February 9, 2018

Mr. David A. Houser
Auditor-Controller
County of Butte
25 County Center Drive
Oroville, CA 95965

Re: County of Butte ("County") GASB 75 Valuation

Dear Mr. Houser:

This report sets forth the results of our GASB 75 actuarial valuation of the County's retiree health insurance program as of July 1, 2017.

In June 2004, the Governmental Accounting Standards Board (GASB) issued its accrual accounting standards for retiree healthcare benefits, GASB 43 and GASB 45. GASB 43/45 require public employers such as the County to perform periodic actuarial valuations to measure and disclose their retiree healthcare liabilities for the financial statements of both the employer and the trust, if any, set aside to pre-fund these liabilities. In June 2015, GASB released new accounting standards for postretirement benefit programs, GASB 74 and GASB 75, which replace GASB 43 and GASB 45, respectively.

To accomplish these objectives the County selected Demsey, Filliger and Associates (DF&A) to perform an actuarial valuation of the retiree health insurance program as of July 1, 2017. This report may be compared with the valuation performed by DF&A as of July 1, 2017, to see how the liabilities have changed since the last valuation. The valuation reflects the agreements between the County and Teamsters Local 137 for the General and SSW units (we understand MOU's were ratified on February 28, 2017 and the agreement was signed on August 8, 2017).

Financial Results

We have determined that the amount of actuarial liability for County-paid retiree benefits is $90,706,918 as of July 1, 2017. This represents the present value of all benefits expected to be paid by the County for its current and future retirees. If the County were to place this amount in a fund earning interest at the rate of 4.5% per year, and all other actuarial assumptions were exactly met, the fund would have exactly enough to pay all expected benefits.

This valuation includes benefits for 545 retirees as well as 2,155 active employees who may become eligible to retire and receive benefits in the future. It excludes employees hired after the valuation date.

When we apportion the $90,706,918 into past service and future service components under the Entry Age, Level Percent of Pay Cost Method, the Total OPEB Liability is $67,157,354 as of July 1, 2017. This represents the present value of all benefits accrued through the valuation date if each employee's liability is expensed from hire date until retirement date as a level percentage of pay. The $67,157,354 is comprised of liabilities of $44,402,347 for active employees and $22,755,007 for retirees.

The County has adopted an irrevocable trust sponsored by CalPERS ("CERBT") for the pre-funding of retiree healthcare benefits. As of June 30, 2017, the trust balance or Plan Fiduciary's Net Position (GASB 75) is $2,385,031.

The Net OPEB Liability, Total OPEB Liability over the Plan Fiduciary's Net Position, is $64,772,323.

Discount Rate under GASB 75

For financial reporting purposes, GASB 75 requires a discount rate that reflects the following:

a. The long-term expected rate of return on OPEB plan investments – to the extent that the OPEB plan's fiduciary net position is projected to be sufficient to make projected benefit payments and assets are expected to be invested using a strategy to achieve that return)

b. A yield or index rate for 20-year, tax-exempt general obligation municipal bonds with an average rating of AA/Aa or higher – to the extent that the conditions in (a) are not met.

The amount of the plan's projected fiduciary net position and the amount of projected benefit payments should be compared in each period of projected benefit payments.

Based on these requirements and the following information, we have determined a discount rate of 3.76% for GASB 75 reporting purposes:

Expected Return on Assets	4.50%
S&P Municipal Bond 20-Year High Grade Rate Index at June 30, 2017	3.13%
GASB 75 Discount Rate	3.76%

Net OPEB Expense

We have determined the following components of the County's Net OPEB Expense for fiscal year 2017-18: Service Cost, Interest Cost, and Expected Return on Assets. The Service Cost represents the present value of benefits accruing in the current year. Interest Cost represents the interest on the Total OPEB Obligation. Expected Return on Assets is the expected return based on a 4.5% investment rate of return. Other components (Deferred Outflows and Inflows) will be determined based on the Net OPEB Obligation as of June 30, 2018.

We summarize the valuation results in the table on the next page. We provide results at three discount rates (the expected return on assets, the S&P Municipal Bond rate index, and the blended GASB 75 rate, discussed above). All amounts are net of expected future retiree contributions, if any.

When the County begins preparation of the June 30, 2018 government-wide financial statements, DF&A will be available to assist the County and its auditors in preparing the footnotes and required supplemental information for compliance with GASB 75 (and GASB 74, if applicable).

In the meantime, we are available to answer any questions the County may have concerning the report.

County of Butte

Net OPEB Liabilities and Expense under GASB 75 Accrual Accounting Standard

	July 1, 2017		
	Actuarial Liability	**S&P Municipal Bond Rate Index**	**GASB 75 Blended Rate**
Discount Rate	4.5%	3.13%	3.76%
Present Value of Future Benefits			
Active	$67,951,911	$85,601,772	$76,773,028
Retired	22,755,007	25,499,894	24,157,432
Total	$90,706,918	$111,101,666	$100,930,460
Total OPEB Liability (Actuarial Liability)			
Active	$44,402,347	$52,029,240	$48,323,669
Retired	22,755,007	25,499,894	24,157,432
Total	$67,157,354	$77,529,134	$72,481,101
Plan Fiduciary Net Position (Plan Assets)	$2,385,031	$2,385,031	$2,385,031
Net OPEB Liability (Unfunded Actuarial Liability)	$64,772,323	$75,144,103	$70,096,070
Components of Net OPEB Expense for fiscal year 2018[1]			
Service Cost at Year-End	$3,242,514	$4,163,891	$3,705,783
Interest Cost	2,945,252	2,373,045	2,660,979
Expected Return on Assets	(107,326)	(107,326)	(107,326)
Subtotal	$6,080,440	$6,429,610	$6,259,436
Change in Deferred Outflows[1]			
Change in Deferred Inflows[2]			

1. To be determined based on the Total OPEB Obligation and Plan Fiduciary Net Position as of June 30, 2018.
2. To be determined based on the Total OPEB Obligation and Plan Fiduciary Net Position as of June 30, 2018.

Differences from Prior Valuation

The most recent prior valuation was completed as of July 1, 2015 by DF&A. The AL (Accrued Liability) as of that date was $64,108,286 (see page 3 of the prior report), compared to $67,157,354 as of July 1, 2017. In this section, we provide a reconciliation between the two numbers so that it is possible to trace the AL from one actuarial report to the next.

Several factors have caused the AL to change since 2015. The AL increases as employees accrue more service and get closer to receiving benefits. There are actuarial gains/losses from one valuation to the next, and changes in actuarial assumptions and methodology for the current valuation. To summarize, the most important changes were as follows:

1. There was a gain (a decrease in the AL) of $3,482,747 due to increases in healthcare premiums and statutory minimum contributions less than expected.
2. There was a loss (an increase in the AL) of $18,030 due to an increase in the PERS Health administrative fee from 0.32% of premium to 0.33% of premium.
3. We changed our valuation software to be able to track experience more precisely over time. This change increased the AL by $3,067,612.
4. We changed the actuarial cost method from Projected Unit Credit to Entry Age, Level Percent of Pay, as required by GASB 75. This change increased the AL by $6,140,173.
5. There was a net census loss (an increase in the AL) of $207,185.
6. We reflected the agreement between the County and Teamsters Local 137. The agreement transitions General and SSW union members from CalPERS health insurance to Teamsters sponsored health insurance. This change decreased the AL by $9,317,951.

The estimated changes to the AL from July 1, 2015 to July 1, 2017 are as follows:

Changes to AL	**AL**
AL as of 7/1/15	**$64,108,286**
Passage of time	6,416,767
Premium increases < expected	(3,482,747)
Change in PERS Health admin fee	18,030
Change in valuation software	3,067,612
Change in cost method	6,140,173
Census loss	207,185
Change in plan provisions	(9,317,951)
AL as of 7/1/17[1]	**$67,157,354**

1. Based on a discount rate of 4.5%.

Funding Schedules

There are many ways to approach the pre-funding of retiree healthcare benefits. In the *Financial Results* section, we determined the annual expense for all County-paid benefits. The expense is an orderly methodology, developed by the GASB, to account for retiree healthcare benefits. However, the GASB 75 expense has no direct relation to amounts the County may set aside to pre-fund healthcare benefits.

The table on the next page provides the County with three alternative schedules for funding (as contrasted with expensing) retiree healthcare benefits. The schedules all assume that the retiree fund earns, or is otherwise credited with, 4.5% per annum on its investments, a starting trust value of $2,385,031 as of July 1, 2017, and that contributions and benefits are paid mid-year.

The schedules are:

1. A level contribution amount for the next 20 years.
2. A level percent of the Unfunded Accrued Liability.
3. A constant percentage (3%) increase for the next 20 years.

We provide these funding schedules to give the County a sense of the various alternatives available to it to pre-fund its retiree healthcare obligation. The three funding schedules are simply three different examples of how the County may choose to spread its costs.

By comparing the schedules, you can see the effect that early pre-funding has on the total amount the County will eventually have to pay. Because of investment earnings on fund assets, the earlier contributions are made, the less the County will have to pay in the long run. Of course, the advantages of pre-funding will have to be weighed against other uses of the money.

The table on the following page shows the required annual outlay under the pay-as-you-go method and each of the above schedules. **The three funding schedules include the "pay-as-you-go" costs; therefore, the amount of pre-funding is the excess over the "pay-as-you-go" amount.**

Treatment of Implicit Subsidy

We exclude the implicit subsidy from these funding schedules because we do not recommend that the County pre-fund for the full age-adjusted costs reflected in the liabilities shown in the first section of this report. If the County's premium structure changes in the future to explicitly charge under-age 65 retirees for the full actuarial cost of their benefits, this change will be offset by a lowering of the active employee rates (all else remaining equal), resulting in a direct reduction in County operating expenses on behalf of active employees from that point forward. For this reason among others, we believe that pre-funding of the full GASB liability would be redundant.

County of Butte

Sample Funding Schedules (Closed Group)

Starting Trust Value of $2,385,031 as of July 1, 2017

Fiscal Year Beginning	Pay-as-you-go	Level Contribution for 20 years	Level % of Unfunded Liability	Constant Percentage Increase
2017	$2,374,998	$4,135,653	$10,173,028	$3,213,525
2018	2,444,178	4,135,653	8,411,918	3,309,931
2019	2,510,517	4,135,653	6,992,029	3,409,228
2020	2,579,125	4,135,653	5,846,589	3,511,505
2021	2,694,698	4,135,653	4,922,018	3,616,850
2022	2,777,906	4,135,653	4,176,874	3,725,356
2023	2,943,509	4,135,653	3,574,458	3,837,117
2024	3,179,602	4,135,653	3,089,502	3,952,230
2025	3,283,326	4,135,653	2,700,638	4,070,797
2026	3,436,651	4,135,653	2,383,648	4,192,921
2027	3,534,765	4,135,653	2,125,439	4,318,709
2028	3,633,167	4,135,653	1,912,121	4,448,270
2029	3,661,309	4,135,653	1,734,359	4,581,718
2030	3,720,346	4,135,653	1,582,874	4,719,169
2031	3,738,810	4,135,653	1,453,006	4,860,745
2032	3,834,526	4,135,653	1,339,257	5,006,567
2033	3,933,534	4,135,653	1,239,765	5,156,764
2034	3,892,825	4,135,653	1,151,161	5,311,467
2035	3,801,756	4,135,653	1,068,434	5,470,811
2036	3,694,653	4,135,653	989,798	5,634,935
2037	3,573,540	0	914,592	0
2038	3,372,713	0	842,421	0
2039	3,322,570	0	772,506	0
2040	3,203,806	0	706,368	0
2041	3,023,993	0	643,052	0
2042	2,875,233	0	582,302	0
2043	2,644,137	0	524,496	0
2044	2,481,472	0	459,613	0
2045	2,311,527	0	370,470	0
2046	2,101,818	0	298,635	0
2047	2,017,098	0	240,742	0
2048	1,911,467	0	194,091	0
2049	1,819,581	0	156,497	0
2050	1,772,645	0	126,201	0
2055	1,440,607	0	43,173	0
2060	1,109,549	0	14,914	0
2065	775,550	0	5,251	0
2070	481,217	0	1,907	0

Note to auditor: when calculating the employer OPEB contribution for the year ending on the statement date, we recommend multiplying the actual County-paid premiums on behalf of retirees by a factor of 1.4754 to adjust for the implicit subsidy.

Actuarial Assumptions

To perform the valuation, the actuary must make certain assumptions regarding such items as rates of employee turnover, retirement, and mortality, as well as economic assumptions regarding healthcare inflation and interest rates. Our assumptions are based on a standard set of assumptions we have used for similar valuations, modified as appropriate for the County. For example, turnover rates are taken from a standard actuarial table, T-5, increased by 40% at all ages. This assumption matches the County's historic turnover patterns. Retirement rates were also based on recent County retirement patterns.

The discount rate of 4.5% is based on our best estimate of expected long-term plan experience for partially funded plans such as the County's. As discussed above, for financial reporting purposes under GASB 75, a discount rate of 3.76% reflects the required blend between 4.5% and municipal bond rate. The healthcare trend rates are based on our analysis of recent County experience and our knowledge of the healthcare environment.

For purposes of projecting the PEMHCA administrative fee and the medical portion of the County stipend, we used the average equivalent single-retiree premium based on current retiree health plan selection. A complete description of the actuarial assumptions used in the valuation is set forth in the "Actuarial Assumptions" section.

Projected Annual Pay-as-you go Costs

As part of the valuation, we prepared a projection of the expected annual cost to the County to pay benefits on behalf of its retirees on a pay-as-you-go basis. These numbers are computed on a closed group basis, assuming no new entrants, and are net of retiree contributions. Projected pay-as-you-go costs for selected years are as follows:

FYB	Pay-as-you-go
2017	$2,374,998
2018	2,444,178
2019	2,510,517
2020	2,579,125
2021	2,694,698
2025	3,283,326
2030	3,720,346
2035	3,801,756
2040	3,203,806
2045	2,311,527
2050	1,772,645
2055	1,440,607
2060	1,109,549
2065	775,550
2070	481,217

Breakdown by Employee/Retiree Group

We understand that the County allocates cost to the employee groups based the Annual Required Contribution equal to Service Cost plus a 30-year amortization of the unfunded accrued liability. Exhibit I, attached at the end of the report, shows a breakdown of the components (ARC, AL, Service Cost, and PVFB) by bargaining unit (or non-represented group) and separately by active employees (future retirees) and current retirees.

Certification

The actuarial certification, including a caveat regarding limitations of scope, if any, is contained in the "Actuarial Certification" section on page 15.

We have enjoyed working with the County on this project and are available to answer any questions you may have concerning any information contained herein.

Sincerely,
DEMSEY, FILLIGER AND ASSOCIATES

Carlos Diaz, ASA, EA, MAAA
Actuary

Benefit Plan Provisions

Healthcare Coverage under the California Public Employees Medical and Hospital Care Act ("PEMHCA")

For all employees, except members represented by Teamsters Local 137, the County sponsors healthcare coverage under PEMHCA, commonly referred to as PERS Health. PEMHCA provides health insurance through a variety of Health Maintenance Organization (HMO) and Preferred Provider Organization (PPO) options. Delta Dental (Premier and DPO), vision and life insurance are also available. The County also offers medical, dental and vision coverage (but not life insurance) to its retirees.

Participation in PEMHCA is financed through employee/retiree contributions and County monthly, per-employee contributions to PEMHCA. For 2017, the monthly County contributions are $128.00 for both active and retired members. For 2018, those amounts both increased to $133.00, and will remain in lock-step for all future years.

The County also provides premium reimbursements according to agreements with its various employee groups (subject to benefit and eligibility changes that took effect in 2010), as described below.

Agreements with BCCOA – General, BCCOA – Supervisory, DSA – General, DSA – Management, and PPOA – General

Healthcare Coverage – Employees who upon termination, immediately retire under the provisions of the County's contract with CalPERS are eligible for the County's PEMCHA contribution towards health benefits coverage (employees only) to age 65.

After a retired employee's death, the retiree's spouse may use remaining sick leave, to purchase medical benefits – subject to the provisions of the respective agreement.

Premium Reimbursement – Employees hired before July 1, 2010, with 10 years or more of cumulative service with the County, and who, upon termination, immediately retire under the provisions of the County's contract with CalPERS are eligible for the following reimbursement:

1. 12 months of reimbursable health premiums immediately following retirement.
2. Conversion of sick leave to health Insurance provided the retiree makes an irrevocable election at the time of retirement to receive one of the following benefit options:
   - One month of retiree-only premiums for each day of accrued sick leave at retirement;
   - One month of 2-party premiums (employee and spouse) for each 2½ days more than 30 days accrued sick leave at retirement to cover both employee and spouse until age 65; or
   - One month of retiree-only premiums for each day of accrued sick leave until the sick leave credit is exhausted or the retiree reaches age 65, and 1½ month of premiums for spousal coverage for each day of accrued sick leave more than thirty days until the sick leave credit is exhausted or the spouse reaches age 65.

The level of County reimbursements is stipulated in the respective agreements.

<u>Agreements with BCMEA, DDAA, PEA, PPOA – Management, and Skilled Trades</u>

Healthcare Coverage – Employees who upon termination, immediately retire under the provisions of the County's contract with CalPERS are eligible for the PEMCHA contribution towards health benefits coverage (employees only) to age 65.

After a retired employee's death, the retiree's spouse may use remaining sick leave, to purchase medical benefits – subject to the provisions of the respective agreement.

Premium Reimbursement – Employees hired before July 1, 2010, with 10 years or more of cumulative service with the County, and who, upon termination, immediately retire under the provisions of the County's contract with CalPERS are eligible for the following reimbursement:

1. 12 months of reimbursable health premiums immediately following retirement

2. Conversion of sick leave to health insurance provided that after the first year of retirement, miscellaneous members elects one of the following two options:

   - One month of retiree-only premiums for each day of accrued sick leave at retirement; or

   - One month of retiree-only premiums for each day of accrued sick leave until the sick leave credit is exhausted or the retiree reaches age 65, and one month of premiums for spousal coverage for each 1½ day of accrued sick leave more than thirty days until the sick leave credit is exhausted or the spouse reaches age 65.

The level of monthly County reimbursements is stipulated in the respective agreements.

<u>Provisions for Non-Represented Employees</u>

Healthcare Coverage – Employees who, upon termination, immediately retire under the provisions of the County's contract with CalPERS are eligible for the PEMCHA contribution towards health benefits coverage (employees only) to age 65.

After a retired employee's death, the retiree's spouse may use remaining sick leave, to purchase medical benefits – subject to the provisions of the respective agreement.

Premium Reimbursement – Employees with 10 years or more of cumulative service with the County, and who, upon termination, immediately retire under the provisions of the County's contract with CalPERS are eligible for conversion of sick leave to health insurance provided the retiree makes an irrevocable election at the time of retirement to receive one of the following benefit options:

- One month of retiree-only premiums for each day of accrued sick leave at retirement;

- One month of 2-party premiums (employee and spouse) for each 2½ days more than 30 days accrued sick leave at retirement to cover both employee and spouse until age 65; or

Benefit Plan Provisions (Continued)

- One month of retiree-only premiums for each day of accrued sick leave until the sick leave credit is exhausted or the retiree reaches age 65, and 1½ month of premiums for spousal coverage for each day of accrued sick leave more than thirty days until the sick leave credit is exhausted or the spouse reaches age 65.

The level of monthly County reimbursements is stipulated in the agreement.

Provisions for Elected and Appointed Department Heads and Officials

Elected and appointed department heads or officials retiring in good standing before age 65 under the provisions of the County's contract with PERS may continue to cover themselves and eligible dependents under the health plans. The County pays the full premium until age 65.

Healthcare Coverage under the Northern California General Teamsters Security Fund ("NCGTSF") and Teamsters Retiree Trust ("TRT")

For employees represented by Teamsters Local 137, the County provides healthcare coverage through the Northern California General Teamsters Security Fund Plan Select Plus (including a Kaiser option), or Plan E (a HDHP with an HSA). Coverage is funded through County and employee contributions.

The County offers a Flexible Benefits Plan for employees who decline medical coverage. The County provides dental and/or vision programs for employees (regardless of medical participation) and basic group term life insurance (at County expense).

For its retirees, the County offers medical, dental and vision coverage (but not life insurance) and provides premium reimbursements according to agreements with its various employee groups (subject to benefit and eligibility changes that took effect in 2010), as described below.

Agreements with General Unit and Social Service Workers' Unit

Employees and their eligible dependents who retire and are eligible for County-paid premiums shall be covered under the NCGTSF plan at the same level and premium amount as active employees.

Employees and their eligible dependents that are not eligible for County-paid premiums shall be covered under the TRT plan, except those employees who are in a retired status as of 12/31/17 shall have the option of the NCGTSF or the TRT plan.

Premium Reimbursement – Effective January 1, 2018 all retirees and their eligible dependents who are not eligible for Medicare and who pay retiree premiums and are in a retired status as of December 31, 2017 will receive a County contribution of $80.00 per month towards health insurance until he/she reaches age sixty-five (65).

Benefit Plan Provisions
(Continued)

Employees hired before July 1, 2010, with 10 years or more of cumulative service with the County, and who upon termination, immediately retire from County service are eligible for the following:

1. 12 months of reimbursable health premiums immediately following retirement;

2. Conversion of sick leave to health insurance provided that after the first year of retirement, miscellaneous members elects one of the following two options:

    - One month of retiree-only premiums for each day of accrued sick leave at retirement; or

    - One month of retiree-only premiums for each day of accrued sick leave until the sick leave credit is exhausted or the retiree reaches age 65, and one month of premiums for spousal coverage for each 1½ day of accrued sick leave more than thirty days until the sick leave credit is exhausted or the spouse reaches age 65.

The level of monthly County reimbursements is stipulated in the respective agreements.

Healthcare Premiums

The following table shows January 1, 2017 monthly PERS Health (PEMHCA) premiums for retirees within the Other Northern California region. Dental and vision rates in effect for 2016-17 are also included.

Basic Plan	Blue Shield HMO	PERS Care PPO	PERS Choice PPO	PERS Select	PORAC	Delta Premier Dental	Delta Dental DPO	Vision
Retiree	$954.51	$921.24	$820.38	$727.45	$699.00	$34.45	$31.69	$13.90
Retiree + 1	1,909.02	1,842.48	1,640.76	1,454.90	1,467.00	74.70	69.00	13.90
Family	2,481.73	2,395.22	2,132.99	1,891.37	1,876.00	N/A	108.43	13.90

Valuation Data

Active and Retiree Census

Age distribution of retirees included in the valuation

Age	Statutory Minimum Only	County Stipend	Total
Under 50	2	6	8
50-54	4	4	8
55-59	17	30	47
60-64	38	83	121
65-69	129	11	140
70-74	106	3	109
75-79	55	0	55
80-84	31	0	31
85-89	21	0	21
90+	5	0	5
All Ages	408	137	545
Average Age	70.79	60.52	68.21

Age/Years of service distribution of active employees included in the valuation

Years→	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35+	Total
Age									
<25	38	1	0	0	0	0	0	0	39
25-29	170	17	0	0	0	0	0	0	187
30-34	173	59	14	1	0	0	0	0	247
35-39	114	67	76	22	0	0	0	0	279
40-44	76	42	64	86	21	0	0	0	289
45-49	80	50	51	78	53	11	0	0	323
50-54	52	42	39	66	36	44	7	0	286
55-59	38	33	47	54	40	20	12	1	245
60-64	27	28	39	51	29	12	10	7	203
65+	10	6	15	7	6	4	4	5	57
All Ages	778	345	345	365	185	91	33	13	2,155

Average Age: 44.9
Average Service: 10.2

Actuarial Assumptions

The liabilities set forth in this report are based on the actuarial assumptions described in this section.

Valuation Date:	July 1, 2017
Actuarial Cost Method:	Entry Age Normal, Level Percent of Pay
Amortization Method:	30-year level percent of pay, open period
Discount Rate:	
Accrued Liability	4.50% per annum
GASB 75	3.76% per annum
Return on Assets:	4.50% per annum
Salary Increases:	3.00% per annum

Pre-retirement Turnover: According to Crocker-Sarason Table T-5 less mortality, increased by 40% at all ages. Sample rates are as follows:

Age	Turnover (%)
25	10.8%
35	8.8
45	5.6
55	1.3

Pre-retirement Mortality: RP-2014 Employee Mortality, without projection. Sample deaths per 1,000 employees are as follows:

Age	Males	Females
25	0.48	0.17
35	0.52	0.29
45	0.97	0.66
55	2.79	1.67

Post-retirement Mortality: RP-2014 Healthy Annuitant Mortality, without projection. Sample deaths per 1,000 retirees are as follows:

Age	Males	Females
55	5.74	3.62
60	7.78	5.19
65	11.01	8.05
70	16.77	12.87
75	26.83	20.94
80	44.72	34.84
85	77.50	60.50
90	135.91	107.13

Actuarial Assumptions (Continued)

Claim Cost per Retiree or Spouse:

Age	Medical/Rx	Dental/Vision
50	$10,476	$401
55	12,145	401
60	14,079	401
64	15,846	401
65+	4,154	401

Retirement Rates:

Age	Percent Retiring*
50	2.0%
51	3.0
52	4.0
53	5.0
54	6.0
55	7.0
56	8.0
57	10.0
58	11.0
59	12.0
60	13.0
61	15.0
62	20.0
63	22.0
64	25.0
65	100.0

* Of those having met eligibility to receive PERS retirement benefits. The percentage refers to the probability that an active employee who has reached the stated age will retire within the following year.

Trend Rate: Healthcare costs were assumed to increase according to the following schedule:

FYB	Medical/Rx	Dental/Vision	Medical CPI
2017	6.0%	4.0%	3.5%
2018+	5.0	4.0	3.5

Percent Waiving Coverage: 30% (applies to future retirees only)

Future Sick Leave Accrual: Under age 30: 59 hours per year of employment
Age 30+: 34 hours per year of employment

Percent of Retirees with Spouses: Future Retirees: 60% of future retirees were assumed to have spouses. Female spouses assumed three years younger than male spouses. Current Retirees: Based on actual spousal data.

Actuarial Certification

The results set forth in this report are based on our actuarial valuation of the health and welfare benefit plans of the County of Butte ("County") as of July 1, 2017.

The valuation was performed in accordance with generally accepted actuarial principles and practices. We relied on census data for active employees and retirees provided to us by the County. We also made use of claims, premium, expense, and enrollment data, and copies of relevant sections of healthcare documents provided to us by the County, and trust statements prepared by CalPERS and provided to us by the County.

The assumptions used in performing the valuation, as summarized in this report, and the results based thereupon, represent our best estimate of the actuarial costs of the program under GASB 74 and GASB 75, and the existing and proposed Actuarial Standards of Practice for measuring post-retirement healthcare benefits. We have assumed no post-valuation mortality improvements, consistent with our belief that there will be no further significant, sustained increases in life expectancy in the United States over the projection period covered by the valuation.

Throughout the report, we have used unrounded numbers, because rounding and the reconciliation of the rounded results would add an additional, and in our opinion unnecessary, layer of complexity to the valuation process. By our publishing of unrounded results, no implication is made as to the degree of precision inherent in those results. Clients and their auditors should use their own judgment as to the desirability of rounding when transferring the results of this valuation report to the clients' financial statements.

The undersigned actuary meets the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained in this report.

Certified by:

Carlos Diaz, ASA, EA, MAAA
Actuary

County of Butte

7/1/17 Annual Required Contribution

Exhibit I

Broken down by Employee & Retiree group

Discount Rate	4.50%
Salary Increases	3.00%
Investment Return	4.50%
Total Assets	$2,385,031
Accrued Liability	67,157,354
Implicit Subsidy Factor	1.4754

Employee/Retiree Group	Active Employees PVB	AL	Less: Assets	UAL	30-Year Amortization of UAL	SC	ARC Actives	Retirees PVB=AL	Assets	UAL	30-Year Amortization of AL	ARC Retirees	Total ARC Ret+Actives
APPOINTED DEPT HEADS	$732,203	$467,604	($16,607)	$450,997	$19,223	$42,259	**$61,482**	$1,073,009	($38,107)	$1,034,902	$44,111	**$44,111**	**$105,593**
BC DD ATTORNEYS ASSOCIATIO	1,033,310	658,433	(23,384)	635,049	27,068	42,680	**69,748**	445,221	(15,812)	429,409	18,303	**18,303**	**88,051**
BCCOA GENERAL	3,454,900	2,128,994	(75,609)	2,053,385	87,522	144,713	**232,235**	491,797	(17,466)	474,331	20,218	**20,218**	**252,453**
BCCOA SUPERVISORY	189,506	153,620	(5,456)	148,164	6,315	4,626	**10,941**	397,031	(14,100)	382,931	16,322	**16,322**	**27,263**
BCMEA	22,013,275	15,245,985	(541,447)	14,704,538	626,755	882,566	**1,509,321**	8,483,739	(301,292)	8,182,447	348,762	**348,762**	**1,858,083**
BOS EXEC ASSISTANTS	105,236	63,979	(2,272)	61,707	2,630	6,559	**9,189**	104,842	(3,723)	101,119	4,310	**4,310**	**13,499**
CONFIDENTIAL	1,412,787	877,197	(31,153)	846,044	36,061	62,930	**98,991**	108,484	(3,853)	104,631	4,460	**4,460**	**103,451**
DSA GENERAL	4,349,600	3,201,598	(113,702)	3,087,896	131,616	121,968	**253,584**	2,548,349	(90,502)	2,457,847	104,761	**104,761**	**358,345**
DSA MGMT	531,288	447,553	(15,894)	431,659	18,399	12,683	**31,082**	867,351	(30,803)	836,548	35,656	**35,656**	**66,738**
ELECTED DEPT HEADS	361,798	288,956	(10,262)	278,694	11,879	13,531	**25,410**	293,828	(10,435)	283,393	12,079	**12,079**	**37,489**
GENERAL UNIT	11,745,049	6,817,248	(242,108)	6,575,140	280,254	815,341	**1,095,595**	3,978,831	(141,304)	3,837,527	163,568	**163,568**	**1,259,163**
NON-REP	1,811,120	1,266,969	(44,995)	1,221,974	52,084	74,065	**126,149**	562,666	(19,983)	542,683	23,131	**23,131**	**149,280**
PEA	1,416,386	703,337	(24,978)	678,359	28,914	90,192	**119,106**	513,831	(18,248)	495,583	21,123	**21,123**	**140,229**
PPOA	5,211,845	3,778,584	(134,193)	3,644,391	155,336	158,668	**314,004**	516,268	(18,335)	497,933	21,224	**21,224**	**335,228**
PPOA MGMT	314,476	267,579	(9,503)	258,076	11,000	4,473	**15,473**	0	0	0	0	**0**	**15,473**
SKILLED TRADES	4,592,359	2,773,192	(98,487)	2,674,705	114,005	244,282	**358,287**	711,091	(25,254)	685,837	29,233	**29,233**	**387,520**
SSW UNIT	8,676,771	5,261,520	(186,858)	5,074,662	216,298	520,976	**737,274**	1,658,668	(58,906)	1,599,762	68,187	**68,187**	**805,461**
Totals	**$67,951,909**	**$44,402,348**	**($1,576,908)**	**$42,825,440**	**$1,825,359**	**$3,242,512**	**$5,067,871**	**$22,755,006**	**($808,123)**	**$21,946,883**	**$935,448**	**$935,448**	**$6,003,319**