Wheatland Elementary School District

Actuarial Study of Retiree Health Liabilities As of September 1, 2009

Prepared by:
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PART I: EXECUTIVE SUMMARY

A. Introduction

Wheatland Elementary School District engaged Total Compensation Systems, Inc. (TCS) to analyze liabilities associated with its current retiree health program as of September 1, 2009 (the valuation date). The numbers in this report are based on the assumption that they will first be used to determine accounting entries for the fiscal year ending June 30, 2010. If the report will first be used for a different fiscal year, the numbers will need to be adjusted accordingly.

This report does not reflect any cash benefits paid unless the retiree is required to provide proof that the cash benefits are used to reimburse the retiree's cost of health benefits. Costs and liabilities attributable to cash benefits paid to retirees are reportable under Governmental Accounting Standards Board (GASB) Standards 25 and 27.

This actuarial study is intended to serve the following purposes:

» To provide information to enable Wheatland ESD to manage the costs and liabilities associated with its retiree health benefits.

» To provide information to enable Wheatland ESD to communicate the financial implications of retiree health benefits to internal financial staff, the Board, employee groups and other affected parties.

» To provide information needed to comply with Governmental Accounting Standards Board Accounting Standards 43 and 45 related to "other postemployment benefits" (OPEB's).

Because this report was prepared in compliance with GASB 43 and 45, as appropriate, Wheatland ESD should not use this report for any other purpose without discussion with TCS. This means that any discussions with employee groups, governing Boards, etc. should be restricted to the implications of GASB 43 and 45 compliance.

This actuarial report includes several estimates for Wheatland ESD's retiree health program. In addition to the tables included in this report, we also performed cash flow adequacy tests as required under Actuarial Standard of Practice 6 (ASOP 6). Our cash flow adequacy testing covers a twenty-year period. We would be happy to make this cash flow adequacy test available to Wheatland ESD in spreadsheet format upon request.

We calculated the following estimates separately for active employees and retirees. As requested, we also separated results by the following employee classifications: Certificated, Classified, Management and WESS. We estimated the following:

- the total liability created. (The actuarial present value of total projected benefits or APVTPB)
- the ten year "pay-as-you-go" cost to provide these benefits.
- the "actuarial accrued liability (AAL)." (The AAL is the portion of the APVTPB

attributable to employees' service prior to the valuation date.)

- the amount necessary to amortize the UAAL over a period of 30 years.

- the annual contribution required to fund retiree benefits over the working lifetime of eligible employees (the "normal cost").

- The Annual Required Contribution (ARC) which is the basis of calculating the annual OPEB cost and net OPEB obligation under GASB 43 and 45.

We summarized the data used to perform this study in Appendix A. No effort was made to verify this information beyond brief tests for reasonableness and consistency.

All cost and liability figures contained in this study are estimates of future results. Future results can vary dramatically and the accuracy of estimates contained in this report depends on the actuarial assumptions used. Normal costs and liabilities could easily vary by 10 - 20% or more from estimates contained in this report.

B. General Findings

We estimate the "pay-as-you-go" cost of providing retiree health benefits in the year beginning September 1, 2009 to be $93,550 (see Section IV.A.). The "pay-as-you-go" cost is the cost of benefits for current retirees.

For current employees, the value of benefits "accrued" in the year beginning September 1, 2009 (the normal cost) is $40,149. This normal cost would increase each year based on covered payroll. Had Wheatland ESD begun accruing retiree health benefits when each current employee and retiree was hired, a substantial liability would have accumulated. We estimate the amount that would have accumulated to be $1,025,688. This amount is called the "actuarial accrued liability" (AAL).

We calculated the annual cost to amortize the unfunded actuarial accrued liability using a 5% discount rate. We used a 30 year amortization period. The current year cost to amortize the unfunded "actuarial accrued liability" is $66,722.

Combining the normal cost and UAAL amortization costs produces an annual required contribution (ARC) of $106,871. The ARC is used as the basis for determining expenses and liabilities under GASB 43/45. The ARC is used in lieu of (rather than in addition to) the "pay-as-you-go" cost.

We based all of the above estimates on employees as of August, 2009. Over time, liabilities and cash flow will vary based on the number and demographic characteristics of employees and retirees.

C. Description of Retiree Benefits

Following is a description of the current retiree benefit plan. Management employees negotiate individually with the Board. For the purposes of this report, we assumed management retirees receive the same benefits as WESS.

	Certificated	Classified	WESS
Benefit types provided	Medical only	Medical only	Medical only
Duration of Benefits	5 years but not beyond age 65	5 years but not beyond Medicare age	5 years but not beyond Medicare age
Required Service	15 years	15 years	15 years
Minimum Age	55	55	55
Dependent Coverage	Yes	Yes	Yes
District Contribution %	100%	100%	100%
District Cap	$400 per month	$600 per month	$833.33 per month

D. Recommendations

It is outside the scope of this report to make specific recommendations of actions Wheatland ESD should take to manage the substantial liability created by the current retiree health program. Total Compensation Systems, Inc. can assist in identifying and evaluating options once this report has been studied. The following recommendations are intended only to allow the District to get more information from this and future studies. Because we have not conducted a comprehensive administrative audit of Wheatland ESD's practices, it is possible that Wheatland ESD is already complying with some or all of our recommendations.

- We recommend that Wheatland ESD inventory all benefits and services provided to retirees – whether contractually or not and whether retiree-paid or not. For each, Wheatland ESD should determine whether the benefit is material and subject to GASB 43 and/or 45.

- We recommend that Wheatland ESD conduct a study whenever events or contemplated actions significantly affect present or future liabilities, but no less frequently than every two or three years, as required under GASB 43/45.

- We recommend that the District communicate the magnitude of these costs to employees and include employees in discussions of options to control the costs.

- Under GASB 45, it is important to isolate the cost of retiree health benefits. Wheatland ESD should have all premiums, claims and expenses for retirees separated from active employee premiums, claims, expenses, etc. To the extent any retiree benefits are made available to retirees over the age of 65 – ***even on a retiree-pay-all basis*** – all premiums, claims and expenses for post-65 retiree coverage should be segregated from those for pre-65 coverage. Furthermore, Wheatland ESD should arrange for the rates or prices of all retiree benefits to be set on what is expected to be a self-sustaining basis.

- Wheatland ESD should establish a way of designating employees as eligible or ineligible for future OPEB benefits. Ineligible employees can include those in ineligible job classes; those hired after a designated date restricting eligibility; those who, due to their age at hire cannot qualify for District-paid OPEB benefits; employees who exceed the termination age for OPEB benefits, etc.

- Several assumptions were made in estimating costs and liabilities under Wheatland ESD's retiree health program. Further studies may be desired to validate any assumptions where there is any doubt that the assumption is appropriate. (See Appendices B and C for a list of assumptions and concerns.) For example, Wheatland ESD should maintain a retiree database that includes – in addition to date of birth, gender and employee classification – retirement date and (if applicable) dependent date of birth, relationship and gender. It will also be helpful for Wheatland ESD to maintain employment termination information – namely, the number of OPEB-eligible employees in each employee class that terminate employment each year for reasons other than death, disability or retirement.

Respectfully submitted,

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PART II: BACKGROUND

A. Summary

Accounting principles provide that the cost of retiree benefits should be "accrued" over employees' working lifetime. For this reason, the Governmental Accounting Standards Board (GASB) issued in 2004 Accounting Standards 43 and 45 for retiree health benefits. These standards apply to all public employers that pay any part of the cost of retiree health benefits for current or future retirees (including early retirees).

B. Actuarial Accrual

To actuarially accrue retiree health benefits requires determining the amount to expense each year so that the liability accumulated at retirement is, on average, sufficient (with interest) to cover all retiree health expenditures without the need for additional expenses. There are many different ways to determine the annual accrual amount. The calculation method used is called an "actuarial cost method."

Under most actuarial cost methods, there are two components of actuarial cost - a "normal cost" and amortization of something called the "unfunded actuarial accrued liability." Both accounting standards and actuarial standards usually address these two components separately (though alternative terminology is sometimes used).

The normal cost can be thought of as the value of the benefit earned each year if benefits are accrued during the working lifetime of employees. This report will not discuss differences between actuarial cost methods or their application. Instead, following is a description of a commonly used, generally accepted actuarial cost method that will be permitted under GASB 43 and 45. This actuarial cost method is called the "entry age normal" method.

Under the entry age normal cost method, the actuary determines the annual amount needing to be expensed from hire until retirement to fully accrue the cost of retiree health benefits. This amount is the normal cost. Under GASB 43 and 45, normal cost can be expressed either as a level dollar amount or a level percentage of payroll.

The normal cost is determined using several key assumptions:

- The current ***cost of retiree health benefits*** (often varying by age, Medicare status and/or dependent coverage). The higher the current cost of retiree benefits, the higher the normal cost.

- The ***"trend" rate*** at which retiree health benefits are expected to increase over time. A higher trend rate increases the normal cost. A "cap" on District contributions can reduce trend to zero once the cap is reached thereby dramatically reducing normal costs.

- ***Mortality rates*** varying by age and sex. (Unisex mortality rates are not often used as individual OPEB benefits do not depend on the mortality table used.) If employees die prior to retirement, past contributions are available to fund benefits for employees who live to retirement. After retirement, death results in benefit termination or reduction. Although higher mortality rates reduce normal costs, the mortality assumption is not likely to vary from employer to employer.

- ***Employment termination rates*** have the same effect as mortality inasmuch as higher termination rates reduce normal costs. Employment termination can vary considerably between public agencies.

- The ***service requirement*** reflects years of service required to earn full or partial retiree benefits.

While a longer service requirement reduces costs, cost reductions are not usually substantial unless the service period exceeds 20 years of service.

- ***Retirement rates*** determine what proportion of employees retire at each age (assuming employees reach the requisite length of service). Retirement rates often vary by employee classification and implicitly reflect the minimum retirement age required for eligibility. Retirement rates also depend on the amount of pension benefits available. Higher retirement rates increase normal costs but, except for differences in minimum retirement age, retirement rates tend to be consistent between public agencies for each employee type.

- ***Participation rates*** indicate what proportion of retirees are expected to elect retiree health benefits if a significant retiree contribution is required. Higher participation rates increase costs.

- The ***discount rate*** estimates investment earnings for assets earmarked to cover retiree health benefit liabilities. The discount rate depends on the nature of underlying assets. For example, employer funds earning money market rates in the county treasury are likely to earn far less than an irrevocable trust containing a diversified asset portfolio including stocks, bonds, etc. A higher discount rate can dramatically lower normal costs. GASB 43 and 45 require the interest assumption to reflect likely *long term* investment return.

The assumptions listed above are not exhaustive, but are the most common assumptions used in actuarial cost calculations. The actuary selects the assumptions which - taken together - will yield reasonable results. It's not necessary (or even possible) to predict individual assumptions with complete accuracy.

If all actuarial assumptions are exactly met and an employer expensed the normal cost every year for all past and current employees and retirees, a sizeable liability would have accumulated (after adding interest and subtracting retiree benefit costs). The liability that would have accumulated is called the actuarial accrued liability or AAL. The excess of AAL over the ***actuarial value of plan assets*** is called the *unfunded* actuarial accrued liability (or UAAL). Under GASB 43 and 45, in order for assets to count toward offsetting the AAL, the assets have to be held in an irrevocable trust that is safe from creditors and can only be used to provide OPEB benefits to eligible participants.

The actuarial accrued liability (AAL) can arise in several ways. At inception of GASB 43 and 45, there is usually a substantial UAAL. Some portion of this amount can be established as the "transition obligation" subject to certain constraints. UAAL can also increase as the result of operation of a retiree health plan - e.g., as a result of plan changes or changes in actuarial assumptions. Finally, AAL can arise from actuarial gains and losses. Actuarial gains and losses result from differences between actuarial assumptions and actual plan experience.

Under GASB 43 and 45, employers have several options on how the UAAL can be amortized as follows:

- The employer can select an amortization period of 1 to 30 years. (For certain situations that result in a reduction of the AAL, the amortization period must be at least 10 years.)

- The employer may apply the same amortization period to the total combined UAAL or can apply different periods to different components of the UAAL.

- The employer may elect a "closed" or "open" amortization period.

- The employer may choose to amortize on a level dollar or level percentage of payroll method.

PART III: LIABILITIES AND COSTS FOR RETIREE BENEFITS

A. Introduction.

We calculated the actuarial present value of projected benefits (APVPB) separately for each employee. We determined eligibility for retiree benefits based on information supplied by Wheatland ESD. We then selected assumptions for the factors discussed in the above Section that, based on plan experience and our training and experience, represent our best prediction of future plan experience. For each employee, we applied the appropriate factors based on the employee's age, sex and length of service.

We summarized actuarial assumptions used for this study in Appendix C.

B. Medicare

The extent of Medicare coverage can affect projections of retiree health costs. Because District-paid benefits end at or before age 65, Medicare integration methods have a minimal impact on retiree health costs and liabilities.

C. Liability for Retiree Benefits.

For each employee, we projected future premium costs using an assumed trend rate (see Appendix C). To the extent Wheatland ESD uses contribution caps, the influence of the trend factor is further reduced.

We multiplied each year's projected cost by the probability that premium will be paid; i.e. based on the probability that the employee is living, has not terminated employment and has retired. The probability that premium will be paid is zero if the employee is not eligible. The employee is not eligible if s/he has not met minimum service, minimum age or, if applicable, maximum age requirements.

The product of each year's premium cost and the probability that premium will be paid equals the expected cost for that year. We discounted the expected cost for each year to the valuation date September 1, 2009 at 5% interest.

Finally, we multiplied the above discounted expected cost figures by the probability that the retiree would elect coverage. A retiree may not elect to be covered if retiree health coverage is available less expensively from another source (e.g. Medicare risk contract) or the retiree is covered under a spouse's plan.

For any current retirees, the approach used was similar. The major difference is that the probability of payment for current retirees depends only on mortality and age restrictions (i.e. for retired employees the probability of being retired and of not being terminated are always both 1.0000).

We added the APVPB for all employees to get the actuarial present value of total projected benefits (APVTPB). The APVTPB is the estimated present value of all future retiree health benefits for all **current** employees and retirees. The APVTPB is the amount on September 1, 2009 that, if all actuarial assumptions are exactly right, would be sufficient to expense all promised benefits until the last current employee or retiree dies or reaches the maximum eligibility age.

Actuarial Present Value of Total Projected Benefits September 1, 2009	Total	Certificated	Classified	Management	WESS
Active: Pre-65	$1,105,904	$395,936	$458,893	$198,678	$52,397
Post-65	$0	$0	$0	$0	$0
Subtotal	$1,105,904	$395,936	$458,893	$198,678	$52,397
Retiree: Pre-65	$293,861	$188,094	$53,246	$52,521	$0
Post-65	$0	$0	$0	$0	$0
Subtotal	$293,861	$188,094	$53,246	$52,521	$0
Grand Total	$1,399,766	$584,030	$512,139	$251,200	$52,397
Subtotal Pre-65	$1,399,766	$584,030	$512,139	$251,200	$52,397
Subtotal Post-65	$0	$0	$0	$0	$0

The APVTPB should be accrued over the working lifetime of employees. At any time much of it has not been "earned" by employees. The APVTPB is used to develop expense and liability figures. To do so, the APVTFB is divided into two parts: the portions attributable to service rendered prior to the valuation date (the past service liability or actuarial accrued liability under GASB 43 and 45) and to service after the valuation date but prior to retirement (the future service liability).

The past service and future service liabilities are each funded in a different way. We will start with the future service liability which is funded by the normal cost.

D. Cost to Prefund Retiree Benefits

1. Normal Cost

The average hire age for eligible employees is 33. To accrue the liability by retirement, the District would accrue the retiree liability over a period of about 27 years (assuming an average retirement age of 60). We applied an "entry age normal" actuarial cost method to determine funding rates for active employees. The table below summarizes the calculated normal cost.

Normal Cost Year Beginning September 1, 2009	Total	Certificated	Classified	Management	WESS
# of Employees	105	60	31	11	3
Per Capita Normal Cost					
Pre-65 Benefit	N/A	$158	$599	$941	$583
Post-65 Benefit	N/A	$0	$0	$0	$0
First Year Normal Cost					
Pre-65 Benefit	$40,149	$9,480	$18,569	$10,351	$1,749
Post-65 Benefit	$0	$0	$0	$0	$0
Total	$40,149	$9,480	$18,569	$10,351	$1,749

Accruing retiree health benefit costs using normal costs levels out the cost of retiree health benefits over time