

November 2008

Nova Scotia Association of Health Organizations Pension Plan

Report on the Actuarial Valuation for Funding Purposes as at July 1, 2008

MERCER



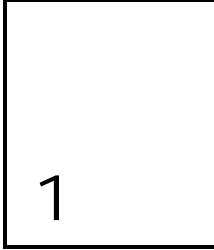
MARSH MERCER KROLL
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Nova Scotia Superintendent of Pensions Registration Number: 0355925
Canada Revenue Agency Registration Number: 0355925

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Summary of Results

Going-concern Financial Position	01.07.2008	31.12.2005
Market value of assets	\$2,670,812,000	\$2,101,837,000
Actuarial liability	\$2,642,123,000	\$2,057,607,000
Funding excess (Unfunded liability)	\$28,689,000	\$44,230,000
Solvency Financial Position	01.07.2008	31.12.2005
Solvency assets	\$2,665,812,000	\$2,098,837,000
Solvency liability	\$2,503,078,000	\$1,964,784,000
Solvency excess (deficiency)	\$162,734,000	\$134,053,000
Transfer ratio	107%	107%
Wind-up Financial Position	01.07.2008	31.12.2005
Market value of assets net of termination expenses	\$2,665,812,000	\$2,098,837,000
Total wind-up liability	\$3,320,733,000	\$2,650,898,000
Wind-up excess (deficiency)	(\$654,921,000)	(\$552,061,000)

Funding Requirements (annualized)	01.07.2008 – 31.03.2009	12 months following 31.03.2009
Total current service cost	\$165,284,000	\$172,774,000
Estimated members' required contributions	\$63,789,000	\$78,857,000
Estimated employers' current service cost	\$101,495,000	\$93,917,000
Total current service cost expressed as a percentage of members' pensionable earnings	16.28%	16.28%
Employers' current service cost as a percentage of members' pensionable earnings	10.00%	8.85%
		2007
Total current service cost		\$127,851,000
Estimated members' required contributions		\$56,042,000
Estimated employers' current service cost		\$71,809,000
Total current service cost expressed as a percentage of members' pensionable earnings		14.45%
Employers' current service cost as a percentage of members' pensionable earnings		8.12%
	12 months following 01.07.2008	2006
Minimum special payments	\$0	\$0
Estimated minimum employer contribution for year	\$71,785,000*	\$26,127,000*
Estimated maximum employer contribution for year	\$755,395,000	\$622,999,000

** Note: This amount does not include any additional employer contributions that may be required pursuant to agreements or obligations outside the plan text that may be applicable to some or all of the participating employers.*

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Introduction

Report on the Actuarial Valuation as at July 1, 2008

To NSAHO Pension Plan Trustees

At your request, we have conducted an actuarial valuation of the Nova Scotia Association of Health Organizations Pension Plan as at July 1, 2008. We are pleased to present the results of the valuation.

The purpose of this valuation is to determine:

- the funded status of the plan as at July 1, 2008 on going-concern, solvency and wind-up bases, and
- the minimum and maximum funding requirements from July 1, 2008.

The next actuarial valuation of the plan will be required as at a date not later than July 1, 2011 or as at the date of an earlier amendment to the plan, in accordance with the minimum requirements of the Nova Scotia *Pension Benefits Act*.

There is a funding excess of \$28,689,000 and a transfer ratio of 107% as at July 1, 2008, on the basis of the assumptions and methods described in this report. Thus, from an actuarial perspective, the participating employers need not contribute to the plan in order to maintain its fully funded status, until after the entire funding excess has been applied towards the employers' current service cost (we note, however, that employer contribution requirements may be determined or affected by other obligations or agreements in force from time to time, including the Memorandum of Agreement between the District Health Authorities and IWK Health Centre and the health care unions signed October 2006).

If the entire funding excess had been so applied, monthly employer contributions would be required to resume. We recommend that the minimum employer contributions be determined as 10.00% of members' pensionable earnings for the period ending March 31, 2009 and 8.85% of members' pensionable earnings from April 1, 2009.

Since the funding excess does not exceed the maximum allowed under Section 147.2 of the *Income Tax Act*, participating employers may make monthly contributions as recommended in this report.

The maximum contribution that the participating employers may make to the plan for the year following July 1, 2008 is \$755,395,000, which is comprised of the employers' current service cost plus the wind-up deficiency.

The plan is not fully funded on a wind-up basis. Even if the participating employers contribute in accordance with the funding requirements described in this valuation report, the assets of the plan may be less than the liabilities of the plan upon wind-up.

Emerging experience, including the growth of wind-up liabilities compared to the plan's assets (including future contributions and investment returns), will also affect the wind-up funded position of the plan.

The plan has been amended since the date of the previous valuation as follows:

- effective December 31, 2006, the plan was amended to change the base year to 2005;
- effective December 31, 2006, the plan was amended to increase deferred pensions by 3.4%;
- effective December 31, 2007, the plan was amended to change the base year to 2006; and
- effective December 31, 2007, the plan was amended to increase deferred pensions by 0.7%.

The value of these amendments was included in the December 31, 2005 actuarial valuation of the plan, and, therefore, had no impact on the financial position of the plan when adopted.

In addition, a number of plan amendments were made for plan administration purposes. None of these amendments impacted the financial position of the plan.

This valuation reflects the provisions of the plan as at July 1, 2008, including the proposed member contribution increase effective April 1, 2009. Member contributions are proposed to increase to 7.0666% of pensionable earnings up to the YMPE and 9.2555% of pensionable earnings in excess of the YMPE. This amendment increases the expected annualized member contributions by \$12,205,000.

A summary of the plan provisions is provided in Appendix D.

We have used the same going-concern valuation assumptions and methods as were used for the valuation as at December 31, 2005, except for the following changes:

- the pre-retirement investment return was changed from 6.95% per year for the first three years following the valuation date and 4.5% per year thereafter to 6.7% per year for the first three years following the valuation date and 3.5% per year thereafter;
- the post-retirement investment return was changed from 4.5% per year to 6.7% per year and, in conjunction with this change, we have made an explicit assumption that pensions in pay will increase by 2.1% per year; and
- we have assumed that the plan's base year will be improved to 2009, with a salary increase of 3.9% per year and YMPE increase of 2.7% per year for the year following the valuation date.

These assumption changes have resulted in an increase of \$129,908,000 in the actuarial liability and of \$12,050,000 in the total current service cost at July 1, 2008.

The solvency and wind-up assumptions have been updated to reflect market conditions at the valuation date.

The assumptions used for purposes of this valuation are described in Appendix B. All assumptions made for the purposes of the valuation were reasonable at the time the valuation was prepared.

On July 29, 2004, the Supreme Court of Canada dismissed the appeal in *Monsanto Canada Inc. versus Superintendent of Financial Services ("Monsanto")*, thereby upholding the requirements to distribute surplus on partial plan ups under *The Pension Benefits Act (Ontario)*. The decision has retroactive application. While the plan is subject to the Nova Scotia *Pension Benefits Act*, the provisions related to wind-up are similar to the Ontario Act. We are aware of several past partial wind-ups of the plan where the *Monsanto* decision may have application. However, as at the date of filing this report, we are not able to assess the impact, if any, of the decision on the financial position of the plan and, therefore, have not identified a reserve for this potential claim on plan assets. A subsequent distribution of plan assets in respect of the past partial wind-ups will cause a deterioration of the financial position of the plan and may increase the contribution requirements. Furthermore, the subsequent declaration of a partial wind-up of the plan where *Monsanto* may apply in respect of other past events, or disclosure of an additional existing past partial wind-up of the plan where *Monsanto* may apply, could cause an additional claim on plan assets, the consequences of which would be addressed in a subsequent report. We note the discretionary nature of the power of the Superintendent of Pensions to declare partial wind-ups and the lack of clarity with respect to the retroactive scope of that power. We are making no representation as to whether the Superintendent of Pensions might declare a partial wind-up in respect of other events in the plan's history.

Since the valuation date there have been significant fluctuations in the financial market and movements in long term interest rates. Consequently, it is likely that the financial position of the Plan has deteriorated since the valuation date. We have reflected the financial position of the plan as of the valuation date (July 1, 2008) and have not taken into account any experience after the valuation date.

After checking with representatives of NSAHO Pension Plan, to the best of our knowledge there have been no other events subsequent to the valuation date which, in our opinion, would have a material impact on the results of the valuation.

This report has been prepared, and our opinions given, in accordance with accepted actuarial practice. It has also been prepared in accordance with the funding and solvency standards set by the Nova Scotia *Pension Benefits Act*.

The information contained in this report was prepared for the NSAHO Pension Plan Trustees for its internal use and for filing with Nova Scotia Superintendent of Pensions and with the Canada Revenue Agency, in connection with our actuarial valuation of the plan. This report is not intended or necessarily suitable for other purposes.

This report will be filed with the Nova Scotia Superintendent of Pensions and with the Canada Revenue Agency.

Respectfully submitted,



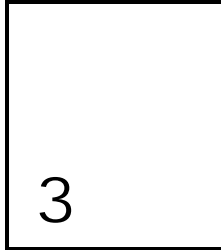
Philip Churchill
Fellow, Canadian Institute of Actuaries
Fellow, Society of Actuaries

Date

Nova Scotia Association of Health Organizations Pension Plan

Registration number with the Nova Scotia Superintendent of Pensions: 0355925

Registration number with the Canada Revenue Agency: 0355925



Financial Position of the Plan

Valuation Results – Going-concern Basis

When conducting a valuation on a going-concern basis, we determine the relationship between the respective values of assets and accumulated benefits, assuming the plan will be maintained indefinitely.

Financial Position

The results of the valuation as at July 1, 2008, in comparison with those of the previous valuation as at December 31, 2005, are summarized as follows:

Financial Position – Going-concern Basis		
	01.07.2008	31.12.2005
Market value of assets	\$2,670,812,000	\$2,101,837,000
Actuarial liability		
Present value of accrued benefits for:		
▪ active members	\$1,791,840,000	\$1,433,812,000
▪ pensioners and survivors	\$816,552,000	\$598,158,000
▪ deferred pensioners	\$33,731,000	\$25,637,000
Total liability	\$2,642,123,000	\$2,057,607,000
Funding excess	\$28,689,000	\$44,230,000

Reconciliation of Financial Position

The plan's financial position, a funding excess of \$28,689,000 as at July 1, 2008, is reconciled with its previous position, a funding excess of \$44,230,000 as at December 31, 2005, as follows:

Reconciliation of Financial Position	
Funding excess as at 31.12.2005	\$44,230,000
Interest on funding excess to 01.07.2008	\$7,226,000
Contributions less than current service cost determined at 31.12.2005 *	(\$2,539,000)
Current service cost at 31.12.2005 less than cost of benefits accrued	(\$5,261,000)
Net experience gains (losses) over 31.12.2005 – 01.07.2008 **	\$114,186,000
Impact of changes in assumptions	(\$129,908,000)
Net impact of other elements of gains and losses	\$755,000
Funding excess as at 01.07.2008	\$28,689,000

* The contribution deficit is in respect of the period from January to March 2006, prior to the implementation of the Memorandum of Agreement.

** Net experience gains (losses) are detailed below.

Plan Experience

The main assumptions are compared with actual experience since the previous valuation as at December 31, 2005:

Plan Experience			
	Assumption	Actual 31.12.2005 – 01.07.2008	Impact Gain (Loss)
Investment return, net of expenses	6.24%/year *	7.7%/year	\$90,007,000
Increases in pensionable earnings	3.8%/year	4.0%/year	} \$8,691,000
Increases in YMPE	2.6%/year	3.0%/year	
Indexation	0%/year	1.6%/year	(\$17,387,000)
Retirements:			
▪ number	1,897 retired	1,150 retired	} \$30,473,000
▪ average age	59.9 years	59.8 years	
Terminations of employment	0 terminated	1,483 terminated	\$3,183,000
Mortality:			
▪ pre-retirement	85 deaths	82 deaths	\$1,264,000
▪ post-retirement	301 deaths	305 deaths	(\$2,045,000)
Net experience gains (losses)			\$114,186,000

* This is an average of the 6.95% discount rate used for the pre-retirement period and the 4.50% per year discount rate used for the post-retirement period.

Valuation Results – Solvency Basis

When conducting a solvency valuation, we determine the relationship between the respective values of the plan's assets and its liabilities on a solvency basis, determined in accordance with the Nova Scotia *Pension Benefits Act*. The values of the plan's assets and liabilities on a solvency basis are related to the corresponding values calculated as though the plan were wound up and settled on the valuation date.

We have not included the value of certain benefits that may be payable upon the postulated plan wind-up. We have excluded the value of any escalated adjustments (post-retirement indexing of pensions) and the value of benefits payable under Section 79 of the Nova Scotia *Pension Benefits Act* ("grow-in" benefits) that may be payable on plan wind-up. These exclusions are allowed under Regulation 16(1)(a) of the Nova Scotia *Pension Benefits Act*. Had these benefits been included in the solvency valuation, liabilities would have been increased by \$817,655,000.

As at July 1, 2008, the transfer ratio of the plan, being the ratio of solvency assets to solvency liabilities, is 107%. The plan's solvency position as at July 1, 2008, in comparison with that of the previous valuation as at December 31, 2005, is determined as follows:

Solvency Position		
	01.07.2008	31.12.2005
Market value of assets	\$2,670,812,000	\$2,101,837,000
Termination expense provision	(\$5,000,000)	(\$3,000,000)
Solvency assets	\$2,665,812,000	\$2,098,837,000
Actuarial liability		
Present value of accrued benefits for:		
▪ active members	\$1,662,645,000	\$1,343,552,000
▪ pensioners and survivors	\$808,488,000	\$596,386,000
▪ deferred pensioners	\$31,945,000	\$24,846,000
Total liability	\$2,503,078,000	\$1,964,784,000
Solvency excess (deficiency)	\$162,734,000	\$134,053,000
Transfer ratio	107%	107%

Payment of Benefits

Since escalated adjustments (post-retirement indexing) are excluded from the solvency liabilities, in accordance with the regulations under the Nova Scotia *Pension Benefits Act*, the plan administrator should ensure that the value of these excluded benefits are remitted to the pension fund before any lump sum benefit payments to terminating members are made.

Financial Position on a Wind-up Basis

The plan's hypothetical wind-up position as of July 1, 2008, assuming circumstances producing the maximum wind-up liabilities on the valuation date, is determined as follows:

Wind-up Position	
	01.07.2008
Market value of assets	\$2,670,812,000
Termination expense provision	(\$5,000,000)
Wind-up assets	\$2,665,812,000
Present value of accrued benefits for:	
▪ active members	\$2,277,912,000
▪ pensioners and survivors	\$1,002,421,000
▪ deferred pensioners	\$40,400,000
Total wind-up liability	\$3,320,733,000
Wind-up excess (deficiency)	(\$654,921,000)

Impact of Plan Wind-up

In our opinion, the value of the plan's assets would be less than its actuarial liabilities if the plan were to be wound up on the valuation date.

Specifically, actuarial liabilities would exceed the market value of plan assets by \$654,921,000. This calculation includes a provision for termination expenses that might be payable from the pension fund and includes the value of benefits payable under Section 79 of the Nova Scotia *Pension Benefits Act*.

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Funding Requirements

Current Service Cost

The estimated value of the benefits that will accrue on behalf of the active members for the period from July 1, 2008 to March 31, 2009 and the 12 months following March 31, 2009, in comparison with the corresponding value determined in the previous valuation as at December 31, 2005 (for the first full year after the April 1, 2006 contribution increase) is summarized below:

Employer's Current Service Cost (annualized)

	01.07.2008 – 31.03.2009	12 months following 31.03.2009	2007
Total current service cost	\$165,284,000	\$172,774,000	\$127,851,000
Estimated members' required contributions	\$63,789,000	\$78,857,000	\$56,042,000
Estimated employers' current service cost	\$101,495,000	\$93,917,000	\$71,809,000
Total current service cost expressed as a percentage of members' pensionable earnings	16.28%	16.28%	14.45%
Employers' current service cost expressed as a percentage of members' pensionable earnings	10.00%	8.85%	8.12%

Special Payments

Going-concern Basis

No going-concern special payments are required.

Solvency Basis

No solvency special payments are required.

Employer Contributions

There is a funding excess of \$28,689,000 and a transfer ratio of 107% as at July 1, 2008 on the basis of the assumptions and methods described in this report. Thus, from an actuarial perspective, the employers need not contribute to the plan, in order to maintain its fully funded status, until the entire funding excess has been applied towards the employers' current service cost (we note, however, that employer contribution requirements may be determined or affected by other obligations or agreements in force from time to time, including the Memorandum of Agreement between the District Health Authorities and IWK Health Centre and the health care unions signed October 2006).

If the entire funding excess had been so applied, monthly employer contributions would be required to resume. We recommend that the minimum employer contributions be determined as 10.00% of member pensionable earnings for the period ending March 31, 2009 and 8.85% of members' pensionable earnings from April 1, 2009. The amount of the employers' current service cost should be monitored to ensure that monthly employer contributions resume in a timely manner.

In accordance with Section 147.2 of the *Income Tax Act*, the plan may not retain its registered status if the employers make a contribution while the funding excess (\$28,689,000 as at July 1, 2008) exceeds the lesser of:

- 20% of the going-concern actuarial liability (\$528,425,000); and
- the greater of:
 - 10% of the going-concern actuarial liability (\$264,212,000); and
 - two years of total current service cost (\$330,568,000).

Since the funding excess does not exceed the maximum allowed under Section 147.2 of the *Income Tax Act*, the participating employers may make monthly as recommended in this report.

On the basis of the members' estimated pensionable earnings, we have estimated the minimum total employer contributions for the 12 months following July 1, 2008 to be \$71,785,000. We have estimated the total members' contributions for the 12 months following July 1, 2008 to be \$67,840,000.

Estimated Minimum Employer Contributions*
Until July 1, 2011

Period Ending	Employers' Current Service Cost	Estimated Funding Excess Applied	Minimum Employer Contributions
30.06.2009	\$100,474,000	\$28,689,000	\$71,785,000
30.06.2010	\$95,070,000	\$0	\$95,070,000
30.06.2011	\$98,778,000	\$0	\$98,788,000

* This amount does not include any additional employer contributions that may be required pursuant to agreements or obligations outside the plan text that may be applicable to some or all of the participating employers.

Contributions for current service must be made within 30 days following the month to which they apply.

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Actuarial Opinion

**With respect to the Actuarial Valuation as at July 1, 2008
of the Nova Scotia Association of Health Organizations Pension Plan
Registration #0355925**

Based on the results of this valuation, I hereby certify that, as at July 1, 2008:

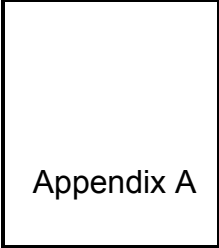
- The employers' current service cost should be determined as 10.00% of members' pensionable earnings for the period ending March 31, 2009 and 8.85% of members' pensionable earnings from April 1, 2009.
- The employers' current service cost for the 12 months following July 1, 2008 is estimated to be \$100,474,000.
- There is a funding excess of \$28,689,000 and a transfer ratio of 107% as at July 1, 2008 on the basis of the assumptions and methods described in this report. Thus, from an actuarial perspective, the employers need not contribute to the plan, in order to maintain its fully-funded status, until after the entire funding excess has been applied towards the employers' current service cost. If the entire funding excess has been so applied, monthly employer contributions must resume. These comments do not reflect obligations that may have been assumed by the employers outside of the current terms of the plan text, including the Memorandum of Agreement between the District Health Authorities and IWK Health Centre and the health care unions signed October 2006.
- The plan has a solvency excess of \$162,734,000 as at July 1, 2008. No special payments are required for solvency purposes.

- Solvency liabilities exclude the value of escalated adjustments (post-retirement indexing) and the value of benefits payable under Section 79 of the Nova Scotia *Pension Benefits Act* (“grow-in” benefits). These benefits are included in wind-up liabilities and there is a wind-up deficiency of \$654,921,000 at July 1, 2008.
- In my opinion,
 - the data on which the valuation is based are sufficient and reliable for the purposes of the valuation,
 - the assumptions are, in aggregate, appropriate for the purposes of determining the funded status of the plan as at July 1, 2008 on going-concern and solvency bases, and determining the minimum funding requirements, and
 - the methods employed in the valuation are appropriate for the purposes of determining the funded status of the plan as at July 1, 2008 on going-concern and solvency bases, and determining the minimum funding requirements.
- This report has been prepared, and my opinions given, in accordance with accepted actuarial practice.
- All assumptions made for the purposes of the valuation were reasonable at the time the valuation was prepared.



Philip Churchill
Fellow, Canadian Institute of Actuaries
Fellow, Society of Actuaries

Date



Appendix A

Plan Assets

Sources of Plan Asset Data

The pension fund is held in trust by RBC Dexia Investor Services and is invested in accordance with the investment policy.

We have relied upon the auditors' report, for the period from January 1, 2006 to December 31, 2007, and on financial statements prepared by the NSAHO Pension Plan for the period January 1, 2008 to June 30, 2008.

Reconciliation of Plan Assets

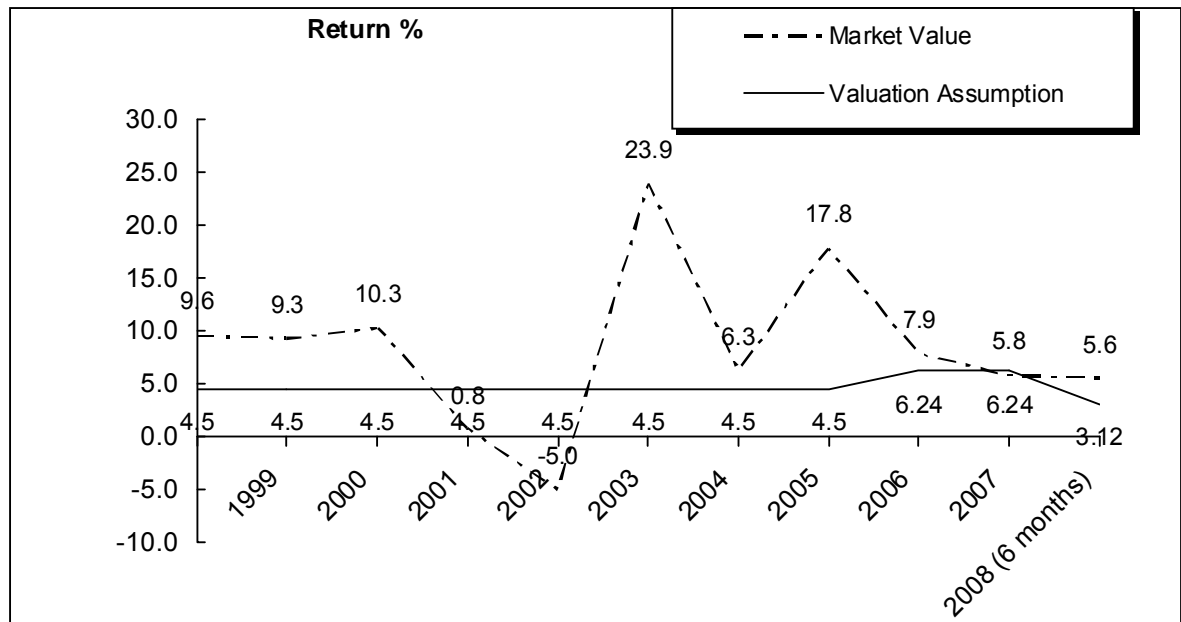
The pension fund transactions for the period from January 1, 2006 to July 1, 2008 are summarized as follows:

Reconciliation of Plan Assets (Market Value)			
	2006	2007	2008
	(Jan-Dec)	(Jan-Dec)	(Jan-Jun)
January 1	\$2,101,837,000	\$2,321,373,000	\$2,503,852,000
PLUS			
Members' contributions	\$48,581,000	\$53,222,000	\$27,510,000
Members' buyback contributions	\$4,234,000	\$1,771,000	\$905,000
Employers' contributions	\$60,452,000	\$67,802,000	\$35,710,000
Net transfers from/to other plans	\$1,074,000	(\$1,961,000)	\$1,575,000
Investment income	\$14,747,000	\$19,806,000	\$85,004,000
Net capital gains (losses)	\$161,243,000	\$123,772,000	\$60,000,000
	\$290,331,000	\$264,412,000	\$210,704,000
LESS			
Pensions paid	\$53,686,000	\$59,390,000	\$32,830,000
Lump-sum refunds	\$9,002,000	\$13,886,000	\$6,520,000
Expenses	\$8,107,000	\$8,657,000	\$4,394,000
	\$70,795,000	\$81,933,000	\$43,744,000
December 31*	\$2,321,373,000	\$2,503,852,000	\$2,670,812,000

*June 30 for 2008

Performance of Fund Assets

The performance of fund assets, net of expenses, from January 1, 1998 to July 1, 2008 as per our calculations (which assume that the net cash flow occurs in the middle of each year) is shown below:



The average return on the market value, net of expenses, since the last valuation at December 31, 2005 was 7.7% per year. This rate exceeds the assumed investment return of 6.24% by 1.46% per year.

Appendix B

Actuarial Methods and Assumptions

Actuarial Valuation Methods – Going-concern Basis

Valuation of Assets

For this valuation, we have continued to use the market value of the fund as the actuarial value of plan assets.

The actuarial value of the assets, determined as at July 1, 2008, is \$2,670,812,000.

Valuation of Actuarial Liabilities

Over time, the real cost to the employer of a pension plan is the excess of benefits and expenses over member contributions and investment earnings. The actuarial cost method allocates this cost to annual time periods.

For purposes of the going-concern valuation, we have continued to use the *unit credit actuarial cost method*. Under this method, we determine the actuarial present value of benefits accrued in respect of service prior to the valuation date, including ancillary benefits. This is referred to as the *actuarial liability*. For this valuation we have also assumed that the plan's base year will eventually be improved to 2009 and reflected the plan's benefits based on this base year. For each individual plan member, accumulated contributions with interest are established as a minimum actuarial liability.

The *funding excess* or *unfunded liability*, as the case may be, is the difference between the actuarial value of assets and the actuarial liability. An unfunded liability will be amortized over no more than 15 years through special payments as required under the Nova Scotia *Pension Benefits Act*. A funding excess may, from an actuarial standpoint, be applied immediately to reduce required employer current service contributions unless precluded by the terms of the plan, by legislation or other binding agreement.

This actuarial funding method produces a reasonable matching of contributions with accruing benefits. Because benefits are recognized as they accrue, the actuarial funding

method aims at keeping the plan fully funded at all times. This promotes benefit security, once any unfunded liabilities and solvency deficiencies have been funded.

Current Service Cost

The *current service cost* is the actuarial present value of projected benefits to be paid under the plan with respect to service during the year following the valuation date.

The employers' current service cost is the total current service cost reduced by the members' required contributions.

The employers' current service cost has been expressed as a percentage of the members' pensionable earnings to provide an automatic adjustment in the event of fluctuations in membership and/or pensionable earnings.

Under the unit credit actuarial cost method, the current service cost for an individual member will increase each year as the member approaches retirement. However, the current service cost of the entire group, expressed as a percentage of the members' pensionable earnings, can be expected to remain stable as long as the average age of the group remains constant.

Employer's Contribution

Accordingly, the employers' contributions for this purpose are determined as follows:

Employer's Contributions	
With a funding excess	With an unfunded liability
Current service cost	Current service cost
MINUS	PLUS
Any funding excess applied to cover the employer's current service cost	Payments to amortize any unfunded liability

Actuarial Assumptions – Going-concern Basis

The actuarial value of benefits is based on economic and demographic assumptions. At each valuation we determine whether, in our opinion, the actuarial assumptions are still appropriate for the purposes of the valuation, and we revise them, if necessary.

In this valuation, we have used the same assumptions as in the previous valuation, except as noted. Emerging experience will result in gains or losses that will be revealed and considered in future actuarial valuations. For this valuation, we have used the following assumptions.

Economic Assumptions

Investment Return

We have assumed that the investment return on the market value of the fund will average 6.7% per year over the long term. We have based this assumption on an expected long-term return on the pension fund less an allowance for investment and administrative expenses and less a margin for adverse deviations as described below.

We have assumed a gross rate of return of return of 7.75%, consistent with market conditions on the valuation date, based on estimated returns for each major asset class and the target asset mix specified in the plan's investment policy. This includes additional returns 0.20% assumed to be achievable due to active management of the plan's equity investments. We have allowed for investment and administrative expenses of 0.65% per year.

We have included a margin for adverse deviations, from all sources, of 0.40% per year.

To reflect the career average nature of the plan and to allow for the possibility of future base year improvements beyond those explicitly provided for in the liabilities, for active and deferred members the investment return is assumed to be 6.7% per year for three years following the valuation date (or retirement if earlier) and 3.5% per year thereafter. The 3.5% per year investment return assumption beyond the third year provides an additional margin to fund future base year improvements.

Expenses

The assumed Investment Return reflects an implicit provision for investment and administrative expenses.

Inflation

The benefits ultimately paid depend on the level of inflation. We have assumed inflation will be 2.7% per year. This assumption reflects our best estimate of future inflation considering the Bank of Canada's inflation target and market expectations of long-term inflation implied by the yields on nominal and real return bonds. This level of inflation results in an expectation that indexing will be provided to retirees at a rate of 2.1% per year, on average.

Increases in Pensionable Earnings

We have included a provision in the valuation to reflect base year upgrades to the year 2009. To calculate the pension benefits payable upon retirement, death or termination of employment, we have taken the 2008 annualized earnings and assumed that such pensionable earnings will increase at 3.9% per year for the year following the valuation date.

Increases in the YMPE

Since future base year upgrades are included in the valuation, the Year's Maximum Pensionable Earnings (YMPE) under the Canada Pension Plan, is assumed to increase at 2.7% per year from its 2008 level of \$44,900 for one year following the valuation date.

Interest Credited on Employee-required Contributions

Interest is credited on employee-required contributions at the 5-year personal fixed-term chartered bank deposit rates. For this valuation, we have assumed that the interest rate to be credited on employee-required contributions will be 4.5% per year, over the long term.

Demographic Assumptions

Retirement Age

Because early retirement pensions are reduced in accordance with a formula, the retirement age of plan members has an impact on the cost of the plan. Retirement rates are typically developed taking into account the past experience of the plan. We have assumed that 75% of members will retire at the earliest age eligible for an unreduced pension. For members already eligible for an unreduced pension, we have assumed that 75% of those members would retire one year after the valuation date. The remainder of members are assumed to retire on their normal retirement, which is their 65th birthday. If a member has already attained age 65, the member is assumed to retire immediately. Deferred pensioners and members in receipt of LTD benefits are assumed to retire at age 60. The rates of retirement have been developed as our expectation of the best-estimate rates of retirement based on the plan provisions and past experience of the plan.

Termination of Employment

No allowance has been made for termination of employment prior to retirement on the basis that the impact of including such an assumption would not have a material impact on the valuation results.

Mortality

The actuarial value of the pension depends on the lifetime of the member.

The 1994 Uninsured Pension Mortality Table reflects the mortality experience as of 1994 for a large sample of North American pension plans. Applying projection scale AA provides an allowance for improvements in mortality after 1994. This table is commonly used for valuations where there is no reason to expect the mortality to differ from that of other pension plans. This is true for this plan.

While there is strong evidence of continuing improvement in mortality, forecasts of the rate of future improvement are very uncertain. We have used the projection scale AA to reflect future improvements in mortality.

We have assumed mortality rates, both before and after retirement, in accordance with the 1994 Uninsured Pension Mortality Table with projection scale AA applied to reflect continuing future improvements in mortality. According to this table, the life expectancy at age 65, as of the valuation date, is 19.4 years for males and 21.9 years for females.

Disability

We have assumed that those currently disabled would remain disabled until retirement and would continue to accrue benefits until retirement in accordance with the plan terms. We have not made any provision for future disabilities.

Family Composition

Benefits in case of death, before and after retirement, depend on the plan member's marital status.

For this valuation, we have assumed that 90% of male plan members and 70% of female plan members will have an eligible spouse or common-law partner on the earlier of death or retirement, and that the male partner will be three years older than the female partner.

Actuarial Valuation Methods and Assumptions – Solvency and Impact of Plan Wind-up

We have used the market value of the plan's assets in our valuation of the plan for solvency purposes.

To determine the solvency actuarial liability, we have valued those benefits that would have been paid had the plan been wound up on the valuation date, with all members fully vested in their accrued benefits.

We have not included, in the solvency liabilities, the value of all benefits that may be payable on plan wind-up. We have excluded the value of escalated adjustments (post-retirement indexing) and the value of the benefits payable under Section 79 of the Nova Scotia *Pension Benefits Act* ("grow-in" benefits). This exclusion is allowed under Regulation 16(1)(a) under the Nova Scotia *Pension Benefits Act*. These benefits have, however, been included in the wind-up liabilities.

We have considered that all active members would be entitled to a deferred pension payable at the age which maximizes the solvency liability assuming employment ceased on the valuation date. For each individual plan member, accumulated contributions with interest plus 50% of the present value of the pension are established as a minimum actuarial liability.

For active members under 50 years of age, 20% of benefits are assumed to be settled through the purchase of annuities and 80% of benefits are assumed to be settled through a lump sum transfer.

For active members age 50 and over and deferred members, 30% of benefits are assumed to be settled through a lump sum transfer and 70% of benefits are assumed to be settled through the purchase of annuities.

Benefits are assumed to be settled through the purchase of annuities for pensioners.

The value of benefits for members assumed to be settled through lump sum transfers is based on the assumptions described in Section 3800 – *Pension Commuted Values* of the Canadian Institute of Actuaries Standards of Practice applicable for July 1, 2008.

The value of benefits for members assumed to be settled through the purchase of annuities is based on an estimate of the cost of settlement through purchase of annuities. However, it may not be possible to settle the liabilities through the purchase of annuities due to the size of the plan and the limited annuity market in Canada. In accordance with the *Canadian Institute of Actuaries Educational Note: Assumptions for Hypothetical Wind-up and Solvency Valuations with Effective Dates Between December 31, 2007 and December 30, 2008*, we have assumed that the settlement of such liabilities would be priced on the same basis as the smaller group annuities that are available in the market.

With respect to the indexed annuities assumed to be purchased under the wind-up valuation, we have used the non-indexed rate described above reduced by an assumed inflation adjustment. The assumed inflation adjustment is based on the implied inflation derived from the difference on long-term Government of Canada real return bonds and nominal bonds as at the date of the valuation. We note that this basis is theoretical and does not represent the cost at which CPI-indexed annuities can be purchased in today's market. We expect that if an insurance company were to take on these obligations they would demand a significantly higher price.

Assumptions are as follows:

Actuarial Assumptions - Solvency

Mortality rates:	UP94 projected to 2015
Interest rates for benefits to be settled through lump sum transfer:	4.0% per year for the first 10 years following 01.07.2008, 5.0% per year thereafter
Interest rates for benefits to be settled through annuity purchase:	4.5% per year
Family composition:	85% of members are assumed to be married with the male partner being three years older than the female partner
Termination expenses:	\$5,000,000

Actuarial Assumptions – Plan Wind-up

Mortality rates:	UP94 projected to 2015
Interest rates for benefits to be settled through lump sum transfer:	Pre-retirement: 4.0% per year for the first 10 years following 01.07.2008, 5.0% per year thereafter Post-retirement: 2.5% per year for the first 10 years following 01.07.2008, 3.25% thereafter
Interest rates for benefits to be settled through annuity purchase:	Pre-retirement: 4.5% per year Post-retirement: 2.35% per year
Family composition:	85% of members are assumed to be married with the male partner being three years older than the female partner
Termination expenses:	\$5,000,000

Appendix C

Membership Data

Analysis of Membership Data

The actuarial valuation is based on membership data as at July 1, 2008, provided by the NSAHO Pension Plan. Specifically, we were provided with the December 31, 2007 year end data as well as information regarding new members, retirements, terminations and deaths for the six-month period January 1, 2008 to June 20, 2008. Pensionable earnings for active members at December 31, 2007 were assumed to increase by 3.8% for 2008 and members were assumed to work at the same full-time ratio as in 2007. Salaries for new plan members were estimated based on the average earnings of new plan members over the last two years. New plan members since January 1, 2008 were assumed to have full service. Contributions for 2008 were based on members' estimated earnings and actual 2008 YMPE.

We have applied tests for internal consistency, as well as for consistency with the data used for the previous valuation. These tests were applied to membership reconciliation, basic information (date of birth, date of hire, date of membership, gender, etc.), pensionable earnings, credited service, contributions accumulated with interest and pensions to retirees and other members entitled to a deferred pension. The results of these tests were satisfactory.

Plan membership data are summarized below. For comparison, we have also summarized corresponding data from the previous valuation.

Membership Data

	01.07.2008	31.12.2005
Active Members		
Number	23,863	21,246
Total pensionable earnings*	\$1,021,304,612	\$826,757,416
Average pensionable earnings	\$47,507	\$43,347
Average years of pensionable service	8.4 years	8.4 years
Average age	44.3	44.1
Accumulated contributions with interest	\$517,585,034	\$430,131,966
Deferred Pensioners		
Number	493	420
Total annual pension	\$2,663,116	\$2,181,853
Average annual pension	\$5,402	\$5,192
Average age	50.9	49.6
Pensioners and Survivors		
Number	5,468	4,601
Total annual lifetime pension	\$60,068,181	\$43,765,236
Total annual temporary pension	\$97,252,528	\$5,123,136
Average annual lifetime pension	\$10,985	\$9,512
Average age	69.1	69.6

* Excludes members with no salary reported and members in receipt of LTD

The membership movement for all categories of membership since the previous actuarial valuation is as follows:

Reconciliation of Membership

	Actives	Deferred Vested	Pensioners and Beneficiaries
Total at 31.12.2005	21,246	420	4,601
Net adjustments	(10)	(14)	(3)
New entrants	5,306		
Returned to work	2		(2)
Terminations:			
▪ not vested			
▪ transfers/refunds	(1,358)	(4)	
▪ deferred pensions	(138)	138	
Deaths	(82)		(305)
Retirements			
▪ Monthly pension	(1,000)	(47)	1,047
▪ Small benefit	(103)		
Pensions ceased			(11)
New pensions – marriage breakdown			7
Beneficiaries			134
Total at 01.07.2008	23,863	493	5,468

The distribution of the active members' pensionable earnings by age and continuous service as at July 1, 2008, is summarized as follows:

**Distribution of Active Members Pensionable Earnings
By Age Group and Continuous Service as at 01.07.2008**

Age	Years of Pensionable Service									Total
	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40+	
Under 20	2									2
	29,942									29,942
20 - 24	530	8								538
	42,358	31,403								42,195
25 - 29	1,222	396	9							1,627
	46,386	45,023	38,934							46,013
30 - 34	1,021	968	286	17						2,292
	47,570	49,432	43,239	37,063						47,738
35 - 39	816	954	607	256	18					2,651
	47,953	49,622	49,022	44,933	36,653					48,430
40 - 44	682	869	571	628	462	18				3,230
	46,000	46,759	47,612	50,749	48,366	37,380				47,703
45 - 49	592	818	560	533	757	586	51			3,897
	45,684	45,152	44,648	47,691	51,093	48,557	36,008			47,054
50 - 54	422	707	491	438	467	619	545	28		3,717
	47,700	45,249	44,966	48,677	50,978	53,281	50,653	41,050		48,712
55 - 59	242	454	335	319	349	373	238	111	4	2,425
	50,188	45,775	44,924	46,026	47,068	50,725	52,429	53,638	45,323	48,090
60 - 64	84	193	180	160	139	115	64	38	18	991
	49,263	46,606	43,629	43,948	42,579	45,351	44,951	49,683	48,750	45,201
65 - 69	15	30	17	23	14	13	10	2		124
	56,911	49,102	41,344	47,360	39,796	49,044	37,727	50,230		46,704
70 - 74		1	1	1	1					4
										40,912
Total	5,628	5,398	3,057	2,375	2,207	1,724	908	179	22	21,498
	46,655	47,082	45,920	47,823	49,126	50,395	49,752	50,791	48,127	47,507

*Members in receipt of LTD and members with no earnings reported for 2008 are excluded. Earnings in cells with only one member are excluded for confidentiality reasons.

The distribution of the inactive members by age as at July 1, 2008, is summarized as follows:

**Distribution of Inactive Members
By Age Group as at 01.07.2008**

Age	Deferred Pensioners		Pensioners and Survivors*	
	Number	Average Pension	Number	Average Pension
<30	4	\$2,225	1	\$4,500
30 - 34	11	\$2,087		
35 - 39	28	\$3,169	2	\$5,670
40 - 44	66	\$4,423	3	\$4,952
45 - 49	82	\$4,454	12	\$5,511
50 - 54	114	\$6,927	68	\$8,487
55 - 59	127	\$6,284	572	\$15,568
60 - 64	54	\$4,685	1,206	\$13,369
65 - 69	5	\$7,487	1,201	\$11,201
70 - 74	2	\$3,639	861	\$10,497
75 - 79			592	\$9,278
80 - 84			476	\$8,135
85 - 89			270	\$6,254
90 - 94			132	\$4,820
95+			33	\$4,116
Total	493	\$5,402	5,429	\$11,055

*Excluding dependent children and beneficiaries and bridge benefits

Appendix D

Summary of Plan Provisions

Introduction

The *Nova Scotia Association of Health Organizations Pension Plan* became effective January 1, 1961.

This valuation is based on the plan provisions in effect on July 1, 2008. Since the previous valuation, the plan has been amended as follows:

- effective December 31, 2006, the plan was amended to change the base year to 2005;
- effective December 31, 2006, the plan was amended to increase deferred pensions by 3.4%;
- effective December 31, 2007, the plan was amended to change the base year to 2006; and
- effective December 31, 2007, the plan was amended to increase deferred pensions by 0.7%.

In addition, there were plan amendments for administration purposes. None of these amendments impacted the benefits payable from the plan.

It has been proposed that the plan be amended effective April 1, 2009 to increase member contributions to 7.0666% of earnings up to the YMPE and 9.2555% of earnings in excess of the YMPE.

The following is a summary of the plan's main provisions in effect on July 1, 2008, including the proposed contribution increase described above. It is not intended as a complete description of the plan.

Eligibility for Membership

A full-time employee must join the plan on the first day of the month coincident with or next following the completion of three months of continuous service. A full-time employee may join the plan immediately upon hire.

A part-time employee may join the plan after two years of continuous service provided the employee has the lesser of:

- earnings of at least 35% of the YMPE; or
- a minimum of 700 hours work

in each of the two consecutive calendar years immediately prior to joining the plan.

The YMPE, or Year's Maximum Pensionable Earnings, refers to the maximum annual amount of earnings upon which an employee and an employer contribute to the Canada Pension Plan (CPP).

Contributions

Members contribute 5.95% of earnings up to the YMPE and 7.95% of earnings in excess of the YMPE. Members not eligible to contribute to the CPP for reasons other than age will contribute at the full 7.95% rate.

Effective April 1, 2009, it is proposed that members' contributions increase to 7.0666% of earnings up to the YMPE and 9.2555% of earnings in excess of the YMPE. Members not eligible to contribute to the CPP for reasons other than age would contribute at the full 9.2555% rate.

Members cease contributing after accruing the maximum pension under the plan rules.

Each Contributing Member Organization contributes such amounts, as are recommended by the Actuary as necessary, in addition to the members' required contributions, to provide for all benefits and expenses of the plan, after taking into account the assets of the fund.

Retirement Dates

Normal Retirement Date

The normal retirement date is the first date of the month coincident with or next following the member's 65th birthday.

Optional Retirement Date

A member may retire on the first day of the month coincident with or next following:

1. the date on which the sum of the member's age and continuous service equals or exceeds 85, provided the member is at least 55 years of age;
2. the date on which the sum of the member's age and continuous service equals or exceeds 90, provided the member joined the plan prior to January 1, 1999; and
3. the date on which the member attains age 60 and has completed ten years of continuous service.

Early Retirement Date

A member who would otherwise be entitled to a deferred pension may retire on the first day of the month coincident with or next following:

1. age 55;
2. the date on which the sum of the member's age and continuous service equals or exceeds 80; and
3. the date on which the member attains age 50 and has completed ten years of continuous service.

Postponed Retirement

An active member may postpone retirement beyond the normal retirement date, but not beyond December 1 of the year the member attains age 71.

Retirement Benefits

Normal Retirement

If a member retires on the normal or optional retirement date, the member will be entitled to the sum of the following benefits:

Normal or Optional Retirement Benefits

1. Service Prior to the Effective Date
0.7% of the 2006 earnings* plus 0.3% of the excess of such earnings over \$42,100* for each year of continuous service prior to January 1, 1961 (less two years). If the member does not contribute to CPP, benefits are based on 1% of 2006 earnings*.

 2. Service from the Effective Date to December 31, 2006
1.4% of 2006 earnings* plus 0.6% of the excess of such earnings over \$42,100* for each year of credited service. If the member does not contribute to CPP, benefits are based on 2% of 2006 earnings*.

 3. Service from January 1, 2007
1.4% of earnings in each year plus 0.6% of the excess of such earnings over the YMPE in the year for each year of credited service. If the member does not contribute to CPP, benefits are based on 2% of earnings

 4. Bridging Supplement from the Effective Date to December 31, 2006
0.6% of earnings* to a maximum of \$42,100* for each year of credited service.

 5. Bridging Supplement from January 1, 2007
0.6% of earnings in each year to a maximum of the YMPE in the year for each year of credited service.

 6. Minimum Bridging Supplement from Age 60
The bridging supplement payable after age 60 will not be less than \$12.50 per month multiplied by the member's credited service to January 1, 1999, provided the member is at least age 50 and has completed ten years of continuous service at the date of retirement.
-

*Subject to three-year averaging limitation

Early Retirement Pension

If a member retires early, the member will be entitled to a pension and bridging supplement that is calculated the same way as for a normal retirement. The pension,

however, will be reduced by $\frac{1}{2}\%$ for each month that the member's age at retirement precedes the age on which the member's optional retirement date would have been reached (based on service to the actual retirement date) or the normal retirement age, if earlier.

Postponed Retirement Pension

A member may elect to postpone retirement. In that case, the member continues to contribute and accrue benefits under the plan.

Maximum Pension

The total annual pension payable from the plan upon retirement, death or termination of employment cannot exceed the lesser of:

- 2% of the average of the best three consecutive years of total compensation paid to the member by their employer, multiplied by total credited service; and
- \$2,333.33 or such other maximum permitted under the *Income Tax Act*, multiplied by the member's total credited service.

Survivor Benefits

Death Before Retirement

If a member dies before the normal or optional retirement date and before any pension payments have begun, the member's spouse, or beneficiary if there is no spouse, will receive a lump sum settlement equal to the value of the benefits to which the member would have been entitled had employment terminated on the date of death.

If, however, at the date of death, the member had ten years of continuous service and leaves an eligible spouse or dependent children, in lieu of the lump sum payment, the spouse will receive an immediate pension equal to $66\frac{2}{3}\%$ of the member's accrued pension plus additional pension benefits of 10% of the member's accrued pension for each dependent child (maximum 3) payable until age 18, or 23 if still in school. 20% of the member's accrued pension will be paid to each dependent child if both parents are deceased.

Death After Retirement

Unless an optional form of payment is elected, pension payments are guaranteed for five years. If the member leaves an eligible spouse, the spouse will receive the balance of any guaranteed payments and thereafter $66\frac{2}{3}\%$ of the pension received by the member plus additional pension payments of 10% of the pension received by the member for each dependent child (maximum 3) payable until the child attains age 18, or 23 if still in school.

Termination Benefits

If a member's employment terminates for reasons other than death or retirement, the benefits payable from the plan will depend on the member's length of plan membership, as follows:

Benefits in the Event of Termination of Employment

If member has:	The plan will pay:
Less than two years of membership:	A refund of the member's contributions with interest.
At least two years of membership:	A deferred lifetime pension.

If a member is entitled to a deferred pension, the member may also transfer the commuted value of that pension into another retirement vehicle in accordance with the applicable federal and provincial legislation. Members who are eligible to receive an immediate pension, however, may not transfer the commuted value of that pension, but must receive a pension (immediate or deferred) from the plan.

Post-Retirement Indexing

Pensions in payment are indexed each January 1 by the increase in the Consumer Price Index ("CPI") for Canada for the month ending September 30 of the year preceding the adjustment date over the CPI for the month ending September 30 of the prior year, subject to a maximum increase of 3%. If an individual's pension commenced in the year preceding the adjustment, a pro-rata portion of the increase is provided based on the number of months of pension payments received in the year.

If the CPI decreased over the period, pensions are not reduced, however, the CPI for the September prior to the last increase is used in the calculation the following year.

Appendix E

Administrator Certification

With respect to the report on the actuarial valuation of the *Nova Scotia Association of Health Organizations Pension Plan*, as at July 1, 2008, I hereby certify that, to the best of my knowledge and belief:

- a copy of the official plan documents and of all amendments made up to July 1, 2008, were provided to the actuary,
- the membership data provided to the actuary included a complete and accurate description of every person who is entitled to benefits under the terms of the plan for service up to July 1, 2008, and
- all events subsequent to July 1, 2008 that may have an impact on the results of the valuation have been communicated to the actuary.

Date



Signed

Judy Paul
Director, Pension Client Services

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