

Joint Health Science Benefits Trust

Actuarial Valuation as at December 31, 2017

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March 16, 2018



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Executive Summary

Financial Position

	April 1, 2017 \$000,000s	December 31, 2017 \$000,000s
Assets	0	22.4
Liability	0	21.7
Surplus (Deficit)	0	0.7
Funded Ratio	n/a	103.1%

Contribution Sufficiency

There are no regulations applicable to the Trust specifying the required measure for contribution sufficiency. As well, the Trustees have not yet adopted a formal funding policy setting out funding requirements for the Trust.

In absence of specific rules, we applied the following funding guidelines for determining contribution sufficiency:

Measure	Result	Action
Projected Funding Ratio in 1 year less than 80%	Insufficient Contributions	Parties to be informed and Trustee action to be considered
Projected Funding Ratio in 1 year between 80% and 100%	Sufficient Contributions	Action may be considered
Projected Funding Ratio in 1 year greater than 100%	Sufficient Contributions	No action necessary

We have projected the Funding Ratio to be 107.6% at December 31, 2018. As such, we conclude that the contributions for 2018 are sufficient for current benefits: Contributions plus existing assets are expected to fund outstanding obligations and benefits to be incurred in the following year, leaving the Trust in an acceptable projected financial position at the end of 2018.

Section 1 - Introduction

1.1 Purpose of Actuarial Valuation

We have been retained by the Board of Trustees (the “Trustees”) of the Joint Health Science Benefits Trust (the “Trust”) to conduct an actuarial valuation of the Trust as at December 31, 2017. This is the first actuarial valuation of the Trust.

This report was prepared for its intended users, the Trustees, for the following purposes:

- to provide a summary of the results of the actuarial valuation of the Trust’s financial position to the Trustees;
- to determine the sufficiency of 2018 contributions for the current level of benefits; and
- to review the financial experience of the Trust in the 9-month period ending December 31, 2017.

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The next actuarial valuation for the Trust will be performed as at December 31, 2018.

Note: Totals within this report may not sum due to rounding.

1.2 Purpose of Trust

The Trust was implemented effective on April 1, 2017 with negotiated funding from employers and some funding from employees. The Trustees are charged with using the assets to provide health and welfare benefits to members of the Health Science Professionals Bargaining Association (“HSPBA”).

Section 2 - Financial Position

2.1 Financial Position

The following table describes the Trust's financial positions at December 31, 2017 and April 1, 2017. The liabilities are based on the costs for claims incurred prior to the valuation date.

Financial Positions	April 1, 2017	December 31, 2017
	\$000,000s	\$000,000s
Assets	0	22.4
Liabilities		
Admitted LTD claims (reported)	0	5.7
Long-term disability (IBNR)	0	9.9
Active extended health (IBNR)	0	2.5
Active dental (IBNR)	0	0.6
Active group life and AD&D (IBNR)	0	0.1
Extended health for disabled claimants	0	2.1
Dental for disabled claimants	0	0.3
Group life and AD&D for disabled claimants	0	0.6
Total Liability	0	21.7
Surplus/(Deficit)	0	0.7
Funded Ratio	n/a	103.1%

The financial position of the Trust improved in the 9-month period ending December 31, 2017 by \$0.7 million.

Section 3 - Contribution Sufficiency

3.1 Proposed Measure

There are no regulations applicable to the Trust specifying the required measure for contribution sufficiency. As well, the Trustees have not yet adopted a formal funding policy setting out funding requirements for the Trust.

In absence of specific rules, we applied the following funding guidelines for determining contribution sufficiency:

Measure	Result	Action
Projected Funding Ratio in 1 year less than 80%	Insufficient Contributions	Parties to be informed and Trustee action to be considered
Projected Funding Ratio in 1 year between 80% and 100%	Sufficient Contributions	Action may be considered
Projected Funding Ratio in 1 year greater than 100%	Sufficient Contributions	No action necessary

3.2 2018 Contributions

Employers contribute to the Trust using different contribution rates, to achieve aggregate negotiated employer contributions. In addition, employees contribute to the Trust. The anticipated contributions and payroll during 2018 are summarized in the table below:

	To March 31, 2018 \$000,000s	From April 1, 2018 \$000,000s	2018 Total \$000,000s
Anticipated Employer Contributions	16.8	54.5	71.4
Anticipated Employee Contributions	2.1	6.5	8.5
Anticipated Total Contributions	18.9	61.0	79.9
Anticipated Straight-time Payroll	238.8	729.4	968.2

3.3 2018 Cost of Benefits

For a given period, the cost of benefits is equal to the sum of the benefit payments and expenses and the change in reserve. The following table summarizes the anticipated cost of benefits by line of benefit during 2018:

	Benefit Payments Plus Expenses¹ \$000,000s	Change in Reserve \$000,000s	2018 Cost of Benefits \$000,000s
Long-term Disability	4.7	19.4	24.2
Extended Health	34.3	0.5	34.8
Dental	19.2	0.0	19.2
Life and AD&D	0.4	0.0	0.4
Total	58.6	20.0	78.6
Anticipated Straight-time Payroll	968.2	968.2	968.2

3.4 Projected Financial Position

We have projected the December 31, 2018 financial position as follows:

	December 31, 2017 \$000,000s	December 31, 2018 \$000,000s
Assets	22.4	45.0
Liability	21.7	41.7
Surplus (Deficit)	0.7	3.2
Funded Ratio	103.1%	107.8%

3.5 Projected Financial Position

Applying the measure proposed above, we conclude that contributions are sufficient in 2018. Contributions plus existing assets are expected to fund outstanding obligations and benefits to be incurred in the following year, leaving the Trust in an acceptable projected financial position at the end of 2018.

¹ Includes claims adjudication expenses and excludes operating expenses

Section 4 - Sensitivity Testing

Sensitivity tests have been conducted on certain assumptions, as prescribed by actuarial standards of practice.

4.1 Discount Rate Sensitivity

As the assumed discount rate has a significant impact on the Trust's liabilities, actuarial standards of practice require that the impact on the liabilities of a 1% decrease in the assumed discount rate be disclosed.

The following table shows the effect of a 1.0% decrease in the discount rate:

Discount Rate Change	Revised Liability (\$000,000s)	Original Liability (\$000,000s)	Change in Liability (\$000,000s)
-1.0%	22.7	21.7	1.0

4.2 EHC and Dental Escalation Rate Sensitivity

The EHC escalation rate used within the valuation is 12% in the next year, decreasing by 0.57% per year to an ultimate escalation rate of 3.5% per annum. The dental escalation rate used within the valuation is 3.5% per annum.

The following table shows the effects of a 1.0% increase in the EHC and dental escalation rates:

+1.0% Rate Change	Revised Liability (\$000,000s)	Original Liability (\$000,000s)	Change in Liability (\$000,000s)
EHC Escalation	21.8	21.7	0.1
Dental Escalation	21.8	21.7	0.1

Section 5 - Actuarial Opinion

This opinion is given with respect to the Trust. We conducted a valuation of the Trust as at December 31, 2017. The administrator has confirmed that, between December 31, 2017 and the date of this report, no subsequent events nor any extraordinary changes to the beneficiaries or plan provisions that would materially affect the results of this valuation have occurred, except as indicated in this report.

In our opinion, for the purposes of this report:

- The beneficiary 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; and
- The methods employed in the valuation are appropriate for the purposes of the valuation.

We hereby certify that, in our opinion, as at December 31, 2017:

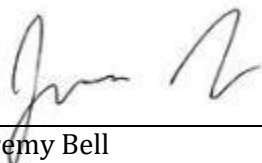
1. The Trust is fully funded. The assets exceeded the liability by \$0.7 million. The funded ratio is 103.1%.
2. Contributions in 2018 are sufficient: Contributions plus existing assets are expected to fund outstanding obligations and benefits to be incurred in 2018, leaving the Trust in an acceptable projected financial position at the end of 2018.
3. I am not aware of any subsequent events, that have not already been taken into consideration, that could materially affect the results of this valuation.
4. The next valuation should be conducted no later than as at December 31, 2018.

The content herein has been prepared exclusively from a financial viewpoint. This report does not constitute a legal opinion on the rights and duties of the administrator, the Trustees or the beneficiaries concerning the Trust.

Actuarial valuation results are estimates only and are based on assumptions and methods developed in accordance with actuarial standards of practice. Emerging experience differing from the assumptions used will result in gains or losses which will be revealed in future valuations, and which may affect future actuarial opinions.

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

We would be pleased to discuss any questions the user may have regarding the valuation.



Jeremy Bell
Fellow, Canadian Institute of Actuaries
March 16, 2018



Michael Greschner
Fellow, Canadian Institute of Actuaries
March 16, 2018

Appendix A - Plan Provisions

A.1 Plan Provisions

The primary benefits provided by the Trust are Life Insurance, Accidental Death and Dismemberment (AD&D), Long Term Disability (LTD), Dental and Extended Health Care (EHC). The following summary was provided to us by the Healthcare Benefit Trust and capture the major standard plan provisions in effect as at December 31, 2017.

Provisions	JHSBT Plan Provisions
Group Life	
Benefit Amount	\$50,000
Advance Payment	50% to a maximum of \$25,000
Reduction at age 65	None
Termination Age	None
AD&D	
Benefit Amount	\$50,000
Reduction at age 65	None
Termination Age	None
LTD	
Benefit Amount	70% of the first \$6,089* (as at Apr 1/17) of basic monthly earnings and 50% of the excess or 66-2/3% of basic monthly earnings, whichever is greater (*adjusted annually for new claims based on increases in the weighted average wage rate)
Maximum Benefit	None
Indexing	Adjustments every 4 years based on compounded annual increases in weighted average wage rate for most recent 4 years
Qualification Period	5 months
Own Occupation Period	24 months
Own Occupation Definition	The employee's inability to perform the duties of his/her own occupation or any available position that is not less than 75% of pre-disability earnings.
Any Occupation Maximum	70% of current rate of pay
Pre-Existing Condition Clause	No
Early Retirement Incentive Benefit	Provided, with 50/50 cost sharing of EHC & Dental
Termination Age	65

Provisions	JHSBT Plan Provisions
Dental	
Basic	100%
Basic - Recall Exams	2 per calendar year
Major	60%
Orthodontics	60%
Orthodontics Lifetime Maximum	\$2,750
PBC Fee Schedule	No. 2
Termination Age	None
Extended Health	
Deductible	\$100.00
Reimbursement	80% up to \$1,000 claims paid per family per calendar year; 100% thereafter (except Drugs & Vision Care)
Lifetime Maximum	Unlimited
Drug Formulary	PharmaCare drugs, Prometrium and drugs that have received Special Authority reimbursed at 100%; Non-PharmaCare drugs reimbursed at 50%
Drug Pricing Restrictions	Low Cost Alternative and Reference Drug Pricing as established by BC PharmaCare
Mark-Up Limit	As established by BC PharmaCare
Dispensing Fee Cap	As established by BC PharmaCare
Pay-Direct Drug Card	Yes
Acupuncture	\$100 per person per year
Chiropractor	\$200 per person per year
Massage Therapy	Unlimited
Naturopath	\$200 per person per year
Physiotherapy	Unlimited
Podiatrist	\$400 per person per year
Registered Clinical Psychologist & Clinical Counselor	\$900 per person per year combined maximum
Speech Therapist	\$100 per person per year
Vision Care	\$350 per person every 24 months
Eye Exams	Not covered
Hearing Aids	\$600 per person every 48 months
Termination Age	None

Appendix B - Claimant and Claims Data

B.1 Source of Data

In performing the calculations for this valuation, we obtained data from the Trust and its service providers.

LTD claimant data was provided to the Healthcare Benefit Trust by Great-West Life. We received this information from the Healthcare Benefit Trust.

For benefits aside from LTD, the actuarial valuation does not require individual claim data to perform the valuation. Reserves held are based on the aggregate payments in recent periods or are held constant. Aggregate claims and contribution data are collected from the Healthcare Benefit Trust. The data is provided to the Healthcare Benefit Trust from Pacific Blue Cross (EHC and dental) and Great-West Life (life and AD&D).

In performing this valuation, we use asset data and financial statements provided to us by the Healthcare Benefit Trust. The calculation of the asset position of the Trust within this report is detailed in Appendix C.

We have reviewed the data to ensure its sufficiency and reliability and confirm that the provided data was sufficient and reliable for the purpose of this valuation.

B.2 Summary of LTD Claims Data

The following tables summarize the composition of LTD claimants at December 31, 2017:

Duration of Disability	Age at Disability					Total
	Under Age 30	30 – 39	40 – 49	50 – 59	Age 60 and Over	
< 1 year	1	6	9	23	2	41
1 to 2 years	0	0	0	0	0	0
2 to 3 years	0	0	0	0	0	0
3 to 5 years	0	0	0	0	0	0
5 to 10 years	0	0	0	0	0	0
> 10 years	0	0	0	0	0	0
Total	1	6	9	23	2	41

The following table summarizes the total net monthly LTD income after assumed CPP approval of disabled employees at December 31, 2017:

Duration of Disability	Age at Disability					Total
	Under Age 30	30 – 39	40 – 49	50 – 59	Age 60 and Over	
	\$	\$	\$	\$	\$	\$
< 1 year	2,000	18,000	27,000	74,000	8,000	129,000
1 to 2 years	0	0	0	0	0	0
2 to 3 years	0	0	0	0	0	0
3 to 5 years	0	0	0	0	0	0
5 to 10 years	0	0	0	0	0	0
> 10 years	0	0	0	0	0	0
Total	2,000	18,000	27,000	74,000	8,000	129,000

B.3 Changes in LTD Claimant Data

The following table shows the changes in the LTD claimants since April 1, 2017:

Reconciliation of LTD Claimant Data	Number of Claimants
As at April 1, 2017	0
New entrants	45
Claim terminations	(4)
As at December 31, 2017	41

Appendix C - Assets

C.1 Asset Information

The asset position is calculated from the Trust's financial statements as provided by the Healthcare Benefit Trust.

The table below shows the development of these assets from April 1, 2017 to December 31, 2017:

Calculation of Asset Position²	\$000,000s
Assets – April 1, 2017	0.0
Employer contributions	50.9
Employee contributions	6.2
Investment return (net of investment expenses)	0.3
Benefit payments ³	
- LTD	(0.2)
- EHC	(20.1)
- Dental	(12.9)
- Life/AD&D	(0.4)
Non-investment expenses	(1.4)
Assets – December 31, 2017	22.4

² Accrued to December 31, 2017

C.2 Asset Mix

Invested assets are held and invested by the Healthcare Investment Unit Trust (“HIUT”). The following table shows the actual and long-term policy asset mixes at December 31, 2017 of the Trust:

Asset Class	Actual	Long-Term Policy
Fixed Income		
Short term	9.0%	2.0%
Universe bonds	40.7%	18.0%
Subtotal	49.7%	20.0%
Equity		
Canadian Equity	15.2%	10.0%
Global Equity	31.0%	22.0%
Emerging Market Equities	4.1%	8.0%
Subtotal	50.3%	40.0%
Alternatives		
Infrastructure	0.0%	25.0%
Real Estate	0.0%	15.0%
Subtotal	0.0%	40.0%
Total	100.0%	100.0%

C.3 Asset Valuation

The asset position is taken as the market value of assets at December 31, 2017. Reliance is placed on the provided Financial Statements for the appropriate valuation of the assets.

Appendix D - Actuarial Methods

D.1 Actuarial Cost Method

The liabilities at the valuation date were calculated as the expected present value of future benefits for claims incurred up to the valuation date, where future payments incorporate future indexing. This actuarial method may be referred to as a “unit credit” cost method, although a unit credit method generally implies some accumulation in liabilities rather than event-driven liabilities.

D.2 Asset Valuation Method

The market value of the assets has been used as the assets.

D.3 Provision for Adverse Deviation (PfAD)

The Trust’s liabilities have been calculated on a best estimate basis.

D.4 Liability Valuation Methodology

The following outlines the methodology used for calculating the liability for each line of benefit. Future costs are discounted to the present assuming cash flows occur at the middle of each month. The liabilities for reported disabled claimants are calculated on an individual basis, whereas the liabilities related to incurred but not reported claims are determined on an aggregate basis.

Admitted LTD claims (Reported)

The liability for admitted (reported) LTD claims is equal to the actuarial present value of projected future benefit payments for LTD claimants as of December 31, 2017. The actuarial present value is calculated by applying the probability of receipt of disability (i.e., probability of the claim not terminating) to the projected benefit claim costs at future ages for each LTD claimant, and further discounted by the interest rate assumption to the calculation date.

LTD (IBNR)

The liability for incurred but not reported LTD claims is calculated by taking the product of the LTD IBNR assumption shown in Appendix E and the Straight-Time Payroll (“STP”) for the prior 12 months. The calculated IBNR has been adjusted to a 9 month basis as the Joint Trust is responsible for claims incurred in the 9 month period from April 1, 2017 to December 31, 2017.

Active extended health and dental (IBNR)

The liability for incurred but not reported extended health and dental claims is calculated by taking the product of the extended health and dental IBNR assumptions shown in Appendix E and the total

extended health and dental claims and expenses paid in the 12 months ending at the valuation date, including HSPBA claims paid outside of the Joint Trust.

Active group life and AD&D (IBNR)

The liability for incurred but not reported group life and AD&D claims is assumed to be \$100,000.

Extended health and dental for disabled claimants

The liabilities for extended health and dental costs for disabled claimants is calculated as the product of the average annuity factor for each line of benefit across all LTD claimants, the count of disabled claimant at the valuation date and the estimated annual difference between benefit claims and expected employee contributions for the average disabled claimant. The annuity factors incorporate the future benefit cost escalation assumptions listed in Appendix E.

The extended health and dental IBNR for disabled claimants is equal to the ratio of the LTD (IBNR) to the admitted LTD claims liability, multiplied by the liabilities for extended health and dental costs for disabled claimants.

Group life and AD&D for disabled claimants

The liability for group life and AD&D is calculated as the present value of a payment at the life volume using the mortality assumption.

The group life and AD&D IBNR for disabled claimants is equal to the ratio of the LTD (IBNR) to the admitted LTD claims liability, multiplied by the liabilities for group life and AD&D costs for disabled claimants.

Appendix E - Actuarial Assumptions

E.1 Liability Assumptions

The valuation is based on the assumption that the Trust will continue to pay for benefits indefinitely into the future related to disabilities already incurred at the valuation date. At each valuation, past experience is compared to the assumptions made at the last valuation to determine if, together with known changes to plan provisions, investment policy, and expectations of future trends, the assumptions should be changed.

The table below summarizes the assumptions used in the calculation of the Trust's December 31, 2017 actuarial liabilities:

Assumptions	December 31, 2017								
<i>Economic</i>									
Discount rate	5.8% per year								
Retroactive CPP	Where CPP is assumed, retroactive CPP to a maximum of 18 months is assumed								
Potential CPP benefits	Potential CPP benefits are calculated based on the following information (as set by the Canada Pension Plan): 2018 flat CPP monthly amount: \$485.20 2018 maximum CPP monthly amount: \$1,335.83.								
Benefit indexing (indexing to wage increases)	Annual wage increases of 1.5% are assumed, except where negotiated wage increases are known. Where negotiated wage increases are known, these apply.								
Benefit indexing (indexing to CPI)	2.0% per year								
Future expenses as a percentage of claims payments	<table style="border: none;"> <tr> <td style="padding-right: 20px;">Disability Income</td> <td>4%</td> </tr> <tr> <td>Extended health</td> <td>4%</td> </tr> <tr> <td>Dental</td> <td>4%</td> </tr> <tr> <td>Life</td> <td>4%</td> </tr> </table>	Disability Income	4%	Extended health	4%	Dental	4%	Life	4%
Disability Income	4%								
Extended health	4%								
Dental	4%								
Life	4%								
Extended health escalation	Extended health costs for disabled employees are assumed to increase by 12.0% in the first year and decreasing by 0.57% per year until reaching the ultimate escalation rate of 3.5% per annum.								
Dental escalation	Dental costs for disabled employees are assumed to increase by 3.5% per annum.								
<i>Demographic</i>									
Termination from disability	Assumed based on adjustments for the Trust's experience applied to the aggregate female non-Quebec termination table published in of the CIA Report entitled "Canadian Group Long-Term Disability Termination experience 2004-2008." Tables of adjustments are provided below.								

Assumptions	December 31, 2017
Mortality	Assumed to be in accordance with the mortality tables for males and females in the CIA report entitled "Canadian Group Long-Term Disability Termination Experience 1988-1994". Table of approval rates is provided later in this report.
CPP approval	Rates are based on age and duration since disability. Where CPP is approved, retroactive CPP to a maximum of 18 months is assumed.
<i>Incurred but not reported</i>	
Life and accidental death & dismemberment (AD&D)	\$100,000
Long-term disability	1.3% of Straight Time Payroll for the preceding 12 month period.
Active extended health	Calculated as 31/365ths of the extended health care payments and expenses from the last 12 months.
Active dental	Calculated as 12/365ths of the dental payments and expenses from the last 12 months.
Disabled non-income benefits (extended health, dental and life)	Ratio of LTD IBNR liability to reported LTD liability applied to the corresponding liability for reported active LTD claims

Termination from disability

For the December 31, 2017 valuation, we used the CIA 2004-2008 non-Quebec, female termination table with the following adjustments:

Duration (months)	Proposed Assumption
Less than 24	80%
24-30	270%
31-60	75%
Greater than 60	150%

CPP approval

The following table presents the assumption for the probability of eventual CPP qualification for claims that are not in receipt of a CPP offset:

Duration (months)	Proposed Assumption
Less than 24	30%
24-36	40%
37-60	50%
Greater than 60	20%

E.2 Projection Assumptions

In projecting the December 31, 2018 financial position, we have assumed the following:

Assumption		Source
IBNR as a percentage of claims payments and allocated expenses from the prior 12 months		
EHC IBNR	31/365ths	Assumptions Review
Dental IBNR	12/365ths	Assumptions Review
Projected Claims Adjudication Expenses as a percentage of claims paid		
EHC	2.59%	HBT
Dental	2.48%	HBT
Life/AD&D	3.00%	HBT
LTD	2.91%	HBT
Projected Operating Expenses		
January 1, 2018 to December 31, 2018	\$713,000	HBT
Investment Return		
From January 1, 2018	5.8%	George & Bell
Other		
LTD Service Cost	2.46% of Straight-time Payroll	JHSBT April 1, 2018 Self-Pay Rates
Non-Operating Expense LTD Cost Factor	4.12%	Historical HBT experience
GL IBNR	\$100,000	Assumptions Review
April 1, 2018 wage rate increase	1.91%	HEABC
EHC Trend Rate	12.0% per annum	Assumptions Review
Dental Trend Rate	3.5% per annum	Assumptions Review

Straight-time Payroll Projection

STP is projected based on the following:

- Estimates from Health Authorities; and
- Reported STP from April 1, 2017 to December 31, 2017 for Affiliates with negotiated wage rate increases applied at April 1, 2018.

Contributions Projection

Employer and employee contributions are estimated based on the negotiated/estimated rates and the projected STP.

Claims/Liability Projection

LTD claims payments are projected as follows:

- (A) A listing was developed of open claims at December 31, 2016 with a DOD in the prior 2 years. The monthly claims payments from January 1, 2015 for these claims were estimated based on the net benefit from the Date of Benefit Start to December 31, 2016. These monthly claims payments were then assumed to approximate claims payments from April 1, 2017, adjusted for actual claims payments made;
- (B) The net benefit for terminated claims in 2015 and 2016 with a DOD in the 2 years prior to December 31, 2016. The same methodology in (A) was applied to these claims, assuming claims payments from the Date of Benefit Start to the Termination Date;
- (C) The assumed Non-Operating Expense LTD Cost Factor is applied to (A) and (B) to cover costs allocated to LTD which are not paid directly to claimants, such as rehabilitation program and early intervention program costs.

The LTD liability is projected to be:

- (A) LTD liability at valuation date;
- (B) Plus: projected STP from the last valuation date to the projection date x the assumed LTD service cost;
- (C) Less: projected claims payments from the last valuation date;
- (D) Less: the estimated LTD portion of claims adjudication and operating expenses; and
- (E) Plus: estimated interest.

EHC and Dental claims are projected based on actual claims paid for the prior 6 months adjusted for the assumed trend rate.

The EHC and Dental active IBNR liabilities are projected to be equal to the projected active claims and allocated expenses x the IBNR assumption. The liability is projected to increase in a linear manner from 0 to the full amount after 3 months.

Group Life and AD&D claims are projected based on actual claims paid in the past 3 years. The Group Life and AD&D active IBNR liability is assumed to be \$100,000.

Asset Projection

The asset is projected to be:

- (A) Current asset;
- (B) Plus: projected contributions;
- (C) Less: projected claims payments;
- (D) Less: projected claims adjudication expenses;
- (E) Less: projected operating expenses; and
- (F) Plus: estimated investment income.

Appendix F - Detailed Results and Claims Movement

F.1 LTD Liability Results

The table below shows the results of the LTD Income (Reported) liability by duration of disability and age at disability (\$000,000s).

Duration of Disability	Age at Disability					Total
	Under Age 30	30 – 39	40 – 49	50 – 59	Age 60 and Over	
	\$	\$	\$	\$	\$	\$
< 1 year	0.1	0.9	1.4	3.1	0.2	5.7
1 to 2 years	0	0	0	0	0	0
2 to 3 years	0	0	0	0	0	0
3 to 5 years	0	0	0	0	0	0
5 to 10 years	0	0	0	0	0	0
> 10 years	0	0	0	0	0	0
Total	0.1	0.9	1.4	3.1	0.2	5.7

F.2 LTD Claims Movement

The table below shows the movement of active LTD claims by major employer group within the Trust.

Employer	Claims as at Apr 1, 2017	Termination Reasons							New Entrants	Claims as at Dec 31, 2017
		Age 65	Death	Return to Work	ERIB	Change of Definition	Retired / Resigned	Other		
Fraser	0	0	0	0	0	0	0	0	4	4
Coastal	0	0	0	(1)	0	0	0	0	9	8
Island	0	0	0	(2)	0	0	0	0	11	9
Interior	0	0	0	0	0	0	0	0	6	6
Northern	0	0	0	(1)	0	0	0	0	4	3
Provincial	0	0	0	0	0	0	0	0	8	8
Providence	0	0	0	0	0	0	0	0	1	1
Affiliates	0	0	0	0	0	0	0	0	2	2
Total	0	0	0	(4)	0	0	0	0	45	41

F.3 LTD Cost by Date of Disability and Reported Claim

The table below shows the development of LTD costs (including non-income related benefits) by date of disability and date of reported claim. Reserves are calculated using latest assumptions, including:

- LTD Reported reserve; and
- Estimated LTD Unreported reserve.

DOD	Present Value of Claims Payments Plus Expenses at December 31, 2017 (by Date of Reported Claim)			LTD Reserve at December 31, 2017 ⁴	Total	Cost of LTD ⁵	Straight-time Payroll		Total Cost as % of STP
	Apr 1, 2017- Jun 30, 2017	Jul 1, 2017- Sep 30, 2017	Oct 1, 2017- Dec 31, 2017				Actual	PV	
	\$	\$	\$	\$	\$	\$	\$	\$	\$
Apr 1, 2017- Jun 30, 2017	0	5,000	247,000	5,311,000	5,563,000	6,480,000	237,204,000	242,310,000	2.67%
Jul 1, 2017- Sep 30, 2017	0	0	14,000	4,986,000	5,000,000	5,825,000	240,653,000	245,834,000	2.37%
Oct 1, 2017- Dec 31, 2017	0	0	0	5,293,000	5,293,000	6,167,000	241,324,000	246,519,000	2.50%
Total	0	5,000	261,000	15,590,000	15,856,000	18,472,000	719,181,000	734,663,000	2.51%

⁴ Includes estimated LTD IBNR

⁵ Adjusted for assumed cost of non-income related benefits for disabled employees and rehabilitation costs

Appendix G - Data Certificate

With respect to the information used within this report, I hereby confirm that to the best of my knowledge and belief:

- LTD claimant data provided to the actuaries and summarized in Appendix B and Appendix F are a complete and accurate description of all individuals meeting the definition of disability under the Trust;
- The financial data provided to the actuaries and summarized in Appendix B are a complete and accurate representation of the contributions, claims and expenses by benefit line and notional pool;
- The plan provisions summarized in Appendix A are an accurate description of the plan provisions in effect at the valuation date; and
- There have been no events subsequent to the valuation date, up to the report date, that would materially change the December 31, 2017 valuation results or the Trust's financial position or cost.



Sarah Hoffman
Chief Executive Officer



Elisabeth Whiting
Executive Director, Client Service &
Stakeholder Relations