

July 7, 2014

Marian Ninneman, CEBS  
Employees' Retirement System Manager  
Milwaukee County Employees' Retirement System  
901 North 9<sup>th</sup> Street  
Milwaukee, Wisconsin 53233

**Re: VCP Ordinance Amendments for the Buy-In and Buy-Back Program for the County of Milwaukee Employees' Retirement System – Preliminary Actuarial Analysis**

Dear Marian:

We have been directed by you to prepare a preliminary estimate of the actuarial effect on ERS of not passing the proposed Ordinance amendments designed to retroactively correct certain technical failures in the Buy-In and Buy-Back programs, which we will collectively refer to as the BIBB. This letter presents the draft results of that study.

***Background Summary***

The County has identified 214 members who purchased service under ERS but who should not have been able to do so under then-current ERS provisions. Of the 214 members, most have already commenced benefits that are based on the additional purchased BIBB service. In addition, the ERS actuarial valuation has long reflected the additional purchased service for these 214 members. That is, the BIBB purchases are already taken into account in both the benefits these members are receiving and the actuarial position of ERS.

Were the County to elect not to adopt the proposed Ordinance amendments allowing the BIBB purchases for these members and to “turn back the clock,” the following would be necessary for each affected member:

- Repay from ERS the over-contributions (the amounts paid to buy BIBB service)
- Collect and restore to ERS the overpayments (extra benefits paid by virtue of the BIBB purchases)
- Reduce future benefits

While the first might be straightforward to accomplish, the latter two probably are not (More about this below).

***Estimate Methodology***

For purposes of this preliminary analysis, we have estimated the pre-BIBB purchase benefits based on the actual (post-BIBB) purchase benefits. The calculation of actual pre-BIBB benefits has not yet been completed and is not scheduled to be done until September. Results may differ materially when the actual “before” benefits are used.

*Actuarial Analysis*

**Effect on Future Contributions**

The net effect of not adopting the proposed Ordinance amendments is a decrease in contributions from the County and members. Were ERS to collect all overpayments from and repay all over-contributions to the 214 affected members, we project that the 2015 Budget contribution would decrease from \$38.3 million to about \$36.6 million. The details of this change are shown below.

	<b>2015 Budget Contribution</b>	<b>Contribution without Service Buyback</b>	<b>Change</b>
Normal Cost with Interest	\$ 15.8 Mil	\$ 15.8 Mil	\$ 0.0 Mil
Net Amortization Payments	<u>22.5 Mil</u>	<u>20.8 Mil</u>	<u>\$ (1.7) Mil</u>
Total Contribution	\$ 38.3 Mil	\$ 36.6 Mil	\$ (1.7) Mil

The Normal Cost is the annual cost of benefits accruing. This amount decreases slightly because the affected members will receive fewer benefits if the proposed Ordinance amendments are not adopted.

The Net Amortization Payments is the portion of the Total Contribution that is used to pay down the unfunded actuarial accrued liability of the Retirement System. As of January 1, 2014, the Retirement System has unfunded actuarial accrued liability of \$296.8 million. The 2015 Budget contribution for the unfunded actuarial accrued liability is the net amortization payment amount of \$22.5 million above. The net impact on the unfunded actuarial accrued liability associated with not adopting the Ordinance amendments is a decrease of \$26.8 million. The net amortization payment decreases by the \$1.7 million if the proposed Ordinance amendments are not adopted. For these purposes, we have used the 30 year amortization policy as established by the Retirement Board.

The total change in the contribution is the sum of the change in the Normal Cost plus Interest of \$0.0 million plus the change in the Net Amortization Payments of \$1.7 million for a total decrease in contribution of \$1.7 million.

**Impact on the Unfunded Actuarial Accrued Liabilities**

The unfunded actuarial accrued liabilities are estimated to decrease by \$26.8 million if the proposed Ordinance amendments are not adopted *and all overpayments and over-contributions are corrected*. A breakdown of the \$26.8 million by source is as follows:

(a) 1/1/2014 Valuation Status	(b) Head- Count	(c) Actuarial Accrued Liability With BIBB	(d) Actuarial Accrued Liability Without BIBB	(e) Accumulated Value of Estimated Benefit Payments With BIBB	(f) Accumulated Value of Estimated Benefit Payments Without BIBB	(g) Purchase Amounts, With Estimated Interest	(h) Net Decrease in Unfunded Actuarial Accrued Liability: (c)-(d)+(e)- (f)-(g)
Active	24	\$9.4 Mil	\$8.1 Mil	\$0.0 Mil	\$0.0 Mil	\$0.8 Mil	\$0.5 Mil
Terminated Vested	6	\$1.2 Mil	\$0.4 Mil	\$0.0 Mil	\$0.0 Mil	\$0.2 Mil	\$0.6 Mil
Pensioners	163	\$49.0 Mil	\$40.8 Mil	\$82.5 Mil	\$65.4 Mil	\$7.3 Mil	\$18.0 Mil
Deceased	<u>28</u>	<u>\$0.0 Mil</u>	<u>\$0.0 Mil</u>	<u>\$17.5 Mil</u>	<u>\$8.8 Mil</u>	<u>\$1.0 Mil</u>	<u>\$7.7 Mil</u>
Total	221	\$59.6 Mil	\$49.3 Mil	\$100.0 Mil	\$74.2 Mil	\$9.3 Mil	\$26.8 Mil

It is important to understand that the decrease in unfunded actuarial accrued liability does *not* represent overpayments by either the County or Members of the Retirement System. Neither the County nor the Members over-contributed.

The decrease in unfunded actuarial accrued liability represents the current value of the reduction in future benefits plus the assumed repayments of all benefit overpayments with interest, reduced by the refund of over-contributions.

Looking at the above we see that of the estimated \$26.8 million reduction breaks down as follows:

- Return of past overpayments with interest: \$25.8 million (column e minus column f); plus
- Reduction in future payments: \$10.3 million (c minus d), less
- Return of BIBB purchase amounts with interest: \$9.3 million (g)

There are, of course, major practical hurdles to collecting overpayments and interest, which constitutes the vast majority of any reduction in liability that might be achieved by not passing the Ordinance amendments. The results above represent a “very best case” scenario, one that we think it unlikely to be achieved in practice.

There may be legal issues as well, but such are beyond the scope of this analysis. Buck Consultants is not a law firm, and cannot advise on such matters.

A discussion of the components by member group follows.

#### Actives

As of October 1, 2014, there were 24 Active members that had Buy-In and Buy-Back violations at some point in their career. Including the additional purchased service, the Actuarial Accrued Liability (AAL) for these participants was approximately \$9.4 million. Using the purchased service amounts provided by the County, we calculated “adjusted” hire dates and “adjusted” benefit service amounts for these participants, and valued their liabilities as if the service had never been purchased. Using this methodology, the AAL for these participants was approximately \$8.1 million, for a net decrease in liability of \$1.3 million. This increase was due to additional service accruals, as well as earlier benefit commencement due to early retirement eligibility for certain participants. Members would receive a refund of the BIBB service purchase amounts with interest of \$0.8 million (More on that later in this section). This leaves a net decrease of \$0.5 million.

#### Terminated Vesteds

As of October 1, 2014, there were 6 Terminated Vested participants that had Buy-In and Buy-Back violations at some point prior to their termination. Including the additional purchased service, the AAL for these participants was approximately \$1.2 million. We went back to each participant’s start date and estimated what their benefit would have been without the purchased service. Based on these estimated benefit amounts, the total liability at October 1, 2014 for these participants was \$0.4 million. Therefore, the net effect of the violations was an increase in liability of approximately \$0.8 million. This increase was due primarily to additional service credits. Based on the data provided, we believe that all 6 of the Terminated Vested participants would still have been entitled to a Deferred Vested benefit without the BIBB service. Members would receive a refund of the BIBB service purchase amounts with interest of \$0.2 million. This leaves a net decrease of \$0.6 million.

#### Pensioners

As of October 1, 2014, there were 163 pensioners currently receiving benefits who had Buy-In and Buy-Back violations at some point in their (or their spouse’s) career. This includes Service Retirees, Disabled Participants, and Surviving Spouses of Deceased Participants. Including the additional purchased service, the AAL for these participants was approximately \$49.0 million. For each of these participants, we estimated what their benefit would have been had they not purchased service. Based on these benefits, the AAL for the pensioners was approximately \$40.8 million.

In addition, the additional purchased service allowed some participants to receive their benefits earlier than they would have had they not purchased service. As a result, the System has made more payments to these participants than they would have had the participants not purchased service. The estimated accumulated value of all of the payments made to these participants (with interest to October 1, 2014) is \$82.5 million. We estimate that if the service had not been purchased, there would have been payments of \$65.4 million. Therefore, the net effect of the violations was a total added cost of approximately \$25.3 million. This amount consists of an increase in liability of approximately \$8.2 million along with additional payments of \$17.1 million. This increase was primarily due to the additional payments that were made, but was also affected by the additional service credits purchased. Please note that when calculating the estimated hypothetical payments, we did not include the additional service that would have been rendered by these participants had they remained in active service for a longer period of time due to not being able to retire. Thus, we are comparing payments made on actual service rendered, and actual service purchased only. To state this another way: if a participant retired earlier than they would have been able to had they not purchased service, we went back and assumed that they

would have had to wait to retire, but did not add additional service to their benefit. Our reasoning here is that the additional service credits would have accrued over additional years of working service, and would have been attributed to those extra years worked.

Finally, these members would receive a refund of the BIBB service purchase amounts with interest of \$7.3 million. This leaves a net decrease of \$18.0 million.

#### Deceased Participants

There were 28 former retirees who had purchased service prior to retiring but were deceased as of October 1, 2014. For these participants, the estimated accumulated value of all of the payments made to these participants (with interest to October 1, 2014) was \$17.5 million. We estimate that if the service had not been purchased, the present value of all payments would have been \$8.8 million. Therefore, the net effect of the violations was an increase in the accumulated value of benefits paid of approximately \$8.7 million. This increase was primarily due to the additional payments that were made, but was also affected by the additional service credits. This calculation was done in a manner similar to the one used for the current pensioners. These members would receive a refund of the BIBB service purchase amounts with interest of \$1.0 million. This leaves a net decrease of \$7.7 million.

#### Purchase Amounts with Interest

In exchange for receiving additional service credits, members are required to make contributions towards the cost of the additional benefits they receive. For the 214 original participants plus 7 surviving spouses who were valued in this study, a total of approximately \$2.8 million was contributed, or is to be contributed to the System. This is an actual dollar figure, shown without any interest adjustment to October 1, 2014. We were provided with the actual dates of contribution for each participant, so we were able to estimate the contributions with interest from date of payment at the 8% rate used through this analysis. When interest is applied from each pensioner's date of purchase to October 1, 2014, the total contribution equals \$9.3 million. This amount helps to offset the total additional accrued liability to the fund of \$36.1 million.

#### **Future Violations**

We were asked to value the effect of all of the violations that have occurred to date. We have not valued the effect the Ordinance will have on any future Buy-In or Buy-Back actions that would be violations if not for the passing of the Ordinance.

It should be noted that Buy-Ins and Buy-Backs are processed and included in the Actuarial Valuation annually. Therefore, the System has already recognized the increased liabilities from the BIBB program through additional contributions made as a result of the increased liabilities at each valuation cycle. The increase in actuarial accrued liability should not be viewed as the amount of additional amount of contributions that have occurred as a result of the BIBB program. Indeed, the increase is likely one third of the total amount, with the remainder being made up with investment returns over time.

## **Basis for the Analysis**

County staff provided us with a data list of the 214 participants who have had Buy-In and/or Buy-Back violations that will be corrected by the proposed Ordinance amendments. In addition, we added 7 surviving spouses of deceased members currently receiving payments. For each participant, we measured their Actuarial Accrued Liability both before and after the purchase of the BIBB Service. For current pensioners, in addition to the additional accrued liability, we also compared the payments that have been made to each participant with the payments which would have been made had the Buy-In and Buy-Back not occurred.

Unless otherwise noted, all actuarial assumptions used to measure the Actuarial Accrued Liabilities as of October 1, 2014 are the same as was used in the January 1, 2014 Actuarial Valuation Report.. The date of the valuation was October 1, 2014. We used retiree data as provided by County staff. We used the active data from the January 1, 2014 actuarial valuation updated with valuation assumptions to reflect the passage of time from January 1, 2014 through October 1, 2014. The information used reflected the purchase of BIBB service. Benefit and retirement eligibilities without the purchase of service under the BIBB were not readily available from County Staff. We estimated those amounts. Refer to Exhibit A for more information on the assumptions and methods used for this analysis.

## **Certification**

Future actuarial measurements may differ significantly from the current measurement presented in this report due to such factors as: plan experience different from that anticipated by the economic and demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements; and changes in plan provisions or applicable law. Due to time constraints, actual benefit amounts based on the elimination of these Buy-Ins and Buy-Backs were not available and were estimated based on the techniques outlined in the appendix. Due to the limited scope of this report, an analysis of the potential range of such future measurements has not been performed.

They are also based upon present plan provisions that are outlined in the January 1, 2014 actuarial valuation report and proposed plan provisions outlined in this actuarial note. If you have reason to believe that the assumptions that were used are unreasonable, that the plan provisions are incorrectly described, that important plan provisions relevant to this proposal are not described, or that conditions have changed since the calculations were made, you should contact the authors of this actuarial note prior to relying on this information.

The primary purpose of this report is to present a preliminary estimate of the actuarial impact of not passing the proposed Ordinance amendments with respect to the Employee's Retirement System of the County of Milwaukee. Use of this report for any other purposes or by anyone other than Milwaukee County staff may not be appropriate and may result in mistaken conclusions because of failure to understand applicable assumptions, methods, or inapplicability of the report for that purpose. The attached pages should not be provided without a copy of this cover letter. No one may make any representations or warranties based on any statements or conclusions contained in this report without Buck Consultants' written consent.

Marian Ninneman

July 7, 2014

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I am a member of the American Academy of Actuaries and experienced in performing actuarial valuations of public employee retirement systems. To the best of my knowledge, this report is complete and accurate and has been prepared in accordance with generally-accepted actuarial principles and practices. I am qualified to render the opinions contained in this report

Please let us know if there are any questions.

Sincerely

A handwritten signature in blue ink, appearing to read 'LL'.

Larry Langer

Principal, Retirement Consulting

LL:pl

19150/C8273RET01-VCP Ordinance Amend-7-7-14.doc

Attachment

cc: Mark Grady, Corporation Counsel

## Exhibit A – Assumptions and Methodology

Unless otherwise noted, all actuarial assumptions used to measure the Actuarial Accrued Liabilities as of October 1, 2014 are the same as was used in the January 1, 2014 Actuarial Valuation Report.

All Present Value of Estimated Benefit calculations were based on Participants' current monthly benefit payable as a Single Life Annuity over the Participants' lifetime, with COLA's projected retroactively to benefit commencement.

Detailed benefit calculations without service purchased under the BIBB for affected members was not readily available from the County. As such, we used techniques outlined below to estimate the amounts without BIBB service. All calculations of estimated benefits without BIBB service were done assuming that participants would have retired no earlier than their actual retirement date, but no later than their earliest retirement date. An example of this methodology is shown below.

### Example of Calculation of Estimated Benefits for Sample Participant

Jane Doe retired on October 1, 2000 with a Single Life Annuity of \$3,000. At the time, she was 50 years old, and had 25 years of eligibility and benefit service, 6 years of which had been purchased through the BIBB program. As of October 1, 2014, she has received:

$$\$3,000 * 12 * 14 = \$504,000$$

With interest at an annualized rate of 8% on all payments to October 1, 2014, the accumulated value of the benefits that Jane received is approximately:

$$\$3,000 * 12 * 25.25190 = \mathbf{\$909,068}$$

Had Jane never purchased the BIBB Service, she would have had only 19 years of eligibility service, and therefore 69 "points" as of October 1, 2000. She would have not been eligible for retirement, and therefore would have waited until October 1, 2003 (at which point she would have had 22 years of eligibility service and been 53 years old) to retire. In addition, she would have only had 19 years of benefit service as of October 1, 2000. For the purpose of this study, we would have valued an adjusted benefit for Jane of:

$$19 / 25 * \$3,000 = \$2,280$$

This benefit would have commenced on October 1, 2003. As of October 1, 2014, she would have received:

$$\$2,280 * 12 * 11 = \$300,960$$

With interest at an annualized rate of 8% on all payments to October 1, 2014, the accumulated value of the benefits that Jane would have received would be approximately:

$$\$2,280 * 12 * 17.35831 = \mathbf{\$474,923}$$

As of October 1, 2014, the Accrued Liability of Jane's remaining benefit is

$$\$3,000 * 12 * 10.045589 = \mathbf{\$361,641}$$

Without the BIBB purchased service, the Accrued Liability of her remaining benefit is

$$\$2,280 * 12 * 10.045589 = \mathbf{\$274,847}$$

The additional liability created by the purchased service for Jane is:

$$\$909,068 - \$474,923 + \$361,641 - \$274,847 = \mathbf{\$520,939}$$