MORNEAU SHEPELL

PUBLIC SERVICE SHARED RISK PLAN

CONVERSION PLAN AND INITIAL ACTUARIAL VALUATION REPORT AS AT JANUARY 1, 2014

Registration number: Canada Revenue Agency: 0305839
NB Superintendent of Pensions: NB0305839

Original report prepared February 2014

AMENDED REPORT prepared January 2015

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INTRODUCTION

This amended report prepared January 2015 documents the impact of the change in long term asset mix to be implemented under the Statement of Investment Policy (SIP) adopted by the Board of Trustees at its meeting of September 30, 2014 and filed with the Superintendent of Pensions' office on December 1, 2014. The last section of Section 1 entitled "Meeting Risk Management Goals", Table A.3 - Target Asset Mix, and Appendix C – Stochastic Projection Assumptions were modified as a result of this amendment to the SIP. Other than for minor typographical changes, all other sections of this amended report remain identical to the report prepared in February 2014.

The Public Service Superannuation Act ("Former PSSA") was converted to the Public Service Shared Risk Plan ("PSSRP") effective January 1, 2014, subject to approval by the New Brunswick Office of the Superintendent of Pensions ("Superintendent").

This report was prepared for the Public Service Shared Risk Plan Board of Trustees ("Trustees"), the Superintendent and the Canada Revenue Agency for the following purposes:

- to document the results of an initial funding policy valuation, as required under sub-paragraph 100.6(2)(a)(ii) of the New Brunswick *Pension Benefits Act* ("PBA") and provide the related actuarial opinion;
- to document the Conversion Plan as required under sub-paragraph 100.6(2)(a)(i) of the PBA;
- to document the results of a going-concern actuarial valuation required under paragraph 14(1) of the Regulations to the PBA in order to determine the maximum eligible employer contribution for the PSSRP under paragraph 147.2(2) of the *Income Tax Act (Canada)* ("ITA") and provide the related actuarial opinion; and
- to document the results of a hypothetical wind-up valuation of the PSSRP as required under the Canadian Institute of Actuaries Standard of Practice, and provide the related actuarial opinion.

The Board of Trustees is also seeking the approval of the Superintendent for the following items, as required under the PBA and Regulation:

- approval of the funding policy established at inception as required under sub-paragraph 100.4(1)(b) of the PBA;
- approval of the investment policy established at inception as required under sub-paragraph 100.4(1)(c) of the PBA;
- approval of the risk management goals and procedures found under the funding policy and reiterated in this initial valuation report under Section 1 as part of the Conversion Plan, as required under sub-paragraph 100.4(1)(d) of the PBA;
- approval of the generational mortality table used in the funding policy valuation as required under sub-paragraph 14(7)(c)(ii) of Regulation 2012-75;

- approval of the asset liability model used, as described in Section 1 as part of the Conversion Plan, including the stochastic projection assumptions found under Appendix C, as required under paragraph 15(1) of Regulation 2012-75; and
- approval of the economic assumptions used in the asset liability model, as described under Appendix C, as required under paragraph 15(3) of Regulation 2012-75.

The Trustees for the PSSRP retained the services of Morneau Shepell Ltd ("Morneau Shepell") to prepare this report.

The last actuarial valuation report prepared for the Former PSSA and filed with the Canada Revenue Agency was performed as at April 1, 2012.

The next actuarial valuation report for the PSSRP will be due no later than one year following the effective date of this report. We would recommend that it be conducted as at December 31, 2014, in order to harmonize the annual valuation date with the plan year-end date, and remain within the minimum requirement of the PBA to have annual valuations conducted.

The recommendations and opinions are given exclusively from a financial viewpoint. This valuation report does not constitute a legal opinion on the rights and duties of the Trustees or the members of the plan over the pension fund.

Actuarial valuation results are only estimates. Actuarial valuations are performed based on assumptions and methods that are in accordance with sound actuarial principles. Emerging experience differing from these assumptions will result in gains or losses, which will be revealed in future valuations.

The undersigned are available to provide supplementary information and explanation as appropriate, concerning this report.

Respectfully submitted,

Conrad Ferguson, FSA, FCIA

Feb 24 2015

Date

Yves Plourde, FSA, FCIA

Feb. 24 2015

Date

SECTION 1 – CONVERSION PLAN

The Former PSSA was converted to the PSSRP effective January 1, 2014, subject to approval by the New Brunswick Office of the Superintendent of Pensions ("Superintendent").

The PBA sub-paragraph 100.6(2)(a)(i) mandates that the Conversion Plan:

- demonstrate how existing benefits under the Former PSSA are converted to benefits under the PSSRP;
- specify the base benefits and ancillary benefits under the PSSRP;
- specify the initial contributions of the employer and the members and the automatic change allowed by the funding policy; and
- demonstrate to the satisfaction of the Superintendent that the contributions are sufficient to pay for the projected base benefits and ancillary benefits and to meet all of the risk management goals under the PBA.

CONVERSION OF BENEFITS

We provide below a table of the main benefit provisions of the Former PSSA and how they are treated for purposes of the conversion to the PSSRP. The table below deals with the benefits earned before January 1, 2014, effective date of the conversion.

TABLE 1.1 - CHANGE IN BENEFIT PROVISIONS FOR SERVICE PRIOR TO JANUARY 1, 2014

Provision	Under Former PSSA	Under PSSRP
Normal retirement age	Not defined	Age 65
Earliest retirement age	Age 55, with 5 years of pensionable service	Age 55, with the earlier of 5 years of continuous service and 2 years of plan membership
Earliest unreduced retirement age	Age 60, with 5 years of pensionable service [1]	Age 60, with the earlier of 5 years of continuous service and 2 years of plan membership
Early retirement reduction factor	0.25% per complete month that pension commences before attainment of age 60, applied to both the lifetime pension and bridge benefit	0.25% per complete month that pension commences before attainment of age 60, applied to both the lifetime pension and bridge benefit

Lifetime pension	1.3% of the annual average of the best five (5) consecutive years of earnings up to the annual average YMPE for the year of termination or retirement and the two preceding years plus 2.0% of the excess of the annual average of the best five (5) consecutive years of earnings over the annual average YMPE for the year of termination or retirement and the two preceding years, times pensionable service	1.3% of the annual average of the best five (5) consecutive years of earnings before January 1, 2014, up to the annual average YMPE for the three (3) years before January 1, 2014, plus 2.0% of the excess of the annual average of the best five (5) consecutive years of earnings before January 1, 2014 over the annual average YMPE for the three (3) years before January 1, 2014, times pensionable service up to January 1, 2014
Bridge benefit to age 65	0.7% of the lesser of the annual average of the best five (5) consecutive years of earnings and the annual average YMPE for the year of termination or retirement and the two preceding years, times pensionable service	0.7% of the lesser of the annual average of the best five (5) consecutive years of earnings before January 1, 2014 and the annual average YMPE for the three (3) years before January 1, 2014, times pensionable service up to January 1, 2014
Maximum lifetime pension for service after December 31, 1991	In accordance with the provisions of the ITA for service after December 31, 1991	Defined benefit limit of $2,696.67 per year of service from December 31, 1991 to January 1, 2014 (non-contributory service purchased after December 31, 1991 for a period before January 1, 1990 is subject to a defined benefit limit of 2/3rd of the above limit)

Normal form of pension	The pension is payable for the member's lifetime, with 50% of the lifetime pension (before application of reductions or early retirement) continues after the member's death to his/her spouse or common-law partner at the time of his/her death, for the spouse or common law partner's remaining lifetime. Dependent children pensions are also payable after the spouse or common-law partner's death, or if there is no spouse or common-law partner upon the member's death. The bridge benefit is only payable while the member is alive and ceases at age 65. A minimum amount equal to the member's contributions with interest is payable.	The pension is payable for the member's lifetime, with 50% of the lifetime pension (before application of reductions or early retirement) continues after the member's death to his/her spouse or common-law partner at the time of his/her death, for the spouse or common law partner's remaining lifetime. Dependent children pensions are also payable after the spouse or common-law partner's death, or if there is no spouse or common-law partner upon the member's death. The bridge benefit is only payable while the member is alive and ceases at age 65. A minimum amount equal to the member's contributions with interest is payable. A spousal waiver is required for the member to receive the normal form of pension
Optional forms of pension	None offered	Various forms available on an actuarially equivalent basis to either the normal form of pension for a member with a spouse or common-law partner, or to a member without a spouse or common-law partner. One of the optional forms offered will meet the minimum requirements of the Pension Benefits Act for a member with a spouse or common-law partner at the time of pension commencement

Indexing of pension for retirees (including surviving spouses and dependent children) and deferred vested members	Automatic annual increase equal to the increase in the Consumer Price Index, subject to a maximum of 5.0% (or 6.0% for members who reached age 60 and were still employed on May 1, 1995 or for members who were approved before May 1, 1995 to retire under an early retirement program and former members who ceased employment before May 1, 1995). Increases of less than 1% were delayed until the increase in the Consumer Price Index justified an increase of more than 1%.	No automatic indexing – Indexing on January 1, 2014 is provided at 0.96%, and indexing after January 1, 2014 is contingent on PSSRP performance as outlined in PSSRP Funding Policy, subject to ITA limits
Indexing of active members accrued pensions	Not applicable – pension benefit is of a final average nature, there is no need to index accrued pensions while active. Increases in earnings provide implicit automatic indexing.	No automatic indexing of accrued pensions – Indexing of accrued pensions after January 1, 2014 is contingent on PSSRP performance as outlined in PSSRP Funding Policy, subject to ITA limits
Termination of Employment	With less than five years of pensionable service: • refund of member's own contributions with interest. With five years of pensionable service or more: • refund of member's own contributions with interest, or • the accrued deferred pension and bridge benefit, indexed prior to retirement. Deferred pensions and bridge benefits can start as early as age 55, subject to the usual early retirement reductions described above.	With less than five years of continuous service and less than two years of plan membership: • refund of member's own contributions with interest. With five years of continuous service or two years of plan membership: • the accrued deferred pension and bridge benefit subject to future contingent indexing in accordance with terms of PSSRP; or • a transfer of the Termination Value, as defined under the PBA, to a prescribed retirement savings arrangement under the PBA. The Termination Value will not be less than a member's own contributions with interest. Deferred pensions and bridge benefits can start as early as age 55, subject to the usual early retirement reductions described above.

Pre-retirement death	With less than five years of pensionable service:
	• refund of member's own contributions with interest.
	
	With five years of pensionable service or more:
	• payment of a pension of 50% of the accrued lifetime pension (before application of reductions or early retirement) continues after the member's death to his/her spouse or common-law partner at the time of his/her death, for the spouse or common law partner's remaining lifetime. Dependent children pensions are also payable after the spouse or common-law partner's death, or if there is no spouse or common-law partner upon the member's death.
		With less than five years of continuous service and less than two years of plan membership:
		• refund of member's own contributions with interest.
		
		With five years of continuous service or two years of plan membership:
		• if there is a spouse or common-law partner:
		  ○ the Termination Value, as defined under the PBA; or
		  ○ a pension of 50% of the accrued lifetime pension.
		• if there is no spouse or common-law partner, but there are dependent children designated as beneficiaries:
		  ○ a pension of 50% of the accrued lifetime pension split equally among dependent children until no longer qualify as dependent
		• if there is no spouse or common-law partner and no dependent children designated as beneficiaries:
		  ○ the Termination Value, as defined under the PBA payable to the designated beneficiary(ies) or estate.
		
		Any amount by which the Termination Value, as defined under the PBA, exceeds the aggregate of all pension payments made, shall be paid to the designated beneficiary.

[1] *Under the Former PSSA, deputy heads could receive an unreduced pension as early as age 55 if they had accumulated 25 years of pensionable service.*

The table below provides a summary of the benefit provisions under the PSSRP for service on and after January 1, 2014:

TABLE 1.2 - SUMMARY OF PSSRP BENEFIT PROVISIONS FOR SERVICE ON AND AFTER JANUARY 1, 2014

Provision	Under PSSRP
Normal retirement age	Age 65
Earliest retirement age	Age 55, with the earlier of five years of continuous service and two years of plan membership
Earliest unreduced retirement age	Age 65
Early retirement reduction	5/12% per complete month (5% per year) that pension commences before attainment of age 65
Postponed retirement	Continue pension accrual and contributions until postponed retirement date Pension commencement no later than the end of the calendar year in which the member reaches age 71
Lifetime pension	For each year of service (or part thereof), 1.4% of the Member's annualized earnings up to the YMPE for the year, plus 2.0% of the excess of the Member's annualized earnings over the YMPE for the year, pro-rated by the number of hours worked during the year over the full-time equivalent hours
Bridge benefit	For each year of service (or part thereof), 0.6% of the lesser of the Member's annualized earnings and the YMPE for the year, pro-rated by the number of hours worked during the year over the full-time equivalent hours
Maximum lifetime pension	Accrual for each year limited to the defined benefit limit for the year under the ITA

Normal form of pension	The pension is payable for the member's lifetime, with 50% of the lifetime pension (before application of reductions or early retirement) continues after the member's death to his/her spouse or common-law partner at the time of his/her death, for the spouse or common law partner's remaining lifetime. Dependent children pensions are also payable after the spouse or common-law partner's death, or if there is no spouse or common-law partner upon the member's death. The bridge benefit is only payable while the member is alive and ceases at age 65. A minimum amount equal to the member's contributions with interest is payable. A spousal waiver is required for the member to receive the normal form of pension.
Optional forms of pension	Various forms available on an actuarially equivalent basis to either the normal form of pension for a member with a spouse or common-law partner, or to a member without a spouse or common-law partner. One of the optional forms offered will meet the minimum requirements of the Pension Benefits Act for a member with a spouse or common-law partner at the time of pension commencement
Indexing of accrued lifetime pension and bridge benefit for active members, deferred vested members, and pensions in payment for retirees (including surviving spouses and dependent children)	No automatic indexing - Indexing after January 1, 2014 is contingent on PSSRP performance as outlined in PSSRP Funding Policy, subject to ITA limits

Termination of Employment	With less than five years of continuous service and less than two years of plan membership: • refund of member's own contributions with interest. With five years of continuous service or two years of plan membership: • the accrued deferred lifetime pension and bridge benefit subject to future contingent indexing in accordance with terms of PSSRP; or • a transfer of the Termination Value, as defined under the PBA, to a prescribed retirement savings arrangement under the PBA. The Termination Value will not be less than the member's own contributions with interest.

Pre-retirement death	With less than five years of continuous service and less than two years of plan membership:
	• refund of own contributions, with interest.
	
	With five years of continuous service or two years of plan membership:
	• if there is a spouse or common-law partner:
	  ○ the Termination Value, as defined under the PBA; or
	  ○ a pension of 50% of the accrued lifetime pension.
	• If there is no spouse or common-law partner, but there are dependent children designated as beneficiaries:
	  ○ a pension of 50% of the accrued lifetime pension split equally among dependent children until they no longer qualify as dependent
	• if there is no spouse or common-law partner and no dependent children designated as beneficiaries:
	  ○ the Termination Value, as defined under the PBA, payable to the designated beneficiary(ies) or estate.
	
	Any amount by which the Termination Value, as defined under the PBA, exceeds the aggregate of all pension payments made above, shall be paid to the designated beneficiary.

Benefit Security	The PSSRP was constructed to achieve a high degree of benefit security but not absolute security. As a result, benefits may be reduced as part of the funding deficit recovery plan in the unlikely event that the plan's performance is such that reductions are required.

BASE BENEFITS AND ANCILLARY BENEFITS

The table below identifies the various benefit provisions and whether they are part of the Base Benefit or an Ancillary Benefit, as defined under the PBA.

TABLE 1.3 – IDENTIFICATION OF BASE AND ANCILLARY BENEFITS

Provision	Base Benefit or Ancillary Benefit
Normal retirement age	Base Benefit
Early retirement reduction	As per the definition under Section 100.2 of the PBA, it is an Ancillary Benefit, becoming a Base Benefit once the member reaches eligibility for an immediate pension.
Lifetime pension	Base Benefit
Bridge benefit	As per the definition under Section 100.2 of the PBA, it is an Ancillary Benefit, becoming a Base Benefit once the member reaches eligibility for an immediate pension.
Normal form of pension	As per the definition under Section 100.2 of the PBA, it is an Ancillary Benefit, becoming a Base Benefit once the member reaches eligibility for an immediate pension
Indexing of accrued lifetime pension and bridge benefit for active members, deferred vested members, and pensions in payment for retirees (including surviving spouses and dependent children)	As per the definition under Section 100.2 of the PBA, it is an Ancillary Benefit when talking about future potential increases, and a Base Benefit, once granted

You will find below a summary of other plan provisions that are changing effective January 1, 2014:

TABLE 1.4 – SUMMARY OF OTHER CHANGING PROVISIONS

Provision	Before January 1, 2014 Under Former PSSA	On and After January 1, 2014 Under PSSRP
Administrator	Minister of Finance	Board of Trustees
Eligibility	As defined under PSSA	Extended to part-time employees and those meeting the minimum requirements of the PBA
Member contributions *	5.8% of earnings up to the YMPE, 7.5% of earnings in excess of the YMPE	Before April 1, 2014: same as Former PSSA From April 1, 2014 to December 31, 2028: 7.5% of earnings up to the YMPE, 10.7% of earnings in excess of the YMPE After January 1, 2029: 50% of the sum of employee and employer contributions paid just before January 1, 2029
Employer contributions *	Residual current service cost after deduction of member contributions based on actuarial valuation report, plus any other amount required, if any, in accordance with Section 27 of the Former PSSA	Initial contributions: Before April 1, 2014: 8.932% of earnings up to the YMPE, 11.55% of earnings in excess of the YMPE * From April 1, 2014 to December 31, 2028: 11.25% of earnings After January 1, 2029: 50% of the sum of employee and employer contributions paid just before January 1, 2029 Temporary contributions: 0.5% of earnings for a period of 5 years from January 1, 2014; and 0.75% of earnings for a period of 10 years from January 1, 2014

** Member and Employer contributions on and after January 1, 2014 are subject to change in accordance with the terms of the Funding Policy, based on the funded level of the plan and the risk management tests.*

INITIAL CONTRIBUTION RATES AND AUTOMATIC CHANGES

The initial contribution rates for the members and the initial and temporary contribution rates for the employer are as summarized in the previous section. All those rates are also subject to change in accordance with the terms of the Funding Policy. We reproduced below the relevant section of the Funding Policy related to initial and temporary contribution rates and adjustments:

TABLE 1.5 – EXCERPT FROM FUNDING POLICY – "SECTION III – CONTRIBUTIONS"

III. CONTRIBUTIONS

The contributions required by the Plan include the initial contributions and contribution adjustments as may be required by the Funding Policy. There are also temporary contributions required to be made by the Employer.

A. Initial Employee Contributions

The initial Employee contribution rate shall be 7.5% of Earnings for Earnings up to the YMPE and 10.7% of Earnings for Earnings above the YMPE, subject to the Income Tax Act (Canada) and the regulations thereunder (the "ITA"). Subject to paragraph D3 below, these initial Employee contribution rates are to remain the same for the first fifteen (15) years after the Effective Date, unless altered by:

- Contribution adjustments triggered under the Funding Policy;
- A reduction required under the ITA;
- A permanent benefit change resulting in a contribution rate change as may be agreed to by the Parties and subject to the requirements of the PBA, Regulations and the ITA;
- Other changes to the Plan beyond those contemplated by this Funding Policy, subject to the requirements of the PBA, Regulations and the ITA.

B. Initial Employer Contributions

The initial Employer contribution rate shall be 11.25% of Earnings. Subject to paragraph D3 below, the initial Employer contribution rate is to remain the same for the first fifteen (15) years after the Effective Date, unless altered by:

- Contribution adjustments triggered under the Funding Policy;
- A reduction required under the ITA;
- A permanent benefit change resulting in a contribution rate change as may be agreed to by the Parties and subject to the requirements of the PBA, Regulations and the ITA;
- Other changes to the Plan beyond those contemplated by this Funding Policy, subject to the requirements of the PBA, Regulations and the ITA.

C. Employer Temporary Contributions

1. *Employer Temporary Contributions – First Schedule*

Commencing on the Effective Date, the Employer is also required to make temporary contributions at the rate of 0.5% of Earnings in respect of all Employees (the "**Schedule 1 Temporary Contributions**"). The Schedule 1 Temporary Contributions shall cease on the date that is five (5) years from the Effective Date or, if earlier, when the Plan achieves an open group funded ratio, as defined in the Regulations, of 140% measured assuming the Schedule 1 Temporary Contributions have ceased. These Schedule 1 Temporary Contributions are to remain at 0.5% of Earnings in respect of all Employees during this time period unless altered by a reduction required under the ITA.

2. *Employer Temporary Contributions – Second Schedule*

Commencing on the Effective Date, the Employer is also required to make temporary contributions at the rate of 0.75% of Earnings in respect of all Employees (the "**Schedule 2 Temporary Contributions**"). The Schedule 2 Temporary Contributions shall cease on the date that is ten (10) years from the Effective Date or, if earlier, when the Plan achieves an open group funded ratio, as defined in the Regulations, of 140% measured assuming the Schedule 2 Temporary Contributions have ceased. These Schedule 2 Temporary Contributions are to remain at 0.75% of Earnings in respect of all Employees during this time period unless altered by a reduction required under the ITA.

D. Contribution Adjustments

Adjustments to the initial contribution rates shall be made by the Board of Trustees based on the conditions set out below.

1. *Initial Contribution Rate Increases*

The Board of Trustees must trigger an increase in the initial Employee contribution rate of up to 1.5% of Earnings if the open group funded ratio of the Plan, as defined by the Regulations, falls below 100% for two successive year ends (before taking into account any initial contribution rates increase). The Board of Trustees must also trigger an increase in the initial Employer contribution rate at the same time. The increase to the initial Employer contribution rate shall equal the increase to the initial Employee contribution rate.

If necessary, the amount of the increase may be reduced to obtain the accounting treatment that reflects the substance of the goals of the Plan by modifying the asset mix.

The contribution rates increase shall take effect no later than twelve (12) months following the funding policy valuation date that triggered the need for the initial contribution rates increase. The initial contribution rates increase shall be removed no later than twelve (12) months following a funding policy valuation date that reveals an open group funded ratio of at least 110%, without the effect of the contribution increase, and the funding goals under the Regulations are met.

During any period where there are increased contributions, indexation shall be suspended.

2. *Initial Contribution Rate Reduction*

Subject to all prior steps set forth in the funding excess utilization plan in Section V having been implemented, and provided the Schedule 1 Temporary Contributions and Schedule 2 Temporary Contributions have ceased, the Board of Trustees shall trigger a reduction in initial contribution rates if the conditions set forth in the funding excess utilization plan in Section V are met, a valuation reveals a funding level of greater than 140%, and the funding goals under the Regulations can still be met after the reduction in initial contributions, provided that the funding level immediately following such decrease in contribution rates remains at least 140%. The reduction in initial contribution rates shall take effect no later than twelve (12) months following the funding policy valuation date that triggered the need for the change.

Should the conditions set out in the first paragraph above occur in the first fifteen (15) years following the Effective Date, if the Employer contribution rate is in excess of the Employee contribution rate, the Employee contribution rate may be decreased by up to 0.5% of Earnings and the Employer contribution rate may be decreased by up to 3.5% of Earnings; provided that any such decrease must be applied first to the Employer contribution rate until such time as the Employee and Employer contribution rates are equal. Once the contribution rates are equal, any further contribution decreases shall be applied to both the Employer contribution rates and the Employee contribution rate.

Should the conditions set out in the first paragraph above occur on or after the date that is fifteen years following the Effective Date, both the Employer contribution rate and the Employee contribution rate shall be decreased in equal amounts up to 2% of Earnings each.
The reduction in initial contribution rates shall be removed no later than twelve (12) months following a funding policy valuation date that reveals an open group funded ratio below 140%.

3. Initial Contribution Rate – Change in Plan Membership

If at any time there is an increase or a reduction in Employees employed by the Employer of greater than 5% in a given year, the initial contribution rates shall be re-calculated. Such re-calculation shall be completed by no later than the end of the year following the filing of the next funding policy valuation.

4. Initial Contribution Rate – 15 Years After Conversion Date

Effective as of the date that is 15 years after the Effective Date, initial contributions shall be reset as set out below.

a) The aggregate contribution amount shall be determined as follows:

   i. The average Employee initial contribution rate produced by the initial Employee contribution formula of 7.5% of Earnings for Earnings up to the YMPE and 10.7% of Earnings above the YMPE shall be determined at such time and 11.25% shall be added to such amount. The sum shall then be divided by two (each a "**Contribution Amount**").

b) The aggregate contribution amount shall be split as follows:

   i. The new initial Employee contribution rate shall be determined by adjusting the Contribution Amount below and above the YMPE as appropriate at that time; and

   ii. The Employer will match Employee contributions by contributing the Contribution Amount.

These contribution rates are subject to adjustment by the Board of Trustees from time to time in accordance with paragraphs 1 and 2 above.

E. Income Tax Act Limit

In the event that all actions contemplated under the funding excess utilization plan in Section V have been implemented and the eligible contributions (including initial contributions and Temporary Contributions) still exceed the limit allowed under the ITA, then the contribution rates shall be further reduced in equal amounts for both the Employees and the Employer to the limit allowed under the ITA.

F. Sharing of Contributions

All contributions shall be shared between Employees and the Employer based on the rules set out above. Contribution holidays may only be taken in the event they are required under the ITA. In the unlikely event that the ITA required a contribution holiday, the contribution holiday would apply equally to both Employees and the Employer; provided that if the Employer contribution rate is in excess of the Employee contribution rate at the time of such contribution holiday, any such contribution holidays must be applied first to the Employer contributions until such time as the Employer and Employee contributions are equal. Once the contribution levels are equal, any further contribution decreases shall be applied equally to the Employer and the Employees.

G. Expenses

All expenses pertaining to the administration and investment of the Plan and Fund shall be paid by the Fund, unless otherwise agreed by the Parties. For the purposes of the risk management procedures, the funding policy discount rate is set net of all assumed Plan expenses.

MEETING RISK MANAGEMENT GOALS

The PSSRP was designed to achieve or exceed the risk management goals prescribed under the PBA and Regulation 2012-75. Certain procedures were developed to test whether these goals can be achieved. These goals and procedures are described separately below, along with the relevant results of the stochastic analysis required under the PBA as at January 1, 2014.

RISK MANAGEMENT GOALS

The primary risk management goal is to achieve a 97.5% probability that past base benefits at the end of each year will not be reduced over the 20 years following the valuation.

The goal is measured by taking into account the following funding management plans:

1. the funding deficit recovery plan except for reduction in past or future base benefits, and
2. the funding excess utilization plan excluding permanent benefit changes.

The funding deficit recovery plan and the funding excess utilization plan are described in Sections IV and V of the Funding Policy, respectively.

There are two secondary risk management goals. These are:

- On average be expected to provide contingent indexing on base benefits (all members) in excess of 75% of the indexation provided under the Former PSSA over the next 20 years.

- On average be expected to at least provide 75% of the value of the ancillary benefits described in the Plan text over the next 20 years.

For the purposes of meeting these goals, base benefits include the accrual of extra service of members and any contingent indexing provided based on the financial performance represented by each scenario tested.

If as a result, through the testing process, a scenario allows for indexing in a given future year, then this contingent indexing amount becomes part of the base benefits that is to be protected. In other words, the base benefit is dynamically adjusted based on the stochastic results for each economic scenario tested.

Risk Management Procedures

The risk management goals are measured using an asset liability model with future economic scenarios developed using a stochastic process.

The model was run with 2,000 alternative economic scenarios over 20 years. This exceeds the minimum requirements under the PBA of 1,000 economic scenarios.

For each of these scenarios and for each year, the financial position of the Plan is measured. For each of these measurements, a decision consistent with the funding deficit recovery plan or the funding excess utilization plan, as applicable, is modeled with the exceptions noted under the goals above. When modeling the funding deficit recovery plan actions over the 20-year period of each of the 2,000 economic scenarios, each of the four steps identified in the funding deficit recovery plan under Section IV of the Funding Policy is implemented in sequence until such time as the open group funded ratio of the plan reaches 100% or higher. A "benefit reduction trial" is recorded (for purposes of the primary risk management goal calculation) when step 4 of the funding deficit recovery plan found in Section IV of the Funding Policy is triggered (i.e. a reduction in past base benefits) at any point in the 20-year period of an economic scenario. The primary risk management measure is therefore the proportion of those 2,000 scenarios that do not lead to a base benefit reduction over a 20-year period. In order to pass the primary risk management goal, at least 1,950 of those 2,000 scenarios must not trigger a "benefit reduction trial" at any point over the 20-year period.

The asset liability model using a stochastic process requires that a number of important modeling assumptions be made. The main assumptions are described below:

- The economic assumptions are developed for each asset class and for key economic parameters based on a combination of past experience, current economic environment and a reasonable range of future expectations. These assumptions are reviewed annually and updated as required. They are also subject to approval by the Superintendent of Pensions (the "Superintendent"). These assumptions are found in Appendix C.
- For purposes of this report, the Plan's contributing member population is assumed to reduce by 1.25% per year for a period of 4 years following April 1, 2013, and remain stable thereafter in each subsequent year of the projection period. As such, departures from the Plan, for any reason, are assumed to be replaced by the number of new entrants required to respect the said goals that the overall contributing member population reduces by 1.25% per year for a period of 4 years following April 1, 2013, and remains stable thereafter in each subsequent year of the projection period. The new entrant population reflects the

profile of new plan members expected in the future based on plan experience. The profile of new entrants used for this analysis is found under Table 2.7 in Section 2 of this report.

The risk management goals were tested as at January 1, 2014, effective date of the conversion. The results of these tests combined with the results of the funding policy actuarial valuation at the same date will determine the actions the Board of Trustees are required to take, or can consider, under the terms of the Funding Policy.

The primary risk management goal must be achieved or exceeded:

- At January 1, 2014 (i.e. the Conversion Date);
- At the date a permanent benefit change as defined in the Regulations is made;
- At the date a benefit improvement as defined in the Regulations is made; or
- At the date the contribution adjustments are fully implemented.

The secondary risk management goals must be achieved or exceeded:

- At January 1, 2014 (i.e. the Conversion Date); or
- At the date a permanent benefit change as defined in the Regulations is made.

The definitions of permanent benefit change and benefit improvement are as follows:

- "permanent benefit change" means a change that is intended to permanently change the formula for the calculation of the base benefits or ancillary benefits after the date of the change, including a change made in accordance with the funding excess utilization plan.
- "benefit improvement" means an escalated adjustment for past periods or an increase in other ancillary benefits allowed under the funding policy.

RESULTS OF STOCHASTIC ANALYSIS AS AT JANUARY 1, 2014

The stochastic analysis undertaken as at January 1, 2014, took into account the main following items:

- Membership Data as at April 1, 2013 summarized in Appendix B;
- Economic and demographic assumptions as at January 1, 2014 for the funding policy valuation summarized in Section 2;
- Pension fund target asset mix as summarized in Table A.3 of Appendix A;
- Stochastic projection assumptions as summarized in Appendix C;
- Risk management procedures described above;
- PSSRP provisions, after plan conversion, in accordance with the Conversion Plan of Section 1, and summarized in Appendix D;
- Funding deficit recovery plan found under Section IV of the PSSRP's Funding Policy (except for reduction in past or future base benefits);
- Funding excess utilization plan found under Section V of the PSSRP's Funding Policy (excluding permanent benefit changes).

Based on the above, the results of the stochastic analysis for the various risk management goals as at January 1, 2014 are as follows:

TABLE 1.6 – RESULTS OF STOCHASTIC ANALYSIS FOR THE VARIOUS RISK MANAGEMENT GOALS

Risk Management Goal	Minimum Requirement under PBA	Result for PSSRP as at January 1, 2014
Primary Goal [Regulation 7(1)] - There is at least a 97.5% probability that the past base benefits at the end of each year will not be reduced over a 20-year period	97.5%	**98.50%** PASSED
Secondary Goal 1 [Regulation 7(3)(a)] - Expected contingent indexing of base benefits of active members for service before the conversion date shall, on average over the next 20-year period, exceed 75% of the increase in the Consumer Price Index; or Expected contingent indexing of base benefits of retirees and deferred vested members for service rendered before the conversion date shall, on average over the next 20-year period, exceed 75% of the escalated adjustments specified in the pension plan immediately before it was converted to a shared risk plan (i.e. Full CPI subject to a maximum increase of 5.0% or 6.0% per year depending on the date of retirement.)	We estimated that the combined impact of the Secondary Goal 1 for active members, retirees and deferred vested member represents an average indexing of 75.0% of the increase in the Consumer Price Index (CPI) for the PBA goals to be met.	**86.9%** of the assumed increase in CPI PASSED
Secondary Goal 2 [Regulation 7(3)(b)] - The amount of ancillary benefits (other than contingent indexing) that are expected to be provided shall, on average over the next 20-year period, exceed 75% of the value of the ancillary benefits specified in the plan text	75% of the value of ancillary benefits is expected to be provided	Above **97.6%** of the value of ancillary benefits is expected to be provided (See Note) PASSED

Note: The Funding Policy provides for the reduction of one type of ancillary benefit under the Funding Deficit Recovery Plan at actions 1 and 2. This is the replacement of early retirement reductions for post conversion service under action 1, and for pre-conversion service at action 2, by a full actuarial reduction for members not yet eligible to receive an immediate pension. We expect these two ancillary benefits would be reduced in about 2.4% of our 2,000 20-yr scenarios. If those were the only two ancillary benefits reduced, and they were eliminated completely, then we can expect that 97.6% of the value of ancillary benefits will be provided over the 20-year period. Given that there are other ancillary benefits under the Plan that will not be touched (because they are not mentioned as a benefit that can be reduced under the Funding Policy), the percentage for this test is expected to be higher than 97.6%, which is well above minimum required under the PBA of 75%.

SECTION 2 – FUNDING POLICY VALUATION

An initial funding policy valuation is required under sub-paragraph 100.6(2)(a)(ii) of the New Brunswick Pension Benefits Act ("PBA"). The results of the initial funding policy valuation of the PSSRP as at January 1, 2014, after conversion, are found below:

The initial funding policy valuation results presented in this section are based on asset information found in Appendix A, membership data found in Appendix B, and plan provisions after the conversion to a shared risk plan, as summarized under the Conversion Plan section of this report and Appendix D. The methods and assumptions used in the funding policy valuation are described later in this section.

FUNDING POLICY VALUATION FUNDED STATUS

The funding policy valuation funded status of the PSSRP is determined by comparing the fair market value of the assets to the funding policy actuarial liabilities. The funding policy actuarial liabilities are based on the benefits earned up to the valuation date assuming the Plan continues indefinitely.

TABLE 2.1 – FUNDING POLICY VALUATION FUNDED STATUS

	January 1, 2014
	$M
Market Value of Assets	
Fair market value of assets (including receivables / payables)	$5,960.7
Funding Policy Actuarial Liabilities	
Active members	$2,666.0
Retirees and survivors	3,217.4
Deferred vested members	58.4
Total funding policy valuation actuarial liabilities	$5,941.8
Funding policy valuation excess (unfunded liability)	$18.9
Termination value funded ratio [calculated in accordance with Reg. 14(6)(e)]	100.3%

The termination value funded ratio is used in the calculation of the "termination value" of any individual's pension benefits at termination of employment, death, marriage breakdown, or retirement, as the case may be, in accordance with the terms of the Plan and Reg. 18(1). It is calculated in accordance with Reg. 14(6)(e).

FUNDING POLICY VALUATION NORMAL COST AND EXCESS CONTRIBUTIONS

The table below provides the funding policy valuation normal cost, being the value of the pension benefits being earned in the twelve-month period after the valuation date. It compares the funding policy valuation normal cost to the level of member and employer contributions in order to determine the level of contributions being made to the PSSRP in excess of the funding policy valuation normal cost.

TABLE 2.2 – FUNDING POLICY VALUATION NORMAL COST AND EXCESS CONTRIBUTIONS

	Year Following January 1, 2014	
	$M	% of payroll
A. Funding policy valuation normal cost	$131.2	11.51%
B. Contributions:		
- Members	$94.0	8.25%
- Employers' initial contributions	128.3	11.25%
- Employers' temporary schedule 1 (for 5 yrs after 1.1.2014)	5.7	0.50%
-Employers' temporary schedule 2 (for 10 yrs after 1.1.2014)	8.5	0.75%
Total	$236.5	20.75%
C. Excess contributions (B. – A.)	$105.3	9.24%
Estimated payroll for year following January 1, 2014	$1,140.0	

DETERMINATION OF 15-YEAR OPEN GROUP FUNDED RATIO

The table below provides the 15-year open group funded ratio as calculated in accordance with the requirements of Reg. 14(6)(f). This ratio is used extensively by the funding policy to determine the actions to be undertaken by the Trustees under the funding policy deficit recovery plan and the funding policy excess utilization plan. The 15-year open group funded ratio is calculated as follows:

TABLE 2.3 – 15-YEAR OPEN GROUP FUNDED RATIO

	January 1, 2014 $M
A. Market value of assets (including receivables / payables)	$5,960.7
B. Present Value of Excess Contributions over next 15 years [calculated in accordance with Reg. 14(6)(c)]	$1,261.3
C. Funding policy valuation actuarial liabilities	$5,941.8
D. 15-Year Open Group Funded Ratio [(A. + B.) / C.]	121.5%

RECONCILIATION OF FUNDING POLICY VALUATION FUNDED STATUS WITH LAST GOING-CONCERN VALUATION

The table below describes the change in the Plan's funded status between the last going-concern valuation as at April 1, 2012 to this funding policy valuation as at January 1, 2014:

TABLE 2.4 – RECONCILIATION OF FUNDED STATUS

	$M	$M
Going-concern funding excess (unfunded liability) as at April 1, 2012		($1,022.4)
Expected changes in funded status		
Interest on funding excess (unfunded liability)	(121.3)	
Employer contributions in excess of residual normal cost (shortfall)	38.8	
Adjustment to market value of assets	(2.8)	
Total		($85.3)
Expected funding excess (unfunded liability) as at January 1, 2014		($1,107.7)
Actuarial gains (losses) due to the following factors		
Investment return on actuarial value of assets	300.0	
Incidence of retirements	(19.4)	
Salary increases	39.7	
Incidence of terminations of employment	5.5	
Incidence of mortality	(7.1)	
Other miscellaneous factors	(4.1)	
Total		$314.6

Gain (loss) due to changes in PSSA funding assumptions in the period from April 1, 2012 to December 31, 2013	($83.9)
Impact of conversion to a Shared Risk Plan as at January 1, 2014	$895.9
Funding policy valuation excess (unfunded liability) as at January 1, 2014	$18.9

RECONCILIATION OF TOTAL NORMAL COST

The factors contributing to the change in the total normal cost from the last going-concern valuation as at April 1, 2012 to this funding policy valuation as at January 1, 2014 are shown below:

TABLE 2.5 – RECONCILIATION OF TOTAL NORMAL COST

	% of payroll
Total normal cost as at April 1, 2012:	15.67%
Impact of changes in demographics:	0.03%
Impact of changes in assumptions (before conversion):	0.42%
Impact of conversion to a Shared Risk Plan as at January 1, 2014:	(4.61%)
Total normal cost as at January 1, 2014 (see Table 2.2 B.)	11.51%

FUNDING POLICY ACTUARIAL METHODS

ASSET VALUATION METHOD

The assets used under the funding policy valuation are equal to the fair market value of the assets, in accordance with the requirements of Regulation 14(6)(d).

ACTUARIAL COST METHOD

The funding policy valuation actuarial liabilities and normal cost were calculated using the accrued benefit (or unit credit) actuarial cost method in accordance with the requirements of Regulation 14(7)(a).

The funding policy valuation actuarial liabilities are equal to the actuarial present value of benefits earned by members for services prior to the valuation date, taking into account the actuarial assumptions as indicated hereafter. For greater certainty, it does not take into account the impact of any future salary increases and the impact of any future increases in accrued pensions due to cost-of-living adjustments as may be granted from time to time by the Trustees in accordance with the plan terms and the Funding Policy.

The funding policy valuation normal cost is equal to the actuarial present value of benefits expected to be earned by members in the year following the valuation date. A salary increase estimate has been made to calculate the estimated normal cost and estimated member and employer contributions for the year following the valuation date.

In this valuation, the membership data provided was as at April 1, 2013. We therefore calculated the funding policy liability as of that date and projected it forward to the valuation date of January 1, 2014 in order to obtain the actuarial liability shown in this report. The projection of liability for the nine-month period used actual cash flows for the period and was adjusted to take into account the increase in final average earnings of the members for the nine-month period.

The ratio of the total normal cost to the covered payroll for the period will tend to stabilize over time if the demographic characteristics of the active and disabled members remain stable. All other things being equal, an increase in the average age of the active and disabled members will result in an increase in this ratio.

For valuation purposes, to determine eligibility for benefits and for any other use, the age used is the age on the date of the nearest birthday.

FUNDING POLICY ACTUARIAL ASSUMPTIONS

The main actuarial assumptions employed for the initial funding policy actuarial valuation are summarized in the following table. Emerging experience differing from these assumptions will result in gains or losses, which will be revealed in future funding policy actuarial valuations. Experience gains and losses emerging in future funding policy actuarial valuations will impact the open group funded ratio of the plan, which in turn will impact the types and timing of any actions to be taken by the Trustees in accordance with the Funding Policy. All rates and percentages are annualized unless otherwise noted.

TABLE 2.6 – FUNDING POLICY ACTUARIAL VALUATION ASSUMPTIONS

	January 1, 2014
Discount rate	4.75%
Salary increase for year following valuation (for normal cost purposes only)	2.75% plus merit and promotion
YMPE increase for year following valuation (for normal cost purposes only)	2.75%
Mortality	UP94 generational mortality table using an enhanced projection scale AA

Retirement

	Age at Conversion								
Retirement Age	Under 25	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60+
55	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
56	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	2.50%	5.00%
57	0.00%	0.00%	0.00%	0.00%	0.00%	2.50%	5.00%	5.00%	5.00%
58	0.00%	0.00%	0.00%	2.50%	5.00%	5.00%	5.00%	5.00%	5.00%
59	0.00%	0.00%	5.00%	5.00%	5.00%	5.00%	5.00%	12.50%	20.00%
60	2.50%	5.00%	5.00%	5.00%	5.00%	12.50%	20.00%	20.00%	20.00%

61	5.00%	5.00%	5.00%	12.50%	20.00%	20.00%	20.00%	20.00%	20.00%
62	5.00%	5.00%	20.00%	20.00%	20.00%	20.00%	20.00%	13.13%	6.25%
63	12.50%	20.00%	20.00%	20.00%	20.00%	13.13%	6.25%	6.25%	6.25%
64	20.00%	20.00%	20.00%	13.13%	6.25%	6.25%	6.25%	6.25%	6.25%
65	55.00%	45.00%	25.00%	21.88%	18.75%	15.63%	12.50%	9.38%	6.25%
Termination of employment									None
Investment and administrative expenses assumed by the fund									Implicit in the discount rate

Additional assumptions are required to determine the level of future cash flows to and from the pension plan, such as member and employer contributions, normal costs, benefit payments and expenses. These cash flows are calculated on a deterministic basis for each year following the valuation date for a period of 20 years, and allows the determination of the funding policy actuarial liability and assets at each future date, as well as the determination of the present value of 15-year excess contributions in accordance with Reg. 14(6)(c). Furthermore, all this information is used in the stochastic analysis required under the risk management procedures for the plan.

TABLE 2.7 – ADDITIONAL FUNDING POLICY ACTUARIAL VALUATION ASSUMPTIONS FOR PURPOSE OF CALCULATING FUTURE YEAR CASH FLOWS AND ACTUARIAL LIABILITY

			January 1, 2014
New entrants			Active members are replaced at death or retirement by new entrants such that the total active population under the PSSRP reduces by 1.25% per year for a period of 4 years following April 1, 2013, and remains stable thereafter
Distribution of new entrants and salary at entry:	Age	Distribution	Average Salary at Entry
	30	25.0%	59,100
	35	25.0%	59,100
	40	50.0%	59,100
Inflation			2.25%
Salary increases			2.75% plus merit and promotion (see rationale section below for details)
YMPE increases			2.75%

RATIONALE FOR MATERIAL ACTUARIAL ASSUMPTIONS

The assumptions have been reviewed in light of current economic and demographic conditions, and the adoption of the shared risk plan model under the New Brunswick Pension Benefits Act.

INFLATION

Given the historical increases in consumer prices in Canada, the rates expected by the market, the portfolio managers' expectation, the Bank of Canada policy and the long-term forecasts of the Conference Board of Canada, Morneau Shepell believes that the expected long-term rate of inflation should be between 2.00% and 2.75%.

Consistent with this range, we have used an inflation assumption of 2.25% per annum.

DISCOUNT RATE DEVELOPMENT

The elements considered in the development of the discount rate assumption for purposes of the funding policy valuation are summarized in the table below.

TABLE 2.8 – DEVELOPMENT OF FUNDING POLICY VALUATION DISCOUNT RATE

	%
Expected long-term nominal return based on the results of our stochastic analysis (using long-term target asset mix, and including impact of rebalancing and diversification)	6.35
Assumed margin for adverse deviation (originally set to achieve a high probability of exceeding the discount rate over the next 20 years)	(1.40)
Expected investment and administration expenses paid from the fund	(0.20)
Discount rate	4.75

The long-term target asset mix used in our analysis is found in Table A.3. It reflects the changes that are found in the Statement of Investment Policies resulting from the adoption of the shared risk plan model. The expected long-term nominal return by asset class is provided in Appendix C. It should be noted that the return assumptions for bonds has been determined mainly on current market conditions while the return assumptions for equities and alternative investments are based more on long-term expectations.

EXPENSES

The allowance for investment management and administrative expenses paid from the fund built into the discount rate is 0.20% of assets based on recent plan history and our expectation for future expenses.

Rate of Salary Increase

We use a salary increase assumption of 2.75% per annum based on a difference of 0.5% per annum above inflation.

In addition to regular salary increases, we include a promotional scale to reflect the various steps in pay scales and promotions during the career of a member. The recommended promotional salary scale varies by age and is greater at the younger ages in order to reflect the seniority increases typically granted early in an individual's career. The recommended scale is the same one used in the previous valuation and is equivalent to an additional cumulative increase of approximately 1.0% per annum over the age range 20 to 64, 0.66% per annum over the age range 30 to 64, 0.4% per annum over the age range 40 to 64 and 0.2% per annum over the age range 50 to 64. Thus, the aggregate provision for salary increases range from about 3.75% per annum for a member aged 20 and 2.95% per annum for a member aged 50.

Mortality

We have used UP94 with a full generational scale as both the CIA and Morneau Shepell's Chief Actuary indicate that a generational table is preferred. Industry evidence from the New Brunswick Pension Task Force was presented suggesting generational mortality improvements were happening at a higher rate than what is assumed in the traditional AA Scale. This industry information was developed from other public service pension plans and was deemed to be credible and applicable to the Public Service Shared Risk Plan demographics. As a result, the mortality assumption uses the UP-94 Mortality Table with full generational mortality improvement using an "enhanced NB Projection Scale AA" developed by the New Brunswick Pension Task Force. The improvements made to Scale AA at various ages are as follows:

TABLE 2.9 – IMPROVEMENTS TO SCALE AA

	Females	Males
Under 55	250%	125%
55 - 59	250%	130%
60 - 64	300%	140%
65 - 69	250%	150%
70 - 74	200%	150%
75 - 79	200%	135%
80 - 84	150%	135%
Over 84	125%	125%

The mortality rates, including the improvements to Scale AA described above, results in the following life expectancies for females and males.

TABLE 2.10 - LIFE EXPECTANCY FOR FEMALES AND MALES

Females	**Life expectancy by Age in Year**				
Age	**2014**	**2019**	**2024**	**2029**	**2034**
55	32.9	33.3	33.7	34.0	34.3
60	27.9	28.3	28.6	29.0	29.3
65	23.2	23.5	23.8	24.1	24.5
70	18.8	19.1	19.4	19.6	19.9
75	14.6	14.9	15.1	15.4	15.6
80	10.9	11.1	11.2	11.4	11.6
Males	**Life expectancy by Age in Year**				
Age	**2014**	**2019**	**2024**	**2029**	**2034**
55	30.6	31.1	31.7	32.2	32.7
60	25.5	26.1	26.6	27.1	27.6
65	20.8	21.3	21.8	22.3	22.7
70	16.5	17.0	17.4	17.8	18.2
75	12.5	12.9	13.2	13.5	13.8
80	9.1	9.4	9.6	9.8	10.0

The enhanced projection scale was developed before the recently published mortality study released in final form by the Canadian Institute of Actuaries. We will continue to monitor this assumption for reasonableness and in light of the recently published mortality study by the Canadian Institute of Actuaries.

For existing disability pensioners, the mortality table adopted is the 1971 GAM Table. This table is the same as for the previous valuation for disabled pensioners and remains appropriate for this group of pensioners.

Rate of Increase in YMPE

We have continued to assume in this valuation that the YMPE will increase at the same rate as salary (before merit and promotional increase). As a result, we have used a rate of 2.75% per annum. The YMPE is automatically updated to its revised base level at each valuation date.

Retirement

Given the changing early retirement subsidies for service after the Conversion Date, we estimate that plan members will slowly start to delay retirement as we move away from the Conversion Date. As a result, we adopted retirement assumptions that vary depending on the member's current age. A younger member at the valuation date will be expected to retire later on average than an older worker at the same date. We will continue to monitor this assumption for reasonableness.

OPINION ON FUNDING POLICY VALUATION

In our opinion, for the purposes of the funding policy valuation section of the report:

- The membership data on which the valuation is based are sufficient and reliable for the purposes of the valuation.
- The assumptions are appropriate for the purposes of the valuation.
- The methods employed in the valuation are appropriate for the purposes of the valuation; including an adjustment to the actuarial liability and normal cost to take into account the difference in the effective date of the membership data provided and the effective date of the valuation.

This funding policy valuation report has been prepared, and our opinions given, in accordance with accepted actuarial practice in Canada.

The assumptions used under the funding policy valuation of this report were reasonable and consistent with the objectives of the plan at the time this actuarial valuation report was prepared.

Respectfully submitted,

Conrad Ferguson, FSA, FCIA

Feb 24, 2015

Date

Yves Plourde, FSA, FCIA

Feb. 24, 2015

Date

SECTION 3 – GOING-CONCERN VALUATION

The going-concern actuarial valuation is conducted in accordance with paragraph 14(1) of the Regulations to the New Brunswick *Pension Benefits Act* ("PBA") in order to determine the maximum eligible employer contribution for the PSSRP under paragraph 147.2(2) of the *Income Tax Act (Canada)* ("ITA") and provide the required actuarial opinion.

The going-concern actuarial valuation results presented in this section are based on asset information found in Appendix A, membership data found in Appendix B, and plan provisions after the conversion to a shared risk plan, as summarized under the Conversion Plan section of this report and Appendix D. The methods and assumptions used in the going-concern valuation are described later in this section.

GOING-CONCERN FUNDED STATUS

The funded status of the Plan on the going-concern basis is determined by comparing the actuarial value of the assets to the actuarial liabilities. The actuarial liabilities are based on the benefits earned up to the valuation date assuming the plan continues indefinitely. It also has a provision for future cost-of-living adjustments to be provided by the Trustees in accordance with the plan terms and the funding policy. Such a provision is acceptable under paragraph 147.2(2)(c) of the ITA.

TABLE 3.1 – GOING-CONCERN FUNDED STATUS

	January 1, 2014	April 1, 2012
	$M	$M
Actuarial value of assets		
Market value (including receivables / payables)	5,960.7	5,229.0
Actuarial liabilities		
Active members	4,113.3	3,019.2
Retirees and survivors	4,023.1	3,166.0
Deferred vested members	84.6	66.2
Total	8,221.0	6,251.4
Going-concern funding excess (unfunded liability)	(2,260.4)	(1,022.4)
Going-concern funded ratio	72.5%	83.6%

SENSITIVITY ANALYSIS ON THE GOING-CONCERN BASIS

The Standards of the Canadian Institute of Actuaries require valuation reports to disclose the sensitivity of the liabilities to changes in the discount rate assumption. The table below illustrates the effect of 1% decrease in the discount rate on the going-concern actuarial liabilities. With the exception of the discount rate, all other assumptions and methods used for this valuation were maintained.

TABLE 3.2 – SENSITIVITY OF ACTUARIAL LIABILITIES ON THE GOING-CONCERN BASIS

	January 1, 2014	Discount rate 1% lower
	$M	$M
Actuarial liabilities		
Active members	4,113.3	5,079.0
Retirees and survivors	4,023.1	4,476.6
Deferred vested members	84.6	101.3
Total	8,221.0	9,656.8
Increase in actuarial liabilities		1,435.7

GOING-CONCERN RESIDUAL NORMAL COST

The table below summarizes the estimated going-concern residual normal cost of pension benefits being earned in the twelve-month period after the valuation date (the normal cost).

TABLE 3.3 – GOING-CONCERN RESIDUAL NORMAL COST

	As at January 1, 2014		As at April 1, 2012	
	$M	% of payroll	$M	% of payroll
Total Normal Cost	208.6	18.29	177.2	15.67
Less Member contributions	94.0	8.25	69.8	6.17
Residual Normal Cost	114.6	10.04	107.4	9.50
Estimated payroll for year following January 1, 2014	1,140.0		1,130.3	

SENSITIVITY ANALYSIS ON THE GOING-CONCERN RESIDUAL NORMAL COST

The table below illustrates the effect on the residual normal cost of using a discount rate 1% lower than the one used for the going-concern valuation. All other assumptions and methods, as used in this valuation, were maintained.

TABLE 3.4 – SENSITIVITY OF GOING-CONCERN RESIDUAL NORMAL COST

	As at January 1, 2014		Discount rate 1% lower	
	$M	% of payroll	$M	% of payroll
Total normal cost	208.6	18.29	269.5	23.64
Less Member contributions	94.0	8.25	94.0	8.25
Residual Normal Cost	114.6	10.04	175.5	15.39
Increase in residual normal cost			60.9	5.35

MAXIMUM ELIGIBLE EMPLOYER CONTRIBUTION UNDER THE INCOME TAX ACT

The maximum eligible employer contribution in accordance with the ITA is equal to the residual normal cost, plus the greater of the going-concern unfunded liability and the hypothetical wind-up deficiency. Under a shared risk plan, the hypothetical wind-up liability will typically be nil. However, the anti-avoidance rule under Section 16 of Regulation 2012-75 may be triggered if a wind-up occurs in the first five years following the conversion of the shared risk plan. For purposes of calculating the maximum eligible employer contribution, we have ignored the hypothetical wind-up deficiency that could exist for the first five years after conversion.

On the basis of the methods and assumptions in this report, the maximum eligible employer contribution for the year following January 1, 2014 is equal to $2,375.0M (representing $114.6M of residual normal cost and $2,260.4M of going-concern unfunded liability).

When spreading the going-concern unfunded liability over the next three years (period for which this going-concern valuation is valid under the PBA), the maximum eligible employer contribution for the three years following January 1, 2014 (ignoring interest and salary increases) would be as follows:

TABLE 3.5 – MAXIMUM ELIGIBLE EMPLOYER CONTRIBUTIONS SPREAD OVER THREE YEARS

Year Following	Going-Concern Unfunded Liability	Residual Normal Cost	Total	
	$M	$M	$M	% of payroll
January 1, 2014	753.5	114.6	868.1	76.1
January 1, 2015	753.5	114.6	868.1	76.1
January 1, 2016	753.5	114.6	868.1	76.1

Based on the above, the employer contribution requirements under the terms of the PSSRP of 12.5% of earnings (comprised of 11.25% of earnings in initial contributions, and 1.25% of earnings in temporary contributions) are eligible contributions under the ITA. Furthermore, should employer contributions be increased by 1.5% of earnings as would be required under the Funding Policy if the 15-year open group funded ratio of the plan dropped below 100% for two years in a row, those higher employer contributions would also be eligible contributions under the ITA up to the date of the next going-concern valuation scheduled for no later than January 1, 2017.

GOING-CONCERN VALUATION ACTUARIAL METHODS

The asset valuation method and the actuarial cost method under the going-concern valuation are identical to the asset valuation method and the actuarial cost method under the funding policy valuation. The going-concern valuation assumptions are also identical, except for the discount rate and the addition of a provision for future cost-of-living adjustments.

DISCOUNT RATE

In order to balance the need to fund intended benefits in a secure and responsible manner, while recognizing the necessity for CRA to monitor the impact of over-conservatism in assumptions, we developed a methodology to select an appropriate discount rate which we believe will balance those concerns. The discount rate selected is determined by using the nominal investment return expected from the long-term asset mix of the PSSRP over the next 20 years at its 67th percentile, minus 1.0% (to account for inclusion of any margins for adverse deviation and any and all expenses to be paid from the fund), subject to a minimum rate at least equal to the funding policy valuation discount rate. This leads to a nominal discount rate of 4.75% per year (the funding policy valuation discount rate).

ASSUMED CONTINGENT INDEXING ON ACCRUED PENSIONS AND PENSIONS IN PAYMENT

A provision for future cost-of-living adjustments on the amount of the accrued pensions of active members, and terminated deferred vested members, and on the amounts of current and future pension payments is made. This provision satisfies the requirements of section 147.2(2)(c) of the ITA.

The funding policy excess utilization plan provides that indexing of benefit to full CPI is intended when and if the plan can afford it. While this is by no means a guaranteed outcome, the contributions have been set at a level that there is a high likelihood of achieving these benefit intentions, based on the results of our stochastic analysis presented in Section 1.

As a result, and in accordance with the PBA, we have conducted the going concern valuation based on these benefit intentions, which would provide for indexing of accrued pensions both before and after retirement at 2.25% per year (reflecting the inflation assumption in our funding policy valuation).

Other going-concern actuarial assumptions

All other assumptions in our going-concern valuation are identical to the assumptions used under the funding policy actuarial valuation detailed in Table 2.6 of Section 2 of this report, and the rationale for the choice of those assumptions also applies for the going-concern valuation.

The additional assumptions detailed in Table 2.7 of Section 2 are not required under the going-concern actuarial valuation, and therefore do not apply.

Emerging experience differing from these assumptions will result in gains or losses, which will be revealed in future going-concern actuarial valuations.

OPINION ON GOING-CONCERN VALUATION

In our opinion, for the purposes of the going-concern valuation section of the report:

- The membership data on which the valuation is based are sufficient and reliable for the purposes of the valuation.
- The assumptions are appropriate for the purposes of the valuation.
- The methods employed in the valuation are appropriate for the purposes of the valuation; including an adjustment to the actuarial liability and normal cost to take into account the difference in the effective date of the membership data provided and the effective date of the valuation.

This going-concern valuation report has been prepared, and our opinions given, in accordance with accepted actuarial practice in Canada.

The assumptions used under the going-concern valuation of this report were reasonable at the time this actuarial valuation report was prepared.

Respectfully submitted,

Conrad Ferguson, FSA, FCIA	Yves Plourde, FSA, FCIA
Feb 24, 2015	Feb. 24, 2015
Date	Date

SECTION 4 –HYPOTHETICAL WIND-UP VALUATION

A hypothetical wind-up valuation assumes that the Plan is wound-up on the valuation date and member's benefit entitlements are calculated as of that date. Although this type of valuation is not required under Part 2 of the New Brunswick Pension Benefits Act for a Shared Risk Plan, the Standards of Practice of the Canadian Institute of Actuaries require that actuarial valuation reports provide information with respect to hypothetical wind-up situations.

Section 16(3) of the Regulations 2012-75 under the *Pension Benefits Act* prescribes that if a shared risk plan is wound-up by the persons who established the plan within 5 years of its conversion date, the conversion of the plan is void and the plan has to be wound-up as a defined benefit plan under Part 1 of the PBA.

In conducting the hypothetical wind-up valuation as at January 1, 2014, we therefore made the assumption that the conversion to a shared risk plan would be void, and that the plan would be wound-up as at January 1, 2014 in accordance with rules found under Part 1 of the PBA. This assumption has been made solely on the basis that Section 16(3) would apply, and does not represent a legal opinion on the validity of this scenario.

We have valued the wind-up liability using discount rates consistent with the requirements of the NB PBA for plan wind-ups under Part 1. The PBA requires that benefits paid out to each member upon wind-up be not less than the cost to purchase an annuity for that member. Accordingly, we have followed the Canadian Institute of Actuaries' recommendations for the estimated cost of fully indexed annuity purchases as at January 1, 2014.

HYPOTHETICAL WIND-UP FUNDED STATUS

The hypothetical wind-up funded status under the scenario postulated above, including the results of the last hypothetical wind-up valuation, is as follows:

TABLE 4.1 – HYPOTHETICAL WIND-UP FUNDED STATUS

	January 1, 2014	April 1, 2012
	$M	$M
Assets		
Market value of assets	5,960.7	5229.0
Provision for expenses	(3.0)	(3.0)
Total	5,957.7	5226.0
Hypothetical wind-up liabilities		
Active members	7,391.0	5697.7
Retirees and survivors	5,059.7	4563.0
Deferred vested members	127.3	109.1

Total	12,578.0	10,369.8
Assets less liabilities on the hypothetical wind-up basis	(6,620.3)	(5,143.8)

The hypothetical wind-up funded status is presented for information purposes. There is no requirement under the PBA to fund the hypothetical wind-up deficit of the PSSRP while it is not in a wind-up state.

SENSITIVITY ANALYSIS ON THE HYPOTHETICAL WIND-UP BASIS

The Standards of Practice of the Canadian Institute of Actuaries require valuation reports to disclose the sensitivity of the liabilities to changes in the discount rate assumption. The table below illustrates the effect on the actuarial liabilities of using discount rates 1% lower than those used for the hypothetical wind-up valuation. All other assumptions and methods, as used in this valuation, were maintained.

TABLE 4.2 – SENSITIVITY OF ACTUARIAL LIABILITIES ON THE HYPOTHETICAL WIND-UP BASIS

	January 1, 2014	Discount rates 1% lower
	$M	$M
Actuarial liabilities		
Active members	7,391.0	9,134.3
Retirees and survivors	5,059.7	5,719.3
Deferred vested members	127.3	156.9
Total	12,578.0	15,010.5
Increase in actuarial liabilities		2,432.6

INCREMENTAL COST ON THE HYPOTHETICAL WIND-UP BASIS

The incremental cost on the hypothetical wind-up basis represents the present value of the expected aggregate change in the actuarial liabilities from January 1, 2014 to January 1, 2015, adjusted for expected benefit payments in the inter-valuation period. This incremental cost is estimated to be $347.5M as at January 1, 2014.

HYPOTHETICAL WIND-UP ASSET VALUATION METHOD

Wind-up assets are equal to the market value of assets less and allowance for wind-up expenses. This valuation method is the same as the one used in the last valuation.

HYPOTHETICAL WIND-UP ACTUARIAL COST METHOD

The hypothetical wind-up liabilities are determined using the accrued benefit (or unit credit) actuarial cost method. The hypothetical wind-up liabilities are equal to the actuarial present value of all benefits earned by members for services prior to the valuation date assuming the Plan is wound up on the valuation date. This method is the same as the one used in the last valuation.

In this valuation, the membership data provided was as at April 1, 2013. We therefore calculated the liability as of that date and projected it forward to the valuation date of January 1, 2014 in order to obtain the actuarial liability shown in this report. The projection of liability used the same methodology as the one used to calculate the incremental cost, but applied to the period from April 1, 2013 to January 1, 2014 (nine-month period) and using actual benefit payments for the period.

For valuation purposes, to determine eligibility for benefits and for any other uses, the age used is the age on the date of the nearest birthday. This method is the same as the one used in the last valuation.

HYPOTHETICAL WIND-UP ACTUARIAL ASSUMPTIONS

The main actuarial assumptions used in the hypothetical wind-up valuation correspond to those prescribed by the PBA.

Although the Former PSSA was not subject to the PBA before it was converted to the PSSRP, in the absence of specific direction to the contrary in the Former PSSA, we have valued the hypothetical wind-up liability using discount rates consistent with the requirements of the PBA if the plan were to be wound up. The PBA requires that benefits paid out to each member upon wind-up be not less than the cost to purchase an annuity for that member. Accordingly, we have followed the Canadian Institute of Actuaries' recommendations for the estimated cost of fully indexing annuity purchases as at January 1, 2014.

The primary actuarial assumptions employed for the wind-up actuarial valuation are summarized in the following table. All rates and percentages are annualized unless otherwise noted. The rates in brackets represent the estimate annuity purchase rates for indexed annuities after taking into account the escalation of pension provided by the plan.

TABLE 4.3 – HYPOTHETICAL WIND-UP ACTUARIAL ASSUMPTIONS

	January 1, 2014	April 1, 2012
Interest rate		
Interest rate for active members and deferred vested members under 55	3.93% per annum (0.15% net)	2.6% per annum (1.2% net) for 10 years, 4.1% per annum (1.5% net) thereafter
Interest rate for retired members and those 55 and over	3.93% per annum (0.15% net)	0.51% per annum (net)
Salary increases	None	None
Mortality	UP-94 generational using Scale AA	UP-94 generational using Scale AA
Termination (membership)	None	None
Wind-up expenses	$3,000,000	$3,000,000
Retirement	Age which maximizes the value of the pension	Age which maximizes the value of the pension

Allowance has been made for administrative, actuarial and legal costs which would be incurred if the plan were to be wound up in full or in part. No allowance has been made for costs which may be incurred in respect of resolving surplus issues on plan wind up or the costs in respect of assets which cannot be readily realized.

The Canadian Institute of Actuaries (CIA) collects data annually from insurance companies and annually determines interest rates suitable for estimating the cost of single premium group annuities in hypothetical wind-up valuations. For pensioners and for active members and deferred vested members eligible for immediate retirement at the valuation date, the interest rate used in the present hypothetical wind-up valuation is an estimate of the rate that would be used by insurance companies in pricing single premium group annuities for annuitants already retired, based on the suggested rates for such annuitants published by the CIA.

The discount rate used for active members and deferred vested members not eligible for immediate retirement is the rate used for pensioners without adjustment, as suggested by the CIA as an appropriate estimate of the cost of deferred annuities based on their survey data from insurance companies.

Emerging experience differing from these assumptions will result in gains or losses, which will be revealed in future hypothetical wind-up actuarial valuations.

TERMINATION SCENARIO

The termination scenario used in the hypothetical wind-up valuation includes the following assumptions:

- Plan wind-up would not result from employer insolvency.
- All assets could be realized at their reported market value.
- PSSRP conversion would be void and the Plan would be wound-up under Part 1 of the PBA.

MARGIN FOR ADVERSE DEVIATIONS

As specified by the Standards of Practice of the Canadian Institute of Actuaries, the hypothetical wind-up assumptions do not include a margin for adverse deviations.

PROVISION FOR FEES

Allowance has been made for administrative, actuarial and legal costs which would be incurred if the Plan were to be wound up, based on sufficient and reliable data. It is assumed that the wind-up date, the calculation date and the settlement date are coincident, and as such, expenses related to investment policy reviews, investment and custodial fees are not included. Expenses related to the resolution of surplus and deficit issues are not taken into account. The amount of expenses is only an approximation and may differ significantly from real expenses incurred on plan wind-up, for example, in case of litigation, bankruptcy and eventual replacement by a third-party administrator.

HYPOTHETICAL WIND-UP INCREMENTAL COST

The method used to calculate the hypothetical wind-up incremental cost may be described as follows:

1. Present value of expected benefit payments between January 1, 2014 and January 1, 2015, discounted to January 1, 2014;
2. Plus
3. Projected hypothetical wind-up liabilities as at January 1, 2015, discounted to January 1, 2014;
4. Less
5. Hypothetical wind-up liabilities as at January 1, 2014.

OPINION ON HYPOTHETICAL WIND-UP VALUATION

In our opinion, for the purposes of the hypothetical wind-up valuation section of the report:

- The membership data on which the valuation is based are sufficient and reliable for the purposes of the valuation.
- The assumptions are appropriate for the purposes of the valuation.
- The methods employed in the valuation are appropriate for the purposes of the valuation; including an adjustment to the actuarial liability to take into account the difference in the effective date of the membership data provided and the effective date of the valuation.

This hypothetical wind-up valuation report has been prepared, and our opinions given, in accordance with accepted actuarial practice in Canada.

The assumptions used under the hypothetical wind-up valuation of this report were reasonable at the time this actuarial valuation report was prepared.

Respectfully submitted,

Conrad Ferguson, FSA, FCIA

Feb 24, 2015

Date

Yves Plourde, FSA, FCIA

Feb. 24, 2015

Date

APPENDIX A – ASSETS

DESCRIPTION OF PLAN ASSETS

As at December 31, 2013, the assets of the plan were held in a trust fund known as the Superannuation Fund, and were being managed by the New Brunswick Investment Management Corporation. The New Brunswick Investment Management Corporation provided the information on fund assets as at December 31, 2013.

CHANGES TO PLAN ASSETS

The following table shows changes to the Former PSSA assets during the inter-valuation period, based on market values. The reconciliation from April 1, 2012 to April 1, 2013 is based on the audited financial statements issued by the NBIMC, while the reconciliation from April 1, 2013 to December 31, 2013 was obtained from unaudited statements provided to us by the NBIMC adjusted for payables and receivables as at December 31, 2013.

TABLE A.1 – RECONCILIATION

	April 1, 2013 to December 31, 2013 $M	April 1, 2012 to March 31, 2013 $M
Assets at beginning of period	$5,623.2	$5,229.0
Adjustment to market value	--	(2.8)
Receipts		
Member contributions	51.5	70.9
Employer pension contributions	67.2	92.1
Employer special contributions	0.0	67.9
Investment income plus realized and unrealized capital appreciation and depreciation	462.7	468.9
Total receipts	$581.4	$699.8
Disbursements		
Pensions paid and refunds	234.9	292.8
Expenses (fees)	9.0	10.0
Total disbursements	$243.9	$302.8
Assets at end of period	$5,960.7	$5,623.2

RETURN ON ASSETS

The plan assets earned the following rates of return, net of investment management fees and other expenses charged to the Fund, based on our calculations which assume cash flow occurred in the middle of the period:

TABLE A.2 – NET INVESTMENT RETURN

Year	%
April 1, 2012 to March 31, 2013	8.8%
April 1, 2013 to December 31, 2013 (nine months – not annualized)	8.2%

ACTUARIAL VALUE OF ASSETS

We have used the market value of assets (including receivables / payables) without adjustment. The actuarial value of assets as at January 1, 2014 was $5,960.7M.

TARGET ASSET MIX UNDER SHARED RISK PLAN

The Statement of Investment Policies for the PSSRP, as adopted by the Board of Trustees, provides for the following long term target asset mix.

TABLE A.3 – TARGET ASSET MIX

	Target Allocation (%)
Asset classes	
Fixed Income:	
Short term assets	1.0%
Domestic government bonds	17.8%
Corporate bonds	17.7%
Real return bonds	5.0%
Public Equity	
Canadian equities (allocation split at about 2/3rd regular / 1/3rd low volatility strategies)	15.5%
US equities (allocation split equally between regular and low volatility strategies)	10.0%
EAFE equities (allocation split equally between regular and low volatility strategies)	10.0%
Emerging market equities (fully allocated to a low volatility strategy)	3.0%
Private Equity	4.0%
Absolute return strategy	8.0%
Real estate and Infrastructure	8.0%
Total	100.0%

This target asset mix was used to determine the discount rate assumption under the plan, and to conduct the stochastic analysis required under the PBA to assess the various risk management goals.

APPENDIX B – MEMBERSHIP DATA

DESCRIPTION OF MEMBERSHIP DATA

Data on Plan membership was obtained from the PIBA pension system maintained by the Pension and Employee Benefits Division of the Office of Human Resources. The data was provided as at April 1, 2013.

The data was matched and reconciled with the data provided for the previous valuation as at April 1, 2012. Basic data checks were performed to ensure that age, salary and service data were reasonable for the purposes of the valuation and to ensure that the data was accurate, complete and consistent with previous data.

Finally, we have taken the following additional steps to review data for accuracy, completeness and consistency purposes:

- A reconciliation of data was performed in order to follow the changes concerning some of the active members, retirees and vested members.
- Basic data checks were performed to ensure that age, salary and service data were reasonable for the purposes of the valuation.

The effective date of the conversion to a shared risk plan is January 1, 2014, and therefore the initial actuarial valuations' effective date is also as at January 1, 2014. The actuarial valuation results obtained using April 1, 2013 data was therefore projected forward for nine months, using actual cash flows obtained from financial statements for the nine-month period, in order to provide January 1, 2014 results throughout the report. This treatment is noted in the actuarial method section of every type of actuarial valuation conducted in this report.

Any differences between the above projection and the use of actual January 1, 2014 data was deemed immaterial for the purposes of the actuarial valuations.

SUMMARY OF MEMBERSHIP DATA

The following tables were prepared using data provided by the Pension and Employee Benefits Division regarding its active members, retirees and former members. Tables B.5 and B.6 does not reflect cost-of-living adjustments awarded at January 1, 2014. However, actuarial liabilities presented throughout this report on the various bases reflect the cost-of-living adjustment of 0.96% effective January 1, 2014.

These tables show the following:

- B.1 Summary of Membership Data
- B.2 Changes in Plan Membership
- B.3 Age/Service Distribution for Active Members as at April 1, 2013
- B.4 Summary of Part-time Membership Data as at April 1, 2013
- B.5 Distribution of Retirees by Age Groups as at April 1, 2013
- B.6 Distribution of Deferred Pensioners by Age Groups as at April 1, 2013

TABLE B.1 – SUMMARY OF MEMBERSHIP DATA

		April 1, 2013	April 1, 2012
Active members*	Number	19,323	19,548
	Total covered payroll	$1,285,426,390	$1,280,091,378
	Average salary	$66,523	$65,485
	Average age	46.8 years	46.7 years
	Average credited service	13.1 years	13.3 years
Deferred vested members	Number	365	383
	Average accrued annual pension	$14,200	$14,515
	Average age	50.4 years	50.2 years
Retirees and survivors	Number	13,770	13,113
	Average annual pension	$21,503	$20,827
	Average age	70.6 years	70.6 years

** Includes all members who were not on pension or who had not elected a deferred pension as at the valuation date.*

TABLE B.2 – CHANGES IN PLAN MEMBERSHIP

	Active Members	Retirees and Survivors	Deferred Vested Members	Total
Members at April 01, 2012	19,548	13,113	383	33,044
New members	966	0	0	966
Retirements	(805)	850	(45)	0
Members who returned to active	12	0	(12)	---
Terminations				
with refunds or transfers out	(330)	0	0	(330)
with deferred pensions	(41)	0	41	---
Deaths				
with no continuing benefits	(4)	(219)	(2)	(225)
with survivors	(23)	(135)	0	(158)
New survivor pensions	0	158	0	158
Data adjustments*	0	3	0	3
Members at April 01, 2013	19,323	13,770	365	33,458

** Two members were found to have pensions previously unaccounted for in PSSA while 1 death resulted in multiple beneficiaries*

TABLE B.3 – AGE/SERVICE DISTRIBUTION FOR ACTIVE MEMBERS AS AT APRIL 1, 2013

Years of Service		Under 25	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65 and Over	Age Total
0 - 4	Number	172	833	1,014	895	764	753	548	369	149	43	5,540
	Tot. Sal.	8,024,260	42,698,194	59,877,878	58,434,910	50,862,464	48,631,558	37,539,511	25,602,236	8,992,224	2,148,122	342,811,358
	Avg. Sal.	46,653	51,258	59,051	65,290	66,574	64,584	68,503	69,383	60,350	49,956	61,879
5 - 9	Number	3	133	588	692	623	526	495	317	162	28	3,567
	Tot. Sal.	179,911	8,490,201	36,535,964	45,496,293	42,731,616	35,285,573	34,209,188	24,026,722	13,272,784	2,466,594	242,694,846
	Avg. Sal.	59,970	63,836	62,136	65,746	68,590	67,083	69,109	75,794	81,931	88,093	68,039
10 - 14	Number		1	122	545	646	655	546	411	164	28	3,118
	Tot. Sal.		*****	8,149,148	36,440,814	45,445,947	45,039,115	35,852,531	26,841,428	11,681,531	2,135,728	211,639,400
	Avg. Sal.		*****	66,796	66,864	70,350	68,762	65,664	65,308	71,229	76,276	67,877
15 - 19	Number				48	379	427	406	305	104	31	1,700
	Tot. Sal.				3,134,390	25,646,480	29,372,562	27,633,744	20,237,668	7,254,312	2,411,609	115,690,765
	Avg. Sal.				65,300	67,669	68,788	68,063	66,353	69,753	77,794	68,053
20 - 24	Number				1	195	789	692	471	156	23	2,327
	Tot. Sal.				*****	14,599,089	57,652,624	46,768,608	30,434,047	10,546,438	1,778,356	161,823,141
	Avg. Sal.				*****	74,867	73,070	67,585	64,616	67,605	77,320	69,542
25 - 29	Number					1	260	576	433	101	22	1,393
	Tot. Sal.					*****	18,511,227	39,819,064	30,091,073	6,734,318	1,676,191	96,872,561
	Avg. Sal.					*****	71,197	69,130	69,494	66,676	76,191	69,542
30 - 34	Number						14	508	525	96	19	1,162
	Tot. Sal.						939,701	34,664,726	35,841,761	6,723,818	1,490,529	79,660,535
	Avg. Sal.						67,122	68,238	68,270	70,040	78,449	68,555
35 and	Number							45	363	93	15	516
over	Tot. Sal.							2,981,187	23,584,877	6,546,347	1,121,372	34,233,783
	Avg. Sal.							66,249	64,972	70,391	74,758	66,345
Total number		175	967	1,724	2,181	2,608	3,424	3,816	3,194	1,025	209	19,323
Total salaries		8,204,171	51,241,554	104,562,990	143,550,385	179,326,284	235,432,36 1	259,468,558	216,659,813	71,751,772	15,228,502	1,285,426,390
Average of salaries		46,881	52,990	60,651	65,819	68,760	68,759	67,995	67,833	70,002	72,864	66,523

Average attained age: 46.8 years

Average number of years of service: 13.1 years

Notes:

The age is computed at the nearest birthday.

The salary used is the estimated salary rate as at April 01, 2013. The estimated salary rate was obtained by increasing the annualized earned salary for the year preceding the valuation by the salary increase assumption and applicable merit and promotion adjustment.

Years of service means the number of years credited for pension plan purposes, fractional parts being rounded to the nearest integer.

Membership for active members is composed of 9,189 males and 10,134 females.

On the Conversion Date, eligible part-time members of the Pension Plan for Part-Time and Seasonal Employees of the Province of New Brunswick ceased to participate in that plan and joined the PSSRP for service on and after January 1, 2014. Pension and Employee Benefits Division provided the following information with respect to those members. This data is used in the projection of future cash flows to and from the pension plan, such as member and employer contributions, normal costs, benefit payments and expenses over the next 20 years in order to determine the open group funded ratio under the funding policy actuarial valuation. It is also used in the stochastic analysis required under the risk management procedures for the plan.

TABLE B.4 – SUMMARY OF PART-TIME MEMBERSHIP DATA AS AT APRIL 1, 2013

		April 1, 2013
Part-time Members	Number	2,023
	Total covered payroll	$76,925,435
	Average salary	$38,025
	Average age	43.5 years

TABLE B.5 – DISTRIBUTION OF RETIREES AND SURVIVORS BY AGE GROUPS AS AT APRIL 1, 2013

		Total Annual Payments	
Age Group	Number	Lifetime	Bridge
Under 60	1,405	$28,906,970	$9,194,313
60-64	3,217	72,624,518	21,537,881
65-69	2,968	58,724,886	---
70-74	2,029	37,895,079	---
75-79	1,554	27,577,314	---
80-84	1,232	19,903,570	---
85 and over	1,365	19,727,769	---
Total	13,770	$265,360,105	$30,732,194

Average age: 70.6 years
Notes: Age groups are based on exact age. The pension used is the pension payable as at April 01, 2013. Membership for pensioners is composed of 7,175 males and 6,595 females.

TABLE B.6 – DISTRIBUTION OF DEFERRED PENSIONERS BY AGE GROUPS AS AT APRIL 1, 2013

		Total Annual Payments	
Age Group	Number	Lifetime	Bridge
Under 40	27	$157,550	$61,041
40-45	43	331,005	103,797
45-49	78	839,706	249,480
50-54	147	1,775,605	580,759
55-59	58	766,942	207,126
60 and over	12	107,814	2,032
Total	365	$3,978,622	$1,204,236

Average age: 50.4 years
Note: Age groups are based on exact age. Membership for deferred pensioners is composed of 159 males and 206 females.

APPENDIX C – STOCHASTIC PROJECTION ASSUMPTIONS

Our assumptions for stochastic analysis are built each year using Conference Board of Canada (CBoC) forecasts, internal research, inflation expectations and by surveying the asset manager universe. This ensures we are not using inputs that are out of touch with broader expectations. We strive for a moderate level of conservatism in our assumptions, as high expectations can lead to biased results, understating the true risk level of plans.

Stochastic projection assumptions are updated annually by Morneau Shepell Asset and Risk Management with an anchor date of December 31st and a time horizon of up to 25 years. A multi-stage process is used to set the economic assumptions. First, a long term inflation rate assumption is selected based primarily on the current Bank of Canada Monetary Policy. Volatility for inflation is based on historical data since the early 1990's when the current monetary policy was introduced. Market implied inflation is used as an indicator of the market expectation for long term trends for inflation. Secondly, historical and current bond data is used to determine the long term interest rates for key bond indices. It is assumed that current yields will revert to the projected long term rates over a projected period. Volatility assumptions are based on historical data modified to reflect current low yield rates. Expected return levels and standard deviations for Canadian bond indices are generated in a stochastic simulation approach.

The next stage is to determine nominal equity return assumptions. The process uses multiple sources including our inflation assumptions, historical data, GDP and other economic data, growth forecasts and dividend information. Standard deviations and correlations of equity returns are mainly derived from historical data. Purchasing power parity is assumed in setting foreign equity return assumptions. Alternative asset classes are primarily based on historical data but adjusted by factors specific for each asset class.

The following expected return and volatility by asset class was used as at January 1, 2014:

TABLE C.1 – EXPECTED RETURN OVER 20 YEARS AND VOLATILITY (STANDARD DEVIATION) BY ASSET CLASS

	Expected Return	Volatility (standard deviation)
Inflation	2.25%	1.2%
Asset classes		
Fixed Income:		
Short term assets (ST)	1.65%	1.5%
Government bonds (GB)	3.05%	6.6%
Corporate bonds (CB)	3.70%	5.3%
Real return bonds (RRB)	3.60%	11.6%
Public Equity		
Canadian equities (Can E)	7.55%	17.0%
US equities (US E)	7.30%	17.8%
EAFE equities (EAFE)	7.55%	17.1%
Emerging market equities (EM)	11.55%	25.3%
Private Equity (PE)	10.05%	26.1%
Absolute return strategy (ARS)	5.65%	10.6%
Real estate (RE)	6.25%	12.5%
Infrastructure (IN)	6.95%	14.9%

** The SIP provides for a significant portion of public equities to be invested using a low volatility strategy. For purposes of our stochastic analysis, we did not attempt to model the impact of a low volatility strategy and have used the regular indices for each equity asset class for such strategy.*

For every year in the 20-year projection, expenses of 8 basis points to reflect the cost of passive management and another 10 basis points for the cost of non-investment expenses is deducted from the expected return to account for the payment of expenses from the Fund (the additional cost of any active management activities is expected to be offset by additional returns over the expected returns shown above and therefore are not included in the analysis).

The following correlation among the various asset classes identified in Table C.1 was also used as at January 1, 2014:

TABLE C.2 – CORRELATION AMONG ASSET CLASSES

Asset Classes	ST	GB	CB	RRB	Can E	US E	EAFE	EM	PE	ARS	RE	IN
ST	1.00	-0.13	-0.10	-0.33	-0.12	0.02	-0.14	-0.06	0.01	0.03	0.11	-0.01
GB		1.00	0.28	0.41	0.02	0.00	0.00	-0.04	0.00	-0.04	0.03	0.23
CB			1.00	0.51	0.25	0.20	0.14	0.18	0.20	0.29	-0.09	0.17
RRB				1.00	0.21	-0.23	-0.05	0.10	-0.06	0.11	0.12	0.49
Can E					1.00	0.44	0.69	0.74	0.54	0.78	0.11	0.13
US E						1.00	0.63	0.23	0.65	0.51	0.11	-0.08
EAFE							1.00	0.60	0.52	0.45	0.19	-0.01
EM								1.00	0.34	0.58	0.06	0.07
PE									1.00	0.56	0.05	0.00
ARS										1.00	0.11	0.11
RE											1.00	0.06
IN												1.00

Using a Monte Carlo simulation technique, the expected returns, volatility and correlation of the various asset classes shown above are used to model 2,000 series of alternative economic scenarios over 20-year periods. This provides at least 40,000 observations from which to measure whether the risk management goals have been achieved.

This exceeds the minimum requirements under the PBA of 1,000 series of economic scenarios for 20 years.

For each of these scenarios and for each year, the financial position of the PSSRP is measured on a funding policy basis. For the purpose of the stochastic analysis, the margin for adverse deviation in the discount rate is modified in each future period in the projection such that the resulting discount rate remains fixed at 4.75% per year throughout the projection period. The discount rate of 4.75% per year is used to project the funding policy liability and determine the present value of excess contributions throughout the projection period. The projection of the liability and future cash flows under the stochastic analysis uses the same demographic assumptions as used for the calculation of the funding policy liability, as required under Regulation 15(2)(c).

The risk management procedures are described in Section 1 of this report.

APPENDIX D – SUMMARY OF PLAN PROVISIONS

The following is a brief summary of the main provisions of the Public Service Shared Risk Plan ("PSSRP") effective January 1, 2014. For an authoritative statement of the precise provisions of the PSSRP, reference must be made to the official PSSRP documents.

INTRODUCTION

Various unions, the Province of New Brunswick and the Minister of Finance, in his capacity as plan governor and administrator of the Former PSSA entered into a Memorandum of Understanding pursuant to which they agreed to convert the Former PSSA to the PSSRP effective on January 1, 2014. As of that date, the Public Service Superannuation Act ("Former PSSA") was repealed by An Act Respecting Pensions Under the Public Service Superannuation Act (New Brunswick) which provided that the Former PSSA be converted to a shared risk plan in accordance with Part 2 of the PBA.

Effective January 1, 2014, the PSSRP is administered by an independent Board of Trustees.

ELIGIBILITY AND PARTICIPATION

Each Member of the Former PSSA joins the PSSRP on January 1, 2014. Active members of the Pension Plan for Part-Time and Seasonal Employees of the Province of New Brunswick who are eligible to join the PSSRP cease active membership in the said plan and are required to join the PSSRP as of January 1, 2014.

Each employee who commences full-time or part-time employment on or after January 1, 2014 is required to join the Plan upon employment. Most of the other categories of employees must join when they become eligible in accordance with the minimum requirements of the PBA.

REQUIRED CONTRIBUTIONS

From January 1, 2014 to March 31, 2014, each member is required to contribute 5.8% of earnings up to the YMPE, plus 7.5% of earnings in excess of the YMPE. From April 1, 2014, each member is required to contribute 7.5% of earnings up to the YMPE, plus 10.7% of earnings in excess of the YMPE.

From January 1, 2014 to March 31, 2014, the employer is required to contribute 8.932% of earnings up to the YMPE, plus 11.55% of earnings in excess of the YMPE. From April 1, 2014, the employer is required to contribute 11.25% of earnings. In addition, the employer will make temporary contributions of 0.5% of earnings for a 5-year period from January 1, 2014, and 0.75% of earnings for the 10-year period from January 1, 2014.

The YMPE is the Year's Maximum Pensionable Earnings under the Canada Pension Plan, and is equal to $52,500 in 2014.

Contribution rates are subject to change in accordance with triggers found under the Funding Policy for the PSSRP.

NORMAL RETIREMENT

The normal retirement date is the first day of the month following the member's sixty-fifth birthday.

A member's annual normal retirement pension is equal to the sum of:

A. In respect of service before January 1, 2014, the product of:

   i. the number of years of the member's pensionable service before January 1, 2014, and

   ii. 1.3% of the annual average of the best five (5) consecutive years of earnings at January 1, 2014, up to the annual average YMPE for the 3 years prior to January 1, 2014, plus 2.0% of the excess of the annual average of the best five (5) consecutive years of earnings at January 1, 2014 over the annual average YMPE for the 3 years prior to January 1, 2014;

and

B. In respect of service from January 1, 2014, the sum of (i) and (ii) for each calendar year (or pro-rated for a portion thereof):

   i. 1.4% of the Member's annualized earnings for the calendar year, up to the YMPE for the calendar year; and

   ii. 2.0% of the portion of the Member's annualized earnings for the calendar year that are in excess of the YMPE for the calendar year.

Pensions accrued above are subject to cost-of-living adjustments, before and after retirement, every January 1st following January 1, 2014, subject to approval by the Board of Trustees, and in accordance with the trigger requirements found under the Funding Policy for the PSSRP.

NORMAL AND OPTIONAL FORMS OF PENSION

The normal form of pension is a pension payable in equal monthly instalments commencing on the member's pension commencement date and continuing thereafter during the lifetime of the member. For a member with a spouse or common-law partner at the time of the member's death, 50% of the member's pension (before application of reductions for early retirement) continues to such spouse or common-law partner in equal monthly instalments for the life of the spouse or common-law partner. Should the member have dependent children at the time of his/her death, such dependent children may be entitled to a pension if there is no spouse or common-law partner or after the death of such spouse or common-law partner. A minimum amount of pension equal to the member's own contribution with interest to retirement will be payable in total.

Optional forms of pension are also available on an actuarially equivalent basis.

EARLY RETIREMENT AND BRIDGE BENEFIT

Early retirement is permitted on or after age 55 if the member has at least 5 years of employment or 2 years of plan membership.

On early retirement, an annual bridge benefit is payable in addition to the lifetime pension found under "Normal Retirement". The annual bridge benefit is payable to age 65 or to the death of the member, if earlier, and is equal to the sum of:

A. In respect of service before January 1, 2014, the product of:

   i. the number of years of the member's pensionable service before January 1, 2014, and

   ii. 0.7% of the annual average of the best five (5) consecutive years of earnings at January 1, 2014 up to the annual average YMPE for the 3 years prior to January 1, 2014;

and

B. In respect of service from January 1, 2014, for each calendar year (or pro-rated for a portion thereof), 0.6% of the Member's annualized earnings for the calendar year up to the YMPE for the calendar year.

The portions of the lifetime pension and bridge benefit accrued for service before January 1, 2014 are unreduced if the pension and bridge commence to be paid at age 60 or later. If such pension and bridge commence to be paid before age 60, they are each reduced by 1/4% per month (3% per year) that the pension and bridge commencement date precedes the first day of the month following age 60.

The portions of the lifetime pension and bridge benefit accrued for service on and after January 1, 2014 are reduced by 5/12% per month (5% per year) that the pension and bridge commencement date precedes the first day of the month following age 65.

BENEFITS ON TERMINATION OF EMPLOYMENT

If a member terminates employment prior to completing five years of continuous employment and prior to completing two years of plan membership, the member is entitled to a refund of the total amount of his/her contributions to the PSSRP and Former PSSA, if any, with interest.

If a member terminates employment before age 55 but after completing at least five years of continuous employment or two years of plan membership, the member may elect to receive:

i. a deferred lifetime pension payable from normal retirement date equal to the accrued pension to which the member is entitled as at his/her date of termination in accordance with the formula specified above for the normal retirement pension; or

ii. to transfer the termination value of the deferred lifetime pension calculated in accordance with the PBA, to a registered retirement savings arrangement as allowed under the PBA.

Members electing a deferred lifetime pension will also be entitled to retire early in accordance with the "Early Retirement" section, and will also be eligible for a bridge benefit.

DEATH BENEFITS

If a member dies prior to completing five years of continuous employment and prior to completing two years of plan membership, the benefit payable is a refund of the member's own contributions to the PSSRP and Former PSSA, if any, with interest.

If the member dies after completing at least five years of continuous employment or two years of plan membership, but before pension commencement, the death benefit is as follows:

i. if there is a spouse or common-law partner:

    - the Termination Value, as defined under the PBA; or
    - a pension of 50% of the accrued lifetime pension;

ii. if there is no spouse or common-law partner, but there are dependent children designated as beneficiaries:

    - a pension of 50% of the accrued lifetime pension split equally among dependent children until they no longer qualify as dependent;

iii. if there is no spouse or common-law partner and no dependent children designated as beneficiaries:

    - the Termination Value, as defined under the PBA, payable to the designated beneficiary(ies) or estate.

Any amount by which the Termination Value, as defined under the PBA, exceeds the aggregate of all pension payments made above, shall be paid to the designated beneficiary(ies) or estate.

In the event of death after pension commencement, the benefit payable is determined in accordance with the form of pension selected by the member at retirement.

PRIMARY PURPOSE, BENEFIT SECURITY AND COST-OF-LIVING ADJUSTMENTS

The primary purpose of the PSSRP is to provide pensions to eligible employees after retirement and until death in respect of their service as employees. A further purpose of this PSSRP is to provide secure pension benefits to members without an absolute guarantee but with a risk-focused management approach delivering a high degree of certainty that full base benefits will be payable in the vast majority of potential future economic scenarios. As a shared risk plan, all future cost-of-living adjustments and other ancillary benefits under the PSSRP shall be provided only to the extent that funds are available for such benefits, as determined by the Board of Trustees in accordance with applicable laws and the Funding Policy.

APPENDIX E – PLAN ADMINISTRATOR CONFIRMATION CERTIFICATE

With respect to the Initial Actuarial Valuation Report of the Public Service Shared Risk Plan as at January 1, 2014 (amended in January 2015), I hereby confirm that to the best of my knowledge:

- the data regarding plan members and beneficiaries provided to Morneau Shepell as at April 1, 2013 constitutes a complete and accurate description of the information contained in our files;
- copies of the official plan text, funding policy and statement of investment policies of the PSSRP and all amendments to date were provided to Morneau Shepell; and
- there are no subsequent events or any extraordinary changes to the plan membership from April 1, 2013 to January 1, 2014, which would materially affect the results.

THE PSSRP BOARD OF TRUSTEES

Signature

Name: LEONARD LEE-WHITE

Title: VICE-CHAIR, PSSRP BOARD OF TRUSTEES

Date: JAN. 19, 2015