



May 15, 2018

Ms. Cheryl Phan
Director of Fiscal Services
Sylvan Union School District
605 Sylvan Ave.
Modesto, CA 95350

Re: Sylvan Union School District ("District") GASB 75 Valuation

Dear Ms. Phan:

This report sets forth the results of our GASB 75 actuarial valuation of the District'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 District 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.

The District selected DFA, LLC (DFA) 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 DFA as of July 1, 2015, to see how the liabilities have changed since the last valuation.

Financial Results

We have determined that the amount of actuarial liability for District-paid retiree benefits is \$12,341,608 as of July 1, 2017. This represents the present value of all benefits expected to be paid by the District for its current and future retirees. If the District were to place this amount in a fund earning interest at the rate of 4.00% 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 35 retirees as well as 743 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 \$12,341,608 into past service and future service components under the Entry Age, Level Percent of Pay Cost Method, the Total OPEB Liability is \$8,064,152 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 \$8,064,152 is comprised of liabilities of \$6,952,170 for active employees and \$1,111,982 for retirees.

The District has not adopted an irrevocable trust 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 \$0.

The Net OPEB Liability, Total OPEB Liability over the Plan Fiduciary's Net Position, is \$8,064,152.

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 3.13% for GASB 75 reporting purposes:

Expected Return on Assets	4.00%
S&P Municipal Bond 20-Year High Grade Rate Index at June 30, 2017	3.13%
GASB 75 Discount Rate	3.13%

Net OPEB Expense

We have determined the following components of the District'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 4.00% 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 District begins preparation of the June 30, 2018 government-wide financial statements, DFA will be available to assist the District 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 District may have concerning the report.

Sylvan Union School District

**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	4.00%	3.13%	3.13%
Present Value of Future Benefits			
Active	\$11,229,626	\$12,724,668	\$12,724,668
Retired	1,111,982	1,136,634	1,136,634
Total	\$12,341,608	\$13,861,302	\$13,861,302
Total OPEB Liability (Actuarial Liability)			
Active	\$6,952,170	\$7,557,744	\$7,557,744
Retired	1,111,982	1,136,634	1,136,634
Total	\$8,064,152	\$8,694,378	\$8,694,378
Plan Fiduciary Net Position (Plan Assets)	\$0	\$0	\$0
Net OPEB Liability (Unfunded Actuarial Liability)	\$8,064,152	\$8,694,378	\$8,694,378
Components of Net OPEB Expense for fiscal year 2018			
Service Cost at Year-End	\$505,759	\$572,806	\$572,806
Interest Cost	315,501	266,594	266,594
Expected Return on Assets	0	0	0
Subtotal	\$821,260	\$839,400	\$839,400
Change in Deferred Outflows ¹			
Change in Deferred Inflows ²			

1. When the District begins preparation of the Fiscal 2018 financial statements, DFA will provide separate schedules with supplemental GASB 75 information, including the sensitivity analysis.
 - a. If your auditors recommend that you report June 30, 2018 values, we will prepare the supplemental schedules in July, when June 30 asset values (if applicable) are known and updated municipal bond rates are published.
 - b. Alternatively, if auditors recommend that the District report June 30, 2017 values, we can provide supplemental schedules upon request.
2. To be determined based on the Total OPEB Obligation and Plan Fiduciary Net Position as of June 30, 2018.
3. 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 DFA. The AL (Accrued Liability) as of that date was \$8,115,669, compared to \$8,064,152 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. We changed our valuation software to be able to track experience more precisely over time. This change increased the AL by \$117,715.
2. There was a net census gain (decrease in the AL) of \$406,151.
3. There was a gain (decrease in the AL) of \$727,349 due to increases in healthcare premiums and statutory minimum contributions less than expected.

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

Changes to AL	AL
AL as of July 1, 2015	\$8,115,669
Passage of time	964,268
Change in system	117,715
Change in census	(406,151)
Change in premium rates	(727,349)
AL as of July 1, 2017 ¹	\$8,064,152

1. Based on a discount rate of 4.00%.

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 District-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 District may set aside to pre-fund healthcare benefits.

The table on the next page provides the District 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, 4.00% per annum on its investments, a starting trust value of \$0 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 District 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 District 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 District will eventually have to pay. Because of investment earnings on fund assets, the earlier contributions are made, the less the District 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.**

Sylvan Union School District
Sample Funding Schedules (Closed Group)
Starting Trust Value of \$0 as of July 1, 2017

Fiscal Year	Pay-as-you-go	Level Contribution for 20 years	Level % of Unfunded Liability	Constant Percentage Increase
Beginning				
2017	\$356,767	\$892,335	\$1,154,022	\$690,161
2018	397,310	892,335	1,063,274	710,866
2019	417,459	892,335	983,869	732,192
2020	431,991	892,335	913,506	754,158
2021	481,599	892,335	850,905	776,783
2022	583,553	892,335	796,787	800,086
2023	641,266	892,335	752,408	824,089
2024	741,927	892,335	714,488	848,811
2025	766,422	892,335	683,953	874,276
2026	819,694	892,335	656,560	900,504
2027	830,381	892,335	633,029	927,519
2028	909,782	892,335	611,110	955,344
2029	836,928	892,335	593,170	984,005
2030	933,087	892,335	572,937	1,013,525
2031	967,490	892,335	556,871	1,043,931
2032	1,092,021	892,335	542,070	1,075,249
2033	1,076,143	892,335	531,259	1,107,506
2034	1,025,281	892,335	519,056	1,140,731
2035	1,050,317	892,335	504,539	1,174,953
2036	820,715	892,335	490,365	1,210,202
2037	757,310	0	469,020	0
2038	785,084	0	446,616	0
2039	781,121	0	425,887	0
2040	718,809	0	405,724	0
2041	642,408	0	642,408	0
2042	556,001	0	556,001	0
2043	460,739	0	460,739	0
2044	395,905	0	395,905	0
2045	312,145	0	312,145	0
2046	288,300	0	288,300	0
2047	254,120	0	254,120	0
2048	162,293	0	162,293	0
2049	164,850	0	164,850	0
2050	143,553	0	143,553	0
2055	38,660	0	38,660	0
2060	0	0	0	0
2065	0	0	0	0
2070	0	0	0	0

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 District. Retirement rates are based on recent District retirement patterns.

The discount rate of 4.00% is based on our best estimate of expected long-term plan experience for unfunded plans such as the District's. As discussed above, for financial reporting purposes under GASB 75, a discount rate of 3.13% reflects the required blend between discount and municipal bond rates. The healthcare trend rates are based on our analysis of recent District experience and our knowledge of the healthcare environment.

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 District 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	\$356,767
2018	397,310
2019	417,459
2020	431,991
2021	481,599
2022	583,553
2023	641,266
2024	741,927
2025	766,422
2026	819,694
2030	933,087
2035	1,050,317
2040	718,809
2045	312,145
2050	143,553
2055	38,660
2060	0
2065	0
2070	0

Implicit Subsidy and ASOP 6

When premiums charged for retiree healthcare are lower than expected claims, an implicit subsidy is realized. This occurs, for example, when pre-Medicare retirees are afforded medical coverage at the same rates as active employees.

Actuarial Standard of Practice No. 6 (ASOP 6), revised in May 2014, provides guidance in measuring OPEB obligations and determining periodic costs or actuarially determined contributions. The standard specifies that in (almost all instances), the actuary must include the value of this implicit subsidy in the GASB 45/75 liabilities.

This valuation reflects the value of the implicit subsidy equal to \$0.

Breakdown by Employee/Retiree Group

Exhibit I, attached at the end of the report, shows a breakdown of the GASB 75 components 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.

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

Sincerely,
DFA, LLC

DRAFT

Carlos Diaz, ASA, EA, MAAA
Actuary

Benefit Plan Provisions

This report analyzes the health and welfare benefit plans of the District including medical and prescription drug benefits. Separate three-tiered rate schedules apply to all benefit-eligible active employees and retirees under the age of 65. Employees and retirees may choose from three Kaiser HMO options (high, low and high deductible) and three Sutter Health Plus HMO options (high, low and high deductible). Medicare-eligible spouses may continue coverage beyond their 65th birthday under a Medicare-coordinated HMO option. Dental and vision coverages are also available to active employees and retirees. The valuation is based on a 50-50 blend of premiums for the 2017 and 2018 calendar years. Spousal, dental and vision benefits, if elected, are self-paid by the retiree.

Certificated and Certificated Management employees who retire after age 55 with at least 10 years of service are eligible for a District contribution equal to the retiree-only premium for the medical HMO of their choice. District contributions continue until age 65.

Classified, Classified Management and Confidential employees who retire after age 60 with at least 15 years of service are eligible for a District contribution equal to 100% of the retiree-only premium for the first three years and 50% of the retiree-only premium for the final two years of benefits.

Board Members who have served 12 years and whose first term with the District began prior to January 1, 1995 are entitled to benefits like those provided to Certificated employees.

Because the retirees are subject to a separate, higher premium structure, we concluded that there is no "implicit subsidy" inherent in the District's rate structure, and we have based the valuation on the premiums for retirees only. There is no implicit subsidy for self-paid spousal coverage; therefore, spouses have been excluded from valuation.

The following table summarizes the health insurance premiums in effect for the 2017 calendar year for retirees under age 65:

Plan	Single	Two-Party	Family
Kaiser HMO High	\$985.39	\$1,970.78	\$2,788.65
Kaiser HMO Low	939.93	1,879.86	2,660.00
Kaiser HMO HDHP	638.74	1,277.47	1,807.62
Sutter Health Plus High	840.85	1,681.74	2,461.23
Sutter Health Plus Low	802.55	1,605.13	2,349.14
Sutter Health Plus HDHP	585.01	1,170.01	1,712.32
Delta Dental	51.70	119.58	195.70
Vision Service Plan	8.43	15.59	26.96

Valuation Data

Active and Retiree Census

Age distribution of retirees included in the valuation

Age	Total
Under 55	0
55-59	7
60-64	26
65+ ¹	<u>2</u>
All Ages	35
Average Age	61.8

1. District-Paid benefits end at age 65.

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
<u>Age</u>									
<25	11	0	0	0	0	0	0	0	11
25-29	64	2	0	0	0	0	0	0	66
30-34	58	8	6	0	0	0	0	0	72
35-39	55	12	43	2	0	0	0	0	112
40-44	40	9	31	17	0	0	0	0	97
45-49	46	14	23	33	13	0	0	0	129
50-54	30	18	29	15	16	8	3	0	119
55-59	18	11	17	20	13	6	2	1	88
60-64	10	5	11	7	3	4	0	1	41
65+	<u>2</u>	<u>1</u>	<u>2</u>	<u>0</u>	<u>1</u>	<u>0</u>	<u>0</u>	<u>2</u>	<u>8</u>
All Ages	334	80	162	94	46	18	5	4	743

Average Age: 44.8
Average Service: 9.3

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, Level Percent of Pay
Discount Rate:	
Accrued Liability	4.00% per annum
GASB 75	3.13% per annum
Return on Assets:	4.00% per annum
Salary Increases:	3.00% per annum
Pre-retirement Turnover:	According to Crocker-Sarason Table T-5 less mortality, increased by 100% at all ages. Sample rates are as follows:

Age	Turnover (%)
25	15.4%
35	12.6
45	8.0
55	1.9

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

<p align="center">Actuarial Assumptions (Continued)</p>
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Claim Cost per Retiree or Spouse:

Age	Medical/Rx
50	\$7,495
55	8,689
60	10,073
64	11,337
65	4,341
70	4,676
75	5,038

Retirement Rates:

Age	Percent Retiring
55	5.0%
56	8.0
57	10.0
58	12.0
59	14.0
60	16.0
61	19.0
62	20.0
63	22.0
64	25.0
65	100.0

* 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
2017	6.0%
2018+	5.0

Percent Married:

0%. District pays up to the single retiree rate only, and there is no implicit subsidy associated with self-paid spousal coverage.

Percent Electing Coverage:

100% of those assumed to retire according to the retirement rates shown above. Any assumed waiving of benefits is handled implicitly using lower retirement rates.

Actuarial Certification

The results set forth in this report are based on our actuarial valuation of the health and welfare benefit plans of the Sylvan Union School District ("District") 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 District. We also made use of claims, premium, expense, and enrollment data, and copies of relevant sections of healthcare documents provided to us by the District, and (when applicable) trust statements prepared by the trustee and provided to us by the District.

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.

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:

DRAFT

Carlos Diaz, ASA, EA, MAAA
Actuary

**Sylvan Union School District
GASB 75 Valuation Results By Employee Group**

	<u>7/1/2017 Certificated</u>	<u>7/1/2017 Classified</u>	<u>7/1/2017 Certificated Mgmt</u>	<u>7/1/2017 Classified Mgmt/Conf.</u>	<u>7/1/2017 Total All Groups</u>
District-paid Present Value of Benefits					
Actives	\$ 9,519,861	\$ 2,201,445	\$ 920,235	\$ 83,127	\$ 12,724,668
Retirees	1,061,888	42,669	-	32,077	1,136,634
Total District-Paid PVFB:	\$ 10,581,749	\$ 2,244,114	\$ 920,235	\$ 115,204	\$ 13,861,302
District-paid Total OPEB Liability					
Actives	\$ 5,794,837	\$ 1,246,754	\$ 472,598	\$ 43,555	\$ 7,557,744
Retirees	1,061,888	42,669	-	32,077	1,136,634
Total District-Paid TOL:	\$ 6,856,725	\$ 1,289,423	\$ 472,598	\$ 75,632	\$ 8,694,378
Assets ¹	-	-	-	-	-
District-paid Net OPEB Liability	\$ 6,856,725	\$ 1,289,423	\$ 472,598	\$ 75,632	\$ 8,694,378
Components of Net OPEB Expense					
Service Cost at Year-end	\$ 416,542	\$ 103,429	\$ 49,164	\$ 3,671	\$ 572,806
Interest Cost	209,737	39,899	14,756	2,202	266,594
Expected Return on Assets	-	-	-	-	-
Total ²	\$ 626,279	\$ 143,328	\$ 63,920	\$ 5,873	\$ 839,400

1. Assets, if any, allocated in proportion to AL for illustration purposes only; GASB 75 does not provide authority for this calculation.

2. Does not include Deferred Inflows/Outflows components that may apply at fiscal year-end.

