TSW

Actuary

VILLAGE OF ALGONQUIN

ALGONQUIN POLICE PENSION FUND

Actuarial Valuation Report

For the Year

Beginning May 1, 2014

And Ending April 30, 2015

Timothy W. Sharpe, Actuary, Geneva, IL (630) 262-0600

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INTRODUCTION

Police-sworn personnel of the Village of Algonquin are covered by the Police Pension Plan that is a defined-benefit, single-employer pension plan. The purpose of this report is to provide to the Intended Users of this report, specifically the Intended Users are the Village Officials, the Pension Board and the Village and Pension Board auditors, the reporting requirements of the Illinois Pension Code, the GASB Statements No. 25 & 27 financial information and related actuarial information for the year stated in this report. This report is not intended for distribution or usage to or by anyone who is not an Intended User and should not be used for any other purpose.

The valuation results reported herein are based on the employee data, plan provisions and the financial data provided by the Village. The actuary has relied on this information and does not assume responsibility for the accuracy or completeness of this information. I hereby certify that to the best of my knowledge this report is complete and accurate and fairly presents the actuarial position of the Fund in accordance with generally accepted actuarial principles and procedures. In my opinion, the assumptions used are reasonably related to the experience of the Plan and to reasonable expectations. A reasonable request for supplementary information not included in this report should be directed to the undersigned actuary.

The actuary cautions the Intended Users of the possibility of uncertainty or risks in any of the results in this report.

I, Timothy W. Sharpe, am an Enrolled Actuary and a member of the American Academy of Actuaries, and I meet the Qualifications Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.

Respectfully submitted,

Timothy W. Sharpe, EA, MAAA
Enrolled Actuary No. 14-4384

9/24/2014
Date

SUMMARY OF RESULTS

There were no material changes with respect to Plan Provisions, Actuarial Methods or Actuarial Assumptions from the prior year.

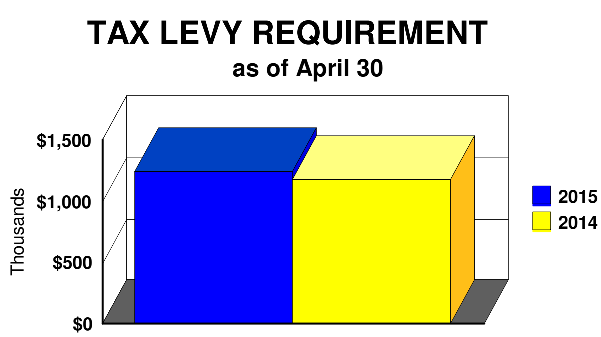
There were no unexpected changes with respect to the participants included in this actuarial valuation (0 new members, 0 terminations, 2 retirements, 0 incidents of disability, annual payroll increase -0.7%, average increase 4.5%).

There were no unexpected changes with respect to the Fund's investments from the prior year (annual investment return 7.30%).

The Village's Tax Levy Requirement has increased from $1,178,898 last year to $1,239,425 this year (5.1%). The increase in the Tax Levy is due to the increase in average salaries. The Percent Funded has increased from 56.5% last year to 58.6% this year.

SUMMARY OF RESULTS (Continued)

	For Year Ending April 30	
	2015	2014
Tax Levy Requirement	$ 1,239,425	$ 1,178,898
	as of May 1	
	2014	2013
Village Normal Cost	337,828	343,589
Anticipated Employee Contributions	415,602	418,390
Accrued Liability	33,225,843	30,564,469
Actuarial Value of Assets	19,455,179	17,260,051
Unfunded Accrued Liability/(Surplus)	13,770,664	13,304,418
Amortization of Unfunded Accrued Liability/(Surplus)	820,513	758,185
Percent Funded	58.6%	56.5%
Annual Payroll	$ 4,193,768	$ 4,221,895

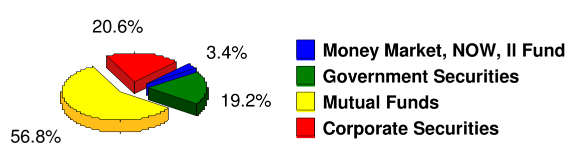


ACTUARIAL VALUATION OF ASSETS

	as of May 1 2014	as of May 1 2013
Money Market, NOW, Il Fund	$ 665,049	$ 293,229
Government Securities	3,717,735	5,514,013
Mutual Funds	11,005,972	7,551,613
Corporate Securities	3,995,232	3,669,554
Interest Receivable	68,882	76,187
Market Value of Assets	19,452,870	17,104,596
Actuarial Value of Assets	$ 19,455,179	$ 17,260,051

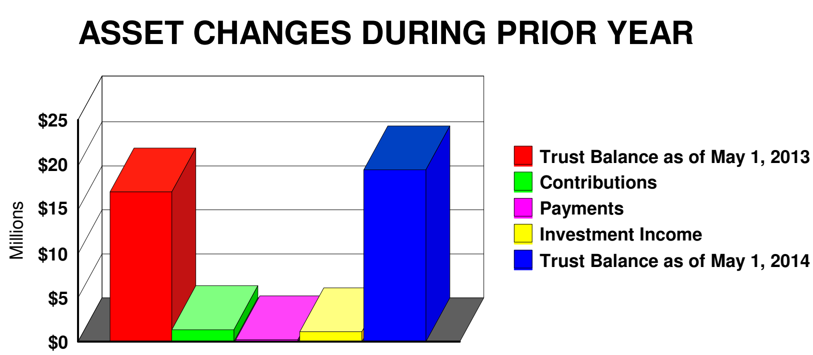
FYE 2012-2014 (Gain)/Loss: $357,584; ($163,265); ($53,457)

SUMMARY OF ASSETS
As Of May 1, 2014



ASSET CHANGES DURING PRIOR YEAR

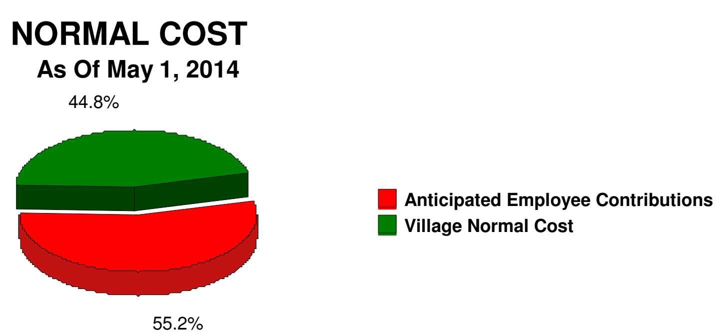
Trust Balance as of May 1, 2013		$	17,104,596
Contributions			
Village	1,025,000		
Employee	413,584		
Total			1,438,584
Payments			
Benefit Payments	359,724		
Expenses	18,478		
Total			378,202
Investment Income			1,287,892
Trust Balance as of May 1, 2014		$	19,452,870
Approximate Annual Rate of Return			7.30%



NORMAL COST

The Normal Cost is the actuarial present value of the portion of the projected benefits that are expected to accrue during the year based upon the actuarial valuation method and actuarial assumptions employed in the valuation.

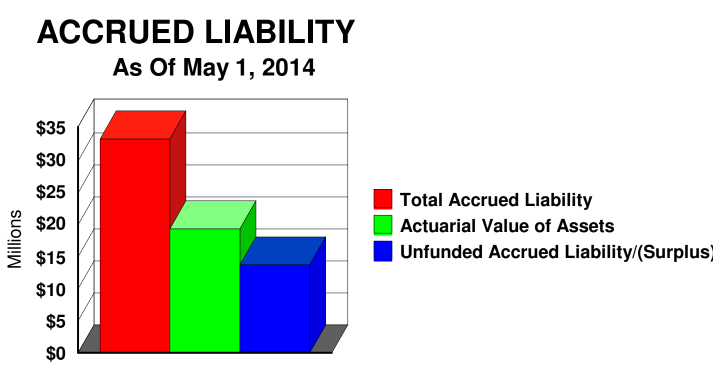
	as of May 1	
	2014	2013
Total Normal Cost	$ 753,430	$ 761,979
Anticipated Employee Contributions	415,602	418,390
Village Normal Cost	337,828	343,589
Normal Cost Payroll	$ 4,193,768	$ 4,221,895
Village Normal Cost Rate	8.06%	8.14%
Total Normal Cost Rate	17.97%	18.05%



ACCRUED LIABILITY

The Accrued Liability is the actuarial present value of the portion of the projected benefits that has been accrued as of the valuation date based upon the actuarial valuation method and actuarial assumptions employed in the valuation. The Unfunded Accrued Liability is the excess of the Accrued Liability over the Actuarial Value of Assets.

	as of May 1	
Accrued Liability	2014	2013
Active Employees	$ 25,075,710	$ 24,903,303
Children Annuities	0	0
Disability Annuities	1,810,257	1,790,671
Retirement Annuities	4,556,391	2,127,491
Surviving Spouse Annuities	0	0
Terminated Vested Annuities	1,783,485	1,743,004
Total Annuities	8,150,133	5,661,166
Total Accrued Liability	33,225,843	30,564,469
Actuarial Value of Assets	19,455,179	17,260,051
Unfunded Accrued Liability/(Surplus)	$ 13,770,664	$ 13,304,418
Percent Funded	58.6%	56.5%



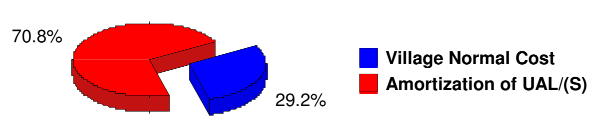
TAX LEVY REQUIREMENT

The Public Act 096-1495 Tax Levy Requirement is determined as the annual contribution necessary to fund the normal cost, plus the amount to amortize the excess (if any) of ninety percent (90%) of the accrued liability over the actuarial value of assets as a level percentage of payroll over a thirty (30) year period which commenced in 2011, plus an adjustment for interest. Prior to 2011, the amortization amount was equal to the amount to amortize the unfunded accrued liability as a level percentage of payroll over a forty (40) year period which commenced in 1993. Beginning in 2011, the amortization period remains a forty (40) year period which commenced in 1993.

	For Year Ending April 30			
		2015		2014
Village Normal Cost as of Beginning of Year	$	337,828	$	343,589
Amortization of Unfunded Accrued Liability/(Surplus)		820,513		758,185
Interest for One Year		81,084		77,124
Tax Levy Requirement as of End of Year	$	1,239,425	$	1,178,898
Public Act 096-1495 Tax Levy Requirement				
1) Normal Cost (PUC)		713,631		714,125
2) Accrued Liability (PUC)		29,797,578		27,315,278
3) Amortization Payment		325,653		314,431
4) Interest for One Year		72,750		71,999
5) PA 096-1495 Tax Levy Requirement (1 + 3 + 4)	$	1,112,034		1,100,555

TAX LEVY REQUIREMENT

For Fiscal Year Ending April 30, 2015



SUMMARY OF PLAN PARTICIPANTS

The actuarial valuation of the Plan is based upon the employee data furnished by the Village. The information provided for Active participants included:

Name
Sex
Date of Birth
Date of Hire
Compensation
Employee Contributions

The information provided for Inactive participants included:

Name
Sex
Date of Birth
Date of Pension Commencement
Monthly Pension Benefit
Form of Payment

Membership	2014	2014	2013	2013
Current Employees				
Vested	38		39	
Nonvested	8		9	
Total	46		48	
Inactive Participants		Annual Benefits		Annual Benefits
Children	0	$ 0	0	$ 0
Disabled Employees	3	98,745	3	98,745
Retired Employees	4	282,793	2	141,836
Surviving Spouses	0	0	0	0
Terminated Vesteds	3	110,301	3	106,185
Total	10	491,839	8	346,766
Annual Payroll		$ 4,193,768		$ 4,221,895

SUMMARY OF PLAN PARTICIPANTS (Continued)

Age and Service Distribution

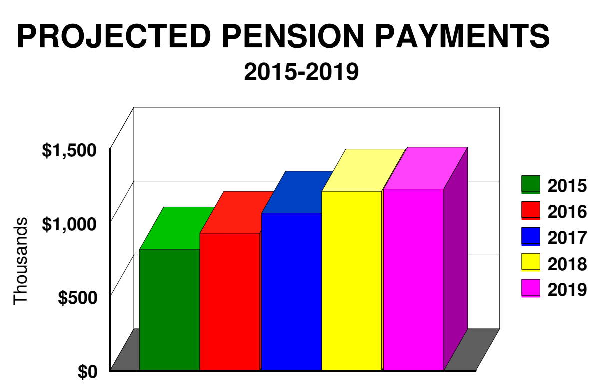
Service / Age	0-4	5-9	10-14	15-19	20-24	25-29	30+	Total	Salary
20-24									
25-29		4						4	72,348
30-34		6	1					7	80,520
35-39			6	6				12	92,224
40-44		1	5	4				10	92,677
45-49		1		1	2	1		5	98,229
50-54					3	1	1	5	96,221
55-59				1	1			2	97,047
60+						1		1	140,933
Total	0	12	12	12	6	3	1	46	91,169
Salary		78,565	92,320	94,338	92,682	112,461	117,611		

Average Age: 40.5 Average Service: 15.0

DURATION (years) Active Members: 20.1 Retired Members: 12.0 All Members: 17.9

PROJECTED PENSION PAYMENTS

2015	2016	2017	2018	2019
$837,729	$941,328	$1,070,606	$1,228,657	$1,239,276



SUMMARY OF PLAN PROVISIONS

The Plan Provisions have not been changed from the prior year.

The Village of Algonquin Police Pension Fund was created and is administered as prescribed by "Article 3. Police Pension Fund - Municipalities 500,000 and Under" of the Illinois Pension Code (Illinois Compiled Statutes, 1992, Chapter 40). A brief summary of the plan provisions is provided below.

Employees attaining the age of (50) or more with (20) or more years of creditable service are entitled to receive an annual retirement benefit of (2.5%) of final salary for each year of service up to (30) years, to a maximum of (75%) of such salary.

Employees with at least (8) years but less than (20) years of credited service may retire at or after age (60) and receive a reduced benefit of (2.5%) of final salary for each year of service.

Surviving spouses receive (100%) of final salary for fatalities resulting from an act of duty, or otherwise the greater of (50%) of final salary or the employee's retirement benefit.

Employees disabled in the line of duty receive (65%) of final salary.

The monthly pension of a covered employee who retired with (20) or more years of service after January 1, 1977, shall be increased annually, following the first anniversary date of retirement and be paid upon reaching the age of at least (55) years, by (3%) of the originally granted pension. Beginning with increases granted on or after July 1, 1993, the second and subsequent automatic annual increases shall be calculated as (3%) of the amount of the pension payable at the time of the increase.

Employees are required to contribute (9.91%) of their base salary to the Police Pension Plan. If an employee leaves covered employment with less than (20) years of service, accumulated employee contributions may be refunded without accumulated interest.

For Employees hired after January 1, 2011, the Normal Retirement age is attainment of age 55 and completion of 10 years of service; Early Retirement age is attainment of age 50, completion of 10 years of service and the Early Retirement Factor is 6% per year; the Employee’s Accrued Benefit is based on the Employee’s final 8-year average salary not to exceed $106,800 (as indexed); Cost-of-living adjustments are simple increases (not compounded) of the lesser of 3% or 50% of CPI beginning the later of the anniversary date and age 60; Surviving Spouse’s Benefits are 66 2/3% of the Employee’s benefit at the time of death.

ACTUARIAL METHODS

The Actuarial Methods employed for this valuation are as follows:

Projected Unit Credit Cost Method (for years beginning on or after 2011 for PA 096-1495)

Under the Projected Unit Credit Cost Method, the Normal Cost is the present value of the projected benefit (including projected salary increases) earned during the year.

The Accrued Liability is the present value of the projected benefit (including projected salary increases) earned as of the actuarial valuation date. The Unfunded Accrued Liability is the excess of the Accrued Liability over the plan's assets. Experience gains or losses adjust the Unfunded Accrued Liability.

Entry Age Normal Cost Method

Under the Entry Age Normal Cost Method the Normal Cost for each participant is computed as the level percentage of pay which, if paid from the earliest age the participant is eligible to enter the plan until retirement or termination, will accumulate with interest to sufficiently fund all benefits under the plan. The Normal Cost for the plan is determined as the greater of a) the sum of the Normal Costs for all active participants, and b) 17.5% of the total payroll of all active participants.

The Accrued Liability is the theoretical amount that would have accumulated had annual contributions equal to the Normal Cost been paid. The Unfunded Accrued Liability is the excess of the Accrued Liability over the plan's assets. Experience gains or losses adjust the Unfunded Accrued Liability.

ACTUARIAL ASSUMPTIONS

The Actuarial Assumptions used for determining the Tax Levy Requirement and GASB Statements No. 25 & 27 Disclosure Information are the same (except where noted) and have not been materially changed from the prior year. The methods and assumptions disclosed in this report may reflect statutory requirements and may reflect the responsibility of the Principal and its advisors. Unless specifically noted otherwise, each economic and demographic assumption was selected in accordance with Actuarial Standards of Practice 27 and 35 and may reflect the views and advice of advisors to the Principal. In the event a method or assumption conflicts with the actuary's professional judgment, the method or assumption is identified in this report. The Actuarial Assumptions employed for this valuation are as follows:

Valuation Date	May 1, 2014
Asset Valuation Method	5-year Average Market Value (PA 096-1495)
Investment Return	7.00% net of investment expenses.
Salary Scale	5.50%
Mortality	RP 2000 Mortality Table (BCA, +1M, -4F, 2x>105), adjusted for future mortality improvement using 1-year setback after 15 years.
Withdrawal	Based on studies of the Fund and the Department of Insurance, Sample Rates below
Disability	Based on studies of the Fund and the Department of Insurance, Sample Rates below
Retirement	Uniform distribution from ages 50-62 (100% by age 62)
Marital Status	80% Married, Female spouses 3 years younger

ACTUARIAL ASSUMPTIONS *(Continued)*

	Sample Annual Rates Per 100 Participants			
Age	Mortality	Withdrawal	Disability	Retirement
20	0.04	7.94	0.09	
25	0.04	7.72	0.09	
30	0.08	7.22	0.09	
35	0.12	6.28	0.15	
40	0.14	5.15	0.20	
45	0.19	3.98	0.41	
50	0.27	2.56	0.62	20.00
55	0.50	0.94	1.01	41.67
60	0.94		1.40	83.33
62	1.23			100.00

STATEMENTS NO. 25 & 27 DISCLOSURE INFORMATION

The Governmental Accounting Standards Board (GASB) issued Statements No. 25 & 27 that established generally accepted accounting principles for the annual financial statements for defined benefit pension plans. The required information is as follows:

Membership in the plan consisted of the following as of:

	April 30, 2014	April 30, 2013
Retirees and beneficiaries receiving benefits	7	5
Terminated plan members entitled to but not yet receiving benefits	3	3
Active vested plan members	38	39
Active nonvested plan members	8	9
Total	56	56
Number of participating employers	1	1

SCHEDULE OF FUNDING PROGRESS

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) -Entry Age (b)	Unfunded AAL (UAAL) (b-a)	Funded Ratio (a/b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll ((b-a)/c)
04/30/12	14,724,128	26,531,795	11,807,667	55.5%	4,145,760	284.8%
04/30/13	17,104,596	30,564,469	13,459,873	56.0%	4,221,895	318.8%
04/30/14	19,452,870	33,225,843	13,772,973	58.5%	4,193,768	328.4%

GASB STATEMENTS NO. 25 & 27 DISCLOSURE INFORMATION (Continued)

ANNUAL PENSION COST AND NET PENSION OBLIGATION

	April 30, 2014	April 30, 2013
Annual required contribution	1,020,427	987,225
Interest on net pension obligation	(1,398)	(1,951)
Adjustment to annual required contribution	1,154	1,544
Annual pension cost	1,020,183	986,818
Contributions made	1,025,000	978,923
Increase (decrease) in net pension obligation	(4,817)	7,895
Net pension obligation beginning of year	(19,974)	(27,869)
Net pension obligation end of year	(24,791)	(19,974)

THREE-YEAR TREND INFORMATION

Fiscal Year Ending	Annual Pension Cost (APC)	Percentage of APC Contributed	Net Pension Obligation
04/30/12	933,004	100.5%	(27,869)
04/30/13	986,818	99.2%	(19,974)
04/30/14	1,020,183	100.5%	(24,791)

GASB STATEMENTS NO. 25 & 27 DISCLOSURE INFORMATION (Continued)

FUNDING POLICY AND ANNUAL PENSION COST

Contribution rates:		
Village	24.44%	23.19%
Plan members	9.91%	Same
Annual pension cost	1,020,183	986,818
Contributions made	1,025,000	978,923
Actuarial valuation date	04/30/2014	04/30/2013
Actuarial cost method	Entry age	Same
Amortization period	Level percentage of pay, closed	Same
Remaining amortization period	19 years	20 years
Asset valuation method	Market	Same
Actuarial assumptions:		
Investment rate of return*	7.00%	Same
Projected salary increases*	5.50%	Same
*Includes inflation at	3.00%	Same
Cost-of-living adjustments	Tier 1: 3.00% per year, compounded Tier 2: 2.00% per year, simple	Same