect current premiums.

The Disability Incidence Rates and Retirement Rates were updated to align with the MERS pension assumptions.

ACTUARIAL METHODS

Actuarial Cost Method

Individual Entry Age Normal as a level percentage of payroll.

Actuarially Determined Contribution

The Actuarially Determined Contribution (ADC) is calculated in accordance with Public Act 202 of 2017 and/or the Employer's funding and investment policy.

Amortization Methods

The Amortization Factor in the Actuarially Determined Contribution has been determined using a level dollar method over a closed 30-year period.

Deferred Inflows (Outflows) are amortized in OPEB Expense (Income) as follows:

▪ Differences between projected and actual earnings are amortized over 5 years.

▪ Differences between expected and actual experience are amortized over the average future working lifetime of active participants.

▪ Changes in assumptions are amortized over the average future working lifetime of active participants.

Annual Per-Capita Claims Costs

According to GASB Standards, when an employer provides benefits to both active employees and retirees through the same plan, the benefits to retirees should be segregated and measured independently for actuarial measurement purposes. The projection of future retiree benefits should be based on an age-adjusted claims costs curve or age-adjusted premiums approximating claims costs in accordance with actuarial standards issued by the Actuarial Standards Board.

Per capita claims costs prior to age 65 are the fully insured premiums charged by the insurer. Per capita claims costs after attainment of age 65 are equal to the stipends provided by the employer.

Discount Rate

According to GASB Nos. 74 & 75, if assets are set aside in an irrevocable trust and these assets along with projected contributions to this trust are expected to be sufficient to pay for expected benefit payments from the Plan, then the discount rate should reflect the estimated long-term investment return. If assets are not set aside in an irrevocable trust, the discount rate should be based on Municipal Bond Rates. If assets are set aside in an irrevocable trust and these assets along with projected contributions to this trust are not expected to be sufficient to pay for expected benefit payments from the Plan, then the discount rate should be based on a blend of the estimated long-term investment return and Municipal Bond Rates.

ACTUARIAL METHODS

Funding Policy	The funding policy of the Plan is to fund the Other Post-Employment Benefits (OPEB) through the annual budgeting process. Funds will be placed into a trust to assure the cost of the OPEB will be funded in an equitable and sustainable manner. Through an annual valuation, Jackson District Library has committed to annual progress towards a fully funded status for the liabilities.
Medical Benefits Valuation Method	The total costs associated with the plan are determined as the sum of the explicit cost and the implicit cost, if any, to the employer. The explicit cost is equal to the premiums paid minus the retiree contributions.
Participant Data Methods	Participant data used was supplied by the plan sponsor. The plan sponsor provides us with data on all participants as of the valuation date. We have reviewed the data and have no reason to doubt its substantial accuracy.
Changes in Actuarial Methods since the prior valuation	None.

SUMMARY of PLAN BENEFITS

The following is a summary of what we understand to be the most relevant plan provisions for purposes of actuarial valuations. This summary should not be used for purposes of determining plan benefits.

Plan Sponsor	Jackson District Library
Plan Name	Jackson District Library Retiree Medical Plan
Eligibility Requirements	Full-time employees hired before July 1, 2007 Retiring at age 60 with 12 or more years of continuous service All others Not eligible
Insured Type	Pre-65: Fully-insured. Post-65: N/A
Medical Benefits	Coverage Types Provided Medical, prescription drugs, dental, and vision Payment Period: Benefits cease upon death or the attainment of age 65. Other Post-65 retirees receive a bi-annual stipend of $1,800 for a single retiree and $2,700 for any retiree that has an eligible spouse. Spouse Benefits Spouses are still eligible after the participant's death until the attainment of age 65.
Retiree Cost Share	Pre-65 retirees pay 20% of the fully-insured premiums.
Changes in Plan Provisions since the prior valuation	None.