

## BCERS 2025-10 Questions

1. Please provide the fees for the scope of work requested in the RFP for the most recent audit. **Bay County has never had an actuarial audit performed in the past.**
2. What is the budget for the scope of work requested? **\$25,000 has been budgeted for this project with additional budget adjustments available as needed.**
3. Our firm requires a limit (cap) of liability and a hold harmless/indemnification provision in our actuarial services contracts. Would this requirement prevent our proposal from being considered? **BCERS/VEBA will accept a reasonable cap on liability. With respect to the hold harmless and indemnification clauses, BCERS and VEBA will agree to mutual indemnification and hold harmless clauses.**
4. Will you please provide the actuarial valuation report(s) that are to be audited (or most recent report(s) if not yet available)? **Attached**
5. Does the RFP cover the Retirement Plan, Health Care Plan or both? **RFP is for both the Retirement Plan and Healthcare Plan, with separate pricing requested. The Healthcare Plan will be audited as required, with the Retirement Plan potentially being audited as well at the discretion of the Board.**
6. What were the fees paid for the last actuarial audit and what level audit was done (one, two or three)? **N/A- The system has never performed an actuarial audit**
7. 2. When was the last actuarial audit performed for BCERS? Is a copy of the final report available for review by the bidders? **N/A – The system had never performed an actuarial audit.**
8. 3. Will the presentation of audit findings to the Retirement Board be done at an in-person meeting? **Okay with an in-person presentation or virtual.**

# Bay County Employees' Retirement System

Annual Actuarial Valuation Report  
for County Employers Other Than BABH  
December 31, 2023



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September 24, 2024

Board of Trustees  
Bay County Employees' Retirement System  
Bay City, Michigan

**Re: Bay County Employees' Retirement System - excluding BABH Actuarial Valuation  
as of December 31, 2023 Actuarial Disclosures**

Dear Board Members:

The results of the December 31, 2023 Annual Actuarial Valuation of the Bay County Employees' Retirement System - excluding BABH are presented in this report.

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

The purposes of the valuation are to measure the System's funding progress and to determine the employer contribution rate for the fiscal year ending December 31, 2025. This report should not be relied on for any purpose other than the purposes described herein. Determinations of financial results, associated with the benefits described in this report, for purposes other than those identified above may be significantly different.

The contribution rate shown in this report is determined using the actuarial assumptions and methods disclosed in Section D of this report. This report includes risk metrics on pages F-1 and F-2, but does not include a more robust assessment of the risks of future experience not meeting the actuarial assumptions. This report also includes a discussion of the required Low-Default-Risk Obligation Measure (LDROM) on page F-3. Additional assessment of risks was outside the scope of this assignment. We encourage a review and assessment of investment and other significant risks which may have a material effect on the System's financial condition.

We have assessed that the contribution rates calculated under the current funding policy are reasonable Actuarially Determined Employer Contributions (ADECs) and it is consistent with the plan accumulating adequate assets to make benefit payments when due.

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

The findings in this report are based on data and other information through December 31, 2023. The valuation was based upon information furnished by the County, concerning Retirement System benefits, financial transactions, plan provisions and active members, terminated members, retirees and beneficiaries. We checked for internal reasonability and year-to-year consistency, but did not audit the data. We are not responsible for the accuracy or completeness of the information provided by the County.

This report was prepared using assumptions adopted by the Board. All actuarial assumptions used in this report are reasonable for the purposes of this valuation. The combined effect of the assumptions is expected to have no significant bias (i.e., not significantly optimistic or pessimistic). All actuarial assumptions used in this report are reasonable for the purposes of this valuation. All actuarial assumptions and methods used in the valuation follow the guidance in the applicable Actuarial Standards of Practice. Additional information about the actuarial assumptions is included in the section of this report entitled Actuarial Cost Methods and Actuarial Assumptions.

This report was prepared using our proprietary valuation model and related software which, in our professional judgment, has the capability to provide results that are consistent with the purposes of the valuation and has no material limitations or known weaknesses. We performed tests to ensure that the model reasonably represents that which is intended to be modeled.

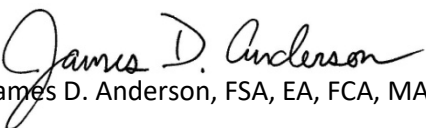
This report has been prepared by actuaries who have substantial experience valuing public employee retirement systems. To the best of our knowledge, the information contained in this report is accurate and fairly presents the actuarial position of the Bay County Employees' Retirement System - excluding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

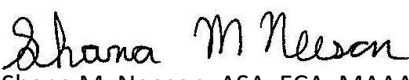
James D. Anderson, Shana M. Neeson, and Stephanie Sullivan are Members of the American Academy of Actuaries (MAAA) and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained herein.


The signing actuaries are independent of the plan sponsor.

Gabriel, Roeder, Smith & Company will be pleased to review this valuation and report with the Board of Trustees and to answer any questions pertaining to the valuation.

Respectfully submitted,  
Gabriel, Roeder, Smith & Company

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

  
Shana M. Neeson, ASA, FCA, MAAA

  
Stephanie Sullivan, ASA, MAAA

JDA/SMN/SS:sc



# SECTION A

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## EXECUTIVE SUMMARY

# Executive Summary

## 1. Required Employer Contributions

The computed employer contributions **exclusive of employer paid "member" contributions** are as follows:

Division	Valuation Year Fiscal Year	Contribution Rate <sup>#</sup>	
		12/31/2022	12/31/2023
		1/1/2024	1/1/2025
General County		0.00 %	0.00 %
DWS		14.31	13.04
Library*		\$ 0	\$ 0
Medical Care Facility		0.00 %	0.00 %
Sheriff's Department		0.00	0.00
Road Commission		11.15	10.19

\* Beginning with the 2013 valuation, the Library contribution is calculated as a level dollar amount, since the Library is closed to future hires.

# Beginning with the 2015 valuation, BABH results are provided in a separate report.

It is important to remember that the current contribution rates for General County, Library, Medical Care Facility, and Sheriff's Department are lower than the long-term cost of the plan (the normal cost). This is because these divisions have overfunding credits. The credits reduce the required contributions below the normal costs until the overfunding is eliminated. ***If future experience were to exactly match each of the assumptions, the employer contribution rates would not remain level. Increases would occur over time and contribution rates would increase towards the normal cost or long-term cost of the benefits.***

## 2. Funded Ratio Comparison

The funding percentage for each of the valuation groups is shown below.

Division	Funded Ratio	
	12/31/2022	12/31/2023
General County	128 %	132 %
DWS	89	92
Library	119	123
Medical Care Facility	120	124
Sheriff's Department	131	134
Road Commission	98	98

This year for all employment divisions combined, excluding BABH, valuation assets represent 122.8% of accrued liabilities; last year the ratio was 119.7%. If the valuation results were based on market value of assets instead of smoothed funding value, the funded percent of the plan would be 115.1%.



### 3. Reasons for Change

There are three general reasons why contribution rates change from one valuation to the next.

1. The first is a change in the benefits or eligibility conditions of the plan. There were no changes in benefits.
2. The second is a change in the valuation assumptions used to predict future occurrences. There were no changes in assumptions.
3. The third is the difference during the year between the plan's actual experience and what the assumptions predicted. This is discussed below.

### 4. 2023 Plan Experience

The aggregate experience during 2023 was favorable, with an overall gain/(loss) of \$7,623,039. The gain/(loss) information is shown separately for each group on page B-8.

Investment return on the market value of assets for calendar year 2023 exceeded the assumed rate of return for the valuation (see page C-5). However, the asset smoothing method only recognizes 20% of a given year's investment gain or loss. Partial recognition of gains and losses from prior years along with this year's gain resulted in an overall gain on the funding value of assets. In addition to the investment experience gain, there was a non-investment gain due to more terminations than expected for all groups. These gains were partially offset by larger than expected pay increases for all groups, except the Library.

### 5. Retiree Reserve Balance

The retiree accrued liabilities for all divisions are larger than the reported retiree reserve balances. For detail see Comment A on page B-5.

### 6. Looking Ahead

Investment income greater than or less than expected based on the investment return assumption is recognized over a five-year period under the current asset valuation method. As of December 31, 2023, the funding value of assets was 106.7% of market value. Due to investment performance during the previous five years, unrecognized investment gains and losses exist that are scheduled to be recognized over the next four years. Given that actuarial assumptions are realized, this is expected to put upward pressure on the required contribution amounts calculated in the near term.



**SECTION B**

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**VALUATION RESULTS AND COMMENTS**

## Financial Objective

The financial objective of the Retirement System is to establish and receive contributions, expressed as a percentage of active member payroll, which will remain approximately level from year to year and will not have to be increased for future generations of citizens.

Your annual actuarial valuations determine how well the objective is being met.

The Board of Trustees of the Bay County Employees' Retirement System confirms that the System provides for payment of the required employer contribution as described in Section 20m of Michigan Public Act No. 728 of 2002.

## Contribution Rates

The Retirement System is supported by contributions from the employers, by member contributions and by the investment income earned on System assets. For some divisions, the required member contributions are paid by the Employer either through contributions to the System or by transferring funds from the employer reserves to the employee reserves. In addition, the Employer provides an actuarially determined contribution.

Member and Employer contributions cover both: i) normal cost, and ii) the financing of the unfunded accrued liability over a period of future years. The normal cost is the portion of System costs allocated to the current year by the valuation method described on page D-1. The unfunded accrued liability is the portion of System costs not covered by present System assets and future normal costs.

The contribution requirements for the fiscal year beginning January 1, 2025 are presented on page B-2.

## Contributions to Provide Benefits Member Portion and Employer Portion Fiscal Year Beginning January 1, 2025

Contributions for	% of Active Payroll						Total
	General County	DWS	Library*	Medical Care Facility	Sheriff's Department	Road Commission	
Normal cost of benefits:							
Age & service	8.80 %	12.57 %	\$ 113,246	7.86 %	10.81 %	12.05 %	
Disability	0.33	0.47	4,143	0.47	1.81	0.85	
Death-in-service	0.17	0.25	2,393	0.09	0.20	0.32	
Total	9.30	13.29	119,782	8.42	12.82	13.22	
Member contributions <sup>#</sup> :							
Total	4.07	4.00	36,828	4.00	4.55	4.79	
Future refunds	0.05	0.04	2,026	0.46	0.18	0.22	
Available for pensions	4.02	3.96	34,802	3.54	4.37	4.57	
Administrative expenses	0.45	0.45	4,143	0.45	0.45	0.45	
Employer normal cost	5.73	9.78	89,123	5.33	8.90	9.10	
Unfunded accrued liability	(13.95)	3.26	(270,586)	(9.40)	(18.54)	1.09	
<b>Computed Employer Rate</b>	<b>0.00</b>	<b>13.04</b>		<b>0.00</b>	<b>0.00</b>	<b>10.19</b>	
<b>Computed Employer \$ Contribution Amount</b>	<b>\$ 0</b>						<b>\$ 906,533</b>

<sup>#</sup> For certain divisions, the member contributions are paid by the employer, either by directly contributing to the Retirement System or by transferring funds from employer reserves to employee reserves.

<sup>\*</sup> Beginning with the 2013 valuation, the Library contribution is calculated as a level dollar amount, since the Library is closed to future hires.

Unfunded actuarial accrued liabilities were amortized as a level dollar amount for the Library and as a level percent of member payroll for all other groups over a closed period of 19 years and asset surpluses were amortized over an open period of 20 years.

The required employer contribution rate determined above is reasonable under Actuarial Standard of Practice (ASOP) No. 4, Measuring Pension Obligations and Determining Pension Plan Costs or Contributions, based on:

- The use of reasonable actuarial assumptions and cost methods; and
- The use of reasonable amortization and asset valuation methods.

**The procedure for determining dollar contribution amounts** is shown on page B-3.

Page B-4 displays the unfunded accrued liabilities (asset surpluses) that are amortized by the contribution rates shown above.



## Determining Dollar Contributions

For any period of time, the percent-of-payroll contribution rates need to be converted to dollar amounts. We recommend one of the following procedures:

- (1) Contribute dollar amounts for a period which are equal to the employer's percent-of-payroll contribution requirement multiplied by the covered active member payroll for the period. Adjustments should be made as necessary to exclude items of pay that are not covered compensation for Retirement System benefits and to include non-payroll payments that are covered compensation; or
- (2) Contribute the dollars for each group based on the table shown below.

	General			Medical Care	Sheriff's	Road	
Group:	County	DWS	Library	Facility	Department	Commission	Total
Contribution:	\$ -	\$ 517,509	\$ -	\$ -	\$ -	\$ 389,024	\$ 906,533

These amounts are based on the payroll information provided for the valuation.

## Timing of Contribution Payments

The contribution requirements in this report anticipate regular payments throughout the year. Examples would be at each payroll date or in 12 monthly installments. If the employer contribution pattern is significantly different, an adjustment to the costs may be appropriate. For example, a lump sum contribution at the beginning of the year is available for investment throughout the year and, therefore, ought to be somewhat smaller than 12 monthly payments. Similarly, a lump sum contribution at the end of the year will not generate any investment income that year.

## Determination of Unfunded Accrued Liability

	General County	DWS	Library	Medical Care Facility	Sheriff's Department	Road Commission	Total
<b>A. Accrued liability</b>							
1. For retirees and beneficiaries	\$ 76,448,212	\$ 14,911,442	\$ 8,227,956	\$ 37,481,411	\$ 26,297,297	\$ 26,099,860	\$ 189,466,178
2. For vested terminated members	2,519,164	237,956	154,113	1,466,031	499,297	0	4,876,561
3. For present active members							
a. Value of expected future benefit payments	54,598,563	10,316,661	4,756,904	28,656,693	18,501,825	14,224,995	131,055,641
b. Value of future normal costs	13,700,871	4,259,355	823,098	6,495,459	6,328,992	3,988,655	35,596,430
c. Active member liability: (a) - (b)	40,897,692	6,057,306	3,933,806	22,161,234	12,172,833	10,236,340	95,459,211
4. Total actuarial accrued liability	119,865,068	21,206,704	12,315,875	61,108,676	38,969,427	36,336,200	289,801,950
<b>B. Valuation assets</b>	157,679,756	19,463,422	15,122,194	75,548,685	52,193,809	35,755,513	355,763,379
<b>C. Unfunded accrued liability (Excess assets):</b>							
(A.4) - (B)	(37,814,688)	1,743,282	(2,806,319)	(14,440,009)	(13,224,382)	580,687	(65,961,429)
<b>D. Funding ratio: (B) / (A.4)</b>	131.5%	91.8%	122.8%	123.6%	133.9%	98.4%	122.8%

## Comments

**Comment A:** We developed the value of anticipated future benefit payments to retired members and their beneficiaries. We then compared this accrued liability to the reported value of the retirement reserve account. The figures below compare the retired liabilities and reserves for each division.

Division	Retiree Accrued Liability	Reported Retiree Reserve	Unfunded Retiree Liability
General County	\$ 76,448,212.00	\$ 68,750,052.78	\$ 7,698,159.22
DWS	14,911,442.00	13,321,804.11	1,589,637.89
Library	8,227,956.00	7,322,429.69	905,526.31
Medical Care Facility	37,481,411.00	33,890,091.97	3,591,319.03
Sheriff's Department	26,297,297.00	23,800,088.16	2,497,208.84
Road Commission	26,099,860.00	23,066,542.97	3,033,317.03
<b>Total</b>	<b>\$189,466,178.00</b>	<b>\$170,151,009.68</b>	<b>\$19,315,168.32</b>

As of the valuation date, there is a shortfall in the retiree reserve for all groups. This valuation anticipates that the difference between the accrued liability and the reported reserve will be transferred from the Retirement System employer reserve to the retiree reserve effective January 1, 2024 to fully fund the retiree accrued liability.

**Comment B:** Contribution rates generally decreased during the year, primarily due to favorable investment performance and more terminations than expected. Results varied by group and are discussed further in items 4 and 5 on page A-2 and on page C-5.

**Comment C:** The chart on page B-8 shows the experience gain/(loss) for 2023. The development of the investment gain/(loss) is shown on page B-9.

**Comment D:** The introduction of GASB Statements No. 67 and No. 68 served to completely disconnect pension accounting from pension funding. This means that the Annual Required Contribution is no longer applicable. As part of good governance, we would be happy to supply the Board with a draft funding policy for consideration. In particular, this document would codify methods, assumptions and other key items related to pension funding, including perhaps a minimum contribution equal to a percentage of the normal cost for currently overfunded plans.

**Comment E:** Assumptions were updated for the December 31, 2022 valuation after a review was performed.

## Comments

**Comment F:** Under Public Act 202 of the State of Michigan, Michigan municipalities are required to report liabilities under uniform assumption guidelines. While the current guidelines are only for reporting purposes (and not funding), governments may be encouraged to use these new assumptions for funding. For efficiency in compliance, and consistent with past practice, we produce this information for inclusion with the annual GASB valuation.

**Comment G:** Under Sec. 4(1)(d) of Public Act 202 of the State of Michigan, local units of government are required to have a peer actuarial audit conducted by an actuary that is not the plan actuary or replace the plan actuary at least every eight years. Given the implementation of Public Act 202, it is our understanding that the audit requirement must be met prior to January 1, 2026. GRS can work with the Board and Staff to ensure compliance.

## Disclosures

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

Given the DWS and Road Commission contribution allocation procedures, if all actuarial assumptions are met (including the assumption of the plan earning 7.25% on the actuarial value of assets), then the following outcomes are expected, for the above mentioned groups:

1. The employer normal cost as a percentage of pay is expected to remain level as a percentage of payroll.
2. The unfunded liability is expected to be paid off in approximately 19 years, which is the number of years remaining in the closed amortization schedule of the unfunded liability. The funded status of the plan is expected to reach a 100% funded ratio in approximately 19 years, which is the number of years remaining in the closed amortization schedule of the unfunded liability.
3. The funded status of the plan is expected to increase gradually towards a 100% funded ratio.

Given the General, Library, Medical Care Facility, and Sheriff's Department contribution allocation procedures, if all actuarial assumptions are met (including the assumption of the plan earning 7.25% on the actuarial value of assets), then the following outcomes are expected, for the above mentioned groups:

1. For General, Medical Care Facility, and Sheriff's Department groups - the employer normal cost as a percentage of pay is expected to remain level as a percentage of payroll.
2. For the Library group, the Normal cost is calculated as a level dollar amount due to the closure of the plan to future Library active members.
3. The funded status of the plan is expected to decrease gradually towards a 100% funded ratio.

### Limitations of Funded Status Measurements

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

1. The measurement is inappropriate for assessing the sufficiency of plan assets to cover the estimated cost of settling the plan's benefit obligations.
2. The measurement is inappropriate for assessing the need for or the amount of future employer contributions.
3. The measurement would produce a different result if the market value of assets were used instead of the actuarial value of assets, unless the market value of assets is used in the measurement.



## Determination of Experience Gain/(Loss) Year Ended December 31, 2023

Actual experience will never (except by coincidence) exactly match assumed experience. It is hoped that gains and losses will cancel each other over a period of years, but sizable year-to-year fluctuations are common. Detail on the determination of the experience gain/(loss) is shown below:

	General County	DWS	Library	Medical Care Facility	Sheriff's Department	Road Commission	Total
(1) Unfunded Actuarial Accrued Liabilities (UAAL) at start of year	\$ (33,219,511)	\$ 2,245,565	\$ (2,377,713)	\$ (11,966,382)	\$ (11,715,999)	\$ 736,103	\$ (56,297,937)
(2) Normal cost for the year 2023	1,942,392	518,476	138,405	1,046,717	689,643	510,634	4,846,267
(3) Actual employer & employee contributions	(817,541)	(733,555)	(135,718)	(449,017)	(262,685)	(477,203)	(2,875,719)
(4) Net interest accrual on (1), (2) and (3)	(2,368,114)	155,098	(172,288)	(846,149)	(834,113)	54,565	(4,011,001)
(5) Expected UAAL before changes: (1) + (2) + (3) + (4)	(34,462,774)	2,185,584	(2,547,314)	(12,214,831)	(12,123,154)	824,099	(58,338,390)
(6) Change from benefit changes	-	-	-	-	-	-	-
(7) Change from revised actuarial assumptions and methods	-	-	-	-	-	-	-
(8) Expected UAAL after changes: (5) + (6) + (7)	(34,462,774)	2,185,584	(2,547,314)	(12,214,831)	(12,123,154)	824,099	(58,338,390)
(9) Actual UAAL at end of year	(37,814,688)	1,743,282	(2,806,319)	(14,440,009)	(13,224,382)	580,687	(65,961,429)
(10) Actuarial accrued liabilities (AAL) at start of year	118,403,060	20,707,166	12,333,369	60,765,097	38,275,108	35,656,572	286,140,372
(11) Total Gain/(Loss): (8) - (9) As a percent of AAL at start of year: (11)/(10)	3,351,914 2.8%	442,302 2.1%	259,005 2.1%	2,225,178 3.7%	1,101,228 2.9%	243,412 0.7%	7,623,039 2.7%
(12) Investment Gain/(Loss) <sup>1</sup> : As a percent of AAL at start of year: (12)/(10)	\$ 2,367,395 2.0%	\$ 292,223 1.4%	\$ 227,044 1.8%	\$ 1,134,284 1.9%	\$ 783,635 2.0%	\$ 536,831 1.5%	\$ 5,341,412 1.9%
(13) Non-Investment Gain/(Loss): (11) - (12) As a percent of AAL at start of year: (13)/(10)	\$ 984,519 0.8%	\$ 150,079 0.7%	\$ 31,961 0.3%	\$ 1,090,894 1.8%	\$ 317,593 0.8%	\$ (293,419) (0.8)%	\$ 2,281,627 0.8%

<sup>1</sup> Allocated based on Market Value.



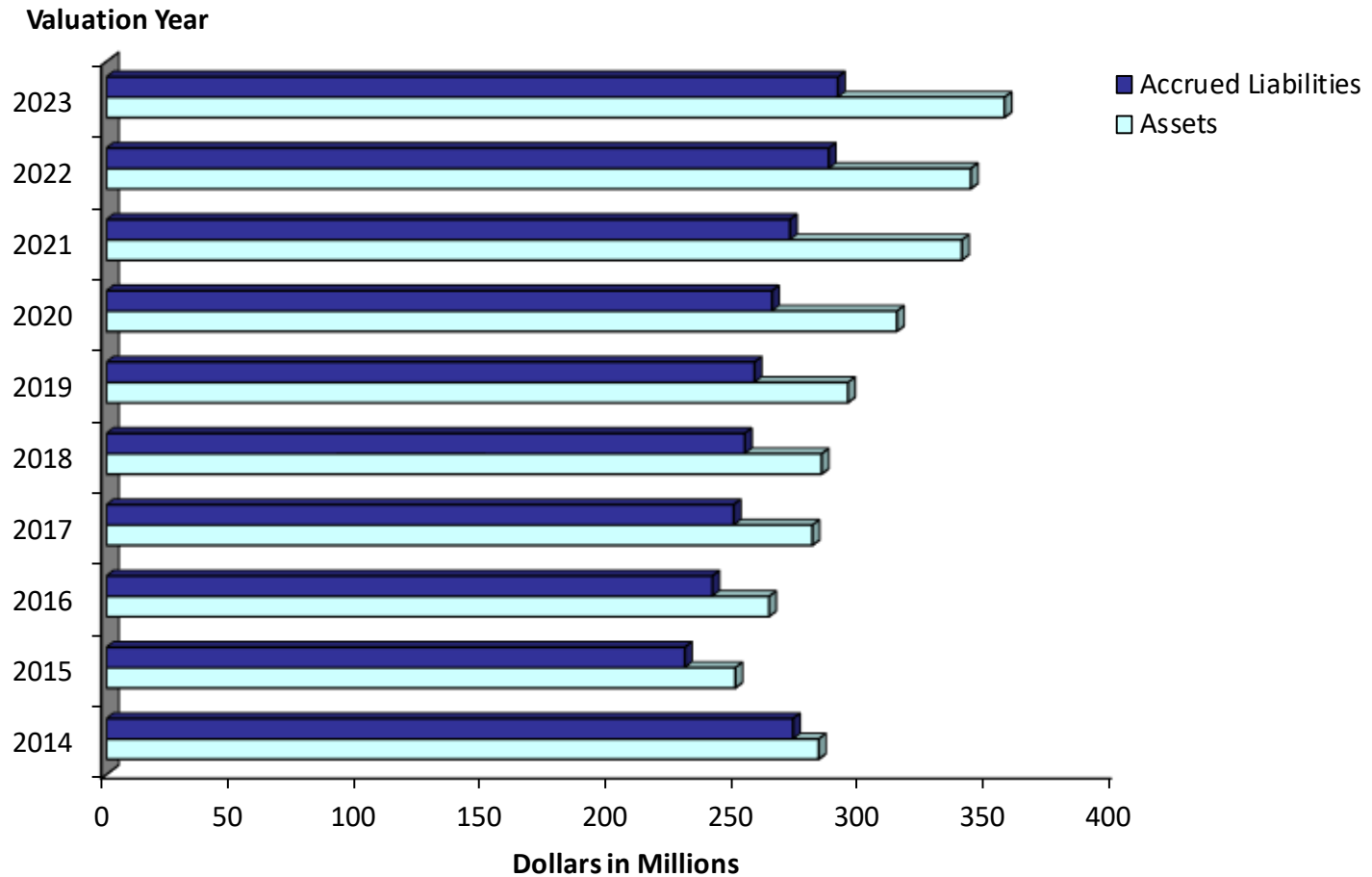
## Development of Valuation Investment Gain/(Loss) Year Ended December 31, 2023

We anticipate an average return on valuation assets of 7.25% for future years. The chart below details the development of the investment gain/(loss) for the entire Bay County Employees' Retirement System, including BABH.

(1) Total 2023 valuation investment income	\$ 35,641,801
(2) Average valuation assets	402,794,352
(3) Expected investment income: $(.0725) \times (2)$	29,202,591
(4) Gain/(Loss): $(1) - (3)$	6,439,210
(5) Valuation rate of return for 2023: $(1) / (2)$	8.85 %

Please note that this analysis uses asset values and investment income as defined for the actuarial valuation. It is not, therefore, appropriate as a measure of manager performance.

## Assets and Accrued Liabilities



*For Valuation Years prior to 2015, the results displayed are for the entire Retirement System (including BABH). Beginning with the Valuation Year 2015, the results displayed are for the Retirement System (excluding BABH).*

2014 assets equaled 103.7% of accrued liabilities.

2023 assets equaled 122.8% of accrued liabilities.

## Computed Contributions - Comparative Statement

Valuation Date	Valuation Payroll			Annual Dollar Requirement	Employer Requirements as Percents of Valuation Payroll@						
	Total	Average	% Incr.		General County	DWS	Library	BABH	Medical Care Facility	Sheriff's Department	Road Commission
12/31/2004 #	\$43,550,999	\$36,202	2.9 %	\$ 405,110	0.00 %	0.00 %	0.68 %	1.11 %	0.00 %	0.00 %	8.19 %
12/31/2005	43,104,046	36,010	(0.5)	588,948	0.00	0.00	1.60	2.53	0.00	0.00	9.34
12/31/2006 #	42,024,045	37,455	4.0	644,945	0.00	0.00	0.00	3.24	0.00	0.00	10.82
12/31/2007 #	44,687,752	39,269	4.8	688,871	0.00	0.00	0.00	3.70	0.00	0.00	9.17
12/31/2008	46,482,897	39,695	1.1	1,578,548	0.00	4.44	0.00	6.95	2.32	0.00	14.13
12/31/2009 ^	47,244,573	40,208	1.3	2,443,118	0.00	7.40	2.74	8.83	5.05	0.00	17.64
12/31/2010	47,090,560	40,771	1.4	3,074,891	1.19	11.71	6.91	9.08	7.36	0.00	18.05
12/31/2011 #	48,583,176	41,702	2.3	4,289,438	4.08	13.77	9.89	10.17	9.57	0.00	20.78
12/31/2012 *	48,571,798	41,444	(0.6)	4,038,100	3.87	15.75	9.26	10.01	7.22	0.55	21.32
12/31/2013 #\$	44,535,708	39,447	(4.8)	4,477,504	0.03	15.72	\$ 89,491	27.04	4.20	0.00	19.14
12/31/2014	46,494,417	40,081	1.6	2,535,295	0.00	14.16	34,265	11.36	2.87	0.00	18.09
12/31/2015	36,658,462	39,760	N/A	1,088,320	0.00	12.83	57,008		0.27	0.00	19.19
12/31/2016 #*	36,761,949	41,075	3.3	1,546,699	0.00	14.91	74,780		2.76	0.00	21.28
12/31/2017	38,491,118	41,929	2.1	1,152,393	0.00	14.22	10,430		0.57	0.00	18.66
12/31/2018	39,208,285	42,664	1.8	1,278,469	0.00	14.42	7,906		1.37	0.00	18.29
12/31/2019	41,829,803	43,437	1.8	1,246,043	0.00	15.00	0		1.20	0.00	15.08
12/31/2020	41,943,737	44,244	1.9	980,443	0.00	14.44	0		0.00	0.00	13.04
12/31/2021	42,100,617	43,403	(1.9)	799,393	0.00	12.99	0		0.00	0.00	8.91
12/31/2022 *	41,968,387	49,375	13.8	925,904	0.00	14.31	0		0.00	0.00	11.15
12/31/2023	44,208,748	50,873	3.0	906,533	0.00	13.04	0		0.00	0.00	10.19

*For Valuation Dates prior to 2015, the results displayed are for the entire Retirement System (including BABH). Beginning with the 2015 Valuation Date, the results displayed are for the Retirement System (excluding BABH).*

# Retirement System amended.

\* Revised actuarial assumptions or methods.

^ Implementation of a one-year lag between valuation date and first day of the fiscal year to which the contributions apply.

@ Beginning with the 2013 valuation, the Library contribution is calculated as a level dollar amount, since the Library is closed to future hires.

\$ Contribution reflects an advanced payment of the BABH unfunded ERIP liability.



## SECTION C

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### SUMMARY OF BENEFIT PROVISIONS AND VALUATION DATA

# Brief Summary of Plan Provisions as of December 31, 2023

Division		Retirement Eligibility		
No.	Name	Normal	Early	Deferred
1	Elected Officials and Department Heads	Age 55 with 30% yrs of svc or age 60 with 8/60 with 10*/62 with 10# yrs of svc	Age 55 with 8/55 with 10* yrs of svc	8/10* yrs of svc
2	Judges			
3	General County			
4	General Circuit Court			
5	General District Court			
6	General Probate Court			
7	BCAMPS			
8	USWA General			
9	USWA Part-Time Employees			
15	District Court AFSCME			
33	Elected Officials and Department Heads: Elected Sheriff and Appointed Undersheriff	25% yrs of svc regardless of age, or age 55 with 30% yrs of svc, or age 60 with 8/60 with 10*/62 with 10# yrs of svc	Age 55 with 8/55 with 10* yrs of svc	8/10* yrs of svc
10	Nurses	Age 55 with 30 yrs of svc or age 60 with 8/62 with 10# yrs of svc	Age 55 with 8/55 with 10# yrs of svc	8/10# yrs of svc
16	Probate Court USWA	Age 55 with 30 yrs of svc or age 60 with 8/62 with 8# yrs of svc	Age 55 with 8 yrs of svc	8 yrs of svc
18	Library - Employee Members of UWUA Local 542	Age 55 with 30 yrs of svc or age 60 with 8/60 with 10! yrs of svc	Age 55 with 8/55 with 10! yrs of svc	8/10! yrs of svc
19	General Library			
30	ICEA/PERA 1203			
31	ICEA/PERA 612			
14	Circuit Court Govt. Employees Labor Council (GELC)	Age 55 with 30% yrs of svc or age 60 with 8/60 with 10@/62 with 10# yrs of svc	Age 55 with 8/55 with 10@ yrs of svc	8/10@ yrs of svc
32	Road Patrol Supervisory Unit	25 yrs of svc regardless of age or age 60 with 8/60 with 10@ yrs of svc	Age 55 with 8/55 with 10@ yrs of svc	8/10@ yrs of svc
11	Sheriff - Road Patrol	25 yrs of svc regardless of age or age 60 with 8/60 with 10* yrs of svc	Age 55 with 8/55 with 10* yrs of svc	8/10* yrs of svc
12	Sheriff Correctional Facility Officers	Age 55 with 25 yrs of svc or age 60 with 8/60 with 10* yrs of svc	25 yrs of svc regardless of age or age 55 with 8/55 with 10* yrs of svc	8/10* yrs of svc
13	Dispatchers	30 yrs of svc regardless of age, age 55 with 25 yrs of svc, or age 60 with 8 yrs of svc/60 with 10* yrs of svc	25 yrs of svc regardless of age or age 55 with 8/55 with 10* yrs of svc	8/10* yrs of svc
20	Medical Care Facility United Steel Workers Local 15301	30 yrs of svc regardless of age, age 55 with 25+ yrs of svc, or age 60 with 8/60 with 10^/62 with 10^ yrs. of svc	Age 55 with 8/55 with 10^ yrs of svc	8/10^ yrs of svc
21	Medical Care Facility RN & LPN Nursing Council - USW 15301-01			
22	General Medical Care Facility			
25	Road Commission AFSCME Local 1096	30 yrs of svc regardless of age	Age 55 with 8/55 with 10* yrs of svc	8/10* yrs of svc
26	Road Commission Class I Supervisory and Admin. Employees	or age 60 with 8/60 with 10* yrs of svc		
28	Water and Sewer UWUA Local 546	30 yrs of svc regardless of age	Age 55 with 8/55 with 10^ yrs of svc	8/10^ yrs of svc
29	Water and Sewer General	or age 60 with 8/60 with 10^ yrs of svc		

@ Members hired after 1/1/2006.

\* Members hired after 1/1/2007.

^ Members hired after 7/1/2008.

! Members hired after 3/1/2008.

% Members hired on or before 1/1/2012 only.

# Members hired after 1/1/2012.

+ Members hired before 7/30/2015 only.

\$ Members hired on or after 7/30/2015.

- Members hired before 1/1/2018 (4/1/2019 for Div. 22) only.

? Members hired on or after 1/1/2018 (4/1/2019 for Div. 22).



# Brief Summary of Plan Provisions as of December 31, 2023 (Continued)

Eligibility	Amount
	<b>Normal Retirement</b>
See prior page or age 65 with 0 or more years of service.	<p>Total service times FAC times:</p> <p>2.25% for divisions 1-10, 14, 16, 33 hired before 1/1/2012</p> <p>2.25% for divisions 18, 19, and 28-31</p> <p>2.25% for divisions 20-22 hired before 7/30/2015</p> <p>2.50% for divisions 12, 13, and 15 hired before 1/1/2012</p> <p>2.50% for division 25 hired before 1/1/2011</p> <p>2.50% for division 26 hired before 1/1/1996</p> <p>2.80% for divisions 11 and 32 hired before 1/1/2012</p> <p>2.25% for division 25 hired on or after 1/1/2011 and before 1/1/2016</p> <p>2.50% for division 26 hired on or after 1/1/1996 and before 1/1/2016 for service through 3/31/2011 and 2.25% for service after 3/31/2011</p> <p>1.60% for divisions 1-16, 32, and 33 hired on or after 1/1/2012*</p> <p>1.75% for divisions 20-22 hired on or after 7/30/2015 and before 1/1/2018 (4/1/2019 for div. 22)</p> <p>1.50% for divisions 20-22 hired on or after 1/1/2018 (4/1/2019 for div. 22)</p> <p>1.50% for divisions 25 and 26 hired on or after 1/1/2016</p> <p>Maximum County-financed is 75% of FAC [70% of FAC for divisions 20-22 hired on or after 1/1/2018 (4/1/2019 for div. 22)]</p> <p>Type of FAC - Highest 5 years. Some lump sums included.</p>
See prior page.	<p><b>Early Retirement</b></p> <p>Normal retirement reduced to the actuarial equivalent of a pension at normal retirement age.</p>
Service condition as indicated on page C-1. Benefit begins at age 60 or reduced at age 55.	<p><b>Deferred Retirement</b></p> <p>Computed as a normal retirement but based on service and final average compensation at time of termination.</p>
10 or more years of credited service at any age.	<p><b>Non-Duty Death-In-Service</b></p> <p>Computed as a normal retirement but actuarially reduced in accordance with a 100% joint and survivor election.</p>
No age or service requirements. Benefits begin upon termination of Worker's Compensation.	<p><b>Duty Death-in-Service</b></p> <p>To the spouse, a refund of accumulated contributions plus a benefit equal to the Worker's Compensation amount. Unmarried children under 18 and parents receive a benefit equal to the Worker's Compensation amount.</p>

\* Two members hired after 1/1/2012 continue to be eligible for the multiplier and member contribution rate in effect prior to the implementation of the 1.60% multiplier and 4% member contribution rate for members hired after 1/1/2012.



# Brief Summary of Plan Provisions as of December 31, 2023 (Concluded)

Eligibility	Amount
<b>Non-Duty Disability</b>	
10 or more years of credited service.	Computed as a normal retirement. Worker's Compensation payments may be offset.
<b>Duty Disability</b>	
No age or service requirements.	Computed as a normal retirement with additional service credit granted to age 55. Worker's Compensation payments may be offset.
<b>Post-Retirement Cost-of-Living Adjustments</b>	
	One-time increases have been granted.
<b>Member Contributions</b>	
	For members hired before 1/1/2012, 6% of annual compensation for:
	Sheriff-Road Patrol (div. 11)
	Sheriff Correctional Facility Officers (div. 12)
	Road Patrol Supervisory Unit (div. 32)
	Dispatchers (div. 13)
	District Court AFSCME (div. 15)
	4% of annual compensation for groups 11-13, 15, and 32 hired on or after 1/1/2012*.
	5% of annual compensation for Road Commission Local 1096 (div. 25).
	4% of annual compensation for remaining groups.
	For certain employee groups, the employer pays the member contribution either by directly contributing to the Retirement System or by transferring funds from the employer to the employee reserves.
<b>Employer Contributions</b>	
	Actuarially determined amounts which, together with member contributions, are sufficient to cover both: i) normal costs of the plan, and ii) financing of unfunded accrued liabilities over a selected period of future years.
<b>Retirement System Eligibility</b>	
Library members hired on or after January 1, 2012 are no longer eligible to participate in the Bay County Employees' Retirement System - excluding BABH.	

\* Two members hired after 1/1/2012 continue to be eligible for the multiplier and member contribution rate in effect prior to the implementation of the 1.60% multiplier and 4% member contribution rate for members hired after 1/1/2012.





# Reported Financial Information Year Ended December 31, 2023 Bay County Employees' Retirement System (in Total) (Market Value)

## Revenues and Disbursements during 2023

### Revenues:

a. Employee contributions	\$ 2,226,649	
b. Employer contributions	1,800,797	
c. Investment income	46,782,569	
d. Miscellaneous income	<u>0</u>	
e. Total		\$50,810,015

### Disbursements:

a. Benefits paid	\$ 22,328,500	
b. Refunds of member contributions	333,908	
c. Administrative expenses	473,481	
d. Investment expenses	<u>1,791,480</u>	
e. Total		<u>\$24,927,369</u>

### Reserve Increase:

Total revenues minus total disbursements	<u><u>\$25,882,646</u></u>
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## Assets and Reserves as of December 31, 2023

### Assets:

a. Cash & equivalents <sup>#</sup>	\$ 268,553
b. Short-term investments	5,392,718
c. Equities	307,621,893
d. Fixed Income	84,450,304
e. Real Estate	2,363,621
f. Other <sup>^</sup>	<u>1,996,088</u>
Total	<u><u>\$402,093,177</u></u>

### Reserve Accounts:

a. Employee contributions	\$ 32,711,833
b. Reserve for benefits now being paid	206,480,567
c. Reserve for future benefits	162,900,777
Total	<u><u>\$402,093,177</u></u>

<sup>#</sup> Adjusted for accruals net of payables and deferred inflows of resources.

<sup>^</sup> Adjusted for deferred outflow of resources.



# Development of Valuation Assets

## Bay County Employees' Retirement System (in Total)

### December 31, 2023

	2022	2023	2024	2025	2026	2027
1. Beginning of Year Assets						
a) Market Value	\$466,990,862	\$376,210,531				
b) Valuation Assets	407,460,369	412,348,573				
2. End of Year Market Value Assets	376,210,531	402,093,177				
3. Net Additions to Market Value						
a) Net Contributions	4,157,084	4,027,446				
b) Net Investment Income = (3d) - (3a) - (3c)	(72,504,541)	44,991,089				
c) Benefit Payments, Refunds, and Admin. Expenses	(22,432,874)	(23,135,889)				
d) Total Additions to Market Value = (2) - (1a)	(90,780,331)	25,882,646				
4. Average Valuation Assets =						
(1b) + .5 x [(3a) + (3c)]	398,322,474	402,794,352				
5. Expected Income at Valuation Rate = 7.25% x (4)	28,878,379	29,202,591				
6. Gain/(Loss) = (3b) - (5)	(101,382,920)	15,788,498				
7. Phased-In Recognition of Investment Return						
a) Current Year: 0.2 x (6)	(20,276,584)	3,157,700				
b) First Prior Year	7,380,289	(20,276,584)	\$ 3,157,700			
c) Second Prior Year	6,649,621	7,380,289	(20,276,584)	\$ 3,157,700		
d) Third Prior Year	9,528,183	6,649,621	7,380,289	(20,276,584)	\$ 3,157,700	
e) Fourth Prior Year	(8,995,894)	9,528,184	6,649,622	7,380,289	(20,276,584)	\$ 3,157,698
f) Total Recognized Investment Gain	(5,714,385)	6,439,210	(3,088,973)	(9,738,595)	(17,118,884)	3,157,698
8. Change in Valuation Assets						
(3a) + (3c) + (5) + (7f)	4,888,204	16,533,358				
9. End of Year Assets						
a) Market Value = (2)	376,210,531	402,093,177				
b) Valuation Assets = (1b) + (8)	412,348,573	428,881,931				
c) Difference between Market & Valuation Assets	(36,138,042)	(26,788,754)	(23,699,781)	(13,961,186)	3,157,698	0
10. Recognized Rate of Return = [(5) + (7f)] / (4)	5.82 %	8.85 %				
11. Market Rate of Return = 2 x (3b) / [(1a) + (2) - (3b)]	(15.84)%	12.27 %				
12. Market Value of Assets for County Employers Other Than BABH	\$312,427,171	\$333,541,744				
13. Funding Value of Assets for County Employers Other Than BABH	342,438,309	355,763,379				



## Retirees and Beneficiaries Comparative Schedule

Year Ended	Added to Rolls*		Removed from Rolls		Rolls End of Year		% Incr. in Annual Allowances	Average Allowance	Discounted Value of Allowances	
	No.	Annual	No.	Annual	No.	Annual			Total	Average
		Allowances		Allowances		Allowances <sup>#</sup>				
12/31/1999	23	\$ 295,915 @	29	\$ 83,717	439	\$ 3,746,858	6.0 %	\$ 8,535	\$ 36,670,326	\$ 83,531
12/31/2000	46	645,474	27	201,656	458	4,190,676	11.8	9,150	40,970,172	89,455
12/31/2001	31	732,306 @	13	45,724	476	4,877,258	16.4	10,246	46,616,261	97,933
12/31/2002	34	464,636	18	126,234	492	5,215,660	6.9	10,601	49,634,941	100,884
12/31/2003	37	514,935	17	72,960	512	5,657,635	8.5	11,050	53,369,747	104,238
12/31/2004	95	2,073,773	16	133,099	591	7,598,309	34.3	12,857	74,362,328	125,825
12/31/2005	43	786,641	26	170,645	608	8,214,306	8.1	13,510	80,594,476	132,557
12/31/2006	39	844,464	24	579,276	623	8,479,494	3.2	13,611	85,797,333	137,716
12/31/2007	29	423,246	14	93,660	638	8,809,080	3.9	13,807	88,063,580	138,031
12/31/2008	47	725,060	26	204,104	659	9,330,036	5.9	14,158	92,573,860	140,476
12/31/2009	58	1,303,182	34	338,544	683	10,294,674	10.3	15,073	102,921,818	150,691
12/31/2010	46	1,166,301	24	210,133	705	11,250,842	9.3	15,959	112,893,161	160,132
12/31/2011	51	953,802	16	199,264	740	12,005,380	6.7	16,223	119,532,453	161,530
12/31/2012	58	1,114,368	12	127,382	786	12,992,366	8.2	16,530	126,736,278	161,242
12/31/2013	98	2,545,500	1	20,928	883	15,516,938	19.4	17,573	153,936,777	174,334
12/31/2014	35	826,083	2	10,254	916	16,332,767	5.3	17,831	159,912,340	174,577
12/31/2015	59	1,175,838	48	599,270	808	14,182,023	N/A	17,552	136,341,590	168,740
12/31/2016	47	880,677	41	351,083	814	14,711,617	3.7	18,073	146,461,527	179,928
12/31/2017	47	1,011,470	28	376,492	833	15,346,595	4.3	18,423	152,492,699	183,064
12/31/2018	47	995,556	30	864,830	850	15,477,321	0.9	18,209	156,284,407	183,864
12/31/2019	41	737,764	33	501,284	858	15,713,801	1.5	18,314	157,506,038	183,573
12/31/2020	64	1,436,901	37	426,560	885	16,724,142	6.4	18,897	167,049,929	188,757
12/31/2021	47	1,151,394	9	98,261	923	17,777,275	6.3	19,260	177,078,345	191,851
12/31/2022	47	1,014,462	31	401,551	939	18,390,186	3.4	19,585	187,078,170	199,231
12/31/2023	28	696,342	28	340,007	939	18,746,521	1.9	19,964	189,466,178	201,774

*For Years Ended prior to 2015, the results displayed are for the entire Retirement System (including BABH). Beginning with the Year Ended 2015, the results displayed are for the Retirement System (excluding BABH).*

\* Includes survivors of deceased retirees and annual allowance adjustments.

@ Includes one-time benefit increases.

# Annual Allowances based on pre-change age amount for members with applicable pension benefit types.



## Retirees and Beneficiaries December 31, 2023

### Tabulated by Type of Pension Paid

Type of Pensions Being Paid	Group						Total
	General County	DWS	Library	MCF	Sheriff's Dept.	Road Comm.	
Regular	159	9	29	128	17	17	359
A - 10-Year Certain	25	2	6	5	4	1	43
B - 100% J & S	121	27	12	63	35	36	294
C - 50% J & S	45	4	4	30	6	4	93
Social Security Equated							
- Regular	9			4	5	1	19
- 10-Year Certain				1	2		3
- 100% J & S	7			4	4	3	18
- 50% J & S	2			2	1		5
Survivor	39	6	1	12	18	29	105
<b>Total Pensions Being Paid</b>	<b>407</b>	<b>48</b>	<b>52</b>	<b>249</b>	<b>92</b>	<b>91</b>	<b>939</b>

## Retirees and Beneficiaries December 31, 2023

### Tabulated by Attained Age\*

Attained Age	General County		DWS		Library		MCF		Sheriff's Dept.		Road Comm.		Total	
	No.	Annual Allowances	No.	Annual Allowances	No.	Annual Allowances	No.	Annual Allowances	No.	Annual Allowances	No.	Annual Allowances	No.	Annual Allowances
45 - 49			1	\$ 20,478			1	\$ 13,111	2	\$ 101,265			4	\$ 134,854
50 - 54	1	\$ 13,645	1	31,943					9	305,055	2	\$ 109,735	13	460,378
55 - 59	19	475,116	4	172,013			23	507,893	12	467,642	7	286,241	65	1,908,905
60 - 64	55	1,207,691	6	116,630	3	\$ 31,643	42	808,944	10	273,687	20	613,630	136	3,052,225
65 - 69	101	2,192,158	12	422,904	10	184,679	44	757,392	15	467,092	12	408,383	194	4,432,608
70 - 74	87	1,632,191	12	402,822	14	338,498	64	888,077	18	384,132	15	485,911	210	4,131,631
75 - 79	73	1,367,538	6	118,579	11	134,061	39	384,714	7	179,822	13	260,638	149	2,445,352
80 - 84	43	514,490	5	71,004	5	152,712	18	220,346	12	192,746	8	167,786	91	1,319,084
85 - 89	18	207,775			5	60,199	11	122,212	4	67,998	7	130,892	45	589,076
90 - 94	5	43,022	1	8,314	2	9,760	6	38,552	3	32,936	7	98,091	24	230,675
95 - 99	5	23,057			1	11,119	1	3,863					7	38,039
100 - 104					1	3,694							1	3,694
<b>Totals</b>	<b>407</b>	<b>\$ 7,676,683</b>	<b>48</b>	<b>\$ 1,364,687</b>	<b>52</b>	<b>\$ 926,365</b>	<b>249</b>	<b>\$ 3,745,104</b>	<b>92</b>	<b>\$ 2,472,375</b>	<b>91</b>	<b>\$ 2,561,307</b>	<b>939</b>	<b>\$18,746,521</b>

\* Annual Allowances based on pre-change age amount for members with applicable pension benefit types.

Average Age at Retirement: 58.57 years

Average Age Now: 71.78 years

## Inactive Members December 31, 2023

**An inactive member** is a person who has left County employment with entitlement to a retirement allowance after attaining voluntary retirement age. There were 51 inactive members as of December 31, 2023:

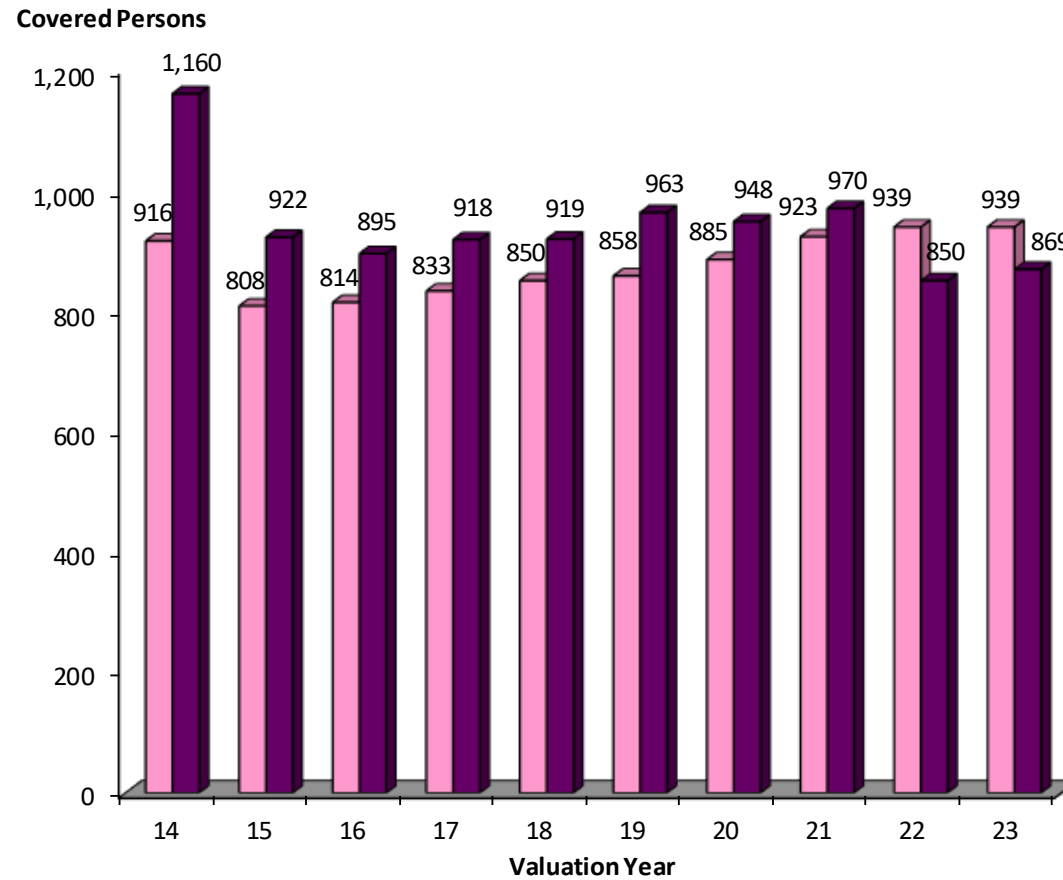
<b>Valuation Division</b>	<b>Number</b>	<b>Estimated Annual Deferred Pensions</b>
General County	25	\$311,919
DWS	3	28,798
Library	2	15,529
Medical Care Facility	14	189,750
Sheriff's Department	7	97,813
Road Commission	<u>0</u>	<u>0</u>
<b>Total</b>	<b>51</b>	<b>\$643,809</b>

The schedule on the next page is an age distribution of the inactive members.

## Inactive Members December 31, 2023 Tabulated by Attained Age

Attained Age	No.	Estimated Deferred Allowances
30 - 34	2	\$ 17,084
35 - 39	2	31,544
40 - 44	5	57,699
45 - 49	6	63,862
50 - 54	10	142,849
55 - 59	25	330,525
60 - 64	1	246
<b>Total</b>	<b>51</b>	<b>\$643,809</b>

## Active Members & Benefit Recipients



□ Benefit Recipients ■ Active Members

*For Valuation Years prior to 2015, the results displayed are for the entire Retirement System (including BABH). Beginning with the 2015 Valuation Year, the results displayed are for the Retirement System (excluding BABH).*



## Active Members December 31, 2023 Tabulated by Valuation Division

Valuation Division	Number	Annual Payroll
General County	405	\$19,679,752
DWS	59	3,740,811
Library	17	1,009,519
Medical Care Facility	249	11,029,688
Sheriff's Department	78	5,150,430
Road Commission	61	3,598,548
<b>Total Active Members</b>	<b>869</b>	<b>\$44,208,748</b>

### Comparative Schedule

Valuation	Active Members								Valuation	Average		
Date	General County	DWS	Library	BABH	MCF	Sheriff's Dept.	Road Comm.	Total	Payroll	Age	Service	Pay
12/31/2004	427	41	72	208	303	76	76	1,203	\$43,550,999	44.3 yrs.	10.3 yrs.	\$36,202
12/31/2005	429	41	74	211	293	75	74	1,197	43,104,046	44.7	10.5	36,010
12/31/2006	412	41	30	205	292	75	67	1,122	42,024,045	45.0	11.1	37,455
12/31/2007	415	39	39	216	288	74	67	1,138	44,687,752	45.3	11.3	39,269
12/31/2008	410	38	42	235	305	75	66	1,171	46,482,897	45.3	11.4	39,695
12/31/2009	407	39	45	253	297	76	58	1,175	47,244,573	45.1	11.3	40,208
12/31/2010	389	37	45	261	295	74	54	1,155	47,090,560	45.4	11.4	40,771
12/31/2011	378	38	44	274	298	77	56	1,165	48,583,176	45.3	11.2	41,702
12/31/2012	365	39	42	276	319	75	56	1,172	48,571,798	45.0	11.1	41,444
12/31/2013	351	36	41	219	350	76	56	1,129	44,535,708	44.1	10.6	39,447
12/31/2014	365	40	36	220	361	79	59	1,160	46,494,417	43.8	10.4	40,081
12/31/2015	359	51	34		345	77	56	922	36,658,462	44.2	10.9	39,760
12/31/2016	372	55	32		308	72	56	895	36,761,949	44.8	11.1	41,075
12/31/2017	397	53	27		308	77	56	918	38,491,118	44.7	10.6	41,929
12/31/2018	399	58	25		302	80	55	919	39,208,285	45.1	10.5	42,664
12/31/2019	398	60	23		343	82	57	963	41,829,803	44.4	10.1	43,437
12/31/2020	397	59	20		335	82	55	948	41,943,737	43.8	9.8	44,244
12/31/2021	422	58	20		329	84	57	970	42,100,617	43.8	9.5	43,403
12/31/2022	385	57	18		255	80	55	850	41,968,387	45.2	9.9	49,375
12/31/2023	405	59	17		249	78	61	869	44,208,748	45.4	9.8	50,873

*For Valuation Dates prior to 2015, the results displayed are for the entire Retirement System (including BABH). Beginning with the 2015 Valuation Date, the results displayed are for the Retirement System (excluding BABH).*



## General County Active Members December 31, 2023 by Age and Years of Service

Age	Years of Service to Valuation Date							Totals	
	0-4	5-9	10-14	15-19	20-24	25-29	30 Plus	No.	Valuation Payroll
15-19	1							1	\$ 32,861
20-24	9							9	384,887
25-29	25							25	1,025,308
30-34	22	14	1					37	1,814,458
35-39	22	13	4	2				41	2,122,977
40-44	18	11	7	5	5			46	2,300,175
45-49	17	12	6	6	6	2		49	2,695,638
50-54	24	11	5	8	14	5	2	69	3,582,217
55-59	10	6	5	6	8	13	2	50	2,513,729
60		3	1		1	2	1	8	421,446
61	4	1	2	1	3	1		12	452,616
62	4		1	1	1	1	1	9	368,039
63		1	1	2	2	2		8	392,534
64	1	1	4		2			8	495,368
65	3		2	1			1	7	293,520
66	2	1	1		1			5	164,898
67	1	1		2	1			5	244,774
68	2							2	21,076
69					1			1	57,123
70	2							2	24,073
71	1	1		1				3	47,763
72	1	1	1					3	157,327
75		1						1	15,755
76	1							1	14,681
77	1			1				2	29,900
79	1							1	6,609
<b>Totals</b>	<b>172</b>	<b>78</b>	<b>41</b>	<b>36</b>	<b>45</b>	<b>26</b>	<b>7</b>	<b>405</b>	<b>\$19,679,752</b>

While not used in the financial computations, the following group averages are computed and shown because of their general interest.

Age: 47.8 years

Service: 10.1 years

Annual Pay: \$48,592



## DWS Active Members December 31, 2023 by Age and Years of Service

Age	Years of Service to Valuation Date							Totals	
	0-4	5-9	10-14	15-19	20-24	25-29	30 Plus	No.	Valuation Payroll
20-24	3							3	\$ 157,023
25-29	4	2						6	313,557
30-34		3						3	157,894
35-39	3	4	2					9	584,323
40-44	3	4	3					10	634,172
45-49	3	4	2					9	589,875
50-54	3	1	1	1	1			7	489,271
55-59	1	3		2		1		7	473,785
60						1		1	66,940
61		1		1				2	128,880
63		1						1	75,480
64		1						1	69,611
<b>Totals</b>	<b>20</b>	<b>24</b>	<b>8</b>	<b>4</b>	<b>1</b>	<b>2</b>		<b>59</b>	<b>\$3,740,811</b>

While not used in the financial computations, the following group averages are computed and shown because of their general interest.

Age: 43.7 years

Service: 8.0 years

Annual Pay: \$63,404

## Library Active Members December 31, 2023 by Age and Years of Service

Age	Years of Service to Valuation Date							Totals	
	0-4	5-9	10-14	15-19	20-24	25-29	30 Plus	No.	Valuation Payroll
40-44			2					2	\$ 124,988
45-49			1		1			2	100,487
50-54				2				2	93,869
55-59			1	1	3			5	350,735
60							1	1	52,326
61				1				1	61,638
62				1				1	49,380
63						1		1	70,204
64				1				1	54,434
66					1			1	51,458
<b>Totals</b>			<b>4</b>	<b>6</b>	<b>5</b>	<b>1</b>	<b>1</b>	<b>17</b>	<b>\$1,009,519</b>

While not used in the financial computations, the following group averages are computed and shown because of their general interest.

Age: 55.3 years

Service: 19.3 years

Annual Pay: \$59,384

## Medical Care Facility Active Members December 31, 2023 by Age and Years of Service

Age	Years of Service to Valuation Date							Totals	
	0-4	5-9	10-14	15-19	20-24	25-29	30 Plus	No.	Valuation Payroll
20-24	25	1						26	\$ 878,840
25-29	16	4	1					21	797,619
30-34	16	4	11					31	1,379,053
35-39	16	2	4	8				30	1,370,880
40-44	9	2	7	4	4			26	1,046,186
45-49	12	3	5	2	4	4		30	1,310,612
50-54	7	9	4	2	2	2	4	30	1,449,566
55-59	9	10	5	1	4	1		30	1,507,480
60	1	2	2	1				6	341,629
61	1	1			1	1		4	267,268
62	1	1	2					4	206,445
63	1		1					2	120,810
64			1					1	28,862
65	1			1				2	108,805
66		1		1			1	3	120,394
68	1							1	35,945
69			1					1	33,584
81			1					1	25,710
<b>Totals</b>	<b>116</b>	<b>40</b>	<b>45</b>	<b>20</b>	<b>15</b>	<b>8</b>	<b>5</b>	<b>249</b>	<b>\$11,029,688</b>

While not used in the financial computations, the following group averages are computed and shown because of their general interest.

Age: 42.6 years

Service: 8.5 years

Annual Pay: \$44,296

## Sheriff's Department Active Members December 31, 2023 by Age and Years of Service

Age	Years of Service to Valuation Date							Totals	
	0-4	5-9	10-15	15-19	20-24	25-29	30 Plus	No.	Valuation Payroll
20-24	4							4	\$ 199,142
25-29	4	1						5	311,941
30-34	6	5	1					12	823,531
35-39	5	7	2	1				15	965,254
40-44	2	4	3	6				15	999,115
45-49	2	2	2	2	5	1		14	924,816
50-54	2	2	1		1	1		7	461,299
55-59			1		2	1		4	292,734
73							1	1	78,576
74							1	1	94,022
<b>Totals</b>	<b>25</b>	<b>21</b>	<b>10</b>	<b>9</b>	<b>8</b>	<b>3</b>	<b>2</b>	<b>78</b>	<b>\$5,150,430</b>

While not used in the financial computations, the following group averages are computed and shown because of their general interest.

Age: 40.7 years

Service: 10.7 years

Annual Pay: \$66,031

## Road Commission Active Members December 31, 2023 by Age and Years of Service

Age	Years of Service to Valuation Date							Totals	
	0-4	5-9	10-15	15-19	20-24	25-29	30 Plus	No.	Valuation Payroll
20-24	5							5	\$ 276,603
25-29	2							2	116,706
30-34	3	1						4	184,960
35-39	4	1	4					9	398,170
40-44	2	3	1		1			7	374,817
45-49	2	3	1		1			7	381,943
50-54	2	2	3	1		2		10	707,771
55-59		2	1	1	2	3	2	11	811,388
61					1			1	56,191
63				2				2	187,008
65						1		1	68,353
73	1							1	17,411
77	1							1	17,227
<b>Totals</b>	<b>22</b>	<b>12</b>	<b>10</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>2</b>	<b>61</b>	<b>\$3,598,548</b>

While not used in the financial computations, the following group averages are computed and shown because of their general interest.

Age: 45.9 years

Service: 11.1 years

Annual Pay: \$58,993

## SECTION D

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### **ACTUARIAL COST METHODS AND ACTUARIAL ASSUMPTIONS**



## Valuation Methodology

**Normal Cost/Accrued Liability.** Normal cost and the allocation of actuarial present values between service rendered before and after the valuation date were determined using an individual entry-age actuarial cost method having the following characteristics:

- (i) The annual normal costs for each individual active member, payable from date of hire to the member's projected date of retirement, are sufficient to accumulate the actuarial present value of the member's anticipated benefit at the time of retirement; and
- (ii) Each annual normal cost is a constant percentage of the member's year-by-year projected covered pay.

**Amortization of Unfunded Actuarial Accrued Liabilities.** Unfunded Actuarial Accrued Liabilities (UAAL) or asset surpluses were amortized as a level dollar amount for the Library and as level percent-of-payroll contributions (principal and interest combined) for all other groups as follows: If the liabilities exceed the assets (unfunded liabilities), the difference is amortized over a closed period of 19 years; if the assets exceed the liabilities (overfunding) the difference is amortized over an open period of 20 years. The amortization method was first adopted for the December 31, 2016 actuarial valuation. The UAAL payment reflects any payments expected to be made between the valuation date and the date contributions determined by this report are scheduled to begin. For all divisions except Library, active member payroll was assumed to increase 3.00% for the purpose of determining the level-percent contributions.

**Asset valuation method.** The actuarial value equals:

- (a) Actuarial value of assets from the previous valuation, plus
- (b) Employer and member contributions since the last valuation, minus
- (c) Benefit payments and refunds since the last valuation, plus
- (d) Estimated investment income at the assumed investment return, plus
- (e) Portion of gain/(loss) recognized in the current valuation.

For the above purpose, gain/(loss) is defined as the excess during the period of the investment return on the market value of assets over the expected investment income. 20% of the difference is recognized over a five-year period in the actuarial value of assets. This method was first adopted for the December 31, 2003 actuarial valuation.

## Actuarial Assumptions Used for the Valuation

The rationale for the assumptions used in this valuation is included in the five-year experience study ending December 31, 2021, issued August 31, 2023. All assumptions are expectations of future experience, not market measures.

### **Investment Return** (net of investment expenses).

4.25% per year in excess of pay inflation. If pay inflation matches the assumption of 3.00%, this implies a 7.25% rate of return. This assumption was first adopted for the December 31, 2016 actuarial valuation and is used to equate the value of payments due at different points in time. Approximate rates of investment return, for the purpose of comparisons with assumed rates, are shown below for the Bay County Employees' Retirement System (in total). Actual increases in average active member pay for the Bay County Employees' Retirement System (in total) are also shown for comparative purposes.

	Year Ended December 31					5-Year Average*
	2023	2022	2021	2020	2019	
Rate of Investment Return	8.9 %	5.8 %	13.2 %	11.5 %	8.5 %	9.6 %
Average Increase in Pay <sup>#</sup>	<u>9.2</u>	<u>13.6</u>	<u>10.3</u>	<u>4.7</u>	<u>5.1</u>	<u>8.5</u>
Real Rate of Return	(0.3)	(7.8)	2.9	6.8	3.4	1.1

\* Compound rate of increase.

# Based on employees active during both years, for the Bay County Employees' Retirement System (in total).

The nominal rate of return was computed using the approximate formula  $i = I \text{ divided by } 1/2 (A + B - I)$ , where I is actual investment income net of expenses, A is the beginning of year asset value, and B is the end of year asset value.

Please note that this analysis uses asset values and investment income as defined for the actuarial valuation which deals with market value changes on a gradual basis.

These rates of return should not be used for measurement of an investment advisor's performance or for comparisons with other systems.

**Rates of price inflation** are not specifically used for this valuation. However, a rate of price inflation of 2.50% would be consistent with other assumptions in this report. This assumption was first adopted for the December 31, 2016 actuarial valuation.

**Pay Projections.** These assumptions are used to project current pays to those upon which benefits will be based. In addition to the Merit and Longevity rates shown in the table, members are also assumed to receive a base increase of 3.00%.

Years of Service	Annual Rate of Pay Increase for Merit & Longevity					
	General County	DWS	Library	MCF	Sheriff's Dept.	Road Commission
1	3.00%	3.00%	3.00%	0.50%	5.25%	5.25%
2	2.25%	2.25%	2.25%	0.50%	4.50%	3.00%
3	1.50%	1.50%	1.50%	0.50%	4.50%	3.00%
4	1.50%	1.50%	1.50%	0.50%	3.75%	3.00%
5	0.75%	0.75%	0.75%	0.50%	3.00%	0.75%
6+	0.75%	0.75%	0.75%	0.50%	0.75%	0.75%

If the number of active members remains constant, the total active member payroll will increase by about the level of pay inflation (assumed to be 3.00% per year). This increasing payroll was recognized in amortizing unfunded actuarial accrued liabilities for all groups except for the Library, which is closed to future hires. The merit and longevity payroll growth assumptions were first adopted for the December 31, 2016 actuarial valuation. The base wage inflation assumption was first adopted for the December 31, 2022 actuarial valuation.

Changes actually experienced in pays have averaged as follows, for the Bay County Employees' Retirement System (in total):

Year Ended December 31					5-Year Average*
2023	2022	2021	2020	2019	
9.2%	13.6%	10.3%	4.7%	5.1%	8.5%

\* Compound rate of increase.

**Lump sum payments.** Lump sum payments for unused sick leave and vacation were assumed to increase final average compensation by 3.25% for the General County group, 4.50% for the Library, 4.00% for the Medical Care Facility, 4.50% for the Sheriff's Department, 6.00% for the DWS group, and 7.75% for the Road Commission. These lump sum payment assumptions were first adopted for the December 31, 2022 actuarial valuation.



**Mortality.** The mortality rates utilized are based upon Pub-2010 amount-weighted General tables for the Non-Public Safety groups and the Pub-2010 amount-weighted Safety tables for the Sheriff's Department group, in conjunction with the MP-2021 projection scale on a fully generational basis. The mortality assumptions were first adopted for the December 31, 2022 actuarial valuation. The tables used were as follows:

**Non-Public Safety (All Groups except Sheriff's Department)**

- **Pre-Retirement:** Pub-2010 General Employee Mortality Tables, amount weighted, and projected with mortality improvements using the fully generational MP-2021 projection scale from a base year of 2010.
- **Healthy Post-Retirement:** Pub-2010 General Healthy Annuitant Mortality Tables, amount-weighted, and projected with mortality improvements using the fully generational MP-2021 projection scale from a base year of 2010.
- **Disability Retirement:** Pub-2010 General Disabled Retiree Mortality Tables, amount-weighted, and projected with mortality improvements using the fully generational MP-2021 projection scale from a base year of 2010.

**Public Safety (Sheriff's Department)**

- **Pre-Retirement:** Pub-2010 Safety Employee Mortality Tables, amount weighted, and projected with mortality improvements using the fully generational MP-2021 projection scale from a base year of 2010.
- **Healthy Post-Retirement:** Pub-2010 Safety Healthy Annuitant Mortality Tables, amount-weighted, and projected with mortality improvements using the fully generational MP-2021 projection scale from a base year of 2010.
- **Disability Retirement:** Pub-2010 Safety Disabled Retiree Mortality Tables, amount-weighted, and projected with mortality improvements using the fully generational MP-2021 projection scale from a base year of 2010.

**Summary of Life Expectancies under the Proposed Tables**

**Non-Public Safety (All Groups except Sheriff's Department)**

Sample Ages	Pre-Retirement Future Life Expectancy (Years) <sup>^</sup>		Healthy Post-Retirement Future Life Expectancy (Years) <sup>^</sup>		Disabled Retirement Future Life Expectancy (Years) <sup>^</sup>	
	Men	Women	Men	Women	Men	Women
50	39.14	41.30	35.52	38.45	26.29	29.23
55	34.13	36.20	30.63	33.48	22.79	25.64
60	29.23	31.17	25.91	28.61	19.62	22.31
65	24.47	26.24	21.42	23.88	16.69	19.04
70	19.82	21.41	17.16	19.34	13.88	15.67
75	15.28	16.69	13.23	15.09	11.12	12.37
80	10.86	12.14	9.75	11.27	8.53	9.43

<sup>^</sup> Based on retirements in 2023. Retirements in future years will reflect improvements in life expectancy.



**Public Safety (Sheriff's Department)**

Sample Ages	Pre-Retirement Future Life Expectancy (Years) <sup>^</sup>		Healthy Post-Retirement Future Life Expectancy (Years) <sup>^</sup>		Disabled Retirement Future Life Expectancy (Years) <sup>^</sup>	
	Men	Women	Men	Women	Men	Women
50	38.52	40.96	35.57	37.61	34.17	36.35
55	33.43	35.86	30.51	32.50	29.31	31.45
60	28.44	30.82	25.62	27.58	24.62	26.82
65	23.57	25.83	21.02	22.93	20.26	22.47
70	18.86	20.91	16.73	18.54	16.22	18.34
75	14.38	16.17	12.82	14.46	12.50	14.43
80	10.20	11.72	9.40	10.85	9.27	10.85

<sup>^</sup> Based on retirements in 2023. Retirements in future years will reflect improvements in life expectancy.

**Administration Expenses.** Non-investment administration expenses are assumed to average 0.45% of payroll annually. The administrative expenses assumption was first adopted for the December 31, 2022 actuarial valuation. This assumption was changed as a result of the experience study.

**Active Member Group Size.** The number of active members was assumed to remain constant for all groups except the Library, which is closed to future hires. This assumption is unchanged from the previous valuation for all groups.

**Rates of separation from active membership.** The rates do not apply to members eligible to retire and do not include separation on account of death or disability. This assumption measures the probabilities of members remaining in employment. This assumption was first adopted for the December 31, 2016 actuarial valuation for Sheriff's and Road Commission and for the December 31, 2022 actuarial valuation for all other groups.

Sample Ages	Years of Service	% of Active Members Separating within Next Year				Sheriff's Dept.*	Road Commission*
		General County	DWS	Library	MCF		
ALL	0	15.00%	8.10%	8.25%	31.50%	N/A	N/A
	1	9.00	4.86	4.95	31.50	N/A	N/A
	2	9.00	4.86	4.95	18.90	N/A	N/A
	3	8.00	4.32	4.40	15.76	N/A	N/A
	4	8.00	4.32	4.40	11.03	N/A	N/A
20	5 & Over	6.00	4.50	4.13	5.91	4.50	4.50
25		6.00	4.50	4.13	5.91	4.50	4.50
30		5.60	4.20	3.85	3.94	3.75	3.90
35		5.60	4.20	3.85	3.94	2.25	2.30
40		3.20	2.40	2.20	2.95	1.50	0.90
45		2.40	1.80	1.65	1.97	1.50	0.50
50		1.60	1.20	1.10	1.58	1.25	0.50
55		1.60	1.20	1.10	1.58	0.75	0.50
60		1.60	1.20	1.10	1.58	0.75	0.50

\* These groups do not have service based rates of separation. All rates of separation are based on ages.

**Rates of Disability.** These rates represent the probabilities of active members becoming disabled. This assumption was first adopted for the December 31, 2016 actuarial valuation.

Percent Becoming Disabled within Next Year		
Sample Ages	Sheriff's Dept.	All Other Groups
20	0.15 %	0.07 %
25	0.15	0.07
30	0.15	0.07
35	0.15	0.07
40	0.38	0.19
45	0.50	0.25
50	0.92	0.46
55	1.67	0.84
60	2.65	1.33

We assumed that 50% of disabilities are duty related and 50% are non-duty related for the Sheriff's Department. For all other groups, we assumed 85% of disabilities are non-duty related and 15% are duty related.



**Rates of Retirement.** These rates are used to measure the probabilities of an eligible member retiring during the next year.

Retirement Ages	Percent of Active Members Retiring within Next Year					
	General County	DWS	Library	MCF	Sheriff's Dept.	Road Commission
50				20 %		18 %
51				20		18
52				20		28
53				20		28
54				20		28
55	20 %	28 %	17 %	30		28
56	13	23	12	40		18
57	13	23	12	50		18
58	13	23	12	50		18
59	13	23	12	50		18
60	30	38	27	30	13 %	18
61	25	33	22	30	13	18
62	13	23	12	50	28	38
63	13	23	12	25	13	38
64	13	23	12	25	13	38
65	30	38	27	100	100	100
66	13	23	12			
67	13	23	12			
68	13	23	12			
69	13	23	12			
70	100	100	100			

The following table shows the rates of retirement used for the Road Patrol, Road Patrol Supervisory Unit, and Elected Officials and Department Heads: Elected Sheriff and Appointed Undersheriff 25 & Out provision and the Correctional Facility Officers 55 & 25 provision.

25 & Out		55 & 25	
Years of Service	Sheriff's Road Patrol, Road Patrol Supervisory Unit, and Elected Sheriff and Appointed Undersheriff	Age	Correctional Facility Officers
25	35%	55	35%
26	35	56	35
27	35	57	35
28	25	58	25
29	25	59	25
30	25	60	25
31	25	61	25
32	25	62	25
33	25	63	25
34	100	64	100

The following table shows the rates of retirement for the 55 & 8 and/or 55 & 10 Early Retirement provision:

Retirement Ages	55 & 8 and/or 55 & 10 Early Retirement*		
	General County	DWS	Library
55	8 %	15 %	5 %
56	8	15	5
57	8	15	5
58	8	15	5
59	8	15	5
60	8	15	5
61	8		

*\* These rates do not apply to MCF, Sheriff and Road Commission.*

The retirement assumptions were first adopted for the December 31, 2012 actuarial valuation for Early Retirement and the December 31, 2022 actuarial valuation for Normal Retirement.



## Miscellaneous and Technical Assumptions

<b>Marriage Assumption:</b>	100% of males and 100% of females are assumed to be married for purposes of death-in-service benefits. Male spouses are assumed to be three years older than female spouses.
<b>Pay Increase Timing:</b>	Six months after the valuation date.
<b>Decrement Timing:</b>	Decrements of all types are assumed to occur mid-year.
<b>Eligibility Testing:</b>	Eligibility for benefits is determined based upon the age nearest birthday and service nearest whole year on the date the decrement is assumed to occur.
<b>Benefit Service:</b>	Exact fractional service is used to determine the amount of benefit payable.
<b>Decrement Relativity:</b>	Decrement rates are used directly from the experience study, without adjustment for multiple decrement table effects.
<b>Decrement Operation:</b>	Disability and death-in-service decrements do not operate during the first 5 years of service. Disability and withdrawal do not operate during retirement eligibility.
<b>Normal Form of Benefit:</b>	The assumed normal form of benefit is straight life form.
<b>Loads:</b>	Loads are included for lump sum payments for unused sick leave and vacation (see page D-3 for further details). For current retirees who elected a joint and survivor form of payment with a pop-up and retired prior to January 1, 2013, the liabilities are loaded 2% because the pop-up benefits are not provided in the data.
<b>Incidence of Contributions:</b>	Contributions are assumed to be received continuously throughout the year based upon the computed percent-of-payroll shown in this report, and the actual payroll payable at the time contributions are made. New entrant normal cost contributions are applied to the funding of new entrant benefits.
<b>Data Adjustment:</b>	<p>Payroll was annualized for new entrants.</p> <p>Newly reported active members who were reported without any annual pay were assumed to have pay equal to the average annualized pay of the remaining new actives within their respective group.</p>
<b>Eligible Domestic Relations Orders (EDROs):</b>	In the event the Participant is active and the Alternate Payee has commenced benefits, the liability associated with the Alternate Payee has been netted from the respective group's gross liability.

## SECTION E

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### SUPPLEMENTARY SCHEDULES

## Schedule of Funding Progress

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) Entry Age (b)	Unfunded AAL (UAAL) (b) – (a)	Funded Ratio (a)/(b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll [(b) – (a)] / (c)
12/31/2014	\$282,166,070	\$271,995,030	\$ (10,171,040)	103.7 %	\$46,494,417	none %
12/31/2015	249,163,890	229,142,613	(20,021,277)	108.7	36,658,462	none
12/31/2016 *#	262,485,987	240,033,781	(22,452,206)	109.4	36,761,949	none
12/31/2017	279,666,292	248,475,911	(31,190,381)	112.6	38,491,118	none
12/31/2018	283,327,021	252,850,800	(30,476,221)	112.1	39,208,285	none
12/31/2019	293,744,490	256,742,709	(37,001,781)	114.4	41,829,803	none
12/31/2020	313,176,555	263,649,967	(49,526,588)	118.8	41,943,737	none
12/31/2021	338,903,015	270,804,137	(68,098,878)	125.1	42,100,617	none
12/31/2022 #	342,438,309	286,140,372	(56,297,937)	119.7	41,968,387	none
12/31/2023	355,763,379	289,801,950	(65,961,429)	122.8	44,208,748	none

For Actuarial Valuation Dates prior to 2015, the results displayed are for the entire Retirement System (including BABH). Beginning with the 2015 Actuarial Valuation Date, the results displayed are for the Retirement System (excluding BABH).

\* Plan amended.

# Certain assumptions or methods revised.

Actuarial Cost Method

Individual Entry Age Normal Cost

Amortization Method

Level dollar amount for Library

Level percent-of-payroll for all other groups

Amortization Periods

19 years closed for groups that are underfunded (unfunded accrued liability is positive). 20 years open for groups that are overfunded (unfunded accrued liability is negative).

Asset Valuation Method

Market value with 5-year smoothing of gains and losses

Principal Actuarial Assumptions  
(last revised for the 12/31/2016 valuation):

- Net Investment Return	7.25%
- Projected Salary Increases	3.00% pay inflation plus merit and longevity
- Price Inflation	2.50%
- Cost-of-Living Adjustments	None



## Schedule of Employer Contributions

Valuation Year Ended December 31	Fiscal Year Ended December 31	Annual Required Contribution
2014	2016	\$ 2,535,295
2015	2017	1,088,320
2016	2018	1,546,699
2017	2019	1,152,393
2018	2020	1,278,469
2019	2021	1,246,043
2020	2022	980,443
2021	2023	799,393
2022	2024	925,904
2023	2025	906,533

*For Valuation Years Ended prior to December 31, 2015, the results displayed are for the entire Retirement System (including BABH). Beginning with the Valuation Year Ended December 31, 2015, the results displayed are for the Retirement System (excluding BABH).*

## SECTION F

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### RISK DISCLOSURES

## Risks Associated with Measuring the Accrued Liability and Actuarially Determined Contribution

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

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions due to changing conditions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period, or additional cost or contribution requirements based on the Plan's funded status); and changes in plan provisions or applicable law. The scope of an actuarial valuation does not include an analysis of the potential range of such future measurements.

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

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

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

The computed contribution rate shown on page B-2 may be considered as a minimum contribution rate that complies with the Board's funding policy. The timely receipt of the actuarially determined contributions is critical to support the financial health of the plan. Users of this report should be aware that contributions made at the actuarially determined rate do not necessarily guarantee benefit security.



# Risks Associated with Measuring the Accrued Liability and Actuarially Determined Contribution

## Plan Maturity Measures

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

	<u>2023</u>	<u>2022</u>	<u>2021</u>	<u>2020</u>	<u>2019</u>	<u>2018</u>	<u>2017</u>
Ratio of the market value of assets to total payroll	7.5	7.4	9.2	8.3	7.5	6.8	7.8
Ratio of actuarial accrued liability to payroll	6.6	6.8	6.4	6.3	6.1	6.4	6.5
Ratio of actives to retirees and beneficiaries	0.9	0.9	1.1	1.1	1.1	1.1	1.1
Ratio of net cash flow to market value of assets	-4.9%	-5.0%	-3.8%	-3.9%	-4.2%	-4.6%	-3.9%

## Ratio of Market Value of Assets to Payroll

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

## Ratio of Actuarial Accrued Liability to Payroll

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

## Ratio of Actives to Retirees and Beneficiaries

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

## Ratio of Net Cash Flow to Market Value of Assets

A positive net cash flow means contributions exceed benefits and expenses. A negative cash flow means existing funds are being used to make payments. A certain amount of negative net cash flow is generally expected to occur when benefits are prefunded through a qualified trust. Large negative net cash flows as a percent of assets may indicate a super-mature plan or a need for additional contributions.

## Additional Risk Assessment

Additional risk assessment is outside the scope of the annual actuarial valuation. Additional assessment may include scenario tests, sensitivity tests, stochastic modeling, stress tests, and a comparison of the present value of accrued benefits at low-risk discount rates with the actuarial accrued liability.



# Low-Default-Risk Obligation Measure

## Introduction

In December 2021, the Actuarial Standards Board (ASB) adopted a revision to Actuarial Standard of Practice (ASOP) No. 4, *Measuring Pension Obligations and Determining Pension Plan Costs or Contributions*. The revised ASOP No. 4 requires the calculation and disclosure of a liability referred to by the ASOP as the “Low-Default-Risk Obligation Measure” (LDROM). The rationale that the ASB cited for the calculation and disclosure of the LDROM was included in the Transmittal Memorandum of ASOP No. 4 and is presented below (emphasis added):

The ASB believes that the calculation and disclosure of this measure provides appropriate, useful information for the intended user regarding the funded status of a pension plan. The calculation and disclosure of this additional measure **is not intended to suggest that this is the “right” liability measure** for a pension plan. However, the ASB does believe that **this additional disclosure provides a more complete assessment of a plan’s funded status and provides additional information regarding the security of benefits that members have earned as of the measurement date.**

## Comparing the Accrued Liabilities and the LDROM

One of the fundamental financial objectives of the Bay County Employees’ Retirement System – excluding BABH is to finance each member’s retirement benefits over the period from the member’s date of hire until the member’s projected date of retirement (entry age actuarial cost method) as a level percentage of payroll. To fulfill this objective, the discount rate that is used to value the accrued liabilities of the Bay County Employees’ Retirement System – excluding BABH is set equal to the expected return on the System’s diversified portfolio of assets (referred to sometimes as the investment return assumption). For the Bay County Employees’ Retirement System – excluding BABH, the investment return assumption is 7.25%.

The LDROM is meant to approximately represent the lump sum cost to a plan to purchase low-default-risk fixed income securities whose resulting cash flows essentially replicate in timing and amount the benefits earned (or the costs accrued) as of the measurement date. The LDROM is very dependent upon market interest rates at the time of the LDROM measurement. The lower the market interest rates, the higher the LDROM, and vice versa. The LDROM results presented in this report are based on the entry age actuarial cost method and discount rates based upon the December 2023 Treasury Yield Curve Spot Rates (end of month). The 1-, 5-, 10- and 30-year rates follow: 4.96%, 4.06%, 3.94% and 4.15%. This measure may not be appropriate for assessing the need for or amount of future contributions. This measure may not be appropriate for assessing the sufficiency of plan assets to cover the estimated cost of settling the plan’s benefit obligation.

**The difference between the two measures (Valuation and LDROM) is one illustration of the savings the sponsor anticipates by taking on risk in a diversified portfolio.**

### Accrued Liabilities and LDROM

Valuation	LDROM
\$289,801,950	\$412,227,127



# Bay County Employees' Retirement System

Annual Actuarial Valuation Report  
for Bay-Arenac Behavioral Health Authority  
December 31, 2023



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September 24, 2024

Board of Trustees  
Bay County Employees' Retirement System  
Bay City, Michigan

**Re: Bay-Arenac Behavioral Health Authority Actuarial Valuation as of December 31, 2023  
Actuarial Disclosures**

Dear Board Members:

The results of the December 31, 2023 Annual Actuarial Valuation of the Bay County Employees' Retirement System – Bay-Arenac Behavioral Health Authority (BABH) are presented in this report.

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

The purposes of the valuation are to measure the System's funding progress and to determine the employer contribution rate for the calendar year ending December 31, 2025. This report should not be relied on for any purpose other than the purposes described herein. Determinations of financial results, associated with the benefits described in this report, for purposes other than those identified above may be significantly different.

The contribution rate shown in this report is determined using the actuarial methods and assumptions disclosed in Section D of this report. This report includes risk metrics on pages F-1 and F-2, but does not include a more robust assessment of the risks of future experience not meeting the actuarial assumptions. Additional assessment of risks was outside the scope of this assignment. This report also includes a discussion of the required Low-Default-Risk Obligation Measure (LDRM) on page F-3. We encourage a review and assessment of investment and other significant risks which may have a material effect on the System's financial condition.

We have assessed that the contribution rate calculated under the current funding policy is a reasonable Actuarially Determined Employer Contribution (ADEC) and it is consistent with the plan accumulating adequate assets to make benefit payments when due.

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

The findings in this report are based on data and other information through December 31, 2023. The valuation was based upon information furnished by the County, concerning Retirement System benefits, financial transactions, plan provisions and active members, terminated members, retirees and beneficiaries. We checked for internal reasonability and year-to-year consistency, but did not audit the data. We are not responsible for the accuracy or completeness of the information provided by the County.

This report was prepared using assumptions adopted by the Board. All actuarial assumptions used in this report are reasonable for the purposes of this valuation. The combined effect of the assumptions is expected to have no significant bias (i.e., not significantly optimistic or pessimistic). All actuarial assumptions used in this report are reasonable for the purposes of this valuation. All actuarial assumptions and methods used in the valuation follow the guidance in the applicable Actuarial Standards of Practice. Additional information about the actuarial assumptions is included in the section of this report entitled Actuarial Cost Methods and Actuarial Assumptions.

This report was prepared using our proprietary valuation model and related software which, in our professional judgment, has the capability to provide results that are consistent with the purposes of the valuation and has no material limitations or known weaknesses. We performed tests to ensure that the model reasonably represents that which is intended to be modeled.

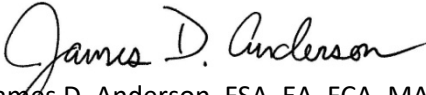
This report has been prepared by actuaries who have substantial experience valuing public employee retirement systems. To the best of our knowledge, the information contained in this report is accurate and fairly presents the actuarial position of the Bay County Employees' Retirement System - BABH as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

James D. Anderson, Shana M. Neeson, and Stephanie Sullivan are Members of the American Academy of Actuaries (MAAA) and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained herein.

The signing actuaries are independent of the plan sponsor.

Gabriel, Roeder, Smith & Company will be pleased to review this valuation and report with the Board of Trustees and to answer any questions pertaining to the valuation.

Respectfully submitted,  
Gabriel, Roeder, Smith & Company

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

  
Shana M. Neeson, ASA, FCA, MAAA

  
Stephanie Sullivan, ASA, MAAA

JDA/SMN/SS:ah



# SECTION A

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## EXECUTIVE SUMMARY

# Executive Summary

## 1. Required Employer Contributions

The computed employer contributions **exclusive of employer paid "member" contributions** are as follows:

Division	Valuation Year	Contribution Rate	
		12/31/2022	12/31/2023
	Calendar Year	1/1/2024	1/1/2025
BABH		5.81 %	3.32 %

It is important to remember that the current contribution rate is lower than the long-term cost of the plan (the normal cost). This is because BABH has overfunding credits. The credits reduce the required contribution below the normal cost until the overfunding is eliminated. ***If future experience were to exactly match each of the assumptions, the employer contribution rate would not remain level. Increases would occur over time and contribution rates would increase towards the normal cost or long-term cost of the benefits.***

## 2. Funded Ratio Comparison

The funding percentage for BABH is shown below:

Division	Funded Ratio	
	12/31/2022	12/31/2023
BABH	105 %	107 %

This year's valuation assets represent 107.2% of accrued liabilities; last year the ratio was 104.6%. If the valuation results were based on market value of assets instead of smoothed funding value, the funded percent of the plan would be 100.5%.

## 3. Reasons for Change

There are three general reasons why contribution rates change from one valuation to the next.

1. The first is a change in the benefits or eligibility conditions of the plan. There were no changes in benefits.
2. The second is a change in the valuation assumptions used to predict future occurrences. There were no changes in assumptions.
3. The third is the difference during the year between the plan's actual experience and what the assumptions predicted. This is discussed on the following page.

#### **4. 2023 Plan Experience**

The aggregate experience during 2023 was favorable, with an overall gain/(loss) of \$1,896,819. The detailed gain/(loss) information is shown on page B-7.

Investment return on the market value of assets for calendar year 2023 exceeded the assumed rate of return for the valuation (see page C-4). However, the asset smoothing method only recognizes 20% of a given year's investment gain or loss. Partial recognition of gains and losses from prior years along with this year's gain resulted in an overall gain on the funding value of assets. In addition to the investment experience gain, there was a non-investment gain due to more terminations than expected. These gains were partially offset by larger than expected pay increases.

#### **5. Retiree Reserve Balance**

The retiree accrued liabilities are larger than the reported retiree reserve balances. For detail see Comment A on page B-5.

#### **6. Looking Ahead**

Investment income greater than or less than expected based on the investment return assumption is recognized over a five-year period under the current asset valuation method. As of December 31, 2023, the funding value of assets was 106.7% of market value. Due to investment performance during the previous five years, unrecognized investment gains and losses exist that are scheduled to be recognized over the next four years. Given that actuarial assumptions are realized, this is expected to put upward pressure on the required contribution amounts calculated in the near term.

**SECTION B**

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**VALUATION RESULTS AND COMMENTS**



## Financial Objective

The financial objective of the Retirement System is to establish and receive contributions, expressed as a percentage of active member payroll, which will remain approximately level from year to year and will not have to be increased for future generations of citizens.

Your annual actuarial valuations determine how well the objective is being met.

The Board of Trustees of the Bay County Employees' Retirement System confirms that the System provides for payment of the required employer contribution as described in Section 20m of Michigan Public Act No. 728 of 2002.

## Contribution Rates

The Retirement System is supported by contributions from the employers, by member contributions and by the investment income earned on System assets. For some divisions, the required member contributions are paid by the Employer either through contributions to the System or by transferring funds from the employer reserves to the employee reserves. In addition, the Employer provides an actuarially determined contribution.

Member and Employer contributions cover both: i) normal cost, and ii) the financing of the unfunded accrued liability over a period of future years. The normal cost is the portion of System costs allocated to the current year by the valuation method described on page D-1. The unfunded accrued liability is the portion of System costs not covered by present System assets and future normal costs.

The contribution requirements for the calendar year beginning January 1, 2025 are presented on page B-2.

## Contributions to Provide Benefits Member Portion and Employer Portion Calendar Year Beginning January 1, 2025

Contributions for	% of Active Payroll BABH
Normal cost of benefits:	
Age & service	8.31 %
Disability	0.30
Death-in-service	0.14
Total	8.75
Member contributions <sup>#</sup> :	
Total	4.00
Future refunds	0.74
Available for pensions	3.26
Administrative expenses	0.45
Employer normal cost	5.94
Unfunded accrued liability	(2.62)
<b>Computed Employer Rate</b>	<b>3.32 %</b>

<sup>#</sup> The member contributions are paid by the employer, either by directly contributing to the Retirement System or by transferring funds from employer reserves to employee reserves.

Unfunded actuarial accrued liabilities were amortized as a level percent of member payroll over a closed period of 19 years and an asset surplus was amortized over an open period of 20 years. Since there was an asset surplus for this valuation, the 20-year open period applied.

The required employer contribution rate determined above is reasonable under Actuarial Standard of Practice (ASOP) No. 4, Measuring Pension Obligations and Determining Pension Plan Costs or Contributions, based on:

- The use of reasonable actuarial assumptions and cost methods; and
- The use of reasonable amortization and asset valuation methods.

**The procedure for determining dollar contribution amounts** is shown on page B-3.

Page B-4 displays the unfunded accrued liabilities (asset surpluses) that are amortized by the contribution rates shown above.

## Determining Dollar Contributions

For any period of time, the percent-of-payroll contribution rates need to be converted to dollar amounts. We recommend one of the following procedures:

- (1) Contribute dollar amounts for a period which are equal to the employer's percent-of-payroll contribution requirement multiplied by the covered active member payroll for the period. Adjustments should be made as necessary to exclude items of pay that are not covered compensation for Retirement System benefits and to include non-payroll payments that are covered compensation; or
- (2) Contribute the dollars based on the table shown below:

<b>Group:</b>	<b>BABH</b>
<b>Contribution:</b>	\$ 491,050

This amount is based on the payroll information provided for the valuation.

## Timing of Contribution Payments

The contribution requirements in this report anticipate regular payments throughout the year. Examples would be at each payroll date or in 12 monthly installments. If the employer contribution pattern is significantly different, an adjustment to the costs may be appropriate. For example, a lump sum contribution at the beginning of the year is available for investment throughout the year and, therefore, ought to be somewhat smaller than 12 monthly payments. Similarly, a lump sum contribution at the end of the year will not generate any investment income that year.

## Determination of Unfunded Accrued Liability

	<u>BABH</u>
A. Accrued liability	
1. For retirees and beneficiaries	\$ 41,212,971
2. For vested terminated members	3,755,747
3. For present active members	
a. Value of expected future benefit payments	33,918,558
b. Value of future normal costs	<u>10,659,883</u>
c. Active member liability: (a) - (b)	<u>23,258,675</u>
4. Total actuarial accrued liability	68,227,393
B. Valuation assets	73,118,552
	<hr/>
C. Unfunded accrued liability (Excess assets)*: (A.4) - (B)	(4,891,159)
D. Funding ratio: (B) / (A.4)	107.2%

\* The outstanding unfunded accrued liability balance associated with the ERIP is \$184,214 as of December 31, 2023.

## Comments

**Comment A:** We developed the value of anticipated future benefit payments to retired members and their beneficiaries. We then compared this accrued liability to the reported value of the retirement reserve account. The figures below compare the retired liabilities and reserves.

Division	Retiree Accrued Liability	Reported Retiree Reserve	Unfunded Retiree Liability
BABH	\$41,212,971.00	\$36,329,557.41	\$4,883,413.59

As of the valuation date, there is a shortfall in the retiree reserve. This valuation anticipates that the difference between the accrued liability and the reported reserve will be transferred from the Retirement System employer reserve to the retiree reserve effective January 1, 2024 to fully fund the retiree accrued liability.

**Comment B:** The contribution rate decreased during the year from 5.81 to 3.32%, primarily due to favorable investment performance, more terminations than expected, and completion of the ERIP payment schedule. Results are discussed further in items 4 and 5 on page A-2 and on page C-4.

**Comment C:** The chart on page B-7 shows the experience gain/(loss) for 2023. The development of the investment gain/(loss) is shown on page B-8.

**Comment D:** The introduction of GASB Statements No. 67 and No. 68 served to completely disconnect pension accounting from pension funding. This means that the Annual Required Contribution is no longer applicable. As part of good governance, we would be happy to supply the Board with a draft funding policy for consideration. In particular, this document would codify methods, assumptions and other key items related to pension funding, including perhaps a minimum contribution equal to a percentage of the normal cost for currently overfunded plans.

**Comment E:** Assumptions were updated for the December 31, 2022 valuation after a review was performed.

**Comment F:** Under Public Act 202 of the State of Michigan, Michigan municipalities are required to report liabilities under uniform assumption guidelines. While the current guidelines are only for reporting purposes (and not funding), governments may be encouraged to use these new assumptions for funding. For efficiency in compliance, and consistency with past practice, we produce this information for inclusion with the annual GASB report.

**Comment G:** Under Sec. 4(1)(d) of Public Act 202 of the State of Michigan, local units of government are required to have a peer actuarial audit conducted by an actuary that is not the plan actuary or replace the plan actuary at least every eight years. Given the implementation of Public Act 202, it is our understanding that the audit requirement must be met prior to January 1, 2026. GRS can work with the Board and Staff to ensure compliance.

## Disclosures

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

Given the plan's contribution allocation procedure, if all actuarial assumptions are met (including the assumption of the plan earning 7.25% on the actuarial value of assets), the following outcomes are expected:

1. The employer normal cost as a percentage of pay is expected to remain level as a percentage of payroll.
2. The unfunded liability associated with the ERIP is expected to be paid off during calendar year 2024.
3. The funded status of the plan is expected to decrease gradually towards a 100% funded ratio.

### Limitations of Funded Status Measurements

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

1. The measurement is inappropriate for assessing the sufficiency of plan assets to cover the estimated cost of settling the plan's benefit obligations.
2. The measurement is inappropriate for assessing the need for or the amount of future employer contributions.
3. The measurement would produce a different result if the market value of assets were used instead of the actuarial value of assets, unless the market value of assets is used in the measurement.

## Determination of Experience Gain/(Loss) Year Ended December 31, 2023

Actual experience will never (except by coincidence) exactly match assumed experience. It is hoped that gains and losses will cancel each other over a period of years, but sizable year-to-year fluctuations are common. Detail on the determination of the experience gain/(loss) is shown below:

	<u>BABH</u>
(1) Unfunded Actuarial Accrued Liabilities (UAAL) at start of year	\$ (3,053,001)
(2) Normal cost for the year 2023	1,422,046
(3) Actual employer & employee contributions	(1,151,727)
(4) Net interest accrual on (1), (2) and (3)	(211,658)
(5) Expected UAAL before changes: (1) + (2) + (3) + (4)	(2,994,340)
(6) Change from benefit changes	-
(7) Change from revised actuarial assumptions and methods	-
(8) Expected UAAL after changes: (5) + (6) + (7)	(2,994,340)
(9) Actual UAAL at end of year	(4,891,159)
(10) Actuarial accrued liabilities (AAL) at start of year	66,857,263
(11) Total Gain/(Loss): (8) - (9)	1,896,819
As a percent of AAL at start of year: (11)/(10)	2.8%
(12) Investment Gain/(Loss) <sup>1</sup> :	1,097,798
As a percent of AAL at start of year: (12)/(10)	1.6%
(13) Non-Investment Gain/(Loss): (11) - (12)	799,021
As a percent of AAL at start of year: (13)/(10)	1.2%

<sup>1</sup> Allocated based on Market Value.

## Development of Valuation Investment Gain/(Loss) Year Ended December 31, 2023

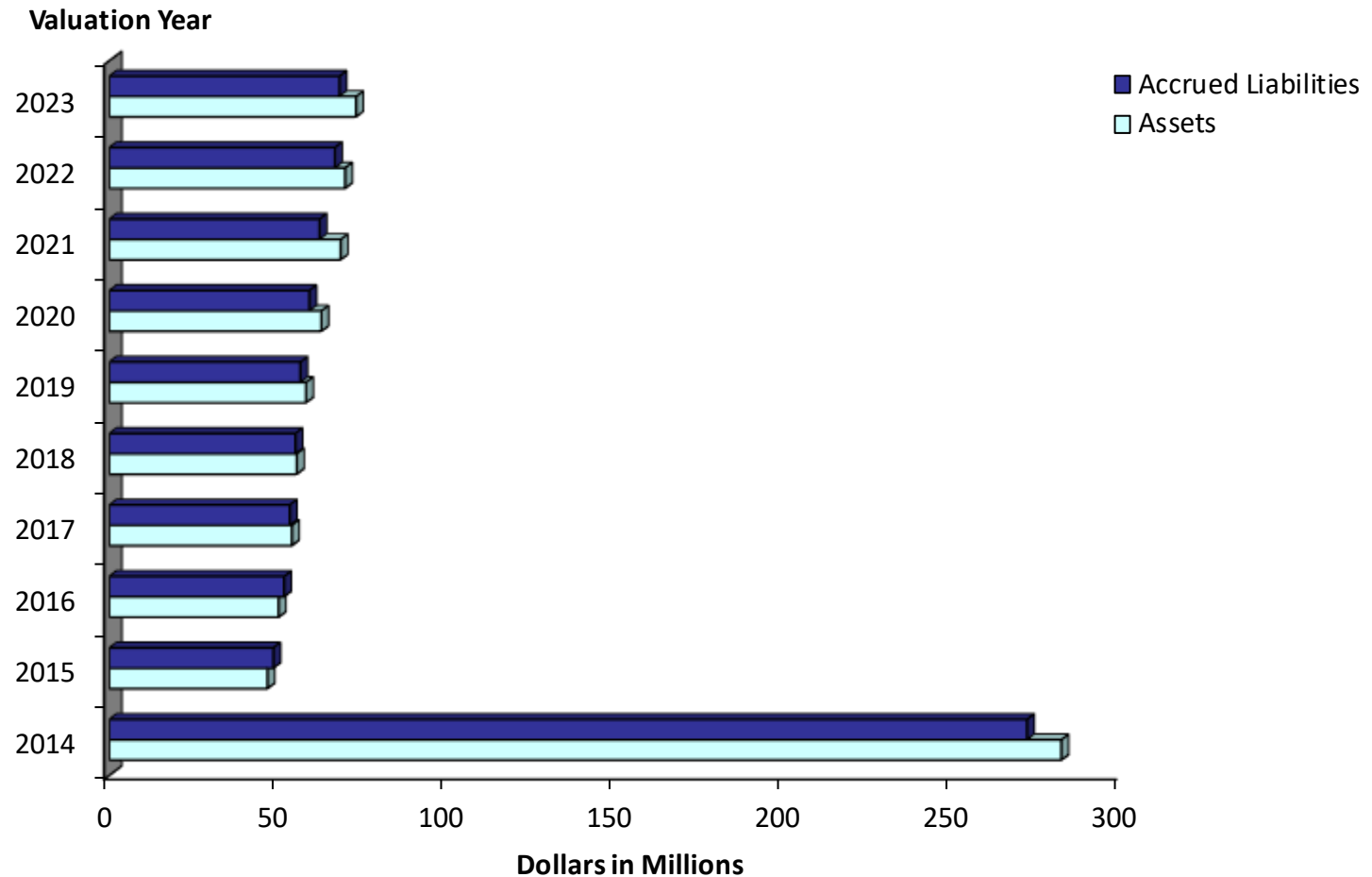
We anticipate an average return on valuation assets of 7.25% for future years. The chart below details the development of the investment gain/(loss) for the entire Bay County Employees' Retirement System, including BABH.

(1) Total 2023 valuation investment income	\$ 35,641,801
(2) Average valuation assets	402,794,352
(3) Expected investment income: $(.0725) \times (2)$	29,202,591
(4) Gain/(Loss): $(1) - (3)$	6,439,210
(5) Valuation rate of return for 2023: $(1) / (2)$	8.85 %

Please note that this analysis uses asset values and investment income as defined for the actuarial valuation. It is not, therefore, appropriate as a measure of manager performance.



## Assets and Accrued Liabilities



*For Valuation Years prior to 2015, the results displayed are for the entire Retirement System (including BABH). Beginning with the Valuation Year 2015, the results displayed are for BABH.*

2014 assets equaled 103.7% of accrued liabilities.

2023 assets equaled 107.2% of accrued liabilities.

## Computed Contributions - Comparative Statement

Valuation Date	Valuation Payroll			Annual Dollar Requirement	Employer Requirements as Percents of Valuation Payroll@						
					General County	DWS	Library	BABH	Medical Care Facility	Sheriff's Department	Road Commission
12/31/2004 #	\$43,550,999	\$36,202	2.9 %	\$ 405,110	0.00 %	0.00 %	0.68 %	1.11 %	0.00 %	0.00 %	8.19 %
12/31/2005	43,104,046	36,010	(0.5)	588,948	0.00	0.00	1.60	2.53	0.00	0.00	9.34
12/31/2006 #	42,024,045	37,455	4.0	644,945	0.00	0.00	0.00	3.24	0.00	0.00	10.82
12/31/2007 #	44,687,752	39,269	4.8	688,871	0.00	0.00	0.00	3.70	0.00	0.00	9.17
12/31/2008	46,482,897	39,695	1.1	1,578,548	0.00	4.44	0.00	6.95	2.32	0.00	14.13
12/31/2009 ^	47,244,573	40,208	1.3	2,443,118	0.00	7.40	2.74	8.83	5.05	0.00	17.64
12/31/2010	47,090,560	40,771	1.4	3,074,891	1.19	11.71	6.91	9.08	7.36	0.00	18.05
12/31/2011 #	48,583,176	41,702	2.3	4,289,438	4.08	13.77	9.89	10.17	9.57	0.00	20.78
12/31/2012 *	48,571,798	41,444	(0.6)	4,038,100	3.87	15.75	9.26	10.01	7.22	0.55	21.32
12/31/2013 #\$	44,535,708	39,447	(4.8)	4,477,504	0.03	15.72	\$ 89,491	27.04	4.20	0.00	19.14
12/31/2014	46,494,417	40,081	1.6	2,535,295	0.00	14.16	34,265	11.36	2.87	0.00	18.09
12/31/2015	10,331,351	46,961	N/A	990,514				8.95			
12/31/2016 *	10,608,566	48,221	2.7	1,048,375				9.27			
12/31/2017	10,806,001	48,676	0.9	867,441				7.53			
12/31/2018	11,226,851	48,812	0.3	917,980				7.67			
12/31/2019 #	11,186,972	49,282	1.0	797,845				6.69			
12/31/2020	11,666,794	50,947	3.4	672,867				5.41			
12/31/2021	13,318,905	55,495	8.9	592,086				4.17			
12/31/2022 *	13,227,205	57,761	4.1	815,302				5.81			
12/31/2023	13,941,626	59,580	3.1	491,050				3.32			

For Valuation Dates prior to 2015, the results displayed are for the entire Retirement System (including BABH). Beginning with the 2015 Valuation Date, the results displayed are for BABH.

# Retirement System amended.

\* Revised actuarial assumptions or methods.

^ Implementation of a one-year lag between valuation date and first day of the calendar year to which the contributions apply.

@ Beginning with the 2013 valuation, the Library contribution is calculated as a level dollar amount, since the Library is closed to future hires.

\$ Contribution reflects an advanced payment of the BABH unfunded ERIP liability.



## SECTION C

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### SUMMARY OF BENEFIT PROVISIONS AND VALUATION DATA

## Brief Summary of Plan Provisions as of December 31, 2023

Division		Retirement Eligibility		
No.	Name	Normal	Early	Deferred
23	Behavioral Health Former AFSCME	Age 55 with 30 yrs of svc or age 60 with 8/62 with 10~ yrs of svc	Age 55 with 8/55 with 10~ yrs of svc	8/10~ yrs of svc
24	Behavioral Health General	Age 55 with 30 yrs of svc or age 60 with 8/62 with 10& yrs of svc	Age 55 with 8/55 with 10& yrs of svc	8/10& yrs of svc

~ Members hired on or after 10/1/2014.

& Members hired after 1/1/2015.

### Eligibility

### Amount

#### Normal Retirement

See chart above or age 65 with 0 or more years of service.

Total service times FAC times:

2.00% for division 23 hired before 10/1/2014 for service through 1/1/2020 and 2.25% for service on or after 1/1/2020

2.25% for division 24 hired on or before 1/1/2015

1.60% for division 23 hired on or after 10/1/2014

1.60% for division 24 hired after 1/1/2015

Maximum County-financed is 75% of FAC.

Type of FAC - Highest 5 years. Some lump sums included.

#### Early Retirement

See chart above.

Normal retirement reduced to the actuarial equivalent of a pension at normal retirement age (age 62 for division 23 hired on or after 10/1/2014 and division 24 hired after 1/1/2015, age 60 for all others).

#### Deferred Retirement

Service condition as indicated in the chart above. Benefit begins at age 60 (age 62 for division 23 hired on or after 10/1/2014 and division 24 hired after 1/1/2015) or reduced at age 55.

Computed as a normal retirement but based on service and final average compensation at time of termination.

#### Non-Duty Death-In-Service

10 or more years of credited service at any age.

Computed as a normal retirement but actuarially reduced in accordance with a 100% joint and survivor election.



# Brief Summary of Plan Provisions as of December 31, 2023 (Concluded)

Eligibility	Amount
<b>Duty Death-in-Service</b>	
No age or service requirements. Benefits begin upon termination of Worker's Compensation.	To the spouse, a refund of accumulated contributions plus a benefit equal to the Worker's Compensation amount. Unmarried children under 18 and parents receive a benefit equal to the Worker's Compensation amount.
<b>Non-Duty Disability</b>	
10 or more years of credited service.	Computed as a normal retirement. Worker's Compensation payments may be offset.
<b>Duty Disability</b>	
No age or service requirements.	Computed as a normal retirement with additional service credit granted to age 55. Worker's Compensation payments may be offset.
<b>Post-Retirement Cost-of-Living Adjustments</b>	
One-time increases have been granted.	
<b>Member Contributions</b>	
4% of annual compensation. The employer pays the member contribution either by directly contributing to the Retirement System or by transferring funds from the employer to the employee reserves.	
<b>Employer Contributions</b>	
Actuarially determined amounts which, together with member contributions, are sufficient to cover both: i) normal costs of the plan, and ii) financing of unfunded accrued liabilities over a selected period of future years.	

# Reported Financial Information Year Ended December 31, 2023 Bay County Employees' Retirement System (in Total) (Market Value)

## Revenues and Disbursements during 2023

### Revenues:

a. Employee contributions	\$ 2,226,649	
b. Employer contributions	1,800,797	
c. Investment income	46,782,569	
d. Miscellaneous income	<u>0</u>	
e. Total		\$50,810,015

### Disbursements:

a. Benefits paid	\$ 22,328,500	
b. Refunds of member contributions	333,908	
c. Administrative expenses	473,481	
d. Investment expenses	<u>1,791,480</u>	
e. Total		<u>\$24,927,369</u>

### Reserve Increase:

Total revenues minus total disbursements	<u><u>\$25,882,646</u></u>
--	----------------------------

## Assets and Reserves as of December 31, 2023

### Assets:

a. Cash & equivalents <sup>#</sup>	\$ 268,553
b. Short-term investments	5,392,718
c. Equities	307,621,893
d. Fixed Income	84,450,304
e. Real Estate	2,363,621
f. Other <sup>^</sup>	<u>1,996,088</u>
Total	<u><u>\$402,093,177</u></u>

### Reserve Accounts:

a. Employee contributions	\$ 32,711,833
b. Reserve for benefits now being paid	206,480,567
c. Reserve for future benefits	162,900,777
Total	<u><u>\$402,093,177</u></u>

<sup>#</sup> Adjusted for accruals net of payables and deferred inflows of resources.

<sup>^</sup> Adjusted for deferred outflow of resources.



# Development of Valuation Assets

## Bay County Employees' Retirement System (in Total)

### December 31, 2023

	2022	2023	2024	2025	2026	2027
1. Beginning of Year Assets						
a) Market Value	\$466,990,862	\$376,210,531				
b) Valuation Assets	407,460,369	412,348,573				
2. End of Year Market Value Assets	376,210,531	402,093,177				
3. Net Additions to Market Value						
a) Net Contributions	4,157,084	4,027,446				
b) Net Investment Income = (3d) - (3a) - (3c)	(72,504,541)	44,991,089				
c) Benefit Payments, Refunds, and Admin. Expenses	(22,432,874)	(23,135,889)				
d) Total Additions to Market Value = (2) - (1a)	(90,780,331)	25,882,646				
4. Average Valuation Assets = (1b) + .5 x [(3a) + (3c)]	398,322,474	402,794,352				
5. Expected Income at Valuation Rate = 7.25% x (4)	28,878,379	29,202,591				
6. Gain/(Loss) = (3b) - (5)	(101,382,920)	15,788,498				
7. Phased-In Recognition of Investment Return						
a) Current Year: 0.2 x (6)	(20,276,584)	3,157,700				
b) First Prior Year	7,380,289	(20,276,584)	\$ 3,157,700			
c) Second Prior Year	6,649,621	7,380,289	(20,276,584)	\$ 3,157,700		
d) Third Prior Year	9,528,183	6,649,621	7,380,289	(20,276,584)	\$ 3,157,700	
e) Fourth Prior Year	(8,995,894)	9,528,184	6,649,622	7,380,289	(20,276,584)	\$ 3,157,698
f) Total Recognized Investment Gain	(5,714,385)	6,439,210	(3,088,973)	(9,738,595)	(17,118,884)	3,157,698
8. Change in Valuation Assets (3a) + (3c) + (5) + (7f)	4,888,204	16,533,358				
9. End of Year Assets						
a) Market Value = (2)	376,210,531	402,093,177				
b) Valuation Assets = (1b) + (8)	412,348,573	428,881,931				
c) Difference Between Market & Valuation Assets	(36,138,042)	(26,788,754)	(23,699,781)	(13,961,186)	3,157,698	0
10. Recognized Rate of Return = [(5) + (7f)] / (4)	5.82 %	8.85 %				
11. Market Rate of Return = 2 x (3b) / [(1a) + (2) - (3b)]	(15.84)%	12.27 %				
12. Market Value of Assets for BABH	63,783,360	68,551,433				
13. Funding Value of Assets for BABH	69,910,264	73,118,552				

## Retirees and Beneficiaries Comparative Schedule

Year Ended	Added to Rolls*		Removed from Rolls		Rolls End of Year		% Incr. in Annual Allowances	Average Allowance	Discounted Value of Allowances	
	No.	Annual Allowances	No.	Annual Allowances	No.	Annual Allowances <sup>#</sup>			Total	Average
12/31/1999	23	\$ 295,915 @	29	\$ 83,717	439	\$ 3,746,858	6.0 %	\$ 8,535	\$ 36,670,326	\$ 83,531
12/31/2000	46	645,474	27	201,656	458	4,190,676	11.8	9,150	40,970,172	89,455
12/31/2001	31	732,306 @	13	45,724	476	4,877,258	16.4	10,246	46,616,261	97,933
12/31/2002	34	464,636	18	126,234	492	5,215,660	6.9	10,601	49,634,941	100,884
12/31/2003	37	514,935	17	72,960	512	5,657,635	8.5	11,050	53,369,747	104,238
12/31/2004	95	2,073,773	16	133,099	591	7,598,309	34.3	12,857	74,362,328	125,825
12/31/2005	43	786,641	26	170,645	608	8,214,306	8.1	13,510	80,594,476	132,557
12/31/2006	39	844,464	24	579,276	623	8,479,494	3.2	13,611	85,797,333	137,716
12/31/2007	29	423,246	14	93,660	638	8,809,080	3.9	13,807	88,063,580	138,031
12/31/2008	47	725,060	26	204,104	659	9,330,036	5.9	14,158	92,573,860	140,476
12/31/2009	58	1,303,182	34	338,544	683	10,294,674	10.3	15,073	102,921,818	150,691
12/31/2010	46	1,166,301	24	210,133	705	11,250,842	9.3	15,959	112,893,161	160,132
12/31/2011	51	953,802	16	199,264	740	12,005,380	6.7	16,223	119,532,453	161,530
12/31/2012	58	1,114,368	12	127,382	786	12,992,366	8.2	16,530	126,736,278	161,242
12/31/2013	98	2,545,500	1	20,928	883	15,516,938	19.4	17,573	153,936,777	174,334
12/31/2014	35	826,083	2	10,254	916	16,332,767	5.3	17,831	159,912,340	174,577
12/31/2015	3	82,645	2	9,425	120	2,800,532	N/A	23,338	29,345,292	244,544
12/31/2016	4	96,939	2	34,334	122	2,863,137	2.2	23,468	30,422,314	249,363
12/31/2017	8	158,470	3	30,790	127	2,990,817	4.5	23,550	31,582,263	248,679
12/31/2018	9	220,054	3	80,738	133	3,130,133	4.7	23,535	32,555,730	244,780
12/31/2019	8	106,527	1	17,103	140	3,219,557	2.9	22,997	33,592,756	239,948
12/31/2020	15	289,786	2	22,473	153	3,486,870	8.3	22,790	36,247,014	236,909
12/31/2021	4	103,209	0	0	157	3,590,079	3.0	22,867	36,777,239	234,250
12/31/2022	10	219,263	3	25,923	164	3,783,419	5.4	23,070	39,543,189	241,117
12/31/2023	11	234,660	2	48,097	173	3,969,982	4.9	22,948	41,212,971	238,225

*For Years Ended prior to 2015, the results displayed are for the entire Retirement System (including BABH). Beginning with the Year Ended 2015, the results displayed are for BABH.*

\* Includes survivors of deceased retirees and annual allowance adjustments.

@ Includes one-time benefit increases.

# Annual Allowances based on pre-change age amount for members with applicable pension benefit types.





## Retirees and Beneficiaries December 31, 2023 Tabulated by Type of Pension Paid

Type of Pensions Being Paid	BABH
Regular	75
A - 10-Year Certain	16
B - 100% J & S	49
C - 50% J & S	15
Social Security Equated	
- Regular	4
- 10-Year Certain	1
- 100% J & S	2
- 50% J & S	1
Survivor	10
<b>Total Pensions Being Paid</b>	<b>173</b>

## Retirees and Beneficiaries December 31, 2023 Tabulated by Attained Age\*

Attained Age	BABH	
	No.	Annual Allowances
55 - 59	13	\$ 353,704
60 - 64	42	1,062,459
65 - 69	54	1,298,605
70 - 74	38	753,386
75 - 79	15	289,719
80 - 84	8	191,816
85 - 89	1	13,187
90 - 94	2	7,106
<b>Totals</b>	<b>173</b>	<b>\$3,969,982</b>

*\* Annual Allowances based on pre-change age amount for members with applicable pension benefit types.*

Average Age at Retirement: 59.02 years

Average Age Now: 68.62 years

## Inactive Members December 31, 2023

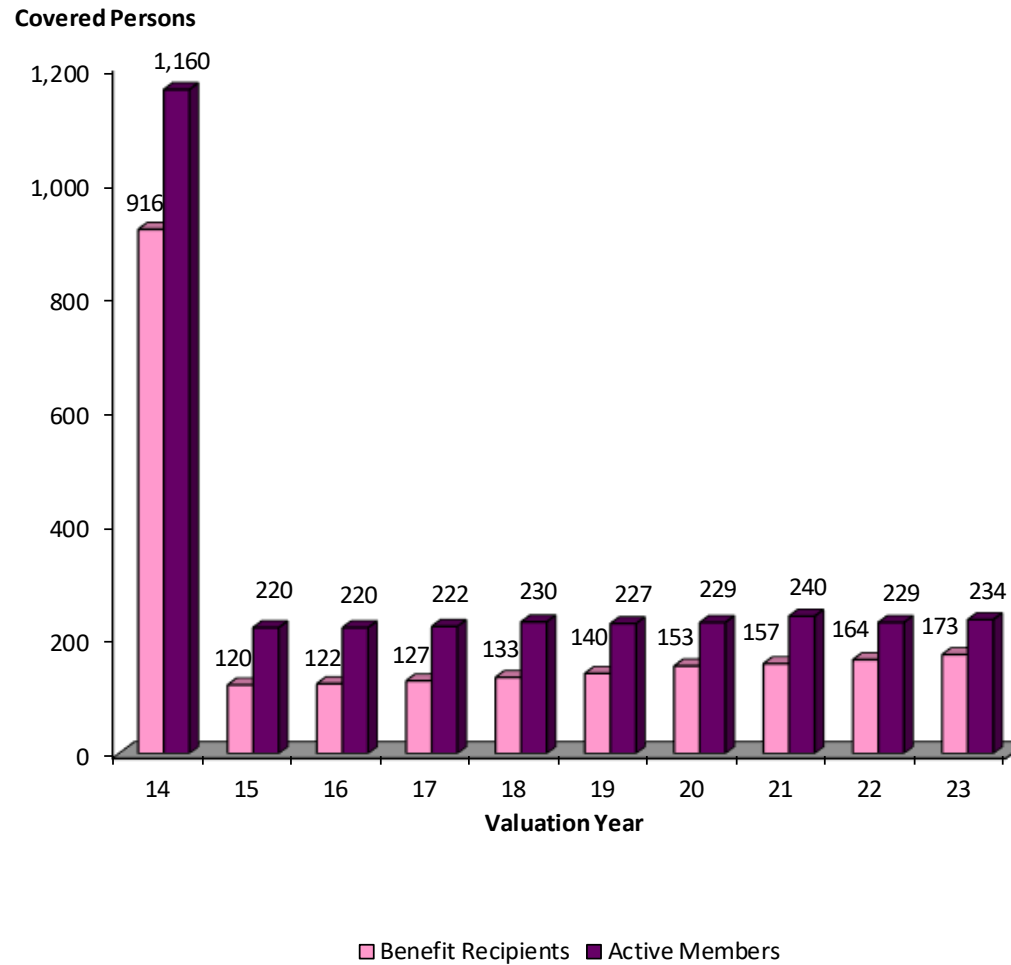
**An inactive member** is a person who has left County employment with entitlement to a retirement allowance after attaining voluntary retirement age. There were 38 inactive members as of December 31, 2023.

The schedule below is an age distribution of the inactive members.

### Tabulated by Attained Age

Attained Age	No.	Estimated Deferred Allowances
30 - 34	1	\$ 9,203
35 - 39	2	20,487
40 - 44	8	91,069
45 - 49	5	60,114
50 - 54	11	159,960
55 - 59	9	132,072
60 - 64	1	30,900
65 - 69		
70 - 74	1	19,781
<b>Total</b>	<b>38</b>	<b>\$523,586</b>

## Active Members and Benefit Recipients



*For Valuation Years prior to 2015, the results displayed are for the entire Retirement System (including BABH). Beginning with the 2015 Valuation Year, the results displayed are for BABH.*

## Active Members December 31, 2023

### Comparative Schedule

Valuation	Active Members								Valuation	Average		
Date	General	DWS	Library	BABH	M.C.F.	Sheriff's	Road	Total	Payroll	Age	Service	Pay
12/31/2004	427	41	72	208	303	76	76	1,203	\$43,550,999	44.3 yrs.	10.3 yrs.	\$36,202
12/31/2005	429	41	74	211	293	75	74	1,197	43,104,046	44.7	10.5	36,010
12/31/2006	412	41	30	205	292	75	67	1,122	42,024,045	45.0	11.1	37,455
12/31/2007	415	39	39	216	288	74	67	1,138	44,687,752	45.3	11.3	39,269
12/31/2008	410	38	42	235	305	75	66	1,171	46,482,897	45.3	11.4	39,695
12/31/2009	407	39	45	253	297	76	58	1,175	47,244,573	45.1	11.3	40,208
12/31/2010	389	37	45	261	295	74	54	1,155	47,090,560	45.4	11.4	40,771
12/31/2011	378	38	44	274	298	77	56	1,165	48,583,176	45.3	11.2	41,702
12/31/2012	365	39	42	276	319	75	56	1,172	48,571,798	45.0	11.1	41,444
12/31/2013	351	36	41	219	350	76	56	1,129	44,535,708	44.1	10.6	39,447
12/31/2014	365	40	36	220	361	79	59	1,160	46,494,417	43.8	10.4	40,081
12/31/2015				220					10,331,351	43.8	8.6	46,961
12/31/2016				220					10,608,566	44.1	9.0	48,221
12/31/2017				222					10,806,001	44.0	8.7	48,676
12/31/2018				230					11,226,851	43.7	8.7	48,812
12/31/2019				227					11,186,972	44.0	9.0	49,282
12/31/2020				229					11,666,794	43.9	8.8	50,947
12/31/2021				240					13,318,905	43.8	8.6	55,495
12/31/2022				229					13,227,205	43.8	8.7	57,761
12/31/2023				234					13,941,626	43.6	8.7	59,580

*For Valuation Dates prior to 2015, the results displayed are for the entire Retirement System (including BABH). Beginning with the 2015 Valuation Date, the results displayed are for BABH.*

## BABH Active Members December 31, 2023 by Age and Years of Service

Age	Years of Service to Valuation Date							Totals	
	0-4	5-9	10-14	15-19	20-24	25-29	30 Plus	No.	Valuation Payroll
15-19	1							1	\$ 33,267
20-24	11							11	497,023
25-29	19							19	957,695
30-34	17	4	1					22	1,242,444
35-39	9	18	4					31	1,861,914
40-44	8	10	7	3	1			29	1,789,138
45-49	15	10	5	5	5	1		41	2,550,675
50-54	11	7	13	2	7	3		43	2,556,950
55-59	2	4	3	2	3	3	2	19	1,197,826
60	1	1			1	1		4	220,767
61		1		1				2	121,997
62	1		3	1				5	500,255
63	1		1					2	144,742
64	1		1		1			3	186,650
65			1					1	43,370
70					1			1	36,913
<b>Totals</b>	<b>97</b>	<b>55</b>	<b>39</b>	<b>14</b>	<b>19</b>	<b>8</b>	<b>2</b>	<b>234</b>	<b>\$13,941,626</b>

While not used in the financial computations, the following group averages are computed and shown because of their general interest.

Age: 43.6 years

Service: 8.7 years

Annual Pay: \$59,580

## SECTION D

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### **ACTUARIAL COST METHODS AND ACTUARIAL ASSUMPTIONS**

## Valuation Methodology

**Normal Cost/Accrued Liability.** Normal cost and the allocation of actuarial present values between service rendered before and after the valuation date were determined using an individual entry-age actuarial cost method having the following characteristics:

- (i) The annual normal costs for each individual active member, payable from date of hire to the member's projected date of retirement, are sufficient to accumulate the actuarial present value of the member's anticipated benefit at the time of retirement; and
- (ii) Each annual normal cost is a constant percentage of the member's year-by-year projected covered pay.

**Amortization of Unfunded Actuarial Accrued Liabilities.** Unfunded Actuarial Accrued Liabilities (UAAL) or asset surpluses were amortized as level percent-of-payroll contributions (principal and interest combined) as follows: If the liabilities exceed the assets (unfunded liabilities), the difference is amortized over a closed period of 19 years; if the assets exceed the liabilities (overfunding) the difference is amortized over an open period of 20 years. The amortization method was first adopted for the December 31, 2016 actuarial valuation. The UAAL payment reflects any payments expected to be made between the valuation date and the date contributions determined by this report are scheduled to begin. Active member payroll was assumed to increase 3.00% for the purpose of determining the level-percent contributions.

**Asset valuation method.** The actuarial value equals:

- (a) Actuarial value of assets from the previous valuation, plus
- (b) Employer and member contributions since the last valuation, minus
- (c) Benefit payments and refunds since the last valuation, plus
- (d) Estimated investment income at the assumed investment return, plus
- (e) Portion of gain/(loss) recognized in the current valuation.

For the above purpose, gain/(loss) is defined as the excess during the period of the investment return on the market value of assets over the expected investment income. Twenty percent of the difference is recognized over a five-year period in the actuarial value of assets. This method was first adopted for the December 31, 2003 actuarial valuation.



## Actuarial Assumptions Used for the Valuation

The rationale for the assumptions used in this valuation is included in the five-year experience study ending December 31, 2021, issued August 31, 2023. All assumptions are expectations of future experience, not market measures.

**Investment Return** (net of investment expenses).

4.25% per year in excess of pay inflation. If pay inflation matches the assumption of 3.00%, this implies a 7.25% rate of return. This assumption was first adopted for the December 31, 2016 actuarial valuation and is used to equate the value of payments due at different points in time. Approximate rates of investment return, for the purpose of comparisons with assumed rates, are shown below for the Bay County Employees' Retirement System (in total). Actual increases in average active member pay for the Bay County Employees' Retirement System (in total) are also shown for comparative purposes.

	Year Ended December 31					5-Year Average*
	2023	2022	2021	2020	2019	
Rate of Investment Return	8.9 %	5.8 %	13.2 %	11.5 %	8.5 %	9.6 %
Average Increase in Pay <sup>#</sup>	<u>9.2</u>	<u>13.6</u>	<u>10.3</u>	<u>4.7</u>	<u>5.1</u>	<u>8.5</u>
Real Rate of Return	(0.3)	(7.8)	2.9	6.8	3.4	1.1

\* Compound rate of increase.

# Based on employees active during both years, for the Bay County Employees' Retirement System (in total).

The nominal rate of return was computed using the approximate formula  $i = I \text{ divided by } 1/2 (A + B - I)$ , where I is actual investment income net of expenses, A is the beginning of year asset value, and B is the end of year asset value.

Please note that this analysis uses asset values and investment income as defined for the actuarial valuation which deals with market value changes on a gradual basis.

These rates of return should not be used for measurement of an investment advisor's performance or for comparisons with other systems.

**Rates of price inflation** are not specifically used for this valuation. However, a rate of price inflation of 2.50% would be consistent with other assumptions in this report. This assumption was first adopted for the December 31, 2016 actuarial valuation.

**Pay Projections.** These assumptions are used to project current pays to those upon which benefits will be based. In addition to the Merit and Longevity rates shown in the table, members are also assumed to receive a base increase of 3.00%.

Years of Service	Annual Rate of Pay Increase for Merit & Longevity
	BABH
1	3.00%
2	2.25%
3	1.50%
4	1.50%
5	0.75%
6+	0.75%

If the number of active members remains constant, the total active member payroll will increase by about the level of pay inflation (assumed to be 3.00% per year). This increasing payroll was recognized in amortizing unfunded actuarial accrued liabilities. The merit and longevity payroll growth assumptions were first adopted for the December 31, 2016 actuarial valuation. The base wage inflation assumption was first adopted for the December 31, 2022 actuarial valuation.

Changes actually experienced in pays have averaged as follows, for the Bay County Employees' Retirement System (in total):

Year Ended December 31					5-Year Average*
2023	2022	2021	2020	2019	
9.2%	13.6%	10.3%	4.7%	5.1%	8.5%

\* Compound rate of increase.

**Lump sum payments.** Lump sum payments for unused sick leave and vacation were assumed to increase final average compensation by 4.0%. The lump sum payment assumption was first adopted for the December 31, 2022 actuarial valuation.

**Mortality.** The mortality rates utilized are based upon the Pub-2010 amount-weighted General tables, in conjunction with the MP-2021 projection scale on a fully generational basis. The mortality assumptions were first adopted for the December 31, 2022 actuarial valuation. The tables used were as follows:

- **Pre-Retirement:** Pub-2010 General Employee Mortality Tables, amount weighted, and projected with mortality improvements using the fully generational MP-2021 projection scale from a base year of 2010.
- **Healthy Post-Retirement:** Pub-2010 General Healthy Annuitant Mortality Tables, amount-weighted, and projected with mortality improvements using the fully generational MP-2021 projection scale from a base year of 2010.
- **Disability Retirement:** Pub-2010 General Disabled Retiree Mortality Tables, amount-weighted, and projected with mortality improvements using the fully generational MP-2021 projection scale from a base year of 2010.

Sample Ages	Pre-Retirement Future Life Expectancy (Years) <sup>^</sup>		Healthy Post-Retirement Future Life Expectancy (Years) <sup>^</sup>		Disabled Retirement Future Life Expectancy (Years) <sup>^</sup>	
	Men	Women	Men	Women	Men	Women
50	39.14	41.30	35.52	38.45	26.29	29.23
55	34.13	36.20	30.63	33.48	22.79	25.64
60	29.23	31.17	25.91	28.61	19.62	22.31
65	24.47	26.24	21.42	23.88	16.69	19.04
70	19.82	21.41	17.16	19.34	13.88	15.67
75	15.28	16.69	13.23	15.09	11.12	12.37
80	10.86	12.14	9.75	11.27	8.53	9.43

<sup>^</sup> Based on retirements in 2023. Retirements in future years will reflect improvements in life expectancy.

**Administration Expenses.** Non-investment administration expenses are assumed to average 0.45% of payroll annually. The administrative expenses assumption was first adopted for the December 31, 2022 actuarial valuation. This assumption was changed as a result of the experience study.

**Active Member Group Size.** The number of active members was assumed to remain constant. This assumption is unchanged from the previous valuation.

**Rates of separation from active membership.** The rates do not apply to members eligible to retire and do not include separation on account of death or disability. This assumption measures the probabilities of members remaining in employment. This assumption was first adopted for the December 31, 2022 actuarial valuation.

Sample Ages	Years of Service	% of Active Members Separating within Next Year
		BABH
ALL	0	19.80%
	1	11.88
	2	11.88
	3	10.56
	4	10.56
20	5 & Over	8.25
25		8.25
30		7.70
35		7.70
40		4.40
45		3.30
50		2.20
55		2.20
60		2.20

**Rates of Disability.** These rates represent the probabilities of active members becoming disabled. This assumption was first adopted for the December 31, 2016 actuarial valuation.

Percent Becoming Disabled within Next Year	
Sample Ages	BABH
20	0.07 %
25	0.07
30	0.07
35	0.07
40	0.19
45	0.25
50	0.46
55	0.84
60	1.33

We assumed that 85% of disabilities are non-duty related and 15% are duty related.

**Rates of Retirement.** These rates are used to measure the probabilities of an eligible member retiring during the next year.

Retirement Ages	Percent of Active Members Retiring within Next Year
	BABH
55	18 %
56	13
57	13
58	13
59	13
60	28
61	23
62	13
63	13
64	13
65	28
66	13
67	13
68	13
69	13
70	100

The following table shows the rates of retirement for the 55 & 8 and/or 55 & 10 Early Retirement provision:

Retirement Ages	55 & 8 and/or 55 & 10 Early Retirement
	BABH
55	5 %
56	5
57	5
58	5
59	5
60	5
61	5

The retirement assumptions were first adopted for the December 31, 2012 actuarial valuation for Early Retirement and the December 31, 2022 actuarial valuation for Normal Retirement.

## Miscellaneous and Technical Assumptions

<b>Marriage Assumption:</b>	100% of males and 100% of females are assumed to be married for purposes of death-in-service benefits. Male spouses are assumed to be three years older than female spouses.
<b>Pay Increase Timing:</b>	Six months after the valuation date.
<b>Decrement Timing:</b>	Decrements of all types are assumed to occur mid-year.
<b>Eligibility Testing:</b>	Eligibility for benefits is determined based upon the age nearest birthday and service nearest whole year on the date the decrement is assumed to occur.
<b>Benefit Service:</b>	Exact fractional service is used to determine the amount of benefit payable.
<b>Decrement Relativity:</b>	Decrement rates are used directly from the experience study, without adjustment for multiple decrement table effects.
<b>Decrement Operation:</b>	Disability and death-in-service decrements do not operate during the first five years of service. Disability and withdrawal do not operate during retirement eligibility.
<b>Normal Form of Benefit:</b>	The assumed normal form of benefit is straight life form.
<b>Loads:</b>	Loads are included for lump sum payments for unused sick leave and vacation (see page D-3 for further details). For current retirees who elected a joint and survivor form of payment with a pop-up and retired prior to January 1, 2013 the liabilities are loaded 2% because the pop-up benefits are not provided in the data.
<b>Incidence of Contributions:</b>	Contributions are assumed to be received continuously throughout the year based upon the computed percent-of-payroll shown in this report, and the actual payroll payable at the time contributions are made. New entrant normal cost contributions are applied to the funding of new entrant benefits.
<b>Data Adjustment:</b>	Payroll was annualized for new entrants.  Newly reported active members who were reported without any annual pay were assumed to have pay equal to the average annualized pay of the remaining new actives within their respective group.
<b>Eligible Domestic Relations Orders (EDROs):</b>	In the event the Participant is active and the Alternate Payee has commenced benefits, the liability associated with the Alternate Payee has been netted from the respective group's gross liability.

## SECTION E

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### SUPPLEMENTARY SCHEDULES

## Schedule of Funding Progress

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) Entry Age (b)	Unfunded AAL (UAAL) (b) – (a)	Funded Ratio (a)/(b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll [(b) – (a)] / (c)
12/31/2014	\$282,166,070	\$271,995,030	\$ (10,171,040)	103.7 %	\$46,494,417	none
12/31/2015	46,894,673	48,624,039	1,729,366	96.4	10,331,351	16.74 %
12/31/2016 #	50,204,835	51,801,665	1,596,830	96.9	10,608,566	15.05
12/31/2017	54,095,330	53,481,066	(614,264)	101.1	10,806,001	none
12/31/2018	55,569,686	55,163,699	(405,987)	100.7	11,226,851	none
12/31/2019 *	58,295,324	56,661,941	(1,633,383)	102.9	11,186,972	none
12/31/2020	62,853,907	59,315,138	(3,538,769)	106.0	11,666,794	none
12/31/2021	68,557,354	62,324,221	(6,233,133)	110.0	13,318,905	none
12/31/2022 #	69,910,264	66,857,263	(3,053,001)	104.6	13,227,205	none
12/31/2023	73,118,552	68,227,393	(4,891,159)	107.2	13,941,626	none

*For Actuarial Valuation Dates prior to 2015, the results displayed are for the entire Retirement System (including BABH). Beginning with the 2015 Actuarial Valuation Date, the results displayed are for BABH.*

\* Plan amended.

# Certain assumptions or methods revised.

Actuarial Cost Method	Individual Entry Age Normal Cost
Amortization Method	Level percent-of-payroll
Amortization periods	19 years closed when BABH is underfunded (unfunded accrued liability is positive). 20 years open when BABH is overfunded (unfunded accrued liability is negative).
Asset Valuation Method	Market value with 5-year smoothing of gains and losses.

Principal Actuarial Assumptions  
(last revised for the 12/31/2016 valuation):

- Net Investment Return	7.25%
- Projected Salary Increases	3.00% pay inflation plus merit and longevity
- Price Inflation	2.50%
- Cost-of-Living Adjustments	None



## Schedule of Employer Contributions

Valuation Year Ended December 31	Calendar Year Ended December 31	Annual Required Contribution
2014	2016	\$ 2,535,295
2015	2017	990,514
2016	2018	1,048,375
2017	2019	867,441
2018	2020	917,980
2019	2021	797,845
2020	2022	672,867
2021	2023	592,086
2022	2024	815,302
2023	2025	491,050

*For Valuation Years Ended prior to December 31, 2015, the results displayed are for the entire Retirement System (including BABH). Beginning with the Valuation Year Ended December 31, 2015, the results displayed are for BABH.*

## SECTION F

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### RISK DISCLOSURES

## Risks Associated with Measuring the Accrued Liability and Actuarially Determined Contribution

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

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions due to changing conditions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period, or additional cost or contribution requirements based on the Plan's funded status); and changes in plan provisions or applicable law. The scope of an actuarial valuation does not include an analysis of the potential range of such future measurements.

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

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

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

The computed contribution rate shown on page B-2 may be considered as a minimum contribution rate that complies with the Board's funding policy. The timely receipt of the actuarially determined contributions is critical to support the financial health of the plan. Users of this report should be aware that contributions made at the actuarially determined rate do not necessarily guarantee benefit security.

# Risks Associated with Measuring the Accrued Liability and Actuarially Determined Contribution

## Plan Maturity Measures

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

	<u>2023</u>	<u>2022</u>	<u>2021</u>	<u>2020</u>	<u>2019</u>	<u>2018</u>	<u>2017</u>
Ratio of the market value of assets to total payroll	4.9	4.8	5.9	6.0	5.6	4.7	5.3
Ratio of actuarial accrued liability to payroll	4.9	5.1	4.7	5.1	5.1	4.9	4.9
Ratio of actives to retirees and beneficiaries	1.4	1.4	1.5	1.5	1.6	1.7	1.7
Ratio of net cash flow to market value of assets	-4.2%	-4.0%	-3.0%	-2.8%	-3.1%	-3.1%	-2.8%

## Ratio of Market Value of Assets to Payroll

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

## Ratio of Actuarial Accrued Liability to Payroll

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

## Ratio of Actives to Retirees and Beneficiaries

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

## Ratio of Net Cash Flow to Market Value of Assets

A positive net cash flow means contributions exceed benefits and expenses. A negative cash flow means existing funds are being used to make payments. A certain amount of negative net cash flow is generally expected to occur when benefits are prefunded through a qualified trust. Large negative net cash flows as a percent of assets may indicate a super-mature plan or a need for additional contributions.

## Additional Risk Assessment

Additional risk assessment is outside the scope of the annual actuarial valuation. Additional assessment may include scenario tests, sensitivity tests, stochastic modeling, stress tests, and a comparison of the present value of accrued benefits at low-risk discount rates with the actuarial accrued liability.

# Low-Default-Risk Obligation Measure

## Introduction

In December 2021, the Actuarial Standards Board (ASB) adopted a revision to Actuarial Standard of Practice (ASOP) No. 4, *Measuring Pension Obligations and Determining Pension Plan Costs or Contributions*. The revised ASOP No. 4 requires the calculation and disclosure of a liability referred to by the ASOP as the “Low-Default-Risk Obligation Measure” (LDROM). The rationale that the ASB cited for the calculation and disclosure of the LDROM was included in the Transmittal Memorandum of ASOP No. 4 and is presented below (emphasis added):

The ASB believes that the calculation and disclosure of this measure provides appropriate, useful information for the intended user regarding the funded status of a pension plan. The calculation and disclosure of this additional measure **is not intended to suggest that this is the “right” liability measure** for a pension plan. However, the ASB does believe that **this additional disclosure provides a more complete assessment of a plan’s funded status and provides additional information regarding the security of benefits that members have earned as of the measurement date.**

## Comparing the Accrued Liabilities and the LDROM

One of the fundamental financial objectives of the Bay County Employees’ Retirement System for Bay-Arenac Behavioral Health Authority is to finance each member’s retirement benefits over the period from the member’s date of hire until the member’s projected date of retirement (entry age actuarial cost method) as a level percentage of payroll. To fulfill this objective, the discount rate that is used to value the accrued liabilities of the Bay County Employees’ Retirement System for Bay-Arenac Behavioral Health Authority is set equal to the expected return on the System’s diversified portfolio of assets (referred to sometimes as the investment return assumption). For the Bay County Employees’ Retirement System for Bay-Arenac Behavioral Health Authority, the investment return assumption is 7.25%.

The LDROM is meant to approximately represent the lump sum cost to a plan to purchase low-default-risk fixed income securities whose resulting cash flows essentially replicate in timing and amount the benefits earned (or the costs accrued) as of the measurement date. The LDROM is very dependent upon market interest rates at the time of the LDROM measurement. The lower the market interest rates, the higher the LDROM, and vice versa. The LDROM results presented in this report are based on the entry age actuarial cost method and discount rates based upon the December 2023 Treasury Yield Curve Spot Rates (end of month). The 1-, 5-, 10- and 30-year rates follow: 4.96%, 4.06%, 3.94% and 4.15%. This measure may not be appropriate for assessing the need for or amount of future contributions. This measure may not be appropriate for assessing the sufficiency of plan assets to cover the estimated cost of settling the plan’s benefit obligation.

**The difference between the two measures (Valuation and LDROM) is one illustration of the savings the sponsor anticipates by taking on risk in a diversified portfolio.**

### Accrued Liabilities and LDROM

Valuation	LDROM
\$68,227,393	\$100,369,409

# Bay County Retiree Health Care Plan

Actuarial Valuation Report

For County Employers Other Than BABH

as of December 31, 2023



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January 7, 2025

Bay County Voluntary Employees' Beneficiary  
Association (VEBA) – Board of Trustees  
Bay City, Michigan

**Re: Bay County Retiree Health Care Plan – Excluding BABH Actuarial Funding Valuation  
as of December 31, 2023**

Dear Board Members:

The results of the December 31, 2023 Biennial Actuarial Funding Valuation of the Bay County Voluntary Employees' Beneficiary Association – Excluding BABH are presented in this report.

This report was prepared at the request of the Board and is intended for use by the VEBA, Bay County, each Employer, and those designated or approved by the Board. This report may be provided to parties other than the VEBA, only in its entirety and only with the permission of the Board. GRS is not responsible for unauthorized use of this report.

The purposes of the valuation are to measure the Plan's funding progress and to determine the Actuarially Determined Contribution for the fiscal years ending December 31, 2026 and December 31, 2027. This report should not be relied on for any purpose other than the purposes described herein. Determinations of financial results, associated with the benefits described in this report, for purposes other than those identified above may be significantly different. This report does not include actuarial information needed to satisfy reporting requirements under Governmental Accounting Standards Board (GASB) Statement No. 75.

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

Results presented in this report are developed using the actuarial assumptions and methods disclosed in this report. Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the plan's funded status); and changes in plan provisions or applicable law. This report does not include a robust assessment of the risks of future experience not meeting the actuarial assumptions. Additional assessment of risks was outside the scope of this assignment. We encourage a review and assessment of the investment and other significant risks that may have a material effect on the plan's financial condition.



The findings in this report are based on information furnished by Bay County and each Employer concerning retiree health care benefits, financial transactions, plan provisions and active members, terminated members, retirees and beneficiaries. We checked for internal reasonability and year-to-year consistency, but did not audit the data. We are not responsible for the accuracy or completeness of the information provided by Bay County and the Employers.

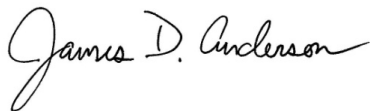
This report was prepared using assumptions adopted by the Board. All actuarial assumptions used in this report are reasonable for the purposes of this valuation. All actuarial assumptions and methods used in the valuation follow the guidance in the applicable Actuarial Standards of Practice. Additional information about the actuarial assumptions is included in the section of this report titled Actuarial Cost Methods and Actuarial Assumptions.

This report was prepared using our proprietary valuation model and related software which, in our professional judgment, has the capability to provide results that are consistent with the purposes of the valuation, and has no material limitations or known weaknesses. We performed tests to ensure that the model reasonably represents that which is intended to be modeled.

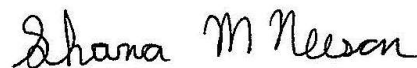
This report has been prepared by actuaries who have substantial experience valuing public employee retiree health programs. To the best of our knowledge, the information contained in this report is accurate and fairly presents the actuarial position of the Bay County Retiree Health Care Plan – Excluding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

James D. Anderson and Shana M. Neeson are Members of the American Academy of Actuaries (MAAA). These actuaries meet the Academy's Qualification Standards to render the actuarial opinions contained herein. The signing actuaries are independent of the plan sponsor.

Respectfully submitted,  
Gabriel, Roeder, Smith & Company



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



Shana M. Neeson, ASA, FCA, MAAA

JDA/SMN:sc



# EXECUTIVE SUMMARY

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# Executive Summary

## Actuarially Determined Contribution

We have calculated the Actuarially Determined Contribution for the fiscal years ending December 31, 2026 and December 31, 2027 under an interest rate assumption of 7.00%. Below is a summary of the results. The Actuarially Determined Contributions and estimated claims and premiums shown below include the impact of any implicit rate subsidy present in your pre-65 rates.

<b>Fiscal Year Ending</b>	<b>Actuarially Determined Contribution</b>	<b>Estimated Claims and Premiums Paid for Retirees</b>
December 31, 2026	\$ 2,329,355	\$ 5,128,673
December 31, 2027	2,294,308	5,281,616

For additional details please see the section titled “Valuation Results.”

## Liabilities and Assets – as of December 31, 2023

1. Present Value of Future Benefit Payments	\$80,755,287
2. Actuarial Accrued Liability	73,727,243
3. Plan Assets	67,668,927
4. Unfunded Actuarial Accrued Liability (2) – (3)	6,058,316
5. Funded Ratio (3)/(2)	91.8%

The Present Value of Future Benefit Payments (PVFB) is the present value of all benefits projected to be paid from the plan for past and future service to current members. The Actuarial Accrued Liability is the portion of the PVFB allocated to past service by the Plan’s funding method (see the section titled “Actuarial Cost Methods and Actuarial Assumptions”).

**SECTION A**

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**VALUATION RESULTS**

# Bay County Retiree Health Care Plan – Excluding BABH

## Results by Division

### as of December 31, 2023

	General County	DWS	Library	Medical Care Facility	Sheriff's Department	Road Commission	Total
A. Present Value of Future Benefits							
i) Retirees and Beneficiaries	\$ 14,382,474	\$ 7,155,869	\$ 1,317,732	\$ 9,433,426	\$ 5,944,795	\$ 11,513,047	\$ 49,747,343
ii) Vested Terminated Members	0	0	0	0	0	0	0
iii) Active Members	<u>9,470,842</u>	<u>5,361,431</u>	<u>1,673,311</u>	<u>5,107,723</u>	<u>3,014,632</u>	<u>6,380,005</u>	<u>31,007,944</u>
Total Present Value of Future Benefits	23,853,316	12,517,300	2,991,043	14,541,149	8,959,427	17,893,052	80,755,287
B. Present Value of Future Normal Costs	1,485,512	2,356,406	512,408	554,657	586,611	1,532,450	7,028,044
C. Actuarial Accrued Liability (A.-B.)	22,367,804	10,160,894	2,478,635	13,986,492	8,372,816	16,360,602	73,727,243
D. Actuarial Value of Assets	23,194,395	10,043,709	3,349,711	19,099,001	7,210,333	4,771,778	67,668,927
E. Unfunded Actuarial Accrued Liability (C.-D.)	(826,591)	117,185	(871,076)	(5,112,509)	1,162,483	11,588,824	6,058,316
F. Funded Ratio (D./C.)	103.7%	98.8%	135.1%	136.6%	86.1%	29.2%	91.8%
<b>G. Fiscal Year Ending December 31, 2026</b>							
i) Employer Normal Cost	\$ 298,384	\$ 303,515	\$ 73,193	\$ 97,936	\$ 94,475	\$ 224,723	
ii) Amortization of UAAL*	<u>(96,829)</u>	<u>11,364</u>	<u>(102,040)</u>	<u>(646,910)</u>	<u>136,177</u>	<u>1,357,546</u>	
Actuarially Determined Contribution	\$ 201,555	\$ 314,879	\$ 0	\$ 0	\$ 230,652	\$ 1,582,269	\$ 2,329,355
<b>H. Fiscal Year Ending December 31, 2027</b>							
Actuarially Determined Contribution	\$ 174,073	\$ 324,326	\$ 0	\$ 0	\$ 224,678	\$ 1,571,231	\$ 2,294,308

\* The Unfunded Actuarial Accrued Liabilities (UAAL) were amortized over a closed period for all Employers. The UAAL was amortized for each Employer as follows for the fiscal year ending December 31, 2026 and decreasing by one each year thereafter:

Employer	Method	Period
GeneralCounty	Level Dollar	16 years
DWS	Level Percent of Payroll	16 years
Library	Level Dollar	16 years
Medical Care Facility	Level Dollar	14 years
Sheriff'sDepartment	Level Dollar	16 years
RoadCommission	Level Dollar	16 years

The long-term rate of investment return used in this valuation is 7.00%.



## Comments

**Comment A:** The Actuarial Accrued Liability and Present Value of Future Benefit Payments (PVFB) increased since the prior valuation. However, the Actuarially Determined Contribution decreased since the prior valuation.

Reasons for the increase in liability and PVFB include, but are not limited to the following:

- Unfavorable post-65 claims and premium experience for the MCF;
- An assumption change: Implementation of assumption changes adopted from the five-year experience study ending December 31, 2021, issued August 31, 2023; and
- An assumption change: Adjustment to the health care cost trend rates.

Partially offsetting these factors was favorable experience due to:

- Favorable pre-65 claims and premium experience for all divisions;
- Favorable post-65 claims and premium experience for all divisions except the MCF; and
- Benefit changes: Department of Water and Sewer and Road Commission employees retiring after 1/1/2023 are no longer eligible for Life Insurance in retirement.

The impact of the assumption changes noted above increased the liabilities by approximately \$6,760,000. The impact of the benefit changes noted above decreased the liabilities by approximately \$43,000.

The factors listed above impacted the Actuarially Determined Contribution and the overall total contribution decreased since the prior valuation, primarily due to extending the Road Commission amortization period to 16 years.

**Comment B:** One of the key assumptions used in any valuation of the cost of postemployment benefits is the rate of return on the assets that will be used to pay Plan benefits. Higher assumed investment returns will result in a lower Actuarially Determined Contribution. Lower returns will tend to increase the Actuarially Determined Contribution. We have calculated the liability and the resulting Actuarially Determined Contribution using an assumed annual rate of investment return of 7.00%. The investment return assumption should not exceed reasonable market expectations.

**Comment C:** The plan sponsor is required by GASB to perform actuarial valuations at least biennially or more frequently if significant changes in the OPEB are made in the interim.

**Comment D:** The contribution amounts shown include amortization of the unfunded actuarial accrued liability over a closed 14-year period for Medical Care Facility, and a closed 16-year period for all other groups for the fiscal year ending December 31, 2026 and decreasing by one each year thereafter. For this valuation, assets represent 91.8% of accrued liabilities; for the last valuation, the ratio was 91.8%. Given the funded status of all groups except the Road Commission, the applicable employers should consider starting to pay benefits from the trust, if the Plan document allows.

**Comment E:** The asset split between the various groups was provided by the County.



## Comments

**Comment F:** This valuation covers the retiree health benefits provided by all units of the Bay County Voluntary Employees' Beneficiary Association, excluding the Bay-Arenac Behavioral Health Authority. These benefits differ between the various groups but in general include: medical, dental, vision, prescription drug coverage and life insurance.

**Comment G:** The GASB issued Statement Nos. 74 and 75 for OPEB valuations. GASB Statement No. 74 for the plan OPEB disclosures was effective for fiscal years beginning after June 15, 2016. GASB Statement No. 75 for employer OPEB disclosures was effective for employer fiscal years beginning after June 15, 2017. The GASB implementation guides for Statement Nos. 74 and 75 provide additional clarification related to the implementation of these Statements. It is our understanding that the County needs to comply with GASB Statement No. 75 for each measurement date ending December 31<sup>st</sup>. The basis for the December 31, 2024 and December 31, 2025 GASB Statement No. 75 reporting information is expected to be this valuation (as of December 31, 2023), where roll-forward techniques will be applied.

**Comment H:** The Michigan State Treasurer has established uniform actuarial assumptions as required by Public Act 202 (PA 202) of 2017 for use with annual Form 5572 (Retirement System Annual Report). The use of the uniform assumptions for reporting purposes is required for each future fiscal year ending December 31<sup>st</sup>. Consistent with past practice, GRS plans to provide the necessary PA 202 uniform assumption information as part of the GASB Statement No. 75 reports.

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

- The measurement is inappropriate for assessing the sufficiency of plan assets to cover the estimated cost of settling the plan's benefit obligations;
- A funded status measurement of 100% is not synonymous with no required future contributions. If the funded status were 100%, the Plan would still require future normal cost contributions (i.e., contributions to cover the cost of the active membership accruing an additional year of service credit). In the instance of the Library and the Medical Care Facility, the contribution requirement is \$0 because the over funding credit is more than sufficient to offset the normal cost contribution; and
- The measurement is inappropriate for assessing the need for or the amount of future employer contributions.

## SECTION B

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### RETIREE PREMIUM RATE DEVELOPMENT



## Retiree Premium Rate Development

Initial retiree premiums rates were developed for each class of retirees (pre-65 and post-65), and separately for each of the following Bay County Divisions:

1. Library (fully-insured)
2. Bay Medical Care Facility (self-insured)
3. Road Commission (partially fully-insured and self-insured)
4. Department of Water and Sewer (partially fully-insured and self-insured)
5. General and Sheriff's Divisions (partially fully-insured and self-insured)

### Library

Initial premium rates were developed for the two classes of retirees (pre-65 and post-65). The February 1, 2024 Blue Cross Blue Shield and the January 1, 2024 Express Scripts fully-insured rates provided by Bay County Library were utilized to determine the appropriate premium rates. The pre-65 fully-insured premiums are blended rates based on the combined experience of active and pre-65 retired members; therefore, there is an implicit employer subsidy for the non-Medicare eligible retirees since the average cost of providing health care benefits to retirees under age 65 is higher than the average cost of providing health care benefits to active employees. The true per capita cost for the pre-65 retirees is developed by adjusting the demographic differences between the active employees and retirees to reflect this implicit rate subsidy for the retirees. The pre-65 rates include an adjustment for the HRA benefit that covers 80% of the in-network deductible.

For the post-65 retirees, the fully-insured premium rate was used as the basis of the initial per capita cost without adjustments since the rate reflects the demographics of the post-65 retiree group. The Express Scripts Medicare Part D fully-insured rate is effective for three years beginning January 1, 2024. No further adjustments were made to the rate in connection with any Inflation Reduction Act provisions.

For the current active employees, the only group/division available upon retirement is BCBS division 0008 pre-65 and The Benistar plan post-65 with Express Scripts Group Medicare Part D Program.



# Retiree Premium Rate Development

## Medical Care Facility

Premium rates for the Medical Care Facility were developed separately for the pre-65 self-insured portion and the post-65 Medicare Advantage fully-insured portion.

The self-insured initial premium rates were developed for pre-65 coverage only. The pre-65 rates were calculated using incurred claims and exposure data for the period of January 2021 through December 2023, adjusted for catastrophic claims and prescription drug rebates, plus the load for administration, network access fee, and stop loss premiums. The self-insured medical and prescription drug data were provided by the Medical Care Facility. Since the prescription drug claims and the medical claims exhibit different trends and claim payment patterns, we analyzed these claims separately. The experience from the active employees and their dependents was used to supplement the pre-65 retiree experience for developing the initial pre-65 retiree premium rates.

For the post-65 retirees, the January 1, 2025 fully-insured MAPD premium rates were used as the basis of the initial per capita cost without adjustments since the rate reflects the demographics of the post-65 retiree group. Because the January 1, 2025 rate was assumed to incorporate known cost sharing shifts as a result of the Inflation Reduction Act of 2022 on the standard Part D plan design (resulting in higher plan costs), no further adjustments were made, except to align the premium to the valuation date.

## Road Commission

Premium rates for the Road Commission were developed separately for the pre-65 self-insured portion and the post-65 Medicare Advantage fully-insured portion.

The self-insured initial premium rates were developed for pre-65 coverage only. The pre-65 rates were calculated using incurred claims and exposure data for the period of January 2021 through December 2023, adjusted for catastrophic claims and prescription drug rebates, plus the load for administration, network access fee, and stop loss premiums. The self-insured medical and prescription drug data were provided by the Road Commission. Since the prescription drug and medical claims exhibit different trends and claim payment patterns, we analyzed these claims separately. The experience from the active employees and their dependents was used to supplement the pre-65 retiree experience for developing the initial pre-65 retiree premium rates.

For the post-65 retirees, the January 1, 2025 fully-insured MAPD premium rates were used as the basis of the initial per capita cost without adjustments since the rate reflects the demographics of the post-65 retiree group. Because the January 1, 2025 rate was assumed to incorporate known cost sharing shifts as a result of the Inflation Reduction Act of 2022 on the standard Part D plan design (resulting in higher plan costs), no further adjustments were made, except to align the premium to the valuation date.

For current active employees, the plans available upon retirement are BCBS groups 0010, 0046, and 0050 for pre-65 participants and suffix 601 for post-65 participants. We have developed separate post-65 premium rates for future retirees to reflect suffix 600 being closed.



# Retiree Premium Rate Development

## Department of Water and Sewer – DWS

Premium rates for Department of Water and Sewer were developed separately for the self-insured and the post-65 Medicare Advantage fully-insured portion.

The self-insured initial premium rates were developed for pre-65 coverage only. The pre-65 rates were calculated by using incurred claims and exposure data for the period of January 2021 through December 2023, adjusted for catastrophic claims and prescription drug rebates, plus the load for administration, network access fee, and stop loss premiums. The self-insured medical and prescription drug data were provided by the Department of Water and Sewer. Since the prescription drug claims and the medical claims exhibit different trends and claim payment patterns, we analyzed these claims separately. The experience from the active employees and their dependents was used to supplement the pre-65 retiree experience for developing the initial pre-65 retiree premium rates.

For the post-65 retirees, the January 1, 2025 fully-insured MAPD premium rates were used as the basis of the initial per capita cost without adjustments since the rate reflects the demographics of the post-65 retiree group. Because the January 1, 2025 rate was assumed to incorporate known cost sharing shifts as a result of the Inflation Reduction Act of 2022 on the standard Part D plan design (resulting in higher plan costs), no further adjustments were made, except to align the premium to the valuation date.

For current active employees, the plans available upon retirement are BCBS groups 0025, 0026, 0052, and 0054 for pre-65 participants and suffix 601 for post-65 participants. We have developed separate post-65 premium rates for future retirees to reflect suffix 600 being closed.

## Bay County General and Sheriff

Premium rates for Bay County General and Sheriff were developed separately for the pre-65 self-insured portion and the post-65 Medicare Advantage fully-insured portion.

The self-insured initial premium rates were developed for pre-65 coverage only. The pre-65 rates were calculated by using paid claims and exposure data for the period of January 2021 through December 2023, adjusted for catastrophic claims, plus the load for administration, network access fee, and stop loss premiums. Prescription drug rebate data was analyzed; however, no adjustment was made to claims in this development due to the low levels of rebates provided. The self-insured medical and prescription drug data were provided by the County. Since the prescription drug claims and the medical claims exhibit different trends and claim payment patterns, we analyzed these claims separately as well. The experience from the active employees and their dependents was used to supplement the pre-65 retiree experience for developing the initial pre-65 retiree premium rates.

For the post-65 retirees, the January 1, 2024 through December 31, 2025 fully-insured MAPD premium rates were used as the basis of the initial per capita cost without adjustments since the rate reflects the demographics of the post-65 retiree group. Because the premium is effective through 2025, the rate was assumed to incorporate known cost sharing shifts as a result of the Inflation Reduction Act of 2022 on the standard 2025 Part D plan design (resulting in higher plan costs), no further adjustments were made, except to align the premium to the valuation date.



# Retiree Premium Rate Development

## All Groups

Age graded and sex distinct premiums are utilized in this valuation. The premiums developed by the preceding processes are appropriate for the unique age and sex distribution currently existing. Over the future years covered by this valuation, the age and sex distribution will most likely change. Therefore, our process “distributes” the average premium over all age/sex combinations and assigns a unique premium for each specific age/sex combination. The age/sex specific premiums more accurately reflect the health care utilization and cost at that age.

### Future Retirees

Expected Health Care Cost by Age for Medical and Prescription Drugs						
	General County		DWS		Library	
Age	Male	Female	Male	Female	Male	Female
45	\$ 545.43	\$ 752.76	\$ 687.08	\$ 948.26	\$ 434.37	\$ 599.49
50	710.21	874.90	894.66	1,102.13	565.60	696.77
55	934.55	1,020.39	1,177.27	1,285.40	744.27	812.64
60	1,207.02	1,188.50	1,520.51	1,497.18	961.27	946.52
64	1,467.77	1,385.18	1,848.98	1,744.94	1,168.93	1,103.15
65	271.73	256.30	338.23	319.02	462.63	436.36
70	296.01	286.44	368.45	356.54	503.98	487.67
75	317.92	310.22	395.73	386.14	541.28	528.17

Expected Health Care Cost by Age for Medical and Prescription Drugs						
	Medical Care Facility		Sheriff's Department		Road Commission	
Age	Male	Female	Male	Female	Male	Female
45	\$ 524.92	\$ 724.46	\$ 545.43	\$ 752.76	\$ 502.30	\$ 693.23
50	683.51	842.01	710.21	874.90	654.05	805.72
55	899.42	982.03	934.55	1,020.39	860.65	939.70
60	1,161.65	1,143.82	1,207.02	1,188.50	1,111.58	1,094.52
64	1,412.60	1,333.11	1,467.77	1,385.18	1,351.71	1,275.65
65	102.66	96.83	271.73	256.30	325.89	307.37
70	111.84	108.22	296.01	286.44	355.01	343.52
75	120.11	117.20	317.92	310.22	381.28	372.05

# Retiree Premium Rate Development

## Current Retirees

Expected Health Care Cost by Age for Medical and Prescription Drugs						
	General County		DWS		Library	
Age	Male	Female	Male	Female	Male	Female
45	\$ 545.43	\$ 752.76	\$ 687.08	\$ 948.26	\$ 434.37	\$ 599.49
50	710.21	874.90	894.66	1,102.13	565.60	696.77
55	934.55	1,020.39	1,177.27	1,285.40	744.27	812.64
60	1,207.02	1,188.50	1,520.51	1,497.18	961.27	946.52
64	1,467.77	1,385.18	1,848.98	1,744.94	1,168.93	1,103.15
65	271.73	256.30	379.65	358.08	462.63	436.36
70	296.01	286.44	413.57	400.19	503.98	487.67
75	317.92	310.22	444.18	433.42	541.28	528.17

Expected Health Care Cost by Age for Medical and Prescription Drugs						
	Medical Care Facility		Sheriff's Department		Road Commission	
Age	Male	Female	Male	Female	Male	Female
45	\$ 524.92	\$ 724.46	\$ 545.43	\$ 752.76	\$ 502.30	\$ 693.23
50	683.51	842.01	710.21	874.90	654.05	805.72
55	899.42	982.03	934.55	1,020.39	860.65	939.70
60	1,161.65	1,143.82	1,207.02	1,188.50	1,111.58	1,094.52
64	1,412.60	1,333.11	1,467.77	1,385.18	1,351.71	1,275.65
65	102.66	96.83	271.73	256.30	349.54	329.69
70	111.84	108.22	296.01	286.44	380.78	368.46
75	120.11	117.20	317.92	310.22	408.96	399.06

The dental and vision premium rates were not “age graded” for this valuation because dental and vision claims do not vary significantly by age. The monthly dental and vision premium rates used in this valuation are shown below:

Group	Dental and Vision			
	Pre-65		Post-65	
	One-Person	Two-Person	One-Person	Two-Person
Road Commission	\$40.11	\$80.22	\$38.40	\$76.80
DWS	40.11	80.22	38.40	76.80
Medical Care Facility	36.63	73.25	35.72	71.44



# Retiree Premium Rate Development

## Health Care Cost Trend Assumption

The health care cost trend rate is the rate of change in per capita health care claims over time as a result of factors such as medical inflation, utilization of health care services, plan design, and technological improvements. It is a crucial economic assumption that is required for measuring retiree health care benefit obligations.

Retiree health care valuations use a health care cost trend assumption (trend vector) that changes over the years. The trend vector used in this valuation begins with a near-term trend assumption and declines over a time to an ultimate trend rate. The near-term rates reflect the increases in the current cost of health care goods and services. The process of trending down to a lower ultimate trend relies on the theory that premiums will moderate over the long term; otherwise, the healthcare sector would eventually consume the entire GDP. It is on this basis that we project premium rate increases will continue to exceed wage inflation for the next 15 years, but by less each year until leveling off at an ultimate rate, assumed to be 3.50% in this valuation.

While experience is often the best starting point for future costs, GRS does not rely on a group's experience in setting the near-term trend assumptions since trends vary significantly from year to year and are not credible for most groups. Therefore, professional judgment, trends from GRS' book of business and industry benchmarks (e.g., trend reports from various Pharmacy Benefit Management (PBM) organizations and national healthcare benefit consulting firms) are used in conjunction with a group's historical experience to establish the trend assumptions.

The combined medical and prescription drug per capita costs are projected to increase as shown in the table below:

Year After Valuation	Health Care Trend Inflation Rates		
	Medical/Drug		Dental/Vision
	Non-Medicare (Pre-65)	Medicare (Post-65)	
1	7.25%	6.50%	3.50%
2	7.00%	6.25%	3.50%
3	6.75%	6.00%	3.50%
4	6.50%	5.75%	3.50%
5	6.25%	5.75%	3.50%
6	6.00%	5.50%	3.50%
7	5.75%	5.25%	3.50%
8	5.50%	5.00%	3.50%
9	5.00%	4.75%	3.50%
10	4.75%	4.50%	3.50%
11	4.50%	4.25%	3.50%
12	4.25%	4.25%	3.50%
13	4.00%	4.00%	3.50%
14	3.75%	3.75%	3.50%
15	3.50%	3.50%	3.50%
16+	3.50%	3.50%	3.50%

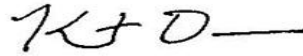
# Retiree Premium Rate Development

## Actuarial Disclosures

The premium rates used in this valuation were developed using the proprietary Excel models which, in Kurt Dosson's professional judgment, provide the initial projected costs which are consistent with the purposes of the valuation. We perform tests to ensure that the models, in their entirety, reasonably represent that which is intended to be modeled.

Aging factors used in the premium development models were developed based on the information and data from a 2013 study commissioned by the Society of Actuaries entitled "Health Care Costs – From Birth to Death."

Kurt Dosson is a Member of the American Academy of Actuaries (MAAA) and meets the Qualification Standards of the American Academy of Actuaries to certify the per capita retiree health care rates shown on pages B-4 and B-5 as well as the health care trend rates shown on page B-6.



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Kurt Dosson, ASA, FCA, MAAA

SECTION C

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SUMMARY OF BENEFITS



# Bay County Retiree Health Care Plan – General County

## Summary of the Benefit Provisions as of December 31, 2023

Leaving Employment as a Result of	Eligibility for Pension Benefit	Eligibility for Retiree Health Benefit	When do retiree health benefits commence?	Coverage Provided by Employer		Retiree Health Care Provider(s)	Type of Insurance	Third Party Administrator	Retiree Share of Cost for		
				Retiree	Spouse				Retiree	Spouse (while Retiree is alive)	Spouse (after Retiree's death)
<b>Normal/Early Retirement</b>	Dispatchers: 25 yrs of svc regardless of age ** 30 yrs of svc regardless of age Age 55 with 8/10* yrs of svc ** Age 55 with 25 yrs of svc Age 60 with 8/10* yrs of svc Age 65 with 0 yrs of svc Nurses: Age 55 with 8/10* yrs of svc ** Age 55 with 30 yrs of svc Age 60 with 8 yrs of svc Age 62 with 10* yrs of svc Age 65 with 0 yrs of svc Circuit Court G.E.L.C.: Age 55 with 8/10* yrs of svc ** Age 55 with 30 yrs of svc Age 60 with 8/10* yrs of svc Age 62 with 10* yrs of svc Age 65 with 0 yrs of svc Probate Court USWA: Age 55 with 8 yrs of svc ** Age 55 with 30 yrs of svc Age 60/62* with 8 yrs of svc Age 65 with 0 yrs of svc Remaining General Groups: Age 55 with 8/10* yrs of svc ** Age 55 with 30 yrs of svc Age 60 with 8/10* yrs of svc Age 62 with 10* yrs of svc 25* yrs of svc regardless of age^ Age 65 with 0 yrs of svc	Dispatchers: Age 55 with 8/10* yrs of svc 25 yrs of svc regardless of age Age 60 with 8/10* yrs of svc Age 55 with 25 yrs of svc 30 yrs regardless of age Nurses: Age 55 with 8/10* yrs of svc Age 60 with 8/10* yrs of svc Circuit Court G.E.L.C.: Age 55 with 8/10* yrs of svc Age 60 with 8/10* yrs of svc Probate Court USWA: Age 55 with 8 yrs of svc Age 60 with 8 yrs of svc Remaining General Groups: Age 55 with 8/10* yrs of svc Age 60 with 8/10* yrs of svc	Immediately	Medical Prescription drug Life Insurance ** Life insurance as a retiree is provided to the following units only Non-Rep, USW FT, BCAMPS, USW-Probate**	Medical Prescription drug N/A	BCBS EHIM One America	self-insured self-insured TERM	BCBS EHIM	See Schedule A See Schedule A See Schedule F	See Schedule A See Schedule A N/A	See Schedule A See Schedule A N/A
<b>Deferred Vested Termination</b>	Dispatchers: 8/10* yrs of svc Nurses: 8/10* yrs of svc Circuit Court G.E.L.C.: 8/10* yrs of svc Probate Court USWA: 8 yrs of svc Remaining General Groups: 8/10* yrs of svc	Dispatchers: N/A Nurses: N/A Circuit Court G.E.L.C.: N/A Probate Court USWA: N/A Remaining General Groups: N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<b>Non-Duty Disability</b>	10 or more yrs of credited svc	10 or more yrs of credited svc	Immediately	Medical Prescription drug Life Insurance	Medical Prescription drug	BCBS EHIM One America	self-insured self-insured TERM	BCBS EHIM	See Schedule A See Schedule A See Schedule F	See Schedule A See Schedule A N/A	See Schedule A See Schedule A N/A
<b>Duty Disability</b>	No age or svc requirement	No age or svc requirement	Immediately	Medical Prescription drug Life Insurance	Medical Prescription drug	BCBS EHIM One America	self-insured self-insured TERM	BCBS EHIM	See Schedule A See Schedule A See Schedule F	See Schedule A See Schedule A N/A	See Schedule A See Schedule A N/A
<b>Non-Duty Death-in-Svc</b>	10 or more yrs of credited svc	10 or more yrs of credited svc	Immediately		Medical Prescription drug	BCBS EHIM	self-insured self-insured	BCBS EHIM			See Schedule A See Schedule A
<b>Duty Death-in-Svc</b>	No age or svc requirement Benefits begin upon termination of Worker's Compensation	No age or svc requirement	Immediately		Medical Prescription drug	BCBS EHIM	self-insured self-insured	BCBS EHIM			See Schedule A See Schedule A

Medicare Reimbursement is not offered to any members.

@ Members hired after 1/1/2006.

\* Members hired after 1/1/2007.

% Members hired on or before 1/1/2012 only.

# Members hired after 1/1/2012.

^ Elected Officials and Department Heads Only.

\*\* Eligible for retirement with a reduced pension.

General County part-time members do not qualify for retiree health care. They do not have access to the plan. Employees hired after 1/1/2012 are not eligible for health care in retirement (no medical and no prescription drug). Employees in BCAMPS, USWA General, and Probate Court USWA hired after 1/1/2020 are not eligible for life insurance in retirement. All employees retiring on or after 1/1/2023 are not eligible for life insurance in retirement.



# Bay County Retiree Health Care Plan – DWS

## Summary of the Benefit Provisions as of December 31, 2023

Leaving Employment as a Result of	Eligibility for Pension Benefit	Eligibility for Retiree Health Benefit	When do retiree health benefits commence?	Coverage Provided by Employer		Retiree Health Care Provider(s)	Type of Insurance	Third Party Administrator	Retiree Share of Cost for		
				Retiree	Spouse				Retiree	Spouse (while Retiree is alive)	Spouse (after Retiree's death)
<b>Normal/Early Retirement</b>	30 yrs of svc regardless of age	30 yrs of svc regardless of age	Immediately	Medical	Medical	BCBS	self-insured	BCBS	Hourly See Schedule B, Salary See Schedule C	Hourly See Schedule B, Salary See Schedule C	Hourly See Schedule B, Salary See Schedule C
	Age 55 with 8/10 <sup>^</sup> yrs of svc **	Age 55 with 8/10 <sup>^</sup> yrs of svc		Prescription drug	Prescription drug	BCBS	self-insured	BCBS	Hourly See Schedule B, Salary See Schedule C	Hourly See Schedule B, Salary See Schedule C	Hourly See Schedule B, Salary See Schedule C
	Age 60 with 8/10 <sup>^</sup> yrs of svc	Age 60 with 8/10 <sup>^</sup> yrs of svc		Dental	Dental	BCBS	self-insured	BCBS	Hourly - 100%, Salary See Schedule C	Hourly - N/A, Salary See Schedule C	Hourly - N/A, Salary See Schedule C
	Age 65 with 0 yrs of svc			Vision	Vision	BCBS	self-insured	BCBS	Hourly - 100%, Salary See Schedule C	Hourly - N/A, Salary See Schedule C	Hourly - N/A, Salary See Schedule C
				Life Insurance	Salary Only	The Hartford	Life	The Hartford	See Schedule I	N/A	N/A
<b>Deferred Vested Termination</b>	8/10 <sup>^</sup> yrs of svc	n/a		Medical	Medical	N/A			N/A	N/A	N/A
				Prescription drug	Prescription drug	N/A			N/A	N/A	N/A
				Dental	Dental	N/A			N/A	N/A	N/A
				Vision	Vision	N/A			N/A	N/A	N/A
				Life Insurance		N/A			N/A	N/A	N/A
<b>Non-Duty Disability</b>	10 yrs of svc	8/10 <sup>^</sup> yrs of svc	Immediately	Medical	Medical	BCBS	self-insured	BCBS	Hourly See Schedule B, Salary See Schedule C	Hourly See Schedule B, Salary See Schedule C	Hourly See Schedule B, Salary See Schedule C
				Prescription drug	Prescription drug	BCBS	self-insured	BCBS	Hourly See Schedule B, Salary See Schedule C	Hourly See Schedule B, Salary See Schedule C	Hourly See Schedule B, Salary See Schedule C
				Dental	Dental	BCBS	self-insured	BCBS	Hourly - 100%, Salary See Schedule C	Hourly - N/A, Salary See Schedule C	Hourly - N/A, Salary See Schedule C
				Vision	Vision	BCBS	self-insured	BCBS	Hourly - 100%, Salary See Schedule C	Hourly - N/A, Salary See Schedule C	Hourly - N/A, Salary See Schedule C
				Life Insurance	Salary Only	The Hartford	Life	The Hartford	See Schedule I	N/A	N/A
<b>Duty Disability</b>	No age or svc requirement	No age or svc requirement	Immediately	Medical	Medical	BCBS	self-insured	BCBS	Hourly See Schedule B, Salary See Schedule C	Hourly See Schedule B, Salary See Schedule C	Hourly See Schedule B, Salary See Schedule C
				Prescription drug	Prescription drug	BCBS	self-insured	BCBS	Hourly See Schedule B, Salary See Schedule C	Hourly See Schedule B, Salary See Schedule C	Hourly See Schedule B, Salary See Schedule C
				Dental	Dental	BCBS	self-insured	BCBS	Hourly - 100%, Salary See Schedule C	Hourly - N/A, Salary See Schedule C	Hourly - N/A, Salary See Schedule C
				Vision	Vision	BCBS	self-insured	BCBS	Hourly - 100%, Salary See Schedule C	Hourly - N/A, Salary See Schedule C	Hourly - N/A, Salary See Schedule C
				Life Insurance		The Hartford	Life	The Hartford	See Schedule I	N/A	N/A
<b>Non-Duty Death-in-Svc</b>	10 yrs of svc	8/10 <sup>^</sup> yrs of svc	Immediately		Medical	BCBS	self-insured	BCBS			
					Prescription drug	BCBS	self-insured	BCBS			
					Dental						
					Vision						
<b>Duty Death-in-Svc</b>	No age or svc requirement  Benefits begin upon termination of Worker's Compensation	No age or svc requirement	Immediately		Medical	BCBS	self-insured	BCBS			
					Prescription drug	BCBS	self-insured	BCBS			
					Dental						
					Vision						

Medicare Reimbursement is not offered to any members.

<sup>^</sup> Members hired after 7/1/2008.

<sup>\*\*</sup> Eligible for retirement with a reduced pension.

DWS part-time members do not qualify for retiree health care. They do not have access to the plan. All employees retiring on or after 1/1/2023 are not eligible for life insurance in retirement.



# Bay County Retiree Health Care Plan – Library

## Summary of the Benefit Provisions as of December 31, 2023

Leaving Employment as a Result of	Eligibility for Pension Benefit	Eligibility for Retiree Health Benefit	When do retiree health benefits commence?	Coverage Provided by Employer		Retiree Health Care Provider(s)	Type of Insurance	Retiree Share of Cost for		
				Retiree	Spouse			Retiree	Spouse (while Retiree is alive)	Spouse (after Retiree's death)
<b>Normal/Early Retirement</b>	Age 55 with 8/101 yrs of svc ** Age 55 with 30 yrs of svc Age 60 with 8/101 yrs of svc Age 65 with 0 yrs of svc	Age 55 with 30 yrs of svc Age 60 with 8/101 yrs of svc	Immediately	Medical	Medical - N/A	Pre-65: BCBS Post-65: Hartford/Benistar	fully-insured	Retired age 55 with 30+ years - 50%	N/A	N/A
				Prescription drug	Prescription drug - N/A	Pre-65: BCBS Post-65: Hartford/Benistar	fully-insured	Retired between age 60 and 65 - 50%, Retired after age 65 - 0%		
				Dental - N/A	Dental - N/A	N/A	N/A	Retired age 55 with 30+ years - 50%		
				Vision - N/A	Vision - N/A	N/A	N/A	Retired between age 60 and 65 - 50%, Retired after age 65 - 0%		
<b>Deferred Vested Termination</b>	ICEA/PERA 1203, ICEA/PERA 612, ICEA/PERA 542: 8/101 yrs of svc Remaining Library Groups: 8 yrs of svc	ICEA/PERA 1203, ICEA/PERA 612, ICEA/PERA 542: N/A Remaining Library Groups: N/A		Medical	Medical - N/A	N/A		N/A	N/A	N/A
				Prescription drug	Prescription drug - N/A	N/A		N/A		
				Dental - N/A	Dental - N/A	N/A		N/A		
				Vision - N/A	Vision - N/A	N/A		N/A		
<b>Non-Duty Disability</b>	10 or more yrs of credited svc	ICEA/PERA 1203, ICEA/PERA 612, ICEA/PERA 542: 10 or more yrs of credited svc Remaining Library Groups: 10 or more yrs of credited svc	Immediately	Medical	Medical - N/A	Pre-65: BCBS Post-65: Hartford/Benistar	fully-insured	10 or more yrs of credited svc - 50 %	N/A	N/A
				Prescription drug	Prescription drug - N/A	N/A	fully-insured	10 or more yrs of credited svc - 50 %		
				Dental - N/A	Dental - N/A	N/A		N/A		
				Vision - N/A	Vision - N/A	N/A		N/A		
<b>Duty Disability</b>	No age or svc requirement	ICEA/PERA 1203, ICEA/PERA 612, ICEA/PERA 542: No age or svc requirement Remaining Library Groups: 10 or more yrs of credited svc	Immediately	Medical	Medical - N/A	Pre-65: BCBS Post-65: Hartford/Benistar	fully-insured	No age or svc requirement - 50%	N/A	N/A
				Prescription drug	Prescription drug - N/A	N/A	fully-insured	No age or svc requirement - 50%		
				Dental - N/A	Dental - N/A	N/A		N/A		
				Vision - N/A	Vision - N/A	N/A		N/A		
<b>Non-Duty Death-in-Svc</b>	10 or more yrs of credited svc	ICEA/PERA 1203, ICEA/PERA 612, ICEA/PERA 542: 10 or more yrs of credited svc Remaining Library Groups: 10 or more yrs of credited svc	Immediately		Medical - N/A Prescription drug - N/A Dental - N/A Vision - N/A	Pre-65: BCBS Post-65: Hartford/Benistar N/A N/A	fully-insured fully-insured		N/A	N/A
<b>Duty Death-in-Svc</b>	No age or svc requirement Benefits begin upon termination of Worker's Compensation	ICEA/PERA 1203, ICEA/PERA 612, ICEA/PERA 542: No age or svc requirement Remaining Library Groups: 10 or more yrs of credited svc	Immediately		Medical - N/A Prescription drug - N/A Dental - N/A Vision - N/A	Pre-65: BCBS Post-65: Hartford/Benistar N/A N/A	fully-insured fully-insured		N/A	N/A

Medicare Reimbursement is not offered to any members.

/ Members hired after 3/1/2008.

\*\* Eligible for retirement with a reduced pension.



# Bay County Retiree Health Care Plan – Medical Care Facility

## Summary of the Benefit Provisions as of December 31, 2023

Leaving Employment as a Result of	Eligibility for Pension Benefit	Eligibility for Retiree Health Benefit	When do retiree health benefits commence?	Coverage Provided by Employer		Retiree Health Care Provider(s)	Type of Insurance	Third Party Administrator	Retiree Share of Cost for		
				Retiree	Spouse				Retiree	Spouse (while Retiree is alive)	Spouse (after Retiree's death)
<b>Normal/Early Retirement</b>	30 yrs of svc regardless of age Age 55 with 8/10 <sup>5</sup> yrs of svc ** Age 55 with 25 <sup>1</sup> yrs of svc Age 60 with 8/10 <sup>5</sup> yrs of svc Age 62 with 10 <sup>3</sup> yrs of svc Age 65 with 0 yrs of svc	Members Hired Before April 19, 2007: Age 55 with 8 yrs of svc Age 60 with 8 yrs of svc 30 yrs of svc regardless of age Members Hired After April 19, 2007: Age 55 with 25 yrs of svc 30 yrs of svc regardless of age Members Hired after January 15, 2010: Not eligible for health insurance	Immediately  To be eligible for health insurance employee must have been FT at time of retirement.	Medical Prescription drug Dental Vision  Life Insurance	Medical Prescription drug Dental Vision  N/A	BCBSM BCBSM BCBSM BCBSM  The Hartford	self-insured self-insured self-insured self-insured  Term	BCBSM BCBSM BCBSM BCBSM  The Hartford	<u>Medical and Prescription Drug</u> If retired before 1/15/2010 - None If retired after 1/15/2010 - See Below <u>Dental and Vision</u> If retired before 1/1/2001 - N/A, If retired 1/1/2001 - 1/15/2010 - 0% If retired after 1/15/2010 - See Below	<u>Medical and Prescription Drug</u> If retired before 1/15/2010 - None If retired after 1/15/2010 - See Below <u>Dental and Vision</u> If retired before 1/1/2001 - N/A, If retired 1/1/2001 - 1/15/2010 - 0% If retired after 1/15/2010 - See Below	<u>Medical and Prescription Drug</u> If retired before 1/15/2010 - None If retired after 1/15/2010 - See Below <u>Dental and Vision</u> If retired before 1/1/2001 - N/A, If retired 1/1/2001 - 1/15/2010 - 0% If retired after 1/15/2010 - See Below
<b>Deferred Vested Termination</b>	8/10 <sup>5</sup> yrs of svc **	N/A	N/A	Medical Prescription drug Dental Vision Life Insurance	Medical Prescription drug Dental Vision N/A	N/A N/A N/A N/A N/A	N/A N/A N/A N/A N/A	N/A N/A N/A N/A N/A	N/A N/A N/A N/A N/A	N/A N/A N/A N/A N/A	N/A N/A N/A N/A N/A
<b>Non-Duty Disability</b>	10 or more yrs of credited svc	10 or more yrs of credited svc  Members Hired after January 15, 2010: Not eligible for health insurance	Immediately	Medical Prescription drug Dental Vision Life Insurance	Medical Prescription drug Dental Vision N/A	BCBSM BCBSM BCBSM BCBSM The Hartford	self-insured self-insured self-insured self-insured Term	BCBSM BCBSM BCBSM BCBSM The Hartford	<u>Medical, Prescription Drug, Dental, and Vision</u> Same as described above N/A	<u>Medical, Prescription Drug, Dental, and Vision</u> Same as described above N/A	<u>Medical, Prescription Drug, Dental, and Vision</u> Same as described above N/A
<b>Duty Disability</b>	No age or svc requirement	No age or svc requirement  Members Hired after January 15, 2010: Not eligible for health insurance	Immediately	Medical Prescription drug Dental Vision Life Insurance	Medical Prescription drug Dental Vision N/A	BCBSM BCBSM BCBSM BCBSM The Hartford	self-insured self-insured self-insured self-insured Term	BCBSM BCBSM BCBSM BCBSM The Hartford	<u>Medical, Prescription Drug, Dental, and Vision</u> Same as described above N/A	<u>Medical, Prescription Drug, Dental, and Vision</u> Same as described above N/A	<u>Medical, Prescription Drug, Dental, and Vision</u> Same as described above N/A
<b>Non-Duty Death-in-Svc</b>	10 or more yrs of credited svc	10 or more yrs of credited svc  Members Hired after January 15, 2010: Not eligible for health insurance	Immediately		Medical Prescription drug Dental Vision	BCBSM BCBSM BCBSM BCBSM	self-insured self-insured self-insured self-insured	BCBSM BCBSM BCBSM BCBSM			<u>Medical, Prescription Drug, Dental, and Vision</u> Same as described above
<b>Duty Death-in-Svc</b>	No age or svc requirement Benefits begin upon termination of Worker's Compensation	Immediately  Members Hired after January 15, 2010: Not eligible for health insurance	Immediately		Medical Prescription drug Dental Vision	BCBSM BCBSM BCBSM BCBSM	self-insured self-insured self-insured self-insured	BCBSM BCBSM BCBSM BCBSM			<u>Medical, Prescription Drug, Dental, and Vision</u> Same as described above

Medicare Reimbursement is not offered to any members.  
 \*\* Eligible for retirement with a reduced pension.  
 + Members hired before 7/30/2015 only.  
 \$ Members hired on or after 7/30/2015.  
 - Members hired before 1/1/2018 (4/1/2019 for Div. 22) only.  
 ? Members hired on or after 1/1/2018 (4/1/2019 for Div. 22).

For pre-Medicare eligible retirees after 1/15/2010, coverage is equivalent to that provided to active employees, including co-pays, deductibles, etc. The retiree share of premiums are determined by the MCF based upon the retiree claims, trend, and future fixed fees. The premium share applicable to calendar year 2020 for retirees utilized the same employer cap, for all plan options, reflecting the retiree paying 100% of the difference between the illustrative rates and the cap.

Employees hired on or after 1/1/2010 are not eligible for health care in retirement. Employees hired on or after 1/1/2010 continue to be eligible for life insurance coverage upon retirement.

Medical Care Facility part-time members do not qualify for retiree health care. They do not have access to the plan; they are only eligible as provided by COBRA.



# Bay County Retiree Health Care Plan – Sheriff’s Department

## Summary of the Benefit Provisions as of December 31, 2023

Leaving Employment as a Result of	Eligibility for Pension Benefit	Eligibility for Retiree Health Benefit	When do retiree health benefits commence?	Coverage Provided by Employer		Retiree Health Care Provider(s)	Type of Insurance	Retiree Share of Cost for		
				Retiree	Spouse			Retiree	Spouse (while Retiree is alive)	Spouse (after Retiree's death)
<b>Normal/Early Retirement</b>	Road Patrol: Age 55 with 8/10* yrs of svc ** 25 yrs of svc regardless of age Age 60 with 8/10* yrs of svc Age 65 with 0 yrs of svc Road Patrol Supervisory Unit: Age 55 with 8/10 <sup>®</sup> yrs of svc ** 25 yrs of svc regardless of age Age 60 with 8/10 <sup>®</sup> yrs of svc Age 65 with 0 yrs of svc Correction Facility Officers: Age 55 with 8/10* yrs of svc ** Age 55 with 25 yrs of svc 25 yrs of svc regardless of age ** Age 60 with 8/10* yrs of svc Age 65 with 0 yrs of svc	Road Patrol: Age 55 with 8/10* yrs of svc 25 yrs of svc regardless of age Age 60 with 8/10* yrs of svc Road Patrol Supervisory Unit: Age 55 with 8/10 <sup>®</sup> yrs of svc 25 yrs of svc regardless of age Age 60 with 8/10 <sup>®</sup> yrs of svc Correction Facility Officers: Age 55 with 8/10* yrs of svc 25 yrs of svc regardless of age Age 60 with 8/10* yrs of svc	Immediately	Medical Prescription drug	Medical Prescription drug	BCBS EHIM	self-insured self-insured	See Schedule A See Schedule A	See Schedule A See Schedule A	See Schedule A See Schedule A
<b>Deferred Vested Termination</b>	Road Patrol: 8/10* yrs of svc Road Patrol Supervisory Unit: 8/10 <sup>®</sup> yrs of svc Correction Facility Officers: 8/10* yrs of svc	Road Patrol: N/A Road Patrol Supervisory Unit: N/A Correction Facility Officers: N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<b>Non-Duty Disability</b>	10 or more yrs of credited svc	Road Patrol: 10 or more yrs of credited svc Road Patrol Supervisory Unit: 10 or more yrs of credited svc Correction Facility Officers: 10 or more yrs of credited svc	Immediately	Medical Prescription drug	Medical Prescription drug	BCBS EHIM	self-insured self-insured	See Schedule A See Schedule A	See Schedule A See Schedule A	See Schedule A See Schedule A
<b>Duty Disability</b>	No age or svc requirement	Road Patrol: No age or svc requirement Road Patrol Supervisory Unit: No age or svc requirement Correction Facility Officers: No age or svc requirement	Immediately	Medical Prescription drug	Medical Prescription drug	BCBS EHIM	self-insured self-insured	See Schedule A See Schedule A	See Schedule A See Schedule A	See Schedule A See Schedule A
<b>Non-Duty Death-in-Svc</b>	10 or more yrs of credited svc	Road Patrol: 10 or more yrs of credited svc Road Patrol Supervisory Unit: 10 or more yrs of credited svc Correction Facility Officers: 10 or more yrs of credited svc	Immediately		Medical Prescription drug	BCBS EHIM	self-insured self-insured			See Schedule A See Schedule A
<b>Duty Death-in-Svc</b>	No age or svc requirement Benefits begin upon termination of Worker's Compensation	Road Patrol: No age or svc requirement Road Patrol Supervisory Unit: No age or svc requirement Correction Facility Officers: No age or svc requirement	Immediately		Medical Prescription drug	BCBS EHIM	self-insured self-insured			See Schedule A See Schedule A

Medicare Reimbursement is not offered to any members.

@ Members hired after 1/1/2006

\* Members hired after 1/1/2007

\*\* Eligible for retirement with a reduced pension

Employees hired after 1/1/2012 are not eligible for health care in retirement.



# Bay County Retiree Health Care Plan – Road Commission

## Summary of the Benefit Provisions as of December 31, 2023

Leaving Employment as a Result of	Eligibility for Pension Benefit	Eligibility for Retiree Health Benefit	When do retiree health benefits commence?	Coverage Provided by Employer		Retiree Health Care Provider(s)	Type of Insurance	Third Party Administrator	Retiree Share of Cost for		
				Retiree	Spouse				Retiree	Spouse (while Retiree is alive)	Spouse (after Retiree's death)
<b>Normal/Early Retirement</b>	30 yrs of svc regardless of age Age 55 with 8/10* yrs of svc ** Age 60 with 8/10* yrs of svc Age 65 with 0 yrs of svc	15 yrs of svc regardless of age	Immediately	Medical Prescription drug Dental Vision Life Insurance	Medical Prescription drug Dental Vision	BCBS BCBS BCBS BCBS The Hartford	self-insured self-insured self-insured self-insured Whole Life	BCBS BCBS BCBS BCBS The Hartford	See Below See Below Yes Yes See Schedule G	See Below See Below Yes Yes N/A	See Below See Below Yes Yes N/A
<b>Deferred Vested Termination</b>	10 yrs of svc	N/A	N/A	N/A N/A N/A N/A	N/A N/A N/A N/A	N/A N/A N/A N/A	N/A	N/A	N/A N/A N/A N/A	N/A N/A N/A N/A	N/A N/A N/A N/A
<b>Non-Duty Disability</b>	10 or more yrs of credited svc	15 yrs of svc regardless of age	Immediately	Medical Prescription drug Dental Vision Life Insurance	Medical Prescription drug Dental Vision	BCBS BCBS BCBS BCBS The Hartford	self-insured self-insured self-insured self-insured Whole Life	BCBS BCBS BCBS BCBS The Hartford	See Below See Below Yes Yes See Schedule G	See Below See Below Yes Yes N/A	See Below See Below Yes Yes N/A
<b>Duty Disability</b>	No age or svc requirement	No age or svc requirement	Immediately	Medical Prescription drug Dental Vision Life Insurance	Medical Prescription drug Dental Vision	BCBS BCBS BCBS BCBS The Hartford	self-insured self-insured self-insured self-insured Whole Life	BCBS BCBS BCBS BCBS The Hartford	See Below See Below Yes Yes See Schedule G	See Below See Below Yes Yes N/A	See Below See Below Yes Yes N/A
<b>Non-Duty Death-in-Svc</b>	10 or more yrs of credited svc	15 yrs of svc regardless of age	Immediately		Medical Prescription drug Dental Vision	BCBS BCBS BCBS BCBS	self-insured self-insured self-insured self-insured	BCBS BCBS BCBS BCBS			See Below See Below Yes Yes
<b>Duty Death-in-Svc</b>	No age or svc requirement Benefits begin upon termination of Worker's Compensation	No age or svc requirement	Immediately		Medical Prescription drug Dental Vision	BCBS BCBS BCBS BCBS	self-insured self-insured self-insured self-insured	BCBS BCBS BCBS BCBS			See Below See Below Yes Yes

Medicare Reimbursement is not offered to any members.

\* Members hired after 1/1/2007.

\*\* Eligible for retirement with a reduced pension.

Deferred vested members are not eligible for life insurance.

Employees hired on or after 1/1/2016 are not eligible for health care in retirement. Employees hired on or after 1/1/2016 continue to be eligible for life insurance coverage upon retirement. All employees retiring on or after 1/1/2023 are not eligible for life insurance in retirement.

Effective 1/1/2016 retiree contributions towards coverage will be the same as active member contributions. At Medicare eligibility, the retiree and/or spouse will be moved to Medicare Advantage or equivalent with no cost.



# Bay County Retiree Health Care Plan – Excluding BABH

## Summary of the Benefit Provisions as of December 31, 2023

### Schedule A – General County and Sheriff's Department For those hired on or after January 1, 2006

#	Division Name	#	Division Name
14	Circuit Court G.E.L.C	32	Road Patrol Supervisory Unit

### For those hired on or after January 1, 2007

#	Division Name	#	Division Name
1	Elected Officials and Dept. Heads	8	USWA General
2	Judges	10	Nurses
3	General County	11	Sheriff's-Road Patrol
4	General Circuit Court	12	Sheriff's Correctional Facility Officers
5	General District Court	13	Dispatchers
6	General Probate Court	15	District Court AFSCME
7	BCAMPS	16	Probate Court USWA

### Retiree Health Insurance Premium Contribution

Retiree Health Insurance Coverage – % paid by the employer based on years of service at retirement (subject to eligibility).

Years of Service	Hired Before Effective Date				Hired On or After Effective Date			
	Employer Paid (%)	Retiree Paid (%)	Employer Paid Spousal Coverage	Retiree Paid Spousal Coverage	Employer Paid (%)	Retiree Paid (%)	Employer Paid Spousal Coverage	Retiree Paid Spousal Coverage
8	85%	15%	50%	50%	N/A	N/A	N/A	N/A
9	85%	15%	50%	50%	N/A	N/A	N/A	N/A
10	85%	15%	50%	50%	55%	45%	0%	100%
11	85%	15%	50%	50%	55%	45%	0%	100%
12	85%	15%	50%	50%	55%	45%	0%	100%
13	85%	15%	50%	50%	55%	45%	0%	100%
14	85%	15%	50%	50%	55%	45%	0%	100%
15	85%	15%	50%	50%	80%	20%	0%	100%
16	85%	15%	50%	50%	80%	20%	0%	100%
17	85%	15%	50%	50%	80%	20%	0%	100%
18	85%	15%	50%	50%	80%	20%	0%	100%
19	85%	15%	50%	50%	80%	20%	0%	100%
20	85%	15%	50%	50%	85%	15%	15%	85%
21	85%	15%	50%	50%	85%	15%	15%	85%
22	85%	15%	50%	50%	85%	15%	15%	85%
23	85%	15%	50%	50%	85%	15%	15%	85%
24	85%	15%	50%	50%	85%	15%	15%	85%
25	85%	15%	50%	50%	85%	15%	40%	60%
26	85%	15%	50%	50%	85%	15%	40%	60%
27	85%	15%	50%	50%	85%	15%	40%	60%
28	85%	15%	50%	50%	85%	15%	40%	60%
29	85%	15%	50%	50%	85%	15%	40%	60%
30	85%	15%	50%	50%	85%	15%	50%	50%
31	85%	15%	50%	50%	85%	15%	50%	50%
32	85%	15%	50%	50%	85%	15%	50%	50%
33	85%	15%	50%	50%	85%	15%	50%	50%
34	85%	15%	50%	50%	85%	15%	50%	50%
35	85%	15%	50%	50%	85%	15%	50%	50%
36	85%	15%	50%	50%	85%	15%	50%	50%
37	85%	15%	50%	50%	85%	15%	50%	50%
38	85%	15%	50%	50%	85%	15%	50%	50%
39	85%	15%	50%	50%	85%	15%	50%	50%
40	85%	15%	50%	50%	85%	15%	50%	50%



# Bay County Retiree Health Care Plan – Excluding BABH

## Summary of the Benefit Provisions as of December 31, 2023

### Schedule B

#### Department of Water Sewer-Hourly Employees – Division 28

#### Retiree Health Insurance Premium Contribution

Retiree Health Insurance Coverage – % paid by the employer based on years of service at retirement (subject to eligibility)

Years of Service	Hired Before January 1, 2003				Hired Between January 1, 2003 and January 1, 2008				Hired After January 1, 2008			
	Employer Paid (%)	Retiree Paid (%)	Employer Paid Spousal Coverage	Retiree Paid Spousal Coverage	Employer Paid (%)	Retiree Paid (%)	Employer Paid Spousal Coverage	Retiree Paid Spousal Coverage	Employer Paid (%)	Retiree Paid (%)	Employer Paid Spousal Coverage	Retiree Paid Spousal Coverage
8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
9	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10	100%	0%	100%	0%	50%	50%	0%	100%	25%	75%	0%	100%
11	100%	0%	100%	0%	50%	50%	0%	100%	25%	75%	0%	100%
12	100%	0%	100%	0%	50%	50%	0%	100%	25%	75%	0%	100%
13	100%	0%	100%	0%	50%	50%	0%	100%	25%	75%	0%	100%
14	100%	0%	100%	0%	50%	50%	0%	100%	25%	75%	0%	100%
15	100%	0%	100%	0%	100%	0%	0%	100%	50%	50%	0%	100%
16	100%	0%	100%	0%	100%	0%	0%	100%	50%	50%	0%	100%
17	100%	0%	100%	0%	100%	0%	0%	100%	50%	50%	0%	100%
18	100%	0%	100%	0%	100%	0%	0%	100%	50%	50%	0%	100%
19	100%	0%	100%	0%	100%	0%	0%	100%	50%	50%	0%	100%
20	100%	0%	100%	0%	100%	0%	50%	50%	75%	25%	0%	100%
21	100%	0%	100%	0%	100%	0%	50%	50%	75%	25%	0%	100%
22	100%	0%	100%	0%	100%	0%	50%	50%	75%	25%	0%	100%
23	100%	0%	100%	0%	100%	0%	50%	50%	75%	25%	0%	100%
24	100%	0%	100%	0%	100%	0%	50%	50%	75%	25%	0%	100%
25	100%	0%	100%	0%	100%	0%	100%	0%	100%	0%	0%	100%
26	100%	0%	100%	0%	100%	0%	100%	0%	100%	0%	0%	100%
27	100%	0%	100%	0%	100%	0%	100%	0%	100%	0%	0%	100%
28	100%	0%	100%	0%	100%	0%	100%	0%	100%	0%	0%	100%
29	100%	0%	100%	0%	100%	0%	100%	0%	100%	0%	0%	100%
30	100%	0%	100%	0%	100%	0%	100%	0%	100%	0%	0%	100%
31	100%	0%	100%	0%	100%	0%	100%	0%	100%	0%	0%	100%
32	100%	0%	100%	0%	100%	0%	100%	0%	100%	0%	0%	100%
33	100%	0%	100%	0%	100%	0%	100%	0%	100%	0%	0%	100%
34	100%	0%	100%	0%	100%	0%	100%	0%	100%	0%	0%	100%
35	100%	0%	100%	0%	100%	0%	100%	0%	100%	0%	0%	100%
36	100%	0%	100%	0%	100%	0%	100%	0%	100%	0%	0%	100%
37	100%	0%	100%	0%	100%	0%	100%	0%	100%	0%	0%	100%
38	100%	0%	100%	0%	100%	0%	100%	0%	100%	0%	0%	100%
39	100%	0%	100%	0%	100%	0%	100%	0%	100%	0%	0%	100%
40	100%	0%	100%	0%	100%	0%	100%	0%	100%	0%	0%	100%



# Bay County Retiree Health Care Plan – Excluding BABH

## Summary of the Benefit Provisions as of December 31, 2023

### Schedule C

#### Department of Water Sewer-Salary Employees – Division 29

#### Retiree Health Insurance Premium Contribution

Retiree Health, Dental and Vision Insurance Coverage – % paid by the employer based on years of service at retirement  
(subject to eligibility)

Years of Service	Hired Before June 1, 2007				Hired After June 1, 2007			
	Employer Paid (%)	Retiree Paid (%)	Employer Paid Spousal Coverage	Retiree Paid Spousal Coverage	Employer Paid (%)	Retiree Paid (%)	Employer Paid Spousal Coverage	Retiree Paid Spousal Coverage
8	100%	0%	100%	0%	N/A	N/A	N/A	N/A
9	100%	0%	100%	0%	N/A	N/A	N/A	N/A
10	100%	0%	100%	0%	25%	75%	0%	100%
11	100%	0%	100%	0%	25%	75%	0%	100%
12	100%	0%	100%	0%	25%	75%	0%	100%
13	100%	0%	100%	0%	25%	75%	0%	100%
14	100%	0%	100%	0%	25%	75%	0%	100%
15	100%	0%	100%	0%	50%	50%	0%	100%
16	100%	0%	100%	0%	50%	50%	0%	100%
17	100%	0%	100%	0%	50%	50%	0%	100%
18	100%	0%	100%	0%	50%	50%	0%	100%
19	100%	0%	100%	0%	50%	50%	0%	100%
20	100%	0%	100%	0%	75%	25%	0%	100%
21	100%	0%	100%	0%	75%	25%	0%	100%
22	100%	0%	100%	0%	75%	25%	0%	100%
23	100%	0%	100%	0%	75%	25%	0%	100%
24	100%	0%	100%	0%	75%	25%	0%	100%
25	100%	0%	100%	0%	100%	0%	0%	100%
26	100%	0%	100%	0%	100%	0%	0%	100%
27	100%	0%	100%	0%	100%	0%	0%	100%
28	100%	0%	100%	0%	100%	0%	0%	100%
29	100%	0%	100%	0%	100%	0%	0%	100%
30	100%	0%	100%	0%	100%	0%	0%	100%
31	100%	0%	100%	0%	100%	0%	0%	100%
32	100%	0%	100%	0%	100%	0%	0%	100%
33	100%	0%	100%	0%	100%	0%	0%	100%
34	100%	0%	100%	0%	100%	0%	0%	100%
35	100%	0%	100%	0%	100%	0%	0%	100%
36	100%	0%	100%	0%	100%	0%	0%	100%
37	100%	0%	100%	0%	100%	0%	0%	100%
38	100%	0%	100%	0%	100%	0%	0%	100%
39	100%	0%	100%	0%	100%	0%	0%	100%
40	100%	0%	100%	0%	100%	0%	0%	100%

# Bay County Retiree Health Care Plan – Excluding BABH

## Summary of the Benefit Provisions as of December 31, 2023

### Schedule F General County Life Insurance Benefits

<b>Division</b>	<b>Member Retired</b>	<b>Life Insurance Amount</b>
Elected Officials	3/1/1998 to 12/31/2022	\$ 10,000
Department Heads	1/1/2023 to Present	0
Judges		
General County		
General Circuit Court		
General District Court		
General Probate Court		
BCAMPS	3/1/1998 to 12/31/2019	\$ 10,000
	1/1/2020 to Present	0
USWA General	1/1/2010 to 12/31/2019	\$ 10,000
Probate Court USWA	1/1/2020 to Present	0

### Schedule G Road Commission Life Insurance Benefits

<b>Division</b>	<b>Member Retired</b>	<b>Life Insurance Amount</b>
AFSCME	Prior to 1/31/1989	\$ 1,000
	2/1/1989 to 1/31/1998	2,500
	2/1/1998 to 1/31/2008	5,000
	2/1/2008 to 12/31/2022	10,000
	1/1/2023 to Present	0
Administrative Employees	Prior to 1/1/2007	5,000
	1/1/2007 to 12/31/2022	10,000
	1/1/2023 to Present	0
Commissioners	1/1/2007 to 12/31/2022	10,000
	1/1/2023 to Present	0

# **Bay County Retiree Health Care Plan – Excluding BABH**

## **Summary of the Benefit Provisions as of December 31, 2023**

### **Schedule H**

#### **Medical Care Facility**

#### **Life Insurance Benefits**

<b>Member Retired</b>	<b>Life Insurance Amount</b>
Prior to 1/1/1975	\$ 0
1/1/1975 to 12/31/1995	2,500
1/1/1996 to 12/31/1998	3,500
1/1/1999 to Present	5,000

Employees hired on or after 1/1/2010 continue to be eligible for life insurance coverage upon retirement.

### **Schedule I**

#### **DWS Salaried Members Only**

#### **Life Insurance Benefits**

<b>Member Retired</b>	<b>Life Insurance Amount</b>
Prior to 3/13/2008	\$ 5,000
On 3/13/2008	20,000
3/14/2008 to 12/31/2022	10,000
1/1/2023 to Present	0

**SECTION D**

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**SUMMARY OF VALUATION DATA**

**Bay County Retiree Health Care Plan – General County  
Active Members as of December 31, 2023  
by Age and Years of Service\***

Age	Years of Service to Valuation Date							Totals
	0-4	5-9	10-14	15-19	20-24	25-29	30 Plus	No.
20-24								
25-29								
30-34								
35-39			1	2				3
40-44			3	4	5			12
45-49			3	5	6	2		16
50-54			1	8	13	5	2	29
55-59			3	5	7	13	2	30
60-64			5	3	8	6	2	24
65 & Over				3	3		1	7
<b>Totals</b>			<b>16</b>	<b>30</b>	<b>42</b>	<b>26</b>	<b>7</b>	<b>121</b>

\* Excludes 58 part-time employees and 226 employees not eligible for health care coverage in retirement.

While not used in the financial computations, the following group averages are computed and shown because of their general interest.

**Age:** 54.3 years  
**Service:** 21.9 years

**Bay County Retiree Health Care Plan – DWS**  
**Active Members as of December 31, 2023**  
**by Age and Years of Service**

Age	Years of Service to Valuation Date							Totals
	0-4	5-9	10-14	15-19	20-24	25-29	30 Plus	No.
15-19								
20-24	3							3
25-29	4	2						6
30-34		3						3
35-39	3	4	2					9
40-44	3	4	3					10
45-49	3	4	2					9
50-54	3	1	1	1	1			7
55-59	1	3		2		1		7
60-64		3		1		1		5
65 & Over								
<b>Totals</b>	<b>20</b>	<b>24</b>	<b>8</b>	<b>4</b>	<b>1</b>	<b>2</b>		<b>59</b>

While not used in the financial computations, the following group averages are computed and shown because of their general interest.

**Age:** 43.7 years  
**Service:** 8.0 years

**Bay County Retiree Health Care Plan – Library**  
**Active Members as of December 31, 2023**  
**by Age and Years of Service**

Age	Years of Service to Valuation Date							Totals
	0-4	5-9	10-14	15-19	20-24	25-29	30 Plus	No.
20-24								
25-29	6							6
30-34		1						1
35-39	2	1						3
40-44		3	2					5
45-49		2	1		1			4
50-54	1			2		1		4
55-59		2	1	1	3			7
60-64		1	1	3		1	1	7
65 & Over					1			1
<b>Totals</b>	<b>9</b>	<b>10</b>	<b>5</b>	<b>6</b>	<b>5</b>	<b>2</b>	<b>1</b>	<b>38</b>

While not used in the financial computations, the following group averages are computed and shown because of their general interest.

**Age:** 47.6 years  
**Service:** 12.0 years

**Bay County Retiree Health Care Plan – Medical Care Facility**  
**Active Members as of December 31, 2023**  
**by Age and Years of Service\***

Age	Years of Service to Valuation Date							Totals
	0-4	5-9	10-14	15-19	20-24	25-29	30 Plus	No.
15-19								
20-24	10	1						11
25-29	11	3	1					15
30-34	10	4	8					22
35-39	12	2	4	8				26
40-44	7	2	7	4	4			24
45-49	7	2	4	1	4	4		22
50-54	5	7	3	2	2	2	4	25
55-59	5	9	5	1	3	1		24
60-64	4	3	3	1	1	1		13
65 & Over	2	1		2			1	6
<b>Totals</b>	<b>73</b>	<b>34</b>	<b>35</b>	<b>19</b>	<b>14</b>	<b>8</b>	<b>5</b>	<b>188</b>

\* Excludes 61 part-time employees.

While not used in the financial computations, the following group averages are computed and shown because of their general interest.

**Age:** 43.7 years  
**Service:** 9.8 years



# Bay County Retiree Health Care Plan – Sheriff’s Department

## Active Members as of December 31, 2023

### by Age and Years of Service\*

Age	Years of Service to Valuation Date							Totals
	0-4	5-9	10-14	15-19	20-24	25-29	30 Plus	No.
20-24								
25-29								
30-34								
35-39			1	1				2
40-44			2	6				8
45-49			2	2	5	1		10
50-54					1	1		2
55-59					2	1		3
60-64								
65 & Over							2	2
<b>Totals</b>			<b>5</b>	<b>9</b>	<b>8</b>	<b>3</b>	<b>2</b>	<b>27</b>

\* Excludes 51 employees not eligible for health care coverage in retirement.

While not used in the financial computations, the following group averages are computed and shown because of their general interest.

**Age:** 48.4 years  
**Service:** 21.5 years

**Bay County Retiree Health Care Plan – Road Commission**  
**Active Members as of December 31, 2023**  
**by Age and Years of Service\***

Age	Years of Service to Valuation Date							Totals
	0-4	5-9	10-14	15-19	20-24	25-29	30 Plus	No.
20-24								
25-29								
30-34								
35-39		1	4					5
40-44		2	1		1			4
45-49		2	1		1			4
50-54			3	1		2		6
55-59		2	1	1	2	3	2	11
60-64				2	1			3
65 & Over						1		1
<b>Totals</b>		<b>7</b>	<b>10</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>2</b>	<b>34</b>

\* Excludes 27 employees not eligible for health care coverage in retirement.

While not used in the financial computations, the following group averages are computed and shown because of their general interest.

**Age:** 51.0 years  
**Service:** 17.7 years

# Bay County Retiree Health Care Plan – Excluding BABH Inactive Members as of December 31, 2023

## Number of Retiree and Beneficiary Contracts

	Opt-Out/ Ineligible	One-Person Coverage <sup>1,2</sup>	Two-Person Coverage <sup>2,3</sup>	Total
Male	88	99	120	307
Female	212	283	135	630
Total	300	382	255	937

<sup>1</sup> Includes individuals with life insurance only.

<sup>2</sup> Includes individuals with dental and/or vision coverage only.

<sup>3</sup> Includes family coverage.

Age	Current Retirees						
	Number of Those Covered*						
	General County	DWS	Library	Medical Care Facility	Sheriff's Dept	Road Commission	Total
0-44							
45-49		1		1	1		3
50-54	1	1			5	2	9
55-59	10	4		18	10	7	49
60-64	34	4	1	34	6	19	98
65-69	60	10	5	35	12	11	133
70-74	53	11	6	46	10	15	141
75-79	45	5	2	26	7	13	98
80-84	20	2	1	15	7	8	53
85-89	7		2	10	2	7	28
90-94	3		1	6	3	7	20
95 +	2		2	1			5
<b>Totals</b>	235	38	20	192	63	89	637

\* There are 60 retired members that only receive life insurance coverage that are included in the covered counts.

There are no terminated members eligible for deferred Plan benefits.



# Bay County Retiree Health Care Plan – Excluding BABH

## Reported Financial Information

### Market Value

	<u>December 31, 2022</u>	<u>December 31, 2023</u>
<b>Additions</b>		
Contributions		
Employer	\$ 1,606,402	\$ 1,674,871
Nonemployer Contributing Entities	0	0
Active Employees	0	0
Member	0	0
Total Contributions	<u>\$ 1,606,402</u>	<u>\$ 1,674,871</u>
Investment Income		
Total Investment Income	\$ (9,413,194)	\$ 8,017,250
Less Investment Expense	(118,230)	(151,977)
Net Investment Income	<u>\$ (9,531,424)</u>	<u>\$ 7,865,273</u>
Other Miscellaneous Income	\$ 0	\$ 0
<b>Total Additions</b>	<u>\$ (7,925,022)</u>	<u>\$ 9,540,144</u>
<b>Deductions</b>		
Health Benefit Payments and Refunds	\$ 0	\$ 0
OPEB Plan Administrative Expense	34,755	104,449
<b>Total Deductions</b>	<u>\$ 34,755</u>	<u>\$ 104,449</u>
<b>Net Increase in Net Position</b>	\$ (7,959,777)	\$ 9,435,695
<b>Net Position Restricted for OPEB</b>		
Beginning of Year	\$ 66,193,009	\$ 58,233,232
Audit Adjustment	0	0
End of Year	<u>\$ 58,233,232</u>	<u>\$ 67,668,927</u>



## SECTION E

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### ACTUARIAL COST METHODS AND ACTUARIAL ASSUMPTIONS

# Actuarial Methods for Bay County Retiree Health Care Plan – Excluding BABH as of December 31, 2023

**Actuarial Cost Method.** Normal cost and the allocation of benefit values between service rendered before and after the valuation date was determined using an **Individual Entry-Age Actuarial Cost Method** having the following characteristics:

- (i) The annual normal cost for each individual active member, payable from the date of employment to the date of retirement, is sufficient to accumulate the value of the member's benefit at the time of retirement; and
- (ii) Each annual normal cost is a constant percentage of the member's year by year projected covered pay.

Actuarial gains (losses), as they occur, reduce (increase) the Unfunded Actuarial Accrued Liability.

**Financing of Unfunded Actuarial Accrued Liabilities.** Unfunded Actuarial Accrued Liabilities (UAAL) (full funding credit if assets exceed liabilities) were amortized as a level percent of payroll for DWS and as a level dollar amount for all other groups. The UAAL was determined using the actuarial value of assets and actuarial accrued liability calculated as of the valuation date and projected to the beginning of the fiscal year at the assumed rate of investment return.

**Actuarial Value of Assets.** The Actuarial Value of Assets is set equal to the reported market value of assets. The County reported the asset split between the various groups.

**Amortization Factors.** The following amortization factors were used in developing the Actuarially Determined Contribution for the fiscal years shown:

	Fiscal Year Ending December 31,	
	2026	2027
General County (Level Dollar)	9.7736	9.4231
DWS (Level Percent of Pay)	11.8056	11.2596
Library (Level Dollar)	9.7736	9.4231
Medical Care Facility (Level Dollar)	9.0481	8.6469
Sheriff's Department (Level Dollar)	9.7736	9.4231
Road Commission (Level Dollar)	9.7736	9.4231

# Actuarial Assumptions for Bay County Retiree Health Care Plan – Excluding BABH as of December 31, 2023

The rationale for all assumptions used in this valuation is included in the five-year experience study ending December 31, 2021, issued August 31, 2023. All assumptions are expectations of future experience, not market measures.

**Investment Return** (net of investment expenses): 7.00% a year, compounded annually.

**Rates of price inflation** are not specifically used for this valuation. However, a rate of price inflation of 2.50% would be consistent with other assumptions in this report. This assumption was first adopted for the December 31, 2016 pension actuarial valuation.

**Pay Projections.** These assumptions are used to project current pays to those upon which future contributions will be based. In addition to the Merit and Longevity rates shown in the table, members are also assumed to receive a base increase of 3.00%.

Years of Service	Annual Rate of Pay Increase for Merit & Longevity					Road
	General	DWS	Library	MCF	Sheriff's	Commission
1	3.00 %	3.00 %	3.00 %	0.50 %	5.25 %	5.25 %
2	2.25	2.25	2.25	0.50	4.50	3.00
3	1.50	1.50	1.50	0.50	4.50	3.00
4	1.50	1.50	1.50	0.50	3.75	3.00
5	0.75	0.75	0.75	0.50	3.00	0.75
6+	0.75	0.75	0.75	0.50	0.75	0.75

If the number of active members remains constant, the total active member payroll will increase by about the level of pay inflation (assumed to be 3.00% per year). This increasing payroll was recognized in amortizing unfunded actuarial accrued liabilities for the active employees of the DWS. The merit and longevity payroll growth assumptions were first adopted for the December 31, 2016 pension actuarial valuation. The base wage inflation assumption was first adopted for the December 31, 2022 pension actuarial valuation.

# Actuarial Assumptions for Bay County Retiree Health Care Plan – Excluding BABH as of December 31, 2023

**Mortality.** The mortality rates utilized are based upon Pub-2010 amount-weighted General tables for the Non-Public Safety groups and the Pub-2010 amount-weighted Safety tables for the Sheriff's Department group, in conjunction with the MP-2021 projection scale on a fully generational basis. The mortality assumptions were first adopted for the December 31, 2022 pension actuarial valuation. The tables used were as follows:

## **Non-Public Safety (All Groups except Sheriff's Department)**

- **Pre-Retirement:** Pub-2010 General Employee Mortality Tables, amount weighted, and projected with mortality improvements using the fully generational MP-2021 projection scale from a base year of 2010.
- **Healthy Post-Retirement:** Pub-2010 General Healthy Annuitant Mortality Tables, amount-weighted, and projected with mortality improvements using the fully generational MP-2021 projection scale from a base year of 2010.
- **Disability Retirement:** Pub-2010 General Disabled Retiree Mortality Tables, amount-weighted, and projected with mortality improvements using the fully generational MP-2021 projection scale from a base year of 2010.

## **Public Safety (Sheriff's Department)**

- **Pre-Retirement:** Pub-2010 Safety Employee Mortality Tables, amount weighted, and projected with mortality improvements using the fully generational MP-2021 projection scale from a base year of 2010.
- **Healthy Post-Retirement:** Pub-2010 Safety Healthy Annuitant Mortality Tables, amount-weighted, and projected with mortality improvements using the fully generational MP-2021 projection scale from a base year of 2010.
- **Disability Retirement:** Pub-2010 Safety Disabled Retiree Mortality Tables, amount-weighted, and projected with mortality improvements using the fully generational MP-2021 projection scale from a base year of 2010.



# Actuarial Assumptions for Bay County Retiree Health Care Plan – Excluding BABH as of December 31, 2023

## Summary of Life Expectancies

### Non-Public Safety (All Groups except Sheriff's Department)

Sample Ages	Pre-Retirement Future Life Expectancy (Years)^		Healthy Post-Retirement Future Life Expectancy (Years)^		Disabled Retirement Future Life Expectancy (Years)^	
	Men	Women	Men	Women	Men	Women
50	39.14	41.30	35.52	38.45	26.29	29.23
55	34.13	36.20	30.63	33.48	22.79	25.64
60	29.23	31.17	25.91	28.61	19.62	22.31
65	24.47	26.24	21.42	23.88	16.69	19.04
70	19.82	21.41	17.16	19.34	13.88	15.67
75	15.28	16.69	13.23	15.09	11.12	12.37
80	10.86	12.14	9.75	11.27	8.53	9.43

^ Based on retirements in 2023. Retirements in future years will reflect improvements in life expectancy.

### Public Safety (Sheriff's Department)

Sample Ages	Pre-Retirement Future Life Expectancy (Years)^		Healthy Post-Retirement Future Life Expectancy (Years)^		Disabled Retirement Future Life Expectancy (Years)^	
	Men	Women	Men	Women	Men	Women
50	38.52	40.96	35.57	37.61	34.17	36.35
55	33.43	35.86	30.51	32.50	29.31	31.45
60	28.44	30.82	25.62	27.58	24.62	26.82
65	23.57	25.83	21.02	22.93	20.26	22.47
70	18.86	20.91	16.73	18.54	16.22	18.34
75	14.38	16.17	12.82	14.46	12.50	14.43
80	10.20	11.72	9.40	10.85	9.27	10.85

^ Based on retirements in 2023. Retirements in future years will reflect improvements in life expectancy.

# Actuarial Assumptions for Bay County Retiree Health Care Plan – Excluding BABH as of December 31, 2023

**The rates of retirement** used to measure the probability of eligible members retiring during the next year were as follows:

Retirement Ages	Percent of Active Members Retiring Within Next Year					
	General	DWS	Library	MCF	Sheriff's	Road Commission
50				20 %		18 %
51				20		18
52				20		28
53				20		28
54				20		28
55	20 %	28 %	17 %	30		28
56	13	23	12	40		18
57	13	23	12	50		18
58	13	23	12	50		18
59	13	23	12	50		18
60	30	38	27	30	13 %	18
61	25	33	22	30	13	18
62	13	23	12	50	28	38
63	13	23	12	25	13	38
64	13	23	12	25	13	38
65	30	38	27	100	100	100
66	13	23	12			
67	13	23	12			
68	13	23	12			
69	13	23	12			
70	100	100	100			

The following table shows the rates used for the Road Patrol and Road Patrol Supervisory Unit, and Elected Officials and Department Heads: Elected Sheriff and Appointed Undersheriff 25 & Out provision and the Correctional Facility Officers 55 & 25 provision.

25 & Out		55 & 25	
Years of Service	Sheriff's Road Patrol, Road Patrol Supervisory Unit, and Elected Sheriff and Appointed Undersheriff	Age	Correctional Facility Officers
25	35 %	55	35 %
26	35	56	35
27	35	57	35
28	25	58	25
29	25	59	25
30	25	60	25
31	25	61	25
32	25	62	25
33	25	63	25
34	100	64	100



## Actuarial Assumptions for Bay County Retiree Health Care Plan – Excluding BABH as of December 31, 2023

The following table shows the rates for the 55 & 8 and/or 55 & 10 Early Retirement provision:

Retirement Ages	55 & 8 and/or 55 & 10 Early Retirement*		
	General	DWS	All Other Groups
55	8 %	15 %	5 %
56	8	15	5
57	8	15	5
58	8	15	5
59	8	15	5
60	8	15	5
61	8		

*\* These rates do not apply to Medical Care Facility, Sheriff's Department, and Road Commission.*

The retirement assumptions were first adopted for the December 31, 2012 pension actuarial valuation for Early Retirement and the December 31, 2022 pension actuarial valuation for Normal Retirement.

# Actuarial Assumptions for Bay County Retiree Health Care Plan – Excluding BABH as of December 31, 2023

**Rates of Disability.** These rates represent the probabilities of active members becoming disabled. This assumption was first adopted for the December 31, 2016 pension actuarial valuation.

Sample Ages	Percent Becoming Disabled within Next Year	
	Sheriff's	All Other Groups
20	0.15 %	0.07 %
25	0.15	0.07
30	0.15	0.07
35	0.15	0.07
40	0.38	0.19
45	0.50	0.25
50	0.92	0.46
55	1.67	0.84
60	2.65	1.33

We assumed that 50% of disabilities are duty related and 50% are non-duty related for Sheriff's. For all other groups we assumed 85% of disabilities are non-duty related and 15% are duty-related.

**Rates of Separation from Active Membership.** These rates do not apply to members eligible to retire and do not include separation on account of death or disability. This assumption measures the probabilities of members remaining in employment. This assumption was first adopted for the December 31, 2016 pension actuarial valuation for Sheriff's and Road Commission and for the December 31, 2022 pension actuarial valuation for all other groups.

Sample Ages	Years of Service	% of Active Members Separating within Next Year					
		General	DWS	Library	MCF	Sheriff's*	Road Commission*
ALL	0	15.00%	8.10%	8.25%	31.50%	N/A	N/A
	1	9.00	4.86	4.95	31.50	N/A	N/A
	2	9.00	4.86	4.95	18.90	N/A	N/A
	3	8.00	4.32	4.40	15.76	N/A	N/A
	4	8.00	4.32	4.40	11.03	N/A	N/A
20	5 & Over	6.00	4.50	4.13	5.91	4.50	4.50
25		6.00	4.50	4.13	5.91	4.50	4.50
30		5.60	4.20	3.85	3.94	3.75	3.90
35		5.60	4.20	3.85	3.94	2.25	2.30
40		3.20	2.40	2.20	2.95	1.50	0.90
45		2.40	1.80	1.65	1.97	1.50	0.50
50		1.60	1.20	1.10	1.58	1.25	0.50
55		1.60	1.20	1.10	1.58	0.75	0.50
60		1.60	1.20	1.10	1.58	0.75	0.50

\* These groups do not have service-based rates of separation. All rates of separation are based on age.



## Actuarial Assumptions for Bay County Retiree Health Care Plan – Excluding BABH as of December 31, 2023 (Concluded)

The Medical Care Facility and Road Commission future retiree cost shares were developed based on the calendar year 2024 cost shares and the plan election of the current retiree population of each applicable group. The developed future retiree cost shares valued are as follows.:

Group	Future Retiree Cost Share			
	Pre-65		Post-65	
	One-Person	Two-Person	One-Person	Two-Person
Medical Care Facility	\$223.46	\$774.78	\$0.00	\$0.00
Road Commission	1.31	50.63	0.00	0.00

The Medical Care Facility current retiree cost share was developed based on the calendar year 2024 cost shares and the plan election of the retirees currently responsible for a portion of their retiree health care coverage. The developed cost shares valued are as follows:

Group	Current Retiree Cost Share			
	Pre-65		Post-65	
	One-Person	Two-Person	One-Person	Two-Person
Medical Care Facility	\$259.45	\$788.07	\$0.00	\$0.00

The Road Commission current retiree cost share was valued based on the medical plan reported, during the data collection process, for each individual and the Road Commission provided calendar year 2024 cost shares.

All retiree cost shares are projected based on the valuation trend noted in Section B.

# Miscellaneous and Technical Assumptions for Bay County Retiree Health Care Plan – Excluding BABH as of December 31, 2023

<b>Administrative Expenses</b>	No explicit assumption has been made for administrative expenses.
<b>Decrement Operation</b>	Disability and death-in-service decrements do not operate during the first 5 years of service. Disability and withdrawal do not operate during retirement eligibility.
<b>Decrement Timing</b>	Decrements of all types are assumed to occur mid-year.
<b>Eligibility Testing</b>	Eligibility for benefits is determined based upon the age nearest birthday and service nearest whole year on the date the decrement is assumed to occur.
<b>Incidence of Contributions</b>	Contributions are assumed to be received continuously throughout the year based upon the contributions shown in this report.
<b>Marriage Assumption</b>	100% of males and 100% of females are assumed to be married for purposes of death-in-service benefits. Male spouses are assumed to be 3 years older than female spouses.
<b>Medicare Coverage</b>	Assumed to be available for all covered employees on attainment of age 65. Disabled retirees were assumed to be eligible for Medicare coverage at age 65.
<b>Part-Time Employees</b>	Part-time employees are not eligible for retiree health care benefits even if they are eligible for benefits from the Retirement System. Part-time employees were excluded from the valuation.
<b>Opt-In Assumption</b>	Certain General and Sheriff retirees opted-out of the retiree health care program. These retirees may opt back into the program at a future date. We assumed that 10% of these retirees would opt back into the program.
<b>Health Care Coverage at Retirement</b>	The table below shows the assumed portion of future retirees electing one-person or two-person/family coverage, or opting-out of coverage entirely. For those that elect two-person coverage, the assumption regarding the percentage of retirees that would continue coverage to the spouse upon death of the retiree is also shown.

Group	One-Person		Two-Person/Family		Opt-Out		Continuation Percentage to Spouse	
	Males	Females	Males	Females	Males	Females	Males	Females
General County	45.00%	45.00%	40.00%	40.00%	15.00%	15.00%	80.00%	80.00%
DWS	25.00%	25.00%	75.00%	75.00%	0.00%	0.00%	100.00%	100.00%
Library	90.00%	90.00%	0.00%	0.00%	10.00%	10.00%	0.00%	0.00%
Medical Care Facility	30.00%	30.00%	65.00%	65.00%	5.00%	5.00%	100.00%	100.00%
Sheriff's Department	45.00%	45.00%	40.00%	40.00%	15.00%	15.00%	80.00%	80.00%
Road Commission	5.00%	5.00%	95.00%	95.00%	0.00%	0.00%	100.00%	100.00%



## APPENDIX A

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### HISTORICAL FUNDED RATIO INFORMATION

## Historical Funded Ratio

Actuarial Valuation Date December 31	Actuarial Value of Assets <sup>1</sup> (a)	Actuarial Accrued Liability (AAL) Entry Age (b)	Unfunded (Overfunded) AAL (b)-(a)	Funded Ratio (a)/(b)	Present Value of Future Benefits (c)
2015 <sup>2</sup>	\$ 28,049,378	\$ 164,083,657	\$ 136,034,279	17.1 %	\$193,206,056
2017	34,939,774	125,410,425	90,470,651	27.9 %	138,019,045
2018	36,415,168	128,011,541	91,596,373	28.4 %	140,270,835
2019	46,052,050	95,692,093	49,640,043	48.1 %	104,901,419
2021	66,193,009	72,075,733	5,882,724	91.8 %	79,300,149
2023	67,668,927	73,727,243	6,058,316	91.8 %	80,755,287

<sup>1)</sup> The Actuarial Value of Assets is set equal to the Market Value of Assets.

<sup>2)</sup> Results based on 5.00% rate of investment return.



**APPENDIX B**

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**GLOSSARY**

## Glossary

**Accrued Service.** The service credited under the plan which was rendered before the date of the actuarial valuation.

**Actuarial Accrued Liability.** The difference between (i) the actuarial present value of future plan benefits, and (ii) the actuarial present value of future normal cost. Sometimes referred to as "accrued liability" or "past service liability."

**Actuarial Assumptions.** Estimates of future plan experience with respect to rates of mortality, disability, turnover, retirement, rate or rates of investment income and salary increases. Decrement assumptions (rates of mortality, disability, turnover and retirement) are generally based on past experience, often modified for projected changes in conditions. Economic assumptions (salary increases and investment income) consist of an underlying rate in an inflation-free environment plus a provision for a long-term average rate of inflation.

**Actuarial Cost Method.** A mathematical budgeting procedure for allocating the dollar amount of the "actuarial present value of future plan benefits" between the actuarial present value of future normal cost and the actuarial accrued liability. Sometimes referred to as the "actuarial funding method."

**Actuarial Equivalent.** A single amount or series of amounts of equal value to another single amount or series of amounts, computed on the basis of the rate(s) of interest and mortality tables used by the plan.

**Actuarial Present Value.** The amount of funds presently required to provide a payment or series of payments in the future. It is determined by discounting the future payments at a predetermined rate of interest, taking into account the probability of payment.

**Actuarially Determined Contribution.** The Actuarially Determined Contribution is the normal cost plus the portion of the unfunded actuarial accrued liability to be amortized in the current period. The Actuarially Determined Contribution is an amount that is actuarially determined so that, if paid on an ongoing basis, it would be expected to provide sufficient resources to fund both the normal cost for each year and the amortized unfunded actuarial accrued liability.

**Amortization.** Paying off an interest-bearing liability by means of periodic payments of interest and principal, as opposed to paying it off with a lump sum payment.

**Governmental Accounting Standards Board (GASB).** GASB is the private, nonpartisan, nonprofit organization that works to create and improve the rules U.S. state and local governments follow when accounting for their finances and reporting them to the public.

**Implicit Rate Subsidy.** It is common practice for employers to allow retirees to continue in the employer's group health insurance plan (which also covers active employees), often charging the retiree some portion of the premium charged for active employees. Under the theory that retirees have higher utilization of services, the difference between the true cost of providing retiree coverage and what the retiree is being charged is known as the implicit rate subsidy.



## Glossary

**Medical Trend Rate (Health Care Inflation).** The increase in the cost of providing health care benefits over time. Trend includes such elements as pure price inflation, changes in utilization, advances in medical technology, and cost shifting.

**Normal Cost.** The annual cost assigned, under the actuarial funding method, to current and subsequent plan years. Sometimes referred to as "current service cost." Any payment toward the unfunded actuarial accrued liability is not part of the normal cost.

**Other Postemployment Benefits (OPEB).** OPEB are postemployment benefits other than pensions. OPEB generally takes the form of health insurance, dental, vision, prescription drugs, life insurance or other health care benefits.

**Reserve Account.** An account used to indicate that funds have been set aside for a specific purpose and are not generally available for other uses.

**Unfunded Actuarial Accrued Liability.** The difference between the actuarial accrued liability and valuation assets. Sometimes referred to as "unfunded actuarial accrued liability."

**Valuation Assets.** The value of current plan assets recognized for valuation purposes.

# Bay County Retiree Health Care Plan

Actuarial Valuation Report

for Bay-Arenac Behavioral Health Authority

as of December 31, 2023



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December 18, 2024

Bay County Voluntary Employees' Beneficiary  
Association (VEBA) – Board of Trustees  
Bay City, Michigan

**Re: Bay-Arenac Behavioral Health Authority Actuarial Funding Valuation as of December 31, 2023**

Dear Board Members:

The results of the December 31, 2023 Biennial Actuarial Funding Valuation of the Bay-Arenac Behavioral Health Authority (BABH) via the Bay County Voluntary Employees' Beneficiary Association are presented in this report.

This report was prepared at the request of the Board and is intended for use by the VEBA, Bay County, BABH, and those designated or approved by the Board. This report may be provided to parties other than the VEBA only in its entirety and only with the permission of the Board. GRS is not responsible for unauthorized use of this report.

The purposes of the valuation are to measure the Plan's funding progress and to determine the Actuarially Determined Contribution for the calendar years ending December 31, 2026 and December 31, 2027. This report should not be relied on for any purpose other than the purposes described herein. Determinations of financial results, associated with the benefits described in this report, for purposes other than those identified above may be significantly different. This report does not include actuarial information needed to satisfy reporting requirements under Governmental Accounting Standards Board (GASB) Statement No. 75.

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

Results presented in this report are developed using the actuarial assumptions and methods disclosed in this report. Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the plan's funded status); and changes in plan provisions or applicable law. This report does not include a robust assessment of the risks of future experience not meeting the actuarial assumptions. Additional assessment of risks was outside the scope of this assignment. We encourage a review and assessment of the investment and other significant risks that may have a material effect on the plan's financial condition.

The findings in this report are based on information furnished by Bay County and BABH concerning retiree health care benefits, financial transactions, plan provisions and active members, terminated members, retirees and beneficiaries. We checked for internal reasonability and year-to-year consistency, but did not audit the data. We are not responsible for the accuracy or completeness of the information provided by Bay County and BABH.

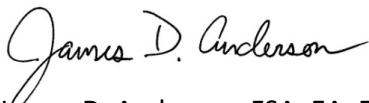
This report was prepared using assumptions adopted by the Board. All actuarial assumptions used in this report are reasonable for the purposes of this valuation. All actuarial assumptions and methods used in the valuation follow the guidance in the applicable Actuarial Standards of Practice. Additional information about the actuarial assumptions is included in the section of this report titled Actuarial Cost Methods and Actuarial Assumptions.

This report was prepared using our proprietary valuation model and related software which, in our professional judgment, has the capability to provide results that are consistent with the purposes of the valuation and has no material limitations or known weaknesses. We performed tests to ensure that the model reasonably represents that which is intended to be modeled.

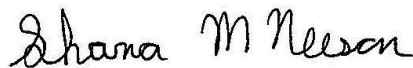
This report has been prepared by actuaries who have substantial experience valuing public employee retiree health programs. To the best of our knowledge, the information contained in this report is accurate and fairly presents the actuarial position of the Bay County Retiree Health Care Plan - BABH as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

James D. Anderson and Shana M. Neeson are Members of the American Academy of Actuaries (MAAA). These actuaries meet the Academy's Qualification Standards to render the actuarial opinions contained herein. The signing actuaries are independent of the plan sponsor.

Respectfully submitted,  
Gabriel, Roeder, Smith & Company



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



Shana M. Neeson, ASA, FCA, MAAA

JDA/SMN:rmn

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## EXECUTIVE SUMMARY

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# Executive Summary

## Actuarially Determined Contribution

We have calculated the Actuarially Determined Contribution for the calendar years ending December 31, 2026 and December 31, 2027 under an interest rate assumption of 7.00%. Below is a summary of the results. The Actuarially Determined Contribution and estimated premiums shown below include the impact of any implicit rate subsidy present in your pre-65 rates.

<b>Calendar Year Ending</b>	<b>Actuarially Determined Contribution</b>	<b>Estimated Premiums Paid for Retirees</b>
December 31, 2026	\$ 0	\$ 580,665
December 31, 2027	0	613,986

For additional details please see the section titled "Valuation Results."

## Liabilities and Assets – as of December 31, 2023

1. Present Value of Future Benefit Payments	\$ 12,302,742
2. Actuarial Accrued Liability	10,338,798
3. Plan Assets	25,666,398
4. Unfunded Actuarial Accrued Liability (2) – (3)	(15,327,600)
5. Funded Ratio (3)/(2)	248.3%

The Present Value of Future Benefit Payments (PVFB) is the present value of all benefits projected to be paid from the plan for past and future service to current members. The Actuarial Accrued Liability is the portion of the PVFB allocated to past service by the Plan's funding method (see the section titled "Actuarial Cost Methods and Actuarial Assumptions").

**SECTION A**

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**VALUATION RESULTS**

## Bay County Retiree Health Care Plan - BABH - Results as of December 31, 2023

A. Present Value of Future Benefits	
i) Retirees and Beneficiaries	\$ 6,374,820
ii) Vested Terminated Members	0
iii) Active Members	<u>5,927,922</u>
Total Present Value of Future Benefits	\$ 12,302,742
B. Present Value of Future Normal Costs	1,963,944
C. Actuarial Accrued Liability (A.-B.)	10,338,798
D. Actuarial Value of Assets	25,666,398
E. Unfunded Actuarial Accrued Liability (C.-D.)	\$(15,327,600)
F. Funded Ratio (D./C.)	248.3%
<b>G. Calendar Year Ending December 31, 2026</b>	
i) Employer Normal Cost	\$ 266,237
ii) Amortization of UAAL*	<u>(1,848,953)</u>
Actuarially Determined Contribution	\$ 0
<b>H. Calendar Year Ending December 31, 2027</b>	
Actuarially Determined Contribution	\$ 0

\* The Unfunded Actuarial Accrued Liabilities (UAAL) were amortized as a level percent of active member payroll over a closed 12-year period for the calendar year ending December 31, 2026 and decreasing by one each year thereafter.

The long-term rate of investment return used in this valuation is 7.00%.

## Comments

**Comment A:** The Actuarial Accrued Liability and Present Value of Future Benefit Payments (PVFB) increased and the Actuarially Determined Contribution remained level since the prior valuation.

Reasons for the increase in liability and PVFB include, but are not limited to the following:

- Unfavorable post-65 premium experience;
- An assumption change: Implementation of assumption changes adopted from the five-year experience study ending December 31, 2021, issued August 31, 2023; and
- An assumption change: Adjustment to the health care cost trend rates.

The impact of the assumption changes noted above increased the liabilities by approximately \$1,260,000.

**Comment B:** One of the key assumptions used in any valuation of the cost of postemployment benefits is the rate of return on the assets that will be used to pay Plan benefits. Higher assumed investment returns will result in a lower Actuarially Determined Contribution. Lower returns will tend to increase the Actuarially Determined Contribution. We have calculated the liability and the resulting Actuarially Determined Contribution using an assumed annual rate of investment return of 7.00%. The investment return assumption should not exceed reasonable market expectations.

**Comment C:** The plan sponsor is required by GASB to perform actuarial valuations at least biennially or more frequent if significant changes in the OPEB are made in the interim.

**Comment D:** The contribution amounts shown include amortization of the unfunded actuarial accrued liability over a closed 12-year period for the calendar year ending December 31, 2026 and decreasing by one each year thereafter. For this valuation, assets represent 248.3% of accrued liabilities; for the last valuation, the ratio was 350.7 %. Given the funded status of the Plan, BABH should consider starting to pay benefits from the trust, if the Plan document allows.

**Comment E:** The asset split between the various groups was provided by the County. Relative to expectations, the Plan experienced unfavorable investment performance during calendar year 2022 and favorable investment performance during calendar year 2023.

**Comment F:** This valuation covers the retiree health benefits provided by the Bay-Arenac Behavioral Health Authority (BABH) via the Bay County Voluntary Employees' Beneficiary Association.

**Comment G:** The GASB issued Statement Nos. 74 and 75 for OPEB valuations. GASB Statement No. 74 for the plan OPEB disclosures was effective for fiscal years beginning after June 15, 2016. GASB Statement No. 75 for employer OPEB disclosures was effective for employer fiscal years beginning after June 15, 2017. The GASB implementation guides for Statement Nos. 74 and 75 provide additional clarification related to the implementation of these Statements. It is our understanding that the Bay-Arenac Behavioral Health Authority and the County need to comply with GASB Statement No. 75 for each measurement date ending December 31<sup>st</sup>. The basis for the September 30, 2024 and September 30, 2025 GASB Statement No. 75 reporting information is expected to be this valuation (as of December 31, 2023), where roll-forward techniques will be applied.

## Comments

**Comment H:** The Michigan State Treasurer has established uniform actuarial assumptions as required by Public Act 202 (PA 202) of 2017 for use with annual Form 5572 (Retirement System Annual Report). The use of the uniform assumptions for reporting purposes is required for each future fiscal year ending September 30<sup>th</sup>. Consistent with past practice, GRS plans to provide the necessary PA 202 uniform assumption information as part of the GASB Statement No. 75 reports.

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

- The measurement is inappropriate for assessing the sufficiency of plan assets to cover the estimated cost of settling the plan's benefit obligations;
- A funded status measurement in this report of 100% is not synonymous with no required future contributions. If the funded status were 100%, the Plan would still require future normal cost contributions (i.e., contributions to cover the cost of the active membership accruing an additional year of service credit). In the instance of the BABH, the contribution requirement is \$0 because the overfunding credit is more than sufficient to offset the normal cost contribution; and
- The measurement is inappropriate for assessing the need for or the amount of future employer contributions.

## SECTION B

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### RETIREE PREMIUM RATE DEVELOPMENT

# Retiree Premium Rate Development

## Rate Development

Initial premium rates were developed for the two classes of retirees (pre-65 and post-65). The January 1, 2025 fully-insured rates provided by Bay County BABH were utilized to determine the appropriate premium rates. The pre-65 fully-insured premiums are blended rates based on the combined experience of active and pre-65 retired members; therefore, there is an implicit employer subsidy for the non-Medicare eligible retirees since the average cost of providing health care benefits to retirees under age 65 is higher than the average cost of providing health care benefits to active employees. The true per capita cost for the pre-65 retirees is developed by adjusting the demographic differences between the active employees and retirees to reflect this implicit rate subsidy for the retirees.

For the post-65 retirees, the January 1, 2025 fully-insured MAPD premium rates were used as the basis of the initial per capita cost without adjustments since the rate reflects the demographics of the post-65 retiree group. Because the January 1, 2025 rate was assumed to incorporate known cost sharing shifts as a result of the Inflation Reduction Act of 2022 on the standard Part D plan design (resulting in higher plan costs), no further adjustments were made, except to align the premium to the valuation date.

Age graded and sex distinct premiums are utilized in this valuation. The premiums developed by the preceding processes are appropriate for the unique age and sex distribution currently existing. Over the future years covered by this valuation, the age and sex distribution will most likely change. Therefore, our process “distributes” the average premium over all age/sex combinations and assigns a unique premium for each specific age/sex combination. The age/sex specific premiums more accurately reflect the health care utilization and cost at that age.

### Current and Future Retirees

Expected Health Care Cost by Age for Medical and Prescription Drugs		
Age	Male	Female
45	\$ 467.04	\$ 644.57
50	608.13	749.16
55	800.24	873.74
60	1,033.55	1,017.69
64	1,256.82	1,186.10
65	276.36	260.67
70	301.06	291.32
75	323.34	315.51

# Retiree Premium Rate Development

## Rate Development (Concluded)

The dental and vision premium rates were not “age graded” for this valuation because dental and vision claims do not vary significantly by age. The monthly dental and vision premium rates used in this valuation are shown below:

Group	Dental and Vision			
	Pre-65		Post-65	
	One-Person	Two-Person	One-Person	Two-Person
BABH	\$23.87	\$47.28	\$23.87	\$47.28



# Retiree Premium Rate Development

## Health Care Cost Trend Assumption

The health care cost trend rate is the rate of change in per capita health care claims over time as a result of factors such as medical inflation, utilization of health care services, plan design, and technological improvements. It is a crucial economic assumption that is required for measuring retiree health care benefit obligations.

Retiree health care valuations use a health care cost trend assumption (trend vector) that changes over the years. The trend vector used in this valuation begins with a near-term trend assumption and declines over a time to an ultimate trend rate. The near-term rates reflect the increases in the current cost of health care goods and services. The process of trending down to a lower ultimate trend relies on the theory that premiums will moderate over the long term, otherwise the healthcare sector would eventually consume the entire GDP. It is on this basis that we project premium rate increases will continue to exceed wage inflation for the next 15 years, but by less each year until leveling off at an ultimate rate, assumed to be 3.50% in this valuation.

While experience is often the best starting point for future costs, GRS does not rely on a group's experience in setting the near-term trend assumptions since trends vary significantly from year to year and are not credible for most groups. Therefore, professional judgment, trends from GRS' book of business and industry benchmarks (e.g., trend reports from various Pharmacy Benefit Management (PBM) organizations and national healthcare benefit consulting firms) are used in conjunction with a group's historical experience to establish the trend assumptions.

The combined medical and prescription drug per capita costs are projected to increase as shown in the table below:

Year After Valuation	Health Care Trend Inflation Rates		
	Medical/Drug		Dental/Vision
	Non-Medicare (Pre-65)	Medicare (Post-65)	
1	7.25%	6.50%	3.50%
2	7.00%	6.25%	3.50%
3	6.75%	6.00%	3.50%
4	6.50%	5.75%	3.50%
5	6.25%	5.75%	3.50%
6	6.00%	5.50%	3.50%
7	5.75%	5.25%	3.50%
8	5.50%	5.00%	3.50%
9	5.00%	4.75%	3.50%
10	4.75%	4.50%	3.50%
11	4.50%	4.25%	3.50%
12	4.25%	4.25%	3.50%
13	4.00%	4.00%	3.50%
14	3.75%	3.75%	3.50%
15	3.50%	3.50%	3.50%
16+	3.50%	3.50%	3.50%

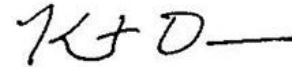
# Retiree Premium Rate Development

## Actuarial Disclosures

The premium rates used in this valuation were developed using the proprietary Excel models which, in Kurt Dosson professional judgment, provide the initial projected costs which are consistent with the purposes of the valuation. We perform tests to ensure that the models, in their entirety, reasonably represent that which is intended to be modeled.

Aging factors used in the premium development models were developed based on the information and data from a 2013 study commissioned by the Society of Actuaries entitled “Health Care Costs – From Birth to Death.”

Kurt Dosson is a Member of the American Academy of Actuaries (MAAA) and meets the Qualification Standards of the American Academy of Actuaries to certify the per capita retiree health care rates shown on page B-1 and the health care trend rates shown on page B-3.



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Kurt Dosson, ASA, FCA, MAAA

## SECTION C

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### SUMMARY OF BENEFITS

# Bay County Retiree Health Care Plan - BABH

## Summary of the Benefit Provisions as of December 31, 2023

Leaving Employment as a Result of	Eligibility for Pension Benefit	Eligibility for Retiree Health Benefit	When do retiree health benefits commence?	Coverage Provided by Employer		Retiree Health Care Provider(s)	Type of Insurance	Retiree Share of Cost for		
				Retiree	Spouse			Retiree	Spouse (while Retiree is alive)	Spouse (after Retiree's death)
<b>Normal/Early Retirement</b>	Age 55 with 8/10 <sup>8</sup> yrs of svc ** Age 55 with 8/10 <sup>8</sup> yrs of svc ** Age 55 with 30 yrs of svc Age 60 with 8/62 with 10 <sup>8</sup> yrs of svc Age 60 with 8/62 with 10 <sup>8</sup> yrs of svc Age 65 with 0 yrs of svc	Age 55 with 30 yrs of svc Age 60 with 8 yrs of svc Age 62 with 10 yrs of svc	Immediately	Medical Drug Dental Vision	Medical Drug Dental Vision	BCBS, BCN, BCBS MA, and BCN MA^	fully-insured fully-insured fully-insured fully-insured	See Schedule D See Schedule D Zero cost for Retiree with at least 20 yrs svc. Zero cost for Retiree with at least 20 yrs svc.	See Schedule D See Schedule D See Schedule D See Schedule D	See Schedule D See Schedule D See Schedule D See Schedule D
<b>Deferred Vested Termination</b>	8 yrs of svc 10 yrs of svc <sup>~</sup> 10 yrs of svc <sup>&amp;</sup>	None				N/A N/A N/A N/A		N/A N/A N/A N/A	N/A N/A N/A N/A	N/A N/A N/A N/A
<b>Non-Duty Disability</b>	10 or more years of credited svc	10 or more years of credited svc	Immediately	Medical Drug Dental Vision	Medical Drug Dental Vision	BCBS, BCN, BCBS MA, and BCN MA^	fully-insured fully-insured fully-insured fully-insured	See Schedule D See Schedule D	See Schedule D See Schedule D	See Schedule D See Schedule D
<b>Duty Disability</b>	No age or svc requirement	No age or svc requirement	Immediately	Medical Drug Dental Vision	Medical Drug Dental Vision	BCBS, BCN, BCBS MA, and BCN MA^	fully-insured fully-insured fully-insured fully-insured	See Schedule D See Schedule D	See Schedule D See Schedule D	See Schedule D See Schedule D
<b>Non-Duty Death-in-Svc</b>	10 or more years of credited svc	10 or more years of credited svc	Immediately -Surviving Spouse		Medical Drug Dental Vision	BCBS, BCN, BCBS MA, and BCN MA^	fully-insured fully-insured fully-insured fully-insured			See Schedule D See Schedule D
<b>Duty Death-in-Svc</b>	No age or svc requirement Benefits begin upon termination of Worker's Compensation	No age or svc requirement Benefits begin upon termination of Worker's Compensation	Immediately -Surviving Spouse		Medical Drug Dental Vision	BCBS, BCN, BCBS MA, and BCN MA^	fully-insured fully-insured fully-insured fully-insured			See Schedule D See Schedule D

Medicare Reimbursement is not offered to any members.

~ Behavioral Health AFSCME (Div No. 23): 10 yrs of svc (age 62 with 10 yrs of svc) for members hired on or after 10/1/2014.

& Behavioral Health General (Div No. 24): 10 yrs of svc (age 62 with 10 yrs of svc) for members hired after 1/1/2015.

\*\* Eligible for retirement with a reduced pension.

^ Medicare Advantage (MA)

BABH part-time members do not qualify for retiree health care. They do not have access to the plan.

AFSCME withdrew representation in 2019. Former AFSCME Union employees are eligible to begin accruing eligibility for retiree health insurance (and dental/vision) as of 1/1/2020.

Retiree eligibility for dental and vision coverage is based on criteria in place at the time of retirement and years of eligible service credit.



# Bay County Retiree Health Care Plan - BABH

## Summary of the Benefit Provisions as of December 31, 2023

### Schedule D Bay-Arenac Behavioral Health Retiree Health Insurance Premium Contribution for Those Who Retire on or After January 16, 2004

Retiree Health Insurance Coverage - % paid by the employer based on years of service at retirement  
(subject to eligibility)

Years of Service	Employer Paid (%)	Retiree Paid (%)	Employer Paid Spousal Coverage	Retiree Paid Spousal Coverage
8	40%	60%	0%	100%
9	45%	55%	0%	100%
10	50%	50%	0%	100%
11	55%	45%	0%	100%
12	60%	40%	0%	100%
13	65%	35%	0%	100%
14	70%	30%	0%	100%
15	75%	25%	0%	100%
16	80%	20%	0%	100%
17	85%	15%	0%	100%
18	90%	10%	0%	100%
19	95%	5%	0%	100%
20	100%	0%	0%	100%
21	100%	0%	5%	95%
22	100%	0%	10%	90%
23	100%	0%	15%	85%
24	100%	0%	20%	80%
25	100%	0%	25%	75%
26	100%	0%	30%	70%
27	100%	0%	35%	65%
28	100%	0%	40%	60%
29	100%	0%	45%	55%
30	100%	0%	50%	50%
31	100%	0%	55%	45%
32	100%	0%	60%	40%
33	100%	0%	65%	35%
34	100%	0%	70%	30%
35	100%	0%	75%	25%
36	100%	0%	80%	20%
37	100%	0%	85%	15%
38	100%	0%	90%	10%
39	100%	0%	95%	5%
40	100%	0%	100%	0%

## SECTION D

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### SUMMARY OF VALUATION DATA

**Bay County Retiree Health Care Plan - BABH**  
**Total Eligible Active Members as of December 31, 2023**  
**by Age and Years of Eligibility Service\***

Age	Years of Eligibility Service to Valuation Date							Totals
	0-4	5-9	10-14	15-19	20-24	25-29	30 Plus	No.
15-19	1							1
20-24	11							11
25-29	19							19
30-34	17	4	1					22
35-39	10	17	3					30
40-44	10	9	7	2	1			29
45-49	18	6	5	5	5	1		40
50-54	12	6	12	2	7	3		42
55-59	2	4	3	2	3	3	2	19
60-64	4	2	5	2	2	1		16
65 & Over			1		1			2
<b>Totals</b>	<b>104</b>	<b>48</b>	<b>37</b>	<b>13</b>	<b>19</b>	<b>8</b>	<b>2</b>	<b>231</b>

\* Excludes 3 part-time employees. Members who belong to Behavioral Health AFSCME (Division 23) did not begin to accrue benefit service until 1/1/2020.

While not used in the financial computations, the following group averages are computed and shown because of their general interest.

**Age:** 43.6 years  
**Service:** 8.5 years

## Bay County Retiree Health Care Plan - BABH Inactive Members as of December 31, 2023

### Number of Retiree and Beneficiary Contracts

	Opt-Out/ Ineligible	One-Person Coverage^	Two-Person Coverage*	Total
Male	26	16	4	46
Female	59	60	8	127
Total	85	76	12	173

\* Includes family coverage.

^ Includes retirees with dental/vision only.

Age	Current Retirees
	Number of Those Covered
	BABH
0-44	
45-49	
50-54	
55-59	7
60-64	25
65-69	28
70-74	14
75-79	9
80-84	4
85-89	
90-94	1
95 +	
<b>Totals</b>	<b>88</b>

There are no terminated members eligible for deferred Plan benefits.



# Bay County Retiree Health Care Plan - BABH

## Reported Financial Information

### Market Value

	<u>December 31, 2022</u>	<u>December 31, 2023</u>
<b>Additions</b>		
Contributions		
Employer	\$ 0	\$ 0
Nonemployer Contributing Entities	0	0
Active Employees	0	0
Member	0	0
Total Contributions	<u>\$ 0</u>	<u>\$ 0</u>
Investment Income		
Total Investment Income	\$ (3,718,379)	\$ 3,078,997
Less Investment Expense	<u>(46,703)</u>	<u>(58,366)</u>
Net Investment Income	<u>\$ (3,765,082)</u>	<u>\$ 3,020,631</u>
Other Miscellaneous income	<u>\$ 0</u>	<u>\$ 0</u>
<b>Total Additions</b>	<u>\$ (3,765,082)</u>	<u>\$ 3,020,631</u>
<b>Deductions</b>		
Health Benefit Payments and Refunds	\$ 0	\$ 0
OPEB Plan Administrative Expense	<u>13,729</u>	<u>40,113</u>
<b>Total Deductions</b>	<u>\$ 13,729</u>	<u>\$ 40,113</u>
<b>Net Increase in Net Position</b>	<u>\$ (3,778,811)</u>	<u>\$ 2,980,518</u>
<b>Net Position Restricted for OPEB</b>		
Beginning of Year	\$ 26,464,691	\$ 22,685,880
Audit Adjustment	<u>0</u>	<u>0</u>
End of Year	<u>\$ 22,685,880</u>	<u>\$ 25,666,398</u>



## SECTION E

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### **ACTUARIAL COST METHODS AND ACTUARIAL ASSUMPTIONS**

# Actuarial Methods for Bay County Retiree Health Care Plan - BABH as of December 31, 2023

**Actuarial Cost Method.** Normal cost and the allocation of benefit values between service rendered before and after the valuation date was determined using an **Individual Entry-Age Actuarial Cost Method** having the following characteristics:

- (i) The annual normal cost for each individual active member, payable from the date of employment to the date of retirement, is sufficient to accumulate the value of the member's benefit at the time of retirement; and
- (ii) Each annual normal cost is a constant percentage of the member's year by year projected covered pay.

Actuarial gains (losses), as they occur, reduce (increase) the Unfunded Actuarial Accrued Liability.

**Financing of Unfunded Actuarial Accrued Liabilities.** Unfunded Actuarial Accrued Liabilities (UAAL) (full funding credit if assets exceed liabilities) were amortized as a level percent of payroll. The UAAL was determined using the actuarial value of assets and actuarial accrued liability calculated as of the valuation date and projected to the beginning of the calendar year at the assumed rate of investment return.

**Actuarial Value of Assets.** The Actuarial Value of Assets is set equal to the reported market value of assets. The County reported the asset split between the various groups.

**Amortization Factors.** The following amortization factors were used in developing the Actuarially Determined Contribution for the calendar years shown:

	Calendar Year Ending December 31,	
	2026	2027
Amortization Period	12	11
Level Percent of Pay	9.4911	8.8552

# Actuarial Assumptions for Bay County Retiree Health Care Plan - BABH as of December 31, 2023

The rationale for all assumptions, except the investment return which was investigated separately and changed by the Board in fall 2018, used in this valuation is included in the five-year experience study ending December 31, 2021, issued August 31, 2023. All assumptions are expectations of future experience, not market measures.

**Investment Return** (net of investment expenses): 7.00% a year, compounded annually.

**Rates of price inflation** are not specifically used for this valuation. However, a rate of price inflation of 2.50% would be consistent with other assumptions in this report. This assumption was first adopted for the December 31, 2016 pension actuarial valuation.

**Pay Projections.** These assumptions are used to project current pays into the future. In addition to the Merit and Longevity rates shown in the table, members are also assumed to receive a base increase of 3.00%.

Years of Service	Annual Rate of Pay Increase for Merit & Longevity
	BABH
1	3.00 %
2	2.25
3	1.50
4	1.50
5	0.75
6+	0.75

The merit and longevity payroll growth assumptions were first adopted for the December 31, 2016 pension actuarial valuation. The base wage inflation assumption was first adopted for the December 31, 2022 pension actuarial valuation.

# Actuarial Assumptions for Bay County Retiree Health Care Plan - BABH as of December 31, 2023

**Mortality.** The mortality rates utilized are based upon the Pub-2010 amount-weighted General tables, in conjunction with the MP-2021 projection scale on a fully generational basis. The mortality assumptions were first adopted for the December 31, 2022 pension actuarial valuation. The tables used were as follows:

- **Healthy Pre-Retirement:** Pub-2010 General Employee Mortality Tables, amount weighted, and projected with mortality improvements using the fully generational MP-2021 projection scale from a base year of 2010.
- **Healthy Post-Retirement:** Pub-2010 General Healthy Annuitant Mortality Tables, amount-weighted, and projected with mortality improvements using the fully generational MP-2021 projection scale from a base year of 2010.
- **Disability Retirement:** Pub-2010 General Disabled Retiree Mortality Tables, amount-weighted, and projected with mortality improvements using the fully generational MP-2021 projection scale from a base year of 2010.

Sample Ages	Pre-Retirement Future Life Expectancy (Years)^		Healthy Post-Retirement Future Life Expectancy (Years)^		Disabled Retirement Future Life Expectancy (Years)^	
	Men	Women	Men	Women	Men	Women
50	39.14	41.30	35.52	38.45	26.29	29.23
55	34.13	36.20	30.63	33.48	22.79	25.64
60	29.23	31.17	25.91	28.61	19.62	22.31
65	24.47	26.24	21.42	23.88	16.69	19.04
70	19.82	21.41	17.16	19.34	13.88	15.67
75	15.28	16.69	13.23	15.09	11.12	12.37
80	10.86	12.14	9.75	11.27	8.53	9.43

^ Based on retirements in 2023. Retirements in future years will reflect improvements in life expectancy.

# Actuarial Assumptions for Bay County Retiree Health Care Plan - BABH as of December 31, 2023

**The rates of retirement** used to measure the probability of eligible members retiring during the next year were as follows:

Retirement Ages	Percent of Active Members Retiring within Next Year
	BABH
55	18 %
56	13
57	13
58	13
59	13
60	28
61	23
62	13
63	13
64	13
65	28
66	13
67	13
68	13
69	13
70	100

The following table shows the rates of retirement for the 55 & 8 and/or 55 & 10 Early Pension Retirement provision:

Retirement Ages	55 & 8 and/or 55 & 10 Early Retirement
	BABH
55	5 %
56	5
57	5
58	5
59	5
60	5
61	5

The retirement assumptions were first adopted for the December 31, 2012 pension actuarial valuation for Early Retirement and the December 31, 2022 pension actuarial valuation for Normal Retirement.



# Actuarial Assumptions for Bay County Retiree Health Care Plan - BABH as of December 31, 2023

**Rates of Disability.** These rates represent the probabilities of active members becoming disabled. This assumption was first adopted for the December 31, 2016 pension actuarial valuation.

Percent Becoming Disabled Within the Next Year	
Sample Ages	BABH
20	0.07 %
25	0.07
30	0.07
35	0.07
40	0.19
45	0.25
50	0.46
55	0.84
60	1.33

We assumed that 85% of disabilities are non-duty related and 15% are duty related.

**Rates of Separation from Active Membership.** These rates do not apply to members eligible to retire and do not include separation on account of death or disability. This assumption measures the probabilities of members remaining in employment. This assumption was first adopted for the December 31, 2022 pension actuarial valuation.

% of Active Members Separating within Next Year		
Sample Ages	Years of Service	BABH
ALL	0	19.80%
	1	11.88%
	2	11.88%
	3	10.56%
	4	10.56%
20	5 & Over	8.25
25		8.25
30		7.70
35		7.70
40		4.40
45		3.30
50		2.20
55		2.20
60		2.20



# Miscellaneous and Technical Assumptions for Bay County Retiree Health Care Plan - BABH as of December 31, 2023

<b>Administrative Expenses</b>	No explicit assumption has been made for administrative expenses.
<b>Decrement Operation</b>	Disability and death-in-service decrements do not operate during the first five years of service. Disability and withdrawal do not operate during retirement eligibility.
<b>Decrement Timing</b>	Decrements of all types are assumed to occur mid-year.
<b>Eligibility Testing</b>	Eligibility for benefits is determined based upon the age nearest birthday and service nearest whole year on the date the decrement is assumed to occur.
<b>Incidence of Contributions</b>	Contributions are assumed to be received continuously throughout the year based upon the contributions shown in this report.
<b>Marriage Assumption</b>	100% of males and 100% of females are assumed to be married for purposes of death-in-service benefits. Male spouses are assumed to be three years older than female spouses.
<b>Medicare Coverage</b>	Assumed to be available for all covered employees on attainment of age 65. Disabled retirees were assumed to be eligible for Medicare coverage at age 65.
<b>Part-Time Employees</b>	Part-time employees are not eligible for retiree health care benefits even if they are eligible for benefits from the Retirement System. Part-time employees were excluded from the valuation.
<b>Data Adjustments</b>	New retirees reported with coverage and no reported cost share were assigned a cost share based on the amount of benefit service reported on the individual's pension retirement calculation.
<b>Health Care Coverage at Retirement</b>	The table below shows the assumed portion of future retirees electing one-person or two-person/family coverage, or opting out of coverage entirely. For those that elect two-person coverage, the assumption regarding the percentage of retirees that would continue coverage to the spouse upon death of the retiree is also shown.

	One-Person	Two-Person/Family		Opt-Out
		Electing	Continuing	
<b>Male</b>	45%	30%	80%	25%
<b>Female</b>	55%	20%	80%	25%



## APPENDIX A

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### HISTORICAL FUNDED RATIO INFORMATION

## Historical Funded Ratio

Actuarial Valuation Date December 31	Actuarial Value of Assets <sup>1</sup> (a)	Actuarial Accrued Liability (AAL) Entry Age (b)	Unfunded (Overfunded) AAL (b)-(a)	Funded Ratio (a)/(b)	Present Value of Future Benefits (c)
2015 <sup>2</sup>	\$ 14,398,127	\$ 8,502,548	\$ (5,895,579)	169.3 %	\$10,176,104
2017	17,542,745	9,145,032	(8,397,713)	191.8 %	10,954,894
2018	16,701,533	9,580,256	(7,121,277)	174.3 %	11,594,789
2019	20,083,529	7,829,565	(12,253,964)	256.5 %	9,391,625
2021	26,464,691	7,545,806	(18,918,885)	350.7 %	9,136,362
2023	25,666,398	10,338,798	(15,327,600)	248.3 %	12,302,742

<sup>1</sup> The Actuarial Value of Assets is set equal to the Market Value of Assets.

<sup>2</sup> Results based on 7.50% rate of investment return.

## **APPENDIX B**

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### **GLOSSARY**

## Glossary

**Accrued Service.** The service credited under the plan which was rendered before the date of the actuarial valuation.

**Actuarial Accrued Liability.** The difference between (i) the actuarial present value of future plan benefits, and (ii) the actuarial present value of future normal cost. Sometimes referred to as "accrued liability" or "past service liability."

**Actuarial Assumptions.** Estimates of future plan experience with respect to rates of mortality, disability, turnover, retirement, rate or rates of investment income and salary increases. Decrement assumptions (rates of mortality, disability, turnover and retirement) are generally based on past experience, often modified for projected changes in conditions. Economic assumptions (salary increases and investment income) consist of an underlying rate in an inflation-free environment plus a provision for a long-term average rate of inflation.

**Actuarial Cost Method.** A mathematical budgeting procedure for allocating the dollar amount of the "actuarial present value of future plan benefits" between the actuarial present value of future normal cost and the actuarial accrued liability. Sometimes referred to as the "actuarial funding method."

**Actuarial Equivalent.** A single amount or series of amounts of equal value to another single amount or series of amounts, computed on the basis of the rate(s) of interest and mortality tables used by the plan.

**Actuarial Present Value.** The amount of funds presently required to provide a payment or series of payments in the future. It is determined by discounting the future payments at a predetermined rate of interest, taking into account the probability of payment.

**Actuarially Determined Contribution.** The Actuarially Determined Contribution is the normal cost plus the portion of the unfunded actuarial accrued liability to be amortized in the current period. The Actuarially Determined Contribution is an amount that is actuarially determined so that, if paid on an ongoing basis, it would be expected to provide sufficient resources to fund both the normal cost for each year and the amortized unfunded actuarial accrued liability.

**Amortization.** Paying off an interest-bearing liability by means of periodic payments of interest and principal, as opposed to paying it off with a lump sum payment.

**Governmental Accounting Standards Board (GASB).** GASB is the private, nonpartisan, nonprofit organization that works to create and improve the rules U.S. state and local governments follow when accounting for their finances and reporting them to the public.

**Implicit Rate Subsidy.** It is common practice for employers to allow retirees to continue in the employer's group health insurance plan (which also covers active employees), often charging the retiree some portion of the premium charged for active employees. Under the theory that retirees have higher utilization of services, the difference between the true cost of providing retiree coverage and what the retiree is being charged is known as the implicit rate subsidy.



## Glossary

**Medical Trend Rate (Health Care Inflation).** The increase in the cost of providing health care benefits over time. Trend includes such elements as pure price inflation, changes in utilization, advances in medical technology, and cost shifting.

**Normal Cost.** The annual cost assigned, under the actuarial funding method, to current and subsequent plan years. Sometimes referred to as "current service cost." Any payment toward the unfunded actuarial accrued liability is not part of the normal cost.

**Other Postemployment Benefits (OPEB).** OPEB are postemployment benefits other than pensions. OPEB generally takes the form of health insurance, dental, vision, prescription drugs, life insurance or other health care benefits.

**Reserve Account.** An account used to indicate that funds have been set aside for a specific purpose and are not generally available for other uses.

**Unfunded Actuarial Accrued Liability.** The difference between the actuarial accrued liability and valuation assets. Sometimes referred to as "unfunded actuarial accrued liability."

**Valuation Assets.** The value of current plan assets recognized for valuation purposes.



December 18, 2024

Ms. Jennifer Davenport  
Retirement Administrator/Accountant  
Bay County Retiree Health Care Plan  
Bay County Building  
515 Center Avenue  
Bay City, Michigan 48708

**Re: Bay County Retiree Health Care Plan**

Dear Ms. Davenport:

Enclosed are 20 copies of the December 31, 2023 actuarial funding valuation of the Bay County Retiree Health Care Plan - BABH.

Should you have any questions on the enclosed report, please feel free to call me.

Respectfully submitted,  
Gabriel, Roeder, Smith & Company

A handwritten signature in black ink that reads "Shana M. Neeson". The signature is written in a cursive, flowing style.

Shana M. Neeson, ASA, FCA, MAAA

SMN:rmn  
Enclosures

cc: James D. Anderson, GRS