

Office of the City Clerk

Jim Owczarski

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June 23, 2023

Ald. Milele A. Coggs City Hall, Room 205 200 East Well St. Milwaukee, WI 53202

Dear Ald. Coggs:

At a meeting of the Steering and Rules Committee on June 5, 2023, you requested information related to the fiscal impacts of various provisions of the 2023 Wisconsin Act 12, commonly referred to as the "Shared Revenue" bill.

In response to your request, the Legislative Reference Bureau reached out to the Budget and Management Division, the Employes' Retirement System, the Comptroller, and the City Assessor to develop statements for your review.

Sincerely,

Jim Owczarski

City Clerk

cc: Keith Broadnax

Javo R Oughi





	Date	6/22/2023	File Number	CC230374	\boxtimes	Original	Substitute
Α	Subject	Financial Audit Requirements	Pursuant to Wisco	onsin Act 12, Sect.	3		
В	Submitted	By (Name/Title/Dept./Ext.)	Jerry Allen, ERS	S Executive Director	or		
C	This File	☐ Increases or decreas ☐ Suspends expenditu ☐ Increases or decreas ☐ Authorizes a departn ☐ Increases or decreas ☐ Requests an amendn ☐ Authorizes borrowing ☐ Authorizes contingen ☐ Authorizes the expen	re authority. es city services. nent to administe es revenue. nent to the salary g and related deb nt borrowing (aut	or a program affect or positions ordinates ordinates ordinates or ordi	ting the city's i		ity.
	Charge To	Department Account Capital Projects Fund			Contingent Fu		ts
D		☐ Debt Service☐ Other (Specify) T/6	3/D		Grant & Aid A	ccounts	

	Purpose	Specify Type/Use	Expenditure	Revenue
	Salaries/Wages		\$0.00	\$0.00
			\$0.00	\$0.00
	Supplies/Materials		\$0.00	\$0.00
			\$0.00	\$0.00
	Equipment		\$0.00	\$0.00
Е			\$0.00	\$0.00
	Services	Annual State Legislative Audit Bureau Audit of ERS	\$15,000.00	\$0.00
			\$0.00	\$0.00
	Other		\$0.00	\$0.00
			\$0.00	\$0.00
	TOTALS		\$15,000.00	\$ 0.00

F	Assumptions used in arriving at fiscal estimate.	Assumes LAB will accept ERS audited ACFR in lieu of a full scope audit
G	For expenditures and revenues which will occur obelow and then list each item and dollar amount s 1-3 Years 3-5 Years 1-3 Years 3-5 Years 1-3 Years 3-5 Years	on an annual basis over several years check the appropriate box separately.
н	List any costs not included in Sections D and E a	If a full scope audit, estimated cost would increase to approx. \$75,000 annually
1	Additional information. ERS on advice of outside city to bear audit cost	ide tax counsel will determine whether IRS rules permit ERS or require
J	This Note	chair.



	Date	6/22/2023	File Number	CC230374	⊠ Or	riginal	Substitute
Α	Subject	5-Year Actuarial Audit of Empl	oyes' Retirement	System as Require	ed by 2023 WI Act	12, Sect.4	4
В	Submitted	By (Name/Title/Dept./Ext.)	Bernard J Allen	, Executive Directo	r, Employes' Retire	ement Sy	stem
	This File	☐ Increases or decrease	es previously au	thorized expendit	ures.		
		Suspends expenditur	e authority.				
		☐ Increases or decrease	es city services.				
		Authorizes a departm	ent to administe	er a program affec	ting the city's fisc	cal liabili	ty.
С		☐ Increases or decrease	es revenue.				
		Requests an amendm	ment to the salary or positions ordinance.				
		☐ Authorizes borrowing	g and related debt service.				
		Authorizes contingen	t borrowing (aut	hority only).			
		Authorizes the expen	diture of funds r	not authorized in a	dopted City Budg	get.	
	Charge To	☐ Department Account			Contingent Fund	Į	
		☐ Capital Projects Fund	I		Special Purpose	Account	s
D		☐ Debt Service			Grant & Aid Acco	ounts	
		Other (Specify) TB	D				_

	Purpose	Specify Type/Use	Expenditure	Revenue
	Salaries/Wages		\$0.00	\$0.00
			\$0.00	\$0.00
	Supplies/Materials		\$0.00	\$0.00
			\$0.00	\$0.00
E	Equipment		\$0.00	\$0.00
			\$0.00	\$0.00
	Services	Actuarial Audit - full replication	\$65,000.00	\$0.00
			\$0.00	\$0.00
	Other		\$0.00	\$0.00
			\$0.00	\$0.00
	TOTALS		\$65,000.00	\$ 0.00

F	Assumptions used in arriving at fiscal estimate.	Utilizing cost for current valuation as the basis for the audit firm's cost for conducting a review assuming they will be replicating the entire process
G	For expenditures and revenues which will occur obelow and then list each item and dollar amount s 1-3 Years 3-5 Years 1-3 Years 3-5 Years 1-3 Years 3-5 Years	on an annual basis over several years check the appropriate box separately.
Н	List any costs not included in Sections D and E a	bove. If the audit is to include the 5-year experience study review also, then the costs may increase by an additional \$65,000
1	Additional information. Incidence of costs will of can absorb such a cost	depend upon a review of IRS regulations by Counsel to determine if ERS
J	This Note	hair.



	Date	6/22/2023 F	ile Number	CC230374		Original	Substitute
Α	Subject	Actuarially Determined Employer C	Contribution Po	ursuant to Wiscons	in Act 12, Sect.	44	
В	Submitted	By (Name/Title/Dept./Ext.)	erry Allen, Exe	cutive Director ERS	3		•
С	This File	☐ Increases or decreases p ☐ Suspends expenditure au ☐ Increases or decreases c ☐ Authorizes a department ☐ Increases or decreases re ☐ Requests an amendment ☐ Authorizes borrowing and ☐ Authorizes contingent bo ☐ Authorizes the expenditu	ity services. to administer evenue. to the salary d related deb	r a program affect or positions ordin t service. nority only).	ing the city's f		ity.
	Charge To	Department Account			Contingent Fu	nd	
		☐ Capital Projects Fund			Special Purpo	se Accoun	ts
D		☐ Debt Service			Grant & Aid A	ccounts	
		Other (Specify) Annual	City contribut	ion to ERS- Budge	t Office to deter	mine accou	unt

	Purpose	Specify Type/Use	Expenditure	Revenue
	Salaries/Wages		\$0.00	\$0.00
			\$0.00	\$0.00
	Supplies/Materials		\$0.00	\$0.00
			\$0.00	\$0.00
	Equipment		\$0.00	\$0.00
Е			\$0.00	\$0.00
	Services		\$0.00	\$0.00
			\$0.00	\$0.00
	Other	Annual Actuarially Determined Employer Contribution	\$48,000,000.00	\$0.00
			\$0.00	\$0.00
	TOTALS		\$48,000,000.00	\$ 0.00

F	Assumptions used in arriving at fiscal of	Please see the attached preliminary estimate by ERS actuary, dated January 25, 2023 (especially highlighted txet on p.1, 8 and 21.					
G	For expenditures and revenues which we below and then list each item and dollar list. The second sec	vill occur on an annual basis over several years check the appropriate box r amount separately. Annual recurring expense					
н	List any costs not included in Sections	D and E above.					
1	Preliminary estimate of \$48,000,000 is the increcremental cost beyond 2023 level for first year and will vary annually based on plan experience as reported by 2024 actuarial valuation and subsequent annual valuations.						
J	This Note	mmittee chair.					



The experience and dedication you deserve

January 25, 2023

Mr. Jerry Allen Executive Director Employes' Retirement System City of Milwaukee 789 N. Water Street, Suite 300 Milwaukee, WI 53202

Re: Actuarial Impact of CMERS Soft Close with Future Members Participating in WRS

Dear Jerry:

At your request, we have prepared an analysis of the potential actuarial impact to the City of Milwaukee Employes' Retirement System (CMERS) of a soft close with new hires participating in the Wisconsin Retirement System (WRS). For the purposes of this analysis, the change is assumed to be effective as of January 1, 2023 (i.e., the measurement date).

Changes from January 13, 2023 letter

Our meeting with Speaker Vos provided some clarification and additional requests which we address in this letter. This letter replaces our previous letter dated January 13, 2023. The changes in the current version include:

- "All-in" Costs During our meeting we learned that all in costs was not intended to be the lump sum costs provided in our earlier letter, but rather was intended to mean employer contributions would be sufficient to cover employer normal costs, administrative expenses and unfunded liability payments. We have removed the Development of "All-in" Lump Sum Cost shown on page 4 of our previous letter.
- Projections We have added the following baseline projections based on 1/1/2022 valuation. These baseline projections reflect the actuarial value of assets, but not the current stable employer contribution policy:
 - o Baseline using the same actuarial assumptions and methods used in the January 1, 2022 actuarial valuation report. Reflects all actuarial assumptions being met in all future years, including the 7.5% investment return assumption in 2022;
 - Baseline with proposed demographic assumptions and UAAL amortization method being considered by the CMERS Board of Trustees; and
 - o Baseline with proposed demographic assumptions and UAAL amortization method, and the estimated \$5.5 billion asset value as of January 1, 2023.



- Change in Funding Methods We made the following changes in funding methods for reasons stated below. Changing the funding methods changes the timing of contributions, but not the overall liability being funded.
 - O Use of Entry Age Cost Method We used the Aggregate cost method in the January 13 letter to estimate the "All-in" Lump Sum Cost. This method does not provide an explicit allocation of the total cost to the normal cost and unfunded actuarial accrued liability (UAAL) contributions. The Entry Age Normal method does provide for such an allocation and is used in the current projections. It is also the same cost method used for the current valuation.
 - O Use of an Asset Smoothing Method (Actuarial Value of Assets) We used the market value of assets to estimate the "All-in" Lump Sum Cost in the January 13 letter. The actuarial valuation process currently uses an asset smoothing method which recognizes investment experience different from our assumption over a five-year period. This smoothing method ameliorates employer contribution volatility, and we have used this methodology to develop employer contributions under the three Baseline scenarios shown on page 4 of this letter.
 - O Amortization Period For the plan closure scenarios, we have included a ten year amortization period, which we recommend, as well as the twenty and thirty year scenarios that were requested. Under these scenarios, the System's UAAL is amortized over a closed period using level-dollar payments, rather than as a level-percent of payroll that is currently used.
- More Detail We have provided more detail in the contribution development, including the
 employer's share of the normal cost, administrative expenses and payments on the unfunded
 actuarial accrued liability.
- *City Only Contributions* In the January 13 letter, the contributions shown represented the total amounts for all CMERS employers. We have isolated the contribution amounts attributable to the City versus non-City employers.

Additional Requested Analysis

As mentioned previously, additional points of analysis were requested as a result of our meeting with Speaker Vos. These include:

- *COLA* We have calculated the impact to key actuarial valuation results if COLAS are eliminated for the following groups:
 - o All members
 - o All Actives
 - o All Actives hired after 1/1/2000 (the Global Pension Settlement)
 - o All Actives hired after 11/23/2011
- Member Contributions Consideration is being given to increasing member contributions.

Background

Current Provisions

• Current and future employees of the City of Milwaukee, including Police and Fire, and other participating employers remain in CMERS.



Proposed Provisions

- CMERS is closed to all new hires. Current members continue to accrue benefits under CMERS.
- All future employees of the City of Milwaukee, including Police and Fire, and other participating employers move to WRS after January 1, 2023.
- Contributions are made to the retirement system in which the member participates.

The effective employer contribution rates to WRS during calendar year 2023 are 6.80% for General members and 18.10% for Protective members without Social Security coverage. Police and Fire members under CMERS do not participate in Social Security so the 18.10% WRS employer contribution rate was used in our modeling. For the purposes of our analysis, these employer contribution rates are assumed to remain unchanged. We do not have the necessary information to analyze the potential impact on employer contribution rates under WRS as a result of the participation of new employees from the City of Milwaukee, but the impact would be gradual and unfold over time. Such analysis is outside the scope of this project.

Baseline Projection Results

One of the requested changes to our analysis in the January 13 letter was to include results under a "baseline" scenario where current and future employees continue to participate in CMERS. As we mentioned in our prior letter, there are many differences between the System's current assumptions, methods and policies, and those proposed. To help identify and quantify the components of change, the following table includes projected employer contributions to CMERS under the three scenarios. Comparison of results will identify the incremental impact of each change.

The three scenarios are as follows:

- Scenario 1- Baseline Projection of results based on the actuarial assumptions and methods used in the January 1, 2022 actuarial valuation report. Assumes all actuarial assumptions are met in all future years, including a 7.5% investment return in 2022.
- Scenario 2 Experience Study Projection of results based on Scenario 1, but using the proposed demographic assumptions and UAAL amortization method from our recent experience study, with a 7.50% investment return assumption. Note the Board has not yet taken action on the recommendations in the experience study.
- Scenario 3 Experience Study & Estimated January 1, 2023 Market Value of Assets of \$5.5 Billion Projection of results based on Scenario 2 and estimated market value of assets as of January 1, 2023 of \$5.5 billion. As seen in the table on the following page, employer contributions increase in future years even if the investment return assumption of 7.50% used in these projections is achieved after calendar 2022 due to the deferred recognition of investment losses.

As mentioned earlier, the figures shown in the following table do not reflect the current stable employer contribution policy for 2023 and thereafter. Instead, the amounts shown after 2022 represent the Actuarial Determined Employer Contribution (ADEC) amounts and assume that the full contribution is made each year. Because the plan is still open to new hires, the UAAL contribution is calculated as a level percent of payroll. Under Scenarios 2 and 3, the increase to the UAAL in 2023 resulting from the change to the demographic assumptions is amortized over a closed 25-year period. Additionally, under these scenarios future changes to the UAAL resulting from actual experience that is different from assumed, including the negative investment performance during 2022 in Scenario 3, are amortized over closed 20-year periods.



	Projection of Employer Contributions CMERS Remains Open to New Hires (Amounts in Millions)											
Bosciilli	To be the same			Scenario								
	52 U.S	(1)		(3)								
		Baseline	Ex	perience Study		Experience St Billion January	udy & Estimat / 1, 2023 Mark	The second secon				
Year	City	Other Total	City	Other	Total	City	Other	Total				
2022	\$ 67 \$	14 \$ 81	\$ 67	\$ 14 \$	81	\$ 67 \$	14 \$	81				
2023	118	27 145	117	33	151	129	37	166				
2024	98	21 119	100	28	128	129	36	165				
2025	86	17 104	91	25	116	135	38	173				
2026	76	14 90	83	22	105	142	39	181				
2027	77	14 91	84	22	106	158	43	201				
2028	77	14 91	84	22	107	160	44	203				
2029	78	14 92	85	22	108	162	44	207				
2030	79	14 93	87	22	109	165	44	210				
2031	80	13 94	88	22	110	168	45	213				
2032	81	13 94	89	22	112	171	45	217				
2033	82	13 95	90	23	113	174	46	220				
2034	82	13 96	91	23	114	176	47	223				
2035	69	10 78	93	24	116	179	48	227				
2036	69	10 79	94	24	118	182	49	231				
2037	84	13 98	96	24	120	185	50	236				
2038	98	16 114	98	24	122	189	51	240				
2039	132	23 155	100	25	124	194	51	245				
2040	153	26 180	76	17	92	185	48	233				
2041	174	30 204	78	17	95	189	49	237				
2042	178	30 208	80	18	97	206	53	259				
2043	182	31 212	82	18	100	202	52	254				
2044	83	11 95	84	18	103	84	18	103				
2045	85	11 97	87	19	105	87	19	105				
2046	87	12 99	89	19	108	89	19	108				
2047	90	12 102	92	20	111	1	20	111				
2048	92	12 104	94	20	115	1	20	115				
2049	94	13 10	7 97	21	118	1	21	118				
2050	96	13 109	100	21	121	100	21	121				

Additional detail for these projections can be found in the appendix.

Actuarial Impact

We were asked to analyze the potential cost impact of the proposed change under six scenarios. These scenarios reflect three investment return assumptions (7.5%, 7.0% and 6.8%) and two amortization periods for funding the System's UAAL as of January 1, 2023 (20 years and 30 years). In addition to showing amortization periods requested, we are including 10-year amortization scenarios, which is our recommendation for a plan which is closed to new hires. Please note the three investment return assumptions used in this analysis were not selected by Cavanaugh Macdonald but were prescribed by others. By providing the requested analysis it should not be inferred that any of these assumptions are compliant with Actuarial Standards of Practice and thus reasonable for the purpose of funding CMERS under the proposed scenario.



The following table shows the estimated actuarial valuation results as of January 1, 2023 under the three proposed investment return assumptions. These results reflect the same changes due to the experience study and the estimated January 1, 2023 market value of assets of \$5.5 billion as shown in Scenario 3 under the Baseline projections (page 3).

Summary of Liabilities and Funded Ratios (Amounts in Millions)									
Amounts as of		Invest	men	t Return Assun	nptio	i			
January 1, 2023:	7.50%		7.00%			6.80%			
Liabilities 1) Present Value of Projected Benefits 2) Present Valuae of Future Normal Costs 3) Actuarial Accrued Liability: 1 - 2 Assets 4) Market Value 5) Actuarial Value	\$	7,763 743 7,020 5,478 5,729	\$	8,277 864 7,413 5,478 5,729	\$	8,500 920 7,580 5,478 5,729			
 UAAL 6) Market Value Basis: 3 - 4 7) Actuarial Value Basis: 3 - 5 Funded Ratio 6) Market Value Basis: 3 ÷ 4 7) Actuarial Value Basis: 3 ÷ 5 	\$	1,542 1,291 78.03% 81.61%	\$	1,935 1,684 73.90% 77.28%	\$	2,102 1,851 72.27% 75.58%			

As mentioned previously, we have analyzed the potential cost impact of closing the System to future hires under three investment return assumptions using three different amortization periods. In total, our results reflect the following nine scenarios:

- Scenarios 4a, 4b, and 4c Three scenarios based on a 7.50% investment return assumption with 10, 20 and 30-year level-dollar amortization of CMERS projected UAAL as of January 1, 2023, respectively.
- Scenarios 5a, 5b, and 5c Three scenarios based on a 7.00% investment return assumption with 10, 20 and 30-year level-dollar amortization of CMERS projected UAAL as of January 1, 2023, respectively.
- Scenarios 6a, 6b, and 6c Three scenarios based on a 6.80% investment return assumption with 10, 20 and 30-year level-dollar amortization of CMERS projected UAAL as of January 1, 2023, respectively.

Under these scenarios, future changes to the UAAL resulting from actual experience that is different from assumed are amortized over the remaining amortizing period. Please note that this analysis addresses only the actuarial impact of the proposed changes to the plan design. There could be other implications, either positive or negative, that result from adopting this proposed change. We recommend that other stakeholders provide input on the non-actuarial aspects of the proposed change.



The following table illustrates 30-year projections of the employer contributions to both CMERS and WRS under the six scenarios. Additional details can be found in the appendix.

	Projection of Total Employer Contributions (ERS + WRS) Soft Close of CMERS with New Hires Participating in WRS										
				(Amounts	in Millions) Scenario						
Year	(4b) 7.50% 30-Year	(4c) 7.50% 20-Year	(4c) 7.50% 10-Year	(5a) 7.00% 30-Year	(5b) 7.00% 20-Year	(5c) 7.00% 10-Year	(6a) 6.80% 30-Year	(6b) 6.80% 20-Year	(6c) 6.80% 10-Year		
2022	\$ 81	\$ 81	\$ 81	\$ 81	\$ 81	\$ 81	\$ 81 \$	81 \$	81		
2023	183	201	270	217	242	329	231	259	353		
2024	184	203	272	218	243	329	232	259	355		
2025	186	205	274	220	245	332	234	262	356		
2026	188	207	275	221	246	333	236	263	358		
2027	190	209	277	223	248	335	236	264	359		
2028	191	211	279	225	249	336	239	266	361		
2029	194	213	282	227	252	338	240	268	362		
2030	197	216	284	229	254	340	242	270	364		
2031	199	218	286	231	255	343	244	272	367		
2032	201	220	288	232	258	345	246	274	368		
2033	204	223	82	235	260	90	248	276	93		
2034	206	225	85	237	261	91	250	277	95		
2035	209	228	88	240	265	95	253	280	97		
2036	213	232	92	243	268	98	256	283	101		
2037	216	235	94	246	270	100	258	285	103		
2038	219	238	98	249	274	104	262	288	106		
2039	223	243	102	252	278	107	265	293	110		
2040	226	245	105	255	280	109	267	295	112		
2041	230	249	109	259	283	113	271	298	116		
2042	233	252	112	262	287	117	274	302	118		
2043	237	116	116	266	120	120	277	122	122		
2044	241	119	119	268	123	123	279	125	125		
2045	245	124	124	273	127	127	284	129	129		
2046	248	127	127	276	131	131	286	132	132		
2047	253	132	132	280	134	134	291	136	136		
2048	258	137	137	285	139	139	295	141	141		
2049	261	141	141	287	142	142	299	144	144		
2050	267	145	145	293	147	147	303	148	148		
2051	174	133	307	206	133	339	219	133	352		
2052	174	139	312	206	139	345	219	139	358		

The proposed change to close CMERS to new members significantly increases the funding risk. While the number of active employees participating in CMERS will begin to decrease immediately, the benefit payments made by CMERS are expected to increase for many years before declining. The changes in the demographic profile of the system over time increases the maturity of the Plan, which may result in higher volatility in the actuarial contribution rate. In addition, there are also risks to the System that investment returns and demographic experience will be different from expected, or that employer contributions to either WRS or CMERS will be different from expected. Any of these events has the potential to significantly impact the funding status of the System.



Impact of Eliminating COLAs

The following tables illustrate the impact of eliminating COLAs for the various groups identified, using both a 7.50% and a 6.80% investment return assumption.

7.50% Investment Return Assumption

Impact of Elin	ninat	ing Future Cos (Amounts in		ents	(COLAs)				
			Group for	Whi	ch COLAs are	Elin	ninated		
Amounts as of January 1, 2022		None	Actives hired er 11/23/2011		Actives hired fter 1/1/2000		All Actives	A	All members
Normal Cost	\$	92,704	\$ 87,363	\$	81,030	\$	78,436	\$	78,436
Actuarial Accrued Liability (AAL)		6,899,859	6,872,008		6,711,717		6,553,799		5,651,019
Actuarial Value of Assets		5,673,797	5,673,797		5,673,797		5,673,797		5,673,797
Unfunded AAL (UAAL)	\$	1,226,062	\$ 1,198,211	\$	1,037,920	\$	880,002	\$	(22,778)
Funded Ratio		82.23%	82.56%		84.54%		86.57%		100.40%
Actuarial Determined Employer Contribution Rate		27.07%	38.07%		33.28%		29.19%		8.53%

6.80% Investment Return Assumption

Impact of Dir	nina	ting Future Cos (Amounts i		ents	(COLAs)				
			Group for	Whi	ch COLAs are	Din	inated		
Amounts as of January 1, 2022		None	Actives hired er 11/23/2011		Actives hired fter 1/1/2000		All Actives	A	II members
Normal Cost	\$	108,490	\$ 101,783	\$	93,803	\$	90,492	\$	90,492
Actuarial Accrued Liability (AAL)		7,453,790	7,419,677		7,230,567		7,049,012		6,044,901
Actuarial Value of Assets		5,673,797	5,673,797		5,673,797		5,673,797		5,673,797
Unfunded AAL (UAAL)	\$	1,779,993	\$ 1,745,880	\$	1,556,770	\$	1,375,215	\$	371,104
Funded Ratio		76.12%	76.47%		78.47%		80.49%		93.86%
Actuarial Determined Employer Contribution Rate		35.13%	52.16%		46.54%		41.88%		19.27%

For purposes of this analysis, we have utilized the proposed demographic assumption changes from our recent experience study under all scenarios. In addition, it is our understanding that the System will not remove COLAs for any group unless the plan is also closed to new hires. Therefore, under the scenarios where COLAs are eliminated, the UAAL was re-amortized as a level-dollar amount with a closed 10-year amortization period to reflect closing the plan to new hires.



Member Contributions

Increasing member contributions results in a direct reduction in employer contributions. Consideration is being given to setting member contribution rates based on the results of the annual actuarial valuation (e.g., one-half of the total normal cost). Based on the recommended assumptions, the projected 2023 member contributions are estimated to be around \$30 million and the total normal cost is estimated to around \$90 million. This would suggest member contributions would increase by \$15 million and employer contributions would decrease by a like amount. The increase would not be uniform across employer groups. In this example, the increase would be allocated to the Police and Fire because General members already contribute about one-half of the normal cost. Different assumptions and plan provisions would result in different member contribution rates by group.

Prescribed Assumptions and Methods

As noted below, the investment return assumption and the Funding Policy have been prescribed. However, in order to meet Actuarial Standards of Practice and ensure the sound funding of CMERS, if the System is closed to new hires, our recommendation would be:

- Investment Return Assumption Closing a retirement system to new hires is a significant change with various funding implications because it changes both the future contributions and benefit payments. In such a situation, we would typically recommend that CMERS conduct a thorough analysis of the investment return assumption with the help of their investment consultant and actuary. It is impossible to provide a specific recommendation without performing such an analysis. However, in our professional opinion, it is likely that the recommended investment return assumption would not match any of the proposed assumptions listed above. Therefore, when analyzing the cost results provided with this letter, the user should understand that the costs are heavily dependent on the investment return assumption and actual costs may vary significantly from these estimates. Based on our professional judgement, the closing of CMERS would likely require a lower investment return, possibly lower than 6.8%. A lower investment return assumption would result in higher employer contributions to CMERS.
- Funding Policy The GFOA Best Practice entitled Core Elements of a Funding Policy recommends that governments adopt a Funding Policy that provides reasonable assurance that the cost of those benefits will be funded in an equitable and sustainable manner. Specifically, under Additional Considerations for Plans Closed to New Entrants it recommends a shorter amortization period of no more than 10 years. This shorter amortization period would result in higher contributions in the short term compared to the 20- and 30-year amortization period prescribed for this analysis. We have included results based on a 10-year amortization in this analysis.

Data, Assumptions and Methodology

Unless otherwise noted, the analysis contained in this letter is based on the January 1, 2022 actuarial valuation. To the extent any of that data is inaccurate, our analysis may need to be revised. Notable exceptions include:

• Assumptions Unless noted below, the assumptions and methods used in analyzing this proposal are the same as those used in the January 1, 2022 actuarial valuation, which are shown in Appendix C of that report.



- o *Prescribed Investment Return Assumption*: The investment return assumption alternatives of 7.50%, 7.00% and 6.80% have been prescribed by Speaker Vos.
- o Impact of the 2017-2021 Experience Study: The CMERS Board has not yet adopted the set of actuarial assumptions to be used for the January 2023 through January 2027 actuarial valuations. While not yet adopted, we have based our analysis on the recommendations that have been made, as outlined below. Note that if an assumption is not listed below, the assumption is unchanged from the January 1, 2022 actuarial valuation.
 - Retiree Mortality
 - General Employees: Pub-2010 Below Median Employee Mortality Table with 1-year age setback for males and 2-year set forward for females
 - Police/Fire: Pub-2010 Public Safety Mortality Table with 1-year age set forward for males and females
 - Future improvements: Scale MP-2021
 - Other Mortality
 - Same family of tables (Pub-2010) with same age adjustments for active members, disabled retirees and beneficiaries/joint annuitants
 - Future improvements: Scale MP-2021
 - Retirement
 - Lower early retirement rates for General Employees and adjust normal retirement rates for males/females to better fit experience (some increase/some decrease).
 - Increase retirement rates for Police and Fire to better reflect actual experience.
 - Termination
 - Move to service-based assumption for both General and Police and Fire (separate assumptions for each). Higher rates for earlier durations.
 - Disability
 - Lower the disability assumption for all 3 groups to partially reflect the observed experience.
 - Duty-related Disability
 - 20% for General and Non-union Police and Fire. 60% for MPA Police and 75% for MPFFA Fire. None eligible for 90% benefit.
 - Salary Increase
 - Move to service-based assumption for both General Employees and Police/Fire with 3.0% general wage increase assumption
- Prescribed Funding Policy: For purposes of this study, the funding policy for CMERS has been prescribed for the scenarios where CMERS is closed to future hires. The methodology is either a 20 or 30-year level-dollar amortization of the UAAL based on the entry age normal cost method using the market value of assets.
- Stable Employer Contribution Policy: This analysis is not based on the Stable Employer Contribution Policy which is currently specified in city ordinances. Use of this policy impacts the timing of contributions, not the overall cost.
- Impact of Calendar 2022 Market Returns: This analysis is based on the preliminary market value of assets as of January 1, 2023, as provided by CMERS staff. Final asset values will not be available until May 2023.
- WRS Employer Contribution Rates: The WRS Employer Contribution Rates are the rates effective for 2023. We recommend the impact of future CMERS members participating in WRS be estimated by the WRS actuary.



- Protective Occupations without Social Security 18.10%
- o General, Teachers, Executive and Elected Officials 6.80%

The comments and analysis contained in this letter are not intended to give exact calculations of costs. They should be considered to be estimates. The emerging costs will vary from those presented in this letter to the extent that actual experience differs from that projected by the actuarial assumptions. This cost analysis has been prepared in accordance with generally recognized and accepted actuarial principles and practices which are consistent with the principles prescribed by the Actuarial Standards Board (ASB) and the Code of Professional Conduct and Qualification Standards for Public Statement of Actuarial Opinion of the American Academy of Actuaries.

Models are designed to identify anticipated trends and to compare various scenarios rather than predicting some future state of events. The projections are based on the System's estimated financial status on January 1, 2022, and project future events using a few sets of assumptions out of a range of many possibilities. The projections do not predict the System's financial condition or its ability to pay benefits in the future and do not provide any guarantee of future financial soundness of the System. Over time, a defined benefit plan's total cost will depend on a number of factors, including the amount of benefits paid, the number of people paid benefits, the duration of the benefit payments, plan expenses, and the amount of earnings on assets invested to pay benefits. These amounts and other variables are uncertain and unknowable at the time the projections were made. Because actual experience will not unfold exactly as expected, actual results can be expected to differ from the projections. To the extent that actual experience deviates significantly from the assumptions, results could be significantly better or significantly worse than indicated in this study.

We have not explored any legal issues with respect to the proposed plan changes. We are not attorneys and cannot give legal advice on such issues. We suggest that you review this proposal with counsel.

We, Patrice A. Beckham, FSA, Larry Langer, ASA, and Aaron Chochon, ASA are consulting actuaries with Cavanaugh Macdonald Consulting, LLC. We are members of the American Academy of Actuaries, Fellows or Associates of the Society of Actuaries, and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.

If you have any questions or additional information is needed, please let us know.

Sincerely,

Patrice A. Beckham, FSA, EA, FCA, MAAA

Principal and Consulting Actuary

Clare Clack

Patrice Beckham

Larry Langer ASA, EA, FCA, MAAA Principal and Consulting Actuary

Aaron Chochon, ASA, EA, FCA, MAAA

Senior Actuary



APPENDIX

Additional Detail for Projection Results



	MIST	N No.			S	cenario	1			(Lens		
				Projec	tion of E	mployer	Contrib	utions				
				CME	RS Rema	ins Ope	n to New	Hires				
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Year	City	Other	Total	City	Other	Total	City	Other	Total	City	Other	Total
2022	\$ 49	\$ 9	\$ 58	\$ 5	\$ 1	\$ 6	\$ 13	\$ 5	\$ 17	\$ 67	\$ 14	\$ 81
2023	50	8	58	5	1	6	63	18	81	118	27	145
2024	51	8	59	5	1	6	41	12	53	98	21	119
2025	52	8	60	5	1	7	29	8	37	1	17	104
2026	53	8	61	6	1	7	17	5	22	l	14	90
2027	54	8	62	6	1	7	17	5	22	77	14	91
2028	54	8	62	6	1	7	17	5	22	77	14	91
2029	55	8	63	6	1	7	17	5	21	78	14	92
2030	56	8	64	6	1	7	17	4	21	79	14	93
2031	57	8	65	6	1	8	16	4	21	80	13	94
2032	58	8	66	7	1	8	16	4	20	81	13	94
2033	59	8	67	7	1	8	16	4	20	82		95
2034	60	8	68	7	1	8	15	4	19	82		96
2035	61	8	69	7	1	8	1	1	1	69	10	78
2036	62	8	70	7	1	9	0	1	0	69	10	79
2037	63	8	72	7	1	9	13	4	17			98
2038	65	9	73	8	. 1	9	26	6	32		16	114
2039	66	9	75	8	1	9	58	12	70			155
2040	68	9	77	8	1	9	77	16	93		26	180
2041	69	9	79	8	1	10	96	19	115	1		204
2042	71	9	80	9	1	10	98	20	118	1	30	208
2043	73	9	82	9	1	10	100	20	120			212
2044	74	10	84	9	1	10	0	0	0			95
2045	76	10	86		2	11	0	0	0		11	97
2046	78	10	88		2	11	0	0	0	1	12	99
2047	80	10	90	10	2	11	0	0	0			102
2048	82	11	92	10	2	12	0	0	0			104
2049	84	11	95	10	2	12	0	0	0	1		107
2050	86	11	97	10	2	12	0	0	0			109
2051	88	12	100	11	2	12	0	0	0	99		112
2052	90	12	102	11	2	13	0	0	0	101	14	115



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						enario						
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	Employ	er Norma	d Cost	Admi	n Expens		ce Study	AL Paymo	ant.	Total F	R Contri	bution
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Year	City	Other	Totai	City	Other	Total				City	Other	Total
2022	\$ 49	\$ 9	\$ 58	\$ 5 5	1 \$	6	\$ 13	\$ 5	\$ 17	\$ 67		
2023	48	12	61	5	1	6	64	20	84	117	33	151
2024	49	12	61	5	1	6	46	15	61	100	28	128
2025	49	12	62	5	1	7	37	12	48	91	25	116
2026	50	12	62	5	1	7	27	9	36	83	22	105
2027	51	12	63	6	1	7	27	9	36	84	22	106
2028	52	12	64	6	1	7	27	9	36	84	22	107
2029	52	12	65	6	1	7	27	9	36	85	22	108
2030	54	12	66	6	1	7	27	9	36	87	22	109
2031	55	12	67	6	1	8	27	9	36	88	22	110
2032	56	12	68	6	2	8	27	9	36	89	22	112
2033	57	13	69	6	2	8	27	9	36	90	23	113
2034	58	13	71	7	2	8	27	9	35	91	23	114
2035	59	13	72	7	2	8	27	9	35	93	24	116
2036	61	13	74	7	2	9	26	9	35	94	24	118
2037	63	14	76	7	2	9	26	9	35	96	24	120
2038	64	14	78	7	2	9	26	9	35	98	24	122
2039	66	14	80	7	2	9	26	9	34	100	25	124
2040	68	15	83	8	2	9	0	1	0	76	17	92
2041	70	15	85	8	2	10	0	1	0	78	17	95 97
2042	72	15	87	8 8	2 2	10	0	0	0	80 82	18 18	100
2043	74 76	16 16	90 92	8	2	10 10	0 0	0	0	84	18	100
2044	78	16	94	8 9	2	11	0	0	0	87	19	105
2045	80	17	97	9	2	11	0	0	0	89	19	103
2046	80	17	100	9	2	11		0	0	92	20	111
2047	85	18	103	9	2	12	0	0	0	94	20	115
2049	87	19	103	10	2	12	0	0	0	97	21	118
2050	90	19	100	10	2	12		0	0	100	21	121
2051	92	20	112	10	2	12	Ö	0	0	103	22	125
2052	95	20	115	10	2	13	0	0	0	105	23	128



		SERVICE SERVICE	100		S	cenario	3	-210			47/17/18	
				Projec	tion of Er			utions				
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Year	City	Other	Total	City	Other	Total	City	Other	Total	City	Other	Total
2022	\$ 49	\$ 9 \$	5 58	\$ 5	\$ 15	6	\$ 13	\$ 5	\$ 17	\$ 67	\$ 14.5	8 81
2023	48	12	61	5	1	6	76	24	100	129	37	166
2024	49	12	61	5	1	6	75	23	98	129	36	165
2025	49	12	62	5	1	7	81	24	105	135	38	173
2026	50	12	62	5	1	7	87	26	112	142	39	181
2027	51	12	63	6	1	7	101	30	131	158	43	201
2028	52	12	64	6	1	7	103	30	133	160	44	203
2029	52	12	65	6	1	7	104	31	135	162	44	207
2030	54	12	66	6	1	7	106	31	137	165	44	210
2031	55	12	67	6	1	8	108	31	138	1	45	213
2032	56	12	68	6	2	8	109	31	141	171	45	217
2033	57	13	69	6	2	8	111	32	142	174	46	220
2034	58	13	71	7	2	8	112	33	144	176	47	223
2035	59	13	72	7	2	8	113	34	147		48	227
2036	61	13	74	7	2	9	114	34	149		49	231
2037	63	14	76	7	2	9	116	35	151		50	236
2038	64	14	78	7	2	9	118	35	153	189	51	240
2039	66	14	80	7	2	9	120	35	155		51	245
2040	68	15	83	8	2	9	109	32	141		48	233
2041	70	15	85	8	2	10	111	32	143		49	237
2042	72	15	87	8	2	10	126	36	161		53	259
2043	74	16	90	8	2	10	120		154	202	52	254
2044	76	16	92	8	2	10	0	0	0	1	18	103
2045	78	17	94	9	2	11	0	0	0	1	19	105
2046	80	17	97	9	2	11	0	0	0	89	19	108
2047	82	17	100	9	2	11	0	0	0	92	20	111
2048	85	18	103	9	2	12	0	0	0	94	20	115
2049	87	19	106	10	2	12	0	0	0		21	118
2050	90	19	109	10	2	12	0	0	0		21	121
2051	92	20	112	10	2	12	0	0	0	103	22	125
2052	95	20	115	10	2	13	0	0	0	105	23	128



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2022	\$ 49	\$ 9 5	58	\$ 5	\$ 1 5	6	\$ 13	\$ 5	\$ 17	\$ 67	\$ 14	\$ 81	s -	\$ -	\$ -	\$ 67	\$ 14	
2023	43	10	53	5	1	6	93	29	122	141	40	181	1	1	2	142	41	183
2024	42	9	51	5	1	6	93	28	122	140	39	179	3	2	6	143	41	184
2025	40	9	49	5	1	7	94	28	121	139	38	177	6	3	9	145	41	186
2026	39	8	47	5	1	7	94	28	121	139	37	175	8	4	13	147	41	188
2027	38	7	45	6	1	7	94	27	121	138	36	174	11	5	16	149	41	190
2028	36	7	43	6	1	7	94	27	121	136	35	172	14	6	20	150	41	191
2029	35	6	41	6	1	7	95	27	121	135	35	170	17	7	24	152	42	194
2030	34	6	39	6	1	7	95	27	121	135	34	168	20	8	28	155	42	197
2031	32	5	38	6	1	8	95	26	121	134	33	167	23	9	32	157	42	199
2032	31	5	36	6	1	8	96	26	121	133	32	165	26	10	36	159	42	201
2033	29	5	33	6	1	8	96	26	122	131	32	163	30	11	41	161	43	204
2034	27	4	31	7	2	8	95	26	121	129	32	161	33	12	46	162	44	206
2035	26	4	29	7	2	8	95	27	122	127	32	159	37	13	50	164	45	209
2036	24	4	28	7	2	9	95	27	121	126	32	158	41	14	55	167	46	213
2037	23	3	26	7	2	9	95	27	121	125	32	156	44	15	59	169	47 47	216 219
2038	22	3	25	7	2	9	95	26	121	124	31 31	155	48 52	16 17	64 68	172	47	219
2039	20	3	23	8	2	9	95	26	121	123		154	55	17	73	178	48	226
2040	19	3	22	8	2	9	96 96	26 25	121	123 122	30 30	153 152	59	19	78	181	49	230
2041	18	2	21	8 8	2 2	10 10	96	25 25	121 121	122	29	150	63	20	83	184	49	233
2042	17	2	19 17	8	2	10	96	25	121	120	29	149	67	21	88	187	50	237
2043	13	2	15	8 9	2	10	96	26	121	118	30	149	71	22	93	189	52	241
2044	12	2	14	9	2	11	95	26	121	116	30	146	76	23	99	192	53	245
2043	10	1	12	9	2	11	94	27	121	113	31	144	80	24	104	193	55	248
2040	9	1	10	9	2	11	93	28	121	111	32	143	85	25	110	196	57	253
2047	8	1	9	9	2	12	92	29	121	109	33	142	90	26	116	199	59	258
2049	6	1	7	9	3	12	91	30	121	106	34	141	94	27	121	200	61	261
2050	5	1	6	9	3	12	89	32	121	104	36	140	99	28	127	203	64	267
2051	4	1	5	9	3	12	88	34	121	101	38	139	103	30	133	204	68	272
2052	3	1	4	9	3	13	86	35	121	99	39	138	108	31	139	207	70	277



				Scena		50% Inv	ose of CN vestment	(Amou	h New H nts in M	lires Par lillions)	outions ticipating i							
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Year	City	Other	Total	City	Other	Total	City	Other	Total	City	Other	Total	City	Other	Total	City	Other	Total
2022	\$ 49	\$ 9 5	\$ 58	\$ 5	\$ 1 5	\$ 6	\$ 13	\$ 5	\$ 17	\$ 67	\$ 14 5	81	\$ -	\$ -	\$ -	\$ 67	\$ 14 5	81
2023	43	10	53	5	1	6	108	33	141	155	44	200	1	1	2	156	45	201
2024	42	9	51	5	1	6	108	33	141	155	43	198	3	2	6	158	45	203
2025	40	9	49	5	1	.7	108	32	141	154	42	196	6	3	9	160	45	205
2026	39	8	47	5	1	7	109	32	141	154	41	195	8	4	13	162	45	207
2027	38	7	45	6	1	7	109	31	141	153	40	193	11	5	16	164	45	209
2028	36	7	43	6	1	7	110	31	141	152	39	191	14	6	20	166	45	211
2029	35	6	41	6	1	7	110	31	141	150	39	189	17	7	24	167	46	213
2030	34	6	39	6	1	7	110	31	141	150	38	188	20	8	28	170	46	216
2031	32	5	38	6	1	8	111	30	141	149	37	186	23	9	32	172	46	218
2032	31	5	36	6	1	8	111	30	141	148	36	184	26	10	36	174	46	220
2033	29	5	33	6	1	8	111	30	141	146	36	182	30	11	41	176	47	223
2034	27	4	31	7	2	8	110	30	141	144	36	180	33	12	46	177	48	225
2035	26	4	29	7	2	8	110	31	141	142	36	179	37	13	50	179	49	228
2036	24.	4	28	7	2	9	110	31	141	141	36	177	41	14	55	182	50	232
2037	23	3	26	7	2	9	110	31	141	140	36	176	44	15	59	184	51	235
2038	22	3	25	7	2	9	110	31	141	139	35	175	48	16	64	187	51	238
2039	20	3	23	8	2	9	111	30	141	139	35	173	52	17	68	191	52	243
2040	19	3	22	8	2	9	111	30	141	138	34	172	55	18	73	193	52	245
2041	18	2	21	8	2	10	111	29	141	137	34	171	59	19	78	196	53	249
2042	17	2	19	8	2	10	112	29	141	136	33	170	63	20	83	199	53	252
2043	15	2	17	8	2	10	-	-	-	24	4	27	67	21	88	91	25	116
2044	14	2	15	9	2	10	-	-	-	22	4	26	71	22	93	93	26	119
2045	12	2	14	9	2	11	-	-	-	21	4	24	76	23	99	97	27	124
2046	10	1	12	9	2	11	-	-	-	19	4	23	80	24	104	99	28	127
2047	9	1	10	9	2	11	-	-	-	18	4	22	85	25	110	103	29	132
2048	8	1	9	9	2	12	-	-	-	17	4	20	90	26	116	107	30 31	137
2049	6	1	7	9	3	12	-	-	-	16	4	19	94	27	121	110		141 145
2050	5	1	6	9	3	12	-	-	-	14	4	18	99 103	28	127 133	113	32 34	151
2051	4	1	5	9	3	12	-	-	-	14	4	17		30			34 35	156
2052	3	1	4	9	3	13	-	-	-	13	4	17	108	31	139	121	33	130



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	Employ	er Norma	l Cost	Adm	in Expens	es	UA	AL Paym	ent	CMERS	ER Cont	tribution		+ 500	360	1	ALC:	
Year	City	Other	Total	City	Other	Total	City	Other	Total	City	Other	Total	City	Other	Total	City	Other	Total
2022	\$ 49	\$ 9 :	\$ 58	\$ 5	\$ 1 \$	6	\$ 13	\$ 5	\$ 17	\$ 67	\$ 14	\$ 81	\$ -	\$ -	\$ -	\$ 67	\$ 14	\$ 81
2023	43	10	53	5	1	6	160	49	209	208	60	268	1	1	2	209	61	270
2024	42	9	51	5	1	6	161	48	209	208	59	266	3	2	6	211	61	272
2025	40	9	49	5	1	7	161	48	209	207	58	265	6	3	9	213	61	274
2026	39	8	47	5	1	7	162	47	209	207	56	263	8	4	13	215	60	275
2027	38	7	45	6	1	7	163	46	209	206	55	261	11	5	16	217	60	277
2028	36	7	43	6	1	7	163	46	209	205	54	259	14	6	20	219	60	279
2029	35	6	41	6	1	7	163	46	209	204	54	257	17	7	24	221	61	282
2030	34	6	39	6	1	7	164	45	209	203	53	256	20	8	28	223	61	284
2031	32	5	38	6	1	8	164	45	209	203	51	254	23	9	32	226	60	286
2032	31	5	36	6	1	8	165	44	209	202	50	252	26	10	36	228	60	288
2033	29	5	33	6	1	8	-	-	-	35	6	41	30	11	41	65	17	82
2034	27	4	31	7	2	8	-	-	-	34	6	39	33	12	46	67	18	85
2035	26	4	29	7	2	8	-	-	-	32	6	38	37	13	50	69	19	88
2036	24	4	28	7	2	9	-	-	-	31	6	36	41	14	55	72	20	92
2037	23	3	26	7	2	9	-	-	-	30	5	35	44	15	59	74	20	94
2038	22	3	25	7	2	9	-	-	-	29	5	34	48	16	64	77	21	98
2039	20 19	3	23	8	2 2	9	-	-	-	28	5 5	32	52	17	68 73	80	22	102
2040	18	2	22 21	8 8	2	10	1	-	-	27 26	5	31 30	55 59	18 19	78	82 85	23 24	105 109
2041	17	2	19	8	2	10	[-	-	25	4	29	63	20	83	88	24	112
2042	15	2	17	8	2	10	[-	-	24	4	27	67	21	88	91	25	116
2044	14	2	15	9	2	10	_	_		22	4	26	71	22	93	93	26	119
2045	12	2	14	9	2	11	-	_	_	21	4	24	76	23	99	97	27	124
2046	10	1	12	9	2	11	-	-	_	19	4	23	80	24	104	99	28	127
2047	9	1	10	9	2	11	-	~	-	18	4	22	85	25	110	103	29	132
2048	8	1	9	9	2	12	-	-	-	17	4	20	90	26	116	107	30	137
2049	6	1	7	9	3	12	-	-	- 1	16	4	19	94	27	121	110	31	141
2050	5	1	6	9	3	12	-	-	-	14	4	18	99	28	127	113	32	145
2051	4	1	5	9	3	12	-	-	-	14	4	17	103	30	133	117	34	151
2052	3	1	4	9	3	13	-	-	-	13	4	17	108	31	139	121	35	156



						Soft Clo				lires Par	outions ticipating	g in WRS						
				Scena	rio 5a - 7	.00% In	vestment				0-Year L	evel Dol	lar Amo	rtization				424.9
						CM	ERS							WRS			Total	
	Employ	er Norm	al Cost	Adı	min Exper	-	<u>UA</u>	AL Paym	ent_	CMERS	ER Cont	ribution					1000	-7 (1)
Year	City	Other	Total	City	Other	Total	City	Other	Total	City	Other	Total	City	Other	Total	City	Other	Total
2022	\$ 49	\$ 9	\$ 58	\$ 5		\$ 6	\$ 13	\$ 5	\$ 17	\$ 67		\$ 81	\$ -	\$ -	\$ -	\$ 67		
2023	51	12	63	5	1	6	112	34	146	168	47	215	1	1	2	169	48	217
2024	50	11	61	5 5	1	6	112	34	146	167	46	213	3 6	2	6	170 172	48 48	218 220
2025	49 47	10 10	59 57	5	1	7	112	33 33	146 146	166 165	45	211 209	8	4	13	173	48	221
2020	46	9	54	6	1	7	113	32	146	164	43	207	11	5	16	175	48	223
				1	-		l .							6		177	48	225
2028	44 42	8	52 50	6	1	7	113	32 32	146 146	163 162	42 41	205 203	14	7	20 24	177	48 48	223
2029	42	7	48	6	1	7	114	32	146	161	40	203	20	8	28	181	48	229
2031	39	7	46	6	1	8	115	31	146	160	39	199	23	9	32	183	48	231
2032	37	6	43	6	1	8	115	31	146	158	38	197	26	10	36	184	48	232
2033	35	6	41	7	1	8	115	31	146	156	38	194	30	11	41	186	49	235
2034	33	5	38	7	2	8	114	31	146	154	38	192	33	12	46	187	50	237
2035	31	5	36	7	2	8	114	32	146	152	38	190	37	13	50	189	51	240
2036	29	5	34	7	2	9	114	32	146	150	38	188	41	14	55	191	52	243
2037	28	4	32	7	2	9	114	32	146	149	38	187	44	15	59	193	53	246
2038	26	4	30	7	2	9	114	32	146	148	37	185	48	16	64	196	53	249
2039	25	4	29	8	2	9	115	31	146	147	36	184	52	17	68	199	53	252
2040	24	3	27	8	2	9	115	31	146	146	36	182	55	18	73	201	54	255
2041	22	3	25	8	2	10	115	30	146	146	35	181	59	19	78	205	54	259
2042	21	3	23	8	2	10	116	30	146	144	35	179	63	20	83	207	55	262
2043	19	3	21	8	2	10	115	30	146	143	35	177	67	21	88	210	56	266
2044	17	2	19	9	2	10	115	31	146	140	35	175	71	22	93	211	57	268
2045	15	2	17	9	_	11	114	32	146	138	36	173	76	23	99	214	59	273
2046	13	2	15	9	_	11	113	33	146	135	37	172	80	24	104	215	61	276
2047	11	2	13	9	2	11	112	34	146	132	38	170	85	25	110	217	63	280
2048	10	2	11	9	_	12	111	35	146	130	39	168	90	26	116	220	65	285
2049	8	1	9	9	3	12	109	36	146	126	40	167	94	27	121	220	67	287
2050	6	1	8	9		12	107	39	146	123	43	166	99	28	127	222	71	293
2051	5	1	6 5	9	_	12 13	105	40 42	146	120 117	44 46	165 164	103 108	30 31	133 139	223 225	74 77	297 302
2052	4	1	3	10	3	13	104	42	146	""	46	104	108	31	139	223	//	302



							ose of Cl		h New F nts in M	lires Par lillions)	ticipating							
				Scena	rio 5b - 7.0	the same of the	ERS	t Return /	Assumpt	ion and 2	0-Year L	evel Dol	lar Amor	WRS	_		Total	-
5.1	Employ	er Norma	al Cost	Adm	nin Expens	No. of Contrast	piotober (fit	AL Paym	ent	CMERS	ER Cont	ribution		WRG	-	-	1 otai	
Year	City	Other	Total	City	Other		330	Other			Other		City	Other	Total	City	Other	Total
Tem	City	Other	Total	City	Other	Total	City	Other	Total	City	Other	rotai	City	Other	Total	City	Other	Total
2022	\$ 49	\$ 9	\$ 58	\$ 5	\$ 1.9	6	\$ 13	\$ 5	\$ 17	\$ 67	\$ 14	\$ 81	\$ -	\$ -	\$ -	\$ 67	\$ 14	\$ 81
2023	51	12	63	5	1	6	131	40	171	187	53	240	l ı	1	2	188	54	242
2024	50	11	61	5	1	6	131	39	171	186	52	238	3	2	6	189	54	243
2025	49	10	59	5	1	7	132	39	171	185	51	236	6	3	9	191	54	245
2026	47	10	57	5	1	7	132	38	171	185	49	234	8	4	13	193	53	246
2027	46	9	54	6	1	7	133	38	171	184	48	232	11	5	16	195	53	248
2028	44	8	52	6	1	7	133	38	171	182	47	230	14	6	20	196	53	249
2029	42	8	50	6	1	7	133	37	171	181	47	228	17	7	24	198	54	252
2030	41	7	48	6	1	7	134	37	171	180	46	226	20	8	28	200	54	254
2031	39	7	46	6	1	8	134	36	171	179	44	224	23	9	32	202	53	255
2032	37	6	43	6	1	8	135	36	171	178	44	222	26	10	36	204	54	258
2033	35	6	41	7	1	8	135	36	171	176	43	219	30	11	41	206	54	260
2034	33	5	38	7	2	8	134	37	171	173	43	217	33	12	46	206	55	261
2035	31	5	36	7	2	8	134	37	171	171	44	215	37	13	50	208	57	265
2036	29	5	34	7	2	9	133	37	171	170	43	213	41	14	55	211	57	268
2037	28	4	32	7	2	9	133	37	171	168	43	212	44	15	59	212	58	270
2038	26	4	30	7	2	9	134	37	171	168	42	210	48	16	64	216	58	274
2039	25	4	29	8	2	9	134	36	171	167	42	209	52	17	68	219	59	278
2040	24	3	27	8	2	9	135	36	171	166	41	207	55	18	73	221	59	280
2041	22	3	25	8	2	10	135	36	171	165	40	206	59	19	78	224	59	283
2042	21	3	23	8	2	10	135	35	171	164	40	204	63	20	83	227	60	287
2043	19	3	21	8	2	10	-	-	-	27	5	32	67	21	88	94	26	120
2044	17	2	19	9	2	10	-	-	-	25	5	30	71	22	93	96	27	123
2045	15	2	17	9	2	11	-	-	-	23	5	28	76	23	99	99	28	127
2046	13	2	15	9	2	11	-	-	-	22	5	26	80	24	104	102	29	131
2047	11	2 2	13 11	9	2 2	11 12	-	-	-	20	4	24	85	25	110	105	29	134
2048	8	1	9	9	3	12	_	-	-	19 17	4	23 21	90 94	26 27	116	109	30	139
2049	6	1	8	9	3	12		-		16	4	20	99		121	111	31	142 147
2050	5	1	6	9	3	12	-	-		15	5	19	103	28 30	127 133	115	32 35	153
2051	4	1	5	10	3	13	1	-	-	14	5	18	103	30 31	133	118	35 36	158
2052	1 4	1	3	10	3	13	1 -	-	-	14	3	19	108	31	139	122	30	128



Very City Other Total City Other						s	oft Cle		ection of I MERS wit		lires Par		g in WRS						
No. Provided Pro					Scenar	rio 5e - 7.0	0% Inv	estment				0-Year L	evel Doll	ar Amor	tization				
Vear City Other Total City All 8 9 1 3 260 2022 49 10 59 5 1 7 199 58 257 252 253 70 321	-		7 15 7		110012000100000		CM	ERS		Records and Mark		In the second	200000000000000000000000000000000000000		WRS			Total	
2022 3 49 \$ 9 \$ 58 \$ 5 \$ 1 \$ 6 \$ 13 \$ 5 \$ 17 \$ 67 \$ 14 \$ 81 \$ \$ - \$ \$ - \$ \$ \$ - \$ \$	1	Employ	er Norma	Cost	Adn	in Expens	es	UA	AL Paym	ent	CMERS	ER Con	tribution			EN I			
2023 51 12 63 5 1 6 198 59 257 254 73 327 1 1 2 255 74 32 2024 50 11 61 5 1 6 199 59 257 253 71 325 3 2 6 256 73 32 2025 49 10 59 5 1 7 199 58 257 253 71 325 3 2 6 256 73 33 2026 47 10 57 5 1 7 200 58 257 252 69 321 8 4 13 260 73 33 2027 46 9 54 6 1 7 201 57 257 252 67 319 11 5 16 263 72 33 2028 44 8 52 6 1 7 201 57 257 257 250 66 317 14 6 20 264 72 33 2029 42 8 50 6 1 7 201 57 257 259 249 65 315 17 7 24 266 72 33 2039 41 7 48 6 1 7 202 56 257 248 64 313 20 8 28 268 72 34 2031 39 7 46 6 1 8 203 55 257 248 63 311 23 9 32 271 72 34 2033 35 6 41 7 1 8 203 55 257 248 63 311 23 9 32 271 72 34 2033 35 6 41 7 1 8 2 2 2 2 2 41 8 49 30 11 41 71 19 99 2034 33 5 38 7 2 8 2 2 9 2 2 3 3 4 6 75 2 2 9 2 2 3 3 4 6 75 2 2 3 3 3 4 6 75 2 2 3 3 3 3 3 3 3 3	Year	City	Other	Total	City	Other	Total	City	Other	Total	City	Other	Total	City	Other	Total	City	Other	Total
2023 51 12 63 5 1 6 198 59 257 254 73 327 1 1 2 255 74 32 2024 50 11 61 5 1 6 199 59 257 253 71 325 3 2 6 256 73 32 2025 49 10 59 5 1 7 199 58 257 253 71 325 3 2 6 256 73 33 2026 47 10 57 5 1 7 200 58 257 252 69 321 8 4 13 260 73 33 2027 46 9 54 6 1 7 201 57 257 252 67 319 11 5 16 263 72 33 2028 44 8 52 6 1 7 201 57 257 257 250 66 317 14 6 20 264 72 33 2029 42 8 50 6 1 7 201 57 257 259 249 65 315 17 7 24 266 72 33 2039 41 7 48 6 1 7 202 56 257 248 64 313 20 8 28 268 72 34 2031 39 7 46 6 1 8 203 55 257 248 63 311 23 9 32 271 72 34 2033 35 6 41 7 1 8 203 55 257 248 63 311 23 9 32 271 72 34 2033 35 6 41 7 1 8 2 2 2 2 2 41 8 49 30 11 41 71 19 99 2034 33 5 38 7 2 8 2 2 9 2 2 3 3 4 6 75 2 2 9 2 2 3 3 4 6 75 2 2 3 3 3 4 6 75 2 2 3 3 3 3 3 3 3 3																			
2024 50		(20)			1000										•		1		
2025																			329
2026						_													
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2028 44 8 52 6 1 7 201 57 257 250 66 317 14 6 20 264 72 33 2029 42 8 50 6 1 7 201 56 257 249 65 315 17 7 24 266 72 33 2030 41 7 48 6 1 7 202 56 257 248 63 311 23 9 32 271 72 34 2031 39 7 46 6 1 8 203 55 257 248 63 311 23 9 32 271 72 34 2032 37 6 43 6 1 8 203 54 257 247 62 309 26 10 36 273 72 34 2034					· ·														
2029	1				l								-						- 1
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2031 39					-	_													340
2032 37																			343
2033 35																			345
2035 31 5 36 7 2 8 -		35			I			-	-		I			30	11		71		90
2036 29 5 34 7 2 9 - - - 36 7 42 41 14 55 77 21 99 2037 28 4 32 7 2 9 - - - 35 6 41 44 15 59 79 21 100 2038 26 4 30 7 2 9 - - - 34 6 39 48 16 64 82 22 100 2039 25 4 29 8 2 9 - - - 32 6 38 52 17 68 84 23 100 2040 24 3 27 8 2 9 - - - 31 5 36 55 18 73 86 23 100 2041 22 3 25 8 2 10 - - - 30 5 35 59 19 78 89 24 111 2041 19 3 21 8 2 10 - - - 29 5 33 63 20 83 92 25 111 2043 19 3 21 8 2 10 - - - 27 5 32 67 21 88 94 26 12 2044 17 2 19 9 2 10 - - - 25 5 30 71 22 93 96 27 12 2045 15 2 17 9 2 11 - - - 22 5 26 80 24 104 102 29 13 2047 11 2 13 9 2 11 - - - 20 4 24 85 25 110 105 29 13 2049 8 1 9 9 3 12 - - 16 4 20 99 28 127 115 32 14 2050 6 1 8 9 3 12 - - 16 4 20 99 28 127 115 32 14 2051 5 1 6 9 3 12 - - 15 5 19 103 30 133 118 35 155 15 2051 5 1 6 9 3 12 - - 15 5 19 103 30 133 118 35 155 2051 5 1 6 9 3 12 - - - 15 5 19 103 30 133 118 35 155 2051 5 10 105 2050	2034	33	5	38	7	2	8	-	-	-	39	7	46	33	12	46	72	19	91
2037 28 4 32 7 2 9 - - - 35 6 41 44 15 59 79 21 100 2038 26 4 30 7 2 9 - - - 34 6 39 48 16 64 82 22 100 2039 25 4 29 8 2 9 - - - 32 6 38 52 17 68 84 23 100 2041 22 3 25 8 2 10 - - - 30 5 35 59 19 78 89 24 111 2042 21 3 23 8 2 10 - - - 29 5 33 63 20 83 92 25 11 2043 19 3	2035	31	5	36	7	2	8	-	-	-	38	7	44	37	13	50	75	20	95
2038 26 4 30 7 2 9 - - - 34 6 39 48 16 64 82 22 10 2039 25 4 29 8 2 9 - - - 32 6 38 52 17 68 84 23 10 2040 24 3 27 8 2 9 - - - 31 5 36 55 18 73 86 23 10 2041 22 3 25 8 2 10 - - - 30 5 35 59 19 78 89 24 11 2042 21 3 23 8 2 10 - - 29 5 33 63 20 83 92 25 11 2044 17 2 19	2036	29	5	34	7	2	9	-	-	-	36	7	42	41	14	55	77	21	98
2039 25		28	4					-	-	-		6				59			100
2040 24 3 27 8 2 9 - - - 31 5 36 55 18 73 86 23 100 2041 22 3 25 8 2 10 - - - 30 5 35 59 19 78 89 24 113 2042 21 3 23 8 2 10 - - - 29 5 33 63 20 83 92 25 11 2043 19 3 21 8 2 10 - - - 27 5 32 67 21 88 94 26 120 2044 17 2 19 9 2 11 - - - 25 5 30 71 22 93 96 27 121 2045 15 2 17 9 2 11 - - - 23 5 28 76 23 99 99 28 122 2046 13 2 15 9 2 11 - -					ı			-	-	-									104
2041 22 3 25 8 2 10 - - - 30 5 35 59 19 78 89 24 11: 2042 21 3 23 8 2 10 - - - 29 5 33 63 20 83 92 25 11' 2043 19 3 21 8 2 10 - - - 27 5 32 67 21 88 94 26 120 2044 17 2 19 9 2 10 - - - 25 5 30 71 22 93 96 27 12 2045 15 2 17 9 2 11 - - 23 5 28 76 23 99 99 28 12 2045 13 2 15					_				-	-	I								107
2042 21 3 23 8 2 10 - - - 29 5 33 63 20 83 92 25 11 2043 19 3 21 8 2 10 - - - 27 5 32 67 21 88 94 26 12 2044 17 2 19 9 2 10 - - - 25 5 30 71 22 93 96 27 12 2045 15 2 17 9 2 11 - - 23 5 28 76 23 99 99 28 12 2046 13 2 15 9 2 11 - - 22 5 26 80 24 104 102 29 13 2047 11 2 13 9								-	-		1								109
2043 19 3 21 8 2 10 - - - 27 5 32 67 21 88 94 26 12 2044 17 2 19 9 2 10 - - - 25 5 30 71 22 93 96 27 12 2045 15 2 17 9 2 11 - - - 23 5 28 76 23 99 99 28 12 2046 13 2 15 9 2 11 - - - 22 5 26 80 24 104 102 29 13 2047 11 2 13 9 2 11 - - - 20 4 24 85 25 110 105 29 13 2048 10 2 11 9 2 12 - - - 19 4 23 90 26 116 109 30 13 2049 8 1 9 9 3 12 - -								-	-										113
2044 17 2 19 9 2 10 - - - 25 5 30 71 22 93 96 27 12: 2045 15 2 17 9 2 11 - - - 23 5 28 76 23 99 99 28 12 2046 13 2 15 9 2 11 - - - 22 5 26 80 24 104 102 29 13 2047 11 2 13 9 2 11 - - 20 4 24 85 25 110 105 29 13 2048 10 2 11 9 2 12 - - 19 4 23 90 26 116 109 30 13 2049 8 1 9 9 <td></td>																			
2045 15 2 17 9 2 11 - - - 23 5 28 76 23 99 99 28 12 2046 13 2 15 9 2 11 - - - 22 5 26 80 24 104 102 29 13 2047 11 2 13 9 2 11 - - 20 4 24 85 25 110 105 29 13 2048 10 2 11 9 2 12 - - 19 4 23 90 26 116 109 30 13 2049 8 1 9 9 3 12 - - 17 4 21 94 27 121 111 31 145 2050 6 1 8 9 3 <td></td>																			
2046 13 2 15 9 2 11 - - - 22 5 26 80 24 104 102 29 13 2047 11 2 13 9 2 11 - - - 20 4 24 85 25 110 105 29 13 2048 10 2 11 9 2 12 - - 19 4 23 90 26 116 109 30 13 2049 8 1 9 9 3 12 - - - 17 4 21 94 27 121 111 31 14 2050 6 1 8 9 3 12 - - - 16 4 20 99 28 127 115 32 144 2051 5 1 6 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td> [</td> <td></td> <td>123</td>								[123
2047 11 2 13 9 2 11 - - - 20 4 24 85 25 110 105 29 13- 2048 10 2 11 9 2 12 - - 19 4 23 90 26 116 109 30 133 2049 8 1 9 9 3 12 - - - 17 4 21 94 27 121 111 31 143 2050 6 1 8 9 3 12 - - - 16 4 20 99 28 127 115 32 14* 2051 5 1 6 9 3 12 - - - 15 5 19 103 30 133 118 35 15																			131
2048 10 2 11 9 2 12 - - - 19 4 23 90 26 116 109 30 13 2049 8 1 9 9 3 12 - - - 17 4 21 94 27 121 111 31 14 2050 6 1 8 9 3 12 - - - 16 4 20 99 28 127 115 32 14 2051 5 1 6 9 3 12 - - - 15 5 19 103 30 133 118 35 15								-											134
2050 6 1 8 9 3 12 - - - 16 4 20 99 28 127 115 32 14 2051 5 1 6 9 3 12 - - - 15 5 19 103 30 133 118 35 15								-	-	-									139
2051 5 1 6 9 3 12 15 5 19 103 30 133 118 35 15	2049	8	1	9	9	3	12	-	-	-	17	4	21	94	27	121	111	31	142
	2050	6	1	8	9	3	12	-	-	_	16	4	20	99	28	127	115	32	147
2052 4 1 5 10 3 13 14 5 18 108 31 139 122 36 15		5	1	6	9	3		-	-	-	15		19	103	30	133		35	153
	2052	4	1	5	10	3	13	-	-	-	14	5	18	108	31	139	122	36	158



	V					Soft Clo				lires Par	butions ticipating	; in WRS	,					
				Scenar	io 6a - 6.	80% Inv	vestment				30-Year L	evel Dol	lar Amoi	rtization				817
				- Contraction		CM	The second second		initial indicates	and the same of the		ALLE AL		WRS			Total	
	Employ	er Norma	ıl Cost	Adm	in Expen	ses	UA	AL Paym	ent	CMERS	ER Cont	ribution					450000042	
Year	City	Other	Total	City	Other	Total	City	Other	Total	City	Other	Total	City	Other	Total	City	Other	Total
2022	1.0		\$ 58			\$ 6	\$ 13		\$ 17	\$ 67		\$ 81	\$ -	\$ -	\$ -	\$ 67 \$		\$ 81
2023	55	13	68	5	1	6	119	36	155	179	50	229	1	1	2	180	51	231
2024	53	12	65	5	1	6	120	36	155	178	49	227	3	2	6	181	51	232
2025	52 51	11 10	63	5 5	1 1	7 7	120	36	155	177	48	225	6	3	9	183	51	234
2026	1		61				120	35	155	177	47	223	8	4	13	185	51	236
2027	49	10	59	6	1	7	121	35	155	175	45	221	11	5	16	186	50	236
2028	47	9	56	6	1	7	121	34	155	174	45	219	14	6	20	188	51	239
2029	45	8	54	6	1	7	121	34	155	172	44	216	17	7	24	189	51	240
2030	44 42	8 7	51	6	•	7	122 122	34 33	155 155	171	43	214	20	8	28	191	51	242
2031	42	7	49 47	6	1 1	8	122	33	155	170 169	42 41	212 210	23 26	9 10	32 36	193	51 51	244
2032	38	6	47	7	1	8	123	33	155	167	40	207	30	11	30 41	195 197	51	246 248
2033	35	6	41	7	2	8	123	33	155	164	41	207	33	12	46	197	53	250
2035	33	5	39	7	2	- 8	122	34	155	162	41	203	37	13	50	199	54	253
2036	32	5	37	7	2	9	122	34	155	160	41	201	41	14	55	201	55	256
2037	30	5	35	7	2	9	121	34	155	159	40	199	44	15	59	203	55	258
2038	29	4	33	7	2	9	122	34	155	158	40	197	48	16	64	206	56	262
2039	27	4	31	8	2	9	122	33	155	157	39	196	52	17	68	209	56	265
2040	26	4	29	8	2	9	123	33	155	156	38	194	55	18	73	211	56	267
2041	24	3	27	8	2	10	123	32	155	155	38	193	59	19	78	214	57	271
2042	22	3	25	8	2	10	123	32	155	154	37	191	63	20	83	217	57	274
2043	20	3	23	8	2	10	123	32	155	152	37	189	67	21	88	219	58	277
2044	18	3	21	9	2	10	123	33	155	149	37	187	71	22	93	220	59	279
2045	16	2	18	9	2	11	122	34	155	147	38	185	76	23	99	223	61	284
2046	14	2	16	9	2	11	121	35	155	143	39	183	80	24	104	223	63	286
2047	12	2	14	9	2	11	119	36	155	141	40	181	85	25	110	226	65	291
2048	10	2	12	9	2	12	118	37	155	138	41	179	90	26	116	228	67	295
2049	9	2	10	9	3	12	117	39	155	135	43	178	94	27	121	229	70	299
2050	7	1	9	9	3	12	114	41	155	131	45	176	99	28	127	230	73	303
2051	6 5	I I	7 6	9	3	12 13	112 111	43 45	155 155	128	47	175	103	30	133	231	77	308
2032	Ι,	1	6	10	3	13	111	45	100	125	49	174	108	31	139	233	80	313



	Projection of Employer Contributions Soft Close of CMERS with New Hires Participating in WRS (Amounts in Millions) Scenario 6b - 6.80% Investment Return Assumption and 20-Year Level Dollar Amortization																	
				Scena	ırio 6b - 6			Return /	Assumpti	ion and 2	0-Year L	evel Dol	lar Amoi	the state of the s				
5	Post-Post	ver Norm	10	1			ERS		20101	Careno	ED C	**		WRS			Total	
*******	CONTRACTOR OF STREET	STATE OF THE PERSON NAMED IN	THE PERSON NAMED IN	100000	min Expen	THE PARTY OF THE P	100	AL Paym	THE RESERVE	THE REAL PROPERTY.	ER Cont	COMPANY OF STREET		4.1	Today (Tak	0.20		
Year	City	Other	Total	City	Other	Total	City	Other	Total	City	Other	Total	City	Other	Total	City	Other	Total
2022	\$ 49	\$ 9	\$ 58	\$ 5	\$ 1	\$ 6	\$ 13	\$ 5	\$ 17	\$ 67	\$ 14	\$ 81	\$ -	\$ -	s -	\$ 67	\$ 14	\$ 81
2023	55	13	68	5		6	141	42	183	200	57	257	1	1	2	201	58	259
2024	53	12	65	5		6	141	42	183	199	55	255	3	2	6	202	57	259
2025	52	11	63	5		7	141	42	183	199	54	253	6	3	9	205	57	262
2026	51	10	61	5	1	7	142	41	183	198	53	251	8	4	13	206	57	263
2027	49	10	59	6	1	7	142	41	183	197	51	248	11	5	16	208	56	264
2028	47	9	56	6	1	7	143	40	183	195	51	246	14	6	20	209	57	266
2029	45	8	54	6		7	143	40	183	194	50	244	17	7	24	211	57	268
2030	44	8	51	6	1	7	143	40	183	193	49	242	20	8	28	213	57	270
2031	42	7	49	6	1	8	144	39	183	192	48	240	23	9	32	215	57	272
2032	40	7	47	6	1	8	144	39	183	191	47	237	26	10	36	217	57	274
2033	38	6	44	7	1	8	145	38	183	189	46	235	30	11	41	219	57	276
2034	35	6	41	7	2	8	144	39	183	186	46	232	33	12	46	219	58	277
2035	33	5	39	7	2	8	143	40	183	183	47	230	37	13	50	220	60	280
2036	32	5	37	7	2	9	143	40	183	182	46	228	41	14	55	223	60	283
2037	30	5	35	7		9	143	40	183	180	46	226	44	15	59	224	61	285
2038	29	4	33	7	_	9	144	39	183	179	45	225	48	16	64	227	61	288
2039	27	4	31	8		9	144	39	183	179	45	223	52	17	68	231	62	293
2040	26	4	29	8		9	144	39	183	178	44	222	55	18	73	233	62	295
2041	24	3	27	8		10	145	38	183	177	43	220	59	19	78	236	62	298
2042	22	3	25	8	-	10	145	38	183	176	43	218	63	20	83	239	63	302
2043	20	3	23	8	_	10	-	-	-	29	5	34	67	21	88	96	26	122
2044	18	3	21	9	_	10	-	-	-	27	5	31	71	22	93	98	27	125
2045	16	2	18	9	_	11	-	-	-	25	5	29	76	23	99	101	28	129
2046	14	2	16	9		11	-	-	-	23	5	27	80	24	104	103	29	132
2047	12	2	14	9		11	-	-	-	21	5	25	85	25	110	106	30	136
2048	10	2	12	9		12	-	-	-	20	5	24	90	26	116	110	31	141
2049	9	2	10	9	_	12	**	-	-	18	5	22	94	27	121	112	32	144
2050	7	1	9	9	_	12	-	-	-	16	5	21	99	28	127	115	33	148
2051	6 5	1 1	7	10		12	-	-	-	15	5	19	103	30	133	118	35	153
2052	,	1	6	10	3	13	-	-	-	14	5	18	108	31	139	122	36	158
	L																	



						Soft Cl		ection of I				in WRS						
								(Amou	nts in N	lillions)								
	_			Scena	rio 6e - 6.		vestment ERS	Return /	Assumpti	on and I	0-Year L	evel Dol	ar Amoi	WRS			Total	
	Employ	er Norm	al Cost	Ad	min Expen	-	Secretaria .	AL Paym	ent	CMERS	ER Con	tribution		WIG			Lotai	
Year	City	Other	THE RESERVED	200	Other		Total State of State	Other	The second		Other		10000	Other	Total	City	Other	Total
-		/ACMILLOS	-					- Constitution	- Carlotte			- Control of the Cont		-			No. of the last	
2022	\$ 49	\$ 9	\$ 58	\$ 5	\$ 1	\$ 6	\$ 13	\$ 5	\$ 17	\$ 67	\$ 14	\$ 81	\$ -	\$ -	\$ -	\$ 67	\$ 14	\$ 81
2023	55	13	68	5	1	6	214	64	278	273	78	352	1	1	2	274	79	353
2024	53	12	65	5	1	6	214	63	278	273	77	349	3	2	6	276	79	355
2025	52	11	63	5	1	7	215	63	278	272	75	347	6	3	9	278	78	356
2026	51	10	61	5	1	7	216	62	278	272	74	345	8	4	13	280	78	358
2027	49	10	59	6	1	7	216	61	278	271	72	343	11	5	16	282	77	359
2028	47	9	56	6	1	7	217	61	278	270	71	341	14	6	20	284	77	361
2029	45	8	54	6	1	7	217	61	278	268	70	339	17	7	24	285	77	362
2030	44	8	51	6	1	7	218	60	278	267	69	337	20	8	28	287	77	364
2031	42	7	49	6	1	8	219	59	278	267	68	334	23	9	32	290	77	367
2032	40	7	47	6	1	8	219	58	278	266	66	332	26	10	36	292	76	368
2033	38	6	44	7	1	8	-	-	-	44	8	52	30	11	41	74 75	19	93
2034 2035	35 33	6 5	41 39	7 7	2 2	8	-	-	-	42 40	8	49 47	33 37	12 13	46 50	77	20 20	95 97
2035	33	5	37	7	2	9	- 55	-		39	7	45	41	13	55	80	20	101
2030	30	5	35	7	2	9	2	-	-	37	7	43	44	15	59	81	22	101
2038	29	4	33	7	2	9		-	-	36	6	42	48	16	64	84	22	105
2039	27	4	31	8	2	9		-		35	6	40	52	17	68	87	23	110
2040	26	4	29	8	2	9	-	-	-	33	6	39	55	18	73	88	24	112
2041	24	3	27	8	2	10	-	-	-	32	6	37	59	19	78	91	25	116
2042	22	3	25	8	2	10	-	-	-	30	5	35	63	20	83	93	25	118
2043	20	3	23	8	2	10	-	-	-	29	5	34	67	21	88	96	26	122
2044	18	3	21	9	2	10	-	-	-	27	5	31	71	22	93	98	27	125
2045	16	2	18	9	2	11	-	-	-	25	5	29	76	23	99	101	28	129
2046	14	2	16	9	2	11	-	-	-	23	5	27	80	24	104	103	29	132
2047	12	2	14	9	2	11	-	-	-	21	5	25	85	25	110	106	30	136
2048	10	2	12	9	2	12	-	-	-	20	5	24	90	26	116	110	31	141
2049	9	2	10	9	3	12	-	-	-	18	5	22	94	27	121	112	32	144
2050	7 6	1	9	9 9	3	12	-	-	-	16 15	5	21	103	28 30	127 133	115	33 35	148 153
2051	5	1	7 6	10	3	12 13	-	-	-	15	5	19 18	103	30	133	118	35 36	153
2032	'	1	0	10	3	13	-	-	-	14	3	19	108	31	139	122	30	128



	Date	6/26/2023 File	Number 230374	☐ Original ☐ Subs	stitute				
Α	Subject	Required audit of Office of Violence F	Prevention pursuant to Wiscons	in Act 12					
В	Submitted	d By (Name/Title/Dept./Ext.) Aych	a Sawa, Comptroller						
С	This File								
	Charge To	Department Account Capital Projects Fund		Contingent Fund Special Purpose Accounts					
D		□ Debt Service□ Other (Specify)		Grant & Aid Accounts					

	Purpose	Specify Type/Use	Expenditure	Revenue
	Salaries/Wages		\$0.00	\$0.00
			\$0.00	\$0.00
	Supplies/Materials		\$0.00	\$0.00
			\$0.00	\$0.00
E	Equipment		\$0.00	\$0.00
			\$0.00	\$0.00
	Services	Professional Services	\$50,000.00	\$0.00
			\$0.00	\$0.00
	Other		\$0.00	\$0.00
			\$0.00	\$0.00
	TOTALS		\$ 0.00	\$ 0.00

F

Assumptions used in arriving at fiscal estimate.

Assuming an entire audit of the program, its performance and audit of grants awarded to the division and expenditures made by the division. This also assumes that an independent 3rd party is conducting an audit if the Comptroller's Internal Audit Division is not conducting it..

G	For expenditures and revenues which will occur on an annual basis over several years check the appropriate box below and then list each item and dollar amount separately.							
	☐ 1-3 Years ☐ 3-5 Years							
	☐ 1-3 Years ☐ 3-5 Years							
	☐ 1-3 Years ☐ 3-5 Years							
н	List any costs not included in Sections D and E above.							
1	Additional information.							
J	This Note Was requested by committee chair.							



	Date	6/23/2023	File Number	230374		Original	Substitute		
Α	Subject	Communication relating to the	fiscal impact of va	fiscal impact of various provisions of 2023 Wisconsin Act 12.					
В	Submitted	By (Name/Title/Dept./Ext.)	Bryan J Rynder x8524	s, Budget & Fiscal	Policy Operatio	ns Manage	r, DOA-Budget,		
	This File	☑ Increases or decreas	,	thorized expendit	ures.				
		Suspends expenditu	re authority.						
		Authorizes a department to administer a program affecting the city's fiscal liability.							
С		☐ Increases or decreases revenue.							
		Requests an amendment to the salary or positions ordinance.							
		Authorizes borrowing	g and related deb	ot service.					
		Authorizes continger	nt borrowing (aut	hority only).					
		Authorizes the exper	nditure of funds r	not authorized in a	adopted City B	udget.			
	Charge To	□ Department Account □ Department			Contingent Fu	und			
	Charge 10	Capital Projects Fundament			Special Purpo		te		
D		_	u				ıs		
		☐ Debt Service			Grant & Aid A	ccounts			
		Other (Specify)							

	Purpose	Specify Type/Use	Expenditure	Revenue
	Salaries/Wages		\$11,600,981.00	\$0.00
			\$0.00	\$0.00
	Supplies/Materials		\$0.00	\$0.00
			\$0.00	\$0.00
Ш	Equipment		\$0.00	\$0.00
			\$0.00	\$0.00
	Services		\$0.00	\$0.00
			\$0.00	\$0.00
	Other		\$0.00	\$0.00
			\$0.00	\$0.00
	TOTALS		\$11,600,981.00	\$ 0.00

F

Assumptions used in arriving at fiscal estimate.

The listed amount is the estimated annual cost to increase police strength from 1,630 to 1,725. The exact timing of when the City will increase to this strength level is unknown, but ACT 12 requires the City to achieve this strength level within 10 years.

	For expenditures and revenues which below and then list each item and do	n will occur on an annual basis over several years check the appropriate box llar amount separately.
G	 □ 1-3 Years □ 1-3 Years □ 3-5 Years □ 1-3 Years □ 3-5 Years 	The listed amount is the estimated average annual cost to increase police strength from 1,630 to 1,725. Actual costs will very year to year as the staffing level increases from increased sales tax revenues and as wage rates change.
Н	List any costs not included in Section	ns D and E above.
ı	Additional information.	
7	This Note	committee chair.



	Date	6/23/2023	File Number	230374	\boxtimes	Original	☐ Substitute			
Α	Subject	Communication relating to the	fiscal impact of va	arious provisions o	f 2023 Wisconsi	in Act 12.				
В	Submitted	By (Name/Title/Dept./Ext.)	Bryan J Rynder x8524	s, Budget & Fiscal	Policy Operatio	ns Managei	r, DOA-Budget,			
	This File		es previously au	thorized expendit	tures.					
		Suspends expenditu	Suspends expenditure authority.							
		Authorizes a department to administer a program affecting the city's fiscal liability.								
С		☐ Increases or decreases revenue.								
		Requests an amendment to the salary or positions ordinance.								
		Authorizes borrowing and related debt service.								
		Authorizes continged	nt borrowing (aut	hority only).						
		Authorizes the exper	nditure of funds n	ot authorized in a	adopted City B	udget.				
	01 T				0					
	Charge To	<u> </u>			Contingent Fu					
D		Capital Projects Fun	d		Special Purpo		ts			
		☐ Debt Service			Grant & Aid A	ccounts				
		Other (Specify)								

	Purpose	Specify Type/Use	Expenditure	Revenue
	Salaries/Wages		\$11,430,367.00	\$0.00
			\$0.00	\$0.00
	Supplies/Materials		\$0.00	\$0.00
			\$0.00	\$0.00
Е	Equipment		\$0.00	\$0.00
			\$0.00	\$0.00
	Services		\$0.00	\$0.00
			\$0.00	\$0.00
	Other		\$0.00	\$0.00
			\$0.00	\$0.00
	TOTALS		\$11,430,367.00	\$ 0.00

F

Assumptions used in arriving at fiscal estimate.

The listed amount is the estimated annual cost to increase fire daily staffing from 192 to 218. The exact timing of when the City will increase to this strength level is unknown, but ACT 12 requires the City to achieve this strength level within 10 years.

	For expenditures and revenues which will occur on an annual basis over several years check the appropriate box below and then list each item and dollar amount separately.							
G		The listed amount is the estimated average annual cost to increase fire daily staffing from 192 to 218. Actual costs will very year to year as the staffing level increases from increased sales tax revenues and as wage rates change.						
	☐ 1-3 Years ☐ 3-5 Years							
	☐ 1-3 Years ☐ 3-5 Years							
Н	List any costs not included in Section	ns D and E above.						
1	Additional information.							
J	This Note	committee chair.						



	Date	6/23/2023	File Number	230374		Original	Substitute		
Α	Subject	Communication relating to the	fiscal impact of va	fiscal impact of various provisions of 2023 Wisconsin Act 12.					
В	Submitted	By (Name/Title/Dept./Ext.)	Bryan J Rynder x8524	s, Budget & Fiscal	Policy Operatio	ns Manage	r, DOA-Budget,		
	This File	☑ Increases or decreas	,	thorized expendit	ures.				
		Suspends expenditu	re authority.						
		Authorizes a department to administer a program affecting the city's fiscal liability.							
С		☐ Increases or decreases revenue.							
		Requests an amendment to the salary or positions ordinance.							
		Authorizes borrowing	g and related deb	ot service.					
		Authorizes continger	nt borrowing (aut	hority only).					
		Authorizes the exper	nditure of funds r	not authorized in a	adopted City B	udget.			
	Charge To	□ Department Account □ Department			Contingent Fu	und			
	Charge 10	Capital Projects Fundament			Special Purpo		te		
D		_	u				ıs		
		☐ Debt Service			Grant & Aid A	ccounts			
		Other (Specify)							

	Purpose	Specify Type/Use	Expenditure	Revenue
	Salaries/Wages		\$0.00	\$0.00
			\$0.00	\$0.00
	Supplies/Materials		\$0.00	\$0.00
			\$0.00	\$0.00
	Equipment		\$0.00	\$0.00
Е			\$0.00	\$0.00
	Services	School Resource Officer Training	\$16,500.00	\$0.00
			\$0.00	\$0.00
	Other		\$0.00	\$0.00
			\$0.00	\$0.00
	TOTALS		\$16,500.00	\$ 0.00

F	Assumptions used in arriving at fiscal estimate.	Assumes 30 officers trained at \$550 per officer.					
	For expenditures and revenues which will occur below and then list each item and dollar amount	on an annual basis over several years check the appropriate box separately.					
G		ng on officer turnover and assignment changes cost could be annual.					
G	1-3 Years 3-5 Years						
	1-3 Years 3-5 Years						
н	List any costs not included in Sections D and E	above.					
1	Additional information.						
J	This Note	chair.					



	Date	6/23/2023	File Number	230374		Original	☐ Substitute
Α	Subject	Communication relating to the fiscal impact of various provisions of 2023 Wisconsin Act 12.					
В	Submitted By (Name/Title/Dept./Ext.) Bryan J Rynders, Budget & Fiscal Policy Operations Manager, DOA-Budget, x8524					r, DOA-Budget,	
	This File	☐ Increases or decreas	es previously au	thorized expendit	tures.		
		☐ Suspends expenditure authority.					
		☐ Increases or decreases city services.					
		☐ Authorizes a department to administer a program affecting the city's fiscal liability.					
С							
		Requests an amendment to the salary or positions ordinance.					
		Authorizes borrowing and related debt service.					
		Authorizes continger	nt borrowing (aut	hority only).			
		Authorizes the exper	diture of funds n	ot authorized in a	adopted City B	udget.	
	Charge To	Department Account			Contingent Fu	ınd	
	onarge re	Capital Projects Fundament			Special Purpo		ts
D		☐ Debt Service	-	П	Grant & Aid A		
		Other (Specify)		Ш			

	Purpose	Specify Type/Use	Expenditure	Revenue
	Salaries/Wages		\$0.00	\$0.00
			\$0.00	\$0.00
	Supplies/Materials		\$0.00	\$0.00
			\$0.00	\$0.00
Ш	Equipment		\$0.00	\$0.00
			\$0.00	\$0.00
	Services		\$0.00	\$0.00
			\$0.00	\$0.00
	Other	2% sales tax	\$0.00	\$190,200,000.00
			\$0.00	\$0.00
	TOTALS		\$ 0.00	\$190,200,000.00

F	Assumptions used in arriving at fise	cal estimate.				
	For expenditures and revenues whi below and then list each item and d	ich will occur on an annual basis over several years check the appropriate box lollar amount separately.				
G	□ 1-3 Years □ 3-5 Years	Sales tax is projected to grow at 3% annually				
G	☐ 1-3 Years ☐ 3-5 Years					
	☐ 1-3 Years ☐ 3-5 Years					
н	List any costs not included in Secti	ons D and E above.				
T	Additional information.					
J	This Note	y committee chair.				



	Date	6/23/2023	File Number	230374		Original	☐ Substitute
Α	Subject	Communication relating to the fiscal impact of various provisions of 2023 Wisconsin Act 12.					
В	Submitted By (Name/Title/Dept./Ext.) Bryan J Rynders, Budget & Fiscal Policy Operations Manager, DOA-Budget, x8524					r, DOA-Budget,	
	This File	☐ Increases or decreas		thorized expendit	tures.		
		Suspends expenditure authority.					
		☐ Increases or decreases city services.					
		Authorizes a department to administer a program affecting the city's fiscal liability.					
С							
		Requests an amendment to the salary or positions ordinance.					
		Authorizes borrowing and related debt service.					
		Authorizes continged	nt borrowing (aut	hority only).			
		Authorizes the expenditure of funds not authorized in adopted City Budget.					
	Channa Ta	Domonton and Account			Continuent Fu		
	Charge To	<u> </u>			Contingent Fu		4.
D		☐ Capital Projects Fun	d		Special Purpo		ts
		☐ Debt Service			Grant & Aid A	ccounts	
		Other (Specify)					

	Purpose	Specify Type/Use	Expenditure	Revenue
	Salaries/Wages		\$0.00	\$0.00
			\$0.00	\$0.00
	Supplies/Materials		\$0.00	\$0.00
			\$0.00	\$0.00
Ш	Equipment		\$0.00	\$0.00
			\$0.00	\$0.00
	Services		\$0.00	\$0.00
			\$0.00	\$0.00
	Other	State Shared Revenue	\$0.00	\$21,700,000.00
			\$0.00	\$0.00
	TOTALS		\$ 0.00	\$21,700,000.00

F	Assumptions used in arriving at fi	scal estimate.
	For expenditures and revenues whelow and then list each item and	nich will occur on an annual basis over several years check the appropriate box dollar amount separately.
G	□ 1-3 Years □ 3-5 Years	State Shared Revenue is projected to grow at 3% annually.
G	☐ 1-3 Years ☐ 3-5 Years	
	☐ 1-3 Years ☐ 3-5 Years	
Н	List any costs not included in Sec	tions D and E above.
1	Additional information.	
J	This Note	by committee chair.



	Date	6/23/2023	File Number	230374	\boxtimes	Original		Substitute	
Α	Subject	Fiscal impact of repeal of pers	onal property tax	by 2023 Wisconsin Act 12					
В	Submitted	By (Name/Title/Dept./Ext.)	Nicole F. Larser	n, Commissioner of Assess	ments				
	This File Increases or decreases previously authorized expenditures.								
		☐ Suspends expenditure authority.							
		☐ Increases or decreases city services.							
	Authorizes a department to administer a program affecting the city's fiscal liability.								
С		☐ Increases or decreases revenue.							
		Requests an amendment to the salary or positions ordinance.							
		Authorizes borrowing and related debt service.							
		Authorizes contingent borrowing (authority only).							
		Authorizes the expension	diture of funds r	not authorized in adopted	City B	udget.			
	Charge To	☐ Department Account		☐ Conting	jent Fι	und			
		☐ Capital Projects Fund	I	☐ Special	Purpo	se Accoun	ts		
D		☐ Debt Service		☐ Grant &	Aid A	ccounts			
		Other (Specify)							

	Purpose	Specify Type/Use	Expenditure	Revenue
	Salaries/Wages		\$0.00	\$0.00
			\$0.00	\$0.00
	Supplies/Materials		\$0.00	\$0.00
			\$0.00	\$0.00
E	Equipment		\$0.00	\$0.00
_			\$0.00	\$0.00
	Services		\$0.00	\$0.00
			\$0.00	\$0.00
	Other		\$0.00	\$0.00
			\$0.00	\$0.00
	TOTALS		\$ 0.00	\$ 0.00

F	Assumptions used in arriving at fiscal estimate.					
	For expenditures and revenue below and then list each item a	s which will occur on an annual basis over several years check the appropriate box and dollar amount separately.				
G	□ 1-3 Years □ 3-5 Year	Beginning in 2025, the state will pay to the City an amount equal to the personal property taxes levied as of Jan. 1, 2023. Wis. Stat. s. 79.0965(1).				
	☐ 1-3 Years ☐ 3-5 Yea	rs				
	☐ 1-3 Years ☐ 3-5 Yea	rs				
н	List any costs not included in	Sections D and E above.				
1	This change is revenue-neutral. 2023 Wis Act 12 repeals the personal property tax on businesses with personal property located in the state. The law freezes PP tax revenues at 2023 levels, the last year personal property taxes will be levied. Beginning in 2025, the State will reimburse the City an amount equal to the 2023 revenue level.					
J	This Note Was request	red by committee chair.				



	Date	6/23/2023	File Number	230374		Original	Substitute
Α	Subject	Fiscal Impact of WI 2023 Act 12 on TID Incremental Revenues due to Personal Property Taxes					
В	Submitted	By (Name/Title/Dept./Ext.)	Nathaniel Haac	k, Budget Analyst,	Budget and Ma	nagement D	ivision
С	This File						
D	Charge To	Capital Projects Fund			Contingent Fu	se Accoun	ts
ע		☐ Debt Service ☐ Other (Specify)			Grant & Aid A	ccounts	

	Purpose	Specify Type/Use	Expenditure	Revenue
	Salaries/Wages	Decreased salary for appraisal of personal property in TIDs	(\$35,000.00)	\$0.00
			\$0.00	\$0.00
	Supplies/Materials		\$0.00	\$0.00
			\$0.00	\$0.00
	Equipment		\$0.00	\$0.00
Е			\$0.00	\$0.00
	Services		\$0.00	\$0.00
			\$0.00	\$0.00
	Other	Decrease in incremental taxes in TIDs due to personal property taxes	\$110,000.00	\$0.00
		WI DOA reimbursement for personal property tax increment in TIDs	\$0.00	\$110,000.00
	TOTALS		\$75,000.00	\$110,000.00

Fiscal estimate assumes that the WI Dept of Revenue will calculate incremental personal property taxes within TIDs the same way as the city. Fiscal estimate that the labor needed to calculate personal property F taxes in TIDs is equivalent to 0.5 Senior Appraisers. This saving may not be directly realized as staff are reassigned to other appraisal duties but is likely an underestimation as this reassignment should increase the accuracy of real property assessments, reducing tax Assumptions used in arriving at fiscal estimate. remissions and legal liabilities. For expenditures and revenues which will occur on an annual basis over several years check the appropriate box below and then list each item and dollar amount separately. Decrease in labor expenditures for assessing the values of personal property tax **◯** 3-5 Years in TID districts. Estimated savings of \$35,000 in direct labor. State of WI will contribute to TIDs for loss of personal property tax. State G contibution will be frozen at the 2022 level of personal property tax. Personal property taxes account for less than 2% of TID values. Legislation is unclear on the specific value that the State will contribute but will □ 3-5 Years likely be revenue neutral. ☐ 1-3 Years 3-5 Years List any costs not included in Sections D and E above. WI Act 12 Section 12(3) specifies that tax incremental districts (TIDs) will be compensated by Additional information. the Wisconsin Dept of Administration for loss of personal property tax revenue.

This Note

Was requested by committee chair.