<u>Actuary Report</u>

Below is the report on the actuarial valuations for the Township's pension plans and OPEB requirements. This will be discussed at the Board of Supervisor's meeting on Monday, August 12th, 2019.

The Township's Actuary, John Vargo from Conrad Siegel will be present to review a number of matters with respect to the Police and Employee Pension Plans. The principal purpose of the presentation and discussion of the topic is to inform the Board and the public of the changes that will be proposed to the management of each of the Pension Plans, the impact that these changes will have on the Plans and the Board's intention to fund the unfunded liability of each of the Plans from the use of the proceeds from the sale of the Wastewater System. This final action will also include a discussion on the impact of funding the unfunded liability will have on the General Fund.

This is the first step in the process by the Board to discuss the proposed use of the proceeds from the sale and what impact the use of the proceeds will have on the General Fund and the Real Estate Tax Rate.

The actuarial assumptions of the Pension Plans are the cornerstone to determine the costs to the Township for the funding of a Pension Plan. These actuarial assumptions include the percentage the compensation increases per year, the assumed rate of return of the assets of the Pension Plan and the actuarial tables that are used to determine the life expectancy of plan participants.

The changes in the wages reflect the actual W2 earnings of the employees and not the wage increases that are set by the Collective Bargaining Agreement. These wage increases include such things as additional compensation that is paid to employees in overtime and other cost that normally occur in the management of the department.

There are two (2) types of costs that are used to determine the final cost, on an annual basis, to the pension plan. The first item is what is known as the normal cost which is the annual cost attributed to each full-time employee earning a year of credit in the plan. The second item is the unfunded liability which is the cost reflected in the plan for any deficit that develops over time. Some common reasons for deficits to develop in pension plans are changes to the plan such as the increase in benefit or a failure to meet the rate of return for the plan over a period of time. Each of these changes that result in an unfunded liability result in a dollar cost which is amortized over a period of time, in essence becoming very similar to a mortgage. This is added to the normal cost which then translates to the total cost of the pension plan for a particular year.

The Township has taken significant steps to reduce the annual normal cost of the plan. These modifications are primarily for all employees hired after January 1, 2017. The changes include a significant (minimum $10,000 annually) reduction in compensation for new hires in the Police Department, increasing retirement age from age 50 to age 55, eliminating the cost of living adjustments, modifying the longevity payment and eliminating the Drop Program. Additionally, post medical retirement benefits will not be offered to employees hired after January 1, 2017.

While this does not directly impact the Police Pension Plan, a discussion below will outline the costs and required revenue to meet this requirement.
The management of the Police Department has begun an assessment of the operations of the Department. This assessment will most likely result in the reduction in the overall compensation to the Police Department which will have an impact on the calculation for an individual's pension upon retirement as this calculation is based on W2 income.

There are two (2) main actuarial assumptions that impact the cost to the plan. The first assumption is the rate of return on investments. The current Police Pension Plan assumes a rate of return of 8%. For the last three (3) years, the Plans investment return has been averaging 6% per year. While the investment return varies greatly during the year, for the purpose of calculating the cost to the Pension Plan, the Actuary is required to use the value of the Plan assets as of December 31st each year.

If, over time, the return on investment is not met, the Actuary is required to determine the cost of the lost revenue and what impact that will have on the Plan. This cost will be amortized over a period of years and becomes a component of the unfunded liability costs.

The second actuarial assumption, one that is not discussed frequently, is the actuarial tables of life expectancy that the Actuary uses to determine the actuarial cost to the plan for each retiree based on that retirees age and gender. Periodically, these actuarial tables are updated to include the changes in life expectancy that have been occurring in the population over time.

If the actuarial tables are not kept up to date and retirees live longer than assumed the plan will suffer serious financial consequences. For example, if the actuarial tables assume that retirees have a life expectancy to age 75 yet actually live beyond age 85, that ten (10) year cost is not reflected in the cost of the plan. With the plan having to expend additional compensation to retirees while not having the requisite revenue to meet those requirements, the plan's funded level could deteriorate.

The Township's expenses for pension plans are determined by the cost of plan, normal cost, unfunded liability and administrative expenses offset by employee contributions and contributions from the state. If the employee contributions and state contributions are not sufficient to meet the costs, then the Township is required to make up the difference. This Township expense is reflected as an expense in the General Fund.

In order to reduce the Township's expense, efforts need to be undertaken to reduce the Township's portion of the annual contribution to the plan and to eliminate the unfunded liability. To meet this challenge, several actions need to be addressed, first the change in the rate of return in the pension plan needs to be modified from 8% to a rate close to 6% and the actuarial tables need to be updated based on the current data.

These two (2) actions will result in an increase to the unfunded liability as both modifications will result in additional expense to the plan.

This Township Actuary has prepared accompanying table with respect to the additional costs that the plan would incur for changing the mortality table and modify the interest rate.

It is the intent of the Administration to 1) fully fund each pension plan and establish the investment rate at the level that will 2) ensue that the Township's portion of the Minimum Municipal Obligation (MMO) will be as low as possible, preferably zero.

There are two (2) components that addresses as this policy. Reducing the assumed interest rate to 6% in the calculations for determining the unfunded liability is a very conservative approach. The rate of return for the investments can be different. The Police Pension Management Committee with recommendations from the Township Actuary will set this rate which will be used to determine the MMO.

The Actuary has provided the following table to illustrate the variables discussed above for the Police pension plan.

Exeter Township Police Pension Plan
as of January 1, 2019

Key Actuarial Valuation Results	RP 2000	SOA Public Plan Mortality Table for Safety Workers	SOA Public Plan Mortality Table for Safety Workers	SOA Public Plan Mortality Table for Safety Workers
Actuarial Accrued Liability	20,721,285	21,706,128	24,328,786	27,500,000
Actuarial Value of Assets	19,447,387	19,447,387	19,447,387	19,447,387
Unfunded Actuarial Accrued Liability	1,273,898	2,258,741	4,881,399	8,052,613
Normal Cost	482,669	506,817	642,987	821,368
Funded Ratio	93.9%	89.6%	79.9%	70.7%
Estimated MMO	591,655	751,702	1,249,592	1,830,000
Other Notable Actuarial Assumptions				
Interest Rate	8.00%	8.00%	7.00%	6.00%
Salary Increase	5.00%	5.00%	5.00%	5.00%
Asset Valuation Method	5 Year Smoothing	5 Year Smoothing	5 Year Smoothing	5 Year Smoothing
Deficit/(Surplus) Using Market Value of Assets				
Actuarial Accrued Liability	20,721,285	21,706,128	24,328,786	27,500,000
Market Value of Assets as of January 1, 2019	17,924,125	17,924,125	17,924,125	17,924,125
Unfunded Actuarial Accrued Liability	2,797,160	3,782,003	6,404,661	9,575,875

The Actuary will review the table for the Board. The analysis indicates that the Police pension plan could be fully funded with the one-time contribution of $9,575,875 with the modified mortality tables and a reduction in the interest rate to 6%.

The 2019 MMO for the Police pension plan is $462,275. The Township is reimbursed by the State for about $250,000 of this obligation. The proposed changes, along with the requested investment rate of return to be made by the pension committee, will reduce the Township's annual financial obligation to the plan to zero. The result would be a reduction in the General Fund expenses of this amount.

The discussion above addresses the same issues for the Non-Uniformed Employees Pension Plan albeit to a lesser extent. The following table illustrates the data for this plan.

Exeter Township Employees' Pension Plan
as of January 1, 2019

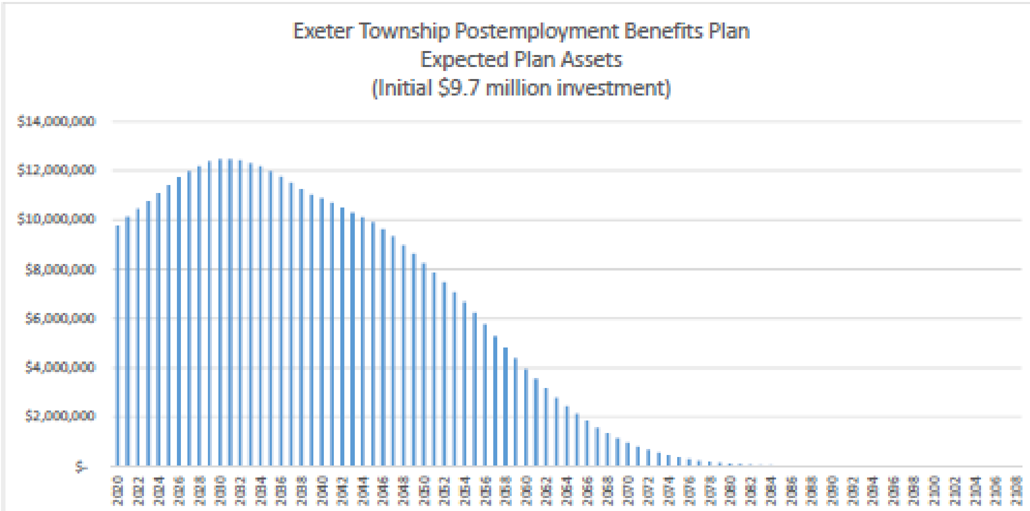
Key Actuarial Valuation Results	RP 2000	SOA Public Plan Mortality Table for General Workers	SOA Public Plan Mortality Table for General Workers	SOA Public Plan Mortality Table for General Workers
Actuarial Accrued Liability	1,693,096	1,832,602	2,046,332	2,262,000
Actuarial Value of Assets	2,026,378	2,026,378	2,026,378	2,026,378
Unfunded Actuarial Accrued Liability	-333,282	-193,776	19,954	235,622
Normal Cost	62,628	70,810	87,936	116,707
Funded Ratio	119.7%	110.6%	99.0%	89.6%
Estimated MMO	53,341	75,474	113,972	165,000
Other Notable Actuarial Assumptions				
Interest Rate	7.75%	7.75%	6.75%	6.00%
Salary Increase	5.00%	5.00%	5.00%	5.00%
Asset Valuation Method	5 Year Smoothing	5 Year Smoothing	5 Year Smoothing	5 Year Smoothing
Deficit/(Surplus) Using Market Value of Assets				
Actuarial Accrued Liability	1,693,096	1,832,602	2,046,332	2,262,000
Market Value of Assets at January 1, 2019	1,826,134	1,826,134	1,826,134	1,826,134
Unfunded Actuarial Accrued Liability	-133,038	6,468	220,198	435,866

A second component of the Actuarial presentation will address the other post employee benefits (OPEB) costs to the Township. The Board has taken the most important steps in reducing the cost of the program by eliminating the benefit for future employees hired in the Police Department and the Administrative staff. Negotiations are underway with the Teamsters Union to eliminate this benefit for future employees covered by the Teamsters Labor Agreement.

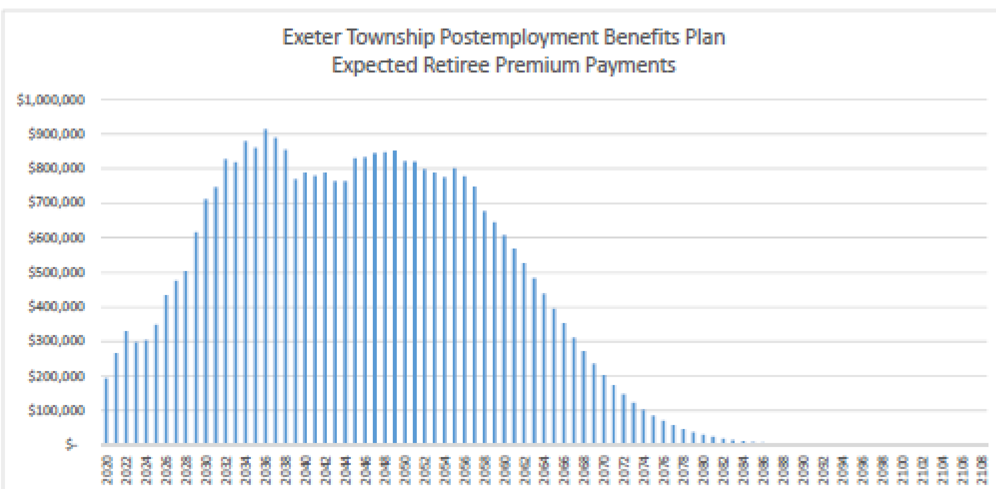
By eliminating benefit, the Township essentially has placed a sunset provision on the cost of providing this benefit. There is similar cost to be incurred to meet the Township's obligation for this benefit. The Township currently incurs expense in providing post medical benefit to currently retired employees and must provide similar benefits to future retirees.

The Township Actuary has prepared an actuarial assumption for the cost to the Township based on the life expectancy tables and the cost of providing the benefits to each retiree. The actuarial cost for providing this benefit over the lifetime of anticipated payment is $9,750,000. This cost is not included as a benefit of any of the Pension Plans as required by state law. The following tables illustrates the cash flow for providing the OPEB benefits.

Note that the Trust assets will increase until 2030, when they will exceed $12 million.



The expected payments for benefits will increase dramatically, reaching their peak in 2036 with an annual expense to exceed $100,000.



It's anticipated that the Trust will meet its obligation in the mid 2080's at which time the Trust will dissolve.

In order for the Township to eliminate this future annual cost, the Township will need to establish a Trust and fund the Trust with sufficient capital to meet the future payments.

The Trust will require the establishment of an Investment Committee to be formed similar to other committees to manage the existing Pension Plans. The Committee will establish the anticipated return on investment, which is proposed to be 6% and has been used to determine the actuarial value of future payments.