Staff Paper #13:

Actuarial Liabilities

MEMORANDUM

DATE: May 3, 2004

TO: Mayor and City Council Members

FROM: Peggy Hetzler, Finance Director

SUBJECT: Actuarial Liabilities Issues Paper

BACKGROUND

The City of Modesto self-insures for general liability and workers compensation, and it has established separate funds (the Liability Fund and the Workers Compensation Fund, respectively) to hold reserves set aside to pay current and future claims (as well as administrative and legal costs and premiums paid for excess coverage).

In addition, the city provides certain benefits to its employees upon retirement based upon their accumulated sick-leave balances. The city has established the Employee Benefit Fund (EBF) to account for reserves set aside to pay those costs, as well as the cost of vacation and holiday hours "cashed-out" by employees upon separation from service. (The EBF also acts as a pass-through point for a number of other benefits, but these pass-through amounts have no net effect on the subjects of this agenda memo.)

As of June 30, 2003, the city's Comprehensive Annual Financial Report (CAFR) reflected a combined net negative fund balance in these three reserve funds of $42.4 million. That is, liabilities in these funds exceeded assets by $42.4 million.

This memo provides additional background on the nature and components of this deficit, identifies key policy decisions to be made with respect to these funds, and recommends actions in both the current fiscal year and the 2004-05 budget to address the situation.

<u>Self-Insurance Funds</u>

The city is self-insured for general liability claims, up to a limit of $1 million per claim. This limit is called the "self insured retention" or SIR. Costs in excess of the SIR are passed on to the Authority for California Cities for Excess Liability (ACCEL), an excess liability pool. The city pays ACCEL an annual premium of about $475,000 for this coverage.

The city is also self-insured for workers compensation claims, up to a limit of $750,000 per claim. It pays an annual premium of about $165,000 per year to the CSAC Excess Insurance Authority for this coverage, as well as an administration fee of about $35,000 to the California Department of Industrial Relations.

Every other year, the city contracts for a professional actuarial evaluation of the likely costs of current and future claims, taking into account the city's loss experience, measures of exposure (such as total staff), trends in claims cost and frequency, and industry-standard statistical models and methods.

The actuarial studies attempt to estimate the full cost of outstanding claims, accounting for the fact that (a) many known, existing claims have not been fully settled, and therefore have unknown final costs and (b) future claims may be made against the city for events taking place in prior years (referred to as "incurred but not reported" claims, or IBNR). They also estimate the cost of claims for the upcoming year which, of course, hasn't happened yet. Because of these uncertainties, actuarial estimates rely on a variety of statistical techniques, both to make the estimates and to quantify the uncertainty associated with them.

Actuarial studies quantify uncertainty in terms of "confidence levels." These are expressed as the probability that actual costs will not exceed a particular dollar amount. For each type of liability being estimated, an actuarial study will typically provide an "expected value" – the best single estimate of the full cost – and the additional amounts needed to attain a number of specific confidence levels.

For example, the actuarial study of general liability estimated the city's outstanding liabilities, as of June 30, 2003, at $2.1 million. It also estimated several confidence levels:

Expected	$ 2.1 million
70% Confidence	2.5 million
75% Confidence	2.6 million
85% Confidence	3.0 million
90% Confidence	3.3 million

This means that the city should *expect* to pay $2.1 million for these claims, though the actual cost may be more or less than this amount. There is a 70% probability that the costs will be less than $2.5 million and a 90% probability that the costs will be below $3.3 million.

The city has historically selected the 75% confidence level as its funding target. The city's actuary recommends funding in the range between 75% and 85%. The liabilities shown on the city's current financial statements currently reflect the dollar amounts associated with the 75% confidence level, even though this is above the expected value of the corresponding costs.

Each year, the city establishes an amount to be set aside for each self-insurance reserve and allocates these totals to departments based on a formula that combines total payroll (an approximate measure of exposure) and past claims experience (an approximate measure of the risk level of particular activities and programs). These amounts are built into department operating budgets as internal service fund (ISF) allocations. In the current fiscal year, these amounts totaled $2.5 million for general liability and $3.9 million for workers compensation.

As of June 30, 2003, the Liability Fund showed a positive net fund balance of $2.1 million, while the Workers Compensation Fund showed a negative fund balance of $5.0 million.

Employee Benefits Fund

A number of benefit costs run through the Employee Benefits Fund (EBF) as pure pass-through transactions, and these will be ignored in the following discussion.

In the current context, the most significant costs accounted for in the EBF are the (a) cash payments made to employees for their accumulated vacation and holiday hours upon separation from service and (b) cash payments and health benefits provided to employees upon retirement based upon their accumulated sick leave balances.

The vacation & holiday separation cash-out costs are expected to remain steady at around $400,000 per year. The city does not make payments into the EBF to reflect vacation and holiday hours earned; rather it finances these separation costs on a pay-as-you-go basis. For accounting purposes only, the city does show a liability within the EBF for the full value of employee vacation and holiday balances ($6.1 million as of June 30, 2003).

Sick leave-based benefits paid from the EBF include cash payments to firefighters and health insurance coverage for other retired employees. Firefighters receive payments equal to 90% of their first 2,000 hours of accumulated sick leave valued at their regular rate of pay. Compared with the cost of post-retirement health benefits, the overall fiscal impact of these cash payments is modest.

Management and Other Miscellaneous employees can convert 90% of their first 2,000 hours of accumulated sick leave into health insurance coverage (the same share paid by the city for its current employees) at a rate of 8 hours of leave per one month of coverage. Police, Police Management and Fire Management employees can convert 90% of their first 2,200 hours of accumulated sick leave into health insurance coverage at the same rate as Management & Other Miscellaneous.

The following points may be useful in understanding the overall magnitude of the city's current sick leave banks and the likely costs of the post-retirement health insurance benefit.

- Currently, city employees have accumulated sick leave balances totaling almost 600,000 hours. The average city employee has approximately 500 hours of accumulated sick leave.
- The average city employee accumulates an additional three hours of sick leave per month (net of leave used).
- The city has 363 current employees whose sick leave balances would entitle them to five years or more of post-retirement health insurance.
- The city has 169 current employees whose sick leave balances would entitle them to ten years or more of post-retirement health insurance.

- An actuary has estimated the cost of post-retirement health benefits for employees who had already retired as of June 30, 2003 at $9.7 million.

(Note that the average figures given above encompass considerable individual variation, and aren't necessarily representative of any particular employee or group.)

In the current fiscal year, the city will set aside approximately $750,000 for the costs and liabilities associated with the EBF. This amount has been allocated to individual departments in a manner similar to the ISF allocations for the self-insurance funds.

As of June 30, 2003, the EBF fund showed a negative fund balance of $39.6 million. This included a liability of $9.7 million for post-retirement health benefits for pre-existing retirees, a liability of $37.7 million for post-retirement benefits of future retirees (i.e. current employees), a $6.1 million liability for accumulated vacation and holiday leave, and $0.3 million for various miscellaneous liabilities. These liabilities exceeded the $14.2 million in assets in the fund by $39.6 million.

POLICY ALTERNATIVES

Liability Valuation for Financial Statements

As mentioned above, the city currently recognizes liabilities in the amount of the 75% Confidence Level in its self-insurance funds. This means that those funds may appear to be in a deficit position, even if sufficient funding is set aside to cover the full expected value of outstanding claims. We believe that this presents an overly negative impression of the position of these funds.

We are recommending that, beginning with the current fiscal year, we adjust the liabilities in the self-insurance funds to reflect their actuarially determined expected value. This change of accounting policy will be reflected in the notes accompanying the financial statements.

We are *not* recommending any change in the city's policy setting the funding target for these reserves at the 75% Confidence Level. The accounting change being recommended will simply have the effect of showing any "cushion" in the funds, over and above the expected value, as a positive fund balance, which we believe is a fairer presentation of the funds' conditions.

Liability Cost Recognition in Operating Budgets

We are recommending that, beginning with the 2004-05 fiscal year, the amount the city charges to ongoing operating budgets for self-insurance and EBF liability accruals be pegged to the expected value of these liabilities.

In the current year, operating budgets are being charged amounts based on the 75% Confidence Level for general liability and workers compensation plus a small amount for EBF liabilities. We propose a more uniform approach, based on the principle of recognizing the full cost of service in the year in which the service is delivered. (In other words, "Current taxes pay for

current services, future taxes pay for future services.") In line with this principle, we believe that current operating budgets should reflect the best estimate (expected value) of all of these costs.

This will reduce the operating budget contributions for general liability and workers compensation, while increasing the contribution for EBF liabilities. In total, payments will increase by $2.2 million citywide, with an increase of $1.6 million in the general fund. These increases are partially reflected in the 2004-05 baseline budget; the net increase above baseline will be $1.2 million citywide and $0.9 million in the general fund.

The recommended approach holds operating budgets "harmless" from the cost of funding liabilities incurred in past years, and from the costs of setting aside funding "cushions" needed to offset the risk of actual costs exceeding the expected levels. This means that additional funding, possibly from accumulated fund balance in the general fund, will be required to address these needs.

Valuing Liabilities With Long Payment Horizons

One complication involved with making provision for self-insurance and EBF liabilities is that actual cash payments for these costs may occur many years – in some cases decades – after the cost is incurred.

Consider the case of EBF post-retirement health benefits. As part of the package of pay and benefits a city employee will receive in return for services provided today, the employee receives a certain amount of accumulated sick leave (on average, a net 36 hours per year) along with a promise to convert those hours into 4 months of city health insurance premiums. That promise is part of the cost of those services – this year – even though the promise may not be redeemed for ten or more years.

The policy question is: what, if anything, should the city set aside today in recognition of the fact that it has made this promise, given that it won't be asked to honor the promise for some years? Put another way, how should the value of that promise be "discounted" to reflect the fact that it won't be paid for several years?

There are two general approaches to this question: the subjective/intuitive approach and the objective/quantitative approach.

The subjective approach relies on a judgment call: how immediate or urgent does the promise to pay benefits in the future *seem*? In general, this approach tends to discount costs more than four or five years in the future very steeply – perhaps to zero.

A quantitative approach seeks to put a number on the problem – what is the value today of a dollar twenty years from now? A natural way to answer this question is with a interest rate. Typically the interest rate used reflects either the rate of return available from alternative investments, or the cost of borrowing.

Actuaries (and finance professionals) are naturally inclined to support a quantitative approach, and we are recommending such an approach. Specifically, we recommend that liabilities with long payment horizons be recognized and funded at levels based upon a reasonable interest rate and the expected timing of the actual payouts (as well as cost trends that will affect the amounts paid out).

The city's current actuarial studies and the funding recommendations in this memo are consistent with this policy.

Funding Level Targets

For self-insurance funds, we recommend that the city continue its policy of targeting the 75% Confidence Level.

For the EBF, we recommend the following targets:

- The estimated value of the post-retirement health benefits for employees who retired on or before June 30, 2003 ($9.7 million) should be fully funded immediately. There is sufficient balance in the EBF to meet this requirement.

- The first $400,000 of the vacation and holiday liability should be fully funded immediately. This represents a one-year cash cushion for vacation cash-outs at separation. The city should continue to provide for this cost on a pay-as-you-go basis, at $400,000 per year. The remainder of the vacation and holiday liability should be allowed to remain unfunded for the immediate future.

- The remaining assets in the EBF should be counted against the outstanding liability for sick leave related retirement benefits (including cash payouts and post-retirement health benefits). We are not recommending any steps toward funding the remaining liability in the current or next fiscal year. However, we do recommend that the city make an effort to fund this liability on an opportunistic basis – that is, with any unexpected revenue or savings that may become available. If left unaddressed over the long term, this liability will gradually erode the city's ability to provide for current service needs.

RECOMMENDED ACTION

Policy Direction

On March 13th the Finance Committee agreed with staff's recommendations as set out below.

Current Fiscal Year (2003-04)

To bring the self-insurance funds into a neutral (no deficit or surplus) position by the end of the fiscal year, we recommended the following actions:

- Transfer $2,616,782 from the General Liability Fund to the Workers Compensation Fund. This is in addition to the $500,000 transfer already budgeted in 2003-04.

- Transfer $324,115 from the General Fund to the Workers Compensation Fund.

These actions, in combination with the recommended accounting policy change, will eliminate the reported negative net fund balance in the Workers Compensation Fund and eliminate the reported surplus in the General Liability Fund.

These actions will *not* provide a "cushion" at the target 75% Confidence Level. We recommend that additional funding to create such a cushion be considered in the 2004-05 budget process.

2004-05 Budget

Finance has prepared a Decision Package for the 2004-05 budget process to update the self-insurance and EBF ISF allocations in line with the policy recommended above ("Liability Cost Recognition in Operating Budgets").

In addition, the Council may wish to consider setting aside additional funds as a "cushion" in the self-insurance funds. Meeting the 75% Confidence Level target would require $1.4 million for general liability and $2.4 million in workers compensation. Finally, the estimated cost of fully funding the outstanding liability for sick-leave related retirement costs (cash payouts and health benefits) is $37.1 million over and above the funding proposed above.

One method to accomplish the goal of increasing funding to the insurance and EBF funds is the development of an accounting mechanism to capture annual departmental "underspending". In the past five years, General Fund departments have underspent their annual budgets by an average of 3% - 5% due primarily to vacant positions. The Council may choose to officially acknowledge this historical underspending and dedicate all or a portion of the savings to the insurance and EBF funds.