

MANITOBA PUBLIC INSURANCE

2023 GENERAL RATE APPLICATION
Round 1 Information Requests
August 30, 2022

Public Utilities Board (PUB)



MANITOBA
PUBLIC INSURANCE

PUB (MPI) 1-1

Part and Chapter:	Part I Application	Page No.:	
PUB Approved Issue No:	1. Requested Vehicle Rate and Any Changes to Other Fees and Discounts 8. Cost of Operations and Cost Containment Measures 18. Capital management plan 19. Current IT Strategic Pan and IT Expenses and Projects, including Project Nova and other initiatives		
Topic:			
Sub Topic:			

Preamble to IR:

Question:

Please file the Corporation’s Board of Directors and Audit Committee meeting minutes relating to:

- a) Approval of the 2023 GRA
- b) Asset Liability Management/Investment Strategy;
- c) IT Optimization/Project Nova/BTO Projects
- d) IT Project Impairment;
- e) RSR or Total Equity Targets/FCT;
- f) Capital Build and Release provisions;
- g) Capital Management Plan
- h) All major contracts that impact operational costs; and
- i) Approval of Extension Profit Margin for 2023/24.
- j) Extension Transfer of Retained Earnings
- k) Corporate Risk Management
- l) DSR Changes

Rationale for Question:

To understand Corporate decisions that affect Basic.

RESPONSE:

Please find below and attached the responses as follows:

- a) Approval of the 2023 GRA: Records are provided as *PUB (MPI) 1-1(a) Appendix 1 Board of Directors Mtg Mins Jun23 2022*
- b) Asset Liability Management/Investment Strategy;
There are no mentions in our Board and Audit & Finance Committee Minutes related to this topic. Records from the Investment Committee Minutes related to this topic are provided as attachment *PUB (MPI) 1-1(b) Appendix 2 Board of Directors Committee Mtg Mins Invest Com Mins Aug5 2021*
- c) IT Optimization/Project Nova/BTO Projects
Project Nova updates are provided at all Technology Committee meetings that took place between April 1, 2021 and March 31, 2022. Records are provided as *PUB (MPI) 1-1(c) Appendix 3 Technology Committee Minutes May 20 2021*
- d) IT Project Impairment;
There are no mentions of these topics in our Board or Committee meetings within this past year, these records do not exist.
- e) RSR or Total Equity Targets/FCT;
Records are provided as *PUB (MPI) 1-1(e) Appendix 4 Board of Directors Committee Mtg Mins Audit Fin Risk Sep29 2021*
- f) Capital Build and Release provisions;
There are no mentions of these topics in our Board or Committee meetings within this past year, these records do not exist.

- g) Capital Management Plan: Records are provided as PUB (MPI) 1-1(g) Appendix 5 Board of Directors Committee Mtg Mins Audit Fin Risk Aug12 2021
- h) All major contracts that impact operational costs; and
Records are provided as PUB (MPI) 1-1(h) Appendix 6 Board of Directors Mtg Mins May10 2021
- i) Approval of Extension Profit Margin for 2023/24.
There are no mentions of these topics in our Board or Committee meetings within this past year, these records do not exist.
- j) Extension Transfer of Retained Earnings
Records are provided as PUB (MPI) 1-1(j) Appendix 7 Board of Directors Mtg Mins Mar24 2022
- k) Corporate Risk Management
Enterprise Risk Management Records are provided as PUB (MPI) 1-1(k) Appendix 8 Board of Directors Committee Mtg Mins Audit Fin Risk Jun24 2021
- l) DSR Changes
See Appendix 1 above.



**Manitoba
Public Insurance**

Board of Directors Meeting

Meeting Date: Thursday, June 23, 2022, 1:00 p.m.

Place: Executive Office, 234 Donald Street, Winnipeg, Manitoba
Virtual and In Person

Present: DR. M. SULLIVAN, CHAIR
MR. R. CHALE
MS. C. HALBERT
MR. K. KLIPPENSTEIN
MR. G. LEIPSIC
MR. K. MUNROE
MR. J. ROBSON
MR. G. STEFANSON
MR. E. HERBELIN, PRESIDENT & CEO

Regrets: MS. D. ROUSIN
MR. D. GRESTONI

Management: MR. M. TRIGGS, GENERAL COUNSEL & CORPORATE
SECRETARY

Board of Directors Meeting**Date:** June 23, 2022**Page:** 5 of 8**22-074 2023 General Rate Application**

Ms. Low and Mr. Dunstone presented Agenda Item 4.1 2023 General Rate Application.

Moved by Mr. Munroe and seconded by Mr. Robson that the Members approve the following to be filed as part of the 2023/24 Basic Rate submission:

1. Basic break-even rate change of -0.9%.
2. The overall Basic rate decrease of -0.9%, be allocated to the higher DSR vehicle discount levels that have the most significant need for rate decreases based on actuarial indications.
3. The top of the DSR scale be expanded from DSR +16 to DSR +17 in 2023/24, with plans to allow the scale to expand organically (i.e. 1 step per year) to at least DSR +20 in future years. The discount at DSR +17 will remain the same as DSR +16 for the first year.
4. Elimination of the 5% Capital Release Provision currently included on top of the Basic Rates.

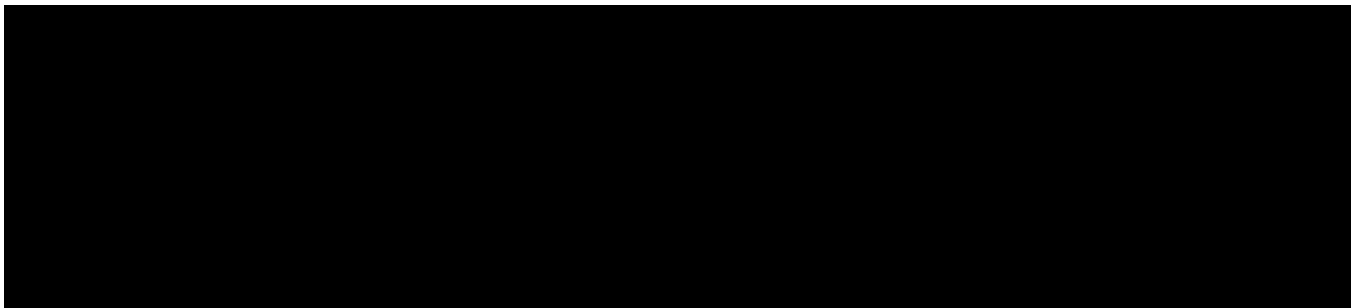
CARRIED

Board of Directors - Committee Meeting

INVESTMENT COMMITTEE MINUTES

Date: August 5, 2021

Page: 2 of 3



**Update on
Moment Matching
ALM Strategy**

Mr. Bunston presented Agenda Item C.1 Update on Moment Matching – ALM Strategy.

Following discussion, Members received the report as information.

Messrs. Robert, Benoliel and Mariamo withdrew from the meeting.

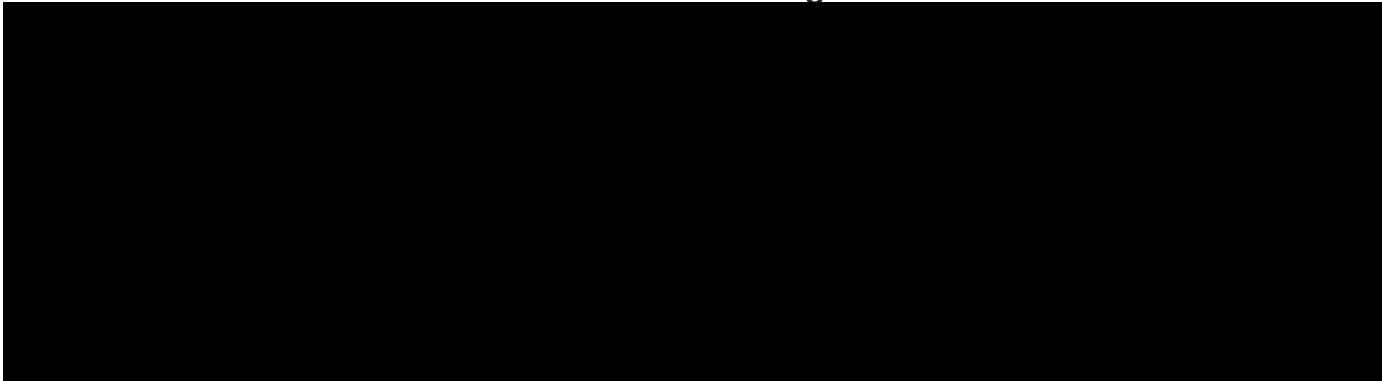


Board of Directors - Committee Meeting

INVESTMENT COMMITTEE MINUTES

Date: February 10, 2022

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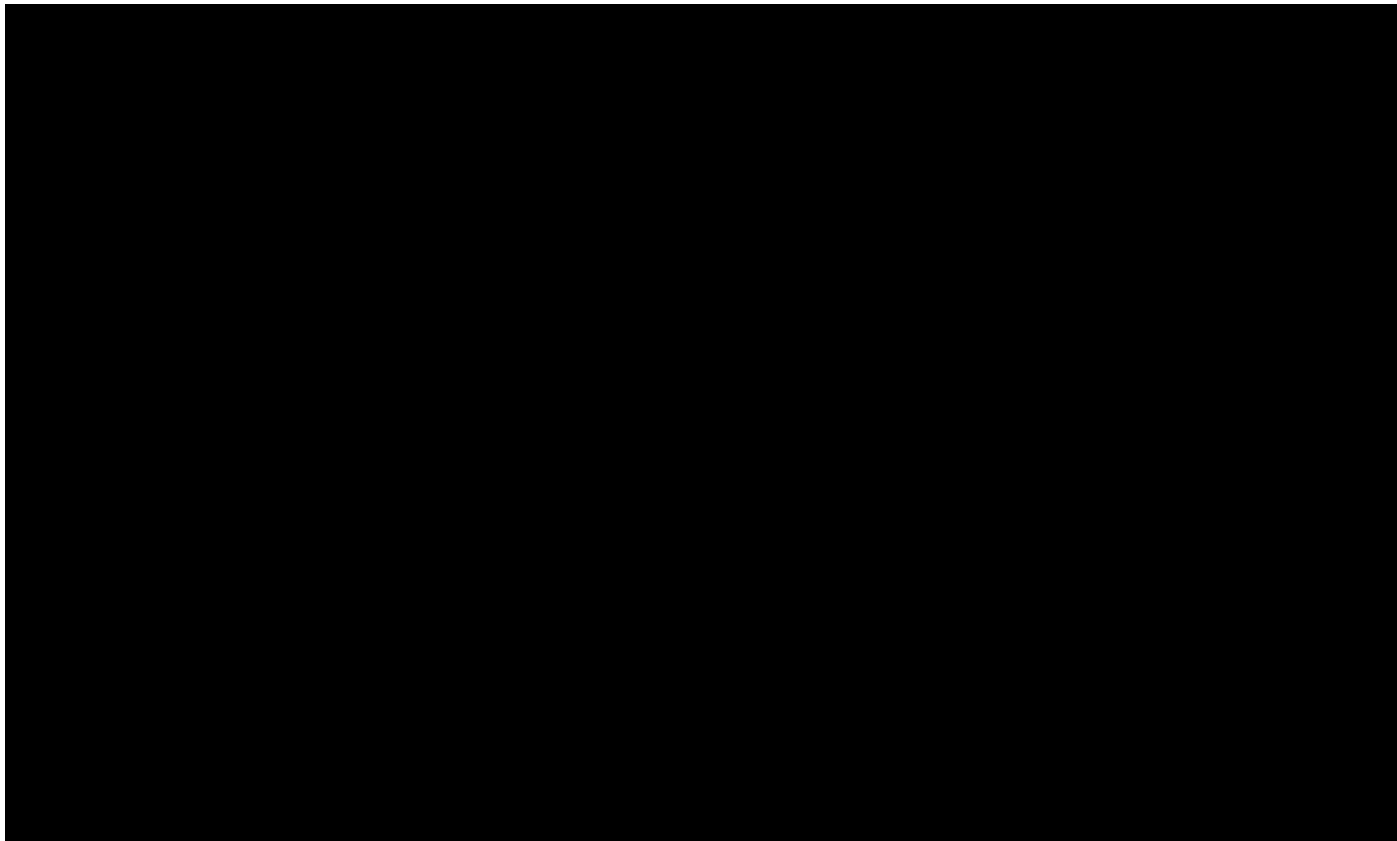


**New Asset
Liability
Management
Study**

Mercer Representatives Messrs. Angelo DiNoto, Neil Lloyd, David Willers, Jeff Bunce, and Ms. Samantha Allen joined the meeting to present Agenda Item 2.1 New Asset Liability management Study.

Following discussion, Members received the report as information.

Mercer Representatives Messrs. DiNoto, Lloyd, Willers, Bunce, and Ms. Allen withdrew from the meeting.

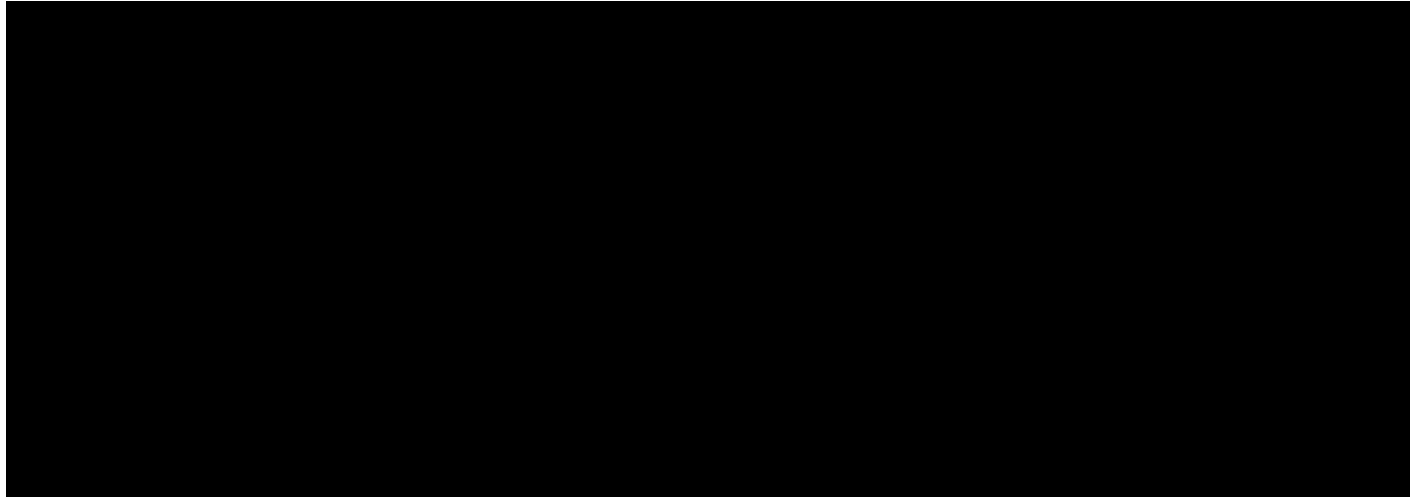


Board of Directors - Committee Meeting

INVESTMENT COMMITTEE MINUTES

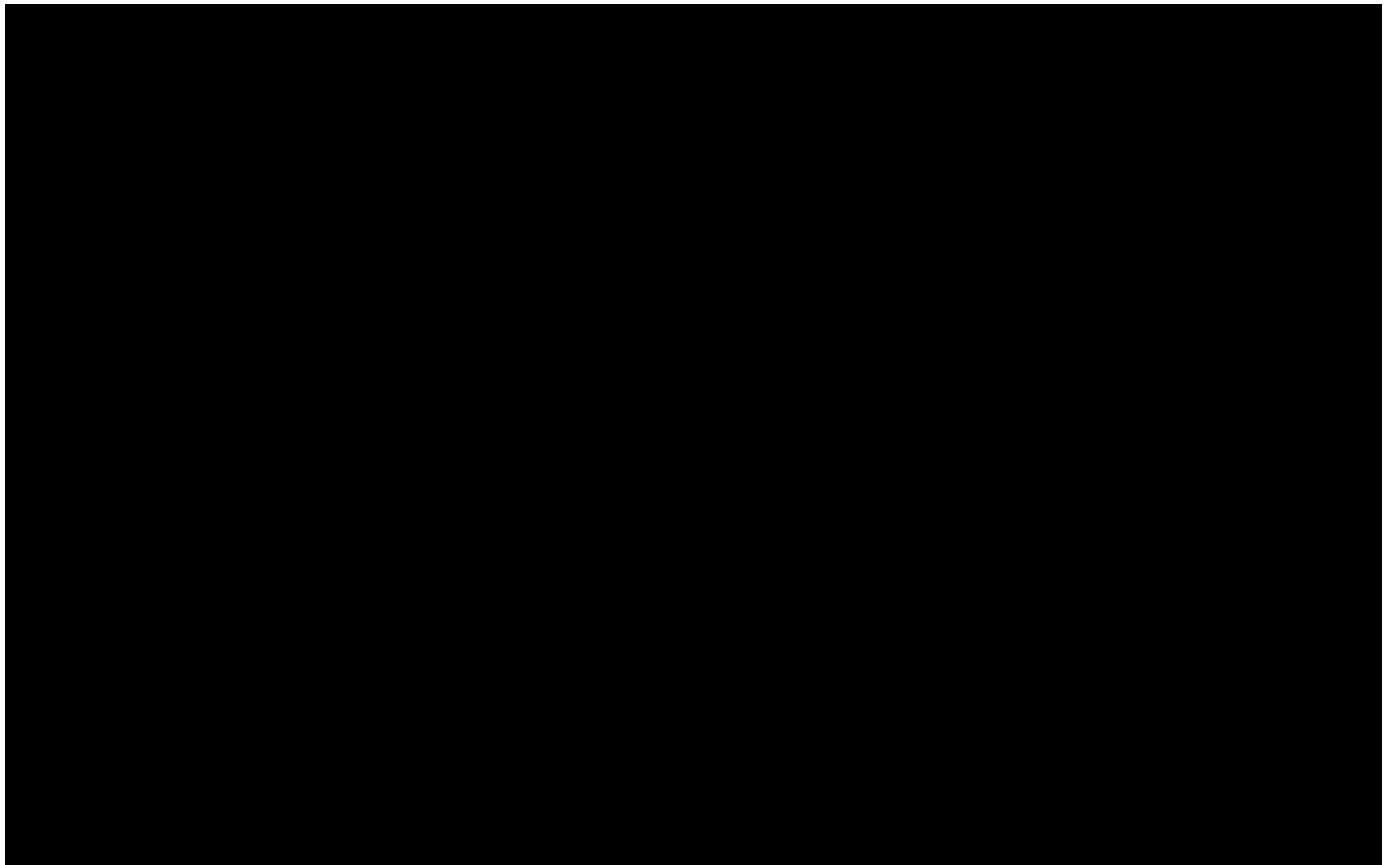
Date: February 10, 2022

Page: 3 of 3



**Asset Liability
Management
Strategy –
Moment Matching**

Members received Agenda Item 5.4 Asset Liability Management Strategy as information.

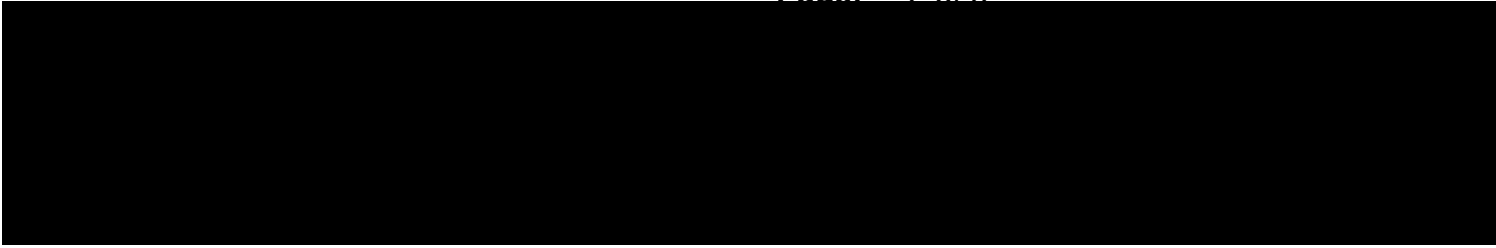


Board of Directors - Committee Meeting

INVESTMENT COMMITTEE MINUTES

Date: June 21, 2022

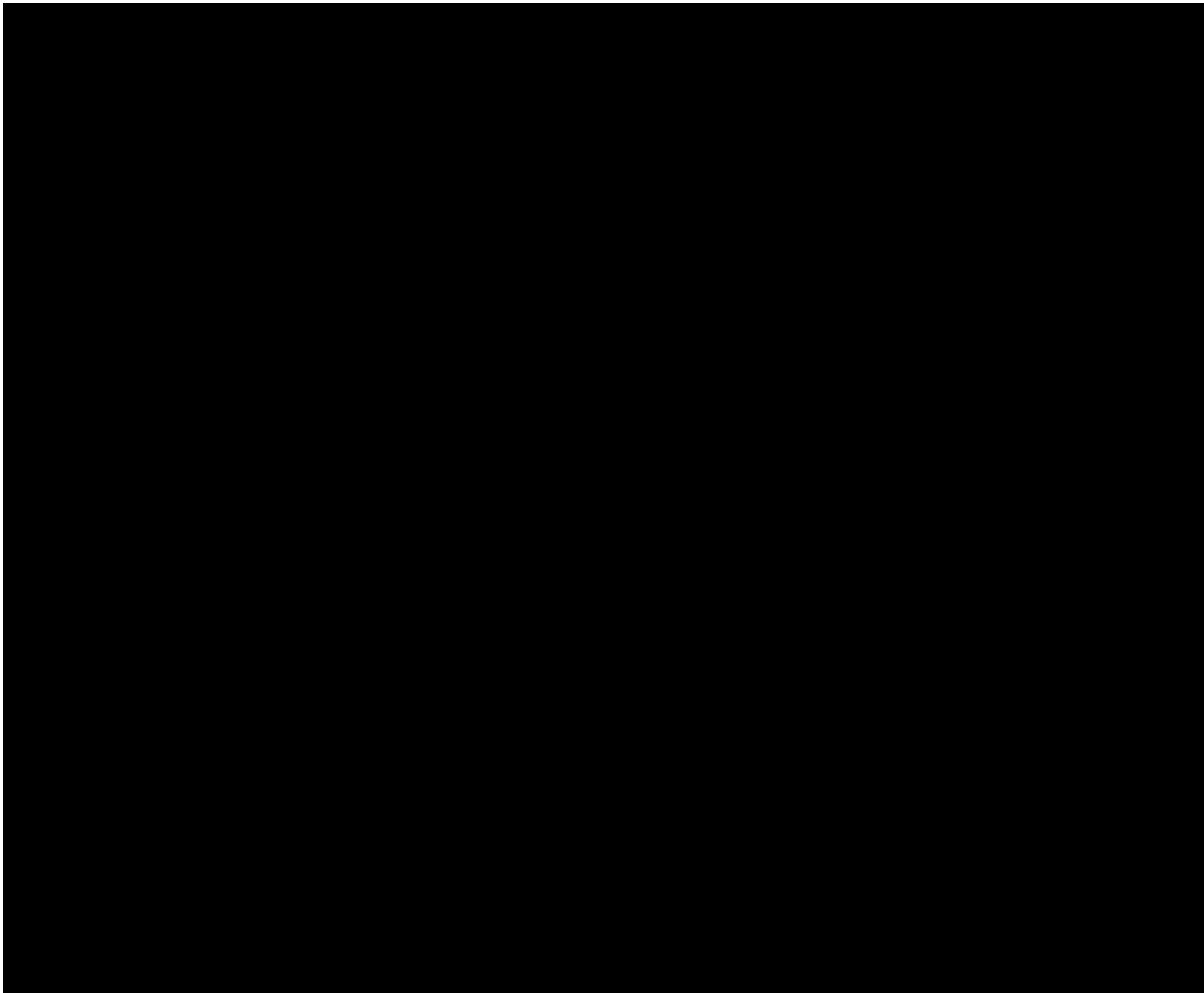
Page: 2 of 3



**Asset Liability
Management
Study Update**

Mr. Bunston presented Agenda Item 2.1 Asset Liability Management Study Update.

Following discussion, Members received the report as information.



Board of Directors - Committee Meeting

TECHNOLOGY COMMITTEE MINUTES

Date: May 20, 2021

Page: 2 of 3

**Project Nova:
Program Update**

Mr. Ramirez presented Agenda Item C.1 “Project Nova: Program Update”.

Following discussion, Members received the report as information.

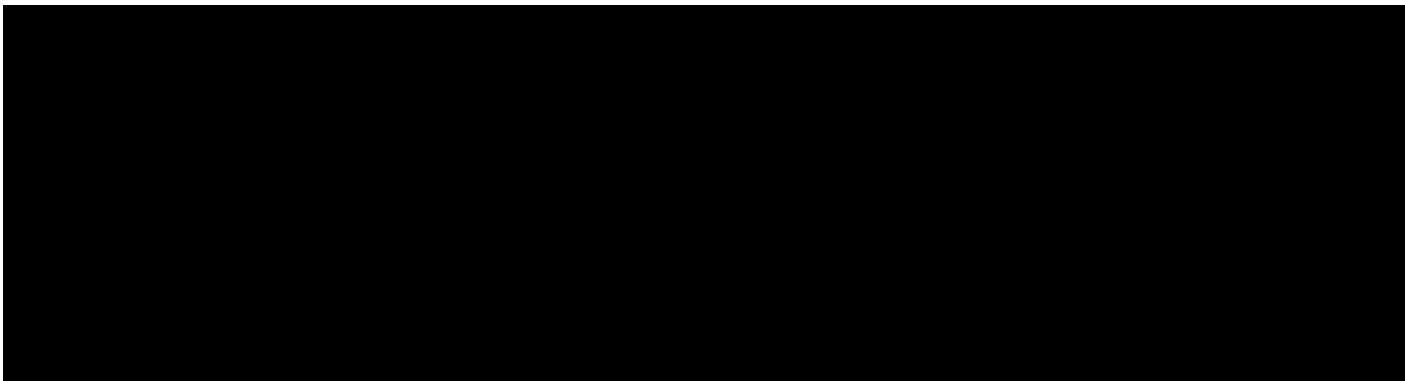
Mr. Ramirez withdrew from the meeting. Mr. Keegan Iles and Mr. Joe Cooper joined the meeting.

**Project Nova:
Governance
Vendor PwC
Update**

Mr. Iles and Mr. Cooper from PwC, presented Agenda Item C.2 “Project Nova: Governance Vendor PwC Update”.

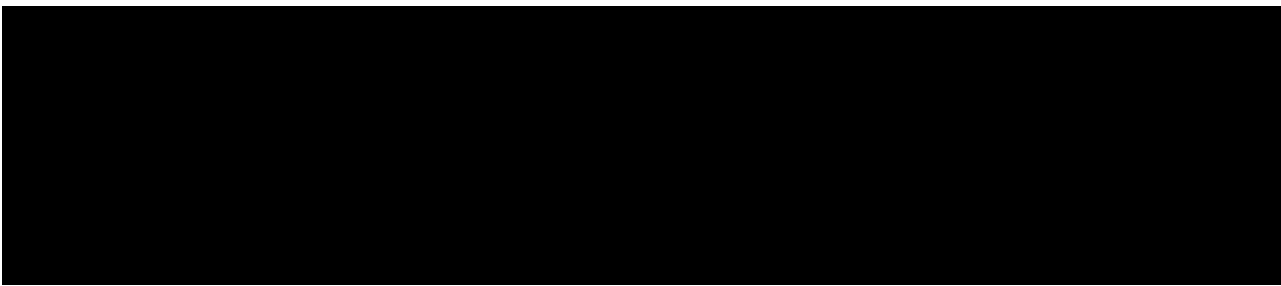
Following discussion, Members received the report as information.

Mr. Iles and Mr. Cooper withdrew from the meeting. Mr. Colin McDonald joined the meeting.



**Project Nova
Spending
Authority Matrix**

Members received Agenda Item D.2 Project Nova Spending Authority Matrix for information.





Board of Directors - Committee Meeting
TECHNOLOGY COMMITTEE MINUTES

Meeting Date: August 5, 2021, 2:15 pm
Place: 820 - 234 Donald Street, Winnipeg, Manitoba
via Microsoft Teams

Committee Members Present: MR. R. CHALE, CHAIR
MR. D. GRESTONI
MS. C. HALBERT
MR. J. ROBSON
DR. M. SULLIVAN
MR. E. HERBELIN, PRESIDENT & CEO

Management: MR. M. TRIGGS, GENERAL COUNSEL & CORPORATE SECRETARY, MR. S PARTI VICE PRESIDENT, AND CHIEF INFORMATION TECHNOLOGY OFFICER, MR. S. MITRA, VICE PRESIDENT AND CHIEF TRANSFORMATION OFFICER, AND MR. A. RAMIREZ, DIRECTOR, NOVA PROGRAM DELIVERY

[REDACTED]

[REDACTED]

[REDACTED]

Board of Directors - Committee Meeting

TECHNOLOGY COMMITTEE MINUTES

Date: August 5, 2021

Page: 2 of 3

**Project Nova:
Program Update**

Mr. Ramirez presented Agenda Item B.1 Project Nova: Program Update.

Following discussion, Members received the report as information.

Messrs. Joe Cooper and Keegan Iles joined the meeting.

**Project Nova:
Governance
Vendor PwC
Update**

Mr. Iles presented Agenda Item B.1 Project Nova: Governance Vendor PwC Update.

Following discussion, Members received the report as information.

Messrs. Cooper and Iles withdrew from the meeting.

[REDACTED]

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[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

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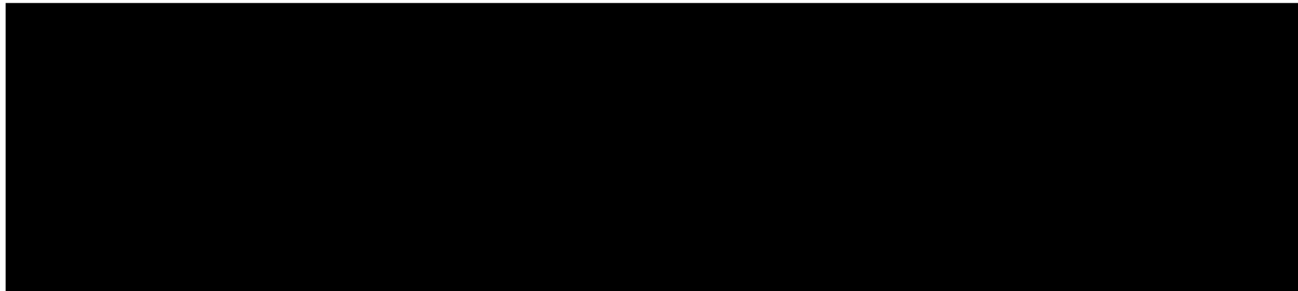
Board of Directors - Committee Meeting
TECHNOLOGY COMMITTEE MINUTES

Meeting Date: August 27, 2021, 8:00 am
Place: 820 - 234 Donald Street, Winnipeg, Manitoba
via Microsoft Teams

Committee Members Present: MR. R. CHALE, CHAIR
MR. D. GRESTONI
MS. C. HALBERT
MR. J. ROBSON
DR. M. SULLIVAN
MR. E. HERBELIN, PRESIDENT & CEO

Management: MR. M. TRIGGS, GENERAL COUNSEL & CORPORATE SECRETARY

MR. S. PARTI, VICE PRESIDENT, CHIEF INFORMATION AND TECHNOLOGY OFFICER, MR. S. MITRA, CHIEF TRANSFORMATION OFFICER, AND MR. A. RAMIREZ, DIRECTOR, NOVA PROGRAM DELIVERY



Project Nova Update:

Mr. Mitra presented Agenda Item B.1 "Project Nova: Update".

Following discussion, Members received the report as information.





**Manitoba
Public Insurance**

Board of Directors - Committee Meeting
TECHNOLOGY COMMITTEE MINUTES

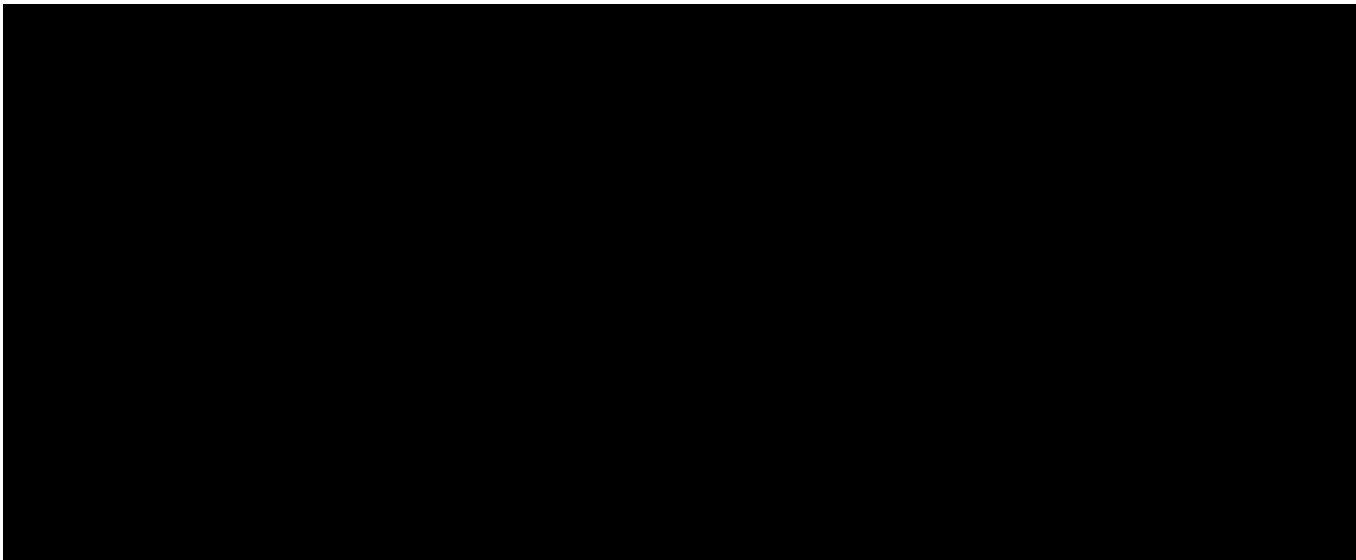
Meeting Date: September 28, 2021, 2:00 p.m.
Place: 820 - 234 Donald Street, Winnipeg, Manitoba
via Microsoft Teams

Committee Members Present: MR. R. CHALE, CHAIR
MR. D. GRESTONI
MS. C. HALBERT
MR. J. ROBSON
DR. M. SULLIVAN
MR. E. HERBELIN, PRESIDENT & CEO

Board Members in Attendance: MR. K. MUNROE
MR. G. STEFANSON
MR. K. KLIPPENSTEIN

Management: MR. M. TRIGGS, GENERAL COUNSEL & CORPORATE SECRETARY

MR. S PARTI, VICE PRESIDENT, CHIEF INFORMATION AND TECHNOLOGY OFFICER, MR. S. MITRA, CHIEF TRANSFORMATION OFFICER, AND MR. A. RAMIREZ, DIRECTOR, NOVA PROGRAM DELIVERY



Board of Directors - Committee Meeting

TECHNOLOGY COMMITTEE MINUTES

Date: September 28, 2021

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Minutes Moved by Ms. Halbert and seconded by Mr. Robson that the Minutes of the August 5 and 27, 2021 Technology Committee meetings be approved.

CARRIED

Mr. Chad Muir joined the meeting.

Project Nova Update Mr. Ramirez presented Agenda Item C.1 Project Nova Update
Following discussion, Members received the report as information.

Project Nova Program Review Procurement Approval Mr. Parti and Mr. Muir presented Agenda Item B.1 Project Nova Program Review Procurement Approval.

Moved by Mr. Chale and seconded by Mr. Robson that the Members authorize management to waive tender and enter into the proposed agreement with McKinsey & Company (Canada) to address issues identified by management and PwC, the project governance advisor. At a total not to exceed \$3.0M plus expenses and applicable taxes.

CARRIED

Cryptographic Services Tender Award Mr. Parti and Mr. Muir presented Agenda Item B.4 Cryptographic Services Tender Award

Moved by Mr. Grestoni and seconded by Mr. Robson that the Members recommend the Board of Director’s, subject to Management providing, prior to the Board meeting, appropriate business case and budgetary information, authorize Management to approve the award of tender to the highest ranked vendors selected by the evaluation results of RFP 3081.

1. Layer8 Solutions Inc. to provide Cryptographic Key Management services, for a term of five (5) years at a total not to exceed \$591,000.00 USD (\$747,792.30 CAD) plus taxes (in 2021 dollars) effective October 1, 2021.

Board of Directors - Committee Meeting

TECHNOLOGY COMMITTEE MINUTES

Date: September 28, 2021

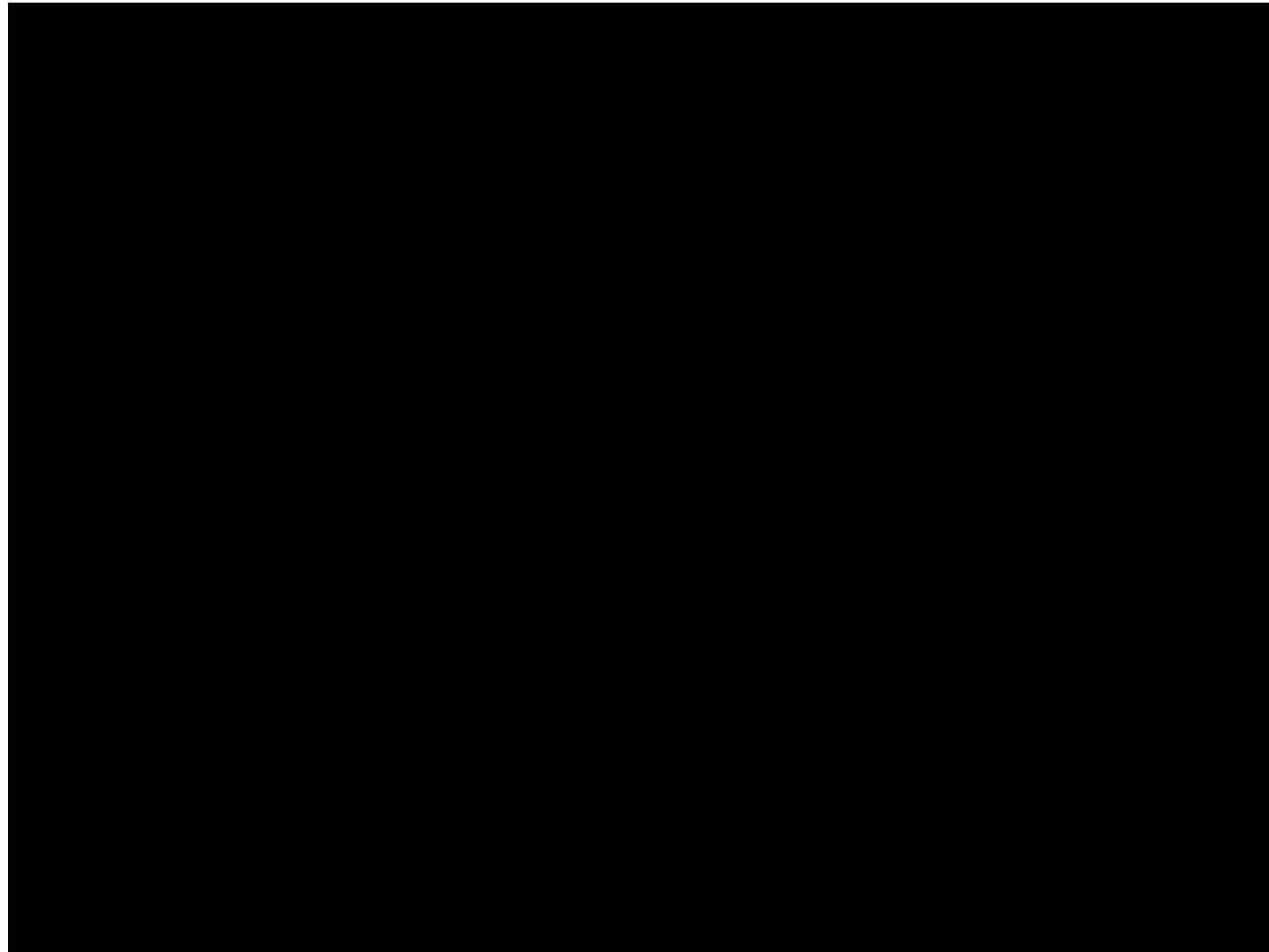
Page: 3 of 4

2. iPSS Inc. to provide Cryptographic Certificate Management services for a term of five (5) years at a total not to exceed \$540,000.00 CAD plus taxes (in 2021 dollars) effective October 1, 2021.

The total value of this RFP is approximately \$1,287,792.30 CAD plus tax.

CARRIED

Mr. Muir withdrew from the meeting.



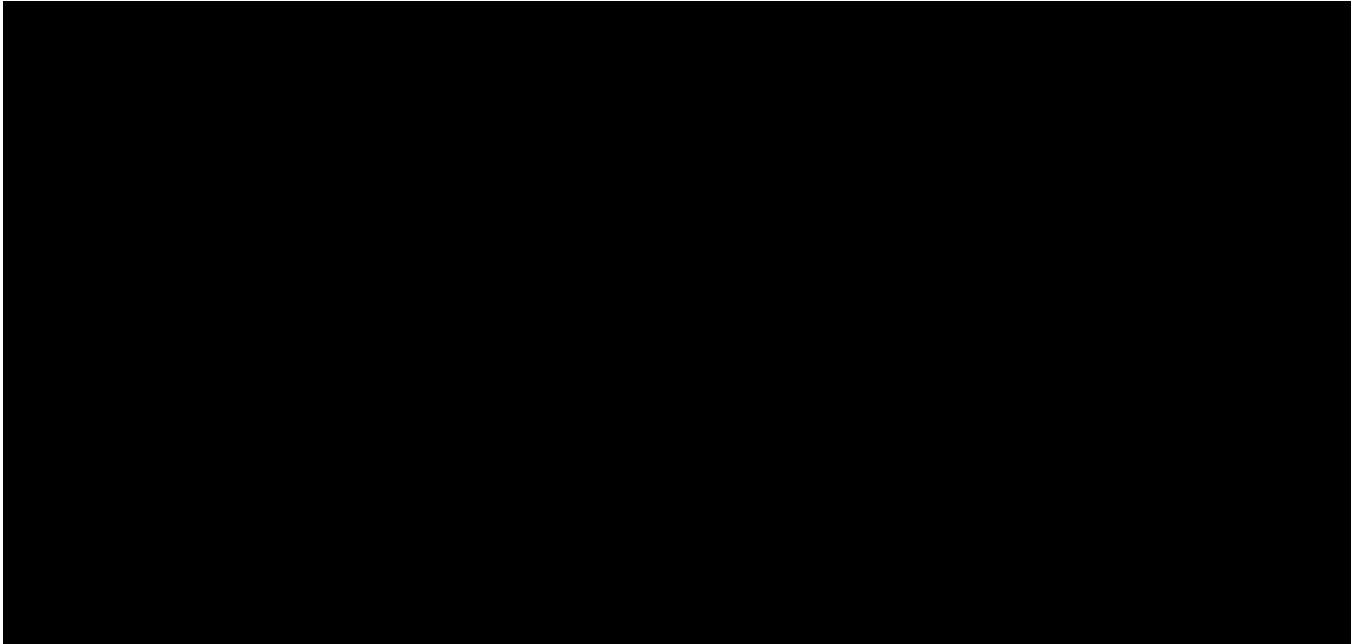


Board of Directors - Committee Meeting
TECHNOLOGY COMMITTEE MINUTES

Meeting Date: November 5, 2021, 1:00 pm
Place: 820 - 234 Donald Street, Winnipeg, Manitoba
via Microsoft Teams

Committee Members Present: MR. R. CHALE, CHAIR
MR. D. GRESTONI
MS. C. HALBERT
MR. K. KLIPPENSTEIN
MR. J. ROBSON
DR. M. SULLIVAN
MR. E. HERBELIN, PRESIDENT & CEO

Management: MR. M. TRIGGS, GENERAL COUNSEL & CORPORATE SECRETARY, MR. S PARTI, VICE PRESIDENT, AND CHIEF INFORMATION AND TECHNOLOGY OFFICER, MR. S. MITRA, VICE PRESIDENT AND CHIEF TRANSFORMATION OFFICER, AND MR. A. RAMIREZ, DIRECTOR, NOVA PROGRAM DELIVERY



Board of Directors - Committee Meeting**TECHNOLOGY COMMITTEE MINUTES****Date:** November 5, 2021**Page:** 2 of 3**Project Nova: DVA
Cloud
Infrastructure
Hosting Services
– Waive of Tender
Approval**

Mr. Ramirez presented Agenda Item B.1 Project Nova: DVA Cloud Infrastructure Hosting Services – Waive of Tender Approval

Moved by Mr. Robson and seconded by Dr. Sullivan that the Members authorize management to waive tender and enter into a contract for the extension of Infosys cloud hosting for up to 5 months and the addition of transition services via negotiated contracts for a total maximum spend of \$1,286,900.

CARRIED

**Project Nova:
Testing Services
Procurement
Approval**

Mr. Ramirez presented Agenda Item B.2 Project Nova: Testing Services Procurement Approval

Moved by Mr. Robson and seconded by Mr. Grestoni that the Members authorize Management to execute a 60 month contract with Cigniti Technologies Canada Inc. for software testing resources and software testing services under which Nova is anticipated to spend up to \$1.5M.

With an option to renew for an additional 60 months at a dollar amount to be agreed to at renewal time. This will be brought forward for Committee approval prior to executing the renewal option.

CARRIED

**Project Nova:
Program Update
and Approval
Request for
Updated R1A and
R2A Schedule**

Mr. Ramirez presented Agenda Item B.3 Project Nova: Program Update and Approval Request for Updated R1A and R2A Schedule.

The Committee acknowledged that the scheduled releases of R1A and R2A will be delayed by at least 6 months. Currently, the full impact of these delays are unknown; however, it is estimated that the financial impact, based upon what is known today, is \$11.96 million (+/- 15%). Upon receipt of the McKinsey Report, Management will be in a better position to provide a go forward plan of action.

Management will provide a complete program re-baseline for review and approval in February 2022.

Messrs. Joe Cooper and Keegan Iles joined the meeting.

Board of Directors - Committee Meeting

TECHNOLOGY COMMITTEE MINUTES

Date: November 5, 2021

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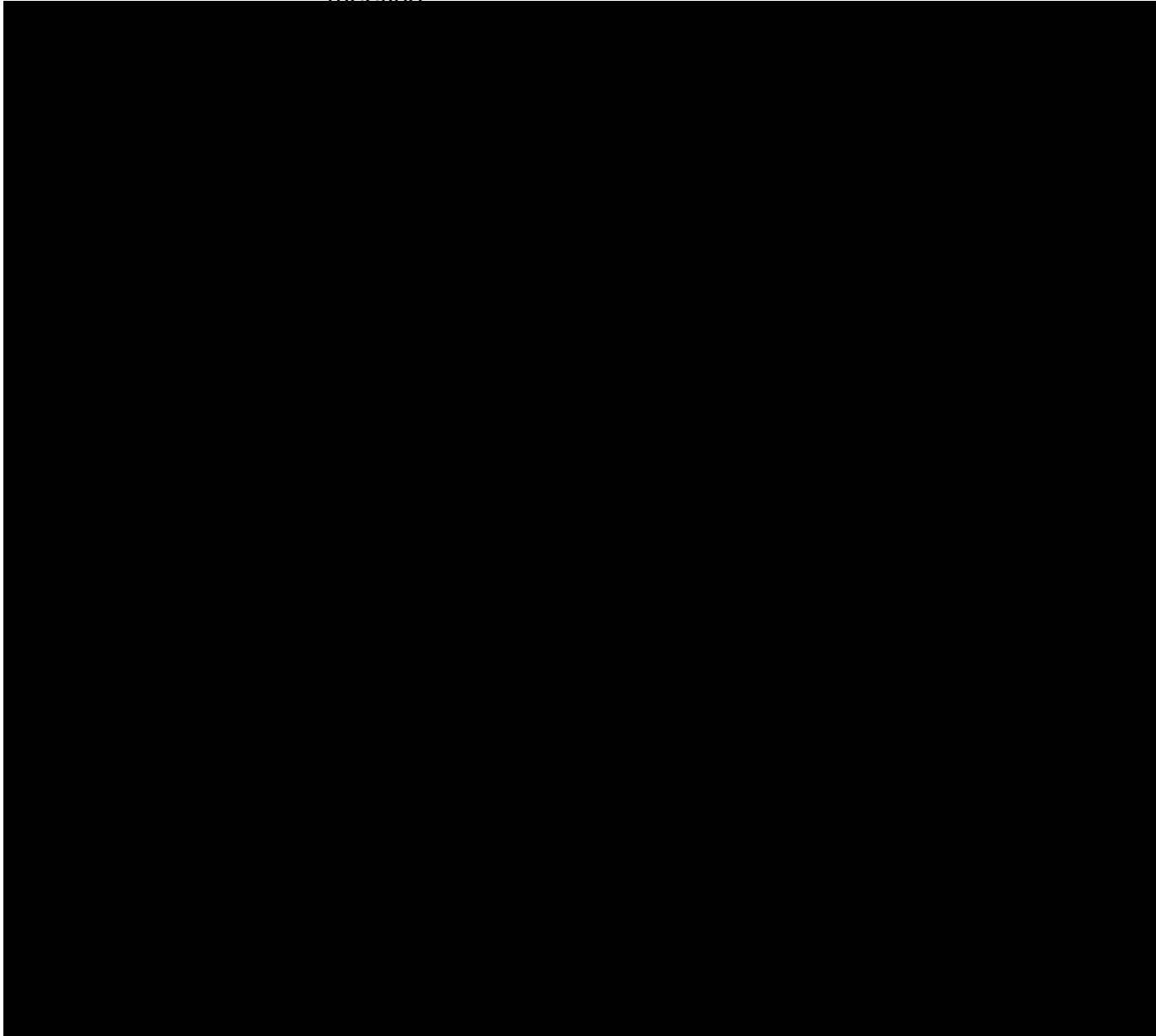
**Project Nova:
Governance
Vendor PwC
Update**

Mr. Iles presented Agenda Item C.1 Project Nova: Governance Vendor PwC Update.

Following discussion, Members received the report as information.

Messrs. Cooper and Iles withdrew from the meeting.

Mr. Lawrence Lazarko and Mr. Salman Ashram joined the meeting.





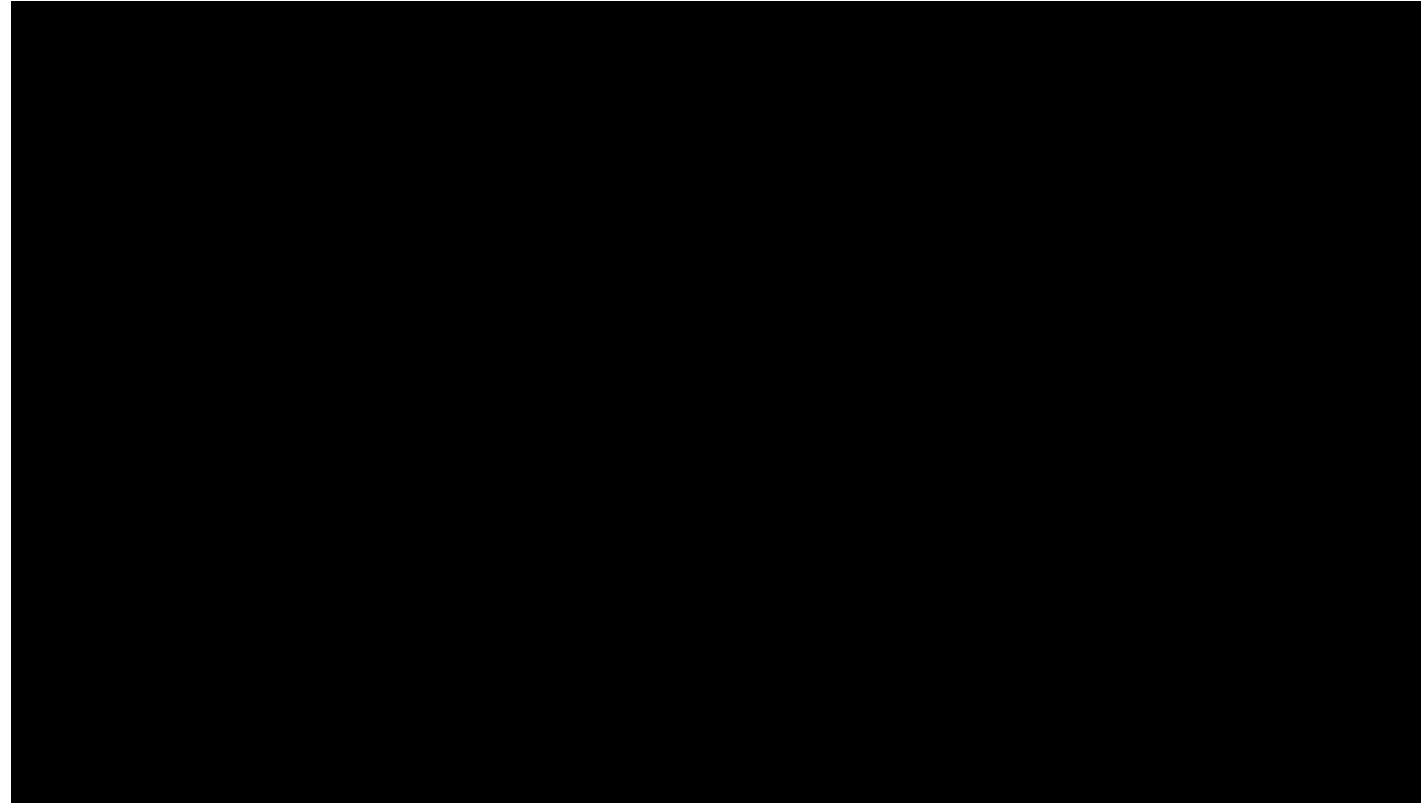
Board of Directors - Committee Meeting
TECHNOLOGY COMMITTEE MINUTES

Meeting Date: December 16, 2021 2:30pm
Place: 820 - 234 Donald Street, Winnipeg, Manitoba
via Microsoft Teams

Committee Members Present: MR. R. CHALE, CHAIR
MR. D. GRESTONI
MS. C. HALBERT
MR. K. KLIPPENSTEIN
MR. J. ROBSON
DR. M. SULLIVAN
MR. E. HERBELIN, PRESIDENT & CEO

Management: MR. M. TRIGGS, GENERAL COUNSEL & CORPORATE SECRETARY

MR. S PARTI, VICE PRESIDENT, AND CHIEF INFORMATION AND TECHNOLOGY OFFICER, MR. S. MITRA, VICE PRESIDENT AND CHIEF TRANSFORMATION OFFICER, AND MR. A. RAMIREZ, DIRECTOR, NOVA PROGRAM DELIVERY



Board of Directors - Committee Meeting

TECHNOLOGY COMMITTEE MINUTES

Date: December 16, 2021

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**Contract Approval
– Cryptographic
Services RFP 3081**

Mr. Muir and Mr. Parti presented Agenda Item B.1 Contract Approval – Cryptographic Services RFP 3081.

Moved by Mr. Robson and seconded by Ms. Halbert that the Technology Committee recommend the Board of Directors authorize Management to approve the award of tender to the highest ranked vendors selected by the evaluation results of RFP 3081.

1. Layer8 Solutions Inc. to provide Cryptographic Key Management services, for a term of five (5) years at a total not to exceed \$591,000.00 USD (\$747,792.30 CAD) plus taxes (in 2021 dollars) effective December 20, 2021.
2. iPSS Inc. to provide Cryptographic Certificate Management services for a term of five (5) years at a total not to exceed \$540,000.00 CAD plus taxes (in 2021 dollars) effective December, 2021.

The total value of this RFP is approximately \$1,300,000.00 CAD plus tax.

CARRIED

**Contract Approval
– Audio Visual
Equipment and
Installation
Services RFP 3096**

Mr. Chad Muir and Mr. Parti presented Agenda Item B.2 Contract Approval – Audio Visual Equipment and Installation Services RFP 3096.

Moved by Mr. Grestoni and seconded by Ms. Halbert that the Technology Committee recommend the Board of Directors authorize Management to approve the award of tender to WBM Technologies Inc., the highest ranked vendor selected by the evaluation results of RFP 3096 - Audio Visual Equipment and Installation Services.

The total value of this contract is not to exceed \$850,000 CAD plus tax.

CARRIED

Board of Directors - Committee Meeting

TECHNOLOGY COMMITTEE MINUTES

Date: December 16, 2021

Page: 3 of 3

Mr. Muir withdrew from the meeting. Messrs. Erez Eizenman, Daniel Brosseau, and Shaun Kentwell, and Ms. Marami Kar joined the meeting.

**Project Nova:
Program Review -
McKinsey**

Mr. Eizenman from McKinsey presented Agenda Item C.1 Project Nova: Program Review McKinsey

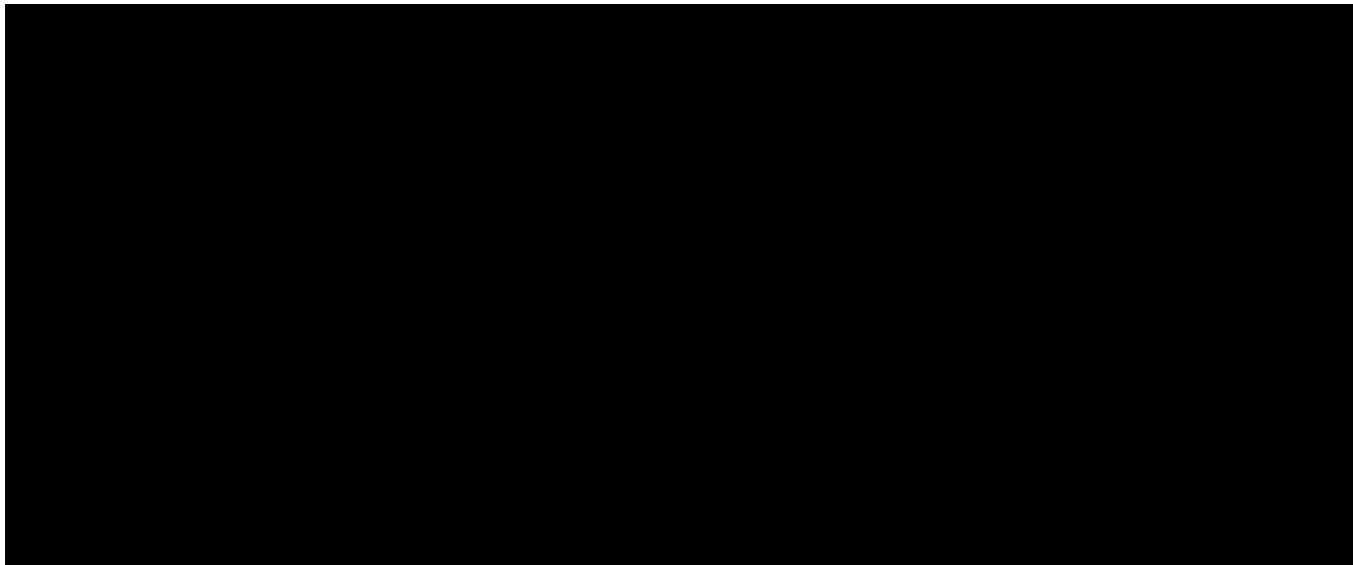
Following discussion, Members received the report as information.

Messrs. Eizenman, Brosseau, Kentwell, and Ms. Kar withdrew from the meeting.

**Project Nova:
Program Update**

Mr. Ramirez presented Agenda Item C.2 Project Nova: Program update.

Following discussion, Members received the report as information.





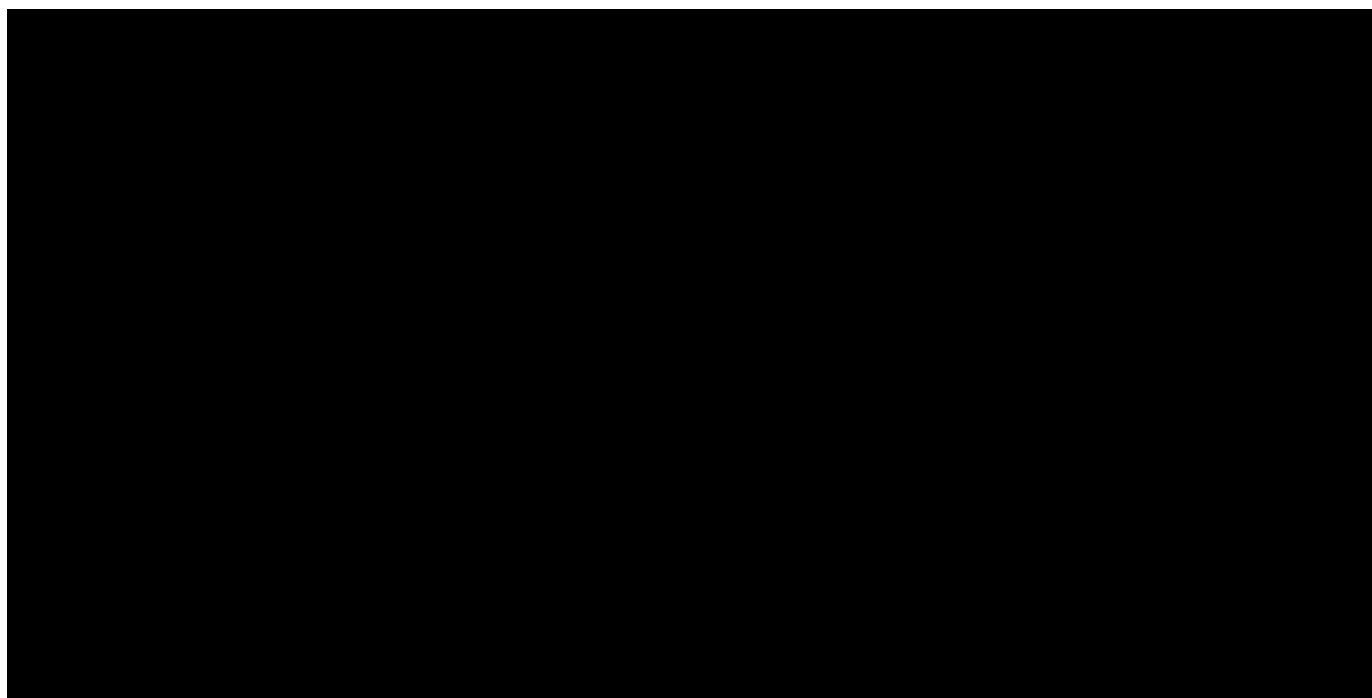
Board of Directors - Committee Meeting
TECHNOLOGY COMMITTEE MINUTES

Meeting Date: January 27, 2022 11:00 a.m.
Place: 820 - 234 Donald Street, Winnipeg, Manitoba
via Microsoft Teams

Committee Members Present: MR. R. CHALE, CHAIR
MR. D. GRESTONI
MS. C. HALBERT
MR. K. KLIPPENSTEIN
MR. J. ROBSON
DR. M. SULLIVAN
MR. E. HERBELIN, PRESIDENT & CEO

Management: MR. M. TRIGGS, GENERAL COUNSEL & CORPORATE SECRETARY

MR. S PARTI, VICE PRESIDENT, AND CHIEF INFORMATION AND TECHNOLOGY OFFICER, MR. S. MITRA, VICE PRESIDENT AND CHIEF TRANSFORMATION OFFICER, AND MR. A. RAMIREZ, DIRECTOR, NOVA PROGRAM DELIVERY



Board of Directors - Committee Meeting

TECHNOLOGY COMMITTEE MINUTES

Date: January 27, 2022

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**Project Nova:
Program Review -
McKinsey**

Messrs. Erez Eizenman, Daniel Brosseau, and Shaun Kentwell, and Ms. Marami Kar joined the meeting.

Mr. Eizenman presented Agenda Item B.1 Project Nova: Program Review – McKinsey.

Following discussion, Members received the report as information.

Messrs. Eizenman, Brosseau, and Kentwell, and Ms. Kar withdrew from the meeting.

Messrs. Cory Ahlbaum, John Bowering, Rick Swanarchuk joined the meeting

**Project Nova:
Program Update
and Demo**

Messrs. Ramirez, Ahlbaum, Bowering and Swanarchuk presented Agenda Item B.2 Project Nova: Program Update and Demo.

Following discussion, Members received the report upon completion of Sprint 10 in PI4 and a point in time demo for Release A1 (SRE) as information.

Messrs. Ahlbaum, Bowering and Swanarchuk withdrew from the meeting.

Ms. Tamara Boblinski joined the meeting.

**Project Nova:
Operational
Readiness**

Ms. Boblinski presented Agenda Item B.3 Project Nova: Operational Readiness.

Following discussion, Members received the report as information.

Mr. Lawrence Lazarko joined the meeting

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]



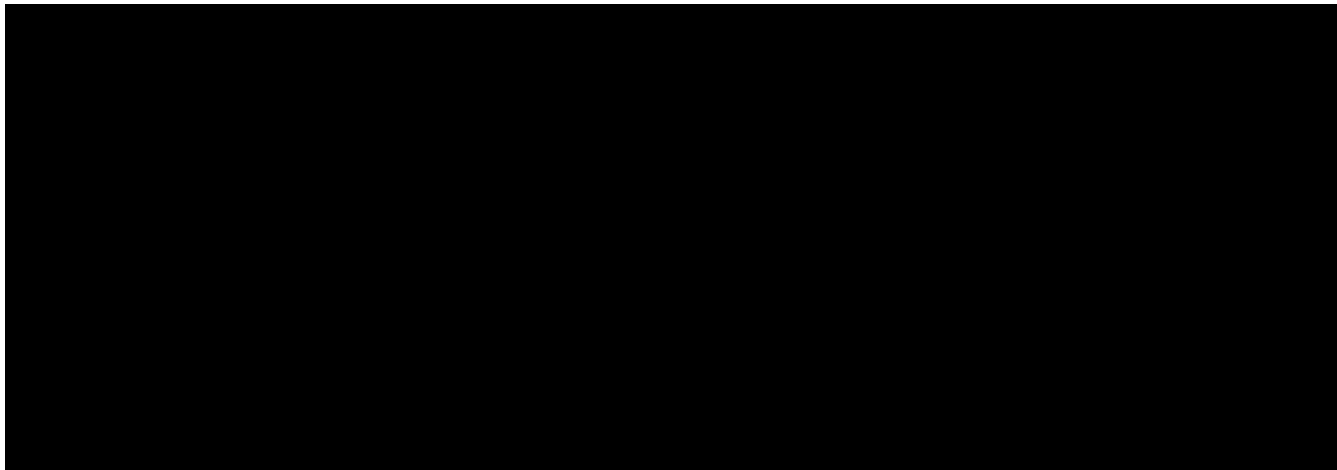
Board of Directors - Committee Meeting
TECHNOLOGY COMMITTEE MINUTES

Meeting Date: February 8, 2022, 1:00 p.m.
Place: 820 - 234 Donald Street, Winnipeg, Manitoba
via Microsoft Teams

Committee Members Present: MR. R. CHALE, CHAIR
MR. D. GRESTONI
MS. C. HALBERT
MR. K. KLIPPENSTEIN
MR. J. ROBSON
DR. M. SULLIVAN
MR. E. HERBELIN, PRESIDENT & CEO

Management: MR. M. TRIGGS, GENERAL COUNSEL & CORPORATE SECRETARY

MR. S PARTI, VICE PRESIDENT, AND CHIEF INFORMATION AND TECHNOLOGY OFFICER, MR. S. MITRA, VICE PRESIDENT AND CHIEF TRANSFORMATION OFFICER, AND MR. A. RAMIREZ, DIRECTOR, NOVA PROGRAM DELIVERY



**Project Nova:
Business Case
Re-baseline** Mr. Ramirez presented item 2.1 Project Nova Business case Re-baseline.

Ms. Marami Kar, Messrs. Daniel Brousseau and Erez Eizenman from McKinsey joined the meeting, along with Mr. Chad Muir and Mr. Allan Horne.

Board of Directors - Committee Meeting

TECHNOLOGY COMMITTEE MINUTES

Date: February 8, 2022

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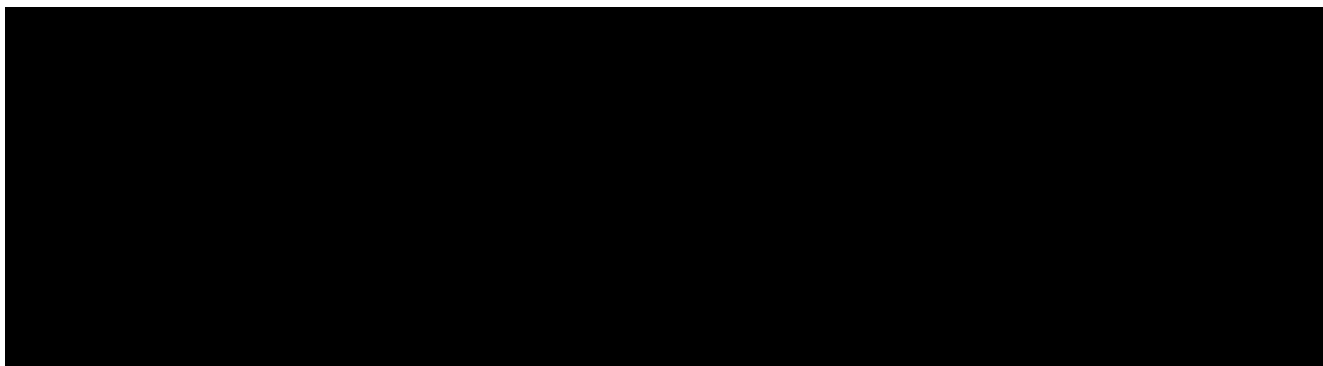
McKinsey Value Assurance Waive of Tender Approval

Mr. Eizenman and Ms. Kar presented the slide deck entitled Setting up MPI for Success – Partnership Proposal.

Ms. Kar and Messrs. Brousseau, and Eizenman, withdrew from the meeting.

Members and management discussed the Project Nova Re-baseline and potential work by McKinsey.

Following discussion, Members adjourned the meeting to February 10, 2022 for consideration of potential motions arising from the discussion.



***Board of Directors - Committee Meeting***
TECHNOLOGY COMMITTEE MINUTES**Meeting Date: February 10, 2022****Place: 820 - 234 Donald Street, Winnipeg, Manitoba
via Microsoft Teams**

Committee Members Present: MR. R. CHALE, CHAIR
MR. D. GRESTONI
MS. C. HALBERT
MR. J. ROBSON
DR. M. SULLIVAN
MR. E. HERBELIN, PRESIDENT & CEO

Committee Member Regrets: MR. K. KLIPPENSTEIN

Management: MR. M. TRIGGS, GENERAL COUNSEL & CORPORATE SECRETARY

MR. S. PARTI, VICE PRESIDENT, AND CHIEF INFORMATION AND TECHNOLOGY OFFICER, MR. S. MITRA, VICE PRESIDENT AND CHIEF TRANSFORMATION OFFICER, AND MR. A. RAMIREZ, DIRECTOR, NOVA PROGRAM DELIVERY

**Continuation of
February 8, 2022
Meeting**

Throughout the history of Project Nova, MPI, recognized that it did not have the internal expertise and that no single external consultant had the expertise to successfully implement a transformational project of the complexity presented by this project. It has engaged the services of industry experts to assist in providing advice on how best to carry out this project. Based upon consideration of advice provided by external experts MPI set the initial timeline and budget at 40 months and a cost of \$85.4 million + \$21.4 million (25% contingency) = \$106.8 million. This initial timeline/budget was prior to entering into contracts with the major technology vendors and system integration providers. In January 2021, after the various contracts were competitively tendered and awarded the budget was re-baselined at a cost of \$111.7 million + \$16.8 million (15% contingency) = \$128.5 million. The timeline initially set to 54 months, back in

*Board of Directors - Committee Meeting***TECHNOLOGY COMMITTEE MINUTES**

Date: February 10, 2022

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2019, was later reduced to 40 months based on the belief that external vendors and MPI combined could implement several work streams in parallel.

In mid-2021, 6 months after the start of the project's implementation, MPI management recognized, despite prior advice and best efforts, that the complexity and scale of the project was greater than anticipated; consequently, it was unrealistic based upon current plans that the project could be completed on time and on budget, assuming that the scope of work would remain constant. The Committee's Governance Advisor, PwC, also expressed similar concerns. MPI management began the process of internally assessing required changes to ensure successful implementation of the scope of the project. In conjunction with this assessment, MPI retained McKinsey & Company (McKinsey) to provide an independent assessment of the project delivery along with implementable advice on how best to successfully complete the scope of the project.

MPI management and McKinsey recommend the timeline for the project be extended to 60 months and that the budget be increased to \$224.1 million + \$32.9 to \$65.8 million (20-40% contingency on unspent budget) = \$257 to \$289.9 million (i.e. Re-baseline 2022 budget). MPI management has identified that MPI does not have all the necessary internal capacity and competencies to successfully implement the project deliverables, and MPI has to mature critical capabilities and technology enablers while it executes and implements the NOVA plans. An urgent and absolutely critical requirement for MPI to successfully meeting this timeline and budget is enhanced and expanded project leadership and coordination capabilities (also referred to as General Contractor role). The General Contractor role is multifaceted. The General Contractor role coordinates activities by prioritizing the necessary customer journeys, end-to-end processes and technology enablers that are critical for the successful implementation of Release 1A – Commercial Insurance in October 2022, the implementation of Release

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2A and 2B– International Registration Plan Vehicles in April 2023 and July 2023 respectively. In conjunction with doing this work, the General Contractor is preparing timely discovery and launch of Release 3A – Personal Auto Insurance and Driver & Vehicle Registration (including joint discovery and proof of concept work for Release 4A – Physical Damage Claims) in combination with the identification, preparation and launch of Minimal Viable Products (MVP) related to Release 3B/4B. This work is required to be done by a single General Contractor coordinating simultaneous and sequential work to mitigate implementation risks and costs which could unfold from insufficient understanding or alignment of the proposed online services and the customer needs or adoption. The General Contractor must understand the underlying complexity to connect these deliverables from the front-end to the back-end systems. These requirements are all on the critical path of the new proposed timeline (Re-baseline 2022) and if the various modules are not successfully implemented on time there is a significant risk that will extend the project by an additional 12 months which is in addition to the set contingency range of \$32.9 to \$65.8 million because of the dependency of Release 3A with the start of the fiscal year. The current monthly burn-rate on the project is \$3 to \$4 million.

Through the internal assessment as well as the McKinsey review of project NOVA, the unforeseen extent of project risk has been acknowledged. In particular, MPI lacks some critical resources to execute on this plan successfully, specifically its ability to exercise the role of General Contractor. The necessity to provide value assurance and project leadership coordination across all the moving parts and parties involved is both critical and urgent for MPI to fill with the help of external qualified advisors who understand the specifics of MPI and NOVA while building this capability internally in parallel. It is recognized that due to the complexity of this project, even if Release 1A is successfully implemented on time that it does not guarantee success for the overall project. The complexity related to the preparation, discovery and

*Board of Directors - Committee Meeting***TECHNOLOGY COMMITTEE MINUTES**

Date: February 10, 2022

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launch as well as implementation of the subsequent releases is significantly greater than what MPI displayed. The successful completion of the project in accordance with Re-baseline 2022 budget requires MPI to mature its capabilities as quickly as possible with the assistance of highly qualified General Contractor.

The General Contractor role must be provided by an external vendor. If the contract is tendered through MPI's tendering process, the successful vendor would be either McKinsey or another vendor. If McKinsey is the successful vendor they would not, because of the tendering process, be able commence work for approximately 3 months which would seriously jeopardize the Re-baseline 2022 budget and timeline. If another vendor was the successful vendor, their ability to commence the necessary work would be delayed by approximately 6 months (3 months tendering process and 3 months familiarizing themselves with the project). This delay would certainly result in the project being extended an additional 12 months. Management's proposal is to retain McKinsey in the General Contractor role for a period of 6 months at a cost of not more than \$5 million with an option extend the contract for an additional 6 months at a further cost not to exceed \$5 million. An additional component of the deliverables will be the training of MPI staff to assume the General Contractor role.

In accordance with the above, it is moved by Mr. Robson and seconded by Mr. Grestoni that the Committee recommends to the Board of Directors:

1. The necessity of adjusting the timeline to complete Project Nova from 40 months to 60 months and that the budget for the project will increase from the previously approved \$128.5 million to \$224.1 + \$32.9 to \$65.8 million (20-40% contingency on unspent budget).

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2. As time is of the essence and as MPI's current inability to ramp up critical capabilities to execute on the current and upcoming phases of the project presents great risks that the Re-baseline 2022 budget and timeline will not be achieved management is authorized:
 - a. To enter into an untendered contract with McKinsey for deliverables that are identified as essential for the successful execution of the ongoing implementation work (Release 1A, Release 2A/B) as well as the timely maturation of critical capabilities, including but not limited to the General Contractor role, value assurance, customer journey, end-to-end processes, technology enablers, to ensure the timely and effective preparation, discovery, launch and implementation of upcoming work set on the critical path (Release 3A/B and related MVPs, Release 4A/B and related proof of concept) for a term of 6 months at a cost of not more than \$5 million with an option to extend the contract for an additional 6 months at a further cost not to exceed \$5 million.
 - b. To use the Re-baseline 2022 budget and related contingencies for the untendered contract
 - c. To report details of the untendered contracts to the Committee.

CARRIED

Further, the Committee directs management to provide it, by its April meeting, with a detailed execution plan for Project Nova to allow the Committee to assess the reasonableness of the proposed timeline and budget.



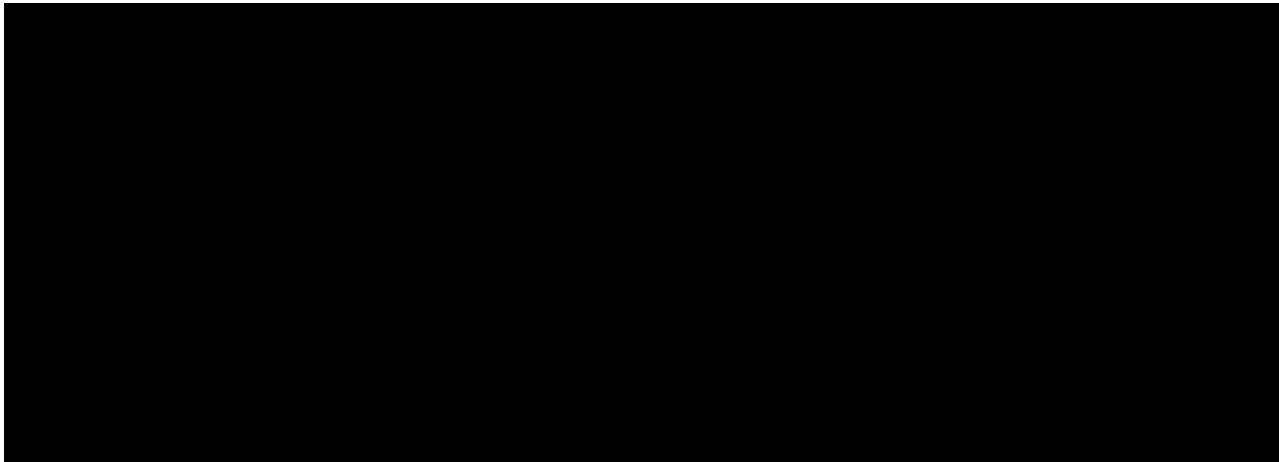
Board of Directors - Committee Meeting
TECHNOLOGY COMMITTEE MINUTES

Meeting Date: March 3, 2022 9:00 a.m.
Place: 820 - 234 Donald Street, Winnipeg, Manitoba
via Microsoft Teams

Committee Members Present: MR. R. CHALE, CHAIR
MR. D. GRESTONI
MS. C. HALBERT
MR. J. ROBSON
DR. M. SULLIVAN
MR. E. HERBELIN, PRESIDENT & CEO

Committee Member Regrets: MR. K. KLIPPENSTEIN

Management: MR. M. TRIGGS, GENERAL COUNSEL & CORPORATE SECRETARY, MR. S PARTI, VICE PRESIDENT, AND CHIEF INFORMATION AND TECHNOLOGY OFFICER, MR. S. MITRA, VICE PRESIDENT AND CHIEF TRANSFORMATION OFFICER, AND MR. A. RAMIREZ, DIRECTOR, NOVA PROGRAM DELIVERY

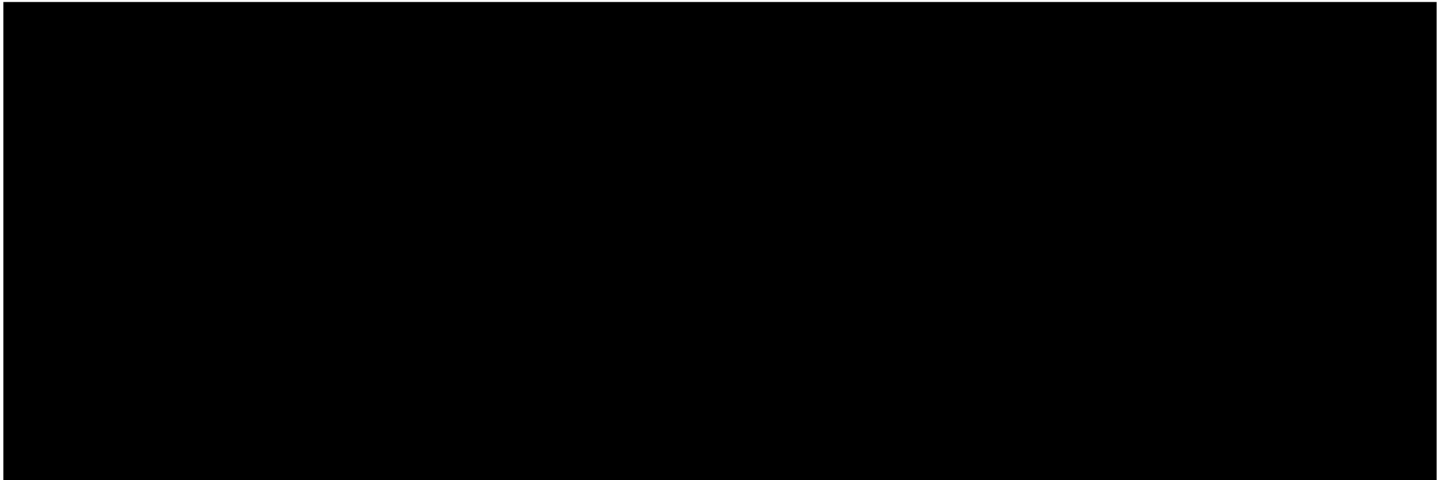


Board of Directors - Committee Meeting

TECHNOLOGY COMMITTEE MINUTES

Date: March 3, 2022

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**Project Nova:
Program Update**

Mr. Ramirez presented Agenda Item 2.2 Project Nova: Program Update

Following discussion, Members received the report as information.

**Project Nova:
Governance
Vendor PwC
Update**

Mr. Keegan Iles and Joe Cooper joined the meeting.

Mr. Iles presented Agenda Item 2.3 Project Nova: Governance Vendor PwC Update.

Following discussion, Members received the report as information.

Mr. Iles withdrew from the meeting.

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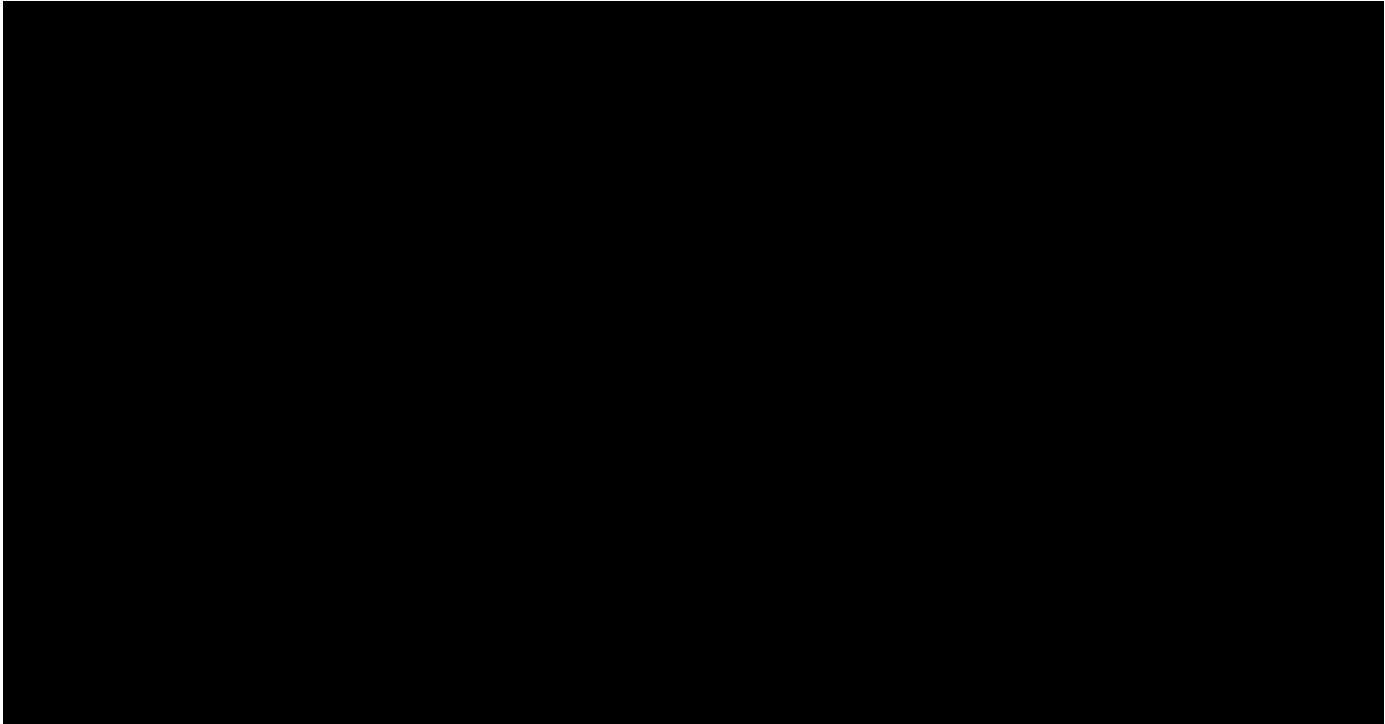
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AUDIT, FINANCE & RISK COMMITTEE MINUTES

Date: September 29, 2021

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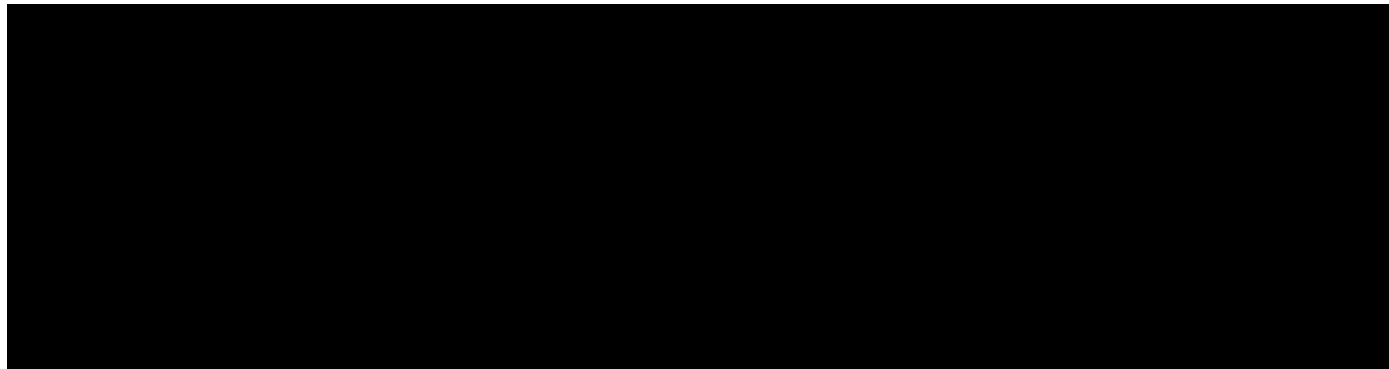
**Basic Financial
Condition Testing**

Mr. Martin presented Agenda Item C.3 Basic Financial Condition Testing

Moved by Mr. Stefanson and seconded by Mr. Chale that the Members recommend the Board of Directors approve the 2021 Basic Financial Condition Test (FCT) results.

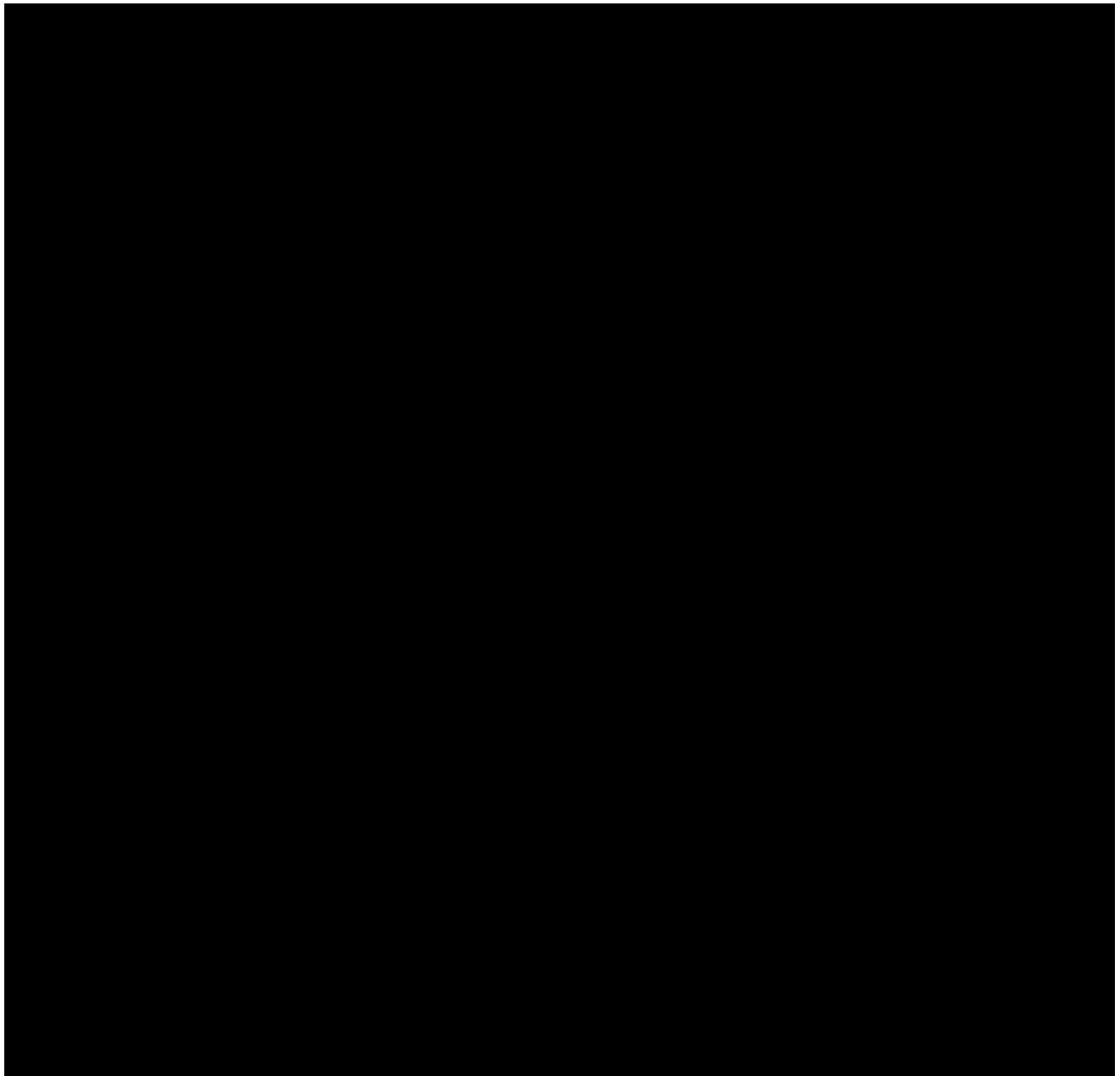
CARRIED

Messrs. Martin, Dunstone and Clearwater exited the meeting.



Date: September 29, 2021

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21-138 **Audit, Finance & Risk Committee Report – 2021 Basic Financial Condition Testing**

Moved by Mr. Grestoni and seconded by Mr. Stefanson that the Members ratify the recommendation of the Audit, Finance & Risk Committee to approve the 2021 Basic Financial Condition Testing.

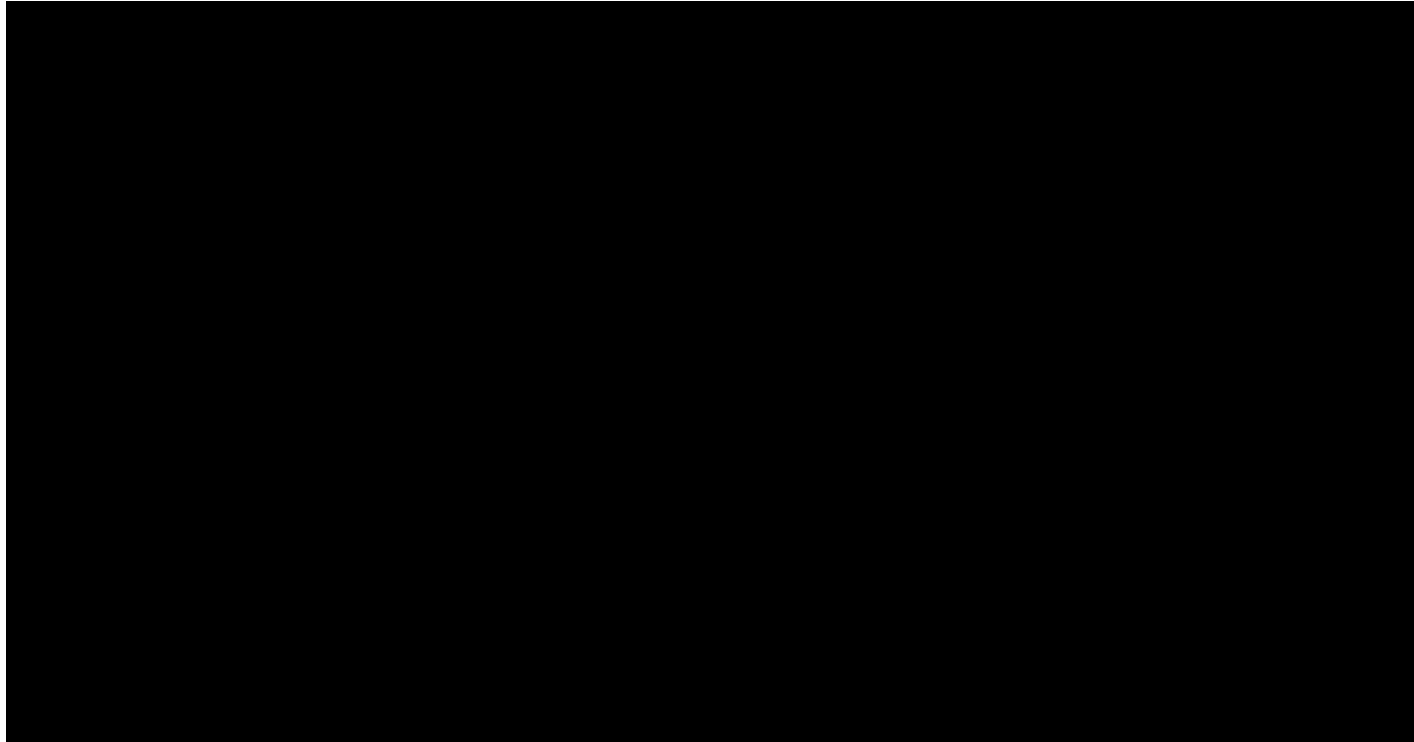
CARRIED

Board of Directors - Committee Meeting

AUDIT, FINANCE & RISK COMMITTEE MINUTES

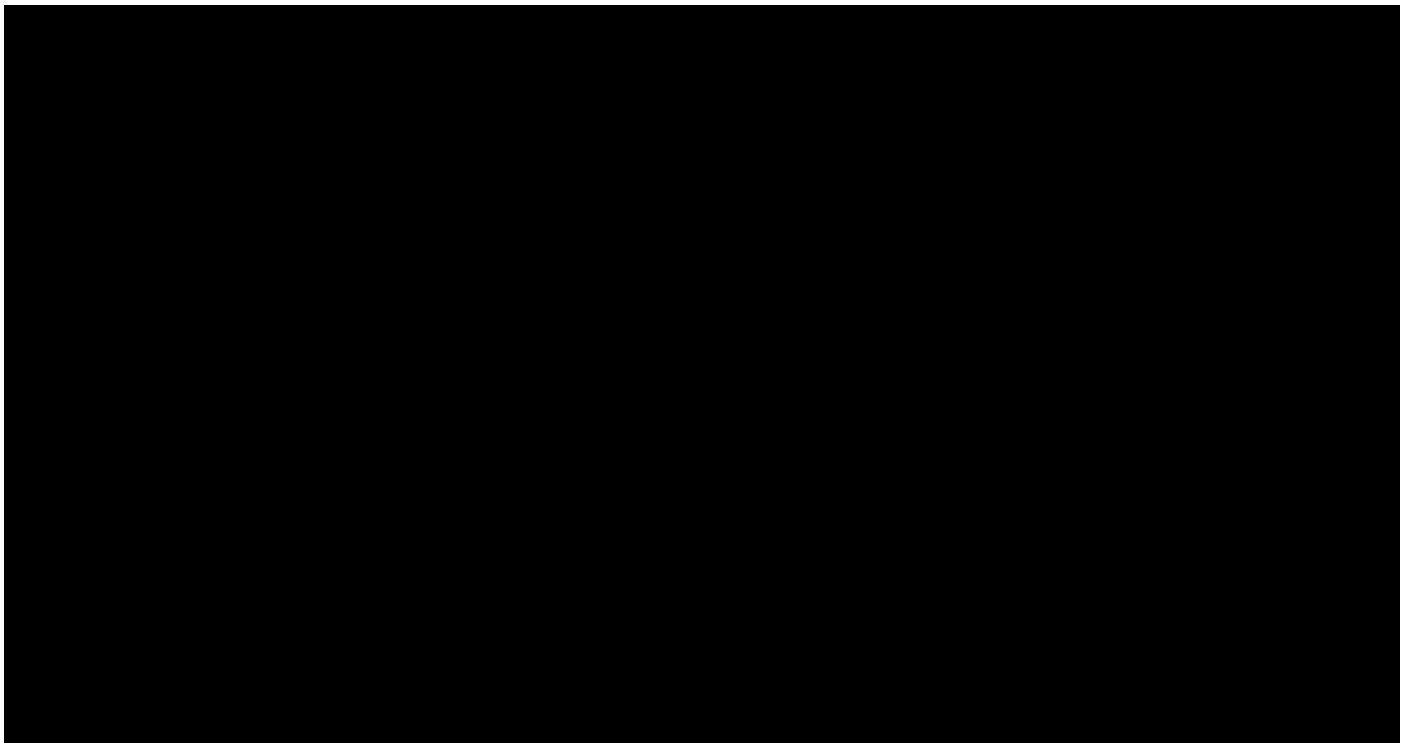
Date: August 12, 2021

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**First Quarter
Capital Report**

Members received Agenda Item D.4 First Quarter Capital Report as information.

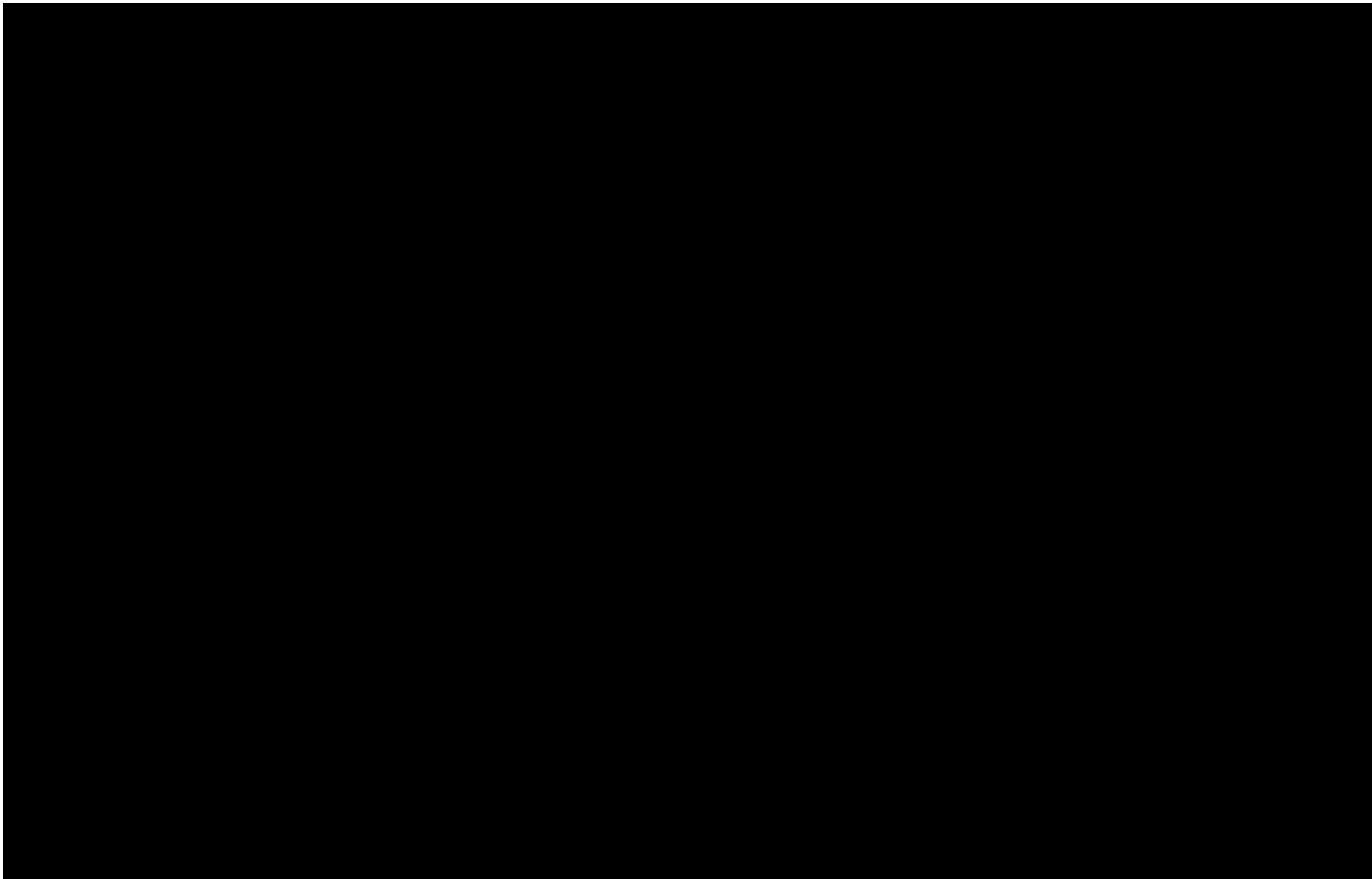


Board of Directors - Committee Meeting

AUDIT, FINANCE & RISK COMMITTEE MINUTES

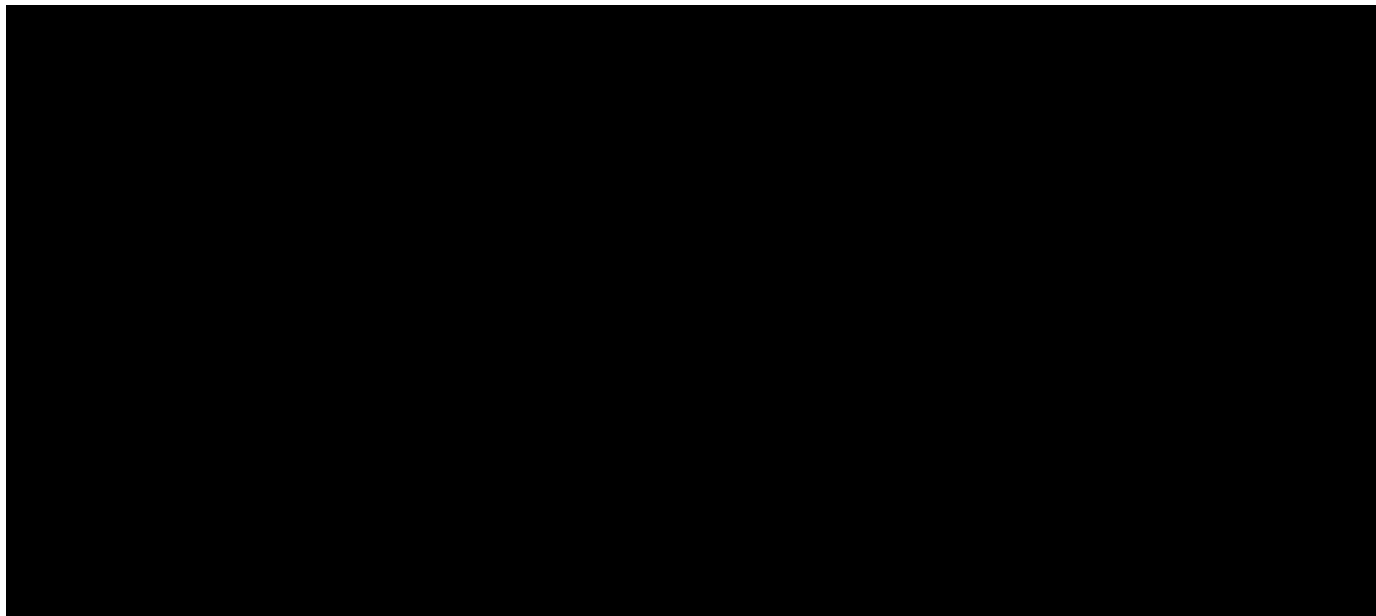
Date: November 10, 2021

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**Second Quarter
Capital Report**

Members received Agenda Item D.7 Second Quarter Capital Report as information.

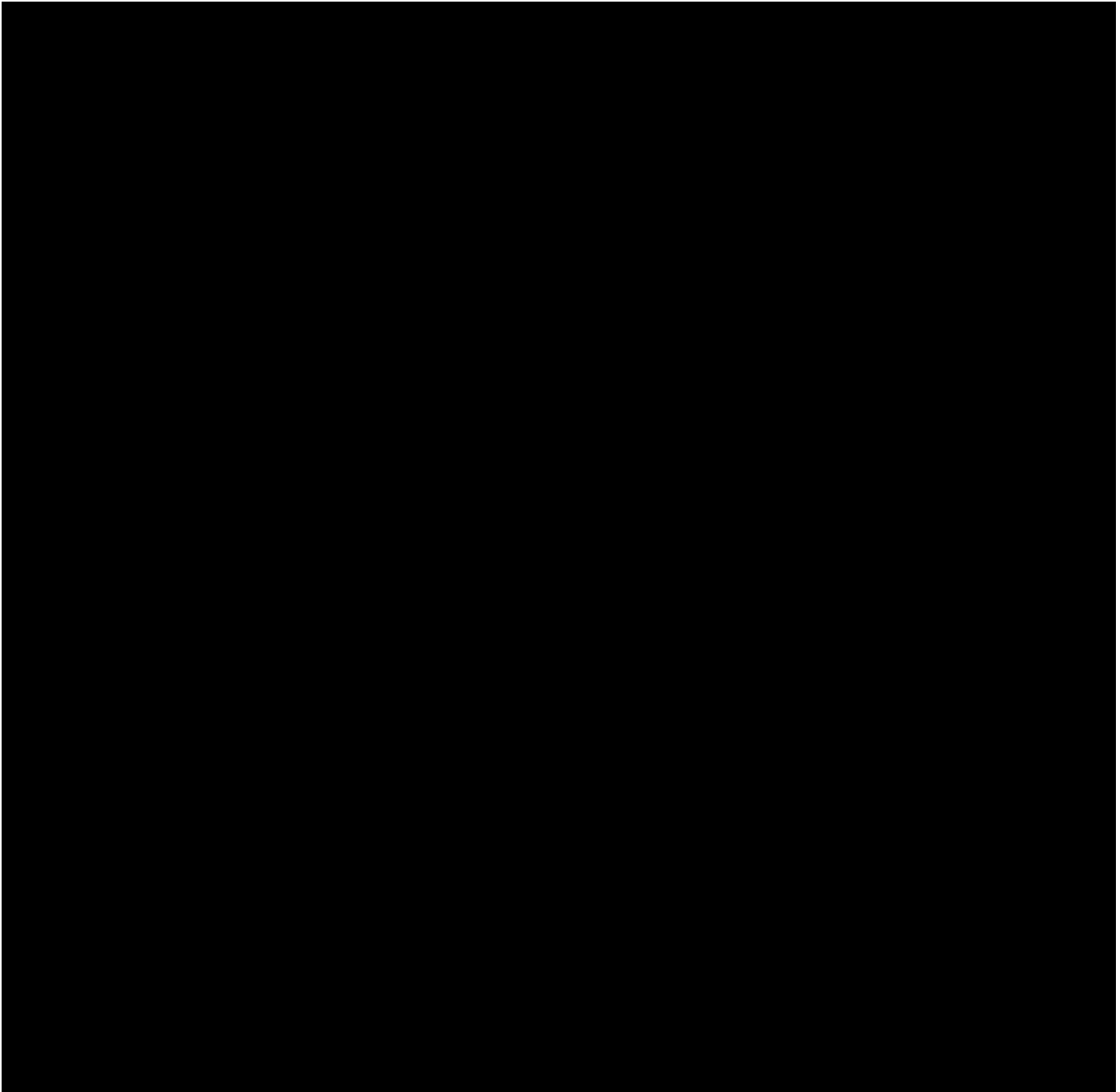


Board of Directors - Committee Meeting

AUDIT, FINANCE & RISK COMMITTEE MINUTES

Date: June 24, 2021

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4th Quarter Capital Management Report

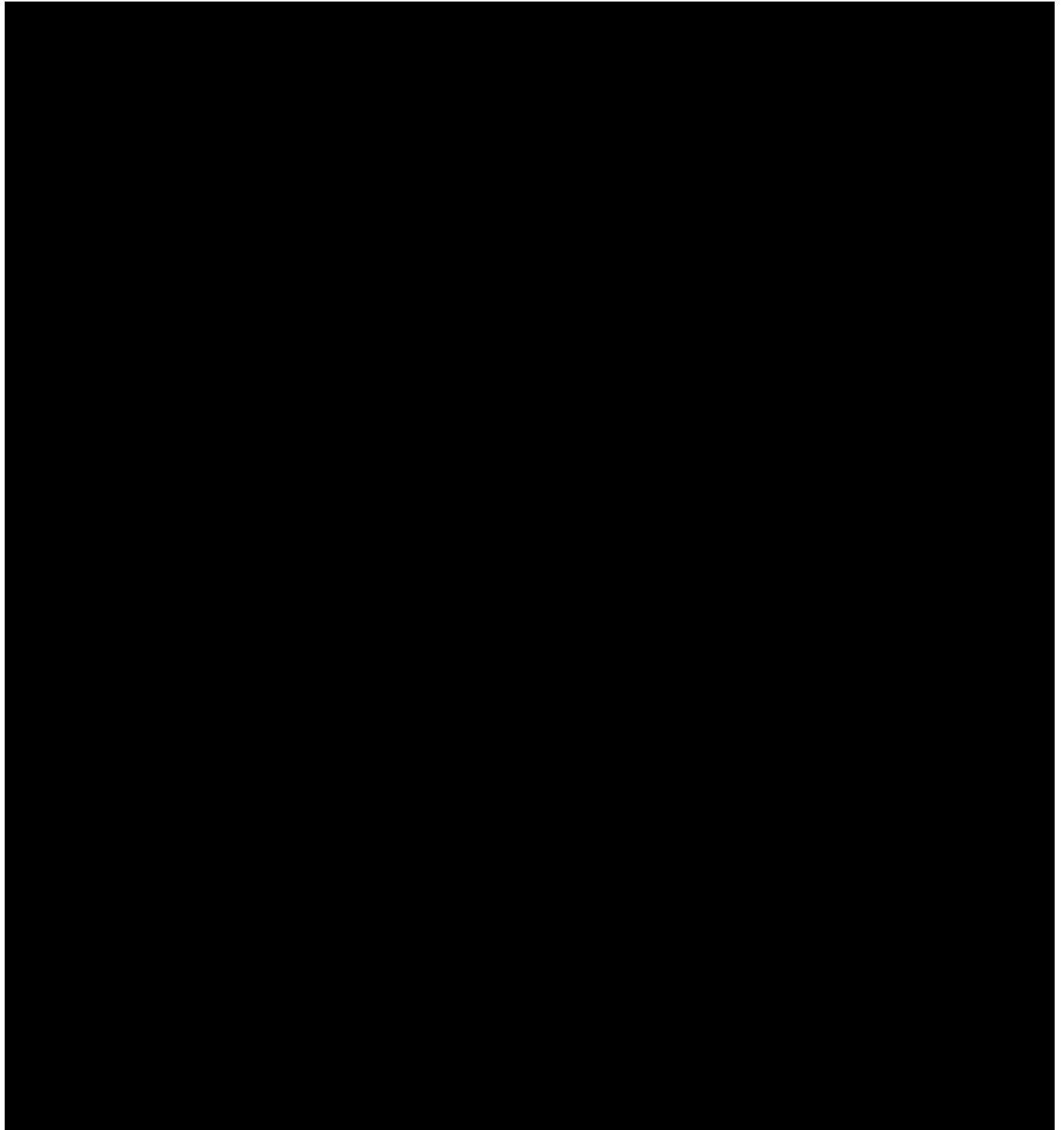
Members received Agenda Item E.6 4th Quarter Capital Management Report as information.

Board of Directors - Committee Meeting

AUDIT, FINANCE & RISK COMMITTEE MINUTES

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**Capital Report –
December 2021**

Members received Agenda Item 4.3 Capital Report –
December 2021 as information.



**Manitoba
Public Insurance**

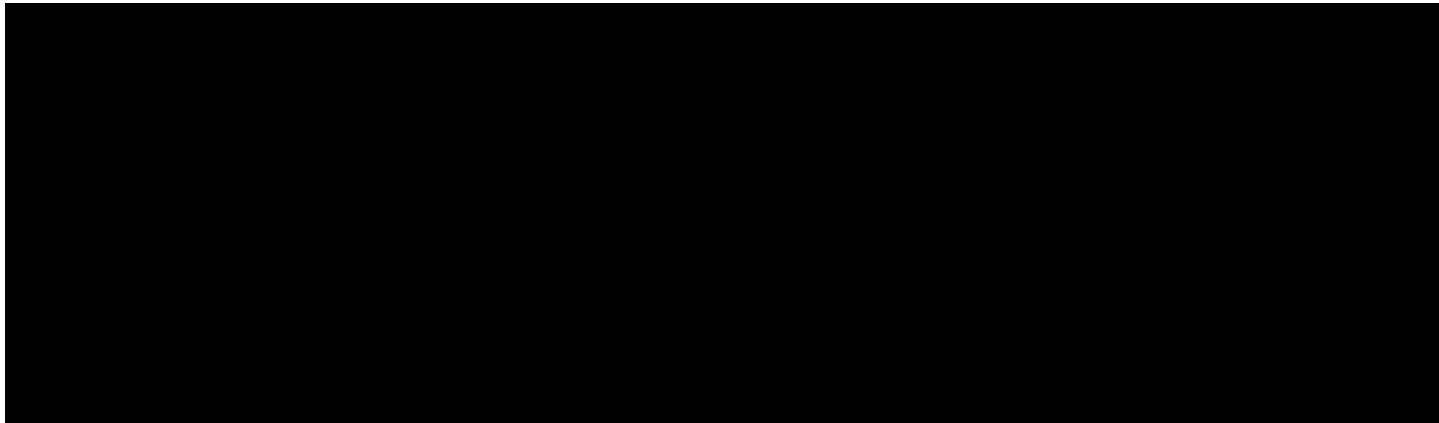
Board of Directors Meeting

Meeting Date: Monday, May 10, 2021, 12:00 p.m.
Place: 820 - 234 Donald Street, Winnipeg, Manitoba
Via Microsoft TEAMS

Present:

- DR. M. SULLIVAN, CHAIR
- MR. R. CHALE
- MR. D. GRESTONI
- MS. C. HALBERT
- MR. K. MUNROE
- MS. E. NABESS
- MR. J. ROBSON
- MR. G. STEFANSON
- MS. V. WOWRYK
- MR. E. HERBELIN, PRESIDENT & CEO

Management: MR. M. TRIGGS, GENERAL COUNSEL & CORPORATE SECRETARY



21-064 **Towing Agreement Brandon**

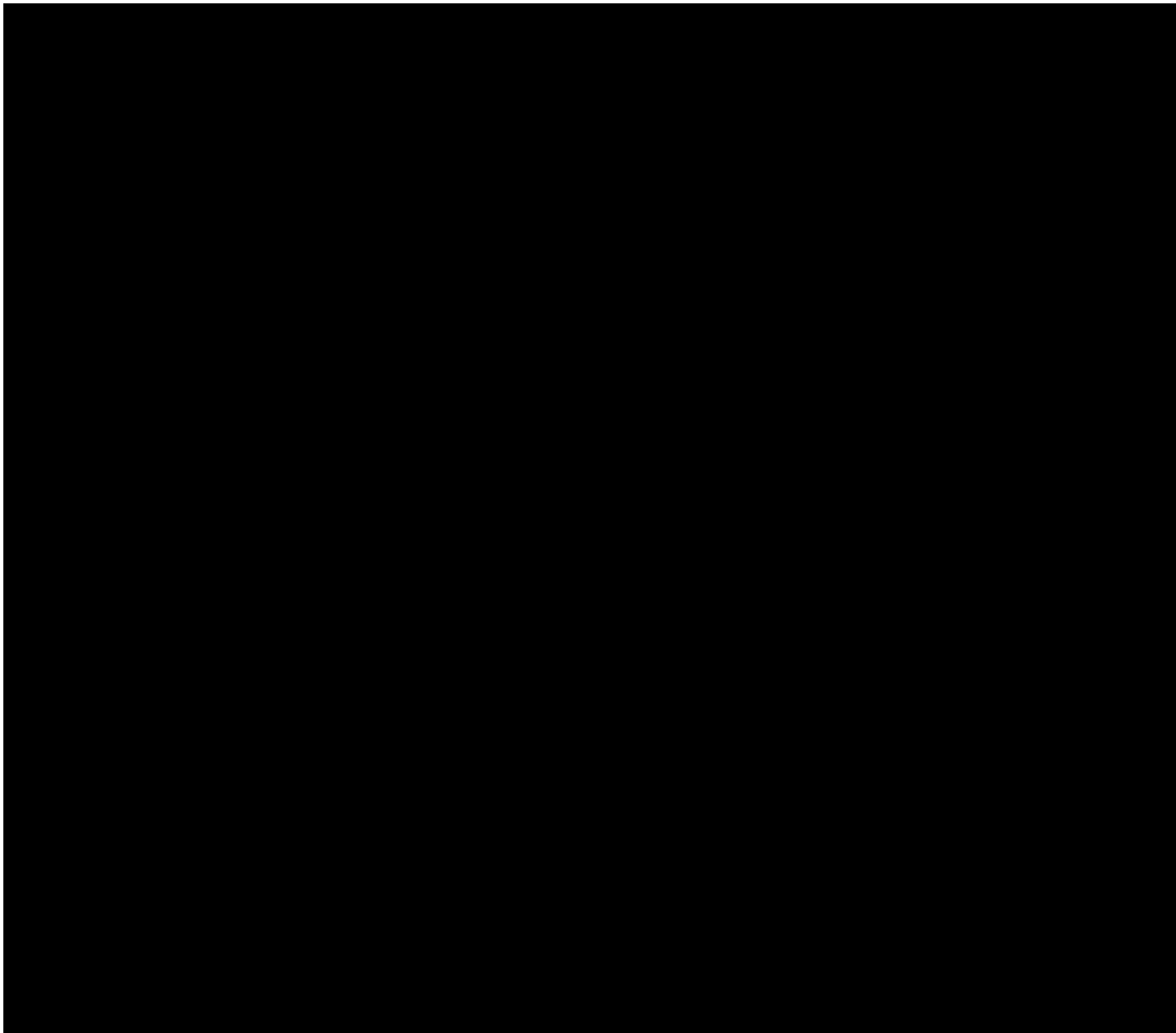
Mr. Wennberg, presented Agenda Item 2.2 Towing Agreement Brandon.

Date: May 10, 2021

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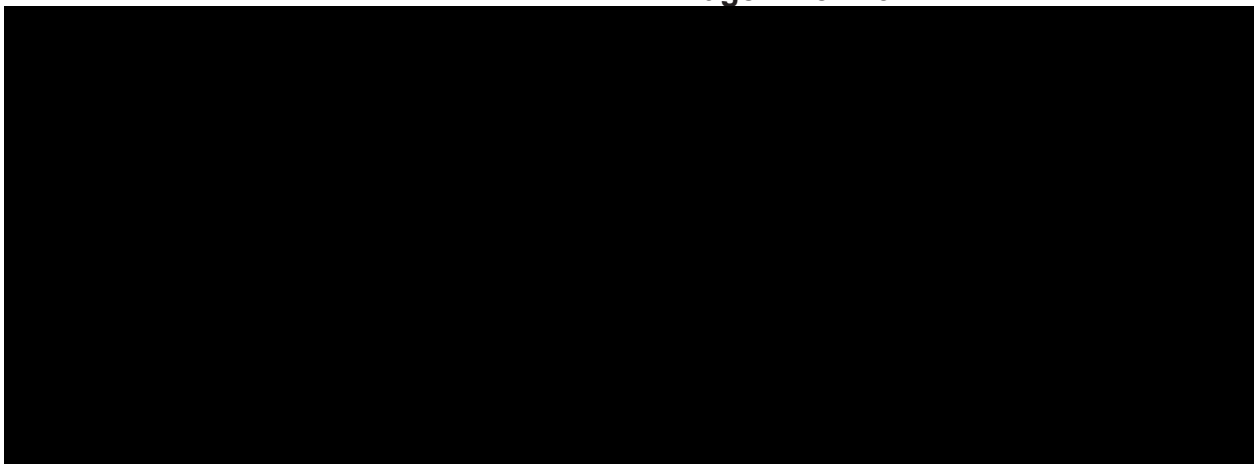
Moved by Mr. Chale and seconded by Mr. Grestoni that the Corporation be authorized to enter into negotiations with Full Tilt Towing and ultimately award the contract for towing services for the Brandon area for an initial two (2) year period July 1, 2021 to June 30, 2023 with provision for one optional one (1) year extension to cover the periods July 1, 2023 to June 30, 2024.

CARRIED



Date: June 24, 2021

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21-088 **Cityplace Space Plan**

Ms. Taylor presented Agenda Item 4.1 Cityplace Space Plan

Moved by Mr. Chale and seconded by Ms. Wowryk that the Members approve the proposed re-baseline of Cityplace Space Plan business plan to \$22.5 million.

The \$22.5 million includes money for the development of the 7th floor; however, a decision on whether to proceed to renovate the 7th floor will be brought to the Board for consideration at a future date.

CARRIED

21-089 **Space Plan Construction Contract – Systems Furniture and Free Standing Storage**

Ms. Taylor presented Agenda Item 4.2 Systems Furniture and Free Standing Storage.

Moved by Mr. Chale and seconded by Ms. Halbert that the Members approve funding of up to \$6M and authorize Management to award tender and negotiate a three or five year contract with the top ranked vendor(s) to supply system furniture and free standing storage.

CARRIED

21-090 **Space Plan Construction Contract – Bird Construction**

Ms. Taylor presented Agenda Item 4.3 Space Plan Construction Contracts – Bird Construction.

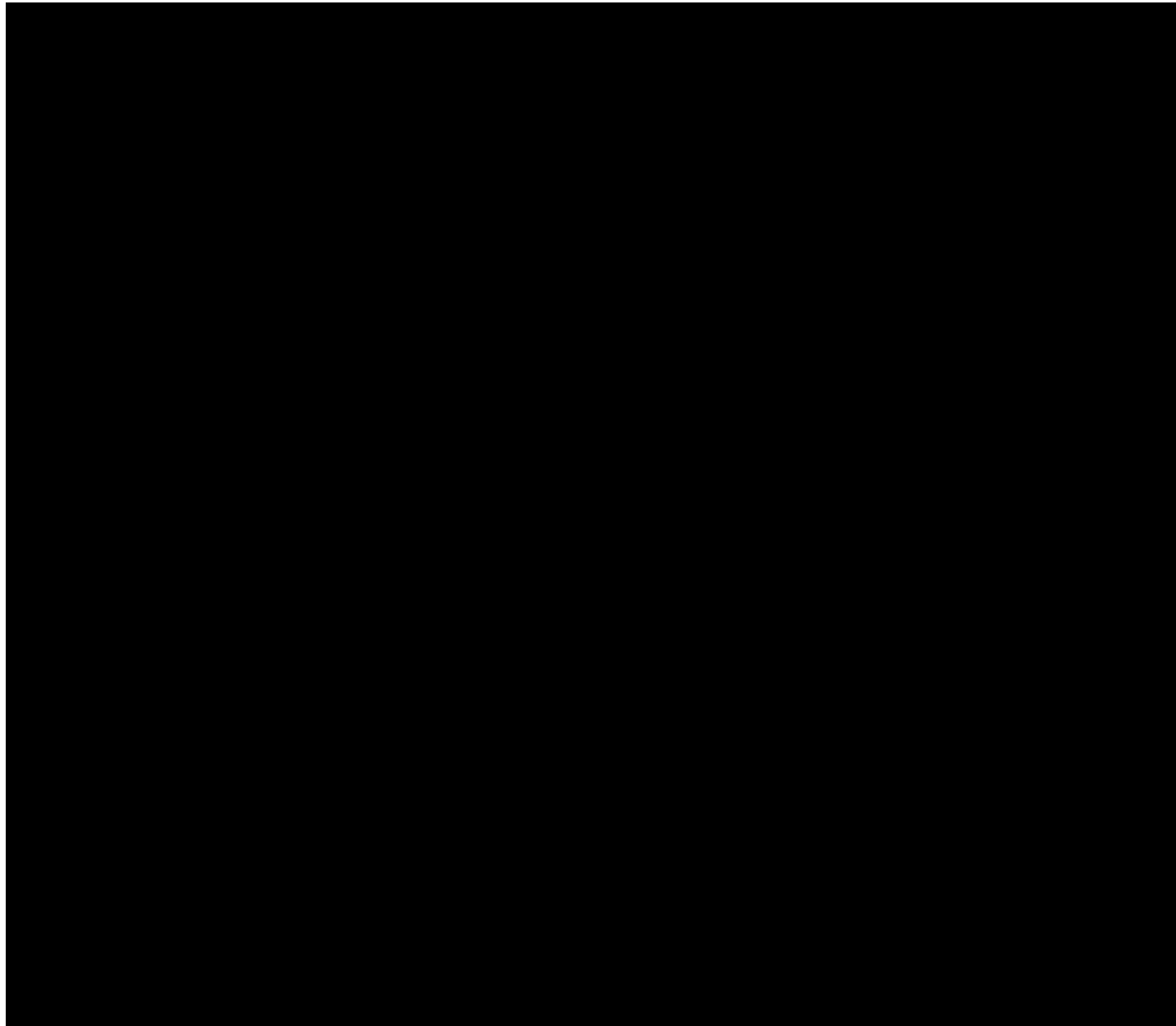
Date: June 24, 2021

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Moved by Mr. Chale and seconded by Ms. Halbert that the Members authorize Management to enter into a CCDC 2 (2008) stipulated price contract with Bird Construction, acting as General Contractor, for the 9th floor scope of the cityplace Space Plan. Contract value shall not exceed \$6.06M.

CARRIED

Mr. Luc Corneli from McCor joined the meeting



Date: July 8, 2021

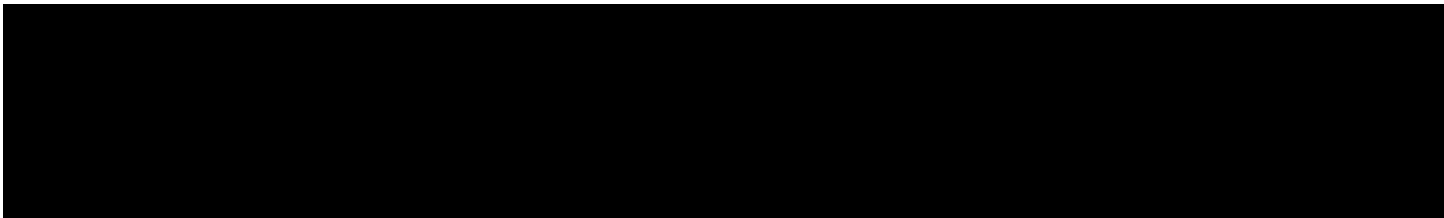
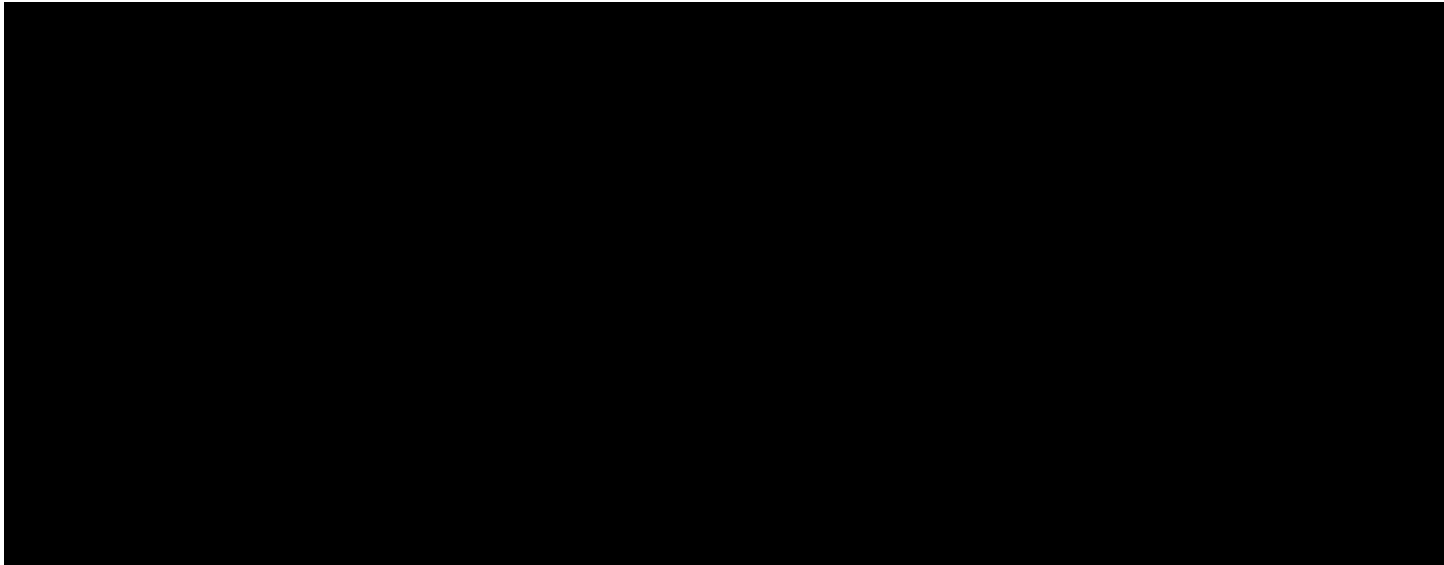
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21-102 **Revised Light Vehicle Accreditation Agreement**

Mr. Herbelin and Mr. Lupky presented Agenda Item 2.1 Revised Light Vehicle Accreditation Agreement.

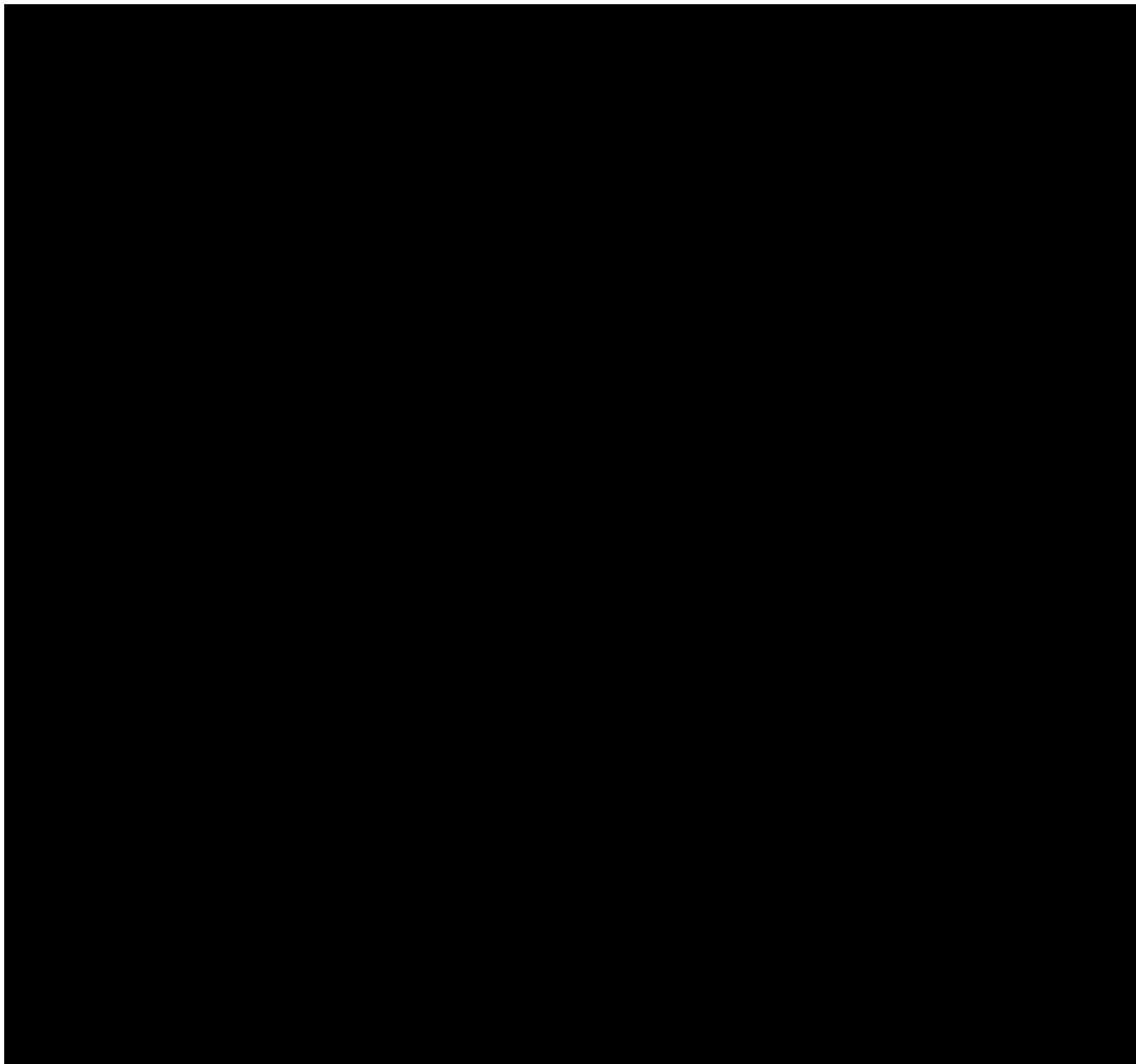
Moved by Mr. Chale and seconded by Ms. Wowryk that the Members approve the revised 2021 Light Vehicle and Accreditation Agreement and compensation schedule as presented.

CARRIED



Date: August 12, 2021

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21-112 **Audit, Finance & Risk Committee Report – Contract Approval - Moneris**

Moved by Mr. Grestoni and seconded by Ms. Wowryk that the Members ratify the recommendation of the Audit, Finance & Risk Committee to approve the Moneris contract for a 5 year term with the annual cost of the contract being approximately \$10M/year and a cumulative contract value of the 5 year term of \$50 million.

CARRIED

Date: August 12, 2021

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Mr. Mark Giesbrecht, and Ms. Cheryl Taylor joined the meeting.

21-123 **Cityplace Cooling Tower Replacement Contract Approval**

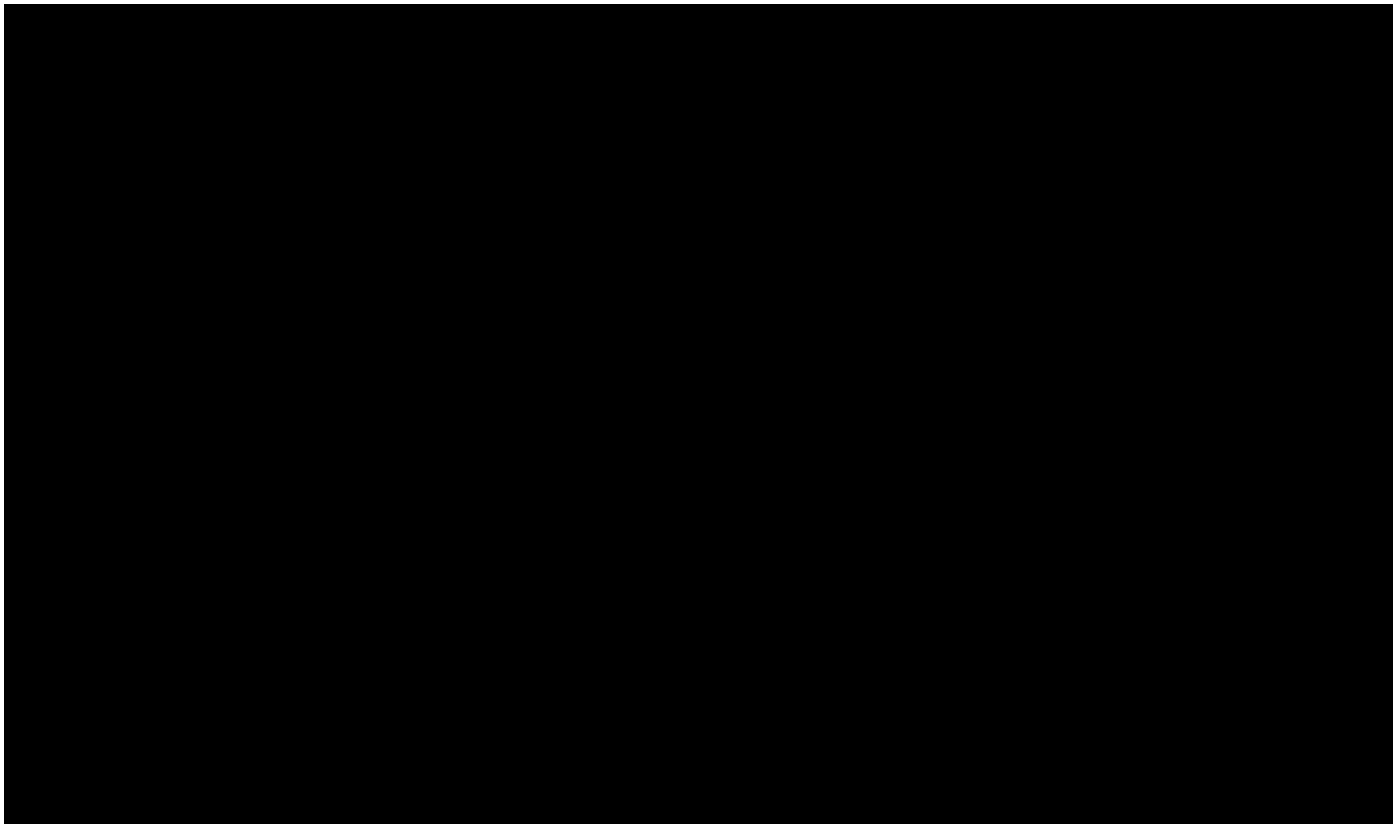
Ms. Taylor presented Agenda Item 4.1 Cityplace Cooling Tower Replacement Contract Approval.

Moved by Mr. Chale and seconded by Ms. Halbert that the Members authorize Management to award tender and enter into a Stipulated Price Contract with the top ranked vendor, Wescan Construction, acting as the General Contractor for replacement of the Cityplace Cooling Towers. The value is not to exceed \$2,221,140 which includes a 15% contingency.

CARRIED

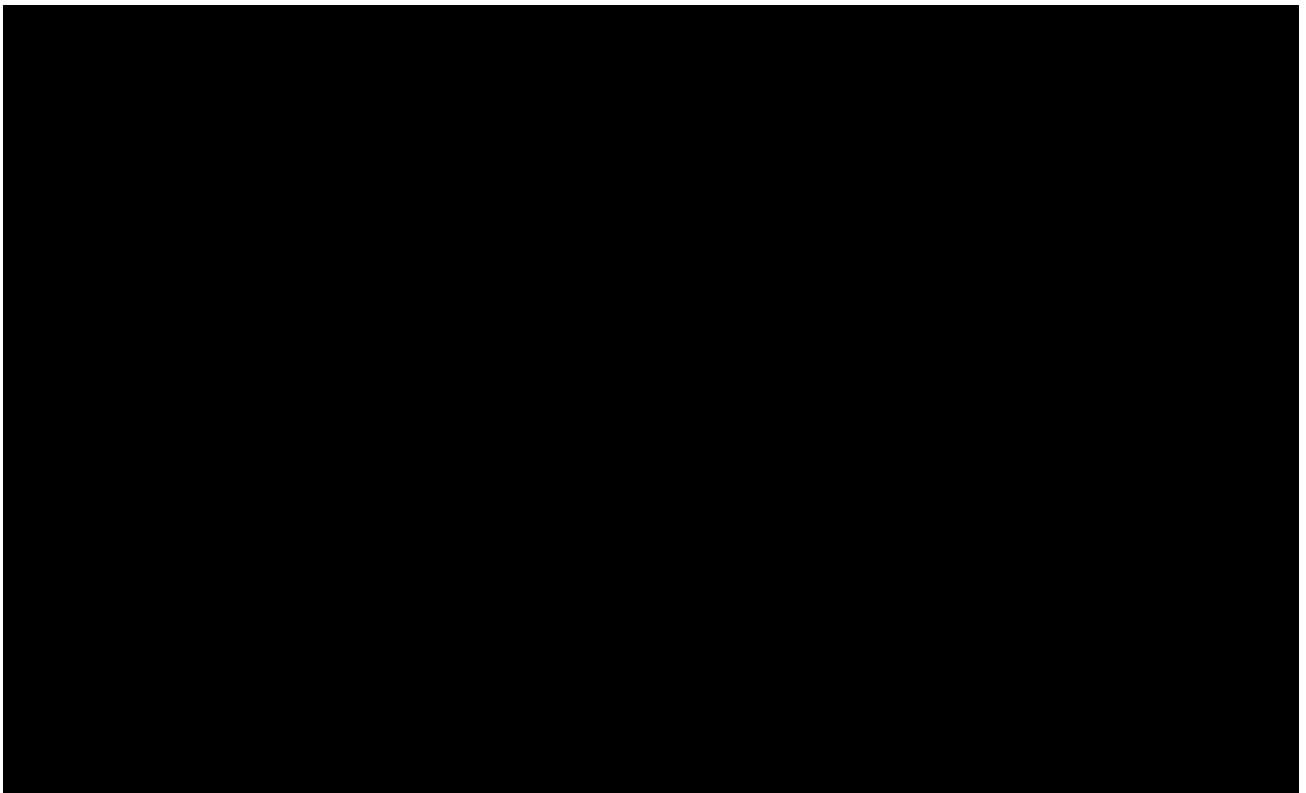
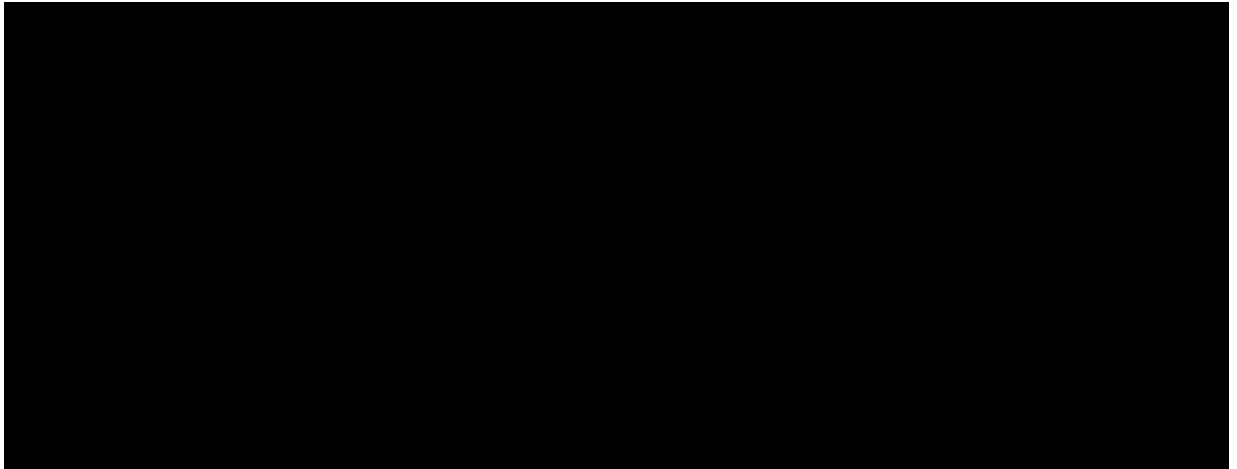
Mr. Giesbrecht and Ms. Taylor withdrew from the meeting.

Mr. Siddhartha Parti and Mr. Rafiq Valliani joined the meeting.



Date: September 29, 2021

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21-146 **Cityplace Building Controls Replacement**

Ms. Taylor presented Agenda Item 4.2 Cityplace Building Controls Replacement Application Update.

Moved by Mr. Chale and seconded by Mr. Robson that the Members authorize Management to award tender and enter into a Stipulated Price Contract and a 5 year Services Agreement with the top ranked vendor, **Trane Canada**, acting as the General Contractor for the upgrade of Cityplace building controls to Direct Digital Control (DDC). The value is

Board of Directors Meeting

Date: September 29, 2021

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not to exceed **\$1,777,730** (taxes not included), which includes a 15% contingency.

CARRIED

21-147 **Efficiency Manitoba – Construction Services**

Ms. Taylor presented Agenda Item 4.3 Efficiency Manitoba – Construction Services.

Moved by Mr. Stefanson and seconded by Mr. Robson that the Members authorize Management to enter into a CCDC2 Stipulated Price Contract with Bird Construction, acting as General Contractor, for the 6th floor scope of the Efficiency Manitoba Tenant Improvement project. Contract value shall not exceed **\$2,038,088** (includes PST, which includes a 15% contingency).

CARRIED

21-148 **Security Services**

Ms. Taylor presented Agenda Item 4.4 Security Services.

Moved by Mr. Stefanson and seconded by Mr. Robson that the members authorize management to award tender and enter into a 1 (one) year contract with option for 6 (six) – one year renewals with the top ranked vendor, **Paladin Security**, for security guard services for both the Cityplace property and various MPI facilities at an annual cost not to exceed \$2,150,000 for a total not to exceed \$16,110,000 over the 7 years of the terms of the agreement.

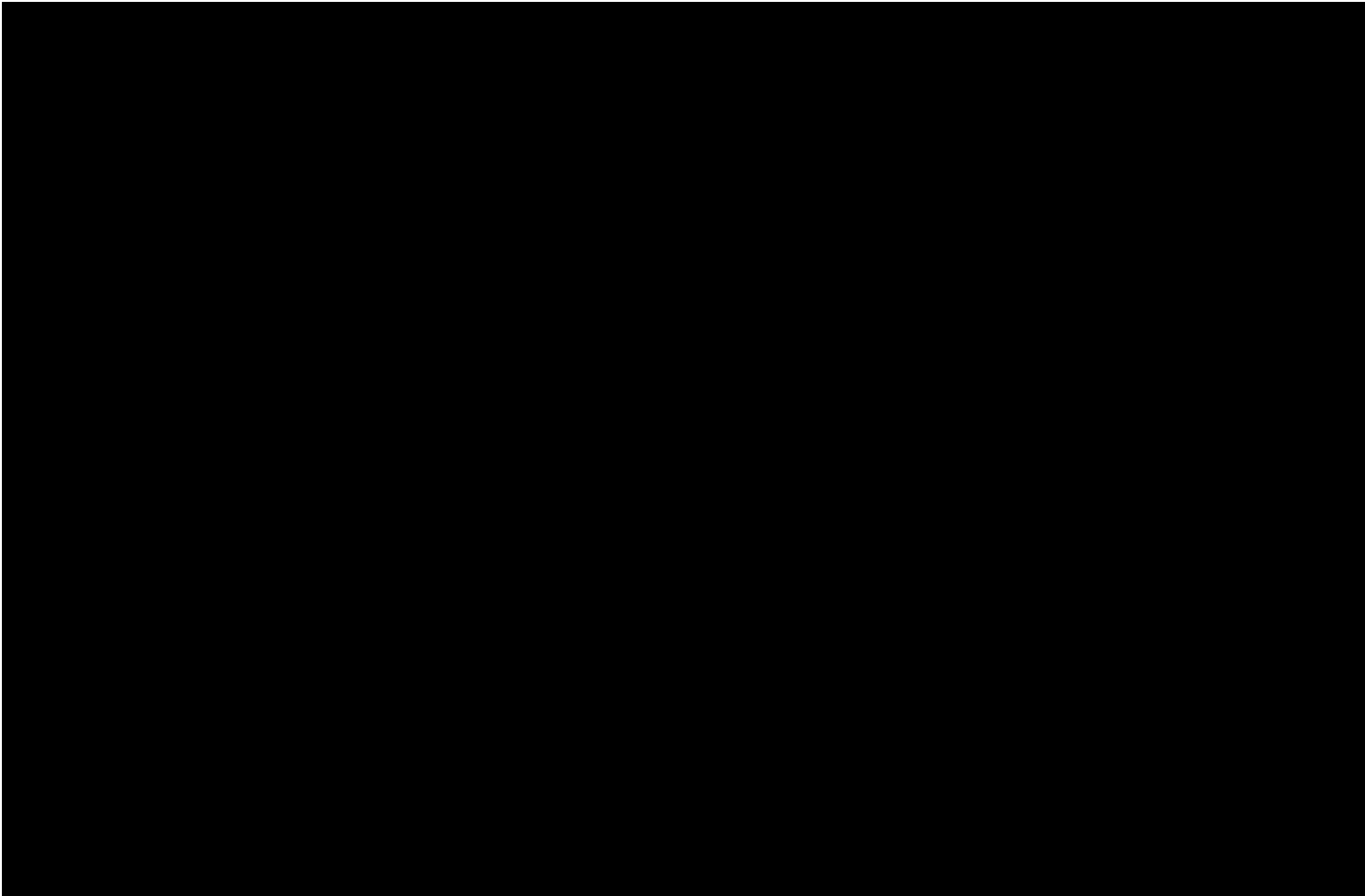
Management will report to the Board prior to the second renewal on the status of the agreement.

CARRIED

Ms. Taylor and Mr. Giesbrecht withdrew from the meeting. Ms. Satvir Jatana joined the meeting.

Date: November 10, 2021

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**21-161 Audit, Finance & Risk Committee Report – Licence Plate Contract**

Moved by Mr. Grestoni and seconded by Ms. Halbert that the Members ratify the recommendation of the Audit, Finance & Risk Committee to authorize the Corporation to enter into a five (5) year contract with Waldale Manufacturing Ltd. to supply licence plates for Manitoba at an estimated cost of \$7,321,000 (tax included) with the option to exercise up to two additional two-year extensions (for a total estimated \$13,178,000 tax included).

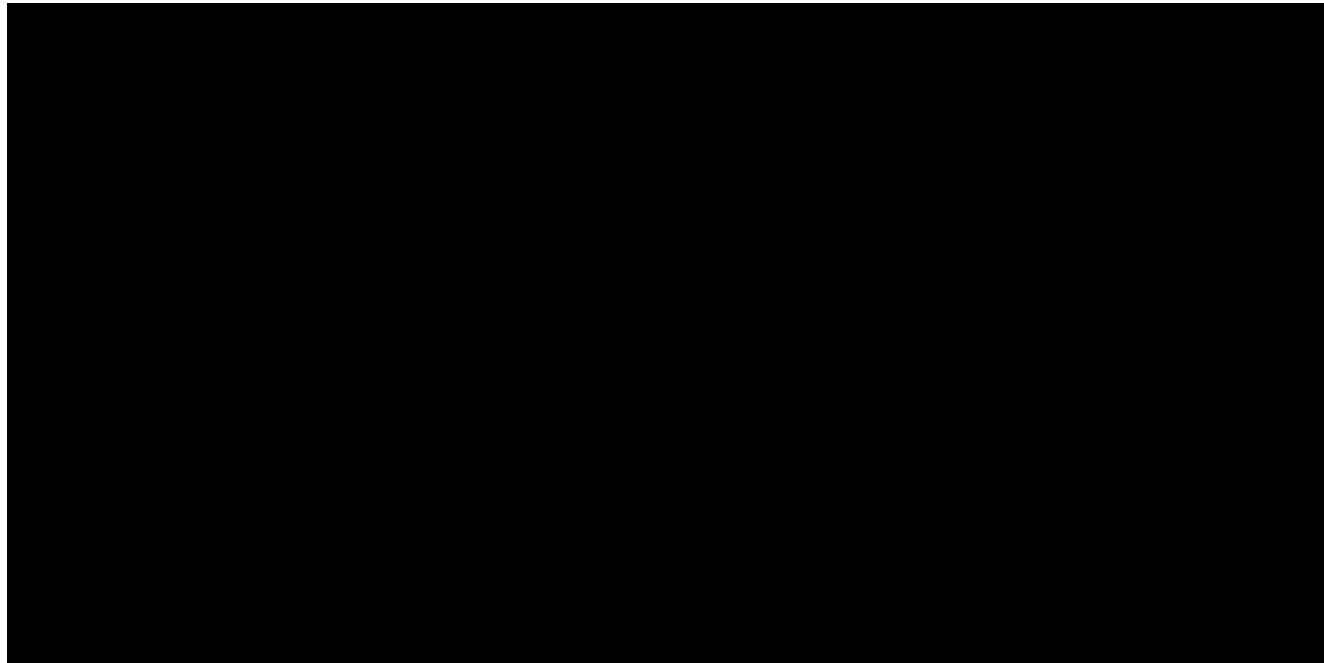
CARRIED

21-162 Audit, Finance & Risk Committee Report – Corporate Directive S.3 Signing and Approval Authority Policy

Moved by Mr. Grestoni and seconded by Mr. Chale that the Members ratify the recommendation of the Audit, Finance & Risk Committee to approve the Corporate Directive S.3 – Signing and Approval Authorities effective November 10, 2021.

Date: December 16, 2021

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21-184 **Technology Committee Report – Contract Approval**
21-185 **Cryptographic Services RFP 3081**

Moved by Mr. Chale and seconded by Mr. Robson that the Members ratify the recommendation of the Technology Committee to approve the award of tender to the highest ranked vendors selected by the evaluation results of RFP 3081.

1. Layer8 Solutions Inc. to provide Cryptographic Key Management services, for a term of five (5) years at a total not to exceed \$591,000.00 USD (\$747,792.30 CAD) plus taxes (in 2021 dollars) effective December 20, 2021.
2. iPSS Inc. to provide Cryptographic Certificate Management services for a term of five (5) years at a total not to exceed \$540,000.00 CAD plus taxes (in 2021 dollars) effective December 20, 2021.

The total value of this RFP is approximately \$1,300,000.00 CAD plus tax.

CARRIED

Date: December 16, 2021

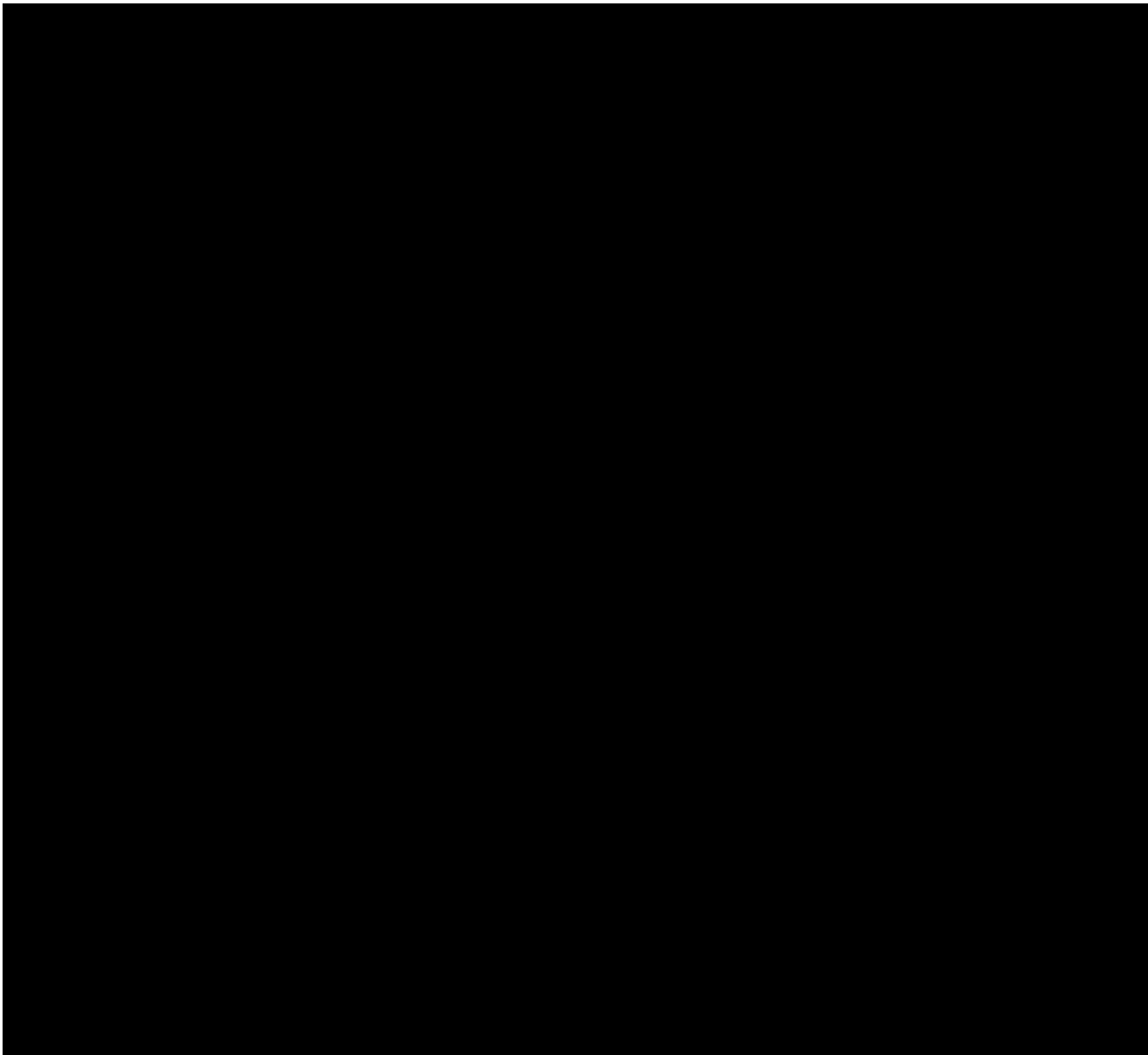
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21-186 **Technology Committee Report – Contract Approval – Audio Visual Equipment and Installation RFP 3096**

Moved by Mr. Chale and seconded by Ms. Halbert that the Members ratify the recommendation of the Technology Committee authorize Management to approve the award of tender to WBM Technologies Inc., the highest ranked vendor selected by the evaluation results of RFP 3096 - Audio Visual Equipment and Installation Services.

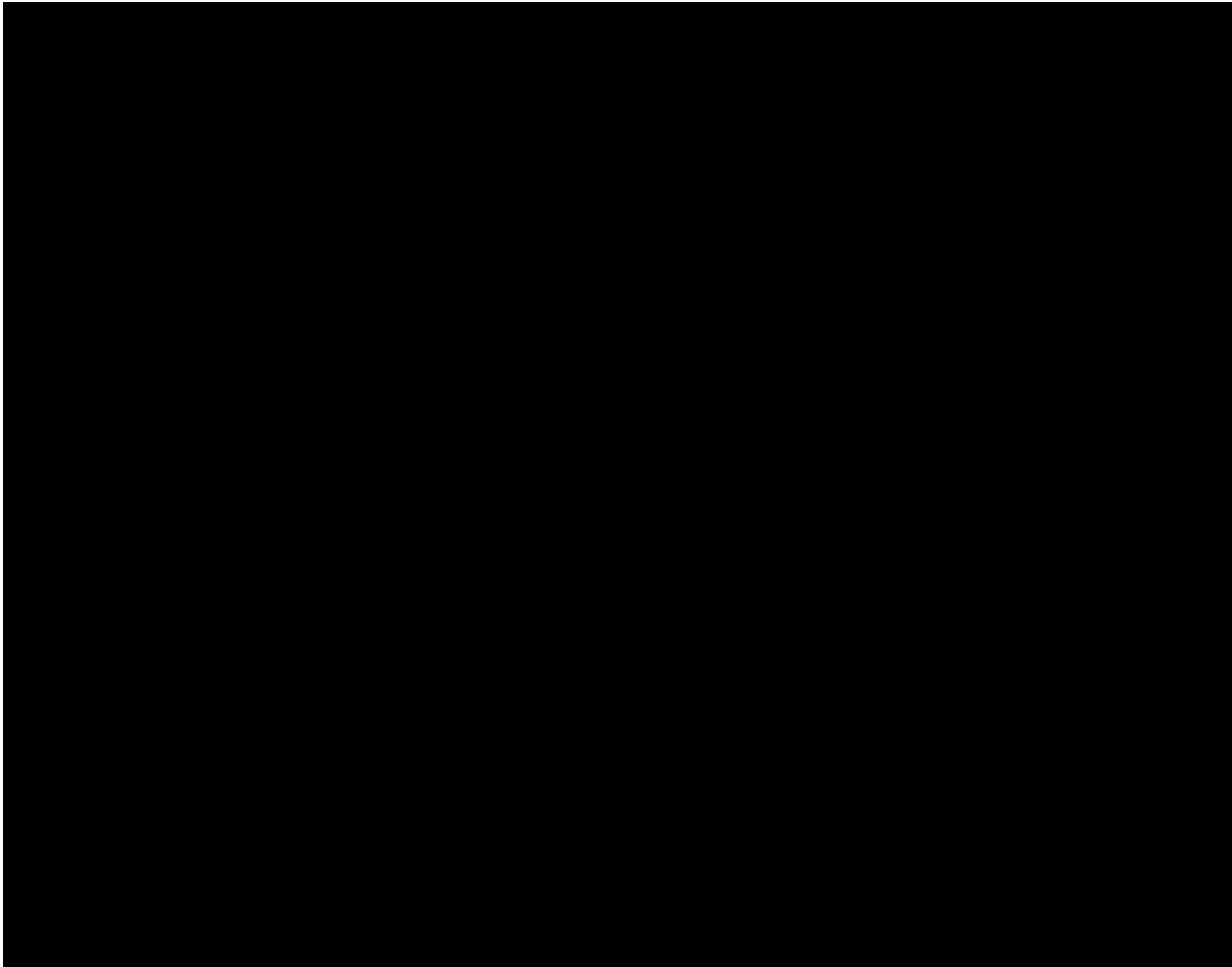
The total value of this contract is not to exceed \$850,000 CAD plus tax.

CARRIED



Date: December 16, 2021

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**21-192 Space Plan 8th Floor Construction Projects – Bird Construction**

Ms. Taylor, presented Agenda Item 4.2 Space Plan 8th Floor Construction Projects – Bird Construction.

Moved by Mr. Robson and seconded by Ms. Halbert that the Members authorize Management to add the 8th floor pricing to the CCDC 2 (2008) Stipulated Price Contract with Bird Construction, acting as General Contractor, for the cityplace Space Plan.

- Contract value for the 9th floor not to exceed \$6.06M.
- Contract value for the 8th floor not to exceed \$5.8M
- Total contract value with Bird Construction not to exceed \$12M

CARRIED

Date: December 16, 2021

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21-193 **Environment and Climate Change Canada**

Ms. Taylor presented Agenda Item 4.3 Environment and Climate Change Canada.

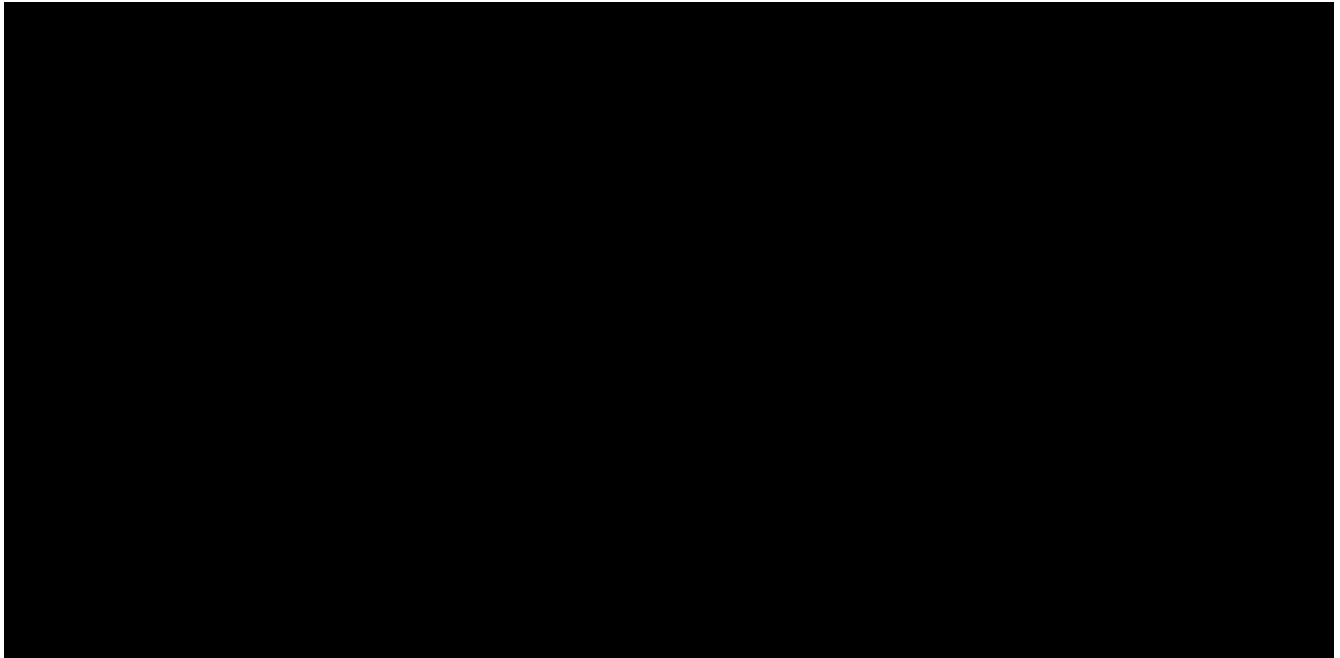
Moved by Mr. Grestoni and seconded by Ms. Halbert that the Members authorize Management to award tender and enter into a Stipulated Price Construction Contract with Gateway Construction, acting as general contractor, for the 5th floor, Room 510, scope of the Environment and Climate Change Canada tenant fit up project and approve funding to an amount not to exceed \$11,026,487 (\$2,597,288 as the MPI portion).

CARRIED



Date: December 16, 2021

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Date: March 24, 2022

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22-046 Traumatic Brain Injury Research Sponsorship

Ms. Jatana, Dr. Zeiler and Mr. Lyon presented Agenda Item 4.1 Traumatic Brain Injury Research Sponsorship.

Moved by Mr. Robson and seconded by Mr. Chale that the Members approve the Health Sciences Centre Foundation Traumatic Brain Injury (TBI) sponsorship request of \$2M investment, with the total investment being paid over two fiscal years (2021/22 and 2022/23).

CARRIED

Ms. Satvir Jatana, Dr. Frederick Zeiler and Mr. Jonathan Lyon withdrew from the meeting.

Ms. Marnie Kacher and Mr. Steve Lupky joined the meeting.

22-047 Paint Material Adjustment

Ms. Kacher and Mr. Lupky presented Agenda Item 4.3 Paint Material Adjustment

Moved by Mr. Stefanson and seconded by Mr. Robson that the Members approve a 10.5% increase in Paint Material compensation under the 2021 Light Vehicle Accreditation Agreement (LVAA) effective April 1, 2022.

CARRIED

Mr. Lupky withdrew from the meeting, and Ms. Dana Frazer joined the meeting.

22-048 Non Contract Towing Rates

Mmes. Kacher and Frazer presented Agenda Item 4.4 Non Contract Towing Rates.

Date: March 24, 2022

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Moved by Mr. Chale and seconded by Mr. Stefanson that the Members approve MPI moving from a posted rate sheet for light vehicle non contract towing to a formalized Master Service Agreement implemented in two phases.

CARRIED

Phase 1 – April 2022

- An immediate increase of the light vehicle basic towing rate
 - Southern rates –increase from \$56.10 to \$67.00
 - Northern rates – increase from \$61.70 to \$74.00
- Elimination of secondary tow rate category
- Enhancements to the Partner’s website
- Centralized Towing Support

Phase 2 – September 2022

- Full implementation of Master Service Agreement
- Potential rate changes of remaining tow rate categories
- Industry to be onboarded onto existing technology – Tow App

Ms. Kacher and Ms. Frazer withdrew from the meeting.

Ms. Cara Low and Mr. Dean Dunstone joined the meeting.

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]



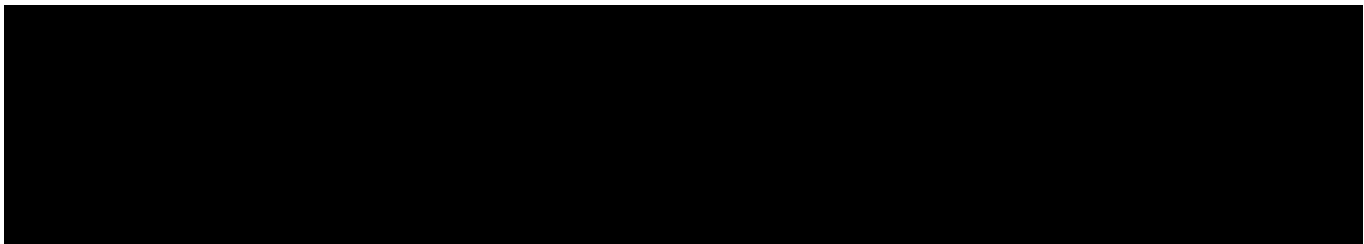
Board of Directors Meeting

Meeting Date: Friday, April 29, 2022 3:00 p.m.
Place: 820 - 234 Donald Street, Winnipeg, Manitoba
– Online Voting

Present: DR. M. SULLIVAN, CHAIR
MR. R. CHALE
MR. D. GRESTONI
MS. C. HALBERT
MR. K. KLIPPENSTEIN
MR. G. LEIPSIC
MR. G. STEFANSON
MR. E. HERBELIN, PRESIDENT & CEO

Regrets: MR. J ROBSON
MR. K MUNROE

Management: MR. M. TRIGGS, GENERAL COUNSEL & CORPORATE
SECRETARY



22-053 Technology Committee Report - Fineos Business Case Approval

Members reviewed the recommendation to approve item 2.1 Voting – Fineos Business Case Approval online.

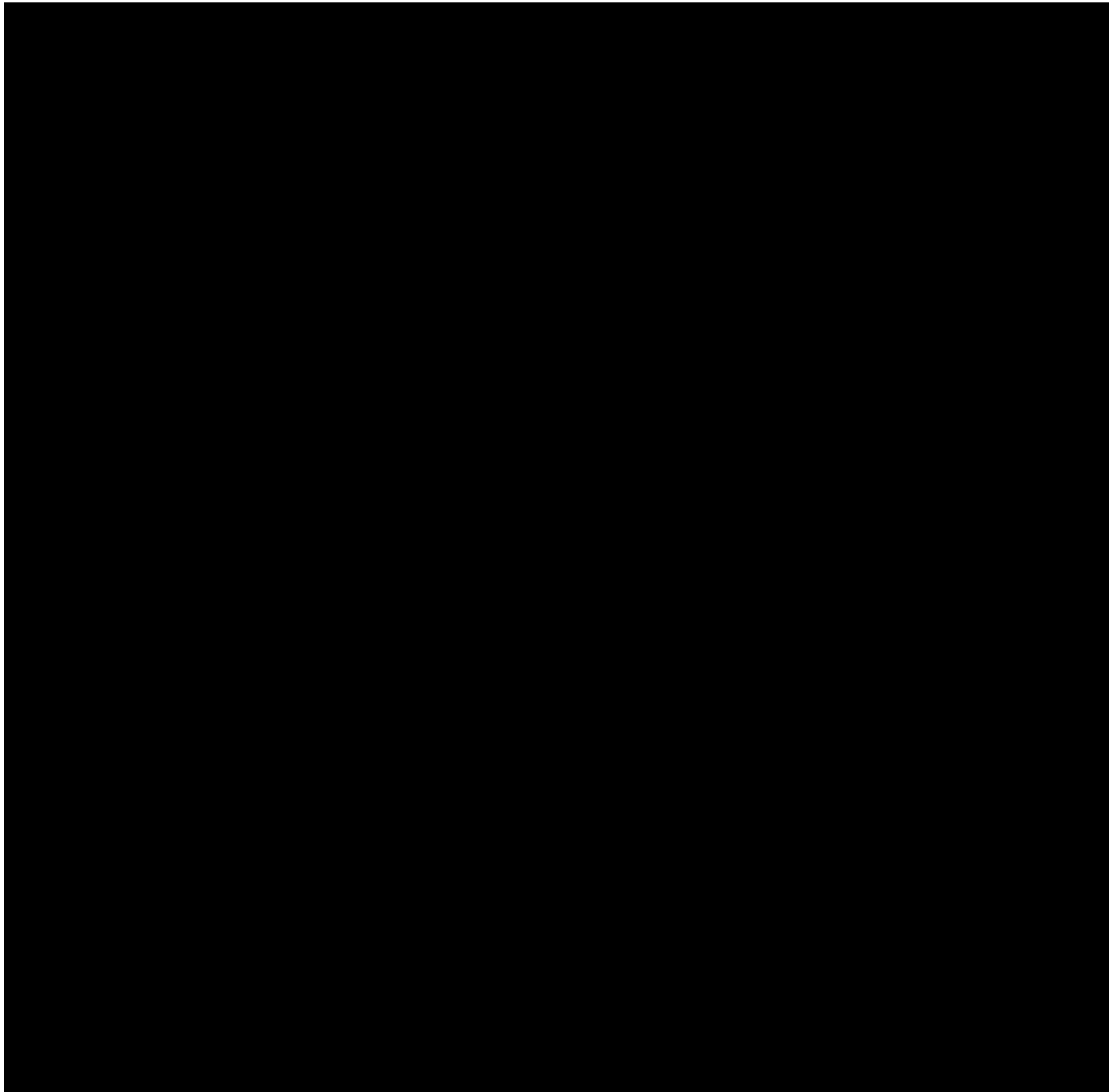
Moved by Kevin Klippenstein and seconded by Domenic Grestoni that the Members approve transition from the current BI3 on-premise solution to a SaaS (Software as a Service) model with FINEOS Corporation Ltd. at an annual subscription cost of \$1M annually (Initial 5-year term not to exceed \$5M, with an optional 5-year renewal term for a total contract value not to exceed \$10M) and a total one-time implementation cost not to exceed \$2.2M plus expenses and applicable taxes.

CARRIED

Board of Directors Meeting

Date: June 23, 2022

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Date: June 23, 2022

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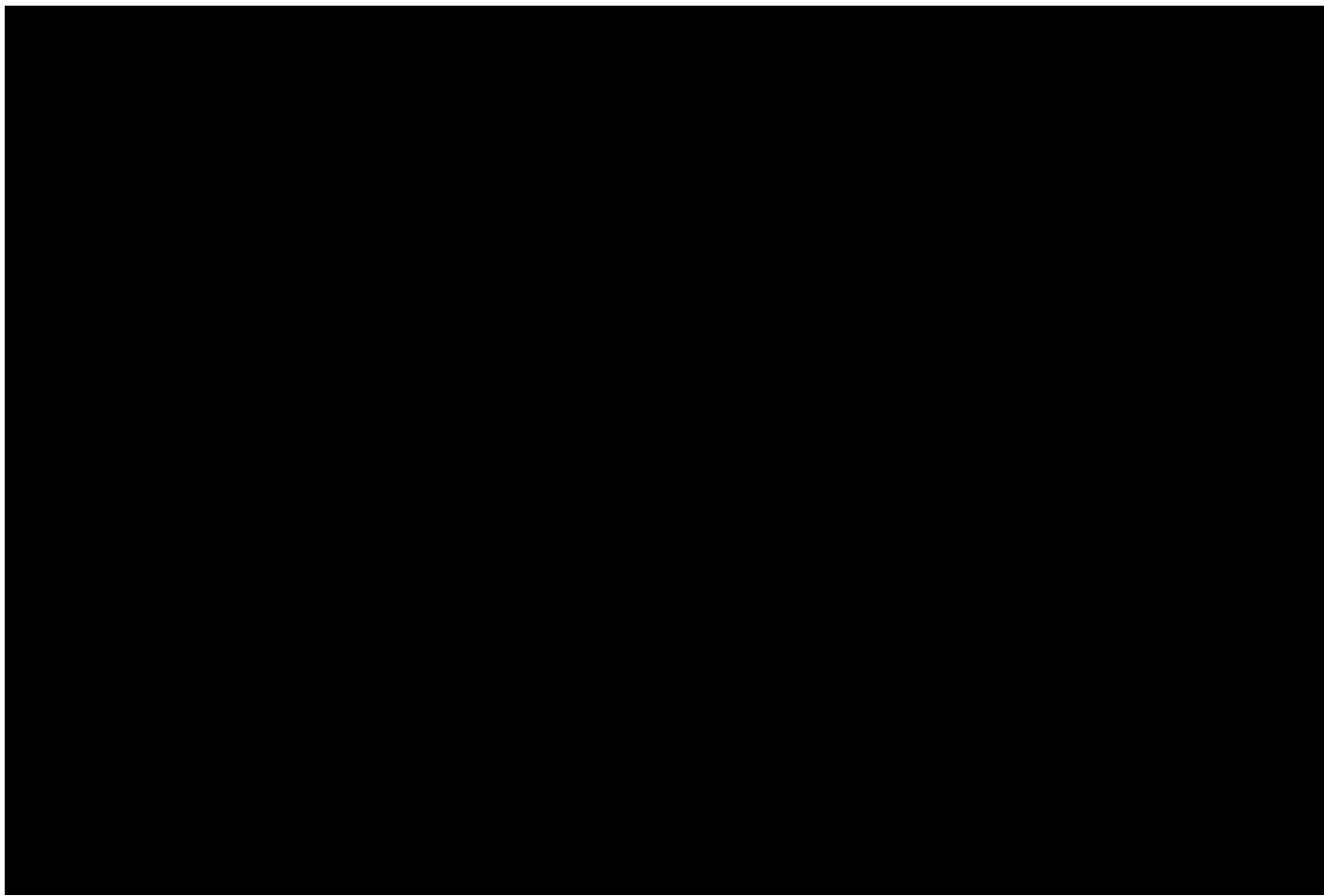
22-077 **Light Vehicle Non-Contract Towing Strategy**

Ms. Kacher and Ms. Frazer presented Agenda Item 5.3 Light Vehicle Non-Contract Towing Strategy

Following discussion, Members received the report as information. In accordance with motion 22-048 which approved that there may be potential rate changes to remaining tow rate categories, moved by Mr. Chale and seconded by Mr. Munroe rates paid in the Master Service Agreement will be increased by \$3.9 Million over the next 3 years over what was paid in 2020-2021.

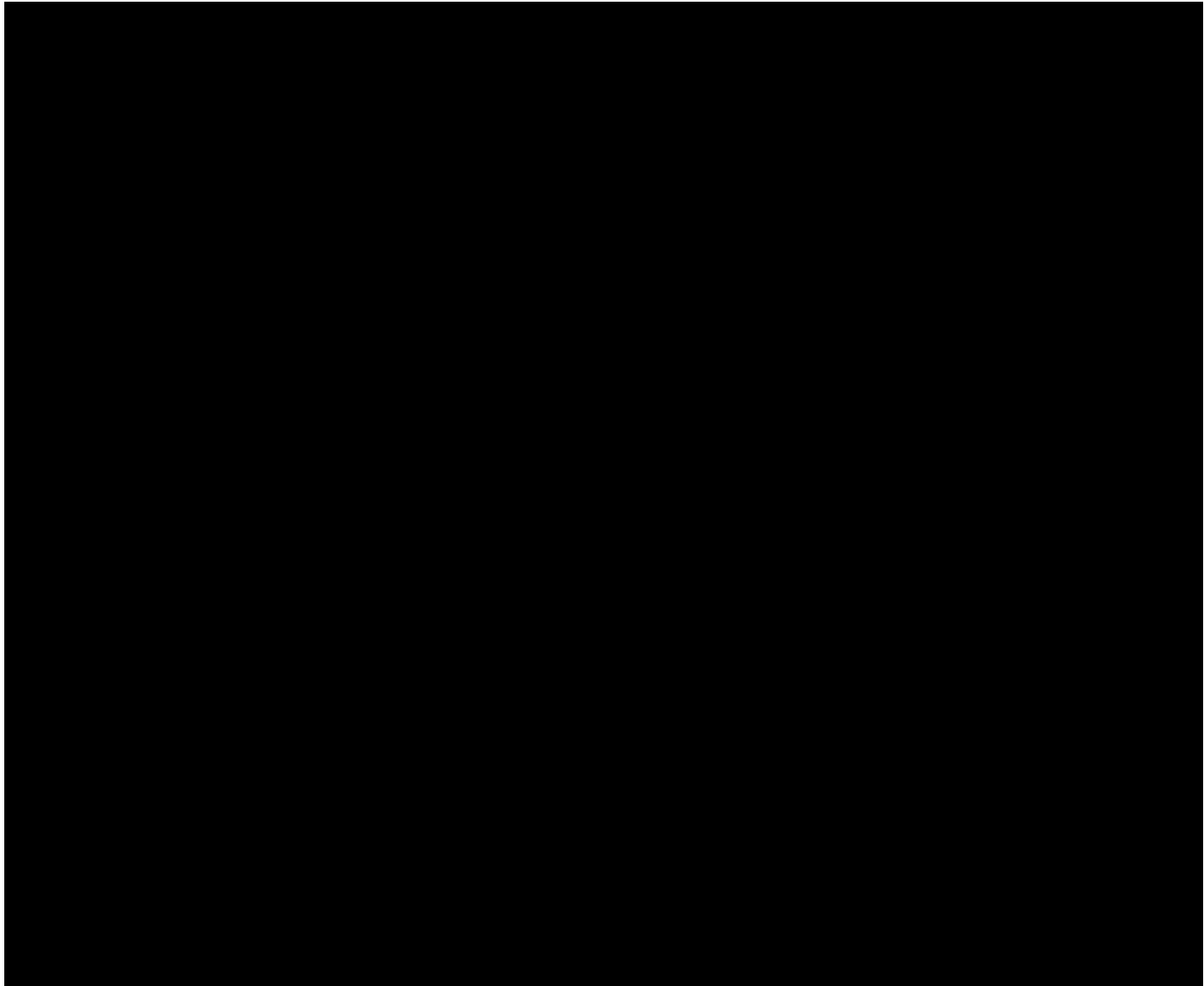
CARRIED

Mr. Mark Giesbrecht and Ms. Cheryl Taylor joined the meeting.



Date: March 24, 2022

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22-045 **Extension Capital Transfer**

Mr. Giesbrecht presented Agenda Item 4.2 Extension Capital Transfer. The estimated amount of the excess capital in Extension in March, 2022 is \$65 million pending final year end results.

Moved by Mr. Leipsic and seconded by Mr. Klippenstein that the Members approve a transfer of capital from the Extension line of business to the Driver Vehicle Administration line of business March 24, 2022 of all capital in excess of 200% MCT.

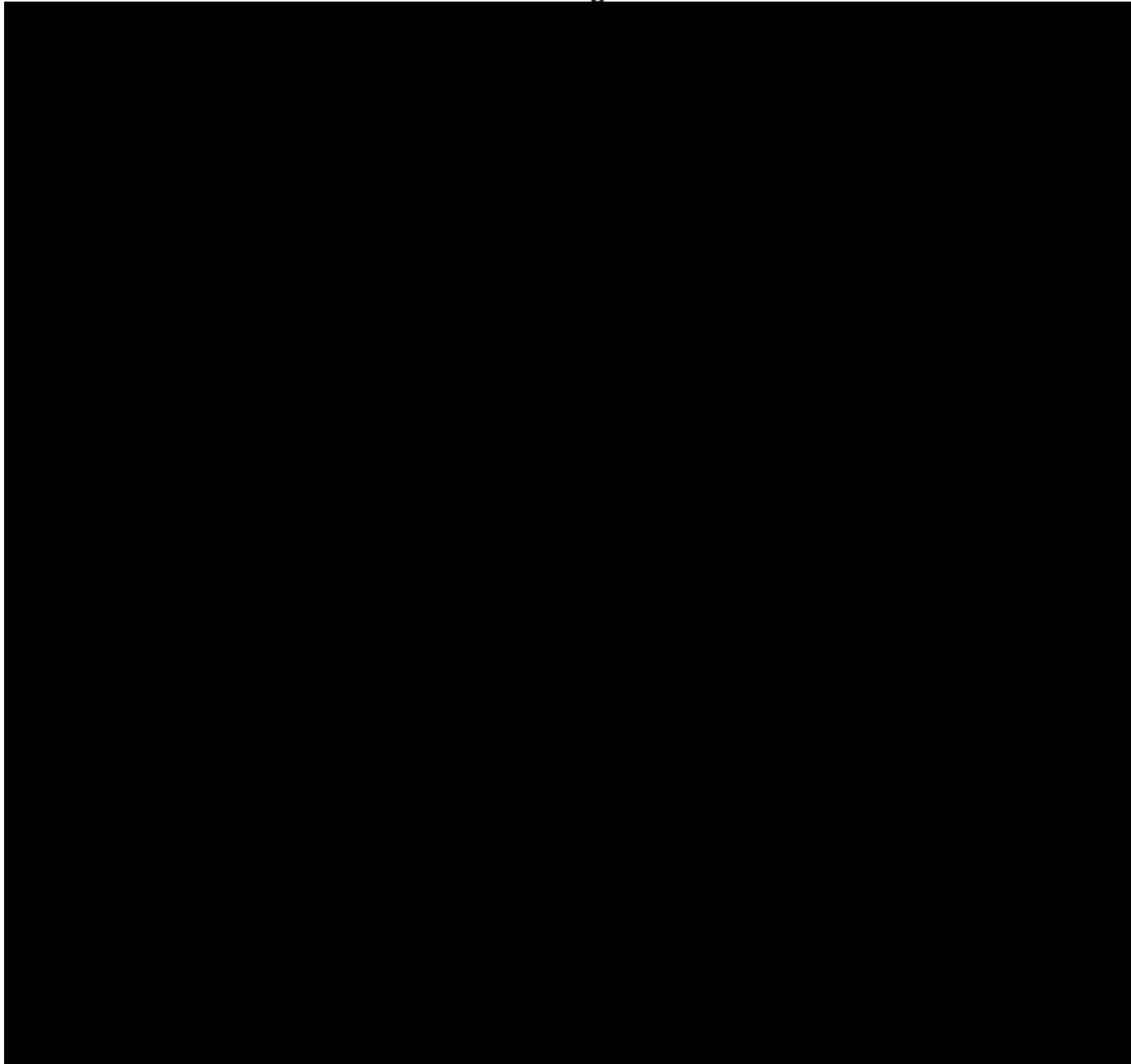
CARRIED

Board of Directors - Committee Meeting

AUDIT, FINANCE & RISK COMMITTEE MINUTES

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**Risk Management
Evaluation – Top
Risks & Top Risk
Scorecards**

Mr. Sprenger presented Agenda Item D.4 Risk Management Evaluation – Top Risks and Top Risk Scorecards

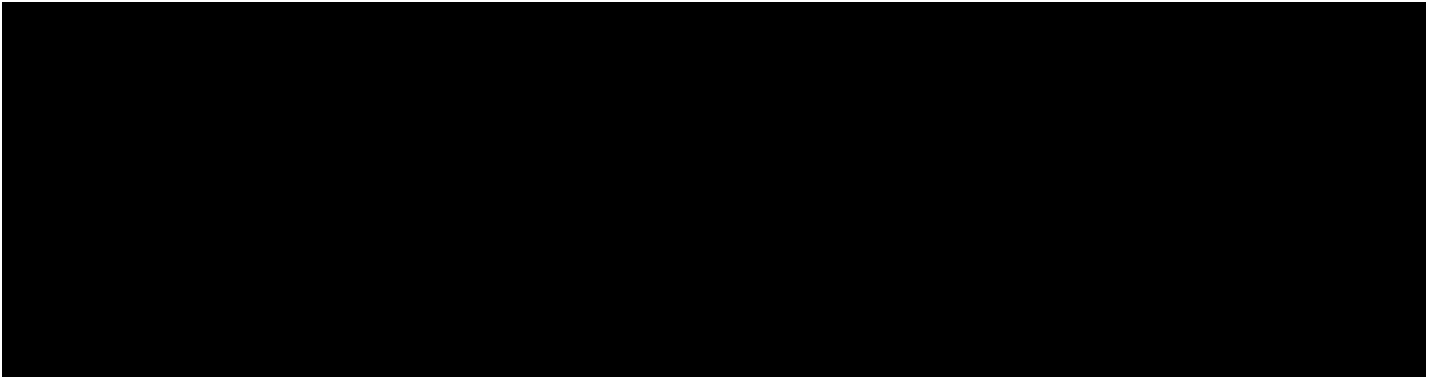
Following discussion, Members received the report as information.

Board of Directors - Committee Meeting

AUDIT, FINANCE & RISK COMMITTEE MINUTES

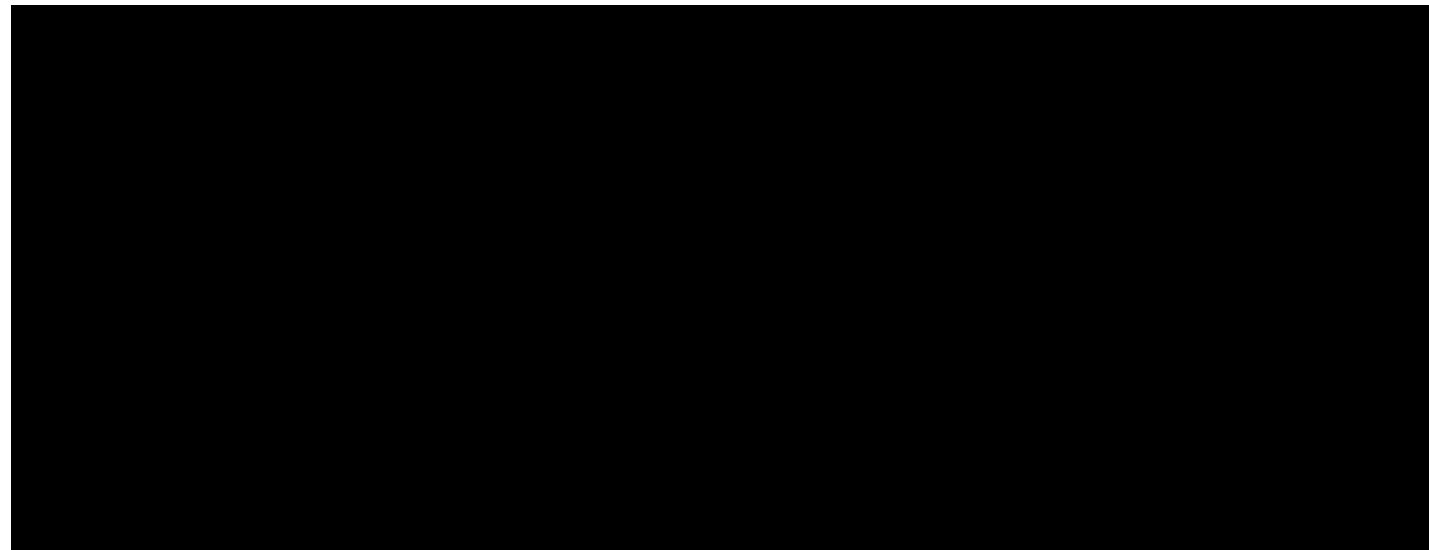
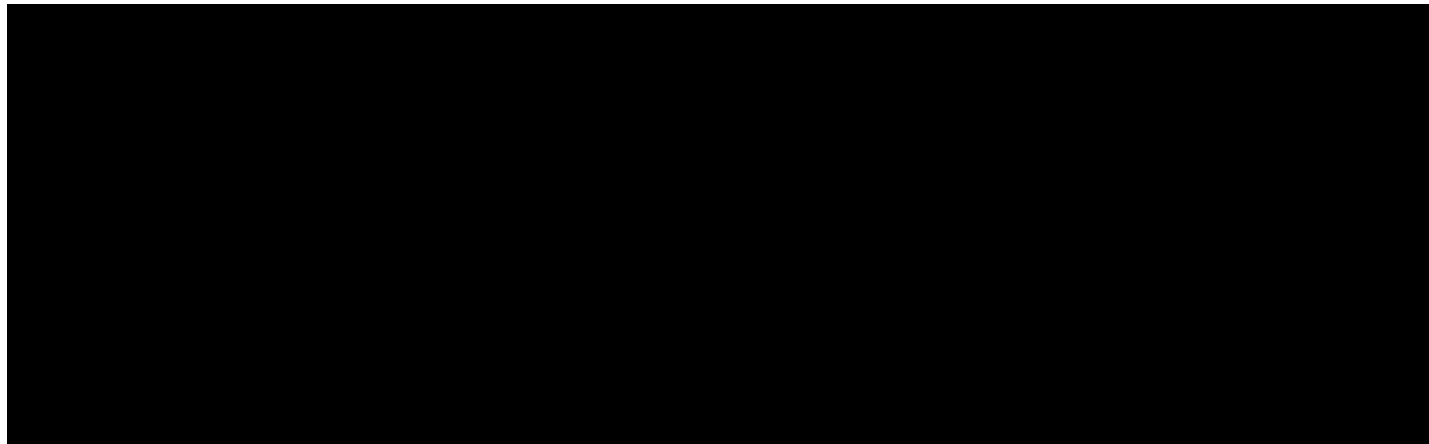
Date: November 10, 2021

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**Enterprise Risk
Management –
Risk Register**

Members received Agenda Item D.4 Enterprise Risk Management – Risk Register as information.

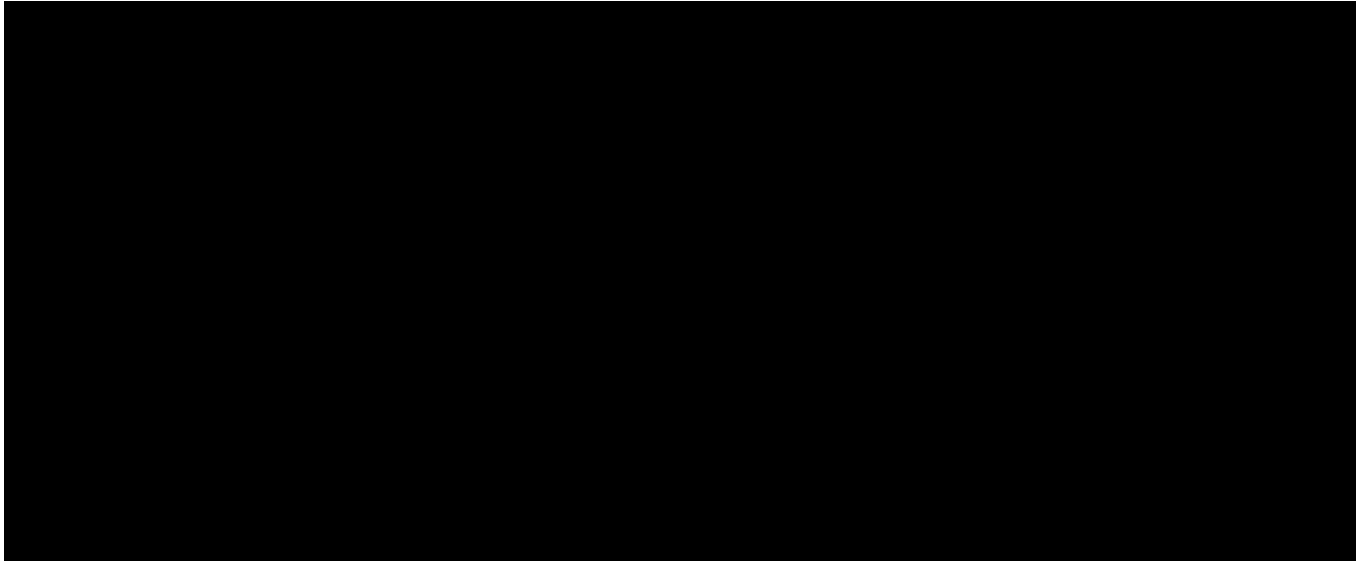


Board of Directors - Committee Meeting

AUDIT, FINANCE & RISK COMMITTEE MINUTES

Date: February 10, 2022

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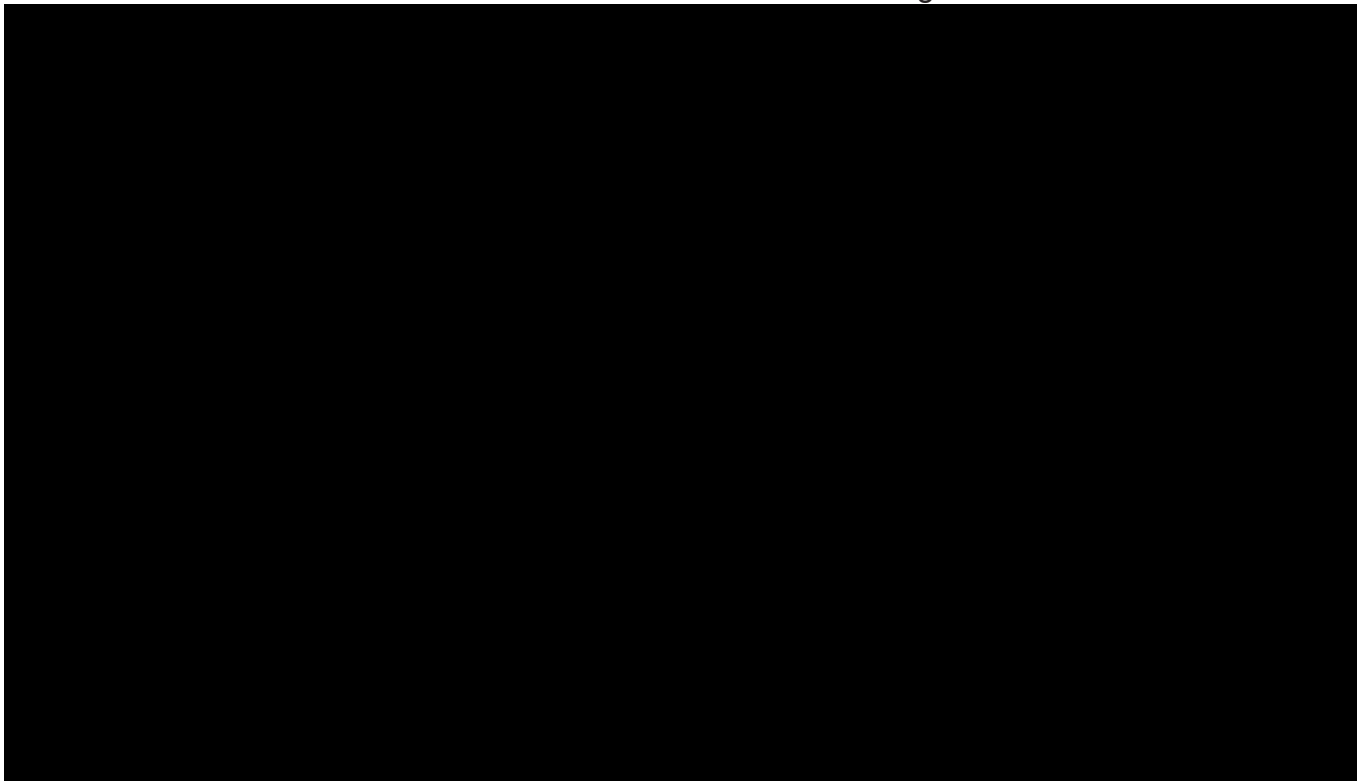


**Enterprise Risk
Management
Financial Volatility
Dashboard**

Mr. Dunstone presented Agenda Item 3.5 Enterprise Risk Management Financial Volatility Dashboard.

Following discussion, Members received the report as information.

Mr. Dunstone withdrew from the meeting.

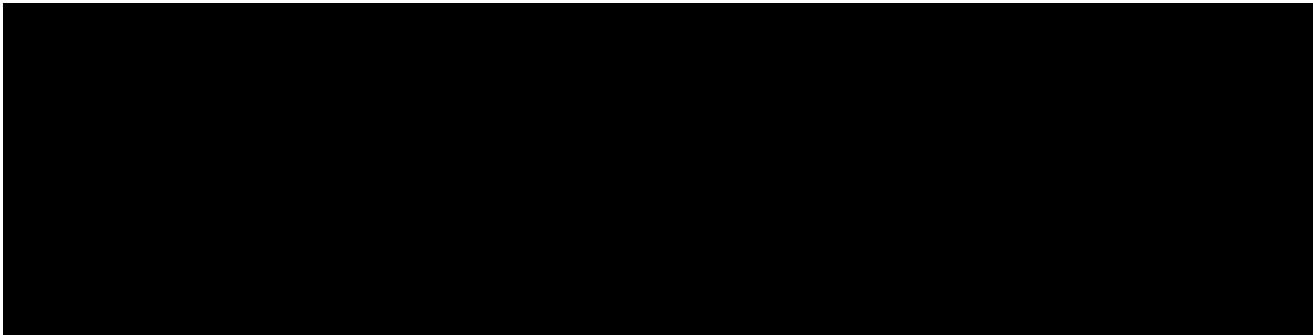


Board of Directors - Committee Meeting

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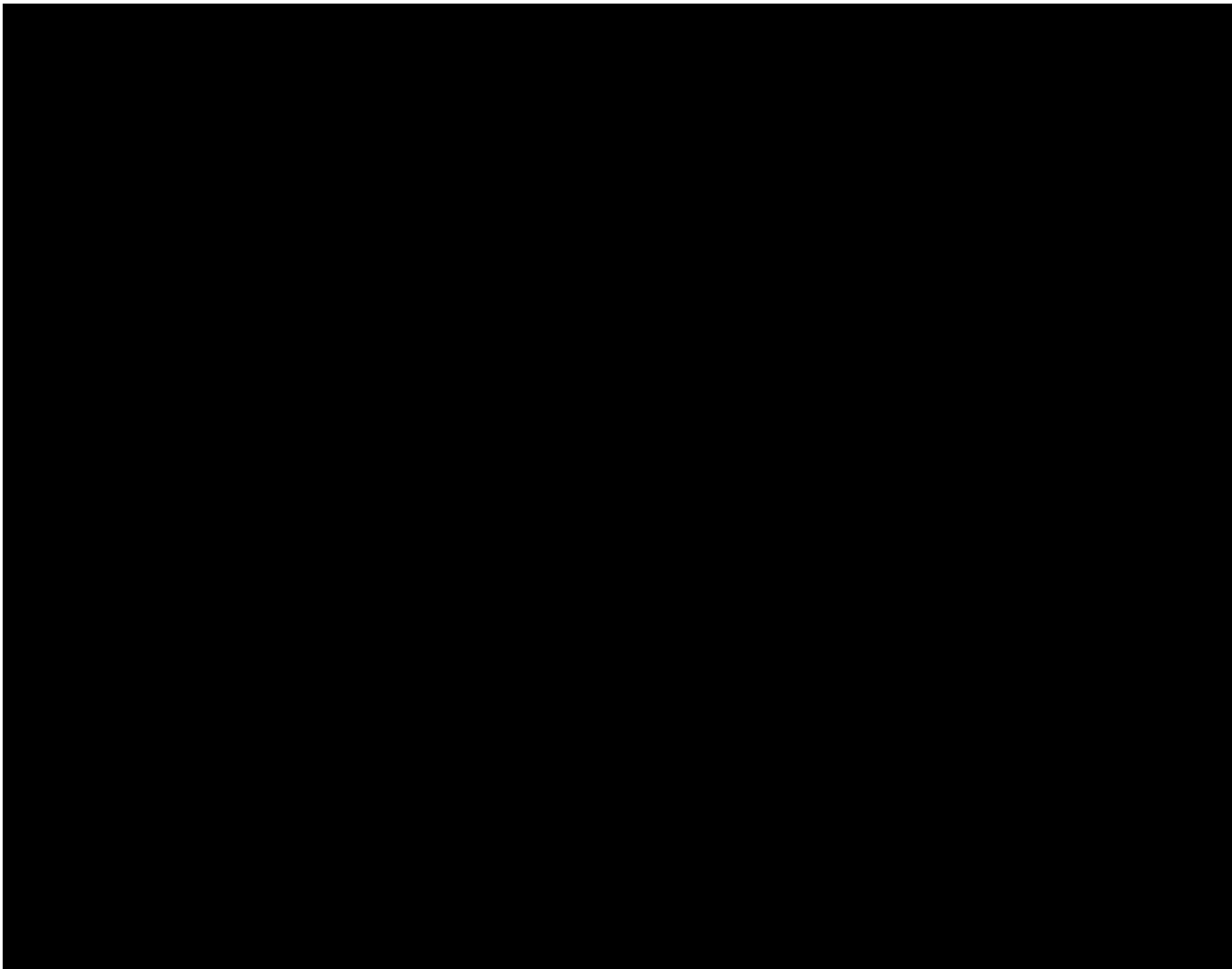
Date: February 10, 2022

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Enterprise Risk Management Update and Next Steps

Members received Agenda Item 4.6 Enterprise Risk Management Update and Next Steps as information.



PUB (MPI) 1-2

Part and Chapter:	Part VI – Accepted Actuarial Practice – RM Ratemaking	Page No.:	5
PUB Approved Issue No:	1. Requested vehicle rate and any changes to other fees and discounts		
Topic:	Provisional Rate Request		
Sub Topic:			

Preamble to IR:

The rate MPI requests at the time of the filing of its Application is based on fiscal-year end results and uses the naïve interest rate forecast methodology as at March 31, 2022. MPI has proposed that the rate request be updated and finalized based on actual data to July 31, 2022 and interest rates as at August 31, 2022.

Question:

- a) As a sensitivity test, please provide the results of an alternate analysis of the Basic rate requirement (overall and by Major Use classification) reflecting market interest rates (including Provincial and Corporate bond movements) as of July 31, 2022. Please include alternate AAP rate indications, alternate Basic and Extension Pro-Formas, alternate application of the proposed Capital Management Plan, and alternate rate requirements, with supporting schedules as appropriate. Please include the estimated impact on the AOCI based on the estimated revaluation of the Pension obligation.

- b) As a sensitivity test, please provide the results of an alternate analysis of the Basic rate requirement (overall and by Major Use classification) reflecting market interest rates (including Provincial and Corporate bond movements) as of July 31, 2022. Please include alternate AAP rate indications, alternate Basic and Extension Pro-Formas, alternate application of the proposed Capital Management Plan, and alternate rate requirements, with supporting schedules as appropriate. Please include the estimated impact on the AOCI based on the estimated revaluation of

- the Pension obligation. In addition to a) please assume that the capital release provision of 5% is continued for the rating year.
- c) As a sensitivity test, please provide the results of an alternate analysis of the Basic rate requirement (overall and by Major Use classification) reflecting market interest rates (including Provincial and Corporate bond movements) as of July 31, 2022. Please include alternate AAP rate indications, alternate Basic and Extension Pro-Formas, alternate application of the proposed Capital Management Plan, and alternate rate requirements, with supporting schedules as appropriate. Please include the estimated impact on the AOCI based on the estimated revaluation of the Pension obligation. In addition to a) please assume that any capital in excess of 100% is rebated at the end of 2022/23 and indicate the amount of the rebate.
- d) Please provide the supporting calculation for the determination of the marketable bond yield used in (a) showing weight and yield by bond type.
- e) Please provide the supporting calculation for the determination of the claims discount rate used in (a) showing weight and yield by bond type.
- f) Please provide the source documents supporting the various interest and discount rate determinations.

Rationale for Question:

To monitor the impact on the rate requirements of changing market interest rates.

RESPONSE:

a), b) and c)

Figure 1 summarizes the resulting New Money Yield, actuarially indicated rate, and capital management summary applicable to Basic for each respective scenario as provided in parts a), b) and c), as well as comparative numbers from the Base Scenario as presented in the 2023 GRA.

Figure 2 is Required Rate Changes by Major Classification for scenarios a) b) and c).

Figures 3 to 7 are updated PF-1, PF-2, PF-3, EPF-1, EPF-3 for scenario part a)

Figures 8 to 12 are updated PF-1, PF-2, PF-3, EPF-1, EPF-3 for scenario part b)

Figures 13 to 17 are updated PF-1, PF-2, PF-3 and EPF-1, EPF-3 for scenario part c)

In addition, the estimated impact on the Accumulated Other Comprehensive Income (AOCI) based on the estimated revaluation of the Pension obligation can be found on Line 14 of PF-3 for Basic and Line 13 of EPF-3 for Extension.

For part c), the capital excess of 100% MCT at the end of 2022/23 is approximately \$106.6 million and can be found on Line 4 of Figure 1.

Figure 1 Rate Indication Table and MCT % after Rebate and Capital Management Plan

Line No.	Scenario	New Money Yield	AAP Breakeven Rate Indication	Capital Build / (Release) Provision	Rebate (in million) 22/23	Transfer from Extension (in million)			MCT % After Basic Rebate, Transfer from Extension and Capital Build / Release		
						22/23	23/24	24/25	22/23	23/24	24/25
1	2023 GRA - Base	3.43%	-0.86%	0.00%	-	42.3	37.8	42.0	108.1%	108.5%	114.6%
2	PUB 1-2 a)	3.73%	-1.40%	0.00%	-	45.1	39.2	43.3	125.7%	126.9%	134.0%
3	PUB 1-2 b)	3.73%	-1.40%	-5.00%	-	45.1	39.5	43.3	125.7%	119.4%	120.9%
4	PUB 1-2 c)	3.73%	-1.40%	0.00%	(106.6)	45.1	39.2	43.3	100.0%	101.2%	108.2%

Figure 2 Rating Year 2023/24 Major Classification Required Rate Changes - Breakeven Rates

Line No.	Coverage	Overall	Private Pass	Comm	Public	Motor-Cycle	Trailer	ORV
1	23/24 Units	1,276,421	873,100	49,500	11,800	20,600	237,821	83,600
2	Claims	686.67	911.76	708.80	1,766.08	692.47	41.35	4.82
3	Claims Expense	124.51	165.33	128.53	320.24	125.57	7.50	0.87
4	Road Safety	9.92	13.26	13.26	13.26	13.26	0.00	0.00
5	Operating Expense	76.10	101.71	101.71	101.71	101.71	0.00	0.00
6	Regulatory/Appeal	3.43	4.59	4.59	4.59	4.59	0.00	0.00
7	Commission: Vehicle	40.15	53.21	42.06	99.99	39.58	2.87	0.26
8	Prem Tax: Vehicle	28.01	37.13	29.34	69.76	27.61	2.00	0.18
9	Comm & Prem Tax: Driver	3.34	4.46	4.46	4.46	4.46	0.00	0.00
10	Commission Flat Fee	4.36	5.82	5.82	5.82	5.82	0.00	0.00
11	Reins: Casualty	1.48	1.97	1.97	1.97	1.97	0.00	0.00
12	Reins: Catastrophe	11.92	12.98	12.98	12.98	0.00	12.98	0.00
13	Fleet Rebates	15.43	21.08	21.08	21.08	0.00	0.00	0.00
14	Anti-Theft Discount	0.55	0.80	0.00	0.00	0.00	0.00	0.00
15	Driver Prem	50.58	67.61	67.61	67.61	67.61	0.00	0.00
16	Service Fees	21.67	28.96	28.96	28.96	28.96	0.00	0.00
17	Req Rate (Raw)	933.61	1,237.53	978.03	2,325.39	920.48	66.70	6.15
18	Req Rate (Bal)	916.63	1,215.03	960.24	2,283.10	903.74	65.49	6.03
19	22/23 Average Rate	882.56	1,163.41	884.25	2,221.22	901.96	68.87	5.98
20	Major Class Drift	5.4%	6.2%	5.0%	0.9%	0.5%	5.9%	0.0%
21	23/24 Average Rate							
22	Without Rate Change	930.10	1,235.12	928.18	2,241.38	906.75	72.94	5.98
23	Full Cred Req Change	-1.4%	-1.6%	3.5%	1.9%	-0.3%	-10.2%	0.9%
24	Applied for Change	-1.4%	-1.6%	3.5%	1.9%	-0.3%	-10.2%	0.9%
25	Credibility		99.3%	89.2%	66.3%	77.4%	97.5%	93.3%
26	Cred Wtd Change		-1.6%	2.9%	0.7%	-0.6%	-10.0%	0.8%
27	Cred Wtd Req Rate		1,215.17	955.33	2,258.13	901.54	65.64	6.03
28	Cred Wtd Req Rate (Bal)	916.63	1,215.61	955.67	2,258.95	901.87	65.67	6.03
29	Cred Wtd Change (Bal)		-1.6%	3.0%	0.8%	-0.5%	-10.0%	0.8%

Figure 3 PF-1 Statement of Operations – Basic

Multi-year - Statement of Operations

Line No.	PUB 1-2(a) (C\$ 000s, rounding may affect totals)	For the Years Ended March 31,					
		2022A	2023FB	2024F	2025F	2026F	2027F
1							
2	BASIC	2021/22A	2022/23FB	2023/24F	2024/25F	2025/26F	2026/27F
3	Motor Vehicles	1,092,643	1,119,227	1,143,924	1,184,318	1,226,810	1,270,793
4	Capital Release Provision	(73,275)	(57,857)	-	-	-	-
5	Drivers	61,511	59,927	63,390	65,996	68,165	70,094
6	Reinsurance Ceded	(15,659)	(16,352)	(16,843)	(17,348)	(17,868)	(18,404)
7	Total Net Premiums Written	1,065,220	1,104,945	1,190,471	1,232,966	1,277,107	1,322,483
8	Net Premiums Earned						
9	Motor Vehicles	1,094,496	1,107,273	1,131,793	1,164,476	1,205,937	1,249,188
10	Capital Release Provision	(36,176)	(66,536)	(28,420)	-	-	-
11	Drivers	63,747	60,635	61,689	64,716	67,100	69,147
12	Reinsurance Ceded	(15,659)	(16,352)	(16,843)	(17,348)	(17,868)	(18,404)
13	Total Net Premiums Earned	1,106,408	1,085,020	1,148,219	1,211,844	1,255,169	1,299,931
14	Service Fees & Other Revenues	24,652	28,166	27,652	27,099	27,727	28,387
15	Total Earned Revenues	1,131,060	1,113,186	1,175,871	1,238,943	1,282,896	1,328,318
16	Claims Incurred	838,574	885,523	926,649	969,507	1,015,262	1,061,950
17	DPAC \ Premium Deficiency Adjustment	-	-	-	-	-	8,050
18	(a) Claims Incurred - Interest Rate Impact	(132,765)	(50,850)	2,365	3,085	902	4,662
19	Total Claims Incurred	705,809	834,673	929,014	972,592	1,016,164	1,074,662
20	Claims Expense	146,277	151,982	162,444	164,395	160,148	165,276
21	Road Safety/Loss Prevention	10,337	12,267	12,636	12,689	12,321	12,706
22	Total Claims Costs	862,423	998,922	1,104,094	1,149,676	1,188,633	1,252,644
23	Expenses						
24	Operating	75,945	89,477	95,788	96,101	94,241	97,319
25	Commissions	44,925	47,977	51,557	57,994	57,807	56,852
26	Premium Taxes	28,966	33,043	34,953	36,877	38,193	39,552
27	Regulatory/Appeal	4,530	4,620	4,481	4,282	4,373	4,466
28	Total Expenses	154,366	175,117	186,779	195,254	194,614	198,189
29	Underwriting Income (Loss)	114,271	(60,853)	(115,002)	(105,987)	(100,351)	(122,515)
30	Investment Income	79,813	141,296	108,037	113,996	117,484	125,554
31	(b) Investment Income - Interest Rate Impact	(126,997)	(34,934)	-	-	-	-
32	Net Investment Income	(47,184)	106,362	108,037	113,996	117,484	125,554
33	Gain (Loss) on Sale of Property	104	-	-	-	-	-
34	Net Income (Loss) from Annual Operations	67,191	45,509	(6,965)	8,009	17,133	3,039
35	Total net Impact due to interest rate change (b) - (a)	5,768	15,916	(2,365)	(3,085)	(902)	(4,662)

Figure 4 PF-2 Statement of Financial Position – Basic

Multi-year - Statement of Financial Position

Line No.	PUB 1-2(a) (C\$ 000s, rounding may affect totals)	For the Years Ended March 31,					
		2022A	2023FB	2024F	2025F	2026F	2027F
1							
2	BASIC	2021/22A	2022/23FB	2023/24F	2024/25F	2025/26F	2026/27F
3	Assets						
4	Cash and cash equivalents	153,131	153,082	144,230	135,677	124,031	113,002
5	Investments	2,750,044	2,823,497	2,933,941	3,064,850	3,226,481	3,409,886
6	Investment property	5,912	5,757	5,603	5,448	5,293	5,138
7	Due from other insurance companies	14	-	-	-	-	-
8	Accounts receivable	398,612	361,715	389,849	403,615	418,097	433,086
9	Deferred policy acquisition costs	37,672	37,111	41,020	42,863	42,540	35,465
10	Reinsurers' share of unpaid claims	2,457	-	-	-	-	-
11	Property and equipment	111,880	133,141	151,483	163,714	169,870	176,026
12	Deferred development costs	44,687	49,751	54,240	56,371	55,885	46,757
13	Total Assets	3,504,409	3,564,054	3,720,366	3,872,538	4,042,197	4,219,360
14	Liabilities						
15	Due to other insurance companies	369	325	325	325	325	325
16	Accounts payable and accrued liabilities	60,876	62,805	68,312	71,298	69,155	71,549
17	Financing lease obligation	5,361	5,282	5,159	5,036	4,913	4,791
18	Unearned premiums and fees	548,725	572,104	615,722	638,315	661,839	686,104
19	Provision for employee current benefits	19,281	19,995	20,672	21,349	22,026	22,703
20	Provision for employee future benefits	355,244	328,159	339,589	351,019	362,450	373,881
21	Provision for unpaid claims	2,103,789	2,068,796	2,127,686	2,189,733	2,250,488	2,316,194
22	Total Liabilities	3,093,645	3,057,466	3,177,465	3,277,075	3,371,196	3,475,547
23	Equity						
24	Retained Earnings	359,335	449,948	482,187	533,515	604,938	674,162
25	Accumulated Other Comprehensive Income	51,429	56,641	60,717	61,951	66,064	69,653
26	Total Equity	410,764	506,589	542,904	595,466	671,002	743,815
27	Total Liabilities & Equity	3,504,409	3,564,055	3,720,369	3,872,541	4,042,198	4,219,362

Figure 5 PF-3 Statement of Changes in Equity – Basic

Multi-year - Statement of Changes in Equity

Line No.	PUB 1-2(a) (C\$ 000s, rounding may affect totals)	For the Years Ended March 31,					
		2022A	2023FB	2024F	2025F	2026F	2027F
1							
2	BASIC	2021/22A	2022/23FB	2023/24F	2024/25F	2025/26F	2026/27F
3	Total Equity						
4	Retained Earnings						
5	Beginning Balance	448,678	359,335	449,948	482,187	533,515	604,938
6	Net Income (Loss) from annual operations	67,191	45,509	(6,965)	8,009	17,133	3,039
7	Premium Rebate	(156,534)	-	-	-	-	-
9	Transfer from Extension Retained Earnings	-	45,104	39,204	43,319	54,290	66,185
10	Total Retained Earnings	359,335	449,948	482,187	533,515	604,938	674,162
11	Total Accumulated Other Comprehensive Income						
12	Beginning Balance	(14,700)	51,429	56,641	60,717	61,951	66,064
13	Other Comprehensive Income on Available for Sale Assets	25,485	(33,299)	4,076	1,234	4,113	3,589
14	Change in Remeasurement of Employee Future Benefits	40,644	38,511	-	-	-	-
15	Total Accumulated Other Comprehensive Income	51,429	56,641	60,717	61,951	66,064	69,653
16	Total Equity Balance	410,764	506,589	542,904	595,466	671,002	743,815
17	MINIMUM CAPITAL TEST (C\$ 000s)						
18	Total Equity Balance	410,761	506,589	542,904	595,466	671,002	743,815
19	Less: Assets Requiring 100% Capital	44,687	49,751	54,240	56,371	55,885	46,757
20	Capital Available	366,074	456,838	488,664	539,095	615,117	697,058
21	Minimum Capital Required (100% MCT)	384,411	363,374	384,946	402,244	425,342	448,767
22	MCT Ratio % (Line 20) / (Line 21)	95.2%	125.7%	126.9%	134.0%	144.6%	155.3%

Figure 6 EPF-1 Statement of Operations – Extension

Multi-year - Statement of Operations

Line No.	PUB 1-2(a) (C\$ 000s, rounding may affect totals)	For the Years Ended March 31,					
		2022A	2023FB	2024F	2025F	2026F	2027F
1							
2	EXTENSION	2021/22A	2022/23FB	2023/24F	2024/25F	2025/26F	2026/27F
3	Motor Vehicles	180,476	187,280	193,254	199,683	206,289	213,644
4	Reinsurance Ceded	(1,949)	(2,003)	(2,063)	(2,125)	(2,189)	(2,254)
5	Total Net Premiums Written	178,527	185,277	191,191	197,558	204,100	211,390
6	Net Premiums Earned						
7	Motor Vehicles	170,804	183,988	190,363	196,572	203,093	210,085
8	Reinsurance Ceded	(1,949)	(2,003)	(2,063)	(2,125)	(2,189)	(2,254)
9	Total Net Premiums Earned	168,855	181,985	188,300	194,447	200,904	207,831
10	Service Fees & Other Revenues	10,725	13,195	13,281	13,407	13,743	14,090
11	Total Earned Revenues	179,580	195,180	201,581	207,854	214,647	221,921
12	Net Claims Incurred	75,510	89,759	90,783	92,053	93,307	94,393
13	(a) Claims Incurred - Interest Rate Impact	(702)	(277)	87	-	-	-
14	Total Claims Incurred	74,808	89,482	90,870	92,053	93,307	94,393
15	Claims Expense	11,817	15,377	17,737	19,804	19,263	19,908
16	Road Safety/Loss Prevention	872	1,235	1,217	1,264	1,242	1,238
17	Total Claims Costs	87,497	106,094	109,824	113,121	113,812	115,539
18	Expenses						
19	Operating	7,979	10,820	12,143	12,698	12,780	13,382
20	Commissions	33,664	32,608	33,980	34,440	33,601	33,057
21	Premium Taxes	5,124	5,520	5,711	5,897	6,093	6,303
22	Regulatory/Appeal	18	12	12	12	13	13
23	Total Expenses	46,785	48,960	51,846	53,047	52,487	52,755
24	Underwriting Income (Loss)	45,298	40,126	39,911	41,686	48,348	53,627
25	Investment Income	4,368	13,993	9,221	9,778	10,305	10,872
26	(b) Investment Income - Interest Rate Impact	(76)	(370)	13	11	10	9
27	Net Investment Income	4,292	13,623	9,234	9,789	10,315	10,881
28	Gain (Loss) on Sale of Property	9	-	-	-	-	-
29	Net Income (Loss) from Annual Operations	49,598	53,749	49,145	51,475	58,663	64,508
30	Total net impact due to interest rate change (b) - (a)	626	(93)	(74)	11	10	9

Figure 7 EPF-3 Statement of Changes in Equity – Extension
Multi-year - Statement of Changes in Equity

Line No.	PUB 1-2(a) (C\$ 000s, rounding may affect totals)	For the Years Ended March 31,					
		2022A	2023FB	2024F	2025F	2026F	2027F
2	EXTENSION	2021/22A	2022/23FB	2023/24F	2024/25F	2025/26F	2026/27F
3	Total Equity						
4	Retained Earnings						
5	Beginning Balance	86,234	78,832	87,477	97,418	105,573	109,944
6	Net Income (Loss) from annual operations	49,598	53,748	49,145	51,474	58,662	64,509
7	Transfer (to) / from DVA Retained Earnings	(57,000)	-	-	-	-	-
8	Transfer (to) / from Basic Retained Earnings		(45,104)	(39,204)	(43,319)	(54,290)	(66,185)
9	Total Retained Earnings	78,832	87,476	97,418	105,573	109,945	108,268
10	Total Accumulated Other Comprehensive Income						
11	Beginning Balance	10,706	15,832	14,549	15,678	16,288	17,051
12	Other Comprehensive Income on Available for Sale Asset	1,692	(4,538)	1,129	611	763	901
13	Change in Remeasurement of Employee Future Benefits	3,434	3,254	-	-	-	-
14	Total Accumulated Other Comprehensive Income	15,832	14,548	15,678	16,289	17,051	17,952
15	Total Equity Balance	94,664	102,026	113,096	121,861	126,995	126,220
16	MINIMUM CAPITAL TEST (C\$ 000s)						
17	Total Equity Balance	94,664	102,026	113,096	121,861	126,995	126,220
18	Less: Assets Requiring 100% Capital	3,701	12,076	19,884	24,385	25,147	19,182
19	Capital Available	90,963	89,950	93,212	97,476	101,848	107,038
20	Minimum Capital Required (100% MCT)	45,159	44,974	46,606	48,738	50,924	53,519
21	MCT Ratio % (Line 19) / (Line 20)	201%	200%	200%	200%	200%	200%

Figure 8 PF-1 Statement of Operations – Basic

Multi-year - Statement of Operations

Line No.	PUB 1-2(b) (C\$ 000s, rounding may affect totals)	For the Years Ended March 31,					
		2022A	2023FB	2024F	2025F	2026F	2027F
1							
2	BASIC	2021/22A	2022/23FB	2023/24F	2024/25F	2025/26F	2026/27F
3	Motor Vehicles	1,092,643	1,119,227	1,143,924	1,184,318	1,226,810	1,270,793
4	Capital Release Provision	(73,275)	(57,857)	(59,025)	-	-	-
5	Drivers	61,511	59,927	63,390	65,996	68,165	70,094
6	Reinsurance Ceded	(15,659)	(16,352)	(16,843)	(17,348)	(17,868)	(18,404)
7	Total Net Premiums Written	1,065,220	1,104,945	1,131,446	1,232,966	1,277,107	1,322,483
8	Net Premiums Earned						
9	Motor Vehicles	1,094,496	1,107,273	1,131,792	1,164,476	1,205,937	1,249,188
10	Capital Release Provision	(36,176)	(66,536)	(58,451)	(28,994)	-	-
11	Drivers	63,747	60,635	61,689	64,716	67,100	69,147
12	Reinsurance Ceded	(15,659)	(16,352)	(16,843)	(17,348)	(17,868)	(18,404)
13	Total Net Premiums Earned	1,106,408	1,085,020	1,118,187	1,182,850	1,255,169	1,299,931
14	Service Fees & Other Revenues	24,652	28,166	27,371	27,097	27,722	28,382
15	Total Earned Revenues	1,131,060	1,113,186	1,145,558	1,209,947	1,282,891	1,328,313
16	Claims Incurred	838,574	885,523	926,649	969,488	1,015,257	1,061,963
17	DPAC \ Premium Deficiency Adjustment	-	-	-	-	-	8,052
18	(a) Claims Incurred - Interest Rate Impact	(132,765)	(50,850)	1,568	3,684	1,652	4,146
19	Total Claims Incurred	705,809	834,673	928,217	973,172	1,016,909	1,074,161
20	Claims Expense	146,277	151,982	162,444	164,381	160,148	165,292
21	Road Safety/Loss Prevention	10,337	12,267	12,636	12,687	12,321	12,708
22	Total Claims Costs	862,423	998,922	1,103,297	1,150,240	1,189,378	1,252,161
23	Expenses						
24	Operating	75,945	89,477	95,788	96,092	94,241	97,328
25	Commissions	44,925	47,977	50,472	56,542	57,807	56,852
26	Premium Taxes	28,966	33,043	34,052	36,008	38,193	39,552
27	Regulatory/Appeal	4,530	4,620	4,481	4,282	4,373	4,466
28	Total Expenses	154,366	175,117	184,793	192,924	194,614	198,198
29	Underwriting Income (Loss)	114,271	(60,853)	(142,532)	(133,217)	(101,101)	(122,046)
30	Investment Income	79,813	141,296	107,542	114,073	116,422	121,295
31	(b) Investment Income - Interest Rate Impact	(126,997)	(34,934)	-	-	-	-
32	Net Investment Income	(47,184)	106,362	107,542	114,073	116,422	121,295
33	Gain (Loss) on Sale of Property	104	-	-	-	-	-
34	Net Income (Loss) from Annual Operations	67,191	45,509	(34,990)	(19,144)	15,321	(751)
35	Total net Impact due to interest rate change (b) - (a)	5,768	15,916	(1,568)	(3,684)	(1,652)	(4,146)

Figure 9 PF-2 Statement of Financial Position – Basic

Multi-year - Statement of Financial Position

Line No.	PUB 1-2(b) (C\$ 000s, rounding may affect totals)	For the Years Ended March 31,					
		2022A	2023FB	2024F	2025F	2026F	2027F
1							
2	BASIC	2021/22A	2022/23FB	2023/24F	2024/25F	2025/26F	2026/27F
3	Assets						
4	Cash and cash equivalents	153,131	153,082	143,975	135,528	124,105	112,922
5	Investments	2,750,044	2,823,497	2,896,778	3,007,866	3,166,278	3,346,651
6	Investment property	5,912	5,757	5,603	5,448	5,293	5,138
7	Due from other insurance companies	14	-	-	-	-	-
8	Accounts receivable	398,612	361,715	369,734	403,615	418,097	433,086
9	Deferred policy acquisition costs	37,672	37,111	41,020	42,863	42,540	35,462
10	Reinsurers' share of unpaid claims	2,457	-	-	-	-	-
11	Property and equipment	111,880	133,141	151,483	163,714	169,870	176,026
12	Deferred development costs	44,687	49,751	54,240	56,372	55,886	46,757
13	Total Assets	3,504,409	3,564,054	3,662,833	3,815,406	3,982,069	4,156,042
14	Liabilities						
15	Due to other insurance companies	369	325	325	325	325	325
16	Accounts payable and accrued liabilities	60,876	62,805	68,312	71,298	69,155	71,549
17	Financing lease obligation	5,361	5,282	5,159	5,036	4,913	4,791
18	Unearned premiums and fees	548,725	572,104	586,728	638,315	661,839	686,104
19	Provision for employee current benefits	19,281	19,995	20,672	21,349	22,026	22,703
20	Provision for employee future benefits	355,244	328,159	339,589	351,019	362,450	373,881
21	Provision for unpaid claims	2,103,789	2,068,796	2,126,889	2,189,516	2,251,016	2,316,219
22	Total Liabilities	3,093,645	3,057,466	3,147,674	3,276,858	3,371,724	3,475,572
23	Equity						
24	Retained Earnings	359,335	449,948	454,446	478,616	548,225	613,664
25	Accumulated Other Comprehensive Income	51,429	56,641	60,713	59,932	62,118	66,806
26	Total Equity	410,764	506,589	515,159	538,548	610,343	680,470
27	Total Liabilities & Equity	3,504,409	3,564,055	3,662,833	3,815,406	3,982,067	4,156,042

Figure 10 PF-3 Statement of Changes in Equity – Basic**Multi-year - Statement of Changes in Equity**

Line No.	PUB 1-2(b) (C\$ 000s, rounding may affect totals)	For the Years Ended March 31,					
		2022A	2023FB	2024F	2025F	2026F	2027F
1							
2	BASIC	2021/22A	2022/23FB	2023/24F	2024/25F	2025/26F	2026/27F
3	Total Equity						
4	Retained Earnings						
5	Beginning Balance	448,678	359,335	449,948	454,446	478,616	548,225
6	Net Income (Loss) from annual operations	67,191	45,509	(34,990)	(19,144)	15,321	(751)
7	Premium Rebate	(156,534)	-	-	-	-	-
9	Transfer from Extension Retained Earnings	-	45,104	39,488	43,314	54,288	66,190
10	Total Retained Earnings	359,335	449,948	454,446	478,616	548,225	613,664
11	Total Accumulated Other Comprehensive Income						
12	Beginning Balance	(14,700)	51,429	56,641	60,713	59,932	62,118
13	Other Comprehensive Income on Available for Sale Assets	25,485	(33,299)	4,072	(781)	2,186	4,688
14	Change in Remeasurement of Employee Future Benefits	40,644	38,511	-	-	-	-
15	Total Accumulated Other Comprehensive Income	51,429	56,641	60,713	59,932	62,118	66,806
16	Total Equity Balance	410,764	506,589	515,159	538,548	610,343	680,470
17	MINIMUM CAPITAL TEST (C\$ 000s)						
18	Total Equity Balance	410,761	506,589	515,159	538,548	610,343	680,470
19	Less: Assets Requiring 100% Capital	44,687	49,751	54,240	56,372	55,886	46,757
20	Capital Available	366,074	456,838	460,919	482,176	554,457	633,713
21	Minimum Capital Required (100% MCT)	384,411	363,453	386,038	398,951	416,996	443,342
22	MCT Ratio % (Line 20) / (Line 21)	95.2%	125.7%	119.4%	120.9%	133.0%	142.9%

Figure 11 EPF-1 Statement of Operations – Extension

Multi-year - Statement of Operations

Line No.	PUB 1-2(b) (C\$ 000s, rounding may affect totals)	For the Years Ended March 31,					
		2022A	2023FB	2024F	2025F	2026F	2027F
1							
2	EXTENSION	2021/22A	2022/23FB	2023/24F	2024/25F	2025/26F	2026/27F
3	Motor Vehicles	180,476	187,280	193,254	199,683	206,289	213,644
4	Reinsurance Ceded	(1,949)	(2,003)	(2,063)	(2,125)	(2,189)	(2,254)
5	Total Net Premiums Written	178,527	185,277	191,191	197,558	204,100	211,390
6	Net Premiums Earned						
7	Motor Vehicles	170,804	183,988	190,363	196,572	203,093	210,085
8	Reinsurance Ceded	(1,949)	(2,003)	(2,063)	(2,125)	(2,189)	(2,254)
9	Total Net Premiums Earned	168,855	181,985	188,300	194,447	200,904	207,831
10	Service Fees & Other Revenues	10,725	13,195	13,563	13,408	13,746	14,092
11	Total Earned Revenues	179,580	195,180	201,863	207,855	214,650	221,923
12	Net Claims Incurred	75,510	89,759	90,783	92,053	93,307	94,393
13	(a) Claims Incurred - Interest Rate Impact	(702)	(277)	87	-	-	-
14	Total Claims Incurred	74,808	89,482	90,870	92,053	93,307	94,393
15	Claims Expense	11,817	15,377	17,737	19,804	19,263	19,908
16	Road Safety/Loss Prevention	872	1,235	1,217	1,264	1,242	1,238
17	Total Claims Costs	87,497	106,094	109,824	113,121	113,812	115,539
18	Expenses						
19	Operating	7,979	10,820	12,143	12,698	12,780	13,382
20	Commissions	33,664	32,608	33,980	34,440	33,601	33,057
21	Premium Taxes	5,124	5,520	5,711	5,897	6,093	6,303
22	Regulatory/Appeal	18	12	12	12	13	13
23	Total Expenses	46,785	48,960	51,846	53,047	52,487	52,755
24	Underwriting Income (Loss)	45,298	40,126	40,193	41,687	48,351	53,629
25	Investment Income	4,368	13,993	9,224	9,770	10,298	10,872
26	(b) Investment Income - Interest Rate Impact	(76)	(370)	13	11	10	9
27	Net Investment Income	4,292	13,623	9,237	9,781	10,308	10,881
28	Gain (Loss) on Sale of Property	9	-	-	-	-	-
29	Net Income (Loss) from Annual Operations	49,598	53,749	49,430	51,468	58,659	64,510
30	Total net Impact due to interest rate change (b) - (a)	626	(93)	(74)	11	10	9

Figure 12 EPF-3 Statement of Changes in Equity - Extension
Multi-year - Statement of Changes in Equity

Line No.	PUB 1-2(b) (C\$ 000s, rounding may affect totals)	For the Years Ended March 31,					
		2022A	2023FB	2024F	2025F	2026F	2027F
2	EXTENSION	2021/22A	2022/23FB	2023/24F	2024/25F	2025/26F	2026/27F
3	Total Equity						
4	Retained Earnings						
5	Beginning Balance	86,234	78,832	87,476	97,418	105,571	109,942
6	Net Income (Loss) from annual operations	49,598	53,749	49,430	51,468	58,659	64,510
7	Transfer (to) / from DVA Retained Earnings	(57,000)	-	-	-	-	-
8	Transfer (to) / from Basic Retained Earnings		(45,104)	(39,488)	(43,314)	(54,288)	(66,190)
9	Total Retained Earnings	78,832	87,476	97,418	105,571	109,942	108,262
10	Total Accumulated Other Comprehensive Income						
11	Beginning Balance	10,706	15,832	14,549	15,678	16,289	17,054
12	Other Comprehensive Income on Available for Sale Assets	1,692	(4,538)	1,129	612	764	902
13	Change in Remeasurement of Employee Future Benefits	3,434	3,254	-	-	-	-
14	Total Accumulated Other Comprehensive Income	15,832	14,548	15,678	16,290	17,053	17,956
15	Total Equity Balance	94,664	102,026	113,096	121,861	126,995	126,218
16	MINIMUM CAPITAL TEST (C\$ 000s)						
17	Total Equity Balance	94,664	102,026	113,096	121,861	126,995	126,218
18	Less: Assets Requiring 100% Capital	3,701	12,076	19,884	24,385	25,147	19,182
19	Capital Available	90,963	89,950	93,212	97,476	101,848	107,036
20	Minimum Capital Required (100% MCT)	45,159	44,974	46,606	48,738	50,924	53,518
21	MCT Ratio % (Line 19) / (Line 20)	201%	200%	200%	200%	200%	200%

Figure 13 PF-1 Statement of Operations – Basic

Multi-year - Statement of Operations

Line No.	PUB 1-2(c) (C\$ 000s, rounding may affect totals)	For the Years Ended March 31,					
		2022A	2023FB	2024F	2025F	2026F	2027F
1							
2	BASIC	2021/22A	2022/23FB	2023/24F	2024/25F	2025/26F	2026/27F
3	Motor Vehicles	1,092,643	1,119,227	1,143,924	1,184,318	1,226,810	1,270,793
4	Capital Release Provision	(73,275)	(57,857)	-	-	-	-
5	Drivers	61,511	59,927	63,390	65,996	68,165	70,094
6	Reinsurance Ceded	(15,659)	(16,352)	(16,843)	(17,348)	(17,868)	(18,404)
7	Total Net Premiums Written	1,065,220	1,104,945	1,190,471	1,232,966	1,277,107	1,322,483
8	Net Premiums Earned						
9	Motor Vehicles	1,094,496	1,107,273	1,131,793	1,164,476	1,205,937	1,249,188
10	Capital Release Provision	(36,176)	(66,536)	(28,420)	-	-	-
11	Drivers	63,747	60,635	61,689	64,716	67,100	69,147
12	Reinsurance Ceded	(15,659)	(16,352)	(16,843)	(17,348)	(17,868)	(18,404)
13	Total Net Premiums Earned	1,106,408	1,085,020	1,148,219	1,211,844	1,255,169	1,299,931
14	Service Fees & Other Revenues	24,652	28,166	27,652	27,099	27,727	28,387
15	Total Earned Revenues	1,131,060	1,113,186	1,175,871	1,238,943	1,282,896	1,328,318
16	Claims Incurred	838,574	885,524	926,656	969,514	1,015,269	1,061,957
17	DPAC \ Premium Deficiency Adjustment	-	-	-	-	-	8,063
18	(a) Claims Incurred - Interest Rate Impact	(132,765)	(50,542)	2,345	3,049	894	4,607
19	Total Claims Incurred	705,809	834,982	929,001	972,563	1,016,163	1,074,627
20	Claims Expense	146,277	151,982	162,444	164,395	160,148	165,276
21	Road Safety/Loss Prevention	10,337	12,267	12,636	12,689	12,321	12,706
22	Total Claims Costs	862,423	999,231	1,104,081	1,149,647	1,188,632	1,252,609
23	Expenses						
24	Operating	75,945	89,477	95,788	96,101	94,241	97,319
25	Commissions	44,925	47,977	51,557	57,994	57,807	56,852
26	Premium Taxes	28,966	29,845	34,953	36,877	38,193	39,552
27	Regulatory/Appeal	4,530	4,620	4,481	4,282	4,373	4,466
28	Total Expenses	154,366	171,919	186,779	195,254	194,614	198,189
29	Underwriting Income (Loss)	114,271	(57,964)	(114,989)	(105,958)	(100,350)	(122,480)
30	Investment Income	79,813	139,704	109,847	107,580	111,841	119,327
31	(b) Investment Income - Interest Rate Impact	(126,997)	(34,934)	-	-	-	-
32	Net Investment Income	(47,184)	104,770	109,847	107,580	111,841	119,327
33	Gain (Loss) on Sale of Property	104	-	-	-	-	-
34	Net Income (Loss) from Annual Operations	67,191	46,806	(5,142)	1,622	11,491	(3,153)
35	Total net Impact due to interest rate change (b) - (a)	5,768	15,608	(2,345)	(3,049)	(894)	(4,607)

Figure 14 PF-2 Statement of Financial Position – Basic

Multi-year - Statement of Financial Position

Line No.	PUB 1-2(c) (C\$ 000s, rounding may affect totals)	For the Years Ended March 31,					
		2022A	2023FB	2024F	2025F	2026F	2027F
1							
2	BASIC	2021/22A	2022/23FB	2023/24F	2024/25F	2025/26F	2026/27F
3	Assets						
4	Cash and cash equivalents	153,131	153,101	144,518	135,587	123,932	112,893
5	Investments	2,750,044	2,720,145	2,823,894	2,949,533	3,105,255	3,282,436
6	Investment property	5,912	5,757	5,603	5,448	5,293	5,138
7	Due from other insurance companies	14	-	-	-	-	-
8	Accounts receivable	398,612	361,715	389,849	403,615	418,097	433,086
9	Deferred policy acquisition costs	37,672	37,111	41,020	42,863	42,540	35,452
10	Reinsurers' share of unpaid claims	2,457	-	-	-	-	-
11	Property and equipment	111,880	133,141	151,483	163,714	169,870	176,026
12	Deferred development costs	44,687	49,751	54,240	56,371	55,885	46,757
13	Total Assets	3,504,409	3,460,721	3,610,607	3,757,131	3,920,872	4,091,788
14	Liabilities						
15	Due to other insurance companies	369	325	325	325	325	325
16	Accounts payable and accrued liabilities	60,876	62,805	68,312	71,298	69,155	71,549
17	Financing lease obligation	5,361	5,282	5,159	5,036	4,913	4,791
18	Unearned premiums and fees	548,725	572,104	615,722	638,315	661,839	686,104
19	Provision for employee current benefits	19,281	19,995	20,672	21,349	22,026	22,703
20	Provision for employee future benefits	355,244	328,159	339,589	351,019	362,450	373,881
21	Provision for unpaid claims	2,103,789	2,069,104	2,127,982	2,189,999	2,250,753	2,316,411
22	Total Liabilities	3,093,645	3,057,774	3,177,761	3,277,341	3,371,461	3,475,764
23	Equity						
24	Retained Earnings	359,335	344,669	378,700	423,636	489,416	552,447
25	Accumulated Other Comprehensive Income	51,429	58,280	54,148	56,155	59,994	63,578
26	Total Equity	410,764	402,949	432,848	479,791	549,410	616,025
27	Total Liabilities & Equity	3,504,409	3,460,723	3,610,609	3,757,132	3,920,871	4,091,789

Figure 15 PF-3 Statement of Changes in Equity – Basic

Multi-year - Statement of Changes in Equity

Line No.	PUB 1-2(c) (C\$ 000s, rounding may affect totals)	For the Years Ended March 31,					
		2022A	2023FB	2024F	2025F	2026F	2027F
1							
2	BASIC	2021/22A	2022/23FB	2023/24F	2024/25F	2025/26F	2026/27F
3	Total Equity						
4	Retained Earnings						
5	Beginning Balance	448,678	359,335	344,669	378,700	423,636	489,416
6	Net Income (Loss) from annual operations	67,191	46,806	(5,142)	1,622	11,491	(3,153)
7	Premium Rebate	(156,534)	(106,589)	-	-	-	-
9	Transfer from Extension Retained Earnings	-	45,117	39,173	43,314	54,289	66,184
10	Total Retained Earnings	359,335	344,669	378,700	423,636	489,416	552,447
11	Total Accumulated Other Comprehensive Income						
12	Beginning Balance	(14,700)	51,429	58,280	54,148	56,155	59,994
13	Other Comprehensive Income on Available for Sale Assets	25,485	(31,660)	(4,132)	2,007	3,839	3,584
14	Change in Remeasurement of Employee Future Benefits	40,644	38,511	-	-	-	-
15	Total Accumulated Other Comprehensive Income	51,429	58,280	54,148	56,155	59,994	63,578
16	Total Equity Balance	410,764	402,949	432,848	479,791	549,410	616,025
17	MINIMUM CAPITAL TEST (C\$ 000s)						
18	Total Equity Balance	410,761	402,949	432,848	479,791	549,410	616,025
19	Less: Assets Requiring 100% Capital	44,687	49,751	54,240	56,371	55,885	46,757
20	Capital Available	366,074	353,198	378,608	423,420	493,525	569,268
21	Minimum Capital Required (100% MCT)	384,411	353,209	374,291	391,401	413,885	436,535
22	MCT Ratio % (Line 20) / (Line 21)	95.2%	100.0%	101.2%	108.2%	119.2%	130.4%

Figure 16 EPF-1 Statement of Operations – Extension

Multi-year - Statement of Operations

Line No.	PUB 1-2(c) (C\$ 000s, rounding may affect totals)	For the Years Ended March 31,					
		2022A	2023FB	2024F	2025F	2026F	2027F
1							
2	EXTENSION	2021/22A	2022/23FB	2023/24F	2024/25F	2025/26F	2026/27F
3	Motor Vehicles	180,476	187,280	193,254	199,683	206,289	213,644
4	Reinsurance Ceded	(1,949)	(2,003)	(2,063)	(2,125)	(2,189)	(2,254)
5	Total Net Premiums Written	178,527	185,277	191,191	197,558	204,100	211,390
6	Net Premiums Earned						
7	Motor Vehicles	170,804	183,988	190,363	196,572	203,093	210,085
8	Reinsurance Ceded	(1,949)	(2,003)	(2,063)	(2,125)	(2,189)	(2,254)
9	Total Net Premiums Earned	168,855	181,985	188,300	194,447	200,904	207,831
10	Service Fees & Other Revenues	10,725	13,195	13,281	13,407	13,743	14,090
11	Total Earned Revenues	179,580	195,180	201,581	207,854	214,647	221,921
12	Net Claims Incurred	75,510	89,760	90,783	92,053	93,307	94,393
13	(a) Claims Incurred - Interest Rate Impact	(702)	(276)	86	-	-	-
14	Total Claims Incurred	74,808	89,484	90,869	92,053	93,307	94,393
15	Claims Expense	11,817	15,377	17,737	19,804	19,263	19,908
16	Road Safety/Loss Prevention	872	1,235	1,217	1,264	1,242	1,238
17	Total Claims Costs	87,497	106,096	109,823	113,121	113,812	115,539
18	Expenses						
19	Operating	7,979	10,820	12,143	12,698	12,780	13,382
20	Commissions	33,664	32,608	33,980	34,440	33,601	33,057
21	Premium Taxes	5,124	5,520	5,711	5,897	6,093	6,303
22	Regulatory/Appeal	18	12	12	12	13	13
23	Total Expenses	46,785	48,960	51,846	53,047	52,487	52,755
24	Underwriting Income (Loss)	45,298	40,124	39,912	41,686	48,348	53,627
25	Investment Income	4,368	13,993	9,206	9,772	10,301	10,866
26	(b) Investment Income - Interest Rate Impact	(76)	(365)	13	11	10	9
27	Net Investment Income	4,292	13,628	9,219	9,783	10,311	10,875
28	Gain (Loss) on Sale of Property	9	-	-	-	-	-
29	Net Income (Loss) from Annual Operations	49,598	53,752	49,131	51,469	58,659	64,502
30	Total net Impact due to interest rate change (b) - (a)	626	(89)	(73)	11	10	9

Figure 17 EPF-3 Statement of Changes in Equity – Extension**Multi-year - Statement of Changes in Equity**

Line No.	PUB 1-2(c) (C\$ 000s, rounding may affect totals)	For the Years Ended March 31,					
		2022A	2023FB	2024F	2025F	2026F	2027F
2	EXTENSION	2021/22A	2022/23FB	2023/24F	2024/25F	2025/26F	2026/27F
3	Total Equity						
4	Retained Earnings						
5	Beginning Balance	86,234	78,832	87,468	97,426	105,580	109,948
6	Net Income (Loss) from annual operations	49,598	53,752	49,131	51,468	58,658	64,503
7	Transfer (to) / from DVA Retained Earnings	(57,000)	-	-	-	-	-
8	Transfer (to) / from Basic Retained Earnings		(45,117)	(39,173)	(43,314)	(54,289)	(66,184)
9	Total Retained Earnings	78,832	87,467	97,426	105,580	109,949	108,267
10	Total Accumulated Other Comprehensive Income						
11	Beginning Balance	10,706	15,832	14,543	15,668	16,279	17,043
12	Other Comprehensive Income on Available for Sale Asset	1,692	(4,543)	1,125	612	764	902
13	Change in Remeasurement of Employee Future Benefits	3,434	3,254	-	-	-	-
14	Total Accumulated Other Comprehensive Income	15,832	14,543	15,668	16,280	17,043	17,945
15	Total Equity Balance	94,664	102,011	113,094	121,859	126,991	126,212
16	MINIMUM CAPITAL TEST (C\$ 000s)						
17	Total Equity Balance	94,664	102,011	113,094	121,859	126,991	126,212
18	Less: Assets Requiring 100% Capital	3,701	12,076	19,884	24,385	25,147	19,182
19	Capital Available	90,963	89,935	93,210	97,474	101,844	107,030
20	Minimum Capital Required (100% MCT)	45,159	44,968	46,605	48,737	50,922	53,515
21	MCT Ratio % (Line 19) / (Line 20)	201%	200%	200%	200%	200%	200%

d) Please see [Appendix 1 Figure App 1-1](#) for the supporting calculation of marketable bond yield.

e) Please see [Appendix 1 Figure App 1-2](#) for the supporting calculation of claims discount rate.

f) Please see [Appendix 1 Figure App 1-3](#) for the source documents supporting interest and discount rate determinations.

Figure App 1-1 Calculation of Marketable Bonds Yield

Asset	2022/23				2023/24				2024/25				2025/26			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Government Bonds	1,122,096	1,098,596	1,100,938	1,103,280	1,113,026	1,122,782	1,132,620	1,142,517	1,182,274	1,194,290	1,206,632	1,219,060	1,233,981	1,248,994	1,264,064	1,279,247
Corporate Bonds	518,139	508,128	509,322	510,526	514,224	517,889	521,572	525,291	538,992	543,416	547,945	552,491	557,913	563,328	568,775	574,274
Percentage Allocations																
Government Bonds	68.41%	68.37%	68.37%	68.37%	68.40%	68.43%	68.47%	68.50%	68.69%	68.73%	68.77%	68.81%	68.86%	68.92%	68.97%	69.02%
Corporate Bonds	31.59%	31.63%	31.63%	31.63%	31.60%	31.57%	31.53%	31.50%	31.31%	31.27%	31.23%	31.19%	31.14%	31.08%	31.03%	30.98%
Yield																
Government Bonds	3.04%	3.49%	3.45%	3.45%	3.44%	3.44%	3.44%	3.44%	3.43%	3.43%	3.43%	3.43%	3.42%	3.42%	3.42%	3.42%
Corporate Bonds	4.13%	4.64%	4.64%	4.64%	4.64%	4.64%	4.64%	4.64%	4.64%	4.64%	4.64%	4.64%	4.64%	4.64%	4.64%	4.64%
Marketable Bonds Yield	3.38%	3.85%	3.83%	3.83%	3.82%	3.82%	3.82%	3.82%	3.81%	3.81%	3.81%	3.81%	3.80%	3.80%	3.80%	3.80%

Figure App 1-2 Calculation of Claims Discount Rate

	2022/23				2023/24				2024/25				2025/26			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Government Bonds	1,122,096	1,098,596	1,100,938	1,103,280	1,113,026	1,122,782	1,132,620	1,142,517	1,182,274	1,194,290	1,206,632	1,219,060	1,233,981	1,248,994	1,264,064	1,279,247
Corporate Bonds	518,139	508,128	509,322	510,526	514,224	517,889	521,572	525,291	538,992	543,416	547,945	552,491	557,913	563,328	568,775	574,274
MUSH	461,097	454,223	447,349	440,475	433,615	426,756	419,896	413,036	406,419	399,802	393,185	386,568	379,960	373,352	366,743	360,135
Total Fixed Income Assets	2,101,331	2,060,947	2,057,608	2,054,281	2,060,865	2,067,427	2,074,088	2,080,844	2,127,686	2,137,508	2,147,763	2,158,119	2,171,854	2,185,674	2,199,582	2,213,656
Percentage Allocations																
Government Bonds	53.40%	53.31%	53.51%	53.71%	54.01%	54.31%	54.61%	54.91%	55.57%	55.87%	56.18%	56.49%	56.82%	57.14%	57.47%	57.79%
Corporate Bonds	24.66%	24.66%	24.75%	24.85%	24.95%	25.05%	25.15%	25.24%	25.33%	25.42%	25.51%	25.60%	25.69%	25.77%	25.86%	25.94%
MUSH	21.94%	22.04%	21.74%	21.44%	21.04%	20.64%	20.24%	19.85%	19.10%	18.70%	18.31%	17.91%	17.49%	17.08%	16.67%	16.27%
Total	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Yield																
Government Bonds	3.04%	3.49%	3.45%	3.45%	3.44%	3.44%	3.44%	3.44%	3.43%	3.43%	3.43%	3.43%	3.42%	3.42%	3.42%	3.42%
Corporate Bonds	4.13%	4.64%	4.64%	4.64%	4.64%	4.64%	4.64%	4.64%	4.64%	4.64%	4.64%	4.64%	4.64%	4.64%	4.64%	4.64%
MUSH	4.28%	4.29%	4.30%	4.30%	4.31%	4.32%	4.33%	4.33%	4.34%	4.35%	4.36%	4.37%	4.38%	4.40%	4.42%	4.43%
Portfolio Management Fee Adjustment	0.07%	0.07%	0.07%	0.07%	0.07%	0.07%	0.07%	0.07%	0.07%	0.07%	0.07%	0.07%	0.07%	0.07%	0.07%	0.07%
Claims Discount Rate	3.51%	3.88%	3.86%	3.86%	3.86%	3.85%	3.85%	3.85%	3.84%	3.84%	3.84%	3.84%	3.83%	3.83%	3.83%	3.83%

Figure App 1-3 Source Documents

	2022/23				2023/24				2024/25				2025/26				Source:
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
Government Bonds																	
GoC 10 YR Bond Rate	2.41%	2.61%	2.61%	2.61%	2.61%	2.61%	2.61%	2.61%	2.61%	2.61%	2.61%	2.61%	2.61%	2.61%	2.61%	2.61%	Bloomberg
Spread	0.63%	0.88%	0.84%	0.84%	0.83%	0.83%	0.83%	0.83%	0.82%	0.82%	0.82%	0.82%	0.81%	0.81%	0.81%	0.81%	
Government Bonds Yield	3.04%	3.49%	3.45%	3.45%	3.44%	3.44%	3.44%	3.44%	3.43%	3.43%	3.43%	3.43%	3.42%	3.42%	3.42%	3.42%	
Duration	11.69	10.77	10.11	10.12	9.93	9.90	9.87	9.83	9.72	9.67	9.64	9.61	9.51	9.48	9.44	9.41	
Duration Lower Interval	11.0	10.0	10.0	10.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	
Spread at Lower Interval	63	84	84	84	79	79	79	79	79	79	79	79	79	79	79	79	see below
Duration Upper Interval	12.0	11.0	11.0	11.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	
Spread at Upper Interval	63	89	89	89	84	84	84	84	84	84	84	84	84	84	84	84	see below
Duration Amount above Lower Interval	0.69	0.77	0.11	0.12	0.93	0.90	0.87	0.83	0.72	0.67	0.64	0.61	0.51	0.48	0.44	0.41	
Assumed Spread	0.63%	0.88%	0.84%	0.84%	0.83%	0.83%	0.83%	0.83%	0.82%	0.82%	0.82%	0.82%	0.81%	0.81%	0.81%	0.81%	
Corporate Bonds																	
GoC 10 YR Bond Rate	2.41%	2.61%	2.61%	2.61%	2.61%	2.61%	2.61%	2.61%	2.61%	2.61%	2.61%	2.61%	2.61%	2.61%	2.61%	2.61%	Bloomberg
Spread	1.72%	2.03%	2.03%	2.03%	2.03%	2.03%	2.03%	2.03%	2.03%	2.03%	2.03%	2.03%	2.03%	2.03%	2.03%	2.03%	
Corporate Bonds Yield	4.13%	4.64%	4.64%	4.64%	4.64%	4.64%	4.64%	4.64%	4.64%	4.64%	4.64%	4.64%	4.64%	4.64%	4.64%	4.64%	
Duration	10.22	10.22	10.22	10.22	10.22	10.22	10.22	10.22	10.22	10.22	10.22	10.22	10.22	10.22	10.22	10.22	
Duration Lower Interval	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	
Spread at Lower Interval	172	202	202	202	202	202	202	202	202	202	202	202	202	202	202	202	see below
Duration Upper Interval	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	
Spread at Upper Interval	172	207	207	207	207	207	207	207	207	207	207	207	207	207	207	207	see below
Duration Amount above Lower Interval	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	
Assumed Spread	1.72%	2.03%	2.03%	2.03%	2.03%	2.03%	2.03%	2.03%	2.03%	2.03%	2.03%	2.03%	2.03%	2.03%	2.03%	2.03%	

Figure App 1-3 Source Documents (cont'd)

GoC 10 YR Bond Rate

29-Jul-22 2.61%
31-Mar-22 2.41%

GCAN10YR					
At 12:44		Op 2.695	Hi 2.728	Lo 2.676	Prev 2.743
GCAN10YR Index		2.691	- .051	2.691/2.687	
Canadian Govt Bonds 10 Year Note					
Range	08/09/2021 - 08/08/2022	Period	Daily	High	3.622 on 06/14/22
Market	Mid Yield	Mid Px	Currency	Average	1.129 on 08/19/21
View	Price Table	Net Chg	1.438 114.65%		
Date	Mid Yield	Mid Px	Date	Mid Yield	
Fr 08/12/22			Fr 07/22/22	2.835	
Th 08/11/22			Th 07/21/22	2.950	
We 08/10/22			We 07/20/22	3.118	
Tu 08/09/22			Tu 07/19/22	3.087	
Mo 08/08/22	2.691		Mo 07/18/22	3.074	
Fr 08/05/22	2.743		Fr 07/15/22	3.073	
Th 08/04/22	2.675		Th 07/14/22	3.145	
We 08/03/22	2.716		We 07/13/22	3.153	
Tu 08/02/22	2.711		Tu 07/12/22	3.188	
Mo 08/01/22	2.610		Mo 07/11/22	3.236	
Fr 07/29/22	2.610		Fr 07/08/22	3.296	
Th 07/28/22	2.610		Th 07/07/22	3.217	
We 07/27/22	2.764		We 07/06/22	3.189	
Tu 07/26/22	2.817		Tu 07/05/22	3.082	
Mo 07/25/22	2.860		Mo 07/04/22	3.175	

GCAN10YR					
At 12:54		Op 2.811	Hi 2.819	Lo 2.743	Prev 2.868
GCAN10YR Index		2.770	- .097	2.770/2.767	
Canadian Govt Bonds 10 Year Note					
Range	03/31/2021 - 03/31/2022	Period	Monthly	High	2.405 on 03/31/22
Market	Bid Price	Mid Yield	Currency	Average	1.203 on 07/30/21
View	Price Table	Net Chg	.847 54.33%		
Date	Bid Price	Mid Yield	Date	Bid Price	Mid Yield
12/31/22			12/31/21	1.426	1.426
11/30/22			11/30/21	1.568	1.568
10/31/22			10/29/21	1.723	1.723
09/30/22			09/30/21	1.509	1.509
08/31/22			08/31/21	1.216	1.216
07/31/22			07/30/21 L	1.203	1.203
06/30/22			06/30/21	1.389	1.389
05/31/22			05/31/21	1.486	1.486
04/30/22			04/30/21	1.546	1.546
03/31/22 H	2.405	2.405	03/31/21	1.558	1.558
02/28/22	1.813	1.813			
01/31/22	1.771	1.771			

Figure App 1-3 Source Documents (cont'd)

Provincial Bond and Corporate Bond Spread

Jul-22	Dur	Yield	GoC 10Yr Bond Rt	Implied Spread	Linear Interpolation Provincial Bond				Linear Interpolation Corporate Bond					
					Dur	Implied Spread	Adjusted Spread	BPS	Dur	Implied Spread	Adjusted Spread	BPS		
Basic Porf Provincial Bond (Mid & Long)														
CBPRMTR Index	55%	6.74	3.25%		1		0.52%	52	1		1.68%	168		
CBPRWBTR Index	45%	15.28	3.76%		2		0.52%	52	2		1.68%	168		
		10.59	3.48%	2.61%	2.92	0.52%	0.52%	52	2.82	1.68%	1.68%	168		
Basic Portfolio Provincial Bond (Short)					3		0.52%	52	3		1.69%	169		
CBPRSTR Index		2.92	3.13%	2.61%	4		0.55%	55	4		1.74%	174		
Non-Basic Porf Provincial Bond (Mid & Long)					4.83	0.58%	0.58%	58	5		1.79%	179		
CBPRSTR Index	50%	2.92	3.13%		5		0.59%	59	5.98	1.83%	1.83%	183		
CBPRMTR Index	50%	6.74	3.25%		6		0.64%	64	6		1.83%	183		
		4.83	3.19%	2.61%	7		0.69%	69	7		1.88%	188		
Pension Provincial Bond					8		0.74%	74	8		1.93%	193		
CBPRWBTR Index		15.28	3.76%	2.61%	9		0.79%	79	9		1.98%	198		
					10		0.84%	84	9.53	2.00%	2.00%	200		
Basic Corporate Bond (Mid & Long)					10.59	0.87%	0.87%	87	10		2.02%	202		
CBALMTR Index	45%	5.94	4.45%		11		0.89%	89	11		2.07%	207		
CBALWBTR Index	55%	12.47	4.75%		12		0.95%	95	12		2.11%	211		
		9.53	4.61%	2.61%	13		1.01%	101	12.47	2.14%	2.14%	214		
Basic Corporate Bond (Short)					14		1.07%	107	13		2.14%	214		
CBALSTR Index		2.82	4.29%	2.61%	15		1.13%	113	14		2.14%	214		
Non-Basic Porf Corporate Bond					15.28	1.15%	1.15%	115	15		2.14%	214		
CBALUTR Index		5.98	4.44%	2.61%	16		1.15%	115	16		2.14%	214		
Pension Corporate Bond					17		1.15%	115	17		2.14%	214		
CBALWBTR Index		12.47	4.75%	2.61%	18		1.15%	115	18		2.14%	214		
Source: Bloomberg					19		1.15%	115	19		2.14%	214		
					20		1.15%	115	20		2.14%	214		
					21		1.15%	115	21		2.14%	214		
					22		1.15%	115	22		2.14%	214		

Figure App 1-3 Source Documents (cont'd)

MUSH (\$'000s)	2022/23				2023/24				2024/25				2025/26				Source:
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
Value	416,632	409,758	402,884	396,010	389,136	382,276	375,416	368,557	361,697	355,080	348,463	341,846	335,229	328,621	322,012	315,404	Beg Value + New Purchases to Date + Amortization to Date
Income	4,460	4,392	4,327	4,261	4,194	4,128	4,061	3,994	3,927	3,862	3,797	3,733	3,674	3,615	3,556	3,496	Income on Beg Value+Income on New Purchases
Implied Qtrly Yield (Income/Beg Value)	1.07%	1.07%	1.07%	1.08%	1.08%	1.08%	1.08%	1.08%	1.09%	1.09%	1.09%	1.09%	1.10%	1.10%	1.10%	1.11%	Income/Beginning Value
MUSH Yield	4.28%	4.29%	4.30%	4.30%	4.31%	4.32%	4.33%	4.33%	4.34%	4.35%	4.36%	4.37%	4.38%	4.40%	4.42%	4.43%	Implied Qtrly Yield * four
Beginning Value	416,632	404,758	392,884	381,010	369,136	357,526	345,916	334,307	322,697	311,580	300,463	289,346	278,229	267,371	256,512	245,654	Provided by Accounting
Existing Yield	4.28%	4.28%	4.28%	4.29%	4.28%	4.28%	4.28%	4.28%	4.28%	4.28%	4.28%	4.28%	4.29%	4.30%	4.31%	4.32%	Provided by Accounting
Income on Beg Value	4,460	4,334	4,208	4,082	3,954	3,830	3,705	3,581	3,456	3,337	3,217	3,098	2,985	2,874	2,763	2,652	Beg Value*Existing Yield/4
New Purchases	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	Model assumption
Amortization	-	-	-	-	(250)	(250)	(250)	(250)	(500)	(500)	(500)	(500)	(750)	(750)	(750)	(750)	Model assumption
Value	5,000	5,000	5,000	5,000	4,750	4,750	4,750	4,750	4,500	4,500	4,500	4,500	4,250	4,250	4,250	4,250	New Purchases+Amortization
Yield on New Purchases	4.65%	4.86%	4.86%	4.86%	4.86%	4.86%	4.86%	4.86%	4.86%	4.86%	4.86%	4.86%	4.86%	4.86%	4.86%	4.86%	See Below
Income on New Purchases	-	58	119	180	240	298	355	413	471	525	580	635	689	741	792	844	Prior Qtr Income+(Value*Yield on New Purchases/4)
GoC 10 YR Bond Rate	2.41%	2.61%	2.61%	2.61%	2.61%	2.61%	2.61%	2.61%	2.61%	2.61%	2.61%	2.61%	2.61%	2.61%	2.61%	2.61%	Bloomberg
Implied MUSH Spread	2.25%	2.25%	2.25%	2.25%	2.25%	2.25%	2.25%	2.25%	2.25%	2.25%	2.25%	2.25%	2.25%	2.25%	2.25%	2.25%	See Below
Yield on New Purchases	4.65%	4.86%	4.86%	4.86%	4.86%	4.86%	4.86%	4.86%	4.86%	4.86%	4.86%	4.86%	4.86%	4.86%	4.86%	4.86%	GoC 10 YR Bond Rate + Spread
MB Crown Corporation Rates (20 year Principal to be amortized over the Term (%))	4.03% From Province of Manitoba																
Municipal MUSH Spread	0.63% From Province of Manitoba																
	4.65%																
GCAN10YR	2.41% Bloomberg																
Implied MUSH Spread	2.25%																

PUB (MPI) 1-3

Part and Chapter:	Part VI – Accepted Actuarial Practice – RM Ratemaking	Page No.:	5
PUB Approved Issue No:	1. Requested vehicle rate and any changes to other fees and discounts		
Topic:	Provisional Rate Request		
Sub Topic:			

Preamble to IR:

Question:

- a) Please provide an updated PF-1, PF-2, PF-3 and actuarially indicated rate (with supporting schedules) based on a 50-basis point increase in interest rates in 2022-2023.
- b) Please provide an updated PF-1, PF-2, PF-3 and actuarially indicated rate (with supporting schedules) based on a 50-basis point decrease in interest rates in 2022-2023.
- c) Please provide an explanation of the impact of a 50-basis point increase in interest rates in 2022-2023 on the AOCI impact of the pension obligation.

RESPONSE:

a) and b)

- *Figure 1* summarizes the impacts of a 50-basis point (bps) increase/decrease on the New Money Yield and actuarially indicated rate.
- *Figures 2-4* are the pro formas that support a 50-basis point increase in interest rates.

- *Figures 5-7* are the pro formas that support a 50-basis point decrease in interest rates.

Please note, a rebate is shown in the applicable year where the MCT exceeds the 120% threshold. Please see the respective PF-3 Statement of Equity figures for these values.

Figure 1 Rate Indication Table

Line No.	Scenario	New Money Yield	AAP Breakeven Rate Indication
1	2023 GRA - Base	3.43%	-0.86%
2	PUB 1-3 a)	3.91%	-1.85%
3	PUB 1-3 b)	2.95%	0.21%

Figure 2 PF-1 Statement of Operations with +50bps increase of interest rates in 2022/23

Multi-year - Statement of Operations

Line No.	PUB 3(a) (C\$ 000s, rounding may affect totals)	For the Years Ended March 31,					
		2022A	2023FB	2024F	2025F	2026F	2027F
2	BASIC	2021/22A	2022/23FB	2023/24F	2024/25F	2025/26F	2026/27F
3	Motor Vehicles	1,092,643	1,119,227	1,138,612	1,178,819	1,221,115	1,264,894
4	Capital Release Provision	(73,275)	(57,857)	-	-	-	-
5	Drivers	61,511	59,927	63,390	65,996	68,165	70,094
6	Reinsurance Ceded	(15,659)	(16,352)	(16,843)	(17,348)	(17,868)	(18,404)
7	Total Net Premiums Written	1,065,220	1,104,945	1,185,159	1,227,467	1,271,412	1,316,584
8	Net Premiums Earned						
9	Motor Vehicles	1,094,496	1,107,273	1,129,090	1,159,069	1,200,338	1,243,389
10	Capital Release Provision	(36,176)	(66,536)	(28,420)	-	-	-
11	Drivers	63,747	60,635	61,689	64,716	67,100	69,147
12	Reinsurance Ceded	(15,659)	(16,352)	(16,843)	(17,348)	(17,868)	(18,404)
13	Total Net Premiums Earned	1,106,408	1,085,020	1,145,516	1,206,437	1,249,570	1,294,132
14	Service Fees & Other Revenues	24,652	28,033	27,357	26,793	27,410	28,058
15	Total Earned Revenues	1,131,060	1,113,053	1,172,873	1,233,230	1,276,980	1,322,190
16	Claims Incurred	838,574	885,524	926,018	968,801	1,014,505	1,061,149
17	DPAC \ Premium Deficiency Adjustment	-	-	-	-	-	8,580
18	(a) Claims Incurred - Interest Rate Impact	(132,765)	(78,312)	303	2,058	(14)	3,198
19	Total Claims Incurred	705,809	807,212	926,321	970,859	1,014,491	1,072,927
20	Claims Expense	146,277	151,982	162,253	164,153	159,914	165,070
21	Road Safety/Loss Prevention	10,337	12,267	12,618	12,666	12,300	12,688
22	Total Claims Costs	862,423	971,461	1,101,192	1,147,678	1,186,705	1,250,685
23	Expenses						
24	Operating	75,945	89,477	95,681	95,965	94,111	97,204
25	Commissions	44,925	47,977	51,459	57,761	57,571	56,620
26	Premium Taxes	28,966	33,043	34,872	33,254	38,025	39,378
27	Regulatory/Appeal	4,530	4,620	4,481	4,282	4,373	4,466
28	Total Expenses	154,366	175,117	186,493	191,262	194,080	197,668
29	Underwriting Income (Loss)	114,271	(33,525)	(114,812)	(105,710)	(103,805)	(126,163)
30	Investment Income	79,813	146,079	111,663	113,342	114,686	121,447
31	(b) Investment Income - Interest Rate Impact	(126,997)	(77,010)	-	-	-	-
32	Net Investment Income	(47,184)	69,069	111,663	113,342	114,686	121,447
33	Gain (Loss) on Sale of Property	104	-	-	-	-	-
34	Net Income (Loss) from Annual Operations	67,191	35,544	(3,149)	7,632	10,881	(4,716)
35	Total net Impact due to interest rate change (b) - (a)	5,768	1,302	(303)	(2,058)	14	(3,198)

Figure 3 PF-2 Statement of Financial Position with +50bps increase of interest rates in 2022/23**Multi-year - Statement of Financial Position**

Line No.	PUB 3(a) (C\$ 000s, rounding may affect totals)	For the Years Ended March 31,					
		2022A	2023FB	2024F	2025F	2026F	2027F
1							
2	BASIC	2021/22A	2022/23FB	2023/24F	2024/25F	2025/26F	2026/27F
3	Assets						
4	Cash and cash equivalents	153,131	152,798	144,851	136,027	124,388	113,262
5	Investments	2,750,044	2,767,439	2,873,384	2,889,183	3,041,013	3,214,391
6	Investment property	5,912	5,757	5,603	5,448	5,293	5,138
7	Due from other insurance companies	14	-	-	-	-	-
8	Accounts receivable	398,612	361,715	388,039	401,741	416,156	431,076
9	Deferred policy acquisition costs	37,672	37,111	40,830	42,664	42,343	34,733
10	Reinsurers' share of unpaid claims	2,457	-	-	-	-	-
11	Property and equipment	111,880	133,141	151,483	163,714	169,870	176,026
12	Deferred development costs	44,687	49,751	54,247	56,385	55,903	46,776
13	Total Assets	3,504,409	3,507,712	3,658,437	3,695,162	3,854,966	4,021,402
14	Liabilities						
15	Due to other insurance companies	369	325	325	325	325	325
16	Accounts payable and accrued liabilities	60,876	62,805	68,312	71,298	69,155	71,549
17	Financing lease obligation	5,361	5,282	5,159	5,036	4,913	4,791
18	Unearned premiums and fees	548,725	572,104	613,112	635,613	659,042	683,206
19	Provision for employee current benefits	19,281	19,995	20,672	21,349	22,026	22,703
20	Provision for employee future benefits	355,244	337,046	348,476	359,907	371,337	382,768
21	Provision for unpaid claims	2,103,789	2,041,334	2,097,532	2,157,846	2,216,927	2,280,368
22	Total Liabilities	3,093,645	3,038,891	3,153,588	3,251,374	3,343,725	3,445,710
23	Equity						
24	Retained Earnings	359,335	435,416	471,276	405,560	469,251	529,159
25	Accumulated Other Comprehensive Income	51,429	33,404	33,573	38,229	41,990	46,533
26	Total Equity	410,764	468,820	504,849	443,789	511,241	575,692
27	Total Liabilities & Equity	3,504,409	3,507,711	3,658,437	3,695,163	3,854,966	4,021,402

Figure 4 PF-3 Statement of Changes in Equity with +50bps increase of interest rates in 2022/23**Multi-year - Statement of Changes in Equity**

Line No.	PUB 3(a) (C\$ 000s, rounding may affect totals)	For the Years Ended March 31,					
		2022A	2023FB	2024F	2025F	2026F	2027F
1							
2	BASIC	2021/22A	2022/23FB	2023/24F	2024/25F	2025/26F	2026/27F
3	Total Equity						
4	Retained Earnings						
5	Beginning Balance	448,678	359,335	435,416	471,276	405,560	469,251
6	Net Income (Loss) from annual operations	67,191	35,544	(3,149)	7,632	10,881	(4,716)
7	Premium Rebate	(156,534)	-	-	(115,355)	-	-
9	Transfer from Extension Retained Earnings	-	40,537	39,009	42,007	52,810	64,624
10	Total Retained Earnings	359,335	435,416	471,276	405,560	469,251	529,159
11	Total Accumulated Other Comprehensive Income						
12	Beginning Balance	(14,700)	51,429	33,404	33,573	38,229	41,990
13	Other Comprehensive Income on Available for Sale Assets	25,485	(47,649)	169	4,656	3,761	4,543
14	Change in Remeasurement of Employee Future Benefits	40,644	29,624	-	-	-	-
15	Total Accumulated Other Comprehensive Income	51,429	33,404	33,573	38,229	41,990	46,533
16	Total Equity Balance	410,764	468,820	504,849	443,789	511,241	575,692
17	MINIMUM CAPITAL TEST (C\$ 000s)						
18	Total Equity Balance	410,761	468,820	504,849	443,789	511,241	575,692
19	Less: Assets Requiring 100% Capital	44,687	49,751	54,247	56,385	55,903	46,776
20	Capital Available	366,074	419,069	450,602	387,404	455,338	528,916
21	Minimum Capital Required (100% MCT)	384,411	352,752	379,858	387,408	409,161	433,787
22	MCT Ratio % (Line 20) / (Line 21)	95.2%	118.8%	118.6%	100.0%	111.3%	121.9%

Figure 5 PF-1 Statement of Operations with -50bps decrease of interest rates in 2022/23**Multi-year - Statement of Operations**

Line No.	PUB 3(b) (C\$ 000s, rounding may affect totals)	For the Years Ended March 31,					
		2022A	2023FB	2024F	2025F	2026F	2027F
1							
2	BASIC	2021/22A	2022/23FB	2023/24F	2024/25F	2025/26F	2026/27F
3	Motor Vehicles	1,092,643	1,119,227	1,162,930	1,203,992	1,247,188	1,291,900
4	Capital Release Provision	(73,275)	(57,857)	-	-	-	-
5	Drivers	61,511	59,927	63,390	65,996	68,165	70,094
6	Reinsurance Ceded	(15,659)	(16,352)	(16,843)	(17,348)	(17,868)	(18,404)
7	Total Net Premiums Written	1,065,220	1,104,945	1,209,477	1,252,640	1,297,485	1,343,590
8	Net Premiums Earned						
9	Motor Vehicles	1,094,496	1,107,273	1,141,463	1,183,822	1,225,970	1,269,937
10	Capital Release Provision	(36,176)	(66,536)	(28,420)	-	-	-
11	Drivers	63,747	60,635	61,689	64,716	67,100	69,147
12	Reinsurance Ceded	(15,659)	(16,352)	(16,843)	(17,348)	(17,868)	(18,404)
13	Total Net Premiums Earned	1,106,408	1,085,020	1,157,889	1,231,190	1,275,202	1,320,680
14	Service Fees & Other Revenues	24,652	27,901	27,621	27,068	27,695	28,354
15	Total Earned Revenues	1,131,060	1,112,921	1,185,510	1,258,258	1,302,897	1,349,034
16	Claims Incurred	838,574	885,524	929,615	972,825	1,018,828	1,065,740
17	DPAC \ Premium Deficiency Adjustment	-	-	-	-	-	8,385
18	(a) Claims Incurred - Interest Rate Impact	(132,765)	78,684	11,519	8,001	5,792	8,456
19	Total Claims Incurred	705,809	964,208	941,134	980,826	1,024,620	1,082,581
20	Claims Expense	146,277	151,982	163,289	165,356	161,101	166,205
21	Road Safety/Loss Prevention	10,337	12,267	12,717	12,780	12,407	12,789
22	Total Claims Costs	862,423	1,128,457	1,117,140	1,158,962	1,198,128	1,261,575
23	Expenses						
24	Operating	75,945	89,477	96,261	96,636	94,771	97,835
25	Commissions	44,925	47,977	51,907	58,830	58,653	57,684
26	Premium Taxes	28,966	33,043	35,244	37,458	38,794	36,950
27	Regulatory/Appeal	4,530	4,620	4,482	4,283	4,374	4,467
28	Total Expenses	154,366	175,117	187,894	197,207	196,592	196,936
29	Underwriting Income (Loss)	114,271	(190,653)	(119,524)	(97,911)	(91,823)	(109,477)
30	Investment Income	79,813	125,895	99,734	95,222	96,129	100,652
31	(b) Investment Income - Interest Rate Impact	(126,997)	84,247	-	-	-	-
32	Net Investment Income	(47,184)	210,142	99,734	95,222	96,129	100,652
33	Gain (Loss) on Sale of Property	104	-	-	-	-	-
34	Net Income (Loss) from Annual Operations	67,191	19,489	(19,790)	(2,689)	4,306	(8,825)
35	Total net Impact due to interest rate change (b) - (a)	5,768	5,563	(11,519)	(8,001)	(5,792)	(8,456)

Figure 6 PF-2 Statement of Financial Position with -50bps decrease of interest rates in 2022/23**Multi-year - Statement of Financial Position**

Line No.	PUB 3(b) (C\$ 000s, rounding may affect totals)	For the Years Ended March 31,					
		2022A	2023FB	2024F	2025F	2026F	2027F
1							
2	BASIC						
3	Assets						
4	Cash and cash equivalents	153,131	149,991	140,457	132,478	120,856	109,277
5	Investments	2,750,044	2,953,925	3,055,994	3,182,055	3,336,032	3,406,081
6	Investment property	5,912	5,757	5,603	5,448	5,293	5,138
7	Due from other insurance companies	14	-	-	-	-	-
8	Accounts receivable	398,612	361,715	396,327	410,321	425,042	440,280
9	Deferred policy acquisition costs	37,672	37,111	41,702	43,575	43,247	35,853
10	Reinsurers' share of unpaid claims	2,457	-	-	-	-	-
11	Property and equipment	111,880	133,141	151,483	163,714	169,870	176,026
12	Deferred development costs	44,687	49,751	54,209	56,314	55,814	46,674
13	Total Assets	3,504,409	3,691,391	3,845,775	3,993,905	4,156,154	4,219,329
14	Liabilities						
15	Due to other insurance companies	369	325	325	325	325	325
16	Accounts payable and accrued liabilities	60,876	62,805	68,312	71,298	69,155	71,549
17	Financing lease obligation	5,361	5,282	5,159	5,036	4,913	4,791
18	Unearned premiums and fees	548,725	572,104	625,058	647,979	671,849	696,472
19	Provision for employee current benefits	19,281	19,995	20,672	21,349	22,026	22,703
20	Provision for employee future benefits	355,244	396,294	407,723	419,154	430,585	442,015
21	Provision for unpaid claims	2,103,789	2,198,330	2,269,341	2,339,621	2,408,832	2,482,123
22	Total Liabilities	3,093,645	3,255,135	3,396,590	3,504,762	3,607,685	3,719,978
23	Equity						
24	Retained Earnings	359,335	422,626	439,675	478,875	535,756	483,713
25	Accumulated Other Comprehensive Income	51,429	13,631	9,508	10,265	12,711	15,636
26	Total Equity	410,764	436,257	449,183	489,140	548,467	499,349
27	Total Liabilities & Equity	3,504,409	3,691,392	3,845,773	3,993,902	4,156,152	4,219,327

Figure 7 PF-3 Statement of Changes in Equity with -50bps decrease of interest rates in 2022/23**Multi-year - Statement of Changes in Equity**

Line No.	PUB 3(b) (C\$ 000s, rounding may affect totals)	For the Years Ended March 31,					
		2022A	2023FB	2024F	2025F	2026F	2027F
2	BASIC						
3	Total Equity						
4	Retained Earnings						
5	Beginning Balance	448,678	359,335	422,626	439,675	478,875	535,756
6	Net Income (Loss) from annual operations	67,191	19,489	(19,790)	(2,689)	4,306	(8,825)
7	Premium Rebate	(156,534)	-	-	-	-	(107,487)
9	Transfer from Extension Retained Earnings	-	43,802	36,839	41,889	52,575	64,269
10	Total Retained Earnings	359,335	422,626	439,675	478,875	535,756	483,713
11	Total Accumulated Other Comprehensive Income						
12	Beginning Balance	(14,700)	51,429	13,631	9,508	10,265	12,711
13	Other Comprehensive Income on Available for Sale Assets	25,485	(8,174)	(4,123)	757	2,446	2,925
14	Change in Remeasurement of Employee Future Benefits	40,644	(29,624)	-	-	-	-
15	Total Accumulated Other Comprehensive Income	51,429	13,631	9,508	10,265	12,711	15,636
16	Total Equity Balance	410,764	436,257	449,183	489,140	548,467	499,349
17	MINIMUM CAPITAL TEST (C\$ 000s)						
18	Total Equity Balance	410,761	436,257	449,183	489,140	548,467	499,349
19	Less: Assets Requiring 100% Capital	44,687	49,751	54,209	56,314	55,814	46,674
20	Capital Available	366,074	386,506	394,974	432,826	492,653	452,675
21	Minimum Capital Required (100% MCT)	384,411	393,745	400,754	417,281	436,976	452,803
22	MCT Ratio % (Line 20) / (Line 21)	95.2%	98.2%	98.6%	103.7%	112.7%	100.0%

- c) A 50-basis point increase in interest rates results in a favourable impact on AOCI of approximately \$30 million due to a higher yield on discounting of pension obligation cashflows. Please see line 14 of *Figure 4* for this value with supporting calculation below:

$$\begin{aligned}
 & \$474 \text{ million Employee Future Benefit} \\
 \times & \quad 0.50\% \text{ increase in discount rate} \\
 \times & \quad 16.7 \text{ year approximate duration of Employee} \\
 \times & \quad 74.8\% \text{ Basic's Share of Employee Future Benefits} \\
 = & \quad \text{Approximately } \$30 \text{ million}
 \end{aligned}$$

PUB (MPI) 1-4

Part and Chapter:	Part VI – Accepted Actuarial Practice – RM Ratemaking	Page No.:	
PUB Approved Issue No:	1. Requested vehicle rate and any changes to other fees and discounts		
Topic:	Rate changes		
Sub Topic:			

Preamble to IR:

The rate changes that will be experienced by the ratepayer will be the combination of the proposed rate decrease as well as the removal of the capital release provision. All of the ratemaking indicated changes do not reflect the impact of the removal of the capital release provision.

Question:

For each Figure in the Ratemaking section, please provide an alternative version comparing the current rate including the capital release provision (i.e., about 5% lower than the current average rate shown) to the proposed rates. Figures would include RM-1, RM-13, RM-14, RM-15, RM-16, RM-17, RM-18, RM-19, and RM-20. MPI can determine the appropriate labeling to avoid any confusion.

Rationale for Question:

To understand the rate change that customers will experience, including the impact of the proposed removal of the capital release provision.

RESPONSE:

Per its response to PUB (MPI) 1-2 in the 2021 GRA, MPI repeats that:

"MPI appreciates that the average policyholder will see an increase in their premiums paid for 2022/23 as a result of the removal of the 2021/22 capital release. However, this is not the same as an overall required rate indication, which MPI would inaccurately show if it provided revised figures RM-1, RM-13, RM-14, RM-15 and RM-18 as per this request.

Notwithstanding these concerns, MPI submits updated figures RM-16, RM-17, RM-19 (Appendix 1), and RM-20 (Appendix 2), to show the distribution of vehicles by dollar and percent changes. MPI based these distributions on the 2021/22 rates (including the capital release) as opposed to the 2021/23 rates".

Similarly, please see [Appendix 1](#) for updated figures RM-16, RM-17, RM-19, and RM-20, to show the distributions of vehicles by dollar and percentages. The distribution of vehicles compares the 2023/24 rates after the proposed DSR discounts to the 2022/23 rates including the capital release.

Figure 1 Dollar Distribution Table (updated Ratemaking Chapter Figure RM-16)

Line No.	\$ Change	# of Vehicles	% of Vehicles
1	Decrease \$300 or more	1	0.0%
2	Decrease \$200 to \$299	18	0.0%
3	Decrease \$150 to \$199	51	0.0%
4	Decrease \$100 to \$149	1,587	0.1%
5	Decrease \$50 to \$99	47,307	3.9%
6	Decrease \$20 to \$49	110,741	9.0%
7	Decrease \$1 to \$19	126,275	10.3%
8	No Change	159,677	13.0%
9	Increase \$1 to \$19	177,057	14.4%
10	Increase \$20 to \$49	163,862	13.3%
11	Increase \$50 to \$99	176,456	14.4%
12	Increase \$100 to \$149	160,568	13.1%
13	Increase \$150 to \$199	69,875	5.7%
14	Increase \$200 to \$299	33,952	2.8%
15	Increase \$300 or more	2,269	0.2%
16	GRAND TOTAL	1,229,696	100%

Figure 2 Percent Distribution Table (updated Ratemaking Chapter Figure RM-17)

Line No.	% Change	# of Vehicles	% of Vehicles
1	Decrease 20% or more	0	0.0%
2	Decrease 15% to 20%	0	0.0%
3	Decrease 10% to 15%	6,698	0.5%
4	Decrease 5% to 10%	109,573	8.9%
5	Decrease less than 5%	169,709	13.8%
6	(No Change)	159,677	13.0%
7	Increase less than 5%	225,087	18.3%
8	Increase 5% to 10%	313,844	25.5%
9	Increase 10% to 15%	226,336	18.4%
10	Increase 15% to 20%	17,775	1.5%
11	Increase 20% or more	997	0.1%
12	GRAND TOTAL	1,229,696	100%

Figure 3 Dollar Distribution - All Classification and Rate Adjustments (updated Ratemaking Chapter Figure RM-19)

	All Vehicles - 2023			Private Passenger Vehicles - 2023			Commercial Vehicles - 2023			Public Vehicles - 2023		
	# of Vehicles	% of Vehicles	Cumulative % of Vehicles	# of Vehicles	% of Vehicles	Cumulative % of Vehicles	# of Vehicles	% of Vehicles	Cumulative % of Vehicles	# of Vehicles	% of Vehicles	Cumulative % of Vehicles
Decreasing												
\$300 or more	1	0.00	0.00	0	0.00	0.00	1	0.00	0.00	0	0.00	0.00
\$250 to \$300	9	0.00	0.00	0	0.00	0.00	9	0.02	0.02	0	0.00	0.00
\$200 to \$250	9	0.00	0.00	0	0.00	0.00	8	0.02	0.04	0	0.00	0.00
\$150 to \$200	51	0.00	0.01	11	0.00	0.00	37	0.08	0.11	3	0.03	0.03
\$100 to \$150	1,587	0.13	0.13	1,464	0.17	0.17	91	0.19	0.30	19	0.17	0.20
\$90 to \$100	2,046	0.17	0.30	1,934	0.23	0.40	85	0.17	0.47	12	0.11	0.30
\$80 to \$90	4,330	0.35	0.65	4,289	0.51	0.91	7	0.01	0.49	14	0.12	0.43
\$70 to \$80	8,909	0.72	1.38	8,371	0.99	1.90	493	1.01	1.50	10	0.09	0.51
\$60 to \$70	14,167	1.15	2.53	13,714	1.62	3.52	401	0.82	2.32	28	0.25	0.76
\$50 to \$60	17,855	1.45	3.98	17,617	2.08	5.61	69	0.14	2.47	111	0.98	1.75
\$40 to \$50	25,574	2.08	6.06	25,403	3.00	8.61	77	0.16	2.62	60	0.53	2.28
\$30 to \$40	30,890	2.51	8.57	30,755	3.64	12.25	39	0.08	2.70	55	0.49	2.77
\$20 to \$30	54,277	4.41	12.99	36,975	4.37	16.62	44	0.09	2.79	33	0.29	3.06
\$10 to \$20	66,738	5.43	18.41	42,268	5.00	21.62	69	0.14	2.94	36	0.32	3.38
\$1 to \$10	59,537	4.84	23.26	33,710	3.99	25.61	71	0.15	3.08	62	0.55	3.93
Total Decreasing	285,980	23.26		216,511	25.61		1,501	3.08		443	3.93	
No change	159,677	12.99	36.24	3,054	0.36	25.97	3	0.01	3.09	3	0.03	3.96
Increasing												
\$1 to \$10	123,589	10.05	46.29	40,274	4.76	30.73	122	0.25	3.34	279	2.48	6.43
\$10 to \$20	53,468	4.35	50.64	51,965	6.15	36.88	178	0.37	3.70	682	6.05	12.48
\$20 to \$30	68,797	5.59	56.23	67,060	7.93	44.81	140	0.29	3.99	777	6.89	19.38
\$30 to \$40	49,427	4.02	60.25	44,178	5.23	50.04	1,275	2.62	6.61	1,446	12.83	32.20
\$40 to \$50	45,638	3.71	63.97	30,122	3.56	53.60	12,370	25.39	32.00	163	1.45	33.65
Decrease or less than \$50	786,576	63.97		453,164	53.60		15,589	32.00		3,793	33.65	
\$50 to \$60	35,503	2.89	66.85	30,060	3.56	57.15	3,887	7.98	39.98	116	1.03	34.68
\$60 to \$70	35,525	2.89	69.74	26,700	3.16	60.31	7,600	15.60	55.58	158	1.40	36.08
\$70 to \$80	34,961	2.84	72.58	28,275	3.34	63.66	5,158	10.59	66.17	123	1.09	37.17
\$80 to \$90	35,364	2.88	75.46	31,159	3.69	67.34	2,561	5.26	71.42	478	4.24	41.41
\$90 to \$100	35,103	2.85	78.31	33,139	3.92	71.26	1,298	2.66	74.09	250	2.22	43.63
Decrease or less than \$100	963,032	78.31		602,497	71.26		36,093	74.09		4,918	43.63	
\$100 to \$150	160,568	13.06	91.37	148,818	17.60	88.86	7,254	14.89	88.98	560	4.97	48.60
\$150 to \$200	69,875	5.68	97.05	63,078	7.46	96.32	4,088	8.39	97.37	2,088	18.52	67.12
Decrease or less than \$200	1,193,475	97.05		814,393	96.32		47,435	97.37		7,566	67.12	
\$200 to \$250	28,901	2.35	99.40	27,389	3.24	99.56	509	1.04	98.42	890	7.90	75.02
\$250 to \$300	5,051	0.41	99.82	2,704	0.32	99.88	335	0.69	99.10	1,996	17.71	92.73
Decrease or less than \$300	1,227,427	99.82		844,486	99.88		48,279	99.10		10,452	92.73	
\$300 or more	2,269	0.18	100.00	1,002	0.12	100.00	437	0.90	100.00	820	7.27	100.00
Total Increasing	784,039	63.76		625,923	74.03		47,212	96.91		10,826	96.04	
Grand Total	1,229,696	100.00		845,488	100.00		48,716	100.00		11,272	100.00	

Figure 4 Dollar Distribution - All Classification and Rate Adjustments (updated Ratemaking Chapter Figure RM-19)

	Motorcycles - 2023			Trailers - 2023			Off-Road Vehicles - 2023		
	# of Vehicles	% of Vehicles	Cumulative % of Vehicles	# of Vehicles	% of Vehicles	Cumulative % of Vehicles	# of Vehicles	% of Vehicles	Cumulative % of Vehicles
Decreasing									
\$300 or more	0	0.00	0.00	0	0.00	0.00	0	0.00	0.00
\$250 to \$300	0	0.00	0.00	0	0.00	0.00	0	0.00	0.00
\$200 to \$250	1	0.01	0.01	0	0.00	0.00	0	0.00	0.00
\$150 to \$200	0	0.00	0.01	0	0.00	0.00	0	0.00	0.00
\$100 to \$150	13	0.07	0.07	0	0.00	0.00	0	0.00	0.00
\$90 to \$100	15	0.08	0.15	0	0.00	0.00	0	0.00	0.00
\$80 to \$90	20	0.10	0.25	0	0.00	0.00	0	0.00	0.00
\$70 to \$80	35	0.18	0.43	0	0.00	0.00	0	0.00	0.00
\$60 to \$70	24	0.12	0.55	0	0.00	0.00	0	0.00	0.00
\$50 to \$60	58	0.30	0.85	0	0.00	0.00	0	0.00	0.00
\$40 to \$50	34	0.17	1.03	0	0.00	0.00	0	0.00	0.00
\$30 to \$40	41	0.21	1.24	0	0.00	0.00	0	0.00	0.00
\$20 to \$30	211	1.08	2.32	17,014	7.55	7.55	0	0.00	0.00
\$10 to \$20	666	3.41	5.73	23,699	10.51	18.06	0	0.00	0.00
\$1 to \$10	660	3.38	9.11	25,034	11.11	29.17	0	0.00	0.00
Total Decreasing	1,778	9.11		65,747	29.17		0	0.00	
No change	79	0.40	9.52	77,244	34.27	63.43	79,294	100.00	100.00
Increasing									
\$1 to \$10	487	2.50	12.02	82,427	36.57	100.00	0	0.00	100.00
\$10 to \$20	643	3.30	15.31	0	0.00	100.00	0	0.00	100.00
\$20 to \$30	820	4.20	19.52	0	0.00	100.00	0	0.00	100.00
\$30 to \$40	2,528	12.96	32.47	0	0.00	100.00	0	0.00	100.00
\$40 to \$50	2,983	15.29	47.77	0	0.00	100.00	0	0.00	100.00
Decrease or less than \$50	9,318	47.77		225,418	100.00		79,294	100.00	
\$50 to \$60	1,440	7.38	55.15	0	0.00	100.00	0	0.00	100.00
\$60 to \$70	1,067	5.47	60.62	0	0.00	100.00	0	0.00	100.00
\$70 to \$80	1,405	7.20	67.82	0	0.00	100.00	0	0.00	100.00
\$80 to \$90	1,166	5.98	73.80	0	0.00	100.00	0	0.00	100.00
\$90 to \$100	416	2.13	75.93	0	0.00	100.00	0	0.00	100.00
Decrease or less than \$100	14,812	75.93		225,418	100.00		79,294	100.00	
\$100 to \$150	3,936	20.18	96.10	0	0.00	100.00	0	0.00	100.00
\$150 to \$200	621	3.18	99.29	0	0.00	100.00	0	0.00	100.00
Decrease or less than \$200	19,369	99.29		225,418	100.00		79,294	100.00	
\$200 to \$250	113	0.58	99.87	0	0.00	100.00	0	0.00	100.00
\$250 to \$300	16	0.08	99.95	0	0.00	100.00	0	0.00	100.00
Decrease or less than \$300	19,498	99.95		225,418	100.00		79,294	100.00	
\$300 or more	10	0.05	100.00	0	0.00	100.00	0	0.00	100.00
Total Increasing	17,651	90.48		82,427	36.57		0	0.00	
Grand Total	19,508	100.00		225,418	100.00		79,294	100.00	

Figure 5 Dollar Distribution - All Classification and Rate Adjustments (updated Ratemaking Chapter Figure RM-20)

	All Vehicles - 2023			Private Passenger Vehicles - 2023			Commercial Vehicles - 2023			Public Vehicles - 2023		
	# of Vehicles	% of Vehicles	Cumulative % of Vehicles	# of Vehicles	% of Vehicles	Cumulative % of Vehicles	# of Vehicles	% of Vehicles	Cumulative % of Vehicles	# of Vehicles	% of Vehicles	Cumulative % of Vehicles
Decreasing												
20% or more	0	0.00	0.00	0	0.00	0.00	0	0.00	0.00	0	0.00	0.00
19 to 20%	0	0.00	0.00	0	0.00	0.00	0	0.00	0.00	0	0.00	0.00
18 to 19%	0	0.00	0.00	0	0.00	0.00	0	0.00	0.00	0	0.00	0.00
17 to 18%	0	0.00	0.00	0	0.00	0.00	0	0.00	0.00	0	0.00	0.00
16 to 17%	0	0.00	0.00	0	0.00	0.00	0	0.00	0.00	0	0.00	0.00
15 to 16%	0	0.00	0.00	0	0.00	0.00	0	0.00	0.00	0	0.00	0.00
14 to 15%	8	0.00	0.00	0	0.00	0.00	8	0.02	0.02	0	0.00	0.00
13 to 14%	283	0.02	0.02	13	0.00	0.00	270	0.55	0.57	0	0.00	0.00
12 to 13%	83	0.01	0.03	64	0.01	0.01	19	0.04	0.61	0	0.00	0.00
11 to 12%	306	0.02	0.06	246	0.03	0.04	60	0.12	0.73	2	0.00	0.00
10 to 11%	6,018	0.49	0.54	828	0.10	0.14	662	1.36	2.09	2	0.02	0.02
9 to 10%	19,929	1.62	2.17	1,620	0.19	0.33	58	0.12	2.21	1	0.01	0.03
8 to 9%	10,209	0.83	3.00	3,942	0.47	0.79	11	0.02	2.23	4	0.04	0.06
7 to 8%	12,656	1.03	4.02	9,820	1.16	1.96	35	0.07	2.31	10	0.09	0.15
6 to 7%	32,526	2.65	6.67	16,998	2.01	3.97	20	0.04	2.35	21	0.19	0.34
5 to 6%	34,253	2.79	9.46	27,075	3.20	7.17	12	0.02	2.37	14	0.12	0.46
4 to 5%	25,135	2.04	11.50	24,828	2.94	10.10	54	0.11	2.48	24	0.21	0.67
3 to 4%	32,874	2.67	14.17	29,627	3.50	13.61	69	0.14	2.62	64	0.57	1.24
2 to 3%	41,021	3.34	17.51	35,530	4.20	17.81	51	0.10	2.73	70	0.62	1.86
1 to 2%	35,372	2.88	20.38	32,603	3.86	21.67	87	0.18	2.91	169	1.50	3.36
0 to 1%	35,307	2.87	23.26	33,317	3.94	25.61	85	0.17	3.08	64	0.57	3.93
Total Decreasing	285,980	23.26		216,511	25.61		1,501	3.08		443	3.93	
No change	159,677	12.99	36.24	3,054	0.36	25.97	3	0.01	3.09	3	0.03	3.96
Increasing												
0 to 1%	35,179	2.86	39.10	34,235	4.05	30.02	140	0.29	3.37	269	2.39	6.34
1 to 2%	49,362	4.01	43.12	41,158	4.87	34.89	99	0.20	3.58	207	1.84	8.18
2 to 3%	43,280	3.52	46.64	41,499	4.91	39.79	117	0.24	3.82	763	6.77	14.95
3 to 4%	45,735	3.72	50.35	42,566	5.03	44.83	156	0.32	4.14	1,053	9.34	24.29
4 to 5%	51,531	4.19	54.55	48,620	5.75	50.58	914	1.88	6.01	404	3.58	27.87
Decrease or less than + 5%	670,744	54.55		427,643	50.58		2,930	6.01		3,142	27.87	
5 to 6%	62,388	5.07	59.62	57,200	6.77	57.34	1,997	4.10	10.11	2,102	18.65	46.52
6 to 7%	77,717	6.32	65.94	74,230	8.78	66.12	456	0.94	11.05	2,151	19.08	65.61
7 to 8%	52,584	4.28	70.22	47,845	5.66	71.78	3,719	7.63	18.68	207	1.84	67.44
8 to 9%	43,320	3.52	73.74	35,189	4.16	75.95	7,476	15.35	34.03	185	1.64	69.08
9 to 10%	77,835	6.33	80.07	44,429	5.25	81.20	5,252	10.78	44.81	299	2.65	71.74
Decrease or less than +10%	984,588	80.07		686,536	81.20		21,830	44.81		8,086	71.74	
10 to 11%	64,569	5.25	85.32	45,924	5.43	86.63	15,339	31.49	76.30	882	7.82	79.56
11 to 12%	42,103	3.42	88.74	38,904	4.60	91.23	586	1.20	77.50	813	7.21	86.77
12 to 13%	50,587	4.11	92.86	46,328	5.48	96.71	717	1.47	78.97	961	8.53	95.30
13 to 14%	23,490	1.91	94.77	19,033	2.25	98.96	3,597	7.38	86.36	102	0.90	96.20
14 to 15%	45,587	3.71	98.47	5,456	0.65	99.61	3,775	7.75	94.10	49	0.43	96.64
Decrease or less than +15%	1,210,924	98.47		842,181	99.61		45,844	94.10		10,883	96.64	
15 to 16%	12,113	0.99	99.46	1,049	0.12	99.73	804	1.65	95.75	33	0.29	96.93
16 to 17%	1,459	0.12	99.58	960	0.11	99.85	183	0.38	96.13	68	0.60	97.53
17 to 18%	719	0.06	99.64	178	0.02	99.87	186	0.38	96.51	88	0.78	98.31
18 to 19%	2,582	0.21	99.85	134	0.02	99.88	875	1.80	98.31	102	0.90	99.22
19 to 20%	902	0.07	99.92	80	0.01	99.89	742	1.52	99.83	79	0.70	99.92
Decrease or less than +20%	1,228,699	99.92		844,582	99.89		48,634	99.83		11,263	99.92	
20% or more	997	0.08	100.00	906	0.11	100.00	82	0.17	100.00	9	0.08	100.00
Total Increasing	784,039	63.76		625,923	74.03		47,212	96.91		10,826	96.04	
Grand Total	1,229,696	100.00		845,488	100.00		48,716	100.00		11,272	100.00	

Figure 6 Dollar Distribution - All Classification and Rate Adjustments (updated Ratemaking Chapter Figure RM-20)

	Motorcycles - 2023			Trailers - 2023			Off-Road Vehicles - 2023		
	# of Vehicles	% of Vehicles	Cumulative % of Vehicles	# of Vehicles	% of Vehicles	Cumulative % of Vehicles	# of Vehicles	% of Vehicles	Cumulative % of Vehicles
Decreasing									
20% or more	0	0.00	0.00	0	0.00	0.00	0	0.00	0.00
19 to 20%	0	0.00	0.00	0	0.00	0.00	0	0.00	0.00
18 to 19%	0	0.00	0.00	0	0.00	0.00	0	0.00	0.00
17 to 18%	0	0.00	0.00	0	0.00	0.00	0	0.00	0.00
16 to 17%	0	0.00	0.00	0	0.00	0.00	0	0.00	0.00
15 to 16%	0	0.00	0.00	0	0.00	0.00	0	0.00	0.00
14 to 15%	0	0.00	0.00	0	0.00	0.00	0	0.00	0.00
13 to 14%	0	0.00	0.00	0	0.00	0.00	0	0.00	0.00
12 to 13%	0	0.00	0.00	0	0.00	0.00	0	0.00	0.00
11 to 12%	0	0.00	0.00	0	0.00	0.00	0	0.00	0.00
10 to 11%	1	0.01	0.01	4,525	2.01	2.01	0	0.00	0.00
9 to 10%	0	0.00	0.01	18,250	8.10	10.10	0	0.00	0.00
8 to 9%	2	0.01	0.02	6,250	2.77	12.88	0	0.00	0.00
7 to 8%	5	0.03	0.04	2,786	1.24	14.11	0	0.00	0.00
6 to 7%	33	0.17	0.21	15,454	6.86	20.97	0	0.00	0.00
5 to 6%	82	0.42	0.63	7,070	3.14	24.10	0	0.00	0.00
4 to 5%	100	0.51	1.14	129	0.06	24.16	0	0.00	0.00
3 to 4%	74	0.38	1.52	3,040	1.35	25.51	0	0.00	0.00
2 to 3%	296	1.52	3.04	5,074	2.25	27.76	0	0.00	0.00
1 to 2%	810	4.15	7.19	1,703	0.76	28.52	0	0.00	0.00
0 to 1%	375	1.92	9.11	1,466	0.65	29.17	0	0.00	0.00
Total Decreasing	1,778	9.11		65,747	29.17		0	0.00	
No change	79	0.40	9.52	77,244	34.27	63.43	79,294	100.00	100.00
Increasing									
0 to 1%	303	1.55	11.07	232	0.10	63.54	0	0.00	100.00
1 to 2%	679	3.48	14.55	7,219	3.20	66.74	0	0.00	100.00
2 to 3%	738	3.78	18.34	163	0.07	66.81	0	0.00	100.00
3 to 4%	1,960	10.05	28.38	0	0.00	66.81	0	0.00	100.00
4 to 5%	1,173	6.01	34.40	420	0.19	67.00	0	0.00	100.00
Decrease or less than + 5%	6,710	34.40		151,025	67.00		79,294	100.00	
5 to 6%	1,089	5.58	39.98	0	0.00	67.00	0	0.00	100.00
6 to 7%	880	4.51	44.49	0	0.00	67.00	0	0.00	100.00
7 to 8%	813	4.17	48.66	0	0.00	67.00	0	0.00	100.00
8 to 9%	470	2.41	51.07	0	0.00	67.00	0	0.00	100.00
9 to 10%	1,042	5.34	56.41	26,813	11.89	78.89	0	0.00	100.00
Decrease or less than +10%	11,004	56.41		177,838	78.89		79,294	100.00	
10 to 11%	2,424	12.43	68.83	0	0.00	78.89	0	0.00	100.00
11 to 12%	1,800	9.23	78.06	0	0.00	78.89	0	0.00	100.00
12 to 13%	2,581	13.23	91.29	0	0.00	78.89	0	0.00	100.00
13 to 14%	758	3.89	95.18	0	0.00	78.89	0	0.00	100.00
14 to 15%	150	0.77	95.95	36,157	16.04	94.93	0	0.00	100.00
Decrease or less than +15%	18,717	95.95		213,995	94.93		79,294	100.00	
15 to 16%	93	0.48	96.42	10,134	4.50	99.43	0	0.00	100.00
16 to 17%	248	1.27	97.69	0	0.00	99.43	0	0.00	100.00
17 to 18%	267	1.37	99.06	0	0.00	99.43	0	0.00	100.00
18 to 19%	182	0.93	99.99	1,289	0.57	100.00	0	0.00	100.00
19 to 20%	1	0.01	100.00	0	0.00	100.00	0	0.00	100.00
Decrease or less than +20%	19,508	100.00		225,418	100.00		79,294	100.00	
20 to 21%	0	0.00	100.00	0	0.00	100.00	0	0.00	100.00
Total Increasing	17,651	90.48		82,427	36.57		0	0.00	
Grand Total	19,508	100.00		225,418	100.00		79,294	100.00	

PUB (MPI) 1-5

Part and Chapter:	Part V – Forecasting – REV Revenues	Page No.:	9
PUB Approved Issue No:	1. Requested vehicle rate and any changes to other fees and discounts		
Topic:	Revenue forecast		
Sub Topic:			

Preamble to IR:

Comparing REV-5 to the prior GRA, the HTA units for 2020/21 appear to have changed materially, and with some significant movements, particularly for Commercial. Similarly, Public now has a large decrease in 2021/22, whereas last year there was a large decrease in 2020/21.

Question:

- a) Please confirm that the units shown in each year are for 12 months.
- b) Please explain why there was a larger than normal increase in 2020/21 for Private Passenger and for Commercial.
- c) Please explain why there is a larger than normal decrease for Public in 2021/22.
- d) Please explain why there is a larger than normal increase for Motorcycles in 2021/22.
- e) If there are errors found which change the selected HTA growth rate, please file all exhibits that change as a result of the correction.

Rationale for Question:

To understand the unusual movement in HTA units.

RESPONSE:

- a) MPI confirms that it adjusted policy year 2020/21 in the 2023 GRA from 13 months to reflect the 12-month period from April 1, 2020 to March 31, 2021.
- b) MPI understands the COVID-19 Pandemic impacted the 2020/21 policy year. MPI investigated the larger than normal increase for Private Passenger and discovered that the majority of units contributing to this increase appeared toward the end of the Pandemic. New policy registrations and vehicles switching from lay-up coverage to on-road coverage primarily caused this spike.

For Commercial, the larger than normal increase in 2020/21 is primarily due to corporate customers. The effective/renewal dates of the corporate policies are not uniformly spread over the 12 months period as the majority of customers renew at the beginning of the year. Due to the change in fiscal year, the earned units for these customers are attached to the policy year 2020 as opposed to 2021.

- c) Similar to Commercial, the larger than normal decrease of Public in 2021/22 primarily results from the capture of corporate customers in 2020, as opposed to 2021.
- d) MPI understands that a spike in new policies during 2021 caused larger increase than in previous years. While larger than normal increases for motorcycles are infrequent, they are not uncommon, as seen in historical years.
- e) For the reasons indicated above, MPI does not anticipate the forecasted HTA growth rate would change if it transferred the earned units to 2021. This is because MPI uses multiple historical years to select HTA growth rates. Also, the historical years exclude the 2020/21 and 2021/22 policy years.

PUB (MPI) 1-6

Part and Chapter:	Part V – Forecasting – REV Revenues	Page No.:	28
PUB Approved Issue No:	1. Requested vehicle rate and any changes to other fees and discounts		
Topic:	Reinsurance cost		
Sub Topic:			

Preamble to IR:

Overall MPI negotiated stable premiums for the 2022/23 Basic casualty program, with an increase due to exposure and market conditions.

Total premiums increased from 1,481 in 2021/22 to 1,803 in 2022/23.

Question:

- a) Please explain how an increase of over 20% is considered “stable”.
- b) How much of the increase was due to each of:
 - i. Exposure; and
 - ii. Market conditions.

Rationale for Question:

To understand the significant increase in reinsurance costs.

RESPONSE:

- a) MPI submits that a 20% increase is not stable. However, the \$322 thousand increase in premiums was expected considering the current state of the hardening casualty market industry. Due to experience seen in the casualty market, reinsurers had a reduced appetite to place coverage on this layer, which impacted

pricing. While this coverage has remained relatively flat since 2015, the current market/industry was not as favourable during 2022/23.

- b) Although the breakout of the pricing increase is unavailable, the largest drivers (from most to least) are the current casualty market pricing, exposure and experience.

PUB (MPI) 1-7

Part and Chapter:	Part V – Forecasting – REV Revenues	Page No.:	33
PUB Approved Issue No:	1. Requested vehicle rate and any changes to other fees and discounts		
Topic:	Service fees – finance plans		
Sub Topic:			

Preamble to IR:

MPI forecasts an average financing interest rate of 4.7% for all years in REV-39, set as prime +2%.

Question:

- a) Does the financing interest rate shown reflect March 31, 2022 interest rates?
- b) If not, what would be the estimated increase in fees based on the March 31, 2022 rates?
- c) By how much would the fees increase based on July 31, 2022 interest rates?

Rationale for Question:

To understand the impact of interest rate changes on financing fees.

RESPONSE:

- a) and b)

Yes, the financing interest rate used in the forecast reflects the March 31, 2022 interest rates.

- c) The Bank of Canada Prime rate increased 200 basis points from 2.7%, as at March 31, 2022, to 4.7%, as at July 31, 2022. Based on a 200-bps increase in interest financing and no other change in assumptions, the approximate impact is about \$400,000. Below are the calculations based on the current forecasting methodology:

$$\begin{array}{r} \$20 \text{ million in corporate interest financing revenue} \\ \times \quad \underline{200 \text{ basis point change in interest financing}} \\ = \quad \quad \quad \mathbf{\$400,000} \end{array}$$

PUB (MPI) 1-8

Part and Chapter:	Part VI – Accepted Actuarial Practice – RM Ratemaking	Page No.:	
PUB Approved Issue No:	1. Requested vehicle rate and any changes to other fees and discounts		
Topic:	Alternative rate change		
Sub Topic:			

Preamble to IR:

Order 11.3 states:

In the 2023 GRA, the Corporation shall provide an alternative rate indication by use and territory. For this alternative rate indication:

- a) The Corporation shall remove actual serious losses (consistent with the current approach) and allocate serious losses based on the frequency of collision claims for each vehicle type;
- b) The Corporation shall split vehicle type among passenger vehicle, light truck, heavy truck, bus, motorcycle, trailer, and off-road vehicle; and
- c) The Corporation shall consider whether this approach is expected to result in less volatility for smaller uses and territories, and whether an adjustment to its credibility standard or minimum credibility may be warranted.

It was expected that the serious loss loading was to be determined by:

- a) Summing the serious losses over the last ten years for each vehicle type and calculating the ten-year average;
- b) Summing the collision claims over the last five years for each vehicle type and calculating the five-year average;

- c) Calculating a serious loss loading per collision claim for each vehicle type by dividing the ten-year average serious losses for each vehicle type by the five-year average collision claim count for each vehicle type;
- d) Calculating the serious loss loading for each use and territory and year by multiplying the number of collision claims for each use and territory and year by the serious loss loading per collision claim for each vehicle type; and
- e) The actual serious losses were to be removed and the loading calculated in d) was to be added.

For some uses, the values shown in MPI Exhibit #6 Table 10a do not appear to be consistent with this expectation. As an example, for Artisan Trucks:

- a) In RM Appendix 9 Table 8 the total Reported Loss and ALAE with Hail and Actual Serious Losses (After Product Change) is \$513,999.
- b) In Exhibit #6, Table 9a, there are no actual Serious losses in the last five years.
- c) In Exhibit #6, Table 15, there are two collision counts for Light Trucks and 24 for Heavy Trucks in this Use.
- d) In Exhibit #6, Table 10a, the Reported Loss and ALAE without Hail and with 10-Year Average Expected Serious Losses (Before Product Change) is \$1,535,892 for Light Trucks, and \$1,757,378 for Heavy Trucks, for a total of about \$3.3 million.
- e) It would appear that with 26 collision claims, about \$2.8 million of serious losses have been allocated to this use.

Question:

- a) Please provide, in Excel, all exhibits from Ratemaking Appendix 9.

- b) Please provide, in Excel, all exhibits from MPI Exhibit #6.
- c) Please provide detailed calculations showing the calculation of the serious loss loading per collision claim count for each vehicle type.
- d) Assuming that the calculation performed by MPI was different than the above expectation, please perform the calculation based on the above expectation and provide the results and include Excel exhibits showing the work.

Rationale for Question:

The calculated results do not appear to be reasonable.

RESPONSE:

- a) Please see Ratemaking RM Appendix 9 Tables 1 through 14 attached in excel format.
- b) Please see MPI Exhibit #6 Appendix 12 Tables 9a to 14 attached in excel format.
- c) MPI interpreted Directive 11.3 to use the frequency of collision claims, based on the last five years, to allocate out the serious losses by vehicle type. MPI first calculated the serious losses over the last ten years for each vehicle type to determine the ten-year average, please refer to Ratemaking RM Appendix 12, Table 9a. MPI then calculated the collision frequency for each use and territory based on the last five years (Ratemaking RM Appendix 12, Table 11a and Table 15). The frequencies calculated for each use and territory are aggregated together by vehicle type. MPI then recalculated the balanced frequency for each use and territory to allocate the ten-year average serious losses.

For example, for Artisan Trucks in Territory 1, which is further split into Artisan Truck Light and Artisan Truck Heavy, the calculated frequency is 0.04 (1/28) and 0.04 (15/381), respectively. The aggregated frequency for Light Trucks and Heavy Trucks is 1.46 and 0.36, respectively. The balanced frequency for Artisan Truck

Light and Artisan Truck Heavy is calculated to be 0.02 (0.04/1.46) and 0.11 (0.04/0.36), respectively. The ten-year average serious loss for Light Truck and Heavy Truck is 5,131,206 and 635,065. The serious loss load for Artisan Truck Light and Artisan Truck Heavy is then calculated to be 126,068 (0.02*5,131,206) and 69,373 (0.11*635,065), respectively.

d) Please see Appendix 3.

Table 9a
Reported Serious Losses and ALAE (Including Vehicle Type)

(Additional uses not listed have zero serious losses in the recent 10 years as of March 31, 2022.)

Major Class	Vehicle Type	Use	Loss Year	Territory					Total
				1	2	3	4	5	
1	Passenger Vehicle	All Purpose Passenger Vehicle	2012	12,752,400	13,021,982	0	2,580,087	5,053,838	33,408,307
1	Passenger Vehicle	All Purpose Passenger Vehicle	2013	8,437,938	5,063,913	556,725	0	1,183,945	15,242,522
1	Passenger Vehicle	All Purpose Passenger Vehicle	2014	10,827,481	2,927,203	0	1,827,385	1,554,134	17,136,203
1	Passenger Vehicle	All Purpose Passenger Vehicle	2015	13,278,671	9,565,668	0	262,799	4,094,241	27,201,380
1	Passenger Vehicle	All Purpose Passenger Vehicle	2016	13,652,423	6,590,953	0	1,937,896	3,358,921	25,540,193
1	Passenger Vehicle	All Purpose Passenger Vehicle	2017	16,318,305	11,623,380	0	180,287	2,331,565	30,453,537
1	Passenger Vehicle	All Purpose Passenger Vehicle	2018	21,338,039	7,387,105	0	303,100	4,381,731	33,409,975
1	Passenger Vehicle	All Purpose Passenger Vehicle	2019	6,884,858	7,928,239	0	0	4,662,345	19,475,442
1	Passenger Vehicle	All Purpose Passenger Vehicle	2020	10,150,424	4,727,460	0	0	0	14,877,884
1	Passenger Vehicle	All Purpose Passenger Vehicle	2021	1,954,105	2,731,010	294,373	0	269,943	5,249,431
1	Passenger Vehicle	All Purpose Passenger Vehicle	Total	115,594,645	71,566,913	851,098	7,091,554	26,890,664	221,994,874
1	Light Truck	All Purpose Truck 4540 kg or less	2012	5,680,608	3,894,956	0	0	2,150,549	11,726,112
1	Light Truck	All Purpose Truck 4540 kg or less	2013	1,305,787	5,252,286	0	0	0	6,558,073
1	Light Truck	All Purpose Truck 4540 kg or less	2014	7,367,458	6,348,444	0	0	610,943	14,326,845
1	Light Truck	All Purpose Truck 4540 kg or less	2015	1,309,753	7,053,447	658,505	262,799	883,125	10,167,628
1	Light Truck	All Purpose Truck 4540 kg or less	2016	4,978,779	8,933,185	0	0	2,578,467	16,490,431
1	Light Truck	All Purpose Truck 4540 kg or less	2017	7,631,528	3,323,205	163,724	0	688,926	11,807,382
1	Light Truck	All Purpose Truck 4540 kg or less	2018	4,861,897	1,647,119	0	0	688,457	7,197,473
1	Light Truck	All Purpose Truck 4540 kg or less	2019	6,047,396	2,946,389	0	0	1,699,678	10,693,463
1	Light Truck	All Purpose Truck 4540 kg or less	2020	1,769,588	367,295	0	0	1,160,580	3,297,463
1	Light Truck	All Purpose Truck 4540 kg or less	2021	0	3,705,311	297,348	0	0	4,002,659
1	Light Truck	All Purpose Truck 4540 kg or less	Total	40,952,793	43,471,635	1,119,576	262,799	10,460,724	96,267,528
1	Passenger Vehicle	Farm Passenger Vehicle	2012	0	0	0	0	0	0
1	Passenger Vehicle	Farm Passenger Vehicle	2013	531,897	0	0	0	0	531,897
1	Passenger Vehicle	Farm Passenger Vehicle	2014	0	1,504,887	0	0	0	1,504,887
1	Passenger Vehicle	Farm Passenger Vehicle	2015	0	598,067	0	0	0	598,067
1	Passenger Vehicle	Farm Passenger Vehicle	2016	0	0	0	0	0	0
1	Passenger Vehicle	Farm Passenger Vehicle	2017	0	180,287	0	0	0	180,287
1	Passenger Vehicle	Farm Passenger Vehicle	2018	0	0	0	0	0	0
1	Passenger Vehicle	Farm Passenger Vehicle	2019	0	0	0	0	0	0
1	Passenger Vehicle	Farm Passenger Vehicle	2020	0	0	0	0	0	0
1	Passenger Vehicle	Farm Passenger Vehicle	2021	0	0	0	0	0	0
1	Passenger Vehicle	Farm Passenger Vehicle	Total	531,897	2,283,241	0	0	0	2,815,138
1	Light Truck	Farming All Purpose Truck 4540 kg or less	2012	0	2,275,171	0	0	0	2,275,171
1	Light Truck	Farming All Purpose Truck 4540 kg or less	2013	0	1,215,298	0	0	750,201	1,965,499
1	Light Truck	Farming All Purpose Truck 4540 kg or less	2014	0	3,344,538	0	0	0	3,344,538
1	Light Truck	Farming All Purpose Truck 4540 kg or less	2015	0	787,884	0	0	0	787,884
1	Light Truck	Farming All Purpose Truck 4540 kg or less	2016	0	519,400	0	0	0	519,400
1	Light Truck	Farming All Purpose Truck 4540 kg or less	2017	0	2,258,561	0	0	0	2,258,561
1	Light Truck	Farming All Purpose Truck 4540 kg or less	2018	0	2,299,729	0	0	0	2,299,729
1	Light Truck	Farming All Purpose Truck 4540 kg or less	2019	0	694,835	0	0	0	694,835
1	Light Truck	Farming All Purpose Truck 4540 kg or less	2020	0	0	0	0	0	0
1	Light Truck	Farming All Purpose Truck 4540 kg or less	2021	0	0	0	0	0	0
1	Light Truck	Farming All Purpose Truck 4540 kg or less	Total	0	13,395,417	0	0	750,201	14,145,618
1	Motorhome	Pleasure Motorhome	2012	278,700	0	0	0	0	278,700
1	Motorhome	Pleasure Motorhome	2013	0	0	0	0	0	0
1	Motorhome	Pleasure Motorhome	2014	0	0	0	0	0	0
1	Motorhome	Pleasure Motorhome	2015	0	0	0	0	0	0
1	Motorhome	Pleasure Motorhome	2016	0	0	0	0	0	0
1	Motorhome	Pleasure Motorhome	2017	0	0	0	0	0	0
1	Motorhome	Pleasure Motorhome	2018	0	0	0	0	0	0
1	Motorhome	Pleasure Motorhome	2019	0	0	0	0	0	0
1	Motorhome	Pleasure Motorhome	2020	0	0	0	0	0	0
1	Motorhome	Pleasure Motorhome	2021	0	0	0	0	0	0
1	Motorhome	Pleasure Motorhome	Total	278,700	0	0	0	0	278,700

Table 9a
Reported Serious Losses and ALAE (Including Vehicle Type)

(Additional uses not listed have zero serious losses in the recent 10 years as of March 31, 2022.)

Major Class	Vehicle Type	Use	Loss Year	Territory					Total
				1	2	3	4	5	
1	Passenger Vehicle	Pleasure Passenger Vehicle	2012	3,983,748	6,106,401	0	0	0	10,090,149
1	Passenger Vehicle	Pleasure Passenger Vehicle	2013	3,159,571	5,009,130	0	285,467	0	8,454,169
1	Passenger Vehicle	Pleasure Passenger Vehicle	2014	5,123,172	2,647,126	0	1,097,344	0	8,867,643
1	Passenger Vehicle	Pleasure Passenger Vehicle	2015	6,051,511	8,579,061	0	0	0	14,630,572
1	Passenger Vehicle	Pleasure Passenger Vehicle	2016	6,708,363	17,842,729	0	0	0	24,551,092
1	Passenger Vehicle	Pleasure Passenger Vehicle	2017	11,443,852	2,324,106	0	0	0	13,767,958
1	Passenger Vehicle	Pleasure Passenger Vehicle	2018	3,532,948	5,914,737	0	0	0	9,447,685
1	Passenger Vehicle	Pleasure Passenger Vehicle	2019	5,723,870	4,957,710	0	363,787	0	11,045,368
1	Passenger Vehicle	Pleasure Passenger Vehicle	2020	2,978,967	8,418,566	0	0	0	11,397,534
1	Passenger Vehicle	Pleasure Passenger Vehicle	2021	958,137	536,101	0	0	0	1,494,238
1	Passenger Vehicle	Pleasure Passenger Vehicle	Total	49,664,140	62,335,668	0	1,746,598	0	113,746,406
1	Light Truck	Pleasure Truck	2012	476,672	2,028,438	0	0	0	2,505,110
1	Light Truck	Pleasure Truck	2013	0	1,013,511	0	0	0	1,013,511
1	Light Truck	Pleasure Truck	2014	1,542,218	1,385,378	0	0	0	2,927,596
1	Light Truck	Pleasure Truck	2015	2,156,021	3,339,624	0	489,086	0	5,984,731
1	Light Truck	Pleasure Truck	2016	2,312,070	3,551,070	0	0	0	5,863,140
1	Light Truck	Pleasure Truck	2017	1,449,790	6,119,975	0	0	0	7,569,766
1	Light Truck	Pleasure Truck	2018	886,112	1,470,426	0	0	0	2,356,538
1	Light Truck	Pleasure Truck	2019	1,112,980	1,345,572	943,716	0	0	3,402,269
1	Light Truck	Pleasure Truck	2020	0	0	0	0	0	0
1	Light Truck	Pleasure Truck	2021	0	520,773	0	0	0	520,773
1	Light Truck	Pleasure Truck	Total	9,935,863	20,774,767	943,716	489,086	0	32,143,433
1		Major Class Total	2012	23,172,128	27,326,948	0	2,580,087	7,204,387	60,283,550
1		Major Class Total	2013	13,435,194	17,554,138	556,725	285,467	1,934,146	33,765,671
1		Major Class Total	2014	24,860,329	18,157,576	0	2,924,728	2,165,078	48,107,712
1		Major Class Total	2015	22,795,956	29,923,750	658,505	1,014,684	4,977,366	59,370,262
1		Major Class Total	2016	27,651,635	37,437,337	0	1,937,896	5,937,388	72,964,255
1		Major Class Total	2017	36,843,475	25,829,514	163,724	180,287	3,020,491	66,037,491
1		Major Class Total	2018	30,618,996	18,719,116	0	303,100	5,070,188	54,711,400
1		Major Class Total	2019	19,769,105	17,872,745	943,716	363,787	6,362,023	45,311,377
1		Major Class Total	2020	14,898,979	13,513,322	0	0	1,160,580	29,572,880
1		Major Class Total	2021	2,912,242	7,493,195	591,721	0	269,943	11,267,100
1		Major Class Total	Total	216,958,039	213,827,641	2,914,391	9,590,037	38,101,589	481,391,698

Table 9a
Reported Serious Losses and ALAE (Including Vehicle Type)

(Additional uses not listed have zero serious losses in the recent 10 years as of March 31, 2022.)

Major Class	Vehicle Type	Use	Loss Year	Territory					Total
				1	2	3	4	5	
2	Light Truck	Artisan Truck Light	2012	0	0	0	0	0	0
2	Light Truck	Artisan Truck Light	2013	0	0	0	0	0	0
2	Light Truck	Artisan Truck Light	2014	0	0	0	0	0	0
2	Light Truck	Artisan Truck Light	2015	0	0	0	0	0	0
2	Light Truck	Artisan Truck Light	2016	0	0	0	0	0	0
2	Light Truck	Artisan Truck Light	2017	0	0	0	0	0	0
2	Light Truck	Artisan Truck Light	2018	0	0	0	0	0	0
2	Light Truck	Artisan Truck Light	2019	0	0	0	0	0	0
2	Light Truck	Artisan Truck Light	2020	0	0	0	0	0	0
2	Light Truck	Artisan Truck Light	2021	0	0	0	0	0	0
2	Light Truck	Artisan Truck Light	Total	0	0	0	0	0	0
2	Heavy Truck	Artisan Truck Heavy	2012	0	0	0	0	0	0
2	Heavy Truck	Artisan Truck Heavy	2013	0	0	0	0	0	0
2	Heavy Truck	Artisan Truck Heavy	2014	0	0	0	0	0	0
2	Heavy Truck	Artisan Truck Heavy	2015	0	0	0	0	0	0
2	Heavy Truck	Artisan Truck Heavy	2016	260,937	0	0	0	0	260,937
2	Heavy Truck	Artisan Truck Heavy	2017	0	0	0	0	0	0
2	Heavy Truck	Artisan Truck Heavy	2018	0	0	0	0	0	0
2	Heavy Truck	Artisan Truck Heavy	2019	0	0	0	0	0	0
2	Heavy Truck	Artisan Truck Heavy	2020	0	0	0	0	0	0
2	Heavy Truck	Artisan Truck Heavy	2021	0	0	0	0	0	0
2	Heavy Truck	Artisan Truck Heavy	Total	260,937	0	0	0	0	260,937
2	Passenger Vehicle	Common Carrier Vehicle Local	2012	0	0	0	0	0	0
2	Passenger Vehicle	Common Carrier Vehicle Local	2013	198,968	0	0	0	0	198,968
2	Passenger Vehicle	Common Carrier Vehicle Local	2014	0	0	0	0	0	0
2	Passenger Vehicle	Common Carrier Vehicle Local	2015	0	938,879	0	0	0	938,879
2	Passenger Vehicle	Common Carrier Vehicle Local	2016	0	0	0	0	0	0
2	Passenger Vehicle	Common Carrier Vehicle Local	2017	0	0	0	0	0	0
2	Passenger Vehicle	Common Carrier Vehicle Local	2018	0	0	0	0	0	0
2	Passenger Vehicle	Common Carrier Vehicle Local	2019	0	0	0	0	0	0
2	Passenger Vehicle	Common Carrier Vehicle Local	2020	0	0	0	0	0	0
2	Passenger Vehicle	Common Carrier Vehicle Local	2021	0	0	0	0	0	0
2	Passenger Vehicle	Common Carrier Vehicle Local	Total	198,968	938,879	0	0	0	1,137,847
2	Light Truck	Common Carrier Vehicle Within City or Mun. Light	2012	0	0	0	0	0	0
2	Light Truck	Common Carrier Vehicle Within City or Mun. Light	2013	0	0	0	0	0	0
2	Light Truck	Common Carrier Vehicle Within City or Mun. Light	2014	0	0	0	0	0	0
2	Light Truck	Common Carrier Vehicle Within City or Mun. Light	2015	0	0	0	0	0	0
2	Light Truck	Common Carrier Vehicle Within City or Mun. Light	2016	0	0	0	0	0	0
2	Light Truck	Common Carrier Vehicle Within City or Mun. Light	2017	0	0	0	0	0	0
2	Light Truck	Common Carrier Vehicle Within City or Mun. Light	2018	0	0	0	0	0	0
2	Light Truck	Common Carrier Vehicle Within City or Mun. Light	2019	0	0	0	0	0	0
2	Light Truck	Common Carrier Vehicle Within City or Mun. Light	2020	0	0	0	0	0	0
2	Light Truck	Common Carrier Vehicle Within City or Mun. Light	2021	0	0	0	0	0	0
2	Light Truck	Common Carrier Vehicle Within City or Mun. Light	Total	0	0	0	0	0	0
2	Heavy Truck	Common Carrier Vehicle Within City or Mun. Heavy	2012	0	0	0	0	0	0
2	Heavy Truck	Common Carrier Vehicle Within City or Mun. Heavy	2013	0	0	0	0	0	0
2	Heavy Truck	Common Carrier Vehicle Within City or Mun. Heavy	2014	600,759	0	0	0	0	600,759
2	Heavy Truck	Common Carrier Vehicle Within City or Mun. Heavy	2015	0	0	0	0	0	0
2	Heavy Truck	Common Carrier Vehicle Within City or Mun. Heavy	2016	0	0	0	0	0	0
2	Heavy Truck	Common Carrier Vehicle Within City or Mun. Heavy	2017	0	0	0	0	0	0
2	Heavy Truck	Common Carrier Vehicle Within City or Mun. Heavy	2018	0	0	0	0	0	0
2	Heavy Truck	Common Carrier Vehicle Within City or Mun. Heavy	2019	0	0	0	0	0	0
2	Heavy Truck	Common Carrier Vehicle Within City or Mun. Heavy	2020	0	0	0	0	0	0
2	Heavy Truck	Common Carrier Vehicle Within City or Mun. Heavy	2021	0	0	0	0	0	0
2	Heavy Truck	Common Carrier Vehicle Within City or Mun. Heavy	Total	600,759	0	0	0	0	600,759

Table 9a
Reported Serious Losses and ALAE (Including Vehicle Type)

(Additional uses not listed have zero serious losses in the recent 10 years as of March 31, 2022.)

Major Class	Vehicle Type	Use	Loss Year	Territory					Total
				1	2	3	4	5	
2	Light Truck	Common Carrier Truck < 161 km in Manitoba Light	2012	0	0	0	0	0	0
2	Light Truck	Common Carrier Truck < 161 km in Manitoba Light	2013	0	0	0	0	0	0
2	Light Truck	Common Carrier Truck < 161 km in Manitoba Light	2014	0	0	0	0	0	0
2	Light Truck	Common Carrier Truck < 161 km in Manitoba Light	2015	0	0	0	0	0	0
2	Light Truck	Common Carrier Truck < 161 km in Manitoba Light	2016	0	0	0	0	0	0
2	Light Truck	Common Carrier Truck < 161 km in Manitoba Light	2017	0	0	0	0	0	0
2	Light Truck	Common Carrier Truck < 161 km in Manitoba Light	2018	0	0	0	0	0	0
2	Light Truck	Common Carrier Truck < 161 km in Manitoba Light	2019	0	0	0	0	0	0
2	Light Truck	Common Carrier Truck < 161 km in Manitoba Light	2020	0	0	0	0	0	0
2	Light Truck	Common Carrier Truck < 161 km in Manitoba Light	2021	0	0	0	0	0	0
2	Light Truck	Common Carrier Truck < 161 km in Manitoba Light	Total	0	0	0	0	0	0
2	Heavy Truck	Common Carrier Truck < 161 km in Manitoba Heavy	2012	0	0	0	0	0	0
2	Heavy Truck	Common Carrier Truck < 161 km in Manitoba Heavy	2013	0	0	0	0	0	0
2	Heavy Truck	Common Carrier Truck < 161 km in Manitoba Heavy	2014	0	0	0	0	0	0
2	Heavy Truck	Common Carrier Truck < 161 km in Manitoba Heavy	2015	0	0	0	0	0	0
2	Heavy Truck	Common Carrier Truck < 161 km in Manitoba Heavy	2016	0	0	0	0	0	0
2	Heavy Truck	Common Carrier Truck < 161 km in Manitoba Heavy	2017	0	0	0	0	0	0
2	Heavy Truck	Common Carrier Truck < 161 km in Manitoba Heavy	2018	0	0	0	0	0	0
2	Heavy Truck	Common Carrier Truck < 161 km in Manitoba Heavy	2019	0	0	0	0	0	0
2	Heavy Truck	Common Carrier Truck < 161 km in Manitoba Heavy	2020	0	0	0	0	0	0
2	Heavy Truck	Common Carrier Truck < 161 km in Manitoba Heavy	2021	0	0	0	0	0	0
2	Heavy Truck	Common Carrier Truck < 161 km in Manitoba Heavy	Total	0	0	0	0	0	0
2	Light Truck	Common Carrier Truck > 161 km in Manitoba Light	2012	0	0	0	0	0	0
2	Light Truck	Common Carrier Truck > 161 km in Manitoba Light	2013	0	0	0	0	0	0
2	Light Truck	Common Carrier Truck > 161 km in Manitoba Light	2014	0	0	0	0	0	0
2	Light Truck	Common Carrier Truck > 161 km in Manitoba Light	2015	0	0	0	0	0	0
2	Light Truck	Common Carrier Truck > 161 km in Manitoba Light	2016	0	0	0	0	0	0
2	Light Truck	Common Carrier Truck > 161 km in Manitoba Light	2017	0	0	0	0	0	0
2	Light Truck	Common Carrier Truck > 161 km in Manitoba Light	2018	0	0	0	0	0	0
2	Light Truck	Common Carrier Truck > 161 km in Manitoba Light	2019	0	0	0	0	0	0
2	Light Truck	Common Carrier Truck > 161 km in Manitoba Light	2020	0	0	0	0	0	0
2	Light Truck	Common Carrier Truck > 161 km in Manitoba Light	2021	0	0	0	0	0	0
2	Light Truck	Common Carrier Truck > 161 km in Manitoba Light	Total	0	0	0	0	0	0
2	Heavy Truck	Common Carrier Truck > 161 km in Manitoba Heavy	2012	0	0	0	0	0	0
2	Heavy Truck	Common Carrier Truck > 161 km in Manitoba Heavy	2013	0	0	0	0	0	0
2	Heavy Truck	Common Carrier Truck > 161 km in Manitoba Heavy	2014	0	0	0	0	0	0
2	Heavy Truck	Common Carrier Truck > 161 km in Manitoba Heavy	2015	0	0	0	0	0	0
2	Heavy Truck	Common Carrier Truck > 161 km in Manitoba Heavy	2016	0	0	0	0	0	0
2	Heavy Truck	Common Carrier Truck > 161 km in Manitoba Heavy	2017	704,598	1,281,999	0	0	0	1,986,597
2	Heavy Truck	Common Carrier Truck > 161 km in Manitoba Heavy	2018	0	0	0	0	0	0
2	Heavy Truck	Common Carrier Truck > 161 km in Manitoba Heavy	2019	0	0	0	0	0	0
2	Heavy Truck	Common Carrier Truck > 161 km in Manitoba Heavy	2020	0	0	0	0	0	0
2	Heavy Truck	Common Carrier Truck > 161 km in Manitoba Heavy	2021	0	0	0	0	0	0
2	Heavy Truck	Common Carrier Truck > 161 km in Manitoba Heavy	Total	704,598	1,281,999	0	0	0	1,986,597
2	Other	Dealer All Uses except Motorcycles	2012	0	0	0	0	0	0
2	Other	Dealer All Uses except Motorcycles	2013	3,321,626	0	0	0	0	3,321,626
2	Other	Dealer All Uses except Motorcycles	2014	0	0	0	0	0	0
2	Other	Dealer All Uses except Motorcycles	2015	611,081	0	0	0	0	611,081
2	Other	Dealer All Uses except Motorcycles	2016	0	0	0	0	0	0
2	Other	Dealer All Uses except Motorcycles	2017	434,160	0	0	0	0	434,160
2	Other	Dealer All Uses except Motorcycles	2018	0	537,609	0	0	0	537,609
2	Other	Dealer All Uses except Motorcycles	2019	0	0	0	0	0	0
2	Other	Dealer All Uses except Motorcycles	2020	0	0	0	0	0	0
2	Other	Dealer All Uses except Motorcycles	2021	0	0	0	0	0	0
2	Other	Dealer All Uses except Motorcycles	Total	4,366,868	537,609	0	0	0	4,904,477

Table 9a
Reported Serious Losses and ALAE (Including Vehicle Type)

(Additional uses not listed have zero serious losses in the recent 10 years as of March 31, 2022.)

Major Class	Vehicle Type	Use	Loss Year	Territory					Total
				1	2	3	4	5	
2	Other	Dealer Trailer	2012	430,071	0	0	0	0	430,071
2	Other	Dealer Trailer	2013	0	0	0	0	0	0
2	Other	Dealer Trailer	2014	0	0	0	0	0	0
2	Other	Dealer Trailer	2015	0	0	0	0	0	0
2	Other	Dealer Trailer	2016	0	0	0	0	0	0
2	Other	Dealer Trailer	2017	0	0	0	0	0	0
2	Other	Dealer Trailer	2018	0	0	0	0	0	0
2	Other	Dealer Trailer	2019	0	0	0	0	0	0
2	Other	Dealer Trailer	2020	0	0	0	0	0	0
2	Other	Dealer Trailer	2021	0	0	0	0	0	0
2	Other	Dealer Trailer	Total	430,071	0	0	0	0	430,071
2	Light Truck	Farming All Purpose Truck 4541 kg or more Light	2012	0	0	0	0	0	0
2	Light Truck	Farming All Purpose Truck 4541 kg or more Light	2013	0	404,400	0	0	0	404,400
2	Light Truck	Farming All Purpose Truck 4541 kg or more Light	2014	0	621,760	0	0	0	621,760
2	Light Truck	Farming All Purpose Truck 4541 kg or more Light	2015	0	0	0	0	0	0
2	Light Truck	Farming All Purpose Truck 4541 kg or more Light	2016	0	0	0	0	0	0
2	Light Truck	Farming All Purpose Truck 4541 kg or more Light	2017	0	0	0	0	0	0
2	Light Truck	Farming All Purpose Truck 4541 kg or more Light	2018	0	1,405,952	0	0	0	1,405,952
2	Light Truck	Farming All Purpose Truck 4541 kg or more Light	2019	0	0	0	0	0	0
2	Light Truck	Farming All Purpose Truck 4541 kg or more Light	2020	0	0	0	0	0	0
2	Light Truck	Farming All Purpose Truck 4541 kg or more Light	2021	0	619,329	0	0	0	619,329
2	Light Truck	Farming All Purpose Truck 4541 kg or more Light	Total	0	3,051,441	0	0	0	3,051,441
2	Heavy Truck	Farming All Purpose Truck 4541 kg or more Heavy	2012	0	0	0	0	0	0
2	Heavy Truck	Farming All Purpose Truck 4541 kg or more Heavy	2013	0	404,400	0	0	0	404,400
2	Heavy Truck	Farming All Purpose Truck 4541 kg or more Heavy	2014	0	621,760	0	0	0	621,760
2	Heavy Truck	Farming All Purpose Truck 4541 kg or more Heavy	2015	0	0	0	0	0	0
2	Heavy Truck	Farming All Purpose Truck 4541 kg or more Heavy	2016	0	0	0	0	0	0
2	Heavy Truck	Farming All Purpose Truck 4541 kg or more Heavy	2017	0	0	0	0	0	0
2	Heavy Truck	Farming All Purpose Truck 4541 kg or more Heavy	2018	0	1,405,952	0	0	0	1,405,952
2	Heavy Truck	Farming All Purpose Truck 4541 kg or more Heavy	2019	0	0	0	0	0	0
2	Heavy Truck	Farming All Purpose Truck 4541 kg or more Heavy	2020	0	0	0	0	0	0
2	Heavy Truck	Farming All Purpose Truck 4541 kg or more Heavy	2021	0	619,329	0	0	0	619,329
2	Heavy Truck	Farming All Purpose Truck 4541 kg or more Heavy	Total	0	3,051,441	0	0	0	3,051,441
2	Light Truck	Logging Truck Light	2012	0	0	0	0	0	0
2	Light Truck	Logging Truck Light	2013	0	0	0	0	0	0
2	Light Truck	Logging Truck Light	2014	0	0	0	0	0	0
2	Light Truck	Logging Truck Light	2015	0	0	0	0	0	0
2	Light Truck	Logging Truck Light	2016	0	0	0	0	0	0
2	Light Truck	Logging Truck Light	2017	0	0	0	0	0	0
2	Light Truck	Logging Truck Light	2018	0	0	0	0	0	0
2	Light Truck	Logging Truck Light	2019	0	0	0	0	0	0
2	Light Truck	Logging Truck Light	2020	0	0	0	0	0	0
2	Light Truck	Logging Truck Light	2021	0	0	0	0	0	0
2	Light Truck	Logging Truck Light	Total	0	0	0	0	0	0
2	Heavy Truck	Logging Truck Heavy	2012	0	0	0	0	0	0
2	Heavy Truck	Logging Truck Heavy	2013	0	0	0	0	0	0
2	Heavy Truck	Logging Truck Heavy	2014	0	0	0	0	0	0
2	Heavy Truck	Logging Truck Heavy	2015	0	0	0	0	0	0
2	Heavy Truck	Logging Truck Heavy	2016	0	586,394	0	0	0	586,394
2	Heavy Truck	Logging Truck Heavy	2017	0	0	0	0	0	0
2	Heavy Truck	Logging Truck Heavy	2018	0	0	0	0	0	0
2	Heavy Truck	Logging Truck Heavy	2019	0	0	0	0	0	0
2	Heavy Truck	Logging Truck Heavy	2020	0	0	0	0	0	0
2	Heavy Truck	Logging Truck Heavy	2021	0	0	0	0	0	0
2	Heavy Truck	Logging Truck Heavy	Total	0	586,394	0	0	0	586,394

Table 9a
Reported Serious Losses and ALAE (Including Vehicle Type)

(Additional uses not listed have zero serious losses in the recent 10 years as of March 31, 2022.)

Major Class	Vehicle Type	Use	Loss Year	Territory					Total
				1	2	3	4	5	
2	Light Truck	Other Truck Light	2012	0	277,576	0	0	0	277,576
2	Light Truck	Other Truck Light	2013	0	0	0	0	0	0
2	Light Truck	Other Truck Light	2014	0	0	0	0	0	0
2	Light Truck	Other Truck Light	2015	0	0	0	0	0	0
2	Light Truck	Other Truck Light	2016	0	0	0	0	0	0
2	Light Truck	Other Truck Light	2017	0	0	0	0	0	0
2	Light Truck	Other Truck Light	2018	0	0	0	0	0	0
2	Light Truck	Other Truck Light	2019	0	0	0	0	0	0
2	Light Truck	Other Truck Light	2020	0	0	0	0	0	0
2	Light Truck	Other Truck Light	2021	0	0	0	0	0	0
2	Light Truck	Other Truck Light	Total	0	277,576	0	0	0	277,576
2	Heavy Truck	Other Truck Heavy	2012	0	1,701,261	0	0	0	1,701,261
2	Heavy Truck	Other Truck Heavy	2013	612,195	406,862	0	0	0	1,019,057
2	Heavy Truck	Other Truck Heavy	2014	0	0	0	0	738,566	738,566
2	Heavy Truck	Other Truck Heavy	2015	0	0	0	0	0	0
2	Heavy Truck	Other Truck Heavy	2016	0	1,049,042	0	0	0	1,049,042
2	Heavy Truck	Other Truck Heavy	2017	429,580	743,176	0	601,697	0	1,774,453
2	Heavy Truck	Other Truck Heavy	2018	351,655	0	0	0	0	351,655
2	Heavy Truck	Other Truck Heavy	2019	593,815	926,629	0	0	341,937	1,862,381
2	Heavy Truck	Other Truck Heavy	2020	1,160,580	0	0	0	0	1,160,580
2	Heavy Truck	Other Truck Heavy	2021	0	0	0	0	0	0
2	Heavy Truck	Other Truck Heavy	Total	3,147,825	4,826,969	0	601,697	1,080,503	9,656,994
2	Light Truck	Petroleum/Chemical Truck Light	2012	0	0	0	0	0	0
2	Light Truck	Petroleum/Chemical Truck Light	2013	0	0	0	0	0	0
2	Light Truck	Petroleum/Chemical Truck Light	2014	0	0	0	0	0	0
2	Light Truck	Petroleum/Chemical Truck Light	2015	0	0	0	0	0	0
2	Light Truck	Petroleum/Chemical Truck Light	2016	0	0	0	0	0	0
2	Light Truck	Petroleum/Chemical Truck Light	2017	0	0	0	0	0	0
2	Light Truck	Petroleum/Chemical Truck Light	2018	0	0	0	0	0	0
2	Light Truck	Petroleum/Chemical Truck Light	2019	0	0	0	0	0	0
2	Light Truck	Petroleum/Chemical Truck Light	2020	0	0	0	0	0	0
2	Light Truck	Petroleum/Chemical Truck Light	2021	0	0	0	0	0	0
2	Light Truck	Petroleum/Chemical Truck Light	Total	0	0	0	0	0	0
2	Heavy Truck	Petroleum/Chemical Truck Heavy	2012	0	0	0	0	0	0
2	Heavy Truck	Petroleum/Chemical Truck Heavy	2013	0	0	0	0	0	0
2	Heavy Truck	Petroleum/Chemical Truck Heavy	2014	0	0	0	0	0	0
2	Heavy Truck	Petroleum/Chemical Truck Heavy	2015	0	0	0	0	0	0
2	Heavy Truck	Petroleum/Chemical Truck Heavy	2016	0	0	0	0	0	0
2	Heavy Truck	Petroleum/Chemical Truck Heavy	2017	0	0	0	0	0	0
2	Heavy Truck	Petroleum/Chemical Truck Heavy	2018	0	0	0	0	0	0
2	Heavy Truck	Petroleum/Chemical Truck Heavy	2019	0	0	0	0	0	0
2	Heavy Truck	Petroleum/Chemical Truck Heavy	2020	0	0	0	0	0	0
2	Heavy Truck	Petroleum/Chemical Truck Heavy	2021	0	0	0	0	0	0
2	Heavy Truck	Petroleum/Chemical Truck Heavy	Total	0	0	0	0	0	0
2	Other	Repairer	2012	0	0	0	0	0	0
2	Other	Repairer	2013	477,632	0	0	0	0	477,632
2	Other	Repairer	2014	0	0	0	0	0	0
2	Other	Repairer	2015	0	0	0	0	0	0
2	Other	Repairer	2016	0	0	0	0	0	0
2	Other	Repairer	2017	0	0	0	0	0	0
2	Other	Repairer	2018	0	0	0	0	0	0
2	Other	Repairer	2019	0	0	0	0	0	0
2	Other	Repairer	2020	0	2,548,270	0	0	0	2,548,270
2	Other	Repairer	2021	0	0	0	0	0	0
2	Other	Repairer	Total	477,632	2,548,270	0	0	0	3,025,902

Table 9a
Reported Serious Losses and ALAE (Including Vehicle Type)

(Additional uses not listed have zero serious losses in the recent 10 years as of March 31, 2022.)

Major Class	Vehicle Type	Use	Loss Year	Territory					Total
				1	2	3	4	5	
2	Light Truck	Sand/Gravel Truck Light	2012	0	0	0	0	0	0
2	Light Truck	Sand/Gravel Truck Light	2013	0	0	0	0	0	0
2	Light Truck	Sand/Gravel Truck Light	2014	0	0	0	0	0	0
2	Light Truck	Sand/Gravel Truck Light	2015	0	0	0	0	0	0
2	Light Truck	Sand/Gravel Truck Light	2016	0	0	0	0	0	0
2	Light Truck	Sand/Gravel Truck Light	2017	0	0	0	0	0	0
2	Light Truck	Sand/Gravel Truck Light	2018	0	0	0	0	0	0
2	Light Truck	Sand/Gravel Truck Light	2019	0	0	0	0	0	0
2	Light Truck	Sand/Gravel Truck Light	2020	0	0	0	0	0	0
2	Light Truck	Sand/Gravel Truck Light	2021	0	0	0	0	0	0
2	Light Truck	Sand/Gravel Truck Light	Total	0	0	0	0	0	0
2	Heavy Truck	Sand/Gravel Truck Heavy	2012	0	0	0	0	0	0
2	Heavy Truck	Sand/Gravel Truck Heavy	2013	0	0	0	0	0	0
2	Heavy Truck	Sand/Gravel Truck Heavy	2014	0	3,668,784	0	0	0	3,668,784
2	Heavy Truck	Sand/Gravel Truck Heavy	2015	0	0	0	0	0	0
2	Heavy Truck	Sand/Gravel Truck Heavy	2016	0	0	0	0	0	0
2	Heavy Truck	Sand/Gravel Truck Heavy	2017	0	0	0	0	0	0
2	Heavy Truck	Sand/Gravel Truck Heavy	2018	0	0	0	0	0	0
2	Heavy Truck	Sand/Gravel Truck Heavy	2019	0	257,453	0	0	0	257,453
2	Heavy Truck	Sand/Gravel Truck Heavy	2020	0	0	0	0	0	0
2	Heavy Truck	Sand/Gravel Truck Heavy	2021	0	0	0	0	0	0
2	Heavy Truck	Sand/Gravel Truck Heavy	Total	0	3,926,237	0	0	0	3,926,237
2	Light Truck	Tow Truck Light	2012	0	0	0	0	0	0
2	Light Truck	Tow Truck Light	2013	0	0	0	0	0	0
2	Light Truck	Tow Truck Light	2014	0	0	0	0	0	0
2	Light Truck	Tow Truck Light	2015	0	0	0	0	0	0
2	Light Truck	Tow Truck Light	2016	0	0	0	0	0	0
2	Light Truck	Tow Truck Light	2017	0	0	0	0	0	0
2	Light Truck	Tow Truck Light	2018	0	0	0	0	0	0
2	Light Truck	Tow Truck Light	2019	0	0	0	0	0	0
2	Light Truck	Tow Truck Light	2020	0	0	0	0	0	0
2	Light Truck	Tow Truck Light	2021	0	0	0	0	0	0
2	Light Truck	Tow Truck Light	Total	0	0	0	0	0	0
2	Heavy Truck	Tow Truck Heavy	2012	0	0	0	0	0	0
2	Heavy Truck	Tow Truck Heavy	2013	541,179	0	0	0	0	541,179
2	Heavy Truck	Tow Truck Heavy	2014	215,175	0	0	0	0	215,175
2	Heavy Truck	Tow Truck Heavy	2015	0	0	0	0	0	0
2	Heavy Truck	Tow Truck Heavy	2016	0	0	0	0	0	0
2	Heavy Truck	Tow Truck Heavy	2017	0	0	0	0	0	0
2	Heavy Truck	Tow Truck Heavy	2018	313,984	0	0	0	0	313,984
2	Heavy Truck	Tow Truck Heavy	2019	0	0	0	0	0	0
2	Heavy Truck	Tow Truck Heavy	2020	0	0	0	0	0	0
2	Heavy Truck	Tow Truck Heavy	2021	0	0	0	0	0	0
2	Heavy Truck	Tow Truck Heavy	Total	1,070,338	0	0	0	0	1,070,338
2		Major Class Total	2012	430,071	1,978,837	0	0	0	2,408,908
2		Major Class Total	2013	5,151,600	811,261	0	0	0	5,962,862
2		Major Class Total	2014	815,935	4,290,545	0	0	738,566	5,845,045
2		Major Class Total	2015	611,081	938,879	0	0	0	1,549,960
2		Major Class Total	2016	260,937	1,635,436	0	0	0	1,896,373
2		Major Class Total	2017	1,568,338	2,025,175	0	601,697	0	4,195,210
2		Major Class Total	2018	665,639	1,943,561	0	0	0	2,609,200
2		Major Class Total	2019	593,815	1,184,082	0	0	341,937	2,119,834
2		Major Class Total	2020	1,160,580	2,548,270	0	0	0	3,708,850
2		Major Class Total	2021	0	619,329	0	0	0	619,329
2		Major Class Total	Total	11,257,996	17,975,374	0	601,697	1,080,503	30,915,570

Table 9a
Reported Serious Losses and ALAE (Including Vehicle Type)

(Additional uses not listed have zero serious losses in the recent 10 years as of March 31, 2022.)

Major Class	Vehicle Type	Use	Loss Year	Territory					Total
				1	2	3	4	5	
3	Bus	Common Carrier Bus Within Manitoba	2012	0	0	0	0	0	0
3	Bus	Common Carrier Bus Within Manitoba	2013	0	0	0	0	0	0
3	Bus	Common Carrier Bus Within Manitoba	2014	0	0	0	0	0	0
3	Bus	Common Carrier Bus Within Manitoba	2015	587,953	0	0	0	0	587,953
3	Bus	Common Carrier Bus Within Manitoba	2016	0	0	0	0	0	0
3	Bus	Common Carrier Bus Within Manitoba	2017	0	0	0	0	0	0
3	Bus	Common Carrier Bus Within Manitoba	2018	0	0	0	0	0	0
3	Bus	Common Carrier Bus Within Manitoba	2019	0	0	320,973	0	0	320,973
3	Bus	Common Carrier Bus Within Manitoba	2020	0	0	0	0	0	0
3	Bus	Common Carrier Bus Within Manitoba	2021	0	0	0	0	0	0
3	Bus	Common Carrier Bus Within Manitoba	Total	587,953	0	320,973	0	0	908,926
3	Passenger Vehicle	Police/Emergency Passenger Vehicle	2012	0	0	0	0	0	0
3	Passenger Vehicle	Police/Emergency Passenger Vehicle	2013	0	0	0	0	0	0
3	Passenger Vehicle	Police/Emergency Passenger Vehicle	2014	0	0	0	0	0	0
3	Passenger Vehicle	Police/Emergency Passenger Vehicle	2015	0	588,840	0	0	0	588,840
3	Passenger Vehicle	Police/Emergency Passenger Vehicle	2016	0	0	0	0	0	0
3	Passenger Vehicle	Police/Emergency Passenger Vehicle	2017	0	0	0	0	0	0
3	Passenger Vehicle	Police/Emergency Passenger Vehicle	2018	0	1,150,697	0	0	0	1,150,697
3	Passenger Vehicle	Police/Emergency Passenger Vehicle	2019	0	0	0	0	0	0
3	Passenger Vehicle	Police/Emergency Passenger Vehicle	2020	0	0	0	0	0	0
3	Passenger Vehicle	Police/Emergency Passenger Vehicle	2021	0	0	0	0	0	0
3	Passenger Vehicle	Police/Emergency Passenger Vehicle	Total	0	1,739,537	0	0	0	1,739,537
3	Bus	School Bus Local	2012	0	0	0	0	0	0
3	Bus	School Bus Local	2013	0	0	0	0	0	0
3	Bus	School Bus Local	2014	0	0	0	0	0	0
3	Bus	School Bus Local	2015	1,531,531	0	0	0	0	1,531,531
3	Bus	School Bus Local	2016	0	433,661	0	0	0	433,661
3	Bus	School Bus Local	2017	0	0	0	0	0	0
3	Bus	School Bus Local	2018	0	0	0	0	0	0
3	Bus	School Bus Local	2019	0	0	0	0	0	0
3	Bus	School Bus Local	2020	0	0	0	0	0	0
3	Bus	School Bus Local	2021	0	0	0	0	0	0
3	Bus	School Bus Local	Total	1,531,531	433,661	0	0	0	1,965,192
3	Passenger Vehicle	Taxicab Vehicle-for-Hire	2012	808,176	0	0	0	0	808,176
3	Passenger Vehicle	Taxicab Vehicle-for-Hire	2013	0	0	0	0	0	0
3	Passenger Vehicle	Taxicab Vehicle-for-Hire	2014	710,450	0	0	0	0	710,450
3	Passenger Vehicle	Taxicab Vehicle-for-Hire	2015	0	0	0	0	0	0
3	Passenger Vehicle	Taxicab Vehicle-for-Hire	2016	313,317	0	0	0	0	313,317
3	Passenger Vehicle	Taxicab Vehicle-for-Hire	2017	521,771	0	0	0	0	521,771
3	Passenger Vehicle	Taxicab Vehicle-for-Hire	2018	614,974	0	0	0	0	614,974
3	Passenger Vehicle	Taxicab Vehicle-for-Hire	2019	260,712	0	0	0	0	260,712
3	Passenger Vehicle	Taxicab Vehicle-for-Hire	2020	0	0	0	0	0	0
3	Passenger Vehicle	Taxicab Vehicle-for-Hire	2021	0	0	0	0	0	0
3	Passenger Vehicle	Taxicab Vehicle-for-Hire	Total	3,229,400	0	0	0	0	3,229,400
3	Bus	Transit Bus Local	2012	1,035,928	0	0	0	0	1,035,928
3	Bus	Transit Bus Local	2013	311,327	0	0	0	0	311,327
3	Bus	Transit Bus Local	2014	0	0	0	0	0	0
3	Bus	Transit Bus Local	2015	1,009,529	0	0	0	0	1,009,529
3	Bus	Transit Bus Local	2016	1,100,865	0	0	0	0	1,100,865
3	Bus	Transit Bus Local	2017	0	0	0	0	0	0
3	Bus	Transit Bus Local	2018	0	0	0	0	0	0
3	Bus	Transit Bus Local	2019	0	0	0	0	0	0
3	Bus	Transit Bus Local	2020	0	0	0	0	0	0
3	Bus	Transit Bus Local	2021	0	0	0	0	0	0
3	Bus	Transit Bus Local	Total	3,457,648	0	0	0	0	3,457,648

Table 9a
Reported Serious Losses and ALAE (Including Vehicle Type)

(Additional uses not listed have zero serious losses in the recent 10 years as of March 31, 2022.)

Major Class	Vehicle Type	Use	Loss Year	Territory					Total
				1	2	3	4	5	
3	Passenger Vehicle	U-Drive Passenger Vehicle	2012	0	0	0	0	0	0
3	Passenger Vehicle	U-Drive Passenger Vehicle	2013	499,896	0	0	0	0	499,896
3	Passenger Vehicle	U-Drive Passenger Vehicle	2014	679,654	0	0	0	0	679,654
3	Passenger Vehicle	U-Drive Passenger Vehicle	2015	769,080	0	0	0	0	769,080
3	Passenger Vehicle	U-Drive Passenger Vehicle	2016	389,489	0	0	0	0	389,489
3	Passenger Vehicle	U-Drive Passenger Vehicle	2017	3,364,512	0	0	0	0	3,364,512
3	Passenger Vehicle	U-Drive Passenger Vehicle	2018	0	0	0	0	0	0
3	Passenger Vehicle	U-Drive Passenger Vehicle	2019	1,047,622	0	0	0	0	1,047,622
3	Passenger Vehicle	U-Drive Passenger Vehicle	2020	0	0	0	0	0	0
3	Passenger Vehicle	U-Drive Passenger Vehicle	2021	0	0	0	0	0	0
3	Passenger Vehicle	U-Drive Passenger Vehicle	Total	6,750,253	0	0	0	0	6,750,253
3	Light Truck	U-Drive Truck Light	2012	0	0	0	0	0	0
3	Light Truck	U-Drive Truck Light	2013	0	0	0	0	0	0
3	Light Truck	U-Drive Truck Light	2014	0	0	0	0	0	0
3	Light Truck	U-Drive Truck Light	2015	0	0	0	0	0	0
3	Light Truck	U-Drive Truck Light	2016	0	0	0	0	0	0
3	Light Truck	U-Drive Truck Light	2017	0	0	0	0	0	0
3	Light Truck	U-Drive Truck Light	2018	423,401	0	0	0	0	423,401
3	Light Truck	U-Drive Truck Light	2019	0	0	0	0	0	0
3	Light Truck	U-Drive Truck Light	2020	0	0	0	0	0	0
3	Light Truck	U-Drive Truck Light	2021	0	0	0	0	0	0
3	Light Truck	U-Drive Truck Light	Total	423,401	0	0	0	0	423,401
3	Heavy Truck	U-Drive Truck Heavy	2012	566,189	0	0	0	0	566,189
3	Heavy Truck	U-Drive Truck Heavy	2013	0	0	0	0	0	0
3	Heavy Truck	U-Drive Truck Heavy	2014	0	0	0	0	0	0
3	Heavy Truck	U-Drive Truck Heavy	2015	0	0	0	0	0	0
3	Heavy Truck	U-Drive Truck Heavy	2016	0	0	0	0	0	0
3	Heavy Truck	U-Drive Truck Heavy	2017	0	0	0	0	0	0
3	Heavy Truck	U-Drive Truck Heavy	2018	0	0	0	0	0	0
3	Heavy Truck	U-Drive Truck Heavy	2019	0	0	0	0	0	0
3	Heavy Truck	U-Drive Truck Heavy	2020	0	0	0	0	0	0
3	Heavy Truck	U-Drive Truck Heavy	2021	0	0	0	0	0	0
3	Heavy Truck	U-Drive Truck Heavy	Total	566,189	0	0	0	0	566,189
3	Major Class Total		2012	2,410,293	0	0	0	0	2,410,293
3	Major Class Total		2013	811,223	0	0	0	0	811,223
3	Major Class Total		2014	1,390,104	0	0	0	0	1,390,104
3	Major Class Total		2015	3,898,093	588,840	0	0	0	4,486,933
3	Major Class Total		2016	1,803,671	433,661	0	0	0	2,237,332
3	Major Class Total		2017	3,886,282	0	0	0	0	3,886,282
3	Major Class Total		2018	1,038,374	1,150,697	0	0	0	2,189,071
3	Major Class Total		2019	1,308,334	0	320,973	0	0	1,629,307
3	Major Class Total		2020	0	0	0	0	0	0
3	Major Class Total		2021	0	0	0	0	0	0
3	Major Class Total		Total	16,546,375	2,173,198	320,973	0	0	19,040,547

Table 9a
Reported Serious Losses and ALAE (Including Vehicle Type)

(Additional uses not listed have zero serious losses in the recent 10 years as of March 31, 2022.)

Major Class	Vehicle Type	Use	Loss Year	Territory					Total
				1	2	3	4	5	
4	Motorcycle	All Purpose Motorcycle (Moterscooter Body Style)	2012	0	0	0	0	0	0
4	Motorcycle	All Purpose Motorcycle (Moterscooter Body Style)	2013	0	0	0	0	0	0
4	Motorcycle	All Purpose Motorcycle (Moterscooter Body Style)	2014	0	0	0	0	0	0
4	Motorcycle	All Purpose Motorcycle (Moterscooter Body Style)	2015	0	0	0	0	0	0
4	Motorcycle	All Purpose Motorcycle (Moterscooter Body Style)	2016	264,795	0	0	0	0	264,795
4	Motorcycle	All Purpose Motorcycle (Moterscooter Body Style)	2017	0	0	0	0	0	0
4	Motorcycle	All Purpose Motorcycle (Moterscooter Body Style)	2018	0	0	0	0	0	0
4	Motorcycle	All Purpose Motorcycle (Moterscooter Body Style)	2019	0	0	0	0	0	0
4	Motorcycle	All Purpose Motorcycle (Moterscooter Body Style)	2020	0	0	0	0	0	0
4	Motorcycle	All Purpose Motorcycle (Moterscooter Body Style)	2021	0	0	0	0	0	0
4	Motorcycle	All Purpose Motorcycle (Moterscooter Body Style)	Total	264,795	0	0	0	0	264,795
4	Motorcycle	All Purpose Motorcycle (Other Body Style)	2012	0	0	0	0	0	0
4	Motorcycle	All Purpose Motorcycle (Other Body Style)	2013	0	0	0	0	0	0
4	Motorcycle	All Purpose Motorcycle (Other Body Style)	2014	569,742	0	0	0	0	569,742
4	Motorcycle	All Purpose Motorcycle (Other Body Style)	2015	0	1,062,704	0	0	0	1,062,704
4	Motorcycle	All Purpose Motorcycle (Other Body Style)	2016	0	550,294	0	0	0	550,294
4	Motorcycle	All Purpose Motorcycle (Other Body Style)	2017	0	0	0	0	0	0
4	Motorcycle	All Purpose Motorcycle (Other Body Style)	2018	0	0	0	0	0	0
4	Motorcycle	All Purpose Motorcycle (Other Body Style)	2019	0	0	0	0	0	0
4	Motorcycle	All Purpose Motorcycle (Other Body Style)	2020	0	0	0	0	0	0
4	Motorcycle	All Purpose Motorcycle (Other Body Style)	2021	0	0	0	0	0	0
4	Motorcycle	All Purpose Motorcycle (Other Body Style)	Total	569,742	1,612,998	0	0	0	2,182,740
4	Motorcycle	All Purpose Motorcycle (Sport Body Style)	2012	0	0	0	0	0	0
4	Motorcycle	All Purpose Motorcycle (Sport Body Style)	2013	0	0	0	0	0	0
4	Motorcycle	All Purpose Motorcycle (Sport Body Style)	2014	0	0	0	0	0	0
4	Motorcycle	All Purpose Motorcycle (Sport Body Style)	2015	0	0	0	0	0	0
4	Motorcycle	All Purpose Motorcycle (Sport Body Style)	2016	0	634,609	0	0	0	634,609
4	Motorcycle	All Purpose Motorcycle (Sport Body Style)	2017	0	0	0	0	0	0
4	Motorcycle	All Purpose Motorcycle (Sport Body Style)	2018	0	0	0	0	0	0
4	Motorcycle	All Purpose Motorcycle (Sport Body Style)	2019	0	0	0	0	0	0
4	Motorcycle	All Purpose Motorcycle (Sport Body Style)	2020	0	0	0	0	0	0
4	Motorcycle	All Purpose Motorcycle (Sport Body Style)	2021	0	0	0	0	0	0
4	Motorcycle	All Purpose Motorcycle (Sport Body Style)	Total	0	634,609	0	0	0	634,609
4	Motorcycle	All Purpose Motorcycle (Touring Body Style)	2012	0	1,555,262	0	0	0	1,555,262
4	Motorcycle	All Purpose Motorcycle (Touring Body Style)	2013	0	0	0	0	0	0
4	Motorcycle	All Purpose Motorcycle (Touring Body Style)	2014	0	0	0	0	0	0
4	Motorcycle	All Purpose Motorcycle (Touring Body Style)	2015	0	0	0	0	0	0
4	Motorcycle	All Purpose Motorcycle (Touring Body Style)	2016	0	0	0	0	0	0
4	Motorcycle	All Purpose Motorcycle (Touring Body Style)	2017	0	0	0	0	0	0
4	Motorcycle	All Purpose Motorcycle (Touring Body Style)	2018	0	0	0	0	0	0
4	Motorcycle	All Purpose Motorcycle (Touring Body Style)	2019	0	0	0	0	0	0
4	Motorcycle	All Purpose Motorcycle (Touring Body Style)	2020	0	0	0	0	0	0
4	Motorcycle	All Purpose Motorcycle (Touring Body Style)	2021	0	0	0	0	0	0
4	Motorcycle	All Purpose Motorcycle (Touring Body Style)	Total	0	1,555,262	0	0	0	1,555,262
4	Motorcycle	Pleasure Moped	2012	0	0	0	0	0	0
4	Motorcycle	Pleasure Moped	2013	0	0	0	0	0	0
4	Motorcycle	Pleasure Moped	2014	0	0	0	0	0	0
4	Motorcycle	Pleasure Moped	2015	514,374	0	0	0	0	514,374
4	Motorcycle	Pleasure Moped	2016	0	0	0	0	0	0
4	Motorcycle	Pleasure Moped	2017	0	0	0	0	0	0
4	Motorcycle	Pleasure Moped	2018	0	0	0	0	0	0
4	Motorcycle	Pleasure Moped	2019	0	0	0	0	0	0
4	Motorcycle	Pleasure Moped	2020	0	0	0	0	0	0
4	Motorcycle	Pleasure Moped	2021	0	0	0	0	0	0
4	Motorcycle	Pleasure Moped	Total	514,374	0	0	0	0	514,374

Table 9a
Reported Serious Losses and ALAE (Including Vehicle Type)

(Additional uses not listed have zero serious losses in the recent 10 years as of March 31, 2022.)

Major Class	Vehicle Type	Use	Loss Year	Territory					Total
				1	2	3	4	5	
4	Motorcycle	Pleasure Motorcycle (Motorscooter Body Style)	2012	0	0	0	0	0	0
4	Motorcycle	Pleasure Motorcycle (Motorscooter Body Style)	2013	0	645,240	0	0	0	645,240
4	Motorcycle	Pleasure Motorcycle (Motorscooter Body Style)	2014	0	0	0	0	0	0
4	Motorcycle	Pleasure Motorcycle (Motorscooter Body Style)	2015	0	0	0	0	0	0
4	Motorcycle	Pleasure Motorcycle (Motorscooter Body Style)	2016	0	0	0	0	0	0
4	Motorcycle	Pleasure Motorcycle (Motorscooter Body Style)	2017	0	789,422	0	0	0	789,422
4	Motorcycle	Pleasure Motorcycle (Motorscooter Body Style)	2018	0	0	0	0	0	0
4	Motorcycle	Pleasure Motorcycle (Motorscooter Body Style)	2019	0	0	0	0	0	0
4	Motorcycle	Pleasure Motorcycle (Motorscooter Body Style)	2020	0	0	0	0	0	0
4	Motorcycle	Pleasure Motorcycle (Motorscooter Body Style)	2021	0	0	0	0	0	0
4	Motorcycle	Pleasure Motorcycle (Motorscooter Body Style)	Total	0	1,434,662	0	0	0	1,434,662
4	Motorcycle	Pleasure Motorcycle (Other Body Style)	2012	0	846,573	0	0	0	846,573
4	Motorcycle	Pleasure Motorcycle (Other Body Style)	2013	383,015	1,939,566	0	0	0	2,322,581
4	Motorcycle	Pleasure Motorcycle (Other Body Style)	2014	0	591,434	0	0	0	591,434
4	Motorcycle	Pleasure Motorcycle (Other Body Style)	2015	1,204,033	510,845	0	701,740	0	2,416,618
4	Motorcycle	Pleasure Motorcycle (Other Body Style)	2016	0	550,294	0	0	0	550,294
4	Motorcycle	Pleasure Motorcycle (Other Body Style)	2017	431,326	997,656	0	0	0	1,428,982
4	Motorcycle	Pleasure Motorcycle (Other Body Style)	2018	1,017,751	1,479,221	0	0	0	2,496,972
4	Motorcycle	Pleasure Motorcycle (Other Body Style)	2019	592,821	1,790,064	0	0	0	2,382,885
4	Motorcycle	Pleasure Motorcycle (Other Body Style)	2020	0	0	0	0	0	0
4	Motorcycle	Pleasure Motorcycle (Other Body Style)	2021	0	0	0	0	0	0
4	Motorcycle	Pleasure Motorcycle (Other Body Style)	Total	3,628,946	8,705,653	0	701,740	0	13,036,339
4	Motorcycle	Pleasure Motorcycle (Sport Body Style)	2012	0	0	0	0	0	0
4	Motorcycle	Pleasure Motorcycle (Sport Body Style)	2013	1,632,525	0	0	0	0	1,632,525
4	Motorcycle	Pleasure Motorcycle (Sport Body Style)	2014	0	0	0	0	0	0
4	Motorcycle	Pleasure Motorcycle (Sport Body Style)	2015	0	0	0	0	0	0
4	Motorcycle	Pleasure Motorcycle (Sport Body Style)	2016	1,504,397	0	0	0	0	1,504,397
4	Motorcycle	Pleasure Motorcycle (Sport Body Style)	2017	0	0	0	0	0	0
4	Motorcycle	Pleasure Motorcycle (Sport Body Style)	2018	0	0	0	0	0	0
4	Motorcycle	Pleasure Motorcycle (Sport Body Style)	2019	475,692	0	0	0	0	475,692
4	Motorcycle	Pleasure Motorcycle (Sport Body Style)	2020	0	3,000,295	0	0	0	3,000,295
4	Motorcycle	Pleasure Motorcycle (Sport Body Style)	2021	0	0	0	0	0	0
4	Motorcycle	Pleasure Motorcycle (Sport Body Style)	Total	3,612,614	3,000,295	0	0	0	6,612,909
4	Motorcycle	Pleasure Motorcycle (Touring Body Style)	2012	0.00	0	0	0	0	0
4	Motorcycle	Pleasure Motorcycle (Touring Body Style)	2013	881,783	0	0	0	0	881,783
4	Motorcycle	Pleasure Motorcycle (Touring Body Style)	2014	0	0	0	0	0	0
4	Motorcycle	Pleasure Motorcycle (Touring Body Style)	2015	630,159	858,267	0	0	0	1,488,426
4	Motorcycle	Pleasure Motorcycle (Touring Body Style)	2016	983,775	1,283,440	0	0	0	2,267,215
4	Motorcycle	Pleasure Motorcycle (Touring Body Style)	2017	0	1,771,344	0	0	0	1,771,344
4	Motorcycle	Pleasure Motorcycle (Touring Body Style)	2018	676,709	675,405	0	0	0	1,352,114
4	Motorcycle	Pleasure Motorcycle (Touring Body Style)	2019	0	1,866,099	0	0	0	1,866,099
4	Motorcycle	Pleasure Motorcycle (Touring Body Style)	2020	0	403,095	0	0	0	403,095
4	Motorcycle	Pleasure Motorcycle (Touring Body Style)	2021	0	0	0	0	0	0
4	Motorcycle	Pleasure Motorcycle (Touring Body Style)	Total	3,172,425	6,857,650	0	0	0	10,030,075
4		Major Class Total	2012	0	2,401,834	0	0	0	2,401,834
4		Major Class Total	2013	2,897,322	2,584,806	0	0	0	5,482,129
4		Major Class Total	2014	569,742	591,434	0	0	0	1,161,175
4		Major Class Total	2015	2,348,566	2,431,816	0	701,740	0	5,482,123
4		Major Class Total	2016	2,752,967	3,018,637	0	0	0	5,771,604
4		Major Class Total	2017	431,326	3,558,422	0	0	0	3,989,748
4		Major Class Total	2018	1,694,460	2,154,626	0	0	0	3,849,086
4		Major Class Total	2019	1,068,513	3,656,163	0	0	0	4,724,676
4		Major Class Total	2020	0	3,403,390	0	0	0	3,403,390
4		Major Class Total	2021	0	0	0	0	0	0
4	Major Class Total	Total	Total	11,762,896	23,801,129	0	701,740	0	36,265,765

Table 10a
Reported Loss and ALAE without Hail
and with 10-Year Average Expected Serious Losses (Before Product Change)

Major Class	Vehicle Type	Use	Loss Year	Territory					Total
				1	2	3	4	5	
1	Motorhome	All Purpose Motorhome	2017	68,022	31,189	0	0	0	99,211
1	Motorhome	All Purpose Motorhome	2018	30,247	7,157	0	0	324	37,728
1	Motorhome	All Purpose Motorhome	2019	48,903	29,726	0	0	0	78,628
1	Motorhome	All Purpose Motorhome	2020	57,164	4,916	0	0	865	62,945
1	Motorhome	All Purpose Motorhome	2021	82,926	51,844	0	0	7,190	141,960
1	Motorhome	All Purpose Motorhome	Total	287,261	124,831	0	0	8,380	420,472
1	Passenger Vehicle	All Purpose Passenger Vehicle	2017	221,306,398	67,917,850	3,350,953	3,699,007	23,035,803	319,310,013
1	Passenger Vehicle	All Purpose Passenger Vehicle	2018	225,189,783	71,600,839	2,868,182	3,383,650	21,758,783	324,801,237
1	Passenger Vehicle	All Purpose Passenger Vehicle	2019	220,757,933	73,368,157	3,045,938	3,115,616	23,510,072	323,797,716
1	Passenger Vehicle	All Purpose Passenger Vehicle	2020	159,311,830	64,905,134	2,355,931	2,908,552	16,334,687	245,816,135
1	Passenger Vehicle	All Purpose Passenger Vehicle	2021	203,655,278	71,603,522	2,587,609	3,277,830	18,701,652	299,825,892
1	Passenger Vehicle	All Purpose Passenger Vehicle	Total	1,030,221,221	349,395,503	14,208,613	16,384,657	103,340,998	1,513,550,992
1	Light Truck	All Purpose Truck 4540 kg or less	2017	42,082,470	32,741,801	3,069,361	2,995,336	10,115,255	91,004,223
1	Light Truck	All Purpose Truck 4540 kg or less	2018	41,954,278	32,798,036	3,229,890	3,366,990	9,236,611	90,585,806
1	Light Truck	All Purpose Truck 4540 kg or less	2019	41,932,780	30,672,002	2,799,706	3,979,498	10,758,034	90,142,021
1	Light Truck	All Purpose Truck 4540 kg or less	2020	36,417,792	32,982,690	2,321,984	3,551,624	8,606,094	83,880,185
1	Light Truck	All Purpose Truck 4540 kg or less	2021	39,926,675	32,331,651	2,818,342	3,531,070	9,428,800	88,036,538
1	Light Truck	All Purpose Truck 4540 kg or less	Total	202,313,995	161,526,182	14,239,284	17,424,518	48,144,794	443,648,773
1	Other	Antique Vehicle	2017	0	0	0	0	0	0
1	Other	Antique Vehicle	2018	0	0	0	0	0	0
1	Other	Antique Vehicle	2019	0	500	0	0	0	500
1	Other	Antique Vehicle	2020	0	0	0	0	0	0
1	Other	Antique Vehicle	2021	0	0	0	0	0	0
1	Other	Antique Vehicle	Total	0	500	0	0	0	500
1	Passenger Vehicle	Collector Passenger Vehicle	2017	177,527	501,680	0	0	0	679,207
1	Passenger Vehicle	Collector Passenger Vehicle	2018	157,176	83,327	1,226	0	0	241,729
1	Passenger Vehicle	Collector Passenger Vehicle	2019	47,837	168,951	0	0	0	216,789
1	Passenger Vehicle	Collector Passenger Vehicle	2020	91,132	48,068	0	0	0	139,200
1	Passenger Vehicle	Collector Passenger Vehicle	2021	68,844	88,224	4,608	0	0	161,676
1	Passenger Vehicle	Collector Passenger Vehicle	Total	542,517	890,250	5,834	0	0	1,438,601
1	Light Truck	Collector Truck 4540 kg or less	2017	8,927	4,258	0	0	0	13,185
1	Light Truck	Collector Truck 4540 kg or less	2018	9,089	26,840	0	0	0	35,929
1	Light Truck	Collector Truck 4540 kg or less	2019	2,623	22,737	0	0	0	25,360
1	Light Truck	Collector Truck 4540 kg or less	2020	7,676	18,382	0	0	0	26,058
1	Light Truck	Collector Truck 4540 kg or less	2021	8,144	31,096	0	0	0	39,240
1	Light Truck	Collector Truck 4540 kg or less	Total	36,459	103,312	0	0	0	139,771
1	Bus	Disabled Persons/Private/Business Bus	2017	328,131	435,510	66,569	65,948	0	896,157
1	Bus	Disabled Persons/Private/Business Bus	2018	451,340	288,148	38,814	76,771	0	855,073
1	Bus	Disabled Persons/Private/Business Bus	2019	800,579	447,454	63,747	60,273	0	1,372,053
1	Bus	Disabled Persons/Private/Business Bus	2020	347,341	138,945	39,907	26,412	0	552,605
1	Bus	Disabled Persons/Private/Business Bus	2021	287,165	254,958	31,124	33,523	0	606,770
1	Bus	Disabled Persons/Private/Business Bus	Total	2,214,555	1,565,015	240,161	262,927	0	4,282,659
1	Passenger Vehicle	Farm Passenger Vehicle	2017	4,134	3,641,991	0	0	0	3,646,125
1	Passenger Vehicle	Farm Passenger Vehicle	2018	29,210	3,480,781	0	0	0	3,509,990
1	Passenger Vehicle	Farm Passenger Vehicle	2019	10,339	2,951,394	0	0	0	2,961,733
1	Passenger Vehicle	Farm Passenger Vehicle	2020	9,155	2,749,049	0	2,512	0	2,760,717
1	Passenger Vehicle	Farm Passenger Vehicle	2021	-945	2,576,224	0	0	0	2,575,279
1	Passenger Vehicle	Farm Passenger Vehicle	Total	51,893	15,399,439	0	2,512	0	15,453,844
1	Light Truck	Farming All Purpose Truck 4540 kg or less	2017	105,355	15,373,130	8,172	45,828	291,958	15,824,443
1	Light Truck	Farming All Purpose Truck 4540 kg or less	2018	213,072	15,044,770	19,257	111,828	371,926	15,760,852
1	Light Truck	Farming All Purpose Truck 4540 kg or less	2019	143,978	14,555,532	6,872	76,283	331,493	15,114,157
1	Light Truck	Farming All Purpose Truck 4540 kg or less	2020	118,555	15,425,809	16,405	39,957	308,466	15,909,192
1	Light Truck	Farming All Purpose Truck 4540 kg or less	2021	54,697	14,469,057	650	20,745	394,163	14,939,311
1	Light Truck	Farming All Purpose Truck 4540 kg or less	Total	635,658	74,868,298	51,355	294,640	1,698,005	77,547,956

Table 10a
Reported Loss and ALAE without Hail
and with 10-Year Average Expected Serious Losses (Before Product Change)

Major Class	Vehicle Type	Use	Loss Year	Territory					Total
				1	2	3	4	5	
1	Light Truck	Fishing All Purpose Truck 4540 kg or less	2017	12,568	215,928	232	18,169	18,377	265,273
1	Light Truck	Fishing All Purpose Truck 4540 kg or less	2018	983	173,677	0	52,054	2,590	229,304
1	Light Truck	Fishing All Purpose Truck 4540 kg or less	2019	1,397	152,050	1,708	4,902	0	160,058
1	Light Truck	Fishing All Purpose Truck 4540 kg or less	2020	0	124,142	115	5,246	500	130,003
1	Light Truck	Fishing All Purpose Truck 4540 kg or less	2021	0	101,317	0	64,863	0	166,180
1	Light Truck	Fishing All Purpose Truck 4540 kg or less	Total	14,949	767,113	2,054	145,234	21,467	950,817
1	Passenger Vehicle	Passenger Vehicle-for-Hire (Passenger Vehicle)	2017	0	0	0	0	0	0
1	Passenger Vehicle	Passenger Vehicle-for-Hire (Passenger Vehicle)	2018	975,043	80,016	13,475	2,502	62,932	1,133,969
1	Passenger Vehicle	Passenger Vehicle-for-Hire (Passenger Vehicle)	2019	1,540,828	133,018	16,471	6,224	135,089	1,831,630
1	Passenger Vehicle	Passenger Vehicle-for-Hire (Passenger Vehicle)	2020	1,284,922	178,607	40,434	8,702	68,391	1,581,056
1	Passenger Vehicle	Passenger Vehicle-for-Hire (Passenger Vehicle)	2021	2,638,477	232,827	8,503	21,987	118,580	3,020,375
1	Passenger Vehicle	Passenger Vehicle-for-Hire (Passenger Vehicle)	Total	6,439,270	624,468	78,884	39,416	384,992	7,567,029
1	Light Truck	Passenger Vehicle-for-Hire (Truck 4,499 kg or less GVW)	2017	0	0	0	0	0	0
1	Light Truck	Passenger Vehicle-for-Hire (Truck 4,499 kg or less GVW)	2018	32,321	814	0	0	447	33,582
1	Light Truck	Passenger Vehicle-for-Hire (Truck 4,499 kg or less GVW)	2019	8,342	0	847	0	0	9,190
1	Light Truck	Passenger Vehicle-for-Hire (Truck 4,499 kg or less GVW)	2020	1,793	0	2,775	345	0	4,913
1	Light Truck	Passenger Vehicle-for-Hire (Truck 4,499 kg or less GVW)	2021	750	13,010	6,480	0	0	20,239
1	Light Truck	Passenger Vehicle-for-Hire (Truck 4,499 kg or less GVW)	Total	43,206	13,824	10,102	345	447	67,924
1	Motorhome	Pleasure Motorhome	2017	524,901	906,030	0	3,796	0	1,434,727
1	Motorhome	Pleasure Motorhome	2018	631,714	976,326	10,004	28,615	0	1,646,659
1	Motorhome	Pleasure Motorhome	2019	436,783	910,344	1,322	1,009	0	1,349,459
1	Motorhome	Pleasure Motorhome	2020	600,515	750,296	15,771	30,022	0	1,396,604
1	Motorhome	Pleasure Motorhome	2021	293,487	530,330	0	40,783	0	864,600
1	Motorhome	Pleasure Motorhome	Total	2,487,399	4,073,327	27,097	104,224	0	6,692,048
1	Passenger Vehicle	Pleasure Passenger Vehicle	2017	81,650,447	52,303,452	1,358,732	2,173,039	0	137,485,671
1	Passenger Vehicle	Pleasure Passenger Vehicle	2018	82,434,303	49,548,237	1,167,287	2,188,182	6,151	135,344,160
1	Passenger Vehicle	Pleasure Passenger Vehicle	2019	78,773,772	51,683,870	828,356	1,956,803	0	133,242,801
1	Passenger Vehicle	Pleasure Passenger Vehicle	2020	70,224,324	48,724,095	928,954	1,917,540	0	121,794,913
1	Passenger Vehicle	Pleasure Passenger Vehicle	2021	88,133,042	53,224,790	999,237	2,188,407	0	144,545,475
1	Passenger Vehicle	Pleasure Passenger Vehicle	Total	401,215,887	255,484,444	5,282,566	10,423,972	6,151	672,413,019
1	Light Truck	Pleasure Truck	2017	8,994,686	16,666,714	944,283	1,717,226	0	28,322,910
1	Light Truck	Pleasure Truck	2018	9,083,089	18,204,624	888,075	1,387,743	0	29,563,531
1	Light Truck	Pleasure Truck	2019	9,177,131	17,456,570	763,107	2,192,802	0	29,589,611
1	Light Truck	Pleasure Truck	2020	9,138,896	17,598,936	723,910	1,499,097	0	28,960,839
1	Light Truck	Pleasure Truck	2021	10,362,850	18,099,189	779,242	1,463,041	0	30,704,322
1	Light Truck	Pleasure Truck	Total	46,756,652	88,026,034	4,098,618	8,259,909	0	147,141,213
1		Major Class Total	2017	355,263,566	190,739,534	8,798,303	10,718,349	33,461,393	598,981,145
1		Major Class Total	2018	361,191,647	192,313,592	8,236,211	10,598,335	31,439,763	603,779,549
1		Major Class Total	2019	353,683,226	192,552,305	7,528,075	11,393,411	34,734,686	599,891,704
1		Major Class Total	2020	277,611,095	183,649,070	6,446,186	9,990,010	25,319,004	503,015,364
1		Major Class Total	2021	345,511,389	193,608,038	7,235,794	10,642,249	28,650,386	585,647,856
1		Major Class Total	Total	1,693,260,922	952,862,541	38,244,569	53,342,354	153,605,232	2,891,315,618

Table 10a
Reported Loss and ALAE without Hail
and with 10-Year Average Expected Serious Losses (Before Product Change)

Major Class	Vehicle Type	Use	Loss Year	Territory					Total
				1	2	3	4	5	
2	Light Truck	Artisan Truck Light	2017	3,984	500	0	0	0	4,484
2	Light Truck	Artisan Truck Light	2018	0	0	0	0	0	0
2	Light Truck	Artisan Truck Light	2019	0	135,014	0	0	0	135,014
2	Light Truck	Artisan Truck Light	2020	1,368	0	0	0	0	1,368
2	Light Truck	Artisan Truck Light	2021	0	0	0	0	0	0
2	Light Truck	Artisan Truck Light	Total	5,351	135,514	0	0	0	140,865
2	Heavy Truck	Artisan Truck Heavy	2017	11,753	1,259	0	0	3,343	16,355
2	Heavy Truck	Artisan Truck Heavy	2018	52,834	12,436	290	0	1,861	67,421
2	Heavy Truck	Artisan Truck Heavy	2019	60,685	32,516	0	0	4,485	97,686
2	Heavy Truck	Artisan Truck Heavy	2020	55,017	10,545	0	0	3,782	69,344
2	Heavy Truck	Artisan Truck Heavy	2021	100,501	14,591	0	0	93,136	208,228
2	Heavy Truck	Artisan Truck Heavy	Total	280,791	71,347	290	0	106,607	459,034
2	Light Truck	Cement/Brick/Exploration Truck Light	2017	0	0	0	0	0	0
2	Light Truck	Cement/Brick/Exploration Truck Light	2018	0	0	0	0	0	0
2	Light Truck	Cement/Brick/Exploration Truck Light	2019	0	0	0	0	0	0
2	Light Truck	Cement/Brick/Exploration Truck Light	2020	0	0	0	0	0	0
2	Light Truck	Cement/Brick/Exploration Truck Light	2021	0	0	0	0	0	0
2	Light Truck	Cement/Brick/Exploration Truck Light	Total	0	0	0	0	0	0
2	Heavy Truck	Cement/Brick/Exploration Truck Heavy	2017	92,135	13,742	0	0	0	105,878
2	Heavy Truck	Cement/Brick/Exploration Truck Heavy	2018	25,377	69,154	0	0	0	94,531
2	Heavy Truck	Cement/Brick/Exploration Truck Heavy	2019	32,979	191,204	0	0	0	224,183
2	Heavy Truck	Cement/Brick/Exploration Truck Heavy	2020	12,352	9,812	0	0	0	22,164
2	Heavy Truck	Cement/Brick/Exploration Truck Heavy	2021	24,724	109,184	0	0	0	133,908
2	Heavy Truck	Cement/Brick/Exploration Truck Heavy	Total	187,567	393,096	0	0	0	580,663
2	Passenger Vehicle	Common Carrier Vehicle Local	2017	1,333,755	503,518	50,132	14,908	0	1,902,313
2	Passenger Vehicle	Common Carrier Vehicle Local	2018	1,570,503	447,085	27,676	2,999	0	2,048,263
2	Passenger Vehicle	Common Carrier Vehicle Local	2019	1,661,622	422,703	15,210	30,838	0	2,130,373
2	Passenger Vehicle	Common Carrier Vehicle Local	2020	1,704,795	563,581	39,658	8,099	0	2,316,132
2	Passenger Vehicle	Common Carrier Vehicle Local	2021	2,031,959	523,226	136,365	39,852	0	2,731,403
2	Passenger Vehicle	Common Carrier Vehicle Local	Total	8,302,634	2,460,113	269,043	96,695	0	11,128,485
2	Light Truck	Common Carrier Vehicle Within City or Mun. Light	2017	231,278	30,565	0	664	0	262,508
2	Light Truck	Common Carrier Vehicle Within City or Mun. Light	2018	240,680	48,186	471	0	0	289,337
2	Light Truck	Common Carrier Vehicle Within City or Mun. Light	2019	361,828	56,832	0	0	0	418,661
2	Light Truck	Common Carrier Vehicle Within City or Mun. Light	2020	186,133	20,221	0	0	0	206,354
2	Light Truck	Common Carrier Vehicle Within City or Mun. Light	2021	283,719	90,211	0	0	0	373,930
2	Light Truck	Common Carrier Vehicle Within City or Mun. Light	Total	1,303,638	246,016	471	664	0	1,550,790
2	Heavy Truck	Common Carrier Vehicle Within City or Mun. Heavy	2017	505,812	106,718	0	394	0	612,924
2	Heavy Truck	Common Carrier Vehicle Within City or Mun. Heavy	2018	569,254	35,581	0	0	0	604,835
2	Heavy Truck	Common Carrier Vehicle Within City or Mun. Heavy	2019	423,181	4,516	0	0	0	427,697
2	Heavy Truck	Common Carrier Vehicle Within City or Mun. Heavy	2020	164,044	29,310	0	0	0	193,354
2	Heavy Truck	Common Carrier Vehicle Within City or Mun. Heavy	2021	202,780	1,975	0	0	0	204,755
2	Heavy Truck	Common Carrier Vehicle Within City or Mun. Heavy	Total	1,865,071	178,099	0	394	0	2,043,565
2	Passenger Vehicle	Common Carrier Passenger Vehicle < 161 km in Manitoba	2017	24,743	13,017	0	0	0	37,760
2	Passenger Vehicle	Common Carrier Passenger Vehicle < 161 km in Manitoba	2018	84,046	14,430	0	0	0	98,476
2	Passenger Vehicle	Common Carrier Passenger Vehicle < 161 km in Manitoba	2019	53,561	25,680	0	0	0	79,241
2	Passenger Vehicle	Common Carrier Passenger Vehicle < 161 km in Manitoba	2020	128,236	84,720	0	0	0	212,956
2	Passenger Vehicle	Common Carrier Passenger Vehicle < 161 km in Manitoba	2021	182,638	73,842	0	0	0	256,479
2	Passenger Vehicle	Common Carrier Passenger Vehicle < 161 km in Manitoba	Total	473,224	211,688	0	0	0	684,912
2	Light Truck	Common Carrier Truck < 161 km in Manitoba Light	2017	106,148	108,004	0	0	0	214,153
2	Light Truck	Common Carrier Truck < 161 km in Manitoba Light	2018	113,533	175,804	0	0	0	289,336
2	Light Truck	Common Carrier Truck < 161 km in Manitoba Light	2019	110,919	187,319	0	0	0	298,237
2	Light Truck	Common Carrier Truck < 161 km in Manitoba Light	2020	228,624	147,098	0	500	0	376,222
2	Light Truck	Common Carrier Truck < 161 km in Manitoba Light	2021	82,425	154,884	0	0	0	237,309
2	Light Truck	Common Carrier Truck < 161 km in Manitoba Light	Total	641,649	773,109	0	500	0	1,415,258

Table 10a
Reported Loss and ALAE without Hail
and with 10-Year Average Expected Serious Losses (Before Product Change)

Major Class	Vehicle Type	Use	Loss Year	Territory					Total
				1	2	3	4	5	
2	Heavy Truck	Common Carrier Truck < 161 km in Manitoba Heavy	2017	714,743	212,173	0	0	0	926,917
2	Heavy Truck	Common Carrier Truck < 161 km in Manitoba Heavy	2018	674,691	204,162	0	0	0	878,853
2	Heavy Truck	Common Carrier Truck < 161 km in Manitoba Heavy	2019	691,907	423,553	0	0	0	1,115,460
2	Heavy Truck	Common Carrier Truck < 161 km in Manitoba Heavy	2020	615,463	161,216	0	0	0	776,679
2	Heavy Truck	Common Carrier Truck < 161 km in Manitoba Heavy	2021	657,990	311,440	0	13,163	0	982,592
2	Heavy Truck	Common Carrier Truck < 161 km in Manitoba Heavy	Total	3,354,795	1,312,544	0	13,163	0	4,680,501
2	Passenger Vehicle	Common Carrier Passenger Vehicle > 161 km in Manitoba	2017	7,577	8,554	0	0	0	16,131
2	Passenger Vehicle	Common Carrier Passenger Vehicle > 161 km in Manitoba	2018	0	4,550	0	0	0	4,550
2	Passenger Vehicle	Common Carrier Passenger Vehicle > 161 km in Manitoba	2019	9,665	11,766	5,465	0	0	26,897
2	Passenger Vehicle	Common Carrier Passenger Vehicle > 161 km in Manitoba	2020	394	500	0	0	0	894
2	Passenger Vehicle	Common Carrier Passenger Vehicle > 161 km in Manitoba	2021	2,154	60,923	0	0	0	63,077
2	Passenger Vehicle	Common Carrier Passenger Vehicle > 161 km in Manitoba	Total	19,790	86,294	5,465	0	0	111,549
2	Light Truck	Common Carrier Truck > 161 km in Manitoba Light	2017	61,313	87,769	0	0	0	149,081
2	Light Truck	Common Carrier Truck > 161 km in Manitoba Light	2018	57,845	56,678	0	0	0	114,523
2	Light Truck	Common Carrier Truck > 161 km in Manitoba Light	2019	42,218	23,130	0	0	0	65,348
2	Light Truck	Common Carrier Truck > 161 km in Manitoba Light	2020	65,486	76,434	0	0	0	141,920
2	Light Truck	Common Carrier Truck > 161 km in Manitoba Light	2021	115,572	45,199	985	0	0	161,756
2	Light Truck	Common Carrier Truck > 161 km in Manitoba Light	Total	342,434	289,209	985	0	0	632,628
2	Heavy Truck	Common Carrier Truck > 161 km in Manitoba Heavy	2017	340,174	282,957	0	0	0	623,131
2	Heavy Truck	Common Carrier Truck > 161 km in Manitoba Heavy	2018	288,437	455,773	34,181	142	0	778,533
2	Heavy Truck	Common Carrier Truck > 161 km in Manitoba Heavy	2019	463,273	146,488	0	4,001	0	613,762
2	Heavy Truck	Common Carrier Truck > 161 km in Manitoba Heavy	2020	406,822	169,488	0	3,874	0	580,184
2	Heavy Truck	Common Carrier Truck > 161 km in Manitoba Heavy	2021	312,292	120,545	0	0	0	432,836
2	Heavy Truck	Common Carrier Truck > 161 km in Manitoba Heavy	Total	1,810,998	1,175,250	34,181	8,017	0	3,028,446
2	Other	Dealer All Uses except Motorcycles	2017	2,893,290	1,231,971	16,619	7,794	0	4,149,673
2	Other	Dealer All Uses except Motorcycles	2018	2,767,072	1,430,754	28,558	18,274	0	4,244,658
2	Other	Dealer All Uses except Motorcycles	2019	2,792,588	1,251,426	14,855	11,364	0	4,070,234
2	Other	Dealer All Uses except Motorcycles	2020	2,171,465	981,706	6,468	36,747	0	3,196,386
2	Other	Dealer All Uses except Motorcycles	2021	2,477,477	1,148,577	29,990	5,491	0	3,661,536
2	Other	Dealer All Uses except Motorcycles	Total	13,101,892	6,044,434	96,491	79,670	0	19,322,487
2	Other	Dealer Moped	2017	0	0	0	0	0	0
2	Other	Dealer Moped	2018	0	0	0	0	0	0
2	Other	Dealer Moped	2019	0	0	0	0	0	0
2	Other	Dealer Moped	2020	0	0	0	0	0	0
2	Other	Dealer Moped	2021	0	0	0	0	0	0
2	Other	Dealer Moped	Total	0	0	0	0	0	0
2	Other	Dealer Motorcycle	2017	47,112	714,347	0	0	0	761,459
2	Other	Dealer Motorcycle	2018	0	0	0	0	0	0
2	Other	Dealer Motorcycle	2019	23,169	40,833	0	0	0	64,002
2	Other	Dealer Motorcycle	2020	7,180	20,824	0	0	0	28,005
2	Other	Dealer Motorcycle	2021	114,092	0	0	0	0	114,092
2	Other	Dealer Motorcycle	Total	191,554	776,003	0	0	0	967,557
2	Other	Dealer Trailer	2017	7,784	21,000	0	0	0	28,784
2	Other	Dealer Trailer	2018	0	20,439	0	0	0	20,439
2	Other	Dealer Trailer	2019	4,153	5,859	0	0	0	10,012
2	Other	Dealer Trailer	2020	0	27,977	0	0	0	27,977
2	Other	Dealer Trailer	2021	4,729	1,390	0	0	0	6,119
2	Other	Dealer Trailer	Total	16,666	76,665	0	0	0	93,331
2	Other	Driveaway Within Manitoba	2017	0	0	0	0	0	0
2	Other	Driveaway Within Manitoba	2018	0	0	0	0	0	0
2	Other	Driveaway Within Manitoba	2019	0	0	0	0	0	0
2	Other	Driveaway Within Manitoba	2020	0	0	0	0	0	0
2	Other	Driveaway Within Manitoba	2021	0	0	0	0	0	0
2	Other	Driveaway Within Manitoba	Total	0	0	0	0	0	0

Table 10a
Reported Loss and ALAE without Hail
and with 10-Year Average Expected Serious Losses (Before Product Change)

Major Class	Vehicle Type	Use	Loss Year	Territory					Total
				1	2	3	4	5	
2	Other	Driveaway > 161 km Outside Manitoba	2017	0	0	0	0	0	0
2	Other	Driveaway > 161 km Outside Manitoba	2018	0	0	0	0	0	0
2	Other	Driveaway > 161 km Outside Manitoba	2019	0	0	0	0	0	0
2	Other	Driveaway > 161 km Outside Manitoba	2020	0	0	0	0	0	0
2	Other	Driveaway > 161 km Outside Manitoba	2021	0	0	0	0	0	0
2	Other	Driveaway > 161 km Outside Manitoba	Total	0	0	0	0	0	0
2	Light Truck	Farming All Purpose Truck 4541 kg or more Light	2017	0	0	0	0	0	0
2	Light Truck	Farming All Purpose Truck 4541 kg or more Light	2018	0	0	0	0	0	0
2	Light Truck	Farming All Purpose Truck 4541 kg or more Light	2019	0	0	0	0	0	0
2	Light Truck	Farming All Purpose Truck 4541 kg or more Light	2020	0	0	0	0	0	0
2	Light Truck	Farming All Purpose Truck 4541 kg or more Light	2021	0	0	0	0	0	0
2	Light Truck	Farming All Purpose Truck 4541 kg or more Light	Total	0	0	0	0	0	0
2	Heavy Truck	Farming All Purpose Truck 4541 kg or more Heavy	2017	42,519	5,046,788	0	6,579	0	5,095,886
2	Heavy Truck	Farming All Purpose Truck 4541 kg or more Heavy	2018	510	4,026,915	0	45,558	0	4,072,983
2	Heavy Truck	Farming All Purpose Truck 4541 kg or more Heavy	2019	29,136	3,474,574	0	15	0	3,503,724
2	Heavy Truck	Farming All Purpose Truck 4541 kg or more Heavy	2020	12,950	4,954,589	0	5,801	0	4,973,339
2	Heavy Truck	Farming All Purpose Truck 4541 kg or more Heavy	2021	107	4,330,833	0	2,386	0	4,333,326
2	Heavy Truck	Farming All Purpose Truck 4541 kg or more Heavy	Total	85,221	21,833,699	0	60,339	0	21,979,259
2	Heavy Truck	Fishing All Purpose Truck 4541 kg or more	2017	0	0	0	0	0	0
2	Heavy Truck	Fishing All Purpose Truck 4541 kg or more	2018	0	0	0	0	0	0
2	Heavy Truck	Fishing All Purpose Truck 4541 kg or more	2019	0	0	0	0	0	0
2	Heavy Truck	Fishing All Purpose Truck 4541 kg or more	2020	0	0	0	0	0	0
2	Heavy Truck	Fishing All Purpose Truck 4541 kg or more	2021	0	0	0	0	0	0
2	Heavy Truck	Fishing All Purpose Truck 4541 kg or more	Total	0	0	0	0	0	0
2	Light Truck	Logging Truck Light	2017	0	0	0	0	0	0
2	Light Truck	Logging Truck Light	2018	0	0	0	0	0	0
2	Light Truck	Logging Truck Light	2019	0	0	0	0	0	0
2	Light Truck	Logging Truck Light	2020	0	0	0	0	0	0
2	Light Truck	Logging Truck Light	2021	0	0	0	0	0	0
2	Light Truck	Logging Truck Light	Total	0	0	0	0	0	0
2	Heavy Truck	Logging Truck Heavy	2017	0	0	0	500	0	500
2	Heavy Truck	Logging Truck Heavy	2018	0	859	0	4,771	0	5,630
2	Heavy Truck	Logging Truck Heavy	2019	0	642	0	1,164	0	1,806
2	Heavy Truck	Logging Truck Heavy	2020	0	1,500	0	0	0	1,500
2	Heavy Truck	Logging Truck Heavy	2021	0	2,575	0	0	0	2,575
2	Heavy Truck	Logging Truck Heavy	Total	0	5,576	0	6,436	0	12,011
2	Light Truck	Other Truck Light	2017	3,952	42,546	0	0	0	46,498
2	Light Truck	Other Truck Light	2018	8,406	2,527	0	0	7,661	18,594
2	Light Truck	Other Truck Light	2019	22,636	11,617	0	0	11,173	45,426
2	Light Truck	Other Truck Light	2020	15,561	10,704	0	0	676	26,941
2	Light Truck	Other Truck Light	2021	750	17,931	0	0	26,097	44,777
2	Light Truck	Other Truck Light	Total	51,305	85,325	0	0	45,606	182,236
2	Heavy Truck	Other Truck Heavy	2017	3,407,176	3,110,385	116,952	62,061	906,973	7,603,548
2	Heavy Truck	Other Truck Heavy	2018	3,644,132	3,247,574	186,504	209,915	670,899	7,959,025
2	Heavy Truck	Other Truck Heavy	2019	4,066,251	3,007,494	178,564	70,620	1,247,338	8,570,266
2	Heavy Truck	Other Truck Heavy	2020	3,643,386	3,027,740	319,646	181,007	1,027,304	8,199,083
2	Heavy Truck	Other Truck Heavy	2021	3,980,823	3,166,194	144,621	123,928	1,029,649	8,445,216
2	Heavy Truck	Other Truck Heavy	Total	18,741,768	15,559,387	946,288	647,531	4,882,163	40,777,137
2	Light Truck	Petroleum/Chemical Truck Light	2017	0	140,195	0	0	0	140,195
2	Light Truck	Petroleum/Chemical Truck Light	2018	0	96,030	0	0	0	96,030
2	Light Truck	Petroleum/Chemical Truck Light	2019	0	45,676	0	0	0	45,676
2	Light Truck	Petroleum/Chemical Truck Light	2020	24,376	54,239	0	0	0	78,616
2	Light Truck	Petroleum/Chemical Truck Light	2021	0	175,876	0	0	0	175,876
2	Light Truck	Petroleum/Chemical Truck Light	Total	24,376	512,016	0	0	0	536,392

Table 10a
Reported Loss and ALAE without Hail
and with 10-Year Average Expected Serious Losses (Before Product Change)

Major Class	Vehicle Type	Use	Loss Year	Territory					Total
				1	2	3	4	5	
2	Heavy Truck	Petroleum/Chemical Truck Heavy	2017	7,471	239,718	35,698	0	0	282,887
2	Heavy Truck	Petroleum/Chemical Truck Heavy	2018	3,026	26,308	900	0	0	30,234
2	Heavy Truck	Petroleum/Chemical Truck Heavy	2019	41,915	46,281	448	0	0	88,645
2	Heavy Truck	Petroleum/Chemical Truck Heavy	2020	88,471	92,836	503	0	0	181,810
2	Heavy Truck	Petroleum/Chemical Truck Heavy	2021	55,818	199,993	0	0	0	255,811
2	Heavy Truck	Petroleum/Chemical Truck Heavy	Total	196,701	605,137	37,549	0	0	839,387
2	Other	Repairer	2017	202,862	54,931	0	0	0	257,793
2	Other	Repairer	2018	72,421	28,601	16,739	0	0	117,761
2	Other	Repairer	2019	79,306	23,795	0	10,446	0	113,547
2	Other	Repairer	2020	77,721	45,319	0	0	0	123,040
2	Other	Repairer	2021	103,860	75,776	7,582	8,262	0	195,480
2	Other	Repairer	Total	536,170	228,421	24,322	18,709	0	807,621
2	Light Truck	Sand/Gravel Truck Light	2017	0	0	0	0	0	0
2	Light Truck	Sand/Gravel Truck Light	2018	0	0	0	0	0	0
2	Light Truck	Sand/Gravel Truck Light	2019	0	0	0	0	0	0
2	Light Truck	Sand/Gravel Truck Light	2020	0	0	0	0	0	0
2	Light Truck	Sand/Gravel Truck Light	2021	0	0	0	0	0	0
2	Light Truck	Sand/Gravel Truck Light	Total	0	0	0	0	0	0
2	Heavy Truck	Sand/Gravel Truck Heavy	2017	223,491	505,299	22,660	4,280	0	755,729
2	Heavy Truck	Sand/Gravel Truck Heavy	2018	542,727	298,999	0	0	0	841,727
2	Heavy Truck	Sand/Gravel Truck Heavy	2019	186,553	706,203	0	0	0	892,755
2	Heavy Truck	Sand/Gravel Truck Heavy	2020	223,128	388,916	0	0	0	612,044
2	Heavy Truck	Sand/Gravel Truck Heavy	2021	376,265	272,388	2,514	0	0	651,167
2	Heavy Truck	Sand/Gravel Truck Heavy	Total	1,552,164	2,171,804	25,174	4,280	0	3,753,423
2	Light Truck	Tow Truck Light	2017	0	2,607	0	0	0	2,607
2	Light Truck	Tow Truck Light	2018	28,659	500	0	0	0	29,159
2	Light Truck	Tow Truck Light	2019	6,835	750	500	0	0	8,085
2	Light Truck	Tow Truck Light	2020	250	500	0	0	0	750
2	Light Truck	Tow Truck Light	2021	33,360	0	0	0	0	33,360
2	Light Truck	Tow Truck Light	Total	69,104	4,357	500	0	0	73,961
2	Heavy Truck	Tow Truck Heavy	2017	377,677	156,995	45,832	0	0	580,505
2	Heavy Truck	Tow Truck Heavy	2018	326,400	413,013	617	954	0	740,983
2	Heavy Truck	Tow Truck Heavy	2019	287,258	301,838	356	0	0	589,451
2	Heavy Truck	Tow Truck Heavy	2020	296,644	201,061	725	24,539	0	522,969
2	Heavy Truck	Tow Truck Heavy	2021	218,835	73,690	403	18,501	0	311,429
2	Heavy Truck	Tow Truck Heavy	Total	1,506,813	1,146,597	47,933	43,994	0	2,745,337
2	Major Class Total		2017	10,646,749	12,635,558	287,894	97,180	910,316	24,577,697
2	Major Class Total		2018	11,070,554	11,116,358	295,937	282,612	680,422	23,445,883
2	Major Class Total		2019	11,451,639	10,577,706	215,399	128,449	1,262,995	23,636,189
2	Major Class Total		2020	10,129,865	11,080,835	367,000	260,567	1,031,762	22,870,029
2	Major Class Total		2021	11,362,871	10,971,242	322,462	211,584	1,148,881	24,017,039
2	Major Class Total		Total	54,661,677	56,381,700	1,488,692	980,392	5,034,376	118,546,837

Table 10a
Reported Loss and ALAE without Hail
and with 10-Year Average Expected Serious Losses (Before Product Change)

Major Class	Vehicle Type	Use	Loss Year	Territory					Total
				1	2	3	4	5	
3	Bus	Charter Bus Local	2017	15,327	0	0	0	0	15,327
3	Bus	Charter Bus Local	2018	25,569	0	0	0	0	25,569
3	Bus	Charter Bus Local	2019	26,950	0	0	0	0	26,950
3	Bus	Charter Bus Local	2020	9,883	641	0	0	0	10,525
3	Bus	Charter Bus Local	2021	66,360	1,750	0	0	0	68,110
3	Bus	Charter Bus Local	Total	144,089	2,391	0	0	0	146,481
3	Bus	Common Carrier Bus Within Manitoba	2017	4,181	1,539	0	0	0	5,720
3	Bus	Common Carrier Bus Within Manitoba	2018	4,978	960	0	0	0	5,938
3	Bus	Common Carrier Bus Within Manitoba	2019	14,812	0	0	0	0	14,812
3	Bus	Common Carrier Bus Within Manitoba	2020	1,246	468	0	0	0	1,714
3	Bus	Common Carrier Bus Within Manitoba	2021	3,807	750	0	0	0	4,557
3	Bus	Common Carrier Bus Within Manitoba	Total	29,023	3,717	0	0	0	32,740
3	Bus	Common Carrier Bus > 161 km Outside Manitoba	2017	0	0	0	0	0	0
3	Bus	Common Carrier Bus > 161 km Outside Manitoba	2018	2,293	2,016	0	0	0	4,309
3	Bus	Common Carrier Bus > 161 km Outside Manitoba	2019	0	0	0	184	0	184
3	Bus	Common Carrier Bus > 161 km Outside Manitoba	2020	0	0	0	0	0	0
3	Bus	Common Carrier Bus > 161 km Outside Manitoba	2021	0	0	0	0	0	0
3	Bus	Common Carrier Bus > 161 km Outside Manitoba	Total	2,293	2,016	0	184	0	4,492
3	Passenger Vehicle	Funeral Passenger Vehicle	2017	43,071	11,368	0	4,721	0	59,161
3	Passenger Vehicle	Funeral Passenger Vehicle	2018	25,315	13,388	0	237	0	38,940
3	Passenger Vehicle	Funeral Passenger Vehicle	2019	13,091	19,652	0	936	0	33,679
3	Passenger Vehicle	Funeral Passenger Vehicle	2020	2,927	17,917	0	8,204	0	29,048
3	Passenger Vehicle	Funeral Passenger Vehicle	2021	10,684	43,749	0	0	0	54,433
3	Passenger Vehicle	Funeral Passenger Vehicle	Total	95,088	106,074	0	14,098	0	215,260
3	Passenger Vehicle	Limousine Vehicle-for-Hire	2017	96,782	63,798	0	0	0	160,580
3	Passenger Vehicle	Limousine Vehicle-for-Hire	2018	75,634	30,929	0	0	0	106,563
3	Passenger Vehicle	Limousine Vehicle-for-Hire	2019	115,321	37,390	0	0	0	152,711
3	Passenger Vehicle	Limousine Vehicle-for-Hire	2020	34,920	48,703	0	0	0	83,623
3	Passenger Vehicle	Limousine Vehicle-for-Hire	2021	121,320	3,394	0	0	0	124,714
3	Passenger Vehicle	Limousine Vehicle-for-Hire	Total	443,977	184,214	0	0	0	628,191
3	Passenger Vehicle	Police/Emergency Passenger Vehicle	2017	993,503	332,831	12,302	28,430	0	1,367,067
3	Passenger Vehicle	Police/Emergency Passenger Vehicle	2018	1,298,844	492,497	10,619	26,870	0	1,828,830
3	Passenger Vehicle	Police/Emergency Passenger Vehicle	2019	984,697	441,549	1,091	410	0	1,427,747
3	Passenger Vehicle	Police/Emergency Passenger Vehicle	2020	1,133,341	631,240	526	9,637	0	1,774,743
3	Passenger Vehicle	Police/Emergency Passenger Vehicle	2021	1,169,859	516,944	1,983	3,461	0	1,692,247
3	Passenger Vehicle	Police/Emergency Passenger Vehicle	Total	5,580,244	2,415,061	26,521	68,808	0	8,090,634
3	Light Truck	Police/Emergency Truck Light	2017	52,192	53,385	19,889	5,662	0	131,129
3	Light Truck	Police/Emergency Truck Light	2018	1,340	32,312	0	0	0	33,652
3	Light Truck	Police/Emergency Truck Light	2019	9,791	78,383	6,272	218	0	94,664
3	Light Truck	Police/Emergency Truck Light	2020	21,208	178,405	11,699	9,001	0	220,312
3	Light Truck	Police/Emergency Truck Light	2021	32,128	85,927	94	12,400	0	130,549
3	Light Truck	Police/Emergency Truck Light	Total	116,659	428,412	37,954	27,281	0	610,306
3	Heavy Truck	Police/Emergency Truck Heavy	2017	0	0	0	0	0	0
3	Heavy Truck	Police/Emergency Truck Heavy	2018	0	0	197	0	0	197
3	Heavy Truck	Police/Emergency Truck Heavy	2019	0	0	0	0	0	0
3	Heavy Truck	Police/Emergency Truck Heavy	2020	0	0	0	0	0	0
3	Heavy Truck	Police/Emergency Truck Heavy	2021	0	0	0	0	0	0
3	Heavy Truck	Police/Emergency Truck Heavy	Total	0	0	197	0	0	197
3	Bus	School Bus Local	2017	251,366	270,057	709	34,610	0	556,741
3	Bus	School Bus Local	2018	416,383	473,268	16,284	28,377	0	934,311
3	Bus	School Bus Local	2019	395,481	430,238	41,567	21,699	0	888,985
3	Bus	School Bus Local	2020	158,164	254,819	3,689	1,478	0	418,150
3	Bus	School Bus Local	2021	294,911	481,074	3,119	72,398	0	851,503
3	Bus	School Bus Local	Total	1,516,306	1,909,455	65,367	158,562	0	3,649,690

Table 10a
Reported Loss and ALAE without Hail
and with 10-Year Average Expected Serious Losses (Before Product Change)

Major Class	Vehicle Type	Use	Loss Year	Territory					Total
				1	2	3	4	5	
3	Passenger Vehicle	Taxicab Vehicle-for-Hire	2017	3,305,267	308,409	149,688	47,511	0	3,810,876
3	Passenger Vehicle	Taxicab Vehicle-for-Hire	2018	3,336,412	289,345	119,765	4,385	0	3,749,907
3	Passenger Vehicle	Taxicab Vehicle-for-Hire	2019	3,368,556	430,144	166,556	18,046	0	3,983,302
3	Passenger Vehicle	Taxicab Vehicle-for-Hire	2020	2,045,721	494,729	148,233	7,000	0	2,695,684
3	Passenger Vehicle	Taxicab Vehicle-for-Hire	2021	2,608,198	279,936	135,758	6,461	0	3,030,354
3	Passenger Vehicle	Taxicab Vehicle-for-Hire	Total	14,664,154	1,802,564	720,000	83,403	0	17,270,122
3	Bus	Transit Bus Local	2017	537,273	115,735	512	0	0	653,520
3	Bus	Transit Bus Local	2018	690,105	189,672	12,259	0	0	892,035
3	Bus	Transit Bus Local	2019	2,018,392	105,492	0	0	0	2,123,884
3	Bus	Transit Bus Local	2020	417,306	36,252	0	0	0	453,558
3	Bus	Transit Bus Local	2021	456,219	29,874	0	0	0	486,092
3	Bus	Transit Bus Local	Total	4,119,295	477,024	12,771	0	0	4,609,090
3	Bus	U-Drive Bus	2017	16,403	54,551	0	0	0	70,954
3	Bus	U-Drive Bus	2018	36,737	16,992	0	0	0	53,730
3	Bus	U-Drive Bus	2019	50,904	4,960	0	0	0	55,864
3	Bus	U-Drive Bus	2020	561	27,853	0	0	0	28,415
3	Bus	U-Drive Bus	2021	60,594	3,297	0	0	0	63,891
3	Bus	U-Drive Bus	Total	165,200	107,653	0	0	0	272,853
3	Motorcycle	U-Drive Moped	2017	0	0	0	0	0	0
3	Motorcycle	U-Drive Moped	2018	0	0	0	0	0	0
3	Motorcycle	U-Drive Moped	2019	0	0	0	0	0	0
3	Motorcycle	U-Drive Moped	2020	0	0	0	0	0	0
3	Motorcycle	U-Drive Moped	2021	0	0	0	0	0	0
3	Motorcycle	U-Drive Moped	Total	0	0	0	0	0	0
3	Motorhome	U-Drive Motorhome	2017	25,372	4,121	0	0	0	29,492
3	Motorhome	U-Drive Motorhome	2018	13,299	15,312	0	0	0	28,611
3	Motorhome	U-Drive Motorhome	2019	7,505	15,464	0	0	0	22,969
3	Motorhome	U-Drive Motorhome	2020	96,721	17,158	0	0	0	113,879
3	Motorhome	U-Drive Motorhome	2021	688	25,459	0	0	0	26,147
3	Motorhome	U-Drive Motorhome	Total	143,585	77,513	0	0	0	221,098
3	Passenger Vehicle	U-Drive Passenger Vehicle	2017	7,452,119	780,892	87,180	34,107	0	8,354,297
3	Passenger Vehicle	U-Drive Passenger Vehicle	2018	7,133,082	1,306,049	95,097	84,891	0	8,619,119
3	Passenger Vehicle	U-Drive Passenger Vehicle	2019	7,285,435	1,039,648	62,286	89,197	0	8,476,567
3	Passenger Vehicle	U-Drive Passenger Vehicle	2020	5,654,998	777,785	85,567	26,110	0	6,544,461
3	Passenger Vehicle	U-Drive Passenger Vehicle	2021	7,151,833	510,628	63,075	28,192	0	7,753,729
3	Passenger Vehicle	U-Drive Passenger Vehicle	Total	34,677,467	4,415,002	393,205	262,497	0	39,748,172
3	Light Truck	U-Drive Truck Light	2017	1,104,776	193,958	383,029	38,174	0	1,719,937
3	Light Truck	U-Drive Truck Light	2018	1,272,531	181,010	71,862	88,161	0	1,613,563
3	Light Truck	U-Drive Truck Light	2019	1,192,711	245,669	70,340	11,030	0	1,519,750
3	Light Truck	U-Drive Truck Light	2020	805,154	190,017	35,059	40,612	0	1,070,842
3	Light Truck	U-Drive Truck Light	2021	762,908	52,872	29,644	2,677	0	848,101
3	Light Truck	U-Drive Truck Light	Total	5,138,080	863,525	589,934	180,653	0	6,772,192
3	Heavy Truck	U-Drive Truck Heavy	2017	421,069	5,500	0	0	0	426,569
3	Heavy Truck	U-Drive Truck Heavy	2018	317,171	36,559	0	0	0	353,730
3	Heavy Truck	U-Drive Truck Heavy	2019	557,117	22,869	0	0	0	579,986
3	Heavy Truck	U-Drive Truck Heavy	2020	457,676	56,310	0	0	0	513,986
3	Heavy Truck	U-Drive Truck Heavy	2021	470,176	11,979	0	0	0	482,155
3	Heavy Truck	U-Drive Truck Heavy	Total	2,223,209	133,217	0	0	0	2,356,426
3	Bus	Accessible Vehicle-for-Hire	2017	254,478	0	0	0	0	254,478
3	Bus	Accessible Vehicle-for-Hire	2018	592,838	35,600	0	0	0	628,438
3	Bus	Accessible Vehicle-for-Hire	2019	701,236	30,840	727	0	0	732,803
3	Bus	Accessible Vehicle-for-Hire	2020	486,721	41,165	0	0	0	527,886
3	Bus	Accessible Vehicle-for-Hire	2021	816,221	71,710	0	1,650	0	889,581
3	Bus	Accessible Vehicle-for-Hire	Total	2,851,495	179,315	727	1,650	0	3,033,187

Table 10a
Reported Loss and ALAE without Hail
and with 10-Year Average Expected Serious Losses (Before Product Change)

Major Class	Vehicle Type	Use	Loss Year	Territory					Total
				1	2	3	4	5	
3	Major Class Total		2017	14,573,179	2,196,144	653,309	193,215	0	17,615,847
3	Major Class Total		2018	15,242,531	3,115,910	326,082	232,920	0	18,917,442
3	Major Class Total		2019	16,741,999	2,902,297	348,839	141,719	0	20,134,854
3	Major Class Total		2020	11,326,549	2,773,462	284,772	102,042	0	14,486,825
3	Major Class Total		2021	14,025,906	2,119,341	233,674	127,240	0	16,506,160
3	Major Class Total		Total	71,910,164	13,107,154	1,846,676	797,136	0	87,661,130

Table 10a
Reported Loss and ALAE without Hail
and with 10-Year Average Expected Serious Losses (Before Product Change)

Major Class	Vehicle Type	Use	Loss Year	Territory					Total
				1	2	3	4	5	
4	Motorcycle	All Purpose Moped	2017	80,554	14,104	0	0	0	94,659
4	Motorcycle	All Purpose Moped	2018	519,864	518	0	0	0	520,381
4	Motorcycle	All Purpose Moped	2019	127,836	12,710	0	0	0	140,547
4	Motorcycle	All Purpose Moped	2020	180,431	0	0	0	0	180,431
4	Motorcycle	All Purpose Moped	2021	67,477	13,661	0	0	0	81,138
4	Motorcycle	All Purpose Moped	Total	976,162	40,994	0	0	0	1,017,156
4	Motorcycle	All Purpose Motorcycle (Moterscooter Body Style)	2017	15,320	0	0	0	0	15,320
4	Motorcycle	All Purpose Motorcycle (Moterscooter Body Style)	2018	18,769	0	0	16,105	0	34,874
4	Motorcycle	All Purpose Motorcycle (Moterscooter Body Style)	2019	13,144	0	0	0	0	13,144
4	Motorcycle	All Purpose Motorcycle (Moterscooter Body Style)	2020	95,522	0	0	0	0	95,522
4	Motorcycle	All Purpose Motorcycle (Moterscooter Body Style)	2021	0	0	0	0	12,565	12,565
4	Motorcycle	All Purpose Motorcycle (Moterscooter Body Style)	Total	142,755	0	0	16,105	12,565	171,425
4	Motorcycle	All Purpose Motorcycle (Other Body Style)	2017	511,556	46,694	13,233	0	129,696	701,178
4	Motorcycle	All Purpose Motorcycle (Other Body Style)	2018	351,096	14,061	0	0	0	365,157
4	Motorcycle	All Purpose Motorcycle (Other Body Style)	2019	531,930	203,851	0	0	19,085	754,865
4	Motorcycle	All Purpose Motorcycle (Other Body Style)	2020	360,616	41,457	14,815	0	0	416,888
4	Motorcycle	All Purpose Motorcycle (Other Body Style)	2021	156,982	0	0	0	171,285	328,267
4	Motorcycle	All Purpose Motorcycle (Other Body Style)	Total	1,912,180	306,062	28,048	0	320,065	2,566,355
4	Motorcycle	All Purpose Motorcycle (Sport Body Style)	2017	215,806	0	0	0	15,259	231,065
4	Motorcycle	All Purpose Motorcycle (Sport Body Style)	2018	91,589	15,135	27,131	0	23,242	157,097
4	Motorcycle	All Purpose Motorcycle (Sport Body Style)	2019	82,748	15,519	0	0	0	98,266
4	Motorcycle	All Purpose Motorcycle (Sport Body Style)	2020	29,858	0	0	0	41,364	71,222
4	Motorcycle	All Purpose Motorcycle (Sport Body Style)	2021	49,511	18,130	0	0	18,747	86,387
4	Motorcycle	All Purpose Motorcycle (Sport Body Style)	Total	469,511	48,783	27,131	0	98,612	644,038
4	Motorcycle	All Purpose Motorcycle (Sport-Touring Body Style)	2017	0	0	0	0	21,051	21,051
4	Motorcycle	All Purpose Motorcycle (Sport-Touring Body Style)	2018	40,861	16,940	0	0	0	57,802
4	Motorcycle	All Purpose Motorcycle (Sport-Touring Body Style)	2019	16,798	15,316	0	0	15,028	47,142
4	Motorcycle	All Purpose Motorcycle (Sport-Touring Body Style)	2020	15,870	0	0	0	14,748	30,618
4	Motorcycle	All Purpose Motorcycle (Sport-Touring Body Style)	2021	67,822	0	0	0	0	67,822
4	Motorcycle	All Purpose Motorcycle (Sport-Touring Body Style)	Total	141,351	32,256	0	0	50,826	224,434
4	Motorcycle	All Purpose Motorcycle (Touring Body Style)	2017	244,392	95,371	0	0	142,403	482,166
4	Motorcycle	All Purpose Motorcycle (Touring Body Style)	2018	223,037	57,958	0	0	15,975	296,971
4	Motorcycle	All Purpose Motorcycle (Touring Body Style)	2019	386,856	99,596	0	0	0	486,451
4	Motorcycle	All Purpose Motorcycle (Touring Body Style)	2020	186,548	0	0	0	0	186,548
4	Motorcycle	All Purpose Motorcycle (Touring Body Style)	2021	102,581	436,102	0	0	0	538,682
4	Motorcycle	All Purpose Motorcycle (Touring Body Style)	Total	1,143,413	689,026	0	0	158,379	1,990,818
4	Motorcycle	Pleasure Moped	2017	151,807	115,097	0	0	0	266,904
4	Motorcycle	Pleasure Moped	2018	47,113	41,359	0	0	0	88,472
4	Motorcycle	Pleasure Moped	2019	146,878	13,443	0	0	0	160,321
4	Motorcycle	Pleasure Moped	2020	89,021	13,246	0	0	0	102,266
4	Motorcycle	Pleasure Moped	2021	174,031	0	0	0	0	174,031
4	Motorcycle	Pleasure Moped	Total	608,850	183,145	0	0	0	791,995
4	Motorcycle	Pleasure Motorcycle (Moterscooter Body Style)	2017	46,565	15,497	0	0	0	62,062
4	Motorcycle	Pleasure Motorcycle (Moterscooter Body Style)	2018	16,036	0	0	0	0	16,036
4	Motorcycle	Pleasure Motorcycle (Moterscooter Body Style)	2019	39,868	0	0	0	0	39,868
4	Motorcycle	Pleasure Motorcycle (Moterscooter Body Style)	2020	78,364	0	0	0	0	78,364
4	Motorcycle	Pleasure Motorcycle (Moterscooter Body Style)	2021	82,586	49,121	0	0	0	131,707
4	Motorcycle	Pleasure Motorcycle (Moterscooter Body Style)	Total	263,419	64,618	0	0	0	328,038
4	Motorcycle	Pleasure Motorcycle (Other Body Style)	2017	1,851,941	1,115,644	30,576	15,490	0	3,013,651
4	Motorcycle	Pleasure Motorcycle (Other Body Style)	2018	1,677,201	1,560,616	0	0	0	3,237,817
4	Motorcycle	Pleasure Motorcycle (Other Body Style)	2019	1,567,499	1,020,826	2,714	350,733	0	2,941,771
4	Motorcycle	Pleasure Motorcycle (Other Body Style)	2020	1,491,190	1,371,503	500	0	0	2,863,193
4	Motorcycle	Pleasure Motorcycle (Other Body Style)	2021	1,992,551	1,914,630	8,455	17,970	0	3,933,605
4	Motorcycle	Pleasure Motorcycle (Other Body Style)	Total	8,580,383	6,983,219	42,244	384,193	0	15,990,038

Table 10a
Reported Loss and ALAE without Hail
and with 10-Year Average Expected Serious Losses (Before Product Change)

Major Class	Vehicle Type	Use	Loss Year	Territory					Total
				1	2	3	4	5	
4	Motorcycle	Pleasure Motorcycle (Sport Body Style)	2017	891,563	421,433	0	17,122	0	1,330,119
4	Motorcycle	Pleasure Motorcycle (Sport Body Style)	2018	622,899	389,934	0	14,707	0	1,027,540
4	Motorcycle	Pleasure Motorcycle (Sport Body Style)	2019	481,122	203,733	16,140	0	0	700,995
4	Motorcycle	Pleasure Motorcycle (Sport Body Style)	2020	790,656	430,905	0	0	0	1,221,561
4	Motorcycle	Pleasure Motorcycle (Sport Body Style)	2021	701,203	596,967	0	0	0	1,298,170
4	Motorcycle	Pleasure Motorcycle (Sport Body Style)	Total	3,487,442	2,042,973	16,140	31,829	0	5,578,384
4	Motorcycle	Pleasure Motorcycle (Sport-Touring Body Style)	2017	105,870	497,188	0	0	0	603,057
4	Motorcycle	Pleasure Motorcycle (Sport-Touring Body Style)	2018	70,844	178,383	0	0	0	249,227
4	Motorcycle	Pleasure Motorcycle (Sport-Touring Body Style)	2019	132,572	328,881	0	0	0	461,453
4	Motorcycle	Pleasure Motorcycle (Sport-Touring Body Style)	2020	390,725	157,417	0	0	0	548,142
4	Motorcycle	Pleasure Motorcycle (Sport-Touring Body Style)	2021	280,850	112,375	0	0	0	393,224
4	Motorcycle	Pleasure Motorcycle (Sport-Touring Body Style)	Total	980,860	1,274,244	0	0	0	2,255,104
4	Motorcycle	Pleasure Motorcycle (Touring Body Style)	2017	1,941,111	1,660,065	0	107,620	0	3,708,796
4	Motorcycle	Pleasure Motorcycle (Touring Body Style)	2018	867,930	2,236,919	114,125	0	0	3,218,974
4	Motorcycle	Pleasure Motorcycle (Touring Body Style)	2019	1,089,312	1,954,580	52,614	29,104	0	3,125,610
4	Motorcycle	Pleasure Motorcycle (Touring Body Style)	2020	1,678,820	1,760,504	0	23,684	0	3,463,008
4	Motorcycle	Pleasure Motorcycle (Touring Body Style)	2021	977,006	1,923,619	42,613	0	0	2,943,237
4	Motorcycle	Pleasure Motorcycle (Touring Body Style)	Total	6,554,178	9,535,687	209,352	160,408	0	16,459,625
4		Major Class Total	2017	6,056,485	3,981,093	43,809	140,233	308,409	10,530,029
4		Major Class Total	2018	4,547,239	4,511,824	141,256	30,812	39,218	9,270,348
4		Major Class Total	2019	4,616,561	3,868,455	71,468	379,836	34,112	8,970,432
4		Major Class Total	2020	5,387,620	3,775,032	15,315	23,684	56,111	9,257,763
4		Major Class Total	2021	4,652,600	5,064,604	51,067	17,970	202,596	9,988,837
4		Major Class Total	Total	25,260,504	21,201,008	322,915	592,535	640,447	48,017,410

Table 10a
Reported Loss and ALAE without Hail
and with 10-Year Average Expected Serious Losses (Before Product Change)

Major Class	Vehicle Type	Use	Loss Year	Territory					Total
				1	2	3	4	5	
5	Trailer	All Purpose Trailer \$2500 or less	2017	185,744	227,493	340	3,386	0	416,963
5	Trailer	All Purpose Trailer \$2500 or less	2018	234,380	211,188	1,545	498	0	447,611
5	Trailer	All Purpose Trailer \$2500 or less	2019	181,059	205,373	1,298	3,363	0	391,094
5	Trailer	All Purpose Trailer \$2500 or less	2020	197,634	200,529	3,725	2,987	0	404,876
5	Trailer	All Purpose Trailer \$2500 or less	2021	150,231	176,636	0	2,500	0	329,367
5	Trailer	All Purpose Trailer \$2500 or less	Total	949,049	1,021,219	6,908	12,734	0	1,989,910
5	Trailer	All Purpose Trailer \$2501 or more	2017	1,686,327	3,928,189	40,251	151,762	0	5,806,530
5	Trailer	All Purpose Trailer \$2501 or more	2018	1,931,890	5,159,174	46,509	200,555	0	7,338,128
5	Trailer	All Purpose Trailer \$2501 or more	2019	1,886,250	4,219,339	54,467	49,238	0	6,209,294
5	Trailer	All Purpose Trailer \$2501 or more	2020	2,022,684	4,970,792	44,570	52,799	0	7,090,845
5	Trailer	All Purpose Trailer \$2501 or more	2021	1,772,110	3,432,510	131,374	62,552	0	5,398,546
5	Trailer	All Purpose Trailer \$2501 or more	Total	9,299,262	21,710,004	317,172	516,906	0	31,843,343
5		Major Class Total	2017	1,872,071	4,155,682	40,591	155,148	0	6,223,493
5		Major Class Total	2018	2,166,270	5,370,362	48,054	201,053	0	7,785,739
5		Major Class Total	2019	2,067,309	4,424,712	55,766	52,601	0	6,600,388
5		Major Class Total	2020	2,220,318	5,171,321	48,296	55,786	0	7,495,721
5		Major Class Total	2021	1,922,342	3,609,146	131,374	65,052	0	5,727,913
5		Major Class Total	Total	10,248,311	22,731,222	324,080	529,640	0	33,833,253

Table 10a
Reported Loss and ALAE without Hail
and with 10-Year Average Expected Serious Losses (Before Product Change)

Major Class	Vehicle Type	Use	Loss Year	Territory					Total
				1	2	3	4	5	
6	Off-Road Vehicle	Off Road Vehicle All Purpose	2017	109,776	17,212	5,553	1,000	0	133,541
6	Off-Road Vehicle	Off Road Vehicle All Purpose	2018	5,492	524,983	998	500	0	531,974
6	Off-Road Vehicle	Off Road Vehicle All Purpose	2019	5,165	317,249	4,201	0	0	326,614
6	Off-Road Vehicle	Off Road Vehicle All Purpose	2020	5,895	96,029	0	3,807	0	105,730
6	Off-Road Vehicle	Off Road Vehicle All Purpose	2021	42,850	91,551	0	0	0	134,401
6	Off-Road Vehicle	Off Road Vehicle All Purpose	Total	169,178	1,047,024	10,752	5,307	0	1,232,260
6		Major Class Total	2017	109,776	17,212	5,553	1,000	0	133,541
6		Major Class Total	2018	5,492	524,983	998	500	0	531,974
6		Major Class Total	2019	5,165	317,249	4,201	0	0	326,614
6		Major Class Total	2020	5,895	96,029	0	3,807	0	105,730
6		Major Class Total	2021	42,850	91,551	0	0	0	134,401
6		Major Class Total	Total	169,178	1,047,024	10,752	5,307	0	1,232,260

Table 11a
Earned Units (Including Vehicle Type)

Major Class	Vehicle Type	Use	Loss Year	Territory					Total
				1	2	3	4	5	
1	Motorhome	All Purpose Motorhome	2017	49	52	1	1	4	107
1	Motorhome	All Purpose Motorhome	2018	46	60	2	1	3	111
1	Motorhome	All Purpose Motorhome	2019	48	59	1	1	1	109
1	Motorhome	All Purpose Motorhome	2020	50	60	1	1	1	113
1	Motorhome	All Purpose Motorhome	2021	55	60	1	1	1	119
1	Motorhome	All Purpose Motorhome	Total	247	291	6	6	9	559
1	Passenger Vehicle	All Purpose Passenger Vehicle	2017	233,390	94,746	3,607	4,550	26,903	363,197
1	Passenger Vehicle	All Purpose Passenger Vehicle	2018	236,157	95,311	3,548	4,480	26,968	366,463
1	Passenger Vehicle	All Purpose Passenger Vehicle	2019	237,775	96,151	3,464	4,454	27,215	369,058
1	Passenger Vehicle	All Purpose Passenger Vehicle	2020	241,474	101,759	3,755	4,809	25,592	377,388
1	Passenger Vehicle	All Purpose Passenger Vehicle	2021	224,103	96,340	3,593	4,709	23,521	352,267
1	Passenger Vehicle	All Purpose Passenger Vehicle	Total	1,172,898	484,307	17,967	23,002	130,199	1,828,373
1	Light Truck	All Purpose Truck 4540 kg or less	2017	50,162	50,780	3,849	4,679	11,550	121,020
1	Light Truck	All Purpose Truck 4540 kg or less	2018	50,450	50,529	3,787	4,792	11,769	121,326
1	Light Truck	All Purpose Truck 4540 kg or less	2019	50,425	50,121	3,676	4,794	11,924	120,941
1	Light Truck	All Purpose Truck 4540 kg or less	2020	53,724	54,317	3,954	5,281	12,816	130,093
1	Light Truck	All Purpose Truck 4540 kg or less	2021	50,236	51,154	3,656	5,090	12,304	122,440
1	Light Truck	All Purpose Truck 4540 kg or less	Total	254,997	256,901	18,922	24,636	60,363	615,820
1	Other	Antique Vehicle	2017	78	70	0	0	0	148
1	Other	Antique Vehicle	2018	84	71	0	0	0	155
1	Other	Antique Vehicle	2019	94	73	0	0	0	166
1	Other	Antique Vehicle	2020	82	67	0	0	0	150
1	Other	Antique Vehicle	2021	84	76	0	0	0	160
1	Other	Antique Vehicle	Total	423	357	0	0	0	780
1	Passenger Vehicle	Collector Passenger Vehicle	2017	1,260	1,731	14	14	0	3,019
1	Passenger Vehicle	Collector Passenger Vehicle	2018	1,440	2,020	15	15	0	3,491
1	Passenger Vehicle	Collector Passenger Vehicle	2019	1,584	2,284	15	18	0	3,901
1	Passenger Vehicle	Collector Passenger Vehicle	2020	1,894	2,754	14	20	0	4,682
1	Passenger Vehicle	Collector Passenger Vehicle	2021	2,010	2,881	14	18	0	4,923
1	Passenger Vehicle	Collector Passenger Vehicle	Total	8,188	11,671	72	85	0	20,016
1	Light Truck	Collector Truck 4540 kg or less	2017	103	355	3	4	0	465
1	Light Truck	Collector Truck 4540 kg or less	2018	131	438	4	4	0	577
1	Light Truck	Collector Truck 4540 kg or less	2019	157	546	5	4	0	712
1	Light Truck	Collector Truck 4540 kg or less	2020	195	693	3	5	0	896
1	Light Truck	Collector Truck 4540 kg or less	2021	234	785	2	5	0	1,026
1	Light Truck	Collector Truck 4540 kg or less	Total	820	2,816	18	22	0	3,677
1	Bus	Disabled Persons/Private/Business Bus	2017	272	570	72	54	0	967
1	Bus	Disabled Persons/Private/Business Bus	2018	318	626	85	58	0	1,088
1	Bus	Disabled Persons/Private/Business Bus	2019	353	611	102	53	0	1,120
1	Bus	Disabled Persons/Private/Business Bus	2020	345	616	92	56	0	1,110
1	Bus	Disabled Persons/Private/Business Bus	2021	308	560	97	54	0	1,019
1	Bus	Disabled Persons/Private/Business Bus	Total	1,597	2,984	448	275	0	5,304
1	Passenger Vehicle	Farm Passenger Vehicle	2017	29	6,359	0	13	0	6,400
1	Passenger Vehicle	Farm Passenger Vehicle	2018	25	6,051	0	12	0	6,087
1	Passenger Vehicle	Farm Passenger Vehicle	2019	24	5,774	0	10	0	5,809
1	Passenger Vehicle	Farm Passenger Vehicle	2020	24	5,954	0	10	0	5,989
1	Passenger Vehicle	Farm Passenger Vehicle	2021	27	5,349	0	9	0	5,385
1	Passenger Vehicle	Farm Passenger Vehicle	Total	129	29,488	0	53	0	29,671
1	Light Truck	Farming All Purpose Truck 4540 kg or less	2017	262	29,135	8	142	411	29,958
1	Light Truck	Farming All Purpose Truck 4540 kg or less	2018	261	29,097	7	137	412	29,913
1	Light Truck	Farming All Purpose Truck 4540 kg or less	2019	275	29,090	8	136	402	29,911
1	Light Truck	Farming All Purpose Truck 4540 kg or less	2020	283	31,415	7	145	420	32,270
1	Light Truck	Farming All Purpose Truck 4540 kg or less	2021	273	29,367	8	135	401	30,183
1	Light Truck	Farming All Purpose Truck 4540 kg or less	Total	1,353	148,103	37	695	2,046	152,235

Table 11a
Earned Units (Including Vehicle Type)

Major Class	Vehicle Type	Use	Loss Year	Territory					Total
				1	2	3	4	5	
1	Light Truck	Fishing All Purpose Truck 4540 kg or less	2017	4	275	5	39	6	328
1	Light Truck	Fishing All Purpose Truck 4540 kg or less	2018	5	272	5	34	5	321
1	Light Truck	Fishing All Purpose Truck 4540 kg or less	2019	5	260	3	31	6	305
1	Light Truck	Fishing All Purpose Truck 4540 kg or less	2020	4	263	4	34	5	309
1	Light Truck	Fishing All Purpose Truck 4540 kg or less	2021	3	243	2	31	7	286
1	Light Truck	Fishing All Purpose Truck 4540 kg or less	Total	21	1,312	19	168	29	1,549
1	Passenger Vehicle	Passenger Vehicle-for-Hire (Passenger Vehicle)	2017	0	0	0	0	0	0
1	Passenger Vehicle	Passenger Vehicle-for-Hire (Passenger Vehicle)	2018	365	60	5	13	10	452
1	Passenger Vehicle	Passenger Vehicle-for-Hire (Passenger Vehicle)	2019	603	85	9	20	30	747
1	Passenger Vehicle	Passenger Vehicle-for-Hire (Passenger Vehicle)	2020	811	88	11	24	40	973
1	Passenger Vehicle	Passenger Vehicle-for-Hire (Passenger Vehicle)	2021	855	80	13	25	36	1,008
1	Passenger Vehicle	Passenger Vehicle-for-Hire (Passenger Vehicle)	Total	2,634	313	38	81	115	3,181
1	Light Truck	Passenger Vehicle-for-Hire (Truck 4,499 kg or less GVW)	2017	0	0	0	0	0	0
1	Light Truck	Passenger Vehicle-for-Hire (Truck 4,499 kg or less GVW)	2018	6	2	0	0	1	10
1	Light Truck	Passenger Vehicle-for-Hire (Truck 4,499 kg or less GVW)	2019	7	4	2	1	3	17
1	Light Truck	Passenger Vehicle-for-Hire (Truck 4,499 kg or less GVW)	2020	7	5	2	1	3	18
1	Light Truck	Passenger Vehicle-for-Hire (Truck 4,499 kg or less GVW)	2021	4	4	3	1	1	12
1	Light Truck	Passenger Vehicle-for-Hire (Truck 4,499 kg or less GVW)	Total	24	15	7	4	8	57
1	Motorhome	Pleasure Motorhome	2017	1,011	1,904	23	54	0	2,992
1	Motorhome	Pleasure Motorhome	2018	944	1,839	24	52	0	2,860
1	Motorhome	Pleasure Motorhome	2019	903	1,838	20	49	0	2,811
1	Motorhome	Pleasure Motorhome	2020	870	1,761	25	49	0	2,705
1	Motorhome	Pleasure Motorhome	2021	925	1,864	30	44	0	2,863
1	Motorhome	Pleasure Motorhome	Total	4,654	9,206	122	248	0	14,230
1	Passenger Vehicle	Pleasure Passenger Vehicle	2017	116,131	89,300	1,432	3,517	0	210,380
1	Passenger Vehicle	Pleasure Passenger Vehicle	2018	117,570	90,677	1,384	3,433	0	213,064
1	Passenger Vehicle	Pleasure Passenger Vehicle	2019	118,462	92,081	1,335	3,383	0	215,261
1	Passenger Vehicle	Pleasure Passenger Vehicle	2020	146,110	107,804	1,447	3,742	0	259,103
1	Passenger Vehicle	Pleasure Passenger Vehicle	2021	142,375	103,614	1,355	3,509	0	250,853
1	Passenger Vehicle	Pleasure Passenger Vehicle	Total	640,647	483,477	6,954	17,583	0	1,148,661
1	Light Truck	Pleasure Truck	2017	16,672	38,295	1,306	2,773	0	59,046
1	Light Truck	Pleasure Truck	2018	17,013	39,083	1,285	2,741	0	60,122
1	Light Truck	Pleasure Truck	2019	17,287	39,725	1,276	2,750	0	61,039
1	Light Truck	Pleasure Truck	2020	20,730	45,742	1,392	3,110	0	70,973
1	Light Truck	Pleasure Truck	2021	20,007	44,095	1,275	2,941	0	68,318
1	Light Truck	Pleasure Truck	Total	91,709	206,939	6,534	14,315	0	319,498
1		Major Class Total	2017	419,424	313,572	10,320	15,838	38,875	798,028
1		Major Class Total	2018	424,815	316,136	10,151	15,771	39,168	806,040
1		Major Class Total	2019	428,001	318,704	9,918	15,704	39,580	811,907
1		Major Class Total	2020	466,602	353,298	10,707	17,288	38,877	886,771
1		Major Class Total	2021	441,499	336,472	10,049	16,573	36,269	840,863
1		Major Class Total	Total	2,180,341	1,638,181	51,144	81,175	192,769	4,143,609

Table 11a
Earned Units (Including Vehicle Type)

Major Class	Vehicle Type	Use	Loss Year	Territory					Total
				1	2	3	4	5	
2	Light Truck	Artisan Truck Light	2017	6	10	0	1	0	17
2	Light Truck	Artisan Truck Light	2018	5	9	0	1	2	17
2	Light Truck	Artisan Truck Light	2019	5	8	0	0	2	15
2	Light Truck	Artisan Truck Light	2020	7	8	0	0	1	15
2	Light Truck	Artisan Truck Light	2021	5	9	0	0	0	14
2	Light Truck	Artisan Truck Light	Total	28	43	0	2	5	79
2	Heavy Truck	Artisan Truck Heavy	2017	74	58	1	2	34	169
2	Heavy Truck	Artisan Truck Heavy	2018	74	58	2	1	30	164
2	Heavy Truck	Artisan Truck Heavy	2019	74	53	2	1	31	161
2	Heavy Truck	Artisan Truck Heavy	2020	81	56	2	1	33	172
2	Heavy Truck	Artisan Truck Heavy	2021	78	49	2	1	35	165
2	Heavy Truck	Artisan Truck Heavy	Total	381	275	8	6	162	831
2	Light Truck	Cement/Brick/Exploration Truck Light	2017	0	0	0	0	0	0
2	Light Truck	Cement/Brick/Exploration Truck Light	2018	0	0	0	0	0	0
2	Light Truck	Cement/Brick/Exploration Truck Light	2019	0	0	0	0	0	0
2	Light Truck	Cement/Brick/Exploration Truck Light	2020	0	0	0	0	0	0
2	Light Truck	Cement/Brick/Exploration Truck Light	2021	0	0	0	0	0	0
2	Light Truck	Cement/Brick/Exploration Truck Light	Total	0	0	0	0	0	0
2	Heavy Truck	Cement/Brick/Exploration Truck Heavy	2017	138	322	11	13	0	485
2	Heavy Truck	Cement/Brick/Exploration Truck Heavy	2018	132	323	14	13	0	481
2	Heavy Truck	Cement/Brick/Exploration Truck Heavy	2019	148	309	11	12	0	480
2	Heavy Truck	Cement/Brick/Exploration Truck Heavy	2020	154	326	14	14	0	508
2	Heavy Truck	Cement/Brick/Exploration Truck Heavy	2021	152	326	11	14	0	502
2	Heavy Truck	Cement/Brick/Exploration Truck Heavy	Total	723	1,606	62	66	0	2,456
2	Passenger Vehicle	Common Carrier Vehicle Local	2017	800	517	21	14	0	1,352
2	Passenger Vehicle	Common Carrier Vehicle Local	2018	853	497	22	12	0	1,385
2	Passenger Vehicle	Common Carrier Vehicle Local	2019	883	484	18	14	0	1,399
2	Passenger Vehicle	Common Carrier Vehicle Local	2020	1,108	556	24	22	0	1,710
2	Passenger Vehicle	Common Carrier Vehicle Local	2021	1,156	558	35	21	0	1,770
2	Passenger Vehicle	Common Carrier Vehicle Local	Total	4,800	2,613	121	83	0	7,616
2	Light Truck	Common Carrier Vehicle Within City or Mun. Light	2017	228	59	7	6	0	300
2	Light Truck	Common Carrier Vehicle Within City or Mun. Light	2018	201	59	4	5	0	269
2	Light Truck	Common Carrier Vehicle Within City or Mun. Light	2019	194	58	4	6	0	261
2	Light Truck	Common Carrier Vehicle Within City or Mun. Light	2020	193	60	3	7	0	263
2	Light Truck	Common Carrier Vehicle Within City or Mun. Light	2021	189	56	2	7	0	254
2	Light Truck	Common Carrier Vehicle Within City or Mun. Light	Total	1,004	291	21	31	0	1,347
2	Heavy Truck	Common Carrier Vehicle Within City or Mun. Heavy	2017	495	84	1	6	0	587
2	Heavy Truck	Common Carrier Vehicle Within City or Mun. Heavy	2018	475	87	0	3	0	565
2	Heavy Truck	Common Carrier Vehicle Within City or Mun. Heavy	2019	494	87	1	2	0	584
2	Heavy Truck	Common Carrier Vehicle Within City or Mun. Heavy	2020	526	86	2	4	0	619
2	Heavy Truck	Common Carrier Vehicle Within City or Mun. Heavy	2021	502	85	2	3	0	592
2	Heavy Truck	Common Carrier Vehicle Within City or Mun. Heavy	Total	2,492	428	7	18	0	2,946
2	Passenger Vehicle	Common Carrier Passenger Vehicle < 161 km in Manitoba	2017	29	16	0	0	0	45
2	Passenger Vehicle	Common Carrier Passenger Vehicle < 161 km in Manitoba	2018	31	15	0	0	0	46
2	Passenger Vehicle	Common Carrier Passenger Vehicle < 161 km in Manitoba	2019	38	22	0	0	0	60
2	Passenger Vehicle	Common Carrier Passenger Vehicle < 161 km in Manitoba	2020	65	37	0	0	0	101
2	Passenger Vehicle	Common Carrier Passenger Vehicle < 161 km in Manitoba	2021	95	46	0	0	0	141
2	Passenger Vehicle	Common Carrier Passenger Vehicle < 161 km in Manitoba	Total	258	136	0	0	0	394
2	Light Truck	Common Carrier Truck < 161 km in Manitoba Light	2017	85	100	1	3	0	188
2	Light Truck	Common Carrier Truck < 161 km in Manitoba Light	2018	93	99	0	2	0	194
2	Light Truck	Common Carrier Truck < 161 km in Manitoba Light	2019	92	109	0	3	0	204
2	Light Truck	Common Carrier Truck < 161 km in Manitoba Light	2020	121	130	0	1	0	252
2	Light Truck	Common Carrier Truck < 161 km in Manitoba Light	2021	121	145	1	1	0	268
2	Light Truck	Common Carrier Truck < 161 km in Manitoba Light	Total	511	584	1	10	0	1,106

Table 11a
Earned Units (Including Vehicle Type)

Major Class	Vehicle Type	Use	Loss Year	Territory					Total
				1	2	3	4	5	
2	Heavy Truck	Common Carrier Truck < 161 km in Manitoba Heavy	2017	553	423	0	10	0	986
2	Heavy Truck	Common Carrier Truck < 161 km in Manitoba Heavy	2018	576	421	1	13	0	1,011
2	Heavy Truck	Common Carrier Truck < 161 km in Manitoba Heavy	2019	582	390	1	6	0	979
2	Heavy Truck	Common Carrier Truck < 161 km in Manitoba Heavy	2020	660	399	0	5	0	1,063
2	Heavy Truck	Common Carrier Truck < 161 km in Manitoba Heavy	2021	682	412	0	5	0	1,099
2	Heavy Truck	Common Carrier Truck < 161 km in Manitoba Heavy	Total	3,052	2,045	2	39	0	5,139
2	Passenger Vehicle	Common Carrier Passenger Vehicle > 161 km in Manitoba	2017	4	7	0	0	0	11
2	Passenger Vehicle	Common Carrier Passenger Vehicle > 161 km in Manitoba	2018	4	7	1	1	0	13
2	Passenger Vehicle	Common Carrier Passenger Vehicle > 161 km in Manitoba	2019	4	10	2	2	0	18
2	Passenger Vehicle	Common Carrier Passenger Vehicle > 161 km in Manitoba	2020	3	14	3	1	0	21
2	Passenger Vehicle	Common Carrier Passenger Vehicle > 161 km in Manitoba	2021	5	19	1	1	0	25
2	Passenger Vehicle	Common Carrier Passenger Vehicle > 161 km in Manitoba	Total	20	57	6	4	0	87
2	Light Truck	Common Carrier Truck > 161 km in Manitoba Light	2017	42	47	0	0	0	89
2	Light Truck	Common Carrier Truck > 161 km in Manitoba Light	2018	40	43	1	1	0	85
2	Light Truck	Common Carrier Truck > 161 km in Manitoba Light	2019	44	37	0	2	0	83
2	Light Truck	Common Carrier Truck > 161 km in Manitoba Light	2020	55	49	0	3	0	108
2	Light Truck	Common Carrier Truck > 161 km in Manitoba Light	2021	64	48	1	2	0	115
2	Light Truck	Common Carrier Truck > 161 km in Manitoba Light	Total	245	224	2	8	0	480
2	Heavy Truck	Common Carrier Truck > 161 km in Manitoba Heavy	2017	381	435	11	22	0	850
2	Heavy Truck	Common Carrier Truck > 161 km in Manitoba Heavy	2018	386	473	14	23	0	896
2	Heavy Truck	Common Carrier Truck > 161 km in Manitoba Heavy	2019	408	421	8	20	0	856
2	Heavy Truck	Common Carrier Truck > 161 km in Manitoba Heavy	2020	479	429	9	17	0	934
2	Heavy Truck	Common Carrier Truck > 161 km in Manitoba Heavy	2021	484	429	9	17	0	938
2	Heavy Truck	Common Carrier Truck > 161 km in Manitoba Heavy	Total	2,138	2,186	52	99	0	4,475
2	Other	Dealer All Uses except Motorcycles	2017	2,341	2,220	32	51	0	4,643
2	Other	Dealer All Uses except Motorcycles	2018	2,343	2,185	33	52	0	4,613
2	Other	Dealer All Uses except Motorcycles	2019	2,323	2,165	31	59	0	4,577
2	Other	Dealer All Uses except Motorcycles	2020	2,455	2,216	29	62	0	4,762
2	Other	Dealer All Uses except Motorcycles	2021	2,371	2,020	30	58	0	4,479
2	Other	Dealer All Uses except Motorcycles	Total	11,832	10,806	154	283	0	23,075
2	Other	Dealer Moped	2017	0	2	0	0	0	2
2	Other	Dealer Moped	2018	0	0	0	0	0	0
2	Other	Dealer Moped	2019	1	0	0	0	0	1
2	Other	Dealer Moped	2020	1	0	0	0	0	1
2	Other	Dealer Moped	2021	1	0	0	0	0	1
2	Other	Dealer Moped	Total	3	2	0	0	0	5
2	Other	Dealer Motorcycle	2017	129	162	0	2	0	294
2	Other	Dealer Motorcycle	2018	119	151	0	2	0	272
2	Other	Dealer Motorcycle	2019	125	141	0	1	0	268
2	Other	Dealer Motorcycle	2020	122	155	0	2	0	279
2	Other	Dealer Motorcycle	2021	109	148	0	2	0	258
2	Other	Dealer Motorcycle	Total	605	758	0	10	0	1,372
2	Other	Dealer Trailer	2017	64	126	5	2	0	197
2	Other	Dealer Trailer	2018	73	125	4	2	0	204
2	Other	Dealer Trailer	2019	73	127	3	3	0	206
2	Other	Dealer Trailer	2020	73	138	5	4	0	221
2	Other	Dealer Trailer	2021	71	125	5	4	0	205
2	Other	Dealer Trailer	Total	354	641	22	16	0	1,033
2	Other	Driveaway Within Manitoba	2017	0	4	0	0	0	4
2	Other	Driveaway Within Manitoba	2018	0	4	0	0	0	4
2	Other	Driveaway Within Manitoba	2019	0	3	0	0	0	3
2	Other	Driveaway Within Manitoba	2020	0	5	0	0	0	5
2	Other	Driveaway Within Manitoba	2021	0	3	0	0	0	3
2	Other	Driveaway Within Manitoba	Total	0	19	0	0	0	19

Table 11a
Earned Units (Including Vehicle Type)

Major Class	Vehicle Type	Use	Loss Year	Territory					Total
				1	2	3	4	5	
2	Other	Driveaway > 161 km Outside Manitoba	2017	11	23	0	0	0	34
2	Other	Driveaway > 161 km Outside Manitoba	2018	14	29	0	0	0	43
2	Other	Driveaway > 161 km Outside Manitoba	2019	12	32	0	0	0	44
2	Other	Driveaway > 161 km Outside Manitoba	2020	12	31	0	0	0	43
2	Other	Driveaway > 161 km Outside Manitoba	2021	13	53	0	0	0	66
2	Other	Driveaway > 161 km Outside Manitoba	Total	62	169	0	0	0	231
2	Light Truck	Farming All Purpose Truck 4541 kg or more Light	2017	0	0	0	0	0	0
2	Light Truck	Farming All Purpose Truck 4541 kg or more Light	2018	0	0	0	0	0	0
2	Light Truck	Farming All Purpose Truck 4541 kg or more Light	2019	0	0	0	0	0	0
2	Light Truck	Farming All Purpose Truck 4541 kg or more Light	2020	0	0	0	0	0	0
2	Light Truck	Farming All Purpose Truck 4541 kg or more Light	2021	0	0	0	0	0	0
2	Light Truck	Farming All Purpose Truck 4541 kg or more Light	Total	0	0	0	0	0	0
2	Heavy Truck	Farming All Purpose Truck 4541 kg or more Heavy	2017	78	14,673	0	50	0	14,801
2	Heavy Truck	Farming All Purpose Truck 4541 kg or more Heavy	2018	79	14,620	0	53	0	14,752
2	Heavy Truck	Farming All Purpose Truck 4541 kg or more Heavy	2019	81	14,694	0	53	0	14,828
2	Heavy Truck	Farming All Purpose Truck 4541 kg or more Heavy	2020	89	15,907	0	55	0	16,052
2	Heavy Truck	Farming All Purpose Truck 4541 kg or more Heavy	2021	73	15,057	0	53	0	15,183
2	Heavy Truck	Farming All Purpose Truck 4541 kg or more Heavy	Total	399	74,952	0	265	0	75,616
2	Heavy Truck	Fishing All Purpose Truck 4541 kg or more	2017	0	4	0	0	0	4
2	Heavy Truck	Fishing All Purpose Truck 4541 kg or more	2018	0	2	0	0	0	2
2	Heavy Truck	Fishing All Purpose Truck 4541 kg or more	2019	0	1	0	0	0	1
2	Heavy Truck	Fishing All Purpose Truck 4541 kg or more	2020	0	2	0	0	0	2
2	Heavy Truck	Fishing All Purpose Truck 4541 kg or more	2021	0	2	0	0	0	2
2	Heavy Truck	Fishing All Purpose Truck 4541 kg or more	Total	0	12	0	0	0	12
2	Light Truck	Logging Truck Light	2017	0	2	0	0	0	2
2	Light Truck	Logging Truck Light	2018	0	1	0	0	0	1
2	Light Truck	Logging Truck Light	2019	0	1	0	0	0	1
2	Light Truck	Logging Truck Light	2020	0	1	0	0	0	1
2	Light Truck	Logging Truck Light	2021	0	1	0	0	0	1
2	Light Truck	Logging Truck Light	Total	0	6	0	0	0	6
2	Heavy Truck	Logging Truck Heavy	2017	0	132	0	24	0	155
2	Heavy Truck	Logging Truck Heavy	2018	0	136	0	25	0	161
2	Heavy Truck	Logging Truck Heavy	2019	0	144	0	22	0	166
2	Heavy Truck	Logging Truck Heavy	2020	0	169	0	23	0	192
2	Heavy Truck	Logging Truck Heavy	2021	1	146	0	25	0	172
2	Heavy Truck	Logging Truck Heavy	Total	1	727	0	119	0	846
2	Light Truck	Other Truck Light	2017	51	124	4	1	10	189
2	Light Truck	Other Truck Light	2018	44	117	3	0	13	177
2	Light Truck	Other Truck Light	2019	38	110	2	0	13	162
2	Light Truck	Other Truck Light	2020	36	111	1	0	16	163
2	Light Truck	Other Truck Light	2021	33	91	1	0	13	138
2	Light Truck	Other Truck Light	Total	202	552	10	1	64	829
2	Heavy Truck	Other Truck Heavy	2017	5,410	7,125	411	424	901	14,271
2	Heavy Truck	Other Truck Heavy	2018	5,470	7,273	421	441	1,010	14,616
2	Heavy Truck	Other Truck Heavy	2019	5,537	7,321	425	459	1,096	14,839
2	Heavy Truck	Other Truck Heavy	2020	6,078	8,017	468	533	1,270	16,366
2	Heavy Truck	Other Truck Heavy	2021	5,938	7,858	430	519	1,288	16,033
2	Heavy Truck	Other Truck Heavy	Total	28,434	37,595	2,155	2,376	5,565	76,125
2	Light Truck	Petroleum/Chemical Truck Light	2017	2	239	0	1	0	242
2	Light Truck	Petroleum/Chemical Truck Light	2018	3	204	0	1	0	208
2	Light Truck	Petroleum/Chemical Truck Light	2019	3	165	0	0	0	168
2	Light Truck	Petroleum/Chemical Truck Light	2020	4	183	0	0	0	187
2	Light Truck	Petroleum/Chemical Truck Light	2021	3	165	0	1	0	169
2	Light Truck	Petroleum/Chemical Truck Light	Total	15	957	0	3	0	975

Table 11a
Earned Units (Including Vehicle Type)

Major Class	Vehicle Type	Use	Loss Year	Territory					Total
				1	2	3	4	5	
2	Heavy Truck	Petroleum/Chemical Truck Heavy	2017	96	528	27	21	0	671
2	Heavy Truck	Petroleum/Chemical Truck Heavy	2018	91	523	27	22	0	663
2	Heavy Truck	Petroleum/Chemical Truck Heavy	2019	90	524	26	21	0	661
2	Heavy Truck	Petroleum/Chemical Truck Heavy	2020	106	558	24	23	0	710
2	Heavy Truck	Petroleum/Chemical Truck Heavy	2021	102	524	20	21	0	668
2	Heavy Truck	Petroleum/Chemical Truck Heavy	Total	485	2,657	124	108	0	3,374
2	Other	Repairer	2017	656	698	18	18	0	1,390
2	Other	Repairer	2018	656	695	18	17	0	1,386
2	Other	Repairer	2019	656	687	19	18	0	1,379
2	Other	Repairer	2020	728	748	20	21	0	1,517
2	Other	Repairer	2021	692	708	20	22	0	1,442
2	Other	Repairer	Total	3,387	3,537	94	97	0	7,115
2	Light Truck	Sand/Gravel Truck Light	2017	0	0	0	0	0	0
2	Light Truck	Sand/Gravel Truck Light	2018	0	0	0	0	0	0
2	Light Truck	Sand/Gravel Truck Light	2019	0	0	0	0	0	0
2	Light Truck	Sand/Gravel Truck Light	2020	0	0	0	0	0	0
2	Light Truck	Sand/Gravel Truck Light	2021	0	0	0	0	0	0
2	Light Truck	Sand/Gravel Truck Light	Total	0	0	0	0	0	0
2	Heavy Truck	Sand/Gravel Truck Heavy	2017	466	1,924	29	67	0	2,486
2	Heavy Truck	Sand/Gravel Truck Heavy	2018	465	1,866	27	71	0	2,429
2	Heavy Truck	Sand/Gravel Truck Heavy	2019	466	1,863	24	64	0	2,418
2	Heavy Truck	Sand/Gravel Truck Heavy	2020	506	1,965	30	64	0	2,564
2	Heavy Truck	Sand/Gravel Truck Heavy	2021	506	1,887	27	60	0	2,479
2	Heavy Truck	Sand/Gravel Truck Heavy	Total	2,409	9,504	137	325	0	12,376
2	Light Truck	Tow Truck Light	2017	15	25	1	0	0	41
2	Light Truck	Tow Truck Light	2018	10	22	1	0	0	33
2	Light Truck	Tow Truck Light	2019	5	20	1	0	0	26
2	Light Truck	Tow Truck Light	2020	6	20	1	0	0	27
2	Light Truck	Tow Truck Light	2021	6	17	1	0	0	24
2	Light Truck	Tow Truck Light	Total	42	104	5	0	0	151
2	Heavy Truck	Tow Truck Heavy	2017	191	298	9	15	0	513
2	Heavy Truck	Tow Truck Heavy	2018	197	282	9	15	0	503
2	Heavy Truck	Tow Truck Heavy	2019	199	271	8	11	0	489
2	Heavy Truck	Tow Truck Heavy	2020	228	289	11	14	0	542
2	Heavy Truck	Tow Truck Heavy	2021	216	276	11	13	0	516
2	Heavy Truck	Tow Truck Heavy	Total	1,031	1,416	48	68	0	2,563
2		Major Class Total	2017	12,345	30,388	591	751	944	45,020
2		Major Class Total	2018	12,432	30,329	600	776	1,055	45,192
2		Major Class Total	2019	12,574	30,258	587	781	1,141	45,341
2		Major Class Total	2020	13,894	32,665	645	878	1,319	49,402
2		Major Class Total	2021	13,667	31,263	608	851	1,336	47,725
2		Major Class Total	Total	64,913	154,903	3,031	4,037	5,796	232,680

Table 11a
Earned Units (Including Vehicle Type)

Major Class	Vehicle Type	Use	Loss Year	Territory					Total
				1	2	3	4	5	
3	Bus	Charter Bus Local	2017	51	3	0	6	0	60
3	Bus	Charter Bus Local	2018	34	3	0	7	0	44
3	Bus	Charter Bus Local	2019	56	6	1	7	0	69
3	Bus	Charter Bus Local	2020	47	5	1	7	0	60
3	Bus	Charter Bus Local	2021	38	3	1	8	0	51
3	Bus	Charter Bus Local	Total	227	20	3	34	0	284
3	Bus	Common Carrier Bus Within Manitoba	2017	55	30	0	8	0	93
3	Bus	Common Carrier Bus Within Manitoba	2018	75	36	3	7	0	122
3	Bus	Common Carrier Bus Within Manitoba	2019	99	39	9	10	0	157
3	Bus	Common Carrier Bus Within Manitoba	2020	52	32	8	13	0	105
3	Bus	Common Carrier Bus Within Manitoba	2021	53	33	4	9	0	99
3	Bus	Common Carrier Bus Within Manitoba	Total	334	171	24	48	0	576
3	Bus	Common Carrier Bus > 161 km Outside Manitoba	2017	70	31	0	5	0	106
3	Bus	Common Carrier Bus > 161 km Outside Manitoba	2018	76	28	0	5	0	109
3	Bus	Common Carrier Bus > 161 km Outside Manitoba	2019	50	30	0	9	0	88
3	Bus	Common Carrier Bus > 161 km Outside Manitoba	2020	19	20	0	10	0	49
3	Bus	Common Carrier Bus > 161 km Outside Manitoba	2021	21	22	3	8	0	54
3	Bus	Common Carrier Bus > 161 km Outside Manitoba	Total	236	130	3	37	0	407
3	Passenger Vehicle	Funeral Passenger Vehicle	2017	52	82	1	5	0	140
3	Passenger Vehicle	Funeral Passenger Vehicle	2018	46	80	1	5	0	131
3	Passenger Vehicle	Funeral Passenger Vehicle	2019	41	82	1	6	0	130
3	Passenger Vehicle	Funeral Passenger Vehicle	2020	44	89	1	7	0	141
3	Passenger Vehicle	Funeral Passenger Vehicle	2021	42	84	1	6	0	133
3	Passenger Vehicle	Funeral Passenger Vehicle	Total	225	417	5	28	0	675
3	Passenger Vehicle	Limousine Vehicle-for-Hire	2017	98	23	1	0	0	122
3	Passenger Vehicle	Limousine Vehicle-for-Hire	2018	72	22	1	0	0	95
3	Passenger Vehicle	Limousine Vehicle-for-Hire	2019	60	15	1	0	0	76
3	Passenger Vehicle	Limousine Vehicle-for-Hire	2020	28	12	0	0	0	40
3	Passenger Vehicle	Limousine Vehicle-for-Hire	2021	33	9	0	0	0	42
3	Passenger Vehicle	Limousine Vehicle-for-Hire	Total	291	82	3	0	0	375
3	Passenger Vehicle	Police/Emergency Passenger Vehicle	2017	390	270	16	21	0	696
3	Passenger Vehicle	Police/Emergency Passenger Vehicle	2018	384	257	17	21	0	678
3	Passenger Vehicle	Police/Emergency Passenger Vehicle	2019	386	247	16	21	0	669
3	Passenger Vehicle	Police/Emergency Passenger Vehicle	2020	429	251	18	20	0	718
3	Passenger Vehicle	Police/Emergency Passenger Vehicle	2021	421	218	16	20	0	674
3	Passenger Vehicle	Police/Emergency Passenger Vehicle	Total	2,009	1,241	83	102	0	3,435
3	Light Truck	Police/Emergency Truck Light	2017	35	44	14	11	0	104
3	Light Truck	Police/Emergency Truck Light	2018	34	41	14	10	0	98
3	Light Truck	Police/Emergency Truck Light	2019	36	45	11	11	0	103
3	Light Truck	Police/Emergency Truck Light	2020	39	54	9	13	0	114
3	Light Truck	Police/Emergency Truck Light	2021	38	57	7	15	0	118
3	Light Truck	Police/Emergency Truck Light	Total	183	240	55	59	0	537
3	Heavy Truck	Police/Emergency Truck Heavy	2017	6	2	2	0	0	10
3	Heavy Truck	Police/Emergency Truck Heavy	2018	6	4	4	0	0	13
3	Heavy Truck	Police/Emergency Truck Heavy	2019	6	5	3	0	0	14
3	Heavy Truck	Police/Emergency Truck Heavy	2020	6	5	3	1	0	15
3	Heavy Truck	Police/Emergency Truck Heavy	2021	6	5	3	1	0	15
3	Heavy Truck	Police/Emergency Truck Heavy	Total	30	21	14	2	0	68
3	Bus	School Bus Local	2017	653	1,588	51	159	0	2,451
3	Bus	School Bus Local	2018	665	1,602	58	159	0	2,484
3	Bus	School Bus Local	2019	692	1,631	59	166	0	2,547
3	Bus	School Bus Local	2020	677	1,707	67	203	0	2,654
3	Bus	School Bus Local	2021	747	1,653	61	184	0	2,645
3	Bus	School Bus Local	Total	3,434	8,181	295	870	0	12,781

Table 11a
Earned Units (Including Vehicle Type)

Major Class	Vehicle Type	Use	Loss Year	Territory					Total
				1	2	3	4	5	
3	Passenger Vehicle	Taxicab Vehicle-for-Hire	2017	489	152	51	26	0	719
3	Passenger Vehicle	Taxicab Vehicle-for-Hire	2018	464	112	49	12	0	637
3	Passenger Vehicle	Taxicab Vehicle-for-Hire	2019	471	102	45	8	0	626
3	Passenger Vehicle	Taxicab Vehicle-for-Hire	2020	476	106	47	6	0	634
3	Passenger Vehicle	Taxicab Vehicle-for-Hire	2021	470	109	46	5	0	629
3	Passenger Vehicle	Taxicab Vehicle-for-Hire	Total	2,371	581	237	57	0	3,245
3	Bus	Transit Bus Local	2017	644	47	2	3	0	695
3	Bus	Transit Bus Local	2018	633	45	3	2	0	683
3	Bus	Transit Bus Local	2019	642	41	3	2	0	689
3	Bus	Transit Bus Local	2020	707	42	3	2	0	754
3	Bus	Transit Bus Local	2021	660	41	7	2	0	710
3	Bus	Transit Bus Local	Total	3,286	216	18	11	0	3,531
3	Bus	U-Drive Bus	2017	15	18	1	0	0	33
3	Bus	U-Drive Bus	2018	19	19	0	0	0	39
3	Bus	U-Drive Bus	2019	22	19	0	0	0	41
3	Bus	U-Drive Bus	2020	13	17	0	0	0	30
3	Bus	U-Drive Bus	2021	18	13	0	0	0	31
3	Bus	U-Drive Bus	Total	88	85	1	0	0	174
3	Motorcycle	U-Drive Moped	2017	1	0	0	0	0	1
3	Motorcycle	U-Drive Moped	2018	0	0	0	0	0	0
3	Motorcycle	U-Drive Moped	2019	0	0	0	0	0	0
3	Motorcycle	U-Drive Moped	2020	0	0	0	0	0	0
3	Motorcycle	U-Drive Moped	2021	0	0	0	0	0	0
3	Motorcycle	U-Drive Moped	Total	1	0	0	0	0	1
3	Motorhome	U-Drive Motorhome	2017	11	13	0	0	0	24
3	Motorhome	U-Drive Motorhome	2018	10	15	0	0	0	25
3	Motorhome	U-Drive Motorhome	2019	9	15	0	0	0	24
3	Motorhome	U-Drive Motorhome	2020	8	15	0	0	0	22
3	Motorhome	U-Drive Motorhome	2021	6	17	0	0	0	23
3	Motorhome	U-Drive Motorhome	Total	43	75	0	0	0	118
3	Passenger Vehicle	U-Drive Passenger Vehicle	2017	4,928	853	74	73	0	5,927
3	Passenger Vehicle	U-Drive Passenger Vehicle	2018	4,909	868	73	73	0	5,923
3	Passenger Vehicle	U-Drive Passenger Vehicle	2019	4,868	836	75	79	0	5,858
3	Passenger Vehicle	U-Drive Passenger Vehicle	2020	3,854	850	80	49	0	4,832
3	Passenger Vehicle	U-Drive Passenger Vehicle	2021	3,488	747	66	59	0	4,359
3	Passenger Vehicle	U-Drive Passenger Vehicle	Total	22,047	4,153	367	332	0	26,899
3	Light Truck	U-Drive Truck Light	2017	861	199	96	28	0	1,185
3	Light Truck	U-Drive Truck Light	2018	833	221	94	36	0	1,183
3	Light Truck	U-Drive Truck Light	2019	854	219	77	40	0	1,190
3	Light Truck	U-Drive Truck Light	2020	736	201	64	27	0	1,028
3	Light Truck	U-Drive Truck Light	2021	692	153	62	23	0	931
3	Light Truck	U-Drive Truck Light	Total	3,976	992	394	155	0	5,517
3	Heavy Truck	U-Drive Truck Heavy	2017	348	37	1	1	0	387
3	Heavy Truck	U-Drive Truck Heavy	2018	343	39	1	1	0	384
3	Heavy Truck	U-Drive Truck Heavy	2019	374	40	0	1	0	416
3	Heavy Truck	U-Drive Truck Heavy	2020	383	50	0	1	0	434
3	Heavy Truck	U-Drive Truck Heavy	2021	380	42	0	0	0	422
3	Heavy Truck	U-Drive Truck Heavy	Total	1,829	208	3	3	0	2,042
3	Bus	Accessible Vehicle-for-Hire	2017	108	0	0	0	0	108
3	Bus	Accessible Vehicle-for-Hire	2018	157	6	0	2	0	166
3	Bus	Accessible Vehicle-for-Hire	2019	188	11	1	3	0	202
3	Bus	Accessible Vehicle-for-Hire	2020	177	10	1	2	0	190
3	Bus	Accessible Vehicle-for-Hire	2021	166	9	0	1	0	177
3	Bus	Accessible Vehicle-for-Hire	Total	797	36	2	8	0	843

Table 11a
Earned Units (Including Vehicle Type)

Major Class	Vehicle Type	Use	Loss Year	Territory					Total
				1	2	3	4	5	
3		Major Class Total	2017	8,815	3,390	309	346	0	12,861
3		Major Class Total	2018	8,763	3,396	317	340	0	12,816
3		Major Class Total	2019	8,853	3,382	303	361	0	12,899
3		Major Class Total	2020	7,695	3,465	303	359	0	11,822
3		Major Class Total	2021	7,280	3,216	276	340	0	11,112
3		Major Class Total	Total	41,405	16,849	1,508	1,747	0	61,509

Table 11a
Earned Units (Including Vehicle Type)

Major Class	Vehicle Type	Use	Loss Year	Territory					Total
				1	2	3	4	5	
4	Motorcycle	All Purpose Moped	2017	441	158	6	3	0	608
4	Motorcycle	All Purpose Moped	2018	422	140	3	4	0	569
4	Motorcycle	All Purpose Moped	2019	370	135	2	3	0	510
4	Motorcycle	All Purpose Moped	2020	307	107	4	3	0	422
4	Motorcycle	All Purpose Moped	2021	285	122	3	4	0	414
4	Motorcycle	All Purpose Moped	Total	1,825	661	19	17	0	2,522
4	Motorcycle	All Purpose Motorcycle (Moterscooter Body Style)	2017	151	25	2	4	6	188
4	Motorcycle	All Purpose Motorcycle (Moterscooter Body Style)	2018	145	29	1	5	4	184
4	Motorcycle	All Purpose Motorcycle (Moterscooter Body Style)	2019	132	25	4	4	3	167
4	Motorcycle	All Purpose Motorcycle (Moterscooter Body Style)	2020	102	24	2	3	3	135
4	Motorcycle	All Purpose Motorcycle (Moterscooter Body Style)	2021	96	25	1	1	3	126
4	Motorcycle	All Purpose Motorcycle (Moterscooter Body Style)	Total	625	128	10	18	20	800
4	Motorcycle	All Purpose Motorcycle (Other Body Style)	2017	553	265	31	13	87	949
4	Motorcycle	All Purpose Motorcycle (Other Body Style)	2018	507	248	28	13	77	873
4	Motorcycle	All Purpose Motorcycle (Other Body Style)	2019	447	221	28	10	72	777
4	Motorcycle	All Purpose Motorcycle (Other Body Style)	2020	345	208	32	13	58	655
4	Motorcycle	All Purpose Motorcycle (Other Body Style)	2021	389	247	34	17	57	745
4	Motorcycle	All Purpose Motorcycle (Other Body Style)	Total	2,241	1,190	153	66	351	4,000
4	Motorcycle	All Purpose Motorcycle (Sport Body Style)	2017	119	37	3	0	12	172
4	Motorcycle	All Purpose Motorcycle (Sport Body Style)	2018	101	32	5	0	10	148
4	Motorcycle	All Purpose Motorcycle (Sport Body Style)	2019	84	33	7	0	10	134
4	Motorcycle	All Purpose Motorcycle (Sport Body Style)	2020	66	29	4	0	7	107
4	Motorcycle	All Purpose Motorcycle (Sport Body Style)	2021	67	39	6	1	10	122
4	Motorcycle	All Purpose Motorcycle (Sport Body Style)	Total	437	171	24	1	50	683
4	Motorcycle	All Purpose Motorcycle (Sport-Touring Body Style)	2017	49	19	0	1	9	77
4	Motorcycle	All Purpose Motorcycle (Sport-Touring Body Style)	2018	51	23	1	1	13	89
4	Motorcycle	All Purpose Motorcycle (Sport-Touring Body Style)	2019	52	36	1	1	19	109
4	Motorcycle	All Purpose Motorcycle (Sport-Touring Body Style)	2020	45	40	1	1	13	100
4	Motorcycle	All Purpose Motorcycle (Sport-Touring Body Style)	2021	49	39	1	1	18	107
4	Motorcycle	All Purpose Motorcycle (Sport-Touring Body Style)	Total	245	157	4	5	72	482
4	Motorcycle	All Purpose Motorcycle (Touring Body Style)	2017	282	154	16	12	48	511
4	Motorcycle	All Purpose Motorcycle (Touring Body Style)	2018	261	139	13	14	50	478
4	Motorcycle	All Purpose Motorcycle (Touring Body Style)	2019	236	132	13	14	47	443
4	Motorcycle	All Purpose Motorcycle (Touring Body Style)	2020	196	129	12	13	39	390
4	Motorcycle	All Purpose Motorcycle (Touring Body Style)	2021	198	137	11	11	47	404
4	Motorcycle	All Purpose Motorcycle (Touring Body Style)	Total	1,173	692	65	65	231	2,226
4	Motorcycle	Pleasure Moped	2017	646	391	7	5	0	1,050
4	Motorcycle	Pleasure Moped	2018	646	389	7	4	0	1,046
4	Motorcycle	Pleasure Moped	2019	623	379	7	3	0	1,012
4	Motorcycle	Pleasure Moped	2020	690	408	6	4	0	1,109
4	Motorcycle	Pleasure Moped	2021	730	412	6	5	0	1,154
4	Motorcycle	Pleasure Moped	Total	3,335	1,980	34	22	0	5,371
4	Motorcycle	Pleasure Motorcycle (Moterscooter Body Style)	2017	222	144	3	7	0	376
4	Motorcycle	Pleasure Motorcycle (Moterscooter Body Style)	2018	219	150	3	8	0	381
4	Motorcycle	Pleasure Motorcycle (Moterscooter Body Style)	2019	210	128	2	7	0	347
4	Motorcycle	Pleasure Motorcycle (Moterscooter Body Style)	2020	216	135	1	8	0	359
4	Motorcycle	Pleasure Motorcycle (Moterscooter Body Style)	2021	224	134	1	10	0	369
4	Motorcycle	Pleasure Motorcycle (Moterscooter Body Style)	Total	1,091	691	10	40	0	1,832
4	Motorcycle	Pleasure Motorcycle (Other Body Style)	2017	2,783	3,627	104	146	0	6,659
4	Motorcycle	Pleasure Motorcycle (Other Body Style)	2018	2,897	3,752	106	153	0	6,909
4	Motorcycle	Pleasure Motorcycle (Other Body Style)	2019	2,857	3,774	99	154	0	6,884
4	Motorcycle	Pleasure Motorcycle (Other Body Style)	2020	2,997	3,845	93	146	0	7,081
4	Motorcycle	Pleasure Motorcycle (Other Body Style)	2021	3,278	4,149	101	149	0	7,677
4	Motorcycle	Pleasure Motorcycle (Other Body Style)	Total	14,813	19,147	503	748	0	35,210

Table 11a
Earned Units (Including Vehicle Type)

Major Class	Vehicle Type	Use	Loss Year	Territory					Total
				1	2	3	4	5	
4	Motorcycle	Pleasure Motorcycle (Sport Body Style)	2017	647	452	13	12	0	1,124
4	Motorcycle	Pleasure Motorcycle (Sport Body Style)	2018	697	463	10	19	0	1,188
4	Motorcycle	Pleasure Motorcycle (Sport Body Style)	2019	644	468	14	17	0	1,144
4	Motorcycle	Pleasure Motorcycle (Sport Body Style)	2020	664	479	15	17	0	1,174
4	Motorcycle	Pleasure Motorcycle (Sport Body Style)	2021	777	543	14	18	0	1,352
4	Motorcycle	Pleasure Motorcycle (Sport Body Style)	Total	3,429	2,405	66	83	0	5,983
4	Motorcycle	Pleasure Motorcycle (Sport-Touring Body Style)	2017	211	217	7	5	0	440
4	Motorcycle	Pleasure Motorcycle (Sport-Touring Body Style)	2018	239	252	5	8	0	505
4	Motorcycle	Pleasure Motorcycle (Sport-Touring Body Style)	2019	290	303	9	9	0	611
4	Motorcycle	Pleasure Motorcycle (Sport-Touring Body Style)	2020	357	362	6	9	0	734
4	Motorcycle	Pleasure Motorcycle (Sport-Touring Body Style)	2021	414	460	8	10	0	891
4	Motorcycle	Pleasure Motorcycle (Sport-Touring Body Style)	Total	1,510	1,594	35	42	0	3,180
4	Motorcycle	Pleasure Motorcycle (Touring Body Style)	2017	1,468	2,893	84	104	0	4,549
4	Motorcycle	Pleasure Motorcycle (Touring Body Style)	2018	1,578	3,074	83	107	0	4,842
4	Motorcycle	Pleasure Motorcycle (Touring Body Style)	2019	1,624	3,252	77	109	0	5,062
4	Motorcycle	Pleasure Motorcycle (Touring Body Style)	2020	1,725	3,312	75	107	0	5,218
4	Motorcycle	Pleasure Motorcycle (Touring Body Style)	2021	1,795	3,592	86	115	0	5,589
4	Motorcycle	Pleasure Motorcycle (Touring Body Style)	Total	8,190	16,123	405	542	0	25,260
4		Major Class Total	2017	7,571	8,383	277	312	163	16,705
4		Major Class Total	2018	7,764	8,690	266	338	154	17,212
4		Major Class Total	2019	7,568	8,887	261	332	152	17,199
4		Major Class Total	2020	7,709	9,079	251	325	121	17,484
4		Major Class Total	2021	8,300	9,899	272	343	134	18,949
4		Major Class Total	Total	38,912	44,937	1,327	1,649	723	87,549

Table 11a
Earned Units (Including Vehicle Type)

Major Class	Vehicle Type	Use	Loss Year	Territory					Total
				1	2	3	4	5	
5	Trailer	All Purpose Trailer \$2500 or less	2017	35,422	65,058	2,019	3,686	0	106,185
5	Trailer	All Purpose Trailer \$2500 or less	2018	35,402	65,653	1,950	3,679	0	106,684
5	Trailer	All Purpose Trailer \$2500 or less	2019	35,158	66,175	1,872	3,731	0	106,936
5	Trailer	All Purpose Trailer \$2500 or less	2020	38,269	73,385	2,032	4,079	0	117,765
5	Trailer	All Purpose Trailer \$2500 or less	2021	36,042	69,983	1,851	3,860	0	111,736
5	Trailer	All Purpose Trailer \$2500 or less	Total	180,293	340,254	9,723	19,035	0	549,305
5	Trailer	All Purpose Trailer \$2501 or more	2017	23,739	64,677	1,406	2,354	0	92,176
5	Trailer	All Purpose Trailer \$2501 or more	2018	24,629	67,417	1,430	2,466	0	95,941
5	Trailer	All Purpose Trailer \$2501 or more	2019	25,469	69,993	1,489	2,590	0	99,540
5	Trailer	All Purpose Trailer \$2501 or more	2020	28,986	79,410	1,682	2,998	0	113,077
5	Trailer	All Purpose Trailer \$2501 or more	2021	29,259	79,552	1,642	3,124	0	113,577
5	Trailer	All Purpose Trailer \$2501 or more	Total	132,082	361,050	7,648	13,531	0	514,311
5		Major Class Total	2017	59,162	129,735	3,424	6,040	0	198,361
5		Major Class Total	2018	60,031	133,070	3,380	6,144	0	202,625
5		Major Class Total	2019	60,626	136,168	3,360	6,321	0	206,476
5		Major Class Total	2020	67,255	152,795	3,714	7,078	0	230,842
5		Major Class Total	2021	65,301	149,535	3,493	6,984	0	225,312
5		Major Class Total	Total	312,375	701,304	17,372	32,566	0	1,063,616

Table 11a
Earned Units (Including Vehicle Type)

Major Class	Vehicle Type	Use	Loss Year	Territory					Total
				1	2	3	4	5	
6	Off-Road Vehicle	Off Road Vehicle All Purpose	2017	16,103	52,271	1,763	2,716	1	72,854
6	Off-Road Vehicle	Off Road Vehicle All Purpose	2018	16,197	53,104	1,738	2,806	6	73,852
6	Off-Road Vehicle	Off Road Vehicle All Purpose	2019	16,183	54,331	1,733	2,889	3	75,139
6	Off-Road Vehicle	Off Road Vehicle All Purpose	2020	18,030	61,247	2,001	3,257	1	84,537
6	Off-Road Vehicle	Off Road Vehicle All Purpose	2021	17,742	60,079	1,864	3,139	1	82,824
6	Off-Road Vehicle	Off Road Vehicle All Purpose	Total	84,255	281,031	9,100	14,808	12	389,206
6		Major Class Total	2017	16,103	52,271	1,763	2,716	1	72,854
6		Major Class Total	2018	16,197	53,104	1,738	2,806	6	73,852
6		Major Class Total	2019	16,183	54,331	1,733	2,889	3	75,139
6		Major Class Total	2020	18,030	61,247	2,001	3,257	1	84,537
6		Major Class Total	2021	17,742	60,079	1,864	3,139	1	82,824
6		Major Class Total	Total	84,255	281,031	9,100	14,808	12	389,206

Table 15
Collision Claim Counts (Including Vehicle Type)

Major Class	Vehicle Type	Use	Loss Year	Territory					Total
				1	2	3	4	5	
1	Motorhome	All Purpose Motorhome	2017	2	1	0	0	0	3
1	Motorhome	All Purpose Motorhome	2018	3	1	0	0	0	4
1	Motorhome	All Purpose Motorhome	2019	5	0	0	0	0	5
1	Motorhome	All Purpose Motorhome	2020	2	0	0	0	0	2
1	Motorhome	All Purpose Motorhome	2021	3	1	0	0	1	5
1	Motorhome	All Purpose Motorhome	Total	15	3	0	0	1	19
1	Passenger Vehicle	All Purpose Passenger Vehicle	2017	41,850	12,224	593	579	4,095	59,341
1	Passenger Vehicle	All Purpose Passenger Vehicle	2018	41,622	12,174	451	516	3,894	58,657
1	Passenger Vehicle	All Purpose Passenger Vehicle	2019	38,301	11,775	469	519	3,844	54,908
1	Passenger Vehicle	All Purpose Passenger Vehicle	2020	26,263	9,861	366	427	2,561	39,478
1	Passenger Vehicle	All Purpose Passenger Vehicle	2021	30,784	10,864	390	457	2,722	45,217
1	Passenger Vehicle	All Purpose Passenger Vehicle	Total	178,820	56,898	2,269	2,498	17,116	257,601
1	Light Truck	All Purpose Truck 4540 kg or less	2017	5,949	4,415	467	430	1,281	12,542
1	Light Truck	All Purpose Truck 4540 kg or less	2018	5,793	4,198	373	408	1,274	12,046
1	Light Truck	All Purpose Truck 4540 kg or less	2019	5,716	4,071	344	419	1,204	11,754
1	Light Truck	All Purpose Truck 4540 kg or less	2020	4,581	4,042	279	426	1,079	10,407
1	Light Truck	All Purpose Truck 4540 kg or less	2021	4,673	3,825	290	353	1,067	10,208
1	Light Truck	All Purpose Truck 4540 kg or less	Total	26,712	20,551	1,753	2,036	5,905	56,957
1	Other	Antique Vehicle	2017	0	0	0	0	0	0
1	Other	Antique Vehicle	2018	0	0	0	0	0	0
1	Other	Antique Vehicle	2019	0	0	0	0	0	0
1	Other	Antique Vehicle	2020	0	0	0	0	0	0
1	Other	Antique Vehicle	2021	0	0	0	0	0	0
1	Other	Antique Vehicle	Total	0	0	0	0	0	0
1	Passenger Vehicle	Collector Passenger Vehicle	2017	14	7	0	0	0	21
1	Passenger Vehicle	Collector Passenger Vehicle	2018	17	7	1	0	0	25
1	Passenger Vehicle	Collector Passenger Vehicle	2019	10	12	0	0	0	22
1	Passenger Vehicle	Collector Passenger Vehicle	2020	10	5	0	0	0	15
1	Passenger Vehicle	Collector Passenger Vehicle	2021	11	12	1	0	0	24
1	Passenger Vehicle	Collector Passenger Vehicle	Total	62	43	2	0	0	107
1	Light Truck	Collector Truck 4540 kg or less	2017	1	2	0	0	0	3
1	Light Truck	Collector Truck 4540 kg or less	2018	2	4	0	0	0	6
1	Light Truck	Collector Truck 4540 kg or less	2019	1	1	0	0	0	2
1	Light Truck	Collector Truck 4540 kg or less	2020	4	1	0	0	0	5
1	Light Truck	Collector Truck 4540 kg or less	2021	0	4	0	0	0	4
1	Light Truck	Collector Truck 4540 kg or less	Total	8	12	0	0	0	20
1	Bus	Disabled Persons/Private/Business Bus	2017	30	29	4	3	0	66
1	Bus	Disabled Persons/Private/Business Bus	2018	43	33	3	4	0	83
1	Bus	Disabled Persons/Private/Business Bus	2019	37	35	4	2	0	78
1	Bus	Disabled Persons/Private/Business Bus	2020	19	14	4	3	0	40
1	Bus	Disabled Persons/Private/Business Bus	2021	20	22	1	3	0	46
1	Bus	Disabled Persons/Private/Business Bus	Total	149	133	16	15	0	313
1	Passenger Vehicle	Farm Passenger Vehicle	2017	2	544	0	0	0	546
1	Passenger Vehicle	Farm Passenger Vehicle	2018	3	477	0	0	0	480
1	Passenger Vehicle	Farm Passenger Vehicle	2019	2	481	0	0	0	483
1	Passenger Vehicle	Farm Passenger Vehicle	2020	2	355	0	1	0	358
1	Passenger Vehicle	Farm Passenger Vehicle	2021	0	375	0	0	0	375
1	Passenger Vehicle	Farm Passenger Vehicle	Total	9	2,232	0	1	0	2,242
1	Light Truck	Farming All Purpose Truck 4540 kg or less	2017	13	1,860	1	6	45	1,925
1	Light Truck	Farming All Purpose Truck 4540 kg or less	2018	20	1,717	3	8	54	1,802
1	Light Truck	Farming All Purpose Truck 4540 kg or less	2019	18	1,775	1	5	37	1,836
1	Light Truck	Farming All Purpose Truck 4540 kg or less	2020	15	1,848	3	7	34	1,907
1	Light Truck	Farming All Purpose Truck 4540 kg or less	2021	8	1,710	0	2	36	1,756
1	Light Truck	Farming All Purpose Truck 4540 kg or less	Total	74	8,910	8	28	206	9,226

Table 15
Collision Claim Counts (Including Vehicle Type)

Major Class	Vehicle Type	Use	Loss Year	Territory					Total
				1	2	3	4	5	
1	Light Truck	Fishing All Purpose Truck 4540 kg or less	2017	1	30	0	2	4	37
1	Light Truck	Fishing All Purpose Truck 4540 kg or less	2018	0	24	0	5	0	29
1	Light Truck	Fishing All Purpose Truck 4540 kg or less	2019	0	20	0	1	0	21
1	Light Truck	Fishing All Purpose Truck 4540 kg or less	2020	0	14	0	1	0	15
1	Light Truck	Fishing All Purpose Truck 4540 kg or less	2021	0	14	0	3	0	17
1	Light Truck	Fishing All Purpose Truck 4540 kg or less	Total	1	102	0	12	4	119
1	Passenger Vehicle	Passenger Vehicle-for-Hire (Passenger Vehicle)	2017	0	0	0	0	0	0
1	Passenger Vehicle	Passenger Vehicle-for-Hire (Passenger Vehicle)	2018	177	18	0	0	9	204
1	Passenger Vehicle	Passenger Vehicle-for-Hire (Passenger Vehicle)	2019	229	23	2	1	21	276
1	Passenger Vehicle	Passenger Vehicle-for-Hire (Passenger Vehicle)	2020	205	26	5	1	14	251
1	Passenger Vehicle	Passenger Vehicle-for-Hire (Passenger Vehicle)	2021	354	41	2	3	21	421
1	Passenger Vehicle	Passenger Vehicle-for-Hire (Passenger Vehicle)	Total	965	108	9	5	65	1,152
1	Light Truck	Passenger Vehicle-for-Hire (Truck 4,499 kg or less GVW)	2017	0	0	0	0	0	0
1	Light Truck	Passenger Vehicle-for-Hire (Truck 4,499 kg or less GVW)	2018	3	0	0	0	0	3
1	Light Truck	Passenger Vehicle-for-Hire (Truck 4,499 kg or less GVW)	2019	3	0	0	0	0	3
1	Light Truck	Passenger Vehicle-for-Hire (Truck 4,499 kg or less GVW)	2020	1	0	0	0	0	1
1	Light Truck	Passenger Vehicle-for-Hire (Truck 4,499 kg or less GVW)	2021	0	2	1	0	0	3
1	Light Truck	Passenger Vehicle-for-Hire (Truck 4,499 kg or less GVW)	Total	7	2	1	0	0	10
1	Motorhome	Pleasure Motorhome	2017	33	40	0	0	0	73
1	Motorhome	Pleasure Motorhome	2018	22	56	1	2	0	81
1	Motorhome	Pleasure Motorhome	2019	24	42	2	0	0	68
1	Motorhome	Pleasure Motorhome	2020	19	24	0	1	0	44
1	Motorhome	Pleasure Motorhome	2021	18	26	0	3	0	47
1	Motorhome	Pleasure Motorhome	Total	116	188	3	6	0	313
1	Passenger Vehicle	Pleasure Passenger Vehicle	2017	15,432	8,333	190	404	0	24,359
1	Passenger Vehicle	Pleasure Passenger Vehicle	2018	15,310	8,242	130	320	0	24,002
1	Passenger Vehicle	Pleasure Passenger Vehicle	2019	14,460	8,101	133	315	0	23,009
1	Passenger Vehicle	Pleasure Passenger Vehicle	2020	11,877	7,025	146	288	0	19,336
1	Passenger Vehicle	Pleasure Passenger Vehicle	2021	13,747	7,675	105	289	0	21,816
1	Passenger Vehicle	Pleasure Passenger Vehicle	Total	70,826	39,376	704	1,616	0	112,522
1	Light Truck	Pleasure Truck	2017	1,411	2,236	129	218	0	3,994
1	Light Truck	Pleasure Truck	2018	1,321	2,206	114	191	0	3,832
1	Light Truck	Pleasure Truck	2019	1,337	2,126	99	220	0	3,782
1	Light Truck	Pleasure Truck	2020	1,232	2,267	90	187	0	3,776
1	Light Truck	Pleasure Truck	2021	1,287	2,103	87	143	0	3,620
1	Light Truck	Pleasure Truck	Total	6,588	10,938	519	959	0	19,004
1		Major Class Total	2017	64,738	29,721	1,384	1,642	5,425	102,910
1		Major Class Total	2018	64,336	29,157	1,076	1,454	5,231	101,254
1		Major Class Total	2019	60,143	28,462	1,054	1,482	5,106	96,247
1		Major Class Total	2020	44,230	25,482	893	1,342	3,688	75,635
1		Major Class Total	2021	50,905	26,674	877	1,256	3,847	83,559
1		Major Class Total	Total	284,352	139,496	5,284	7,176	23,297	459,605

Table 15
Collision Claim Counts (Including Vehicle Type)

Major Class	Vehicle Type	Use	Loss Year	Territory					Total
				1	2	3	4	5	
2	Light Truck	Artisan Truck Light	2017	1	0	0	0	0	1
2	Light Truck	Artisan Truck Light	2018	0	0	0	0	0	0
2	Light Truck	Artisan Truck Light	2019	0	1	0	0	0	1
2	Light Truck	Artisan Truck Light	2020	0	0	0	0	0	0
2	Light Truck	Artisan Truck Light	2021	0	0	0	0	0	0
2	Light Truck	Artisan Truck Light	Total	1	1	0	0	0	2
2	Heavy Truck	Artisan Truck Heavy	2017	1	0	0	0	0	1
2	Heavy Truck	Artisan Truck Heavy	2018	3	0	0	0	0	3
2	Heavy Truck	Artisan Truck Heavy	2019	1	4	0	0	0	5
2	Heavy Truck	Artisan Truck Heavy	2020	6	1	0	0	0	7
2	Heavy Truck	Artisan Truck Heavy	2021	4	2	0	0	2	8
2	Heavy Truck	Artisan Truck Heavy	Total	15	7	0	0	2	24
2	Light Truck	Cement/Brick/Exploration Truck Light	2017	0	0	0	0	0	0
2	Light Truck	Cement/Brick/Exploration Truck Light	2018	0	0	0	0	0	0
2	Light Truck	Cement/Brick/Exploration Truck Light	2019	0	0	0	0	0	0
2	Light Truck	Cement/Brick/Exploration Truck Light	2020	0	0	0	0	0	0
2	Light Truck	Cement/Brick/Exploration Truck Light	2021	0	0	0	0	0	0
2	Light Truck	Cement/Brick/Exploration Truck Light	Total	0	0	0	0	0	0
2	Heavy Truck	Cement/Brick/Exploration Truck Heavy	2017	1	0	0	0	0	1
2	Heavy Truck	Cement/Brick/Exploration Truck Heavy	2018	0	0	0	0	0	0
2	Heavy Truck	Cement/Brick/Exploration Truck Heavy	2019	0	0	0	0	0	0
2	Heavy Truck	Cement/Brick/Exploration Truck Heavy	2020	0	0	0	0	0	0
2	Heavy Truck	Cement/Brick/Exploration Truck Heavy	2021	0	0	0	0	0	0
2	Heavy Truck	Cement/Brick/Exploration Truck Heavy	Total	1	0	0	0	0	1
2	Passenger Vehicle	Common Carrier Vehicle Local	2017	231	95	8	3	0	337
2	Passenger Vehicle	Common Carrier Vehicle Local	2018	301	90	6	1	0	398
2	Passenger Vehicle	Common Carrier Vehicle Local	2019	284	76	4	7	0	371
2	Passenger Vehicle	Common Carrier Vehicle Local	2020	268	83	5	3	0	359
2	Passenger Vehicle	Common Carrier Vehicle Local	2021	312	92	15	6	0	425
2	Passenger Vehicle	Common Carrier Vehicle Local	Total	1,396	436	38	20	0	1,890
2	Light Truck	Common Carrier Vehicle Within City or Mun. Light	2017	29	5	0	0	0	34
2	Light Truck	Common Carrier Vehicle Within City or Mun. Light	2018	32	2	0	0	0	34
2	Light Truck	Common Carrier Vehicle Within City or Mun. Light	2019	23	6	0	0	0	29
2	Light Truck	Common Carrier Vehicle Within City or Mun. Light	2020	23	3	0	0	0	26
2	Light Truck	Common Carrier Vehicle Within City or Mun. Light	2021	25	11	0	0	0	36
2	Light Truck	Common Carrier Vehicle Within City or Mun. Light	Total	132	27	0	0	0	159
2	Heavy Truck	Common Carrier Vehicle Within City or Mun. Heavy	2017	14	2	0	0	0	16
2	Heavy Truck	Common Carrier Vehicle Within City or Mun. Heavy	2018	21	1	0	0	0	22
2	Heavy Truck	Common Carrier Vehicle Within City or Mun. Heavy	2019	22	0	0	0	0	22
2	Heavy Truck	Common Carrier Vehicle Within City or Mun. Heavy	2020	5	1	0	0	0	6
2	Heavy Truck	Common Carrier Vehicle Within City or Mun. Heavy	2021	5	0	0	0	0	5
2	Heavy Truck	Common Carrier Vehicle Within City or Mun. Heavy	Total	67	4	0	0	0	71
2	Passenger Vehicle	Common Carrier Passenger Vehicle < 161 km in Manitoba	2017	6	2	0	0	0	8
2	Passenger Vehicle	Common Carrier Passenger Vehicle < 161 km in Manitoba	2018	5	3	0	0	0	8
2	Passenger Vehicle	Common Carrier Passenger Vehicle < 161 km in Manitoba	2019	10	4	0	0	0	14
2	Passenger Vehicle	Common Carrier Passenger Vehicle < 161 km in Manitoba	2020	20	4	0	0	0	24
2	Passenger Vehicle	Common Carrier Passenger Vehicle < 161 km in Manitoba	2021	25	8	0	0	0	33
2	Passenger Vehicle	Common Carrier Passenger Vehicle < 161 km in Manitoba	Total	66	21	0	0	0	87
2	Light Truck	Common Carrier Truck < 161 km in Manitoba Light	2017	14	13	0	0	0	27
2	Light Truck	Common Carrier Truck < 161 km in Manitoba Light	2018	11	22	0	0	0	33
2	Light Truck	Common Carrier Truck < 161 km in Manitoba Light	2019	15	24	0	0	0	39
2	Light Truck	Common Carrier Truck < 161 km in Manitoba Light	2020	21	17	0	0	0	38
2	Light Truck	Common Carrier Truck < 161 km in Manitoba Light	2021	8	17	0	0	0	25
2	Light Truck	Common Carrier Truck < 161 km in Manitoba Light	Total	69	93	0	0	0	162

Table 15
Collision Claim Counts (Including Vehicle Type)

Major Class	Vehicle Type	Use	Loss Year	Territory					Total
				1	2	3	4	5	
2	Heavy Truck	Common Carrier Truck < 161 km in Manitoba Heavy	2017	28	9	0	0	0	37
2	Heavy Truck	Common Carrier Truck < 161 km in Manitoba Heavy	2018	22	7	0	0	0	29
2	Heavy Truck	Common Carrier Truck < 161 km in Manitoba Heavy	2019	30	7	0	0	0	37
2	Heavy Truck	Common Carrier Truck < 161 km in Manitoba Heavy	2020	22	6	0	0	0	28
2	Heavy Truck	Common Carrier Truck < 161 km in Manitoba Heavy	2021	25	8	0	0	0	33
2	Heavy Truck	Common Carrier Truck < 161 km in Manitoba Heavy	Total	127	37	0	0	0	164
2	Passenger Vehicle	Common Carrier Passenger Vehicle > 161 km in Manitoba	2017	3	1	0	0	0	4
2	Passenger Vehicle	Common Carrier Passenger Vehicle > 161 km in Manitoba	2018	0	1	0	0	0	1
2	Passenger Vehicle	Common Carrier Passenger Vehicle > 161 km in Manitoba	2019	2	2	1	0	0	5
2	Passenger Vehicle	Common Carrier Passenger Vehicle > 161 km in Manitoba	2020	0	0	0	0	0	0
2	Passenger Vehicle	Common Carrier Passenger Vehicle > 161 km in Manitoba	2021	1	4	0	0	0	5
2	Passenger Vehicle	Common Carrier Passenger Vehicle > 161 km in Manitoba	Total	6	8	1	0	0	15
2	Light Truck	Common Carrier Truck > 161 km in Manitoba Light	2017	8	4	0	0	0	12
2	Light Truck	Common Carrier Truck > 161 km in Manitoba Light	2018	5	4	0	0	0	9
2	Light Truck	Common Carrier Truck > 161 km in Manitoba Light	2019	4	4	0	0	0	8
2	Light Truck	Common Carrier Truck > 161 km in Manitoba Light	2020	7	9	0	0	0	16
2	Light Truck	Common Carrier Truck > 161 km in Manitoba Light	2021	7	3	0	0	0	10
2	Light Truck	Common Carrier Truck > 161 km in Manitoba Light	Total	31	24	0	0	0	55
2	Heavy Truck	Common Carrier Truck > 161 km in Manitoba Heavy	2017	7	5	0	0	0	12
2	Heavy Truck	Common Carrier Truck > 161 km in Manitoba Heavy	2018	16	13	0	0	0	29
2	Heavy Truck	Common Carrier Truck > 161 km in Manitoba Heavy	2019	15	8	0	0	0	23
2	Heavy Truck	Common Carrier Truck > 161 km in Manitoba Heavy	2020	16	6	0	0	0	22
2	Heavy Truck	Common Carrier Truck > 161 km in Manitoba Heavy	2021	13	1	0	0	0	14
2	Heavy Truck	Common Carrier Truck > 161 km in Manitoba Heavy	Total	67	33	0	0	0	100
2	Other	Dealer All Uses except Motorcycles	2017	274	135	3	1	0	413
2	Other	Dealer All Uses except Motorcycles	2018	294	131	2	3	0	430
2	Other	Dealer All Uses except Motorcycles	2019	242	113	2	3	0	360
2	Other	Dealer All Uses except Motorcycles	2020	196	84	1	5	0	286
2	Other	Dealer All Uses except Motorcycles	2021	213	103	5	1	0	322
2	Other	Dealer All Uses except Motorcycles	Total	1,219	566	13	13	0	1,811
2	Other	Dealer Moped	2017	0	0	0	0	0	0
2	Other	Dealer Moped	2018	0	0	0	0	0	0
2	Other	Dealer Moped	2019	0	0	0	0	0	0
2	Other	Dealer Moped	2020	0	0	0	0	0	0
2	Other	Dealer Moped	2021	0	0	0	0	0	0
2	Other	Dealer Moped	Total	0	0	0	0	0	0
2	Other	Dealer Motorcycle	2017	3	5	0	0	0	8
2	Other	Dealer Motorcycle	2018	0	0	0	0	0	0
2	Other	Dealer Motorcycle	2019	1	3	0	0	0	4
2	Other	Dealer Motorcycle	2020	1	1	0	0	0	2
2	Other	Dealer Motorcycle	2021	2	0	0	0	0	2
2	Other	Dealer Motorcycle	Total	7	9	0	0	0	16
2	Other	Dealer Trailer	2017	2	2	0	0	0	4
2	Other	Dealer Trailer	2018	0	2	0	0	0	2
2	Other	Dealer Trailer	2019	1	1	0	0	0	2
2	Other	Dealer Trailer	2020	0	1	0	0	0	1
2	Other	Dealer Trailer	2021	0	0	0	0	0	0
2	Other	Dealer Trailer	Total	3	6	0	0	0	9
2	Other	Driveaway Within Manitoba	2017	0	0	0	0	0	0
2	Other	Driveaway Within Manitoba	2018	0	0	0	0	0	0
2	Other	Driveaway Within Manitoba	2019	0	0	0	0	0	0
2	Other	Driveaway Within Manitoba	2020	0	0	0	0	0	0
2	Other	Driveaway Within Manitoba	2021	0	0	0	0	0	0
2	Other	Driveaway Within Manitoba	Total	0	0	0	0	0	0

Table 15
Collision Claim Counts (Including Vehicle Type)

Major Class	Vehicle Type	Use	Loss Year	Territory					Total
				1	2	3	4	5	
2	Other	Driveaway > 161 km Outside Manitoba	2017	0	0	0	0	0	0
2	Other	Driveaway > 161 km Outside Manitoba	2018	0	0	0	0	0	0
2	Other	Driveaway > 161 km Outside Manitoba	2019	0	0	0	0	0	0
2	Other	Driveaway > 161 km Outside Manitoba	2020	0	0	0	0	0	0
2	Other	Driveaway > 161 km Outside Manitoba	2021	0	0	0	0	0	0
2	Other	Driveaway > 161 km Outside Manitoba	Total	0	0	0	0	0	0
2	Light Truck	Farming All Purpose Truck 4541 kg or more Light	2017	0	0	0	0	0	0
2	Light Truck	Farming All Purpose Truck 4541 kg or more Light	2018	0	0	0	0	0	0
2	Light Truck	Farming All Purpose Truck 4541 kg or more Light	2019	0	0	0	0	0	0
2	Light Truck	Farming All Purpose Truck 4541 kg or more Light	2020	0	0	0	0	0	0
2	Light Truck	Farming All Purpose Truck 4541 kg or more Light	2021	0	0	0	0	0	0
2	Light Truck	Farming All Purpose Truck 4541 kg or more Light	Total	0	0	0	0	0	0
2	Heavy Truck	Farming All Purpose Truck 4541 kg or more Heavy	2017	1	170	0	1	0	172
2	Heavy Truck	Farming All Purpose Truck 4541 kg or more Heavy	2018	0	135	0	1	0	136
2	Heavy Truck	Farming All Purpose Truck 4541 kg or more Heavy	2019	2	137	0	0	0	139
2	Heavy Truck	Farming All Purpose Truck 4541 kg or more Heavy	2020	1	178	0	0	0	179
2	Heavy Truck	Farming All Purpose Truck 4541 kg or more Heavy	2021	0	119	0	0	0	119
2	Heavy Truck	Farming All Purpose Truck 4541 kg or more Heavy	Total	4	739	0	2	0	745
2	Heavy Truck	Fishing All Purpose Truck 4541 kg or more	2017	0	0	0	0	0	0
2	Heavy Truck	Fishing All Purpose Truck 4541 kg or more	2018	0	0	0	0	0	0
2	Heavy Truck	Fishing All Purpose Truck 4541 kg or more	2019	0	0	0	0	0	0
2	Heavy Truck	Fishing All Purpose Truck 4541 kg or more	2020	0	0	0	0	0	0
2	Heavy Truck	Fishing All Purpose Truck 4541 kg or more	2021	0	0	0	0	0	0
2	Heavy Truck	Fishing All Purpose Truck 4541 kg or more	Total	0	0	0	0	0	0
2	Light Truck	Logging Truck Light	2017	0	0	0	0	0	0
2	Light Truck	Logging Truck Light	2018	0	0	0	0	0	0
2	Light Truck	Logging Truck Light	2019	0	0	0	0	0	0
2	Light Truck	Logging Truck Light	2020	0	0	0	0	0	0
2	Light Truck	Logging Truck Light	2021	0	0	0	0	0	0
2	Light Truck	Logging Truck Light	Total	0	0	0	0	0	0
2	Heavy Truck	Logging Truck Heavy	2017	0	0	0	0	0	0
2	Heavy Truck	Logging Truck Heavy	2018	0	0	0	1	0	1
2	Heavy Truck	Logging Truck Heavy	2019	0	0	0	0	0	0
2	Heavy Truck	Logging Truck Heavy	2020	0	0	0	0	0	0
2	Heavy Truck	Logging Truck Heavy	2021	0	0	0	0	0	0
2	Heavy Truck	Logging Truck Heavy	Total	0	0	0	1	0	1
2	Light Truck	Other Truck Light	2017	1	0	0	0	0	1
2	Light Truck	Other Truck Light	2018	1	0	0	0	1	2
2	Light Truck	Other Truck Light	2019	1	0	0	0	0	1
2	Light Truck	Other Truck Light	2020	1	0	0	0	0	1
2	Light Truck	Other Truck Light	2021	0	0	0	0	1	1
2	Light Truck	Other Truck Light	Total	4	0	0	0	2	6
2	Heavy Truck	Other Truck Heavy	2017	198	151	8	2	51	410
2	Heavy Truck	Other Truck Heavy	2018	199	156	7	3	46	411
2	Heavy Truck	Other Truck Heavy	2019	179	150	7	5	70	411
2	Heavy Truck	Other Truck Heavy	2020	157	161	13	6	62	399
2	Heavy Truck	Other Truck Heavy	2021	182	164	7	8	41	402
2	Heavy Truck	Other Truck Heavy	Total	915	782	42	24	270	2,033
2	Light Truck	Petroleum/Chemical Truck Light	2017	0	20	0	0	0	20
2	Light Truck	Petroleum/Chemical Truck Light	2018	0	14	0	0	0	14
2	Light Truck	Petroleum/Chemical Truck Light	2019	0	9	0	0	0	9
2	Light Truck	Petroleum/Chemical Truck Light	2020	1	8	0	0	0	9
2	Light Truck	Petroleum/Chemical Truck Light	2021	0	10	0	0	0	10
2	Light Truck	Petroleum/Chemical Truck Light	Total	1	61	0	0	0	62

Table 15
Collision Claim Counts (Including Vehicle Type)

Major Class	Vehicle Type	Use	Loss Year	Territory					Total
				1	2	3	4	5	
2	Heavy Truck	Petroleum/Chemical Truck Heavy	2017	0	3	0	0	0	3
2	Heavy Truck	Petroleum/Chemical Truck Heavy	2018	0	0	0	0	0	0
2	Heavy Truck	Petroleum/Chemical Truck Heavy	2019	2	1	0	0	0	3
2	Heavy Truck	Petroleum/Chemical Truck Heavy	2020	1	1	0	0	0	2
2	Heavy Truck	Petroleum/Chemical Truck Heavy	2021	1	0	0	0	0	1
2	Heavy Truck	Petroleum/Chemical Truck Heavy	Total	4	5	0	0	0	9
2	Other	Repairer	2017	19	6	0	0	0	25
2	Other	Repairer	2018	9	4	1	0	0	14
2	Other	Repairer	2019	10	5	0	1	0	16
2	Other	Repairer	2020	9	4	0	0	0	13
2	Other	Repairer	2021	10	4	1	1	0	16
2	Other	Repairer	Total	57	23	2	2	0	84
2	Light Truck	Sand/Gravel Truck Light	2017	0	0	0	0	0	0
2	Light Truck	Sand/Gravel Truck Light	2018	0	0	0	0	0	0
2	Light Truck	Sand/Gravel Truck Light	2019	0	0	0	0	0	0
2	Light Truck	Sand/Gravel Truck Light	2020	0	0	0	0	0	0
2	Light Truck	Sand/Gravel Truck Light	2021	0	0	0	0	0	0
2	Light Truck	Sand/Gravel Truck Light	Total	0	0	0	0	0	0
2	Heavy Truck	Sand/Gravel Truck Heavy	2017	3	0	0	0	0	3
2	Heavy Truck	Sand/Gravel Truck Heavy	2018	2	0	0	0	0	2
2	Heavy Truck	Sand/Gravel Truck Heavy	2019	3	1	0	0	0	4
2	Heavy Truck	Sand/Gravel Truck Heavy	2020	1	1	0	0	0	2
2	Heavy Truck	Sand/Gravel Truck Heavy	2021	1	1	0	0	0	2
2	Heavy Truck	Sand/Gravel Truck Heavy	Total	10	3	0	0	0	13
2	Light Truck	Tow Truck Light	2017	0	1	0	0	0	1
2	Light Truck	Tow Truck Light	2018	1	0	0	0	0	1
2	Light Truck	Tow Truck Light	2019	0	0	0	0	0	0
2	Light Truck	Tow Truck Light	2020	0	0	0	0	0	0
2	Light Truck	Tow Truck Light	2021	1	0	0	0	0	1
2	Light Truck	Tow Truck Light	Total	2	1	0	0	0	3
2	Heavy Truck	Tow Truck Heavy	2017	22	11	0	0	0	33
2	Heavy Truck	Tow Truck Heavy	2018	19	14	0	0	0	33
2	Heavy Truck	Tow Truck Heavy	2019	17	12	0	0	0	29
2	Heavy Truck	Tow Truck Heavy	2020	8	14	0	0	0	22
2	Heavy Truck	Tow Truck Heavy	2021	7	7	0	1	0	15
2	Heavy Truck	Tow Truck Heavy	Total	73	58	0	1	0	132
2		Major Class Total	2017	866	640	19	7	51	1,583
2		Major Class Total	2018	941	599	16	9	47	1,612
2		Major Class Total	2019	864	568	14	16	70	1,532
2		Major Class Total	2020	764	583	19	14	62	1,442
2		Major Class Total	2021	842	554	28	17	44	1,485
2		Major Class Total	Total	4,277	2,944	96	63	274	7,654

Table 15
Collision Claim Counts (Including Vehicle Type)

Major Class	Vehicle Type	Use	Loss Year	Territory					Total
				1	2	3	4	5	
3	Bus	Charter Bus Local	2017	1	0	0	0	0	1
3	Bus	Charter Bus Local	2018	3	0	0	0	0	3
3	Bus	Charter Bus Local	2019	1	0	0	0	0	1
3	Bus	Charter Bus Local	2020	1	0	0	0	0	1
3	Bus	Charter Bus Local	2021	2	0	0	0	0	2
3	Bus	Charter Bus Local	Total	8	0	0	0	0	8
3	Bus	Common Carrier Bus Within Manitoba	2017	0	0	0	0	0	0
3	Bus	Common Carrier Bus Within Manitoba	2018	0	0	0	0	0	0
3	Bus	Common Carrier Bus Within Manitoba	2019	0	0	0	0	0	0
3	Bus	Common Carrier Bus Within Manitoba	2020	0	0	0	0	0	0
3	Bus	Common Carrier Bus Within Manitoba	2021	0	0	0	0	0	0
3	Bus	Common Carrier Bus Within Manitoba	Total	0	0	0	0	0	0
3	Bus	Common Carrier Bus > 161 km Outside Manitoba	2017	0	0	0	0	0	0
3	Bus	Common Carrier Bus > 161 km Outside Manitoba	2018	0	0	0	0	0	0
3	Bus	Common Carrier Bus > 161 km Outside Manitoba	2019	0	0	0	0	0	0
3	Bus	Common Carrier Bus > 161 km Outside Manitoba	2020	0	0	0	0	0	0
3	Bus	Common Carrier Bus > 161 km Outside Manitoba	2021	0	0	0	0	0	0
3	Bus	Common Carrier Bus > 161 km Outside Manitoba	Total	0	0	0	0	0	0
3	Passenger Vehicle	Funeral Passenger Vehicle	2017	7	3	0	0	0	10
3	Passenger Vehicle	Funeral Passenger Vehicle	2018	3	3	0	0	0	6
3	Passenger Vehicle	Funeral Passenger Vehicle	2019	4	7	0	0	0	11
3	Passenger Vehicle	Funeral Passenger Vehicle	2020	1	4	0	0	0	5
3	Passenger Vehicle	Funeral Passenger Vehicle	2021	2	5	0	0	0	7
3	Passenger Vehicle	Funeral Passenger Vehicle	Total	17	22	0	0	0	39
3	Passenger Vehicle	Limousine Vehicle-for-Hire	2017	14	13	0	0	0	27
3	Passenger Vehicle	Limousine Vehicle-for-Hire	2018	8	8	0	0	0	16
3	Passenger Vehicle	Limousine Vehicle-for-Hire	2019	13	8	0	0	0	21
3	Passenger Vehicle	Limousine Vehicle-for-Hire	2020	5	8	0	0	0	13
3	Passenger Vehicle	Limousine Vehicle-for-Hire	2021	10	1	0	0	0	11
3	Passenger Vehicle	Limousine Vehicle-for-Hire	Total	50	38	0	0	0	88
3	Passenger Vehicle	Police/Emergency Passenger Vehicle	2017	129	46	3	2	0	180
3	Passenger Vehicle	Police/Emergency Passenger Vehicle	2018	148	40	1	1	0	190
3	Passenger Vehicle	Police/Emergency Passenger Vehicle	2019	121	54	0	0	0	175
3	Passenger Vehicle	Police/Emergency Passenger Vehicle	2020	123	59	0	2	0	184
3	Passenger Vehicle	Police/Emergency Passenger Vehicle	2021	108	54	1	3	0	166
3	Passenger Vehicle	Police/Emergency Passenger Vehicle	Total	629	253	5	8	0	895
3	Light Truck	Police/Emergency Truck Light	2017	5	5	1	2	0	13
3	Light Truck	Police/Emergency Truck Light	2018	1	5	0	0	0	6
3	Light Truck	Police/Emergency Truck Light	2019	3	5	1	0	0	9
3	Light Truck	Police/Emergency Truck Light	2020	6	16	1	0	0	23
3	Light Truck	Police/Emergency Truck Light	2021	7	14	0	1	0	22
3	Light Truck	Police/Emergency Truck Light	Total	22	45	3	3	0	73
3	Heavy Truck	Police/Emergency Truck Heavy	2017	0	0	0	0	0	0
3	Heavy Truck	Police/Emergency Truck Heavy	2018	0	0	0	0	0	0
3	Heavy Truck	Police/Emergency Truck Heavy	2019	0	0	0	0	0	0
3	Heavy Truck	Police/Emergency Truck Heavy	2020	0	0	0	0	0	0
3	Heavy Truck	Police/Emergency Truck Heavy	2021	0	0	0	0	0	0
3	Heavy Truck	Police/Emergency Truck Heavy	Total	0	0	0	0	0	0
3	Bus	School Bus Local	2017	25	24	0	4	0	53
3	Bus	School Bus Local	2018	34	35	1	2	0	72
3	Bus	School Bus Local	2019	19	19	3	1	0	42
3	Bus	School Bus Local	2020	14	17	0	0	0	31
3	Bus	School Bus Local	2021	21	26	0	1	0	48
3	Bus	School Bus Local	Total	113	121	4	8	0	246

Table 15
Collision Claim Counts (Including Vehicle Type)

Major Class	Vehicle Type	Use	Loss Year	Territory					Total
				1	2	3	4	5	
3	Passenger Vehicle	Taxicab Vehicle-for-Hire	2017	532	52	26	7	0	617
3	Passenger Vehicle	Taxicab Vehicle-for-Hire	2018	580	53	21	1	0	655
3	Passenger Vehicle	Taxicab Vehicle-for-Hire	2019	579	60	24	4	0	667
3	Passenger Vehicle	Taxicab Vehicle-for-Hire	2020	321	40	16	2	0	379
3	Passenger Vehicle	Taxicab Vehicle-for-Hire	2021	423	46	16	2	0	487
3	Passenger Vehicle	Taxicab Vehicle-for-Hire	Total	2,435	251	103	16	0	2,805
3	Bus	Transit Bus Local	2017	0	6	0	0	0	6
3	Bus	Transit Bus Local	2018	0	4	1	0	0	5
3	Bus	Transit Bus Local	2019	0	9	0	0	0	9
3	Bus	Transit Bus Local	2020	0	4	0	0	0	4
3	Bus	Transit Bus Local	2021	0	3	0	0	0	3
3	Bus	Transit Bus Local	Total	0	26	1	0	0	27
3	Bus	U-Drive Bus	2017	2	3	0	0	0	5
3	Bus	U-Drive Bus	2018	4	2	0	0	0	6
3	Bus	U-Drive Bus	2019	4	1	0	0	0	5
3	Bus	U-Drive Bus	2020	0	1	0	0	0	1
3	Bus	U-Drive Bus	2021	4	0	0	0	0	4
3	Bus	U-Drive Bus	Total	14	7	0	0	0	21
3	Motorcycle	U-Drive Moped	2017	0	0	0	0	0	0
3	Motorcycle	U-Drive Moped	2018	0	0	0	0	0	0
3	Motorcycle	U-Drive Moped	2019	0	0	0	0	0	0
3	Motorcycle	U-Drive Moped	2020	0	0	0	0	0	0
3	Motorcycle	U-Drive Moped	2021	0	0	0	0	0	0
3	Motorcycle	U-Drive Moped	Total	0	0	0	0	0	0
3	Motorhome	U-Drive Motorhome	2017	2	2	0	0	0	4
3	Motorhome	U-Drive Motorhome	2018	0	4	0	0	0	4
3	Motorhome	U-Drive Motorhome	2019	0	4	0	0	0	4
3	Motorhome	U-Drive Motorhome	2020	1	3	0	0	0	4
3	Motorhome	U-Drive Motorhome	2021	0	1	0	0	0	1
3	Motorhome	U-Drive Motorhome	Total	3	14	0	0	0	17
3	Passenger Vehicle	U-Drive Passenger Vehicle	2017	1,304	127	20	10	0	1,461
3	Passenger Vehicle	U-Drive Passenger Vehicle	2018	1,238	139	16	16	0	1,409
3	Passenger Vehicle	U-Drive Passenger Vehicle	2019	1,112	143	11	17	0	1,283
3	Passenger Vehicle	U-Drive Passenger Vehicle	2020	821	101	16	7	0	945
3	Passenger Vehicle	U-Drive Passenger Vehicle	2021	957	96	15	10	0	1,078
3	Passenger Vehicle	U-Drive Passenger Vehicle	Total	5,432	606	78	60	0	6,176
3	Light Truck	U-Drive Truck Light	2017	185	29	39	7	0	260
3	Light Truck	U-Drive Truck Light	2018	187	29	17	11	0	244
3	Light Truck	U-Drive Truck Light	2019	168	30	14	3	0	215
3	Light Truck	U-Drive Truck Light	2020	103	27	8	6	0	144
3	Light Truck	U-Drive Truck Light	2021	115	10	8	0	0	133
3	Light Truck	U-Drive Truck Light	Total	758	125	86	27	0	996
3	Heavy Truck	U-Drive Truck Heavy	2017	37	0	0	0	0	37
3	Heavy Truck	U-Drive Truck Heavy	2018	33	3	0	0	0	36
3	Heavy Truck	U-Drive Truck Heavy	2019	41	2	0	0	0	43
3	Heavy Truck	U-Drive Truck Heavy	2020	31	3	0	0	0	34
3	Heavy Truck	U-Drive Truck Heavy	2021	31	2	0	0	0	33
3	Heavy Truck	U-Drive Truck Heavy	Total	173	10	0	0	0	183
3	Bus	Accessible Vehicle-for-Hire	2017	16	0	0	0	0	16
3	Bus	Accessible Vehicle-for-Hire	2018	53	2	0	0	0	55
3	Bus	Accessible Vehicle-for-Hire	2019	77	3	0	0	0	80
3	Bus	Accessible Vehicle-for-Hire	2020	43	5	0	0	0	48
3	Bus	Accessible Vehicle-for-Hire	2021	71	6	0	0	0	77
3	Bus	Accessible Vehicle-for-Hire	Total	260	16	0	0	0	276

Table 15
Collision Claim Counts (Including Vehicle Type)

Major Class	Vehicle Type	Use	Loss Year	Territory					Total
				1	2	3	4	5	
3	Major Class Total		2017	2,259	310	89	32	0	2,690
3	Major Class Total		2018	2,292	327	57	31	0	2,707
3	Major Class Total		2019	2,142	345	53	25	0	2,565
3	Major Class Total		2020	1,470	288	41	17	0	1,816
3	Major Class Total		2021	1,751	264	40	17	0	2,072
3	Major Class Total		Total	9,914	1,534	280	122	0	11,850

Table 15
Collision Claim Counts (Including Vehicle Type)

Major Class	Vehicle Type	Use	Loss Year	Territory					Total
				1	2	3	4	5	
4	Motorcycle	All Purpose Moped	2017	5	1	0	0	0	6
4	Motorcycle	All Purpose Moped	2018	10	0	0	0	0	10
4	Motorcycle	All Purpose Moped	2019	5	1	0	0	0	6
4	Motorcycle	All Purpose Moped	2020	4	0	0	0	0	4
4	Motorcycle	All Purpose Moped	2021	4	1	0	0	0	5
4	Motorcycle	All Purpose Moped	Total	28	3	0	0	0	31
4	Motorcycle	All Purpose Motorcycle (Moterscooter Body Style)	2017	1	0	0	0	0	1
4	Motorcycle	All Purpose Motorcycle (Moterscooter Body Style)	2018	1	0	0	1	0	2
4	Motorcycle	All Purpose Motorcycle (Moterscooter Body Style)	2019	1	0	0	0	0	1
4	Motorcycle	All Purpose Motorcycle (Moterscooter Body Style)	2020	2	0	0	0	0	2
4	Motorcycle	All Purpose Motorcycle (Moterscooter Body Style)	2021	0	0	0	0	1	1
4	Motorcycle	All Purpose Motorcycle (Moterscooter Body Style)	Total	5	0	0	1	1	7
4	Motorcycle	All Purpose Motorcycle (Other Body Style)	2017	20	3	1	0	3	27
4	Motorcycle	All Purpose Motorcycle (Other Body Style)	2018	21	1	0	0	0	22
4	Motorcycle	All Purpose Motorcycle (Other Body Style)	2019	23	8	0	0	1	32
4	Motorcycle	All Purpose Motorcycle (Other Body Style)	2020	6	2	1	0	0	9
4	Motorcycle	All Purpose Motorcycle (Other Body Style)	2021	7	0	0	0	1	8
4	Motorcycle	All Purpose Motorcycle (Other Body Style)	Total	77	14	2	0	5	98
4	Motorcycle	All Purpose Motorcycle (Sport Body Style)	2017	13	0	0	0	1	14
4	Motorcycle	All Purpose Motorcycle (Sport Body Style)	2018	5	1	2	0	1	9
4	Motorcycle	All Purpose Motorcycle (Sport Body Style)	2019	4	1	0	0	0	5
4	Motorcycle	All Purpose Motorcycle (Sport Body Style)	2020	2	0	0	0	1	3
4	Motorcycle	All Purpose Motorcycle (Sport Body Style)	2021	3	1	0	0	1	5
4	Motorcycle	All Purpose Motorcycle (Sport Body Style)	Total	27	3	2	0	4	36
4	Motorcycle	All Purpose Motorcycle (Sport-Touring Body Style)	2017	0	0	0	0	1	1
4	Motorcycle	All Purpose Motorcycle (Sport-Touring Body Style)	2018	2	1	0	0	0	3
4	Motorcycle	All Purpose Motorcycle (Sport-Touring Body Style)	2019	1	1	0	0	1	3
4	Motorcycle	All Purpose Motorcycle (Sport-Touring Body Style)	2020	1	0	0	0	1	2
4	Motorcycle	All Purpose Motorcycle (Sport-Touring Body Style)	2021	2	0	0	0	0	2
4	Motorcycle	All Purpose Motorcycle (Sport-Touring Body Style)	Total	6	2	0	0	3	11
4	Motorcycle	All Purpose Motorcycle (Touring Body Style)	2017	9	6	0	0	3	18
4	Motorcycle	All Purpose Motorcycle (Touring Body Style)	2018	9	2	0	0	1	12
4	Motorcycle	All Purpose Motorcycle (Touring Body Style)	2019	7	2	0	0	0	9
4	Motorcycle	All Purpose Motorcycle (Touring Body Style)	2020	5	0	0	0	0	5
4	Motorcycle	All Purpose Motorcycle (Touring Body Style)	2021	5	1	0	0	0	6
4	Motorcycle	All Purpose Motorcycle (Touring Body Style)	Total	35	11	0	0	4	50
4	Motorcycle	Pleasure Moped	2017	6	2	0	0	0	8
4	Motorcycle	Pleasure Moped	2018	3	3	0	0	0	6
4	Motorcycle	Pleasure Moped	2019	7	1	0	0	0	8
4	Motorcycle	Pleasure Moped	2020	4	1	0	0	0	5
4	Motorcycle	Pleasure Moped	2021	4	0	0	0	0	4
4	Motorcycle	Pleasure Moped	Total	24	7	0	0	0	31
4	Motorcycle	Pleasure Motorcycle (Moterscooter Body Style)	2017	3	1	0	0	0	4
4	Motorcycle	Pleasure Motorcycle (Moterscooter Body Style)	2018	1	0	0	0	0	1
4	Motorcycle	Pleasure Motorcycle (Moterscooter Body Style)	2019	2	0	0	0	0	2
4	Motorcycle	Pleasure Motorcycle (Moterscooter Body Style)	2020	4	0	0	0	0	4
4	Motorcycle	Pleasure Motorcycle (Moterscooter Body Style)	2021	3	2	0	0	0	5
4	Motorcycle	Pleasure Motorcycle (Moterscooter Body Style)	Total	13	3	0	0	0	16
4	Motorcycle	Pleasure Motorcycle (Other Body Style)	2017	61	38	2	1	0	102
4	Motorcycle	Pleasure Motorcycle (Other Body Style)	2018	57	46	0	0	0	103
4	Motorcycle	Pleasure Motorcycle (Other Body Style)	2019	55	30	0	1	0	86
4	Motorcycle	Pleasure Motorcycle (Other Body Style)	2020	55	36	0	0	0	91
4	Motorcycle	Pleasure Motorcycle (Other Body Style)	2021	57	51	0	1	0	109
4	Motorcycle	Pleasure Motorcycle (Other Body Style)	Total	285	201	2	3	0	491

Table 15
Collision Claim Counts (Including Vehicle Type)

Major Class	Vehicle Type	Use	Loss Year	Territory					Total
				1	2	3	4	5	
4	Motorcycle	Pleasure Motorcycle (Sport Body Style)	2017	48	15	0	1	0	64
4	Motorcycle	Pleasure Motorcycle (Sport Body Style)	2018	26	16	0	1	0	43
4	Motorcycle	Pleasure Motorcycle (Sport Body Style)	2019	25	12	1	0	0	38
4	Motorcycle	Pleasure Motorcycle (Sport Body Style)	2020	29	16	0	0	0	45
4	Motorcycle	Pleasure Motorcycle (Sport Body Style)	2021	25	15	0	0	0	40
4	Motorcycle	Pleasure Motorcycle (Sport Body Style)	Total	153	74	1	2	0	230
4	Motorcycle	Pleasure Motorcycle (Sport-Touring Body Style)	2017	3	4	0	0	0	7
4	Motorcycle	Pleasure Motorcycle (Sport-Touring Body Style)	2018	5	9	0	0	0	14
4	Motorcycle	Pleasure Motorcycle (Sport-Touring Body Style)	2019	5	6	0	0	0	11
4	Motorcycle	Pleasure Motorcycle (Sport-Touring Body Style)	2020	6	5	0	0	0	11
4	Motorcycle	Pleasure Motorcycle (Sport-Touring Body Style)	2021	11	4	0	0	0	15
4	Motorcycle	Pleasure Motorcycle (Sport-Touring Body Style)	Total	30	28	0	0	0	58
4	Motorcycle	Pleasure Motorcycle (Touring Body Style)	2017	39	39	0	4	0	82
4	Motorcycle	Pleasure Motorcycle (Touring Body Style)	2018	28	43	3	0	0	74
4	Motorcycle	Pleasure Motorcycle (Touring Body Style)	2019	27	51	2	2	0	82
4	Motorcycle	Pleasure Motorcycle (Touring Body Style)	2020	42	42	0	1	0	85
4	Motorcycle	Pleasure Motorcycle (Touring Body Style)	2021	34	41	3	0	0	78
4	Motorcycle	Pleasure Motorcycle (Touring Body Style)	Total	170	216	8	7	0	401
4		Major Class Total	2017	208	109	3	6	8	334
4		Major Class Total	2018	168	122	5	2	2	299
4		Major Class Total	2019	162	113	3	3	2	283
4		Major Class Total	2020	160	102	1	1	2	266
4		Major Class Total	2021	155	116	3	1	3	278
4		Major Class Total	Total	853	562	15	13	17	1,460

Table 15
Collision Claim Counts (Including Vehicle Type)

Major Class	Vehicle Type	Use	Loss Year	Territory					Total
				1	2	3	4	5	
5	Trailer	All Purpose Trailer \$2500 or less	2017	50	51	0	1	0	102
5	Trailer	All Purpose Trailer \$2500 or less	2018	43	43	2	0	0	88
5	Trailer	All Purpose Trailer \$2500 or less	2019	41	47	1	4	0	93
5	Trailer	All Purpose Trailer \$2500 or less	2020	38	51	2	0	0	91
5	Trailer	All Purpose Trailer \$2500 or less	2021	19	28	0	0	0	47
5	Trailer	All Purpose Trailer \$2500 or less	Total	191	220	5	5	0	421
5	Trailer	All Purpose Trailer \$2501 or more	2017	106	256	3	9	0	374
5	Trailer	All Purpose Trailer \$2501 or more	2018	134	220	7	3	0	364
5	Trailer	All Purpose Trailer \$2501 or more	2019	120	248	7	5	0	380
5	Trailer	All Purpose Trailer \$2501 or more	2020	119	246	6	5	0	376
5	Trailer	All Purpose Trailer \$2501 or more	2021	101	204	6	5	0	316
5	Trailer	All Purpose Trailer \$2501 or more	Total	580	1,174	29	27	0	1,810
5		Major Class Total	2017	156	307	3	10	0	476
5		Major Class Total	2018	177	263	9	3	0	452
5		Major Class Total	2019	161	295	8	9	0	473
5		Major Class Total	2020	157	297	8	5	0	467
5		Major Class Total	2021	120	232	6	5	0	363
5		Major Class Total	Total	771	1,394	34	32	0	2,231

Table 15
Collision Claim Counts (Including Vehicle Type)

Major Class	Vehicle Type	Use	Loss Year	Territory					Total
				1	2	3	4	5	
6	Off-Road Vehicle	Off Road Vehicle All Purpose	2017	0	0	0	0	0	0
6	Off-Road Vehicle	Off Road Vehicle All Purpose	2018	0	0	0	0	0	0
6	Off-Road Vehicle	Off Road Vehicle All Purpose	2019	0	0	0	0	0	0
6	Off-Road Vehicle	Off Road Vehicle All Purpose	2020	0	0	0	0	0	0
6	Off-Road Vehicle	Off Road Vehicle All Purpose	2021	0	0	0	0	0	0
6	Off-Road Vehicle	Off Road Vehicle All Purpose	Total	0	0	0	0	0	0
6		Major Class Total	2017	0	0	0	0	0	0
6		Major Class Total	2018	0	0	0	0	0	0
6		Major Class Total	2019	0	0	0	0	0	0
6		Major Class Total	2020	0	0	0	0	0	0
6		Major Class Total	2021	0	0	0	0	0	0
6		Major Class Total	Total	0	0	0	0	0	0

Table 10
Reported Loss and ALAE without Hail
and with 10-Year Average Expected Serious Losses
(Adjusted for Basic Product Changes)

Major Class	Use	Loss Year	Territory					Total
			1	2	3	4	5	
1	All Purpose Motorhome	2017	66,272	30,081				96,353
1	All Purpose Motorhome	2018	28,315	6,157			74	34,546
1	All Purpose Motorhome	2019	46,403	27,976				74,378
1	All Purpose Motorhome	2020	76,256	4,616			615	81,487
1	All Purpose Motorhome	2021	82,232	51,594			7,190	141,016
1	All Purpose Motorhome	Total	299,478	120,424	0	0	7,880	427,781
1	All Purpose Passenger Vehicle	2017	212,852,322	64,222,085	3,130,318	3,476,224	22,184,118	305,865,067
1	All Purpose Passenger Vehicle	2018	216,338,025	67,700,634	2,674,294	3,161,474	20,653,389	310,527,816
1	All Purpose Passenger Vehicle	2019	212,174,774	69,217,652	2,856,073	2,904,532	22,369,774	309,522,805
1	All Purpose Passenger Vehicle	2020	152,279,467	60,813,803	2,190,684	2,729,449	15,398,084	233,411,487
1	All Purpose Passenger Vehicle	2021	201,092,024	70,238,976	2,532,736	3,208,263	18,378,875	295,450,875
1	All Purpose Passenger Vehicle	Total	994,736,612	332,193,151	13,384,106	15,479,942	98,984,240	1,454,778,051
1	All Purpose Truck 4540 kg or less	2017	40,406,207	30,839,191	2,825,896	2,774,235	9,680,150	86,525,680
1	All Purpose Truck 4540 kg or less	2018	40,157,545	30,909,790	2,984,953	3,166,340	8,791,063	86,009,692
1	All Purpose Truck 4540 kg or less	2019	40,237,961	28,857,870	2,569,937	3,748,387	10,296,498	85,710,652
1	All Purpose Truck 4540 kg or less	2020	34,706,897	31,063,255	2,117,670	3,333,152	8,119,582	79,340,556
1	All Purpose Truck 4540 kg or less	2021	39,394,449	31,765,837	2,769,836	3,473,799	9,279,270	86,683,190
1	All Purpose Truck 4540 kg or less	Total	194,903,059	153,435,943	13,268,292	16,495,912	46,166,564	424,269,769
1	Antique Vehicle	2017						
1	Antique Vehicle	2018						
1	Antique Vehicle	2019		500				500
1	Antique Vehicle	2020						
1	Antique Vehicle	2021						
1	Antique Vehicle	Total	0	500	0	0	0	500
1	Collector Passenger Vehicle	2017	172,145	497,004				669,149
1	Collector Passenger Vehicle	2018	152,619	76,758	976			230,353
1	Collector Passenger Vehicle	2019	43,829	160,937				204,766
1	Collector Passenger Vehicle	2020	85,473	42,463				127,936
1	Collector Passenger Vehicle	2021	66,730	85,944	4,358			157,031
1	Collector Passenger Vehicle	Total	520,796	863,106	5,334	0	0	1,389,236
1	Collector Truck 4540 kg or less	2017	8,927	3,213				12,139
1	Collector Truck 4540 kg or less	2018	8,469	25,129				33,598
1	Collector Truck 4540 kg or less	2019	2,112	21,357				23,469
1	Collector Truck 4540 kg or less	2020	7,274	16,150				23,423
1	Collector Truck 4540 kg or less	2021	8,144	30,596				38,740
1	Collector Truck 4540 kg or less	Total	34,926	96,443	0	0	0	131,369
1	Disabled Persons/Private/Business Bus	2017	320,423	435,402	62,944	63,198		881,967
1	Disabled Persons/Private/Business Bus	2018	442,642	270,404	34,411	74,521		821,978
1	Disabled Persons/Private/Business Bus	2019	784,114	427,501	56,657	59,273		1,327,544
1	Disabled Persons/Private/Business Bus	2020	335,661	128,497	33,178	24,242		521,578
1	Disabled Persons/Private/Business Bus	2021	284,165	254,208	30,874	33,523		602,770
1	Disabled Persons/Private/Business Bus	Total	2,167,006	1,516,012	218,063	254,757	0	4,155,838

Table 10
Reported Loss and ALAE without Hail
and with 10-Year Average Expected Serious Losses
(Adjusted for Basic Product Changes)

Major Class	Use	Loss Year	Territory					Total
			1	2	3	4	5	
1	Farm Passenger Vehicle	2017	3,384	3,386,930				3,390,313
1	Farm Passenger Vehicle	2018	27,931	3,237,806				3,265,738
1	Farm Passenger Vehicle	2019	9,589	2,720,766				2,730,355
1	Farm Passenger Vehicle	2020	8,155	2,543,529		2,012		2,553,696
1	Farm Passenger Vehicle	2021	-945	2,514,473				2,513,528
1	Farm Passenger Vehicle	Total	48,115	14,403,503	0	2,012	0	14,453,630
1	Farming All Purpose Truck 4540 kg or less	2017	99,677	14,758,609	7,672	42,364	274,601	15,182,923
1	Farming All Purpose Truck 4540 kg or less	2018	204,884	14,152,457	18,507	107,390	353,206	14,836,445
1	Farming All Purpose Truck 4540 kg or less	2019	136,500	13,709,547	6,404	73,545	318,026	14,244,022
1	Farming All Purpose Truck 4540 kg or less	2020	108,921	14,559,087	15,405	35,707	291,204	15,010,325
1	Farming All Purpose Truck 4540 kg or less	2021	52,103	14,202,898	400	19,745	390,830	14,665,974
1	Farming All Purpose Truck 4540 kg or less	Total	602,085	71,382,598	48,388	278,751	1,627,867	73,939,689
1	Fishing All Purpose Truck 4540 kg or less	2017	12,318	204,829		16,169	17,377	250,693
1	Fishing All Purpose Truck 4540 kg or less	2018	733	164,782		49,804	2,340	217,659
1	Fishing All Purpose Truck 4540 kg or less	2019	1,397	143,755	1,458	4,402		151,013
1	Fishing All Purpose Truck 4540 kg or less	2020		116,051		5,133	500	121,684
1	Fishing All Purpose Truck 4540 kg or less	2021		98,674		64,851		163,525
1	Fishing All Purpose Truck 4540 kg or less	Total	14,449	728,090	1,458	140,360	20,217	904,573
1	Passenger Vehicle-for-Hire (Passenger Vehicle)	2017						
1	Passenger Vehicle-for-Hire (Passenger Vehicle)	2018	945,661	73,701	11,638	1,796	60,432	1,093,228
1	Passenger Vehicle-for-Hire (Passenger Vehicle)	2019	1,497,962	127,322	14,992	5,176	130,421	1,775,873
1	Passenger Vehicle-for-Hire (Passenger Vehicle)	2020	1,235,161	171,655	39,337	7,912	64,891	1,518,956
1	Passenger Vehicle-for-Hire (Passenger Vehicle)	2021	2,621,602	229,245	7,503	21,237	116,018	2,995,605
1	Passenger Vehicle-for-Hire (Passenger Vehicle)	Total	6,300,386	601,922	73,471	36,122	371,761	7,383,662
1	Passenger Vehicle-for-Hire (Truck 4,499 kg or less GVW)	2017						
1	Passenger Vehicle-for-Hire (Truck 4,499 kg or less GVW)	2018	31,571	314			197	32,082
1	Passenger Vehicle-for-Hire (Truck 4,499 kg or less GVW)	2019	7,967		356			8,323
1	Passenger Vehicle-for-Hire (Truck 4,499 kg or less GVW)	2020	1,314		2,525	95		3,935
1	Passenger Vehicle-for-Hire (Truck 4,499 kg or less GVW)	2021	750	13,010	6,230			19,989
1	Passenger Vehicle-for-Hire (Truck 4,499 kg or less GVW)	Total	41,603	13,324	9,110	95	197	64,329
1	Pleasure Motorhome	2017	521,056	859,795		3,546		1,384,397
1	Pleasure Motorhome	2018	637,434	967,730	9,254	26,506		1,640,923
1	Pleasure Motorhome	2019	412,388	891,437	1,072	759		1,305,656
1	Pleasure Motorhome	2020	656,994	724,973	14,627	29,272		1,425,865
1	Pleasure Motorhome	2021	287,169	519,622		39,293		846,084
1	Pleasure Motorhome	Total	2,515,041	3,963,557	24,953	99,374	0	6,602,925
1	Pleasure Passenger Vehicle	2017	78,390,107	49,528,602	1,280,017	2,019,754		131,218,480
1	Pleasure Passenger Vehicle	2018	79,690,745	46,519,301	1,102,864	2,048,588	6,151	129,367,648
1	Pleasure Passenger Vehicle	2019	75,135,467	48,704,677	765,802	1,821,492		126,427,438
1	Pleasure Passenger Vehicle	2020	67,004,167	45,677,148	862,284	1,778,986		115,322,585
1	Pleasure Passenger Vehicle	2021	86,785,911	52,091,848	981,391	2,165,115		142,024,265
1	Pleasure Passenger Vehicle	Total	387,006,397	242,521,576	4,992,358	9,833,935	6,151	644,360,416

Table 10
Reported Loss and ALAE without Hail
and with 10-Year Average Expected Serious Losses
(Adjusted for Basic Product Changes)

Major Class	Use	Loss Year	Territory					Total
			1	2	3	4	5	
1	Pleasure Truck	2017	8,566,140	15,731,914	869,987	1,610,092		26,778,133
1	Pleasure Truck	2018	8,651,230	17,240,882	808,263	1,285,648		27,986,023
1	Pleasure Truck	2019	8,747,809	16,660,610	688,935	2,080,407		28,177,760
1	Pleasure Truck	2020	8,633,186	16,509,673	660,523	1,397,183		27,200,565
1	Pleasure Truck	2021	10,184,922	17,737,864	756,072	1,440,514		30,119,372
1	Pleasure Truck	Total	44,783,287	83,880,943	3,783,780	7,813,843	0	140,261,853
<hr/>								
1	Major Class Total	2017	341,418,977	180,497,655	8,176,835	10,005,581	32,156,246	572,255,295
1	Major Class Total	2018	347,317,806	181,345,845	7,645,160	9,922,066	29,866,852	576,097,729
1	Major Class Total	2019	339,238,272	181,671,906	6,961,686	10,697,973	33,114,719	571,684,556
1	Major Class Total	2020	265,138,928	172,370,898	5,936,233	9,343,143	23,874,876	476,664,078
1	Major Class Total	2021	340,859,256	189,834,787	7,089,399	10,466,339	28,172,183	576,421,965
1	Major Class Total	Total	1,633,973,239	905,721,091	35,809,313	50,435,103	147,184,875	2,773,123,622

Table 10
Reported Loss and ALAE without Hail
and with 10-Year Average Expected Serious Losses
(Adjusted for Basic Product Changes)

Major Class	Use	Loss Year	Territory					Total
			1	2	3	4	5	
2	Artisan Truck	2017	14,737	1,138			3,093	18,968
2	Artisan Truck	2018	52,334	11,686	40		1,861	65,921
2	Artisan Truck	2019	59,935	164,663			3,985	228,584
2	Artisan Truck	2020	54,739	8,295			3,032	66,066
2	Artisan Truck	2021	99,851	14,591			92,886	207,328
2	Artisan Truck	Total	281,597	200,374	40	0	104,857	586,867
2	Cement/Brick/Exploration Truck	2017	97,655	13,742				111,397
2	Cement/Brick/Exploration Truck	2018	25,377	69,154				94,531
2	Cement/Brick/Exploration Truck	2019	32,979	191,204				224,183
2	Cement/Brick/Exploration Truck	2020	12,352	9,812				22,164
2	Cement/Brick/Exploration Truck	2021	24,724	109,184				133,908
2	Cement/Brick/Exploration Truck	Total	193,087	393,096	0	0	0	586,183
2	Common Carrier Vehicle Local	2017	1,292,399	473,809	48,145	13,908		1,828,261
2	Common Carrier Vehicle Local	2018	1,515,619	418,565	26,176	2,749		1,963,109
2	Common Carrier Vehicle Local	2019	1,604,920	394,581	14,460	29,440		2,043,401
2	Common Carrier Vehicle Local	2020	1,647,466	532,229	37,742	7,599		2,225,037
2	Common Carrier Vehicle Local	2021	2,011,137	512,314	135,846	39,852		2,699,149
2	Common Carrier Vehicle Local	Total	8,071,541	2,331,498	262,371	93,547	0	10,758,957
2	Common Carrier Vehicle Within City or Mun.	2017	745,550	135,194		558		881,302
2	Common Carrier Vehicle Within City or Mun.	2018	798,582	82,388	221			881,191
2	Common Carrier Vehicle Within City or Mun.	2019	776,508	58,918				835,427
2	Common Carrier Vehicle Within City or Mun.	2020	342,947	47,482				390,429
2	Common Carrier Vehicle Within City or Mun.	2021	483,500	91,436				574,936
2	Common Carrier Vehicle Within City or Mun.	Total	3,147,086	415,419	221	558	0	3,563,284
2	Common Carrier Passenger Vehicle < 161 km in Manitoba	2017	22,038	12,016				34,054
2	Common Carrier Passenger Vehicle < 161 km in Manitoba	2018	82,446	13,748				96,194
2	Common Carrier Passenger Vehicle < 161 km in Manitoba	2019	51,427	24,380				75,807
2	Common Carrier Passenger Vehicle < 161 km in Manitoba	2020	124,481	83,781				208,262
2	Common Carrier Passenger Vehicle < 161 km in Manitoba	2021	179,888	72,592				252,479
2	Common Carrier Passenger Vehicle < 161 km in Manitoba	Total	460,281	206,516	0	0	0	666,797
2	Common Carrier Truck < 161 km in Manitoba	2017	838,435	312,354				1,150,789
2	Common Carrier Truck < 161 km in Manitoba	2018	775,319	372,886				1,148,205
2	Common Carrier Truck < 161 km in Manitoba	2019	803,886	601,097				1,404,983
2	Common Carrier Truck < 161 km in Manitoba	2020	830,063	301,142		500		1,131,704
2	Common Carrier Truck < 161 km in Manitoba	2021	738,286	461,655		13,163		1,213,104
2	Common Carrier Truck < 161 km in Manitoba	Total	3,985,989	2,049,133	0	13,663	0	6,048,785
2	Common Carrier Passenger Vehicle > 161 km in Manitoba	2017	7,577	8,154				15,731
2	Common Carrier Passenger Vehicle > 161 km in Manitoba	2018		4,550				4,550
2	Common Carrier Passenger Vehicle > 161 km in Manitoba	2019	9,415	11,641	5,215			26,272
2	Common Carrier Passenger Vehicle > 161 km in Manitoba	2020	144	500				644
2	Common Carrier Passenger Vehicle > 161 km in Manitoba	2021	2,154	60,923				63,077
2	Common Carrier Passenger Vehicle > 161 km in Manitoba	Total	19,290	85,769	5,215	0	0	110,274

Table 10
Reported Loss and ALAE without Hail
and with 10-Year Average Expected Serious Losses
(Adjusted for Basic Product Changes)

Major Class	Use	Loss Year	Territory					Total
			1	2	3	4	5	
2	Common Carrier Truck > 161 km in Manitoba	2017	415,737	365,865				781,602
2	Common Carrier Truck > 161 km in Manitoba	2018	340,005	588,941	34,181			963,127
2	Common Carrier Truck > 161 km in Manitoba	2019	525,029	164,457		3,780		693,266
2	Common Carrier Truck > 161 km in Manitoba	2020	470,429	239,301		3,874		713,603
2	Common Carrier Truck > 161 km in Manitoba	2021	425,400	164,825	985			591,211
2	Common Carrier Truck > 161 km in Manitoba	Total	2,176,601	1,523,388	35,166	7,654	0	3,742,808
2	Dealer All Uses except Motorcycles	2017	2,849,784	1,201,925	16,369	7,392		4,075,471
2	Dealer All Uses except Motorcycles	2018	2,713,233	1,394,182	28,058	18,024		4,153,497
2	Dealer All Uses except Motorcycles	2019	2,737,965	1,228,677	14,355	10,911		3,991,909
2	Dealer All Uses except Motorcycles	2020	2,128,440	958,295	6,468	35,747		3,128,950
2	Dealer All Uses except Motorcycles	2021	2,460,227	1,142,327	29,990	5,491		3,638,036
2	Dealer All Uses except Motorcycles	Total	12,889,650	5,925,407	95,241	77,565	0	18,987,863
2	Dealer Moped	2017						
2	Dealer Moped	2018						
2	Dealer Moped	2019						
2	Dealer Moped	2020						
2	Dealer Moped	2021						
2	Dealer Moped	Total	0	0	0	0	0	0
2	Dealer Motorcycle	2017	46,612	713,847				760,459
2	Dealer Motorcycle	2018						
2	Dealer Motorcycle	2019	22,919	40,333				63,252
2	Dealer Motorcycle	2020	7,180	20,574				27,755
2	Dealer Motorcycle	2021	114,092					114,092
2	Dealer Motorcycle	Total	190,804	774,753	0	0	0	965,557
2	Dealer Trailer	2017	7,534	20,750				28,284
2	Dealer Trailer	2018		19,439				19,439
2	Dealer Trailer	2019	3,903	5,859				9,762
2	Dealer Trailer	2020		27,227				27,227
2	Dealer Trailer	2021	4,729	1,140				5,869
2	Dealer Trailer	Total	16,166	74,415	0	0	0	90,581
2	Driveaway Within Manitoba	2017						
2	Driveaway Within Manitoba	2018						
2	Driveaway Within Manitoba	2019						
2	Driveaway Within Manitoba	2020						
2	Driveaway Within Manitoba	2021						
2	Driveaway Within Manitoba	Total	0	0	0	0	0	0
2	Driveaway > 161 km Outside Manitoba	2017						
2	Driveaway > 161 km Outside Manitoba	2018						
2	Driveaway > 161 km Outside Manitoba	2019						
2	Driveaway > 161 km Outside Manitoba	2020						
2	Driveaway > 161 km Outside Manitoba	2021						
2	Driveaway > 161 km Outside Manitoba	Total	0	0	0	0	0	0

Table 10
Reported Loss and ALAE without Hail
and with 10-Year Average Expected Serious Losses
(Adjusted for Basic Product Changes)

Major Class	Use	Loss Year	Territory					Total
			1	2	3	4	5	
2	Farming All Purpose Truck 4541 kg or more	2017	41,863	5,038,101		6,305		5,086,269
2	Farming All Purpose Truck 4541 kg or more	2018	72	4,099,213		45,105		4,144,391
2	Farming All Purpose Truck 4541 kg or more	2019	28,886	3,486,114				3,515,000
2	Farming All Purpose Truck 4541 kg or more	2020	12,608	4,938,866		5,472		4,956,946
2	Farming All Purpose Truck 4541 kg or more	2021	107	4,329,165		2,386		4,331,658
2	Farming All Purpose Truck 4541 kg or more	Total	83,537	21,891,459	0	59,268	0	22,034,264
2	Fishing All Purpose Truck 4541 kg or more	2017						
2	Fishing All Purpose Truck 4541 kg or more	2018						
2	Fishing All Purpose Truck 4541 kg or more	2019						
2	Fishing All Purpose Truck 4541 kg or more	2020						
2	Fishing All Purpose Truck 4541 kg or more	2021						
2	Fishing All Purpose Truck 4541 kg or more	Total	0	0	0	0	0	0
2	Logging Truck	2017				500		500
2	Logging Truck	2018		859		4,371		5,230
2	Logging Truck	2019		642		1,164		1,806
2	Logging Truck	2020		1,500				1,500
2	Logging Truck	2021		2,575				2,575
2	Logging Truck	Total	0	5,576	0	6,036	0	11,611
2	Other Truck	2017	3,390,780	3,077,159	106,214	57,638	895,490	7,527,281
2	Other Truck	2018	3,599,214	3,182,820	176,394	206,294	670,126	7,834,849
2	Other Truck	2019	4,065,620	2,976,586	185,486	66,402	1,252,278	8,546,373
2	Other Truck	2020	3,736,804	2,988,714	330,984	174,799	1,015,543	8,246,843
2	Other Truck	2021	3,958,671	3,156,402	142,121	122,749	1,052,911	8,432,854
2	Other Truck	Total	18,751,088	15,381,681	941,200	627,883	4,886,348	40,588,200
2	Petroleum/Chemical Truck	2017	7,341	370,882	35,048			413,271
2	Petroleum/Chemical Truck	2018	3,026	112,693	900			116,619
2	Petroleum/Chemical Truck	2019	41,265	86,660	198			128,123
2	Petroleum/Chemical Truck	2020	112,597	143,393	253			256,243
2	Petroleum/Chemical Truck	2021	55,818	375,237				431,055
2	Petroleum/Chemical Truck	Total	220,048	1,088,864	36,399	0	0	1,345,311
2	Repairer	2017	199,862	53,556				253,418
2	Repairer	2018	71,421	27,851	16,489			115,761
2	Repairer	2019	78,056	23,295		10,196		111,547
2	Repairer	2020	76,471	44,569				121,040
2	Repairer	2021	103,860	75,776	7,582	8,262		195,480
2	Repairer	Total	529,670	225,046	24,072	18,459	0	797,246
2	Sand/Gravel Truck	2017	222,291	504,899	22,660	4,280		754,129
2	Sand/Gravel Truck	2018	548,797	298,599				847,397
2	Sand/Gravel Truck	2019	185,553	1,006,203				1,191,755
2	Sand/Gravel Truck	2020	222,728	388,916				611,644
2	Sand/Gravel Truck	2021	376,265	272,388	2,114			650,767
2	Sand/Gravel Truck	Total	1,555,634	2,471,004	24,774	4,280	0	4,055,693

Table 10
Reported Loss and ALAE without Hail
and with 10-Year Average Expected Serious Losses
(Adjusted for Basic Product Changes)

Major Class	Use	Loss Year	Territory					Total
			1	2	3	4	5	
2	Tow Truck	2017	373,405	155,703	45,082			574,189
2	Tow Truck	2018	355,200	416,948	164	919		773,231
2	Tow Truck	2019	290,093	303,605	606			594,304
2	Tow Truck	2020	294,144	196,769	225	23,789		514,926
2	Tow Truck	2021	251,945	72,940	153	18,251		343,289
2	Tow Truck	Total	1,564,786	1,145,965	46,229	42,959	0	2,799,940
2	Major Class Total	2017	10,573,600	12,459,092	273,518	90,581	898,583	24,295,375
2	Major Class Total	2018	10,880,647	11,114,522	282,623	277,463	671,987	23,227,242
2	Major Class Total	2019	11,318,361	10,768,915	220,321	121,894	1,256,263	23,685,754
2	Major Class Total	2020	10,073,593	10,931,363	375,672	251,779	1,018,575	22,650,983
2	Major Class Total	2021	11,290,653	10,915,469	318,793	210,155	1,145,797	23,880,866
2	Major Class Total	Total	54,136,855	56,189,362	1,470,927	951,871	4,991,205	117,740,220

Table 10
Reported Loss and ALAE without Hail
and with 10-Year Average Expected Serious Losses
(Adjusted for Basic Product Changes)

Major Class	Use	Loss Year	Territory					Total
			1	2	3	4	5	
3	Charter Bus Local	2017	15,077					15,077
3	Charter Bus Local	2018	24,819					24,819
3	Charter Bus Local	2019	26,950					26,950
3	Charter Bus Local	2020	9,883	641				10,525
3	Charter Bus Local	2021	66,110	1,750				67,860
3	Charter Bus Local	Total	142,839	2,391	0	0	0	145,231
3	Common Carrier Bus Within Manitoba	2017	4,181	1,539				5,720
3	Common Carrier Bus Within Manitoba	2018	4,978	960				5,938
3	Common Carrier Bus Within Manitoba	2019	14,812		0			14,812
3	Common Carrier Bus Within Manitoba	2020	1,246	468				1,714
3	Common Carrier Bus Within Manitoba	2021	3,807	750				4,557
3	Common Carrier Bus Within Manitoba	Total	29,023	3,717	0	0	0	32,740
3	Common Carrier Bus > 161 km Outside Manitoba	2017						
3	Common Carrier Bus > 161 km Outside Manitoba	2018	2,293	2,016				4,309
3	Common Carrier Bus > 161 km Outside Manitoba	2019				184		184
3	Common Carrier Bus > 161 km Outside Manitoba	2020						
3	Common Carrier Bus > 161 km Outside Manitoba	2021						
3	Common Carrier Bus > 161 km Outside Manitoba	Total	2,293	2,016	0	184	0	4,492
3	Funeral Passenger Vehicle	2017	41,071	10,417		4,221		55,710
3	Funeral Passenger Vehicle	2018	24,065	10,977				35,042
3	Funeral Passenger Vehicle	2019	12,091	18,176		686		30,953
3	Funeral Passenger Vehicle	2020	2,927	15,984		7,704		26,615
3	Funeral Passenger Vehicle	2021	10,434	42,861				53,295
3	Funeral Passenger Vehicle	Total	90,588	98,415	0	12,611	0	201,614
3	Limousine Vehicle-for-Hire	2017	94,965	60,198				155,163
3	Limousine Vehicle-for-Hire	2018	74,070	28,679				102,749
3	Limousine Vehicle-for-Hire	2019	110,702	35,640				146,342
3	Limousine Vehicle-for-Hire	2020	34,420	46,453				80,873
3	Limousine Vehicle-for-Hire	2021	121,320	3,394				124,714
3	Limousine Vehicle-for-Hire	Total	435,477	174,364	0	0	0	609,841
3	Police/Emergency Passenger Vehicle	2017	978,316	316,730	11,520	26,733		1,333,299
3	Police/Emergency Passenger Vehicle	2018	1,337,919	499,260	10,369	25,893		1,873,442
3	Police/Emergency Passenger Vehicle	2019	970,491	421,531	1			1,392,023
3	Police/Emergency Passenger Vehicle	2020	1,139,341	626,849	46	7,887		1,774,124
3	Police/Emergency Passenger Vehicle	2021	1,188,359	511,897	1,733	3,211		1,705,201
3	Police/Emergency Passenger Vehicle	Total	5,614,426	2,376,268	23,670	63,724	0	8,078,088
3	Police/Emergency Truck	2017	50,942	51,336	19,389	5,162		126,829
3	Police/Emergency Truck	2018	1,090	29,812				30,902
3	Police/Emergency Truck	2019	9,541	73,285	5,522			88,347
3	Police/Emergency Truck	2020	20,458	188,534	11,449	8,751		229,192
3	Police/Emergency Truck	2021	31,128	85,927	94	12,400		129,549
3	Police/Emergency Truck	Total	113,159	428,894	36,454	26,313	0	604,820

Table 10
Reported Loss and ALAE without Hail
and with 10-Year Average Expected Serious Losses
(Adjusted for Basic Product Changes)

Major Class	Use	Loss Year	Territory					Total
			1	2	3	4	5	
3	School Bus Local	2017	248,797	262,278	500	33,610		545,185
3	School Bus Local	2018	409,757	467,572	14,688	27,627		919,644
3	School Bus Local	2019	392,099	422,810	40,067	21,199		876,175
3	School Bus Local	2020	156,164	248,829	2,689	728		408,410
3	School Bus Local	2021	293,911	478,574	2,869	88,923		864,278
3	School Bus Local	Total	1,500,729	1,880,063	60,813	172,087	0	3,613,691
3	Taxicab Vehicle-for-Hire	2017	3,247,876	301,572	144,371	44,811		3,738,631
3	Taxicab Vehicle-for-Hire	2018	3,246,170	280,145	111,090	4,135		3,641,540
3	Taxicab Vehicle-for-Hire	2019	3,265,461	419,317	154,987	17,046		3,856,811
3	Taxicab Vehicle-for-Hire	2020	1,972,002	482,389	138,584	6,750		2,599,725
3	Taxicab Vehicle-for-Hire	2021	2,586,170	277,521	133,258	6,166		3,003,115
3	Taxicab Vehicle-for-Hire	Total	14,317,680	1,760,945	682,289	78,907	0	16,839,821
3	Transit Bus Local	2017	537,273	134,143	512			671,928
3	Transit Bus Local	2018	690,105	206,699	11,859			908,663
3	Transit Bus Local	2019	2,018,392	103,047				2,121,439
3	Transit Bus Local	2020	417,306	34,888				452,194
3	Transit Bus Local	2021	456,219	29,474				485,692
3	Transit Bus Local	Total	4,119,295	508,251	12,371	0	0	4,639,916
3	U-Drive Bus	2017	15,603	53,351				68,954
3	U-Drive Bus	2018	35,937	16,192				52,130
3	U-Drive Bus	2019	49,677	4,609				54,287
3	U-Drive Bus	2020	161	27,053				27,215
3	U-Drive Bus	2021	60,594	3,297				63,891
3	U-Drive Bus	Total	161,973	104,502	0	0	0	266,476
3	U-Drive Moped	2017						
3	U-Drive Moped	2018						
3	U-Drive Moped	2019						
3	U-Drive Moped	2020						
3	U-Drive Moped	2021						
3	U-Drive Moped	Total	0	0	0	0	0	0
3	U-Drive Motorhome	2017	24,372	3,121				27,492
3	U-Drive Motorhome	2018	12,049	14,312				26,361
3	U-Drive Motorhome	2019	7,022	14,017				21,039
3	U-Drive Motorhome	2020	95,221	15,658				110,879
3	U-Drive Motorhome	2021	688	25,209				25,897
3	U-Drive Motorhome	Total	139,352	72,316	0	0	0	211,668
3	U-Drive Passenger Vehicle	2017	7,179,451	743,951	80,976	28,727		8,033,105
3	U-Drive Passenger Vehicle	2018	6,870,209	1,264,617	90,675	77,795		8,303,296
3	U-Drive Passenger Vehicle	2019	7,049,475	999,841	58,573	82,816		8,190,705
3	U-Drive Passenger Vehicle	2020	5,468,109	748,493	82,067	22,661		6,321,330
3	U-Drive Passenger Vehicle	2021	7,097,239	498,628	61,325	27,192		7,684,385
3	U-Drive Passenger Vehicle	Total	33,664,484	4,255,529	373,617	239,191	0	38,532,821

Table 10
Reported Loss and ALAE without Hail
and with 10-Year Average Expected Serious Losses
(Adjusted for Basic Product Changes)

Major Class	Use	Loss Year	Territory					Total
			1	2	3	4	5	
3	U-Drive Truck	2017	1,472,801	189,761	368,959	34,748		2,066,269
3	U-Drive Truck	2018	1,536,279	208,436	63,462	84,815		1,892,992
3	U-Drive Truck	2019	1,699,699	257,593	63,629	8,334		2,029,254
3	U-Drive Truck	2020	1,226,648	230,777	30,583	36,829		1,524,836
3	U-Drive Truck	2021	1,224,584	60,727	28,394	2,427		1,316,131
3	U-Drive Truck	Total	7,160,010	947,293	555,026	167,153	0	8,829,482
3	Accessible Vehicle-for-Hire	2017	252,322					252,322
3	Accessible Vehicle-for-Hire	2018	579,794	35,100				614,894
3	Accessible Vehicle-for-Hire	2019	678,571	30,590	231			709,392
3	Accessible Vehicle-for-Hire	2020	470,012	40,415				510,427
3	Accessible Vehicle-for-Hire	2021	809,876	70,960		1,650		882,486
3	Accessible Vehicle-for-Hire	Total	2,790,575	177,065	231	1,650	0	2,969,521
3	Major Class Total	2017	14,163,047	2,128,398	626,228	178,013		17,095,686
3	Major Class Total	2018	14,849,534	3,064,778	302,143	220,264		18,436,719
3	Major Class Total	2019	16,304,982	2,800,455	323,009	130,264		19,558,711
3	Major Class Total	2020	11,013,899	2,707,430	265,418	91,310		14,078,057
3	Major Class Total	2021	13,950,439	2,090,967	227,674	141,970		16,411,050
3	Major Class Total	Total	70,281,902	12,792,029	1,744,471	761,820	0	85,580,222

Table 10
Reported Loss and ALAE without Hail
and with 10-Year Average Expected Serious Losses
(Adjusted for Basic Product Changes)

Major Class	Use	Loss Year	Territory					Total
			1	2	3	4	5	
4	All Purpose Moped	2017	80,404	14,029				94,434
4	All Purpose Moped	2018	519,489	518				520,006
4	All Purpose Moped	2019	127,780	12,710				140,490
4	All Purpose Moped	2020	180,281					180,281
4	All Purpose Moped	2021	67,402	13,586				80,988
4	All Purpose Moped	Total	975,356	40,844	0	0	0	1,016,199
4	All Purpose Motorcycle (Moterscooter Body Style)	2017	15,320					15,320
4	All Purpose Motorcycle (Moterscooter Body Style)	2018	18,519			15,855		34,374
4	All Purpose Motorcycle (Moterscooter Body Style)	2019	12,894					12,894
4	All Purpose Motorcycle (Moterscooter Body Style)	2020	95,272					95,272
4	All Purpose Motorcycle (Moterscooter Body Style)	2021					12,315	12,315
4	All Purpose Motorcycle (Moterscooter Body Style)	Total	142,005	0	0	15,855	12,315	170,175
4	All Purpose Motorcycle (Other Body Style)	2017	507,556	45,944	12,983		129,446	695,928
4	All Purpose Motorcycle (Other Body Style)	2018	348,596	13,811				362,407
4	All Purpose Motorcycle (Other Body Style)	2019	528,210	202,101			18,914	749,224
4	All Purpose Motorcycle (Other Body Style)	2020	359,866	40,957	14,565			415,388
4	All Purpose Motorcycle (Other Body Style)	2021	156,057				171,035	327,092
4	All Purpose Motorcycle (Other Body Style)	Total	1,900,284	302,812	27,548	0	319,394	2,550,039
4	All Purpose Motorcycle (Sport Body Style)	2017	213,056				15,259	228,315
4	All Purpose Motorcycle (Sport Body Style)	2018	90,589	14,885	26,631		23,242	155,347
4	All Purpose Motorcycle (Sport Body Style)	2019	81,748	15,269				97,016
4	All Purpose Motorcycle (Sport Body Style)	2020	29,434				41,114	70,548
4	All Purpose Motorcycle (Sport Body Style)	2021	49,511	17,880			18,747	86,137
4	All Purpose Motorcycle (Sport Body Style)	Total	464,338	48,033	26,631	0	98,362	637,364
4	All Purpose Motorcycle (Sport-Touring Body Style)	2017					20,801	20,801
4	All Purpose Motorcycle (Sport-Touring Body Style)	2018	40,611	16,690				57,302
4	All Purpose Motorcycle (Sport-Touring Body Style)	2019	16,798	15,066			15,028	46,892
4	All Purpose Motorcycle (Sport-Touring Body Style)	2020	15,620				14,748	30,368
4	All Purpose Motorcycle (Sport-Touring Body Style)	2021	67,572					67,572
4	All Purpose Motorcycle (Sport-Touring Body Style)	Total	140,601	31,756	0	0	50,576	222,934
4	All Purpose Motorcycle (Touring Body Style)	2017	243,142	94,371			142,153	479,666
4	All Purpose Motorcycle (Touring Body Style)	2018	221,037	57,958			15,725	294,721
4	All Purpose Motorcycle (Touring Body Style)	2019	385,856	99,096				484,951
4	All Purpose Motorcycle (Touring Body Style)	2020	185,298					185,298
4	All Purpose Motorcycle (Touring Body Style)	2021	102,581	436,102				538,682
4	All Purpose Motorcycle (Touring Body Style)	Total	1,137,913	687,526	0	0	157,879	1,983,318
4	Pleasure Moped	2017	151,507	115,097				266,604
4	Pleasure Moped	2018	46,963	41,134				88,097
4	Pleasure Moped	2019	146,803	13,443				160,246
4	Pleasure Moped	2020	88,796	13,171				101,966
4	Pleasure Moped	2021	174,031					174,031
4	Pleasure Moped	Total	608,100	182,845	0	0	0	790,945

Table 10
Reported Loss and ALAE without Hail
and with 10-Year Average Expected Serious Losses
(Adjusted for Basic Product Changes)

Major Class	Use	Loss Year	Territory					Total
			1	2	3	4	5	
4	Pleasure Motorcycle (Motorscooter Body Style)	2017	46,315	15,247				61,562
4	Pleasure Motorcycle (Motorscooter Body Style)	2018	15,786					15,786
4	Pleasure Motorcycle (Motorscooter Body Style)	2019	39,618					39,618
4	Pleasure Motorcycle (Motorscooter Body Style)	2020	77,364					77,364
4	Pleasure Motorcycle (Motorscooter Body Style)	2021	82,086	49,121				131,207
4	Pleasure Motorcycle (Motorscooter Body Style)	Total	261,169	64,368	0	0	0	325,538
4	Pleasure Motorcycle (Other Body Style)	2017	1,841,591	1,109,441	30,076	15,240		2,996,349
4	Pleasure Motorcycle (Other Body Style)	2018	1,669,005	1,552,553				3,221,558
4	Pleasure Motorcycle (Other Body Style)	2019	1,559,374	1,015,326	2,714	350,483		2,927,896
4	Pleasure Motorcycle (Other Body Style)	2020	1,484,190	1,364,440	500			2,849,131
4	Pleasure Motorcycle (Other Body Style)	2021	1,989,551	1,911,380	8,455	17,720		3,927,105
4	Pleasure Motorcycle (Other Body Style)	Total	8,543,711	6,953,141	41,744	383,443	0	15,922,039
4	Pleasure Motorcycle (Sport Body Style)	2017	884,501	418,183		16,872		1,319,557
4	Pleasure Motorcycle (Sport Body Style)	2018	617,649	387,434		14,707		1,019,790
4	Pleasure Motorcycle (Sport Body Style)	2019	477,622	201,503	16,140			695,264
4	Pleasure Motorcycle (Sport Body Style)	2020	785,406	428,055				1,213,461
4	Pleasure Motorcycle (Sport Body Style)	2021	700,364	595,467				1,295,831
4	Pleasure Motorcycle (Sport Body Style)	Total	3,465,540	2,030,642	16,140	31,579	0	5,543,902
4	Pleasure Motorcycle (Sport-Touring Body Style)	2017	105,370	496,188				601,557
4	Pleasure Motorcycle (Sport-Touring Body Style)	2018	70,844	176,383				247,227
4	Pleasure Motorcycle (Sport-Touring Body Style)	2019	131,572	327,381				458,953
4	Pleasure Motorcycle (Sport-Touring Body Style)	2020	389,225	156,667				545,892
4	Pleasure Motorcycle (Sport-Touring Body Style)	2021	280,850	112,125				392,974
4	Pleasure Motorcycle (Sport-Touring Body Style)	Total	977,860	1,268,744	0	0	0	2,246,604
4	Pleasure Motorcycle (Touring Body Style)	2017	1,936,611	1,651,815		106,870		3,695,296
4	Pleasure Motorcycle (Touring Body Style)	2018	862,930	2,229,919	113,625			3,206,474
4	Pleasure Motorcycle (Touring Body Style)	2019	1,085,431	1,945,682	52,364	28,604		3,112,081
4	Pleasure Motorcycle (Touring Body Style)	2020	1,671,320	1,754,504		23,434		3,449,258
4	Pleasure Motorcycle (Touring Body Style)	2021	976,256	1,919,369	42,613			2,938,237
4	Pleasure Motorcycle (Touring Body Style)	Total	6,532,547	9,501,289	208,602	158,908	0	16,401,347
4	Major Class Total	2017	6,025,372	3,960,315	43,059	138,983	307,659	10,475,389
4	Major Class Total	2018	4,522,017	4,491,287	140,256	30,562	38,968	9,223,089
4	Major Class Total	2019	4,593,703	3,847,577	71,218	379,086	33,942	8,925,526
4	Major Class Total	2020	5,362,072	3,757,795	15,065	23,434	55,861	9,214,227
4	Major Class Total	2021	4,646,260	5,055,029	51,067	17,720	202,096	9,972,173
4	Major Class Total	Total	25,149,424	21,112,002	320,665	589,785	638,527	47,810,404

Table 10
Reported Loss and ALAE without Hail
and with 10-Year Average Expected Serious Losses
(Adjusted for Basic Product Changes)

Major Class	Use	Loss Year	Territory					Total
			1	2	3	4	5	
5	All Purpose Trailer \$2500 or less	2017	176,519	218,118	265	3,236		398,138
5	All Purpose Trailer \$2500 or less	2018	224,330	200,994	1,470	423		427,217
5	All Purpose Trailer \$2500 or less	2019	172,359	196,823	1,298	3,213		373,694
5	All Purpose Trailer \$2500 or less	2020	189,084	191,929	3,575	2,837		387,426
5	All Purpose Trailer \$2500 or less	2021	148,131	174,336		2,500		324,967
5	All Purpose Trailer \$2500 or less	Total	910,424	982,201	6,608	12,209	0	1,911,442
5	All Purpose Trailer \$2501 or more	2017	1,596,877	3,747,189	38,251	144,605		5,526,922
5	All Purpose Trailer \$2501 or more	2018	1,827,876	4,892,277	43,042	192,305		6,955,499
5	All Purpose Trailer \$2501 or more	2019	1,794,875	3,990,934	52,467	45,238		5,883,515
5	All Purpose Trailer \$2501 or more	2020	1,922,198	4,735,752	42,070	50,213		6,750,234
5	All Purpose Trailer \$2501 or more	2021	1,739,010	3,368,749	130,374	61,552		5,299,685
5	All Purpose Trailer \$2501 or more	Total	8,880,836	20,734,900	306,205	493,913	0	30,415,854
5	Major Class Total	2017	1,773,396	3,965,307	38,516	147,841		5,925,060
5	Major Class Total	2018	2,052,206	5,093,270	44,512	192,728		7,382,716
5	Major Class Total	2019	1,967,234	4,187,758	53,766	48,451		6,257,209
5	Major Class Total	2020	2,111,282	4,927,681	45,646	53,050		7,137,659
5	Major Class Total	2021	1,887,142	3,543,085	130,374	64,052		5,624,652
5	Major Class Total	Total	9,791,260	21,717,100	312,813	506,122	0	32,327,296

Table 10
Reported Loss and ALAE without Hail
and with 10-Year Average Expected Serious Losses
(Adjusted for Basic Product Changes)

Major Class	Use	Loss Year	Territory					Total
			1	2	3	4	5	
6	Off Road Vehicle All Purpose	2017	109,776	17,212	5,553	1,000		133,541
6	Off Road Vehicle All Purpose	2018	5,492	524,983	998	500		531,974
6	Off Road Vehicle All Purpose	2019	5,165	317,249	4,201			326,614
6	Off Road Vehicle All Purpose	2020	5,895	96,029		3,807		105,730
6	Off Road Vehicle All Purpose	2021	42,850	91,551				134,401
6	Off Road Vehicle All Purpose	Total	169,178	1,047,024	10,752	5,307	0	1,232,260
6	Major Class Total	2017	109,776	17,212	5,553	1,000		133,541
6	Major Class Total	2018	5,492	524,983	998	500		531,974
6	Major Class Total	2019	5,165	317,249	4,201			326,614
6	Major Class Total	2020	5,895	96,029		3,807		105,730
6	Major Class Total	2021	42,850	91,551				134,401
6	Major Class Total	Total	169,178	1,047,024	10,752	5,307	0	1,232,260

Table 12
Raw Pure Premiums without Hail and
with 10-Year Average Expected Serious Losses
(Adjusted for Basic Product Changes)

Major Class	Use	Loss Year	Territory					Total
			1	2	3	4	5	
1	All Purpose Motorhome	2017	1,355	579	0	0	0	899
1	All Purpose Motorhome	2018	621	102	0	0	29	311
1	All Purpose Motorhome	2019	976	477	0	0	0	682
1	All Purpose Motorhome	2020	1,539	77	0	0	887	724
1	All Purpose Motorhome	2021	1,485	858	0	0	7,742	1,187
1	All Purpose Motorhome	Total	1,213	414	0	0	917	766
1	All Purpose Passenger Vehicle	2017	912	678	868	764	825	842
1	All Purpose Passenger Vehicle	2018	916	710	754	706	766	847
1	All Purpose Passenger Vehicle	2019	892	720	825	652	822	839
1	All Purpose Passenger Vehicle	2020	631	598	583	568	602	618
1	All Purpose Passenger Vehicle	2021	897	729	705	681	781	839
1	All Purpose Passenger Vehicle	Total	848	686	745	673	760	796
1	All Purpose Truck 4540 kg or less	2017	806	607	734	593	838	715
1	All Purpose Truck 4540 kg or less	2018	796	612	788	661	747	709
1	All Purpose Truck 4540 kg or less	2019	798	576	699	782	863	709
1	All Purpose Truck 4540 kg or less	2020	646	572	536	631	634	610
1	All Purpose Truck 4540 kg or less	2021	784	621	758	683	754	708
1	All Purpose Truck 4540 kg or less	Total	764	597	701	670	765	689
1	Antique Vehicle	2017	0	0	0	0	0	0
1	Antique Vehicle	2018	0	0	0	0	0	0
1	Antique Vehicle	2019	0	7	0	0	0	3
1	Antique Vehicle	2020	0	0	0	0	0	0
1	Antique Vehicle	2021	0	0	0	0	0	0
1	Antique Vehicle	Total	0	1	0	0	0	1
1	Collector Passenger Vehicle	2017	137	287	0	0	0	222
1	Collector Passenger Vehicle	2018	106	38	65	0	0	66
1	Collector Passenger Vehicle	2019	28	70	0	0	0	52
1	Collector Passenger Vehicle	2020	45	15	0	0	0	27
1	Collector Passenger Vehicle	2021	33	30	307	0	0	32
1	Collector Passenger Vehicle	Total	64	74	74	0	0	69
1	Collector Truck 4540 kg or less	2017	86	9	0	0	0	26
1	Collector Truck 4540 kg or less	2018	65	57	0	0	0	58
1	Collector Truck 4540 kg or less	2019	13	39	0	0	0	33
1	Collector Truck 4540 kg or less	2020	37	23	0	0	0	26
1	Collector Truck 4540 kg or less	2021	35	39	0	0	0	38
1	Collector Truck 4540 kg or less	Total	43	34	0	0	0	36
1	Disabled Persons/Private/Business Bus	2017	1,178	764	873	1,181	0	912
1	Disabled Persons/Private/Business Bus	2018	1,390	432	407	1,278	0	756
1	Disabled Persons/Private/Business Bus	2019	2,222	699	557	1,110	0	1,186
1	Disabled Persons/Private/Business Bus	2020	972	209	359	431	0	470
1	Disabled Persons/Private/Business Bus	2021	923	454	318	621	0	591
1	Disabled Persons/Private/Business Bus	Total	1,357	508	487	925	0	784

Table 12
Raw Pure Premiums without Hail and
with 10-Year Average Expected Serious Losses
(Adjusted for Basic Product Changes)

Major Class	Use	Loss Year	Territory					Total
			1	2	3	4	5	
1	Farm Passenger Vehicle	2017	118	533	0	0	0	530
1	Farm Passenger Vehicle	2018	1,127	535	0	0	0	536
1	Farm Passenger Vehicle	2019	392	471	0	0	0	470
1	Farm Passenger Vehicle	2020	335	427	0	197	0	426
1	Farm Passenger Vehicle	2021	-35	470	0	0	0	467
1	Farm Passenger Vehicle	Total	372	488	0	38	0	487
1	Farming All Purpose Truck 4540 kg or less	2017	380	507	976	299	667	507
1	Farming All Purpose Truck 4540 kg or less	2018	786	486	2,752	784	858	496
1	Farming All Purpose Truck 4540 kg or less	2019	497	471	813	541	791	476
1	Farming All Purpose Truck 4540 kg or less	2020	385	463	2,237	246	693	465
1	Farming All Purpose Truck 4540 kg or less	2021	191	484	51	146	976	486
1	Farming All Purpose Truck 4540 kg or less	Total	445	482	1,300	401	796	486
1	Fishing All Purpose Truck 4540 kg or less	2017	2,848	746	0	418	2,866	764
1	Fishing All Purpose Truck 4540 kg or less	2018	152	606	0	1,482	444	679
1	Fishing All Purpose Truck 4540 kg or less	2019	256	553	428	143	0	495
1	Fishing All Purpose Truck 4540 kg or less	2020	0	442	0	152	92	394
1	Fishing All Purpose Truck 4540 kg or less	2021	0	406	0	2,074	0	572
1	Fishing All Purpose Truck 4540 kg or less	Total	691	555	77	835	699	584
1	Passenger Vehicle-for-Hire (Passenger Vehicle)	2017	0	0	0	0	0	0
1	Passenger Vehicle-for-Hire (Passenger Vehicle)	2018	2,590	1,232	2,509	140	5,957	2,416
1	Passenger Vehicle-for-Hire (Passenger Vehicle)	2019	2,483	1,493	1,582	263	4,408	2,376
1	Passenger Vehicle-for-Hire (Passenger Vehicle)	2020	1,524	1,945	3,633	335	1,642	1,561
1	Passenger Vehicle-for-Hire (Passenger Vehicle)	2021	3,068	2,867	589	848	3,222	2,971
1	Passenger Vehicle-for-Hire (Passenger Vehicle)	Total	2,392	1,921	1,950	445	3,225	2,321
1	Passenger Vehicle-for-Hire (Truck 4,499 kg or less GVW)	2017	0	0	0	0	0	0
1	Passenger Vehicle-for-Hire (Truck 4,499 kg or less GVW)	2018	5,015	161	0	0	154	3,190
1	Passenger Vehicle-for-Hire (Truck 4,499 kg or less GVW)	2019	1,172	0	158	0	0	490
1	Passenger Vehicle-for-Hire (Truck 4,499 kg or less GVW)	2020	199	0	1,612	68	0	223
1	Passenger Vehicle-for-Hire (Truck 4,499 kg or less GVW)	2021	180	3,250	2,216	0	0	1,630
1	Passenger Vehicle-for-Hire (Truck 4,499 kg or less GVW)	Total	1,745	875	1,347	27	26	1,130
1	Pleasure Motorhome	2017	515	452	0	65	0	463
1	Pleasure Motorhome	2018	675	526	379	510	0	574
1	Pleasure Motorhome	2019	457	485	53	15	0	464
1	Pleasure Motorhome	2020	755	412	576	603	0	527
1	Pleasure Motorhome	2021	310	279	0	885	0	296
1	Pleasure Motorhome	Total	540	431	204	400	0	464
1	Pleasure Passenger Vehicle	2017	675	555	894	574	0	624
1	Pleasure Passenger Vehicle	2018	678	513	797	597	0	607
1	Pleasure Passenger Vehicle	2019	634	529	574	538	0	587
1	Pleasure Passenger Vehicle	2020	459	424	596	475	0	445
1	Pleasure Passenger Vehicle	2021	610	503	724	617	0	566
1	Pleasure Passenger Vehicle	Total	604	502	718	559	0	561

Table 12
Raw Pure Premiums without Hail and
with 10-Year Average Expected Serious Losses
(Adjusted for Basic Product Changes)

Major Class	Use	Loss Year	Territory					Total
			1	2	3	4	5	
1	Pleasure Truck	2017	514	411	666	581	0	454
1	Pleasure Truck	2018	508	441	629	469	0	465
1	Pleasure Truck	2019	506	419	540	757	0	462
1	Pleasure Truck	2020	416	361	475	449	0	383
1	Pleasure Truck	2021	509	402	593	490	0	441
1	Pleasure Truck	Total	488	405	579	546	0	439
1	Major Class Total	2017	814	576	792	632	827	717
1	Major Class Total	2018	818	574	753	629	763	715
1	Major Class Total	2019	793	570	702	681	837	704
1	Major Class Total	2020	568	488	554	540	614	538
1	Major Class Total	2021	772	564	705	632	777	686
1	Major Class Total	Total	749	553	700	621	764	669

Table 12
Raw Pure Premiums without Hail and
with 10-Year Average Expected Serious Losses
(Adjusted for Basic Product Changes)

Major Class	Use	Loss Year	Territory					Total
			1	2	3	4	5	
2	Artisan Truck	2017	184	17	0	0	91	102
2	Artisan Truck	2018	665	173	26	0	58	363
2	Artisan Truck	2019	754	2,686	0	0	123	1,298
2	Artisan Truck	2020	628	131	0	0	90	353
2	Artisan Truck	2021	1,199	252	0	0	2,634	1,156
2	Artisan Truck	Total	689	630	5	0	627	645
2	Cement/Brick/Exploration Truck	2017	708	43	0	0	0	230
2	Cement/Brick/Exploration Truck	2018	193	214	0	0	0	197
2	Cement/Brick/Exploration Truck	2019	223	619	0	0	0	467
2	Cement/Brick/Exploration Truck	2020	80	30	0	0	0	44
2	Cement/Brick/Exploration Truck	2021	163	335	0	0	0	267
2	Cement/Brick/Exploration Truck	Total	267	245	0	0	0	239
2	Common Carrier Vehicle Local	2017	1,615	916	2,278	1,029	0	1,352
2	Common Carrier Vehicle Local	2018	1,777	842	1,180	225	0	1,418
2	Common Carrier Vehicle Local	2019	1,817	816	788	2,125	0	1,460
2	Common Carrier Vehicle Local	2020	1,487	957	1,579	348	0	1,302
2	Common Carrier Vehicle Local	2021	1,740	918	3,887	1,868	0	1,525
2	Common Carrier Vehicle Local	Total	1,682	892	2,177	1,130	0	1,413
2	Common Carrier Vehicle Within City or Mun.	2017	1,031	943	0	49	0	994
2	Common Carrier Vehicle Within City or Mun.	2018	1,182	565	55	0	0	1,057
2	Common Carrier Vehicle Within City or Mun.	2019	1,130	406	0	0	0	988
2	Common Carrier Vehicle Within City or Mun.	2020	477	326	0	0	0	443
2	Common Carrier Vehicle Within City or Mun.	2021	700	652	0	0	0	680
2	Common Carrier Vehicle Within City or Mun.	Total	900	577	8	11	0	830
2	Common Carrier Passenger Vehicle < 161 km in Manitoba	2017	762	733	0	0	0	752
2	Common Carrier Passenger Vehicle < 161 km in Manitoba	2018	2,686	912	0	0	0	2,102
2	Common Carrier Passenger Vehicle < 161 km in Manitoba	2019	1,357	1,101	0	0	0	1,263
2	Common Carrier Passenger Vehicle < 161 km in Manitoba	2020	1,919	2,294	0	0	0	2,054
2	Common Carrier Passenger Vehicle < 161 km in Manitoba	2021	1,884	1,592	0	0	0	1,788
2	Common Carrier Passenger Vehicle < 161 km in Manitoba	Total	1,785	1,521	0	0	0	1,694
2	Common Carrier Truck < 161 km in Manitoba	2017	1,315	597	0	0	0	980
2	Common Carrier Truck < 161 km in Manitoba	2018	1,159	716	0	0	0	953
2	Common Carrier Truck < 161 km in Manitoba	2019	1,193	1,204	0	0	0	1,187
2	Common Carrier Truck < 161 km in Manitoba	2020	1,063	569	0	87	0	860
2	Common Carrier Truck < 161 km in Manitoba	2021	920	829	0	2,132	0	888
2	Common Carrier Truck < 161 km in Manitoba	Total	1,119	779	0	278	0	969
2	Common Carrier Passenger Vehicle > 161 km in Manitoba	2017	1,881	1,159	0	0	0	1,422
2	Common Carrier Passenger Vehicle > 161 km in Manitoba	2018	0	635	0	0	0	361
2	Common Carrier Passenger Vehicle > 161 km in Manitoba	2019	2,320	1,139	2,646	0	0	1,453
2	Common Carrier Passenger Vehicle > 161 km in Manitoba	2020	44	37	0	0	0	31
2	Common Carrier Passenger Vehicle > 161 km in Manitoba	2021	434	3,251	0	0	0	2,512
2	Common Carrier Passenger Vehicle > 161 km in Manitoba	Total	943	1,512	892	0	0	1,261

Table 12
Raw Pure Premiums without Hail and
with 10-Year Average Expected Serious Losses
(Adjusted for Basic Product Changes)

Major Class	Use	Loss Year	Territory					Total
			1	2	3	4	5	
2	Common Carrier Truck > 161 km in Manitoba	2017	983	759	0	0	0	833
2	Common Carrier Truck > 161 km in Manitoba	2018	798	1,143	2,239	0	0	982
2	Common Carrier Truck > 161 km in Manitoba	2019	1,162	359	0	173	0	738
2	Common Carrier Truck > 161 km in Manitoba	2020	881	500	0	198	0	685
2	Common Carrier Truck > 161 km in Manitoba	2021	776	346	105	0	0	561
2	Common Carrier Truck > 161 km in Manitoba	Total	913	632	652	72	0	755
2	Dealer All Uses except Motorcycles	2017	1,217	542	517	144	0	878
2	Dealer All Uses except Motorcycles	2018	1,158	638	848	347	0	900
2	Dealer All Uses except Motorcycles	2019	1,179	568	471	185	0	872
2	Dealer All Uses except Motorcycles	2020	867	432	220	576	0	657
2	Dealer All Uses except Motorcycles	2021	1,038	565	1,013	94	0	812
2	Dealer All Uses except Motorcycles	Total	1,089	548	618	275	0	823
2	Dealer Moped	2017	0	0	0	0	0	0
2	Dealer Moped	2018	0	0	0	0	0	0
2	Dealer Moped	2019	0	0	0	0	0	0
2	Dealer Moped	2020	0	0	0	0	0	0
2	Dealer Moped	2021	0	0	0	0	0	0
2	Dealer Moped	Total	0	0	0	0	0	0
2	Dealer Motorcycle	2017	360	4,393	0	0	0	2,585
2	Dealer Motorcycle	2018	0	0	0	0	0	0
2	Dealer Motorcycle	2019	183	286	0	0	0	236
2	Dealer Motorcycle	2020	59	133	0	0	0	99
2	Dealer Motorcycle	2021	1,048	0	0	0	0	442
2	Dealer Motorcycle	Total	316	1,022	0	0	0	704
2	Dealer Trailer	2017	117	165	0	0	0	144
2	Dealer Trailer	2018	0	155	0	0	0	95
2	Dealer Trailer	2019	53	46	0	0	0	47
2	Dealer Trailer	2020	0	197	0	0	0	123
2	Dealer Trailer	2021	67	9	0	0	0	29
2	Dealer Trailer	Total	46	116	0	0	0	88
2	Driveaway Within Manitoba	2017	0	0	0	0	0	0
2	Driveaway Within Manitoba	2018	0	0	0	0	0	0
2	Driveaway Within Manitoba	2019	0	0	0	0	0	0
2	Driveaway Within Manitoba	2020	0	0	0	0	0	0
2	Driveaway Within Manitoba	2021	0	0	0	0	0	0
2	Driveaway Within Manitoba	Total	0	0	0	0	0	0
2	Driveaway > 161 km Outside Manitoba	2017	0	0	0	0	0	0
2	Driveaway > 161 km Outside Manitoba	2018	0	0	0	0	0	0
2	Driveaway > 161 km Outside Manitoba	2019	0	0	0	0	0	0
2	Driveaway > 161 km Outside Manitoba	2020	0	0	0	0	0	0
2	Driveaway > 161 km Outside Manitoba	2021	0	0	0	0	0	0
2	Driveaway > 161 km Outside Manitoba	Total	0	0	0	0	0	0

Table 12
Raw Pure Premiums without Hail and
with 10-Year Average Expected Serious Losses
(Adjusted for Basic Product Changes)

Major Class	Use	Loss Year	Territory					Total
			1	2	3	4	5	
2	Farming All Purpose Truck 4541 kg or more	2017	537	343	0	126	0	344
2	Farming All Purpose Truck 4541 kg or more	2018	1	280	0	846	0	281
2	Farming All Purpose Truck 4541 kg or more	2019	358	237	0	0	0	237
2	Farming All Purpose Truck 4541 kg or more	2020	142	310	0	99	0	309
2	Farming All Purpose Truck 4541 kg or more	2021	1	288	0	45	0	285
2	Farming All Purpose Truck 4541 kg or more	Total	209	292	0	224	0	291
2	Fishing All Purpose Truck 4541 kg or more	2017	0	0	0	0	0	0
2	Fishing All Purpose Truck 4541 kg or more	2018	0	0	0	0	0	0
2	Fishing All Purpose Truck 4541 kg or more	2019	0	0	0	0	0	0
2	Fishing All Purpose Truck 4541 kg or more	2020	0	0	0	0	0	0
2	Fishing All Purpose Truck 4541 kg or more	2021	0	0	0	0	0	0
2	Fishing All Purpose Truck 4541 kg or more	Total	0	0	0	0	0	0
2	Logging Truck	2017	0	0	0	21	0	3
2	Logging Truck	2018	0	6	0	178	0	32
2	Logging Truck	2019	0	4	0	53	0	11
2	Logging Truck	2020	0	9	0	0	0	8
2	Logging Truck	2021	0	17	0	0	0	15
2	Logging Truck	Total	0	8	0	51	0	14
2	Other Truck	2017	621	424	256	136	984	521
2	Other Truck	2018	653	431	416	468	655	530
2	Other Truck	2019	729	401	435	145	1,129	570
2	Other Truck	2020	611	368	706	328	790	499
2	Other Truck	2021	663	397	330	236	809	521
2	Other Truck	Total	655	403	435	264	868	527
2	Petroleum/Chemical Truck	2017	75	484	1,285	0	0	452
2	Petroleum/Chemical Truck	2018	32	155	34	0	0	134
2	Petroleum/Chemical Truck	2019	444	126	8	0	0	154
2	Petroleum/Chemical Truck	2020	1,027	193	11	0	0	286
2	Petroleum/Chemical Truck	2021	532	544	0	0	0	515
2	Petroleum/Chemical Truck	Total	440	301	294	0	0	309
2	Repairer	2017	305	77	0	0	0	182
2	Repairer	2018	109	40	928	0	0	84
2	Repairer	2019	119	34	0	562	0	81
2	Repairer	2020	105	60	0	0	0	80
2	Repairer	2021	150	107	384	378	0	136
2	Repairer	Total	156	64	256	191	0	112
2	Sand/Gravel Truck	2017	477	262	775	64	0	303
2	Sand/Gravel Truck	2018	1,180	160	0	0	0	349
2	Sand/Gravel Truck	2019	398	540	0	0	0	493
2	Sand/Gravel Truck	2020	440	198	0	0	0	239
2	Sand/Gravel Truck	2021	744	144	78	0	0	262
2	Sand/Gravel Truck	Total	646	260	181	13	0	328

Table 12
Raw Pure Premiums without Hail and
with 10-Year Average Expected Serious Losses
(Adjusted for Basic Product Changes)

Major Class	Use	Loss Year	Territory					Total
			1	2	3	4	5	
2	Tow Truck	2017	1,812	482	4,473	0	0	1,036
2	Tow Truck	2018	1,715	1,372	17	61	0	1,442
2	Tow Truck	2019	1,421	1,043	70	0	0	1,154
2	Tow Truck	2020	1,259	636	19	1,715	0	905
2	Tow Truck	2021	1,135	249	12	1,395	0	636
2	Tow Truck	Total	1,458	754	872	632	0	1,032
2	Major Class Total	2017	856	410	463	121	952	540
2	Major Class Total	2018	875	366	471	358	637	514
2	Major Class Total	2019	900	356	375	156	1,101	522
2	Major Class Total	2020	725	335	582	287	772	459
2	Major Class Total	2021	826	349	524	247	857	500
2	Major Class Total	Total	834	363	485	236	861	506

Table 12
Raw Pure Premiums without Hail and
with 10-Year Average Expected Serious Losses
(Adjusted for Basic Product Changes)

Major Class	Use	Loss Year	Territory					Total
			1	2	3	4	5	
3	Charter Bus Local	2017	293	0	0	0	0	250
3	Charter Bus Local	2018	732	0	0	0	0	569
3	Charter Bus Local	2019	480	0	0	0	0	390
3	Charter Bus Local	2020	209	122	0	0	0	174
3	Charter Bus Local	2021	1,725	520	0	0	0	1,338
3	Charter Bus Local	Total	629	119	0	0	0	511
3	Common Carrier Bus Within Manitoba	2017	76	52	0	0	0	61
3	Common Carrier Bus Within Manitoba	2018	66	26	0	0	0	49
3	Common Carrier Bus Within Manitoba	2019	150	0	0	0	0	94
3	Common Carrier Bus Within Manitoba	2020	24	14	0	0	0	16
3	Common Carrier Bus Within Manitoba	2021	72	23	0	0	0	46
3	Common Carrier Bus Within Manitoba	Total	87	22	0	0	0	57
3	Common Carrier Bus > 161 km Outside Manitoba	2017	0	0	0	0	0	0
3	Common Carrier Bus > 161 km Outside Manitoba	2018	30	73	0	0	0	39
3	Common Carrier Bus > 161 km Outside Manitoba	2019	0	0	0	21	0	2
3	Common Carrier Bus > 161 km Outside Manitoba	2020	0	0	0	0	0	0
3	Common Carrier Bus > 161 km Outside Manitoba	2021	0	0	0	0	0	0
3	Common Carrier Bus > 161 km Outside Manitoba	Total	10	15	0	5	0	11
3	Funeral Passenger Vehicle	2017	793	127	0	844	0	399
3	Funeral Passenger Vehicle	2018	526	138	0	0	0	267
3	Funeral Passenger Vehicle	2019	297	221	0	118	0	238
3	Funeral Passenger Vehicle	2020	66	180	0	1,180	0	189
3	Funeral Passenger Vehicle	2021	247	508	0	0	0	401
3	Funeral Passenger Vehicle	Total	403	236	0	453	0	299
3	Limousine Vehicle-for-Hire	2017	973	2,606	0	0	0	1,275
3	Limousine Vehicle-for-Hire	2018	1,025	1,306	0	0	0	1,079
3	Limousine Vehicle-for-Hire	2019	1,840	2,304	0	0	0	1,922
3	Limousine Vehicle-for-Hire	2020	1,237	3,823	0	0	0	2,023
3	Limousine Vehicle-for-Hire	2021	3,684	376	0	0	0	2,972
3	Limousine Vehicle-for-Hire	Total	1,497	2,134	0	0	0	1,626
3	Police/Emergency Passenger Vehicle	2017	2,509	1,175	727	1,273	0	1,915
3	Police/Emergency Passenger Vehicle	2018	3,484	1,946	623	1,256	0	2,763
3	Police/Emergency Passenger Vehicle	2019	2,517	1,710	0	0	0	2,081
3	Police/Emergency Passenger Vehicle	2020	2,659	2,500	3	386	0	2,470
3	Police/Emergency Passenger Vehicle	2021	2,824	2,351	109	164	0	2,530
3	Police/Emergency Passenger Vehicle	Total	2,795	1,914	285	624	0	2,351
3	Police/Emergency Truck	2017	1,234	1,115	1,206	469	0	1,108
3	Police/Emergency Truck	2018	27	670	0	0	0	276
3	Police/Emergency Truck	2019	227	1,471	397	0	0	759
3	Police/Emergency Truck	2020	454	3,221	952	646	0	1,774
3	Police/Emergency Truck	2021	700	1,371	10	794	0	976
3	Police/Emergency Truck	Total	532	1,640	526	433	0	1,000

Table 12
Raw Pure Premiums without Hail and
with 10-Year Average Expected Serious Losses
(Adjusted for Basic Product Changes)

Major Class	Use	Loss Year	Territory					Total
			1	2	3	4	5	
3	School Bus Local	2017	381	165	10	211	0	222
3	School Bus Local	2018	616	292	254	174	0	370
3	School Bus Local	2019	567	259	685	128	0	344
3	School Bus Local	2020	231	146	40	4	0	154
3	School Bus Local	2021	394	290	47	483	0	327
3	School Bus Local	Total	437	230	206	198	0	283
3	Taxicab Vehicle-for-Hire	2017	6,644	1,979	2,829	1,696	0	5,202
3	Taxicab Vehicle-for-Hire	2018	6,991	2,501	2,273	353	0	5,717
3	Taxicab Vehicle-for-Hire	2019	6,930	4,114	3,470	2,183	0	6,165
3	Taxicab Vehicle-for-Hire	2020	4,143	4,555	2,978	1,152	0	4,099
3	Taxicab Vehicle-for-Hire	2021	5,500	2,553	2,921	1,290	0	4,772
3	Taxicab Vehicle-for-Hire	Total	6,040	3,031	2,882	1,395	0	5,190
3	Transit Bus Local	2017	834	2,882	256	0	0	967
3	Transit Bus Local	2018	1,090	4,561	4,049	0	0	1,330
3	Transit Bus Local	2019	3,142	2,527	0	0	0	3,081
3	Transit Bus Local	2020	590	831	0	0	0	600
3	Transit Bus Local	2021	691	715	0	0	0	684
3	Transit Bus Local	Total	1,254	2,355	680	0	0	1,314
3	U-Drive Bus	2017	1,037	3,013	0	0	0	2,061
3	U-Drive Bus	2018	1,864	847	0	0	0	1,352
3	U-Drive Bus	2019	2,307	246	0	0	0	1,333
3	U-Drive Bus	2020	12	1,640	0	0	0	909
3	U-Drive Bus	2021	3,307	258	0	0	0	2,055
3	U-Drive Bus	Total	1,850	1,232	0	0	0	1,534
3	U-Drive Moped	2017	0	0	0	0	0	0
3	U-Drive Moped	2018	0	0	0	0	0	0
3	U-Drive Moped	2019	0	0	0	0	0	0
3	U-Drive Moped	2020	0	0	0	0	0	0
3	U-Drive Moped	2021	0	0	0	0	0	0
3	U-Drive Moped	Total	0	0	0	0	0	0
3	U-Drive Motorhome	2017	2,155	240	0	0	0	1,130
3	U-Drive Motorhome	2018	1,203	975	0	0	0	1,067
3	U-Drive Motorhome	2019	786	915	0	0	0	868
3	U-Drive Motorhome	2020	12,631	1,070	0	0	0	5,002
3	U-Drive Motorhome	2021	122	1,452	0	0	0	1,125
3	U-Drive Motorhome	Total	3,206	964	0	0	0	1,787
3	U-Drive Passenger Vehicle	2017	1,457	872	1,101	395	0	1,355
3	U-Drive Passenger Vehicle	2018	1,400	1,457	1,244	1,064	0	1,402
3	U-Drive Passenger Vehicle	2019	1,448	1,196	780	1,047	0	1,398
3	U-Drive Passenger Vehicle	2020	1,419	881	1,030	466	0	1,308
3	U-Drive Passenger Vehicle	2021	2,035	668	936	462	0	1,763
3	U-Drive Passenger Vehicle	Total	1,527	1,025	1,019	720	0	1,433

Table 12
Raw Pure Premiums without Hail and
with 10-Year Average Expected Serious Losses
(Adjusted for Basic Product Changes)

Major Class	Use	Loss Year	Territory					Total
			1	2	3	4	5	
3	U-Drive Truck	2017	1,218	806	3,790	1,181	0	1,315
3	U-Drive Truck	2018	1,306	804	667	2,287	0	1,208
3	U-Drive Truck	2019	1,384	994	819	202	0	1,263
3	U-Drive Truck	2020	1,096	918	475	1,357	0	1,043
3	U-Drive Truck	2021	1,142	312	459	104	0	973
3	U-Drive Truck	Total	1,233	789	1,400	1,057	0	1,168
3	Accessible Vehicle-for-Hire	2017	2,333	0	0	0	0	2,333
3	Accessible Vehicle-for-Hire	2018	3,689	5,422	0	0	0	3,704
3	Accessible Vehicle-for-Hire	2019	3,615	2,862	327	0	0	3,511
3	Accessible Vehicle-for-Hire	2020	2,649	4,238	0	0	0	2,684
3	Accessible Vehicle-for-Hire	2021	4,876	7,471	0	1,650	0	4,989
3	Accessible Vehicle-for-Hire	Total	3,503	4,892	93	206	0	3,521
3	Major Class Total	2017	1,607	628	2,024	514	0	1,329
3	Major Class Total	2018	1,695	902	952	649	0	1,439
3	Major Class Total	2019	1,842	828	1,067	360	0	1,516
3	Major Class Total	2020	1,431	781	877	254	0	1,191
3	Major Class Total	2021	1,916	650	825	417	0	1,477
3	Major Class Total	Total	1,697	759	1,157	436	0	1,391

Table 12
Raw Pure Premiums without Hail and
with 10-Year Average Expected Serious Losses
(Adjusted for Basic Product Changes)

Major Class	Use	Loss Year	Territory					Total
			1	2	3	4	5	
4	All Purpose Moped	2017	182	89	0	0	0	155
4	All Purpose Moped	2018	1,231	4	0	0	0	915
4	All Purpose Moped	2019	345	94	0	0	0	276
4	All Purpose Moped	2020	588	0	0	0	0	428
4	All Purpose Moped	2021	237	111	0	0	0	196
4	All Purpose Moped	Total	535	62	0	0	0	403
4	All Purpose Motorcycle (Moterscooter Body Style)	2017	102	0	0	0	0	81
4	All Purpose Motorcycle (Moterscooter Body Style)	2018	128	0	0	2,999	0	187
4	All Purpose Motorcycle (Moterscooter Body Style)	2019	98	0	0	0	0	77
4	All Purpose Motorcycle (Moterscooter Body Style)	2020	935	0	0	0	0	707
4	All Purpose Motorcycle (Moterscooter Body Style)	2021	0	0	0	0	4,428	98
4	All Purpose Motorcycle (Moterscooter Body Style)	Total	227	0	0	882	626	213
4	All Purpose Motorcycle (Other Body Style)	2017	917	173	419	0	1,487	733
4	All Purpose Motorcycle (Other Body Style)	2018	688	56	0	0	0	415
4	All Purpose Motorcycle (Other Body Style)	2019	1,183	914	0	0	264	964
4	All Purpose Motorcycle (Other Body Style)	2020	1,043	197	462	0	0	634
4	All Purpose Motorcycle (Other Body Style)	2021	401	0	0	0	2,998	439
4	All Purpose Motorcycle (Other Body Style)	Total	848	255	180	0	911	638
4	All Purpose Motorcycle (Sport Body Style)	2017	1,790	0	0	0	1,234	1,329
4	All Purpose Motorcycle (Sport Body Style)	2018	897	467	5,295	0	2,265	1,047
4	All Purpose Motorcycle (Sport Body Style)	2019	973	461	0	0	0	725
4	All Purpose Motorcycle (Sport Body Style)	2020	445	0	0	0	5,578	660
4	All Purpose Motorcycle (Sport Body Style)	2021	744	455	0	0	1,949	705
4	All Purpose Motorcycle (Sport Body Style)	Total	1,063	281	1,098	0	1,973	933
4	All Purpose Motorcycle (Sport-Touring Body Style)	2017	0	0	0	0	2,239	269
4	All Purpose Motorcycle (Sport-Touring Body Style)	2018	795	737	0	0	0	647
4	All Purpose Motorcycle (Sport-Touring Body Style)	2019	323	413	0	0	792	430
4	All Purpose Motorcycle (Sport-Touring Body Style)	2020	351	0	0	0	1,135	305
4	All Purpose Motorcycle (Sport-Touring Body Style)	2021	1,392	0	0	0	0	631
4	All Purpose Motorcycle (Sport-Touring Body Style)	Total	575	202	0	0	703	463
4	All Purpose Motorcycle (Touring Body Style)	2017	864	612	0	0	2,992	938
4	All Purpose Motorcycle (Touring Body Style)	2018	846	416	0	0	315	617
4	All Purpose Motorcycle (Touring Body Style)	2019	1,635	749	0	0	0	1,095
4	All Purpose Motorcycle (Touring Body Style)	2020	943	0	0	0	0	475
4	All Purpose Motorcycle (Touring Body Style)	2021	519	3,179	0	0	0	1,333
4	All Purpose Motorcycle (Touring Body Style)	Total	970	994	0	0	684	891
4	Pleasure Moped	2017	234	294	0	0	0	254
4	Pleasure Moped	2018	73	106	0	0	0	84
4	Pleasure Moped	2019	236	35	0	0	0	158
4	Pleasure Moped	2020	129	32	0	0	0	92
4	Pleasure Moped	2021	238	0	0	0	0	151
4	Pleasure Moped	Total	182	92	0	0	0	147

Table 12
Raw Pure Premiums without Hail and
with 10-Year Average Expected Serious Losses
(Adjusted for Basic Product Changes)

Major Class	Use	Loss Year	Territory					Total
			1	2	3	4	5	
4	Pleasure Motorcycle (Motorscooter Body Style)	2017	208	106	0	0	0	164
4	Pleasure Motorcycle (Motorscooter Body Style)	2018	72	0	0	0	0	41
4	Pleasure Motorcycle (Motorscooter Body Style)	2019	189	0	0	0	0	114
4	Pleasure Motorcycle (Motorscooter Body Style)	2020	359	0	0	0	0	215
4	Pleasure Motorcycle (Motorscooter Body Style)	2021	367	365	0	0	0	356
4	Pleasure Motorcycle (Motorscooter Body Style)	Total	239	93	0	0	0	178
4	Pleasure Motorcycle (Other Body Style)	2017	662	306	290	105	0	450
4	Pleasure Motorcycle (Other Body Style)	2018	576	414	0	0	0	466
4	Pleasure Motorcycle (Other Body Style)	2019	546	269	27	2,279	0	425
4	Pleasure Motorcycle (Other Body Style)	2020	495	355	5	0	0	402
4	Pleasure Motorcycle (Other Body Style)	2021	607	461	84	119	0	512
4	Pleasure Motorcycle (Other Body Style)	Total	577	363	83	513	0	452
4	Pleasure Motorcycle (Sport Body Style)	2017	1,368	925	0	1,419	0	1,174
4	Pleasure Motorcycle (Sport Body Style)	2018	886	838	0	781	0	858
4	Pleasure Motorcycle (Sport Body Style)	2019	741	430	1,150	0	0	608
4	Pleasure Motorcycle (Sport Body Style)	2020	1,183	893	0	0	0	1,033
4	Pleasure Motorcycle (Sport Body Style)	2021	902	1,097	0	0	0	959
4	Pleasure Motorcycle (Sport Body Style)	Total	1,011	844	244	382	0	927
4	Pleasure Motorcycle (Sport-Touring Body Style)	2017	500	2,283	0	0	0	1,367
4	Pleasure Motorcycle (Sport-Touring Body Style)	2018	297	700	0	0	0	490
4	Pleasure Motorcycle (Sport-Touring Body Style)	2019	454	1,081	0	0	0	752
4	Pleasure Motorcycle (Sport-Touring Body Style)	2020	1,090	433	0	0	0	744
4	Pleasure Motorcycle (Sport-Touring Body Style)	2021	679	244	0	0	0	441
4	Pleasure Motorcycle (Sport-Touring Body Style)	Total	648	796	0	0	0	706
4	Pleasure Motorcycle (Touring Body Style)	2017	1,319	571	0	1,026	0	812
4	Pleasure Motorcycle (Touring Body Style)	2018	547	725	1,374	0	0	662
4	Pleasure Motorcycle (Touring Body Style)	2019	668	598	680	262	0	615
4	Pleasure Motorcycle (Touring Body Style)	2020	969	530	0	220	0	661
4	Pleasure Motorcycle (Touring Body Style)	2021	544	534	496	0	0	526
4	Pleasure Motorcycle (Touring Body Style)	Total	798	589	516	293	0	649
4	Major Class Total	2017	796	472	156	446	1,893	627
4	Major Class Total	2018	582	517	528	91	253	536
4	Major Class Total	2019	607	433	272	1,143	224	519
4	Major Class Total	2020	696	414	60	72	463	527
4	Major Class Total	2021	560	511	187	52	1,510	526
4	Major Class Total	Total	646	470	242	358	884	546

Table 12
Raw Pure Premiums without Hail and
with 10-Year Average Expected Serious Losses
(Adjusted for Basic Product Changes)

Major Class	Use	Loss Year	Territory					Total
			1	2	3	4	5	
5	All Purpose Trailer \$2500 or less	2017	5	3	0	1	0	4
5	All Purpose Trailer \$2500 or less	2018	6	3	1	0	0	4
5	All Purpose Trailer \$2500 or less	2019	5	3	1	1	0	3
5	All Purpose Trailer \$2500 or less	2020	5	3	2	1	0	3
5	All Purpose Trailer \$2500 or less	2021	4	2	0	1	0	3
5	All Purpose Trailer \$2500 or less	Total	5	3	1	1	0	3
5	All Purpose Trailer \$2501 or more	2017	67	58	27	61	0	60
5	All Purpose Trailer \$2501 or more	2018	74	73	30	78	0	72
5	All Purpose Trailer \$2501 or more	2019	70	57	35	17	0	59
5	All Purpose Trailer \$2501 or more	2020	66	60	25	17	0	60
5	All Purpose Trailer \$2501 or more	2021	59	42	79	20	0	47
5	All Purpose Trailer \$2501 or more	Total	67	57	40	37	0	59
5	Major Class Total	2017	30	31	11	24	0	30
5	Major Class Total	2018	34	38	13	31	0	36
5	Major Class Total	2019	32	31	16	8	0	30
5	Major Class Total	2020	31	32	12	7	0	31
5	Major Class Total	2021	29	24	37	9	0	25
5	Major Class Total	Total	31	31	18	16	0	30

Table 12
Raw Pure Premiums without Hail and
with 10-Year Average Expected Serious Losses
(Adjusted for Basic Product Changes)

Major Class	Use	Loss Year	Territory					Total
			1	2	3	4	5	
6	Off Road Vehicle All Purpose	2017	7	0	3	0	0	2
6	Off Road Vehicle All Purpose	2018	0	10	1	0	0	7
6	Off Road Vehicle All Purpose	2019	0	6	2	0	0	4
6	Off Road Vehicle All Purpose	2020	0	2	0	1	0	1
6	Off Road Vehicle All Purpose	2021	2	2	0	0	0	2
6	Off Road Vehicle All Purpose	Total	2	4	1	0	0	3
6	Major Class Total	2017	7	0	3	0	0	2
6	Major Class Total	2018	0	10	1	0	0	7
6	Major Class Total	2019	0	6	2	0	0	4
6	Major Class Total	2020	0	2	0	1	0	1
6	Major Class Total	2021	2	2	0	0	0	2
6	Major Class Total	Total	2	4	1	0	0	3

Table 13
New Relativity Calculation
Major Class 1 - Private Passenger

	Historical Earned Units	Raw Relativity	Balanced Raw Relativity [a]	Current Units	Current Relativity	Balanced Current Relativity	Credibility	Credibility Weighted Relativity	New Relativity
Territory									
1	2,180,341	1.0931	1.0902	443,520	1.0636	1.0587	0.9732	1.0893	1.0891
2	1,638,181	0.8831	0.8807	338,931	0.9225	0.9183	0.9647	0.8821	0.8818
3	51,144	1.0383	1.0355	10,088	0.9921	0.9876	0.4602	1.0097	1.0094
4	81,175	0.9627	0.9601	16,467	0.9629	0.9585	0.5750	0.9594	0.9592
5	192,769	1.0229	1.0201	36,482	1.0716	1.0668	0.7626	1.0312	1.0309
Use									
All Purpose Motorhome	559	1.1669	1.1870	138	0.8471	0.8538	0.1000	0.8871	0.8882
All Purpose Passenger Vehicle	1,828,373	1.1539	1.1738	353,310	1.1652	1.1745	0.9682	1.1738	1.1753
All Purpose Truck 4540 kg or less	615,820	1.0380	1.0559	122,323	1.0606	1.0690	0.9112	1.0571	1.0584
Antique Vehicle	780	0.0010	0.0010	180	0.0245	0.0247	0.1000	0.0223	0.0223
Collector Passenger Vehicle	20,016	0.1069	0.1088	5,021	0.1028	0.1036	0.2501	0.1049	0.1050
Collector Truck 4540 kg or less	3,677	0.0573	0.0583	1,049	0.0429	0.0433	0.1000	0.0448	0.0448
Disabled Persons/Private/Business Bus	5,304	1.2150	1.2360	1,049	0.8005	0.8068	0.1000	0.8498	0.8508
Farm Passenger Vehicle	29,671	0.8232	0.8374	5,376	0.8139	0.8204	0.3309	0.8260	0.8270
Farming All Purpose Truck 4540 kg or less	152,235	0.8179	0.8320	30,484	0.7760	0.7822	0.7173	0.8179	0.8190
Fishing All Purpose Truck 4540 kg or less	1,549	0.9704	0.9871	281	0.9373	0.9447	0.1000	0.9490	0.9501
Passenger Vehicle-for-Hire (Passenger Vehicle)	3,181	3.2538	3.3099	1,034	2.8405	2.8631	1.0000	3.3099	3.3140
Passenger Vehicle-for-Hire (Truck 4,499 kg or less GVW)	57	1.6660	1.6948	11	2.1656	2.1828	0.1000	2.1340	2.1367
Pleasure Motorhome	14,230	0.7263	0.7389	4,377	0.6522	0.6574	0.1917	0.6730	0.6738
Pleasure Passenger Vehicle	1,148,661	0.8362	0.8506	252,058	0.8480	0.8547	0.9504	0.8508	0.8519
Pleasure Truck	319,498	0.6904	0.7023	68,797	0.6984	0.7040	0.8419	0.7026	0.7034

[a] Balanced based on Current Units

Table 13
New Relativity Calculation
Major Class 2 - Commercial

Territory	Historical Earned Units	Raw Relativity	Balanced Raw Relativity [a]	Current Units	Current Relativity	Balanced Current Relativity	Credibility	Credibility Weighted Relativity	New Relativity
1	64,913	1.3385	1.3671	13,845	1.2531	1.2734	0.5197	1.3221	1.3286
2	154,903	0.8148	0.8322	32,064	0.8576	0.8715	0.7208	0.8432	0.8473
3	3,031	0.9313	0.9513	608	0.8268	0.8403	0.1000	0.8514	0.8555
4	4,037	0.4746	0.4848	851	0.7978	0.8107	0.1000	0.7781	0.7819
5	5,796	1.5346	1.5675	1,348	1.4163	1.4393	0.1000	1.4521	1.4592
Use									
Artisan Truck	910	0.9459	0.9512	185	0.9311	0.9506	0.1000	0.9507	0.9341
Cement/Brick/Exploration Truck	2,456	0.6517	0.6553	559	0.5736	0.5856	0.1000	0.5926	0.5822
Common Carrier Vehicle Local	7,616	2.0449	2.0563	1,724	1.6869	1.7223	0.1126	1.7599	1.7292
Common Carrier Vehicle Within City or Mun.	4,293	1.2169	1.2237	845	1.6142	1.6480	0.1000	1.6056	1.5776
Common Carrier Passenger Vehicle < 161 km in Manitoba	394	2.4206	2.4341	143	1.5607	1.5935	0.1000	1.6775	1.6483
Common Carrier Truck < 161 km in Manitoba	6,245	1.6553	1.6645	1,386	1.4627	1.4934	0.1000	1.5105	1.4842
Common Carrier Passenger Vehicle > 161 km in Manitoba	87	2.2486	2.2611	23	2.3592	2.4087	0.1000	2.3940	2.3522
Common Carrier Truck > 161 km in Manitoba	4,954	1.5190	1.5275	1,060	2.6215	2.6765	0.1000	2.5616	2.5169
Dealer All Uses except Motorcycles	23,075	1.2607	1.2677	4,490	1.4042	1.4336	0.2778	1.3876	1.3634
Dealer Moped	5	0.0000	0.0000	1	0.3705	0.3783	0.1000	0.3405	0.3345
Dealer Motorcycle	1,372	1.1162	1.1224	309	1.0186	1.0399	0.1000	1.0482	1.0299
Dealer Trailer	1,033	0.1463	0.1471	209	0.7189	0.7340	0.1000	0.6753	0.6635
Driveaway Within Manitoba	19	0.0000	0.0000	2	0.2707	0.2764	0.1000	0.2487	0.2444
Driveaway > 161 km Outside Manitoba	231	0.0000	0.0000	66	0.0677	0.0691	0.1000	0.0622	0.0611
Farming All Purpose Truck 4541 kg or more	75,616	0.8304	0.8350	15,598	0.6556	0.6693	0.5576	0.7617	0.7484
Fishing All Purpose Truck 4541 kg or more	12	0.0000	0.0000	2	0.4503	0.4597	0.1000	0.4138	0.4066
Logging Truck	853	0.0456	0.0459	169	1.3319	1.3599	0.1000	1.2285	1.2070
Other Truck	76,954	0.9600	0.9654	16,420	0.9649	0.9852	0.5619	0.9740	0.9570
Petroleum/Chemical Truck	4,349	0.7341	0.7382	881	0.6394	0.6528	0.1000	0.6613	0.6498
Repairer	7,115	0.1747	0.1757	1,435	0.2115	0.2159	0.1060	0.2117	0.2080
Sand/Gravel Truck	12,376	0.9003	0.9053	2,648	1.1083	1.1315	0.1710	1.0929	1.0738
Tow Truck	2,714	1.8000	1.8100	561	1.7726	1.8098	0.1000	1.8098	1.7783
Gross Vehicle Weight									
<= 4540	4,973	1.3565	1.3908	995	0.8695	0.8748	0.1000	0.9264	0.9356
4541 to 16330	80,039	1.1532	1.1824	16,552	0.9848	0.9907	0.5715	1.1003	1.1112
> 16330	106,720	0.7486	0.7675	22,767	0.9208	0.9264	0.6401	0.8247	0.8329
Not Applicable	40,948	1.1944	1.2245	8,402	1.2251	1.2326	0.4056	1.2293	1.2415

[a] Balanced based on Current Units

Table 13
New Relativity Calculation
Major Class 3 - Public

Territory	Historical Earned Units	Raw Relativity	Balanced Raw Relativity [a]	Current Units	Current Relativity	Balanced Current Relativity	Credibility	Credibility Weighted Relativity	New Relativity
1	41,404	1.1269	1.1390	7,452	1.1508	1.1601	0.4083	1.1515	1.1534
2	16,849	0.7519	0.7600	3,202	0.6776	0.6831	0.2193	0.6999	0.7011
3	1,508	0.6714	0.6786	279	0.7092	0.7149	0.1000	0.7113	0.7125
4	1,747	0.4714	0.4764	339	0.7036	0.7093	0.1000	0.6860	0.6872
5	0	1.0000	1.0107	0	1.0000	1.0080	0.1000	1.0083	1.0100
Use									
Charter Bus Local	284	0.3583	0.3694	61	0.4720	0.4827	0.1000	0.4713	0.4709
Common Carrier Bus Within Manitoba	576	0.0430	0.0443	120	0.8871	0.9071	0.1000	0.8208	0.8202
Common Carrier Bus > 161 km Outside Manitoba	407	0.0083	0.0086	57	0.3266	0.3339	0.1000	0.3014	0.3012
Funeral Passenger Vehicle	675	0.2465	0.2541	130	0.3413	0.3490	0.1000	0.3395	0.3392
Limousine Vehicle-for-Hire	375	1.1124	1.1467	47	1.1930	1.2199	0.1000	1.2126	1.2116
Police/Emergency Passenger Vehicle	3,435	1.7447	1.7986	662	1.4074	1.4391	0.1000	1.4751	1.4739
Police/Emergency Truck	605	0.9208	0.9492	133	0.6007	0.6142	0.1000	0.6477	0.6472
School Bus Local	12,781	0.2424	0.2499	2,660	0.3088	0.3158	0.1756	0.3042	0.3040
Taxicab Vehicle-for-Hire	3,245	3.6452	3.7577	621	3.6742	3.7571	0.1000	3.7571	3.7541
Transit Bus Local	3,531	0.8520	0.8783	708	1.1874	1.2142	0.1000	1.1806	1.1796
U-Drive Bus	174	1.1630	1.1989	37	0.8543	0.8736	0.1000	0.9061	0.9054
U-Drive Moped	0	1.0000	1.0309	0	1.0000	1.0226	0.1000	1.0234	1.0226
U-Drive Motorhome	118	1.4322	1.4764	33	0.7949	0.8128	0.1000	0.8792	0.8785
U-Drive Passenger Vehicle	26,899	0.9684	0.9983	4,466	0.9517	0.9731	0.3095	0.9809	0.9801
U-Drive Truck	7,560	0.9030	0.9309	1,369	0.9758	0.9978	0.1119	0.9903	0.9895
Accessible Vehicle-for-Hire	843	2.2758	2.3461	168	1.0104	1.0332	0.1000	1.1645	1.1635
Gross Vehicle Weight									
<= 4540	6,054	0.9409	0.9465	1,044	1.0684	1.0750	0.1000	1.0621	1.0598
4541 to 16330	1,811	0.9147	0.9201	405	0.7351	0.7396	0.1000	0.7577	0.7560
> 16330	299	0.0882	0.0887	53	0.2136	0.2149	0.1000	0.2023	0.2019
Not Applicable	53,344	1.0081	1.0140	9,770	1.0009	1.0070	0.4706	1.0103	1.0081

[a] Balanced based on Current Units

Table 13
New Relativity Calculation
Major Class 4 - Motorcycles

Territory	Historical Earned Units	Raw Relativity	Balanced Raw Relativity [a]	Current Units	Current Relativity	Balanced Current Relativity	Credibility	Credibility Weighted Relativity	New Relativity
Territory									
1	38,912	1.2336	1.2341	8,508	1.1024	1.1025	0.3934	1.1542	1.1566
2	44,937	0.8327	0.8330	10,205	0.9429	0.9430	0.4282	0.8959	0.8977
3	1,327	0.4071	0.4073	296	0.5054	0.5054	0.1000	0.4956	0.4966
4	1,649	0.6176	0.6178	361	0.6841	0.6842	0.1000	0.6775	0.6789
5	723	1.1888	1.1893	138	0.7880	0.7880	0.1000	0.8281	0.8298
Bodystyle									
Motorscooter [b]	10,525	0.5205	0.5134	2,136	0.5581	0.5584	0.1492	0.5516	0.5563
Other	39,210	0.8572	0.8455	8,671	0.9205	0.9210	0.3952	0.8911	0.8987
Sport	6,666	2.0692	2.0408	1,547	1.7616	1.7625	0.1000	1.7903	1.8056
Sport-Touring	3,662	1.2833	1.2657	1,015	1.1021	1.1027	0.1000	1.1190	1.1285
Touring	27,485	1.0964	1.0814	6,139	1.0556	1.0561	0.3142	1.0641	1.0731
Use									
All Purpose	10,713	1.2838	1.2908	1,970	1.4904	1.4854	0.1515	1.4559	1.4442
Pleasure	76,836	0.9621	0.9673	17,538	0.9487	0.9455	0.5615	0.9578	0.9501
Engine Displacement									
0 to 500 cc [c]	18,789	0.6548	0.6571	4,250	0.5423	0.5466	0.2385	0.5729	0.5717
501 to 1000 cc	19,676	0.7863	0.7890	4,463	0.9360	0.9433	0.2470	0.9052	0.9033
> 1000 cc	49,083	1.2179	1.2222	10,795	1.1927	1.2020	0.4500	1.2111	1.2086

[a] Balanced based on Current Units

[b] Includes Moped

[c] All Moped assumed less than or equal to 500 cc

Table 13
New Relativity Calculation
Major Class 5 - Trailers

Territory	Historical Earned Units	Raw Relativity	Balanced Raw Relativity [a]	Current Units	Current Relativity	Balanced Current Relativity	Credibility	Credibility Weighted Relativity	New Relativity
1	312,375	1.1163	1.1171	65,149	1.1251	1.1230	0.8389	1.1180	1.1131
2	701,304	0.9751	0.9758	149,700	0.9645	0.9628	0.9212	0.9747	0.9704
3	17,372	0.6838	0.6843	3,539	0.8655	0.8639	0.2245	0.8236	0.8199
4	32,566	0.5896	0.5901	7,030	0.7228	0.7214	0.3518	0.6752	0.6722
5	0	0.0000	0.0000	0	0.0000	0.0000	0.1000	0.0000	0.0000

[a] Balanced based on Current Units

Table 14
Indicated Rate Calculation

Major Class	Description	Eng Disp Code	Territory	Rate Model No. of Vehicles	Rate Model Annual Premium	22/23 Average Rate	Expected Drift	Major Class Average	Major Class Op. Exp.	Combined Relativity	Indicated Rate	Balanced Indicated Rate	Balanced Indicated Change
				[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]
1	Pleasure Passenger Vehicle	N/A	1	143,021	152,433,229	1,065.81	6.16%	1,234.26	119.69	0.9277	1,153.70	1,156.94	2.25%
1	Pleasure Passenger Vehicle	N/A	2	104,166	97,776,542	938.66	6.16%	1,234.26	119.69	0.7512	956.96	959.64	-3.70%
1	Pleasure Passenger Vehicle	N/A	3	1,383	1,381,253	998.74	6.16%	1,234.26	119.69	0.8599	1,078.08	1,081.11	1.96%
1	Pleasure Passenger Vehicle	N/A	4	3,488	3,429,721	983.29	6.16%	1,234.26	119.69	0.8171	1,030.42	1,033.31	-1.01%
1	All Purpose Passenger Vehicle	N/A	1	224,787	320,835,725	1,427.29	6.16%	1,234.26	119.69	1.2799	1,546.28	1,550.63	2.33%
1	All Purpose Passenger Vehicle	N/A	2	96,489	120,607,556	1,249.96	6.16%	1,234.26	119.69	1.0364	1,274.84	1,278.42	-3.66%
1	All Purpose Passenger Vehicle	N/A	3	3,594	4,838,681	1,346.32	6.16%	1,234.26	119.69	1.1863	1,441.95	1,446.00	1.17%
1	All Purpose Passenger Vehicle	N/A	4	4,726	6,179,695	1,307.60	6.16%	1,234.26	119.69	1.1273	1,376.19	1,380.06	-0.59%
1	All Purpose Passenger Vehicle	N/A	5	23,714	33,924,000	1,430.55	6.16%	1,234.26	119.69	1.2116	1,470.15	1,474.27	-2.93%
1	Collector Passenger Vehicle	N/A	1	2,052	452,345	220.44	6.16%	1,234.26	119.69	0.1144	247.17	247.86	5.91%
1	Collector Passenger Vehicle	N/A	2	2,936	598,503	203.85	6.16%	1,234.26	119.69	0.0926	222.91	223.54	3.29%
1	Collector Passenger Vehicle	N/A	3	14	2,840	202.86	6.16%	1,234.26	119.69	0.1060	237.84	238.51	10.75%
1	Collector Passenger Vehicle	N/A	4	19	3,947	207.73	6.16%	1,234.26	119.69	0.1007	231.97	232.62	5.48%
1	Farm Passenger Vehicle	N/A	1	30	28,006	933.55	6.16%	1,234.26	119.69	0.9007	1,123.57	1,126.73	13.69%
1	Farm Passenger Vehicle	N/A	2	5,337	4,831,854	905.35	6.16%	1,234.26	119.69	0.7293	932.56	935.18	-2.70%
1	Farm Passenger Vehicle	N/A	3	0	0	0.00	6.16%	1,234.26	119.69	0.8348	0.00	0.00	0.00%
1	Farm Passenger Vehicle	N/A	4	9	8,764	973.78	6.16%	1,234.26	119.69	0.7933	1,003.88	1,006.70	-2.62%
1	Farming All Purpose Truck	N/A	1	278	272,900	981.65	6.16%	1,234.26	119.69	0.8919	1,113.76	1,116.89	7.17%
1	Farming All Purpose Truck	N/A	2	29,663	25,725,388	867.26	6.16%	1,234.26	119.69	0.7222	924.61	927.21	0.71%
1	Farming All Purpose Truck	N/A	3	8	6,970	871.19	6.16%	1,234.26	119.69	0.8267	1,041.06	1,043.98	12.88%
1	Farming All Purpose Truck	N/A	4	135	112,271	831.64	6.16%	1,234.26	119.69	0.7855	995.24	998.03	13.04%
1	Farming All Purpose Truck	N/A	5	400	414,763	1,036.91	6.16%	1,234.26	119.69	0.8443	1,060.71	1,063.68	-3.37%
1	Fishing All Purpose Truck	N/A	1	2	2,164	1,082.11	6.16%	1,234.26	119.69	1.0348	1,273.00	1,276.57	11.12%
1	Fishing All Purpose Truck	N/A	2	241	248,510	1,031.16	6.16%	1,234.26	119.69	0.8379	1,053.55	1,056.51	-3.49%
1	Fishing All Purpose Truck	N/A	3	2	2,134	1,066.77	6.16%	1,234.26	119.69	0.9591	1,188.65	1,191.99	5.25%
1	Fishing All Purpose Truck	N/A	4	31	31,240	1,007.75	6.16%	1,234.26	119.69	0.9114	1,135.49	1,138.68	6.43%
1	Fishing All Purpose Truck	N/A	5	5	6,799	1,359.72	6.16%	1,234.26	119.69	0.9795	1,211.44	1,214.85	-15.84%
1	Disabled Persons/Private/Business Bus	N/A	1	312	314,878	1,009.23	6.16%	1,234.26	119.69	0.9266	1,152.42	1,155.66	7.86%
1	Disabled Persons/Private/Business Bus	N/A	2	564	509,335	903.08	6.16%	1,234.26	119.69	0.7503	955.92	958.60	-0.01%
1	Disabled Persons/Private/Business Bus	N/A	3	121	111,196	918.97	6.16%	1,234.26	119.69	0.8588	1,076.89	1,079.91	10.69%
1	Disabled Persons/Private/Business Bus	N/A	4	52	46,546	895.12	6.16%	1,234.26	119.69	0.8161	1,029.29	1,032.18	8.62%
1	Pleasure Motorhome	N/A	1	1,430	1,197,971	837.74	6.16%	1,234.26	119.69	0.7339	937.63	940.26	5.72%
1	Pleasure Motorhome	N/A	2	2,834	2,123,531	749.31	6.16%	1,234.26	119.69	0.5942	781.99	784.19	-1.42%
1	Pleasure Motorhome	N/A	3	44	34,871	792.51	6.16%	1,234.26	119.69	0.6802	877.81	880.27	4.62%
1	Pleasure Motorhome	N/A	4	69	51,603	747.87	6.16%	1,234.26	119.69	0.6464	840.10	842.46	6.11%

Table 14
Indicated Rate Calculation

Major Class	Description	Eng Disp Code	Territory	Rate Model No. of Vehicles	Rate Model Annual Premium	22/23 Average Rate	Expected Drift	Major Class Average	Major Class Op. Exp.	Combined Relativity	Indicated Rate	Balanced Indicated Rate	Balanced Indicated Change
				[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]
1	All Purpose Motorhome	N/A	1	64	69,884	1,091.94	6.16%	1,234.26	119.69	0.9673	1,197.82	1,201.19	3.62%
1	All Purpose Motorhome	N/A	2	71	64,373	906.67	6.16%	1,234.26	119.69	0.7833	992.68	995.47	3.42%
1	All Purpose Motorhome	N/A	3	1	331	330.75	6.16%	1,234.26	119.69	0.8966	1,118.97	1,122.11	219.56%
1	All Purpose Motorhome	N/A	4	1	1,137	1,136.56	6.16%	1,234.26	119.69	0.8520	1,069.28	1,072.28	-11.13%
1	All Purpose Motorhome	N/A	5	1	2,057	2,056.54	6.16%	1,234.26	119.69	0.9157	1,140.28	1,143.48	-47.63%
1	All Purpose Truck	N/A	1	50,214	65,546,566	1,305.34	6.16%	1,234.26	119.69	1.1526	1,404.39	1,408.34	1.63%
1	All Purpose Truck	N/A	2	51,166	58,732,825	1,147.89	6.16%	1,234.26	119.69	0.9333	1,159.95	1,163.21	-4.55%
1	All Purpose Truck	N/A	3	3,621	4,441,616	1,226.63	6.16%	1,234.26	119.69	1.0683	1,310.44	1,314.12	0.91%
1	All Purpose Truck	N/A	4	5,001	5,954,321	1,190.63	6.16%	1,234.26	119.69	1.0152	1,251.22	1,254.73	-0.73%
1	All Purpose Truck	N/A	5	12,321	16,356,097	1,327.50	6.16%	1,234.26	119.69	1.0911	1,335.83	1,339.58	-4.95%
1	Antique Vehicle	N/A	1	91	11,830	130.00	0.00%	1,234.26	119.69	0.0243	146.81	147.22	13.25%
1	Antique Vehicle	N/A	2	89	11,392	128.00	0.00%	1,234.26	119.69	0.0197	141.65	142.05	10.97%
1	Antique Vehicle	N/A	3	0	0	0.00	0.00%	1,234.26	119.69	0.0226	0.00	0.00	0.00%
1	Antique Vehicle	N/A	4	0	0	0.00	0.00%	1,234.26	119.69	0.0214	0.00	0.00	0.00%
1	Passenger Vehicle-for-Hire (Passenger Vehicle)	N/A	1	879	2,976,596	3,386.34	6.16%	1,234.26	119.69	3.6092	4,142.36	4,153.99	15.55%
1	Passenger Vehicle-for-Hire (Passenger Vehicle)	N/A	2	74	197,982	2,675.44	6.16%	1,234.26	119.69	2.9224	3,376.95	3,386.43	19.23%
1	Passenger Vehicle-for-Hire (Passenger Vehicle)	N/A	3	16	39,333	2,458.30	6.16%	1,234.26	119.69	3.3452	3,848.16	3,858.96	47.86%
1	Passenger Vehicle-for-Hire (Passenger Vehicle)	N/A	4	24	60,393	2,516.39	6.16%	1,234.26	119.69	3.1788	3,662.74	3,673.03	37.49%
1	Passenger Vehicle-for-Hire (Passenger Vehicle)	N/A	5	41	126,818	3,093.13	6.16%	1,234.26	119.69	3.4165	3,927.67	3,938.70	19.94%
1	Passenger Vehicle-for-Hire (Truck 4,499 kg or less GVW)	N/A	1	4	10,588	2,646.99	6.16%	1,234.26	119.69	2.3269	2,713.23	2,720.85	-3.18%
1	Passenger Vehicle-for-Hire (Truck 4,499 kg or less GVW)	N/A	2	4	9,409	2,352.28	6.16%	1,234.26	119.69	1.8842	2,219.74	2,225.98	-10.86%
1	Passenger Vehicle-for-Hire (Truck 4,499 kg or less GVW)	N/A	3	3	6,393	2,131.04	6.16%	1,234.26	119.69	2.1568	2,523.55	2,530.63	11.86%
1	Passenger Vehicle-for-Hire (Truck 4,499 kg or less GVW)	N/A	4	0	0	0.00	6.16%	1,234.26	119.69	2.0495	0.00	0.00	0.00%
1	Passenger Vehicle-for-Hire (Truck 4,499 kg or less GVW)	N/A	5	0	0	0.00	6.16%	1,234.26	119.69	2.2027	0.00	0.00	0.00%
1	Collector Truck	N/A	1	241	36,759	152.53	6.16%	1,234.26	119.69	0.0488	174.12	174.61	7.83%
1	Collector Truck	N/A	2	801	116,261	145.14	6.16%	1,234.26	119.69	0.0395	163.77	164.23	6.58%
1	Collector Truck	N/A	3	2	274	136.78	6.16%	1,234.26	119.69	0.0453	170.14	170.62	17.50%
1	Collector Truck	N/A	4	5	730	145.95	6.16%	1,234.26	119.69	0.0430	167.63	168.10	8.49%
1	Pleasure Truck	N/A	1	20,115	17,978,136	893.77	6.16%	1,234.26	119.69	0.7661	973.53	976.27	2.89%
1	Pleasure Truck	N/A	2	44,496	35,279,409	792.87	6.16%	1,234.26	119.69	0.6203	811.07	813.35	-3.37%
1	Pleasure Truck	N/A	3	1,279	1,067,365	834.53	6.16%	1,234.26	119.69	0.7100	911.09	913.64	3.12%
1	Pleasure Truck	N/A	4	2,907	2,369,701	815.17	6.16%	1,234.26	119.69	0.6747	871.73	874.18	1.01%

Table 14
Indicated Rate Calculation

Major Class	Description	Eng Disp Code	Territory	Rate Model No. of Vehicles	Rate Model Annual Premium	22/23 Average Rate	Expected Drift	Major Class Average	Major Class Op. Exp.	Combined Relativity	Indicated Rate	Balanced Indicated Rate	Balanced Indicated Change
				[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]
2	Farming All Purpose Truck	2	1	39	31,286	802.19	8.36%	963.56	119.69	1.1049	1,052.10	1,012.63	16.49%
2	Farming All Purpose Truck	2	2	3,432	1,908,685	556.14	8.36%	963.56	119.69	0.7047	714.34	687.53	14.08%
2	Farming All Purpose Truck	2	3	0	0	0.00	8.36%	963.56	119.69	0.7115	0.00	0.00	0.00%
2	Farming All Purpose Truck	2	4	11	5,609	509.91	8.36%	963.56	119.69	0.6503	668.45	643.37	16.43%
2	Farming All Purpose Truck	3	1	41	28,397	692.61	8.36%	963.56	119.69	0.8282	818.55	787.84	4.97%
2	Farming All Purpose Truck	3	2	12,034	6,085,581	505.70	8.36%	963.56	119.69	0.5282	565.39	544.17	-0.70%
2	Farming All Purpose Truck	3	3	0	0	0.00	8.36%	963.56	119.69	0.5333	0.00	0.00	0.00%
2	Farming All Purpose Truck	3	4	41	19,265	469.87	8.36%	963.56	119.69	0.4874	530.99	511.07	0.37%
2	Fishing All Purpose Truck	2	1	0	0	0.00	8.36%	963.56	119.69	0.6002	0.00	0.00	0.00%
2	Fishing All Purpose Truck	2	2	2	805	402.52	8.36%	963.56	119.69	0.3828	442.71	426.10	-2.31%
2	Fishing All Purpose Truck	2	3	0	0	0.00	8.36%	963.56	119.69	0.3865	0.00	0.00	0.00%
2	Fishing All Purpose Truck	2	4	0	0	0.00	8.36%	963.56	119.69	0.3532	0.00	0.00	0.00%
2	Fishing All Purpose Truck	3	1	0	0	0.00	8.36%	963.56	119.69	0.4499	0.00	0.00	0.00%
2	Fishing All Purpose Truck	3	2	0	0	0.00	8.36%	963.56	119.69	0.2869	0.00	0.00	0.00%
2	Fishing All Purpose Truck	3	3	0	0	0.00	8.36%	963.56	119.69	0.2897	0.00	0.00	0.00%
2	Fishing All Purpose Truck	3	4	0	0	0.00	8.36%	963.56	119.69	0.2648	0.00	0.00	0.00%
2	Artisan Truck	1	1	4	2,483	620.71	8.36%	963.56	119.69	1.1611	1,099.53	1,058.28	57.34%
2	Artisan Truck	1	2	9	5,419	602.07	8.36%	963.56	119.69	0.7405	744.58	716.65	9.84%
2	Artisan Truck	1	3	0	0	0.00	8.36%	963.56	119.69	0.7477	0.00	0.00	0.00%
2	Artisan Truck	1	4	0	0	0.00	8.36%	963.56	119.69	0.6834	0.00	0.00	0.00%
2	Artisan Truck	1	5	0	0	0.00	8.36%	963.56	119.69	1.2753	0.00	0.00	0.00%
2	Artisan Truck	2	1	71	74,082	1,043.41	8.36%	963.56	119.69	1.3790	1,283.41	1,235.26	9.25%
2	Artisan Truck	2	2	44	30,182	685.97	8.36%	963.56	119.69	0.8795	861.85	829.52	11.59%
2	Artisan Truck	2	3	1	582	581.82	8.36%	963.56	119.69	0.8880	869.04	836.43	32.67%
2	Artisan Truck	2	4	1	618	618.45	8.36%	963.56	119.69	0.8116	804.58	774.39	15.55%
2	Artisan Truck	2	5	38	43,264	1,138.54	8.36%	963.56	119.69	1.5146	1,397.82	1,345.37	9.05%
2	Artisan Truck	3	1	10	9,820	982.00	0.00%	963.56	119.69	1.0336	991.92	954.70	-2.78%
2	Artisan Truck	3	2	6	4,182	697.00	0.00%	963.56	119.69	0.6592	675.95	650.59	-6.66%
2	Artisan Truck	3	3	1	565	565.00	0.00%	963.56	119.69	0.6656	681.34	655.77	16.07%
2	Artisan Truck	3	4	0	0	0.00	0.00%	963.56	119.69	0.6083	0.00	0.00	0.00%
2	Sand/Gravel Truck	2	1	97	118,523	1,221.89	8.36%	963.56	119.69	1.5853	1,457.48	1,402.79	5.94%
2	Sand/Gravel Truck	2	2	140	112,673	804.81	8.36%	963.56	119.69	1.0110	972.86	936.36	7.37%
2	Sand/Gravel Truck	2	3	2	1,531	765.48	8.36%	963.56	119.69	1.0208	981.12	944.31	13.84%
2	Sand/Gravel Truck	2	4	3	2,431	810.34	8.36%	963.56	119.69	0.9330	907.03	872.99	-0.58%
2	Sand/Gravel Truck	3	1	434	488,250	1,125.00	0.00%	963.56	119.69	1.1882	1,122.38	1,080.27	-3.98%
2	Sand/Gravel Truck	3	2	1,886	1,489,940	790.00	0.00%	963.56	119.69	0.7578	759.16	730.67	-7.51%
2	Sand/Gravel Truck	3	3	25	18,925	757.00	0.00%	963.56	119.69	0.7651	765.35	736.63	-2.69%

Table 14
Indicated Rate Calculation

Major Class	Description	Eng Disp Code	Territory	Rate Model No. of Vehicles	Rate Model Annual Premium	22/23 Average Rate	Expected Drift	Major Class Average	Major Class Op. Exp.	Combined Relativity	Indicated Rate	Balanced Indicated Rate	Balanced Indicated Change
				[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]
2	Sand/Gravel Truck	3	4	61	44,408	728.00	0.00%	963.56	119.69	0.6993	709.81	683.18	-6.16%

Table 14
Indicated Rate Calculation

Major Class	Description	Eng Disp Code	Territory	Rate Model No. of Vehicles	Rate Model Annual Premium	22/23 Average Rate	Expected Drift	Major Class Average	Major Class Op. Exp.	Combined Relativity	Indicated Rate	Balanced Indicated Rate	Balanced Indicated Change
				[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]
2	Petroleum/Chemical Truck	1	1	3	1,873	624.25	8.36%	963.56	119.69	0.8078	801.33	771.27	14.02%
2	Petroleum/Chemical Truck	1	2	172	82,163	477.69	8.36%	963.56	119.69	0.5151	554.41	533.61	3.08%
2	Petroleum/Chemical Truck	1	3	0	0	0.00	8.36%	963.56	119.69	0.5201	0.00	0.00	0.00%
2	Petroleum/Chemical Truck	1	4	1	391	390.78	8.36%	963.56	119.69	0.4754	520.86	501.32	18.39%
2	Petroleum/Chemical Truck	2	1	31	22,287	718.94	8.36%	963.56	119.69	0.9593	929.25	894.39	14.80%
2	Petroleum/Chemical Truck	2	2	109	55,926	513.08	8.36%	963.56	119.69	0.6118	635.99	612.13	10.10%
2	Petroleum/Chemical Truck	2	3	8	3,897	487.10	8.36%	963.56	119.69	0.6177	640.99	616.94	16.88%
2	Petroleum/Chemical Truck	2	4	3	1,415	471.76	8.36%	963.56	119.69	0.5646	596.15	573.78	12.24%
2	Petroleum/Chemical Truck	3	1	73	50,954	698.00	0.00%	963.56	119.69	0.7190	726.47	699.21	0.17%
2	Petroleum/Chemical Truck	3	2	450	226,800	504.00	0.00%	963.56	119.69	0.4586	506.66	487.65	-3.24%
2	Petroleum/Chemical Truck	3	3	12	5,808	484.00	0.00%	963.56	119.69	0.4630	510.41	491.26	1.50%
2	Petroleum/Chemical Truck	3	4	19	8,892	468.00	0.00%	963.56	119.69	0.4232	476.80	458.91	-1.94%
2	Logging Truck	1	1	0	0	0.00	8.36%	963.56	119.69	1.5004	0.00	0.00	0.00%
2	Logging Truck	1	2	1	772	771.51	8.36%	963.56	119.69	0.9569	927.19	892.40	6.74%
2	Logging Truck	1	3	0	0	0.00	8.36%	963.56	119.69	0.9662	0.00	0.00	0.00%
2	Logging Truck	1	4	0	0	0.00	8.36%	963.56	119.69	0.8831	0.00	0.00	0.00%
2	Logging Truck	2	1	1	3,145	3,144.91	8.36%	963.56	119.69	1.7820	1,623.47	1,562.56	-54.15%
2	Logging Truck	2	2	4	3,942	985.41	8.36%	963.56	119.69	1.1365	1,078.73	1,038.25	-2.77%
2	Logging Truck	2	3	0	0	0.00	8.36%	963.56	119.69	1.1475	0.00	0.00	0.00%
2	Logging Truck	2	4	1	886	886.44	8.36%	963.56	119.69	1.0488	1,004.72	967.02	0.67%
2	Logging Truck	3	1	1	1,273	1,273.00	0.00%	963.56	119.69	1.3356	1,246.80	1,200.02	-5.73%
2	Logging Truck	3	2	139	128,436	924.00	0.00%	963.56	119.69	0.8518	838.50	807.04	-12.66%
2	Logging Truck	3	3	0	0	0.00	0.00%	963.56	119.69	0.8601	0.00	0.00	0.00%
2	Logging Truck	3	4	22	18,700	850.00	0.00%	963.56	119.69	0.7861	783.03	753.65	-11.33%
2	Cement/Brick/Exploration Truck	2	1	2	1,308	653.84	8.36%	963.56	119.69	0.8596	845.06	813.36	14.80%
2	Cement/Brick/Exploration Truck	2	2	0	0	0.00	8.36%	963.56	119.69	0.5482	0.00	0.00	0.00%
2	Cement/Brick/Exploration Truck	2	3	0	0	0.00	8.36%	963.56	119.69	0.5535	0.00	0.00	0.00%
2	Cement/Brick/Exploration Truck	2	4	0	0	0.00	8.36%	963.56	119.69	0.5059	0.00	0.00	0.00%
2	Cement/Brick/Exploration Truck	3	1	175	110,075	629.00	0.00%	963.56	119.69	0.6443	663.37	638.48	1.51%
2	Cement/Brick/Exploration Truck	3	2	356	163,048	458.00	0.00%	963.56	119.69	0.4109	466.42	448.92	-1.98%
2	Cement/Brick/Exploration Truck	3	3	10	4,400	440.00	0.00%	963.56	119.69	0.4149	469.78	452.15	2.76%
2	Cement/Brick/Exploration Truck	3	4	16	6,816	426.00	0.00%	963.56	119.69	0.3792	439.66	423.17	-0.66%
2	Tow Truck	1	1	6	10,772	1,795.38	8.36%	963.56	119.69	2.2105	1,985.07	1,910.59	-1.80%
2	Tow Truck	1	2	18	20,742	1,152.32	8.36%	963.56	119.69	1.4097	1,309.34	1,260.21	0.92%
2	Tow Truck	1	3	1	1,102	1,101.93	8.36%	963.56	119.69	1.4234	1,320.85	1,271.29	6.47%
2	Tow Truck	1	4	0	0	0.00	8.36%	963.56	119.69	1.3010	0.00	0.00	0.00%
2	Tow Truck	2	1	183	330,401	1,805.47	8.36%	963.56	119.69	2.6253	2,335.13	2,247.51	14.88%

Table 14
Indicated Rate Calculation

Major Class	Description	Eng Disp Code	Territory	Rate Model No. of Vehicles	Rate Model Annual Premium	22/23 Average Rate	Expected Drift	Major Class Average	Major Class Op. Exp.	Combined Relativity	Indicated Rate	Balanced Indicated Rate	Balanced Indicated Change
				[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]
2	Tow Truck	2	2	264	340,101	1,288.26	8.36%	963.56	119.69	1.6743	1,532.59	1,475.08	5.66%
2	Tow Truck	2	3	10	12,128	1,212.82	8.36%	963.56	119.69	1.6905	1,546.27	1,488.25	13.24%
2	Tow Truck	2	4	13	14,931	1,148.52	8.36%	963.56	119.69	1.5451	1,423.56	1,370.14	10.09%
2	Tow Truck	3	1	36	63,288	1,758.00	0.00%	963.56	119.69	1.9677	1,780.20	1,713.40	-2.54%
2	Tow Truck	3	2	27	32,805	1,215.00	0.00%	963.56	119.69	1.2549	1,178.68	1,134.45	-6.63%
2	Tow Truck	3	3	2	2,322	1,161.00	0.00%	963.56	119.69	1.2671	1,188.93	1,144.32	-1.44%
2	Tow Truck	3	4	1	1,114	1,114.00	0.00%	963.56	119.69	1.1581	1,096.96	1,055.80	-5.22%
2	Common Carrier Local Passenger Vehicle	N/A	1	1,120	2,400,205	2,143.04	8.36%	963.56	119.69	2.8524	2,526.71	2,431.91	4.72%
2	Common Carrier Local Passenger Vehicle	N/A	2	546	812,776	1,488.60	8.36%	963.56	119.69	1.8191	1,654.77	1,592.68	-1.27%
2	Common Carrier Local Passenger Vehicle	N/A	3	38	59,478	1,565.21	8.36%	963.56	119.69	1.8367	1,669.63	1,606.99	-5.25%
2	Common Carrier Local Passenger Vehicle	N/A	4	20	28,678	1,433.90	8.36%	963.56	119.69	1.6787	1,536.31	1,478.67	-4.84%
2	Common Carrier Truck Local Within City or Mun.	1	1	194	280,786	1,447.35	8.36%	963.56	119.69	1.9611	1,774.57	1,707.99	8.90%
2	Common Carrier Truck Local Within City or Mun.	1	2	54	57,128	1,057.92	8.36%	963.56	119.69	1.2507	1,175.09	1,131.00	-1.34%
2	Common Carrier Truck Local Within City or Mun.	1	3	2	1,975	987.72	8.36%	963.56	119.69	1.2628	1,185.31	1,140.83	6.59%
2	Common Carrier Truck Local Within City or Mun.	1	4	7	6,953	993.29	8.36%	963.56	119.69	1.1542	1,093.65	1,052.61	-2.21%
2	Common Carrier Truck Local Within City or Mun.	2	1	290	482,110	1,662.45	8.36%	963.56	119.69	2.3291	2,085.13	2,006.89	11.40%
2	Common Carrier Truck Local Within City or Mun.	2	2	32	37,313	1,166.02	8.36%	963.56	119.69	1.4854	1,373.15	1,321.63	4.60%
2	Common Carrier Truck Local Within City or Mun.	2	3	2	2,235	1,117.55	8.36%	963.56	119.69	1.4997	1,385.29	1,333.31	10.10%
2	Common Carrier Truck Local Within City or Mun.	2	4	1	400	399.50	8.36%	963.56	119.69	1.3707	1,276.42	1,228.53	183.78%
2	Common Carrier Truck Local Within City or Mun.	3	1	204	330,598	1,620.58	0.00%	963.56	119.69	1.7457	1,592.82	1,533.05	-5.40%
2	Common Carrier Truck Local Within City or Mun.	3	2	56	63,195	1,128.48	0.00%	963.56	119.69	1.1133	1,059.18	1,019.44	-9.66%
2	Common Carrier Truck Local Within City or Mun.	3	3	1	855	855.00	0.00%	963.56	119.69	1.1241	1,068.27	1,028.19	20.26%
2	Common Carrier Truck Local Within City or Mun.	3	4	2	2,050	1,025.00	0.00%	963.56	119.69	1.0274	986.68	949.66	-7.35%
2	Common Carrier Passenger Vehicle Within 161K in MB	N/A	1	94	191,097	2,032.95	8.36%	963.56	119.69	2.7188	2,414.03	2,323.46	5.47%
2	Common Carrier Passenger Vehicle Within 161K in MB	N/A	2	49	64,292	1,312.09	8.36%	963.56	119.69	1.7339	1,582.91	1,523.52	7.15%
2	Common Carrier Passenger Vehicle Within 161K in MB	N/A	3	0	0	0.00	8.36%	963.56	119.69	1.7507	0.00	0.00	0.00%
2	Common Carrier Passenger Vehicle Within 161K in MB	N/A	4	0	0	0.00	8.36%	963.56	119.69	1.6001	0.00	0.00	0.00%
2	Common Carrier Truck Within 161K in MB	1	1	119	164,703	1,384.06	8.36%	963.56	119.69	1.8449	1,676.56	1,613.66	7.59%
2	Common Carrier Truck Within 161K in MB	1	2	148	145,629	983.98	8.36%	963.56	119.69	1.1766	1,112.59	1,070.84	0.43%
2	Common Carrier Truck Within 161K in MB	1	3	1	618	618.34	8.36%	963.56	119.69	1.1880	1,122.20	1,080.09	61.20%
2	Common Carrier Truck Within 161K in MB	1	4	1	878	878.07	8.36%	963.56	119.69	1.0858	1,035.97	997.10	4.79%
2	Common Carrier Truck Within 161K in MB	2	1	451	687,413	1,524.20	8.36%	963.56	119.69	2.1911	1,968.73	1,894.86	14.72%
2	Common Carrier Truck Within 161K in MB	2	2	145	149,993	1,034.44	8.36%	963.56	119.69	1.3974	1,298.92	1,250.18	11.53%
2	Common Carrier Truck Within 161K in MB	2	3	0	0	0.00	8.36%	963.56	119.69	1.4109	0.00	0.00	0.00%
2	Common Carrier Truck Within 161K in MB	2	4	2	4,069	2,034.63	8.36%	963.56	119.69	1.2896	1,207.92	1,162.60	-47.27%
2	Common Carrier Truck Within 161K in MB	3	1	243	349,439	1,438.02	0.00%	963.56	119.69	1.6423	1,505.57	1,449.08	0.77%
2	Common Carrier Truck Within 161K in MB	3	2	273	273,270	1,000.99	0.00%	963.56	119.69	1.0474	1,003.54	965.89	-3.51%

Table 14
Indicated Rate Calculation

Major Class	Description	Eng Disp Code	Territory	Rate Model No. of Vehicles	Rate Model Annual Premium	22/23 Average Rate	Expected Drift	Major Class Average	Major Class Op. Exp.	Combined Relativity	Indicated Rate	Balanced Indicated Rate	Balanced Indicated Change
				[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]
2	Common Carrier Truck Within 161K in MB	3	3	0	0	0.00	0.00%	963.56	119.69	1.0575	0.00	0.00	0.00%
2	Common Carrier Truck Within 161K in MB	3	4	3	2,757	919.00	0.00%	963.56	119.69	0.9665	935.33	900.24	-2.04%
2	Common Carrier Passenger Vehicle Over 161K in MB	N/A	1	8	21,331	2,666.43	8.36%	963.56	119.69	3.8800	3,393.89	3,266.55	13.05%
2	Common Carrier Passenger Vehicle Over 161K in MB	N/A	2	14	30,139	2,152.77	8.36%	963.56	119.69	2.4745	2,207.82	2,124.98	-8.91%
2	Common Carrier Passenger Vehicle Over 161K in MB	N/A	3	0	0	0.00	8.36%	963.56	119.69	2.4984	0.00	0.00	0.00%
2	Common Carrier Passenger Vehicle Over 161K in MB	N/A	4	1	2,865	2,864.92	8.36%	963.56	119.69	2.2835	2,046.68	1,969.89	-36.55%
2	Common Carrier Truck Over 161K in MB	1	1	67	160,687	2,398.32	8.36%	963.56	119.69	3.1287	2,759.91	2,656.35	2.21%
2	Common Carrier Truck Over 161K in MB	1	2	46	76,006	1,652.31	8.36%	963.56	119.69	1.9953	1,803.49	1,735.82	-3.05%
2	Common Carrier Truck Over 161K in MB	1	3	1	1,072	1,071.99	8.36%	963.56	119.69	2.0146	1,819.79	1,751.51	50.78%
2	Common Carrier Truck Over 161K in MB	1	4	2	3,222	1,610.84	8.36%	963.56	119.69	1.8414	1,673.55	1,610.76	-7.72%
2	Common Carrier Truck Over 161K in MB	2	1	180	488,264	2,712.58	8.36%	963.56	119.69	3.7158	3,255.38	3,133.23	6.59%
2	Common Carrier Truck Over 161K in MB	2	2	90	157,502	1,750.03	8.36%	963.56	119.69	2.3698	2,119.48	2,039.95	7.57%
2	Common Carrier Truck Over 161K in MB	2	3	1	3,683	3,682.88	8.36%	963.56	119.69	2.3927	2,138.84	2,058.59	-48.42%
2	Common Carrier Truck Over 161K in MB	2	4	6	11,872	1,978.70	8.36%	963.56	119.69	2.1869	1,965.16	1,891.42	-11.79%
2	Common Carrier Truck Over 161K in MB with GVW > 16330kg	3	1	306	630,972	2,062.00	0.00%	963.56	119.69	2.7851	2,469.94	2,377.26	15.29%
2	Common Carrier Truck Over 161K in MB with GVW > 16330kg	3	2	342	705,204	2,062.00	0.00%	963.56	119.69	1.7762	1,618.56	1,557.83	-24.45%
2	Common Carrier Truck Over 161K in MB with GVW > 16330kg	3	3	6	12,372	2,062.00	0.00%	963.56	119.69	1.7934	1,633.07	1,571.80	-23.77%
2	Common Carrier Truck Over 161K in MB with GVW > 16330kg	3	4	13	26,806	2,062.00	0.00%	963.56	119.69	1.6391	1,502.90	1,446.51	-29.85%
2	Driveaway Within MB	N/A	1	0	0	0.00	0.00%	963.56	119.69	0.4031	0.00	0.00	0.00%
2	Driveaway Within MB	N/A	2	2	654	327.00	0.00%	963.56	119.69	0.2571	336.64	324.01	-0.91%
2	Driveaway Within MB	N/A	3	0	0	0.00	0.00%	963.56	119.69	0.2596	0.00	0.00	0.00%
2	Driveaway Within MB	N/A	4	0	0	0.00	0.00%	963.56	119.69	0.2373	0.00	0.00	0.00%
2	Driveaway >161K outside MB	N/A	1	12	2,220	185.00	0.00%	963.56	119.69	0.1008	204.76	197.08	6.53%
2	Driveaway >161K outside MB	N/A	2	54	8,586	159.00	0.00%	963.56	119.69	0.0643	173.94	167.42	5.29%
2	Driveaway >161K outside MB	N/A	3	0	0	0.00	0.00%	963.56	119.69	0.0649	0.00	0.00	0.00%
2	Driveaway >161K outside MB	N/A	4	0	0	0.00	0.00%	963.56	119.69	0.0593	0.00	0.00	0.00%
2	Dealer Trailer	N/A	1	71	69,651	981.00	0.00%	963.56	119.69	1.0945	1,043.32	1,004.17	2.36%
2	Dealer Trailer	N/A	2	129	89,526	694.00	0.00%	963.56	119.69	0.6980	708.73	682.14	-1.71%
2	Dealer Trailer	N/A	3	5	3,325	665.00	0.00%	963.56	119.69	0.7048	714.44	687.63	3.40%
2	Dealer Trailer	N/A	4	4	2,564	641.00	0.00%	963.56	119.69	0.6442	663.28	638.39	-0.41%
2	Dealer Moped	N/A	1	1	551	551.00	0.00%	963.56	119.69	0.5518	585.34	563.38	2.25%
2	Dealer Moped	N/A	2	0	0	0.00	0.00%	963.56	119.69	0.3519	0.00	0.00	0.00%
2	Dealer Moped	N/A	3	0	0	0.00	0.00%	963.56	119.69	0.3553	0.00	0.00	0.00%
2	Dealer Moped	N/A	4	0	0	0.00	0.00%	963.56	119.69	0.3248	0.00	0.00	0.00%
2	Dealer All Uses except Motorcycles	N/A	1	2,376	4,307,688	1,813.00	0.00%	963.56	119.69	2.2489	2,017.46	1,941.76	7.10%
2	Dealer All Uses except Motorcycles	N/A	2	2,025	2,535,300	1,252.00	0.00%	963.56	119.69	1.4342	1,329.99	1,280.09	2.24%
2	Dealer All Uses except Motorcycles	N/A	3	30	35,910	1,197.00	0.00%	963.56	119.69	1.4481	1,341.71	1,291.37	7.88%

Table 14
Indicated Rate Calculation

Major Class	Description	Eng Disp Code	Territory	Rate Model No. of Vehicles	Rate Model Annual Premium	22/23 Average Rate	Expected Drift	Major Class Average	Major Class Op. Exp.	Combined Relativity	Indicated Rate	Balanced Indicated Rate	Balanced Indicated Change
				[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]
2	Dealer All Uses except Motorcycles	N/A	4	59	67,732	1,148.00	0.00%	963.56	119.69	1.3235	1,236.60	1,190.20	3.68%
2	Repairer	N/A	1	683	245,880	360.00	0.00%	963.56	119.69	0.3430	409.17	393.82	9.39%
2	Repairer	N/A	2	710	196,670	277.00	0.00%	963.56	119.69	0.2188	304.31	292.89	5.74%
2	Repairer	N/A	3	20	5,380	269.00	0.00%	963.56	119.69	0.2209	306.09	294.61	9.52%
2	Repairer	N/A	4	22	5,742	261.00	0.00%	963.56	119.69	0.2019	290.06	279.18	6.96%
2	Dealer Motorcycle	N/A	1	134	180,230	1,345.00	0.00%	963.56	119.69	1.6988	1,553.28	1,495.00	11.15%
2	Dealer Motorcycle	N/A	2	173	162,274	938.00	0.00%	963.56	119.69	1.0834	1,033.96	995.17	6.09%
2	Dealer Motorcycle	N/A	3	0	0	0.00	0.00%	963.56	119.69	1.0939	0.00	0.00	0.00%
2	Dealer Motorcycle	N/A	4	2	1,726	863.00	0.00%	963.56	119.69	0.9998	963.41	927.26	7.45%
2	Other Truck	1	1	34	29,029	853.80	8.36%	963.56	119.69	1.1897	1,123.62	1,081.46	16.89%
2	Other Truck	1	2	91	62,209	683.62	8.36%	963.56	119.69	0.7587	759.95	731.43	-1.26%
2	Other Truck	1	3	0	0	0.00	8.36%	963.56	119.69	0.7661	0.00	0.00	0.00%
2	Other Truck	1	4	0	0	0.00	8.36%	963.56	119.69	0.7002	0.00	0.00	0.00%
2	Other Truck	1	5	13	14,062	1,081.69	8.36%	963.56	119.69	1.3066	1,222.32	1,176.45	0.37%
2	Other Truck	2	1	4,113	4,300,732	1,045.64	8.36%	963.56	119.69	1.4129	1,312.02	1,262.79	11.45%
2	Other Truck	2	2	4,810	3,516,102	731.00	8.36%	963.56	119.69	0.9011	880.10	847.08	6.94%
2	Other Truck	2	3	281	197,761	703.78	8.36%	963.56	119.69	0.9098	887.46	854.16	12.00%
2	Other Truck	2	4	341	235,258	689.91	8.36%	963.56	119.69	0.8316	821.42	790.60	5.75%
2	Other Truck	2	5	1,297	1,507,254	1,162.11	8.36%	963.56	119.69	1.5518	1,429.24	1,375.61	9.24%
2	Other Truck	3	1	1,938	1,941,876	1,002.00	0.00%	963.56	119.69	1.0590	1,013.36	975.34	-2.66%
2	Other Truck	3	2	3,182	2,252,856	708.00	0.00%	963.56	119.69	0.6754	689.63	663.75	-6.25%
2	Other Truck	3	3	148	100,492	679.00	0.00%	963.56	119.69	0.6819	695.15	669.06	-1.46%
2	Other Truck	3	4	172	112,316	653.00	0.00%	963.56	119.69	0.6233	645.65	621.42	-4.84%

Table 14
Indicated Rate Calculation

Major Class	Description	Eng Disp Code	Territory	Rate Model No. of Vehicles	Rate Model Annual Premium	22/23 Average Rate	Expected Drift	Major Class Average	Major Class Op. Exp.	Combined Relativity	Indicated Rate	Balanced Indicated Rate	Balanced Indicated Change
				[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]
3	U Drive Bus	N/A	1	22	49,302	2,241.00	0.00%	2,282.06	119.69	1.0527	2,396.00	2,332.24	4.07%
3	U Drive Bus	N/A	2	15	20,145	1,343.00	0.00%	2,282.06	119.69	0.6399	1,503.39	1,463.39	8.96%
3	U Drive Bus	N/A	3	0	0	0.00	0.00%	2,282.06	119.69	0.6502	0.00	0.00	0.00%
3	U Drive Bus	N/A	4	0	0	0.00	0.00%	2,282.06	119.69	0.6271	0.00	0.00	0.00%
3	U Drive Motorhome	N/A	1	10	21,350	2,135.00	0.00%	2,282.06	119.69	1.0214	2,328.33	2,266.37	6.15%
3	U Drive Motorhome	N/A	2	23	28,681	1,247.00	0.00%	2,282.06	119.69	0.6209	1,462.26	1,423.35	14.14%
3	U Drive Motorhome	N/A	3	0	0	0.00	0.00%	2,282.06	119.69	0.6309	0.00	0.00	0.00%
3	U Drive Motorhome	N/A	4	0	0	0.00	0.00%	2,282.06	119.69	0.6085	0.00	0.00	0.00%
3	U Drive Passenger Vehicle	N/A	1	3,604	8,963,833	2,487.19	1.32%	2,282.06	119.69	1.1396	2,583.94	2,515.18	-0.19%
3	U Drive Passenger Vehicle	N/A	2	736	1,065,704	1,447.97	1.32%	2,282.06	119.69	0.6927	1,617.63	1,574.59	7.33%
3	U Drive Passenger Vehicle	N/A	3	68	101,472	1,492.23	1.32%	2,282.06	119.69	0.7039	1,641.86	1,598.16	5.70%
3	U Drive Passenger Vehicle	N/A	4	58	86,783	1,496.25	1.32%	2,282.06	119.69	0.6789	1,587.77	1,545.52	1.95%
3	U Drive Moped	N/A	1	0	0	0.00	1.32%	2,282.06	119.69	1.1889	0.00	0.00	0.00%
3	U Drive Moped	N/A	2	0	0	0.00	1.32%	2,282.06	119.69	0.7227	0.00	0.00	0.00%
3	U Drive Moped	N/A	3	0	0	0.00	1.32%	2,282.06	119.69	0.7344	0.00	0.00	0.00%
3	U Drive Moped	N/A	4	0	0	0.00	1.32%	2,282.06	119.69	0.7083	0.00	0.00	0.00%
3	Transit Bus	N/A	1	656	2,011,296	3,066.00	0.00%	2,282.06	119.69	1.3716	3,085.50	3,003.39	-2.04%
3	Transit Bus	N/A	2	42	75,636	1,800.85	1.32%	2,282.06	119.69	0.8337	1,922.52	1,871.36	2.56%
3	Transit Bus	N/A	3	7	12,558	1,794.02	1.32%	2,282.06	119.69	0.8472	1,951.67	1,899.73	4.51%
3	Transit Bus	N/A	4	3	5,725	1,908.31	1.32%	2,282.06	119.69	0.8171	1,886.58	1,836.38	-5.02%
3	School Bus	N/A	1	764	668,039	874.40	1.32%	2,282.06	119.69	0.3534	883.92	860.40	-2.88%
3	School Bus	N/A	2	1,652	918,105	555.75	1.32%	2,282.06	119.69	0.2148	584.25	568.70	0.99%
3	School Bus	N/A	3	60	34,588	576.47	1.32%	2,282.06	119.69	0.2183	591.76	576.01	-1.38%
3	School Bus	N/A	4	184	104,794	569.53	1.32%	2,282.06	119.69	0.2106	574.99	559.68	-3.01%
3	Charter Bus Local	N/A	1	47	60,264	1,282.22	1.32%	2,282.06	119.69	0.5476	1,303.75	1,269.05	-2.32%
3	Charter Bus Local	N/A	2	4	3,110	777.51	1.32%	2,282.06	119.69	0.3329	839.44	817.10	3.72%
3	Charter Bus Local	N/A	3	2	1,680	840.14	1.32%	2,282.06	119.69	0.3382	851.08	828.43	-2.68%
3	Charter Bus Local	N/A	4	8	6,481	810.17	1.32%	2,282.06	119.69	0.3262	825.10	803.14	-2.16%
3	Police/Emergency Passenger Vehicle	N/A	1	426	1,526,302	3,582.87	1.32%	2,282.06	119.69	1.7137	3,825.30	3,723.50	2.57%
3	Police/Emergency Passenger Vehicle	N/A	2	201	447,940	2,228.56	1.32%	2,282.06	119.69	1.0417	2,372.22	2,309.09	2.26%
3	Police/Emergency Passenger Vehicle	N/A	3	15	34,473	2,298.18	1.32%	2,282.06	119.69	1.0585	2,408.65	2,344.55	0.69%
3	Police/Emergency Passenger Vehicle	N/A	4	20	43,769	2,188.47	1.32%	2,282.06	119.69	1.0209	2,327.32	2,265.39	2.16%
3	Police/Emergency Truck	1	1	39	67,275	1,725.00	0.00%	2,282.06	119.69	0.7911	1,830.37	1,781.67	3.29%
3	Police/Emergency Truck	1	2	58	60,552	1,044.00	0.00%	2,282.06	119.69	0.4809	1,159.57	1,128.71	8.11%
3	Police/Emergency Truck	1	3	7	7,574	1,082.00	0.00%	2,282.06	119.69	0.4887	1,176.38	1,145.08	5.83%
3	Police/Emergency Truck	1	4	14	14,966	1,069.00	0.00%	2,282.06	119.69	0.4713	1,138.84	1,108.53	3.70%
3	Police/Emergency Truck	2	1	6	6,792	1,132.00	0.00%	2,282.06	119.69	0.5644	1,340.04	1,304.38	15.23%

Table 14
Indicated Rate Calculation

Major Class	Description	Eng Disp Code	Territory	Rate Model No. of Vehicles	Rate Model Annual Premium	22/23 Average Rate	Expected Drift	Major Class Average	Major Class Op. Exp.	Combined Relativity	Indicated Rate	Balanced Indicated Rate	Balanced Indicated Change
				[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]
3	Police/Emergency Truck	2	2	4	2,736	684.00	0.00%	2,282.06	119.69	0.3431	861.50	838.58	22.60%
3	Police/Emergency Truck	2	3	2	1,442	721.00	0.00%	2,282.06	119.69	0.3486	873.50	850.26	17.93%
3	Police/Emergency Truck	2	4	1	731	731.00	0.00%	2,282.06	119.69	0.3362	846.72	824.19	12.75%
3	Police/Emergency Truck	3	1	0	0	0.00	0.00%	2,282.06	119.69	0.1507	0.00	0.00	0.00%
3	Police/Emergency Truck	3	2	1	315	315.00	0.00%	2,282.06	119.69	0.0916	317.75	309.30	-1.81%
3	Police/Emergency Truck	3	3	1	364	364.00	0.00%	2,282.06	119.69	0.0931	320.95	312.41	-14.17%
3	Police/Emergency Truck	3	4	0	0	0.00	0.00%	2,282.06	119.69	0.0898	0.00	0.00	0.00%
3	Funeral Passenger Vehicle	N/A	1	40	37,872	946.80	1.32%	2,282.06	119.69	0.3944	972.59	946.71	-1.31%
3	Funeral Passenger Vehicle	N/A	2	84	50,840	605.24	1.32%	2,282.06	119.69	0.2398	638.14	621.16	1.29%
3	Funeral Passenger Vehicle	N/A	3	1	641	641.01	1.32%	2,282.06	119.69	0.2436	646.53	629.32	-3.10%
3	Funeral Passenger Vehicle	N/A	4	5	3,246	649.19	1.32%	2,282.06	119.69	0.2350	627.81	611.10	-7.10%
3	Common Carrier Bus Within MB	N/A	1	63	119,007	1,889.00	0.00%	2,282.06	119.69	0.9536	2,181.80	2,123.74	12.43%
3	Common Carrier Bus Within MB	N/A	2	41	77,449	1,889.00	0.00%	2,282.06	119.69	0.5797	1,373.18	1,336.64	-29.24%
3	Common Carrier Bus Within MB	N/A	3	6	11,334	1,889.00	0.00%	2,282.06	119.69	0.5891	1,393.45	1,356.37	-28.20%
3	Common Carrier Bus Within MB	N/A	4	10	18,890	1,889.00	0.00%	2,282.06	119.69	0.5681	1,348.20	1,312.32	-30.53%
3	Taxicab Vehicle-for-Hire	N/A	1	463	4,270,101	9,222.68	0.00%	2,282.06	119.69	4.3649	9,558.26	9,303.90	0.88%
3	Taxicab Vehicle-for-Hire	N/A	2	108	609,994	5,648.09	0.00%	2,282.06	119.69	2.6533	5,857.12	5,701.25	0.94%
3	Taxicab Vehicle-for-Hire	N/A	3	46	265,014	5,761.17	0.00%	2,282.06	119.69	2.6962	5,949.90	5,791.57	0.53%
3	Taxicab Vehicle-for-Hire	N/A	4	4	21,933	5,483.25	0.00%	2,282.06	119.69	2.6004	5,742.75	5,589.93	1.95%
3	Limousine Vehicle-for-Hire	N/A	1	38	118,695	3,123.55	0.00%	2,282.06	119.69	1.4088	3,165.93	3,081.68	-1.34%
3	Limousine Vehicle-for-Hire	N/A	2	9	14,864	1,651.56	0.00%	2,282.06	119.69	0.8563	1,971.41	1,918.95	16.19%
3	Limousine Vehicle-for-Hire	N/A	3	0	0	0.00	0.00%	2,282.06	119.69	0.8702	0.00	0.00	0.00%
3	Limousine Vehicle-for-Hire	N/A	4	0	0	0.00	0.00%	2,282.06	119.69	0.8393	0.00	0.00	0.00%
3	Accessible Vehicle-for-Hire	N/A	1	159	417,855	2,628.02	1.32%	2,282.06	119.69	1.3528	3,045.05	2,964.02	11.31%
3	Accessible Vehicle-for-Hire	N/A	2	8	11,120	1,389.99	1.32%	2,282.06	119.69	0.8224	1,897.93	1,847.43	31.18%
3	Accessible Vehicle-for-Hire	N/A	3	0	0	0.00	1.32%	2,282.06	119.69	0.8357	0.00	0.00	0.00%
3	Accessible Vehicle-for-Hire	N/A	4	1	2,046	2,045.94	1.32%	2,282.06	119.69	0.8060	1,862.48	1,812.92	-12.55%
3	U Drive Truck	1	1	689	1,858,301	2,697.10	1.32%	2,282.06	119.69	1.2095	2,735.16	2,662.37	-2.58%
3	U Drive Truck	1	2	150	242,555	1,617.04	1.32%	2,282.06	119.69	0.7352	1,709.56	1,664.06	1.57%
3	U Drive Truck	1	3	64	111,096	1,735.87	1.32%	2,282.06	119.69	0.7471	1,735.27	1,689.09	-3.96%
3	U Drive Truck	1	4	23	39,118	1,700.78	1.32%	2,282.06	119.69	0.7206	1,677.86	1,633.21	-5.23%
3	U Drive Truck	2	1	361	688,077	1,906.03	1.32%	2,282.06	119.69	0.8628	1,985.48	1,932.65	0.07%
3	U Drive Truck	2	2	31	30,455	982.44	1.32%	2,282.06	119.69	0.5245	1,253.85	1,220.48	22.61%
3	U Drive Truck	2	3	0	0	0.00	1.32%	2,282.06	119.69	0.5330	0.00	0.00	0.00%
3	U Drive Truck	2	4	0	0	0.00	1.32%	2,282.06	119.69	0.5140	0.00	0.00	0.00%
3	U Drive Truck	3	1	36	22,356	621.00	0.00%	2,282.06	119.69	0.2304	617.85	601.41	-3.15%
3	U Drive Truck	3	2	15	6,075	405.00	0.00%	2,282.06	119.69	0.1400	422.51	411.26	1.55%

Table 14
Indicated Rate Calculation

Major Class	Description	Eng Disp Code	Territory	Rate Model No. of Vehicles	Rate Model Annual Premium	22/23 Average Rate	Expected Drift	Major Class Average	Major Class Op. Exp.	Combined Relativity	Indicated Rate	Balanced Indicated Rate	Balanced Indicated Change
				[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]
3	U Drive Truck	3	3	0	0	0.00	0.00%	2,282.06	119.69	0.1423	0.00	0.00	0.00%
3	U Drive Truck	3	4	0	0	0.00	0.00%	2,282.06	119.69	0.1372	0.00	0.00	0.00%

Table 14
Indicated Rate Calculation

Major Class	Description	Eng Disp Code	Territory	Rate Model No. of Vehicles	Rate Model Annual Premium	22/23 Average Rate	Expected Drift	Major Class Average	Major Class Op. Exp.	Combined Relativity	Indicated Rate	Balanced Indicated Rate	Balanced Indicated Change
				[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]
3	Common Carrier Bus Over 161K outside MB	N/A	1	29	21,895	755.00	0.00%	2,282.06	119.69	0.3502	876.88	853.55	13.05%
3	Common Carrier Bus Over 161K outside MB	N/A	2	20	15,100	755.00	0.00%	2,282.06	119.69	0.2129	579.97	564.53	-25.23%
3	Common Carrier Bus Over 161K outside MB	N/A	3	0	0	0.00	0.00%	2,282.06	119.69	0.2163	0.00	0.00	0.00%
3	Common Carrier Bus Over 161K outside MB	N/A	4	8	6,040	755.00	0.00%	2,282.06	119.69	0.2086	570.79	555.60	-26.41%

Table 14
Indicated Rate Calculation

Major Class	Description	Eng Disp Code	Territory	Rate Model No. of Vehicles	Rate Model Annual Premium	22/23 Average Rate	Expected Drift	Major Class Average	Major Class Op. Exp.	Combined Relativity	Indicated Rate	Balanced Indicated Rate	Balanced Indicated Change
				[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]
4	All Purpose Motorcycle (Moterscooter Body Style)	1	1	86	43,564	506.55	0.53%	925.49	119.69	0.5313	547.84	553.46	8.68%
4	All Purpose Motorcycle (Moterscooter Body Style)	1	2	24	10,380	432.49	0.53%	925.49	119.69	0.4124	452.00	456.63	5.02%
4	All Purpose Motorcycle (Moterscooter Body Style)	1	3	1	255	254.97	0.53%	925.49	119.69	0.2281	303.52	306.63	19.63%
4	All Purpose Motorcycle (Moterscooter Body Style)	1	4	0	0	0.00	0.53%	925.49	119.69	0.3119	0.00	0.00	0.00%
4	All Purpose Motorcycle (Moterscooter Body Style)	1	5	1	375	374.97	0.53%	925.49	119.69	0.3812	426.88	431.25	14.40%
4	All Purpose Motorcycle (Moterscooter Body Style)	2	1	9	7,517	835.18	0.53%	925.49	119.69	0.8395	796.16	804.31	-4.21%
4	All Purpose Motorcycle (Moterscooter Body Style)	2	2	1	668	668.40	0.53%	925.49	119.69	0.6516	644.73	651.34	-3.07%
4	All Purpose Motorcycle (Moterscooter Body Style)	2	3	0	0	0.00	0.53%	925.49	119.69	0.3604	0.00	0.00	0.00%
4	All Purpose Motorcycle (Moterscooter Body Style)	2	4	1	548	547.50	0.53%	925.49	119.69	0.4928	516.77	522.07	-5.15%
4	All Purpose Motorcycle (Moterscooter Body Style)	2	5	1	585	585.23	0.53%	925.49	119.69	0.6023	605.04	611.24	3.89%
4	All Purpose Motorcycle (Moterscooter Body Style)	3	1	0	0	0.00	0.53%	925.49	119.69	1.1232	0.00	0.00	0.00%
4	All Purpose Motorcycle (Moterscooter Body Style)	3	2	0	0	0.00	0.53%	925.49	119.69	0.8718	0.00	0.00	0.00%
4	All Purpose Motorcycle (Moterscooter Body Style)	3	3	0	0	0.00	0.53%	925.49	119.69	0.4822	0.00	0.00	0.00%
4	All Purpose Motorcycle (Moterscooter Body Style)	3	4	0	0	0.00	0.53%	925.49	119.69	0.6593	0.00	0.00	0.00%
4	All Purpose Motorcycle (Moterscooter Body Style)	3	5	0	0	0.00	0.53%	925.49	119.69	0.8059	0.00	0.00	0.00%
4	All Purpose Motorcycle (Other Body Style)	1	1	150	116,743	778.29	0.53%	925.49	119.69	0.8583	811.34	819.66	4.76%
4	All Purpose Motorcycle (Other Body Style)	1	2	78	53,888	690.87	0.53%	925.49	119.69	0.6662	656.52	663.25	-4.51%
4	All Purpose Motorcycle (Other Body Style)	1	3	7	2,727	389.64	0.53%	925.49	119.69	0.3685	416.66	420.92	7.46%
4	All Purpose Motorcycle (Other Body Style)	1	4	4	2,101	525.20	0.53%	925.49	119.69	0.5038	525.69	531.07	0.59%
4	All Purpose Motorcycle (Other Body Style)	1	5	8	4,352	544.03	0.53%	925.49	119.69	0.6158	615.94	622.25	13.77%
4	All Purpose Motorcycle (Other Body Style)	2	1	117	148,776	1,271.59	0.53%	925.49	119.69	1.3561	1,212.48	1,224.90	-4.18%
4	All Purpose Motorcycle (Other Body Style)	2	2	78	84,203	1,079.53	0.53%	925.49	119.69	1.0526	967.86	977.78	-9.90%
4	All Purpose Motorcycle (Other Body Style)	2	3	7	4,198	599.78	0.53%	925.49	119.69	0.5823	588.88	594.92	-1.33%
4	All Purpose Motorcycle (Other Body Style)	2	4	0	0	0.00	0.53%	925.49	119.69	0.7961	0.00	0.00	0.00%
4	All Purpose Motorcycle (Other Body Style)	2	5	19	17,100	899.98	0.53%	925.49	119.69	0.9730	903.74	913.00	0.91%
4	All Purpose Motorcycle (Other Body Style)	3	1	129	197,623	1,531.96	0.53%	925.49	119.69	1.8144	1,581.75	1,597.96	3.76%
4	All Purpose Motorcycle (Other Body Style)	3	2	107	146,159	1,365.97	0.53%	925.49	119.69	1.4083	1,254.47	1,267.33	-7.71%
4	All Purpose Motorcycle (Other Body Style)	3	3	23	17,665	768.04	0.53%	925.49	119.69	0.7790	747.43	755.09	-2.20%
4	All Purpose Motorcycle (Other Body Style)	3	4	13	13,986	1,075.87	0.53%	925.49	119.69	1.0651	977.91	987.93	-8.66%
4	All Purpose Motorcycle (Other Body Style)	3	5	32	35,722	1,116.30	0.53%	925.49	119.69	1.3018	1,168.69	1,180.66	5.21%
4	All Purpose Motorcycle (Sport Body Style)	1	1	41	55,583	1,355.68	0.53%	925.49	119.69	1.7244	1,509.20	1,524.67	11.87%
4	All Purpose Motorcycle (Sport Body Style)	1	2	23	26,160	1,137.41	0.53%	925.49	119.69	1.3384	1,198.17	1,210.44	5.86%
4	All Purpose Motorcycle (Sport Body Style)	1	3	3	1,710	570.00	0.53%	925.49	119.69	0.7404	716.29	723.63	26.28%
4	All Purpose Motorcycle (Sport Body Style)	1	4	0	0	0.00	0.53%	925.49	119.69	1.0122	0.00	0.00	0.00%
4	All Purpose Motorcycle (Sport Body Style)	1	5	3	3,541	1,180.46	0.53%	925.49	119.69	1.2372	1,116.64	1,128.08	-4.94%
4	All Purpose Motorcycle (Sport Body Style)	2	1	27	65,350	2,420.38	0.53%	925.49	119.69	2.7245	2,315.07	2,338.80	-3.88%
4	All Purpose Motorcycle (Sport Body Style)	2	2	17	37,322	2,195.40	0.53%	925.49	119.69	2.1146	1,823.65	1,842.33	-16.53%

Table 14
Indicated Rate Calculation

Major Class	Description	Eng Disp Code	Territory	Rate Model No. of Vehicles	Rate Model Annual Premium	22/23 Average Rate	Expected Drift	Major Class Average	Major Class Op. Exp.	Combined Relativity	Indicated Rate	Balanced Indicated Rate	Balanced Indicated Change
				[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]
4	All Purpose Motorcycle (Sport Body Style)	2	3	2	1,772	886.22	0.53%	925.49	119.69	1.1698	1,062.29	1,073.18	20.46%
4	All Purpose Motorcycle (Sport Body Style)	2	4	1	2,028	2,027.90	0.53%	925.49	119.69	1.5993	1,408.37	1,422.81	-30.21%
4	All Purpose Motorcycle (Sport Body Style)	2	5	7	10,683	1,526.18	0.53%	925.49	119.69	1.9547	1,694.83	1,712.20	11.60%
4	All Purpose Motorcycle (Sport Body Style)	3	1	2	5,452	2,725.86	0.53%	925.49	119.69	3.6451	3,056.93	3,088.26	12.70%
4	All Purpose Motorcycle (Sport Body Style)	3	2	0	0	0.00	0.53%	925.49	119.69	2.8292	0.00	0.00	0.00%
4	All Purpose Motorcycle (Sport Body Style)	3	3	0	0	0.00	0.53%	925.49	119.69	1.5651	0.00	0.00	0.00%
4	All Purpose Motorcycle (Sport Body Style)	3	4	0	0	0.00	0.53%	925.49	119.69	2.1397	0.00	0.00	0.00%
4	All Purpose Motorcycle (Sport Body Style)	3	5	1	2,613	2,612.91	0.53%	925.49	119.69	2.6153	2,227.10	2,249.92	-14.35%
4	All Purpose Motorcycle (Sport-Touring Body Style)	1	1	13	11,501	884.67	0.53%	925.49	119.69	1.0778	988.19	998.31	12.25%
4	All Purpose Motorcycle (Sport-Touring Body Style)	1	2	12	9,230	769.17	0.53%	925.49	119.69	0.8365	793.78	801.91	3.71%
4	All Purpose Motorcycle (Sport-Touring Body Style)	1	3	0	0	0.00	0.53%	925.49	119.69	0.4628	0.00	0.00	0.00%
4	All Purpose Motorcycle (Sport-Touring Body Style)	1	4	0	0	0.00	0.53%	925.49	119.69	0.6327	0.00	0.00	0.00%
4	All Purpose Motorcycle (Sport-Touring Body Style)	1	5	3	1,915	638.23	0.53%	925.49	119.69	0.7733	742.82	750.43	16.96%
4	All Purpose Motorcycle (Sport-Touring Body Style)	2	1	24	34,719	1,446.63	0.53%	925.49	119.69	1.7029	1,491.89	1,507.17	3.63%
4	All Purpose Motorcycle (Sport-Touring Body Style)	2	2	18	22,610	1,256.12	0.53%	925.49	119.69	1.3217	1,184.73	1,196.87	-5.22%
4	All Purpose Motorcycle (Sport-Touring Body Style)	2	3	1	746	746.01	0.53%	925.49	119.69	0.7311	708.85	716.12	-4.51%
4	All Purpose Motorcycle (Sport-Touring Body Style)	2	4	1	908	908.03	0.53%	925.49	119.69	0.9996	925.16	934.64	2.39%
4	All Purpose Motorcycle (Sport-Touring Body Style)	2	5	9	10,411	1,156.81	0.53%	925.49	119.69	1.2218	1,104.21	1,115.53	-4.08%
4	All Purpose Motorcycle (Sport-Touring Body Style)	3	1	9	16,140	1,793.38	0.53%	925.49	119.69	2.2783	1,955.57	1,975.61	9.58%
4	All Purpose Motorcycle (Sport-Touring Body Style)	3	2	11	18,422	1,674.75	0.53%	925.49	119.69	1.7683	1,544.62	1,560.45	-7.32%
4	All Purpose Motorcycle (Sport-Touring Body Style)	3	3	0	0	0.00	0.53%	925.49	119.69	0.9782	0.00	0.00	0.00%
4	All Purpose Motorcycle (Sport-Touring Body Style)	3	4	0	0	0.00	0.53%	925.49	119.69	1.3374	0.00	0.00	0.00%
4	All Purpose Motorcycle (Sport-Touring Body Style)	3	5	6	8,178	1,362.99	0.53%	925.49	119.69	1.6347	1,436.90	1,451.62	5.94%
4	All Purpose Motorcycle (Touring Body Style)	1	1	10	8,556	855.59	0.53%	925.49	119.69	1.0249	945.55	955.24	11.06%
4	All Purpose Motorcycle (Touring Body Style)	1	2	2	1,432	716.21	0.53%	925.49	119.69	0.7955	760.68	768.48	6.73%
4	All Purpose Motorcycle (Touring Body Style)	1	3	0	0	0.00	0.53%	925.49	119.69	0.4400	0.00	0.00	0.00%
4	All Purpose Motorcycle (Touring Body Style)	1	4	0	0	0.00	0.53%	925.49	119.69	0.6016	0.00	0.00	0.00%
4	All Purpose Motorcycle (Touring Body Style)	1	5	1	660	659.74	0.53%	925.49	119.69	0.7353	712.23	719.53	8.49%
4	All Purpose Motorcycle (Touring Body Style)	2	1	27	38,014	1,407.94	0.53%	925.49	119.69	1.6193	1,424.52	1,439.12	1.67%
4	All Purpose Motorcycle (Touring Body Style)	2	2	16	19,363	1,210.19	0.53%	925.49	119.69	1.2568	1,132.44	1,144.04	-5.97%
4	All Purpose Motorcycle (Touring Body Style)	2	3	2	1,305	652.45	0.53%	925.49	119.69	0.6953	679.93	686.90	4.72%
4	All Purpose Motorcycle (Touring Body Style)	2	4	1	870	870.15	0.53%	925.49	119.69	0.9505	885.62	894.70	2.28%
4	All Purpose Motorcycle (Touring Body Style)	2	5	3	3,023	1,007.71	0.53%	925.49	119.69	1.1618	1,055.88	1,066.70	5.29%
4	All Purpose Motorcycle (Touring Body Style)	3	1	164	294,039	1,792.92	0.53%	925.49	119.69	2.1665	1,865.45	1,884.56	4.56%
4	All Purpose Motorcycle (Touring Body Style)	3	2	123	184,916	1,503.38	0.53%	925.49	119.69	1.6815	1,474.67	1,489.78	-1.43%
4	All Purpose Motorcycle (Touring Body Style)	3	3	10	9,685	968.52	0.53%	925.49	119.69	0.9302	869.24	878.15	-9.81%
4	All Purpose Motorcycle (Touring Body Style)	3	4	10	11,989	1,198.89	0.53%	925.49	119.69	1.2717	1,144.44	1,156.17	-4.07%

Table 14
Indicated Rate Calculation

Major Class	Description	Eng Disp Code	Territory	Rate Model No. of Vehicles	Rate Model Annual Premium	22/23 Average Rate	Expected Drift	Major Class Average	Major Class Op. Exp.	Combined Relativity	Indicated Rate	Balanced Indicated Rate	Balanced Indicated Change
				[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]
4	All Purpose Motorcycle (Touring Body Style)	3	5	44	58,413	1,327.57	0.53%	925.49	119.69	1.5544	1,372.23	1,386.30	3.87%
4	Pleasure Motorcycle (Motorscooter Body Style)	1	1	193	67,453	349.50	0.53%	925.49	119.69	0.3495	401.35	405.46	15.40%
4	Pleasure Motorcycle (Motorscooter Body Style)	1	2	116	36,589	315.43	0.53%	925.49	119.69	0.2713	338.30	341.77	7.78%
4	Pleasure Motorcycle (Motorscooter Body Style)	1	3	1	200	199.94	0.53%	925.49	119.69	0.1501	240.62	243.09	20.94%
4	Pleasure Motorcycle (Motorscooter Body Style)	1	4	8	2,241	280.07	0.53%	925.49	119.69	0.2052	285.02	287.94	2.27%
4	Pleasure Motorcycle (Motorscooter Body Style)	2	1	36	19,124	531.23	0.53%	925.49	119.69	0.5523	564.70	570.49	6.82%
4	Pleasure Motorcycle (Motorscooter Body Style)	2	2	24	11,483	478.47	0.53%	925.49	119.69	0.4286	465.09	469.85	-2.32%
4	Pleasure Motorcycle (Motorscooter Body Style)	2	3	0	0	0.00	0.53%	925.49	119.69	0.2371	0.00	0.00	0.00%
4	Pleasure Motorcycle (Motorscooter Body Style)	2	4	2	631	315.50	0.53%	925.49	119.69	0.3242	380.91	384.81	21.33%
4	Pleasure Motorcycle (Motorscooter Body Style)	3	1	0	0	0.00	0.53%	925.49	119.69	0.7389	0.00	0.00	0.00%
4	Pleasure Motorcycle (Motorscooter Body Style)	3	2	0	0	0.00	0.53%	925.49	119.69	0.5735	0.00	0.00	0.00%
4	Pleasure Motorcycle (Motorscooter Body Style)	3	3	0	0	0.00	0.53%	925.49	119.69	0.3172	0.00	0.00	0.00%
4	Pleasure Motorcycle (Motorscooter Body Style)	3	4	0	0	0.00	0.53%	925.49	119.69	0.4337	0.00	0.00	0.00%
4	Pleasure Motorcycle (Other Body Style)	1	1	536	286,034	533.65	0.53%	925.49	119.69	0.5647	574.69	580.58	8.22%
4	Pleasure Motorcycle (Other Body Style)	1	2	553	255,852	462.66	0.53%	925.49	119.69	0.4383	472.84	477.69	2.70%
4	Pleasure Motorcycle (Other Body Style)	1	3	17	4,939	290.55	0.53%	925.49	119.69	0.2424	315.05	318.28	8.97%
4	Pleasure Motorcycle (Other Body Style)	1	4	19	6,884	362.30	0.53%	925.49	119.69	0.3315	386.77	390.74	7.28%
4	Pleasure Motorcycle (Other Body Style)	2	1	1,073	898,547	837.42	0.53%	925.49	119.69	0.8921	838.58	847.17	0.63%
4	Pleasure Motorcycle (Other Body Style)	2	2	1,149	836,589	728.10	0.53%	925.49	119.69	0.6924	677.66	684.60	-6.47%
4	Pleasure Motorcycle (Other Body Style)	2	3	29	13,136	452.96	0.53%	925.49	119.69	0.3830	428.35	432.74	-4.97%
4	Pleasure Motorcycle (Other Body Style)	2	4	30	16,173	539.12	0.53%	925.49	119.69	0.5237	541.68	547.23	0.97%
4	Pleasure Motorcycle (Other Body Style)	3	1	1,747	1,798,235	1,029.33	0.53%	925.49	119.69	1.1936	1,081.50	1,092.59	5.58%
4	Pleasure Motorcycle (Other Body Style)	3	2	2,572	2,316,153	900.53	0.53%	925.49	119.69	0.9264	866.21	875.08	-3.34%
4	Pleasure Motorcycle (Other Body Style)	3	3	64	33,025	516.02	0.53%	925.49	119.69	0.5125	532.65	538.11	3.73%
4	Pleasure Motorcycle (Other Body Style)	3	4	110	75,411	685.55	0.53%	925.49	119.69	0.7006	684.27	691.28	0.30%
4	Pleasure Motorcycle (Sport Body Style)	1	1	277	251,329	907.33	0.53%	925.49	119.69	1.1344	1,033.78	1,044.37	14.50%
4	Pleasure Motorcycle (Sport Body Style)	1	2	163	130,276	799.24	0.53%	925.49	119.69	0.8805	829.17	837.66	4.25%
4	Pleasure Motorcycle (Sport Body Style)	1	3	4	1,875	468.67	0.53%	925.49	119.69	0.4871	512.16	517.41	9.82%
4	Pleasure Motorcycle (Sport Body Style)	1	4	6	3,388	564.72	0.53%	925.49	119.69	0.6659	656.26	662.98	16.78%
4	Pleasure Motorcycle (Sport Body Style)	2	1	488	731,125	1,498.21	0.53%	925.49	119.69	1.7923	1,563.92	1,579.95	4.90%
4	Pleasure Motorcycle (Sport Body Style)	2	2	352	453,067	1,287.12	0.53%	925.49	119.69	1.3911	1,240.64	1,253.35	-3.14%
4	Pleasure Motorcycle (Sport Body Style)	2	3	11	8,132	739.26	0.53%	925.49	119.69	0.7695	739.78	747.36	0.56%
4	Pleasure Motorcycle (Sport Body Style)	2	4	12	10,823	901.95	0.53%	925.49	119.69	1.0521	967.45	977.36	7.79%
4	Pleasure Motorcycle (Sport Body Style)	3	1	56	109,889	1,962.30	0.53%	925.49	119.69	2.3979	2,051.96	2,072.98	5.08%
4	Pleasure Motorcycle (Sport Body Style)	3	2	47	75,240	1,600.85	0.53%	925.49	119.69	1.8612	1,619.43	1,636.02	1.66%
4	Pleasure Motorcycle (Sport Body Style)	3	3	2	2,251	1,125.32	0.53%	925.49	119.69	1.0296	949.32	959.05	-15.23%
4	Pleasure Motorcycle (Sport Body Style)	3	4	2	2,945	1,472.27	0.53%	925.49	119.69	1.4076	1,253.92	1,266.77	-14.41%

Table 14
Indicated Rate Calculation

Major Class	Description	Eng Disp Code	Territory	Rate Model No. of Vehicles	Rate Model Annual Premium	22/23 Average Rate	Expected Drift	Major Class Average	Major Class Op. Exp.	Combined Relativity	Indicated Rate	Balanced Indicated Rate	Balanced Indicated Change
				[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]
4	Pleasure Motorcycle (Sport-Touring Body Style)	1	1	47	27,380	582.54	0.53%	925.49	119.69	0.7090	691.03	698.11	19.21%
4	Pleasure Motorcycle (Sport-Touring Body Style)	1	2	55	29,358	533.79	0.53%	925.49	119.69	0.5503	563.14	568.91	6.02%
4	Pleasure Motorcycle (Sport-Touring Body Style)	1	3	0	0	0.00	0.53%	925.49	119.69	0.3044	0.00	0.00	0.00%
4	Pleasure Motorcycle (Sport-Touring Body Style)	1	4	1	362	361.56	0.53%	925.49	119.69	0.4162	455.06	459.73	26.48%
4	Pleasure Motorcycle (Sport-Touring Body Style)	2	1	212	209,307	987.30	0.53%	925.49	119.69	1.1202	1,022.39	1,032.87	4.06%
4	Pleasure Motorcycle (Sport-Touring Body Style)	2	2	235	200,452	852.99	0.53%	925.49	119.69	0.8695	820.32	828.73	-3.36%
4	Pleasure Motorcycle (Sport-Touring Body Style)	2	3	3	1,575	524.88	0.53%	925.49	119.69	0.4810	507.27	512.47	-2.88%
4	Pleasure Motorcycle (Sport-Touring Body Style)	2	4	8	4,984	623.03	0.53%	925.49	119.69	0.6576	649.57	656.23	4.77%
4	Pleasure Motorcycle (Sport-Touring Body Style)	3	1	156	190,560	1,221.54	0.53%	925.49	119.69	1.4988	1,327.43	1,341.03	9.20%
4	Pleasure Motorcycle (Sport-Touring Body Style)	3	2	184	193,724	1,052.85	0.53%	925.49	119.69	1.1633	1,057.08	1,067.91	0.89%
4	Pleasure Motorcycle (Sport-Touring Body Style)	3	3	6	3,860	643.28	0.53%	925.49	119.69	0.6435	638.24	644.78	-0.30%
4	Pleasure Motorcycle (Sport-Touring Body Style)	3	4	1	780	779.85	0.53%	925.49	119.69	0.8798	828.63	837.12	6.78%
4	Pleasure Motorcycle (Touring Body Style)	1	1	30	17,260	575.34	0.53%	925.49	119.69	0.6742	662.98	669.78	15.80%
4	Pleasure Motorcycle (Touring Body Style)	1	2	44	23,892	542.99	0.53%	925.49	119.69	0.5233	541.37	546.92	0.19%
4	Pleasure Motorcycle (Touring Body Style)	1	3	1	264	263.53	0.53%	925.49	119.69	0.2895	352.96	356.57	34.59%
4	Pleasure Motorcycle (Touring Body Style)	1	4	3	1,231	410.20	0.53%	925.49	119.69	0.3958	438.60	443.09	7.45%
4	Pleasure Motorcycle (Touring Body Style)	2	1	176	164,562	935.01	0.53%	925.49	119.69	1.0652	978.07	988.10	5.12%
4	Pleasure Motorcycle (Touring Body Style)	2	2	287	231,562	806.84	0.53%	925.49	119.69	0.8268	785.93	793.98	-2.11%
4	Pleasure Motorcycle (Touring Body Style)	2	3	13	6,262	481.73	0.53%	925.49	119.69	0.4574	488.24	493.25	1.85%
4	Pleasure Motorcycle (Touring Body Style)	2	4	8	4,843	605.35	0.53%	925.49	119.69	0.6253	623.56	629.95	3.51%
4	Pleasure Motorcycle (Touring Body Style)	3	1	1,625	1,901,561	1,170.19	0.53%	925.49	119.69	1.4252	1,268.13	1,281.13	8.90%
4	Pleasure Motorcycle (Touring Body Style)	3	2	3,348	3,409,902	1,018.49	0.53%	925.49	119.69	1.1062	1,011.06	1,021.42	-0.24%
4	Pleasure Motorcycle (Touring Body Style)	3	3	80	47,887	598.58	0.53%	925.49	119.69	0.6119	612.78	619.06	2.87%
4	Pleasure Motorcycle (Touring Body Style)	3	4	111	83,691	753.97	0.53%	925.49	119.69	0.8366	793.82	801.96	5.80%
4	All Purpose Moped	N/A	1	291	143,159	491.96	0.53%	925.49	119.69	0.5313	547.84	553.46	11.91%
4	All Purpose Moped	N/A	2	128	55,188	431.16	0.53%	925.49	119.69	0.4124	452.00	456.63	5.35%
4	All Purpose Moped	N/A	3	3	896	298.69	0.53%	925.49	119.69	0.2281	303.52	306.63	2.12%
4	All Purpose Moped	N/A	4	5	1,676	335.14	0.53%	925.49	119.69	0.3119	371.01	374.82	11.25%
4	Pleasure Moped	N/A	1	757	269,024	355.38	0.53%	925.49	119.69	0.3495	401.35	405.46	13.49%
4	Pleasure Moped	N/A	2	438	140,344	320.42	0.53%	925.49	119.69	0.2713	338.30	341.77	6.10%
4	Pleasure Moped	N/A	3	6	1,390	231.69	0.53%	925.49	119.69	0.1501	240.62	243.09	4.37%
4	Pleasure Moped	N/A	4	4	1,120	279.95	0.53%	925.49	119.69	0.2052	285.02	287.94	2.31%

Table 14
Indicated Rate Calculation

Major Class	Description	Eng Disp Code	Territory	Rate Model No. of Vehicles	Rate Model Annual Premium	22/23 Average Rate	Expected Drift	Major Class Average	Major Class Op. Exp.	Combined Relativity	Indicated Rate	Balanced Indicated Rate	Balanced Indicated Change
				[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]
5	All Purpose Trailer	N/A	1	65,149	4,744,679	72.83	5.91%	65.82	0.00	1.1131	73.27	73.77	-4.36%
5	All Purpose Trailer	N/A	2	149,700	10,334,102	69.03	5.91%	65.82	0.00	0.9704	63.88	64.31	-12.03%
5	All Purpose Trailer	N/A	3	3,539	191,217	54.03	5.91%	65.82	0.00	0.8199	53.97	54.34	-5.04%
5	All Purpose Trailer	N/A	4	7,030	306,936	43.66	5.91%	65.82	0.00	0.6722	44.25	44.55	-3.65%

Table 14
Indicated Rate Calculation

Major Class	Description	Eng Disp Code	Territory	Rate Model No. of Vehicles	Rate Model Annual Premium	22/23 Average Rate	Expected Drift	Major Class Average	Major Class Op. Exp.	Combined Relativity	Indicated Rate	Balanced Indicated Rate	Balanced Indicated Change
				[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]
6	Off Road Vehicle - ATV	N/A	1	8,289	49,734	6.00	0.00%	6.08	0.00	1.0000	6.08	6.13	2.10%
6	Off Road Vehicle - ATV	N/A	2	32,669	196,014	6.00	0.00%	6.08	0.00	1.0000	6.08	6.13	2.10%
6	Off Road Vehicle - ATV	N/A	3	784	4,704	6.00	0.00%	6.08	0.00	1.0000	6.08	6.13	2.10%
6	Off Road Vehicle - ATV	N/A	4	1,430	8,580	6.00	0.00%	6.08	0.00	1.0000	6.08	6.13	2.10%
6	Off Road Vehicle - Motorcycle	N/A	1	507	3,042	6.00	0.00%	6.08	0.00	1.0000	6.08	6.13	2.10%
6	Off Road Vehicle - Motorcycle	N/A	2	973	5,838	6.00	0.00%	6.08	0.00	1.0000	6.08	6.13	2.10%
6	Off Road Vehicle - Motorcycle	N/A	3	22	132	6.00	0.00%	6.08	0.00	1.0000	6.08	6.13	2.10%
6	Off Road Vehicle - Motorcycle	N/A	4	16	96	6.00	0.00%	6.08	0.00	1.0000	6.08	6.13	2.10%
6	Off Road Vehicle - Snowmobile	N/A	1	8,338	50,028	6.00	0.00%	6.08	0.00	1.0000	6.08	6.13	2.10%
6	Off Road Vehicle - Snowmobile	N/A	2	23,507	141,042	6.00	0.00%	6.08	0.00	1.0000	6.08	6.13	2.10%
6	Off Road Vehicle - Snowmobile	N/A	3	1,026	6,156	6.00	0.00%	6.08	0.00	1.0000	6.08	6.13	2.10%
6	Off Road Vehicle - Snowmobile	N/A	4	1,582	9,492	6.00	0.00%	6.08	0.00	1.0000	6.08	6.13	2.10%
6	Off Road Vehicle - Snow Vehicle	N/A	1	25	150	6.00	0.00%	6.08	0.00	1.0000	6.08	6.13	2.10%
6	Off Road Vehicle - Snow Vehicle	N/A	2	101	606	6.00	0.00%	6.08	0.00	1.0000	6.08	6.13	2.10%
6	Off Road Vehicle - Snow Vehicle	N/A	3	5	30	6.00	0.00%	6.08	0.00	1.0000	6.08	6.13	2.10%
6	Off Road Vehicle - Snow Vehicle	N/A	4	20	120	6.00	0.00%	6.08	0.00	1.0000	6.08	6.13	2.10%

Notes:

- [1] & [2]: Data per the Rate Model; refer to Part V, Ratemaking, RM.2
- [3] = [2] / [1]
- [4] to [6] Refer to Part V, Ratemaking, RM.4
- [7] Refer to Part V, Ratemaking, Table 13

- [8] Details of the calculation of the Indicated Rate per Part V, Ratemaking, RM.4
- [9] Balanced to the revenue requirement by major class
- [10] = ([9] / ([3] * (1 + [4]))) - 1

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Part and Chapter:	Part V Pro Formas INV.16.2.1 Basic Interest Rate Risk MPI Exh. #37 (2022 GRA) p. 33	Page No.:	78
PUB Approved Issue No:	4. Financial Forecast		
Topic:	Interest Rate Risk		
Sub Topic:	Asset Liability Management Study		

Preamble to IR:

In MPI Exhibit #37 in the 2022 GRA on page 33, MPI provided its October update of forecasted performance. MPI forecasted a positive overall impact of the change in interest rates of \$20.7M (investment income interest rate impact was \$57.8M vs an increase in claims liabilities of \$37.1M).

The overall interest rate impact on net income for 2020/21 was \$5.789M, a reduction of the benefit forecast in last year's update of \$14.891M.

Question:

- a) Please provide a comparison of the claims discount rate based on the October 5th update 2022 GRA with that of March 31, 2022 and explain the impact of this change on net income.
- b) Please provide an explanation of the change in impact of the movement in interest rates on the claims incurred and investment income from the forecast in the October 5th update in the 2022 GRA.

Rationale for Question:

To understand the impact of changes in interest rates on Basic and the change in risk.

RESPONSE:

- a) Please see *Figure 1*, which shows a comparison of the claims discount rate based on the October 5th update of 2022 GRA with that of March 31, 2022, as well as the impact of the change to net income.

The increase in the claims discount rate resulted in a reduction in claims incurred, which, in isolation, increased net income.

Figure 1 Impact of Change in Claims Discount Rate

Line No.		Q4 2022 Claims Discount Rate	
1	2023 GRA Forecast	3.54%	
2	2022 GRA (October Update)	2.72%	
3	Difference	0.82%	
4		2023 GRA Forecast	2022 GRA (October Update)
5	\$'000s	2022 Actual	2022 Projected
6	Inc/(Dec) in Claims Incurred - Interest Rate Impact	\$ (132,765)	\$ 37,094
			Favorable Change
			\$ (169,859)

- b) Please see *Figure 2*, which shows the impact of the movement in interest rates on claims incurred and investment income.

The 2023 GRA shows a reduction in claims incurred of \$132.7 million and a reduction in investment income of \$126.9 million, resulting in a positive overall impact of \$5.8 million. The increase in interest rates reduced the claims incurred by more than the value of investment assets resulting in a net gain of \$5.8 million, which was \$14.9 million lower than projected in the 2022 GRA.

Figure 2 Impact of Movement in Interest Rate on Claims Incurred and Investment Income

Line No.	\$'000s	2023 GRA Forecast	2022 GRA (October Update) 2022 Projected	Change
1	Inc/(Dec) in Claims Incurred - Interest Rate Impact	\$ (132,765)	\$ 37,094	\$ (169,859) Favorable
2	Inc/(Dec) in Investment Income - Interest Rate Impact	\$ (126,997)	\$ 57,776	\$ (184,773) Unfavorable
3	Total net Impact due to interest rate change	\$ 5,768	\$ 20,682	\$ (14,914) Unfavorable

PUB (MPI) 1-10

Part and Chapter:	V Rev Appendix 3	Page No.:	
PUB Approved Issue No:	4. Financial Forecasts		
Topic:	Extension Financial Forecast		
Sub Topic:	Extension Profit Margin		

Preamble to IR:

Question:

- a) Please file an update including the anticipated Extension profit margin for 2022/23, 2023/24 and 2024/25 and comment on any changes.
- b) Please comment on the extent that MPI utilizes a return on premium approach in establishing the profit margin for Extension.

Rationale for Question:

To assess reasonableness of Extension forecasts.

RESPONSE:

- a) Please see Figure 1 below

Figure 1 Underwriting and Net Income Profit Margins by Fiscal Year - Extension

Line No.	Fiscal Year	Underwriting Profit Margin	Net Income Profit Margin
1	2022-23	21.30%	28.22%
2	2023-24	20.50%	25.02%
3	2024-25	20.76%	25.46%

- b) MPI bases current Extension on historical underwriting margins and on delivering stable net income levels.

PUB (MPI) 1-11

Part and Chapter:	Part V –Forecasting – PF Pro Formas MPI Exh. #37 (2022 GRA) p. 23	Page No.:	
PUB Approved Issue No:	4. Financial Forecast		
Topic:	Financial Forecast		
Sub Topic:			

Preamble to IR:

In MPI Exhibit #37 in the 2022 GRA (the October update) on page 23, MPI provided its update of forecasted performance.

In the 2023 GRA, in Part V – Pro Formas, MPI provided its current forecasted financial performance and compared it to the 2022 GRA.

Question:

Similar to PF-4 through PF-7 of the 2023 GRA, please provide a Comparative for each of 2022 through 2025 between the 2022 GRA October update and the 2023 GRA.

Rationale for Question:

To understand the reasons for the changes from the last evidence filed by the Corporation to the current GRA.

RESPONSE:

Please refer to the following [Appendix 1](#).

**Pro Forma Statement of Operations comparative for the 2021/22 fiscal year
 Pro Forma Comparative - 2022 GRA October 1, 2021 revision vs 2023 GRA**

PF-4 Statement of Operations: 2021/22 Comparative

Line No.		Revised as of Oct 1 2022 GRA 2021-22P	2023 GRA 2021-22A	Inc (dec)	Ref.	Increase / (Decrease) %
		\$	\$	\$		%
1	<i>(C\$ 000s, except where noted)</i>					
2	Net Premiums Written					
3	Motor Vehicles	1,022,158	1,019,368	(2,790)		-0.3%
4	Drivers	61,179	61,511	332		0.5%
5	Reinsurance Ceded	(15,645)	(15,659)	(14)		0.1%
6	Total Net Premiums Written	1,067,692	1,065,220	(2,472)	(1)	-0.2%
7	Net Premiums Earned					
8	Motor Vehicles	1,064,012	1,058,320	(5,692)		-0.5%
9	Drivers	63,506	63,747	241		0.4%
10	Reinsurance Ceded	(15,645)	(15,659)	(14)		0.1%
11	Total Net Premiums Earned	1,111,873	1,106,408	(5,465)		-0.5%
12	Service Fees & Other Revenues	25,468	24,652	(816)		-3.2%
13	Total Earned Revenues	1,137,341	1,131,060	(6,281)		-0.6%
14	Net Claims Incurred	751,946	838,574	86,628		11.5%
15	DPAC \ Premium Deficiency Adjustment	-	-	-		
16	(a) Claims Incurred - Interest rate impact	37,094	(132,765)	(169,859)		-457.9%
17	Net Claims Incurred	789,040	705,809	(83,231)	(2)	-10.5%
18	Claims Expense	144,353	146,277	1,924	(4)	1.3%
19	Road Safety/Loss Prevention	11,571	10,337	(1,234)	(4)	-10.7%
20	Total Claims Costs	944,964	862,423	(82,541)		-8.7%
21	Expenses					
22	Operating	73,450	75,945	2,495	(4)	3.4%
23	Commissions	45,752	44,925	(827)		-1.8%
24	Premium Taxes	28,426	28,966	540		1.9%
25	Regulatory/Appeal	4,269	4,530	261	(4)	6.1%
26	Total Expenses	151,897	154,366	2,469		1.6%
27	Underwriting Income (Loss)	40,480	114,271	73,791		182.3%
28	Investment Income	91,492	79,917	(11,575)		-12.7%
29	(b) Investment Income - Interest rate impact	57,776	(126,997)	(184,773)		-319.8%
30	Total Investment Income	149,268	(47,080)	(196,348)	(3)	-131.5%
31	Net Income (Loss) from Annual Operations	189,748	67,191	(122,557)		-64.6%
32	Total net Impact due to interest rate change (b) - (a)	20,682	5,768	(14,914)		-72.1%

**Pro Forma Statement of Operations comparative for the 2021/22 fiscal year
 Pro Forma Comparative - 2022 GRA October 1, 2021 revision vs 2023 GRA**

Explanation of Significant Variances - 2021/22 Comparative

Line No.	Ref.	Category	(C\$ 000s)	Explanation
1	(1)	Net Premiums Written	1,067,692	2022 GRA - Rate Update
2			(4,986)	Higher than expected Fleet Rebate
3			(4,242)	Lower than expected premiums related to upgrade
4			(3,122)	Lower than expected premium related to volume
5			(14)	Higher than expected Reinsurance Premiums
6			(2,343)	Higher than expected Capital Release Provision and Other
7			11,903	All Other
8			332	Higher than expected Driver Premium
9			1,065,220	2023 GRA
10	(2)	Net Claims Incurred	789,040	2022 GRA - Rate Update
11			(169,859)	Lower than forecasted Interest Rate Impact
12			(3,776)	Lower than forecasted Liability claims
13			(3,609)	Allowance for doubtful accounts
14			35,744	Increased forecasted PIPP claims
15			34,777	Increased forecasted Collision claims
16			14,067	Increased forecasted ILAE
17			6,048	Increased forecasted Comprehensive claims
18			2,284	Increased forecasted Property Damage claims
19			1,094	Increased forecasted non-proportional ILAE
20			705,809	2023 GRA
21	(3)	Investment Income	149,268	2022 GRA - Rate Update
22			(22,000)	Writedown of AFS Assets
23			4,000	Higher than expected equity investment income
24			7,000	Higher than expected alternative investment income
25			(184,773)	Higher than expected Interest Rate Impact
26			(1,000)	Higher than expected amortization of bond premium
27			425	Other
28			(47,080)	2023 GRA
29		* Estimated as detailed investment income information not readily available		
30	(4)	Allocated Corporate Expenses	233,643	2022 GRA - Rate Update
31			1,924	Hgher than expected claims expenses
32			(1,234)	Lower than expected road safety expenses
33			2,494	Hgher than expected operating expenses
34			262	Higher than expected regulatory appeal expenses
35			237,089	2023 GRA
36		* Estimated as detailed expense information not readily available		

**Pro Forma Statement of Operations comparative for the 2022/23 fiscal year
 Pro Forma Comparative - 2022 GRA October 1, 2021 revision vs 2023 GRA**

PF-5 Statement of Operations: 2022/23 Comparative

Line No.		Revised as of Oct 1 2022 GRA 2022-23B	2023 GRA 2022-23B	Inc (dec)	Ref.	Increase / (Decrease) %
		\$	\$	\$		%
1	<i>(C\$ 000s, except where noted)</i>					
2	Net Premiums Written					
3	Motor Vehicles	1,122,422	1,061,370	(61,052)		-5.4%
4	Drivers	63,772	59,927	(3,845)		-6.0%
5	Reinsurance Ceded	(15,942)	(16,352)	(410)		2.6%
6	Total Net Premiums Written	1,170,252	1,104,945	(65,307)	(1)	-5.6%
7	Net Premiums Earned					
8	Motor Vehicles	1,073,590	1,040,737	(32,853)		-3.1%
9	Drivers	62,499	60,635	(1,864)		-3.0%
10	Reinsurance Ceded	(15,942)	(16,352)	(410)		2.6%
11	Total Net Premiums Earned	1,120,147	1,085,020	(35,127)		-3.1%
12	Service Fees & Other Revenues	29,104	27,967	(1,137)		-3.9%
13	Total Earned Revenues	1,149,251	1,112,987	(36,264)		-3.2%
14	Net Claims Incurred	906,605	885,524	(21,081)		-2.3%
15	DPAC \ Premium Deficiency Adjustment	-	-	-		
16	(a) Claims Incurred - Interest rate impact	16,175	(2,545)	(18,720)		-115.7%
17	Net Claims Incurred	922,780	882,979	(39,801)	(2)	-4.3%
18	Claims Expense	152,737	151,982	(755)	(4)	-0.5%
19	Road Safety/Loss Prevention	12,469	12,267	(202)	(4)	-1.6%
20	Total Claims Costs	1,087,986	1,047,228	(40,758)		-3.7%
21	Expenses					
22	Operating	83,761	89,477	5,716	(4)	6.8%
23	Commissions	48,094	47,977	(117)		-0.2%
24	Premium Taxes	34,083	33,043	(1,040)		-3.1%
25	Regulatory/Appeal	4,620	4,620	-	(4)	0.0%
26	Total Expenses	170,558	175,117	4,559		2.7%
27	Underwriting Income (Loss)	(109,293)	(109,358)	(65)		0.1%
28	Investment Income	99,188	136,097	36,909		37.2%
29	(b) Investment Income - Interest rate impact	911	-	(911)		-100.0%
30	Total Investment Income	100,099	136,097	35,998	(3)	36.0%
31	Net Income (Loss) from Annual Operations	(9,194)	26,739	35,933		-390.8%
32	Total net Impact due to interest rate change (b) - (a)	(15,264)	2,545	17,809		-116.7%

**Pro Forma Statement of Operations comparative for the 2022/23 fiscal year
Pro Forma Comparative - 2022 GRA October 1, 2021 revision vs 2023 GRA**

Explanation of Significant Variances - 2022/23 Comparative

Line No.	Ref.	Category	(C\$ 000s)	Explanation
1	(1)	Net Premiums Written	1,170,252	2022 GRA - Rate Update
2			(57,857)	Capital Release Provision Ordered
3			(4,771)	Higher rate change (-1.16% updated vs -1.57% ordered)
4			(3,845)	Lower than expected Driver Premium
5			(1,925)	Lower than expected premiums related to upgrade
6			(1,143)	Higher than expected fleet rebate
7			(410)	Higher than expected Reinsurance ceded
8			(174)	Lower than expected premium related to volume
9			4,374	Higher than expected premiums from 2021/22
10			443	Lower than expected Anti-theft rebate
11			1	Other
12			1,104,945	2023 GRA
13	(2)	Net Claims Incurred	922,780	2022 GRA - Rate Update
14			(18,720)	Lower than forecasted Interest Rate Impact
15			(18,456)	Lower than forecasted PIPP and Liability claims
16			(5,770)	Lower than forecasted ILAE
17			(5,013)	Lower than forecasted Collision claims
18			(574)	Lower than forecasted non-proportional ILAE
19			7,293	Increased forecasted Property Damage claims
20			1,439	Increased forecasted Comprehensive claims
21			882,979	2023 GRA
22	(3)	Investment Income	100,099	2022 GRA - Rate Update
23			5,802	Higher than expected interest income
24			29,948	Higher than expected realized gains on alternative investments
25			(1,782)	Lower than expected alternative investment income
26			621	Higher than expected investment manager fees
27			498	Higher than expected amortization of bond premium
28			911	Higher forecasted Interest Rate Impact
29			136,097	2023 GRA
30	(4)	Allocated Corporate Expenses	231,594	2022 GRA - Rate Update
31		(Normal Operations)	(1,004)	Other
32			(825)	Lower than expected amortization of deferred development
33			3,973	Higher than expected salaries expense
34			3,307	Higher than expected data processing expense
35			237,045	2023 GRA
36	(4)	Allocated Corporate Expenses	21,994	2022 GRA - Rate Update
37		(Initiatives Implementation)	(288)	Lower than expected data processing expense
38			(476)	Lower than expected data salaries expense
39			71	Other
40			21,301	2023 GRA

**Pro Forma Statement of Operations comparative for the 2023/24 fiscal year
 Pro Forma Comparative - 2022 GRA October 1, 2021 revision vs 2023 GRA**

PF-6 Statement of Operations: 2023/24 Comparative

Line No.		Revised as of Oct 1 2022 GRA 2023-24F	2023 GRA 2023-24F	Inc (dec)	Ref.	Increase / (Decrease) %
	(C\$ 000s, except where noted)	\$	\$	\$		%
1	Net Premiums Written					
3	Motor Vehicles	1,163,679	1,150,299	(13,380)		-1.1%
4	Drivers	65,978	63,390	(2,588)		-3.9%
5	Reinsurance Ceded	(16,260)	(16,843)	(583)		3.6%
6	Total Net Premiums Written	1,213,397	1,196,846	(16,551)	(1)	-1.4%
7	Net Premiums Earned					
8	Motor Vehicles	1,143,586	1,106,616	(36,970)		-3.2%
9	Drivers	64,895	61,689	(3,206)		-4.9%
10	Reinsurance Ceded	(16,260)	(16,843)	(583)		3.6%
11	Total Net Premiums Earned	1,192,221	1,151,462	(40,759)		-3.4%
12	Service Fees & Other Revenues	29,337	27,483	(1,854)		-6.3%
13	Total Earned Revenues	1,221,558	1,178,945	(42,613)		-3.5%
14	Net Claims Incurred	944,401	927,756	(16,645)		-1.8%
15	DPAC \ Premium Deficiency Adjustment	-	-	-		
16	(a) Claims Incurred - Interest rate impact	14,375	4,768	(9,607)		-66.8%
17	Net Claims Incurred	958,776	932,524	(26,252)	(2)	-2.7%
18	Claims Expense	157,586	162,764	5,178	(4)	3.3%
19	Road Safety/Loss Prevention	12,477	12,667	190	(4)	1.5%
20	Total Claims Costs	1,128,839	1,107,955	(20,884)		-1.9%
21	Expenses					
22	Operating	86,804	95,966	9,162	(4)	10.6%
23	Commissions	52,568	51,674	(894)		-1.7%
24	Premium Taxes	36,254	35,051	(1,203)		-3.3%
25	Regulatory/Appeal	4,362	4,481	119	(4)	2.7%
26	Total Expenses	179,988	187,172	7,184		4.0%
27	Underwriting Income (Loss)	(87,269)	(116,182)	(28,913)		33.1%
28	Investment Income	96,957	107,515	10,558		10.9%
29	(b) Investment Income - Interest rate impact	(12)	-	12		-100.0%
30	Total Investment Income	96,945	107,515	10,570	(3)	10.9%
31	Net Income (Loss) from Annual Operations	9,676	(8,667)	(18,343)		-189.6%
32	Total net Impact due to interest rate change (b) - (a)	(14,387)	(4,768)	9,619		-66.9%

**Pro Forma Statement of Operations comparative for the 2023/24 fiscal year
Pro Forma Comparative - 2022 GRA October 1, 2021 revision vs 2023 GRA**

Explanation of Significant Variances - 2023/24 Comparative

Line No.	Ref.	Category	(C\$ 000s)	Explanation
1	(1)	Net Premiums Written	1,213,397	2022 GRA - Rate Update
2			(10,152)	Applied for Rate Change of -0.86%
3			(2,588)	Lower than expected Driver Premium
4			(2,495)	Lower than expected premium from 2022/23
5			(969)	Higher than expected fleet rebate
6			(583)	Higher than expected Reinsurance ceded
7			(407)	Lower than expected premiums related to upgrade
8			557	Lower than expected Anti-theft rebate
9			86	Other
10			1,196,846	2023 GRA
11	(2)	Net Claims Incurred	958,776	2022 GRA - Rate Update
12			(19,899)	Lower than forecasted PIPP and Liability claims
13			(9,607)	Lower than forecasted Interest Rate Impact
14			(4,542)	Lower than forecasted ILAE
15			(1,080)	Lower than forecasted non-proportional LAE
16			(53)	Lower than forecasted Collision claims
17			7,064	Increased forecasted Property Damage claims
18			1,865	Increased forecasted Comprehensive claims
19			932,524	2023 GRA
20	(3)	Investment Income	96,945	2022 GRA - Rate Update
21			11,252	Higher than expected interest income
22			956	Higher than expected investment manager fees
23			877	Higher than expected amortization of bond premium
24			534	Higher than expected realized gain on alternative investments
25			12	Higher forecasted Interest Rate Impact
26			(3,061)	Lower than expected alternative investment income
27			107,515	2023 GRA
28	(4)	Allocated Corporate Expenses (Normal Operations)	229,418	2022 GRA - Rate Update
29			(628)	Lower than expected amortization of deferred development
30			12,798	Higher than expected salaries expense
31			5,894	Higher than expected data processing expense
32			4,162	Higher than expected special services expense
33			398	Other
34			252,042	2023 GRA
35	(4)	Allocated Corporate Expenses (Initiatives Implementation)	19,225	2022 GRA - Rate Update
36			(1,337)	Lower than expected data processing expense
37			(468)	Lower than expected salaries expense
38			(25)	Other
39			17,395	2023 GRA
40	(4)	Allocated Corporate Expenses (Initiatives Ongoing)	12,586	2022 GRA - Rate Update
41			(5,388)	Lower than expected data processing expense
42			(2,601)	Lower than expected amortization of deferred development
43			1,766	Higher than expected salary expense
44			78	Other
45			6,441	2023 GRA

**Pro Forma Statement of Operations comparative for the 2024/25 fiscal year
 Pro Forma Comparative - 2022 GRA October 1, 2021 revision vs 2023 GRA**

PF-7 Statement of Operations: 2024/25 Comparative

Line No.		Revised as of Oct 1 2022 GRA 2024-25F	2023 GRA 2024-25F	Inc (dec)	Increase / Ref. decrease)
		\$	\$	\$	%
1	<i>(C\$ 000s, except where noted)</i>				
2	Net Premiums Written				
3	Motor Vehicles	1,205,986	1,190,917	(15,069)	-1.2%
4	Drivers	67,889	65,996	(1,893)	-2.8%
5	Reinsurance Ceded	(16,586)	(17,348)	(762)	4.6%
6	Total Net Premiums Written	1,257,289	1,239,565	(17,724)	(1) -1.4%
7	Net Premiums Earned				
8	Motor Vehicles	1,185,381	1,170,965	(14,416)	-1.2%
9	Drivers	66,951	64,716	(2,235)	-3.3%
10	Reinsurance Ceded	(16,586)	(17,348)	(762)	4.6%
11	Total Net Premiums Earned	1,235,746	1,218,333	(17,413)	-1.4%
12	Service Fees & Other Revenues	30,082	26,923	(3,159)	-10.5%
13	Total Earned Revenues	1,265,828	1,245,256	(20,572)	-1.6%
14	Net Claims Incurred	985,168	970,720	(14,448)	-1.5%
15	DPAC \ Premium Deficiency Adjustment	-	-	-	
16	(a) Claims Incurred - Interest rate impact	13,099	4,487	(8,612)	-65.7%
17	Net Claims Incurred	998,267	975,207	(23,060)	(2) -2.3%
18	Claims Expense	154,951	164,739	9,788	(4) 6.3%
19	Road Safety/Loss Prevention	12,598	12,721	123	(4) 1.0%
20	Total Claims Costs	1,165,816	1,152,667	(13,149)	-1.1%
21	Expenses				
22	Operating	85,505	96,292	10,787	(4) 12.6%
23	Commissions	55,121	58,274	3,153	5.7%
24	Premium Taxes	37,570	37,072	(498)	-1.3%
25	Regulatory/Appeal	4,170	4,283	113	(4) 2.7%
26	Total Expenses	182,366	195,921	13,555	7.4%
27	Underwriting Income (Loss)	(82,354)	(103,332)	(20,978)	25.5%
28	Investment Income	97,120	104,271	7,151	7.4%
29	(b) Investment Income - Interest rate impact	(13)	-	13	-100.0%
30	Total Investment Income	97,107	104,271	7,164	(3) 7.4%
31	Net Income (Loss) from Annual Operations	14,753	939	(13,814)	-93.6%
32	Total net Impact due to interest rate change (b) - (a)	(13,112)	(4,487)	8,625	-65.8%

**Pro Forma Statement of Operations comparative for the 2024/25 fiscal year
Pro Forma Comparative - 2022 GRA October 1, 2021 revision vs 2023 GRA**

Explanation of Significant Variances - 2024/25 Comparative

Line No.	Ref.	Category	(C\$ 000s)	Explanation
1	(1)	Net Premiums Written	1,257,289	2022 GRA - Rate Update
2			(12,968)	Lower than expected premium from 2023/24
3			(1,893)	Lower than expected Driver Premium
4			(1,749)	Lower than expected premiums related to upgrade
5			(956)	Higher than expected fleet rebate
6			(762)	Higher than expected Reinsurance ceded
7			(20)	Other
8			624	Lower than expected Anti-theft rebate
9			1,239,565	2023 GRA
10	(2)	Net Claims Incurred	998,267	2022 GRA - Rate Update
11			(22,458)	Lower than forecasted PIPP and Liability claims
12			(8,613)	Lower than forecasted Interest Rate Impact
13			(2,748)	Lower than forecasted ILAE
14			(1,468)	Lower than forecasted non-proportional ILAE
15			6,774	Increased forecasted Property Damage claims
16			4,001	Increased forecasted Collision claims
17			1,452	Increased forecasted Comprehensive claims
18			975,207	2023 GRA
19	(3)	Investment Income	97,107	2022 GRA - Rate Update
20			14,631	Higher than expected interest income
21			(6,279)	Lower than expected realized gain on alternative investments
22			(4,734)	Lower than expected alternative investment income
23			2,392	Higher than expected amortization of bond premium
24			13	Higher forecasted Interest Rate Impact
25			1,141	Higher than expected investment manager fees
26			104,271	2023 GRA
27	(4)	Allocated Corporate Expenses (Normal Operations)	229,057	2022 GRA - Rate Update
28			13,337	Higher than expected salaries expense
29			7,799	Higher than expected data processing expense
30			(612)	Lower than expected amortization of deferred development
31			4,172	Higher than expected special services expense
32			(5)	Other
33			253,748	2023 GRA
34	(4)	Allocated Corporate Expenses (Initiatives Implementation)	15,692	2022 GRA - Rate Update
35			2,899	Higher than expected data processing expense
36			(470)	Lower than expected salaries expense
37			29	Other
38			18,150	2023 GRA
39	(4)	Allocated Corporate Expenses (Initiatives Ongoing)	12,474	2022 GRA - Rate Update
40			9,595	Higher than expected salary expense
41			(6,112)	Lower than expected data processing expense
42			(10,472)	Lower than expected amortization of deferred development
43			651	Other
44			6,136	2023 GRA

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Part and Chapter:	Part V – Forecasting – PF Pro-Formas	Page No.:	22
PUB Approved Issue No:	4. Financial forecast: c. Impact of IFRS 9 and 17		
Topic:	Financial Forecast		
Sub Topic:			

Preamble to IR:

Minimum Filing Requirement B.3 Pro-Formas c) requires filing based on IFRS 4 and IFRS 17. d) requires a quantitative summary of the changes in presentation from IFRS 4 to IFRS 17.

MPI shows in PF-14 that it has not included any impacts for any of the changes under IFRS 17 or IFRS 9.

Question:

- a) IFRS 17 accounting policy papers dated April 4, 2022 were previously provided by MPI.
- i. Please indicate if there have been any updates to these policy papers.
 - ii. If there have been any updates to these policy papers or to IFRS 9 policy papers, please provide the most up to date version of each policy paper.
- b) Based on the most up to date version of each policy paper, please provide the estimated impact on Total Equity (PF-14) in each of 2023, 2024, and 2025 of the following changes:
- i. Restatement of AOCI on AFS Assets;
 - ii. Restatement of MUSH Assets to FVTPL;

- iii. Restatement of Claims Discount Rate;
 - iv. Restatement of Risk Adjustment; and
 - v. Restatement of DPAC.
- c) Based on results in b) and the current version of OSFI's proposed MCT, please provide estimated MCT ratios for each of 2023, 2024, and 2025.
- d) Please provide the current estimate of the IFRS 17 liability yield curve for each quarter of the fiscal years 2022/23, 2023/24 and 2024/25.

Rationale for Question:

To understand the current estimated impact of IFRS 17 and 9 on MPI financial statements.

RESPONSE:

- a) MPI notes no updates to its IFRS 9 policy paper. MPI did revise the Risk Adjustment aspect of its IFRS 17 policy paper (i.e., making a change from Cost of Capital to the Percentile methodology), but is still updating the paper. MPI will file a copy of it when available.
- b) MPI continues to evaluate the estimated impacts to Total Equity and, at this time, states that the estimated restatements from IFRS 17 and IFRS 9 are either not known or not available.
- c) MPI is currently finalizing MCT calculations in recognition of IFRS 17 methodology changes. MPI will update following the receipt of guidance from OSFI.
- d) See Figure 1 below for the IFRS 17 liability yield curve for each fiscal period. Currently, MPI does not use a quarterly liability yield curve.

Figure 1 Liability Yield Curve as of March 31, 2022

Line No.	Term	2022/23	2023/24	2024/25	Term	2022/23	2023/24	2024/25
1	0.25	2.98%	3.29%	3.30%	50	4.32%	4.39%	4.46%
2	0.5	3.08%	3.30%	3.31%	51	4.36%	4.43%	4.50%
3	1	3.18%	3.28%	3.30%	52	4.41%	4.48%	4.55%
4	2	3.23%	3.29%	3.33%	53	4.46%	4.53%	4.60%
5	3	3.25%	3.32%	3.37%	54	4.50%	4.57%	4.65%
6	4	3.28%	3.35%	3.40%	55	4.55%	4.62%	4.69%
7	5	3.31%	3.38%	3.44%	56	4.59%	4.67%	4.74%
8	6	3.34%	3.41%	3.48%	57	4.64%	4.71%	4.79%
9	7	3.38%	3.45%	3.51%	58	4.69%	4.76%	4.83%
10	8	3.41%	3.48%	3.54%	59	4.73%	4.81%	4.88%
11	9	3.45%	3.51%	3.59%	60	4.78%	4.85%	4.93%
12	10	3.48%	3.55%	3.62%	61	4.82%	4.90%	4.97%
13	11	3.52%	3.59%	3.64%	62	4.87%	4.95%	5.02%
14	12	3.56%	3.61%	3.65%	63	4.92%	4.99%	5.07%
15	13	3.58%	3.62%	3.63%	64	4.96%	5.04%	5.11%
16	14	3.59%	3.61%	3.62%	65	5.01%	5.08%	5.16%
17	15	3.58%	3.60%	3.61%	66	5.06%	5.13%	5.21%
18	16	3.57%	3.59%	3.60%	67	5.10%	5.18%	5.25%
19	17	3.57%	3.58%	3.59%	68	5.15%	5.22%	5.25%
20	18	3.56%	3.57%	3.57%	69	5.19%	5.22%	5.25%
21	19	3.55%	3.55%	3.55%	70	5.19%	5.22%	5.25%
22	20	3.54%	3.54%	3.53%	71	5.19%	5.22%	5.25%
23	21	3.52%	3.52%	3.51%	72	5.19%	5.22%	5.25%
24	22	3.50%	3.50%	3.49%	73	5.19%	5.22%	5.24%
25	23	3.48%	3.48%	3.46%	74	5.19%	5.22%	5.24%
26	24	3.46%	3.45%	3.44%	75	5.19%	5.22%	5.24%
27	25	3.44%	3.43%	3.41%	76	5.19%	5.22%	5.24%
28	26	3.42%	3.41%	3.38%	77	5.19%	5.21%	5.24%
29	27	3.40%	3.38%	3.36%	78	5.19%	5.21%	5.24%
30	28	3.37%	3.35%	3.41%	79	5.19%	5.21%	5.24%
31	29	3.35%	3.40%	3.45%	80	5.19%	5.21%	5.24%
32	30	3.39%	3.45%	3.50%	81	5.19%	5.21%	5.23%
33	31	3.44%	3.50%	3.55%	82	5.19%	5.21%	5.23%
34	32	3.49%	3.54%	3.60%	83	5.19%	5.21%	5.23%
35	33	3.53%	3.59%	3.65%	84	5.19%	5.21%	5.23%
36	34	3.58%	3.64%	3.70%	85	5.19%	5.21%	5.23%
37	35	3.63%	3.69%	3.75%	86	5.18%	5.21%	5.23%
38	36	3.67%	3.73%	3.79%	87	5.18%	5.21%	5.23%
39	37	3.72%	3.78%	3.84%	88	5.18%	5.21%	5.23%
40	38	3.76%	3.83%	3.89%	89	5.18%	5.21%	5.23%
41	39	3.81%	3.87%	3.94%	90	5.18%	5.21%	5.23%
42	40	3.86%	3.92%	3.98%	91	5.18%	5.20%	5.23%
43	41	3.90%	3.97%	4.03%	92	5.18%	5.20%	5.22%
44	42	3.95%	4.01%	4.08%	93	5.18%	5.20%	5.22%
45	43	3.99%	4.06%	4.13%	94	5.18%	5.20%	5.22%
46	44	4.04%	4.11%	4.17%	95	5.18%	5.20%	5.22%
47	45	4.09%	4.15%	4.22%	96	5.18%	5.20%	5.22%
48	46	4.13%	4.20%	4.27%	97	5.18%	5.20%	5.22%
49	47	4.18%	4.25%	4.32%	98	5.18%	5.20%	
50	48	4.23%	4.29%	4.36%	99	5.18%		
51	49	4.27%	4.34%	4.41%				

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Part and Chapter:	Part V – Forecasting – PF Pro-Formas	Page No.:	23, 24
PUB Approved Issue No:	4. Financial forecast: c. Impact of IFRS 9 and 17;		
Topic:	Claims Discount Rate		
Sub Topic:			

Preamble to IR:

MPI notes that, while the bottom-up approach will be widely used by P&C insurers and its direct peers (ICBC and SGI), MPI will adopt a top-down approach as more consistent with the current approach.

MPI cites characteristics of MPI business and capabilities to support the adoption of the top-down approach for determination of discount rate.

Question:

- a) Please explain the extent to which the listed characteristics are the same or similar for both ICBC and SGI.
- b) Please elaborate the extent to which an adoption of a bottom-up approach would affect MPI.
- c) Please compare, based on current policy positions, the discount rate and impact on transition using a bottom-up approach and compare that with the top-down approach.
- d) Please provide the supporting calculations for both the bottom-up and top-down approach.

- e) Please elaborate on how the ALM strategy can be leveraged using the top-down versus bottom-up approach for determining the claims discount rate.

Rationale for Question:

To understand the reason for selection of the top-down approach for discount rate purposes.

RESPONSE:

- a) MPI acknowledges that the top-down approach is a difficult discount rate methodology as it involves computation of a reference portfolio curve and is not widely used in industry. MPI chose this discount rate methodology because it allows for greater ALM Matching with a stronger linkage to its asset portfolio. MPI consulted with SGI/ICBC in terms of the discount rate methodologies they employ and is comfortable with its selection, as MPI considers the beneficial impacts for closer ALM Matching/linkage to assets to be more important than any difficulty in performing calculation(s).
- b) MPI has yet to finalize its implementation of IFRS 17 and is therefore unable to provide any impacts of alternate approaches. As such, MPI can provide its analysis following the implementation of IFRS 17.
- c) As mentioned in part b), MPI can provide the impact of such a transition following the implementation of IFRS 17.
- d) See Section 5: Quantitative analysis of discount rate option of *Pro Formas PF Appendix 1 – IFRS 17 Methodology Position Paper* for details on three proposed methods for calculating the bottom-up yield curve and the proposed top-down yield curve. In summary, the calculations are:
- MPI calibrated yield curve based on the Top-Down approach (proposed)
 - CIA liquid reference curve based on the Bottom-Up approach
 - Risk-free Rate + 90% of Provincial Bonds Spread

- CIA illiquid reference curve based on the Bottom-Up approach
 - Risk-free Rate + 0.5% + 70% of Canadian Investment Grade Bonds Spread
 - Adjusted CIA illiquid reference curve by removing the constant 0.5% illiquid premium
 - Risk-free Rate + 70% of Canadian Investment Grade Bonds Spread
- e) The top-down and the bottom-up approaches should result in similar discount rates. MPI implemented its existing ALM strategy with assistance from Addenda Capital. Addenda Capital has significant experience and expertise in developing discount curves using the top-down approach outlined under IFRS 17, which is why MPI relies on them to provide discount curves. Regarding the ALM strategy and its usefulness in implementing the top-down approach, Deloitte stated the following on page 5 of their "IFRS 17 Claims Discount Rate Methodology Paper":

"MPI maintains an investment policy with a target of providing decent Asset-Liability Management to reduce the interest rate risk by matching the size and duration of MPI's liabilities with fixed income securities. Thus, the asset portfolio backing Basic line liabilities is considered as a theoretically appropriate and operationally clear and straightforward base for the reference portfolio...Given the previous assessment that liquidity does not significantly vary across portfolios, only one yield curve is needed as the differences between portfolios relates to timing (i.e. duration), and not currency or liquidity of cash flows. As timing is explicitly reflected via the yield curve's term structure, using the Basic portfolio as the basis for IFRS 17 discount curve is reasonable."

PUB (MPI) 1-14

Part and Chapter:	Part VII Investments INV Attachment B	Page No.:	26, 27
PUB Approved Issue No:	4. (b) Financial Forecast 7. Performance of the Investment Portfolio and the composition of i) the portfolio, ii) benchmark portfolio(s) on market value basis 17. Interest Rate Forecasting		
Topic:			
Sub Topic:			

Preamble to IR:

Mercer provides an alternative to the naïve interest rate forecasting methodology of MPI, stating:

MPI could consider an interest rate forecasting methodology that allows for changes in future assumed interest rates, rather than holding them constant throughout the projection period.

Question:

- a) Please comment on each of the proposed methods of interest rate forecasting proposed by Mercer and discuss the merits of adopting each approach for forecasting purposes.
- b) Please provide a comparison of the interest rates based on the Mercer approach with the current MPI naïve approach.
- c) Please provide an updated PF-1, PF-2 and PF-3 and actuarially indicated rate (with supporting schedules) using each of Mercer's proposed interest rate approaches.

- d) Please indicate the annual impact on the financial forecast (interest rate impact) on claims incurred, investment income, net income, and MCT of using Mercer's interest rate forecast based on a forward curve.

Rationale for Question:

To understand impact of changes in interest rate forecasting methodology on financial results.

RESPONSE:

- a) The current MPI methodology is the naïve interest rate forecast, which uses the yield on the Government of Canada (GoC) 10-year bond as a base, and then adds a spread to arrive at the absolute yield for the various fixed income assets. MPI assumes these yields to stay constant throughout the five-year forecasting period.

The following is the result of Mercer's review of MPI's interest rate forecasting methodology:

*"MPI **could** consider an interest rate forecasting methodology that allows for changes in future assumed interest rates, rather than holding them constant throughout the projection period.*

The steps involved in such an approach would typically be:

- (a) Establish/estimate an equilibrium GoC yield curve*
- (b) Create yield curves for each year assuming a reversion from the current GoC yield curve to the equilibrium GoC yield curve*
- (c) Having determined future yield curves, calculate projected bond returns using bond mathematics"*

This recommendation is a robust approach to modelling interest rates and is appropriate in long term forecasting (>10 years). However, it requires significant professional judgment for all assumptions such as the level of equilibrium GoC yield curve, period of convergence to the equilibrium, and the path of convergence.

MPI will not be pursuing this recommendation.

The following is an alternative approach recommended by Mercer:

"Rather than making an assumption for an equilibrium GoC yield curve, another possible methodology is to take a more neutral view on interest rates and use forward rates."

This recommendation uses forward rates that are available in the market. It is most appropriate for short term forecasting of about five years, which is the current forecasting period MPI uses, and it requires no judgement.

MPI will evaluate the merits & risks of changing its forecasting methodology. MPI's primary objective is rate stability and conservatism. MPI will attempt to gather historical forward rates in order to assess the accuracy of forward rates relative to other methodologies, including Naïve.

- b) Please see Appendix 1 Figure App 1-1 for a comparison of interest rates based on the Mercer recommended approach (using forward rates) and the current MPI naïve approach.
- c) Based on the Mercer recommended approach of using forward rates, MPI calculated the New Money yield to be 3.96%, derived from the 2022/23 Q2 forward rate of 2.92%% (from part b) plus the assumed spread of 104 basis points. The result to the actuarially indicated rate would be a -1.9%% rate change (versus the current applied for -0.9% provisional rate change). Please see Figure 1 for a breakdown of the 2023/24 rate change, by Major Classification, and Figures 2 to 4 for PF-1, PF-2 and PF-3, respectively. Please note, MPI did not apply the Mercer recommended approach for forecasting interest rates to the re-evaluation of the Pension obligation.

Figure 1 Rating Year 2023/24 Major Classification Required Rate Changes - Breakeven Rates

Line No.	Coverage	Overall	Private Pass	Comm	Public	Motor-Cycle	Trailer	ORV
1	23/24 Units	1,276,421	873,100	49,500	11,800	20,600	237,821	83,600
2	Claims	684.13	908.54	705.50	1,759.27	683.74	41.33	4.79
3	Claims Expense	124.06	164.75	127.93	319.02	123.99	7.49	0.87
4	Road Safety	9.95	13.30	13.30	13.30	13.30	0.00	0.00
5	Operating Expense	76.30	101.98	101.98	101.98	101.98	0.00	0.00
6	Regulatory/Appeal	3.43	4.59	4.59	4.59	4.59	0.00	0.00
7	Commission: Vehicle	40.00	53.03	41.86	99.61	39.13	2.87	0.26
8	Prem Tax: Vehicle	27.91	37.00	29.21	69.49	27.30	2.00	0.18
9	Comm & Prem Tax: Driver	3.34	4.47	4.47	4.47	4.47	0.00	0.00
10	Commission Flat Fee	4.36	5.83	5.83	5.83	5.83	0.00	0.00
11	Reins: Casualty	1.48	1.97	1.97	1.97	1.97	0.00	0.00
12	Reins: Catastrophe	11.92	12.98	12.98	12.98	0.00	12.98	0.00
13	Fleet Rebates	14.87	20.31	20.31	20.31	0.00	0.00	0.00
14	Anti-Theft Discount	0.55	0.80	0.00	0.00	0.00	0.00	0.00
15	Driver Prem	50.64	67.68	67.68	67.68	67.68	0.00	0.00
16	Service Fees	21.45	28.67	28.67	28.67	28.67	0.00	0.00
17	Req Rate (Raw)	930.21	1,233.19	973.58	2,316.46	909.94	66.67	6.11
18	Req Rate (Bal)	912.26	1,209.40	954.80	2,271.78	892.39	65.38	5.99
19	22/23 Average Rate	882.56	1,163.41	884.25	2,221.22	901.96	68.87	5.98
20	Major Class Drift	5.4%	6.2%	5.0%	0.9%	0.5%	5.9%	0.0%
21	23/24 Average Rate							
22	Without Rate Change	930.10	1,235.12	928.18	2,241.38	906.75	72.94	5.98
23	Full Cred Req Change	-1.9%	-2.1%	2.9%	1.4%	-1.6%	-10.4%	0.2%
24	Applied for Change	-1.9%	-2.1%	2.9%	1.4%	-1.6%	-10.4%	0.2%
25	Credibility		99.3%	89.2%	66.3%	77.4%	97.5%	93.3%
26	Cred Wtd Change		-2.1%	2.4%	0.3%	-1.7%	-10.2%	0.1%
27	Cred Wtd Req Rate		1,209.50	950.00	2,247.05	891.76	65.53	5.98
28	Cred Wtd Req Rate (Bal)	912.24	1,209.90	950.32	2,247.79	892.05	65.56	5.99
29	Cred Wtd Change (Bal)		-2.0%	2.4%	0.3%	-1.6%	-10.1%	0.1%

Figure 2 PF-1 Statement of Operations – Basic

Line No.	PUB 1-14(c) (C\$ 000s, rounding may affect totals)	For the Years Ended March 31,				
		2022A	2023FB	2024F	2025F	2026F
1						
2	BASIC	2021/22A	2022/23FB	2023/24F	2024/25F	2025/26F
3	Motor Vehicles	1,092,643	1,119,227	1,138,022	1,178,208	1,220,482
4	Capital Release Provision	(73,275)	(57,857)	-	-	-
5	Drivers	61,511	59,927	63,390	65,996	68,165
6	Reinsurance Ceded	(15,659)	(16,352)	(16,843)	(17,348)	(17,868)
7	Total Net Premiums Written	1,065,220	1,104,945	1,184,569	1,226,856	1,270,779
8	Net Premiums Earned					
9	Motor Vehicles	1,094,496	1,107,273	1,128,789	1,158,468	1,199,716
10	Capital Release Provision	(36,176)	(66,536)	(28,420)	-	-
11	Drivers	63,747	60,635	61,689	64,716	67,100
12	Reinsurance Ceded	(15,659)	(16,352)	(16,843)	(17,348)	(17,868)
13	Total Net Premiums Earned	1,106,408	1,085,020	1,145,215	1,205,836	1,248,948
14	Service Fees & Other Revenues	24,652	27,967	27,280	26,713	27,327
15	Total Earned Revenues	1,131,060	1,112,987	1,172,495	1,232,549	1,276,275
16	Claims Incurred	838,574	885,523	925,751	968,622	1,014,352
17	DPAC \ Premium Deficiency Adjustment	-	-	-	-	-
18	(a) Claims Incurred - Interest Rate Impact	(132,765)	(89,950)	4,578	3,434	(6,225)
19	Total Claims Incurred	705,809	795,573	930,329	972,056	1,008,127
20	Claims Expense	146,277	151,982	162,173	164,104	159,879
21	Road Safety/Loss Prevention	10,337	12,267	12,610	12,661	12,297
22	Total Claims Costs	862,423	959,822	1,105,112	1,148,821	1,180,303
23	Expenses					
24	Operating	75,945	89,477	95,637	95,938	94,092
25	Commissions	44,925	47,977	51,449	57,735	57,545
26	Premium Taxes	28,966	33,043	34,863	36,697	33,638
27	Regulatory/Appeal	4,530	4,620	4,481	4,282	4,373
28	Total Expenses	154,366	175,117	186,430	194,652	189,648
29	Underwriting Income (Loss)	114,271	(21,952)	(119,047)	(110,924)	(93,676)
30	Investment Income	79,813	146,581	111,543	113,745	120,358
31	(b) Investment Income - Interest Rate Impact	(126,997)	(83,383)	6,164	3,032	(5,491)
32	Net Investment Income	(47,184)	63,198	117,707	116,777	114,867
33	Gain (Loss) on Sale of Property	104	-	-	-	-
34	Net Income (Loss) from Annual Operations	67,191	41,246	(1,340)	5,853	21,191
35	Total net Impact due to interest rate change (b) - (a)	5,768	6,567	1,586	(402)	734

Figure 3 PF-2 Statement of Financial Position – Basic

Line	<i>PUB 1-14(c)</i>	<i>For the Years Ended March 31,</i>				
No.	<i>(C\$ 000s, rounding may affect totals)</i>	2022A	2023FB	2024F	2025F	2026F
1						
2	BASIC	2021/22A	2022/23FB	2023/24F	2024/25F	2025/26F
3	Assets					
4	Cash and cash equivalents	153,131	152,456	143,976	135,939	124,644
5	Investments	2,750,044	2,757,629	2,870,977	3,000,527	3,009,130
6	Investment property	5,912	5,757	5,603	5,448	5,293
7	Due from other insurance companies	14	-	-	-	-
8	Accounts receivable	398,612	361,715	387,838	401,533	415,940
9	Deferred policy acquisition costs	37,672	37,111	40,809	42,641	42,321
10	Reinsurers' share of unpaid claims	2,457	-	-	-	-
11	Property and equipment	111,880	133,141	151,483	163,714	169,870
12	Deferred development costs	44,687	49,751	54,250	56,389	55,907
13	Total Assets	3,504,409	3,497,560	3,654,936	3,806,191	3,823,105
14	Liabilities					
15	Due to other insurance companies	369	325	325	325	325
16	Accounts payable and accrued liabilities	60,876	62,805	68,312	71,298	69,155
17	Financing lease obligation	5,361	5,282	5,159	5,036	4,913
18	Unearned premiums and fees	548,725	572,104	612,822	635,313	658,731
19	Provision for employee current benefits	19,281	19,995	20,672	21,349	22,026
20	Provision for employee future benefits	355,244	366,670	378,099	389,530	400,961
21	Provision for unpaid claims	2,103,789	2,029,696	2,089,901	2,151,412	2,204,129
22	Total Liabilities	3,093,645	3,056,877	3,175,290	3,274,263	3,360,240
23	Equity					
24	Retained Earnings	359,335	438,619	476,208	523,806	451,572
25	Accumulated Other Comprehensive Income	51,429	2,065	3,434	8,120	11,290
26	Total Equity	410,764	440,684	479,642	531,926	462,862
27	Total Liabilities & Equity	3,504,409	3,497,561	3,654,932	3,806,189	3,823,102

Figure 4 PF-3 Statement of Changes in Equity – Basic

Line No.	PUB 1-14(c) (C\$ 000s, rounding may affect totals)	For the Years Ended March 31,				
		2022A	2023FB	2024F	2025F	2026F
1						
2	BASIC	2021/22A	2022/23FB	2023/24F	2024/25F	2025/26F
3	Total Equity					
4	Retained Earnings					
5	Beginning Balance	448,678	359,335	438,619	476,208	523,806
6	Net Income (Loss) from annual operations	67,191	41,246	(1,340)	5,853	21,191
7	Premium Rebate	(156,534)	-	-	-	(145,590)
9	Transfer from Extension Retained Earnings	-	38,038	38,929	41,745	52,165
10	Total Retained Earnings	359,335	438,619	476,208	523,806	451,572
11	Total Accumulated Other Comprehensive Income					
12	Beginning Balance	(14,700)	51,429	2,065	3,434	8,120
13	Other Comprehensive Income on Available for Sale Assets	25,485	(49,364)	1,369	4,686	3,170
14	Change in Remeasurement of Employee Future Benefits	40,644	-	-	-	-
15	Total Accumulated Other Comprehensive Income	51,429	2,065	3,434	8,120	11,290
16	Total Equity Balance	410,764	440,684	479,642	531,926	462,862
17	MINIMUM CAPITAL TEST (C\$ 000s)					
18	Total Equity Balance	410,761	440,684	479,642	531,926	462,862
19	Less: Assets Requiring 100% Capital	44,687	49,751	54,250	56,389	55,907
20	Capital Available	366,074	390,933	425,392	475,537	406,955
21	Minimum Capital Required (100% MCT)	384,411	354,694	384,373	402,495	406,959
22	MCT Ratio % (Line 20) / (Line 21)	95.2%	110.2%	110.7%	118.2%	100.0%

d) Please see [Figure 5](#) below which shows the impact from the 2023 GRA Base forecast:

Figure 5 Financial Statement Summary Comparative - 2023 GRA (Base Forecast) vs PUB (MPI) 1-14

Line No.		2022/23	2023/24	2024/25	2025/26
1	Interest rate impact on claims (PF-1, Line 18)				
1	(\$000s)				
2	Base Forecast	(2,545)	4,768	4,487	2,874
3	PUB 1-14	(89,950)	4,578	3,434	(6,225)
4	Difference - Better / (Worse)	87,405	190	1,053	9,099
5	Interest rate impact on Investments (PF-1, Line 31)				
6	(\$000s)				
7	Base Forecast	-	-	-	-
8	PUB 1-14	(83,383)	6,164	3,032	(5,491)
9	Difference - Better / (Worse)	(83,383)	6,164	3,032	(5,491)
10	Net Income (PF-1, Line 34)				
11	(\$000s)				
12	Base Forecast	26,739	(8,667)	939	14,101
13	PUB 1-14	41,246	(1,340)	5,853	21,191
14	Difference - Better / (Worse)	14,507	7,327	4,914	7,090
15	MCT %* (PF-3, Line 22)				
16	Base Forecast	108%	109%	115%	100%
17	PUB 1-14	110%	111%	118%	100%
18	Difference - Better / (Worse)	2%	2%	4%	0%
19	*After Rebate				

Figure App 1 Comparison of Interest Rates based on Mercer Approach vs MPI's Naïve Approach

Line No.	2022/23				2023/24				2024/25				2025/26			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
1																
2	Current Approach - Naïve Forecast															
	2.41%	2.41%	2.41%	2.41%	2.41%	2.41%	2.41%	2.41%	2.41%	2.41%	2.41%	2.41%	2.41%	2.41%	2.41%	2.41%
3	Mercer Recommended Approach -															
4	Forward Rates															
	2.95%	2.95%	2.95%	2.95%	2.92%	2.92%	2.92%	2.92%	2.90%	2.90%	2.90%	2.90%	2.93%	2.93%	2.93%	2.93%
5	Difference															
	0.55%	0.55%	0.55%	0.55%	0.51%	0.51%	0.51%	0.51%	0.49%	0.49%	0.49%	0.49%	0.52%	0.52%	0.52%	0.52%

PUB (MPI) 1-15

Part and Chapter:	Part VII Investments INV.16.2.1	Page No.:	72, 78
PUB Approved Issue No:	4. (b) Financial Forecast 7. Performance of the Investment Portfolio and the composition of i) the portfolio, ii) benchmark portfolio(s) on market value basis 17. Interest Rate Forecasting		
Topic:	Interest Rate Risk		
Sub Topic:	Interest Rate Forecast		

Preamble to IR:**Question:**

- a) Please provide an update to INV-43 and INV-44 from the 2022 GRA at March 31, 2022. Please provide the supporting forecasts.
- b) Please file an update to Figure INV – 41 using SIRF.
- c) Please update table INV-43 and INV-44 from the 2022 GRA at July 31 and provide the supporting forecasts used for the tables.
- d) Please file an update to figure INV – 41 based on the update.

Rationale for Question:

To assess the continued use of the naïve interest rate forecast for rate setting purposes.

RESPONSE:

- a) Please see Appendix 1-1a Figure App 1-1 and Appendix 1-1b Figure App 1-2 showing the updated Investments Chapter Figure INV-43 and 2022 GRA Investments Chapter Figure INV-44 at March 31, 2022 and supporting forecasts.

- b) Please see Appendix 1-1c Figure App 1-3 showing the updated Investments Chapter Figure INV-41 using SIRF.

- c) Please see Appendix 1-2 Figure App 1-4 and Appendix 1-3 Figure App 1-5 showing updated Investments Chapter Figure INV-43 and Investments Chapter Figure INV-44 at July 31, 2022.

- d) Please see Appendix 1-4 Figure App 1-6 showing updated Investments Chapter Figure INV-41 at July 31, 2022.

Figure App 1-1 Updated INV -43 SIRF, Naïve and 50/50 GoC 10 Year Bond Forecast

Line No.	Year	Qtr	BMO NB	CIBC	Desjardins	Global	National	RBC	Scotia	TD	Average (SIRF)	Naïve	50/50
1	2022	Q1	1.92%	2.35%	1.85%	2.08%	2.41%	2.40%	2.40%	2.40%	2.23%	2.41%	2.42%
2		Q2	2.98%	2.70%	2.84%	2.95%	2.97%	3.23%	3.22%	3.23%	3.01%	2.41%	2.81%
3		Q3	2.83%	2.70%	2.90%	2.66%	3.20%	2.90%	3.35%	2.85%	2.92%	2.41%	2.77%
4		Q4	2.96%	2.70%	2.85%	2.71%	3.20%	2.75%	3.35%	2.95%	2.93%	2.41%	2.77%
5	2023	Q1	3.00%	2.69%	2.90%	2.72%	3.20%	2.70%	3.25%	2.90%	2.92%	2.41%	2.77%
6		Q2	2.93%	2.69%	2.80%	2.73%	3.15%	2.70%	3.20%	2.85%	2.88%	2.41%	2.75%
7		Q3	2.86%	2.63%	2.55%	2.77%	3.10%	2.55%	3.10%	2.80%	2.79%	2.41%	2.70%
8		Q4	2.79%	2.57%	2.35%	2.81%	3.05%	2.45%	2.95%	2.75%	2.71%	2.41%	2.66%
9	2024	Q1	2.75%	2.51%	2.25%	2.83%	2.99%	2.56%			2.65%	2.41%	2.63%
10		Q2	2.72%	2.45%	2.20%	2.87%	2.94%	2.67%			2.64%	2.41%	2.63%
11		Q3	2.70%	2.44%	2.20%	2.90%	2.91%	2.71%			2.64%	2.41%	2.63%
12		Q4	2.68%	2.43%	2.20%	2.91%	2.88%	2.83%			2.65%	2.41%	2.63%
13	2025	Q1	2.65%	2.41%	2.20%	2.93%	2.85%	2.92%			2.66%	2.41%	2.64%
14		Q2	2.63%	2.40%	2.20%	2.95%	2.83%	2.99%			2.67%	2.41%	2.64%
15		Q3	2.61%	2.40%	2.20%	2.96%	2.80%	3.06%			2.67%	2.41%	2.64%
16		Q4	2.58%	2.40%	2.20%	2.97%	2.77%	3.11%			2.67%	2.41%	2.64%
17	2026	Q1		2.40%	2.20%	2.98%	2.77%	3.15%			2.70%	2.41%	2.65%
18		Q2		2.40%	2.20%	2.99%	2.77%	3.19%			2.71%	2.41%	2.66%
19		Q3			2.20%	2.99%		3.22%			2.81%	2.41%	2.71%
20		Q4			2.20%	3.00%		3.25%			2.82%	2.41%	2.71%

Figure App 1-2 INV -44 SIRF, Naïve and 50/50 90-Day T-Bill Forecast

Line No.	Year	Qtr	BMO NB	CIBC	Desjardins	Global	National	RBC	Scotia	TD	Average (Modified SIRF)	Naïve	50/50
1	2022	Q1	0.39%	1.50%	0.35%	0.42%	1.52%	0.60%	0.73%	0.60%	0.76%	0.60%	1.71%
2		Q2	1.43%	1.95%	3.02%	1.11%	3.07%	2.08%	2.31%	2.08%	2.13%	0.60%	2.39%
3		Q3	2.68%	2.20%	3.05%	2.78%	3.25%	3.10%	3.25%	3.13%	2.93%	0.60%	2.79%
4		Q4	3.17%	2.44%	3.25%	3.77%	3.20%	3.15%	3.50%	3.25%	3.22%	0.60%	2.93%
5	2023	Q1	3.43%	2.69%	3.20%	3.79%	3.20%	3.15%	3.50%	3.25%	3.28%	0.60%	2.96%
6		Q2	3.43%	2.93%	3.00%	3.71%	3.20%	3.15%	3.50%	3.25%	3.27%	0.60%	2.96%
7		Q3	3.43%	2.79%	2.70%	3.46%	3.20%	3.00%	3.50%	3.25%	3.17%	0.60%	2.91%
8		Q4	3.43%	2.64%	2.35%	3.21%	3.10%	2.70%	3.50%	3.25%	3.02%	0.60%	2.84%
9	2024	Q1	3.18%	2.50%	2.00%	2.95%	2.99%	2.52%			2.69%	0.60%	2.67%
10		Q2	2.93%	2.35%	2.00%	2.71%	2.88%	2.37%			2.54%	0.60%	2.59%
11		Q3	2.68%	2.29%	2.00%	2.71%	2.80%	2.40%			2.48%	0.60%	2.57%
12		Q4	2.43%	2.23%	2.00%	2.46%	2.73%	2.42%			2.38%	0.60%	2.51%
13	2025	Q1	2.18%	2.16%	2.00%	2.46%	2.66%	2.42%			2.31%	0.60%	2.48%
14		Q2	2.18%	2.10%	1.95%	2.21%	2.59%	2.43%			2.24%	0.60%	2.45%
15		Q3	2.18%	2.11%	1.95%	2.21%	2.51%	2.43%			2.23%	0.60%	2.44%
16		Q4	2.18%	2.13%	1.95%	2.21%	2.44%	2.43%			2.22%	0.60%	2.44%
17	2026	Q1		2.14%	1.95%	2.21%	2.44%	2.43%			2.23%	0.60%	2.44%
18		Q2		2.15%	1.95%	2.21%	2.44%	2.43%			2.23%	0.60%	2.44%
19		Q3			1.95%	2.21%		2.43%			2.19%	0.60%	2.42%
20		Q4			1.95%	2.21%		2.43%			2.19%	0.60%	2.42%

Figure App 1-3 Updated Figure INV -41 Basic Investment and Claims Net Interest Rate Impact with SIRF

Line No.		2017/18 Actual	2018/19 Actual	2019/20 Actual	2020/21 Actual	2021/22 Actual	2022/23 Forecast	2023/24 Forecast	2024/25 Forecast	2025/26 Forecast	2026/27 Forecast
1	<i>(in Millions of Dollars)</i>										
2	Marketable Bond Yield	3.04%	2.88%	2.69%	2.50%	2.52%	3.95%	3.72%	3.65%	3.65%	3.78%
3	YoY Change	0.13%	-0.16%	-0.19%	-0.19%	0.01%	1.43%	-0.23%	-0.07%	0.00%	0.13%
4	Claims Discount Rate	3.47%	3.26%	3.09%	2.88%	3.54%	3.96%	3.77%	3.72%	3.72%	3.82%
5	YoY Change	0.08%	-0.21%	-0.17%	-0.21%	0.66%	0.42%	-0.18%	-0.06%	0.00%	0.10%
6	Duration Gap (Years)*	0.1	(0.1)	0.9	(0.2)	0.1	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)
7	Investments										
8	Investment Income	116.3	208.5	59.6	89.5	(47.2)	24.8	155.5	123.3	116.3	93.9
9	(1) Marketable Bond Gain/(Loss)	4.6	14.2	5.5	0.7	(127.0)	(120.5)	35.5	10.2	(3.3)	(27.0)
10	Investment Income excluding Marketable Bond G/L	111.7	194.3	54.1	88.9	79.8	145.3	120.0	113.0	119.6	121.0
11	Claims										
12	Net Claims Incurred	783.0	892.3	761.5	653.8	838.6	(71.2)	31.5	10.3	(0.3)	(18.6)
13	(2) Claims Interest Rate Impact	(15.8)	40.9	(8.9)	44.2	(132.8)	(83.5)	37.0	12.1	(0.4)	(21.8)
14	Claims Excluding Interest Rate Impact	798.8	851.4	770.4	609.6	971.3	12.4	(5.5)	(1.8)	0.1	3.2
15	Net Interest Rate Impact										
16	(1) Marketable Bond Gain/Loss	4.6	14.2	5.5	0.7	(127.0)	(115.9)	35.6	10.1	(3.0)	(26.9)
17	(2) Claims Interest Rate Impact	(15.8)	40.9	(8.9)	44.2	(132.8)	(83.5)	37.0	12.1	(0.4)	(21.8)
18	Net Impact of Changes in Interest Rates [(1) - (2)]	20.4	(26.7)	14.4	(43.5)	5.8	(32.4)	(1.3)	(2.0)	(2.7)	(5.1)

Figure App 1-4 Updated Figure INV -43 Fixed Income Duration and Claims Duration

Line No.	Date	Fixed Income Duration	Claims Duration*	Difference (Fixed Income Duration - Claims Duration)
1	Feb-20	10.48	10.68	-0.2
2	May-20	10.57	10.35	0.2
3	Aug-20	10.41	10.57	-0.2
4	Nov-20	10.50	10.58	-0.1
5	Feb-21	10.69	10.66	0.0
6	Mar-21	10.38	10.35	0.0
7	Jun-21	10.42	10.18	0.2
8	Sep-21	10.37	10.13	0.2
9	Dec-21	10.66	10.17	0.5
10	Mar-22	9.58	9.50	0.1
11	Jul-22	8.82	8.47	-0.2

12 * Claims Duration is one month lagged

Figure App 1-5 Updated Figure INV -44 Basic Claims Investment Income July 2022

Line No.	Investment Summary During Period	2022/23	2023/24	2024/25	2025/26	2026/27
1	(C\$000s)					
2	Interest Income During Period	77,998	80,015	82,350	84,685	86,968
3	Dividend and Other Income During Period	-	-	-	-	-
4	Gains During Period - Profit & Loss*	(34,934)	(0.0)	(0.0)	(0.0)	(0.0)
5	Investment Fees Paid	(1,420)	(1,417)	(1,451)	(1,469)	(1,461)
6	Amortization/Accretion During Period	(1,750)	(1,143)	(1,325)	(1,398)	(1,325)
7	Pension Expense	-	-	-	-	-
8	Investment Income	39,894	77,455	79,574	81,819	84,182

*Government of Canada 10YR Bond Yied increased from 2.41% in March 2022 to 2.61% in July 2022

Figure App 1-6 Updated Figure INV -41 Basic Investment and Claims Net Interest Rate Impact with Naïve Forecast July 2022

Line No.		2017/18 Actual	2018/19 Actual	2019/20 Actual	2020/21 Actual	2021/22 Actual	2022/23 Forecast	2023/24 Forecast	2024/25 Forecast	2025/26 Forecast	2026/27 Forecast
1	<i>(in Millions of Dollars)</i>										
2	Marketable Bond Yield	3.04%	2.88%	2.69%	2.50%	2.52%	3.74%	3.73%	3.71%	3.70%	3.70%
3	YoY Change	0.13%	-0.16%	-0.19%	-0.19%	0.01%	1.22%	-0.01%	-0.01%	-0.01%	-0.01%
4	Claims Discount Rate	3.47%	3.26%	3.09%	2.88%	3.54%	3.79%	3.78%	3.76%	3.76%	3.74%
5	YoY Change	0.08%	-0.21%	-0.17%	-0.21%	0.66%	0.25%	-0.01%	-0.01%	-0.01%	-0.02%
6	Duration Gap (Years)*	0.1	(0.1)	0.9	(0.2)	0.1	-	-	-	-	-
7	Investments										
8	Investment Income	116.3	208.5	59.6	89.5	(47.2)	106.4	108.0	113.8	119.6	119.9
9	(1) Marketable Bond Gain/(Loss)	4.6	14.2	5.5	0.7	(127.0)	(39.1)	0.0	(0.1)	(0.2)	0.0
10	Investment Income excluding Marketable Bond G/L	111.7	194.3	54.1	88.9	79.8	145.4	107.9	113.9	119.7	119.9
11	Claims										
12	Net Claims Incurred	783.0	892.3	761.5	653.8	838.6	885.5	926.6	969.5	1,015.3	1,066.8
13	(2) Claims Interest Rate Impact	(15.8)	40.9	(8.9)	44.2	(132.8)	(50.9)	2.5	3.1	1.4	4.3
14	Claims Excluding Interest Rate Impact	798.8	851.4	770.4	609.6	971.3	936.4	924.2	966.5	1,013.9	1,062.5
15	Net Interest Rate Impact										
16	(1) Marketable Bond Gain/Loss	4.6	14.2	5.5	0.7	(127.0)	(34.9)	0.0	0.0	(0.0)	(0.0)
17	(2) Claims Interest Rate Impact	(15.8)	40.9	(8.9)	44.2	(132.8)	(50.9)	2.5	3.1	1.4	4.3
18	Net Impact of Changes in Interest Rates [(1) - (2)]	20.4	(26.7)	14.4	(43.5)	5.8	15.9	(2.5)	(3.1)	(1.4)	(4.3)

PUB (MPI) 1-16

Part and Chapter:	Part VII Investments INV.2.3	Page No.:	24
PUB Approved Issue No:	4. (b) Financial Forecast 7. Performance of the Investment Portfolio and the composition of i) the portfolio, ii) benchmark portfolio(s) on market value basis 17. Interest Rate Forecasting		
Topic:	Investment Forecast		
Sub Topic:	Interest Rate Forecast		

Preamble to IR:

Interest rate forecasting risk continues to be a significant concern for MPI. Inaccurate forecasts have in the recent past had material negative impacts on the financial results of the Basic line of business. Interest rate forecasting risk, for the purpose of this GRA, is the uncertainty related to setting premium rates based on forecasted interest rates rather than based on future actual interest rates, and the impact of the difference between those interest rates....

MPI is required to base its GRA on best estimates, and for the 2023 GRA, its Board of Directors and management continue to believe that the naïve forecast is the best estimate.

Question:

- a) Please update the statistical analysis of the naïve interest rate forecast contained in CAC(MPI) 1-80 (2022 GRA), and comment on any material deviations from past results.
- b) Please provide a table indicating the changes in the Bank of Canada overnight rate for 2021/22 and 2022/23 to date.

- c) Considering the current economic environment, please explain why MPI believes the naïve interest rate forecasting methodology reflects an appropriate assumption for the best estimate forecast.

Rationale for Question:

To assess the appropriateness of using the naïve interest rate forecast for rate setting purposes.

RESPONSE:

- a) Please see *Figure 1* below for an update of the analysis. There are no material deviations from past results. The naïve forecast continues to be the best estimate of forecasting interest rates.

Figure 1 Historical Analysis of SIRF, 50/50 & Naïve Forecast: 2005 to 2022 GRA

Line No.	Year	SIRF			50/50			Naïve		
		Forecast	Actual	Difference	Forecast	Actual	Difference	Forecast	Actual	Difference
1	2005 GRA	4.86%	4.27%	0.58%	4.62%	4.27%	0.34%	4.38%	4.27%	0.11%
2	2006 GRA	4.41%	4.13%	0.28%	4.34%	4.13%	0.22%	4.27%	4.13%	0.15%
3	2007 GRA	4.49%	4.03%	0.46%	4.31%	4.03%	0.28%	4.13%	4.03%	0.10%
4	2008 GRA	4.19%	3.64%	0.55%	4.11%	3.64%	0.47%	4.03%	3.64%	0.39%
5	2009 GRA	3.73%	3.13%	0.60%	3.69%	3.13%	0.55%	3.64%	3.13%	0.51%
6	2010 GRA	2.87%	3.39%	-0.52%	3.00%	3.39%	-0.39%	3.13%	3.39%	-0.26%
7	2011 GRA	4.00%	3.30%	0.70%	3.69%	3.30%	0.39%	3.39%	3.30%	0.09%
8	2012 GRA	3.73%	1.99%	1.74%	3.51%	1.99%	1.53%	3.30%	1.99%	1.31%
9	2013 GRA	2.48%	1.84%	0.64%	2.23%	1.84%	0.40%	1.99%	1.84%	0.15%
10	2014 GRA	2.22%	2.43%	-0.21%	2.03%	2.43%	-0.40%	1.84%	2.43%	-0.59%
11	2015 GRA	3.14%	1.30%	1.84%	2.78%	1.30%	1.48%	2.43%	1.30%	1.13%
12	2016 GRA	2.04%	1.19%	0.85%	1.67%	1.19%	0.48%	1.30%	1.19%	0.11%
13	2017 GRA	1.76%	1.64%	0.12%	1.48%	1.64%	-0.17%	1.19%	1.64%	-0.45%
14	2018 GRA	2.10%	2.24%	-0.14%	1.87%	2.24%	-0.37%	1.64%	2.24%	-0.60%
15	2019 GRA	2.66%	1.94%	0.72%	2.45%	1.94%	0.51%	2.24%	1.94%	0.30%
16	2020 GRA	2.28%	0.70%	1.58%	2.11%	0.70%	1.41%	1.94%	0.70%	1.24%
17	2021 GRA	0.69%	1.56%	-0.87%	0.70%	1.56%	-0.86%	0.70%	1.56%	-0.86%
18	2022 GRA	1.66%	2.41%	-0.75%	1.61%	2.41%	-0.80%	1.56%	2.41%	-0.85%
19	Average			0.45%			0.28%			0.11%
20	Min			-0.87%			-0.86%			-0.86%
21	Max			1.84%			1.53%			1.31%
22	Standard Deviation			0.78%			0.71%			0.66%
23	Standard Error			0.18%			0.17%			0.15%

In the updated historical analysis, the average deviation of the naïve forecast from actual remains the lowest at 11 bps. The naïve forecast continues to produce an unbiased forecast that is more accurate than either the 50/50 or SIRF forecasts.

The actuarial standards of practice establish that a best estimate should be unbiased. To check for any bias, MPI performed a paired sample t-test on the sample mean, to evaluate whether the 50/50 or naïve forecasts produced statistically significant results from each other.

The test results show that the naïve forecast produces a statistically significant forecast from the 50/50 forecast with less error (bias) at a 99% confidence level. See *Figure 2* below.

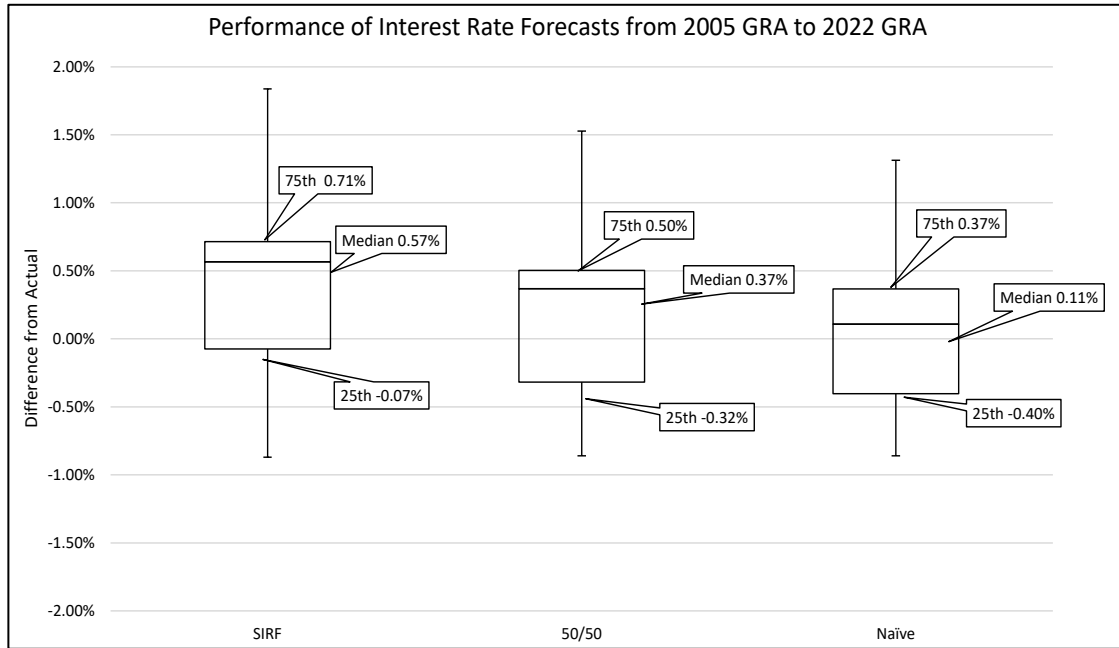
Figure 2 t-Test Paired Two Sample for Means

Line No.	Statistic	50/50	Naïve
1	Mean	0.0028	0.0011
2	Variance	0.0000501	0.0000431
3	Observations	18	18
4	Pearson Correlation	0.9843	
5	Hypothesized Mean Difference	0	
6	df	17	
7	t Stat	5.5938	
8	P(T<=t) one-tail	0.00002	
9	t Critical one-tail	1.7396	
10	P(T<=t) two-tail	0.00003	
11	t Critical two-tail	2.1098	

Figure 3 below shows how each of the three interest rate forecasts differ from the actual. As indicated, there is marginal difference in the variance between the 50/50 and naïve forecast (as seen by the overall length of the 'whisker' in the box and whisker plot below). However, the naïve forecast is less biased than the 50/50 forecast (given that the range of differences of the naïve forecast plot closer to the 'zero difference' line – that is, the 'box' in the box and whisker plot is more

centered around the zero difference line) and, as seen above, the naïve forecast is statistically less biased than the 50/50 forecast.

Figure 3 Box and Whisker Plot Interest Rate Comparative Analysis



Further, the middle line of the 'box,' the median, is closest to 0.00% in the naïve forecast, while the 50/50 forecast produced forecasts that are at least 37 basis points higher than actual, 50% of the time.

- b) The Bank of Canada overnight rate at the start of the period, March 31, 2021, was 0.25%. There have been four increases since then as shown below:

Date	Increase	New Rate
March 31, 2021		0.25%
March 2, 2022	0.25%	0.50%
April 13, 2022	0.50%	1.00%
June 1, 2022	0.50%	1.50%
July 13, 2022	1.00%	2.50%

- c) The statistical analysis provided in the response to a) above supports the conclusion that the naïve interest rate forecasting methodology reflects an appropriate assumption for the best estimate forecast.

PUB (MPI) 1-17

Part and Chapter:	Part V Expenses Figure EXP-2 and Figure EXP- 5	Page No.:	
PUB Approved Issue No:	4. Financial Forecasts 8. Cost of operations and cost containment measures		
Topic:	Financial Forecasts		
Sub Topic:	Corporate Expenses		

Preamble to IR:**Question:**

Please file a schedule for Total Basic Operating Expenses, Extension and DVA in similar detail as Figure EXP-5.

Rationale for Question:

To assess reasonableness of forecasts.

RESPONSE:

Please see *Figures 1 and 2* for a schedule of Total Operating Expenses for Extension and DVA, respectively. Please see *Expenses Chapter Figure EXP-5* for the schedule for Total Basic Operating Expenses.

Figure 1 Total Operating Expenses – 6-year Summary of Total Expenses – Extension

Line No.	Expense	2021/22A	2022/23FB	2023/24F	2024/25F	2025/26F	2026/27F
1	<i>(\$000's, except where noted)</i>						
2	Compensation - Salaries	8,135	9,610	12,723	14,127	12,242	11,317
3	Compensation - Overtime	111	91	99	99	104	105
4	Compensation - Benefits	2,014	2,273	2,501	2,564	2,647	2,630
5	Compensation - H & E Tax	181	206	229	238	246	244
6	Sub Total - Compensation	10,441	12,180	15,552	17,028	15,239	14,296
7	<i>% increase / (decrease) over prior year</i>		16.7%	27.7%	9.5%	-10.5%	-6.2%
8	Data Processing	3,114	7,891	7,679	8,860	7,359	6,331
9	Special Services	821	839	1,235	1,252	1,292	1,285
10	Building Expenses	527	540	550	563	581	578
11	Safety/Loss Prevention Programs	197	266	303	332	343	341
12	Telephone/Telecommunications	119	123	135	139	143	142
13	Public Information/Advertising	240	405	244	249	258	256
14	Printing, Stationery, Supplies	88	106	116	120	123	120
15	Postage	279	239	262	234	189	207
16	Regulatory/Appeal	19	12	12	12	12	12
17	Travel and Vehicle Expense	42	68	74	76	78	77
18	Driver Education Program	251	344	383	391	404	402
19	Grants in Lieu of Taxes	111	120	132	135	139	138
20	Furniture & Equipment	146	104	96	71	73	73
21	Merchant Fees & Bank Charges	2,626	2,708	2,776	2,775	2,831	2,886
22	Other	448	491	315	296	290	357
23	Sub total - Other Expenses	9,028	14,256	14,312	15,505	14,115	13,205
24	<i>% increase / (decrease) over prior year</i>		57.9%	0.4%	8.3%	-9.0%	-6.4%
25	Depreciation-Capital Assets	359	404	457	515	596	633
26	Amortization-Deferred Development	858	604	507	417	3,055	6,105
27	Subtotal - Depreciation / Amortization	1,217	1,008	964	932	3,651	6,738
28	<i>% increase / (decrease) over prior year</i>		-17.2%	-4.4%	-3.3%	291.7%	84.6%
29	Total Expenses	20,686	27,444	30,828	33,465	33,005	34,239
30	Note: Figures includes improvement initiative (ongoing and implementation) expenses						

Figure 2 Total Operating Expenses – 6-year Summary of Total Expenses – DVA

Line No.	Expense	2021/22A	2022/23FB	2023/24F	2024/25F	2025/26F	2026/27F
1	<i>(\$000's, except where noted)</i>						
2	Compensation - Salaries	21,087	23,873	29,085	27,455	27,273	26,416
3	Compensation - Overtime	230	217	219	214	222	230
4	Compensation - Benefits	5,090	5,614	5,765	5,780	5,895	6,013
5	Compensation - H & E Tax	457	510	529	536	547	558
6	Sub Total - Compensation	26,864	30,214	35,598	33,985	33,937	33,217
7	<i>% increase / (decrease) over prior year</i>		12.5%	17.8%	-4.5%	-0.1%	-2.1%
8	Data Processing	14,155	17,779	19,399	19,653	11,863	10,476
9	Special Services	697	615	849	841	858	875
10	Building Expenses	1,071	1,099	1,045	1,044	1,065	1,087
11	Safety/Loss Prevention Programs	-	-	-	-	-	-
12	Telephone/Telecommunications	153	171	175	175	179	182
13	Public Information/Advertising	126	168	192	192	195	199
14	Printing, Stationery, Supplies	3,108	2,887	2,951	2,945	3,004	3,063
15	Postage	1,456	1,240	1,269	1,252	1,263	1,198
16	Regulatory/Appeal	26	18	17	16	16	17
17	Travel and Vehicle Expense	105	218	223	222	226	230
18	Driver Education Program	-	-	-	-	-	-
19	Grants in Lieu of Taxes	230	245	250	250	255	260
20	Furniture & Equipment	192	149	132	92	94	96
21	Merchant Fees & Bank Charges	62	60	61	61	62	64
22	Other	770	897	560	766	805	669
23	Sub total - Other Expenses	22,151	25,546	27,123	27,509	19,885	18,416
24	<i>% increase / (decrease) over prior year</i>		15.3%	6.2%	1.4%	-27.7%	-7.4%
25	Depreciation-Capital Assets	712	810	850	909	1,009	1,084
26	Amortization-Deferred Development	1,303	614	549	8,806	11,346	15,653
27	Subtotal - Depreciation / Amortization	2,015	1,424	1,399	9,715	12,355	16,737
28	<i>% increase / (decrease) over prior year</i>		-29.3%	-1.8%	594.4%	27.2%	35.5%
29	Total Expenses	51,030	57,184	64,120	71,209	66,177	68,370
30	Note: Figures includes improvement initiative (ongoing and implementation) expenses						

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Part and Chapter:	Part V Expenses Appendix 13	Page No.:	
PUB Approved Issue No:	5. Changes to integrated cost allocation methodology		
Topic:	ICAM		
Sub Topic:	ICAM Accounting Purification		

Preamble to IR:**Question:**

- a) Please explain the elimination of accounting units 145 and 161 in Physical Properties.
- b) Please explain the elimination of accounting unit 087 from Enterprise Systems Support.

Rationale for Question:

To understand changes to the ICAM.

RESPONSE:

- a) MPI eliminated accounting units 145 and 161 as it no longer occupies the 145-MPI Warehouse and 161-Ellice locations.
- b) Prior to 2016, Enterprise Systems Support (ESS) had two Production Support teams. One team looked after Custom of the Shelf software for Bodily Injury (BI), Physical Damage (PD) and additional Supporting Applications (named Production Support, BI, PD and Support Applications (Dept 068) and a second team looked after Insurance, Licensing and Identity Applications (named Production Support, Insurance, Licensing and Identity Applications (Dept 087)). As part of a corporate

restructuring with ESS, MPI decided to combine the two areas under a single support team in budget year 2016/17. MPI transferred staff from department 087- Production Support, Insurance, Licensing and Identity Applications to department 068- Production Support, BI, PD and Support Applications.

PUB (MPI) 1-19

Part and Chapter:	Part V Expenses Appendix 13	Page No.:	
PUB Approved Issue No:	5. Changes to integrated cost allocation methodology		
Topic:	ICAM		
Sub Topic:	Cost Categories		

Preamble to IR:

Question:

Please indicate what costs, and the total amount of costs to be captured, in the Digital and Transformation cost category and whether these represent incremental costs or are a re-allocation of other costs within ICAM.

Rationale for Question:

To understand changes to the ICAM.

RESPONSE:

MPI set up the Digital and Transformation cost category for the Digital and Transformation division with the objective of providing corporate-wide service and focusing on longer transformation, beyond NOVA. The cost category captures the incremental costs incurred to manage the day-to-day operations, including salaries. The total budget for the 2022/23 fiscal year is \$2.7M.

PUB (MPI) 1-20

Part and Chapter:	Part V Expenses EXP Appendix 13	Page No.:	6
PUB Approved Issue No:	5. Changes to integrated cost allocation methodology; 16. Impact of COVID-19		
Topic:	Operating Expenses		
Sub Topic:			

Preamble to IR:**Question:**

- a) Please provide details of the cost category Covid Recoverable Expenses and total costs to be captured in the 497 accounting unit.
- b) Please explain how much of the Covid Recoverable Expenses have been allocated, by line of business.

Rationale for Question:

To understand the impact of COVID-19 on MPI's operating expense forecast.

RESPONSE:

- a) The COVID Recoverable Expenses includes incremental costs incurred by MPI during the COVID-19 Pandemic that it recovered from the Province of Manitoba. For 2021/22, this includes items such as rent, security, cleaning, garbage, maintenance, utilities and snow removal.
- b) As noted in Expenses EXP Appendix 13, page 6, MPI allocates COVID Recoverable Expenses to Insurance and Non-Insurance, based on WCCCCR, then to Insurance, based on Claims Incurred (i.e., Basic, Extension & SRE) and finally to Claims and Operating, based on FTE percentage.

PUB (MPI) 1-21

Part and Chapter:	Part V Expenses Appendix 13	Page No.:	
PUB Approved Issue No:	5. Changes to integrated cost allocation methodology		
Topic:	ICAM		
Sub Topic:	Project Nova - Cost Allocation		

Preamble to IR:

MPI has changed the allocation basis of Project Nova-related costs.

MPI explains the changes as follows:

MPI based its previous P&C allocation methodology on claims incurred volumes, which allocates costs are based on the claims volumes. However, as claims counts are significantly higher for the Basic LOB, a disparity in cost allocations existed, **which did not align the capital asset benefit to the correct LOB**. Consequently, amortization would be applied incorrectly to the Basic LOB, while the benefit of the asset would be received by the Extension or Special Risk Extension (SRE) LOB, as the case may be.

With respect to the allocation of Digital Stream costs:

Previously, MPI based the allocation methodology on Weighted Average Customer Contact Center Call Ratio, which did not reflect the program costs assigned to each **LOB accurately** (as there were disproportionate higher volumes for the Basic LOB). Consequently, MPI allocated additional costs to the Basic LOB.

Question:

- a) Please indicate the total costs allocated to each cost centre since the inception of Project Nova, the portion allocated to Basic and other lines of business, and

compare that which would have been allocated to Basic based on the new proposed allocation basis for 2022/23.

b) Please indicate the impact of the changes if applied retrospectively.

Rationale for Question:

To understand changes to the ICAM.

RESPONSE:

a) Please see *Figure 1* below:

Figure 1 Nova Cost Centres - Expense Allocation

Line No.	Nova Cost Centre	Life to Date - Basic Allocation	Life to Date - Other Lines of Business Allocation	Total Expense Allocation	Basic Allocation with 2022/23 Allocators Applied	Difference in Basic Allocation
1	<i>(\$C 000s, except where noted)</i>					
2	271 NOVA - DVA Stream	-	748	748	-	-
3	272 NOVA - P&C Stream	7,133	1,053	8,186	1,965	5,168
4	273 NOVA - Digital Stream	532	121	653	85	447
5	274 NOVA - Leadership Stream	6,730	5,074	11,804	1,435	5,295
6	275 NOVA - DVA-Ongoing Costs	-	8,028	8,028	-	-
7	276 NOVA - P&C-Ongoing Costs	5	-	5	1	4
8	277 NOVA - Digital-Ongoing Cost	1,154	295	1,449	188	966
9	Total Nova Cost Centre Costs	15,554	15,319	30,873	3,674	11,880

b) MPI applied the changes prospectively.

PUB (MPI) 1-23

Part and Chapter:	Part V – Expenses PF Appendix 1	Page No.:	67
PUB Approved Issue No:	5. Changes to integrated cost allocation methodology; a. Impact of IFRS 17 on methodology		
Topic:	ICAM		
Sub Topic:	IFRS 17 Impact		

Preamble to IR:

The IFRS 17 guidance allows for diversity in practice when developing a methodology for allocating costs between those which are directly attributable and those which are operating in nature. As per IBC in its working group guidance paper titled Acquisition Expenses under IFRS 17 Insurance Contracts: “Normal cost accounting approaches, particularly key allocations between functions, would be acceptable...”

MPI has conducted an initial review of its current presentation and classification as well as its allocation process (with a focus on the current allocation process and financial statement presentation). Some costs are straightforward to categorize while others require more judgement and support to conclude that they are allocated on a reasonable and systematic basis. The initial results of this review are documented in the remainder of this paper, with more focus given to those which required higher degrees of judgement.

An expense allocation framework and policy for how to assess “directly attributable” is in development, the updated methodology will include information on how to determine:

- What costs are clearly directly attributable (i.e., acquisition or maintenance expense);
- What costs are clearly not directly attributable (i.e., other operating expenses);
- What costs fall into grey areas and require further assessment (i.e., requires allocation and/or professional judgement).

Question:

- a) Please provide the expense allocation framework to address IFRS-17.
- b) Please file the referenced resources for the development of the classification management policy.
- c) Please explain how the new framework may affect the current ICAM.

Rationale for Question:

To understand changes in the allocation of costs under IFRS-17.

RESPONSE:

- a) Please see table below:

Expense Allocation Framework

	Classification	Description	Accounting Treatment	Examples
1.	Directly Attributable Costs – Acquisition costs	A subset of directly attributable costs, which arise from selling, underwriting, and starting a group of contracts ¹⁸ .	Expensed as incurred – not as earned; Included on income statement, in <i>insurance service expenses</i> .	<ul style="list-style-type: none"> • Commissions • Premium Taxes • Other allocated such as Regulatory costs
	Directly Attributable Costs – Maintenance costs	Costs which are directly attributable to the fulfillment of insurance contracts (<u>i.e.</u> , to fulfill and maintain), including costs which have been allocated as directly attributable and are not acquisition costs.	Included on income statement, in <i>insurance service expenses</i> . Included on balance sheet, in the <i>insurance contract liability</i> until paid.	<ul style="list-style-type: none"> • Claims incurred • Claims expense • Acquisition costs • Other allocated costs deemed to arise from maintaining or fulfilling insurance contracts
2.	Other (Not Directly Attributable)	Costs which are not directly attributable to the fulfillment of insurance contracts.	Included on income statement in <i>operating expenses</i> (below <i>net insurance and investment result</i>). Included on balance sheet in <i>accounts payable</i> ¹⁹ .	<ul style="list-style-type: none"> • Operating expenses (which are not directly attributable)

- b) MPI previously filed these resources with the IFRS 17 Acquisition Cost Position paper in *Pro Formas PF Appendix 1a - Position papers*.

- c) MPI has yet to determine the impact of the adoption of IFRS 17 on ICAM, but will review and confirm these impacts in its financial modelling.

PUB (MPI) 1-24

Part and Chapter:	Part V- Expenses PF Appendix 1	Page No.:	67
PUB Approved Issue No:	5. Changes to integrated cost allocation methodology; a. Impact of IFRS 17 on methodology;		
Topic:	ICAM		
Sub Topic:	IFRS 17 Impact		

Preamble to IR:

MPI has identified system changes required to account for IFRS -17.

The system requirement to segregate commissions between policy vs. non-policy has been identified for consideration in the future state Nova architecture. Legacy systems have data on commission "type" such that policy vs. non-policy commissions can be determined.

Project Nova is delayed.

Question:

- a) Please describe the system changes required to implement IFRS-17 and the forecasted costs to make the required changes.
- b) Please explain when MPI will have the system changes in place to incorporate the accounting changes required under IFRS-17.

Rationale for Question:

To understand changes in the allocation of costs under IFRS-17.

RESPONSE:

- a) Project NOVA is not delayed as a result of International Financial Reporting Standards (IFRS) 17 requirements. IFRS 17 requirements for calculations for LRC/LIC and note disclosures require additional granular reporting requirements and data. Project NOVA will allow for additional tables that will break out policy and non-policy accounts receivable and policy items, which will populate the required note disclosures and calculations, as required.

IFRS 9 requirements are within the Prince Asset Management System, which is the Investment Accounting system MPI uses and are known, ready and do not require additional system requirements.

The system requirements for IFRS 17 are limited to additional reporting within the new Policy system [Duck Creek] and the specific requirements are identified and planned/completed for R1. There will not be significant system requirements to allow for IFRS 17 compliance.

- b) System requirements for NOVA Releases R2/R3/Digital are ongoing. For IFRS 17 minimal compliance, MPI has now attained the required details for IFRS 17 compliance. Timing is based on NOVA releases and MPI is working out a mitigation plan if delays occur.

PUB (MPI) 1-25

Part and Chapter:	Part V Expenses	Page No.:	49
PUB Approved Issue No:	5. Changes to integrated cost allocation methodology; a. Impact of IFRS 17 on methodology;		
Topic:	ICAM		
Sub Topic:	AGILE Project Management Office		

Preamble to IR:**Question:**

Please provide a comparative schedule of the \$6.4M in APMO/BTO costs in this application with the \$5 million for the APMO/BTO last year and explain the reason for the increase in costs.

Rationale for Question:

To understand the increase in APMO costs.

RESPONSE:**Figure 1 APMO/BTO Costs**

Line No.	Department	2022/23	2021/22
1	Computer Costs - Other	-	76
2	Ext Labour - Other	6,413	3,961
3	Licence Fees-Other	-	698
4	Operating Expenses - Misc	-	5
5	Salaries-Regular	-	159
6	Staff Training - Other	-	58
7	Total Special Services - Other	6,413	4,957

The increase is due to an additional \$1.4 million in outsourcing costs.

PUB (MPI) 1-26

Part and Chapter:	Part IV - Nova, Information Technology, and Value Management Nov Appendix 9	Page No.:	3, 4
PUB Approved Issue No:	5. Changes to integrated cost allocation methodology		
Topic:	Project Nova		
Sub Topic:	Allocation of Project Nova Costs		

Preamble to IR:

Question:

- a) Please provide the detailed calculations for the allocation of Leadership Stream costs for 2020/21, 2021/22, 2022/23 and 2023/24.

Rationale for Question:

To understand changes to the allocation of Project Nova costs to Basic.

RESPONSE:

Please see Figure 1 below (based on forecasting as at March 31, 2022):

Figure 1 Allocation of Leadership Stream*

Line No.		2021 GRA %	2022 GRA %	2023 GRA %		
		2020/21	2021/22	2022/23	2023/24	
1	Basic	79.26%	44.31%	14.22%	15.88%	
2	Extension	6.48%	3.58%	14.22%	15.88%	
3	SRE	5.48%	3.04%	30.81%	34.39%	
4	DVA	8.78%	49.07%	40.75%	33.85%	
5	Total	100.00%	100.00%	100.00%	100.00%	
6		2020/21A	2021/22A	2022/23F	2023/24F	
7	Basic	2,263,995	3,398,032	2,125,436	827,984	
8	Extension	185,096	274,542	2,125,436	827,984	
9	SRE	156,532	233,131	4,605,111	1,793,095	
10	DVA	250,793	3,763,065	6,090,824	1,764,940	
11	Total Leadership	2,856,416	7,668,770	14,946,807	5,214,002	
12	*Based on forecasting as of March 31, 2022					

PUB (MPI) 1-27

Part and Chapter:	Part VIII Reporting & Publications Appendix 5 MPI Annual Business Plan	Page No.:	5
PUB Approved Issue No:	6. Annual Business Plan		
Topic:			
Sub Topic:			

Preamble to IR:**Question:**

- a) Please indicate whether the Minister has issued any further directives to MPI beyond that issued on January 30, 2022. If so, please file.
- b) Please indicate what, if any, direction has been provided for executive compensation for 2022/23 and 2023/24 for out-of-scope staff.

Rationale for Question:**RESPONSE:**

- a) The Minister issued no further directives to MPI pursuant to section 13 of *The Crown Corporations Governance and Accountability Act* after January 30, 2020 (note the question above contains a typographical error). As noted in *Rate Stabilization Reserve RSR Appendix 3*, the Minister of Justice advised on March 30, 2022, "...that MPI's Board of Directors should not approve any further transfers to the DVA line of business for at least the next two years..."
- b) MPI received no further direction beyond the January 30, 2020 directive regarding executive compensation for 2022/23 and 2023/24 for out-of-scope staff.

PUB (MPI) 1-28

Part and Chapter:	Part VIII Reporting & Publications Appendix 5 MPI Annual Business Plan	Page No.:	7
PUB Approved Issue No:	6. Annual Business Plan		
Topic:	Customer Satisfaction Measures		
Sub Topic:			

Preamble to IR:**Question:**

- a) Please articulate the Corporation's desired CX and EX levels and define the terms.
- b) Please file the most recent Forrester Research Inc. CX Index report.
- c) Please file any analysis measuring EX levels.

Rationale for Question:

To understand the Corporation's measures of customer satisfaction.

RESPONSE:

- a) **CX Response:** MPI relies on the CX Index™ score developed by Forrester Research Inc. to provide an indication of overall customer experience. This score is based on customer perceptions of the service they received. Using the CX Index™ score as a guiding metric allows MPI to measure how it is doing and provides comparisons to the home and auto insurance industry overall for the same metric. The CX Index™ score provides an overall measure of customer perceptions of quality and loyalty. This includes measures of the effectiveness (that the experience delivers value to customers), ease (that it is not difficult to get value from the experience), and emotion (that customers feel good about their

experience) of the interaction, and of the likelihood of customers to follow advice, to engage with MPI, and to speak positively about MPI to others. These measures are combined by Forrester in a proprietary algorithm to create the CX Index™ score.

The overall CX Index™ score ranges from zero to 100 and is considered 'Excellent' if in the 80-100 range, 'Good' in the 70-79 range, 'Okay' in the 60-69 range, 'Poor' in the 50-59 range, and 'Very Poor' if less than 50.

Based on customer feedback gathered in February 2022, MPI scored **76.8**, in the 'Good' range of the CX Index™. Over the past 4 years, MPI's score has ranged from 76.8 to 80.5. In comparison, the overall home and auto industry score is in the "OK" range, a couple of points below 70.

At a minimum desired level, MPI wants customers to have at least a 'Good' experience; a target CX Index™ score of 70 or greater. As a stretch goal, MPI wants customers have an 'Excellent' experience; a CX Index™ score of 80 or greater. By setting a minimum target of 70 or greater, MPI wants customers to have a 'Good' or better experience, which is ahead of the industry overall.

EX Response: Employee Engagement (EX) is MPI's primary metric to support EX. Employee engagement is an average of our employees' responses to the following four questions:

1. intend to stay with MPI for next 12 months (**87% favorable**)
2. proud to work for MPI (**82% favorable**)
3. recommend MPI as a great place to work (**77% favorable**)
4. my work gives me a feeling of personal accomplishment (**76% favorable**)

Based on the above, MPI's current engagement score is **81%**.

This engagement score is based on employee response options from *strongly agree* to *strongly disagree* and the vendor, Perceptyx, uses percentage of favorability (combining *strongly agree* and *agree* into **favorable** and *strongly*

disagree and *disagree* into **unfavorable**) for ease of interpretation. The overall employee engagement score enables MPI to compare against the Perceptyx Overall Benchmark and the Financial Services Benchmark for the same metric.

Based on employee feedback gathered in October 2021, MPI's engagement score is 81%. This is one point above the Perceptyx Overall Benchmark (80%) and 2 points below the Financial Services Benchmark (83%). Perceptyx has defined this as success given the comparisons noted.

MPI strives for high levels of engagement and targets the above noted benchmarks.

- b) Please see *Attachment A - Forrester CX Index Insights Assess Year 4 Revised Report - Confidential*.

- c) Please see *Appendix 1* of 2021 MPI Employee Engagement Results.

**Attachment A:
Forrester CX Index Measurement Refresh**

This material is the subject of a confidential motion.

2021 MPI Employee Engagement Results

August 2022



MANITOBA
PUBLIC INSURANCE

Engagement Index Results

Engagement is a critical ingredient for organizational success that can be measured through employee opinions and behavior. The four indicators of engagement — intent to stay, referral behavior, pride in the organization, and intrinsic motivation — measure employees’ attachment to the organization and their behavior as well as gauge current levels of engagement.



My Team

Engagement Index



I intend to stay with MPI for at least the next 12 months.



I am proud to work for MPI.



I would recommend MPI as a great place to work.



My work gives me a feeling of personal accomplishment.



● Favorable ● Neutral ● Unfavorable

PUB (MPI) 1-29

Part and Chapter:	VIII Reporting & Publications Appendix 5 MPI Annual Business Plan EXP Appendix 16	Page No.:	
PUB Approved Issue No:	6. Annual Business Plan 8. Cost of operations and cost containment measures;		
Topic:	Capital Expenditures		
Sub Topic:			

Preamble to IR:**Question:**

Please provide a schedule of 2022/23 Capital Expenditures in the same level of detail as Figure EXP App 16-1 with columns for Extension, DVL and total Corporate to reconcile with the planned spending in the Annual Business Plan.

Rationale for Question:

To understand the Corporation's capital expenses.

RESPONSE:

Please see *Appendix 1 Schedule of 2022/23 Capital Expenditures of Extension, DVL and Total Corporate.*

Figure App 1-1 Basic Capital Expenditures - Extension (revised Expenses EXP Appendix 16 Basic Capital Expenditures)

Line No.	Expenditure Type	2022 GRA (2021/22B)	2023 GRA (2021/22A)	Difference (2023 GRA - 2022 GRA)	2022 GRA (2022/23F)	2023 GRA (2022/23FB)	Difference (2023 GRA - 2022 GRA)
1	(C\$000s, except where noted)						
2	Land and Building	467	495	28	846	1,702	856
3	CityPlace Space Plan - Capital	471	196	(275)	439	435	(4)
4	Automobiles	37	40	3	40	33	(7)
5	Office Equipment/Systems Furniture/ Demountable Walls	8	8	-	26	8	(18)
6	Data Processing Equipment	126	-	(126)	7	7	-
7	Deferred Development	1,856	1,703	(153)	1,440	8,834	7,394
8	Impairment of Deferred Development	-	(17)	(17)	-	-	-
9	Subtotal - Expenditures	2,965	2,425	(540)	2,798	11,019	8,221
10	Implementation Expense	960	924	(36)	639	5,199	4,560
11	CityPlace Space Plan - Expense	28	6	(22)	28	29	1
12	Impairment of Deferred Development	-	17	17	-	-	-
13	Total Expenses	3,953	3,372	(581)	3,465	16,247	12,782

Figure App 1-2 Basic Capital Expenditures - SRE (revised Expenses EXP Appendix 16 Basic Capital Expenditures)

Line No.	Expenditure Type	2022 GRA (2021/22B)	2023 GRA (2021/22A)	Difference (2023 GRA - 2022 GRA)	2022 GRA (2022/23F)	2023 GRA (2022/23FB)	Difference (2023 GRA - 2022 GRA)
1	(C\$000s, except where noted)						
2	Land and Building	448	471	23	812	1,653	841
3	CityPlace Space Plan - Capital	450	188	(262)	420	429	9
4	Automobiles	35	38	3	38	32	(6)
5	Office Equipment/Systems Furniture/ Demountable Walls	7	8	1	25	8	(17)
6	Data Processing Equipment	79	-	(79)	4	4	-
7	Deferred Development	1,624	1,419	(205)	1,237	18,807	17,570
8	Impairment of Deferred Development	-	(14)	(14)	-	-	-
9	Subtotal - Expenditures	2,643	2,110	(533)	2,536	20,933	18,397
10	Implementation Expense	892	783	(109)	588	9,661	9,073
11	CityPlace Space Plan - Expense	27	5	(22)	26	32	6
12	Impairment of Deferred Development	-	14	14	-	-	-
13	Total Expenses	3,562	2,912	(650)	3,150	30,626	27,476

Figure App 1-3 Basic Capital Expenditures - DVA (revised Expenses EXP Appendix 16 Basic Capital Expenditures)

Line No.	Expenditure Type	2022 GRA (2021/22B)	2023 GRA (2021/22A)	Difference (2023 GRA - 2022 GRA)	2022 GRA (2022/23F)	2023 GRA (2022/23FB)	Difference (2023 GRA - 2022 GRA)
1	(C\$000s, except where noted)						
2	Land and Building	744	966	222	1,350	3,378	2,028
3	CityPlace Space Plan - Capital	806	312	(494)	750	778	28
4	Automobiles	73	78	5	79	67	(12)
5	Office Equipment/Systems Furniture/ Demountable Walls	15	16	1	51	16	(35)
6	Data Processing Equipment	120	-	(120)	7	7	-
7	Deferred Development	19,735	23,897	4,162	10,417	26,832	16,415
8	Impairment of Deferred Development	-	(23)	(23)	-	-	-
9	Subtotal - Expenditures	21,493	25,246	3,753	12,654	31,078	18,424
10	Implementation Expense	15,415	12,389	(3,026)	11,625	14,843	3,218
11	CityPlace Space Plan - Expense	41	9	(32)	41	43	2
12	Impairment of Deferred Development	-	23	23	-	-	-
13	Total Expenses	36,949	37,667	718	24,320	45,964	21,644

Figure App 1-4 Basic Capital Expenditures - Total (revised Expenses EXP Appendix 16 Basic Capital Expenditures)

Line No.	Expenditure Type	2022 GRA (2021/22B)	2023 GRA (2021/22A)	Difference (2023 GRA - 2022 GRA)	2022 GRA (2022/23F)	2023 GRA (2022/23FB)	Difference (2023 GRA - 2022 GRA)
1	(C\$000s, except where noted)						
2	Land and Building	7,288	7,772	484	13,211	26,913	13,702
3	CityPlace Space Plan - Capital	7,361	3,056	(4,305)	6,865	6,865	-
4	Automobiles	583	621	38	630	527	(103)
5	Office Equipment/Systems Furniture/ Demountable Walls	118	125	7	409	129	(280)
6	Data Processing Equipment	1,840	-	(1,840)	100	100	-
7	Deferred Development	45,326	47,496	2,170	30,224	66,345	36,121
8	Impairment of Deferred Development	-	(264)	(264)	-	-	-
9	Subtotal - Expenditures	62,516	58,806	(3,710)	51,439	100,879	49,440
10	Implementation Expense	29,194	25,585	(3,609)	20,643	50,657	30,014
11	CityPlace Space Plan - Expense	439	96	(343)	435	435	-
12	Impairment of Deferred Development	-	264	264	-	-	-
13	Total Expenses	92,149	84,751	(7,398)	72,517	151,971	79,454

PUB (MPI) 1-30

Part and Chapter:	Part VIII – AR Appendix 5	Page No.:	
PUB Approved Issue No:	6. Annual Business Plan		
Topic:	7.0 Capital Plans		
Sub Topic:			

Preamble to IR:

MPI states:

"In early 2022, Management completed an updated re-baseline assessment of Project Nova, which will see a flattened delivery schedule and will front load customer-value deliverables. This will deliver customer value sooner and increase program success. The impacts of the flattened delivery along with other de-risking strategies are expected to have a material impact on the overall program budget. MPI is working with Government to obtain the necessary approvals and understand how to best reflect the budgetary impacts or the 2022/23 fiscal year." [p. 10]

"The Corporation does not debt finance any of its project initiatives. All of Manitoba Public Insurance's capital projects will be financed through cash generated from operations, and ultimate project costs will be recovered by insurance rate payers as programs are amortized over time and included in future years' base expenses for purposes of rate setting (to the extent the projects relate to the Corporation's Basic, Extension, SRE and DVA lines of business)." [p. 23]

Question:

- a) Please indicate whether any Government approvals were required for budgetary impacts of 2022/23 fiscal year.
- b) Please provide details on impact of project initiatives as it pertains to obtaining with Government to obtain approvals for 2022/23 project initiatives.

Rationale for Question:

To enhance the understanding of the risk profile related to staffing for Project Nova.

RESPONSE:

- a) MPI sought and received Government approvals for the Project NOVA re-baseline and its impact on the 2022/23 fiscal budget.
- b) Government approved the plan for 2022/23, as requested by MPI and without alteration. MPI required Government approvals as part of the annual estimates / budget setting process, per the 2019 Mandate Letter that directs crown corporations to participate in the summary / whole-of-government budgeting process.

PUB (MPI) 1-31

Part and Chapter:	Part VII- Investments Figure INV-1 PUB (MPI) 1-34 (a) (2022 GRA)	Page No.:	11
PUB Approved Issue No:	7. Performance of the investment portfolio and the composition of i) the portfolio, ii) benchmark portfolio(s) on a market value basis (e.g., asset mix)		
Topic:	Basic Line of Business Investment Income		
Sub Topic:	Investment Income		

Preamble to IR:

The table does not appear to be presented consistently with the historical information on this basis concerning the presentation of unrealized gains on Marketable Bonds and 2019/20 impairment write-downs.

Question:

- a) Please re-file Figure INV-1 consistent with PUB(MPI) 1-34(a) (2022 GRA) indicating the Investment write down in 2019/20 on line 30.
- b) For 2022/23 through 2024/25, please provide a schedule of investment income separating the income amounts in columns for Claims, RSR and EFB to support the reported investment income to Basic in (a).
- c) Please explain the reduction in the forecast investment income in Cityplace for 2021/22 through 2023/24 and 2024/25.

Rationale for Question:

To review changes to investment income.

RESPONSE:

- a) Please see Appendix 1, which contains a revised version of INV-1 indicating the 2019/20 investment write down on line 30.

- b) Please see Appendix 2, which provides a schedule of investment income separating the income amounts for Basic Claims, Rate Stabilization Reserve and Employee Future Benefits.

- c) On March 31, 2021, CityPlace was reclassified and transferred from Investment Property to Property and Equipment, leaving only two parking lots (266 Hargrave Street and 172 Donald Street) in the real estate investment portfolio.

Figure App 1-1 Summary of Basic Line of Business Investment Income (2023 GRA Figure INV-1 updated)

Line No.	Asset Class	Reference Section #	2017/18 Actual	2018/19 Actual	2019/20 Actual	2020/21 Actual	2021/22 Actual	2022/23 Budget	2023/24 Forecast	2024/25 Forecast	2025/26 Forecast	2026/27 Forecast
1	<i>(C\$000s, except where noted)</i>											
2	Interest Income During Period											
3	Cash/Short Term Investments	INV.3	565	2,192	3,641	454	93	664	586	593	599	599
4	Provincial Bonds	INV.4	34,147	32,514	80,710	84,694	81,430	38,169	39,967	42,124	43,818	45,230
5	Corporate Bonds	INV.4	-	3,702	-	-	-	24,780	26,514	27,863	29,269	30,300
6	MUSH	INV.5	25,349	24,950	-	-	-	19,328	18,254	17,184	16,205	15,142
7	Private Debt	INV.9	-	-	1,254	2,998	4,800	6,619	7,522	6,812	7,220	6,888
8	Total		60,060	63,358	85,604	88,146	86,323	89,561	92,843	94,576	97,111	98,159
9	Dividend and other Income											
10	Canadian Equities	INV.6	7,774	8,781	3,097	3,080	5,258	2,678	2,737	2,881	3,215	3,090
11	US/Global Equities	INV.7	2,619	2,996	797	1,019	3,578	2,263	2,622	2,933	3,244	3,185
12	Global Low Volatility	INV.7	-	-	2,182	-	-	1,169	1,312	1,464	1,645	1,539
13	Investment Properties (CityPlace)	INV.8	2,972	3,094	1,390	(765)	148	350	359	367	374	382
14	Infrastructure	INV.9	1,731	11,533	2,620	1,621	1,961	1,510	1,002	940	1,056	1,066
15	Total		15,096	26,404	10,086	4,955	10,945	7,970	8,033	8,584	9,534	9,262
16	Gains During Period - Profit & Loss											
17	Marketable Bonds Unrealized Gains/(Loss)	INV.4	8,079	8,718	(16,827)	(10,645)	(123,025)	6,325	133	144	149	146
18	Marketable Bonds Realized Gains/(Loss)	INV.4	(3,490)	5,459	22,346	11,296	(3,975)	(10,254)	(304)	(285)	(299)	(211)
19	Private Debt Gains/(Loss)*	INV.5	-	-	-	-	-	-	(1,348)	-	(757)	-
20	Canadian Equities Realized Gains	INV.6	20,060	48,239	3,469	1,028	5,943	25,784	6,942	3,648	4,127	3,621
21	US/Global Equities Realized Gains	INV.7	4,928	56,550	572	1,561	4,807	9,824	6,577	3,746	4,629	4,294
22	Global Low Volatility	INV.7	-	-	3,652	6,452	1,571	8,320	2,675	2,124	2,636	2,509
23	Real Estate	INV.8	25,058	17,443	6,516	(878)	15,342	10,987	7,085	7,725	7,499	7,532
24	Infrastructure	INV.9	5,376	1,635	7,679	1,945	111	5,869	3,921	3,687	4,137	4,178
25	Total		60,011	138,046	27,407	10,756	(99,226)	56,854	25,681	20,789	22,122	22,070
26	Other											
27	Investment Fees Paid	INV.10	(3,641)	(3,576)	(4,038)	(4,111)	(4,802)	(4,353)	(4,448)	(4,578)	(4,846)	(4,730)
28	Amortization of Bond Premium/Discount	INV.10	(3,069)	(3,553)	(6,083)	(8,994)	(6,962)	(2,698)	(3,083)	(3,311)	(3,448)	(3,399)
29	Pension Expense	INV.10	(11,619)	(12,170)	(10,686)	(11,249)	(11,439)	(11,237)	(11,511)	(11,789)	(11,789)	(11,789)
30	Venture Capital Income	INV.10	412	-	-	-	-	-	-	-	-	-
31	Investment Write-Down		(930)	-	(42,676)	10,022	(22,023)	-	-	-	-	-
32	Total		(18,847)	(19,298)	(63,483)	(14,329)	(45,226)	(18,288)	(19,042)	(19,678)	(20,083)	(19,918)
33	Total Basic LOB Investment Income		116,320	208,510	59,614	89,528	(47,184)	136,097	107,515	104,271	108,684	109,572

34 *Missed in the initial submission of INV-1

Figure App 2-1 Investment Portfolio Income Detail - Basic Line of Business

Line No.	INCOME AND GAINS DURING THE PERIOD	Projected		
		2022/23	2023/24	2024/25
1	Income Received During Period			
2	Cash/Short Term Investments	664	586	593
3	Government Bonds	38,169	39,967	42,124
4	Corporate Bonds	24,780	26,514	27,863
5	MUSH	19,328	18,254	17,184
6	Private Debt	6,619	7,522	6,812
7	Canadian Equities	2,678	2,737	2,881
8	Global Equities	2,263	2,622	2,933
9	Global LV	1,169	1,312	1,464
10	Pooled Real Estate Fund	-	-	-
11	Net Rental Income	350	359	367
12	Infrastructure	1,510	1,002	940
13	Total	97,531	100,875	103,160
14	Gains During Period - Profit & Loss			
15	Government Bonds Unrealized Gains/(Loss)	2,052	180	189
16	Government Bonds Realized Gains/(Loss)	(3,404)	(255)	(214)
17	Corporate Bonds Unrealized Gains/(Loss)	4,273	(48)	(45)
18	Corporate Bonds Realized Gains/(Loss)	(6,850)	(49)	(71)
19	MUSH	-	-	-
20	Private Debt	-	(1,348)	-
21	Canadian Equities Realized Gains	25,784	6,942	3,648
22	Global Equities Realized Gains	9,824	6,577	3,746
23	Global LV	8,320	2,675	2,124
24	Pooled Real Estate Fund	10,987	7,085	7,725
25	Infrastructure	5,869	3,921	3,687
26	Total	56,854	25,681	20,789
27	Gains During Period - Other Comprehensive Income			
28	Reclassification of net realized (gains) losses (related to Avail. for Sale Assets)			
29	Canadian Equities Unrealized Gains	(25,784)	(6,942)	(3,648)
30	Global Equities Unrealized Gains	(9,824)	(6,577)	(3,746)
31	Global LV Equities Unrealized Gains	(8,320)	(2,675)	(2,124)
32	Government Bonds Unrealized Gains	1,352	74	25
33	Corporate Bonds Unrealized Gains	2,577	97	116
34	Total	(39,999)	(16,023)	(9,377)
35	Unrealized Gains (losses) on Avail. for Sale Assets			
36	Canadian Equities Unrealized Gains	3,711	3,440	3,709
37	Global Equities Unrealized Gains	5,421	5,768	6,020
38	Global LV Unrealized Gains	2,446	2,511	2,605
39	Government Bonds Unrealized Gains	0	(0)	(0)
40	Corporate Bonds Unrealized Gains	1	4	5
41	Total	11,579	11,723	12,339
42	Investment Fees Paid During Period			
43	Fees to the Department of Finance	(1,205)	(1,203)	(1,227)
44	Fees to the Corporate Bond Manager	(680)	(722)	(751)
45	Fees to the Equity Managers	(1,020)	(1,065)	(1,136)
46	Fees to the Alternative Investment Managers	(1,448)	(1,459)	(1,464)
47	Total	(4,353)	(4,448)	(4,578)
48	Investment Summary During Period			
49	Interest Income During Period	82,942	85,321	87,764
50	Dividend & Other Income During Period	14,589	15,554	15,396
51	Gains During Period - Profit & Loss	56,854	25,681	20,789
52	Investment Fees Paid	(4,353)	(4,448)	(4,578)
53	(Amortization) / Accretion During Period	(2,698)	(3,083)	(3,311)
54	Pension Expense	(11,237)	(11,511)	(11,789)
55	Investment Income	136,097	107,515	104,271
56	Gains During Period - Other Comprehensive Income	(28,419)	(2,953)	2,962
57	Total	107,678	104,562	107,233

Figure App 2-2 Investment Portfolio Basic Income Summary

Line No.		Projected		
		2022/23	2023/24	2024/25
INCOME AND GAINS DURING THE PERIOD				
1	Income Received During Period			
2	Cash/Short Term Investments	84	0	(0)
3	Government Bonds	37,370	38,810	40,197
4	Corporate Bonds	20,959	22,108	23,175
5	MUSH	19,328	18,254	17,184
6	Private Debt	-	-	-
7	Canadian Equities	-	-	-
8	Global Equities	-	-	-
9	Global LV	-	-	-
10	Pooled Real Estate Fund	-	-	-
11	Net Rental Income	-	-	-
12	Infrastructure	-	-	-
13	Total	77,741	79,172	80,557
14	Gains During Period - Profit & Loss			
15	Government Bonds Unrealized Gains/(Loss)	2,052	180	189
16	Government Bonds Realized Gains/(Loss)	(2,052)	(180)	(189)
17	Corporate Bonds Unrealized Gains/(Loss)	4,273	(48)	(45)
18	Corporate Bonds Realized Gains/(Loss)	(4,273)	48	45
19	MUSH	-	-	-
20	Private Debt	-	-	-
21	Canadian Equities Realized Gains	-	-	-
22	Global Equities Realized Gains	-	-	-
23	Global LV	-	-	-
24	Pooled Real Estate Fund	-	-	-
25	Infrastructure	-	-	-
26	Total	0	0	0
27	Gains During Period - Other Comprehensive Income			
28	Reclassification of net realized (gains) losses (related to Avail. for Sale Assets)			
29	Canadian Equities Unrealized Gains	-	-	-
30	Global Equities Unrealized Gains	-	-	-
31	Global LV Equities Unrealized Gains	-	-	-
32	Total	-	-	-
33	Unrealized Gains (losses) on Avail. for Sale Assets			
34	Canadian Equities Unrealized Gains	-	-	-
35	Global Equities Unrealized Gains	-	-	-
36	Global LV Unrealized Gains	-	-	-
37	Total	-	-	-
38	Investment Fees Paid During Period			
39	Fees to the Department of Finance	(855)	(853)	(862)
40	Fees to the Corporate Bond Manager	(575)	(604)	(630)
41	Fees to the Equity Managers	-	-	-
42	Fees to the Alternative Investment Managers	-	-	-
43	Total	(1,430)	(1,457)	(1,492)
44	Investment Summary During Period			
45	Interest Income During Period	77,741	79,172	80,557
46	Dividend & Other Income During Period	-	-	-
47	Gains During Period - Profit & Loss	(0)	(0)	(0)
48	Investment Fees Paid	(1,430)	(1,457)	(1,492)
49	(Amortization) / Accretion During Period	(2,701)	(3,092)	(3,286)
50	Pension Expense	-	-	-
51	Investment Income	73,609	74,624	75,778
52	Net Gains During Period - Other Comprehensive Income	0	0	0
53	Total	73,609	74,624	75,778

Figure App 2-3 Investment Portfolio RSR Income Summary

Line No.	INCOME AND GAINS DURING THE PERIOD	Projected		
		2022/23	2023/24	2024/25
1	Income Received During Period			
2	Cash/Short Term Investments	580	586	593
3	Government Bonds	800	1,157	1,927
4	Corporate Bonds	809	1,191	1,303
5	MUSH	-	-	-
6	Private Debt	3,893	4,674	3,838
7	Canadian Equities	1,243	1,118	1,177
8	Global Equities	702	853	954
9	Global LV	585	655	732
10	Pooled Real Estate Fund	-	-	-
11	Net Rental Income	350	359	367
12	Infrastructure	598	261	250
13	Total	9,560	10,854	11,141
14	Gains During Period - Profit & Loss			
15	Government Bonds Unrealized Gains/(Loss)	-	-	-
16	Government Bonds Realized Gains/(Loss)	(1,352)	(74)	(25)
17	Corporate Bonds Unrealized Gains/(Loss)	-	-	-
18	Corporate Bonds Realized Gains/(Loss)	(2,646)	(101)	(122)
19	MUSH	-	-	-
20	Private Debt	-	(1,348)	-
21	Canadian Equities Realized Gains	22,933	4,191	971
22	Global Equities Realized Gains	7,395	3,983	987
23	Global LV	6,488	1,084	658
24	Pooled Real Estate Fund	4,861	2,213	2,456
25	Infrastructure	2,323	1,021	982
26	Total	40,002	10,969	5,907
27	Gains During Period - Other Comprehensive Income			
28	Reclassification of net realized (gains) losses (related to Avail. for Sale Assets)			
29	Private Debt Unrealized Gains	-	1,348	-
30	Canadian Equities Unrealized Gains	(22,933)	(4,191)	(971)
31	Global Equities Unrealized Gains	(7,395)	(3,983)	(987)
32	Global LV Equities Unrealized Gains	(6,488)	(1,084)	(658)
33	Government Bonds Unrealized Gains	1,352	74	25
33	Corporate Bonds Unrealized Gains	2,646	101	122
34	Total	(32,819)	(7,735)	(2,468)
35	Unrealized Gains (losses) on Avail. for Sale Assets			
36	Private Debt Unrealized Gains	-	-	-
37	Canadian Equities Unrealized Gains	1,723	1,405	1,515
38	Global Equities Unrealized Gains	1,681	1,876	1,959
39	Global LV Unrealized Gains	1,225	1,253	1,303
40	Government Bonds Unrealized Gains	0	(0)	(0)
41	Corporate Bonds Unrealized Gains	2	8	12
42	Total	4,631	4,542	4,789
43	Investment Fees Paid During Period			
44	Fees to the Department of Finance	(179)	(174)	(183)
45	Fees to the Corporate Bond Manager	(27)	(37)	(38)
46	Fees to the Equity Managers	(415)	(417)	(445)
47	Fees to the Alternative Investment Managers	(643)	(602)	(577)
48	Total	(1,264)	(1,230)	(1,243)
49	Investment Summary During Period			
50	Interest Income During Period	2,189	2,934	3,822
51	Dividend & Other Income During Period	7,371	7,920	7,319
52	Gains During Period - Profit & Loss	40,002	10,969	5,907
53	Investment Fees Paid	(1,264)	(1,230)	(1,243)
54	(Amortization) / Accretion During Period	69	72	36
55	Pension Expense	-	-	-
56	Investment Income	48,366	20,665	15,841
57	Net Gains During Period - Other Comprehensive Income	(28,187)	(3,193)	2,321
58	Total	20,178	17,472	18,162

Figure App 2-4 Investment Portfolio Pension Income Summary

Line No.	INCOME AND GAINS DURING THE PERIOD	Projected			EFB Pro-rata Projected		
		2022/23	2023/24	2024/25	2022/23	2023/24	2024/25
1	Income Received During Period						
2	Cash/Short Term Investments	1	0	(0)	1	0	(0)
3	Government Bonds	-	-	-	-	-	-
4	Corporate Bonds	4,026	4,298	4,525	3,012	3,215	3,385
5	MUSH	-	-	-	-	-	-
6	Private Debt	3,644	3,806	3,975	2,726	2,847	2,974
7	Canadian Equities	1,918	2,164	2,277	1,435	1,619	1,704
8	Global Equities	2,087	2,365	2,645	1,561	1,769	1,979
9	Global LV	780	879	977	584	658	731
10	Pooled Real Estate Fund	-	-	-	-	-	-
11	Net Rental Income	-	-	-	-	-	-
12	Infrastructure	1,220	990	921	912	741	689
13	Total	13,675	14,502	15,321	10,231	10,849	11,462
14	Gains During Period - Profit & Loss						
15	Government Bonds Unrealized Gains/(Loss)	-	-	-	-	-	-
16	Government Bonds Realized Gains/(Loss)	-	-	-	-	-	-
17	Corporate Bonds Unrealized Gains/(Loss)	-	-	-	-	-	-
18	Corporate Bonds Realized Gains/(Loss)	92	5	8	69	4	6
19	MUSH	-	-	-	-	-	-
20	Private Debt	-	-	-	-	-	-
21	Canadian Equities Realized Gains	3,810	3,677	3,579	2,850	2,751	2,677
22	Global Equities Realized Gains	3,247	3,468	3,688	2,429	2,594	2,759
23	Global LV	2,449	2,127	1,960	1,832	1,591	1,466
24	Pooled Real Estate Fund	8,189	6,513	7,043	6,126	4,872	5,269
25	Infrastructure	4,740	3,876	3,615	3,546	2,899	2,705
26	Total	22,527	19,666	19,893	16,853	14,712	14,882
27	Gains During Period - Other Comprehensive Income						
28	Reclassification of net realized (gains) losses (related to Avail. for Sale Assets)						
29	Private Debt Unrealized Gains	-	-	-	-	-	-
30	Canadian Equities Unrealized Gains	(3,810)	(3,677)	(3,579)	(2,850)	(2,751)	(2,677)
31	Global Equities Unrealized Gains	(3,247)	(3,468)	(3,688)	(2,429)	(2,594)	(2,759)
32	Global LV Unrealized Gains	(2,449)	(2,127)	(1,960)	(1,832)	(1,591)	(1,466)
33	Government Bonds Unrealized Gains	-	-	-	-	-	-
34	Corporate Bonds Unrealized Gains	(92)	(5)	(8)	(69)	(4)	(6)
35	Total	(9,598)	(9,277)	(9,235)	(7,180)	(6,941)	(6,909)
36	Unrealized Gains (losses) on Avail. for Sale Assets						
37	Private Debt Unrealized Gains	-	-	-	-	-	-
38	Canadian Equities Unrealized Gains	2,657	2,720	2,933	1,988	2,035	2,194
39	Global Equities Unrealized Gains	5,000	5,202	5,428	3,740	3,891	4,061
40	Global LV Unrealized Gains	1,632	1,682	1,739	1,221	1,258	1,301
41	Government Bonds Unrealized Gains	-	-	-	-	-	-
42	Corporate Bonds Unrealized Gains	(1)	(5)	(9)	(1)	(4)	(7)
43	Total	9,288	9,598	10,091	6,948	7,180	7,549
44	Investment Fees Paid During Period						
45	Fees to the Department of Finance	(229)	(235)	(243)	(171)	(176)	(182)
46	Fees to the Corporate Bond Manager	(104)	(108)	(111)	(78)	(81)	(83)
47	Fees to the Equity Managers	(809)	(866)	(923)	(605)	(648)	(691)
48	Fees to the Alternative Investment Managers	(1,076)	(1,145)	(1,186)	(805)	(857)	(887)
49	Total	(2,218)	(2,354)	(2,463)	(1,659)	(1,761)	(1,843)
50	Investment Summary During Period						
51	Interest Income During Period	4,027	4,298	4,525	3,013	3,215	3,385
52	Dividend & Other Income During Period	9,648	10,204	10,796	7,218	7,634	8,077
53	Gains During Period - Profit & Loss	22,527	19,666	19,893	16,853	14,712	14,882
54	Investment Fees Paid	(2,218)	(2,354)	(2,463)	(1,659)	(1,761)	(1,843)
55	(Amortization) / Accretion During Period	(88)	(85)	(81)	(66)	(64)	(61)
56	Pension Expense	(15,020)	(15,386)	(15,758)	(11,237)	(11,511)	(11,789)
57	Investment Income	18,876	16,343	16,912	14,122	12,227	12,652
58	Net Gains During Period - Other Comprehensive Income	(310)	321	856	(232)	240	641
59	Total	18,566	16,664	17,768	13,890	12,466	13,293
61	Pension Investment Income Allocation by Line of Business						
62	Basic	74.8%	74.8%	74.8%			

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Part and Chapter:	Part VII- Investments	Page No.:	7
PUB Approved Issue No:	7. Performance of the Investment Portfolio and the composition of i) the portfolio, ii) benchmark portfolio(s) on market value basis 20. Asset Liability Management Study (in accordance with Directives 11.19 and 11.20 of Order 134/21);		
Topic:	Investment Portfolios		
Sub Topic:	ALM Strategy		

Preamble to IR:

MPI implemented its then new ALM strategy in June 2021 with the assistance of Addenda Capital in order to better protect MPI from both parallel and non-parallel changes in interest rates. The strategy is a hybrid methodology comprised of cash flow matching and moment matching to manage the interest rate risk associated with the Basic Claims liabilities.

Question:

Please provide the supporting calculations for the benefit to Basic of the moment matching strategy on changes in interest rates to March 31, 2022 and as of July 30th, 2022.

Rationale for Question:

To understand interest rate effect on strategy.

RESPONSE:

The net impact of interest rates on Basic Claims for the 12 months ended at March 31, 2022 was \$8.2M, which was \$20.1M better than budget. The net impact of interest rates on Basic Claims for the 4 months ended at July 31, 2022 was (\$1.0M), which

was \$7.8M better than budget. These values are obtained from the monthly investment income reports of MPI.

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Part and Chapter:	Part VII – Investments Capital Reserves and Risk Management – INV Investments	Page No.:	
PUB Approved Issue No:	7. Performance of the investment portfolio		
Topic:	Marketable bond yield		
Sub Topic:			

Preamble to IR:

1. Figure INV-3 shows a Marketable Bond Yield in the 2023 GRA in the 2023/24 and 2024/25 years of 2.70%.
2. Figure INV-13 shows a Marketable Bond Yield in the 2023/24 and 2024/25 years of 4.85%.
3. Figure INV-41 shows a Marketable Bond Yield in the 2023/24 and 2024/25 years of 3.43% and 3.42% respectively.
4. Page 22 of RM Ratemaking refers to 3.43% as the marketable bond yield.

Question:

- a) Please confirm that the Marketable Bond Yield is 3.43% at the midpoint of rating year 2023/24.
- b) Please provide corrected INV-3 and INV-13.

Rationale for Question:

To confirm the selected interest rate assumptions.

RESPONSE:

- a) MPI confirms that the projected Marketable Bond Yield at the midpoint of rating year 2023/24 is 3.43%.

- b) Please see Appendix 1 Figure App 1-1 and Figure App 1-2, which provide corrected Investments Chapter Figures INV-3 and INV-13.

Figure App 1-1 Interest Rate Forecast

Line No.	Calendar Year/Quarter	Fiscal Year/Quarter	91-Day T.Bill Rate 2023 GRA	GoC 10 Yr Rate 2023 GRA	Mrk. Bond Yield 2023 GRA	MUSH Yield 2023 GRA	Claims Discount Rate 2023 GRA	91-Day T.Bill Rate 2022 GRA	GoC 10 Yr Rate 2022 GRA	Mrk. Bond Yield 2022 GRA	MUSH Yield 2022 GRA	Claims Discount Rate 2022 GRA	91-Day T.Bill Rate Difference	GoC 10 Yr Rate Difference	Mrk. Bond Yield Difference	MUSH Yield Difference	Claims Discount Rate Difference
1	22:01	2022/23 Q1	0.60%	2.41%	3.44%	4.28%	3.51%	0.09%	1.56%	2.46%	4.32%	2.81%	0.51%	0.85%	0.98%	-0.04%	0.71%
2	22:02	2022/23 Q2	0.60%	2.41%	3.44%	4.28%	3.56%	0.09%	1.56%	2.46%	4.31%	2.80%	0.51%	0.85%	0.98%	-0.02%	0.76%
3	22:03	2022/23 Q3	0.60%	2.41%	3.44%	4.28%	3.55%	0.09%	1.56%	2.46%	4.30%	2.79%	0.51%	0.85%	0.98%	-0.01%	0.77%
4	22:04	2022/23 Q4	0.60%	2.41%	3.44%	4.28%	3.55%	0.09%	1.56%	2.46%	4.28%	2.78%	0.51%	0.85%	0.98%	0.00%	0.78%
5	23:01	2023/24 Q1	0.60%	2.41%	3.43%	4.28%	3.54%	0.09%	1.56%	2.46%	4.27%	2.76%	0.51%	0.85%	0.97%	0.01%	0.78%
6	23:02	2023/24 Q2	0.60%	2.41%	3.43%	4.28%	3.54%	0.09%	1.56%	2.46%	4.26%	2.75%	0.51%	0.85%	0.97%	0.03%	0.79%
7	23:03	2023/24 Q3	0.60%	2.41%	3.43%	4.28%	3.53%	0.09%	1.56%	2.46%	4.24%	2.74%	0.51%	0.85%	0.97%	0.04%	0.79%
8	23:04	2023/24 Q4	0.60%	2.41%	3.43%	4.28%	3.53%	0.09%	1.56%	2.46%	4.23%	2.73%	0.51%	0.85%	0.97%	0.05%	0.80%
9	24:01	2024/25 Q1	0.60%	2.41%	3.42%	4.29%	3.52%	0.09%	1.56%	2.46%	4.22%	2.72%	0.51%	0.85%	0.96%	0.08%	0.80%
10	24:02	2024/25 Q2	0.60%	2.41%	3.42%	4.30%	3.52%	0.09%	1.56%	2.46%	4.20%	2.71%	0.51%	0.85%	0.96%	0.10%	0.81%
11	24:03	2024/25 Q3	0.60%	2.41%	3.42%	4.31%	3.51%	0.09%	1.56%	2.46%	4.19%	2.70%	0.51%	0.85%	0.96%	0.12%	0.81%
12	24:04	2024/25 Q4	0.60%	2.41%	3.42%	4.32%	3.51%	0.09%	1.56%	2.46%	4.17%	2.69%	0.51%	0.85%	0.96%	0.14%	0.82%
13	25:01	2025/26 Q1	0.60%	2.41%	3.41%	4.30%	3.50%	0.09%	1.56%	2.46%	4.16%	2.68%	0.51%	0.85%	0.95%	0.14%	0.82%
14	25:02	2025/26 Q2	0.60%	2.41%	3.41%	4.28%	3.50%	0.09%	1.56%	2.46%	4.15%	2.67%	0.51%	0.85%	0.95%	0.14%	0.83%
15	25:03	2025/26 Q3	0.60%	2.41%	3.41%	4.27%	3.50%	0.09%	1.56%	2.46%	4.13%	2.66%	0.51%	0.85%	0.95%	0.13%	0.84%
16	25:04	2025/26 Q4	0.60%	2.41%	3.41%	4.25%	3.50%	0.09%	1.56%	2.46%	4.12%	2.65%	0.51%	0.85%	0.95%	0.13%	0.85%

17 * 2023 GRA is based on the March 2022 Naive Interest Rate Forecast

Figure App 1-2 Total Marketable Bond Summary Table

Line No.	Description	2022/23	2023/24	2024/25	2025/26	2026/27
1	<i>(C\$000s, except where noted)</i>					
2	Interest	62,950	66,482	69,987	73,087	75,530
3	Unrealized Gains/(Losses)	6,325	133	144	149	146
4	Realized Gains/(Losses)	(10,254)	(304)	(285)	(299)	(211)
5	Total Investment Income	59,021	66,310	69,846	72,937	75,465
6	Market Value	1,797,004	1,908,158	2,018,616	2,093,906	2,219,993
7	% of Portfolio	60.7%	62.2%	63.2%	64.7%	65.2%
8	GoC 10 Year Rate end of year forecast	2.41%	2.41%	2.41%	2.41%	2.41%
9	Marketable Bond Yield	3.44%	3.43%	3.42%	3.41%	3.40%
10	(GoC 10 Yr Bond Rate + Spread)					

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Part and Chapter:	Part VII – Investments Capital Reserves and Risk Management – INV Investments	Page No.:	
PUB Approved Issue No:	7. Performance of the investment portfolio		
Topic:	Marketable bond yield		
Sub Topic:			

Preamble to IR:

Minimum Filing Requirement H.5 requires details of the assumed Government of Canada bond yield, with the duration equal to the expected claims duration as well as spreads for Provincial, Corporate and MUSH bond yields. Please include detailed calculations, including assumed weightings.

Question:

Please provide the weight, yield, and duration used for each type of bond underlying the marketable bond yield, for each quarter of the fiscal years 2022/23, 2023/24, and 2024/25.

Rationale for Question:

To understand the forecast of the marketable bond yield.

RESPONSE:

Please see *Appendix 1 Figure App 1-1*, which shows the weight, yield and duration for each type of bond underlying marketable bond yield, for each quarter of the fiscal years 2022/23, 2023/24, and 2024/25.

Figure App 1-1 Weight, Yield, Duration for each bond underlying Marketable Bond Yields

	2022/23				2023/24				2024/25			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Government Bonds												
Weight	68.41%	68.40%	68.39%	68.38%	68.50%	68.54%	68.57%	68.60%	68.76%	68.80%	68.84%	68.88%
Yield	3.04%	3.13%	3.12%	3.12%	3.11%	3.11%	3.11%	3.10%	3.10%	3.10%	3.09%	3.09%
Duration	11.69	10.76	10.65	10.63	10.39	10.35	10.31	10.28	10.16	10.12	10.09	10.06
Corporate Bonds												
Weight	31.59%	31.60%	31.61%	31.62%	31.50%	31.46%	31.43%	31.40%	31.24%	31.20%	31.16%	31.12%
Yield	4.13%	4.13%	4.13%	4.13%	4.13%	4.13%	4.13%	4.13%	4.13%	4.13%	4.13%	4.13%
Duration	10.22	10.22	10.22	10.22	10.22	10.22	10.22	10.22	10.22	10.22	10.22	10.22
Government Bonds Weighted Yield	2.08%	2.14%	2.14%	2.13%	2.13%	2.13%	2.13%	2.13%	2.13%	2.13%	2.13%	2.13%
Corporate Bonds Weighted Yield	1.30%	1.31%	1.31%	1.31%	1.30%	1.30%	1.30%	1.30%	1.29%	1.29%	1.29%	1.29%
Marketable Bond Yield	3.38%	3.44%	3.44%	3.44%	3.43%	3.43%	3.43%	3.43%	3.42%	3.42%	3.42%	3.42%

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Part and Chapter:	Part VII – Investments Capital Reserves and Risk Management – INV Investments	Page No.:	
PUB Approved Issue No:	7. Performance of the investment portfolio		
Topic:	Claims discount rate		
Sub Topic:			

Preamble to IR:

Minimum filing requirement H.6 requires the discount rate used for the calculation of the interest rate impact on claims incurred, and to include the calculations used in the calculation of the discount rate.

Question:

Please provide the weight, duration, and yield for each bond type underlying the claims discount rate in each quarter of the fiscal years 2022/23, 2023/24, and 2024/25.

Rationale for Question:

To understand the forecast of the claims discount rate.

RESPONSE:

Please see *Appendix 1 Figure App 1-1*, which shows the weight, duration, and yield for each bond type underlying the claims discount rate in each quarter of fiscal years 2022/23, 2023/24, and 2024/25.

Figure App 1-1 Weight, Yield, Duration for each bond underlying the Claims Discount Rate

	2022/23				2023/24				2024/25			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Government Bonds												
Weight	53.40%	53.57%	53.77%	53.96%	54.47%	54.76%	55.06%	55.35%	55.94%	56.24%	56.54%	56.84%
Yield	3.04%	3.13%	3.12%	3.12%	3.11%	3.11%	3.11%	3.10%	3.10%	3.10%	3.09%	3.09%
Duration	11.69	10.76	10.65	10.63	10.39	10.35	10.31	10.28	10.16	10.12	10.09	10.06
Corporate Bonds												
Weight	24.66%	24.75%	24.85%	24.95%	25.05%	25.14%	25.24%	25.33%	25.42%	25.50%	25.59%	25.68%
Yield	4.13%	4.13%	4.13%	4.13%	4.13%	4.13%	4.13%	4.13%	4.13%	4.13%	4.13%	4.13%
Duration	10.22	10.22	10.22	10.22	10.22	10.22	10.22	10.22	10.22	10.22	10.22	10.22
MUSH												
Weight	21.94%	21.67%	21.38%	21.10%	20.48%	20.09%	19.71%	19.32%	18.65%	18.26%	17.87%	17.48%
Yield	4.28%	4.29%	4.29%	4.30%	4.30%	4.31%	4.31%	4.32%	4.32%	4.33%	4.33%	4.34%
Duration	4.88	4.88	4.88	4.88	4.88	4.88	4.88	4.88	4.88	4.88	4.88	4.88
Government Bonds Weighted Yield	1.62%	1.68%	1.68%	1.68%	1.69%	1.70%	1.71%	1.72%	1.73%	1.74%	1.75%	1.76%
Corporate Bonds Weighted Yield	1.02%	1.02%	1.03%	1.03%	1.03%	1.04%	1.04%	1.05%	1.05%	1.05%	1.06%	1.06%
MUSH Weighted Yield	0.94%	0.93%	0.92%	0.91%	0.88%	0.87%	0.85%	0.83%	0.81%	0.79%	0.77%	0.76%
Portfolio Management Fee Adjustment	-0.07%	-0.07%	-0.07%	-0.07%	-0.07%	-0.07%	-0.07%	-0.07%	-0.07%	-0.07%	-0.07%	-0.07%
Claims Discount Rate	3.51%	3.56%	3.55%	3.55%	3.54%	3.54%	3.53%	3.53%	3.52%	3.52%	3.51%	3.51%

PUB (MPI) 1-36

Part and Chapter:	Part VII- Investments INV Appendix 10	Page No.:	
PUB Approved Issue No:	7. Performance of the Investment Portfolio and the composition of i) the portfolio, ii) benchmark portfolio(s) on market value basis		
Topic:	Investment Portfolios		
Sub Topic:	Investment Returns vs. Shadow Portfolios		

Preamble to IR:**Question:**

Please provide a narrative description and observations of the results of the surplus volatility comparisons of the Basic Claims portfolio.

Rationale for Question:

To understand factors affecting investment portfolio returns.

RESPONSE:

The actual and policy Basic Claims portfolios do not have any allocation to real return bonds, while the real Minimum Risk Portfolio (MRP) had a 66% allocation. The lack of inflation protection in both portfolios explains their larger surplus volatility when measuring liabilities based on the real MRP, compared to measuring them based on the nominal MRP (i.e., 3.64% vs. 1.15% for the actual portfolio and 3.40% vs. 0.81% for the policy portfolio).

While the P1 Basic Claims portfolio has some allocation to real returns bonds (i.e., at 24%), that allocation was lower than the allocation in the real MRP (i.e., at 66%). The partial inflation protection of the P1 Basic Claims portfolio explains the larger surplus

volatility of that portfolio when measuring liabilities based on the real MRP, rather than when measuring them based on the nominal MRP (i.e., 2.35% vs. 1.18%).

The P2 Basic Claims portfolio had a material allocation to real returns bonds (i.e., 16% to 3X real return bonds) but also exposure to asset classes with inflation-hedging characteristics such as real estate, infrastructure and public/private equity (i.e., 27% combined allocation) explaining the smaller surplus volatility of that portfolio when measuring liabilities based on the real MRP rather than when measuring them based on the nominal MRP (i.e., 1.65% vs. 1.96%).

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Part and Chapter:	Part VII- Investments INV Appendix 11	Page No.:	3, 7
PUB Approved Issue No:	7. Performance of the Investment Portfolio and the composition of i) the portfolio, ii) benchmark portfolio(s) on market value basis		
Topic:	Investment Portfolios		
Sub Topic:	Investment Returns vs. Shadow Portfolios		

Preamble to IR:

The table on page 3 does not appear to be labelled on the same basis as the summary on page 7.

Question:

- a) Please confirm whether the Shadow portfolio P2 Basic Unconstrained is either with or without J-Curve effect. If with, please file the Shadow Portfolio P2 unconstrained without the J-Curve effect.
- b) Please provide a summary description and observations on the results of the analysis on page 7 and any conclusions.

Rationale for Question:

To understand factors affecting investment portfolio returns.

RESPONSE:

- a) The shadow portfolio P2 Basic Unconstrained is reported with the J-Curve effect. However, that shadow portfolio has the same monthly returns as shadow portfolio P2 Basic Unconstrained without the J-Curve effect for the annual period April 2021 to March 2022 (i.e., at +1.18%), as the J-Curve effect only affects Private Debt &

Private Equity returns for the 12 months following inception (i.e., March 2019 to February 2020) and has no impact on the total portfolio returns thereafter. As a result, there is no need to file the requested shadow portfolio.

b) For the actual Basic Claims, Passive Basic portfolio, P1 Basic portfolio & P2 Basic portfolio the following summary description, observations, and conclusions on the results of the analysis on page 7 apply:

- The positive relative performance of the actual Basic portfolio to the shadow P1 Basic portfolio (-2.84% vs. -3.73%) primarily results from the positive relative performance of MUSH (at BV, +4.4%) in the actual portfolio relative to MUSH in the P1 Basic portfolio (at MV, -3.8%), the larger allocation to MUSH in the actual portfolio (24% average vs. 20% in P1 Basic portfolio) and the larger allocation to ST investments in the actual portfolio relative to P1 Basic portfolio (2% average vs. 0% respectively).
- The positive relative performance of the shadow P2 Basic unconstrained portfolio relative to the actual Basic portfolio (+1.18% vs. -2.84%) primarily results from the significantly positive annual performance of Canadian equity, private equity, real estate and infrastructure (27% aggregate exposure, 16.4% return) in the P2 Basic portfolio (0% exposure in the actual portfolio) and the negative performance of corporate bonds (24% average exposure, -4.6% return) in the actual Basic portfolio (0% exposure in the P2 Basic portfolio).
- The negative relative performance of the Passive Basic portfolio relative to the actual Basic portfolio (-4.81% vs. -2.84%) primarily results from by the negative relative performance of MUSH in the Passive Basic portfolio (at MV, -3.8%) relative to the actual portfolio (at BV, +4.4%), the smaller allocation to MUSH in the Passive Basic portfolio (20% vs. 24% average in actual portfolio) and the smaller allocation to ST investments in the Passive Basic portfolio (0% vs. 2% average in the actual portfolio).

- The negative relative performance of the Passive Basic portfolio relative to the shadow P1 Basic portfolio (at -1.08%) primarily results from the lack of allocation to real return bonds in the Passive Basic portfolio (0% vs. 24% in P1 Basic portfolio), the best performing asset class (at -0.7%) in the P1 Basic portfolio, and the higher allocation to provincial bonds in the Passive Basic portfolio (60% vs. 36% in P1 Basic portfolio) with negative performance (at -4.9% in the Passive portfolio).
- The negative relative performance of the Passive Basic portfolio relative to the shadow P2 Basic portfolio (at -5.99%) primarily results from its larger allocation to mid-term provincials in the Passive Basic portfolio (33% vs. 10% in P2 Basic) with negative performance (at -4.5%), larger exposure to MUSH at MV (20% vs. 10% in P2 Basic, -3.8% return), and the larger exposure to Canadian equity, private equity, real estate and infrastructure (27% aggregate exposure in P2 Basic vs 0% in Passive Basic), all with significantly positive annual performances ranging from +10.9% for real estate to +20.2% for private equity.

For the actual EFB portfolio, Passive EFB portfolio, P3 EFB portfolio & P4 EFB portfolio the following summary description, observations, and conclusions on the results of the analysis on page 7 apply:

- The positive relative performance of the actual EFB portfolio to the shadow P3 EFB portfolio (6.16% vs. 5.27%) primarily results from the positive relative performance of Canadian equity (27.0% vs. 18.5%) and real estate (16.8% vs. 10.9%) in the actual portfolio relative to P3 EFB portfolio and the larger allocation to those asset classes (11.9% average vs. 10.0% for Canadian equity & 16.0 average vs. 15.0% for infrastructure respectively).
- The positive relative performance of the actual EFB portfolio to the shadow P4 EFB portfolio (6.16% vs. -1.26%) primarily results from the positive relative performance of Canadian equity (27.0% vs. 18.5%) and real estate (16.8% vs. 10.9%) in the actual portfolio relative to P4 EFB portfolio and the lack of exposure to leveraged bonds (3X Real Return Bonds and 3X Long-Term

Provincial Bonds) in the actual EFB portfolio with significantly negative performances (-6.3% and -18.8% respectively).

- The positive relative performance of the actual EFB portfolio relative to the Passive EFB portfolio (6.16% vs. 4.81%) primarily results from the positive relative performance of Canadian equity (27.0% vs. 18.5%) and real estate (16.8% vs. 10.9%) in the actual portfolio relative to Passive EFB portfolio, the larger allocation to those two asset classes (11.9% average vs. 10.0% for Canadian equity & 16.0% average vs. 15.0% for infrastructure respectively) and the smaller allocation to corporate bonds (17.5% vs. 20.0%) with negative performance (-5.0% for actual EFB portfolio vs. -5.4% for Passive EFB).
- The negative relative performance of the Passive EFB portfolio relative to the shadow P3 EFB portfolio (at -0.47%) results entirely from the larger allocation to long-term corporate bonds in the EFB passive portfolio (20.0% vs. 10.0% in the P3 EFB portfolio) and a larger allocation to real return bonds in the P3 EFB portfolio (10.0% vs. 0.0% in P3 portfolio), an asset class with better relative performance (at -0.7% vs. -5.4% for long-term corporate bonds).
- The positive relative performance of the Passive Basic portfolio relative to the shadow P4 EFB portfolio (at 6.07%) primarily results from the larger allocation to alternatives (real estate & infrastructure) in the Passive EFB portfolio (combined 25% vs. combined 8% in the P4 EFB) with positive performance for both asset classes (10.9% for real estate & 12.0% for infrastructure) and the lack of allocation to leveraged bonds (3X Real Return Bonds and 3X Long-Term Provincial Bonds) in the Passive EFB portfolio with significantly negative performance (-6.3% and -18.8% respectively).

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Part and Chapter:	Part VII- Investments; Figure INV-30, INV-31	Page No.:	60
PUB Approved Issue No:	7. Performance of the Investment Portfolio and the composition of i) the portfolio, ii) benchmark portfolio(s) on market value basis		
Topic:	Investment Portfolios		
Sub Topic:	Investment Returns vs. Benchmarks		

Preamble to IR:

MPI asked Mercer to review its performance relative to these institutional investors as part of the ALM study. Mercer concluded that MPI should compare the performance of its investment managers to relevant benchmarks set out in its Investment Policy Statement and relevant peer universes for each asset manager. Mercer further concluded that MPI should not “continue with peer comparison at the total fund return level”. In other words, MPI should not compare itself to pension plans or even other insurance companies as they may have very different liability profiles, regulatory requirements, risk appetites and performance objectives.

Question:

- a) Please update the comparison to include 2022 with the comparison of returns of SGI and ICBC (if available) and comment on the differences.
- b) Please articulate Mercer’s understanding of the differences in liability profiles, regulatory requirements, risk appetite and performance objectives of SGI and ICBC and advise on the source of that understanding.

Rationale for Question:

To understand factors affecting investment portfolio returns.

RESPONSE:

- a) Please find below the comparison figures including SGI for 2022. ICBC figures as of March 2022 are unavailable until September 2022, which MPI will endeavor to obtain for the oral hearings in October.

In the fiscal year 2021/22, the MPI investment portfolio underperformed the SGI portfolio by 2.9%. Over the five-year period ending March 31, 2022, the MPI portfolio underperformed the SGI portfolio by 2.5% (see: *Figure 1*).

Figure 1 Fiscal Year Gross Annual Returns (updated 2023 GRA Investments Figure INV-30)

Line No.	Year-end Period	TRAF	CSSB	WCB	ICBC	SGI	MPI		
		31-Dec	31-Dec	31-Dec	31-Mar	31-Mar	31-Dec	31-Mar	
1	2017	9.2%	10.8%	8.3%	5.2%	8.3%	6.3%	6.0%	
2	2018	3.1%	-0.9%	1.5%	1.7%	7.2%	4.9%	4.8%	
3	2019	12.0%	13.7%	12.4%	5.3%	5.6%	8.8%	6.5%	
4	2020	6.9%	9.0%	9.0%	1.4%	0.4%	7.9%	1.5%	
5	2021	16.6%	11.0%	9.9%	11.2%	18.4%	3.1%	8.9%	
6	2022	n/a	n/a	n/a	n/a	3.5%	n/a	0.6%	
7	Annualized Return over the 5 year period:	9.5%	8.6%	8.2%	4.9%	6.9%	*6.2% / 5.5% / 4.4%		
8	2022 MPI Value Added	n/a	n/a	n/a	n/a	-2.5%			
9	*6.2%: Comparative return to TRAF, CSSB, WCB (returns to Dec 31) for 2017-2021, 5.5%: Comparative return to ICBC for 2017-2021 & 4.4%: Comparative return to SGI for 2018-2022								

Please note that the asset allocation of other institutional investors funds differs greatly from the asset allocation of the MPI portfolio. Adjusting the asset allocations of the SGI portfolio to match that of the MPI portfolio resulted in an underperformance of the MPI portfolio by 0.4% in the fiscal year 2021/22 (see: *Figure 2*).

Figure 2 Fiscal Year Gross Annual Returns - Adjusted (updated 2023 GRA Investments Figure INV-31)

Line No.	Year-end Period	TRAF	CSSB	WCB	ICBC	SGI	MPI	
		31-Dec	31-Dec	31-Dec	31-Mar	31-Mar	31-Dec	31-Mar
1	2019	9.7%	10.8%	8.6%	5.1%	5.8%	8.8%	6.5%
2	2020	7.2%	8.8%	8.1%	2.0%	3.7%	7.9%	1.5%
3	2021	7.6%	4.4%	4.9%	8.8%	9.8%	3.1%	8.9%
4	2022	n/a	n/a	n/a	n/a	1.0%	n/a	0.6%
5	2022 MPI Value Added	n/a	n/a	n/a	n/a	-0.4%		

- b) While the data required to completely determine the differences in the liability profiles of SGI, ICBC and MPI is not available to MPI, it is reasonable to state that:
- i. the liability profiles will be different, as it is highly unlikely that the policy coverage, policyholders, and risk exposures are identical between MPI, SGI and ICBC. For example, MPI advised Mercer that the liabilities of ICBC have a much shorter duration.
 - ii. the regulatory requirements, having been drafted over time by three different governing bodies to meet the needs of their respective constituencies, are different.
 - iii. the risk appetite and performance objectives would depend on the above two items, along with various other parameters such as the size of the RSR of each of the other entities and their respective histories of paying rebates to policyholders (which would draw down their respective RSRs).

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Part and Chapter:	Part VII Investments INV Attachment B	Page No.:	27
PUB Approved Issue No:	7. Performance of the Investment Portfolio and the composition of i) the portfolio, ii) benchmark portfolio(s) on market value basis		
Topic:	Investment Return Forecasts		
Sub Topic:			

Preamble to IR:

Mercer States:

"We understand that the return assumption for Canadian equities is based on the 5th percentile 20-year Canadian equity return using historical index data starting in 1956. We would consider updating the starting point (1956), as markets have evolved significantly making markets in the early portion of the period review less relevant..."

While reliance on the 5th percentile provides a measure of conservatism in the methodology, historical performance is no indicator of future performance. Simply using historical data also does not capture current market environment dynamics that could be quite different than historical levels (such as inflation, interest rates, GDP, demographics, etc.) MPI noted that the equity market decline in March 2020 did not impact forecast returns for equities given that the assumption is based on long-term historical averages. This one example highlights the limitations of a historical approach, as it does not capture the impact of severe market events that would reasonably be expected to impact future returns in the near term."

Mercer offers an alternative approach to forecasting Canadian equity returns based on a building block approach.

Question:

- a) If MPI were to adopt an updated view of historical experience for forecasting purposes, what year would Mercer recommend as a starting point, and why?
- b) Please provide the assumed equity return on the recommended updated timeframe in (a).
- c) Please provide an illustration of the use of the building block process for determining the forecast Canadian equity return and compare that result with the current forecast amount based on the historical trend versus the 6.6% forecast in the application.

Rationale for Question:

To understand Mercer recommendations.

RESPONSE:

- a) Mercer recommends 1990 as the starting point, as it is around this date that the Bank of Canada introduced inflation targeting.
- b) The following is a comparison of the forecasted equity return using the current approach of MPI with a 1956 starting date and a 1990 starting date (as recommended by Mercer).

Figure 1 Projected Equity Return 1

Line No.	Projected Equity Return	
1	Current MPI Approach – Starting Point 1956	6.62%
2	Mercer approach – Starting Point 1990	6.57%

- c) Please see *Appendix 1 Figure App 1-1*, which illustrates the use of the building block process and compares the result with the current forecasting approach of MPI.

Figure App 1-1 Comparison of Building Block Method with Current MPI's Approach

Current MPI Approach 6.60%
 Building Block Method Equity Return as of March 31, 2022 9.83%
 Building Block Method Equity Return (Historical Average) 4.77%

	A	B	C	D	=A+B+C	E	
	CDN Annual CPI	Real GDP Growth	Dividend Yield (CDN Index)	Dividend Yield (MSCI World)	Total w/o MVA	Market Valuation Adjustment (E/P Ratio)	Return per Building Block Method
3/31/2022	6.7%	0.70%	2.70%	1.92%	10.1%	-0.232%	9.830%
2/28/2022	5.7%	0.80%	2.78%	1.97%	9.3%	-0.160%	9.108%
1/31/2022	5.1%	-0.10%	2.75%	1.90%	7.8%	-0.164%	7.623%
12/31/2021	4.8%	0.10%	2.61%	1.73%	7.5%	-0.119%	7.394%
11/30/2021	4.7%	0.50%	2.66%	1.80%	7.9%	-0.081%	7.799%
10/31/2021	4.7%	0.90%	2.56%	1.77%	8.1%	-0.046%	8.068%
9/30/2021	4.4%	0.30%	2.63%	1.86%	7.3%	-0.122%	7.191%
8/31/2021	4.1%	0.60%	2.57%	1.78%	7.3%	-0.001%	7.256%
7/31/2021	3.7%	0.40%	2.60%	1.82%	6.7%	-0.026%	6.691%
6/30/2021	3.1%	0.90%	2.60%	1.81%	6.6%	0.040%	6.601%
5/31/2021	3.6%	-0.60%	2.65%	1.84%	5.7%	0.239%	5.889%
4/30/2021	3.4%	-1.00%	2.80%	1.85%	5.2%	0.181%	5.371%
3/31/2021	2.2%	1.10%	2.80%	1.89%	6.1%	0.262%	6.358%
2/28/2021	1.1%	0.30%	2.91%	1.96%	4.3%	0.469%	4.771%
1/31/2021	1.0%	0.40%	3.09%	1.99%	4.5%	0.417%	4.930%
12/31/2020	0.7%	0.00%	3.01%	1.86%	3.7%	0.494%	4.237%
11/30/2020	1.0%	0.70%	3.08%	1.92%	4.7%	0.433%	5.166%
10/31/2020	0.7%	0.60%	3.40%	2.15%	4.7%	0.299%	4.958%
9/30/2020	0.5%	0.90%	3.27%	2.07%	4.7%	0.380%	5.064%
8/31/2020	0.1%	0.90%	3.20%	2.00%	4.2%	0.386%	4.632%
7/31/2020	0.1%	2.60%	3.26%	2.14%	6.0%	0.359%	6.365%
6/30/2020	0.7%	5.80%	3.41%	2.23%	9.9%	0.274%	10.145%
5/31/2020	-0.4%	4.50%	3.50%	2.32%	7.6%	-0.080%	7.554%
4/30/2020	-0.2%	-10.90%	3.66%	2.49%	-7.5%	-0.133%	-7.594%

Figure App 1-1 Comparison of Building Block Method with Current MPI's Approach

Current MPI Approach 6.60%
 Building Block Method Equity Return as of March 31, 2022 9.83%
 Building Block Method Equity Return (Historical Average) 4.77%

	A	B	C	D	=A+B+C	E	
	CDN Annual CPI	Real GDP Growth	Dividend Yield (CDN Index)	Dividend Yield (MSCI World)	Total w/o MVA	Market Valuation Adjustment (E/P Ratio)	Return per Building Block Method
3/31/2020	0.9%	-7.40%	4.08%	2.94%	-2.4%	-0.433%	-2.867%
2/29/2020	2.2%	0.20%	3.31%	2.66%	5.7%	-0.311%	5.355%
1/31/2020	2.4%	0.10%	3.14%	2.43%	5.6%	-0.179%	5.456%
12/31/2019	2.2%	0.30%	3.07%	2.32%	5.6%	-0.211%	5.407%
11/30/2019	2.2%	0.00%	3.06%	2.38%	5.2%	-0.164%	5.069%
10/31/2019	1.9%	0.20%	3.07%	2.45%	5.1%	-0.230%	4.905%
9/30/2019	1.9%	0.10%	3.08%	2.49%	5.0%	-0.203%	4.847%
8/31/2019	1.9%	0.00%	3.12%	2.56%	5.1%	-0.254%	4.804%
7/31/2019	2.0%	0.00%	3.12%	2.50%	5.1%	-0.261%	4.869%
6/30/2019	2.0%	0.20%	3.12%	2.53%	5.3%	-0.258%	5.083%
5/31/2019	2.4%	0.30%	3.19%	2.67%	5.9%	-0.177%	5.712%
4/30/2019	2.0%	0.40%	3.07%	2.53%	5.5%	-0.114%	5.382%
3/31/2019	1.9%	0.60%	3.15%	2.61%	5.6%	-0.144%	5.487%
2/28/2019	1.5%	-0.20%	3.16%	2.64%	4.5%	-0.105%	4.365%
1/31/2019	1.4%	0.10%	3.23%	2.72%	4.8%	-0.149%	4.624%
12/31/2018	2.0%	0.00%	3.46%	2.79%	5.4%	-0.306%	5.142%
11/30/2018	1.7%	-0.20%	3.24%	2.57%	4.7%	-0.264%	4.451%
10/31/2018	2.4%	0.30%	3.19%	2.58%	5.9%	-0.282%	5.652%
9/30/2018	2.2%	0.10%	2.98%	2.40%	5.3%	-0.123%	5.174%
8/31/2018	2.8%	0.20%	2.95%	2.40%	6.0%	-0.122%	5.864%
7/31/2018	3.0%	0.30%	2.92%	2.43%	6.2%	-0.114%	6.097%
6/30/2018	2.5%	0.10%	2.95%	2.49%	5.5%	-0.120%	5.384%
5/31/2018	2.2%	0.60%	2.96%	2.49%	5.8%	-0.136%	5.646%
4/30/2018	2.2%	0.00%	3.04%	2.52%	5.3%	-0.182%	5.082%

Figure App 1-1 Comparison of Building Block Method with Current MPI's Approach

Current MPI Approach 6.60%
 Building Block Method Equity Return as of March 31, 2022 9.83%
 Building Block Method Equity Return (Historical Average) 4.77%

	A	B	C	D	=A+B+C	E	
	CDN Annual CPI	Real GDP Growth	Dividend Yield (CDN Index)	Dividend Yield (MSCI World)	Total w/o MVA	Market Valuation Adjustment (E/P Ratio)	Return per Building Block Method
3/31/2018	2.3%	0.30%	3.09%	2.54%	5.7%	-0.193%	5.506%
2/28/2018	2.2%	0.40%	3.06%	2.48%	5.6%	-0.164%	5.455%
1/31/2018	1.7%	0.00%	2.93%	2.37%	4.6%	-0.099%	4.530%
12/31/2017	1.9%	0.30%	2.78%	2.31%	4.9%	-0.039%	4.910%
11/30/2017	2.1%	0.50%	2.81%	2.35%	5.4%	0.024%	5.434%
10/31/2017	1.4%	0.20%	2.75%	2.37%	4.3%	0.021%	4.365%
9/30/2017	1.6%	0.20%	2.83%	2.42%	4.6%	-0.009%	4.574%
8/31/2017	1.4%	-0.10%	2.92%	2.47%	4.2%	-0.001%	4.217%
7/31/2017	1.2%	0.20%	2.93%	2.46%	4.3%	-0.009%	4.285%
6/30/2017	1.0%	0.20%	2.95%	2.47%	4.2%	0.012%	4.169%
5/31/2017	1.3%	0.40%	2.94%	2.47%	4.7%	0.141%	4.801%
4/30/2017	1.6%	0.50%	2.89%	2.50%	5.0%	0.166%	5.193%
3/31/2017	1.6%	0.30%	2.91%	2.51%	4.8%	0.184%	4.958%
2/28/2017	2.0%	0.20%	2.93%	2.51%	5.2%	0.200%	5.375%
1/31/2017	2.1%	0.50%	2.87%	2.56%	5.5%	0.193%	5.692%
12/31/2016	1.5%	0.30%	2.79%	2.49%	4.6%	0.208%	4.800%
11/30/2016	1.2%	0.40%	2.83%	2.56%	4.4%	0.256%	4.666%
10/31/2016	1.5%	-0.10%	2.83%	2.62%	4.2%	0.225%	4.448%
9/30/2016	1.3%	0.30%	2.82%	2.59%	4.5%	0.228%	4.685%
8/31/2016	1.1%	0.20%	2.85%	2.59%	4.1%	0.294%	4.444%
7/31/2016	1.3%	0.60%	2.86%	2.58%	4.7%	0.293%	5.010%
6/30/2016	1.5%	0.50%	2.99%	2.69%	5.0%	0.249%	5.232%
5/31/2016	1.5%	-0.60%	2.99%	2.65%	3.9%	0.211%	4.099%
4/30/2016	1.7%	0.20%	3.01%	2.68%	4.9%	0.191%	5.065%

Figure App 1-1 Comparison of Building Block Method with Current MPI's Approach

Current MPI Approach	6.60%
Building Block Method Equity Return as of March 31, 2022	9.83%
Building Block Method Equity Return (Historical Average)	4.77%

	A	B	C	D	=A+B+C	E	
	CDN Annual CPI	Real GDP Growth	Dividend Yield (CDN Index)	Dividend Yield (MSCI World)	Total w/o MVA	Market Valuation Adjustment (E/P Ratio)	Return per Building Block Method
3/31/2016	1.3%	-0.40%	3.14%	2.70%	4.0%	0.140%	4.147%
2/29/2016	1.4%	-0.30%	3.34%	2.84%	4.4%	0.147%	4.543%
1/31/2016	2.0%	0.60%	3.42%	2.82%	6.0%	0.149%	6.181%
12/31/2015	1.6%	0.10%	3.44%	2.58%	5.1%	0.175%	5.321%
11/30/2015	1.4%	0.20%	3.30%	2.53%	4.9%	0.199%	5.055%
10/31/2015	1.0%	0.10%	3.22%	2.54%	4.4%	0.206%	4.558%
9/30/2015	1.0%	-0.40%	3.28%	2.73%	3.9%	0.213%	4.127%
8/31/2015	1.3%	0.20%	3.13%	2.64%	4.6%	0.159%	4.762%
7/31/2015	1.3%	0.30%	3.02%	2.46%	4.6%	0.227%	4.820%
6/30/2015	1.0%	0.30%	2.96%	2.50%	4.3%	0.243%	4.536%
5/31/2015	0.9%	-0.10%	2.87%	2.44%	3.6%	0.192%	3.836%
4/30/2015	0.8%	0.00%	2.83%	2.44%	3.6%	0.230%	3.859%
3/31/2015	1.2%	-0.10%	2.93%	2.45%	4.0%	0.206%	4.238%
2/28/2015	1.0%	-0.10%	2.88%	2.43%	3.8%	0.080%	3.907%
1/31/2015	1.0%	-0.40%	3.00%	2.56%	3.6%	0.024%	3.599%
12/31/2014	1.5%	0.20%	2.94%	2.44%	4.6%	0.034%	4.641%
11/30/2014	2.0%	0.10%	2.91%	2.42%	5.0%	0.025%	4.987%
10/31/2014	2.4%	0.30%	2.87%	2.49%	5.5%	0.037%	5.565%
9/30/2014	2.0%	0.40%	2.79%	2.50%	5.2%	0.083%	5.301%
8/31/2014	2.1%	-0.20%	2.68%	2.46%	4.6%	0.146%	4.738%
7/31/2014	2.1%	0.10%	2.71%	2.53%	4.9%	0.130%	5.052%
6/30/2014	2.4%	0.50%	2.74%	2.49%	5.6%	0.131%	5.728%
5/31/2014	2.3%	0.60%	2.84%	2.53%	5.7%	0.221%	5.938%
4/30/2014	2.0%	0.20%	2.83%	2.57%	5.1%	0.223%	5.290%

Figure App 1-1 Comparison of Building Block Method with Current MPI's Approach

Current MPI Approach 6.60%
 Building Block Method Equity Return as of March 31, 2022 9.83%
 Building Block Method Equity Return (Historical Average) 4.77%

	A	B	C	D	=A+B+C	E	
	CDN Annual CPI	Real GDP Growth	Dividend Yield (CDN Index)	Dividend Yield (MSCI World)	Total w/o MVA	Market Valuation Adjustment (E/P Ratio)	Return per Building Block Method
3/31/2014	1.5%	0.30%	2.91%	2.57%	4.8%	0.201%	4.957%
2/28/2014	1.1%	0.50%	2.92%	2.56%	4.6%	0.159%	4.720%
1/31/2014	1.5%	0.00%	3.02%	2.65%	4.5%	0.100%	4.604%
12/31/2013	1.2%	-0.40%	2.99%	2.41%	3.8%	0.102%	3.929%
11/30/2013	0.9%	0.20%	3.05%	2.46%	4.2%	-0.083%	4.069%
10/31/2013	0.7%	0.50%	2.99%	2.52%	4.1%	-0.119%	4.026%
9/30/2013	1.1%	0.30%	3.12%	2.60%	4.5%	-0.191%	4.295%
8/31/2013	1.1%	0.40%	3.17%	2.70%	4.6%	-0.210%	4.428%
7/31/2013	1.3%	0.60%	3.22%	2.63%	5.1%	-0.250%	4.887%
6/30/2013	1.2%	-0.40%	3.32%	2.74%	4.1%	-0.312%	3.760%
5/31/2013	0.7%	0.30%	3.17%	2.67%	4.2%	-0.302%	3.905%
4/30/2013	0.4%	0.20%	3.20%	2.67%	3.8%	-0.335%	3.474%
3/31/2013	1.0%	0.30%	3.11%	2.72%	4.4%	-0.280%	4.116%
2/28/2013	1.2%	0.30%	3.09%	2.78%	4.6%	-0.340%	4.288%
1/31/2013	0.5%	0.60%	3.05%	2.80%	4.1%	-0.345%	3.802%
12/31/2012	0.8%	0.00%	3.01%	2.81%	3.8%	-0.376%	3.466%
11/30/2012	0.8%	0.50%	3.04%	2.84%	4.4%	-0.385%	3.982%
10/31/2012	1.2%	0.00%	2.94%	2.88%	4.1%	-0.354%	3.745%
9/30/2012	1.2%	0.00%	2.95%	2.81%	4.1%	-0.349%	3.761%
8/31/2012	1.2%	-0.10%	3.02%	2.86%	4.2%	-0.431%	3.736%
7/31/2012	1.3%	0.20%	3.10%	2.92%	4.6%	-0.481%	4.069%
6/30/2012	1.5%	0.10%	3.14%	2.96%	4.7%	-0.469%	4.274%
5/31/2012	1.2%	0.20%	3.15%	3.11%	4.6%	-0.631%	3.963%
4/30/2012	2.0%	0.30%	2.91%	2.89%	5.2%	-0.478%	4.735%

Figure App 1-1 Comparison of Building Block Method with Current MPI's Approach

Current MPI Approach 6.60%
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 Building Block Method Equity Return (Historical Average) 4.77%

	A	B	C	D	=A+B+C	E	
	CDN Annual CPI	Real GDP Growth	Dividend Yield (CDN Index)	Dividend Yield (MSCI World)	Total w/o MVA	Market Valuation Adjustment (E/P Ratio)	Return per Building Block Method
3/31/2012	1.9%	0.30%	2.88%	2.80%	5.1%	-0.445%	4.661%
2/29/2012	2.6%	-0.30%	2.79%	2.84%	5.1%	-0.403%	4.712%
1/31/2012	2.5%	-0.10%	2.83%	2.96%	5.2%	-0.434%	4.757%
12/31/2011	2.3%	0.50%	2.84%	2.92%	5.6%	-0.518%	5.120%
11/30/2011	2.9%	0.10%	2.80%	2.93%	5.8%	-0.662%	5.131%
10/31/2011	2.9%	0.00%	2.73%	2.92%	5.6%	-0.660%	4.966%
9/30/2011	3.2%	0.30%	2.89%	3.17%	6.4%	-0.765%	5.590%
8/31/2011	3.1%	0.50%	2.62%	2.97%	6.2%	-0.413%	5.792%
7/31/2011	2.7%	0.70%	2.57%	2.75%	6.0%	-0.391%	5.619%
6/30/2011	3.1%	0.40%	2.52%	2.66%	6.0%	-0.312%	5.706%
5/31/2011	3.7%	-0.20%	2.44%	2.62%	5.9%	-0.004%	5.933%
4/30/2011	3.3%	0.00%	2.36%	2.57%	5.6%	0.017%	5.653%
3/31/2011	3.3%	0.30%	2.33%	2.59%	5.9%	0.064%	5.981%
2/28/2011	2.2%	-0.20%	2.32%	2.54%	4.3%	0.130%	4.413%
1/31/2011	2.3%	0.30%	2.41%	2.59%	5.1%	0.066%	5.122%
12/31/2010	2.4%	0.70%	2.45%	2.43%	5.5%	0.081%	5.583%
11/30/2010	2.0%	0.50%	2.56%	2.58%	5.1%	0.210%	5.267%
10/31/2010	2.4%	0.50%	2.59%	2.56%	5.5%	0.182%	5.715%
9/30/2010	1.9%	0.00%	2.63%	2.61%	4.5%	0.162%	4.710%
8/31/2010	1.7%	0.30%	2.73%	2.79%	4.8%	0.163%	4.936%
7/31/2010	1.8%	0.10%	2.78%	2.69%	4.7%	0.140%	4.851%
6/30/2010	1.0%	0.30%	2.87%	2.81%	4.1%	0.086%	4.211%
5/31/2010	1.4%	0.40%	2.74%	2.72%	4.5%	0.046%	4.581%
4/30/2010	1.8%	-0.10%	2.62%	2.51%	4.4%	0.117%	4.480%

Figure App 1-1 Comparison of Building Block Method with Current MPI's Approach

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	A	B	C	D	=A+B+C	E	
	CDN Annual CPI	Real GDP Growth	Dividend Yield (CDN Index)	Dividend Yield (MSCI World)	Total w/o MVA	Market Valuation Adjustment (E/P Ratio)	Return per Building Block Method
3/31/2010	1.4%	0.50%	2.65%	2.49%	4.6%	0.138%	4.692%
2/28/2010	1.6%	0.50%	2.75%	2.65%	4.8%	0.125%	4.956%
1/31/2010	1.9%	0.60%	2.90%	2.69%	5.4%	0.061%	5.420%
12/31/2009	1.3%	0.30%	2.74%	2.49%	4.4%	0.201%	4.564%
11/30/2009	1.0%	0.60%	2.80%	2.57%	4.4%	0.187%	4.551%
10/31/2009	0.1%	0.10%	2.92%	2.64%	3.1%	0.124%	3.232%
9/30/2009	-0.9%	0.80%	2.80%	2.56%	2.7%	0.230%	2.966%
8/31/2009	-0.8%	0.00%	2.94%	2.64%	2.2%	-0.398%	1.763%
7/31/2009	-0.9%	0.20%	2.99%	2.73%	2.2%	-0.464%	1.776%
6/30/2009	-0.3%	0.10%	3.13%	2.94%	3.0%	-0.541%	2.429%
5/31/2009	0.1%	-0.10%	3.13%	2.95%	3.1%	-0.767%	2.350%
4/30/2009	0.4%	-0.30%	3.53%	3.16%	3.6%	-1.048%	2.534%
3/31/2009	1.2%	-0.80%	3.82%	3.59%	4.3%	-1.229%	3.035%
2/28/2009	1.4%	-0.50%	4.21%	3.93%	5.1%	-1.749%	3.387%
1/31/2009	1.1%	-0.50%	4.01%	3.82%	4.6%	-1.520%	3.063%
12/31/2008	1.2%	-1.40%	4.21%	3.76%	4.0%	-0.962%	3.009%
11/30/2008	2.0%	-1.00%	4.12%	3.83%	5.1%	-1.230%	3.856%
10/31/2008	2.6%	-0.10%	3.90%	3.69%	6.4%	-1.084%	5.315%
9/30/2008	3.4%	0.00%	3.27%	3.21%	6.7%	-0.619%	6.046%
8/31/2008	3.5%	-0.10%	2.79%	2.87%	6.2%	-0.096%	6.086%
7/31/2008	3.4%	0.40%	2.83%	2.92%	6.6%	-0.122%	6.501%
6/30/2008	3.1%	0.20%	2.64%	2.87%	6.0%	-0.030%	5.937%
5/31/2008	2.2%	0.00%	2.58%	2.66%	4.8%	0.030%	4.840%
4/30/2008	1.7%	0.20%	2.72%	2.69%	4.6%	-0.061%	4.562%

Figure App 1-1 Comparison of Building Block Method with Current MPI's Approach

Current MPI Approach 6.60%
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	A	B	C	D	=A+B+C	E	
	CDN Annual CPI	Real GDP Growth	Dividend Yield (CDN Index)	Dividend Yield (MSCI World)	Total w/o MVA	Market Valuation Adjustment (E/P Ratio)	Return per Building Block Method
3/31/2008	1.4%	0.20%	2.79%	2.86%	4.3%	-0.196%	4.144%
2/29/2008	1.8%	-0.20%	2.73%	2.76%	4.3%	-0.117%	4.228%
1/31/2008	2.2%	0.40%	2.75%	2.70%	5.3%	-0.175%	5.169%
12/31/2007	2.4%	-0.40%	2.48%	2.37%	4.5%	-0.139%	4.317%
11/30/2007	2.5%	0.10%	2.55%	2.38%	5.1%	-0.122%	5.001%
10/31/2007	2.4%	0.10%	2.27%	2.25%	4.8%	-0.009%	4.746%
9/30/2007	2.5%	-0.20%	2.35%	2.28%	4.6%	-0.081%	4.542%
8/31/2007	1.7%	0.30%	2.44%	2.32%	4.5%	-0.137%	4.334%
7/31/2007	2.2%	0.00%	2.40%	2.31%	4.6%	-0.110%	4.480%
6/30/2007	2.2%	0.30%	2.38%	2.22%	4.9%	-0.095%	4.776%
5/31/2007	2.2%	0.40%	2.33%	2.17%	4.9%	-0.086%	4.832%
4/30/2007	2.2%	0.10%	2.42%	2.22%	4.7%	-0.160%	4.558%
3/31/2007	2.3%	0.20%	2.45%	2.24%	5.0%	-0.182%	4.770%
2/28/2007	2.0%	0.50%	2.47%	2.28%	5.0%	-0.158%	4.849%
1/31/2007	1.1%	-0.20%	2.47%	2.24%	3.4%	-0.154%	3.225%
12/31/2006	1.7%	0.60%	2.40%	2.23%	4.7%	-0.152%	4.521%
11/30/2006	1.4%	0.20%	2.41%	2.26%	4.0%	-0.186%	3.817%
10/31/2006	1.0%	0.20%	2.40%	2.23%	3.6%	-0.256%	3.364%
9/30/2006	0.7%	-0.10%	2.54%	2.32%	3.2%	-0.321%	2.857%
8/31/2006	2.1%	0.10%	2.44%	2.34%	4.7%	-0.180%	4.499%
7/31/2006	2.3%	0.20%	2.44%	2.40%	5.0%	-0.227%	4.748%
6/30/2006	2.4%	-0.20%	2.45%	2.36%	4.7%	-0.248%	4.434%
5/31/2006	2.8%	0.00%	2.42%	2.40%	5.2%	-0.124%	5.108%
4/30/2006	2.4%	0.00%	2.25%	2.25%	4.7%	-0.049%	4.640%

Figure App 1-1 Comparison of Building Block Method with Current MPI's Approach

Current MPI Approach 6.60%
 Building Block Method Equity Return as of March 31, 2022 9.83%
 Building Block Method Equity Return (Historical Average) 4.77%

	A	B	C	D	=A+B+C	E	
	CDN Annual CPI	Real GDP Growth	Dividend Yield (CDN Index)	Dividend Yield (MSCI World)	Total w/o MVA	Market Valuation Adjustment (E/P Ratio)	Return per Building Block Method
3/31/2006	2.2%	0.20%	2.32%	2.25%	4.7%	-0.049%	4.635%
2/28/2006	2.2%	0.20%	2.01%	2.31%	4.4%	-0.021%	4.365%
1/31/2006	2.8%	0.20%	1.91%	2.29%	4.9%	0.015%	4.879%
12/31/2005	2.1%	0.50%	1.82%	2.31%	4.4%	-0.067%	4.340%
11/30/2005	2.0%	0.50%	1.70%	2.27%	4.2%	-0.040%	4.148%
10/31/2005	2.6%	0.30%	1.67%	2.34%	4.5%	-0.109%	4.427%

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Part and Chapter:	Part VII – Investments Capital Reserves and Risk Management – INV Investments	Page No.:	
PUB Approved Issue No:	7. Performance of the investment portfolio		
Topic:	Claims discount rate		
Sub Topic:			

Preamble to IR:

The interest rate impact on claims incurred is the difference between net claims incurred using the current discount rate and evaluating the net claims incurred using the discount rate from last year for each fiscal year. The claims discount rate can be found in Figure INV-3.

For example, to calculate the interest rate impact on net claims incurred for 2022/23:

Interest Rate Impact 2022/23 = (Net Claims Incurred @ 2022/23 Claims Discount Rate) - (Net Claims Incurred @ 2021/22 Claims Discount Rate).

Question:

a) As referenced above, for net claims incurred for 2022/23, please provide:

- i. Net Claims Incurred at 2022/23 Claims discount rate;
- ii. Net Claims Incurred at 2021/22 Claims discount rate.

b) For Net Claims Incurred for 2021/22, please provide:

- i. Net Claims Incurred @ 2021/22 Claims discount rate;
- ii. Net Claims Incurred @ 2020/21 Claims discount rate.

c) For Net Claims incurred for 2023/24, please provide:

- i. Net Claims Incurred @ 2023/24 Claims discount rate;
- ii. Net Claims Incurred @ 2022/23 Claims discount rate.

Rationale for Question:

To understand the quantitative amounts underlying the above calculation.

RESPONSE:

a) For parts a) through c)

The Net Claims Incurred, evaluated at prior and current years discount rates, is found on lines 16 and 19 of *Pro Formas Chapter PF-1 Statement of Operations: - 0.9% Basic Rate Change*. For Net Claims Incurred for 2022/23,

- i. Net Claims Incurred at 2022/23 Claims discount rate = \$883.0 million.
- ii. Net Claims Incurred at 2021/22 Claims discount rate = \$885.5 million.

b) For Net Claims Incurred for 2021/22,

- i. Net Claims Incurred at 2021/22 Claims discount rate = \$705.8 million.
- ii. Net Claims Incurred at 2020/21 Claims discount rate = \$838.6 million.

c) For Net Claims Incurred for 2023/24,

- i. Net Claims Incurred at 2023/24 Claims discount rate = \$932.5 million.
- ii. Net Claims Incurred at 2022/23 Claims discount rate = \$927.8 million.

PUB (MPI) 1-41

Part and Chapter:	Part VII – Investments Capital Reserves and Risk Management – INV Investments	Page No.:	36
PUB Approved Issue No:	7. Performance of the investment portfolio		
Topic:	Claims duration		
Sub Topic:			

Preamble to IR:

The duration of the Basic claims fixed income portfolio as of March 31, 2022 was 11.14 years as per Addenda (10.3-year duration in the 2022 GRA).

INV-19 shows the claims duration with PfAD to be 9.3 for year ending March 2022, dropping to 9.1 by March 2025.

Question:

- a) Please explain why there are significant differences in claims duration at March 31, 2022:
- i. the 11.14 years as per Addenda,
 - ii. the 10.3 years in the 2022 GRA, and
 - iii. the 9.3 years in INV-19.
- b) Please explain why the claims duration is significantly lower than in prior GRAs.

Rationale for Question:

To understand movements in the claims duration.

RESPONSE:

- a) Explanations for the observed discrepancies in claims duration as of March 31, 2022 are:
- i. The duration of 11.14 years as per Addenda corresponds to the modified duration of the total moment matching assets (excluding MUSH bonds). According to Addenda, the estimated modified duration of the Basic claims liability at March 31, 2022 was 9.76 years.
 - ii. The decline in the claims duration with PfAD from 10.2 years (GRA 2022) to 9.3 years (GRA 2023) as of March 2022 results from the increase in the discount rate and the fact that, due to the revision of the claims cash flow pattern, an increased percentage of the claims payments will be incurred at an earlier date. Please see part b) for a more complete explanation.
 - iii. Please see part a) ii. for the explanation
- b) Two major factors contribute to the decrease in the claims liabilities duration (i.e., from 10.5 at March 2021 to 9.3 at March 2022):
- 1) Change to the discount rate - there is an inverse relationship between the claims duration and the discount rate. The discount rate increased by 66 basis points, from 2.88% as at March 31, 2021, to 3.54% as at March 31, 2022, which lowered the duration. The Basic investment portfolio return is used for the discounting of Basic claims.
 - 2) Change to the claims cash flows - MPI revised several paid loss development factors due to emerging experience (please refer to *External Actuary Review Policy Liabilities EAR Attachment A - Actuary Report Oct 31, 2021*).

The figure below compares the cash flow distribution for the next 10 years after the valuation date. MPI pays a higher portion of claims in earlier periods, which reduces the duration of the claims.

Figure 1 Distribution of the Cash Flows for the Next 10-Years After the Valuation Date

Line No.	Valuation Date	Year after the valuation date									
		1	2	3	4	5	6	7	8	9	10
1	March 31,2022	16.9%	7.4%	5.9%	5.1%	4.6%	4.3%	4.1%	3.8%	3.6%	3.4%
2	March 31,2021	14.0%	7.3%	5.7%	5.1%	4.7%	4.4%	4.2%	4.0%	3.7%	3.5%
3	Difference	2.8%	0.2%	0.2%	0.0%	-0.1%	-0.1%	-0.1%	-0.2%	-0.2%	-0.1%

PUB (MPI) 1-42

Part and Chapter:	Part VII – Investments Capital Reserves and Risk Management – INV Investments	Page No.:	54
PUB Approved Issue No:	7. Performance of the investment portfolio		
Topic:	Pension expense		
Sub Topic:			

Preamble to IR:

In the March 31, 2022 actuarial analysis of the provision for Employee Future Benefits, the rate, as published by Fiera Capital was 4.01%.

Question:

- a) What is the rate at July 31, 2022 as published by Fiera Capital?
- b) What is the impact of the change in this rate, from March 31, 2022 to July 31, 2022, on the Total Equity for Basic as at March 31, 2023 (assuming the yield remains at the July 31, 2022 level), and what is the corresponding change in the MCT?

Rationale for Question:

To understand impact of interest rate change on pension expense.

RESPONSE:

- a) If MPI were to do an actuarial valuation as at July 31st, 2022, it would use a discount rate of 4.66%, representing an increase of 65 bps from the March 31, 2022 rate.

- b) An increase in the discount rate of the employee future benefit valuation in the amount of 65 bps results in a favourable increase to Basic Total Equity by approximately \$38.5 million. See below for the calculation:

Change in Total Equity =
Employee Future Benefit Liability at year end
x Duration
x Change in discount rate
x Percentage share to Basic

See below for the numerical values:

\$38.5 million = \$474 million x 16.7 years x 0.65% x 75%

Based on the \$384 million of MCT capital required by Basic as at March 31, 2022 of (as shown on Line 2 of Figure RSR 7), and before any changes in Extension transfers, the impact to the MCT of Basic (*with consideration to the liability side only*) would be an increase of approximately 10%.

PUB (MPI) 1-43

Part and Chapter:	Part VII Investments Figures INV 44-48	Page No.:	83-85
PUB Approved Issue No:	7. Performance of the investment portfolio and the composition of i) the portfolio, ii) benchmark portfolio(s) on a market value basis (e.g., asset mix);		
Topic:	Investment Portfolio		
Sub Topic:			

Preamble to IR:**Question:**

Please provide updated Figures INV 44 to INV 48 including 2020/21 and 2021/22 actual investment income and asset allocations.

Rationale for Question:

To understand the trend in investment income and asset allocations.

RESPONSE:

Please see [Appendix 1](#) which provides updated Figures INV 44 to INV 49 and includes 2020/21 and 2021/22 actual investment income and asset allocations.

Figure App 1-1 Basic Claims Investment Income (revised Investment Chapter Figure INV-44)

Line No.	Investment Summary During Period	Actual 2020/21	Actual 2021/22	Projected 2022/23	Projected 2023/24	Projected 2024/25	Projected 2025/26	Projected 2026/27
1	(C\$000s)							
2	Interest Income During Period	74,507	73,813	77,741	79,172	80,557	81,873	83,780
3	Dividend and Other Income During Period	-	-	-	-	-	-	-
4	Gains During Period - Profit & Loss	764	(124,524)	(0)	(0)	(0)	(0)	(0)
5	Recovery/(Write down)	-	-	-	-	-	-	-
6	Investment Fees Paid	(1,626)	(1,755)	(1,430)	(1,457)	(1,492)	(1,505)	(1,512)
7	Amortization/Accretion During Period	(8,597)	(6,392)	(2,701)	(3,092)	(3,286)	(3,416)	(3,350)
8	Pension Expense	-	-	-	-	-	-	-
9	Investment Income	65,048	(58,858)	73,609	74,624	75,778	76,952	78,918

Figure App 1-2 Basic Claims Asset Allocation (revised Investment Chapter Figure INV-45)

Line No.	Investment Summary During Period	Actual 2020/21	Actual 2021/22	Projected 2022/23	Projected 2023/24	Projected 2024/25	Projected 2025/26	Projected 2026/27
1	<i>(C\$000s)</i>							
2	Cash/Short Term Investments	7,876	55,845	-	-	-	-	-
3	Provincial Bonds	1,071,191	980,876	1,126,634	1,183,000	1,256,866	1,320,489	1,398,330
4	Corporate Bonds	496,467	471,864	520,912	541,422	567,792	590,814	618,551
5	MUSH	503,872	477,007	440,475	413,036	386,568	360,135	337,390
6	Total Assets	2,079,406	1,985,592	2,088,022	2,137,459	2,211,226	2,271,438	2,354,271
7	Percentage Allocation							
8	Cash/Short Term Investments	0%	3%	0%	0%	0%	0%	0%
9	Provincial Bonds	52%	49%	54%	55%	57%	58%	59%
10	Corporate Bonds	24%	24%	25%	25%	26%	26%	26%
11	MUSH	24%	24%	21%	19%	17%	16%	14%
12	Total	100%	100%	100%	100%	100%	100%	100%

Figure App 1-3 RSR Investment Income (revised Investment Chapter Figure INV-46)

Line No.	Investment Summary During Period	Actual 2020/21	Actual 2021/22	Projected 2022/23	Projected 2023/24	Projected 2024/25	Projected 2025/26	Projected 2026/27
1	(C\$000s)							
2	Interest Income During Period	4,191	4,366	2,189	2,934	3,822	4,479	3,805
3	Dividend and Other Income During Period	3,811	8,489	7,371	7,920	7,319	8,174	7,079
4	Gains During Period - Profit & Loss	9,717	14,936	40,002	10,969	5,907	7,007	6,309
5	Recovery/(Write down)	1,619	(791)	-	-	-	-	-
6	Investment Fees Paid	(978)	(1,482)	(1,264)	(1,230)	(1,243)	(1,411)	(1,182)
7	Amortization/Accretion During Period	(398)	(569)	69	72	36	26	7
8	Investment Income	17,962	24,949	48,366	20,665	15,841	18,275	16,018
			24949					

Figure App 1-4 RSR Asset Allocation (revised Investment Chapter Figure INV-47)

Line No.	Investment Summary During Period	Actual 2020/21	Actual 2021/22	Projected 2022/23	Projected 2023/24	Projected 2024/25	Projected 2025/26	Projected 2026/27
1	<i>(C\$000s)</i>							
2	Cash/Short Term Investments	7,603	385	97,438	98,508	100,000	100,000	100,000
3	Provincial Bonds	170,543	65,985	45,518	74,429	79,778	70,667	82,732
4	Corporate Bonds	53,874	41,463	34,040	37,214	39,889	35,333	41,366
5	MUSH	-	-	-	-	-	-	-
6	Private Debt	50,089	75,487	90,643	74,429	79,778	70,667	82,732
7	Total Fixed Income	282,108	183,321	267,639	284,580	299,445	276,667	306,830
8	Canadian Equities	69,181	66,718	40,848	44,657	47,867	42,400	49,639
9	Global Equities	70,440	59,902	44,252	48,379	51,856	45,933	53,776
10	Global LV Equities	55,068	48,472	34,040	37,214	39,889	35,333	41,366
11	Real Estate Investments	32,763	63,898	39,797	42,817	45,337	40,626	46,504
12	Infrastructure & Venture Capital	29,007	29,325	17,020	18,607	19,945	17,667	20,683
13	Total Growth Assets	256,458	268,315	175,958	191,675	204,892	181,960	211,968
14	Total Assets	538,567	451,636	443,597	476,254	504,337	458,626	518,797
15	Percentage Allocation							
16	Cash/Short Term Investments	1.4%	0.1%	22.0%	20.7%	19.8%	21.8%	19.3%
17	Provincial Bonds	31.7%	14.6%	10.3%	15.6%	15.8%	15.4%	15.9%
18	Corporate Bonds	10.0%	9.2%	7.7%	7.8%	7.9%	7.7%	8.0%
19	MUSH	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
20	Private Debt	9.3%	16.7%	20.4%	15.6%	15.8%	15.4%	15.9%
21	Total Fixed Income	52.4%	40.6%	60.3%	59.8%	59.4%	60.3%	59.1%
22	Canadian Equities	12.8%	14.8%	9.2%	9.4%	9.5%	9.2%	9.6%
23	Global Equities	13.1%	13.3%	10.0%	10.2%	10.3%	10.0%	10.4%
24	Global LV Equities	10.2%	10.7%	7.7%	7.8%	7.9%	7.7%	8.0%
25	Real Estate Investments	6.1%	14.1%	9.0%	9.0%	9.0%	8.9%	9.0%
26	Infrastructure & Venture Capital	5.4%	6.5%	3.8%	3.9%	4.0%	3.9%	4.0%
27	Total Growth Assets	47.6%	59.4%	39.7%	40.2%	40.6%	39.7%	40.9%
28	Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Figure App 1-5 Employee Future Benefits Investment Income (revised Investment Chapter Figure INV-48)

Line No.	Investment Summary During Period	Actual 2020/21	Actual 2021/22	Projected 2022/23	Projected 2023/24	Projected 2024/25	Projected 2025/26	Projected 2026/27
1	(C\$000s)							
2	Interest Income During Period	6,450	3,358	4,027	4,298	4,525	4,730	4,926
3	Dividend and Other Income During Period	4,613	7,258	9,648	10,204	10,796	11,469	12,124
4	Gains During Period - Profit & Loss	(193)	10,357	22,527	19,666	19,893	20,205	21,067
5	Recovery/(Write down)	8,407	(21,232)	-	-	-	-	-
6	Investment Fees Paid	(1,505)	(1,483)	(2,218)	(2,354)	(2,463)	(2,580)	(2,722)
7	Amortization/Accretion During Period	-	0	(88)	(85)	(81)	(78)	(74)
8	Pension Expense	(11,250)	(11,441)	(15,020)	(15,386)	(15,758)	(15,758)	(15,758)
9	Investment Income	6,522	(13,183)	18,876	16,343	16,912	17,988	19,564

Figure App 1-6 Employee Future Benefits Asset Allocation (revised Investment Chapter Figure INV-49)

Line No.	Investment Summary During Period	Actual 2020/21	Actual 2021/22	Projected 2022/23	Projected 2023/24	Projected 2024/25	Projected 2025/26	Projected 2026/27
1	Cash/Short Term Investments	2,717	883	-	-	-	-	-
2	Provincial Bonds	-	-	-	-	-	-	-
3	Corporate Bonds	94,663	89,913	93,433	96,364	99,304	102,394	105,617
4	MUSH	-	-	-	-	-	-	-
5	Private Debt	86,654	82,032	85,676	89,482	93,457	97,608	101,944
6	Total Fixed Income	184,034	172,828	179,109	185,846	192,761	200,002	207,561
7	Canadian Equities	53,838	68,380	73,115	77,999	83,210	88,768	94,697
8	Global Equities	101,152	106,077	113,452	121,019	129,092	137,704	146,890
9	Global LV Equities	35,986	39,730	42,255	44,816	47,532	50,414	53,469
10	Real Estate Investments	75,095	92,010	100,199	106,712	113,755	120,580	127,815
11	Infrastructure & Venture Capital	59,201	59,852	64,592	68,468	72,083	76,120	80,382
12	Total Growth Assets	325,273	366,049	393,613	419,013	445,671	473,584	503,254
13	Total Assets	509,307	538,877	572,722	604,859	638,432	673,587	710,815
14	Percentage Allocation							
15	Cash/Short Term Investments	0.5%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%
16	Provincial Bonds	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
17	Corporate Bonds	18.6%	16.7%	16.3%	15.9%	15.6%	15.2%	14.9%
18	MUSH	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
19	Private Debt	17.0%	15.2%	15.0%	14.8%	14.6%	14.5%	14.3%
20	Total Fixed Income	36.1%	32.1%	31.3%	30.7%	30.2%	29.7%	29.2%
21	Canadian Equities	10.6%	12.7%	12.8%	12.9%	13.0%	13.2%	13.3%
22	Global Equities	19.9%	19.7%	19.8%	20.0%	20.2%	20.4%	20.7%
23	Global LV Equities	7.1%	7.4%	7.4%	7.4%	7.4%	7.5%	7.5%
24	Real Estate Investments	14.7%	17.1%	17.5%	17.6%	17.8%	17.9%	18.0%
25	Infrastructure & Venture Capital	11.6%	11.1%	11.3%	11.3%	11.3%	11.3%	11.3%
26	Total Growth Assets	63.9%	67.9%	68.7%	69.3%	69.8%	70.3%	70.8%
27	Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

PUB (MPI) 1-44

Part and Chapter:	Part VII - Investments	Page No.:	7, 40
PUB Approved Issue No:	7. Performance of the investment portfolio and the composition of i) the portfolio, ii) benchmark portfolio(s) on a market value basis (e.g., asset mix); 4. Financial Forecast: d) impact of IFRS 9 and 17		
Topic:	Investment Portfolio		
Sub Topic:	MUSH Bonds		

Preamble to IR:**Question:**

- a) Please update INV.5.1 including 2020/21 and 2021/22.
- b) Please explain why the assumed annual issuance of MUSH bonds has been reduced from \$40 million in the 2022 GRA to \$20 million in the Application.
- c) Please provide the detailed methodology MPI will be using to report MUSH bonds at market value, and the indicated change in value based on the methodology to comply with IFRS 9.

Rationale for Question:

To understand changes in Basic investment portfolio.

RESPONSE:

- a) Please see *PUB R1 Workbook 31-60, tab PUB 1-44-1.*
- b) MPI based the reduction in the assumed annual issuance of MUSH bonds from \$40 million in the 2022 GRA to \$20 million in the 2023 GRA on guidance provided by the Province. The guidance provided is an estimate based on the expected funding

requirements of the municipalities and is informed by prior funding requirement history.

- c) MPI will apply the current methodology to calculate MUSH at market value to comply with IFRS 9. The current methodology calculates the market value of each MUSH security based on the projected cashflows of the individual assets discounted using a yield curve that is derived from the yield on newly issued MUSH bonds as published by the Treasury Division of the Province of Manitoba at the most recent month-end.

PUB (MPI) 1-45

Part and Chapter:	Part VII Investments Figure INV-2	Page No.:	57
PUB Approved Issue No:	7. Performance of the investment portfolio and the composition of i) the portfolio, ii) benchmark portfolio(s) on a market value basis (e.g., asset mix)		
Topic:	Investment Income		
Sub Topic:	Investment Impairment		

Preamble to IR:

As of March 31, 2022, there were \$29.2M in impaired securities (corporate total). Corporate bonds, private debt and provincial bonds were written down by \$14.5M, \$13.9M and \$0.8M. From the total write-downs, \$28.4M was allocated to the EFB portfolio (corporate bonds and private debt) and \$0.8M to the RSR portfolio (provincial bonds).

\$22M of the investment write-down has been attributed to Basic.

Question:

- a) Please provide details on the composition of the specific issues for the investment write-down taken in 2021/22.
- b) Please indicate the credit rating of the Corporate Bonds written down by MPI.
- c) Please file a copy of the most recent Investment Write-Down policy and the investment write-down criteria and process followed by the Corporation.
- d) Please provide a copy of the impairment assessment taken to support the securities write-down.

- e) Please explain the nature of the impairment for corporate bonds, private debt and provincial bonds, citing the objective evidence of impairment and indicate what portion of the written-off securities would be eligible for future reversal of the impairment loss through net income.
- f) Please indicate the extent the write-down incorporates the recognition of unrealized losses in AOCI.

Rationale for Question:

To understand changes in Basic investment portfolio.

RESPONSE:

- a) Please see Appendix 1 for the composition of the investments written down at March 31, 2022.
- b) The credit rating for the provincial bond that was written down is AA. As MPI invests in a pooled fund for the corporate bonds, this is not rated. It is important to note that the impairment is not due to a change in the credit worthiness of the securities but rather their value relative to the marketplace, given changes in prevailing interest rates. Under IAS 39, securities with carrying values significantly lower than their cost or that are lower for a prolonged period of time have their unrealized losses transferred to the income statement rather than sitting in accumulated other comprehensive income (AOCI). Wherever these unrealized losses reside on the balance sheet, the impact on total equity is the same as these securities are continually marked to market.
- c) Please see Appendix 2 for the most recent Policy for Writing Down Investments. MPI monitors investments based on this policy and, at fiscal year-end, if any investments meet the criteria set out in the policy, they are written down, in compliance with IAS 39.

- d) Please see Appendix 3 for the impairment assessment of the investments that were written down in 2021/22.

- e) The market values were consistently below the book value for more than 12 months as identified in Appendix 3. As this is considered "prolonged," these investments were written down as at March 31, 2022. As all of these investments are fixed income held as Available for Sale, they would be eligible for future reversal of the impairment loss through net income.

- f) All of the write-downs incorporate the recognition of unrealized losses in AOCI.

Change in Previously Written Down Investments Between March 31, 2020 and June 30, 2020 - Basic

Security	Units @ 31-Mar-20	Closing Market Value per unit @ 31-Mar-20	Closing Market Value per unit @ 31-Mar-20	Units @ 30-Jun-20	Market Value per unit @ 30-Jun-20	Market Value @ 30 Jun-20	Change in Units from March to June, 2020	Change in Market Value per unit from March to June, 2020	Change in Market Value from March to June, 2020
ACADIAN GLOBAL MANAGED VOL	2,025,425	10.5364	21,340,687	2,026,263	11.4513	23,203,341	838	0.9149	1,862,654
ACADIAN GLOBAL MANAGED VOL	3,131,287	10.5364	32,992,493	3,131,287	11.4513	35,857,307	0	0.9149	2,864,814
ADDENDA CORP BOND POOLED	3,837,737	9.3850	36,017,163	3,868,915	10.0900	39,037,352	31,178	0.7050	3,020,189
ADDENDA CORP L/T BOND POOLED	5,285,661	11.9120	62,962,795	5,341,418	13.5930	72,605,891	55,757	1.6810	9,643,096
FGP Canadian Equity Fund 1001	213,589	93.0180	19,867,611	216,559	101.3200	21,941,801	2,971	8.3020	2,074,190
FGP Canadian Equity Fund 1001	285,146	93.0180	26,523,712	288,992	101.3200	29,280,697	3,846	8.3020	2,756,985
QV CANADIAN SMALL CAP FUND	280,172	19.4303	5,443,826	283,042	22.7169	6,429,844	2,870	3.2866	986,018
QV CANADIAN SMALL CAP FUND	245,152	19.4303	4,763,379	247,561	22.7169	5,623,825	2,409	3.2866	860,446
SUNLIFE PRIV FIXED INC PLUS	1,871,126	10.8020	20,211,907	1,886,096	11.4019	21,505,077	14,970	0.5999	1,293,170
SUNLIFE PRIV FIXED INC PLUS	5,676,471	10.4776	59,475,797	6,034,642	11.7305	70,789,373	358,171	1.2529	11,313,576

Agenda 2.2.7
February 10, 2022

MANITOBA PUBLIC INSURANCE POLICY FOR WRITING DOWN INVESTMENTS

Procedure

Management will perform and identify annually during the corporate year end close all individual corporate investments both on a portfolio basis and on an individual security basis that are deemed to be impaired in line with IAS 39.

There may be a need to look at investments write downs more frequently than year-end based on downturns; in the economy and/or Financial Markets. The cadence of review is on a yearly basis and is required to ensure that there is not a long term impairment to our investments that need to be reported.

Investments are deemed impaired if the impairment is significant or prolonged.

Definitions & Rules

Significance:

Rule 1 (Significance): Market value of security is below its cost by 20% (significance) and which meets the criteria of material \$ threshold. Material threshold is based on 0.01% of the overall portfolio value. For instance, as at December, 2021, the investment portfolio is approximately \$4.0B and our material threshold will be \$400K. To ensure relevance of our materiality threshold it is important to review yearly to ensure it is at a conservative amount.

Prolonged:

Rule 2 (Prolonged): A decline in a security for a continuous time frame of 12 months or more to meet the criteria as prolonged.

Below are examples of when investments would and would not be written down.

Example of Writing Down Investments						20%	(400,000.00)	31-Mar-22	
	Units	Book Value	Market Value	MV vs BV	Last Date MV>BV	Significant (>20% of book)	Significant (>.01% of total portfolio - \$400K)	Prolonged	Writedown
A	21,500,000.00	21,560,354.26	21,492,690.00	(67,664.26)	31-Jul-21	No	N/A	-	-
B	8,159,914.63	103,482,123.50	100,779,841.61	(2,702,281.89)	31-Mar-21	No	N/A	Yes	(2,702,281.89)
C	7,044,183.76	80,215,546.60	79,766,223.64	(449,322.96)	31-Jan-21	No	N/A	Yes	(449,322.96)
D	8,366,437.85	94,410,130.60	75,297,940.65	(19,112,189.95)	28-Feb-21	Yes	Yes	Yes	(19,112,189.95)
E	2,648,947.51	30,096,299.81	23,840,527.59	(6,255,772.22)	30-Sep-21	Yes	Yes	-	(6,255,772.22)
F	175,000.00	1,679,287.41	1,312,500.00	(366,787.41)	31-Oct-21	Yes	No	-	-

Investment A does not meet the significance criteria nor the prolonged criteria so it is not written down. Investments B & C do not meet the significance criteria but do

meet the prolonged criteria so they are both written down – eventhough the writedown for Investment C is less than the 2nd step of the significance criteria. Investment D meets all writedown criteria so it would be written down. Item E meets both steps of the significance criteria and would be written down, eventhough it does not meet the prolonged criteria. Investment F only meets the first step of the significance criteria but does not meet the second step of the significance criteria nor the prolonged criteria so therefore would not be written down.

Considerations for Assessment of Impairment

A loss in value of an investment is other than temporary when any one of the following three items occur in isolation or together: a significant decline in the market value below book value or cost; a prolonged decline; or significant changes with an adverse effect that has taken place in the technological, market, economic or legal environment in which the issuer operates and indicates that the cost of the investment may not be recovered.

The following guidelines, to satisfy International Accounting Standard 39 – Financial Instruments: Recognition and Measurement, will be used in evaluating whether other than temporary impairment in value of an investment may have occurred for consideration under the third requirement noted above.

- Has the issuer experienced severe market value losses in the current year or current and prior years?
- Have financial losses by the issuer existed for a period of years?
- Is the issuer experiencing depressed and declining earnings in relation to competition, erosion of market share, and deteriorating financial position?
- Has the trading of the security been suspended?
- Has the active market for this security disappeared?
- Does the issuer have going concern or liquidity concerns?
- Is the appraised value of the investment below the carrying value?
- What is the expected period of time required for any anticipated recovery in market value?
- Is there an expectation of, or actual default/delay, interest or principal payments for a fixed income security?

Write-Down of Impaired Investments

Once a decline in fair value of a corporate investment is considered other than temporary, it is deemed impaired. The accounting treatment of an impaired asset depends on its classification: 1. Assets measured at amortized cost (Held to Maturity) or 2. Assets measured at fair value (Available for Sale or Fair Value through Profit or Loss) and type (Equity or Fixed income).

1. Assets Measured at Amortized Cost

- Held To Maturity

The amount of the impairment loss is the difference between the carrying value and the present value of estimated future cash flows discounted at the financial asset's original effective interest rate (effective interest rate computed at initial recognition) and recognized in profit/loss for the period.

Assets Measured at Fair Value

- Available for Sale

Where a decline in fair value has been recognized in other comprehensive income, a cumulative loss is reclassified from accumulated other comprehensive income to profit/loss. The cumulative loss reclassified to profit/loss is the difference between book value (amortized cost) or cost and fair value less any impairment losses previously recognized.

- Fair Value through Profit or Loss

The decline in fair value is recognized in profit/loss for the period with no impact on accumulated other comprehensive income.

A write-down of an impaired Available for Sale equity investment to reflect a decrease in value that is other than temporary will not be reversed through profit/loss if there is a subsequent increase in value of that investment. Any increase in fair value subsequent to an impairment loss is recognized in other comprehensive income.

A write-down of an impaired Available for Sale fixed income investment to reflect a decrease in value that is other than temporary must be reversed through profit/loss if there is a subsequent increase in value of that investment and this increase can be related to a specific event after the loss was recognized.

When the fair value of an investment within a portfolio is significantly less than the book value or cost and no write-down has been taken, disclosure to the Audit, Finance & Risk Committee will be made of:

- the cost, book value, carrying value and the fair value of the investment; and,
- the reasons for not reducing the carrying amount, including the nature of the evidence that provides the basis for management's belief that the decrease in value will be recovered.

Fair Value

Determination of fair value starts with the identification of the current value as indicated by a quoted price (bid or last trade) in active markets, reasonably close to the date of assessment.

When quoted market prices are not available, estimates of fair value are based on the best information available, including prices for similar investments and the results of other acceptable valuation techniques.

Impairment Analysis at March 31, 2022

Description	ADDENDA CORP L/T BOND	SUNLIFE LT PRIV FIXED INC	PROVINCE OF ONTARIO
Units	8,244,354.73	8,510,341.62	12,580,000.00
Cost	104,429,816.84	95,895,890.02	13,685,530.40
Book Value-March 31, 2022 pre-impairment	104,429,816.84	95,895,890.02	13,333,566.89
Market Value-March 31, 2022	89,912,932.70	82,032,033.91	12,542,260.00
Corporate Impairment	(14,516,884.14)	(13,863,856.11)	(791,306.89)
Basic Impairment	(10,860,371.36)	(10,371,828.03)	(791,306.89)
Significance (MV<Cost by 20%)	-13.90%	-14.46%	-5.93%
Material Threshold (.01% Overall Portfolio)	-0.40%	-0.38%	-0.02%
Prolonged (12 months or more)	Yes	Yes	Yes

Market Value vs Book Value as each month-end	ADDENDA CORP L/T BOND	SUNLIFE LT PRIV FIXED INC	PROVINCE OF ONTARIO
MV vs BV at March 31, 2022	(14,516,884.14)	(13,863,856.11)	(791,306.89)
MV vs BV at February 28, 2022	(11,489,859.71)	(7,214,706.76)	(511,539.77)
MV vs BV at January 31, 2022	(9,173,094.15)	(665,867.84)	(474,642.58)
MV vs BV at December 31, 2021	(2,702,281.89)	(2,441,225.89)	(339,168.06)
MV vs BV at November 30, 2021	(5,524,446.84)	(5,124,342.52)	(379,933.62)
MV vs BV at October 31, 2021	(6,122,942.25)	(4,818,130.87)	(381,518.54)
MV vs BV at September 30, 2021	(5,694,866.72)	(1,434,660.11)	(228,380.35)
MV vs BV at August 31, 2021	(3,115,998.82)	(1,707,560.76)	(155,743.27)
MV vs BV at July 31, 2021	(2,570,741.51)	(3,249,574.05)	(153,816.69)
MV vs BV at June 30, 2021	(3,744,046.76)	(4,915,312.64)	(219,570.51)
MV vs BV at May 31, 2021	(6,832,956.15)	(6,282,304.65)	(195,494.72)
MV vs BV at April 30, 2021	(6,089,152.21)	(6,546,485.51)	(182,913.54)
MV vs BV at March 31, 2021	(5,713,004.22)	(6,282,304.65)	(247,942.28)
MV vs BV at February 28, 2021	(2,227,415.68)	1,497,549.53	(239,389.06)
MV vs BV at January 31, 2021	1,249,549.33	5,041,551.41	6,711.20

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Part and Chapter:	Part VII INV Attachment B	Page No.:	27
PUB Approved Issue No:	7. Performance of the Investment Portfolio and the composition of i) the portfolio, ii) benchmark portfolio(s) on market value basis 17. Interest Rate Forecast		
Topic:	Interest Rate Forecasting		
Sub Topic:	Provincial & Corporate Bond Spreads		

Preamble to IR:

Mercer states:

"We understand that the spread assumption used for the provincial bond portfolio is based on index spreads at various durations, interpolated for the actual duration of the provincial bond portfolio. Furthermore, this spread is held constant throughout the projection period.

Similarly, implied corporate bond spreads are determined based on actual yields of the corporate bond holdings at the time of the forecast, and held constant.

Under normal market environments this approach may be reasonable. However, during market sell-offs and "risk off" environments, such as the 2008 global financial crisis or the start of the COVID-19 pandemic in March 2020, spreads significantly increased. Assuming constant future spreads in these cases may be less appropriate...."

Mercer suggests MPI incorporate historical provincial and corporate spreads into the methodology.

Question:

- a) Please comment on the merits of using such an approach.

- b) Please provide a ten-year history of Corporate and Provincial Bond spreads, assuming a ten-year bond duration.
- c) Please indicate how the incorporation of historical spreads in the methodology would affect the forecast provided in the Application.

Rationale for Question:

To assess the merits of Mercer’s suggestion related to MPI incorporating Provincial and Corporate Bond spreads into the forecast methodology.

RESPONSE:

- a) MPI expects this recommendation to improve the forecasting of spreads by incorporating “non-normal” market environments through provincial and corporate spreads based on historical average.
- b) Please see *Appendix 1 Figure APP1-1*, which shows history of Corporate and Provincial bond spreads assuming a ten-year bond duration from December 31, 2014 (the earliest available data) to May 31, 2022.
- c) Please see *Figure 1*, which shows the effect of using historical corporate and provincial bond spreads. MPI expects the forecast to adjust the spreads toward the historical average during non-normal periods; the net result is a relatively small reduction of projected investment income (less than \$100,000 in 2022/23 and 2023/24, \$498,000 in 2024/25 and \$679,000 in 2025/26).

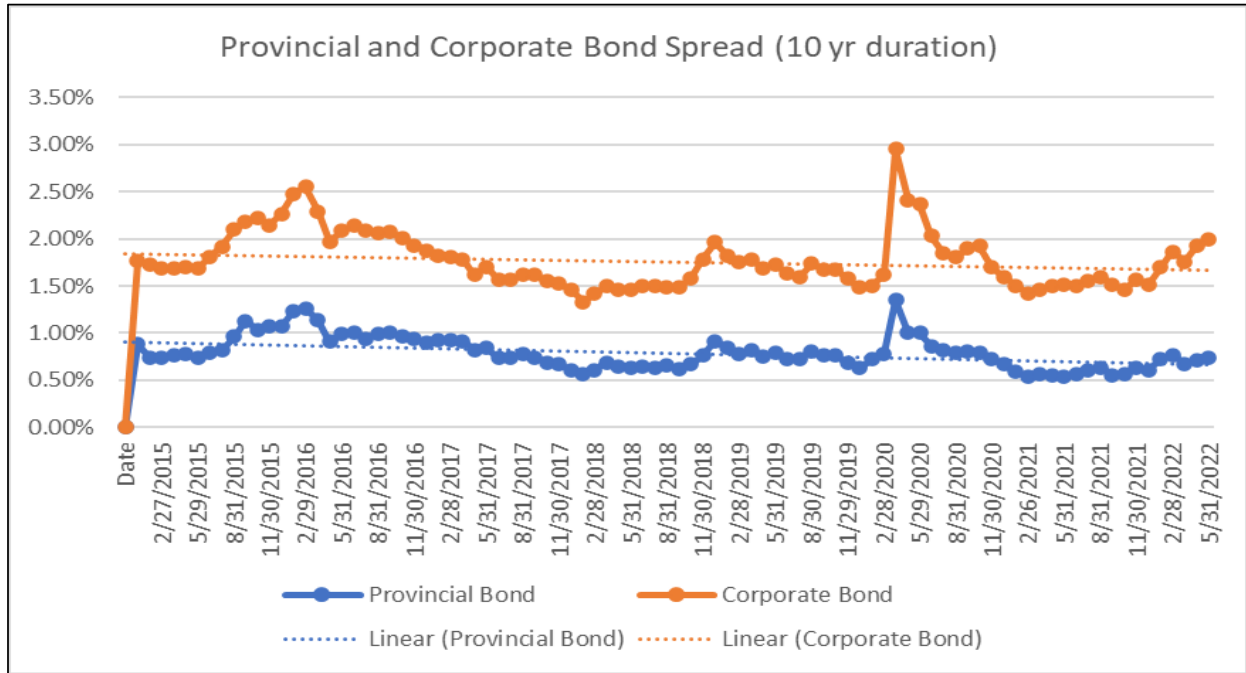
Figure 1 Effect of Using Historical Spreads in Forecast

Line No.	\$'000s	Change in Investment Income			
		2022/23	2023/24	2024/25	2025/26
1	Inc/(Dec) in Interest Income	\$ 1	\$ (188)	\$ (350)	\$ (518)
2	Inc/(Dec) in Dividend & Other Income	\$ 0	\$ (29)	\$ (64)	\$ (71)
3	Inc/(Dec) in Gains During Period - Profit & Loss	\$ (3)	\$ 124	\$ (85)	\$ (90)
4	Dec/(Inc) in Investment Fees Paid	\$ -	\$ 6	\$ 13	\$ 11
5	Dec/(Inc) in Amortization During Period	\$ (56)	\$ 5	\$ (12)	\$ (10)
6	Dec/(Inc) in Pension Expense	\$ -	\$ -	\$ -	\$ -
7	Inc/(Dec) in Investment Income	\$ (58)	\$ (83)	\$ (498)	\$ (679)

Figure App 1-1 History of Provincial and Corporate Bond Spread Assuming 10-Year Duration

Date	Provincial Bond Implied Spread	Corporate Bond Implied Spread	Date	Provincial Bond Implied Spread	Corporate Bond Implied Spread
5/31/2022	0.74%	1.99%	12/29/2017	0.61%	1.47%
4/29/2022	0.72%	1.93%	11/30/2017	0.67%	1.52%
3/31/2022	0.68%	1.76%	10/31/2017	0.69%	1.55%
2/28/2022	0.77%	1.87%	9/29/2017	0.74%	1.62%
1/31/2022	0.72%	1.70%	8/31/2017	0.78%	1.62%
12/31/2021	0.61%	1.51%	7/31/2017	0.74%	1.57%
11/30/2021	0.63%	1.57%	6/30/2017	0.73%	1.56%
10/29/2021	0.57%	1.46%	5/31/2017	0.84%	1.70%
9/29/2021	0.56%	1.52%	4/28/2017	0.82%	1.62%
8/31/2021	0.64%	1.60%	3/31/2017	0.92%	1.79%
7/30/2021	0.61%	1.56%	2/28/2017	0.93%	1.80%
6/30/2021	0.56%	1.50%	1/31/2017	0.93%	1.82%
5/31/2021	0.54%	1.51%	12/30/2016	0.89%	1.88%
4/30/2021	0.55%	1.50%	11/30/2016	0.94%	1.93%
3/31/2021	0.56%	1.46%	10/31/2016	0.97%	2.01%
2/26/2021	0.54%	1.42%	9/30/2016	1.00%	2.07%
1/29/2021	0.59%	1.50%	8/31/2016	1.00%	2.06%
12/31/2020	0.67%	1.60%	7/29/2016	0.94%	2.08%
11/30/2020	0.73%	1.70%	6/30/2016	1.01%	2.14%
10/30/2020	0.80%	1.93%	5/31/2016	0.99%	2.08%
9/30/2020	0.80%	1.90%	4/29/2016	0.91%	1.97%
8/31/2020	0.79%	1.81%	3/31/2016	1.13%	2.29%
7/31/2020	0.82%	1.84%	2/29/2016	1.26%	2.55%
6/30/2020	0.87%	2.03%	1/29/2016	1.23%	2.48%
5/29/2020	1.00%	2.37%	12/31/2015	1.07%	2.27%
4/30/2020	1.00%	2.41%	11/30/2015	1.07%	2.15%
3/31/2020	1.35%	2.95%	10/30/2015	1.04%	2.22%
2/28/2020	0.78%	1.61%	9/30/2015	1.13%	2.18%
1/31/2020	0.72%	1.50%	8/31/2015	0.96%	2.10%
12/31/2019	0.63%	1.48%	7/31/2015	0.82%	1.92%
11/29/2019	0.68%	1.58%	6/30/2015	0.79%	1.81%
10/31/2019	0.76%	1.68%	5/29/2015	0.74%	1.68%
9/30/2019	0.76%	1.68%	4/30/2015	0.78%	1.70%
8/30/2019	0.81%	1.74%	3/31/2015	0.76%	1.69%
7/31/2019	0.73%	1.59%	2/27/2015	0.74%	1.68%
6/28/2019	0.72%	1.63%	1/30/2015	0.74%	1.72%
5/31/2019	0.79%	1.73%	12/31/2014	0.89%	1.77%
4/30/2019	0.75%	1.69%			
3/29/2019	0.81%	1.78%			
2/28/2019	0.77%	1.76%			
1/31/2019	0.84%	1.82%			
12/31/2018	0.92%	1.97%			
11/30/2018	0.76%	1.79%			
10/31/2018	0.67%	1.58%			
9/28/2018	0.62%	1.48%			
8/31/2018	0.66%	1.48%			
7/31/2018	0.64%	1.50%			
6/29/2018	0.65%	1.50%			
5/31/2018	0.64%	1.46%			
4/30/2018	0.64%	1.45%			
3/29/2018	0.69%	1.50%			
2/28/2018	0.61%	1.42%			
1/31/2018	0.56%	1.33%			

History of Provincial and Corporate Bond Spread Assuming 10-Year Duration (cont'd)



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Part and Chapter:	Part V Expenses EXP.3.2.4 Special Services Figure EXP -19	Page No.:	28, 29
PUB Approved Issue No:	8. Cost of operations and cost containment measures		
Topic:	Operating Expenses		
Sub Topic:	Special Services Expense		

Preamble to IR:

Question:

- a) Please provide a detailed account analysis of the Special Services account for fiscal years 2020/21A through to 2024/25F, explaining significant changes year over year.
- b) Please provide a detailed schedule of Special Services Other in (a).
- c) Please elaborate on the anticipated expected business requirement warranting a \$5 million placeholder or 38% increase for Special Services in 2023/24.

Rationale for Question:

To understand forecast changes in Special Services expenses

RESPONSE:

- a) Please see Figure 1 below:

Figure 1 Special Services

Line No.	Special Services Category	2021/22A	2022/23FB	2023/24F	2024/25F
1	<i>(C\$000s, except where noted)</i>				
2	Auctioneer Fees	3,554	2,900	2,970	2,967
3	Auditor Fees	274	235	241	240
4	Internal Audit Fees	279	323	331	330
5	Actuary Fees	24	95	97	97
6	Credit Rating Service	9	19	20	20
7	Collection Agency Fees	306	335	343	343
8	Private Investigation	594	900	922	921
9	Apprenticeship Grant & Allowance	271	316	324	323
10	Security Services	1,473	1,109	1,160	1,184
11	PIPP Mediation	440	415	425	425
12	Employee Opinion Survey Projects	61	43	77	44
13	Workplace Safety	203	145	148	148
14	AEI/Diversity Employment Strategy	94	252	258	258
15	Wellness Initiatives	96	45	46	46
16	Vehicle & Economic Data Service	134	110	113	113
17	Customer Service Standard	170	462	473	473
18	Surveys/Evaluations	256	246	252	251
19	Special Services - Other	4,231	4,230	8,617	8,492
20	Total Special Services	12,469	12,180	16,817	16,675

b) Please see *Figure 2* below:

Figure 2 Special Services - Other

Line No.	Department	2021/22A	2022/23F	2023/24F	2023/24F
1	<i>(C\$000s, except where noted)</i>				
2	Agile Project Management Office	58	50	51	51
3	ALM & Investment Management	243	575	333	332
4	BCMP Instance Response	70	-	-	-
5	Building - Bison Dr SC (Winnipeg South)	-	7	7	-
6	Building - Gateway Rd SC (Winnipeg North East)	-	7	-	-
7	Building - King Edward SC	-	7	-	7
8	Building - Main St SC (Winnipeg North)	-	4	7	-
9	Building - Portage la Prairie SC	-	6	-	-
10	Building - Receiving & Security-Bldg C	-	62	49	48
11	Building - Salvage-Bldg B	-	106	-	-
12	Building - St. Mary's Rd SC	-	9	-	-
13	Building - Winkler SC	-	6	-	-
14	Building - Pembina Hwy	-	7	-	-
15	Building - Rec & Sec (Bldg C)	44	-	-	-
16	CityPlace	31	25	40	6
17	Corporate Controller	344	400	1,410	1,432
18	Corporate Services	-	140	26	26
19	Cyber & Information Security	173	200	154	153
20	Data Management & Analytics	572	75	77	77
21	Digital Experience	89	84	86	86
22	Digital Workplace & Service Management	20	46	47	47
23	Driver Fitness	22	38	39	39
24	Driver Testing Policy & Evaluation	1	1	1	1
25	Enterprise Application Management	385	290	297	297
26	Enterprise Risk Management	47	328	-	-
27	Executive Committee	27	230	236	235
28	Financial Operations	2	15	15	15
29	Financial Reporting & Investment Act	20	60	61	61
30	Forecasting & Reinsurance	4	-	-	-
31	Health Care Services & Quality Assurance	-	1	1	1
32	HR Business Partnerships	-	25	26	26
33	HR Systems & Support	-	75	77	77
34	KMS Instructional Design	23	200	205	205
35	Main Street Service Centre	-	-	2,500	2,558

Special Services - Other (cont'd)

Line No.	Department	2021/22A	2022/23F	2023/24F	2023/24F
35	<i>(C\$000s, except where noted)</i>				
36	Network Operations	20	-	-	-
37	Organizational Change Management	62	100	102	102
38	Physical Damage Management	-	75	77	77
39	Platform Engineering & Infrastructure	-	195	200	199
40	Pricing	8	-	500	512
41	Procurement & Strategic Source	8	-	-	-
42	Road Safety Program Development	-	75	77	77
43	Special Investigation Unit	-	13	13	13
44	Subrogation	9	9	10	10
45	Talent Acquisition & Candidate Experience	64	25	1,026	1,049
46	Talent Management & Learning Development	25	60	61	61
47	PIPP Mediation	-	-	-	-
48	Total Rewards	-	25	26	26
49	Vehicle Safety	1	-	-	-
50	Vendor Management	1,859	574	780	586
51	Total Special Services - Other	4,231	4,230	8,617	8,492

- c) Please refer to the response of MPI to Information Request CAC (MPI)1-017 for the answer to this question.

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Part and Chapter:	Part V Expenses Figure EXP APP 7-1 and Figure EXP App 7-2	Page No.:	3-7
PUB Approved Issue No:	8. Cost of operations and cost containment measures		
Topic:	ICAM		
Sub Topic:	Allocation of Expenses		

Preamble to IR:**Question:**

- a) Please provide the detail of Extension Normal and Initiative - Implementation and Initiative - Ongoing in a similar level of detail as Expense Appendix 7 -1 and Expense Appendix 7-2, including a narrative of material changes.
- b) Please provide the detail of DVA Normal and Initiative - Implementation and Initiative in same format as (a).

Rationale for Question:

To understand forecast growth in operating expense by line of business.

RESPONSE:

- a) Please see *Figures 1 to 7* below. MPI provides the comparative explanations in *Expenses EXP Appendix 7* at the corporate level, which are consistent with the narrative of material changes shown in the following figures:

Figure 1 Summary of Comparative - EXTENSION

Line No.	CORPORATE Expense Category	2021/22A		2022/23FB		2023/24F		2024/25F		2025/26F		2026/27F	
		2022 GRA	2023 GRA	2022 GRA	2023 GRA	2022 GRA	2023 GRA	2022 GRA	2023 GRA	2022 GRA	2023 GRA	2022 GRA	2023 GRA
1	<i>(C\$000s, rounding may affect totals)</i>												
2	Compensation Expenses	186,628	180,506	190,960	199,444	192,775	226,343	186,841	231,811	191,358	227,773	-	227,923
3	Administrative Expenses	134,619	127,653	128,278	164,106	130,254	171,792	124,373	176,595	126,031	154,156	-	149,006
4	Amortization/Depreciation Expenses	20,183	19,179	17,623	15,154	27,358	13,777	36,331	21,510	36,675	35,069	-	54,503
5	Total	341,430	327,338	336,861	378,704	350,387	411,912	347,545	429,916	354,064	416,998	n/a	431,432
6	Normal Operations Expenses	311,798	301,394	311,104	327,611	312,348	353,690	319,661	359,304	327,847	368,182	-	378,661
7	Initiative - Implementation Expenses	29,632	25,944	21,078	51,093	7,740	44,358	2,654	48,023	1,683	17,925	-	3,553
8	Initiative - Ongoing Expenses	-	-	4,679	-	30,299	13,864	25,230	22,589	24,534	30,891	-	49,218
9	Total	341,430	327,338	336,861	378,704	350,387	411,912	347,545	429,916	354,064	416,998	n/a	431,432
10	Claims	171,636	166,546	170,498	184,844	176,198	200,809	178,607	209,179	182,227	203,115	-	209,990
11	Operating	149,603	144,312	146,465	174,530	154,276	191,331	149,300	200,938	151,926	194,426	-	201,551
12	Road Safety	15,377	11,917	15,251	14,685	15,260	15,265	14,910	15,489	15,102	15,057	-	15,398
13	Regulatory Appeal	4,814	4,563	4,647	4,645	4,653	4,507	4,728	4,310	4,809	4,400	-	4,493
14	Total	341,430	327,338	336,861	378,704	350,387	411,912	347,545	429,916	354,064	416,998	n/a	431,432
15	EXTENSION												
16	Expense Category	2022 GRA	2023 GRA	2022 GRA	2023 GRA	2022 GRA	2023 GRA	2022 GRA	2023 GRA	2022 GRA	2023 GRA	2022 GRA	2023 GRA
17	Compensation Expenses	10,866	10,441	11,322	12,180	12,397	15,552	12,649	17,028	13,241	15,239	-	14,296
18	Administrative Expenses	9,433	9,028	9,232	14,256	10,087	14,312	10,242	15,505	10,651	14,115	-	13,205
19	Amortization/Depreciation Expenses	1,296	1,217	1,144	1,008	1,381	964	2,017	932	2,000	3,651	-	6,738
20	Total	21,595	20,686	21,698	27,444	23,865	30,828	24,908	33,465	25,892	33,005	n/a	34,239
21	Normal Operations Expenses	20,607	19,739	20,741	22,225	22,338	25,213	23,555	26,126	24,607	27,033	-	27,142
22	Initiative - Implementation Expenses	988	947	667	5,219	529	4,064	184	5,103	99	3,485	-	332
23	Initiative - Ongoing Expenses	-	-	290	-	998	1,551	1,169	2,236	1,186	2,487	-	6,765
24	Total	21,595	20,686	21,698	27,444	23,865	30,828	24,908	33,465	25,892	33,005	n/a	34,239

Summary of Comparative - EXTENSION (cont'd)

Line No.	EXTENSION Expense Category	2021/22A		2022/23FB		2023/24F		2024/25F		2025/26F		2026/27F		
		2022 GRA	2023 GRA	2022 GRA	2023 GRA	2022 GRA	2023 GRA	2022 GRA	2023 GRA	2022 GRA	2023 GRA	2022 GRA	2023 GRA	
25	(C\$000s, rounding may affect totals)													
26	Claims	12,330	11,817	12,387	15,377	13,770	17,562	14,430	19,608	15,027	19,080	-	19,719	
27	Operating	8,160	7,979	8,202	10,820	8,878	12,053	9,228	12,598	9,553	12,686	-	13,285	
28	Road Safety	1,093	872	1,098	1,235	1,192	1,201	1,206	1,247	1,249	1,227	-	1,223	
29	Regulatory Appeal	12	18	11	12	25	12	44	12	63	12	-	12	
30	Total	21,595	20,686	21,698	27,444	23,865	30,828	24,908	33,465	25,892	33,005	n/a	34,239	
31	EXTENSION % of CORPORATE	2021/22A		2022/23FB		2023/24F		2024/25F		2025/26F		2026/27F		
32	Expense Category	2022 GRA	2023 GRA	2022 GRA	2023 GRA	2022 GRA	2023 GRA	2022 GRA	2023 GRA	2022 GRA	2023 GRA	2022 GRA	2023 GRA	
33	Compensation Expenses	6%	6%	6%	6%	6%	7%	7%	7%	7%	7%	7%	- 6%	
34	Administrative Expenses	7%	7%	7%	9%	8%	8%	8%	9%	8%	9%	8%	9%	- 9%
35	Amortization/Depreciation Expenses	6%	6%	6%	7%	5%	7%	6%	4%	5%	10%	5%	10%	- 12%
36	Total	6%	6%	6%	7%	7%	7%	7%	8%	7%	8%	7%	8%	n/a 8%
37	Normal Operations Expenses	7%	7%	7%	7%	7%	7%	7%	7%	8%	7%	8%	7%	- 7%
38	Initiative - Implementation Expenses	3%	4%	3%	10%	7%	9%	7%	11%	6%	19%	6%	19%	- 9%
39	Initiative - Ongoing Expenses	-	-	6%	-	3%	11%	5%	10%	5%	8%	5%	8%	- 14%
40	Total	6%	6%	6%	7%	7%	7%	7%	8%	7%	8%	7%	8%	n/a 8%
41	Claims	7%	7%	7%	8%	8%	9%	8%	9%	8%	9%	8%	9%	- 9%
42	Operating	5%	6%	6%	6%	6%	6%	6%	6%	6%	7%	6%	7%	- 7%
43	Road Safety	7%	7%	7%	8%	8%	8%	8%	8%	8%	8%	8%	8%	- 8%
44	Regulatory Appeal	0%	0%	0%	0%	1%	0%	1%	0%	1%	0%	1%	0%	- 0%
45	Total	6%	6%	6%	7%	7%	7%	7%	8%	7%	8%	7%	8%	n/a 8%

Figure 2 Compare 2021/22 Expenses 2023 GRA to 2022 GRA

Line No.	CORPORATE Expense Category	Normal Ops			Initiatives - Implementation			Initiatives - Ongoing			Total		
		2022 GRA	2023 GRA	Chg.	2022 GRA	2023 GRA	Chg.	2022 GRA	2023 GRA	Chg.	2022 GRA	2023 GRA	Chg.
1	<i>(C\$000s, rounding may affect totals)</i>												
2	Compensation - Salaries	142,274	139,223	(3,051)	3,001	1,535	(1,466)	-	-	-	145,275	140,758	(4,517)
3	Compensation - Overtime	1,520	1,888	368	-	10	10	-	-	-	1,520	1,898	378
4	Compensation - Benefits	36,496	34,735	(1,761)	-	-	-	-	-	-	36,496	34,735	(1,761)
5	Compensation - H & E Tax	3,337	3,115	(222)	-	-	-	-	-	-	3,337	3,115	(222)
6	Subtotal - Compensation	183,627	178,961	(4,666)	3,001	1,545	(1,456)	-	-	-	186,628	180,506	(6,122)
7	Data Processing	35,392	34,430	(962)	25,940	24,049	(1,891)	-	-	-	61,332	58,479	(2,853)
8	Special Services	9,092	12,469	3,377	-	-	-	-	-	-	9,092	12,469	3,377
9	Building Expenses	8,756	8,785	29	-	-	-	-	-	-	8,756	8,785	29
10	Safety / Loss Prevention Program	4,488	2,806	(1,682)	-	-	-	-	-	-	4,488	2,806	(1,682)
11	Telephone/Telecommunications	1,911	1,838	(73)	-	-	-	-	-	-	1,911	1,838	(73)
12	Advertising & Public Info	3,505	2,910	(595)	-	-	-	-	-	-	3,505	2,910	(595)
13	Printing, Stationery & Supplies	4,611	4,558	(53)	4	21	17	-	-	-	4,615	4,579	(36)
14	Postage	4,739	5,428	689	-	-	-	-	-	-	4,739	5,428	689
15	Regulatory/Appeal	4,561	4,296	(265)	-	-	-	-	-	-	4,561	4,296	(265)
16	Travel & Vehicle Expense	1,212	696	(516)	14	6	(8)	-	-	-	1,226	702	(524)
17	Driver Education Program	4,722	3,563	(1,159)	-	-	-	-	-	-	4,722	3,563	(1,159)
18	Grant in Lieu of Taxes	1,927	1,858	(69)	-	-	-	-	-	-	1,927	1,858	(69)
19	Furniture & Equipment	2,791	2,187	(604)	371	97	(274)	-	-	-	3,162	2,284	(878)
20	Merchant Fees	10,724	10,469	(255)	-	-	-	-	-	-	10,724	10,469	(255)
21	Other	9,557	6,961	(2,596)	302	226	(76)	-	-	-	9,859	7,187	(2,672)
22	Subtotal - Other Operating Expenses	107,988	103,254	(4,734)	26,631	24,399	(2,232)	-	-	-	134,619	127,653	(6,966)
23	Depreciation of Capital Investments	6,158	5,953	(205)	-	-	-	-	-	-	6,158	5,953	(205)
24	Amortization of Deferred Development	14,025	13,226	(799)	-	-	-	-	-	-	14,025	13,226	(799)
25	Total Expenses	311,798	301,394	(10,404)	29,632	25,944	(3,688)	-	-	-	341,430	327,338	(14,092)

Compare 2021/22 Expenses 2023 GRA to 2022 GRA (cont'd)

Line No.	EXTENSION Expense Category	Normal Ops			Initiatives - Implementation			Initiatives - Ongoing			Total		
		2022 GRA	2023 GRA	Chg.	2022 GRA	2023 GRA	Chg.	2022 GRA	2023 GRA	Chg.	2022 GRA	2023 GRA	Chg.
26	<i>(C\$000s, rounding may affect totals)</i>												
27	Compensation - Salaries	8,338	8,080	(258)	104	55	(49)	-	-	-	8,442	8,135	(307)
28	Compensation - Overtime	89	111	22	-	-	-	-	-	-	89	111	22
29	Compensation - Benefits	2,140	2,014	(126)	-	-	-	-	-	-	2,140	2,014	(126)
30	Compensation - H & E Tax	195	181	(14)	-	-	-	-	-	-	195	181	(14)
31	Subtotal - Compensation	10,762	10,386	(376)	104	55	(49)	-	-	-	10,866	10,441	(425)
32	Data Processing	2,327	2,245	(82)	841	869	28	-	-	-	3,168	3,114	(54)
33	Special Services	592	821	229	-	-	-	-	-	-	592	821	229
34	Building Expenses	529	527	(2)	-	-	-	-	-	-	529	527	(2)
35	Safety / Loss Prevention Program	319	197	(122)	-	-	-	-	-	-	319	197	(122)
36	Telephone/Telecommunications	124	119	(5)	-	-	-	-	-	-	124	119	(5)
37	Advertising & Public Info	321	240	(81)	-	-	-	-	-	-	321	240	(81)
38	Printing, Stationery & Supplies	111	86	(25)	-	2	2	-	-	-	111	88	(23)
39	Postage	253	279	26	-	-	-	-	-	-	253	279	26
40	Regulatory/Appeal	12	19	7	-	-	-	-	-	-	12	19	7
41	Travel & Vehicle Expense	68	42	(26)	-	-	-	-	-	-	68	42	(26)
42	Driver Education Program	336	251	(85)	-	-	-	-	-	-	336	251	(85)
43	Grant in Lieu of Taxes	116	111	(5)	-	-	-	-	-	-	116	111	(5)
44	Furniture & Equipment	180	140	(40)	24	6	(18)	-	-	-	204	146	(58)
45	Merchant Fees	2,635	2,626	(9)	-	-	-	-	-	-	2,635	2,626	(9)
46	Other	626	433	(193)	19	15	(4)	-	-	-	645	448	(197)
47	Subtotal - Other Operating Expenses	8,549	8,136	(413)	884	892	8	-	-	-	9,433	9,028	(405)
48	Depreciation of Capital Investments	377	359	(18)	-	-	-	-	-	-	377	359	(18)
49	Amortization of Deferred Development	919	858	(61)	-	-	-	-	-	-	919	858	(61)
50	Total Expenses	20,607	19,739	(868)	988	947	(41)	-	-	-	21,595	20,686	(909)

Compare 2021/22 Expenses 2023 GRA to 2022 GRA (cont'd)

Line No.	Extension % Allocation Expense Category	Normal Ops			Initiatives			Ongoing			Total		
		2022 GRA	2023 GRA	Chg.	2022 GRA	2023 GRA	Chg.	2022 GRA	2023 GRA	Chg.	2022 GRA	2023 GRA	Chg.
51	<i>(C\$000s, rounding may affect totals)</i>												
52	Compensation - Salaries	5.9%	5.8%	-0.1%	3.5%	3.6%	0.1%				5.8%	5.8%	0.0%
53	Compensation - Overtime	5.9%	5.9%	0.0%		0.0%					5.9%	5.8%	0.0%
54	Compensation - Benefits	5.9%	5.8%	-0.1%							5.9%	5.8%	-0.1%
55	Compensation - H & E Tax	5.8%	5.8%	0.0%							5.8%	5.8%	0.0%
56	Subtotal	5.9%	5.8%	-0.1%	3.5%	3.6%	0.1%				5.8%	5.8%	0.0%
57	Data Processing	6.6%	6.5%	-0.1%	3.2%	3.6%	0.4%				5.2%	5.3%	0.2%
58	Special Services	6.5%	6.6%	0.1%							6.5%	6.6%	0.1%
59	Building Expenses	6.0%	6.0%	0.0%							6.0%	6.0%	0.0%
60	Loss Prev/Safety Program	7.1%	7.0%	-0.1%							7.1%	7.0%	-0.1%
61	Telephone/Telecommunications	6.5%	6.5%	0.0%							6.5%	6.5%	0.0%
62	Advertising & Public Info	9.2%	8.2%	-0.9%							9.2%	8.2%	-0.9%
63	Printing, Stationery & Supplies	2.4%	1.9%	-0.5%	0.0%	9.5%	9.5%				2.4%	1.9%	-0.5%
64	Postage	5.3%	5.1%	-0.2%							5.3%	5.1%	-0.2%
65	Regulatory/Appeal Expenses	0.3%	0.4%	0.2%							0.3%	0.4%	0.2%
66	Travel & Vehicle Expense	5.6%	6.0%	0.4%	0.0%	0.0%	0.0%				5.5%	6.0%	0.4%
67	Driver Education Program	7.1%	7.0%	-0.1%							7.1%	7.0%	-0.1%
68	Grant in Lieu of Taxes	6.0%	6.0%	0.0%							6.0%	6.0%	0.0%
69	Furniture & Equipment	6.4%	6.4%	0.0%	6.5%	6.2%	-0.3%				6.5%	6.4%	-0.1%
70	Merchant Fees	24.6%	25.1%	0.5%							24.6%	25.1%	0.5%
71	Other	6.6%	6.2%	-0.3%	6.3%	6.6%	0.3%				6.5%	6.2%	-0.3%
72	Subtotal	7.9%	7.9%	0.0%	3.3%	3.7%	0.3%				7.0%	7.1%	0.1%
73	Depreciation of Capital Investments	6.1%	6.0%	-0.1%							6.1%	6.0%	-0.1%
74	Amortization of Deferred Development	6.6%	6.5%	-0.1%							6.6%	6.5%	-0.1%
75	TOTAL	6.6%	6.5%	-0.1%	3.3%	3.7%	0.3%				6.3%	6.3%	0.0%

Figure 3 Compare 2022/23 Expenses 2023 GRA to 2022 GRA

Line No.	CORPORATE Expense Category	Normal Ops			Initiatives - Implementation			Initiatives - Ongoing			Total		
		2022 GRA	2023 GRA	Chg.	2022 GRA	2023 GRA	Chg.	2022 GRA	2023 GRA	Chg.	2022 GRA	2023 GRA	Chg.
1	<i>(C\$ 000s, rounding may affect totals)</i>												
2	Compensation - Salaries	146,325	154,859	8,534	2,170	1,950	(220)	1,033	-	(1,033)	149,528	156,809	7,281
3	Compensation - Overtime	1,498	1,530	32	-	-	-	-	-	-	1,498	1,530	32
4	Compensation - Benefits	36,567	37,682	1,115	-	-	-	-	-	-	36,567	37,682	1,115
5	Compensation - H & E Tax	3,367	3,423	56	-	-	-	-	-	-	3,367	3,423	56
6	Subtotal - Compensation	187,757	197,494	9,737	2,170	1,950	(220)	1,033	-	(1,033)	190,960	199,444	8,484
7	Data Processing	37,000	45,393	8,393	18,407	48,325	29,918	2,021	-	(2,021)	57,428	93,718	36,290
8	Special Services	8,554	12,180	3,626	-	-	-	-	-	-	8,554	12,180	3,626
9	Building Expenses	8,591	8,659	68	-	-	-	-	-	-	8,591	8,659	68
10	Safety / Loss Prevention Program	4,139	3,619	(520)	-	-	-	-	-	-	4,139	3,619	(520)
11	Telephone/Telecommunications	1,910	1,851	(59)	-	-	-	-	-	-	1,910	1,851	(59)
12	Advertising & Public Info	3,505	3,222	(283)	-	-	-	-	-	-	3,505	3,222	(283)
13	Printing, Stationery & Supplies	4,603	4,496	(107)	5	18	13	-	-	-	4,608	4,514	(94)
14	Postage	4,739	4,496	(243)	-	-	-	-	-	-	4,739	4,496	(243)
15	Regulatory/Appeal	4,387	4,338	(49)	-	-	-	-	-	-	4,387	4,338	(49)
16	Travel & Vehicle Expense	1,219	1,154	(65)	14	7	(7)	-	-	-	1,233	1,161	(72)
17	Driver Education Program	4,875	4,692	(183)	-	-	-	-	-	-	4,875	4,692	(183)
18	Grant in Lieu of Taxes	1,927	1,926	(1)	-	-	-	-	-	-	1,927	1,926	(1)
19	Furniture & Equipment	2,195	1,197	(998)	370	371	1	-	-	-	2,565	1,568	(997)
20	Merchant Fees	10,842	10,693	(149)	-	-	-	-	-	-	10,842	10,693	(149)
21	Other	8,861	7,047	(1,814)	112	422	310	2	-	(2)	8,975	7,469	(1,506)
22	Subtotal - Other Operating Expenses	107,347	114,963	7,616	18,908	49,143	30,235	2,023	-	(2,023)	128,278	164,106	35,828
23	Depreciation of Capital Investments	6,272	6,440	168	-	-	-	-	-	-	6,272	6,440	168
24	Amortization of Deferred Development	9,728	8,714	(1,014)	-	-	-	1,623	-	(1,623)	11,351	8,714	(2,637)
25	Total Expenses	311,104	327,611	16,507	21,078	51,093	30,015	4,679	-	(4,679)	336,861	378,704	41,843

Compare 2022/23 Expenses 2023 GRA to 2022 GRA (cont'd)

Line No.	EXTENSION Expense Category	Normal Ops			Initiatives - Implementation			Initiatives - Ongoing			Total		
		2022 GRA	2023 GRA	Chg.	2022 GRA	2023 GRA	Chg.	2022 GRA	2023 GRA	Chg.	2022 GRA	2023 GRA	Chg.
26	<i>(C\$ 000s, rounding may affect totals)</i>												
27	Compensation - Salaries	8,702	9,335	633	93	275	182	60	-	(60)	8,855	9,610	755
28	Compensation - Overtime	89	91	2	-	-	-	-	-	-	89	91	2
29	Compensation - Benefits	2,177	2,273	96	-	-	-	-	-	-	2,177	2,273	96
30	Compensation - H & E Tax	201	206	5	-	-	-	-	-	-	201	206	5
31	Subtotal - Compensation	11,169	11,905	736	93	275	182	60	-	(60)	11,322	12,180	858
32	Data Processing	2,464	3,056	592	543	4,835	4,292	132	-	(132)	3,139	7,891	4,752
33	Special Services	564	839	275	-	-	-	-	-	-	564	839	275
34	Building Expenses	527	540	13	-	-	-	-	-	-	527	540	13
35	Safety / Loss Prevention Program	298	266	(32)	-	-	-	-	-	-	298	266	(32)
35	Telephone/Telecommunications	125	123	(2)	-	-	-	-	-	-	125	123	(2)
36	Advertising & Public Info	236	405	169	-	-	-	-	-	-	236	405	169
37	Printing, Stationery & Supplies	113	104	(9)	-	2	2	-	-	-	113	106	(7)
38	Postage	256	239	(17)	-	-	-	-	-	-	256	239	(17)
38	Regulatory/Appeal	11	12	1	-	-	-	-	-	-	11	12	1
39	Travel & Vehicle Expense	70	67	(3)	-	1	1	-	-	-	70	68	(2)
40	Driver Education Program	351	344	(7)	-	-	-	-	-	-	351	344	(7)
41	Grant in Lieu of Taxes	118	120	2	-	-	-	-	-	-	118	120	2
41	Furniture & Equipment	143	79	(64)	24	25	1	-	-	-	167	104	(63)
42	Merchant Fees	2,665	2,708	43	-	-	-	-	-	-	2,665	2,708	43
43	Other	584	410	(174)	7	81	74	1	-	(1)	592	491	(101)
44	Subtotal - Other Operating Expenses	8,525	9,312	787	574	4,944	4,370	133	-	(133)	9,232	14,256	5,024
45	Depreciation of Capital Investments	388	404	16	-	-	-	-	-	-	388	404	16
46	Amortization of Deferred Development	659	604	(55)	-	-	-	97	-	(97)	756	604	(152)
47	Total Expenses	20,741	22,225	1,484	667	5,219	4,552	290	-	(290)	21,698	27,444	5,746

Compare 2022/23 Expenses 2023 GRA to 2022 GRA (cont'd)

Line No.	Extension % Allocation Expense Category	Normal Ops			Initiatives			Ongoing			Total		
		2022 GRA	2023 GRA	Chg.	2022 GRA	2023 GRA	Chg.	2022 GRA	2023 GRA	Chg.	2022 GRA	2023 GRA	Chg.
48	<i>(C\$ 000s, rounding may affect totals)</i>												
49	Compensation - Salaries	5.9%	6.0%	0.1%	4.3%	14.1%	9.8%	5.8%	0.0%	-5.8%	5.9%	6.1%	0.2%
50	Compensation - Overtime	5.9%	5.9%	0.0%							5.9%	5.9%	0.0%
51	Compensation - Benefits	6.0%	6.0%	0.1%							6.0%	6.0%	0.1%
52	Compensation - H & E Tax	6.0%	6.0%	0.0%							6.0%	6.0%	0.0%
53	Subtotal	5.9%	6.0%	0.1%	4.3%	14.1%	9.8%	5.8%	0.0%	-5.8%	5.9%	6.1%	0.2%
54	Data Processing	6.7%	6.7%	0.1%	3.0%	10.0%	7.1%	6.5%	0.0%	-6.5%	5.5%	8.4%	3.0%
55	Special Services	6.6%	6.9%	0.3%							6.6%	6.9%	0.3%
56	Building Expenses	6.1%	6.2%	0.1%							6.1%	6.2%	0.1%
57	Loss Prev/Safety Program	7.2%	7.4%	0.2%							7.2%	7.4%	0.2%
58	Telephone/Telecommunications	6.5%	6.6%	0.1%							6.5%	6.6%	0.1%
59	Advertising & Public Info	6.7%	12.6%	5.8%							6.7%	12.6%	5.8%
60	Printing, Stationery & Supplies	2.5%	2.3%	-0.1%	0.0%	11.1%	11.1%				2.5%	2.3%	-0.1%
61	Postage	5.4%	5.3%	-0.1%							5.4%	5.3%	-0.1%
62	Regulatory/Appeal Expenses	0.3%	0.3%	0.0%							0.3%	0.3%	0.0%
63	Travel & Vehicle Expense	5.7%	5.8%	0.1%	0.0%	14.3%	14.3%				5.7%	5.9%	0.2%
64	Driver Education Program	7.2%	7.3%	0.1%							7.2%	7.3%	0.1%
65	Grant in Lieu of Taxes	6.1%	6.2%	0.1%							6.1%	6.2%	0.1%
66	Furniture & Equipment	6.5%	6.6%	0.1%	6.5%	6.7%	0.3%				6.5%	6.6%	0.1%
67	Merchant Fees	24.6%	25.3%	0.7%							24.6%	25.3%	0.7%
68	Other	6.6%	5.8%	-0.8%	6.3%	19.2%	12.9%	50.0%	0.0%	-50.0%	6.6%	6.6%	0.0%
69	Subtotal	7.9%	8.1%	0.2%	3.0%	10.1%	7.0%	6.6%	0.0%	-6.6%	7.2%	8.7%	1.5%
70	Depreciation of Capital Investments	6.2%	6.3%	0.1%							6.2%	6.3%	0.1%
71	Amortization of Deferred Development	6.8%	6.9%	0.2%				6.0%	0.0%	-6.0%	6.7%	6.9%	0.3%
72	TOTAL	6.7%	6.8%	0.1%	3.2%	10.2%	7.1%	6.2%	0.0%	-6.2%	6.4%	7.2%	0.8%

Figure 4 Compare 2023/24 Expenses 2023 GRA to 2022 GRA

Line No.	CORPORATE Expense Category	Normal Ops			Initiatives - Implementation			Initiatives - Ongoing			Total		
		2022 GRA	2023 GRA	Chg.	2022 GRA	2023 GRA	Chg.	2022 GRA	2023 GRA	Chg.	2022 GRA	2023 GRA	Chg.
1	<i>(C\$000s, except where noted)</i>												
2	Compensation - Salaries	149,236	172,646	23,410	2,351	2,175	(176)	(328)	7,713	8,041	151,259	182,534	31,275
3	Compensation - Overtime	1,481	1,548	67	-	-	-	-	-	-	1,481	1,548	67
4	Compensation - Benefits	36,642	38,711	2,069	-	-	-	-	-	-	36,642	38,711	2,069
5	Compensation - H & E Tax	3,393	3,550	157	-	-	-	-	-	-	3,393	3,550	157
6	Subtotal - Compensation	190,752	216,455	25,703	2,351	2,175	(176)	(328)	7,713	8,041	192,775	226,343	33,568
7	Data Processing	38,381	49,235	10,854	5,004	41,791	36,787	17,124	6,578	(10,546)	60,509	97,604	37,095
8	Special Services	8,636	16,817	8,181	-	-	-	-	-	-	8,636	16,817	8,181
9	Building Expenses	8,004	8,238	234	-	-	-	-	-	-	8,004	8,238	234
10	Safety / Loss Prevention Program	4,140	3,849	(291)	-	-	-	-	-	-	4,140	3,849	(291)
11	Telephone/Telecommunications	1,911	1,895	(16)	-	-	-	-	-	-	1,911	1,895	(16)
12	Advertising & Public Info	3,504	3,299	(205)	-	-	-	-	-	-	3,504	3,299	(205)
13	Printing, Stationery & Supplies	4,589	4,596	7	3	12	9	-	-	-	4,592	4,608	16
14	Postage	4,739	4,603	(136)	-	-	-	-	-	-	4,739	4,603	(136)
15	Regulatory/Appeal	4,407	4,169	(238)	-	-	-	-	-	-	4,407	4,169	(238)
16	Travel & Vehicle Expense	1,216	1,181	(35)	15	5	(10)	-	-	-	1,231	1,186	(45)
17	Driver Education Program	4,875	4,868	(7)	-	-	-	-	-	-	4,875	4,868	(7)
18	Grant in Lieu of Taxes	1,927	1,974	47	-	-	-	-	-	-	1,927	1,974	47
19	Furniture & Equipment	1,897	1,029	(868)	348	350	2	-	-	-	2,245	1,379	(866)
20	Merchant Fees	10,949	10,948	(1)	-	-	-	-	-	-	10,949	10,948	(1)
21	Other	8,823	7,206	(1,617)	19	25	6	(257)	(876)	(619)	8,585	6,355	(2,230)
22	Subtotal - Other Operating Expenses	107,998	123,907	15,909	5,389	42,183	36,794	16,867	5,702	(11,165)	130,254	171,792	41,538
23	Depreciation of Capital Investments	6,751	6,793	42	-	-	-	-	-	-	6,751	6,793	42
24	Amortization of Deferred Development	6,847	6,535	(312)	-	-	-	13,760	449	(13,311)	20,607	6,984	(13,623)
25	Total Expenses	312,348	353,690	41,342	7,740	44,358	36,618	30,299	13,864	(16,435)	350,387	411,912	61,525

Compare 2023/24 Expenses 2023 GRA to 2022 GRA (cont'd)

Line No.	EXTENSION Expense Category	Normal Ops			Initiatives - Implementation			Initiatives - Ongoing			Total		
		2022 GRA	2023 GRA	Chg.	2022 GRA	2023 GRA	Chg.	2022 GRA	2023 GRA	Chg.	2022 GRA	2023 GRA	Chg.
26	<i>(C\$ 000s, rounding may affect totals)</i>												
27	Compensation - Salaries	9,612	11,153	1,541	157	345	188	(44)	1,225	1,269	9,725	12,723	2,998
28	Compensation - Overtime	95	99	4	-	-	-	-	-	-	95	99	4
29	Compensation - Benefits	2,359	2,501	142	-	-	-	-	-	-	2,359	2,501	142
30	Compensation - H & E Tax	218	229	11	-	-	-	-	-	-	218	229	11
31	Subtotal - Compensation	12,284	13,982	1,698	157	345	188	(44)	1,225	1,269	12,397	15,552	3,155
32	Data Processing	2,772	3,554	782	347	3,689	3,342	630	436	(194)	3,749	7,679	3,930
33	Special Services	618	1,235	617	-	-	-	-	-	-	618	1,235	617
34	Building Expenses	531	550	19	-	-	-	-	-	-	531	550	19
35	Safety / Loss Prevention Program	324	303	(21)	-	-	-	-	-	-	324	303	(21)
36	Telephone/Telecommunications	136	135	(1)	-	-	-	-	-	-	136	135	(1)
37	Advertising & Public Info	256	244	(12)	-	-	-	-	-	-	256	244	(12)
38	Printing, Stationery & Supplies	122	114	(8)	-	2	2	-	-	-	122	116	(6)
39	Postage	277	262	(15)	-	-	-	-	-	-	277	262	(15)
40	Regulatory/Appeal	25	12	(13)	-	-	-	-	-	-	25	12	(13)
41	Travel & Vehicle Expense	75	73	(2)	1	1	-	-	-	-	76	74	(2)
42	Driver Education Program	381	383	2	-	-	-	-	-	-	381	383	2
43	Grant in Lieu of Taxes	128	132	4	-	-	-	-	-	-	128	132	4
44	Furniture & Equipment	135	73	(62)	22	23	1	-	-	-	157	96	(61)
45	Merchant Fees	2,694	2,776	82	-	-	-	-	-	-	2,694	2,776	82
46	Other	630	450	(180)	2	4	2	(19)	(139)	(120)	613	315	(298)
47	Subtotal - Other Operating Expenses	9,104	10,296	1,192	372	3,719	3,347	611	297	(314)	10,087	14,312	4,225
48	Depreciation of Capital Investments	452	457	5	-	-	-	-	-	-	452	457	5
49	Amortization of Deferred Development	310	478	168	-	-	-	431	29	(402)	929	507	(422)
50	Total Expenses	22,837	25,213	2,376	529	4,064	3,535	998	1,551	553	23,865	30,828	6,963

Compare 2023/24 Expenses 2023 GRA to 2022 GRA (cont'd)

Line No.	Extension % Allocation Expense Category	Normal Ops			Initiatives			Ongoing			Total		
		2022 GRA	2023 GRA	Chg.	2022 GRA	2023 GRA	Chg.	2022 GRA	2023 GRA	Chg.	2022 GRA	2023 GRA	Chg.
51	<i>(C\$000s, rounding may affect totals)</i>												
52	Compensation - Salaries	6.4%	6.5%	0.0%	6.7%	15.9%	9.2%	13.4%	15.9%	2.5%	6.4%	7.0%	0.5%
53	Compensation - Overtime	6.4%	6.4%	0.0%							6.4%	6.4%	0.0%
54	Compensation - Benefits	6.4%	6.5%	0.0%							6.4%	6.5%	0.0%
55	Compensation - H & E Tax	6.4%	6.5%	0.0%							6.4%	6.5%	0.0%
56	Subtotal	6.4%	6.5%	0.0%	6.7%	15.9%	9.2%	13.4%	15.9%	2.5%	6.4%	6.9%	0.4%
57	Data Processing	7.2%	7.2%	0.0%	6.9%	8.8%	1.9%	3.7%	6.6%	2.9%	6.2%	7.9%	1.7%
58	Special Services	7.2%	7.3%	0.2%							7.2%	7.3%	0.2%
59	Building Expenses	6.6%	6.7%	0.0%							6.6%	6.7%	0.0%
60	Loss Prev/Safety Program	7.8%	7.9%	0.0%							7.8%	7.9%	0.0%
61	Telephone/Telecommunications	7.1%	7.1%	0.0%							7.1%	7.1%	0.0%
62	Advertising & Public Info	7.3%	7.4%	0.1%							7.3%	7.4%	0.1%
63	Printing, Stationery & Supplies	2.7%	2.5%	-0.2%	0.0%	16.7%	16.7%				2.7%	2.5%	-0.1%
64	Postage	5.8%	5.7%	-0.2%							5.8%	5.7%	-0.2%
65	Regulatory/Appeal Expenses	0.6%	0.3%	-0.3%							0.6%	0.3%	-0.3%
66	Travel & Vehicle Expense	6.2%	6.2%	0.0%	6.7%	20.0%	13.3%				6.2%	6.2%	0.1%
67	Driver Education Program	7.8%	7.9%	0.1%							7.8%	7.9%	0.1%
68	Grant in Lieu of Taxes	6.6%	6.7%	0.0%							6.6%	6.7%	0.0%
69	Furniture & Equipment	7.1%	7.1%	0.0%	6.3%	6.6%	0.2%				7.0%	7.0%	0.0%
70	Merchant Fees	24.6%	25.4%	0.8%							24.6%	25.4%	0.8%
71	Other	7.1%	6.2%	-0.9%	10.5%	16.0%	5.5%	7.4%	15.9%	8.5%	7.1%	5.0%	-2.2%
72	Subtotal	8.4%	8.3%	-0.1%	6.9%	8.8%	1.9%	3.6%	5.2%	1.6%	7.7%	8.3%	0.6%
73	Depreciation of Capital Investments	6.7%	6.7%	0.0%							6.7%	6.7%	0.0%
74	Amortization of Deferred Development	4.5%	7.3%	2.8%				3.1%	6.5%	3.3%	4.5%	7.3%	2.8%
74	TOTAL	7.3%	7.1%	-0.2%	6.8%	9.2%	2.3%	3.3%	11.2%	7.9%	6.8%	7.5%	0.7%

Figure 5 Compare 2024/25 Expenses 2023 GRA to 2022 GRA

Line No.	CORPORATE Expense Category	Normal Ops			Initiatives - Implementation			Initiatives - Ongoing			Total		
		2022 GRA	2023 GRA	Chg.	2022 GRA	2023 GRA	Chg.	2022 GRA	2023 GRA	Chg.	2022 GRA	2023 GRA	Chg.
1	<i>(C\$ 000s, except where noted)</i>												
2	Compensation - Salaries	154,757	176,494	21,737	1,901	1,723	(178)	(12,192)	9,671	21,863	144,466	187,888	43,422
3	Compensation - Overtime	1,535	1,515	(20)	-	-	-	-	-	-	1,535	1,515	(20)
4	Compensation - Benefits	37,377	38,809	1,432	-	-	-	-	-	-	37,377	38,809	1,432
5	Compensation - H & E Tax	3,463	3,599	136	-	-	-	-	-	-	3,463	3,599	136
6	Subtotal - Compensation	197,132	220,417	23,285	1,901	1,723	(178)	(12,192)	9,671	21,863	186,841	231,811	44,970
7	Data Processing	39,147	52,114	12,967	753	46,165	45,412	14,501	4,705	(9,796)	54,401	102,984	48,583
8	Special Services	8,783	16,673	7,890	-	-	-	-	-	-	8,783	16,673	7,890
9	Building Expenses	8,164	8,232	68	-	-	-	-	-	-	8,164	8,232	68
10	Safety / Loss Prevention Program	4,221	4,125	(96)	-	-	-	-	-	-	4,221	4,125	(96)
11	Telephone/Telecommunications	1,948	1,895	(53)	-	-	-	-	-	-	1,948	1,895	(53)
12	Advertising & Public Info	3,577	3,297	(280)	-	-	-	-	-	-	3,577	3,297	(280)
13	Printing, Stationery & Supplies	4,683	4,593	(90)	-	12	12	-	-	-	4,683	4,605	(78)
14	Postage	4,834	4,599	(235)	-	-	-	(442)	(157)	285	4,392	4,442	50
15	Regulatory/Appeal	4,495	3,965	(530)	-	-	-	-	-	-	4,495	3,965	(530)
16	Travel & Vehicle Expense	1,240	1,184	(56)	-	6	6	-	-	-	1,240	1,190	(50)
17	Driver Education Program	4,973	4,861	(112)	-	-	-	-	-	-	4,973	4,861	(112)
18	Grant in Lieu of Taxes	1,966	1,971	5	-	-	-	-	-	-	1,966	1,971	5
19	Furniture & Equipment	1,933	976	(957)	-	-	-	-	-	-	1,933	976	(957)
20	Merchant Fees	11,167	10,938	(229)	-	-	-	-	-	-	11,167	10,938	(229)
21	Other	8,998	7,200	(1,798)	-	117	117	(568)	(876)	(308)	8,430	6,441	(1,989)
22	Subtotal - Other Operating Expenses	110,129	126,623	16,494	753	46,300	45,547	13,491	3,672	(9,819)	124,373	176,595	52,222
23	Depreciation of Capital Investments	7,514	7,456	(58)	-	-	-	-	-	-	7,514	7,456	(58)
24	Amortization of Deferred Development	4,886	4,808	(78)	-	-	-	23,931	9,246	(14,685)	28,817	14,054	(14,763)
25	Total Expenses	319,661	359,304	39,643	2,654	48,023	45,369	25,230	22,589	(2,641)	347,545	429,916	82,371

Compare 2024/25 Expenses 2023 GRA to 2022 GRA (cont'd)

Line No.	EXTENSION Expense Category	Normal Ops			Initiatives - Implementation			Initiatives - Ongoing			Total		
		2022 GRA	2023 GRA	Chg.	2022 GRA	2023 GRA	Chg.	2022 GRA	2023 GRA	Chg.	2022 GRA	2023 GRA	Chg.
26	<i>(C\$000s, rounding may affect totals)</i>												
27	Compensation - Salaries	10,315	11,667	1,352	134	372	238	(620)	2,088	2,708	9,829	14,127	4,298
28	Compensation - Overtime	102	99	(3)	-	-	-	-	-	-	102	99	(3)
29	Compensation - Benefits	2,488	2,564	76	-	-	-	-	-	-	2,488	2,564	76
30	Compensation - H & E Tax	230	238	8	-	-	-	-	-	-	230	238	8
31	Subtotal - Compensation	13,135	14,568	1,433	134	372	238	(620)	2,088	2,708	12,649	17,028	4,379
32	Data Processing	2,929	3,848	919	50	4,700	4,650	726	312	(414)	3,705	8,860	5,155
33	Special Services	649	1,252	603	-	-	-	-	-	-	649	1,252	603
34	Building Expenses	560	563	3	-	-	-	-	-	-	560	563	3
35	Safety / Loss Prevention Program	341	332	(9)	-	-	-	-	-	-	341	332	(9)
36	Telephone/Telecommunications	144	139	(5)	-	-	-	-	-	-	144	139	(5)
37	Advertising & Public Info	271	249	(22)	-	-	-	-	-	-	271	249	(22)
38	Printing, Stationery & Supplies	129	117	(12)	-	3	3	-	-	-	129	120	(9)
39	Postage	293	268	(25)	-	-	-	(31)	(34)	(3)	262	234	(28)
40	Regulatory/Appeal	44	12	(32)	-	-	-	-	-	-	44	12	(32)
41	Travel & Vehicle Expense	80	75	(5)	-	1	1	-	-	-	80	76	(4)
42	Driver Education Program	402	391	(11)	-	-	-	-	-	-	402	391	(11)
43	Grant in Lieu of Taxes	135	135	-	-	-	-	-	-	-	135	135	-
44	Furniture & Equipment	142	71	(71)	-	-	-	-	-	-	142	71	(71)
45	Merchant Fees	2,750	2,775	25	-	-	-	-	-	-	2,750	2,775	25
46	Other	668	458	(210)	-	27	27	(40)	(189)	(149)	628	296	(332)
47	Subtotal - Other Operating Expenses	9,537	10,685	1,148	50	4,731	4,681	655	89	(566)	10,242	15,505	5,263
48	Depreciation of Capital Investments	521	515	(6)	-	-	-	-	-	-	521	515	(6)
49	Amortization of Deferred Development	362	358	(4)	-	-	-	1,134	59	(1,075)	1,496	417	(1,079)
50	Total Expenses	23,555	26,126	2,571	184	5,103	4,919	1,169	2,236	1,067	24,908	33,465	8,557

Compare 2024/25 Expenses 2023 GRA to 2022 GRA (cont'd)

Line No.	Extension % Allocation Expense Category	Normal Ops			Initiatives			Ongoing			Total		
		2022 GRA	2023 GRA	Chg.	2022 GRA	2023 GRA	Chg.	2022 GRA	2023 GRA	Chg.	2022 GRA	2023 GRA	Chg.
53	<i>(C\$ 000s, rounding may affect totals)</i>												
54	Compensation - Salaries	6.7%	6.6%	-0.1%	7.0%	21.6%	14.5%	5.1%	21.6%	16.5%	6.8%	7.5%	0.7%
55	Compensation - Overtime	6.6%	6.5%	-0.1%							6.6%	6.5%	-0.1%
56	Compensation - Benefits	6.7%	6.6%	0.0%							6.7%	6.6%	0.0%
57	Compensation - H & E Tax	6.6%	6.6%	0.0%							6.6%	6.6%	0.0%
58	Subtotal	6.7%	6.6%	-0.1%	7.0%	21.6%	14.5%	5.1%	21.6%	16.5%	6.8%	7.3%	0.6%
59	Data Processing	7.5%	7.4%	-0.1%	6.6%	10.2%	3.5%	5.0%	6.6%	1.6%	6.8%	8.6%	1.8%
60	Special Services	7.4%	7.5%	0.1%							7.4%	7.5%	0.1%
61	Building Expenses	6.9%	6.8%	0.0%							6.9%	6.8%	0.0%
62	Loss Prev/Safety Program	8.1%	8.0%	0.0%							8.1%	8.0%	0.0%
63	Telephone/Telecommunications	7.4%	7.3%	-0.1%							7.4%	7.3%	-0.1%
64	Advertising & Public Info	7.6%	7.6%	0.0%							7.6%	7.6%	0.0%
65	Printing, Stationery & Supplies	2.8%	2.5%	-0.2%	0.0%	25.0%	25.0%				2.8%	2.6%	-0.1%
66	Postage	6.1%	5.8%	-0.2%				7.0%	21.7%	14.6%	6.0%	5.3%	-0.7%
67	Regulatory/Appeal Expenses	1.0%	0.3%	-0.7%							1.0%	0.3%	-0.7%
68	Travel & Vehicle Expense	6.5%	6.3%	-0.1%	0.0%	16.7%	16.7%				6.5%	6.4%	-0.1%
69	Driver Education Program	8.1%	8.0%	0.0%							8.1%	8.0%	0.0%
70	Grant in Lieu of Taxes	6.9%	6.8%	0.0%							6.9%	6.8%	0.0%
71	Furniture & Equipment	7.3%	7.3%	-0.1%							7.3%	7.3%	-0.1%
72	Merchant Fees	24.6%	25.4%	0.7%							24.6%	25.4%	0.7%
73	Other	7.4%	6.4%	-1.1%	0.0%	23.1%	23.1%	7.0%	21.6%	14.5%	7.4%	4.6%	-2.9%
74	Subtotal	8.7%	8.4%	-0.2%	6.6%	10.2%	3.6%	4.9%	2.4%	-2.4%	8.2%	8.8%	0.5%
75	Depreciation of Capital Investments	6.9%	6.9%	0.0%							6.9%	6.9%	0.0%
76	Amortization of Deferred Development	7.4%	7.4%	0.0%				4.7%	0.6%	-4.1%	5.2%	3.0%	-2.2%
77	TOTAL	7.4%	7.3%	-0.1%	6.9%	10.6%	3.7%	4.6%	9.9%	5.3%	7.2%	7.8%	0.6%

Figure 6 Compare 2025/26 Expenses 2023 GRA to 2022 GRA

Line No.	CORPORATE Expense Category	Normal Ops			Initiatives - Implementation			Initiatives - Ongoing			Total		
		2022 GRA	2023 GRA	Chg.	2022 GRA	2023 GRA	Chg.	2022 GRA	2023 GRA	Chg.	2022 GRA	2023 GRA	Chg.
1	<i>(C\$000s, except where noted)</i>												
2	Compensation - Salaries	160,483	182,938	22,455	1,181	1,176	(5)	(13,408)	(1,166)	12,242	148,256	182,948	34,692
3	Compensation - Overtime	1,447	1,569	122	-	-	-	-	-	-	1,447	1,569	122
4	Compensation - Benefits	38,122	39,584	1,462	-	-	-	-	-	-	38,122	39,584	1,462
5	Compensation - H & E Tax	3,533	3,672	139	-	-	-	-	-	-	3,533	3,672	139
6	Subtotal - Compensation	203,585	227,763	24,178	1,181	1,176	(5)	(13,408)	(1,166)	12,242	191,358	227,773	36,415
7	Data Processing	39,932	53,155	13,223	500	16,677	16,177	14,331	9,522	(4,809)	54,763	79,354	24,591
8	Special Services	8,957	17,009	8,052	-	-	-	-	-	-	8,957	17,009	8,052
9	Building Expenses	8,326	8,397	71	-	-	-	-	-	-	8,326	8,397	71
10	Safety / Loss Prevention Program	4,304	4,208	(96)	-	-	-	-	-	-	4,304	4,208	(96)
11	Telephone/Telecommunications	1,988	1,932	(56)	-	-	-	-	-	-	1,988	1,932	(56)
12	Advertising & Public Info	3,645	3,362	(283)	-	-	-	-	-	-	3,645	3,362	(283)
13	Printing, Stationery & Supplies	4,773	4,681	(92)	-	13	13	-	-	-	4,773	4,694	(79)
14	Postage	4,931	4,691	(240)	-	-	-	(542)	(397)	145	4,389	4,294	(95)
15	Regulatory/Appeal	4,590	4,043	(547)	-	-	-	-	-	-	4,590	4,043	(547)
16	Travel & Vehicle Expense	1,265	1,207	(58)	-	3	3	-	-	-	1,265	1,210	(55)
17	Driver Education Program	5,073	4,959	(114)	-	-	-	-	-	-	5,073	4,959	(114)
18	Grant in Lieu of Taxes	2,006	2,011	5	-	-	-	-	-	-	2,006	2,011	5
19	Furniture & Equipment	1,973	997	(976)	-	-	-	-	-	-	1,973	997	(976)
20	Merchant Fees	11,391	11,157	(234)	-	-	-	-	-	-	11,391	11,157	(234)
21	Other	9,163	7,343	(1,820)	2	56	54	(577)	(870)	(293)	8,588	6,529	(2,059)
22	Subtotal - Other Operating Expenses	112,317	129,152	16,835	502	16,749	16,247	13,212	8,255	(4,957)	126,031	154,156	28,125
23	Depreciation of Capital Investments	8,554	8,487	(67)	-	-	-	-	-	-	8,554	8,487	(67)
24	Amortization of Deferred Development	3,391	2,780	(611)	-	-	-	24,730	23,802	(928)	28,121	26,582	(1,539)
25	Total Expenses	327,847	368,182	40,335	1,683	17,925	16,242	24,534	30,891	6,357	354,064	416,998	62,934

Compare 2025/26 Expenses 2023 GRA to 2022 GRA (cont'd)

Line No.	EXTENSION Expense Category	Normal Ops			Initiatives - Implementation			Initiatives - Ongoing			Total		
		2022 GRA	2023 GRA	Chg.	2022 GRA	2023 GRA	Chg.	2022 GRA	2023 GRA	Chg.	2022 GRA	2023 GRA	Chg.
26	<i>(C\$000s, rounding may affect totals)</i>												
27	Compensation - Salaries	10,920	12,240	1,320	66	261	195	(674)	(259)	415	10,312	12,242	1,930
28	Compensation - Overtime	99	104	5	-	-	-	-	-	-	99	104	5
29	Compensation - Benefits	2,589	2,647	58	-	-	-	-	-	-	2,589	2,647	58
30	Compensation - H & E Tax	241	246	5	-	-	-	-	-	-	241	246	5
31	Subtotal - Compensation	13,849	15,237	1,388	66	261	195	(674)	(259)	415	13,241	15,239	1,998
32	Data Processing	3,053	3,973	920	32	3,207	3,175	783	179	(604)	3,868	7,359	3,491
33	Special Services	676	1,292	616	-	-	-	-	-	-	676	1,292	616
33	Building Expenses	585	581	(4)	-	-	-	-	-	-	585	581	(4)
34	Safety / Loss Prevention Program	356	343	(13)	-	-	-	-	-	-	356	343	(13)
34	Telephone/Telecommunications	150	143	(7)	-	-	-	-	-	-	150	143	(7)
35	Advertising & Public Info	282	258	(24)	-	-	-	-	-	-	282	258	(24)
35	Printing, Stationery & Supplies	134	120	(14)	-	3	3	-	-	-	134	123	(11)
36	Postage	306	277	(29)	-	-	-	(31)	(88)	(57)	275	189	(86)
36	Regulatory/Appeal	63	12	(51)	-	-	-	-	-	-	63	12	(51)
37	Travel & Vehicle Expense	83	77	(6)	-	1	1	-	-	-	83	78	(5)
37	Driver Education Program	419	404	(15)	-	-	-	-	-	-	419	404	(15)
38	Grant in Lieu of Taxes	140	139	(1)	-	-	-	-	-	-	140	139	(1)
38	Furniture & Equipment	148	73	(75)	-	-	-	-	-	-	148	73	(75)
39	Merchant Fees	2,806	2,831	25	-	-	-	-	-	-	2,806	2,831	25
39	Other	696	472	(224)	1	13	12	(31)	(195)	(164)	666	290	(376)
40	Subtotal - Other Operating Expenses	9,897	10,995	1,098	33	3,224	3,191	721	(104)	(825)	10,651	14,115	3,464
40	Depreciation of Capital Investments	606	596	(10)	-	-	-	-	-	-	606	596	(10)
41	Amortization of Deferred Development	255	205	(50)	-	-	-	1,139	2,850	1,711	1,394	3,055	1,661
41	Total Expenses	24,607	27,033	2,426	99	3,485	3,386	1,186	2,487	1,301	25,892	33,005	7,113

Compare 2025/26 Expenses 2023 GRA to 2022 GRA (cont'd)

Line No.	Extension % Allocation Expense Category	Normal Ops			Initiatives			Ongoing			Total		
		2022 GRA	2023 GRA	Chg.	2022 GRA	2023 GRA	Chg.	2022 GRA	2023 GRA	Chg.	2022 GRA	2023 GRA	Chg.
42	<i>(C\$000s, rounding may affect totals)</i>												
43	Compensation - Salaries	6.8%	6.7%	-0.1%	5.6%	22.2%	16.6%	5.0%	22.2%	17.2%	7.0%	6.7%	-0.3%
44	Compensation - Overtime	6.8%	6.6%	-0.2%							6.8%	6.6%	-0.2%
45	Compensation - Benefits	6.8%	6.7%	-0.1%							6.8%	6.7%	-0.1%
46	Compensation - H & E Tax	6.8%	6.7%	-0.1%							6.8%	6.7%	-0.1%
47	Subtotal	6.8%	6.7%	-0.1%	5.6%	22.2%	16.6%	5.0%	22.2%	17.2%	6.9%	6.7%	-0.2%
48	Data Processing	7.6%	7.5%	-0.2%	6.4%	19.2%	12.8%	5.5%	1.9%	-3.6%	7.1%	9.3%	2.2%
49	Special Services	7.5%	7.6%	0.0%							7.5%	7.6%	0.0%
50	Building Expenses	7.0%	6.9%	-0.1%							7.0%	6.9%	-0.1%
51	Loss Prev/Safety Program	8.3%	8.2%	-0.1%							8.3%	8.2%	-0.1%
52	Telephone/Telecommunications	7.5%	7.4%	-0.1%							7.5%	7.4%	-0.1%
53	Advertising & Public Info	7.7%	7.7%	-0.1%							7.7%	7.7%	-0.1%
54	Printing, Stationery & Supplies	2.8%	2.6%	-0.2%	0.0%	23.1%	23.1%				2.8%	2.6%	-0.2%
55	Postage	6.2%	5.9%	-0.3%				5.7%	22.2%	16.4%	6.3%	4.4%	-1.9%
56	Regulatory/Appeal Expenses	1.4%	0.3%	-1.1%							1.4%	0.3%	-1.1%
57	Travel & Vehicle Expense	6.6%	6.4%	-0.2%	0.0%	33.3%	33.3%				6.6%	6.4%	-0.1%
58	Driver Education Program	8.3%	8.1%	-0.1%							8.3%	8.1%	-0.1%
59	Grant in Lieu of Taxes	7.0%	6.9%	-0.1%							7.0%	6.9%	-0.1%
60	Furniture & Equipment	7.5%	7.3%	-0.2%							7.5%	7.3%	-0.2%
61	Merchant Fees	24.6%	25.4%	0.7%							24.6%	25.4%	0.7%
62	Other	7.6%	6.4%	-1.2%	50.0%	23.2%	-26.8%	5.4%	22.4%	17.0%	7.8%	4.4%	-3.3%
63	Subtotal	8.8%	8.5%	-0.3%	6.6%	19.2%	12.7%	5.5%	-1.3%	-6.7%	8.5%	9.2%	0.7%
64	Depreciation of Capital Investments	7.1%	7.0%	-0.1%							7.1%	7.0%	-0.1%
65	Amortization of Deferred Development	7.5%	7.4%	-0.1%				4.6%	12.0%	7.4%	5.0%	11.5%	6.5%
66	TOTAL	7.5%	7.3%	-0.2%	5.9%	19.4%	13.6%	4.8%	8.1%	3.2%	7.3%	7.9%	0.6%

Figure 7 Compare 2026/27 Expenses 2023 GRA to 2022 GRA

Line No.	CORPORATE Expense Category	Normal Ops			Initiatives - Implementation			Initiatives - Ongoing			Total		
		2022 GRA	2023 GRA	Chg.	2022 GRA	2023 GRA	Chg.	2022 GRA	2023 GRA	Chg.	2022 GRA	2023 GRA	Chg.
1	<i>(C\$000s, rounding may affect totals)</i>												
2	Compensation - Salaries		189,615	189,615		1,302	1,302		(8,741)	(8,741)		182,176	182,176
3	Compensation - Overtime		1,627	1,627		-	-		-	-		1,627	1,627
4	Compensation - Benefits		40,376	40,376		-	-		-	-		40,376	40,376
5	Compensation - H & E Tax		3,744	3,744		-	-		-	-		3,744	3,744
6	Subtotal - Compensation		235,362	235,362		1,302	1,302		(8,741)	(8,741)		227,923	227,923
7	Data Processing		54,218	54,218		2,251	2,251		16,334	16,334		72,803	72,803
8	Special Services		17,348	17,348		-	-		-	-		17,348	17,348
9	Building Expenses		8,566	8,566		-	-		-	-		8,566	8,566
10	Safety / Loss Prevention Program		4,291	4,291		-	-		-	-		4,291	4,291
11	Telephone/Telecommunications		1,971	1,971		-	-		-	-		1,971	1,971
12	Advertising & Public Info		3,427	3,427		-	-		-	-		3,427	3,427
13	Printing, Stationery & Supplies		4,776	4,776		-	-		-	-		4,776	4,776
14	Postage		4,785	4,785		-	-		(485)	(485)		4,300	4,300
15	Regulatory/Appeal		4,125	4,125		-	-		-	-		4,125	4,125
16	Travel & Vehicle Expense		1,231	1,231		-	-		-	-		1,231	1,231
17	Driver Education Program		5,059	5,059		-	-		-	-		5,059	5,059
18	Grant in Lieu of Taxes		2,050	2,050		-	-		-	-		2,050	2,050
19	Furniture & Equipment		1,017	1,017		-	-		-	-		1,017	1,017
20	Merchant Fees		11,381	11,381		-	-		-	-		11,381	11,381
21	Other		7,490	7,490		-	-		(829)	(829)		6,661	6,661
22	Subtotal - Other Operating Expenses		131,735	131,735		2,251	2,251		15,020	15,020		149,006	149,006
23	Depreciation of Capital Investments		9,224	9,224		-	-		-	-		9,224	9,224
24	Amortization of Deferred Development		2,340	2,340		-	-		42,939	42,939		45,279	45,279
25	Total Expenses		378,661	378,661		3,553	3,553		49,218	49,218		431,432	431,432

Compare 2026/27 Expenses 2023 GRA to 2022 GRA (cont'd)

Line No.	EXTENSION Expense Category	Normal Ops			Initiatives - Implementation			Initiatives - Ongoing			Total		
		2022 GRA	2023 GRA	Chg.	2022 GRA	2023 GRA	Chg.	2022 GRA	2023 GRA	Chg.	2022 GRA	2023 GRA	Chg.
26	<i>(C\$000s, rounding may affect totals)</i>												
27	Compensation - Salaries		12,360	12,360		183	183		(1,226)	(1,226)		11,317	11,317
28	Compensation - Overtime		105	105		-	-		-	-		105	105
29	Compensation - Benefits		2,630	2,630		-	-		-	-		2,630	2,630
30	Compensation - H & E Tax		244	244		-	-		-	-		244	244
31	Subtotal - Compensation		15,339	15,339		183	183		(1,226)	(1,226)		14,296	14,296
32	Data Processing		3,948	3,948		149	149		2,234	2,234		6,331	6,331
33	Special Services		1,285	1,285		-	-		-	-		1,285	1,285
33	Building Expenses		578	578		-	-		-	-		578	578
34	Safety / Loss Prevention Program		341	341		-	-		-	-		341	341
34	Telephone/Telecommunications		142	142		-	-		-	-		142	142
35	Advertising & Public Info		256	256		-	-		-	-		256	256
35	Printing, Stationery & Supplies		120	120		-	-		-	-		120	120
36	Postage		275	275		-	-		(68)	(68)		207	207
36	Regulatory/Appeal		12	12		-	-		-	-		12	12
37	Travel & Vehicle Expense		77	77		-	-		-	-		77	77
37	Driver Education Program		402	402		-	-		-	-		402	402
38	Grant in Lieu of Taxes		138	138		-	-		-	-		138	138
38	Furniture & Equipment		73	73		-	-		-	-		73	73
39	Merchant Fees		2,886	2,886		-	-		-	-		2,886	2,886
39	Other		470	470		-	-		(113)	(113)		357	357
40	Subtotal - Other Operating Expenses		11,003	11,003		149	149		2,053	2,053		13,205	13,205
41	Depreciation of Capital Investments		633	633		-	-		-	-		633	633
42	Amortization of Deferred Development		167	167		-	-		5,938	5,938		6,105	6,105
43	Total Expenses		27,142	27,142		332	332		6,765	6,765		34,239	34,239

Compare 2026/27 Expenses 2023 GRA to 2022 GRA (cont'd)

Line No.	Extension % Allocation Expense Category	Normal Ops		Initiatives			Ongoing			Total		
		2022 GRA	2023 GRA	Chg.	2022 GRA	2023 GRA	Chg.	2022 GRA	2023 GRA	Chg.	2022 GRA	2023 GRA
44	<i>(C\$000s, rounding may affect totals)</i>											
45	Compensation - Salaries		6.5%	6.5%		14.1%		14.0%			6.2%	
46	Compensation - Overtime		6.5%	6.5%							6.5%	
47	Compensation - Benefits		6.5%	6.5%							6.5%	
48	Compensation - H & E Tax		6.5%	6.5%							6.5%	
49	Subtotal		6.5%	6.5%		14.1%		14.0%			6.3%	
50	Data Processing		7.3%	7.3%		6.6%		13.7%			8.7%	
51	Special Services		7.4%	7.4%							7.4%	
52	Building Expenses		6.7%	6.7%							6.7%	
53	Loss Prev/Safety Program		7.9%	7.9%							7.9%	
54	Telephone/Telecommunications		7.2%	7.2%							7.2%	
55	Advertising & Public Info		7.5%	7.5%							7.5%	
56	Printing, Stationery & Supplies		2.5%	2.5%							2.5%	
57	Postage		5.7%	5.7%				14.0%			4.8%	
58	Regulatory/Appeal Expenses		0.3%	0.3%							0.3%	
59	Travel & Vehicle Expense		6.3%	6.3%							6.3%	
60	Driver Education Program		7.9%	7.9%							7.9%	
61	Grant in Lieu of Taxes		6.7%	6.7%							6.7%	
62	Furniture & Equipment		7.2%	7.2%							7.2%	
63	Merchant Fees		25.4%	25.4%							25.4%	
64	Other		6.3%	6.3%				13.6%			5.4%	
65	Subtotal		8.4%	8.4%		6.6%		13.7%			8.9%	
66	Depreciation of Capital Investments		6.9%	6.9%							6.9%	
67	Amortization of Deferred Development		7.1%	7.1%				13.8%			13.5%	
68	TOTAL		7.2%	7.2%		9.3%		13.7%			7.9%	

b) Please see *Figures 8 to 14* below. The comparative explanations provided in *Expense Appendix Z* are provided at the corporate level and are consistent with the narrative of material changes as shown in the figures that follow.

Figure 8 Summary of Comparative - DVA

Line No.	CORPORATE Expense Category	2021/22A		2022/23FB		2023/24F		2024/25F		2025/26F		2026/27F	
		2022 GRA	2023 GRA	2022 GRA	2023 GRA	2022 GRA	2023 GRA	2022 GRA	2023 GRA	2022 GRA	2023 GRA	2022 GRA	2023 GRA
1	<i>(C\$000s, rounding may affect totals)</i>												
2	Compensation Expenses	186,628	180,506	190,960	199,444	192,775	226,343	186,841	231,811	191,358	227,773	-	227,923
3	Administrative Expenses	134,619	127,653	128,278	164,106	130,254	171,792	124,373	176,595	126,031	154,156	-	149,006
4	Amortization/Depreciation Expenses	20,183	19,179	17,623	15,154	27,358	13,777	36,331	21,510	36,675	35,069	-	54,503
5	Total	341,430	327,338	336,861	378,704	350,387	411,912	347,545	429,916	354,064	416,998	n/a	431,432
6	Normal Operations Expenses	311,798	301,394	311,104	327,611	312,348	353,690	319,661	359,304	327,847	368,182	-	378,661
7	Initiative - Implementation Expenses	29,632	25,944	21,078	51,093	7,740	44,358	2,654	48,023	1,683	17,925	-	3,553
8	Initiative - Ongoing Expenses	-	-	4,679	-	30,299	13,864	25,230	22,589	24,534	30,891	-	49,218
9	Total	341,430	327,338	336,861	378,704	350,387	411,912	347,545	429,916	354,064	416,998	n/a	431,432
10	Claims	171,636	166,546	170,498	184,844	176,198	200,809	178,607	209,179	182,227	203,115	-	209,990
11	Operating	149,603	144,312	146,465	174,530	154,276	191,331	149,300	200,938	151,926	194,426	-	201,551
12	Road Safety	15,377	11,917	15,251	14,685	15,260	15,265	14,910	15,489	15,102	15,057	-	15,398
13	Regulatory Appeal	4,814	4,563	4,647	4,645	4,653	4,507	4,728	4,310	4,809	4,400	-	4,493
14	Total	341,430	327,338	336,861	378,704	350,387	411,912	347,545	429,916	354,064	416,998	n/a	431,432

Summary of Comparative - DVA (cont'd)

Line No.	DVA Expense Category	2021/22A		2022/23FB		2023/24F		2024/25F		2025/26F		2026/27F	
		2022 GRA	2023 GRA	2022 GRA	2023 GRA	2022 GRA	2023 GRA	2022 GRA	2023 GRA	2022 GRA	2023 GRA	2022 GRA	2023 GRA
15	<i>(C\$000s, rounding may affect totals)</i>												
16	Compensation Expenses	28,545	26,864	28,692	30,214	28,518	35,598	25,557	33,985	26,298	33,937	-	33,217
17	Administrative Expenses	24,642	22,151	21,387	25,546	18,833	27,123	15,012	27,509	14,036	19,885	-	18,416
18	Amortization/Depreciation Expenses	2,166	2,015	1,706	1,424	9,037	1,399	9,279	9,715	10,053	12,355	-	16,737
19	Total	55,353	51,030	51,785	57,184	56,388	64,120	49,848	71,209	50,387	66,177	n/a	68,370
20	Normal Operations Expenses	39,897	38,607	39,508	42,298	39,860	45,682	41,026	46,420	42,224	47,754	-	49,177
21	Initiative - Implementation Expenses	15,456	12,423	11,666	14,886	261	15,434	47	15,026	288	1,995	-	545
22	Initiative - Ongoing Expenses	-	-	611	-	16,267	3,004	8,775	9,763	7,875	16,428	-	18,648
23	Total	55,353	51,030	51,785	57,184	56,388	64,120	49,848	71,209	50,387	66,177	n/a	68,370
24	Claims	-	-	-	-	-	-	-	-	-	-	-	-
25	Operating	55,353	51,030	51,785	57,184	56,388	64,120	49,848	71,209	50,387	66,177	-	68,370
26	Road Safety	-	-	-	-	-	-	-	-	-	-	-	-
27	Regulatory Appeal	-	-	-	-	-	-	-	-	-	-	-	-
28	Total	55,353	51,030	51,785	57,184	56,388	64,120	49,848	71,209	50,387	66,177	n/a	68,370
30	DVA% of CORPORATE	2021/22A		2022/23FB		2023/24F		2024/25F		2025/26F		2026/27F	
31	Expense Category	2022 GRA	2023 GRA	2022 GRA	2023 GRA	2022 GRA	2023 GRA	2022 GRA	2023 GRA	2022 GRA	2023 GRA	2022 GRA	2023 GRA
32	Compensation Expenses	15%	15%	15%	15%	15%	16%	14%	15%	14%	15%	-	15%
33	Administrative Expenses	18%	17%	17%	16%	14%	16%	12%	16%	11%	13%	-	12%
34	Amortization/Depreciation Expenses	11%	11%	10%	9%	33%	10%	26%	45%	27%	35%	-	31%
35	Total	16%	16%	15%	15%	16%	16%	14%	17%	14%	16%	n/a	16%
36	Normal Operations Expenses	13%	13%	13%	13%	13%	13%	13%	13%	13%	13%	-	13%
37	Initiative - Implementation Expenses	52%	48%	55%	29%	3%	35%	2%	31%	17%	11%	-	15%
38	Initiative - Ongoing Expenses	-	-	13%	-	54%	22%	35%	43%	32%	53%	-	38%
39	Total	16%	16%	15%	15%	16%	16%	14%	17%	14%	16%	n/a	16%
40	Claims	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	-	0%
41	Operating	37%	35%	35%	33%	37%	34%	33%	35%	33%	34%	-	34%
42	Road Safety	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	-	0%
43	Regulatory Appeal	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	-	0%
44	Total	16%	16%	15%	15%	16%	16%	14%	17%	14%	16%	n/a	16%

Figure 9 Compare 2021/22 Expenses 2023 GRA to 2022 GRA

Line No.	CORPORATE Expense Category	Normal Ops			Initiatives - Implementation			Initiatives - Ongoing			Total		
		2022 GRA	2023 GRA	Chg.	2022 GRA	2023 GRA	Chg.	2022 GRA	2023 GRA	Chg.	2022 GRA	2023 GRA	Chg.
1	<i>(C\$000s, rounding may affect totals)</i>												
2	Compensation - Salaries	142,274	139,223	(3,051)	3,001	1,535	(1,466)	-	-	-	145,275	140,758	(4,517)
3	Compensation - Overtime	1,520	1,888	368	-	10	10	-	-	-	1,520	1,898	378
4	Compensation - Benefits	36,496	34,735	(1,761)	-	-	-	-	-	-	36,496	34,735	(1,761)
5	Compensation - H & E Tax	3,337	3,115	(222)	-	-	-	-	-	-	3,337	3,115	(222)
6	Subtotal - Compensation	183,627	178,961	(4,666)	3,001	1,545	(1,456)	-	-	-	186,628	180,506	(6,122)
7	Data Processing	35,392	34,430	(962)	25,940	24,049	(1,891)	-	-	-	61,332	58,479	(2,853)
8	Special Services	9,092	12,469	3,377	-	-	-	-	-	-	9,092	12,469	3,377
9	Building Expenses	8,756	8,785	29	-	-	-	-	-	-	8,756	8,785	29
10	Safety / Loss Prevention Program	4,488	2,806	(1,682)	-	-	-	-	-	-	4,488	2,806	(1,682)
11	Telephone/Telecommunications	1,911	1,838	(73)	-	-	-	-	-	-	1,911	1,838	(73)
12	Advertising & Public Info	3,505	2,910	(595)	-	-	-	-	-	-	3,505	2,910	(595)
13	Printing, Stationery & Supplies	4,611	4,558	(53)	4	21	17	-	-	-	4,615	4,579	(36)
14	Postage	4,739	5,428	689	-	-	-	-	-	-	4,739	5,428	689
15	Regulatory/Appeal	4,561	4,296	(265)	-	-	-	-	-	-	4,561	4,296	(265)
16	Travel & Vehicle Expense	1,212	696	(516)	14	6	(8)	-	-	-	1,226	702	(524)
17	Driver Education Program	4,722	3,563	(1,159)	-	-	-	-	-	-	4,722	3,563	(1,159)
18	Grant in Lieu of Taxes	1,927	1,858	(69)	-	-	-	-	-	-	1,927	1,858	(69)
19	Furniture & Equipment	2,791	2,187	(604)	371	97	(274)	-	-	-	3,162	2,284	(878)
20	Merchant Fees	10,724	10,469	(255)	-	-	-	-	-	-	10,724	10,469	(255)
21	Other	9,557	6,961	(2,596)	302	226	(76)	-	-	-	9,859	7,187	(2,672)
22	Subtotal - Other Operating Expenses	107,988	103,254	(4,734)	26,631	24,399	(2,232)	-	-	-	134,619	127,653	(6,966)
23	Depreciation of Capital Investments	6,158	5,953	(205)	-	-	-	-	-	-	6,158	5,953	(205)
24	Amortization of Deferred Development	14,025	13,226	(799)	-	-	-	-	-	-	14,025	13,226	(799)
25	Total Expenses	311,798	301,394	(10,404)	29,632	25,944	(3,688)	-	-	-	341,430	327,338	(14,092)

Compare 2021/22 Expenses 2023 GRA to 2022 GRA (cont'd)

Line No.	DVA Expense Category	Normal Ops			Initiatives - Implementation			Initiatives - Ongoing			Total		
		2022 GRA	2023 GRA	Chg.	2022 GRA	2023 GRA	Chg.	2022 GRA	2023 GRA	Chg.	2022 GRA	2023 GRA	Chg.
26	<i>(C\$000s, rounding may affect totals)</i>												
27	Compensation - Salaries	21,140	20,335	(805)	1,269	752	(517)	-	-	-	22,409	21,087	(1,322)
28	Compensation - Overtime	213	226	13	-	4	4	-	-	-	213	230	17
29	Compensation - Benefits	5,427	5,090	(337)	-	-	-	-	-	-	5,427	5,090	(337)
30	Compensation - H & E Tax	496	457	(39)	-	-	-	-	-	-	496	457	(39)
31	Subtotal - Compensation	27,276	26,108	(1,168)	1,269	756	(513)	-	-	-	28,545	26,864	(1,681)
32	Data Processing	2,710	2,519	(191)	14,100	11,636	(2,464)	-	-	-	16,810	14,155	(2,655)
33	Special Services	723	697	(26)	-	-	-	-	-	-	723	697	(26)
34	Building Expenses	1,095	1,071	(24)	-	-	-	-	-	-	1,095	1,071	(24)
35	Safety / Loss Prevention Program	-	-	-	-	-	-	-	-	-	-	-	-
36	Telephone/Telecommunications	169	153	(16)	-	-	-	-	-	-	169	153	(16)
37	Advertising & Public Info	224	126	(98)	-	-	-	-	-	-	224	126	(98)
38	Printing, Stationery & Supplies	2,853	3,106	253	2	2	-	-	-	-	2,855	3,108	253
39	Postage	1,185	1,456	271	-	-	-	-	-	-	1,185	1,456	271
40	Regulatory/Appeal	17	26	9	-	-	-	-	-	-	17	26	9
41	Travel & Vehicle Expense	223	102	(121)	7	3	(4)	-	-	-	230	105	(125)
42	Driver Education Program	-	-	-	-	-	-	-	-	-	-	-	-
43	Grant in Lieu of Taxes	241	230	(11)	-	-	-	-	-	-	241	230	(11)
44	Furniture & Equipment	251	184	(67)	35	8	(27)	-	-	-	286	192	(94)
45	Merchant Fees	56	62	6	-	-	-	-	-	-	56	62	6
46	Other	708	752	44	43	18	(25)	-	-	-	751	770	19
47	Subtotal - Other Operating Expenses	10,455	10,484	29	14,187	11,667	(2,520)	-	-	-	24,642	22,151	(2,491)
48	Depreciation of Capital Investments	741	712	(29)	-	-	-	-	-	-	741	712	(29)
49	Amortization of Deferred Development	1,425	1,303	(122)	-	-	-	-	-	-	1,425	1,303	(122)
50	Total Expenses	39,897	38,607	(1,290)	15,456	12,423	(3,033)	-	-	-	55,353	51,030	(4,323)

Compare 2021/22 Expenses 2023 GRA to 2022 GRA (cont'd)

Line No.	DVA % Allocation Expense Category	Normal Ops			Initiatives			Ongoing			Total		
		2022 GRA	2023 GRA	Chg.	2022 GRA	2023 GRA	Chg.	2022 GRA	2023 GRA	Chg.	2022 GRA	2023 GRA	Chg.
51	<i>(C\$000s, rounding may affect totals)</i>												
52	Compensation - Salaries	14.9%	14.6%	-0.3%	42.3%	49.0%	6.7%				15.4%	15.0%	-0.4%
53	Compensation - Overtime	14.0%	12.0%	-2.0%		40.0%					14.0%	12.1%	-1.9%
54	Compensation - Benefits	14.9%	14.7%	-0.2%							14.9%	14.7%	-0.2%
55	Compensation - H & E Tax	14.9%	14.7%	-0.2%							14.9%	14.7%	-0.2%
56	Subtotal	14.9%	14.6%	-0.3%	42.3%	48.9%	6.6%				15.3%	14.9%	-0.4%
57	Data Processing	7.7%	7.3%	-0.3%	54.4%	48.4%	-6.0%				27.4%	24.2%	-3.2%
58	Special Services	8.0%	5.6%	-2.4%							8.0%	5.6%	-2.4%
59	Building Expenses	12.5%	12.2%	-0.3%							12.5%	12.2%	-0.3%
60	Loss Prev/Safety Program	0.0%	0.0%	0.0%							0.0%	0.0%	0.0%
61	Telephone/Telecommunications	8.8%	8.3%	-0.5%							8.8%	8.3%	-0.5%
62	Advertising & Public Info	6.4%	4.3%	-2.1%							6.4%	4.3%	-2.1%
63	Printing, Stationery & Supplies	61.9%	68.1%	6.3%	50.0%	9.5%	-40.5%				61.9%	67.9%	6.0%
64	Postage	25.0%	26.8%	1.8%							25.0%	26.8%	1.8%
65	Regulatory/Appeal Expenses	0.4%	0.6%	0.2%							0.4%	0.6%	0.2%
66	Travel & Vehicle Expense	18.4%	14.7%	-3.7%	50.0%	50.0%	0.0%				18.8%	15.0%	-3.8%
67	Driver Education Program	0.0%	0.0%	0.0%							0.0%	0.0%	0.0%
68	Grant in Lieu of Taxes	12.5%	12.4%	-0.1%							12.5%	12.4%	-0.1%
69	Furniture & Equipment	9.0%	8.4%	-0.6%	9.4%	8.2%	-1.2%				9.0%	8.4%	-0.6%
70	Merchant Fees	0.5%	0.6%	0.1%							0.5%	0.6%	0.1%
71	Other	7.4%	10.8%	3.4%	14.2%	8.0%	-6.3%				7.6%	10.7%	3.1%
72	Subtotal	9.7%	10.2%	0.5%	53.3%	47.8%	-5.5%				18.3%	17.4%	-1.0%
73	Depreciation of Capital Investments	12.0%	12.0%	-0.1%							12.0%	12.0%	-0.1%
74	Amortization of Deferred Development	10.2%	9.9%	-0.3%							10.2%	9.9%	-0.3%
75	TOTAL	12.8%	12.8%	0.0%	52.2%	47.9%	-4.3%				16.2%	15.6%	-0.6%

Figure 10 Compare 2022/23 Expenses 2023 GRA to 2022 GRA

Line No.	CORPORATE Expense Category	Normal Ops			Initiatives - Implementation			Initiatives - Ongoing			Total		
		2022 GRA	2023 GRA	Chg.	2022 GRA	2023 GRA	Chg.	2022 GRA	2023 GRA	Chg.	2022 GRA	2023 GRA	Chg.
1	<i>(C\$000s, rounding may affect totals)</i>												
2	Compensation - Salaries	146,325	154,859	8,534	2,170	1,950	(220)	1,033	-	(1,033)	149,528	156,809	7,281
3	Compensation - Overtime	1,498	1,530	32	-	-	-	-	-	-	1,498	1,530	32
4	Compensation - Benefits	36,567	37,682	1,115	-	-	-	-	-	-	36,567	37,682	1,115
5	Compensation - H & E Tax	3,367	3,423	56	-	-	-	-	-	-	3,367	3,423	56
6	Subtotal - Compensation	187,757	197,494	9,737	2,170	1,950	(220)	1,033	-	(1,033)	190,960	199,444	8,484
7	Data Processing	37,000	45,393	8,393	18,407	48,325	29,918	2,021	-	(2,021)	57,428	93,718	36,290
8	Special Services	8,554	12,180	3,626	-	-	-	-	-	-	8,554	12,180	3,626
9	Building Expenses	8,591	8,659	68	-	-	-	-	-	-	8,591	8,659	68
10	Safety / Loss Prevention Program	4,139	3,619	(520)	-	-	-	-	-	-	4,139	3,619	(520)
11	Telephone/Telecommunications	1,910	1,851	(59)	-	-	-	-	-	-	1,910	1,851	(59)
12	Advertising & Public Info	3,505	3,222	(283)	-	-	-	-	-	-	3,505	3,222	(283)
13	Printing, Stationery & Supplies	4,603	4,496	(107)	5	18	13	-	-	-	4,608	4,514	(94)
14	Postage	4,739	4,496	(243)	-	-	-	-	-	-	4,739	4,496	(243)
15	Regulatory/Appeal	4,387	4,338	(49)	-	-	-	-	-	-	4,387	4,338	(49)
16	Travel & Vehicle Expense	1,219	1,154	(65)	14	7	(7)	-	-	-	1,233	1,161	(72)
17	Driver Education Program	4,875	4,692	(183)	-	-	-	-	-	-	4,875	4,692	(183)
18	Grant in Lieu of Taxes	1,927	1,926	(1)	-	-	-	-	-	-	1,927	1,926	(1)
19	Furniture & Equipment	2,195	1,197	(998)	370	371	1	-	-	-	2,565	1,568	(997)
20	Merchant Fees	10,842	10,693	(149)	-	-	-	-	-	-	10,842	10,693	(149)
21	Other	8,861	7,047	(1,814)	112	422	310	2	-	(2)	8,975	7,469	(1,506)
22	Subtotal - Other Operating Expenses	107,347	114,963	7,616	18,908	49,143	30,235	2,023	-	(2,023)	128,278	164,106	35,828
23	Depreciation of Capital Investments	6,272	6,440	168	-	-	-	-	-	-	6,272	6,440	168
24	Amortization of Deferred Development	9,728	8,714	(1,014)	-	-	-	1,623	-	(1,623)	11,351	8,714	(2,637)
25	Total Expenses	311,104	327,611	16,507	21,078	51,093	30,015	4,679	-	(4,679)	336,861	378,704	41,843

Compare 2022/23 Expenses 2023 GRA to 2022 GRA (cont'd)

Line No.	DVA Expense Category	Normal Ops			Initiatives - Implementation			Initiatives - Ongoing			Total		
		2022 GRA	2023 GRA	Chg.	2022 GRA	2023 GRA	Chg.	2022 GRA	2023 GRA	Chg.	2022 GRA	2023 GRA	Chg.
26	<i>(C\$000s, rounding may affect totals)</i>												
27	Compensation - Salaries	21,586	23,092	1,506	858	781	(77)	179	-	(179)	22,623	23,873	1,250
28	Compensation - Overtime	210	217	7	-	-	-	-	-	-	210	217	7
29	Compensation - Benefits	5,365	5,614	249	-	-	-	-	-	-	5,365	5,614	249
30	Compensation - H & E Tax	494	510	16	-	-	-	-	-	-	494	510	16
31	Subtotal - Compensation	27,655	29,433	1,778	858	781	(77)	179	-	(179)	28,692	30,214	1,522
32	Data Processing	2,825	3,786	961	10,754	13,993	3,239	177	-	(177)	13,756	17,779	4,023
33	Special Services	677	615	(62)	-	-	-	-	-	-	677	615	(62)
34	Building Expenses	1,069	1,099	30	-	-	-	-	-	-	1,069	1,099	30
35	Safety / Loss Prevention Program	-	-	-	-	-	-	-	-	-	-	-	-
36	Telephone/Telecommunications	169	171	2	-	-	-	-	-	-	169	171	2
37	Advertising & Public Info	232	168	(64)	-	-	-	-	-	-	232	168	(64)
38	Printing, Stationery & Supplies	2,846	2,883	37	2	4	2	-	-	-	2,848	2,887	39
39	Postage	1,185	1,240	55	-	-	-	-	-	-	1,185	1,240	55
40	Regulatory/Appeal	16	18	2	-	-	-	-	-	-	16	18	2
41	Travel & Vehicle Expense	224	215	(9)	6	3	(3)	-	-	-	230	218	(12)
42	Driver Education Program	-	-	-	-	-	-	-	-	-	-	-	-
43	Grant in Lieu of Taxes	240	245	5	-	-	-	-	-	-	240	245	5
44	Furniture & Equipment	197	113	(84)	35	36	1	-	-	-	232	149	(83)
45	Merchant Fees	56	60	4	-	-	-	-	-	-	56	60	4
46	Other	666	828	162	11	69	58	-	-	-	677	897	220
47	Subtotal - Other Operating Expenses	10,402	11,441	1,039	10,808	14,105	3,297	177	-	(177)	21,387	25,546	4,159
48													
49	Depreciation of Capital Investments	765	810	45	-	-	-	-	-	-	765	810	45
50	Amortization of Deferred Development	686	614	(72)	-	-	-	255	-	(255)	941	614	(327)
51	Total Expenses	39,508	42,298	2,790	11,666	14,886	3,220	611	-	(611)	51,785	57,184	5,399

Compare 2022/23 Expenses 2023 GRA to 2022 GRA (cont'd)

Line No.	DVA % Allocation Expense Category	Normal Ops			Initiatives			Ongoing			Total		
		2022 GRA	2023 GRA	Chg.	2022 GRA	2023 GRA	Chg.	2022 GRA	2023 GRA	Chg.	2022 GRA	2023 GRA	Chg.
53	<i>(C\$000s, rounding may affect totals)</i>												
54	Compensation - Salaries	14.8%	14.9%	0.2%	39.5%	40.1%	0.5%	17.3%			15.1%	15.2%	0.1%
55	Compensation - Overtime	14.0%	14.2%	0.2%							14.0%	14.2%	0.2%
56	Compensation - Benefits	14.7%	14.9%	0.2%							14.7%	14.9%	0.2%
57	Compensation - H & E Tax	14.7%	14.9%	0.2%							14.7%	14.9%	0.2%
58	Subtotal	14.7%	14.9%	0.2%	39.5%	40.1%	0.5%	17.3%			15.0%	15.1%	0.1%
59	Data Processing	7.6%	8.3%	0.7%	58.4%	29.0%	-29.5%	8.8%			24.0%	19.0%	-5.0%
60	Special Services	7.9%	5.0%	-2.9%							7.9%	5.0%	-2.9%
61	Building Expenses	12.4%	12.7%	0.2%							12.4%	12.7%	0.2%
62	Loss Prev/Safety Program	0.0%	0.0%	0.0%							0.0%	0.0%	0.0%
63	Telephone/Telecommunications	8.8%	9.2%	0.4%							8.8%	9.2%	0.4%
64	Advertising & Public Info	6.6%	5.2%	-1.4%							6.6%	5.2%	-1.4%
65	Postage	61.8%	64.1%	2.3%	40.0%	22.2%	-17.8%				61.8%	64.0%	2.2%
66	Postage	25.0%	27.6%	2.6%							25.0%	27.6%	2.6%
67	Regulatory/Appeal Expenses	0.4%	0.4%	0.1%							0.4%	0.4%	0.1%
68	Travel & Vehicle Expense	18.4%	18.6%	0.3%	42.9%	42.9%	0.0%				18.7%	18.8%	0.1%
69	Driver Education Program	0.0%	0.0%	0.0%							0.0%	0.0%	0.0%
70	Grant in Lieu of Taxes	12.5%	12.7%	0.3%							12.5%	12.7%	0.3%
71	Furniture & Equipment	9.0%	9.4%	0.5%	9.5%	9.7%	0.2%				9.0%	9.5%	0.5%
72	Merchant Fees	0.5%	0.6%	0.0%							0.5%	0.6%	0.0%
73	Other	7.5%	11.7%	4.2%	9.8%	16.4%	6.5%	0.0%			7.5%	12.0%	4.5%
74	Subtotal	9.7%	10.0%	0.3%	57.2%	28.7%	-28.5%	8.7%			16.7%	15.6%	-1.1%
75	Depreciation of Capital Investments	12.2%	12.6%	0.4%							12.2%	12.6%	0.4%
76	Amortization of Deferred Development	7.1%	7.0%	0.0%				15.7%			8.3%	7.0%	-1.2%
77	TOTAL	12.7%	12.9%	0.2%	55.3%	29.1%	-26.2%	13.1%			15.4%	15.1%	-0.3%

Figure 11 Compare 2023/24 Expenses 2023 GRA to 2022 GRA

Line No.	CORPORATE Expense Category	Normal Ops			Initiatives - Implementation			Initiatives - Ongoing			Total		
		2022 GRA	2023 GRA	Chg.	2022 GRA	2023 GRA	Chg.	2022 GRA	2023 GRA	Chg.	2022 GRA	2023 GRA	Chg.
1	<i>(C\$000s, except where noted)</i>												
2	Compensation - Salaries	149,236	172,646	23,410	2,351	2,175	(176)	(328)	7,713	8,041	151,259	182,534	31,275
3	Compensation - Overtime	1,481	1,548	67	-	-	-	-	-	-	1,481	1,548	67
4	Compensation - Benefits	36,642	38,711	2,069	-	-	-	-	-	-	36,642	38,711	2,069
5	Compensation - H & E Tax	3,393	3,550	157	-	-	-	-	-	-	3,393	3,550	157
6	Subtotal - Compensation	190,752	216,455	25,703	2,351	2,175	(176)	(328)	7,713	8,041	192,775	226,343	33,568
7	Data Processing	38,381	49,235	10,854	5,004	41,791	36,787	17,124	6,578	(10,546)	60,509	97,604	37,095
8	Special Services	8,636	16,817	8,181	-	-	-	-	-	-	8,636	16,817	8,181
9	Building Expenses	8,004	8,238	234	-	-	-	-	-	-	8,004	8,238	234
10	Safety / Loss Prevention Program	4,140	3,849	(291)	-	-	-	-	-	-	4,140	3,849	(291)
11	Telephone/Telecommunications	1,911	1,895	(16)	-	-	-	-	-	-	1,911	1,895	(16)
12	Advertising & Public Info	3,504	3,299	(205)	-	-	-	-	-	-	3,504	3,299	(205)
13	Printing, Stationery & Supplies	4,589	4,596	7	3	12	9	-	-	-	4,592	4,608	16
14	Postage	4,739	4,603	(136)	-	-	-	-	-	-	4,739	4,603	(136)
15	Regulatory/Appeal	4,407	4,169	(238)	-	-	-	-	-	-	4,407	4,169	(238)
16	Travel & Vehicle Expense	1,216	1,181	(35)	15	5	(10)	-	-	-	1,231	1,186	(45)
17	Driver Education Program	4,875	4,868	(7)	-	-	-	-	-	-	4,875	4,868	(7)
18	Grant in Lieu of Taxes	1,927	1,974	47	-	-	-	-	-	-	1,927	1,974	47
19	Furniture & Equipment	1,897	1,029	(868)	348	350	2	-	-	-	2,245	1,379	(866)
20	Merchant Fees	10,949	10,948	(1)	-	-	-	-	-	-	10,949	10,948	(1)
21	Other	8,823	7,206	(1,617)	19	25	6	(257)	(876)	(619)	8,585	6,355	(2,230)
22	Subtotal - Other Operating Expenses	107,998	123,907	15,909	5,389	42,183	36,794	16,867	5,702	(11,165)	130,254	171,792	41,538
23	Depreciation of Capital Investments	6,751	6,793	42	-	-	-	-	-	-	6,751	6,793	42
24	Amortization of Deferred Development	6,847	6,535	(312)	-	-	-	13,760	449	(13,311)	20,607	6,984	(13,623)
25	Total Expenses	312,348	353,690	41,342	7,740	44,358	36,618	30,299	13,864	(16,435)	350,387	411,912	61,525

Compare 2023/24 Expenses 2023 GRA to 2022 GRA (cont'd)

Line No.	DVA Expense Category	Normal Ops			Initiatives - Implementation			Initiatives - Ongoing			Total		
		2022 GRA	2023 GRA	Chg.	2022 GRA	2023 GRA	Chg.	2022 GRA	2023 GRA	Chg.	2022 GRA	2023 GRA	Chg.
26	<i>(C\$000s, rounding may affect totals)</i>												
27	Compensation - Salaries	22,016	25,738	3,722	119	736	617	301	2,611	2,310	22,436	29,085	6,649
28	Compensation - Overtime	208	219	11	-	-	-	-	-	-	208	219	11
29	Compensation - Benefits	5,376	5,765	389	-	-	-	-	-	-	5,376	5,765	389
30	Compensation - H & E Tax	498	529	31	-	-	-	-	-	-	498	529	31
31	Subtotal - Compensation	28,098	32,251	4,153	119	736	617	301	2,611	2,310	28,518	35,598	7,080
32	Data Processing	2,930	4,106	1,176	107	14,647	14,540	8,278	646	(7,632)	11,315	19,399	8,084
33	Special Services	684	849	165	-	-	-	-	-	-	684	849	165
34	Building Expenses	996	1,045	49	-	-	-	-	-	-	996	1,045	49
35	Safety / Loss Prevention Program	-	-	-	-	-	-	-	-	-	-	-	-
36	Telephone/Telecommunications	169	175	6	-	-	-	-	-	-	169	175	6
37	Advertising & Public Info	232	192	(40)	-	-	-	-	-	-	232	192	(40)
38	Printing, Stationery & Supplies	2,839	2,947	108	-	4	4	-	-	-	2,839	2,951	112
39	Postage	1,185	1,269	84	-	-	-	-	-	-	1,185	1,269	84
40	Regulatory/Appeal	33	17	(16)	-	-	-	-	-	-	33	17	(16)
41	Travel & Vehicle Expense	224	221	(3)	1	2	1	-	-	-	225	223	(2)
42	Driver Education Program	-	-	-	-	-	-	-	-	-	-	-	-
43	Grant in Lieu of Taxes	240	250	10	-	-	-	-	-	-	240	250	10
44	Furniture & Equipment	170	97	(73)	33	35	2	-	-	-	203	132	(71)
45	Merchant Fees	57	61	4	-	-	-	-	-	-	57	61	4
46	Other	664	847	183	1	10	9	(10)	(297)	(287)	655	560	(95)
47	Subtotal - Other Operating Expenses	10,423	12,076	1,653	142	14,698	14,556	8,268	349	(7,919)	18,833	27,123	8,290
48	Depreciation of Capital Investments	824	850	26	-	-	-	-	-	-	824	850	26
49	Amortization of Deferred Development	515	505	(10)	-	-	-	7,698	44	(7,654)	8,213	549	(7,664)
50	Total Expenses	39,860	45,682	5,822	261	15,434	15,173	16,267	3,004	(13,263)	56,388	64,120	7,732

Compare 2023/24 Expenses 2023 GRA to 2022 GRA (cont'd)

Line No.	DVA % Allocation Expense Category	Normal Ops			Initiatives			Ongoing			Total		
		2022 GRA	2023 GRA	Chg.	2022 GRA	2023 GRA	Chg.	2022 GRA	2023 GRA	Chg.	2022 GRA	2023 GRA	Chg.
51	<i>(C\$000s, except where noted)</i>												
52	Compensation - Salaries	14.8%	14.9%	0.2%	5.1%	33.8%	28.8%	-91.8%	33.9%	125.6%	14.8%	15.9%	1.1%
53	Compensation - Overtime	14.0%	14.1%	0.1%							14.0%	14.1%	0.1%
54	Compensation - Benefits	14.7%	14.9%	0.2%							14.7%	14.9%	0.2%
55	Compensation - H & E Tax	14.7%	14.9%	0.2%							14.7%	14.9%	0.2%
56	Subtotal	14.7%	14.9%	0.2%	5.1%	33.8%	28.8%	-91.8%	33.9%	125.6%	14.8%	15.7%	0.9%
57	Data Processing	7.6%	8.3%	0.7%	2.1%	35.0%	32.9%	48.3%	9.8%	-38.5%	18.7%	19.9%	1.2%
58	Special Services	7.9%	5.0%	-2.9%							7.9%	5.0%	-2.9%
59	Building Expenses	12.4%	12.7%	0.2%							12.4%	12.7%	0.2%
60	Loss Prev/Safety Program	0.0%	0.0%	0.0%							0.0%	0.0%	0.0%
61	Telephone/Telecommunications	8.8%	9.2%	0.4%							8.8%	9.2%	0.4%
62	Advertising & Public Info	6.6%	5.8%	-0.8%							6.6%	5.8%	-0.8%
63	Printing, Stationery & Supplies	61.9%	64.1%	2.3%	0.0%	33.3%	33.3%				61.8%	64.0%	2.2%
64	Postage	25.0%	27.6%	2.6%							25.0%	27.6%	2.6%
65	Regulatory/Appeal Expenses	0.7%	0.4%	-0.3%							0.7%	0.4%	-0.3%
66	Travel & Vehicle Expense	18.4%	18.7%	0.3%	6.7%	40.0%	33.3%				18.3%	18.8%	0.5%
67	Driver Education Program	0.0%	0.0%	0.0%							0.0%	0.0%	0.0%
68	Grant in Lieu of Taxes	12.5%	12.7%	0.2%							12.5%	12.7%	0.2%
69	Furniture & Equipment	9.0%	9.4%	0.5%	9.5%	10.0%	0.5%				9.0%	9.6%	0.5%
70	Merchant Fees	0.5%	0.6%	0.0%							0.5%	0.6%	0.0%
71	Other	7.5%	11.8%	4.2%	5.3%	40.0%	34.7%	3.9%	33.9%	30.0%	7.6%	8.8%	1.2%
72	Subtotal	9.7%	9.7%	0.1%	2.6%	34.8%	32.2%	49.0%	6.1%	-42.9%	14.5%	15.8%	1.3%
73	Depreciation of Capital Investments	12.2%	12.5%	0.3%							12.2%	12.5%	0.3%
74	Amortization of Deferred Development	7.5%	7.7%	0.2%				55.9%	9.8%	-46.1%	39.9%	7.9%	-32.0%
75	TOTAL	12.8%	12.9%	0.2%	3.4%	34.8%	31.4%	53.7%	21.7%	-32.0%	16.1%	15.6%	-0.5%

Figure 12 Compare 2024/25 Expenses 2023 GRA to 2022 GRA

Line No.	CORPORATE Expense Category	Normal Ops			Initiatives - Implementation			Initiatives - Ongoing			Total		
		2022 GRA	2023 GRA	Chg.	2022 GRA	2023 GRA	Chg.	2022 GRA	2023 GRA	Chg.	2022 GRA	2023 GRA	Chg.
1	<i>(C\$ 000s, except where noted)</i>												
2	Compensation - Salaries	154,757	176,494	21,737	1,901	1,723	(178)	(12,192)	9,671	21,863	144,466	187,888	43,422
3	Compensation - Overtime	1,535	1,515	(20)	-	-	-	-	-	-	1,535	1,515	(20)
4	Compensation - Benefits	37,377	38,809	1,432	-	-	-	-	-	-	37,377	38,809	1,432
5	Compensation - H & E Tax	3,463	3,599	136	-	-	-	-	-	-	3,463	3,599	136
6	Subtotal - Compensation	197,132	220,417	23,285	1,901	1,723	(178)	(12,192)	9,671	21,863	186,841	231,811	44,970
7	Data Processing	39,147	52,114	12,967	753	46,165	45,412	14,501	4,705	(9,796)	54,401	102,984	48,583
8	Special Services	8,783	16,673	7,890	-	-	-	-	-	-	8,783	16,673	7,890
9	Building Expenses	8,164	8,232	68	-	-	-	-	-	-	8,164	8,232	68
10	Safety / Loss Prevention Program	4,221	4,125	(96)	-	-	-	-	-	-	4,221	4,125	(96)
11	Telephone/Telecommunications	1,948	1,895	(53)	-	-	-	-	-	-	1,948	1,895	(53)
12	Advertising & Public Info	3,577	3,297	(280)	-	-	-	-	-	-	3,577	3,297	(280)
13	Printing, Stationery & Supplies	4,683	4,593	(90)	-	12	12	-	-	-	4,683	4,605	(78)
14	Postage	4,834	4,599	(235)	-	-	-	(442)	(157)	285	4,392	4,442	50
15	Regulatory/Appeal	4,495	3,965	(530)	-	-	-	-	-	-	4,495	3,965	(530)
16	Travel & Vehicle Expense	1,240	1,184	(56)	-	6	6	-	-	-	1,240	1,190	(50)
17	Driver Education Program	4,973	4,861	(112)	-	-	-	-	-	-	4,973	4,861	(112)
18	Grant in Lieu of Taxes	1,966	1,971	5	-	-	-	-	-	-	1,966	1,971	5
19	Furniture & Equipment	1,933	976	(957)	-	-	-	-	-	-	1,933	976	(957)
20	Merchant Fees	11,167	10,938	(229)	-	-	-	-	-	-	11,167	10,938	(229)
21	Other	8,998	7,200	(1,798)	-	117	117	(568)	(876)	(308)	8,430	6,441	(1,989)
22	Subtotal - Other Operating Expenses	110,129	126,623	16,494	753	46,300	45,547	13,491	3,672	(9,819)	124,373	176,595	52,222
23	Depreciation of Capital Investments	7,514	7,456	(58)	-	-	-	-	-	-	7,514	7,456	(58)
24	Amortization of Deferred Development	4,886	4,808	(78)	-	-	-	23,931	9,246	(14,685)	28,817	14,054	(14,763)
25	Total Expenses	319,661	359,304	39,643	2,654	48,023	45,369	25,230	22,589	(2,641)	347,545	429,916	82,371

Compare 2024/25 Expenses 2023 GRA to 2022 GRA (cont'd)

Line No.	DVA Expense Category	Normal Ops			Initiatives - Implementation			Initiatives - Ongoing			Total		
		2022 GRA	2023 GRA	Chg.	2022 GRA	2023 GRA	Chg.	2022 GRA	2023 GRA	Chg.	2022 GRA	2023 GRA	Chg.
26	<i>(C\$000s, rounding may affect totals)</i>												
27	Compensation - Salaries	22,830	26,312	3,482	-	173	173	(3,480)	970	4,450	19,350	27,455	8,105
28	Compensation - Overtime	215	214	(1)	-	-	-	-	-	-	215	214	(1)
29	Compensation - Benefits	5,484	5,780	296	-	-	-	-	-	-	5,484	5,780	296
30	Compensation - H & E Tax	508	536	28	-	-	-	-	-	-	508	536	28
31	Subtotal - Compensation	29,037	32,842	3,805	-	173	173	(3,480)	970	4,450	25,557	33,985	8,428
32	Data Processing	2,989	4,347	1,358	47	14,844	14,797	4,306	462	(3,844)	7,342	19,653	12,311
33	Special Services	696	841	145	-	-	-	-	-	-	696	841	145
34	Building Expenses	1,016	1,044	28	-	-	-	-	-	-	1,016	1,044	28
35	Safety / Loss Prevention Program	-	-	-	-	-	-	-	-	-	-	-	-
36	Telephone/Telecommunications	172	175	3	-	-	-	-	-	-	172	175	3
37	Advertising & Public Info	237	192	(45)	-	-	-	-	-	-	237	192	(45)
38	Printing, Stationery & Supplies	2,896	2,944	48	-	1	1	-	-	-	2,896	2,945	49
39	Postage	1,209	1,268	59	-	-	-	-	(16)	(16)	1,209	1,252	43
40	Regulatory/Appeal	56	16	(40)	-	-	-	-	-	-	56	16	(40)
41	Travel & Vehicle Expense	228	221	(7)	-	1	1	-	-	-	228	222	(6)
42	Driver Education Program	-	-	-	-	-	-	-	-	-	-	-	-
43	Grant in Lieu of Taxes	245	250	5	-	-	-	-	-	-	245	250	5
44	Furniture & Equipment	173	92	(81)	-	-	-	-	-	-	173	92	(81)
45	Merchant Fees	58	61	3	-	-	-	-	-	-	58	61	3
46	Other	678	847	169	-	7	7	6	(88)	(94)	684	766	82
47	Subtotal - Other Operating Expenses	10,653	12,298	1,645	47	14,853	14,806	4,312	358	(3,954)	15,012	27,509	12,497
48	Depreciation of Capital Investments	916	909	(7)	-	-	-	-	-	-	916	909	(7)
49	Amortization of Deferred Development	420	371	(49)	-	-	-	7,943	8,435	492	8,363	8,806	443
50	Total Expenses	41,026	46,420	5,394	47	15,026	14,979	8,775	9,763	988	49,848	71,209	21,361

Compare 2024/25 Expenses 2023 GRA to 2022 GRA (cont'd)

Line No.	DVA % Allocation Expense Category	Normal Ops			Initiatives			Ongoing			Total		
		2022 GRA	2023 GRA	Chg.	2022 GRA	2023 GRA	Chg.	2022 GRA	2023 GRA	Chg.	2022 GRA	2023 GRA	Chg.
51	<i>(C\$000s, rounding may affect totals)</i>												
52	Compensation - Salaries	14.8%	14.9%	0.2%	0.0%	10.0%	10.0%	28.5%	10.0%	-18.5%	13.4%	14.6%	1.2%
53	Compensation - Overtime	14.0%	14.1%	0.1%							14.0%	14.1%	0.1%
54	Compensation - Benefits	14.7%	14.9%	0.2%							14.7%	14.9%	0.2%
55	Compensation - H & E Tax	14.7%	14.9%	0.2%							14.7%	14.9%	0.2%
56	Subtotal	14.7%	14.9%	0.2%	0.0%	10.0%	10.0%	28.5%	10.0%	-18.5%	13.7%	14.7%	1.0%
57	Data Processing	7.6%	8.3%	0.7%	6.2%	32.2%	25.9%	29.7%	9.8%	-19.9%	13.5%	19.1%	5.6%
58	Special Services	7.9%	5.0%	-2.9%							7.9%	5.0%	-2.9%
59	Building Expenses	12.4%	12.7%	0.2%							12.4%	12.7%	0.2%
60	Loss Prev/Safety Program	0.0%	0.0%	0.0%							0.0%	0.0%	0.0%
61	Telephone/Telecommunications	8.8%	9.2%	0.4%							8.8%	9.2%	0.4%
62	Advertising & Public Info	6.6%	5.8%	-0.8%							6.6%	5.8%	-0.8%
63	Printing, Stationery & Supplies	61.8%	64.1%	2.3%		8.3%					61.8%	64.0%	2.1%
64	Postage	25.0%	27.6%	2.6%				0.0%	10.2%	10.2%	27.5%	28.2%	0.7%
65	Regulatory/Appeal Expenses	1.2%	0.4%	-0.8%							1.2%	0.4%	-0.8%
66	Travel & Vehicle Expense	18.4%	18.7%	0.3%		16.7%					18.4%	18.7%	0.3%
67	Driver Education Program	0.0%	0.0%	0.0%							0.0%	0.0%	0.0%
68	Grant in Lieu of Taxes	12.5%	12.7%	0.2%							12.5%	12.7%	0.2%
69	Furniture & Equipment	8.9%	9.4%	0.5%							8.9%	9.4%	0.5%
70	Merchant Fees	0.5%	0.6%	0.0%							0.5%	0.6%	0.0%
71	Other	7.5%	11.8%	4.2%		6.0%		-1.1%	10.0%	11.1%	8.1%	11.9%	3.8%
72	Subtotal	9.7%	9.7%	0.0%	6.2%	32.1%	25.8%	32.0%	9.7%	-22.2%	12.1%	15.6%	3.5%
73	Depreciation of Capital Investments	12.2%	12.2%	0.0%							12.2%	12.2%	0.0%
74	Amortization of Deferred Development	8.6%	7.7%	-0.9%				33.2%	91.2%	58.0%	29.0%	62.7%	33.6%
75	TOTAL	12.8%	12.9%	0.1%	1.8%	31.3%	29.5%	34.8%	43.2%	8.4%	14.3%	16.6%	2.2%

Figure 13 Compare 2025/26 Expenses 2023 GRA to 2022 GRA

Line No.	CORPORATE Expense Category	Normal Ops			Initiatives - Implementation			Initiatives - Ongoing			Total		
		2022 GRA	2023 GRA	Chg.	2022 GRA	2023 GRA	Chg.	2022 GRA	2023 GRA	Chg.	2022 GRA	2023 GRA	Chg.
1	<i>(C\$000s, except where noted)</i>												
2	Compensation - Salaries	160,483	182,938	22,455	1,181	1,176	(5)	(13,408)	(1,166)	12,242	148,256	182,948	34,692
3	Compensation - Overtime	1,447	1,569	122	-	-	-	-	-	-	1,447	1,569	122
4	Compensation - Benefits	38,122	39,584	1,462	-	-	-	-	-	-	38,122	39,584	1,462
5	Compensation - H & E Tax	3,533	3,672	139	-	-	-	-	-	-	3,533	3,672	139
6	Subtotal - Compensation	203,585	227,763	24,178	1,181	1,176	(5)	(13,408)	(1,166)	12,242	191,358	227,773	36,415
7	Data Processing	39,932	53,155	13,223	500	16,677	16,177	14,331	9,522	(4,809)	54,763	79,354	24,591
8	Special Services	8,957	17,009	8,052	-	-	-	-	-	-	8,957	17,009	8,052
9	Building Expenses	8,326	8,397	71	-	-	-	-	-	-	8,326	8,397	71
10	Safety / Loss Prevention Program	4,304	4,208	(96)	-	-	-	-	-	-	4,304	4,208	(96)
11	Telephone/Telecommunications	1,988	1,932	(56)	-	-	-	-	-	-	1,988	1,932	(56)
12	Advertising & Public Info	3,645	3,362	(283)	-	-	-	-	-	-	3,645	3,362	(283)
13	Printing, Stationery & Supplies	4,773	4,681	(92)	-	13	13	-	-	-	4,773	4,694	(79)
14	Postage	4,931	4,691	(240)	-	-	-	(542)	(397)	145	4,389	4,294	(95)
15	Regulatory/Appeal	4,590	4,043	(547)	-	-	-	-	-	-	4,590	4,043	(547)
16	Travel & Vehicle Expense	1,265	1,207	(58)	-	3	3	-	-	-	1,265	1,210	(55)
17	Driver Education Program	5,073	4,959	(114)	-	-	-	-	-	-	5,073	4,959	(114)
18	Grant in Lieu of Taxes	2,006	2,011	5	-	-	-	-	-	-	2,006	2,011	5
19	Furniture & Equipment	1,973	997	(976)	-	-	-	-	-	-	1,973	997	(976)
20	Merchant Fees	11,391	11,157	(234)	-	-	-	-	-	-	11,391	11,157	(234)
21	Other	9,163	7,343	(1,820)	2	56	54	(577)	(870)	(293)	8,588	6,529	(2,059)
22	Subtotal - Other Operating Expenses	112,317	129,152	16,835	502	16,749	16,247	13,212	8,255	(4,957)	126,031	154,156	28,125
23	Depreciation of Capital Investments	8,554	8,487	(67)	-	-	-	-	-	-	8,554	8,487	(67)
24	Amortization of Deferred Development	3,391	2,780	(611)	-	-	-	24,730	23,802	(928)	28,121	26,582	(1,539)
25	Total Expenses	327,847	368,182	40,335	1,683	17,925	16,242	24,534	30,891	6,357	354,064	416,998	62,934

Compare 2025/26 Expenses 2023 GRA to 2022 GRA (cont'd)

Line No.	DVA Expense Category	Normal Ops			Initiatives - Implementation			Initiatives - Ongoing			Total		
		2022 GRA	2023 GRA	Chg.	2022 GRA	2023 GRA	Chg.	2022 GRA	2023 GRA	Chg.	2022 GRA	2023 GRA	Chg.
26	<i>(C\$000s, rounding may affect totals)</i>												
27	Compensation - Salaries	23,675	27,272	3,597	241	88	(153)	(3,932)	(87)	3,845	19,984	27,273	7,289
28	Compensation - Overtime	203	222	19	-	-	-	-	-	-	203	222	19
29	Compensation - Benefits	5,593	5,895	302	-	-	-	-	-	-	5,593	5,895	302
30	Compensation - H & E Tax	518	547	29	-	-	-	-	-	-	518	547	29
31	Subtotal - Compensation	29,989	33,936	3,947	241	88	(153)	(3,932)	(87)	3,845	26,298	33,937	7,639
32	Data Processing	3,049	4,433	1,384	47	1,905	1,858	3,335	5,525	2,190	6,431	11,863	5,432
33	Special Services	709	858	149	-	-	-	-	-	-	709	858	149
34	Building Expenses	1,036	1,065	29	-	-	-	-	-	-	1,036	1,065	29
35	Safety / Loss Prevention Program	-	-	-	-	-	-	-	-	-	-	-	-
36	Telephone/Telecommunications	176	179	3	-	-	-	-	-	-	176	179	3
37	Advertising & Public Info	242	195	(47)	-	-	-	-	-	-	242	195	(47)
38	Printing, Stationery & Supplies	2,953	3,003	50	-	1	1	-	-	-	2,953	3,004	51
39	Postage	1,233	1,293	60	-	-	-	(110)	(30)	80	1,123	1,263	140
40	Regulatory/Appeal	79	16	(63)	-	-	-	-	-	-	79	16	(63)
41	Travel & Vehicle Expense	232	226	(6)	-	-	-	-	-	-	232	226	(6)
42	Driver Education Program	-	-	-	-	-	-	-	-	-	-	-	-
43	Grant in Lieu of Taxes	250	255	5	-	-	-	-	-	-	250	255	5
44	Furniture & Equipment	177	94	(83)	-	-	-	-	-	-	177	94	(83)
45	Merchant Fees	59	62	3	-	-	-	-	-	-	59	62	3
46	Other	691	865	174	-	1	1	(122)	(61)	61	569	805	236
47	Subtotal - Other Operating Expenses	10,886	12,544	1,658	47	1,907	1,860	3,103	5,434	2,331	14,036	19,885	5,849
48	Depreciation of Capital Investments	1,046	1,009	(37)	-	-	-	-	-	-	1,046	1,009	(37)
49	Amortization of Deferred Development	303	265	(38)	-	-	-	8,704	11,081	2,377	9,007	11,346	2,339
50	Total Expenses	42,224	47,754	5,530	288	1,995	1,707	7,875	16,428	8,553	50,387	66,177	15,790

Compare 2025/26 Expenses 2023 GRA to 2022 GRA (cont'd)

Line No.	DVA % Allocation Expense Category	Normal Ops			Initiatives			Ongoing			Total		
		2022 GRA	2023 GRA	Chg.	2022 GRA	2023 GRA	Chg.	2022 GRA	2023 GRA	Chg.	2022 GRA	2023 GRA	Chg.
51	<i>(C\$ 000s, except where noted)</i>												
52	Compensation - Salaries	14.8%	14.9%	0.2%	20.4%	7.5%	-12.9%	29.3%	7.5%	-21.9%	13.5%	14.9%	1.4%
53	Compensation - Overtime	14.0%	14.1%	0.1%							14.0%	14.1%	0.1%
54	Compensation - Benefits	14.7%	14.9%	0.2%							14.7%	14.9%	0.2%
55	Compensation - H & E Tax	14.7%	14.9%	0.2%							14.7%	14.9%	0.2%
56	Subtotal	14.7%	14.9%	0.2%	20.4%	7.5%	-12.9%	29.3%	7.5%	-21.9%	13.7%	14.9%	1.2%
57	Data Processing	7.6%	8.3%	0.7%	9.4%	11.4%	2.0%	23.3%	58.0%	34.8%	11.7%	14.9%	3.2%
58	Special Services	7.9%	5.0%	-2.9%							7.9%	5.0%	-2.9%
59	Building Expenses	12.4%	12.7%	0.2%							12.4%	12.7%	0.2%
60	Loss Prev/Safety Program	0.0%	0.0%	0.0%							0.0%	0.0%	0.0%
61	Telephone/Telecommunications	8.9%	9.3%	0.4%							8.9%	9.3%	0.4%
62	Advertising & Public Info	6.6%	5.8%	-0.8%							6.6%	5.8%	-0.8%
63	Printing, Stationery & Supplies	61.9%	64.2%	2.3%		7.7%					61.9%	64.0%	2.1%
64	Postage	25.0%	27.6%	2.6%				20.3%	7.6%	-12.7%	25.6%	29.4%	3.8%
65	Regulatory/Appeal Expenses	1.7%	0.4%	-1.3%							1.7%	0.4%	-1.3%
66	Travel & Vehicle Expense	18.3%	18.7%	0.4%		0.0%					18.3%	18.7%	0.3%
67	Driver Education Program	0.0%	0.0%	0.0%							0.0%	0.0%	0.0%
68	Grant in Lieu of Taxes	12.5%	12.7%	0.2%							12.5%	12.7%	0.2%
69	Furniture & Equipment	9.0%	9.4%	0.5%							9.0%	9.4%	0.5%
70	Merchant Fees	0.5%	0.6%	0.0%							0.5%	0.6%	0.0%
71	Other	7.5%	11.8%	4.2%	0.0%	1.8%	1.8%	21.1%	7.0%	-14.1%	6.6%	12.3%	5.7%
72	Subtotal	9.7%	9.7%	0.0%	9.4%	11.4%	2.0%	23.5%	65.8%	42.3%	11.1%	12.9%	1.8%
73	Depreciation of Capital Investments	12.2%	11.9%	-0.3%							12.2%	11.9%	-0.3%
74	Amortization of Deferred Development	8.9%	9.5%	0.6%				35.2%	46.6%	11.4%	32.0%	42.7%	10.7%
75	TOTAL	12.9%	13.0%	0.1%	17.1%	11.1%	-6.0%	32.1%	53.2%	21.1%	14.2%	15.9%	1.6%

Figure 14 Compare 2026/27 Expenses 2023 GRA to 2022 GRA

Line No.	CORPORATE Expense Category	Normal Ops		Initiatives - Implementation			Initiatives - Ongoing			Total			
		2022 GRA	2023 GRA	Chg.	2022 GRA	2023 GRA	Chg.	2022 GRA	2023 GRA	Chg.	2022 GRA	2023 GRA	Chg.
1	<i>(C\$000s, rounding may affect totals)</i>												
2	Compensation - Salaries	189,615	189,615		1,302	1,302		(8,741)	(8,741)		182,176	182,176	
2	Compensation - Overtime	1,627	1,627		-	-		-	-		1,627	1,627	
3	Compensation - Benefits	40,376	40,376		-	-		-	-		40,376	40,376	
3	Compensation - H & E Tax	3,744	3,744		-	-		-	-		3,744	3,744	
4	Subtotal - Compensation	235,362	235,362		1,302	1,302		(8,741)	(8,741)		227,923	227,923	
5	Data Processing	54,218	54,218		2,251	2,251		16,334	16,334		72,803	72,803	
6	Special Services	17,348	17,348		-	-		-	-		17,348	17,348	
7	Building Expenses	8,566	8,566		-	-		-	-		8,566	8,566	
8	Safety / Loss Prevention Program	4,291	4,291		-	-		-	-		4,291	4,291	
9	Telephone/Telecommunications	1,971	1,971		-	-		-	-		1,971	1,971	
10	Advertising & Public Info	3,427	3,427		-	-		-	-		3,427	3,427	
11	Printing, Stationery & Supplies	4,776	4,776		-	-		-	-		4,776	4,776	
12	Postage	4,785	4,785		-	-		(485)	(485)		4,300	4,300	
13	Regulatory/Appeal	4,125	4,125		-	-		-	-		4,125	4,125	
14	Travel & Vehicle Expense	1,231	1,231		-	-		-	-		1,231	1,231	
15	Driver Education Program	5,059	5,059		-	-		-	-		5,059	5,059	
16	Grant in Lieu of Taxes	2,050	2,050		-	-		-	-		2,050	2,050	
17	Furniture & Equipment	1,017	1,017		-	-		-	-		1,017	1,017	
18	Merchant Fees	11,381	11,381		-	-		-	-		11,381	11,381	
19	Other	7,490	7,490		-	-		(829)	(829)		6,661	6,661	
20	Subtotal - Other Operating Expenses	131,735	131,735		2,251	2,251		15,020	15,020		149,006	149,006	
21	Depreciation of Capital Investments	9,224	9,224		-	-		-	-		9,224	9,224	
22	Amortization of Deferred Development	2,340	2,340		-	-		42,939	42,939		45,279	45,279	
23	Total Expenses	378,661	378,661		3,553	3,553		49,218	49,218		431,432	431,432	

Compare 2026/27 Expenses 2023 GRA to 2022 GRA (cont'd)

Line No.	DVA Expense Category	Normal Ops		Initiatives - Implementation			Initiatives - Ongoing			Total		
		2022 GRA	2023 GRA	Chg.	2022 GRA	2023 GRA	Chg.	2022 GRA	2023 GRA	Chg.	2022 GRA	2023 GRA
24	<i>(C\$000s, rounding may affect totals)</i>											
25	Compensation - Salaries	28,267	28,267		324	324	-	(2,175)	(2,175)		26,416	26,416
26	Compensation - Overtime	230	230		-	-	-	-	-		230	230
27	Compensation - Benefits	6,013	6,013		-	-	-	-	-		6,013	6,013
28	Compensation - H & E Tax	558	558		-	-	-	-	-		558	558
29	Subtotal - Compensation	35,068	35,068		324	324	-	(2,175)	(2,175)		33,217	33,217
30	Data Processing	4,522	4,522		221	221	-	5,733	5,733		10,476	10,476
31	Special Services	875	875		-	-	-	-	-		875	875
32	Building Expenses	1,087	1,087		-	-	-	-	-		1,087	1,087
33	Safety / Loss Prevention Program	-	-		-	-	-	-	-		-	-
34	Telephone/Telecommunications	182	182		-	-	-	-	-		182	182
35	Advertising & Public Info	199	199		-	-	-	-	-		199	199
36	Printing, Stationery & Supplies	3,063	3,063		-	-	-	-	-		3,063	3,063
37	Postage	1,319	1,319		-	-	-	(121)	(121)		1,198	1,198
38	Regulatory/Appeal	17	17		-	-	-	-	-		17	17
39	Travel & Vehicle Expense	230	230		-	-	-	-	-		230	230
40	Driver Education Program	-	-		-	-	-	-	-		-	-
41	Grant in Lieu of Taxes	260	260		-	-	-	-	-		260	260
42	Furniture & Equipment	96	96		-	-	-	-	-		96	96
43	Merchant Fees	64	64		-	-	-	-	-		64	64
44	Other	881	881		-	-	-	(212)	(212)		669	669
45	Subtotal - Other Operating Expenses	12,795	12,795		221	221	-	5,400	5,400		18,416	18,416
46	Depreciation of Capital Investments	1,084	1,084		-	-	-	-	-		1,084	1,084
47	Amortization of Deferred Development	230	230		-	-	-	15,423	15,423		15,653	15,653
48	Total Expenses	49,177	49,177		545	545	-	18,648	18,648		68,370	68,370

Compare 2026/27 Expenses 2023 GRA to 2022 GRA (cont'd)

Line No.	DVA % Allocation Expense Category	Normal Ops			Initiatives			Ongoing			Total		
		2022 GRA	2023 GRA	Chg.	2022 GRA	2023 GRA	Chg.	2022 GRA	2023 GRA	Chg.	2022 GRA	2023 GRA	Chg.
49	<i>(C\$000s, rounding may affect totals)</i>												
50	Compensation - Salaries		14.9%			24.9%			24.9%			14.5%	
51	Compensation - Overtime		14.1%									14.1%	
52	Compensation - Benefits		14.9%									14.9%	
53	Compensation - H & E Tax		14.9%									14.9%	
54	Subtotal		14.9%			24.9%			24.9%			14.6%	
55	Data Processing		8.3%			9.8%			35.1%			14.4%	
56	Special Services		5.0%									5.0%	
57	Building Expenses		12.7%									12.7%	
58	Loss Prev/Safety Program		0.0%									0.0%	
59	Telephone/Telecommunications		9.2%									9.2%	
60	Advertising & Public Info		5.8%									5.8%	
61	Printing, Stationery & Supplies		64.1%									64.1%	
62	Postage		27.6%						24.9%			27.9%	
63	Regulatory/Appeal Expenses		0.4%									0.4%	
64	Travel & Vehicle Expense		18.7%									18.7%	
65	Driver Education Program		0.0%									0.0%	
66	Grant in Lieu of Taxes		12.7%									12.7%	
67	Furniture & Equipment		9.4%									9.4%	
68	Merchant Fees		0.6%									0.6%	
69	Other		11.8%						25.6%			10.0%	
70	Subtotal		9.7%			9.8%			36.0%			12.4%	
71	Depreciation of Capital Investments		11.8%									11.8%	
72	Amortization of Deferred Development		9.8%						35.9%			34.6%	
73	TOTAL		13.0%			15.3%			37.9%			15.8%	

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Part and Chapter:	Part V Expenses Exp Appendix 11 EXP APP	Page No.:	Appendix 7 Fig. EXP APP 7-1 Fig. EXP APP 7-2
PUB Approved Issue No:	8. Cost of operations and cost containment measures		
Topic:	Compensation		
Sub Topic:	Head Count		

Preamble to IR:**Question:**

Please provide a detailed comparison of Total Corporate Staffing forecast for 2022/23 with the actual staffing for 2021/22 and explain the changes.

Rationale for Question:

To understand changes in the Corporation's staffing budget.

RESPONSE:**Figure 1 Comparison of Total Corporate Staffing Forecast**

Line No.	Salaries Line	Salaries Cost	Salaries Costs	Difference
1	Salaries	158,340	142,657	15,683
2	Benefits	37,682	34,734	2,948
3	L&H	3,422	3,116	306
4	Other			-
5	Total	199,444	180,507	18,937

Rationale for difference:

MPI is forecasting a higher overall salary base of \$199.4M compared to the actual salary for 2021/22 of \$180.5M, representing a potential increase of \$18.9M. The major drivers of the salary increase for 2022/23 forecasts are:

- 1) Improved management of vacancy to ensure adequate staffing complements to support NOVA and service delivery requirements;
- 2) A return to more 'normal' staffing levels and operational requirements as vehicle and claim volumes begin to return to pre-Pandemic levels; and
- 3) The build out of core transformational initiatives to increase services to Manitobans.

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Part and Chapter:	Part IV Value Management	Page No.:	87
PUB Approved Issue No:	8. Cost of operations and cost containment measures		
Topic:	Claims Costs		
Sub Topic:	Direct Repair Program		

Preamble to IR:**Question:**

- a) Please file an update to PUB (MPI) 1-37 from the 2022 GRA on the performance of the Direct Repair and Collaborative estimating.
- b) Please elaborate on any changes to the program with the evolution of the COVID-19 pandemic.

Rationale for Question:

To understand change to the Direct Repair program.

RESPONSE:

- a) April 2021 to March 2022
 - Claim types, claim specifics and seasonality drive the results observed by MPI. On a month-to-month analysis, the COVID-19 Pandemic reduced claim volumes and the number of collision claims as a proportion of total claims. As collision claims are the basis for Direct Repair (DR) eligibility, MPI observed a decrease from the prior year. However, in recent months, claim volumes and DR results normalized to pre-Pandemic levels.

Figure 1 DR Eligible Claims April 2021 to March 2022

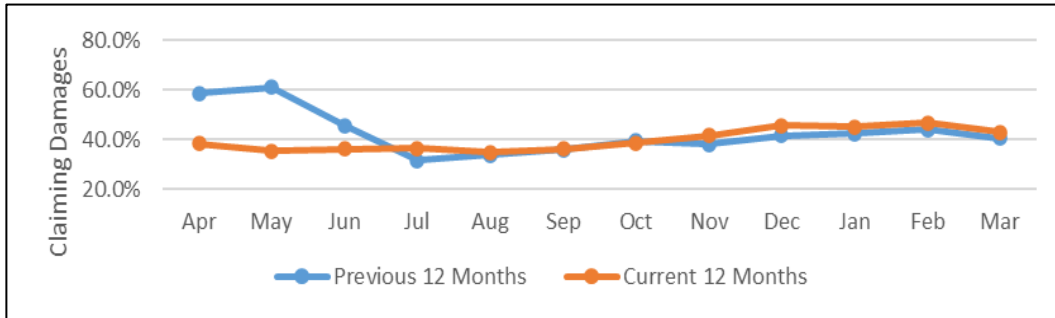
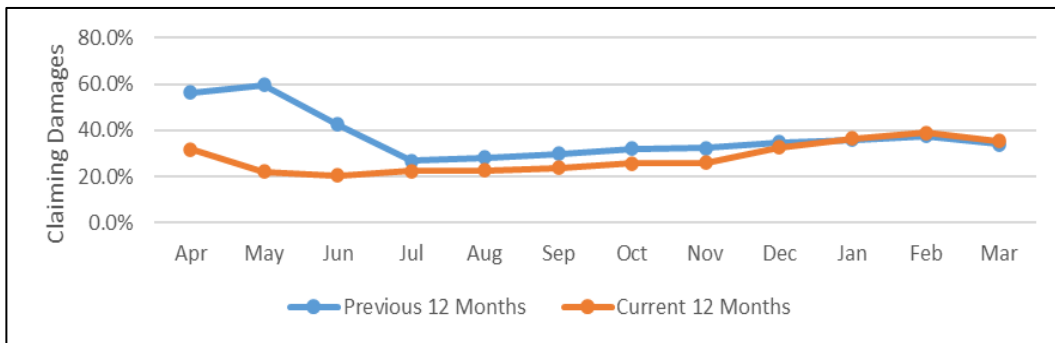
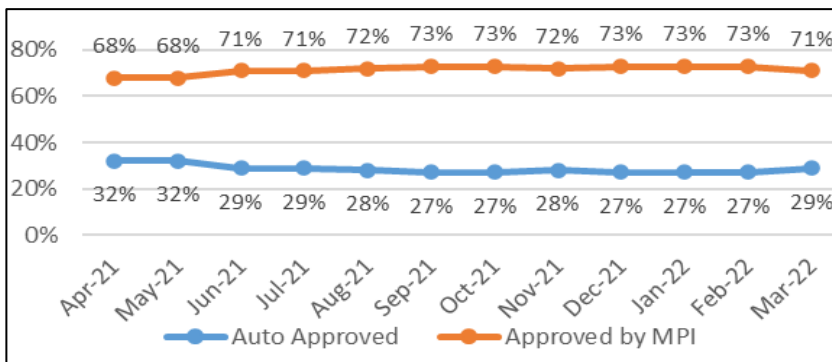


Figure 2 Customer Chose DR April 2021 to March 2022



Shop Earned Approved Limits (EAL) levels determine the results for both DR and Collaborative Estimating (CE) Auto Approved percentages. Monthly severity, driven by claim types, claim specifics and seasonality also impact EAL results.

Figure 3 EAL Results 1 April 2021 to March 2022



The following figure represents a yearly comparison of DR versus CE, showing a Pandemic-related increase in DR estimates in 2020, with a return to pre-Pandemic levels in 2021:

Figure 4 DR Eligibility Breakdown

Line No.	Estimate Type	2019	2020	2021
1	DR First Estimates	24%	33%	23%
2	CE First Estimates on DR eligible claims	17%	9%	17%
3	CE First Estimates on claims that are not DR eligible	59%	58%	60%

b) Changes to the DR program with the evolution of the Pandemic:

- MPI did not change the DR program with the evolution of the Pandemic. DR remains reserved for low repair and low insurance complex claims to minimize risk to all stakeholders. However, MPI did introduce a third option of Photo Based Estimating (PBE) in late 2020, which allows customers to provide photos of their vehicle damage to MPI on eligible claims. MPI estimating staff then prepare a CE estimate based on the photos.
- MPI recently commenced a review of current DR processes and systems (both internally and in consultation with the Repair Industry), on potential improvements. MPI aims to complete its review this fiscal year.

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Part and Chapter:	Part V Expenses Fig. EXP-5 Fig. EXP-9 Fig. EXP-12 Exp Appendix 12	Page No.:	14
PUB Approved Issue No:	8. Cost of operations and cost containment measures		
Topic:	Compensation		
Sub Topic:			

Preamble to IR:

Due to the current economic environment, which was preceded by two years of 0% increases, MPI is estimating the general wage increase for 2022/23 will result in a 5% increase while the forecast years in 2023/24 and onward is estimated at a 1.9% increase.

MPI is forecasting Total net salaries to increase by 11.23% in 2022/23 and 11.49% in 2023/24.

The increase appears to relate to the noted wage changes, increases in staffing along with a reduction in the forecast vacancy allowance.

Question:

- a) Please indicate what the historical average annual turnover rate has been for the last five fiscal years.
- b) Please indicate the number of vacant positions during the last five fiscal years and the current level at June 30, 2022.

Rationale for Question:

To understand forecasted compensation expense.

RESPONSE:

- a) Please see *Figure 1* below for the historical average turnover rate for MPI staff:

Figure 1 Historical Average Turn Over Rate

Line No.	Fiscal Year	Average Turnover Rate
1	2017-18	3.72%
2	2018-19	4.18 %
3	2019-20	4.21%
4	2020-21	2.30%
5	2021-22	4.72%

- b) MPI created *Figure 2* below from information extracted from Appendix 10 in previous General Rate Applications of the Expense Chapter. MPI includes in this figure the actual FTE count as at June 30, 2022 and the total corporate annual budget for FTEs for 2022/23.

Figure 2 Total Corporate Staffing (FTE)

Line No.	Fiscal Year	Actual	Budget	Over/(Under) Variance
1	2017-18A	1,878.1	1,926.9	(48.8)
2	2018-19A	1,789.3	1,902.6	(113.3)
3	2019-20A	1,826.3	1,927.9	(101.6)
4	2020-21A	1,801.3	1,953.5	(152.2)
5	2021-22A	1,879.5	2,017.4	(137.9)
6	2022-23	1,959.7	2,058.3	(98.6)

PUB (MPI) 1-53

Part and Chapter:	Part V Expenses Fig. EXP App 8-1 Fig. EXP App12-1	Page No.:	
PUB Approved Issue No:	8. Cost of operations and cost containment		
Topic:	Compensation		
Sub Topic:			

Preamble to IR:**Question:**

- a) Please provide a comparative schedule for Figure EXP App 8-1 of average annual salary by classification for 2021/22 through 2025/26 with that forecast last year, and indicate the differences.
- b) Please provide a schedule comparing the detail of Corporate annual compensation expense in Appendix 12 with that provided in the 2022 GRA for the comparative years 2021/22 through 2023/24.

Rationale for Question:

To understand the change in forecast assumptions related to compensation.

RESPONSE:

a)

Figure 1 Comparison of Appendix 8: 2023 GRA with 2022 GRA

Line No.	Classification	2020-21A Actuals	2021-22A Compared to FB	2022-23FB Compared to F	2023-24F	2024-25F	2025-26F
1	Clerical	-	(1,355)	1,134	1,648	1,708	1,770
2	Technical/Professional	-	(1,745)	1,836	2,580	2,674	2,771
3	Supervisor	-	(1,316)	2,785	3,654	3,787	3,925
4	Management	-	2,095	8,502	9,960	10,324	10,701
5	Corporate Average	-	(808)	2,562	4,595	4,882	5,474
6	% increase over prior year	0.00%	-1.14%	4.75%	2.57%	0.14%	0.48%
7	Manitoba (CPI)	-	(0.60)	2.40	0.40	0.30	-

b)

Figure 2 Comparison of Appendix 12: 2023 GRA with 2022 GRA

Line No.		2021/22A	2022/23FB	2023/24F
1	<i>(C\$000s, except where noted)</i>			
2	Gross Salaries	(631)	8,333	23,352
3	Vacancy Allowance	(2,420)	200	56
4	Total Net Salaries - Normal Operations	(3,051)	8,533	23,408
5	Salaries - Improvement Initiatives	(1,467)	(1,253)	7,969
6	Overtime	379	34	66
7	Benefits	(1,760)	1,114	2,068
8	H&E Tax	(222)	57	157
9	Total Compensation	(6,121)	8,486	33,669

PUB (MPI) 1-54

Part and Chapter:	Part V Expenses EXP Appendix 12	Page No.:	20
PUB Approved Issue No:	8. Cost of operations and cost containment		
Topic:	Compensation		
Sub Topic:			

Preamble to IR:

Step in Scale Increases - the Collective Agreement specifies a pay plan. Each in scope position aligns to a salary range which has 6 “steps”. The incumbent of a position will be eligible for up to 5 annual 3.5% increases until they reach the maximum salary (step) for the specific position. The forecasted rate used in the 2023 GRA is 1.75% (assumption is 50% of employees will receive), consistent with the rate used in prior years.

Question:

Please explain why the step-in-scale adjustment has been increased from 2.0% last year to 2.63%.

Rationale for Question:

To understand the change in forecast assumptions related to compensation.

RESPONSE:

The step-in-scale adjustments are an average of in-scope and out-of-scope positions. This average was 2.0% last year and is now 2.63%.

PUB (MPI) 1-55

Part and Chapter:	Part V Expenses PUB (MPI) 2-24 (a) (2022 GRA)	Page No.:	
PUB Approved Issue No:	8. Cost of operations and cost containment		
Topic:	Compensation		
Sub Topic:	Vacancy Allowance		

Preamble to IR:

Question:

- a) Please provide details on the determination of the vacancy allowance for each of the years 2019/20 through 2024/25. Please include in the table the assumed FTEs, the average salary per FTE, and the total vacancy allowance.
- b) Please provide a comparison of the detail of the vacancy allowance for 2021/22 actual with the 110 FTE forecast last year.
- c) Please provide a comparison of the current vacancy level at July 31, 2022 versus that included in the budget for 2022/23 in a similar format to PUB (MPI) 2-24 (2022 GRA).
- d) Please indicate the impact on the compensation expense forecast for 2022/23 and 2023/24 if the current level of vacancy in (c) is maintained.

Rationale for Question:

To understand the change in forecast assumptions related to compensation.

RESPONSE:

- a) On an annual basis, MPI determines the vacancy provision based on factors such as: anticipated total FTEs (including new FTEs), historical vacancies and its anticipated ability to fill vacant and new positions. Please see below *Figure 1*:

Figure 1 Vacancy allowance and FTEs for 2019/20 through 2024/25

Line No.	Fiscal Year	Assumed FTEs	Average Average Salary*	Total Vacancy Allowance
1			\$000s	\$000s
2	2019/20**	20.00	75	1,500
3	2020/21	78.36	79	6,210
4	2021/22	99.49	83	8,300
5	2022/23	73.22	82	6,000
6	2023/24	66.29	93	6,144
7	2024/25	63.70	96	6,138

* Average Salary includes benefits

** Adjusted to be for 12-months only

- b) Please see *Figure 2* below:

Figure 2 Actual Average FTE Vacancies versus Budgeted FTE Vacancies 2021/22

Line No.	Fiscal Year	Average Actual FTE Vacancies	Budgeted FTE Vacancies
1	2021/22	142.65	110.00

- c) Please see *Figure 3* below:

Figure 3 Estimated Vacancy Provision – Comparative Budget to Actual FTE 2022/23

Line No.	Fiscal Year	Estimated Vacancy @ June 30/22	Related FTE Estimate	Budgeted Vacancy Amount	Related FTE Estimate	Change vs. Budget
1		(\$000,00)		(\$000,00)		(\$000,00)
2	2022/23	8,080	98.60	6,000	73.22	2,080

d) Please see *Figure 4* below:

Figure 4 Estimated Vacancy Provision - Compare Budgets to Actual FTE June 30, 2022

Line No.	Fiscal Year	Estimated Vacancy using June 30/22 FTE	June 30/22 Vacant FTEs	Budgeted Vacancy Amount	Related Budgeted FTEs	Change vs. Budget
1		(\$000,00)		(\$000,00)		(\$000,00)
2	2023/24	9,138	98.60	6,144	66.29	2,994
3	2024/25	9,501	98.60	6,138	63.70	3,363

PUB (MPI) 1-56

Part and Chapter:	Part V Expenses EXP Appendix 16 EXP Appendix 17	Page No.:	1, 2
PUB Approved Issue No:	8. Cost of operations and cost containment		
Topic:	Basic Capital Expenditures		
Sub Topic:	Project Cost Comparisons		

Preamble to IR:**Question:**

- a) Please indicate when the data processing equipment spending delayed in 2021/22 is forecast to occur, and the basis for the delay in the spending.
- b) Please explain the difference between data processing equipment on Appendix 16 line 6 with Computer equipment expense Figure EXP App 19-3 line 21, and explain the increase in 2021/22.
- c) Please provide the capitalization accounting policy for the Corporation.
- d) Please indicate the extent to which the \$20.9M in capital project implementation expenses in 2022/23 are being capitalized for rate setting purposes.

Rationale for Question:

To understand changes in data processing expense.

RESPONSE:

- a) MPI expects the data processing equipment spending delayed in 2021/22 to occur before the end of this calendar year.

- b) The data processing equipment identified on Appendix 16 line 6 is capitalized equipment that depreciates over the life of the asset, whereas the computer equipment expense identified on *Expenses Appendix 19 Figure EXP App 19-3, line 21* is expensed equipment that does not meet the criteria under the Capitalization Accounting Policy.
- c) Please see below for the Capitalization Accounting Policy:

Agenda 2.2.8 February 10, 2022	
MANITOBA PUBLIC INSURANCE POLICY FOR CAPITALIZATION OF ORGANIZATIONAL AND DEVELOPMENT COSTS	
Description	The Corporation has various Initiatives and Projects which are expensed or reviewed by management for capitalization in accordance with IFRS, IAS 38 Intangible Assets. Deferred Development Costs, which are “internally generated intangible assets” under IFRS, IAS 38 Intangible Assets will be evaluated for all lines of business (Basic, Extension, Special Risk Extension and Driver & Vehicle Administration Operations) against the criteria for determining if such costs are to be deferred to future periods or expensed in the current period.
Policy	Projects are to be capitalized as an asset and deferred to future periods when they meet all of the following 4 criteria: <ol style="list-style-type: none"> 1. Identifiability – the asset is separable and arises from contractual or other legal rights. 2. Control – the corporation has the power to obtain the future economic benefit and/or restrict others to those benefits. 3. Future economic benefit – the corporation benefits from the use of the asset (revenue, cost savings or other benefits). 4. Total project costs to be deferred are equal to or greater than \$500,000. Capitalization also applies when the intention is to complete, to use or sell the intangible asset at a future date and that the flow of future economic benefits attributable to the use of the asset contain a degree of certainty on the basis of the evidence available at the time of the initial recognition.

AGENDA E

**SUBMISSION TO THE AUDIT COMMITTEE
 OF THE BOARD OF DIRECTORS OF
 MANITOBA PUBLIC INSURANCE**

SUBJECT: Policy for Capitalization of Assets

RECOMMENDATION: That the members approve the updated policy for capitalization of assets effective March 1, 2009 as follows:

- Furniture and Equipment will be recorded as a capital asset if the cost of the individual asset (including taxes) equals or exceeds \$5,000.
- Computer equipment including monitors, CPU's, servers, memory, laptops, fax machines, printers, etc. will be recorded as a capital asset if the cost of the individual asset (including taxes) equals or exceeds \$5,000.
- Land, Land Improvements, Buildings, Leasehold Improvements, Vehicles and Systems Furniture will be recorded as capital assets.

This change in policy will be applied on purchases made effective March 1, 2009.

BACKGROUND: The current policy for capitalizing assets has been in place since November 1, 1998. The following items fall within this policy:

- Furniture and Equipment will be recorded as a capital asset if the cost (including taxes) equals or exceeds \$500.
- Data Processing Equipment (now referred to as Computer Equipment) such as monitors, CPU's and server upgrades will be recorded as capital assets. All other data processing equipment will be recorded as a capital asset if the cost (including taxes) equals or exceeds \$500.
- Land, Land Improvements, Buildings, Leasehold Improvements, Vehicles and Systems Furniture will be recorded as capital assets.

d) As demonstrated in Expenses EXP Appendix 17, the \$20.9M represents the total implementation expense amount; no portion of this amount is to be capitalized.

PUB (MPI) 1-57

Part and Chapter:	Part V Expenses Fig. EXP 23, EXP APP 5	Page No.:	33
PUB Approved Issue No:	8. Cost of operations and cost containment		
Topic:	Operating Expenses		
Sub Topic:			

Preamble to IR:

In the 2022 GRA, MPI indicated that:

Through NOVA, MPI expects to gain a number of improvements in functionality and adaptiveness to make changes. MPI is exploring the functionalities and processes which may allow it to pay rebates directly to customers through bank-to-bank transfers, thereby forgoing any need to mail rebate cheques. The actualization of these functionalities, will take time to develop.

Question:

- a) Please provide the costs incurred in postage and printing related to the issue rebate cheques in 2020/21 and 2021/22.
- b) Please explain why postage cost in the forecast period are not forecast to decline given the proposed service delivery changes in Project Nova.
- c) Please provide an update on MPI's efforts to make bank-to-bank transfers.

Rationale for Question:

To understand any change in expense due to service delivery changes.

RESPONSE:

- a) The postage cost for 2020/21 for the rebates was \$1.098 million and \$285 thousand for printing. For 2021/22, the postage cost for the rebates was \$641 thousand and \$91 thousand for printing. The decrease is tied to having one rebate mailed in 2021/22 as opposed to two rebates mailed out in 2020/21.

- b) MPI is currently unaware of the service delivery changes that will impact postage costs and the adoption rates for self-service. MPI therefore projected the costing for postage to remain stable, and will continue to evaluate the postage forecasts in later years.

- c) MPI continues to evaluate the option of bank-to-bank transfers for rebates as well as the option of placing a credit on the account of a customer in-lieu of issuing a rebate cheque. In the latter option, MPI would apply the credit against a customer invoice, which should reduce rebate-mailing expenses. MPI is working on creating the ability to perform e-Transfers, developing a strategy to attain active emails and also working on ensuring the necessary IT infrastructure alignments are in place for the e-Transfer of rebate cheques.

PUB (MPI) 1-58

Part and Chapter:	Part V Expenses	Page No.:	18
PUB Approved Issue No:	4. Financial Forecast 16. Impact of COVID-19		
Topic:	Operating Expenses		
Sub Topic:			

Preamble to IR:

The majority of MPI employees worked remotely from home for much of the 2021/22 fiscal year. As a result, MPI experienced lower than normal costs in expense categories such as travel, safety and loss prevention and driver education.

Question:

- a) Please indicate the extent of the impact of COVID-19 on forecast expenses for 2022/23, 2023/24 and 2024/25.
- b) What number of staff is forecasted to work from home in 2023/24 and 2024/25?
 - i. What is the impact of that number on employee-related and other expenses included in the forecast?

Rationale for Question:

To understand the impact of COVID-19 on MPI's operating expense forecast.

RESPONSE:

- a) MPI does not expect any COVID – 19 impacts on forecasted expenses in the fiscal years 2022/23 to 2024/25.

- b) There are approximately 1500 employees who are currently working from home. MPI forecasts similar numbers for 2023/24 and 2024/25.
 - i. MPI is finalizing its budgeting processes for 2023/24 and will provide any impacts when known.

PUB (MPI) 1-59

Part and Chapter:	Part V Expenses Fig. EXP-25 EXP APP 5	Page No.:	34
PUB Approved Issue No:	8. Cost of operations and cost containment 16. Impact of COVID-19		
Topic:	Operating Expenses		
Sub Topic:	Furniture & Equipment		

Preamble to IR:

MPI states:

"In 2021/22 and onward MPI expects less than normal spending on printers and desktops primarily due to work-from-home (WFH) conditions. This shift from office to working from home has resulted in a lower investment in office desktop computers and printers."

Question:

- a) Please provide a copy of MPI's WFH strategy.
- b) Please indicate how many of the staff are currently WFH and the implications of this on current and future office space requirements and employee related expenses.
- c) Please indicate the extent to which MPI's forecast reduction in furniture and equipment expenses on desktops and printers is being replaced by other required investments to support staff to WFH.

Rationale for Question:

To understand impact of WFH strategy on expenses.

RESPONSE:

- a) Please see Appendix 1 for the MPI Corporate Directive pertaining to its flexible work program.
- b) Currently, the following numbers of employees work under the flexible work arrangement:

Figure 1 Number of Employees Working under Flexible Work Arrangements

Line No.		No. of No. of Employees
1	At Cityplace	919
2	Outside of Cityplace (in Winnipeg)	473
3	Outside of Cityplace (in Rural)	99
4	Total	1,491

Moving to a flexible work arrangement allowed MPI to reduce its footprint within Cityplace, enabled it to vacate the 7th floor and rent it to tenants. Staff who work from home receive a laptop and monitors.

- c) Currently, the budget to completely furnish both floors of the Space-plan project is projected at \$3,222,028.00. With a staff workpoint count across both floors of 620, this amounts to a per-person cost of approximately \$5,200. Multiplying this figure by the estimated full staff count at Cityplace (i.e., 1,200) increases the furniture budget to \$6,240,000. Therefore, MPI can surmise that its flexible work arrangement reduced its furniture costs by approximately 50% (~\$3M).

MPI expects future technology costs (e.g., desktop, monitors, printers, etc.) to remain the same as the need and demand for technology is not location dependent. To support the flexible work program and space plan related projects MPI spend \$700,678 with procuring additional monitors, docking stations etc. to equip the shared and new workspaces in Cityplace and other service centers.

DIRECTIVE NO. P.39
Effective Date October 18, 2021
Review Date October 18, 2021
Replaces Directive No.NEW
Dated

CORPORATE DIRECTIVES

FLEXIBLE WORK ARRANGEMENT

PURPOSE:

Manitoba Public Insurance strives to be a rewarding and progressive place to work, promoting trust, empowerment, choice and flexibility. The Flexible Work Arrangement is designed to:

- a) Promote and enable a culture that fosters creativity, trust, and excellence.
- b) Provide flexibility in where work is performed while maintaining a safe, secure, healthy, and productive work environment.
- c) Support operational efficiency and effectiveness while maintaining or improving quality, levels of service and productivity.
- d) Support work-life balance and adapt to evolving service and workforce needs while continuing to provide a high level of service to Manitobans.

This directive enables management to consider flexible work requests from employees, provided they are consistent with the guiding principles and will not impact service or program delivery. Employees are enabled to request approval to participate in a flexible work arrangement.

RESPONSIBILITY OF:

Management and HR Business Partnership

KEY CONTACT:

Human Resources (HR) Business Partners

POLICY:

The Flexible Work Arrangement enables employees to choose the best location to perform their work while adhering to MPI security and privacy directives, policies, and standards. Employees will have the flexibility to determine when they work remotely or in the office based on the nature of the work that they are performing, for example, focused work verses collaborative work, subject to operational requirements.

Flexible work arrangement may be requested by an employee and approved by their manager. Management will review and approve flexible work arrangements based on suitability of the job, operational requirements, and employee performance. Flexible work arrangements will not alter

DIRECTIVE No.: P.39**EFFECTIVE DATE: OCTOBER 18, 2021**

the employee's terms and conditions of employment, including the overall number of hours worked by the employee or the nature of the employee's work responsibilities.

The following guidelines determine eligibility for flexible work arrangements:

Position

- The nature of the work is suitable to be performed productively at home.
- Information security and privacy requirements can be adhered to.
- The work can be performed at home without unreasonable modification.
- Coaching, training, and supervision can be conducted remotely.

Operational Requirements

- Performance and productivity measures are in place for the position.
- Working flexibly does not interfere with operational requirements.
- Resources to support a flexible work arrangement are available (for example, technology tools and physical space).

Performance

- The employee's performance meets expectations in terms of productivity, ability to work independently, quality of work, attendance, and conduct.

Management may end or modify flexible work arrangements for any reason with fourteen (14) days' notice, except that a flexible work arrangement may be terminated by the Corporation immediately if information security and privacy requirements can no longer be met, or based on changes to the job, performance/conduct/productivity concerns, and/or operational requirements as determined by MPI in its sole discretion. Similarly, employees are able to request ending their flexible work arrangement at any time.

The key to a successful flexible work arrangement is open, ongoing communication about performance, objectives, workplace environment, scheduling changes, training, and technology.

Employees who are approved to work in a flexible work arrangement will be required to review and sign the **Flexible Work Agreement** outlining all of the terms and conditions associated with a flexible work arrangement along with the **Employee IT Asset Agreement** and the **Virtual Workspace Safety Checklist**.

SCOPE:

This Directive applies to all employees.

This document is not intended to override or contradict existing Corporate Directives, but rather, its intent is to complement same and to provide additional information. Governing articles for

DIRECTIVE No.: P.39**EFFECTIVE DATE: OCTOBER 18, 2021**

unionized employees found in the Collective Agreement apply if they differ from the expectations outlined in this directive.

RIGHTS AND RESPONSIBILITIES:**Individuals will:**

- **Submit their request for a flexible work arrangement to their manager for approval** and once approved, will review, acknowledge, and adhere to the agreement outlining all terms and conditions of the flexible work agreement.
- **Dedicate their attention to their work during working hours** and advise their responsible leader of any anticipated deviations.
- **Choose effective work locations for the work to be performed, whether a virtual environment or an MPI location**, subject to scheduling and operational requirements determined by the responsible leader.
- **Maintain productivity and performance** and ensure that the work performed complies with MPI directives, policies, and collective agreement.
- **Maintain regular contact**, be available and communicate with their leader, colleagues, and customers to effectively complete their job responsibilities.
- **Be available to attend the office as required**, at times with short notice.
- **Respect all terms and conditions of employment**, corporate directives, policies, and the collective agreement, if applicable, while working in the virtual workspace.

Leaders will:

- **Approve/deny flexible work arrangements** with recommendations from their supervisors, ensuring that decisions are in adherence with the guidelines in this directive.
- **Ensure decisions are fairly and consistently applied** and when required provide rationale for their decisions.
- **Ensure regular performance touch points are scheduled** with their staff in addition to ensuring productivity and performance measures are in place and that these are adhered to consistently. Changes or decreases in performance and productivity should be carefully reviewed to determine impacts.
- **Regularly monitor any changes that may impact the continuation of the flexible work arrangement**, including, changes to position, productivity, performance, conduct, operational requirements, and any other situation that may arise.
- **Ensure that measures are in place to protect confidentiality and information security** as required by legislation and take immediate action and advise their HR Business Partner when they suspect or are informed of a potential breach.
- **Track and administer all aspects of the flexible work program**, including, correspondence regarding the requests, rationale for approval and denial, and ensuring a



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clear understanding of where their employee is working from at any given time within their area of responsibility.

- **Communicate in a timely manner with impacted internal stakeholders**, including Human Resources, Information & Technology (IT), and Premises & Administrative Services to ensure services are provided to successfully coordinate the flexible work arrangement, for example, adequate time is allotted for procurement of equipment, space allocation, etc.
- **Ensure employees are fully knowledgeable about the requirements** in this Directive prior to approving the flexible work arrangement and ensuring the agreement is signed.

Human Resources will:

- **Provide program support**, including, ensuring tools, training, processes, and guidelines are available to enable flexible work arrangements.
- **Provide guidance and support to assist management when making decisions** regarding flexible work arrangements, as required.
- **Collaborate with safety** to ensure ergonomic and safety resources are available for all employees.
- **Follow appropriate protocols** in response to any circumstances involving the contravention of this directive.

CONSEQUENCES OF NON-COMPLIANCE:

Contravention of the Flexible Work Arrangement Directive may result in appropriate corrective action. This action may include immediate termination of the flexible work arrangement, disciplinary action, up to and including immediate termination of employment for just cause. All alleged violations of this Directive will be investigated. Additionally, depending on the nature of the violation, individuals may be subject to legal action resulting in civil and/or criminal liability.

For further information, please review *P.22 Criminal Misconduct Policy*, *P.35 Progressive Discipline*, *P.13 Code of Ethics and Business Conduct*.

DEFINITIONS:

Flexible Work Arrangement: An agreement between MPI and an employee to adjust the employee's location of work, on a reoccurring or on-going basis. Work time will be split between MPI work location and non-MPI location.

Virtual Work Space: Non-MPI location where an employee works under a flexible work arrangement in accordance with a **Flexible Work Arrangement Agreement**, **Virtual Workspace Safety Checklist**, and **Employee IT Asset Agreement**.



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CONCLUSION:

A flexible work arrangement can provide many benefits to our organization, including supporting employees through work-life balance. This Directive supports our commitment to continue to be a rewarding and progressive workplace for our employees.

Requests for flexible work arrangements will be handled in a fair and consistent manner. All individuals are expected to be familiar and aware of all corporate directives identified and ensure that they are in compliance.

All employees are expected to review and complete both the [Virtual Workspace Safety Checklist](#) and the [Employee IT Asset Agreement](#).

Other policies and directives to review:

- [Acceptable Use Policy](#)
- [All Persons Policy Clauses Policy](#)
- [Clear Desk and Clear Screen Policy](#)
- [G.20: Cyber and Information Security](#)
- [G.27: Confidentiality Of Personal Information And Personal Health Information](#)
- [P.32: Workplace Safety](#)



PUB (MPI) 1-60

Part and Chapter:	Part IV Value Management	Page No.:	35, 36
PUB Approved Issue No:	8. Cost of operations and cost containment measures 16. Impact of COVID-19		
Topic:	Capital Expenditures		
Sub Topic:	City Place Re-development		

Preamble to IR:

Work from Home (WFH) now has resulted in a change in the CityPlace plan from three floors to two floors, at an updated budget of \$19.3M.

Question:

- a) Please provide details of the Net Centre relocation and AV equipment.
- b) How many staff were to be accommodated on the three floors compared to the number to be accommodated with the two-floor footprint?
- c) Please provide the revenue assumptions related to the redeveloped Cityplace (in CSI module where applicable).
- d) Please indicate the rental rates for each of the new tenants and the assumptions around the remaining space rental rates. (in CSI module where applicable).

Rationale for Question:

To understand the impact of COVID-19 on MPI's capital spending plan.

RESPONSE:

- a) **Netcentre relocation** – the MPI network centre currently resides on the 7th floor, which contains the brains and backbone of the MPI network. Fibre cable comes into the building for the network, up to the 7th floor Netcentre (into the core switch) and, from there, expands out to each of the other floors. To move the network centre to the 8th floor, MPI will run a new fibre cable as well as many other cables up to the 8th floor and will move all of the equipment from the 7th floor to the 8th floor, phased-in over a period of 4 weeks. This will allow MPI to clear out the 7th floor and run its netcentre from the 8th floor.

AV Equipment – MPI replaced the aging projector and related AV equipment in its meeting rooms on the renovated 9th floor with Microsoft Teams certified technology (e.g., camera, projector, TV, audio technology etc.) in order to provide best experience for its hybrid work environment. MPI coordinated these activities through an RFP process, and the vendor will make the required changes to AV on the 8th floor upon completion of construction.

- b) Originally, MPI planned to provide dedicated workstations to approximately 1,200 staff on 3 floors at Cityplace. The new flexible work program enables MPI to reduce its head office footprint by a full floor, and allows it to provide approximately 600 work points, for an employee/work point ratio of 1:2 on the new two-floor model.
- c) Please see *Value Management VM Appendix 11 - CP Space Plan June 3 2022 Business Case Final - Confidential* for revenue assumptions.
- d) Please see *Appendix 1- Rental Rates for Tenants - Confidential* for rental rates for each of the new tenants and assumptions around the rental space. With these leases in place, there are no vacancies left in Cityplace.

Appendix 1: Rental Rates for Tenants

This material is the subject of a confidential motion.

PUB (MPI) 1-61

Part and Chapter:	Part V Expenses Fig. EXP-42 Exp Appendix 18 Fig. EXP APP 18-1	Page No.:	59
PUB Approved Issue No:	8. Cost of operations and cost containment		
Topic:	Operating Expenses		
Sub Topic:	Basic Deferred Development Costs		

Preamble to IR:**Question:**

- a) Please refile the table in Figure EXP-42 to include columns for all the prior year expenditures (commencing in 2017/18) on each of the listed projects, and a total column by project and in total. Please include the sum of insertion of work for the years 2013/14 through 2017/18.
- b) Please provide a comparison of the total by Basic Project in (a) for Project Nova, with that provided at last year GRA. Please include total column in the comparison.

Rationale for Question:

To understand changes in Basic capital expenditure forecast.

RESPONSE:

a) **Figure 1 Basic Capital Expenditures by Project (updated Expenses Chapter Figure EXP-42)**

Line No.	Project	LTD Actual*	2017/18A	2018/19A	2019/20A	2020/21A	2021/22A	2022/23F	2023/24F	2024/25F	2025/26F	2026/27F	Unassigned Capital**	Total
1	(C\$000s, except where noted)													
2	Deferred Development	-	-	-	-	1,547	16,487	8,553	8,179	4,782	3,678	-	(494)	42,732
3	Capital Depreciation	-	-	-	-	-	-	-	-	-	-	-	-	-
4	Expense	-	-	99	2,043	4,939	7,313	2,762	1,142	1,981	1,104	431	748	22,562
5	Nova	-	-	99	2,043	6,486	23,800	11,315	9,321	6,763	4,782	431	254	65,294
6	Deferred Development	-	-	-	-	-	-	-	-	-	-	-	-	-
7	Capital Depreciation	-	-	-	-	-	-	-	-	-	-	-	-	-
8	Expense	-	-	-	-	366	793	926	1,654	1,880	2,232	-	-	7,851
9	Nova - ongoing ops	-	-	-	-	366	793	926	1,654	1,880	2,232	-	-	7,851
10	Deferred Development	-	-	2,912	246	373	-	-	-	-	-	-	-	3,531
11	Capital Depreciation	-	-	-	-	-	-	-	-	-	-	-	-	-
12	Expense	-	-	201	942	69	-	-	-	-	-	-	-	1,212
13	Technology Risk Management - 2018	-	-	3,113	1,188	442	-	-	-	-	-	-	-	4,743
14	Deferred Development	-	-	-	526	964	71	-	-	-	-	-	-	1,561
15	Capital Depreciation	-	-	-	-	-	-	-	-	-	-	-	-	-
16	Expense	-	-	-	1,070	466	32	-	-	-	-	-	-	1,568
17	Technology Risk Management - 2019	-	-	-	1,596	1,430	103	-	-	-	-	-	-	3,129
18	Deferred Development	-	-	-	-	1,084	552	545	-	-	-	-	-	2,181
19	Capital Depreciation	-	-	-	-	-	-	-	-	-	-	-	-	-
20	Expense	-	-	-	-	597	301	-	-	-	-	-	-	898
21	Technology Risk Management - 2020	-	-	-	-	1,681	853	545	-	-	-	-	-	3,079
22	Deferred Development	-	-	-	-	-	264	(268)	-	-	-	-	-	(4)
23	Capital Depreciation	-	-	-	-	-	-	-	-	-	-	-	-	-
24	Expense	-	-	-	-	-	843	2,417	-	-	-	-	-	3,260
25	Technology Risk Management - 2021	-	-	-	-	-	1,107	2,149	-	-	-	-	-	3,256
26	Deferred Development	-	-	-	-	-	-	1,683	-	-	-	-	-	1,683
27	Capital Depreciation	-	-	-	-	-	-	-	-	-	-	-	-	-
28	Expense	-	-	-	-	-	-	1,713	-	-	-	-	-	1,713
29	Technology Risk Management - 2022	-	-	-	-	-	-	3,396	-	-	-	-	-	3,396

Basic Capital Expenditures by Project (updated Expenses Chapter Figure EXP-42) (cont'd)

Line No.	Project	LTD Actual*	2017/18A	2018/19A	2019/20A	2020/21A	2021/22A	2022/23F	2023/24F	2024/25F	2025/26F	2026/27F	Unassigned Capital**	Total
30	(C\$000s, except where noted)													
31	Deferred Development	-						-	1,683	-	-	-	-	1,683
32	Capital Depreciation	-						-	-	-	-	-	-	-
33	Expense	-						-	1,713	-	-	-	-	1,713
34	Technology Risk Management - 2023	-						-	3,396	-	-	-	-	3,396
35	Deferred Development	-						-	-	1,683	-	-	-	1,683
36	Capital Depreciation	-						-	-	-	-	-	-	-
37	Expense	-						-	-	1,713	-	-	-	1,713
38	Technology Risk Management - 2024	-						-	-	3,396	-	-	-	3,396
39	Deferred Development	-						-	-	-	1,683	-	-	1,683
40	Capital Depreciation	-						-	-	-	-	-	-	-
41	Expense	-						-	-	-	1,713	-	-	1,713
42	Technology Risk Management - 2025	-						-	-	-	3,396	-	-	3,396
43	Deferred Development	-						-	-	-	-	1,683	-	1,683
44	Capital Depreciation	-						-	-	-	-	-	-	-
45	Expense	-						-	-	-	-	1,713	-	1,713
46	Technology Risk Management - 2026	-						-	-	-	-	3,396	-	3,396
47	Deferred Development	-	-	-	280	867	1,203	1,056	-	-	-	-	-	3,406
48	Capital Depreciation	-	-	-	-	-	-	-	-	-	-	-	-	-
49	Expense	-	-	-	201	507	175	-	-	-	-	-	-	883
50	Information Security Maturity	-	-	-	481	1,374	1,378	1,056	-	-	-	-	-	4,289
51	Deferred Development	-	-	-	640	975	5	-	-	-	-	-	-	1,620
52	Capital Depreciation	-	-	-	-	-	-	-	-	-	-	-	-	-
53	Expense	-	-	-	-	-	-	-	-	-	-	-	-	-
54	Finance Re-Engineering Initiative	-	-	-	640	975	5	-	-	-	-	-	-	1,620
55	Deferred Development	-				671	859	-	-	-	-	-	-	1,530
56	Capital Depreciation	-				-	-	-	-	-	-	-	-	-
57	Expense	-				-	610	-	-	-	-	-	-	610
58	Microsoft 365	-	-	-	-	671	1,469	-	-	-	-	-	-	2,140

Basic Capital Expenditures by Project (updated Expenses Chapter Figure EXP-42) (cont'd)

Line No.	Project	LTD Actual*	2017/18A	2018/19A	2019/20A	2020/21A	2021/22A	2022/23F	2023/24F	2024/25F	2025/26F	2026/27F	Unassigned Capital**	Total
59	(C\$000s, except where noted)													
60	Deferred Development	-				49	(49)	-	-	-	-	-	-	-
61	Capital Depreciation	-				-	-	-	-	-	-	-	-	-
62	Expense	-				-	114	381	-	-	-	-	-	495
63	HRMS Optimization - Phase 1	-				49	65	381	-	-	-	-	-	495
64	Deferred Development	-			124	(124)	-	-	-	-	-	-	-	-
65	Capital Depreciation	-			-	-	-	-	-	-	-	-	-	-
66	Expense	-			-	247	1	-	-	-	-	-	-	248
67	CERP - Additional Product Changes	-			124	123	1	-	-	-	-	-	-	248
68	Deferred Development	-			-	-	-	-	-	-	-	-	-	-
69	Capital Depreciation	-			-	-	-	-	-	-	-	-	-	-
70	Expense	-			59	3	7	41	-	-	-	-	-	110
71	Claims Dispute Tribunal	-			59	3	7	41	-	-	-	-	-	110
72	Deferred Development	-			-	-	-	-	-	-	-	-	-	-
73	Capital Depreciation	-			-	-	-	-	-	-	-	-	-	-
74	Expense	-			-	36	55	-	-	-	-	-	-	91
75	Vehicle Policy & Registration Renewal Term Changes (Discovery Pha	-			-	36	55	-	-	-	-	-	-	91
76	Deferred Development	-			-	-	-	-	-	-	-	-	-	-
77	Capital Depreciation	-			-	-	-	-	-	-	-	-	-	-
78	Expense	-			-	-	96	47	-	-	-	-	-	143
79	eTransfer Capability	-			-	-	96	47	-	-	-	-	-	143
80	Deferred Development	-			-	-	-	-	-	-	-	-	-	-
81	Capital Depreciation	-			-	-	-	-	-	-	-	-	-	-
82	Expense	-			-	-	45	719	761	761	-	-	-	2,286
83	Digital Culture (M365 & Remote work)	-			-	-	45	719	761	761	-	-	-	2,286
84	Deferred Development	-			-	-	-	-	-	-	-	-	-	-
85	Capital Depreciation	-			-	-	-	-	-	-	-	-	-	-
86	Expense	-			-	-	-	2,360	761	761	-	-	-	3,882
87	Data & Analytics	-			-	-	-	2,360	761	761	-	-	-	3,882

Basic Capital Expenditures by Project (updated Expenses Chapter Figure EXP-42) (cont'd)

Line No.	Project	LTD Actual*	2017/18A	2018/19A	2019/20A	2020/21A	2021/22A	2022/23F	2023/24F	2024/25F	2025/26F	2026/27F	Unassigned Capital**	Total
88	(C\$000s, except where noted)													
89	Deferred Development	-						-	-	-	-	-	-	-
90	Capital Depreciation	-						-	-	-	-	-	-	-
91	Expense	-						2,284	1,523	1,523	-	-	-	5,330
92	Cloud Adoption	-						2,284	1,523	1,523	-	-	-	5,330
93	Deferred Development	-						-	-	-	-	-	-	-
94	Capital Depreciation	-						-	-	-	-	-	-	-
95	Expense	-						1,523	-	-	-	-	-	1,523
96	CoE (Digital, Integration, Testing, Automation)	-						1,523	-	-	-	-	-	1,523
97	Deferred Development	-					-	-	-	-	-	-	-	-
98	Capital Depreciation	-					-	-	-	-	-	-	-	-
99	Expense	-					67	1,459	761	761	-	-	-	3,048
100	Knowledge Platforms and Content Management	-					67	1,459	761	761	-	-	-	3,048
101	Deferred Development	-						-	-	-	-	-	-	-
102	Capital Depreciation	-						-	-	-	-	-	-	-
103	Expense	-						1,523	761	761	-	-	-	3,045
104	Public Website and Partner Websites (related to ECM but different)	-						1,523	761	761	-	-	-	3,045
105	Deferred Development	-						-	-	-	-	-	-	-
106	Capital Depreciation	-						-	-	-	-	-	-	-
107	Expense	-						-	381	381	-	-	-	762
108	Application Upgrades (EAM Health)	-						-	381	381	-	-	-	762
109	Deferred Development	-						-	-	-	-	-	-	-
110	Capital Depreciation	-						-	-	-	-	-	-	-
111	Expense	-						-	1,523	1,523	-	-	-	3,046
112	HR and Finance New Technology	-						-	1,523	1,523	-	-	-	3,046
113	Deferred Development	-						-	-	-	-	-	-	-
114	Capital Depreciation	-					-	-	-	-	-	-	-	-
115	Expense	-					253	155	-	-	-	-	-	408
116	eSignature	-					253	155	-	-	-	-	-	408

Basic Capital Expenditures by Project (updated Expenses Chapter Figure EXP-42) (cont'd)

Line No.	Project	LTD Actual*	2017/18A	2018/19A	2019/20A	2020/21A	2021/22A	2022/23F	2023/24F	2024/25F	2025/26F	2026/27F	Unassigned Capital**	Total
117	(C\$000s, except where noted)													
118	Deferred Development	-					-	-	-	-	-	-	-	-
119	Capital Depreciation	-					-	-	-	-	-	-	-	-
120	Expense	-					37	1	-	-	-	-	-	38
121	eCash Payment Capability and Direct Deposit	-					37	1	-	-	-	-	-	38
122	Deferred Development	-					-	-	-	-	-	-	-	-
123	Capital Depreciation	-					-	-	-	-	-	-	-	-
124	Expense	-					-	39	-	-	-	-	-	39
125	Migration of DevOps	-					-	39	-	-	-	-	-	39
126	Deferred Development	-					-	-	-	-	-	-	-	-
127	Capital Depreciation	-					-	-	-	-	-	-	-	-
128	Expense	-					800	1,904	4,188	4,188	-	-	-	11,080
129	Innovation Funding	-					800	1,904	4,188	4,188	-	-	-	11,080
130	Deferred Development	-					-	-	-	-	-	-	-	-
131	Capital Depreciation	-					-	-	-	-	-	-	-	-
132	Expense	-					60	-	-	-	-	-	-	60
133	Records Management Remediation (Phase 1)	-					60	-	-	-	-	-	-	60
134	Deferred Development	-					836	303	-	-	-	-	-	1,139
135	Capital Depreciation	-					-	-	-	-	-	-	-	-
136	Expense	-					98	168	-	-	-	-	-	266
137	Year 1 Data and Analytics Spend	-					934	471	-	-	-	-	-	1,405
138	Deferred Development	-					-	-	-	-	-	-	-	-
139	Capital Depreciation	-					-	-	-	-	-	-	-	-
140	Expense	-					-	228	-	-	-	-	-	228
141	Process Management Enhancements	-					-	228	-	-	-	-	-	228
142	Deferred Development	-					-	-	-	-	-	-	-	-
143	Capital Depreciation	-					-	-	-	-	-	-	-	-
144	Expense	-					-	76	-	-	-	-	-	76
145	Agile Initiatives	-					-	76	-	-	-	-	-	76

Basic Capital Expenditures by Project (updated Expenses Chapter Figure EXP-42) (cont'd)

Line No.	Project	LTD Actual*	2017/18A	2018/19A	2019/20A	2020/21A	2021/22A	2022/23F	2023/24F	2024/25F	2025/26F	2026/27F	Unassigned Capital**	Total
146	(C\$000s, except where noted)													
147	Deferred Development													-
148	Capital Depreciation													-
149	Expense	7,260	372	369	1,887	-	-	228	1,904	1,904	-	-	-	13,924
150	Insertions of Work	7,260	372	369	1,887	-	-	228	1,904	1,904	-	-	-	13,924
151	Total SPM / NOVA Project Costs	7,260	372	3,581	8,018	13,636	31,928	32,826	26,934	24,602	10,410	3,827	254	327,296
152	<i>*LTD actual are expenditures from 2013/14 to 2016/17 for current projects only.</i>													
153	<i>**The total unassigned capital in Table 6.2 is different from Table 6.1. Only current projects are presented in Table 6.2.</i>													
154	<i>***Nova unassigned Capital captures the difference between the Nova Rebaseline from 2022 budget submission and Nova March 2022 forecasting</i>													
155	<i>***Effective with April 2021, Nova Unassigned Capital will be reforecasted into the 2021/22 and future fiscal years.</i>													

b)

Figure 2 Comparison of the total by Basic Project in (a) for Project Nova

2023 General Rate Application														
Line No.	Project	LTD Actual*	2017/18A	2018/19A	2019/20A	2020/21A	2021/22A	2022/23F	2023/24F	2024/25F	2025/26F	2026/27F	Unassigned Capital**	Total
1	(C\$000s, except where noted)													
2	Deferred Development	-	-	-	-	1,547	16,487	8,553	8,179	4,782	3,678	-	(494)	42,732
3	Capital Depreciation	-	-	-	-	-	-	-	-	-	-	-	-	-
4	Expense	-	-	99	2,043	4,939	7,313	2,762	1,142	1,981	1,104	431	748	22,562
5	Nova	-	-	99	2,043	6,486	23,800	11,315	9,321	6,763	4,782	431	254	65,294
6	Deferred Development	-	-	-	-	-	-	-	-	-	-	-	-	-
7	Capital Depreciation	-	-	-	-	-	-	-	-	-	-	-	-	-
8	Expense	-	-	-	-	366	793	926	1,654	1,880	2,232	-	-	7,851
9	Nova - ongoing ops	-	-	-	-	366	793	926	1,654	1,880	2,232	-	-	7,851

Comparison of the total by Basic Project in (a) for Project Nova (cont'd)

Line No.	2022 General Rate Application	LTD Actual*	2017/18A	2018/19A	2019/20A	2020/21A	2021/22F	2022/23F	2023/24F	2024/25F	2025/26F	Unassigned Capital**	Total
10	Project												
11	<i>(C\$000s, except where noted)</i>												
12	Deferred Development	6,362					14,450	14,103	9,438	3,791	-	1,505	49,649
13	Capital Depreciation	-					-	-	-	-	-	-	-
14	Expense	6,987					5,859	2,730	5,766	1,872	820	(148)	23,886
15	Nova	13,349					20,309	16,833	15,204	5,663	820	1,357	73,535
16	Deferred Development	-					-	-	-	-	-	-	-
17	Capital Depreciation	-					-	-	-	-	-	-	-
18	Expense	366					635	4,671	-	-	-	-	5,672
19	Nova - ongoing ops	366					635	4,671	-	-	-	-	5,672

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Part and Chapter:	Part V Expenses Fig. EXP-45	Page No.:	66
PUB Approved Issue No:	8. Cost of operations and cost containment		
Topic:	Operating Expenses		
Sub Topic:	Broker Commissions		

Preamble to IR:

While the current Broker Agreement expires on March 31, 2026, MPI and IBAM are in discussions to update its terms to reflect the changes to the Nova delivery schedule.

Question:

- a) Please provide a comparison of the Broker commissions written by year in Figure EXP-45 with that forecast last year for the years 2021/22 through 2026/27 and indicate the total change for the six years by product/transaction.
- b) Please provide an update of the discussion with IBAM related to updating the terms of the existing agreement.

Rationale for Question:

To understand changes in broker expenses.

RESPONSE:

a) Please find below a six-year comparison of commissions for Basic and Extension between actuals/forecasts provided in Figure EXP-45 of 2023 GRA and 2022 GRA, respectively.

Figure 1: 6-Year Summary of Commissions/Fees Paid to Brokers - Basic and Extension - 2023 GRA vs 2022 GRA Comparative

Line No.	Products/Transactions	2021/22A			2022/23FB			2023/24F			2024/25F			2025/26F			2026/27F		
1	<i>(\$000's, except where noted)</i>	2023 GRA	2022 GRA	Inc / (Dec)	2023 GRA	2022 GRA	Inc / (Dec)	2023 GRA	2022 GRA	Inc / (Dec)	2023 GRA	2022 GRA	Inc / (Dec)	2023 GRA	2022 GRA	Inc / (Dec)	2023 GRA	2022 GRA	Inc / (Dec)
2	Basic	39,545	40,707	(1,161)	41,647	43,203	(1,555)	51,745	49,145	2,600	54,447	49,274	5,173	52,431	49,708	2,724	53,121	-	-
3	Extension	31,191	30,926	266	32,774	32,025	749	33,819	31,712	2,108	33,584	30,328	3,256	32,210	30,290	1,920	32,766	-	-
4	Basic Transactions / flat fees	7,029	7,464	(435)	7,364	6,199	1,165	5,459	5,751	(292)	5,289	4,940	349	4,548	4,703	(155)	4,393	-	-
5	Extension Transactions / flat fees	674	790	(116)	719	818	(100)	746	762	(17)	725	656	68	623	625	(2)	602	-	-
6	DVA Transactions / flat fees	1,918	1,621	297	1,986	3,184	(1,199)	4,217	2,961	1,256	4,091	2,550	1,541	3,517	2,427	1,090	3,398	-	-
7	Total Commission Written	80,358	81,507	(1,149)	84,489	85,429	(940)	95,986	90,330	5,656	98,135	87,748	10,387	93,330	87,752	5,578	94,280	n/a	n/a
8	Rate Change in Year:																		
9	Basic - In-Person Transactions			n/a			0.00%			0.00%			0.00%			0.00%			n/a
10	Basic - Online Transactions			n/a			0.00%			0.00%			0.00%			0.00%			n/a
11	Basic - Effective Rate			n/a			0.04%			0.23%			0.42%			0.22%			n/a
12	Extension - In-Person Transactions			n/a			0.00%			0.00%			0.00%			0.00%			n/a
13	Extension - Online Transactions			n/a			0.00%			0.00%			0.00%			0.00%			n/a
14	Extension - Effective Rate			n/a			0.00%			0.71%			1.28%			0.59%			n/a
15	CPI on Flat Fees			n/a			0.022			0.004			0.003			0.000			n/a

b) Discussions with IBAM regarding Agreement updates are on hold pending further planning on the NOVA R3B release roadmap, in order to validate timing.

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Part and Chapter:	Part V Expenses Fig. EXP-47	Page No.:	68
PUB Approved Issue No:	8. Cost of operations and cost containment		
Topic:	Operating Expenses		
Sub Topic:	Premium Taxes		

Preamble to IR:**Question:**

Please update Figure EXP – 47 to add lines to separately indicate the actual and forecast motor vehicle premium rebates and net motor vehicle premiums for the determination of the Premium taxes.

Rationale for Question:

To understand changes in premium taxes.

RESPONSE:

Per *Figure 1* below, MPI added lines 2 and 3 to Figure EXP-47 to show the components that make up the net premiums earned for the determination of Premium taxes paid.

Figure 1 Basic Premium Tax Calculations

Line No.	Category	2017/18A	2018/19A	2019/20A	2020/21A	2021/22A	2022/23F	2023/24F	2024/25F	2025/26F	2026/27F
1	<i>(C\$000s, except where noted)</i>										
2	Motor Vehicles before Rebate	922,617	980,770	1,036,651	1,066,886	1,058,320	1,040,737	1,106,616	1,170,965	1,212,656	1,256,147
3	Rebate	-	-	-	(282,626)	(156,534)	-	-	-	(118,620)	-
4	Net Motor Vehicle Premiums	922,617	980,770	1,036,651	784,260	901,786	1,040,737	1,106,616	1,170,965	1,094,036	1,256,147
5	Drivers	48,819	58,668	66,733	67,343	63,747	60,635	61,689	64,716	67,100	69,147
6	Total Basic Premiums earned	971,436	1,039,438	1,103,384	851,604	965,533	1,101,372	1,168,305	1,235,681	1,161,136	1,325,294
7	Premium tax Rate	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%
8	Premium Taxes Paid	29,143	31,183	33,102	23,978	28,966	33,043	35,051	37,072	34,836	39,761

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Part and Chapter:	Part V Expenses EXP Appendix 1	Page No.:	70
PUB Approved Issue No:	8. Cost of operations and cost containment		
Topic:	Internal Operating Metrics		
Sub Topic:			

Preamble to IR:

Last year MPI reported:

"MPI expects future Basic Normal Operating expenses to be at or below CPI growth. It will continue to control and reduce Basic operational expenses where possible and will only incur initiative/project expenses when they add value to core business functions or are needed to modernize legacy systems (i.e., Project NOVA). Overall, MPI anticipates that expense ratios will continue to improve (as operations streamline) and that premiums will grow at a rate that is faster than its operating expenses."

At that time the trend analysis indicated operating expenses over the three-year forecast excluding improvement initiatives and amortization of improvement initiatives of -0.7%. In this year's application the annual forecast growth trend is 3.6%.

MPI reported last year positive trends of negative growth of normal claims expenses excluding improvement initiatives and immobilizer expenses.

In this year's application, MPI notes:

"MPI requires larger than expected compensation increases to adjust for inflation impacts, specifically on salaries as well as a temporary increase in FTE counts to read the corporation for the upcoming Nova digital transition and address capacity build ups within the organization."

Question:

- a) Please explain the changes in the operating expense ratio (c) in 2021/22, (an increase of 8.93%) and 2022/23 (an increase of 15.57%).
- b) Please provide the operating expense per policy and percentage change based on total operating expenses.
- c) Please further explain the change in forecast growth trend for normal operating expenses excluding improvement initiatives and amortization with that provided last year.
- d) Please indicate the extent to which the operating expenses excluding improvement initiatives and amortization of improvement initiatives includes temporary increases in FTE counts. Please provide the number of temporary FTE and related expenses.

Rationale for Question:

To understand changes in operating metrics.

RESPONSE:

- a) The increases in 2021/22 and 2022/23 are primarily due to inflationary growth on many cost categories and higher FTE counts as noted following Figure EXP-31. Additionally, in 2021/22, Operating expense allocations increased approximately 2% in the 2023 GRA versus 2022 GRA, as noted in EXP App 7-1. In 2022/23, the 15.57% increase is also driven by the inclusion of the \$66.5 million capital release in net premiums earned.
- b) Please see *Appendix 1 - MPI Basic Benchmarking Total Operating Expenses per Policy.*

- c) Please refer to Appendix 2 – (2022 GRA) EXP Appendix 2 Summary of Basic Expenses from the 2023 GRA. These documents provide the Operating expenses by categorical detail and describe the increased growth for the subject years.

The overall increase in Corporate Normal Operating Expenses primarily drives the increase growth trend in Basic normal operating expenses. While the Expense Chapter explains these increase costs, they mainly result from inflation (CPI growth) and estimated salary increases, specifically, the 5% economic growth assumption assumed for in scope salaries expected in September of 2022.

- d) Please refer to the Expense Chapter Figure EXP- 11 (shown below), which reflects normal operation FTE levels to 2024/25. MPI expects FTE counts to increase from 2022/23 to 2024/25.

Figure 1 Normal Operations Staffing (FTEs) (Figure Exp 11)

Line No.	Fiscal Year	Actual	Budget	Over (Under) Variance
1	2017/18A	1,863.5	1,910.0	(46.5)
2	2018/19A	1,772.7	1,884.0	(111.3)
3	2019/20A	1,808.6	1,911.1	(102.5)
4	2020/21A	1,766.7	1,907.0	(140.3)
5	2021/22A	1,815.3	1,939.0	(123.7)
6	2022/23BF	-	1,995.2	-
7	2023/24F	-	2,037.7	-
8	2024/25F	-	2,037.7	-

Figure App 1-1 MPI - BASIC Benchmarking Total Operating Expenses per Policy

Data		2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	Annual Compound Growth	
										5 yr Historical	3 yr Outlook
1	Net Premiums Earned (\$000)	\$ 960,142	\$ 1,026,935	\$ 1,089,285	\$ 1,120,468	\$ 1,106,408	\$ 1,085,020	\$ 1,151,462	\$ 1,218,333	3.6%	6.0%
2 (a)	Operating Expenses (\$000)	\$ 74,644	\$ 80,439	\$ 74,506	\$ 74,462	\$ 80,475	\$ 94,097	\$ 100,447	\$ 100,575	1.9%	3.4%
2 (b)	Normal Operating Expenses-excluding all improvement initiatives expenses (\$000)	\$ 73,724	\$ 78,630	\$ 72,892	\$ 72,000	\$ 76,644	\$ 86,563	\$ 91,992	\$ 92,307	1.0%	3.3%
2 (c)	Normal Operating Expenses-excluding all improvement initiatives expenses & amortization of prior improvement initiatives (\$000)	\$ 70,386	\$ 73,699	\$ 70,741	\$ 69,625	\$ 74,888	\$ 84,875	\$ 90,506	\$ 91,072	1.6%	3.6%
3 (a)	Claims Expenses (\$000)	\$ 156,483	\$ 138,409	\$ 144,058	\$ 149,428	\$ 156,614	\$ 164,249	\$ 175,431	\$ 177,460	0.0%	3.9%
3 (b)	Normal Claims Expenses-excluding all improvement initiatives & Immobilizer expenses (\$000)	\$ 136,200	\$ 134,678	\$ 140,449	\$ 144,637	\$ 148,672	\$ 150,482	\$ 160,050	\$ 161,441	2.2%	3.6%
3 (c)	Normal Claims Expenses-excluding all improvement initiatives, Immobilizer expenses & amortization of prior improvement initiatives (\$000)	\$ 122,440	\$ 119,536	\$ 127,462	\$ 132,237	\$ 139,801	\$ 145,222	\$ 156,151	\$ 158,333	3.4%	4.4%
4	Net Claims Incurred (\$000)	\$ 767,239	\$ 892,258	\$ 761,455	\$ 653,828	\$ 705,809	\$ 882,979	\$ 932,524	\$ 975,207	-2.1%	5.1%
5	Commissions & Premiums Taxes (\$000)	\$ 66,521	\$ 71,416	\$ 75,434	\$ 67,362	\$ 73,891	\$ 81,020	\$ 86,725	\$ 95,346	2.7%	8.5%
6	Investment Income (\$000)	\$ 116,320	\$ 208,511	\$ 59,614	\$ 89,528	\$ (47,184)	\$ 136,097	\$ 107,515	\$ 104,271	N/A	N/A
7	Number of claims (Note 1)	247,993	252,627	259,814	196,331	223,921	266,101	272,540	279,134	-2.5%	2.4%
8	Number of policies	1,124,731	1,136,884	1,173,982	1,195,156	1,236,982	1,250,713	1,264,096	1,277,622	2.4%	1.1%
9	Number of Support employees	434	413	423	412	423	465	456	465	-0.6%	0.0%
10	Number of Claims employees	917	872	892	870	894	983	964	982	-0.6%	-0.1%
11	Gross Premiums Written (\$000)	\$ 1,005,887	\$ 1,070,529	\$ 1,121,524	\$ 1,158,693	\$ 1,080,879	\$ 1,121,297	\$ 1,213,689	\$ 1,256,913	1.8%	5.9%
12	Net Premiums Written (\$000)	\$ 994,593	\$ 1,058,027	\$ 1,107,425	\$ 1,144,932	\$ 1,065,220	\$ 1,104,945	\$ 1,196,846	\$ 1,239,565	1.7%	5.9%
13	Provincial population (000)	1,338.1	1,352.2	1,369.5	1,379.3	1,383.8	1,396.5	1,410.5	1,424.9	0.8%	1.0%

Ratios		2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	Annual Compound Growth	
										5 yr Historical	3 yr Outlook
v (a)	Operating Expense/Policy [2(a)/8]	\$ 66.37	\$ 70.75	\$ 63.46	\$ 62.30	\$ 65.06	\$ 75.23	\$ 79.46	\$ 78.72	-0.5%	2.3%
	Yearly Change (%)	-5.41	6.61	-10.30	-1.83	4.42	15.64	5.62	-0.93		

Note 1 - includes total corporate number of claims excluding claims with only Extension or SRE covers

Appendix 2: Summary of Basic Expenses by Category

Figure EXP App 2- 1 Normal Operations

5 Year Summary of Basic Expenses by Category - Normal Operations Expenses																
Line No.	Expense	Claims					Operating					Road Safety				
		2019/20A	2020/21A	2021/22FB	2022/23F	2023/24F	2019/20A	2020/21A	2021/22FB	2022/23F	2023/24F	2019/20A	2020/21A	2021/22FB	2022/23F	2023/24F
1	(\$000's, except where noted)															
2	Compensation - Salaries	68,918	67,074	69,648	71,437	72,128	29,738	29,575	31,128	31,864	32,173	1,958	1,765	1,636	1,673	1,688
3	Compensation - Overtime	861	582	885	868	850	214	251	199	195	191	1	9	4	4	4
4	Compensation - Benefits	15,910	18,600	17,801	17,817	17,679	6,905	8,147	8,094	8,074	8,011	444	457	384	382	379
5	Compensation - H & E Tax	1,475	1,471	1,629	1,641	1,638	640	644	739	742	741	41	36	35	35	35
6	Subtotal - Compensation	87,164	87,727	89,963	91,763	92,295	37,497	38,617	40,160	40,875	41,116	2,444	2,267	2,059	2,094	2,106
7	Data Processing	13,390	19,569	21,159	22,012	22,586	5,722	6,355	7,042	7,324	7,514	7	-	-	-	-
8	Special Services	1,968	5,246	4,004	3,751	3,747	2,136	2,278	3,036	2,842	2,839	104	51	192	180	180
9	Building Expenses	5,142	4,872	4,735	4,627	4,266	2,058	1,765	1,682	1,642	1,514	134	58	62	60	56
10	Safety/Loss Prevention Programs	202	487	535	490	485	-	-	-	-	-	2,844	1,461	3,332	3,057	3,023
11	Telephone/Telecommunications	988	1,036	1,053	1,047	1,035	429	446	448	445	440	-	-	-	-	-
12	Public Information/Advertising	248	29	17	17	17	108	77	172	245	242	2,091	1,471	2,557	2,543	2,515
13	Printing, Stationery, Supplies	693	493	866	861	850	462	481	607	604	597	29	21	35	35	34
14	Postage	1	618	1	1	1	3,494	2,691	3,061	3,045	3,011	-	-	-	-	-
15	Regulatory/Appeal	-	64	-	-	-	-	29	-	-	-	-	-	-	-	-
16	Travel and Vehicle Expense	599	276	604	605	598	159	84	186	186	184	17	18	37	37	36
17	Driver Education Program	-	-	-	-	-	-	-	-	-	-	3,479	1,391	4,068	4,178	4,132
18	Grants in Lieu of Taxes	1,007	1,050	1,042	1,038	1,027	403	372	370	368	365	26	14	14	14	13
19	Furniture & Equipment	605	218	1,374	1,075	919	567	211	816	638	545	1	-	-	-	-
20	Merchant Fees & Bank Charges	-	5	-	-	-	8,653	8,157	7,997	8,083	8,157	-	-	-	-	-
21	Other	1,113	637	4,229	3,823	3,753	3,316	2,617	3,277	3,089	3,049	65	89	69	69	67
22	Subtotal - Other Expenses	25,956	34,600	39,619	39,347	39,284	27,507	25,563	28,694	28,511	28,457	8,797	4,574	10,366	10,173	10,056
23	Depreciation-Capital Assets	2,863	2,918	3,279	3,322	3,559	1,130	1,047	1,201	1,224	1,314	196	151	120	103	79
24	Amortization-Deferred Development	12,412	11,684	8,506	5,332	3,364	2,151	2,375	1,930	1,807	1,342	575	716	704	700	693
25	Total	128,395	136,929	141,367	139,764	138,502	68,285	67,602	71,985	72,417	72,229	12,012	7,708	13,249	13,070	12,934
26	*Rounding may affect totals															
27	** Please refer to respective Expense Chapter sections for variance analysis															

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2022 GENERAL RATE APPLICATION
Part V – EXP Appendix 2

Figure EXP App 2- 1 Normal Operations (cont'd)

28	29 Expense	Regulatory Appeal					Total				
		2019/20A	2020/21A	2021/22FB	2022/23F	2023/24F	2019/20A	2020/21A	2021/22FB	2022/23F	2023/24F
30	(\$000's, except where noted)										
31	Compensation - Salaries	364	213	198	203	207	100,978	98,627	102,610	105,177	106,196
32	Compensation - Overtime	8	2	7	7	7	1,084	844	1,095	1,074	1,052
33	Compensation - Benefits	78	96	51	51	51	23,337	27,300	26,330	26,324	26,120
34	Compensation - H & E Tax	7	8	5	5	5	2,163	2,159	2,408	2,423	2,419
35	Subtotal - Compensation	457	319	261	266	270	127,562	128,930	132,443	134,998	135,787
36	Data Processing	-	-	-	-	-	19,119	25,924	28,201	29,336	30,100
37	Special Services	1	-	1	1	1	4,209	7,575	7,233	6,774	6,767
38	Building Expenses	5	5	5	5	5	7,339	6,700	6,484	6,334	5,841
39	Safety/Loss Prevention Programs	-	-	-	-	-	3,046	1,948	3,867	3,547	3,508
40	Telephone/Telecommunications	-	-	-	-	-	1,417	1,482	1,501	1,492	1,475
41	Public Information/Advertising	-	-	-	-	-	2,447	1,577	2,746	2,805	2,774
42	Printing, Stationery, Supplies	1	-	-	-	-	1,185	995	1,508	1,500	1,481
43	Postage	-	-	-	-	-	3,495	3,309	3,062	3,046	3,012
44	Regulatory/Appeal	4,177	4,072	4,521	4,349	4,325	4,177	4,165	4,521	4,349	4,325
45	Travel and Vehicle Expense	3	-	-	-	-	778	378	827	828	818
46	Driver Education Program	-	-	-	-	-	3,479	1,391	4,068	4,178	4,132
47	Grants in Lieu of Taxes	1	1	1	1	1	1,437	1,437	1,427	1,421	1,406
48	Furniture & Equipment	-	-	-	-	-	1,173	429	2,190	1,713	1,464
49	Merchant Fees & Bank Charges	-	-	-	-	-	8,653	8,162	7,997	8,083	8,157
50	Other	-	-	(1)	(1)	-	4,494	3,343	7,574	6,980	6,869
51	Subtotal - Other Expenses	4,188	4,078	4,527	4,355	4,332	66,448	68,815	83,206	82,386	82,129
52	Depreciation-Capital Assets	2	2	3	3	3	4,191	4,118	4,603	4,652	4,955
53	Amortization-Deferred Development	-	-	-	-	-	15,138	14,775	11,140	7,839	5,399
54	Total	4,647	4,399	4,791	4,624	4,605	213,339	216,638	231,392	229,875	228,270
55	*Rounding may affect totals										

Figure EXP App 2- 2 Improvement Initiatives

5 Year Summary of Basic Expenses by Category - Initiative Expenses

Line No.	Expense	Claims					Operating					Road Safety				
		2019/20A	2020/21A	2021/22FB	2022/23F	2023/24F	2019/20A	2020/21A	2021/22FB	2022/23F	2023/24F	2019/20A	2020/21A	2021/22FB	2022/23F	2023/24F
1	<i>(\$000's, except where noted)</i>															
2	Compensation - Salaries	439	758	871	1,275	950	199	360	667	603	450	-	-	-	-	-
3	Compensation - Overtime	2	6	-	-	-	1	3	-	-	-	-	-	-	-	-
4	Compensation - Benefits	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5	Compensation - H & E Tax	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6	Subtotal - Compensation	441	764	871	1,275	950	200	363	667	603	450	-	-	-	-	-
7	Data Processing	3,120	3,886	6,917	5,617	8,102	1,401	2,035	3,294	2,585	3,758	-	-	-	-	-
8	Special Services	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9	Building Expenses	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10	Safety/Loss Prevention Programs	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11	Telephone/Telecommunications	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12	Public Information/Advertising	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13	Printing, Stationery, Supplies	4	1	1	2	2	2	-	1	1	1	18	-	-	-	-
14	Postage	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15	Regulatory/Appeal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16	Travel and Vehicle Expense	13	2	5	5	8	6	1	2	3	4	-	-	-	-	-
17	Driver Education Program	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18	Grants in Lieu of Taxes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
19	Furniture & Equipment	-	-	197	196	185	-	-	93	93	87	-	-	-	-	-
20	Merchant Fees & Bank Charges	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
21	Other	14	138	151	58	(134)	6	62	71	28	(65)	-	-	-	-	-
22	Subtotal - Other Expenses	3,151	4,027	7,271	5,878	8,163	1,415	2,098	3,461	2,710	3,785	18	-	-	-	-
23	Depreciation-Capital Assets	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
24	Amortization-Deferred Development	-	-	-	801	3,552	-	-	-	378	1,677	-	-	-	-	-
25	Total	3,592	4,791	8,142	7,954	12,665	1,615	2,461	4,128	3,691	5,912	18	-	-	-	-
26	*Rounding may affect totals															

Figure EXP App 2-2 Improvement Initiatives (cont'd)

27	28 Expense	Regulatory Appeal					Total				
		2019/20A	2020/21A	2021/22FB	2022/23F	2023/24F	2019/20A	2020/21A	2021/22FB	2022/23F	2023/24F
29	(\$000's, except where noted)										
30	Compensation - Salaries	-	-	-	-	-	638	1,118	1,538	1,878	1,400
31	Compensation - Overtime	-	-	-	-	-	3	9	-	-	-
32	Compensation - Benefits	-	-	-	-	-	-	-	-	-	-
33	Compensation - H & E Tax	-	-	-	-	-	-	-	-	-	-
34	Subtotal - Compensation	-	-	-	-	-	641	1,127	1,538	1,878	1,400
35	Data Processing	-	-	-	-	-	4,521	5,921	10,211	8,202	11,860
36	Special Services	-	-	-	-	-	-	-	-	-	-
37	Building Expenses	-	-	-	-	-	-	-	-	-	-
38	Safety/Loss Prevention Programs	-	-	-	-	-	-	-	-	-	-
39	Telephone/Telecommunications	-	-	-	-	-	-	-	-	-	-
40	Public Information/Advertising	-	-	-	-	-	-	-	-	-	-
41	Printing, Stationery, Supplies	-	-	-	-	-	24	1	2	3	3
42	Postage	-	-	-	-	-	-	-	-	-	-
43	Regulatory/Appeal	-	-	-	-	-	-	-	-	-	-
44	Travel and Vehicle Expense	-	-	-	-	-	19	3	7	8	12
45	Driver Education Program	-	-	-	-	-	-	-	-	-	-
46	Grants in Lieu of Taxes	-	-	-	-	-	-	-	-	-	-
47	Furniture & Equipment	-	-	-	-	-	-	-	290	289	272
48	Merchant Fees & Bank Charges	-	-	-	-	-	-	-	-	-	-
49	Other	-	-	-	-	-	20	200	222	86	(199)
50	Subtotal - Other Expenses	-	-	-	-	-	4,584	6,125	10,732	8,588	11,948
51	Depreciation-Capital Assets	-	-	-	-	-	-	-	-	-	-
52	Amortization-Deferred Development	-	-	-	-	-	-	-	-	1,179	5,229
53	Total	-	-	-	-	-	5,225	7,252	12,270	11,645	18,577

54 *Rounding may affect totals

Figure EXP App 2- 3 Total

5 Year Summary of Basic Expenses by Category - Total Expenses

Line No.	Expense	Claims					Operating					Road Safety				
		2019/20A	2020/21A	2021/22FB	2022/23F	2023/24F	2019/20A	2020/21A	2021/22FB	2022/23F	2023/24F	2019/20A	2020/21A	2021/22FB	2022/23F	2023/24F
1	<i>(\$000's, except where noted)</i>															
2	Compensation - Salaries	69,357	67,832	70,519	72,712	73,078	29,937	29,935	31,795	32,467	32,623	1,958	1,765	1,636	1,673	1,688
3	Compensation - Overtime	863	588	885	868	850	215	254	199	195	191	1	9	4	4	4
4	Compensation - Benefits	15,910	18,600	17,801	17,817	17,679	6,905	8,147	8,094	8,074	8,011	444	457	384	382	379
5	Compensation - H & E Tax	1,475	1,471	1,629	1,641	1,638	640	644	739	742	741	41	36	35	35	35
6	Subtotal - Compensation	87,605	88,491	90,834	93,038	93,245	37,697	38,980	40,827	41,478	41,566	2,444	2,267	2,059	2,094	2,106
7	Data Processing	16,510	23,455	28,076	27,629	30,688	7,123	8,390	10,336	9,909	11,272	7	-	-	-	-
8	Special Services	1,968	5,246	4,004	3,751	3,747	2,136	2,278	3,036	2,842	2,839	104	51	192	180	180
9	Building Expenses	5,142	4,872	4,735	4,627	4,266	2,058	1,765	1,682	1,642	1,514	134	58	62	60	56
10	Safety/Loss Prevention Programs	202	487	535	490	485	-	-	-	-	-	2,844	1,461	3,332	3,057	3,023
11	Telephone/Telecommunications	988	1,036	1,053	1,047	1,035	429	446	448	445	440	-	-	-	-	-
12	Public Information/Advertising	248	29	17	17	17	108	77	172	245	242	2,091	1,471	2,557	2,543	2,515
13	Printing, Stationery, Supplies	697	494	867	863	852	464	481	608	605	598	47	21	35	35	34
14	Postage	1	618	1	1	1	3,494	2,691	3,061	3,045	3,011	-	-	-	-	-
15	Regulatory/Appeal	-	64	-	-	-	-	29	-	-	-	-	-	-	-	-
16	Travel and Vehicle Expense	612	278	609	610	606	165	85	188	189	188	17	18	37	37	36
17	Driver Education Program	-	-	-	-	-	-	-	-	-	-	3,479	1,391	4,068	4,178	4,132
18	Grants in Lieu of Taxes	1,007	1,050	1,042	1,038	1,027	403	372	370	368	365	26	14	14	14	13
19	Furniture & Equipment	605	218	1,571	1,271	1,104	567	211	909	731	632	1	-	-	-	-
20	Merchant Fees & Bank Charges	-	5	-	-	-	8,653	8,157	7,997	8,083	8,157	-	-	-	-	-
21	Other	1,127	775	4,380	3,881	3,619	3,322	2,679	3,348	3,117	2,984	65	89	69	69	67
22	Subtotal - Other Expenses	29,107	38,627	46,890	45,225	47,447	28,922	27,661	32,155	31,221	32,242	8,815	4,574	10,366	10,173	10,056
23	Depreciation-Capital Assets	2,863	2,918	3,279	3,322	3,559	1,130	1,047	1,201	1,224	1,314	196	151	120	103	79
24	Amortization-Deferred Development	12,412	11,684	8,506	6,133	6,916	2,151	2,375	1,930	2,185	3,019	575	716	704	700	693
25	Total	131,987	141,720	149,509	147,718	151,167	69,900	70,063	76,113	76,108	78,141	12,030	7,708	13,249	13,070	12,934

26 *Rounding may affect totals

27 ** Please refer to respective Expense Chapter sections for variance analysis

Figure EXP App 2-3 Total (cont'd)

28	29 Expense	Regulatory Appeal					Total				
		2019/20A	2020/21A	2021/22FB	2022/23F	2023/24F	2019/20A	2020/21A	2021/22FB	2022/23F	2023/24F
30	<i>(\$000's, except where noted)</i>										
31	Compensation - Salaries	364	213	198	203	207	101,616	99,745	104,148	107,055	107,596
32	Compensation - Overtime	8	2	7	7	7	1,087	853	1,095	1,074	1,052
33	Compensation - Benefits	78	96	51	51	51	23,337	27,300	26,330	26,324	26,120
34	Compensation - H & E Tax	7	8	5	5	5	2,163	2,159	2,408	2,423	2,419
35	Subtotal - Compensation	457	319	261	266	270	128,203	130,057	133,981	136,876	137,187
36	Data Processing	-	-	-	-	-	23,640	31,845	38,412	37,538	41,960
37	Special Services	1	-	1	1	1	4,209	7,575	7,233	6,774	6,767
38	Building Expenses	5	5	5	5	5	7,339	6,700	6,484	6,334	5,841
39	Safety/Loss Prevention Programs	-	-	-	-	-	3,046	1,948	3,867	3,547	3,508
40	Telephone/Telecommunications	-	-	-	-	-	1,417	1,482	1,501	1,492	1,475
41	Public Information/Advertising	-	-	-	-	-	2,447	1,577	2,746	2,805	2,774
42	Printing, Stationery, Supplies	1	-	-	-	-	1,209	996	1,510	1,503	1,484
43	Postage	-	-	-	-	-	3,495	3,309	3,062	3,046	3,012
44	Regulatory/Appeal	4,177	4,072	4,521	4,349	4,325	4,177	4,165	4,521	4,349	4,325
45	Travel and Vehicle Expense	3	-	-	-	-	797	381	834	836	830
46	Driver Education Program	-	-	-	-	-	3,479	1,391	4,068	4,178	4,132
47	Grants in Lieu of Taxes	1	1	1	1	1	1,437	1,437	1,427	1,421	1,406
48	Furniture & Equipment	-	-	-	-	-	1,173	429	2,480	2,002	1,736
49	Merchant Fees & Bank Charges	-	-	-	-	-	8,653	8,162	7,997	8,083	8,157
50	Other	-	-	(1)	(1)	-	4,514	3,543	7,796	7,066	6,670
51	Subtotal - Other Expenses	4,188	4,078	4,527	4,355	4,332	71,032	74,940	93,938	90,974	94,077
52	Depreciation-Capital Assets	2	2	3	3	3	4,191	4,118	4,603	4,652	4,955
51	Amortization-Deferred Development	-	-	-	-	-	15,138	14,775	11,140	9,018	10,628
52	Total	4,647	4,399	4,791	4,624	4,605	218,564	223,890	243,662	241,520	246,847

53 *Rounding may affect totals

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Part and Chapter:	Part V Expenses EXP Appendix 1	Page No.:	70
PUB Approved Issue No:	8. Cost of operations and cost containment		
Topic:	Internal Operating Metrics		
Sub Topic:			

Preamble to IR:

Last year MPI reported a positive forecast trend of lower normal claims expenses excluding improvement initiatives and immobilizer expenses of -.5%.

In this year's application the annual forecast growth trend is negative with normal claims expenses excluding improvement initiatives and immobilizer expenses growing at 4.4% annually.

Question:

- a) Please explain the change in the claims expense ratio (c) from 2021/22 (an increase of 7.06%) and 2022/23 (an increase of 5.93%).
- b) Please provided the claims expense per policy based on total claims expenses.
- c) Please explain the change in the forecast growth trend for normal claims expenses excluding improvement initiatives and amortization from the growth trend indicated last year.
- d) Please indicate to what extent the Claims expenses excluding improvement initiatives and amortization of improvement initiatives includes temporary increases in FTE counts. Please provide the number of temporary FTE and related expenses.

Rationale for Question:

To understand changes in operating metrics.

RESPONSE:

- a) The increases in 2021/22 and 2022/23 are primarily due to inflationary growth on many cost categories and higher FTE counts as noted in Expense Chapter Figure EXP- 31. Additionally, in 2021/22, Claims expense allocations increased approximately 1% in the 2023 GRA versus 2022 GRA, as noted in Expense Appendix 7 Figure EXP App 7-1.
- b) Please see Appendix 1 Figure App 1-1 - MPI – BASIC Benchmarking Claims Expenses per Policy.
- c) Please refer to PUB (MPI) 1-64(c) Expense EXP Appendix 2 – Summary of Basic Expenses by Category (2022 GRA) and 2023 GRA. These documents provide the Claims expenses by categorical detail and describe the increased growth for the years in question.

The overall increase in Corporate Normal Operating Expenses primarily drives the increased growth trend in Basic claims expenses. While the Expense Chapter explains these costs, they primarily result from inflation (CPI growth) and estimated salary increases, specifically, the 5% economic growth assumption assumed for in-scope salaries expected in September of 2022.

- d) Please refer to the Expense Chapter Figure EXP-11 (shown below), which reflects normal operation FTE levels to 2024/25. MPI expects FTE counts to increase from 2022/23 to 2024/25.

Figure EXP-11 Normal Operations Staffing (FTEs)

Line No.	Fiscal Year	Actual	Budget	Over (Under) Variance
1	2017/18A	1,863.5	1,910.0	(46.5)
2	2018/19A	1,772.7	1,884.0	(111.3)
3	2019/20A	1,808.6	1,911.1	(102.5)
4	2020/21A	1,766.7	1,907.0	(140.3)
5	2021/22A	1,815.3	1,939.0	(123.7)
6	2022/23BF	-	1,995.2	-
7	2023/24F	-	2,037.7	-
8	2024/25F	-	2,037.7	-

Figure App 1-1 MPI - BASIC Benchmarking Claims Expenses per Policy

Line No.	Data	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	Annual Compound Growth	
										5-Year Historical	3-Year Outlook
1	1 Net Premiums Earned (\$000)	\$ 960,142	\$ 1,026,935	\$ 1,089,285	\$ 1,120,468	\$ 1,106,408	\$ 1,085,020	\$ 1,151,462	\$ 1,218,333	3.6%	6.0%
2	2 (a) Operating Expenses (\$000)	\$ 74,644	\$ 80,439	\$ 74,506	\$ 74,462	\$ 80,475	\$ 94,097	\$ 100,447	\$ 100,575	1.9%	3.4%
3	2 (b) Normal Operating Expenses-excluding all improvement initiatives expenses (\$000)	\$ 73,724	\$ 78,630	\$ 72,892	\$ 72,000	\$ 76,644	\$ 86,563	\$ 91,992	\$ 92,307	1.0%	3.3%
5	2 (c) Normal Operating Expenses-excluding all improvement initiatives expenses & amortization of prior improvement initiatives (\$000)	\$ 70,386	\$ 73,699	\$ 70,741	\$ 69,625	\$ 74,888	\$ 84,875	\$ 90,506	\$ 91,072	1.6%	3.6%
7	3 (a) Claims Expenses (\$000)	\$ 156,483	\$ 138,409	\$ 144,058	\$ 149,428	\$ 156,614	\$ 164,249	\$ 175,431	\$ 177,460	0.0%	3.9%
8	3 (b) Normal Claims Expenses-excluding all improvement initiatives & Immobilizer expenses (\$000)	\$ 136,200	\$ 134,678	\$ 140,449	\$ 144,637	\$ 148,672	\$ 150,482	\$ 160,050	\$ 161,441	2.2%	3.6%
10	3 (c) Normal Claims Expenses-excluding all improvement initiatives, Immobilizer expenses & amortization of prior improvement initiatives (\$000)	\$ 122,440	\$ 119,536	\$ 127,462	\$ 132,237	\$ 139,801	\$ 145,222	\$ 156,151	\$ 158,333	3.4%	4.4%
12	4 Net Claims Incurred (\$000)	\$ 767,239	\$ 892,258	\$ 761,455	\$ 653,828	\$ 705,809	\$ 882,979	\$ 932,524	\$ 975,207	-2.1%	5.1%
13	5 Commissions & Premiums Taxes (\$000)	\$ 66,521	\$ 71,416	\$ 75,434	\$ 67,362	\$ 73,891	\$ 81,020	\$ 86,725	\$ 95,346	2.7%	8.5%
14	6 Investment Income (\$000)	\$ 116,320	\$ 208,511	\$ 59,614	\$ 89,528	\$ (47,184)	\$ 136,097	\$ 107,515	\$ 104,271	N/A	N/A
15	7 Number of claims (Note 1)	247,993	252,627	259,814	196,331	223,921	266,101	272,540	279,134	-2.5%	2.4%
16	8 Number of policies	1,124,731	1,136,884	1,173,982	1,195,156	1,236,982	1,250,713	1,264,096	1,277,622	2.4%	1.1%
17	9 Number of Support employees	434	413	423	412	423	465	456	465	-0.6%	0.0%
18	10 Number of Claims employees	917	872	892	870	894	983	964	982	-0.6%	-0.1%
19	11 Gross Premiums Written (\$000)	\$ 1,005,887	\$ 1,070,529	\$ 1,121,524	\$ 1,158,693	\$ 1,080,879	\$ 1,121,297	\$ 1,213,689	\$ 1,256,913	1.8%	5.9%
20	12 Net Premiums Written (\$000)	\$ 994,593	\$ 1,058,027	\$ 1,107,425	\$ 1,144,932	\$ 1,065,220	\$ 1,104,945	\$ 1,196,846	\$ 1,239,565	1.7%	5.9%
21	13 Provincial population (000)	1,338.1	1,352.2	1,369.5	1,379.3	1,383.8	1,396.5	1,410.5	1,424.9	0.8%	1.0%
22											
23											
24	Ratios	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	5-Year Historical	3-Year Outlook
25	ii (d) Claims Expense per Policy Ratio [3(a)/8]	139.13	121.74	122.71	125.03	126.61	131.32	138.78	138.90	-2.3%	2.8%
26	Yearly Change (%)	15.37	-12.50	0.79	1.89	1.27	3.72	5.68	0.09		

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Part and Chapter:	Part II VFH	Page No.:	10, 30
PUB Approved Issue No:	10. Vehicle for Hire (VFH)		
Topic:	Ratemaking		
Sub Topic:	VFH Taxi Telematic Pilot Project		

Preamble to IR:

MPI states:

"MPI is currently reviewing the request by the TC for a model that captures part-time taxi operations. MPI intends to use the telematics solution to help guide the possible development of a part-time model, in terms of hours of operation and projected uptake."

"MPI is currently working with the TC to implement a telematics pilot for Winnipeg taxis, the goal of which pilot is to collect data to identify factors associated with the high claims environment. MPI anticipates that this pilot will commence in the summer of 2022 and end after one year. MPI will use the results of this pilot to develop, in collaboration with the TC, a cohesive action plan to reduce claims."

Question:

- a) Please provide the number of vehicles participating, the information to be gathered, and the timelines for interim reporting on the project.
- b) Please explain how the telematics project is to assist in the viability of a part-time model.

Rationale for Question:

To understand the telematics pilot project for rate setting purposes.

RESPONSE:

- a) MPI anticipates that up to 300 taxis will participate in the pilot project. MPI will gather industry standard metrics related to driving behaviour in order to identify behaviours that lead to increased risk/collisions. These metrics may include but are not limited to, braking, acceleration, cornering speed, smoothness, duration of operation, location of operation, etc.

MPI intends to meet monthly with the Taxi Coalition (TC) in order to address any issues and maintain dialogue throughout the pilot. MPI will also report quarterly to the TC in order to provide information on emerging trends and the progression of the pilot.

MPI initially planned first quarter reporting for December 2022, but is currently selecting a vendor and therefore unaware of the ultimate impact on timelines. Actual timelines will depend on the drafting of an agreement and the capacity of the vendor to deliver the product and services.

- b) MPI plans to use data and insights from the telematics pilot to help inform assumptions around the potential uptake of a part time model for taxis as well as claims experience related to this group. Obtaining data from taxis relative to these aspects will help inform decisions around the viability of a part time model for taxis.

PUB (MPI) 1-67

Part and Chapter:	Part II VFH	Page No.:	22 - 24
PUB Approved Issue No:	10. Vehicle for Hire (VFH);		
Topic:	Ratemaking		
Sub Topic:	VFH Program Changes		

Preamble to IR:

MPI proposes to adopt a comprehensive blanket policy for TNC VFH.

The proposed blanket policy will allow MPI customers to operate 1 their personal passenger vehicles to transport people for financial compensation through a TNC. The TNC dispatcher would provide insurance coverage for the ridesharing portion of their use of the vehicle.

MPI is currently finalizing the pricing and rating structure of the blanket policy and will present it to the PUB for approval in the 2024 GRA. The main attribute of the blanket policy is a single starting rate for all Manitoban VFH Dispatchers that does not vary by territory (given that all or the vast majority of active TNCs operate only in Winnipeg).

TNCs are to provide upon application and at the beginning of the policy year, submit an annual estimate for the distance expected to be travelled across all active vehicles during ridesharing periods, which MPI will then apply to the starting rate in order to determine an initial premium requirement and a deposit amount.

Question:

- a) Please elaborate on how the per kilometre measure will be used in establishing a premium and in the annual true-up of the blanket policy. Please provide an illustrative calculation for the proposed rating scheme for both the initial set up and ongoing.

- b) Please explain whether the approach will result in differing per kilometre charges among TNCs.
- c) Please contrast the proposed approach with that used by SGI.
- d) Please describe how the blanket policy claims experience will be integrated with the per vehicle experience of all other uses and classes when determination of appropriate pricing.

Rationale for Question:

To understand blanket policy for TNCs.

RESPONSE:

- a) As stated in *Vehicle for Hire Chapter VFH 5.2*, the full actuarial development of the blanket policy is in progress. As a result, details and methods in the following illustrative example are subject to change as the model reaches full completion.

Blanket Policy Premium

MPI will determine the Transportation Network Companies (TNC) blanket policy premium by the vehicle for hire (VFH) per kilometre rate (VFH starting rate) multiplied by the TNC's estimated kilometres driven in the policy year. The estimated VFH kilometres driven by all TNCs and the estimated incurred losses of all TNCs will be the primary factors in determining the VFH per kilometre rate. The per kilometre rate will be one rate that applies to all TNCs and for all territories.

Per kilometre rate: for the purposes of this example, a rate of \$0.11/km will be used

TNC initial kilometre estimate: 1,000,000

TNC blanket policy premium is \$110,000 (1,000,000 x \$0.11)

Premium Deposit

At the beginning of the policy year, each TNC will pay a premium deposit that is based on their blanket policy premium.

For the purposes of this example, the premium deposit is determined to be 20% of the blanket policy premium. The premium deposit is \$22,000 ($\$110,000 \times 20\%$).

Monthly Premium Installments

At the end of each month, the TNC will pay a monthly premium installment. The monthly premium installment amount will be based on the actual VFH kilometres driven by the TNC during the previous policy month.

For the purposes of this example, the actual kilometres from the previous month of 100,000 will be used. The premium installment for the current month would be \$11,000 ($100,000 \times \0.11).

Premium Reconciliation

At the end of the policy year, there will be a premium reconciliation, which reconciles the premiums paid to date versus the premiums that the TNC should pay, based on the actual VFH kilometres driven by the TNC in the policy year. Using the previous estimate of 1,000,000 kilometres, if the actual kilometres equaled 1,100,000 kilometres, the total annual premium would be reconciled to \$121,000 ($1,100,000 \times \0.11).

Rebate/Surcharge

At the end of the policy year, MPI would calculate the loss ratio of the TNC. This loss ratio, and the position of the TNC on the rebate/surcharge scale, will determine their rebate or surcharge. MPI is unable to provide an illustrative example as to the full details of the rebate/surcharge portion of the blanket policy at this time.

- b) The proposed approach for the blanket policy will have one per kilometre rate for all TNCs, one that does not differ by territory.
- c) Saskatchewan Government Insurance (SGI) has a similar approach to MPI in terms of determining insurance premiums for TNCs. SGI charges premiums to TNCs on a monthly basis, based on the actual kilometres driven across all of the TNCs affiliated vehicles. The TNC base insurance rate is \$0.11 per kilometre and will be adjusted over time as experience for TNCs builds in Saskatchewan. SGI requires a premium deposit (20% of annual premium, based on the kilometres driven) for any approved TNC. TNCs must submit monthly data, such as kilometres driven, to determine monthly premium installments. At the end of the policy year, TNCs are included in the Business Recognition Program, where discounts and surcharges are based on claims history (via loss ratio). SGI uses the obtained premium and claims data across all TNC affiliated vehicles to calculate the loss ratio. Please see table below for more details on the MPI and SGI approaches.

	MPI	SGI
Policyholder and Policy type	<ul style="list-style-type: none"> • Transportation Network Company (TNC) • Dispatcher purchased policy 	<ul style="list-style-type: none"> • Transportation Network Company (TNC) • Dispatcher purchased policy
Eligibility	<ul style="list-style-type: none"> • Basic Blanket policy is mandatory for all TNCs • VFH dispatchers are eligible for a Blanket policy provided they meet requirements 	<ul style="list-style-type: none"> • Blanket policy is mandatory for TNCs operating in Saskatchewan

	MPI	SGI
Coverage	<ul style="list-style-type: none"> • Basic Insurance • Physical Damage • Personal Injury • TPL- \$500,000 	<ul style="list-style-type: none"> • Basic Insurance • Physical Damage • Personal Injury • \$200,000 TPL <p>TNC is required to show proof of a TPL policy of \$1 million</p>
Coverage period	<p>During VFH operation</p> <ul style="list-style-type: none"> • P2- Accepting a ride • P3- Transporting customer 	<p>During VFH operation</p> <ul style="list-style-type: none"> • P2- Accepting a ride • P3- Transporting customer
Premium Rating	<p>Single per Km rate for all of Manitoba</p>	<p>Single per Km rate for all of Saskatchewan- 0\$.11/Km</p>
Risks and Incentives	<ul style="list-style-type: none"> • Annual Km/Loss reconciliation • Loss ratio • Blanket Rebate/Surcharge Scale 	<ul style="list-style-type: none"> • Annual Km/Loss reconciliation • Loss ratio • Business Recognition Program- Discount/Surcharge Scale

c) MPI is unable to confirm the pricing details requested as actuarial development remains ongoing. MPI will provide all the pricing elements and discussion in the 2024 GRA.

PUB (MPI) 1-68

Part and Chapter:	Part VI Accepted Actuarial Practice – RM Ratemaking	Page No.:	47
PUB Approved Issue No:	10. Vehicles for Hire		
Topic:	Rate relativity		
Sub Topic:			

Preamble to IR:

MPI indicates that the raw relativity for Passenger VFH is 3.0686, versus the current relativity of 2.8631, and indicates that MPI applied 100% credibility to the raw relativity.

Question:

- a) Please confirm that there are no serious losses in the historical claims experience for Passenger VFH.
- b) Please confirm that, based on the current ratemaking methodology, MPI considers the Passenger VFH use to not be subsidized with the proposed rate change for this use.
- c) If a serious loss loading of 10% of reported losses was added to the raw premiums for this class, what would the indicated raw relativity be, and would the indicated change be capped at +20%?

Rationale for Question:

To confirm understanding, and to understand the sensitivity of the indicated rates to the lack of serious losses.

RESPONSE:

- a) MPI confirms that there are no serious losses in the historical claims experience for passenger VFH.
- b) MPI confirms that, based on the current ratemaking methodology, the Passenger VFH use is not subsidized with the proposed rate change for this use.
- c) MPI calculated the indicated raw relativity for Passenger VFH, with a serious loss loading of 10%, to be 4.6380. Per PUB Order 148/04, all 2023/24 rates are subject to a $\pm 20\%$ cap from 2022/23 rates. Following this order, the +20% cap will also be applied to Passenger VFH.

PUB (MPI) 1-69

Part and Chapter:	Part VI – Accepted Actuarial Practice – DSR Driver Safety Rating	Page No.:	12
PUB Approved Issue No:	11. Driver Safety Rating		
Topic:			
Sub Topic:			

Preamble to IR:

MPI provides Figure DSR-3 which shows current vs indicated rates by DSR, showing -32.4% for DSR 15 to +2.9% for DSR -1 to -20.

Below the Figure, it indicates that the average base rate would have to be increased by 18%.

Question:

Given the requirement for the average base rate to be increased by 18%, please incorporate this increase into the Figure to show the combined change in rate by DSR. Please provide the weights used by DSR such that the overall variance is equal to 0%.

Rationale for Question:

To understand the overall impact of changes to the DSR on rates charged to various policyholders.

RESPONSE:

MPI revised *Driver Safety Rating Chapter Figure DSR-3* in error and it can be found in the Errors and Omissions filing. For reference, the revised *Figure DSR-3* is as follows:

Figure DSR 3
Current Vs Indicated Rates

Line No.	DSR	Average Rate			
		Current	Indicated	Variance	% Variance
1	15	\$931	\$770	-\$162	-17.4%
2	14	\$1,050	\$1,004	-\$46	-4.3%
3	13	\$1,077	\$1,030	-\$48	-4.4%
4	12	\$1,095	\$1,053	-\$42	-3.9%
5	11	\$1,123	\$1,093	-\$30	-2.7%
6	10	\$1,160	\$1,133	-\$27	-2.3%
7	9	\$1,205	\$1,188	-\$17	-1.4%
8	8	\$1,213	\$1,247	\$34	2.8%
9	7	\$1,224	\$1,316	\$92	7.5%
10	6	\$1,310	\$1,387	\$76	5.8%
11	5	\$1,386	\$1,454	\$67	4.9%
12	4	\$1,398	\$1,547	\$149	10.6%
13	3	\$1,473	\$1,628	\$154	10.5%
14	2	\$1,492	\$1,745	\$253	16.9%
15	1	\$1,572	\$1,846	\$274	17.4%
16	0	\$1,616	\$1,911	\$296	18.3%
17	-1 to -20	\$1,621	\$1,918	\$297	18.3%
18	Total	\$1,174	\$1,174	\$0	0%

The above figure illustrates that the average increase in base rate, after rounding, is 18% and that the overall variance is 0%.

PUB (MPI) 1-70

Part and Chapter:	Part V – Rev Figure DSR-1, DSR-2	Page No.:	9
PUB Approved Issue No:	11. Driver Safety Rating (DSR), including but not limited to MPI’s progress towards changes to the DSR model, vehicle discounts, and driver premiums		
Topic:	DSR Scale		
Sub Topic:			

Preamble to IR:

Last year MPI indicated that it would increase the top end of the DSR scale from the current DSR level +15 to DSR level +20, adding one level a year starting with DSR level +16 in 2022/23 and ending with DSR level in 2026/27.

Question:

Please provide an illustrative scale demonstrating the expected organic growth to the DSR scale over time. To the extent possible, please provide the anticipated discounts at each of the DSR scale levels including +16 to +20.

Rationale for Question:

To understand implications of moving the DSR scale towards actuarially indicated rates

RESPONSE:

Please see *Figure 1* below for the expected number of merit eligible vehicles by DSR level. The DSR discount levels may vary based on the introduction of a new pricing framework. Therefore, MPI cannot comment on the anticipated discounts at each of the DSR scale levels. For further details, please refer to *Driver Safety Rating DSR Appendix 2 – Compliance with PUB Order 134/21 Directive 11.5.*

Figure 1 Expected Number of Merit Eligible Vehicles

Line No.	DSR Level	Expected Number of Merit Eligible Vehicles			
		2023	2024	2025	2026
1	20	-	-	-	250,014
2	19	-	-	271,190	29,474
3	18	-	294,159	29,623	24,305
4	17	319,073	29,806	25,975	48,640
5	16	30,028	27,789	47,214	23,444
6	15	29,762	45,234	24,478	24,442
7	14	41,812	25,116	24,984	58,272
8	13	26,791	26,682	54,775	24,314
9	12	28,589	50,315	24,936	25,987
10	11	42,402	24,404	25,536	29,154
11	10	25,896	27,139	30,041	25,885
12	9	24,853	27,121	23,913	25,498
13	8	25,340	23,072	24,502	27,101
14	7	23,410	24,824	26,857	25,084
15	6	24,170	25,727	24,780	24,335
16	5	24,471	24,205	23,574	25,750
17	4	25,034	24,150	26,621	25,207
18	3	24,596	27,479	25,844	25,961
19	2	26,802	24,979	25,095	25,918
20	1	26,647	26,814	27,657	28,134
21	0	30,491	31,394	32,103	32,566
22	-1	9,017	9,316	9,315	9,681
23	-2	7,534	7,875	8,337	8,423
24	-3	5,338	5,762	5,755	5,863
25	-4	6,700	6,693	6,933	7,205
26	-5	4,521	4,806	4,989	5,100
27	-6	3,040	3,205	3,314	3,422
28	-7	2,649	2,827	2,989	3,107
29	-8	2,134	2,233	2,337	2,406
30	-9	1,710	1,834	1,904	1,979
31	-10	1,742	1,866	1,964	2,041
32	-11	955	1,035	1,085	1,125
33	-12	988	1,050	1,107	1,159
34	-13	1,214	1,307	1,382	1,439
35	-14	516	567	598	623
36	-15	536	566	598	624
37	-16	416	444	468	485
38	-17	307	328	346	362
39	-18	265	272	287	299
40	-19	197	215	228	238
41	-20	1,530	1,632	1,712	1,778
42	Total	851,477	864,242	875,342	886,844

PUB (MPI) 1-71

Part and Chapter:	Part III Benchmarking	Page No.:	25
PUB Approved Issue No:	12. Operational Benchmarking		
Topic:	Operational Benchmarking		
Sub Topic:	Crown Benchmarking		

Preamble to IR:

In discussing the results from the 2019/20 benchmarking last year, MPI stated:

"In discussing the comparison of FTE's per \$100M of GPW, MPI notes that some companies outsource more insurance functions than others. Therefore, differences in business models and the dependency on third parties must be considered when comparing organizations using this metric across the other Crown corporations.

MPI indicates that its business model is unique, providing end-to-end customer service and as a result, MPI requires more employees than its peers.

MPI, as part of the 2020/21 Crown Benchmarking that will be completed by end of year 2021 for the 2023 GRA, will provide additional analysis for outsourcing utilized by the Saskatchewan Auto Fund (SAF) and ICBC. MPI will need corroboration and approval from SAF and ICBC to ensure alignment and release of this data." (PUB(MPI) 1-86(2022 GRA))

In this year's application, MPI states:

"In consultation with SGI, we explored the major driver for the variance between SGI and MPI. The difference that contributes to the variance in the metric between SGI and MPI is due to SGI is divided into two separate entities, SGI Canada and SGI Auto Fund and the metric of the FTE to \$100M GPW is in evaluation of the SGI Auto Fund. SGI approximates the split of FTE costs between the two entities which are based on high-level approximations and do not capture the full requirements of operating the Autofund. In our review with SGI they will

continue to refine this measurement as the true level of FTE impacts may be understated. MPI has better granular data for FTE's tied to the Basic Line of Business and reports higher FTEs tied to the Basic Line of Business."

Question:

- a) Please confirm whether there are differences in business models related to outsourcing as stated last year related to SGI, or is the difference in the comparative metric now based on an assumed underestimation of FTEs assigned to SAF.
- b) Please provide MPI's understanding of how SGI determined FTEs for SAF and compare it with the approach followed by MPI.
- c) Please provide the FTE count used for SGI and ICBC for the analysis provided.
- d) Please file a table of data used to support the calculation of the metrics for MPI, SAF and ICBC (IE FTEs, gross expenses, loss adjustment expenses, Policies in force etc.)

Rationale for Question:

To understand MPI's benchmarking metrics.

RESPONSE:

- a) MPI notes there is a difference in internal mandates between it and the Saskatchewan Government Insurance (SGI). SGI is divided into two separate entities and one, SGI Canada, has a profit-centric business model. SGI Auto Fund (SAF), the non-profit entity, based its breakdown of its Full-Time Equivalents (FTEs) on a high-level breakout performed by management which, they appreciate, does not fully capture its true operating costs. Accordingly, SGI committed to conduct a more detailed review of their FTEs to ensure correct allocations.

- b) SGI uses an approximation for the number of FTEs it allocates to SAF. SGI committed to performing an analysis of the allocations as they believe, based on discussions with MPI, that they did not previously allocate enough FTEs to the Auto Fund. MPI uses cost centers and an allocation methodology to allocate its FTEs to its Basic Line of Business.

- c) FTE counts used in the analysis:
 - i. SGI - 960.6
 - ii. ICBC - 2980

- d) Please see *Benchmarking BMK Appendix 4 - Crown Auto Benchmark Report*.

PUB (MPI) 1-72

Part and Chapter:	Part III Benchmarking BMK Appendix 4 Fig. BMK APP 4-1 Fig. BMK APP 4-1	Page No.:	
PUB Approved Issue No:	12. Operational Benchmarking		
Topic:	Crown Benchmarking		
Sub Topic:			

Preamble to IR:

The Crown benchmarking analysis appears to have some inconsistencies in the premium metric.

Question:

- a) Please explain why the Gross Premiums Written (GPW) per FTE [Fig. BMK 4-1 line 7 of premium metrics] is so low for SGI compared to MPI and ICBC in 2021 versus the same variable in the 2020 comparison.
- b) Please provide the assumed level of FTE used for the determination of this variable for each of the companies in 2019/20, 2020/21 and 2021/22.
- c) Please explain MPI's understanding of the Q3 2021/22 average GPW [Line 6] compared to the annualized 2020/21 amounts, and explain the relative increase in Q3 premiums for MPI and ICBC as compared to SGI and relative to the prior year. Please provide the source information used for the analysis.
- d) Please explain the reduction in the span in control of management to staff in 2020/21 from 2019/20 for MPI and SGI. Please provide the supporting analysis for the determination of this metric.

Rationale for Question:

To understand changes to the Crown benchmarking.

RESPONSE:

Please refer to the response of MPI to Information Request CAC (MPI) 1-84, which provides a revised version of Benchmarking Chapter Figure BMK-7.

PUB (MPI) 1-73

Part and Chapter:	Part III Benchmarking	Page No.:	21
PUB Approved Issue No:	12. Operational Benchmarking		
Topic:	BMK.4 Operational Efficiency		
Sub Topic:			

Preamble to IR:

MPI states:

"MPI is currently considering the most appropriate benchmarking method (i.e., third party vs collaborative/public approach) and, when significant time and effort is required, the frequency of participation, in order to optimize the benefits of the program.

MPI will continue to perform peer group comparisons and leverage third party research and insights in order to identify areas for improvement to maintain optimal service delivery and operational efficiency." [9-15]

Question:

- a) Please indicate where MPI is at in terms of progress towards evaluation of the most appropriate benchmarking method.
- b) Please indicate when the evaluation of the most appropriate benchmarking method commenced.
- c) Please indicate when MPI will select the most appropriate benchmarking method.
- d) Please indicate whether there have been any additions/changes to third-party research and insights used to support current operational benchmarking activities from the 2022 GRA.

Rationale for Question:

To understand the current state of Operational Benchmarking.

RESPONSE:

- a) MPI reviewed the use of an external benchmarking provider(s) for Operational Benchmarking as well as the continued use of an external benchmarking provider for its IT benchmarking. MPI continually reviews its benchmarking options involving both Crown and industry comparatives. For Operational Benchmarking, MPI will continue to use Crown comparatives while its priority remains the adoption of IFRS 17/9 and the successful implementation of Project NOVA releases.
- b) MPI is continually reviewing the most robust benchmarking methodologies for Operational Benchmarking. It began the assessment and review for Crown Operational Benchmarking in Q3 2021.
- c) MPI selected the most appropriate benchmarking methodology for IT and Crown Operational Benchmarking. It will review the use of external party Operational Benchmarking providers following the completion of Project NOVA and the adoption of IFRS 17/9.
- d) Key changes to the Crown Operational Benchmarking with SGI and ICBC include:
 - i. Meeting with the CFO and Controllershship group to understand the key operational metrics outcomes and review the analysis and conclusions of MPI, as provided within the benchmarking chapter; and
 - ii. Increased discussions with SGI and ICBC in terms of the loss ratios to understand if there are any significant differences within operations that are causing the varied loss ratios. Though it performs well against its Crown peers, MPI noted no significant anomalies within the loss ratios/operations that contribute to the betterment.

PUB (MPI) 1-74

Part and Chapter:	Part III Benchmarking	Page No.:	30
PUB Approved Issue No:	12. Operational Benchmarking		
Topic:	BMK.5 IT Benchmarking		
Sub Topic:			

Preamble to IR:

MPI states:

"MPI filed the results of Gartner IT benchmarking in Appendix 1 and provided an update on previously shared recommendations."

"MPI has shifted the full benchmarking exercise from Q1 to Q3 in 2022/23 to reflect final 2021/22 financial results consistent with the year of the IT Maturity benchmarking assessment. The next review will occur in Q3 – 2022/23 FY and will be filed in GRA 2024." [1-8]

Part III – BMK Appendix 1 notes the updated report will be filed in September 2022.

Question:

- a) Please file the current and/or interim report when available.
- b) If an interim report is not available, please indicate what approach/insights/methodology MPI uses to assess IT benchmarking covering year to date and prior to the Q3 - 2022/23 benchmarking filing.

Rationale for Question:

To understand the current state of IT benchmarking.

RESPONSE:

MPI has filed the current interim report. Please refer to *BMK Appendix 3 Gartner Benchmark FY 2020-2021 Executive Report (MPI Exhibit #8)*.

PUB (MPI) 1-75

Part and Chapter:	Part VII- Risk Management Framework RMF Appendix 3	Page No.:	1
PUB Approved Issue No:	14. Risk Assessment and Risk Management		
Topic:	Corporate Risk Assessment		
Sub Topic:			

Preamble to IR:**Question:**

- a) Please file the unredacted version of the Top Corporate Risks from the 2022 GRA.
- b) Please provide a comparison of the Top Corporate Risks this year with the 2022 GRA and the relative change in risks.
- c) Please explain the strategies employed to address the critical risks.
- d) Please provide an expanded version of the Top Corporate Risks if available.

Rationale for Question:

To understand the analysis of corporate risks.

RESPONSE:

- a) MPI completed an internal review to determine if it should publicly file an unredacted version of the 2022 GRA Top Corporate Risks and determined that the information should remain redacted on the public record. Please see the *Appendix 1 - (2022 GRA) RMF Appendix 3 Top Corporate Risks*, which MPI filed confidentially, for the information.

- b) MPI revisited its risk taxonomy in Q1 2022/23. A risk taxonomy is a comprehensive, common and stable set of risk categories. A key benefit is that it facilitates comparative analysis of the risk of an organization over time.

Given the granularity and coverage of the new taxonomy compared to the old taxonomy, the results of the top risks this year do not compare directly to the top risks identified last year. Going forward, a comparison of risks over time would be possible due to the expected stability of the risk taxonomy.

- c) Please see *Appendix 2 - Top Risk Profiles - Redacted* for the risk profiles of the top eight corporate risks, with one risk profile redacted. Each risk profile includes a section on how these risks are managed. MPI files all eight risk profiles confidentially.
- d) Please see *Appendix 3 - Top Corporate Risks- Redacted* for the redacted expanded list of top risks. The full unredacted list of top risks is filed confidentially.

PUB (MPI) 1-75 Appendix 1

- 1 This material is the subject of a confidential motion.

Risk Category and Risk Name	[Redacted]	Risk Sub-Category Owner	[Redacted]	Residual Risk Level	[Redacted]
[Redacted]					
[Redacted]					
[Redacted]					
[Redacted]					
[Redacted]	[Redacted] [Redacted]	[Redacted] [Redacted]	[Redacted] [Redacted]		



Risk Category and Risk Name	Operational Risk Inability to Attract & Retain Talent	Risk Sub-Category Owner	Chief People Officer	Residual Risk Level	Critical
<p>Risk We Are Facing Our ability to attract and retain talent may be impaired by a highly competitive talent market and an increased need for new, skilled and scarce talent required to support our transformation and journey to MPI 2.0.</p>					
<p>Potential Consequence Impaired ability to achieve operational and strategic objectives and transformation plans.</p>					
<p>How We Manage This Risk</p> <ul style="list-style-type: none"> • Ensure an effective talent acquisition strategy is in place. • Ensure a formal retention strategy and action plan is in place. • Mature and evolve talent attraction and retention practices. • Ensure talent audience and talent market are clearly defined and aligned to support the journey to MPI 2.0. • Ensure a compelling employer brand is in place to support the attraction of top talent. • Capitalize on our transformation efforts as an employee value proposition when seeking relevant talent. • Maintain a strong culture and reputation as an employer of choice. • Leverage available technology, resources and industry best practices to reach top talent. • Mature and evolve compensation and benefits. • Continue to enhance and evolve wellness, DEI and recognition strategies and programming. • Enhance career pathing and development programs to assure top talent of future career growth. • Ensure effective leadership goals are in place for all People Managers. • Collect, analyze and act upon exit interview data. 					
Residual Risk Level Supporting Data	Likelihood 5		Impact 5	Score 25	



Risk Category and Risk Name	Operational Risk Inadequate Capability	Risk Sub-Category Owner	Chief People Officer	Residual Risk Level	High
<p>Risk We Are Facing We may fail in building the skillsets our organization needs to execute our 5-year ambition plan to achieve MPI 2.0 and to perform the different processes resulting from the implementation of that plan, particularly, those skills associated to new technologies or innovation such as digitalization, automation, the management of big data, and the adoption of some cloud services.</p>					
<p>Potential Consequence The failure of our organization in building the needed people skills might lead to low productivity and limited ability to execute our plans, and/or may impair our ability to accomplish the delivery of our operational imperatives, and/or damage our reputation.</p>					
<p>How We Manage This Risk</p> <ul style="list-style-type: none"> • Work with leaders to identify present and future capabilities, competencies and experience needed for key roles. • Work with leaders to identify and action development plans, utilizing updated individual development plan and stretch opportunities within their performance management plan. • Provide dedicated support for high-potential individuals and succession candidates for development planning to create compelling development opportunities for key roles. • Work with leaders in developing retention plans for key persons. • Support leaders in cross training and succession planning efforts to promote knowledge transfer. • Assist leaders with proactive performance development, addressing under performance in a timely manner. • Offer robust educational support programs to facilitate continuing education to address gaps • Assist leadership in keeping job descriptions up to date. • Build partnerships with post-secondary institutions to facilitate talent pipelines and explore joint certifications. • Offer strong leadership development and onboarding programs. • Leverage the workforce capacity modelling to focus on areas which are impacted by capability gaps and capacity • Hire proactively for roles externally where capability gap is highly impactful and length of time to develop internally is too long • Develop criteria for risk of capability gap to the org. which triggers the appropriate solution 					
Residual Risk Level Supporting Data	Likelihood 4	Impact 4	Score 16		



Risk Category and Risk Name	Operational Risk Inadequate Capacity	Risk Sub-Category Owner	Chief People Officer	Residual Risk Level	High
<p>Risk We Are Facing Our commitments to deliver on operational imperatives and to execute the plans for transformation, innovation, streamlining processes, and maturing our core functions may cause our failure in people’s capacity planning and in recruitment of human resources.</p>					
<p>Potential Consequence Our failure in planning our people capacity and in recruiting might lead to low productivity and limited ability to execute our plans, and/or may impair our ability to accomplish the delivery of our operational imperatives, and/or damage our reputation as an employer of choice.</p>					
<p>How We Manage This Risk</p> <ul style="list-style-type: none"> • Conduct people capacity assessment concurrently with the departmental annual business planning in the year ahead. • Enhanced quarterly reporting to VPs on key workforce data and outcomes to drive accountability and transparency. • Implement McKinsey’s recommendations to restructure and realign roles that will result in alleviating capacity constraints for some key roles. • HR department’s continuous support to executives and leaders in workforce planning and execution and in addressing capacity gaps. • Introduce strategic workforce planning, considering capacity challenges for highly constrained teams. 					
Residual Risk Level Supporting Data	Likelihood 4	Impact 4	Score 16		



Risk Category and Risk Name	Operational Risk Inadequate Compensation	Risk Sub-Category Owner	Chief People Officer	Residual Risk Level	Critical
<p>Risk We Are Facing With global and Canadian competition for talent on the rise, our ability to attract and retain talent may be impaired by a highly competitive talent market and providing inadequate compensation compared to the market.</p>					
<p>Potential Consequence Impaired ability to achieve operational and strategic objectives and transformation plans.</p>					
<p>How We Manage This Risk</p> <ul style="list-style-type: none"> • Mature and evolve compensation practices and modernize application of compensation philosophy. • Address areas of inequity and take tangible steps towards becoming a more inclusive and progressive workplace. • Recognition of top performance and provide more opportunity for monetary reward at various levels of developments to support engagement, motivation and continues salary growth. • Increase the value and range of merit available to provide more meaningful reward for performance. • Increase our spend on our merit program to create better and more meaningful reward for performance (higher merit amounts). • Revisit the 36.25-hour work week. • Investigate and cost long-term and short-term incentive options. • Keep job descriptions up to date. • Define hot jobs as those that are hard to fill (as defined by experience, not anticipation) and benchmark accordingly. • Review market data at every job evaluation and at a minimum of every 2-3 years (annually or as or as needed for needed for hot jobs). • Utilize data from a reputable Human Resource consultant (i.e., Mercer) as the external market to benchmark our compensation. • Continue to engage leadership in the compensation benchmarking process. 					
Residual Risk Level Supporting Data	Likelihood 4	Impact 5	Score 20		



Risk Category and Risk Name	Operational Risk Change Transformation Execution Failure	Risk Sub-Category Owner	Chief Transformation Officer	Residual Risk Level	High
<p>Risk We Are Facing</p> <p>NOVA Operational transformation and execution/delivery failure:</p> <ul style="list-style-type: none"> ▪ Scoping, design and deliverable definition is incomplete. ▪ Integrated plan including roadmap not clearly defined, or understood ▪ Delay in earlier project phases jeopardizes ability to meet target date. ▪ Lack of effective project management controls, staff capabilities, capacity, operational readiness, release management including operational training ▪ Product/features functionality failure 					
<ul style="list-style-type: none"> ▪ Potential Consequence ▪ Failure to deliver NOVA as scheduled, will lead to significant financial impact to MPI. ▪ Further operational/functionality failure may lead to customer service disruption including MPI business with reputational implications 					
<p>Mitigation Action :</p> <ul style="list-style-type: none"> ▪ Scope definition tracked through PI planning and streamlined reporting process (McKinsey' assisted) ▪ Monitor the execution of Release objectives including achievement of target dates ▪ Ongoing assessment of key team members and leadership attributes, core competencies and capacity ▪ Subject matter experts (technology) and business owner's involvement to ensure functionality of the releases are tracked and tested (end to end) ▪ Improve collaboration amongst Streams and resolve issues as they arise in a timely manner to facilitate the achievement of the Release milestones ▪ Strengthen risk management and continuous monitoring ▪ Continuous learning and improvement as required ▪ Following the policies, process, procedures, and governance per the Nova Program Management Office 					
Residual Risk Level Supporting Data	Likelihood 4	Impact 4	Score 16		



Risk Category and Risk Name	Financial Risk Inflation Risk	Risk Sub-Category Owner	Chief Actuary and Chief Risk Officer	Residual Risk Level	High
<i>Risk We Are Facing</i>					
<p>We may fail to achieve our corporate objectives due to increasing inflation impacting our assets and liabilities. We may continue to experience elevated levels of inflation due to the COVID-19 crisis, the conflict in eastern Europe, and increases in wages and inflation expectations. The risk of inflation is related to our indexed claims and the increased cost to service them; if our investments do not grow at a similar rate then the Corporation will experience a shortfall.</p>					
<i>Potential Consequence</i>					
<p>Despite our commitment to reduce the effects of increasing inflation on the achievement of our objectives, we may not be able to fully transfer the increased costs to our customers and/or we may not be able to avoid increases in the services and products that we purchase, which could reduce our underwriting income and/or our capital.</p>					
<i>How We Manage This Risk</i>					
<ul style="list-style-type: none"> • Maintain a 100% MCT • Adjust premiums annually to reflect current inflation expectations • Develop a robust forecast of future inflation rates relying on a wide range of external economic forecasting experts • Review & update inflation assumptions on a quarterly basis • Perform financial condition testing (stress testing, sensitivity & scenario analysis) • Automate asset-liability management analysis using new software • Use new reporting software to quantify the impact of inflation on both assets & liabilities • We currently have some inflation protection within our Basic claims line of business due to our investment in growth assets (equities, real estate & infrastructure) within the RSR portfolio. Growth assets represented approximately 11.0% of the total assets in the combined Basic & RSR portfolios at March 31, 2022 (higher if Basic's portion of the EFB portfolio is included). • We are considering adding real return bonds, real estate & equities to the Basic Claims investment portfolio in order to provide additional inflation protection. 					
Residual Risk Level Supporting Data		Likelihood 4	Impact 3	Score 12	



Risk Category and Risk Name	Insurance Risk Reserve Risk	Risk Sub-Category Owner	Chief Actuarial & Risk Officer	Residual Risk Level	High
<p>Risk We Are Facing</p> <p>The risk of financial losses related to policies for which premiums already have been earned (fully or partly), i.e. risk related to claims that has already incurred but which might be unsettled, reopened or even not yet known to the insurance company. This risk relates to uncertainty in both the amounts paid and the timing of these amounts.</p>					
<p>Potential Consequence</p> <p>Despite our commitment to reserve the funds needed to cover the claims we received, we might not be effectively analysing the uncertainty of the amounts to be paid for claims and/or the timing of the claim when building our actuarial and statistical models used to estimate the amount of our reserves potentially resulting in inadequate reserves, which might result in establishing higher or lower premiums, and/or reduce profits and/or capital, and/or we might fail in meeting our financial obligations on behalf of our customers.</p>					
<p>How We Manage This Risk</p> <ul style="list-style-type: none"> • External Appointed Actuary • New Director, Valuation • New Manager, Valuation • Dotted line reporting from Director, Injury to CAO • Monitoring of PIPP Claims Retention • Continue to build out valuation team with a roadmap in place for following items • Move to Quarterly Valuations with more key metrics to monitor movement • Create metrics to understand prior year impact versus current year impacts • Valuation software being explored so more time for analysis • Update mortality tables in Reserve Calculator and monitor experience • Mature claims budget variance analysis to identify shifting trends quicker • Explore possible risk transfer options to reduce uncertainty (Adverse Loss Development Coverage or annuities) 					
Residual Risk Level Supporting Data	Likelihood 3	Impact 4	Score 12		



Appendix 2: Top Corporate Risks as of April 2022

Risk Category	Risk Name	Risk Description	Residual Likelihood	Residual Impact	Residual Risk Score	Residual Risk Rating
Operational Risk	Inability to Attract and Retain Talent	Inability to attract and retain the top talent for key roles	5	5	25	Critical
[Redacted]	[Redacted]	[Redacted]	[Redacted]	[Redacted]	[Redacted]	High
Operational Risk	Inadequate Capability	Inadequate skills, leading to low productivity, limited ability to execute	4	4	16	High
Operational Risk	Inadequate Capacity	Inadequate capacity planning and recruitment, leading to low productivity, limited ability to execute	4	4	16	High
Operational Risk	Inadequate Compensation	Inadequate compensation with respect to the market	4	5	20	Critical
Financial Risk	Inflation Risk	Inflation risk refers to the reduction in real returns arising because of falling purchasing power of cash. Long term fixed dollar amount cash flows are most vulnerable to inflation. Unanticipated inflation need not be a major source of risk, if cash flows move in proportion, maintaining the real returns. The problem arises when net incoming cash flows are fixed in dollar terms, so that the impact of inflation reduces the value and therefore the real return.	4	3	12	High
Operational Risk	Change/Transformation Execution failure	Failure to successfully plan and deliver change (as individual projects, programs and/or a portfolio of programs) into the operational environment	4	4	16	High
Operational Risk	Loss of Key Person	Departure of valued staff (Key Person Risk) with both financial and reputational implications	3	4	12	High
Insurance Risk	Reserve Risk	The risk of financial losses related to policies for which premiums already have been earned (fully or partly), i.e. risk related to claims that has already incurred but which might be unsettled, reopened or even not yet known to the insurance company. This risk relates to uncertainty in both the amounts paid and the timing of these amounts.	3	4	12	High
Operational Risk	Inadequate Succession Planning	Inability to satisfactorily fill a critical role vacancy within an acceptable timeframe.	5	4	20	Critical
[Redacted]	[Redacted]	[Redacted]	[Redacted]	[Redacted]	[Redacted]	High
[Redacted]	[Redacted]	[Redacted]	[Redacted]	[Redacted]	[Redacted]	High
[Redacted]	[Redacted]	[Redacted]	[Redacted]	[Redacted]	[Redacted]	High
Insurance Risk	Pricing Risk	Pricing risk is the risk that the established premium is, or becomes, insufficient to cover expected claims, expense and underwriting profit. The risk in the losses relates to uncertainty in severity, frequency or even timing of claims incurring during the period, as well as to uncertainty related to operating expenses.	3	4	12	High

Appendix 2: Top Corporate Risks as of April 2022

Risk Category	Risk Name	Risk Description	Residual Likelihood	Residual Impact	Residual Risk Score	Residual Risk Rating
Operational Risk	Poor Culture	Beliefs/ideas and behaviours that permeates throughout the organization that are not aligned with either internal (e.g. corporate culture, risk culture) or external expectations (e.g. customers/clients, regulators)	4	4	16	High
[Redacted]	[Redacted]	[Redacted]	[Redacted]	[Redacted]	[Redacted]	High
[Redacted]	[Redacted]	[Redacted]	[Redacted]	[Redacted]	[Redacted]	High
[Redacted]	[Redacted]	[Redacted]	[Redacted]	[Redacted]	[Redacted]	High
[Redacted]	[Redacted]	[Redacted]	[Redacted]	[Redacted]	[Redacted]	High
[Redacted]	[Redacted]	[Redacted]	[Redacted]	[Redacted]	[Redacted]	High
[Redacted]	[Redacted]	[Redacted]	[Redacted]	[Redacted]	[Redacted]	High

PUB (MPI) 1-76

Part and Chapter:	Part VII – Investments Capital Reserves and Risk Management – RSR Rate Stabilization Reserve	Page No.:	6
PUB Approved Issue No:	18. Capital management plan		
Topic:	Capital Management Plan		
Sub Topic:			

Preamble to IR:

MPI has proposed that the determination of a rebate would be based on the actual year-end audited MCT and would apply to the PUB by application only to rebate to customers an amount that would bring the RSR back to 100% MCT.

Question:

- a) With the proposed application, without a hearing, how would MPI see the evidentiary process be followed for the PUB to determine the appropriateness of the applied for rebate?
- b) What measures would be in place to avoid unusual financial statement adjustments in a given fiscal year that might drop the MCT ratio to below the target 120%?
- c) What are the advantages and disadvantages of the proposed approach, versus an application for a rebate included in the GRA that is based on a forecasted MCT level at the end of the fiscal year?
- d) For illustration purposes, please map the key dates on a schedule, taking into consideration the year-end process and the timing of release of audited financial information, showing what would be the anticipated dates that the proposed rebate would be applied for, and when would the rebate be given to policyholders.

Rationale for Question:

To understand the proposed CMP process.

RESPONSE:

- a) For greater clarity, the statement “no hearing” should have stated “no oral hearing.” Subject to necessary refinement, MPI envisions that the process would generally follow the one used in the Special Rebate Application II (2020), which culminated in the issuance of Order 145/20. This process would include the same opportunities for the presentation and testing of evidence, specifically:
- i. MPI would submit its rebate application together with supporting documentary evidence;
 - ii. interveners and PUB counsel would submit and MPI would answer information requests;
 - iii. the parties would provide written argument in support of and/or in reply to the rebate application (with MPI providing a reply to any responding arguments); and
 - iv. the PUB would decide the rebate application based upon the evidence and arguments before it.
- b) MPI will continue to process all required year-end adjustments, including claims liability valuations, pension valuations, capital, and investment impairments in the normal course. For other potential adjustments, MPI prepares quarterly year-end forecasts, which should detect any foreseeable movements within the year-end estimates. MPI will be able to respond to the impacts that are a result of interest rate and inflation movements. MPI follows IFRS standards and completes a year-end audit by an external auditor and as such there would not be any ‘unusual’ year-end adjustments outside of what is allowable within the accounting standards.

- c) An application that seeks leave to issue a rebate based on forecasted dollars could result in MPI applying for a rebate that would cause it to be in a detrimental or inadequate capital position. This occurred in the 2021/22 fiscal year when MPI applied for a rebate (using forecasted RSR MCT figures) and ultimately over-rebated, causing the RSR to end the year at an actual MCT ratio of 95%. Persistent economic volatility makes it more difficult for MPI to forecast the capital it expects to have at fiscal year-end, thereby increasing the likelihood of over-rebating. Only by seeking to rebate excess capital based on the actual MCT ratio at the end of the fiscal year can MPI assure Manitobans that the capital position of Basic remains sufficient to foster rate stability and predictability.
- d) MPI envisions the following schedule for future rebate applications (coinciding mainly within the standard GRA):
- i. June: MPI obtains final audited year-end MCT value;
 - ii. July: MPI files rebate application with PUB;
 - iii. July-August: prospective interveners apply to intervene, PUB approves intervener applications, sets schedule (MPI expects this would generally align with the GRA);
 - iv. August-September: information requests issued, and responses received (MPI expects this would generally align with the GRA);
 - v. October/November: submission of written arguments;
 - vi. December: PUB issues decision; and
 - vii. February: MPI issues customer rebates (if approved).

The trigger for the process is the finalization of the MCT calculation and external audit of the results. Once complete, given the proposed rebate methodology is a fixed formula, the process could follow the outline above (or could even be expedited given

that the rebate amount would be based on actual achieved audited results versus forecasted future results, which hinge on numerous assumptions).

PUB (MPI) 1-77

Part and Chapter:	Part VII Investments Capital Reserves and Risk Management – FCT Financial Condition Test Preliminary Assessment	Page No.:	7
PUB Approved Issue No:	18. Capital management plan		
Topic:	Capital Management Plan		
Sub Topic:			

Preamble to IR:

In FCT PA-4, with management action, the difference from base in year 1 is -27.98% and is -52.79% in year 2 of the scenario, with a further drop to -62.57% in year 4 of the scenario.

MPI has proposed a target MCT range of 100 to 120% MCT.

The purpose of the RSR is “To protect motorists from rate increase that would otherwise have been necessary due to unexpected variances from forecasted results and due to events and losses arising from non-recurring events or factors.”

Question:

- a) Given the 99th percentile solvency scenario as provided causes a drop of 62.57% of MCT by year 4, with management action, please indicate the approximate percentile of adversity that would be required to cause a drop of:
- i. 100% MCT; and
 - ii. 120% MCT.
- b) Please indicate why MPI believes a MCT ratio of up to 120% is an appropriate amount of capital to fulfill the purpose of the RSR.

Rationale for Question:

To understand the proposed CMP.

RESPONSE:

- a) MPI is unable to provide the percentile of the scenario that corresponds to a drop of 100% Minimum Capital Testing (MCT) or any other MCT percentage in the 2023 GRA forecast. The distribution of impacts would vary from model to model, which MPI discusses in *Financial Condition Test Chapter FCT.3*. If desired, MPI could submit an updated distribution of impacts derived from the 2022 FCT report at a later date.

Finally, the selected scenario from last year's FCT report may not represent the 1-in-100 scenario in the updated report. Different allocations in the investment portfolios and allocations between lines of business might result in a different adverse scenario. For example, if Basic had a larger portion of investments in equities as compared to last year, the impact of a 20% return would be very different between reports.

- b) Please see the response of MPI to information request CAC (MPI) 1-53(a).

PUB (MPI) 1-79

Part and Chapter:	Part IV Nov Appendix 11 Figure NOV App 9- 1 NOVA Re-baseline One-Time Program Costs	Page No.:	11, 12
PUB Approved Issue No:	19. Current IT Strategic Plan and IT Expenses and Projects, including Project Nova and other initiatives planned for or ongoing in the rating years; a. Project Nova re-baseline, budget, and financing options, including debt financing;		
Topic:	Project Nova		
Sub Topic:	Changes to Project Nova Budget		

Preamble to IR:**Question:**

- a) Please provide a schedule detailing the changes in the project costs in slides 11 & 12 commencing with the Original Project Budget.

- b) Please add two rows to (a) indicating the forecast Nova completion date and one showing the total development time frame from the initiation date from the original budget in years.

Rationale for Question:

To understand Project Nova costs.

RESPONSE:

a) As requested, *Figure 1* below provides a schedule detailing the project cost changes on slides 11 and 12:

Figure 1 Summary of Project Cost Adjustments: Original vs. 2021 Re-baseline Including Forecasted Completion Date and Development Timeframe

Line No.	Project Stream	2019 Original Budget	2021 Re-baseline Budget	Variance (\$M)	Variance Explanations			Total Variance Explained
		One-Time Modernization Cost (\$M)	One-Time Modernization Cost (\$M)		Adjustments to MPI Resource Estimates (\$M)	Vendor Costs Adjustments (\$M)	Contingency (\$M)	
1	Driver & Vehicle Administration	\$26.0	\$35.0	\$9.0	\$5.0	\$4.0		\$9.0
2	P&C Insurance	\$36.9	\$42.6	\$5.7	-\$0.4	\$6.1		\$5.7
3	Digital	\$12.2	\$15.0	\$2.8	\$2.5	\$0.3		\$2.8
4	Leadership	\$6.8	\$12.7	\$5.9	\$5.9	\$0.0		\$5.9
5	Severance	\$2.3	\$4.0	\$1.7	\$1.7	\$0.0		\$1.7
6	Governance Vendor	\$1.2	\$2.4	\$1.2	\$0.0	\$1.2		\$1.2
7	Total One Time Costs	\$85.4	\$111.7	\$26.3	\$14.7	\$11.6		\$26.3
8	Contingency	\$21.4	\$16.8	-\$4.6			-\$4.6	-\$4.6
9	Grand Total One-Time costs with Contingency	\$106.8	\$128.5	\$21.7	\$14.7	\$11.6	-\$4.6	\$21.7
10		DVA	Insurance and Digital					
11	2021 Re-baseline Completion Date	Q1 - 2023/24	Q4 - 2023/24					
12	Total Development Time Frame (Years)	5	5.75					

Figure 2 below provides an additional view based on the 2022 Re-baseline updates (noting that the above request is in reference to the 2021 Re-baseline):

Figure 2 Summary of Project Cost Adjustments: 2021 Re-baseline vs. 2022 Re-baseline Including Forecasted Completion Date and Development Timeframe

Line No.	Project Stream	2021 Re-baseline Budget	2022 Re-baseline Budget	Variance (\$M)	Variance Explanations			Total Variance Explained
		One-Time Modernization Cost (\$M)	One-Time Modernization Cost (\$M)		Adjustments to MPI Resource Estimates (\$M)	Vendor Costs Adjustments (\$M)	Contingency (\$M)	
1	Driver & Vehicle Administration	\$35.0	\$46.3	\$11.3	\$2.6	\$8.6		\$11.3
2	P&C Insurance	\$42.6	\$88.9	\$46.3	\$22.6	\$23.6		\$46.3
3	Digital	\$15.0	\$40.7	\$25.7	\$11.3	\$14.4		\$25.7
4	Leadership	\$12.7	\$20.2	\$7.5	\$5.5	\$2.0		\$7.5
5	Severance	\$4.0	\$4.0	\$0.0	\$0.0	\$0.0		\$0.0
6	Governance Vendor	\$2.4	\$4.9	\$2.5	\$0.0	\$2.5		\$2.5
7	External Assessment, Value Assurance, Tech Enablers	\$0.0	\$19.2	\$19.2		\$19.2		\$19.2
8	Total One Time Costs	\$111.7	\$224.1	\$112.4	\$42.1	\$70.3	\$0.0	\$112.4
9	Contingency*	\$16.8	\$49.4	\$32.6			\$32.6	\$32.6
10	Grand Total One-Time costs with Contingency	\$128.5	\$273.5	\$145.0	\$42.1	\$70.3	\$32.6	\$145.0
11		DVA	Insurance & Digital					
12	2022 Re-baseline Completion Date	Q1 - 2024/25	Q3 - 2025/26					
13	Total Development Time Frame (Years)	6	7					

14 * Please note - MPI's Board approved a contingency range of 20-40%. The amount above represents the midpoint (30%).

b) MPI added the requested completion date and total development time information to *Figures 1 and 2* above. Please refer to lines 12-14 in *Figure 1* and lines 13-15 in *Figure 2*, respectively.

PUB (MPI) 1-80

Part and Chapter:	Part IV Nova Information Technology MPI Exhibit #49 p. 28 (2022 GRA)	Page No.:	29
PUB Approved Issue No:	19. Current IT Strategic Plan and IT Expenses and Projects, including Project Nova and other initiatives planned for or ongoing in the rating years; a. Project Nova re-baseline, budget, and financing options, including debt financing		
Topic:	Project Nova		
Sub Topic:	Business Case		

Preamble to IR:

MPI provides information that the NPV of the project has declined by \$207.3M from the March 2021 analysis for Project Nova.

Question:

- a) Please update the table provide in 2022 GRA MPI Exhibit #49 p. 28 to include another column including the 2022 re-baseline information.
- b) Please provide detailed schedules supporting the changes from the March 2021 estimate for each line item (as required) in part (a).
- c) Please file a table indicating the NPV and Payback period based on the minimum, midpoint, and maximum contingency of the project.
- d) Please update the NPV (c) comparing the use of the May 2022 cost of the capital Medium-High discount rate of 9% and the High-Risk discount rate of 11% for the Corporation.
- e) Given the changes in the project's NPV, please indicate the extent to which MPI has considered re-designing or curtailing aspects of the project.

Rationale for Question:

To understand changes to the Project Nova business case.

RESPONSE:

- a) Please see *Figure 1* below for an updated version of the table MPI provided in 2022 GRA (MPI Exhibit #49 p. 28) to include the requested information associated with the 2022 Re-baseline. For added clarity, the Full Time Equivalent (FTE) impacts now appear as a separate line item. MPI previously included them under both ongoing costs and within ongoing benefits.

Figure 1 Business Case Program Overview: Analysis of Original Values Compared to 2021 Re-baseline and 2022 Re-baseline

Line No.	Description	2019 Original Business Case (\$M)	2021 Re-baselined Business Case (\$M)	2022 Re-baselined Business Case (\$M)	Increase/ (Decrease) (\$M)
		(a)	(b)	(c)	(c) – (b)
1					
2	Discount Rate	7.5%	7.5%	7.5%	0
3	One Time Modernization Costs	85.4	111.7	224.1	112.4
4	One Time Modernization – Contingency	21.4	16.8	49.4	32.6
5	One Time Modernization – Total	106.8	128.5	273.5	145
6	Ongoing Cost - during 15 year NPV period)*	208.4	180.9	224.1	43.2
7	Benefits:				
8	Net FTE Savings (Ongoing Costs less Savings)	130.2	142.3	65.4	-76.9
9	Ongoing Benefits (Total during 15 year NPV period)**	193.7	211.5	157.4	-54.1
10	Ongoing Cost Avoidance Benefit	86.2	87.8	60.9	-26.9
11	One-time Total Cost Avoidance Benefit	13.6	13.4	13.4	0
12	Total Benefits	423.7	455	296.5	-157.9
13	Approx. FTE Position Savings (Operational + IT)	150	150	123	-27
14	15 Year NPV	12.7	18.4	-188.9	-207.3
15	Payback Period	14 Years	14 Years	n/a	

16 NPV estimate assumes that all the Line of Business streams will be implemented as one program.

17 ** FTE Costs and Benefits recorded separately

- b) A detailed explanation of the 2022 changes compared to the 2021 Re-baseline appears in the Nova Chapter of the 2023 GRA. Please refer to the business case section starting on page 25 of the document titled: *Nova Project Chapter*. Additionally, MPI presented the change details for all One-Time costs, Ongoing Costs and Benefits at the April 27th, 2022 IT Summit. MPI submitted the PowerPoint Presentation for the Summit as *Nova NOV Appendix 1 - IT Summit*

Project Nova Business Case Rebaseline - Redacted. Please refer to slides 13-17 for changes to One-time costs, slides 18-21 for changes to Ongoing costs, slides 22-49 for changes to Benefits including FTEs and all cost avoidance items.

Lastly, MPI submitted the detailed analysis to support the changes related to net FTE savings in the document titled Nova NOV Appendix 7 - PUB NOVA FTE+Analysis Output 2022 Re-baseline - Confidential

c) Figure 2 below provides the Net Present Value (NPV) analysis associated with the three different contingency amounts (i.e., 20%, 30% and 40%):

Figure 2 Business Case Program Overview: NPV Analysis Using 20, 30 and 40 Percent Contingency

Line No.	Description	2022 Re-baselined Business Case (\$M) Minimum (20%)	2022 Re-baselined Business Case (\$M) Midpoint (30%)	2022 Re-baselined Business Case (\$M) Maximum (40%)
1	Contingency Scenario			
2	Discount Rate	7.5%	7.5%	7.5%
3	One Time Modernization Costs	224.1	224.1	224.1
4	One Time Modernization – Contingency	32.9	49.4	65.8
5	One Time Modernization – Total	257	273.5	289.9
6	Ongoing Cost - during 15 year NPV period)*	224.1	224.1	224.1
7	Benefits:			
8	Net FTE Savings (Ongoing Costs less Savings)	65.4	65.4	65.4
9	Ongoing Benefits (Total during 15 year NPV period)**	157.4	157.4	157.4
10	Ongoing Cost Avoidance Benefit	60.9	60.9	60.9
11	One-time Total Cost Avoidance Benefit	13.4	13.4	13.4
12	Total Benefits	296.5	296.5	296.5
13	Approx. FTE Position Savings (Operational + IT)	123	123	123
14	15 Year NPV	-177.6	-188.9	-200.3
15	Payback Period	n/a	n/a	n/a
16	NPV estimate assumes that all the Line of Business streams will be implemented as one program.			
17	** FTE Costs and Benefits recorded separately			

d) Figure 3 below provides the NPV analysis associated with the medium-high risk (9%) and the high risk (11%) scenarios:

Figure 3 Business Case Program Overview: NPV Analysis Comparing Discount Rates at 7.5%, 9% and 11%

Line No.	Description	2022 Re-baselined Business Case (\$M)	2022 Re-baselined Business Case (\$M)	2022 Re-baselined Business Case (\$M)
1	Scenario	a	b	c
2	Discount Rate	7.5%	9.0%	11.0%
3	One Time Modernization Costs	224.1	224.1	224.1
4	One Time Modernization – Contingency	32.9	49.4	65.8
5	One Time Modernization – Total	257	273.5	289.9
6	Ongoing Cost - during 15 year NPV period)*	224.1	224.1	224.1
7	Benefits:			
8	Net FTE Savings (Ongoing Costs less Savings)	65.4	65.4	65.4
9	Ongoing Benefits (Total during 15 year NPV period)**	157.4	157.4	157.4
10	Ongoing Cost Avoidance Benefit	60.9	60.9	60.9
11	One-time Total Cost Avoidance Benefit	13.4	13.4	13.4
12	Total Benefits	296.5	296.5	296.5
13	Approx. FTE Position Savings (Operational + IT)	123	123	123
14	15 Year NPV	-188.9	-183.5	-175.6
15	Payback Period	n/a	n/a	n/a
16	NPV estimate assumes that all the Line of Business streams will be implemented as one program.			
17	** FTE Costs and Benefits recorded separately			

e) MPI has not considered re-designing or curtailing aspects of the Project. As described in its 2022 GRA response to CAC (MPI 1-33(a)), the stated program objectives are critical and independent of NPV. MPI leadership and its Board of Directors remain committed to its strategic objectives and transforming its processes and technology as it progresses towards MPI 2.0.

As outlined in the original business case, financial considerations do not solely drive the key business objectives of Project Nova. The changing landscape of customer needs and technological advancements require an overall strategic plan for MPI to meet its corporate vision and mission. Project Nova is one important element of this plan. While MPI exercises prudence in the management of the financial project costs and focuses its attention on optimizing the net ongoing financial benefits upon project implementation, it will measure the success of the project with consideration to whether it meets all of the following objectives:

- Stable Technology Platform
- Agility in delivery of features and capabilities to address Business Needs
- Cost Savings and Operational Efficiencies
- Availability and Portability for External Partners/Customers

- Automation of SRE
- Secured Solution
- Transform the Customer Experience

PUB (MPI) 1-83

Part and Chapter:	Part IV - Nova, Information Technology, and Value Management - Nova Project NOV.1	Page No.:	5
PUB Approved Issue No:	19. Current IT Strategic Plan and IT Expenses and Projects, including Project Nova and other initiatives planned for or ongoing in the rating years a. Project Nova re-baseline, budget, and financing options, including debt financing		
Topic:			
Sub Topic:			

Preamble to IR:

MPI states:

"Change impact assessments for all releases and utilization of the Model Office throughout each Program Increment (PI) will be prioritized." [19-21]

Question:

Please define "Model Office".

Rationale for Question:

To enhance the understanding of the updated Nova delivery strategy.

RESPONSE:

"Model Office" is a simulation environment setup for the end-users using mock data and generic access to preview system functionality before it is fully developed. The Model Office sessions provide a hands-on experience for end-users and a chance to test the solution against real scenarios. The objective of these sessions is to facilitate engagement, allow for early knowledge transfer and to provide an opportunity to

collect feedback on functionality within the MPI context. The Operational Readiness Team leads the facilitation of the Model Office sessions and helps coordinate the readiness activities with the technical and process teams.

PUB (MPI) 1-85

Part and Chapter:	Part IV - Nova, Information Technology, and Value Management - Nova Project NOV.2	Page No.:	7
PUB Approved Issue No:	19. Current IT Strategic Plan and IT Expenses and Projects, including Project Nova and other initiatives planned for or ongoing in the rating years a. Project Nova re-baseline, budget, and financing options, including debt financing		
Topic:			
Sub Topic:			

Preamble to IR:

MPI has provided Figure NOV-1 outlining the objectives of Project Nova.

Question:

a) Please file a table containing the following information for LSM and Project Nova as following (table structure follows question):

- i. NPV of original LSM business case;
- ii. Discount rate original LSM business case;
- iii. Project budget excluding contingency of original LSM business case;
- iv. Contingency amount of original LSM business case;
- v. Contingency percentage of original LSM business case;
- vi. NPV of original Project Nova February 2021 re-baseline;
- vii. Discount rate original Project Nova February 2021 re-baseline;
- viii. Project budget excluding contingency of Project Nova February 2021 re-baseline;
- ix. Contingency amount of Project Nova February 2021 re-baseline;
- x. Contingency percentage of Project Nova February 2021 re-baseline;
- xi. NPV of original Project Nova February 2022 re-baseline;
- xii. Discount rate original Project Nova February 2022 re-baseline;

- xiii. Project budget excluding contingency of Project Nova February 2022 re-baseline;
- xiv. Contingency amount of Project Nova February 2022 re-baseline;
- xv. Contingency percentage of Project Nova February 2022 re-baseline.

Business Case	NPV	Discount Rate	Budget (excl. Contingency)	Contingency	Contingency %
LSM					
Re-baseline (February 2021)					
Re-baseline (February 2022)					

Rationale for Question:

To enhance the understanding evolution of the Nova business case leading to the current re-baseline business case.

RESPONSE:

Please see Figure 1 below. Please refer to line 7 for clarity on contingency calculations associated with the 2022 Re-baseline.

Figure 1 Comparative View of NPV, Discount, Budget and Contingency from Inception to Current Re-baseline

Line No.	Business Case	NPV	Discount Rate	Project Budget (excl. Contingency)	Contingency	Contingency %
1	LSM	\$ 12,745,374	7.50%	\$ 85,434,334	\$21,358,583	25%
2	Re-baseline (February 2021)	\$ 18,427,581	7.50%	\$ 111,659,885	\$16,852,409	15%
3	Re-baseline (February 2022) - 20%*	\$ (177,601,998)	7.50%	\$ 224,154,217	\$32,927,247	20%
4	Re-baseline (February 2022) - 30%*	\$ (188,933,821)	7.50%	\$ 224,154,217	\$49,390,871	30%
5	Re-baseline (February 2022) - 40%*	\$ (200,265,644)	7.50%	\$ 224,154,217	\$65,854,495	40%

6 * For the 2022 Re-baseline a contingency range of 20% - 40% was approved by MPI's board. The estimated amount of remaining
7 project funds available at the time of the 2022 Re-baseline was used as the basis for calculating the contingency amounts (project funds
8 already spent were excluded). The unspent project funds used for contingency calculations = \$164,636,237.

PUB (MPI) 1-88

Part and Chapter:	Part IV - Nova, Information Technology, and Value Management - Nova Project NOV.3	Page No.:	9-10
PUB Approved Issue No:	19. Current IT Strategic Plan and IT Expenses and Projects, including Project Nova and other initiatives planned for or ongoing in the rating years a. Project Nova re-baseline, budget, and financing options, including debt financing		
Topic:			
Sub Topic:			

Preamble to IR:

Question:

- a) Please provide total costs budgeted, incurred to date for the McKinsey External Assessment.
- b) Please indicate whether the costs incurred for the McKinsey External Assessment is allocated to the Nova budget and whether the allocation was taken into consideration in the previous (Feb 2021) re-baseline budget.
- c) Please indicate which of the McKinsey Assessments and Recommendations (Figure NOV-3) have been accepted in the new (Feb 2022) re-baseline business case.

Rationale for Question:

To enhance the understanding of the usage of McKinsey in to develop the new Nova delivery strategy.

RESPONSE:

- a) Total costs budgeted and incurred to date for the McKinsey external assessment are: \$2,233,125.
- b) MPI allocated these costs to the NOVA budget. MPI did not include/consider them within the 2021 Re-baseline budget.
- c) MPI included all the assessments and recommendations identified by McKinsey within *Nova Chapter Figure NOV-3* within the 2022 Re-baseline.

PUB (MPI) 1-89

Part and Chapter:	Part IV - Nova, Information Technology, and Value Management - Nova Project NOV.3	Page No.:	12
PUB Approved Issue No:	19. Current IT Strategic Plan and IT Expenses and Projects, including Project Nova and other initiatives planned for or ongoing in the rating years a. Project Nova re-baseline, budget, and financing options, including debt financing		
Topic:			
Sub Topic:			

Preamble to IR:

Question:

- a) Please file an updated Figure - 5 Program Budget Revisions including categorizations from the original LSM baseline similar to the re-baselined 2021 categories.

- b) Please file an updated Figure-5 Program Budget placing the Flattened Delivery and McKinsey Assessment into the same categories as the re-baselined 2021 categories.

Rationale for Question:

To enhance the understanding of the evolution towards the updated Nova delivery strategy based on previous year activities.

RESPONSE:

a) and b)

Please see Slide 14 from the *Nova NOV Appendix 1 - PUB IT Summit Project Nova Business Case Re-baseline - Confidential.*

PUB (MPI) 1-95

Part and Chapter:	Part IV - Nova, Information Technology, and Value Management - Nova Project NOV.5	Page No.:	22
PUB Approved Issue No:	19. Current IT Strategic Plan and IT Expenses and Projects, including Project Nova and other initiatives planned for or ongoing in the rating years a. Project Nova re-baseline, budget, and financing options, including debt financing		
Topic:			
Sub Topic:			

Preamble to IR:

MPI states:

'MPI created a gated approach to assess the overall readiness or Release 1A. Each gate will have a primary objective defined that marks the overall target for the gate.' [2-3]

Question:

- a) Please provide underlying data and calculations to compute gate scores for R1A-150.
- b) Please indicate whether calculation methodology for each gate remains identical for all future gates (R1A onwards).
- c) Please provide updated Release Readiness gate rating for all R1A-120, R1A-90.
- d) Please describe implications to both Feb 2022 re-baseline time and budget of gate scores less than 4.0.

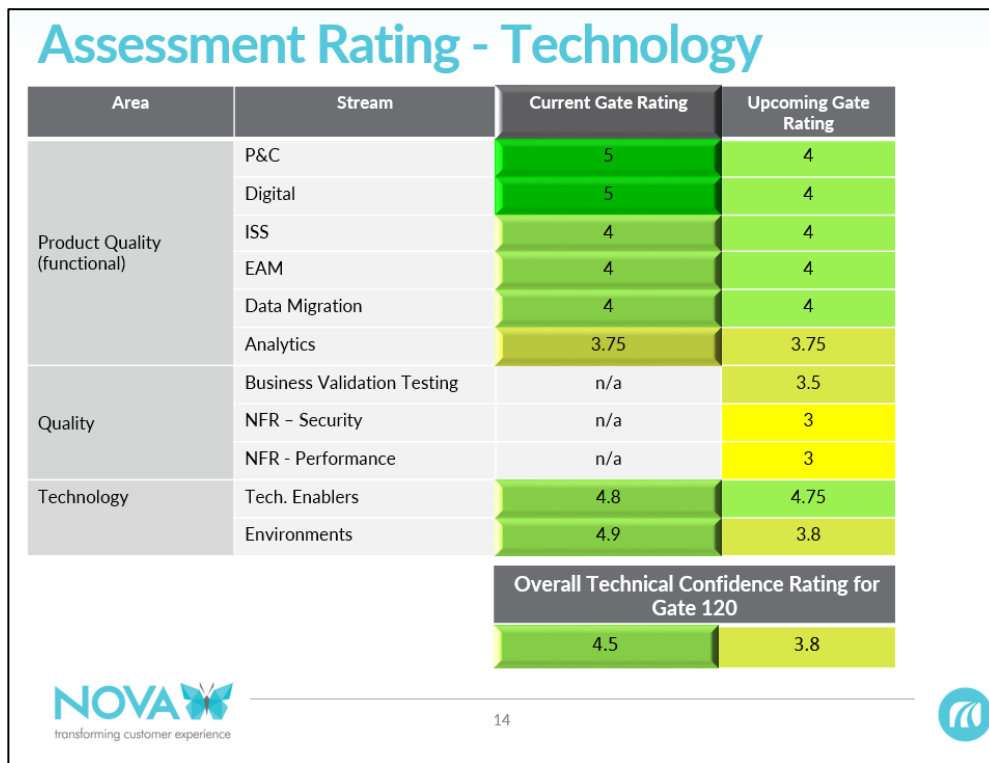
Rationale for Question:

To enhance the understanding of the updated Nova delivery strategy.

RESPONSE:

- a) Gate Scores are captured at the aggregate level across each of the work streams and reflect feature counts, defect counts, and key milestones within schedule. As an example, see *Figure 1* below for the technology rating across workstreams:

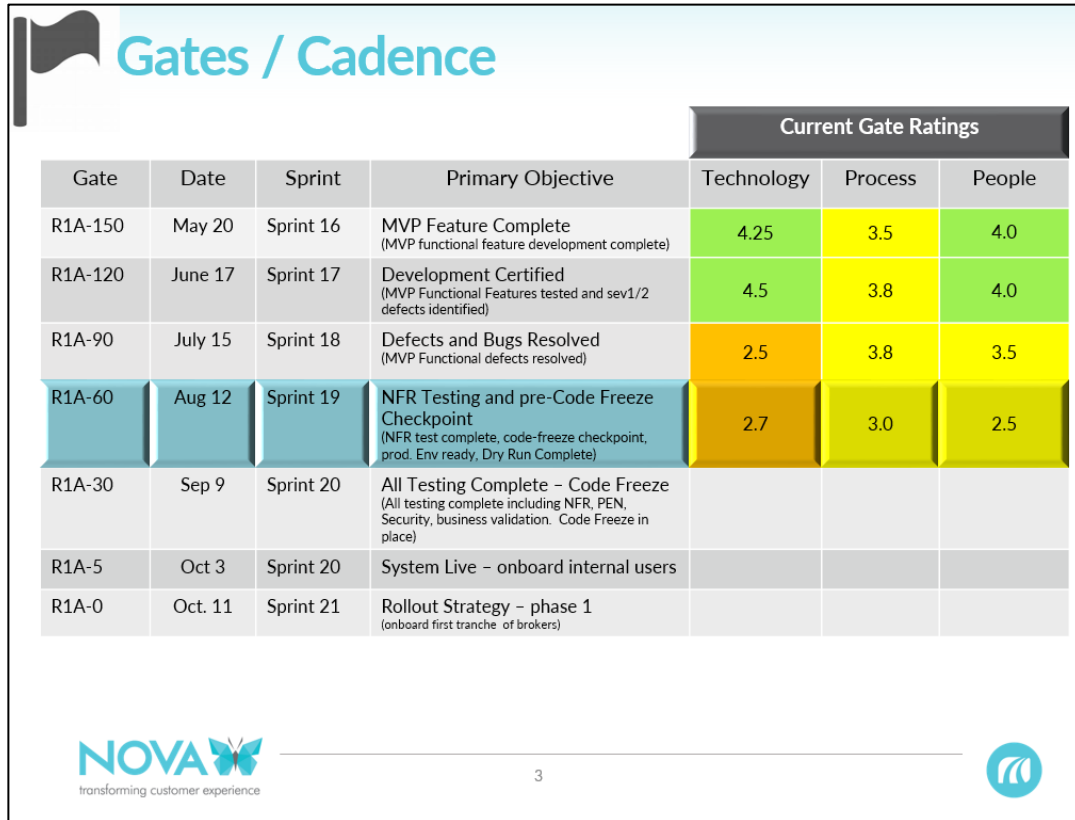
Figure 1 Assessment Rating - Gate Score



- b) In general, yes. The calculation methodology will remain the same beyond R1A.

c) Please see *Figure 2* below:

Figure 2 Release Readiness Gate Rating



d) A score under 4 means that the specific gate objective missed its scheduled target. The evaluation of a gate not only considers the current gate but also the future approaching gate. If a missed objective can be mitigated and achieved without impacting the upcoming gate targets, there is no impact to the Re-baseline schedule and budget, and MPI considers it mitigated within the schedule contingency controls. However, if it does impact the upcoming gate(s), a domino effect occurs that can impact the targeted go-live dates. This would be reflected in both the current and upcoming gate scores. The initial approach of MPI is to mitigate impacting the schedule, as schedule slippage is the primary contributor to budget increases.

PUB (MPI) 1-96

Part and Chapter:	Part IV - Nova, Information Technology, and Value Management - Nova Project NOV.6	Page No.:	25
PUB Approved Issue No:	19. Current IT Strategic Plan and IT Expenses and Projects, including Project Nova and other initiatives planned for or ongoing in the rating years a. Project Nova re-baseline, budget, and financing options, including debt financing		
Topic:			
Sub Topic:			

Preamble to IR:

MPI states:

"As discovery for Releases 3 and 4 is scheduled to complete in 2022 and 2023 respectively, the Business Case cost estimate classification remains a class 2 (ACE International – Cost Estimate Classification System). For this reason, MPI used a contingency range to plan for any unknowns." [13-16]

Question:

- a) Please provide the underlying reference source denoting all cost estimate classes of the ACE - Cost Estimate Classification System.
- b) Please indicate rationale, including source team/personnel, for utilization of the ACE - Cost Estimate Classification System.

Rationale for Question:

To enhance the understanding of the updated Nova delivery strategy.

RESPONSE:

a)

Nova Project Costs - Estimate Classification ¹				
Estimate class	Name	Purpose	Project definition level	Standard Contingency %
Class 5	Order of magnitude	Screening or feasibility	0% to 2%	40% to 200%
Class 4	Intermediate	Concept study or feasibility	1% to 15%	30% to 120%
Class 3	Preliminary	Budget, authorization, or control	10% to 40%	20% to 60%
Class 2	Substantive	Control or bid/tender	30% to 70%	10% to 30%
Class 1	Definitive	Check estimate or bid/tender	50% to 100%	10% to 15%

¹ AACE International – Cost Estimate Classification System

b) MPI used the AACE classification for the Re-baseline 2021, with the approval of its Executive team and Board of Directors (BoD). MPI leveraged it again as part of the 2022 Re-baseline vetting and approval process, giving it insight into classes of estimates by release, as well as to the contingency required based on this classification. The MPI Executive Team, its BoD and the Treasury Board all reviewed and endorsed this practice earlier this year, as part of 2022 Re-baseline.

PUB (MPI) 1-97

Part and Chapter:	Part IV - Nova, Information Technology, and Value Management - Nova Project NOV.6	Page No.:	26
PUB Approved Issue No:	19. Current IT Strategic Plan and IT Expenses and Projects, including Project Nova and other initiatives planned for or ongoing in the rating years a. Project Nova re-baseline, budget, and financing options, including debt financing		
Topic:			
Sub Topic:			

Preamble to IR:

MPI states:

"Last, the McKinsey assessment and associated de-risking recommendations increase the expected program costs by another \$34.6M.

The identified opportunities covered:

- *\$4M new technology costs (de-risk mitigation) now confirmed not to be required as the solution is covered by another initiative.*
- *Opportunity \$9M to assist with major Release 3B (de-risk opportunity), the project team is assessing the feasibility of McKinsey recommendations. MPI will make a decision on proceeding with these recommendations by fall 2022.*
- *\$13M in Value Assurance (de-risk mitigation), currently in progress.*
- *\$8.6M in new resources costs identified by McKinsey and MPI (de-risk mitigation), currently in progress with planning and forecasting resources included." [12-23]*

Question:

- a) Please indicate whether each of the 4 identified opportunities noted by McKinsey are included in the total Feb 2022 re-baselined Project Nova budgets.
- b) For each applicable opportunity noted in (a) which are included in Project Nova, please outline budgeted amount and actual expense to date.

Rationale for Question:

To enhance the understanding of the updated Nova delivery strategy.

RESPONSE:

a) and b)

The total of the 2022 Re-Baseline budget includes the four identified opportunities noted by McKinsey (please see *Figure 1* below):

Figure 1 Opportunity Costs Notes by McKinsey

Line No.	Description	Budget	LTD as of 30-Jun-22	Comments
1	Technology Enablers	4,002,000	-	
2	Value Assurance Control Tower	12,995,000	3,321,500	Common integrated execution plan for Nova, IT and Non-IT enablers, Expediting impediment resolution, Providing coaching to business leads
3	P&C Claims POC	4,501,200	-	
4	Digital R3B	4,501,200	-	
5	Additional Resources R3/R4	8,600,000	-	

PUB (MPI) 1-98

Part and Chapter:	Part IV - Nova, Information Technology, and Value Management - Nova Project NOV.6	Page No.:	27
PUB Approved Issue No:	19. Current IT Strategic Plan and IT Expenses and Projects, including Project Nova and other initiatives planned for or ongoing in the rating years a. Project Nova re-baseline, budget, and financing options, including debt financing		
Topic:			
Sub Topic:			

Preamble to IR:

MPI states:

"Within the Insurance stream, the \$22.5M increase results from higher costs for the Duck Creek subscription and the number of environments required to support the solution. MPI based the new estimates on pre-negotiated rates provided by the vendor, which are updated to incorporate new fees predicated on updated premium forecasts provided by the forecasting team. The licensing model and updated costs derive from minimum annual service fees on annual baseline premiums with additional surcharges calculated on the projected actual premiums exceeding baseline." [5-11]

Question:

- a) Please indicate whether there is risk to budgeted Duck Creek subscription costs due to future premium forecasts and provide rationale for the answer.
- b) Please provide table noting for each year of the future premium forecasts through to the end of Project Nova.

- c) Please provide the minimum service fees, and additional surcharges negotiated within the licensing model of Duck Creek and the term which these fees apply under the contract.

Rationale for Question:

To enhance the understanding of key licencing costs and impact assessed to Project Nova.

RESPONSE:

- a) The \$22.5M increase does not result from increased subscription costs in relation to premiums. The increase in ongoing costs is due to the additional environments required to support both project delivery and operations, in parallel through multiple project releases and needing to retain some of the additional environments for operations post project completion. This includes development environments, test environments, training environments, and additional insights to performance testing environment. These costs cover the 15-year business case timeline. The risk to budgeted Duck Creek subscription costs (due to future premium forecasts) is low because the budgeted subscription costs factor in all things that could impact Duck Creek costs (i.e., committed premiums, surcharges and annual escalations). The cost estimates use the premium estimates from the MPI forecasting department, which leverages a long history of trend data. While premiums for a given year may exceed the forecasts, over time, they should return to the forecasted averages.
- b) Please see Figure 1 below for future premium forecasts through to the end of Project Nova.

Figure 1 Nova Premium Forecasts 2019/20 through 2032/33

Line No.	Year	Premium Estimate
1	2019/20	\$ 1,454,490
2	2020/21	\$ 1,374,068
3	2021/22	\$ 1,364,493
4	2022/23	\$ 1,394,065
5	2023/24	\$ 1,452,175
6	2024/25	\$ 1,502,331
7	2025/26	\$ 1,553,338
8	2026/27	\$ 1,607,705
9	2027/28	\$ 1,663,974
10	2028/29	\$ 1,722,214
11	2029/30	\$ 1,782,491
12	2030/31	\$ 1,844,878
13	2031/32	\$ 1,909,449
14	2032/33	\$ 1,976,280
15	2033/34	\$ 2,035,568

- c) MPI based the minimum service fees and additional surcharges used to estimate the re-baselined licensing costs for Duck Creek on the following figure *Appendix 1 - Annual Committed Premium and Minimum Service Fees - Confidential* which MPI seeks to file confidentially. The table covers rates to July 31, 2029.

Appendix 1:
Annual Committed Premium and Minimum Service Fees

This material is the subject of a confidential motion.

PUB (MPI) 1-100

Part and Chapter:	Part IV - Nova, Information Technology, and Value Management - Nova Project	Page No.:	23
PUB Approved Issue No:	19. Current IT Strategic Plan and IT Expenses and Projects, including Project Nova and other initiatives planned for or ongoing in the rating years 6. Annual Business Plan		
Topic:	7.0 Capital Plans		
Sub Topic:			

Preamble to IR:

MPI states:

"In early 2022, Management completed an updated re-baseline assessment of Project Nova, which will see a flattened delivery schedule and will front load customer-value deliverables. This will deliver customer value sooner and increase program success. The impacts of the flattened delivery along with other de-risking strategies are expected to have a material impact on the overall program budget. MPI is working with Government to obtain the necessary approvals and understand how to best reflect the budgetary impacts or the 2022/23 fiscal year." [pg. 10]

The Annual Business Plan indicated Capital spending that does not appear to reflect the updated costs estimate for Project Nova.

Question:

- a) Please provide rationale for filing Improvement Initiatives reflective of budget for Project Nova prior to early 2022 Project Nova re-baseline.
- b) Please provide an updated 2022/23 Improvement Initiatives table inclusive of revised re-baseline of Project Nova approved in February 2022.

- c) Please provide an updated 2022/23 Improvement Initiatives table inclusive of additional spend for Information Security Maturity.
- d) Please provide an updated 2022/23 Improvement Initiatives table inclusive of additional spend for Technology Risk Management - 2022.
- e) Please provide an updated 2022/23 Improvement Initiatives table inclusive of additional spend for Other Initiatives.

Rationale for Question:

To enhance the understanding of the risk profile related to staffing for Project Nova.

RESPONSE:

- a) At the time of authoring and publishing the 2022/23 Annual Business Plan, the McKinsey analysis and Nova Re-baseline 2022 were not complete.
- b) The 2023/24 Annual business plan will reflect the new NOVA budget based on the 2022 Re-baseline. MPI will draft and submit this to the Province by September 20, 2022.
- c) Please refer to [Appendix 12 - 2021-22 Information Security \(IS\) Maturity Program Progress Update – Confidential](#). Note that the information provided as part of the submission was as at April 30, 2022.
- d) Please refer to [Value Management Chapter Figure VM-23 – 2022/23 Capital Master Summary Epic Budgets – Redacted, page 75](#). Note that the information provided as part of the submission was as at April 30, 2022.
- e) Please refer to [Value Management Chapter Figure VM-23 – 2022/23 Capital Master Summary Epic Budgets – Redacted, page 75](#). Note that the information provided as part of the submission was as at April 30, 2022.

PUB (MPI) 1-101

Part and Chapter:	Part IV - Nova, Information Technology, and Value Management - Nova Project VM.1	Page No.:	5
PUB Approved Issue No:	19. Current IT Strategic Plan and IT Expenses and Projects, including Project Nova and other initiatives planned for or ongoing in the rating years		
Topic:			
Sub Topic:			

Preamble to IR:

VM-1 Notes Data & Analytics project budget for 2022/23 as \$3.1M.

Within part IV - Information Technology, Page 8, Data & Analytics is listed with a budget of \$3.4M.

VM-1 Notes STRM 2022/23 having a budget of \$4.5M.

Within part IV - Information Technology, Page 8, Technology Risk Management is listed with a budget of \$4.5M.

VM-1 Notes Information Security Maturity no budgeted spend after 2020/21

Within part IV - Information Technology, Page 8, Information Security Maturity is listed with a budget of \$0.6M.

Question:

- a) Please explain the difference in budgeted costs representations for Data & Analytics.
- b) Please indicate whether STRM is the same project as Technology Risk Management.
- c) Please indicate why Information Security Maturity is not listed in VM-1 with a budget of \$0.6M.

Rationale for Question:

To clarify the costs and notes pertaining to VM capital projects.

RESPONSE:

- a) The amount of \$3.1M for the FY 2022-23 Data & Analytics Budget is the same as reported in both Value Management Chapter Figure VM-1 and on page 8 within Information Technology Chapter. Below is an excerpt of page 8 of Part IV- Information Technology showing Data & Analytics seed funding of \$3.1M:

“Overall, MPI identified \$21M in seed funding, derived from the following focus areas:

- *Data & Analytics [\$3.1M];”*

- b) The Value Management Chapter, page 21 provides details outlining the consolidation of Technology Risk Management and Information Security Maturity Program under a new Security Technology Risk Management (STRM) program in 2021/22. The budget of \$4.5 million identified in the Information Technology Chapter is the same as the STRM budget of \$4.5 million included in Figure VM-1.
- c) MPI inadvertently did not include the allocated budget of \$0.6M for Information Security Maturity program in Value Management Chapter Figure VM-1; however, it reflected this amount in the same chapter, at Value Management Chapter Figure VM-23. This fund was a carry forward from the old Information Security Maturity Program and, in order not to lose historical data on the ongoing projects within the program, MPI decided to separate the fund from the new STRM program.

PUB (MPI) 1-102

Part and Chapter:	Part IV - Nova, Information Technology, and Value Management - Nova Project VM.1	Page No.:	6
PUB Approved Issue No:	19. Current IT Strategic Plan and IT Expenses and Projects, including Project Nova and other initiatives planned for or ongoing in the rating years		
Topic:			
Sub Topic:			

Preamble to IR:**Question:**

Please provide close out reports of each capital project closed in 2021/22.

Rationale for Question:

To understand Value Management review of closed-out projects.

RESPONSE:

MPI closed the following capital projects in the fiscal year 2021/22 and included in the GRA 2022 and GRA 2023 submission.

Separate appendices detailed below reference the Project Closeout reports:

1. TRM 2019/20 - Exchange Upgrade Vitality - See Appendix 1 - TRM 2019 -20 Exchange Upgrade Vitality Project Closeout Report
2. TRM 2019/20 - IBM Network Hardware Vitality - See Appendix 2 - TRM 2019-20 IBM Network Hardware Vitality Project Closeout Report

3. TRM 2020/21 - Infrastructure Security Remediation - See Appendix 3 - TRM 2020-21 Infrastructure Security Remediation Project Closeout Report - Confidential
4. TRM 2020/21 - Active Directory Auditing - See Appendix 4 - TRM 2020-21 Active Directory Auditing Project Closeout Report - Confidential
5. TRM 2020/21 - Active Directory Federation for Single Sign On - See Appendix 5 - TRM 2020-21 Active Directory Federation for Single Sign on Project Closeout Report - Confidential
6. TRM 2021/22 - Cloud Adoption Strategy - See Appendix 6 - TRM 2021-22 Cloud Adoption Strategy Project Closeout Report
7. Microsoft 365 - See Appendix 7 - Microsoft 365 Project Closeout Report



Project Closeout Report

Exchange Vitality

2849



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Revision History

Date	Document Version	Description of Changes	Author
June 18, 2021	0.1	First Draft	Bruce Kisell
June 29, 2021	1.0	Final Version	Bruce Kisell



1. Introduction

1.1. Purpose

The purpose of this document is to mark the completion of the project by assessing the project's performance, identifying the lessons learned and best practices for future projects, and confirming that essential procedures and other project closure activities have been completed.

This document is also used to measure the benefits/outcomes delivered by the project.

Information within the closeout report will be leveraged for post project audits and or post implementation reviews, and therefore must include within this document attachments, embedded screenshots/documents, or links to the location of the source documents in SharePoint.

1.2. Project Closeout Report Goals

This Project Closeout Report is created to accomplish the following goals:

Review and validate the deliverables, milestones and success of the project against the original project plan and business case.

- Identify project highlights, lessons learned and best proposed practices for future projects.
- Document and confirm outstanding issues, risks, defects, and recommendations.
- Outline outstanding tasks activities and assigned owners to transition to operations and close off the project.



2. PROJECT ASSESSMENT

2.1. Project Overview

As our email footprint grows, so does our need to provide larger mailboxes with a safer means to organically grow and archive. Our current Exchange Server environment is built on only two servers. This poses a performance/corruption risk to the digital communication environment at MPI. Currently there is no server side archiving features enabled in our messaging environment.

Exchange 2016 provides server side archiving for mailboxes. This will allow MPI to enable mailbox archiving as opposed to the user performing a manual local PST backup file on the network which is a security and performance concern.

Many users have multiple PST files (local archives) of their mail and this doubles and in some cases triples the storage on our network. Enabling server side archiving will be transparent to the user, but would provide the corporation with a better security stance in regards to email while also freeing up resource to support the end user in performing these operation in regards to mail clients.

The project charter can be found here: <http://mpiprojects/TRM2019/2849-ExchUpgradeVitality/ProjectDocuments/2849%20Exchange%20Vitality%20-%20Project%20Charter.docx?Web=1>

2.2. Goals and Objectives Performance

The following table provides a comparison of the original project objectives to what the project delivered.

OBJECTIVE	STATUS	SUPPORTING EVIDENCE
1. Execute Vitality on 2 Exchange 2010 servers	Completed	Infrastructure Request Form MPI-IBM Server Request Form SRF Exchange 2016 DG 1 – Change Oct 1 2019
2. IBM to redesign and build a new Exchange email infrastructure to support our current and the next 4 years of email needs	Completed	Approved Architecture http://mpiprojects/TRM2019/2849-ExchUpgradeVitality/ProjectDocuments/MPI%20Microsoft%20Exchange%20Solution%20Design%20V1.14.docx?Web=1
3. Execute on DCO SOW contractual agreement to perform a software upgrade on our servers once every 4 years	Completed	RFS http://mpiprojects/TRM2019/2849-ExchUpgradeVitality/ProjectDocuments/RFS%20Request%20Form%20Exchange%20Antivirus%20v0.2%2020200508.docx?Web=1



		http://mpiprojects/TRM2019/2849-ExchUpgradeVitality/ProjectDocuments/RFS%20-MPI-%20131%20Microsoft%20Exchange%20upgrade%20over%202.0.doc?Web=1
4. Eliminate IT Security risk by not allowing local/network backups of users email	Completed	Has been removed from scope (CR-005-EV-Descope PST files) as these will be addressed in the Office 365 project http://mpiprojects/TRM2019/2849-ExchUpgradeVitality/Management%20Documents/CR-005-EV-Descope%20PST%20files.docx?Web=1
5. Eliminate IT Availability risk by redesigning the exchange infrastructure to better support our user footprint	Complete	Approved Architecture http://mpiprojects/TRM2019/2849-ExchUpgradeVitality/ProjectDocuments/MPI%20Microsoft%20Exchange%20Solution%20Design%20V1.14.docx?Web=1 New SSL Security Licenses http://mpiprojects/TRM2019/2849-ExchUpgradeVitality/ProjectDocuments/MPI-Exchange_Refresh-New_SSL_Certificate.docx?Web=1 Testing http://mpiprojects/TRM2019/2849-ExchUpgradeVitality/ProjectDocuments/2849%20Exchange%20Vitality%20-%20Acceptance%20Test%20Strategy.docx?Web=1 TRAQ http://mpiprojects/TRM2019/2849-ExchUpgradeVitality/ProjectDocuments/TRAQ-2849-Exchange%20Vitality-08-2019.docx?Web=1
6. Minimize email security risks to the organization by adding an enterprise exchange antivirus solution	Complete	Infrastructure Request Form http://mpiprojects/TRM2019/2849-ExchUpgradeVitality/ProjectDocuments/MPI%2020%20164%20(McAfee%20AV%20%20ePO)%20-%20Infrastructure%20Request%20Form%20(IRF)%20v1.1.xlsx?Web=1 Approved Transition http://mpiprojects/TRM2019/2849-ExchUpgradeVitality/ProjectDocuments/MPI%2020%20164%20(McAfee%20AV%20%20ePO)%20-%20Infrastructure%20Request%20Form%20(IRF)%20v1.1.xlsx?Web=1



	<p>20Exchange%20Implementation%20Transition%20Plan%20V1.5.pdf?Web=1</p> <p>Change http://mpiprojects/TRM2019/2849-ExchUpgradeVitality/ProjectDocuments/Anti-virus%20Change%20-%20130151%20Passive%20to%20Blocking%20mode%20-%20June%2020%2C%202021.msg</p> <p>http://nightcrawler.ad.mpic.mb.ca:9000/smartit/app/#/change/requestid/CRQ000000130151 Smart IT Universal Client 20.02 Change Request (mpic.mb.ca)</p> <p>Approved Configuration and Support http://mpiprojects/TRM2019/2849-ExchUpgradeVitality/ProjectDocuments/MPI%20McAfee%20ePO%20Agent%20and%20MSME%20v1.7.docx?Web=1</p>
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NOTE: Links to delivered documents can be found in the Project Control Log (PCL)

[http://mpiprojects/TRM2019/2849-ExchUpgradeVitality/ProjectDocuments/2849%20Exchange%20Vitality%20-%20Project%20Control%20Log.xlsx?Web=1](#)



2.3. Project Changes and Decisions

The following table summarizes impacts through Change Requests (CRs) and Decision Requests (DRs).

DATE	CR NUMBER (with hyperlink)	NAME/DESCRIPTION OF CHANGES	STATUS	Scope/Objective	Benefits	Resources	Schedule	Budget	IBM/Vendor	Infor Security	Other
6/24/2019	CR-001-EV	Project Start Date	Approved	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12/10/2020	CR-002-EV	Project End Date and Budget Adjustment	Approved	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6/4/2020	CR-003-EV	Project End Date and Budget Adjustment	Approved	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6/24/2020	CR-004-EV	Project End Date and Budget Adjustment	Approved	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8/14/2020	CR-005-EV	De-Scope .PST Files	Approved	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9/2/2020	CR-006-EV	Project End Date Adjustment	Approved	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12/10/2020	CR-007-EV	Project End Date & Budget Adjustment	Rejected	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
20/10/2020	CR-008-EV	Project End date Extension	Approved	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
30/10/2020	CR-009-EV	Approval to Purchase Anti-Virus Solution	Approved	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
12/10/2020	CR-010-EV	Project End date Extension	Approved	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
01/18/2021	CR-011-EV	Project End date Extension	Approved	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



03/15/2021	CR-012-EV	Project End date Extension	Approved	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
04/23/2021	CR-013-EV	Project End date Extension	Approved	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
06/24/2021	CR-014-EV	Project End date Extension	Approved	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Total Value of CR Changes \$ 497,507.70

CR Log; <http://mpiprojects/TRM2019/2849-ExchUpgradeVitality/Management%20Documents/Forms/By%20Document%20Category%20%20Document%20Type.aspx>

DATE	DR NUMBER (with hyperlink)	NAME/DESCRIPTION OF CHANGES	STATUS	Scope/Objective	Benefits	Resources	Schedule	Budget	IBM/Vendor	Infor Security	Other
5/21/2020	DR-001-EV-Project Control Log	Approval of Project Control Log	Approved	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10/16/2019	DR-002-EV-eDiscovery	Add the eDiscovery feature to the antivirus scope	Not Work Flowed for Approval	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3/5/2020	DR-003-EV-Exchange Server Build Variation	Allow server build variations in production environment	Cancelled	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>



9/14/2020	DR-004-EV-Antivirus	Purchase and implement an enterprise antivirus solution	Approved	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
7/14/2020	DR-005-EV-IPv6 Control Recommendation	Disable IPv6 Compensating Controls	Not Work Flowed for Approval	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
9/11/2020	DR-006-EV-Adjust PCL Deliverables	Adjust PCL Deliverables	Approved	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Total Value of DR Changes \$ 0.00

DR Log:

<http://mpiprojects/TRM2019/2849-ExchUpgradeVitality/Management%20Documents/Forms/By%20Document%20Category%20%20Document%20Type.aspx>



2.4. Planned Scope of Work – Project Control Log

The following link identifies the actual key project deliverables that were produced throughout the project lifecycle.

<http://mpiprojects/TRM2019/2849-ExchUpgradeVitality/ProjectDocuments/2849%20Exchange%20Vitality%20-%20Project%20Control%20Log.xlsx?Web=1>

2.5. Project Summary: Schedule and Effort

Outline Level	Task Name	Duration	Start	Finish	% Complete	A
1	PRJ-2849 Exchange Upgrade (Vitality)	323.59 days	Mon 3/18/19	Thu 8/20/20	100%	
2	▸ Start Up	103.31 days	Mon 3/4/19	Thu 8/15/19	100%	
2	▸ Inception	3.72 days	Thu 8/15/19	Wed 8/21/19	100%	
2	▸ Elaboration	346.19 days	Tue 3/5/19	Tue 9/15/20	100%	
2	▸ Build	164.59 days	Thu 12/19/19	Mon 9/14/20	100%	
2	▸ Implementation and Warranty	522 days	Mon 3/18/19	Wed 6/30/21	100%	
2	▸ Project Close Out	73.66 days	Fri 3/12/21	Mon 7/5/21	100%	



Project Financials

Reporting Period End Date: **30-Jun-21**
 Project Name: **Exchange Upgrade (Vitality)-2019**
 Project Code Number: **2849**

Project Costs	Board Approved Original Project Budget/PM Estimate as at Month/Year	Current Project Budget Incl. CRs	Actuals to Date	Estimate for 2021/22	Project Estimate at Completion as at 30-Jun-21	Variance Amount to Original Budget
DEFERRED DEVELOPMENT	-	-	-	-	-	-
CAPITAL	-	-	-	-	-	-
Data Processing Equipment	-	-	-	-	-	-
EXPENSE	286,578	-	719,369	-	719,369	432,791
External Resources	115,050	-	283,246	-	283,246	168,196
HP Volume Discounts - Current	-	-	(828)	-	(828)	(828)
HP Volume Discounts - Prior YR Adj	-	-	-	-	-	-
Consultants Travel/Parking	-	-	50	-	50	50
MPI Resources (Incremental)	106,470	-	20,527	-	20,527	(85,943)
Employees Travel/Parking	-	-	-	-	-	-
IBM RFS	25,000	-	416,374	-	416,374	391,374
RFS - Server Builds-131	9,000	-	163,648	-	163,648	154,648
RFS - 12 month server cost	16,000	-	6,254	-	6,254	(9,746)
RFS - Antivirus Update 164	-	-	240,228	-	240,228	240,228
RFS 4	-	-	6,243	-	6,243	6,243
RFS 5	-	-	-	-	-	-
SOW	-	-	-	-	-	-
SW/HW	-	-	-	-	-	-
Unallocated Budget	-	-	-	-	-	-
Program Contingency- 10%	26,053	-	-	-	-	(26,053)
Contingency	14,005	-	-	-	-	(14,005)
Total Incremental Deferred Development	-	-	-	-	-	-
Total Incremental Capital	-	-	-	-	-	-
Total Incremental Expense	286,578	-	719,369	-	719,369	432,791
Total Project Cost	286,578	-	719,369	-	719,369	432,791



3. Transition to Operations

3.1. Project to Operations Transition Form

The following link outlines outstanding defects, Remedy tickets, or items have been accepted as work, which have been accepted and will be corrected through Operations.

Exchange: <http://mpiprojects/TRM2019/2849-ExchUpgradeVitality/ProjectDocuments/Exchange%20Vitality%20-%202010%20Exchange%20Server%20-%20Project%20to%20Operations%20Transition.docx?Web=1>

Antivirus: <http://mpiprojects/TRM2019/2849-ExchUpgradeVitality/ProjectDocuments/2849%20-%20Anti-Virus%20-%20Project%20Transition%20to%20Operations.docx?Web=1>

3.2. Outstanding Issues

The following table outlines outstanding deliverables, issues, or actions from the project that remain to be completed. To ensure clear understanding, information pertaining to the resolution, status, who is assigned the issue, or next steps should be included. Where appropriate, provide recommendations/actions as to how these may be dealt with.

ISSUE	DETAILS	ACTIONS	ASSIGNED TO
There are no outstanding issues at this time.			



4. Project Outcomes

4.1. Lessons Learned

This section identifies and describes the major successes, issues and challenges encountered during the course of the project. These Lessons Learned will be incorporated into EPMO’s consolidated Lessons Learned database and recommendations derived from successes will contribute to continuous improvement best practices.

<http://mpiprojects/TRM2019/2849-ExchUpgradeVitality/ProjectDocuments/2849%20-%20Lessons%20Learned.xlsx?Web=1>

4.2. Post Implementation - Value Management

This section provides the specific planned/intended business benefits or positive results expected from the operations of the project end-result. These benefits/outcomes were identified in the business case. The below table is used to confirm that specified outcomes were realized.

OUTCOME	STATUS	SUPPORTING EVIDENCE
Redesigned Exchange infrastructure to better support our growing Email footprint	Accomplished	Approved Architecture http://mpiprojects/TRM2019/2849-ExchUpgradeVitality/ProjectDocuments/MPI%20Microsoft%20Exchange%20Solution%20Design%20V1.14.docx?Web=1
Provide server side archiving for safer faster storage of	Not Accomplished	email has been removed from scope (CR-005-EV-Descope PST files) as these will be addressed in the Office 365 project using One Drive http://mpiprojects/TRM2019/2849-ExchUpgradeVitality/Management%20Documents/CR-005-EV-Descope%20PST%20files.docx?Web=1
Better Malware protection	Accomplished	Configurations highlighted throughout the approved document http://mpiprojects/TRM2019/2849-ExchUpgradeVitality/ProjectDocuments/MPI%20McAfee%20ePO%20Agent%20and%20MSME%20v1.7.docx?Web=1
Enhanced Data Loss Prevention (DLP)	Accomplished	PAGE 35 Feature is installed but not enabled. ISO/MPI has yet to provide DLP rules for email. Future Consideration. http://mpiprojects/TRM2019/2849-ExchUpgradeVitality/ProjectDocuments/MPI%20McAfee%20ePO%20Agent%20and%20MSME%20v1.7.docx?Web=1



Improved searching	Accomplished	Page 36: http://mpiprojects/TRM2019/2849-ExchUpgradeVitality/ProjectDocuments/MPI%20McAfee%20ePO%20Agent%20and%20MSME%20v1.7.docx?Web=1
Better management tools	Accomplished	Pages 6-12: http://mpiprojects/TRM2019/2849-ExchUpgradeVitality/ProjectDocuments/MPI%20McAfee%20ePO%20Agent%20and%20MSME%20v1.7.docx?Web=1
Enhanced technologies	Accomplished	Page 5: http://mpiprojects/TRM2019/2849-ExchUpgradeVitality/ProjectDocuments/MPI%20McAfee%20ePO%20Agent%20and%20MSME%20v1.7.docx?Web=1
Better High Availability support	Accomplished	Approved Architecture http://mpiprojects/TRM2019/2849-ExchUpgradeVitality/ProjectDocuments/MPI%20Microsoft%20Exchange%20Solution%20Design%20V1.14.docx?Web=1
Lower support calls to the service desk from users in regards to local PST files	Not Accomplished	.PST files has been removed from scope (CR-005-EV-Descope PST files) as these will be addressed in the Office 365 project http://mpiprojects/TRM2019/2849-ExchUpgradeVitality/Management%20Documents/CR-005-EV-Descope%20PST%20files.docx?Web=1
No Corrupt PST files from users backing up locally and/or reimporting to Outlook	Not Accomplished	.PST files has been removed from scope (CR-005-EV-Descope PST files) as these will be addressed in the Office 365 project http://mpiprojects/TRM2019/2849-ExchUpgradeVitality/Management%20Documents/CR-005-EV-Descope%20PST%20files.docx?Web=1
Better email security with the implementation and configuration of an antivirus solution	Accomplished	Implementation Confirmation: http://mpiprojects/TRM2019/2849-ExchUpgradeVitality/ProjectDocuments/Anti-virus%20Change%20-%20130151%20Passive%20to%20Blocking%20mode%20-%20June%202020%2C%202021.msg Transition to Operations: http://mpiprojects/TRM2019/2849-ExchUpgradeVitality/ProjectDocuments/2849%20-%20Anti-Virus%20-%20Project%20Transition%20to%20Operations.docx?Web=1



5. REVIEW AND APPROVAL

This section contains the signatures of key stakeholders, signifying they have reviewed and accepted the project close-out document and have agreed to close the project.

Name: Lawrence Lazarko	Signature:	<i>See SharePoint Workflow</i>
Role: Operational Business Champion	Date:	

Name: ISO Approvers	Signature:	<i>See SharePoint Workflow</i>
Role: CISO	Date:	

Name: Lindsay Jurkowski	Signature:	<i>See SharePoint Workflow</i>
Role: Manager, Budgeting	Date:	



Project Closeout Report

2847 Network Hardware Vitality

Project 2019



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Revision History

Date	Document Version	Description of Changes	Author
30/9/2021	0.1	Draft	Bruce Kisell
23/11/2021	0.1	Draft updates	Bruce Kisell
23/11/2021	0.2	Draft updates	Bruce Kisell
24/11/2021	0.3	Draft updates	Bruce Kisell
29/11/2021	0.4	Draft updates	Bruce Kisell
30/11/2021	0.5	Draft updates	Bruce Kisell
16/3/2022	0.6	Updated	James Dunits
25/3/2022	1.0	Final Version	James Dunits



1. Introduction

1.1. Purpose

The purpose of this document is to mark the completion of the project by assessing the project's performance, identifying the lessons learned and best practices for future projects, and confirming that essential procedures and other project closure activities have been completed.

This document is also used to measure the benefits/outcomes delivered by the project.

Information within the closeout report will be leveraged for post project audits and or post implementation reviews, and therefore must include within this document attachments, embedded screenshots/documents, or links to the location of the source documents in SharePoint.

1.2. Project Closeout Report Goals

This Project Closeout Report is created to accomplish the following goals:

Review and validate the deliverables, milestones, and success of the project against the original project plan and business case.

- Identify project highlights, lessons learned and best proposed practices for future projects.
- Document and confirm outstanding issues, risks, defects, and recommendations.
- Outline outstanding tasks activities and assigned owners to transition to operations and close off the project.



2. PROJECT ASSESSMENT

2.1. Project Overview

To eliminate and reduce Business impact (IT Security and IT Availability) associated with running End of Life hardware in our environment in alignment with MPI IT and Security policies. As security patches are deployed the hardware in place will eventually not be able to accept the latest patches. This upgrade will allow MPI to remain current on Cisco Network Device Hardware and to execute on the IBM contractual agreement to upgrade Data Centre infrastructure once every 5 years.

2.2. Goals and Objectives Performance

This project will coordinate complex / impactful system change in order to ensure continued alignment between physical / virtual IT Infrastructure and the changing requirements within MPI’s Information Security and Enterprise Risk related directives, policies, and standards. In Q3 / Q4, 2019/20 a list of potential changes were identified by the Information Security Office for sizing. These initiatives would be individually reviewed / prioritized operationally, with candidate initiatives proposed for inclusion in this project. Once in the project, it would be managed to completion criteria established for that request. Hours available for future requests would be based upon estimates associated with each request up to the total available hours (The business case accounts for external and internal resources based upon preliminary review of the new requirements.

The following table provides a comparison of the original project objectives to what the project delivered.

OBJECTIVE	STATUS	SUPPORTING EVIDENCE
Ensure that the upgrade maintains an N-1 hardware redundancy in the IBM data Centers (Markham and Barrie) for Disaster Recovery and High Availability purposes	Completed	http://mpiprojects/TRM2019/2847-IBMHWVitality/ProjectDocuments/Network%20Vitality%20Refresh%20ASD%20v1.3.docx?Web=1 http://mpiprojects/TRM2019/2847-IBMHWVitality/ProjectDocuments/MPI%20RFS-141%20and%20153%20-%20ACI%20Implementation%20Deliverables%201%20and%207%20Completion%20Notification.doc?Web=1



<p>Eliminate IT Security risk by upgrading to a vendor supported Hardware in alignment with MPI Security policies. I.e., Nexus 7K switches (the core switches in the IBM datacenters) are coming to their end of life with an end of support date of August 2019. This is to align to corporate security policy</p>	<p>Completed</p>	<p>http://mpiprojects/TRM2019/2847-IBMHWVitality/ProjectDocuments/Network%20Vitality%20Refresh%20ASD%20v1.3.docx?Web=1</p> <p>http://mpiprojects/TRM2019/2847-IBMHWVitality/ProjectDocuments/MPI%20RFS-141%20and%20153%20-%20ACI%20Implementation%20Deliverables%201%20and%207%20Completion%20Notification.doc?Web=1</p> <p>http://mpiprojects/TRM2019/2847-IBMHWVitality/ProjectDocuments/SSO-079%20-%20Cisco%20Smart%20Software%20Manager%20Server%20v1.2-%20IRF.xlsx?Web=1</p>
<p>Eliminate IT Availability risk by upgrading to a vendor supported network hardware/firmware</p>	<p>Completed</p>	<p>http://mpiprojects/TRM2019/2847-IBMHWVitality/ProjectDocuments/Network%20Vitality%20Refresh%20ASD%20v1.3.docx?Web=1</p> <p>http://mpiprojects/TRM2019/2847-IBMHWVitality/ProjectDocuments/MPI%20RFS-141%20and%20153%20-%20ACI%20Implementation%20Deliverables%201%20and%207%20Completion%20Notification.doc?Web=1</p> <p>http://mpiprojects/TRM2019/2847-IBMHWVitality/ProjectDocuments/SSO-079%20-%20Cisco%20Smart%20Software%20Manager%20Server%20v1.2-%20IRF.xlsx?Web=1</p>
<p>Enable MPI technology that will allow for flexibility with future initiatives</p>	<p>Completed</p>	<p>http://mpiprojects/TRM2019/2847-IBMHWVitality/ProjectDocuments/Network%20Vitality%20Refresh%20ASD%20v1.3.docx?Web=1</p> <p>http://mpiprojects/TRM2019/2847-IBMHWVitality/ProjectDocuments/MPI%20RFS-141%20and%20153%20-%20ACI%20Implementation%20Deliverables%201%20and%207%20Completion%20Notification.doc?Web=1</p>



		http://mpiprojects/TRM2019/2847-IBMHWVitality/ProjectDocuments/SSO-079%20-%20Cisco%20Smart%20Software%20Manager%20Server%20v1.2-%20IRF.xlsx?Web=1
<p>Introduce the latest data center hardware technology to potentially gain performance and feature improvements</p>	<p>Completed</p>	<p> http://mpiprojects/TRM2019/2847-IBMHWVitality/ProjectDocuments/Network%20Vitality%20Refresh%20ASD%20v1.3.docx?Web=1 http://mpiprojects/TRM2019/2847-IBMHWVitality/ProjectDocuments/MPI%20RFS-141%20and%20153%20-%20ACI%20Implementation%20Deliverables%201%20and%207%20Completion%20Notification.doc?Web=1 http://mpiprojects/TRM2019/2847-IBMHWVitality/ProjectDocuments/SSO-079%20-%20Cisco%20Smart%20Software%20Manager%20Server%20v1.2-%20IRF.xlsx?Web=1 </p>
<p>Improve our security maturity with the latest Cisco technology</p>	<p>Completed</p>	<p> http://mpiprojects/TRM2019/2847-IBMHWVitality/ProjectDocuments/Network%20Vitality%20Refresh%20ASD%20v1.3.docx?Web=1 http://mpiprojects/TRM2019/2847-IBMHWVitality/ProjectDocuments/MPI%20RFS-141%20and%20153%20-%20ACI%20Implementation%20Deliverables%201%20and%207%20Completion%20Notification.doc?Web=1 http://mpiprojects/TRM2019/2847-IBMHWVitality/ProjectDocuments/SSO-079%20-%20Cisco%20Smart%20Software%20Manager%20Server%20v1.2-%20IRF.xlsx?Web=1 </p>



2.3. Project Changes and Decisions

The following table summarizes impacts through Change Requests (CRs) and Decision Requests (DRs).

DATE	CR NUMBER (with hyperlink)	NAME/DESCRIPTION OF CHANGES	STATUS	Scope/Objective	Benefits	Resources	Schedule	Budget	IBM/Vendor	CIS Security	Other
6/26/2019	CR-001-NHV	End Date Adjustment	Choose an item.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9/19/2019	CR-002-NHV	End Date Adjustment	Approved	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2/18/2020	CR-003-NHV	Project Scope Clarification	Approved	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7/2/2020	CR-004-NHV	Budget Adjustment	Approved	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6/23/2020	CR-005-NHV	Budget Adjustment	Approved	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12/16/2020	CR-006-NHV	Schedule Adjustment	Approved	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3/4/2021	CR-007-NHV	Schedule Adjustment	Approved	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3/3/2021	CR-008-NHV	PCL Cleanup	Rejected	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5/31/2021	CR-010-NHV	Schedule Adjustment	Approved	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7/12/2021	CR-011-NHV	Schedule Adjustment	Approved	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9/20/2021	CR-012-NHV	Schedule Adjustment	Approved	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



10/12/2021	CR-013-NHV	Schedule Adjustment	Approved	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11/16/2021	CR-014-NHV	Schedule Adjustment	Approved	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12/16/2021	CR-015-NHV	Schedule Adjustment	Approved	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Total Value of CR Changes \$ \$ 851,895

CR #	Cost
1	0
2	40,625
3	0
4	660,044
5	0
6	95,664
7	8,437
8	0
10	11,375
11	14,375
12	4,375
13	5,500
14	3,500
15	8,000
TOTAL	851,895

NOTE: CR # 009 assignment was skipped by accident

<http://mpiprojects/TRM2021/Lists/Change%20Request%20Log/AllItems.aspx>



DATE	DR NUMBER (with hyperlink)	NAME/DESCRIPTION OF CHANGES	STATUS	Scope/Objective	Benefits	Resources	Schedule	Budget	IBM/Vendor	CIS Security	Other
1/1/2021	DR-001-NHV	Deliverable Exceptions v1	Approved	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4/28/2021	DR-002-NHV	Deliverable Exceptions v2	Approved	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4/29/2021	DR-003-NHV	Remove network monitoring from critical path	Cancelled	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7/13/2021	DR-004-NHV	PCL Clean Up	Approved	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9/16/2021	DR-005-NHV	Omit Project Plan Delivery	Approved	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9/16/2021	DR-006-NHV	Virtual Machine Migration Decision	Approved	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9/16/2021	DR-007-NHV	Barrie ACI Underlay network IP configuration Decision	Approved	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
10/18/2021	DR-008-NHV	Barrie ACI Underlay network IP configuration Decision – Status Quo	Approved	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Total Value of DR Changes \$ 0

<http://mpiprojects/TRM2019/2847-IBMHWVitality/Lists/Decision%20Request%20Log/AllItems.aspx>



2.4. Planned Scope of Work – Project Control Log

The following link identifies the actual key project deliverables that were produced throughout the project lifecycle.



MPI Project Control Log

Project Number: 2847
 Pre-Inception Start Date: 04/mn/yy
 Project Official Start Date: 01-Mar-19
 Project End Date: 31-Jul-20
 Project Name: ITBT-2019-029 IBM Network Hardware
 Program Manager: Bruce Kisell
 Project Manager: Trevor Mohr
 Technical Architect: NA

Phase	Phase: Inception												
	Phase 0: Project Start-Up	Phase 1: Inception	Phase 2: Elaboration (Business & System)		Phase 3: Build	Phase 4: Test (SIT & UAT)		Phase 5: Implementation & Warranty					
Approved Preliminary Deliverables Note: Exceptions can be applied for through BTO Management	BRM & OBC Assignment	X	Inception Schedule – Baseline 1	✓	Business Requirements / Business Use Cases	X	Design Specifications	✓	SIT	X	CCB Go/No Go Decision	✓	
	Business Case	✓	Vision Document	X	Security Requirements	✓	Code Development	X	ISO Testing: Penetration Test, Scope	X	Implementation/Cut-over Activities	✓	
	PM Assignment	✓	Architecture Definition Document (ADD) - Solution Concept	X	Stakeholder Analysis (Business Impact Assessment)	X	Prepare Test Environments	X	ISO Testing: Secure Code Review	X	Project Close Out Report	✓	
	Set-up Project Site, Schedule, Core Resources	✓	IBM Infrastructure Forecast (Project intake tab only)	X	ADD - Solution Outline (IBM)	✓	Go-Live Criteria	X	Implementation Task List	✓			
	Project Charter	✓	Threat Risk Assessment (Questionnaire (TRAQ))	✓	IBM Infrastructure Forecast (Requirements baseline tab)	X	SIT Plan	X	User Acceptance Testing	X		Required ✓	
			High Level Security Requirements	X	Elaboration Schedule (Update) – Baseline 3	X	SIT Test Cases/Data	X	Operational Acceptance Testing	X		Not Required X	
			Project Control Log	✓	Data Conversion Strategy	X	Acceptance Test Plan (UAT/DAT)	✓	Change Management Activities / Cut-over Preparations	X			
			Elaboration Schedule (Develop) – Baseline 2	✓	Implementation Strategy	X	UAT Test Cases/Data	X	Project to Operations, Transition Form	✓			
					Change Management Strategy and Plan	X	Readiness Plan (Integrated, Communication Plan)	✓					
					Test Strategy	X	Implementation Plan	X					
					Operational Support Model (OSM)	X	Training Materials	X					
					Knowledge Management (Plan) Strategy	X	User Documentation	X					
					System Use Cases / User Stories	X	Communication Materials	X					
					ADD - Target Architecture (IBM)	✓							
					Environment Requirements	X							
					RFS/RSP	X							
					Vendor Agreements	✓							
					Project Plan (IBM/MPI)	✓							
					Technical Requirements	X							
					Baseline Configuration	✓							
				Project Kick Off Presentation	X	High Level Approach Presentation	X	Detailed Approach Presentation	X	Deport UAT Go/No Go	X	Implementation Readiness Presentation	X

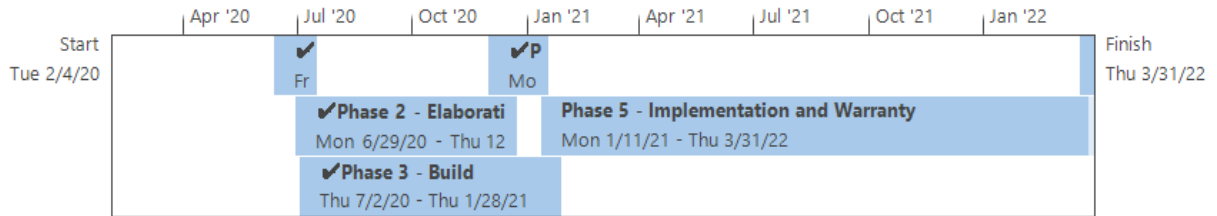
<http://mpiprojects/TRM2019/2847-IBMHWVitality/ProjectDocuments/ITBT-2019-029%20IBM%20Network%20Hardware%20-%20Project%20Control%20Log.xlsx?Web=1>



2.5. Project Summary: Schedule and Effort

This section provides a comparison between planned and actual schedule, planned and actual effort and SPI (schedule performance index).

***Remarks** – An SPI ratio greater than 1 indicates that you're ahead of schedule. Likewise, an SPI ratio less than 1 indicates that you're behind schedule. For example, an SPI of 1.5 means that you've taken only 67 percent of the planned time to complete a portion of a task in a given time period. An SPI of 0.8 means that you've spent 25 percent more time on a task than was planned.





Project Financials

Reporting Period End Date:	28-Feb-22						
Project Name:	IBM Network Hardware Vitality-2019						
Project Code Number:	2847						
Project Costs	Board Approved Budget	Actuals to Date	Estimate for 2021/22	Project Estimate at Completion as at 28-Feb-22	Variance Amount to Original Budget	Approved Cost	Adjust variances
DEFERRED DEVELOPMENT	300,259	1,113,474	2,300	1,115,774	815,515	-	
External Resources	48,375	235,008	2,300	237,308	188,933		
HP Volume Discounts - Current		(396)	-	(396)	(396)		
MPI Resources (Incremental)	87,750	41,368	-	41,368	(46,382)		
Employees Travel/Parking		14	-	14	14		
IBM RFS	120,000	837,480	-	837,480	717,480		
RFS - IBM Enhanced Network	120,000	709,471	-	709,471	589,471		
RFS - GIGAMON 171		128,010	-	128,010	128,010		
Program Contingency -10%	27,296	-	-	-	(27,296)		
Contingency - 10%	16,838	-	-	-	(16,838)		
0		-	-	-	-		
Total Incremental Deferred Development	300,259	1,113,474	2,300	1,115,774	815,515	1,097,791	17,983
Total Incremental Capital	-	-	-	-	-	-	-
Total Incremental Expense	-	-	-	-	-	-	-
Total Project Cost	300,259	1,113,474	2,300	1,115,774	815,515	1,097,791	17,983

Project Charter: <http://mpiprojects/TRM2019/2847-IBMHWVitality/ProjectDocuments/2847%20Network%20Vitality%20-%20Project%20Charter%20v0.2.docx?Web=1>



3. Transition to Operations

3.1. Project to Operations Transition Form

The following link outlines outstanding defects, Remedy tickets, or items have been accepted as work, which have been accepted and will be corrected through Operations.

<http://mpiprojects/TRM2019/2847-IBMHWVitality/ProjectDocuments/2847%20-NHV%20-%20Project%20Transition%20to%20Operations.docx?Web=1>

3.2. Outstanding Issues

The following table outlines outstanding deliverables, issues, or actions from the project that remain to be completed. To ensure clear understanding, information pertaining to the resolution, status, who is assigned the issue, or next steps should be included. Where appropriate, provide recommendations/actions as to how these may be dealt with.

ISSUE	DETAILS	ACTIONS	ASSIGNED TO
VM servers Migrations	VM servers must be migrated to new network infrastructure 3072 – VM Migration	Transitioned to Operations http://mpiprojects/TRM2019/2847-IBMHWVitality/Management%20Documents/DR-NHV-006%20-%20Virtual%20Machine%20Migration%20Decision.docx?Web=1	Tracy Ryman



4. Project Outcomes

4.1. Lessons Learned

This section identifies and describes the major successes, issues and challenges encountered during the course of the project. These Lessons Learned will be incorporated into EPMO’s consolidated Lessons Learned database and recommendations derived from successes will contribute to continuous improvement best practices.

<http://mpiprojects/TRM2019/2847-IBMHWVitality/ProjectDocuments/2847%20-%20NHV%20-%20Lessons%20Learned.xlsx?Web=1>

4.2. Post Implementation - Value Management

This section provides the specific planned/intended business benefits or positive results expected from the operations of the project end-result. These benefits/outcomes were identified in the business case. The below table is used to confirm that specified outcomes were realized.

Outcome	Status	Supporting evidence
Eliminate the threat to the stability of MPI systems and applications that are using unsupported systems/products. In the event of an outage, lack of vendor support may impede MPI/IBM efforts to recover the systems/products in a timely manner	Completed	http://mpiprojects/TRM2019/2847-IBMHWVitality/ProjectDocuments/Network%20Vitality%20Refresh%20ASD%20v1.3.docx?Web=1 http://mpiprojects/TRM2019/2847-IBMHWVitality/ProjectDocuments/MPI%20RFS-141%20and%20153%20-%20ACI%20Implementation%20Deliverables%201%20and%207%20Completion%20Notification.doc?Web=1 http://mpiprojects/TRM2019/2847-IBMHWVitality/ProjectDocuments/SSO-079%20-%20Cisco%20Smart%20Software%20Manager%20Server%20v1.2-%20IRF.xlsx?Web=1
Execute on IBM contractual agreement to keep all environments current and at a vendor supported level	Completed	http://mpiprojects/TRM2019/2847-IBMHWVitality/ProjectDocuments/MPI%20RFS-141%20and%20153%20-%20ACI%20Implementation%20Deliverables%201%20and%207%20Completion%20Notification.doc?Web=1
Ensure IBM’s ability to meet SLA agreements are not impacted	Completed	http://mpiprojects/TRM2019/2847-IBMHWVitality/ProjectDocuments/Network



		<p>%20Vitality%20Refresh%20ASD%20v1.3.docx?Web=1</p> <p>http://mpiprojects/TRM2019/2847-IBMHWVitality/ProjectDocuments/MPI%20RFS-141%20and%20153%20-%20ACI%20Implementation%20Deliverables%201%20and%207%20Completion%20Notification.doc?Web=1</p> <p>http://mpiprojects/TRM2019/2847-IBMHWVitality/ProjectDocuments/SSO-079%20-%20Cisco%20Smart%20Software%20Manager%20Server%20v1.2-%20IRF.xlsx?Web=1</p>
<p>Introduce the latest technology improvements into core MPI data center infrastructure</p>	<p>Completed</p>	<p>http://mpiprojects/TRM2019/2847-IBMHWVitality/ProjectDocuments/Network%20Vitality%20Refresh%20ASD%20v1.3.docx?Web=1</p> <p>http://mpiprojects/TRM2019/2847-IBMHWVitality/ProjectDocuments/MPI%20RFS-141%20and%20153%20-%20ACI%20Implementation%20Deliverables%201%20and%207%20Completion%20Notification.doc?Web=1</p> <p>http://mpiprojects/TRM2019/2847-IBMHWVitality/ProjectDocuments/SSO-079%20-%20Cisco%20Smart%20Software%20Manager%20Server%20v1.2-%20IRF.xlsx?Web=1</p>

If the outcomes are not immediately realized, the table below indicates how the metric will be monitored and measured, by whom, and how frequently.

Benefit	Action	Date	Responsible



5. REVIEW AND APPROVAL

This section contains the signatures of key stakeholders, signifying they have reviewed and accepted the project close-out document and have agreed to close the project.

5.1. Project Budgeting Authorization

Name: Lynne Onofreychuk	Signature:	<i>See SharePoint Workflow</i>
Role: Manager, Budgeting & Project Accounting	Date:	

Name: Shawn Campbell	Signature:	<i>See SharePoint Workflow</i>
Role: Enterprise Architecture	Date:	

5.2. OBC and Stakeholder Authorization

Name: Dave Hunter	Signature:	<i>See SharePoint Workflow</i>
Role: Platform Engineering and Infrastructure Stakeholder	Date:	

Name: ISO-Approvers	Signature:	<i>See SharePoint Workflow</i>
Role: OBC	Date:	

**Appendix 3:
TRM 2020-21 Infrastructure Security Remediation Project
Closeout Report**

This material is the subject of a confidential motion.

Appendix 4:
TRM 2020-21 Active Directory Auditing Project Closeout Report

This material is the subject of a confidential motion.

**Appendix 5:
TRM 2020-21 Active Directory Federation for Single Sign On
Project Closeout Report**

This material is the subject of a confidential motion.



Project Closeout Report

Cloud Adoption Strategy

3086



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Revision History

Date	Document Version	Description of Changes	Author
21/3/2022	0.1	First Draft	Paul Ajayi
29/3/2022	1.0	Final Version	Paul Ajayi
Click here to enter a date.			
Click here to enter a date.			
Click here to enter a date.			



1. Introduction

1.1. Purpose

The purpose of this document is to mark the completion of the project by assessing the project's performance, identifying the lessons learned and best practices for future projects, and confirming that essential procedures and other project closure activities have been completed.

This document is also used to measure the benefits/outcomes delivered by the project.

Information within the closeout report will be leveraged for post project audits and or post implementation reviews, and therefore must include within this document attachments, embedded screenshots/documents, or links to the location of the source documents in SharePoint.

1.2. Project Closeout Report Goals

This Project Closeout Report is created to accomplish the following goals:

Review and validate the deliverables, milestones, and success of the project against the original project plan and business case.

- Identify project highlights, lessons learned and best proposed practices for future projects.
- Document and confirm outstanding issues, risks, defects, and recommendations.
- Outline outstanding tasks activities and assigned owners to transition to operations and close off the project.



2. PROJECT ASSESSMENT

2.1. Project Overview

The purpose of this initiative is to align and support MPI’s long term vision and adoption of cloud technology. To achieve this, this program was put in place to create a plan to achieve a target state that allows MPI to realize its ambition.

A concessive strategy is needed to guide MPI to a successful transition and adoption of cloud computing.

This project engaged external contractors that have a track record of successful implementations of transitioning a corporation from on-premises deployments to cloud computing platforms.

The project charter and business case can be found here:

[Project Charter](#)

[Cloud Adoption Strategy Business Case](#)

2.2. Goals and Objectives Performance

The following table provides a comparison of the original project objectives to what the project delivered.

OBJECTIVE	STATUS	SUPPORTING EVIDENCE
Analyze Cloud Strategy and provide a Cloud Adoption Strategy	Completed	Cloud Strategy MPI Cloud Strategy
Assessment of the Current State Architecture capturing <ul style="list-style-type: none"> - MPI’s current IT cloud capability model and maturity - Assess MPI’s current IT cloud security capabilities and maturity - Review Google and Microsoft economic assessments, provide recommendations/ insights 	Completed	Current State Capability Maturity Current State Capability Maturity
Create a Target State Cloud First Architecture: <ul style="list-style-type: none"> - Cloud based architectural principles and standards 	Completed	Target State Architecture Target State Capability Catalogue of Target State Cloud Services Target State Architecture



<ul style="list-style-type: none"> - MPI's target IT cloud capability model and maturity - MPI's target IT cloud security capability model - Cloud Decision Framework - Cloud based Target Technical Architecture 		
<p>Create Migration Roadmap & Plan</p> <ul style="list-style-type: none"> - Listing of major initiatives needed to achieve the maturity of the target capability model 	<p>Completed</p>	<p>Cloud Roadmap Cloud Roadmap</p>

NOTE: Links to delivered documents can be found in the Project Control Log (PCL)

<http://mpiprojects/TRM2021/3086-CAS/ProjectDocuments/3086-Cloud%20Adoption%20Strategy%20-%20Project%20Deliverable%20and%20Project%20Control%20Log.XLSX>



2.3. Project Changes and Decisions

The following table summarizes impacts through Change Requests (CRs) and Decision Requests (DRs).

DATE	CR NUMBER (with hyperlink)	NAME/DESCRIPTION OF CHANGES	STATUS	Scope/Objective	Benefits	Resources	Schedule	Budget	IBM/Vendor	Infor Security	Other
8/23/3021	CR-TRM-001	Project Insertion CAS	Approved	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Total Value of CR Changes \$ 267,556

[CR Log](#)



DATE	DR NUMBER (with hyperlink)	NAME/DESCRIPTION OF CHANGES	STATUS	Scope/Objective	Benefits	Resources	Schedule	Budget	IBM/Vendor	Infor Security	Other
3/10/2022	DR-CAS-002	Tailor Project Control Log	In Progress	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9/17/2021	DR-CAS-001	Tailor Project Control Log according to project scope	Approved	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Total Value of DR Changes \$ N/A

[Decision Request Log - All Items](#)



2.4. Planned Scope of Work – Project Control Log

The following link identifies the actual key project deliverables that were produced throughout the project lifecycle.

<http://mpiprojects/TRM2021/3086-CAS/ProjectDocuments/3086-Cloud%20Adoption%20Strategy%20-%20Project%20Deliverable%20and%20Project%20Control%20Log.XLSX>

2.5. Project Summary: Schedule and Effort

Update after approvals is in from the CEO and CITO for the Cloud Strategy and target state respectively.

View	Marked	Mar	Outline Level	Task Mode	Task Name	% Complete	Duration	Start	Finish
1	No	No	1	→	Cloud Adoption Strategy	99%	164 days?	Mon 8/16/21	Thu 3/31/22
2	Yes	Yes	2	→	Phase 0- Project Start-Up	100%	55 days?	Mon 8/16/21	Fri 10/29/21
13	Yes	Yes	2	→	Phase 1- Inception	100%	55 days?	Mon 8/23/21	Fri 11/5/21
27	Yes	Yes	2	→	Phase 2- Develop Cloud Adoption Strategy	99%	106 days?	Mon 8/30/21	Mon 1/24/22
36	Yes	Yes	2	→	Phase 3- Create Current State Architecture	99%	86 days?	Mon 8/30/21	Mon 12/27/21
51	Yes	Yes	2	→	Phase 4- Create Target State First Architecture	99%	50 days?	Mon 12/13/21	Fri 2/18/22
60	Yes	Yes	2	→	Phase 5- Develop Cloud Migration Roadmap	99%	95 days?	Mon 10/18/21	Fri 2/25/22
71	Yes	Yes	2	→	Phase 6- Project Close-Out	42%	24 days?	Mon 2/28/22	Thu 3/31/22
GANIT CHART									



Project Financials

Update will be provided after March 31st. Project comes under budget of \$267,556.

Project Costs	Board Approved Budget	Approved Cost	Actuals to Date	Estimate for 2021/22	Estimate for 2022/23	Project Estimate at Completion as at 28-Feb-22	Variance Amount to Original Budget	Adjusted Variance
EXPENSE	-	-	235,294	5,750	-	241,044	241,044	241,044
External Resources			235,294	5,750	-	241,044	241,044	241,044
MPI Resources (Incremental)			-	-	-	-	-	-
IBM RFS			-	-	-	-	-	-
RFS 1			-	-	-	-	-	-
SOW			-	-	-	-	-	-
SW/HW			-	-	-	-	-	-
Total Incremental Deferred Development	-	-	-	-	-	-	-	-
Total Incremental Capital	-	-	-	-	-	-	-	-
Total Incremental Expense	-	-	235,294	5,750	-	241,044	241,044	241,044
Total Project Cost		267,556	235,294	5,750	-	241,044	241,044	(26,512)

[Project Charter](#)

Insert link to Project Plan.

3. Transition to Operations

3.1. Project to Operations Transition Form

Project to Operations Transition is considered out of scope for this initiative. This is N/A.

N/A.

3.2. Outstanding Issues

The following table outlines outstanding deliverables, issues, or actions from the project that remain to be completed. To ensure clear understanding, information pertaining to the resolution, status, who is assigned the issue, or next steps should be included. Where appropriate, provide recommendations/actions as to how these may be dealt with.

ISSUE	DETAILS	ACTIONS	ASSIGNED TO
There are currently no outstanding issues	N/A	N/A	N/A

[Issue Log](#)



4. Project Outcomes

4.1. Lessons Learned

This section identifies and describes the major successes, issues and challenges encountered during the project. These Lessons Learned will be incorporated into EPMO’s consolidated Lessons Learned database and recommendations derived from successes will contribute to continuous improvement best practices.

[Lessons Learned](#)

4.2. Post Implementation - Value Management

This section provides the specific planned/intended business benefits or positive results expected from the operations of the project end-result. These benefits/outcomes were identified in the business case. The below table is used to confirm that specified outcomes were realized.

Outcome	Status	Supporting evidence
N/A	Choose an item.	
	Choose an item.	
	Choose an item.	
	Choose an item.	

If the outcomes are not immediately realized, the table below indicates how the metric will be monitored and measured, by whom, and how frequently.

Benefit	Action	Date	Responsible
Delivery of the project objectives will strengthen MPI’s position in its ability to achieve its aspiration of being a cloud first corporation.	Implementation of the roadmap initiatives.	TBD	Dave Hunter Shawn Campbell Salman Ashraf



5. REVIEW AND APPROVAL

This section contains the signatures of key stakeholders, signifying they have reviewed and accepted the project close-out document and have agreed to close the project.

Name: Shawn Campbell	Signature:	<i>See SharePoint Workflow</i>
Role: Operational Business Champion	Date:	

Name: ISO Approvers	Signature:	<i>See SharePoint Workflow</i>
Role: CISO	Date:	

Name: Lynne Onofreychuk	Signature:	<i>See SharePoint Workflow</i>
Role: Manager, Budgeting	Date:	

Name: Dave Hunter	Signature:	<i>See SharePoint Workflow</i>
Role: Director, Platform Engineering & Infrastructure	Date:	



Project Closeout Report

M365 Phase I & II

2975



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Revision History

Date	Document Version	Description of Changes	Author
1/4/2022	1.0 Apr. 2022	First draft	Stephen Bryden
5/5/2022	1.1 Apr 2022	Added AMTRA approved design documents	Stephen Bryden
5/5/2022	1.2 May 2022	Make updates based on value management input and complete remaining section updates	Stephen Bryden
13/5/2022	1.3 May 2022	Tracking and updating content based on review and feedback from Value Management team.	Stephen Bryden
16/8/2022		Accepted all changes and deleted comments	Nancy Tackie Anderson

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2. PROJECT ASSESSMENT

2.1. Project Overview

2.2. Goals and Objectives Performance

The following table provides a comparison of the original project objectives to what the project delivered.

OBJECTIVE	STATUS	SUPPORTING EVIDENCE
<p>M365 Phase I – Teams video, chat, conversation, conference lines</p>	<p>Completed</p>	<p>M365 Phase I - (July 2020 to May 2021) ... MS Teams & related capabilities successfully rolled out and enabled. There is now corporate wide use of MS Teams meetings and chat etc...</p> <p>MS Teams meetings and chat are actively being used by employees. Teams enables a single platform for chat, virtual communication and sharing in between. Teams is highly integrated with the other M365 applications (ie: OneDrive, SPO, Office applications and more). This improves the speed to accomplish these day-to-day tasks.</p> <p>The project does not have ‘formal’ evidence of end user experience improvements in the form of surveys. However, M365 Champions feedback is positive.</p> <p>On this project’s level and NOVA level, MS Teams effectively enabled B2B sharing and collaboration with external vendors. For example, the M365 project team hosted a collaboration Teams site with secure access for easy sharing, communications, and collaboration on workstream project deliverables. This included collaborative file editing and reviews. All of these features improved team performance and expediency to complete needed work.</p>
<p>M365 Phase I – SharePoint Online Collaboration site for Teams (legacy SP collaboration, legacy SP to remain on premises.)</p>	<p>Completed</p>	<p>M365 Phase I - (July 2020 to May 2021) ... As a result of implementing MS Teams to the corporation this also ‘enabled’ SP Online (SPO) as a required supporting underpinning capability. SPO enables MS Teams underlying file sharing and collaboration capabilities.</p>



		<p>NOTE M365 Phase II... Opened more accessibility to SPO through growing the use of OneDrive. OneDrive uses SPO underpinning file management capabilities.</p> <p>Phase II completed employee personal on prem I:\ drive file data migration to OneDrive. Phase II closed on March 31, 2022. The project completed the technical configuration and migration pilot testing of file drive data migrations to OneDrive and transitioned scaled migrations to the service owning team DWSM to complete into April 2022.</p> <p>DWSM operational team completed OneDrive personal file drive corporate data migrations by April 29, 2022!</p> <p><i>Operational Next Steps: As of April 2022, DWSM is progressing OneDrive clean up and stabilization and is estimated to complete end of May to June 2022.</i></p>
<p>M365 Phase I – MS streams for Teams session recording and live event hosting</p>	<p>Completed</p>	<p>M365 Phase I - (July 2020 to May 2021) ... MS Streams capability is enabled as evident by ongoing corporate Re: Speaker Series, Media Events and Townhalls. This is actively being used in production. This is now an operational capability. MS streams has been used for a Speaker Series with schools throughout Manitoba and Town Hall and media events as well. MS Streams capabilities are also leveraged for managing meeting recordings and management.</p> <p><i>Operational Next Steps: As of April 2022, DWSM is Progressing MS Streams ownership and maturity improvements estimated to complete by the end of PI6, July 2022.</i></p> <p><i>Having strong ownership helps improve accountability to the ongoing support of the capability through time. Progressing maturity of support provides the benefit of ensuring the capability is maintained, supported and helps maximize the capability use within the changing needs of the organization.</i></p>
<p>M365 Phase I - Office 365 online applications are made available (Word, Excel, PowerPoint, OneNote) Office 2013 remain on the desktop</p>	<p>Completed</p>	<p>M365 Phase I - (July 2020 to May 2021) ... As a result of implementing MS Teams, also enabled Office 365 online application functionality. This is a capability that supports MS Teams collaboration, file editing, file sharing and integration capabilities.</p>



		<p>O365 online applications are integrated into daily use for MS Teams file editing and sharing.</p> <p>For example, this document was edited, and collaborated on via MS Teams and the online version of O365 word. These different integrations fit fairly seamlessly into daily workflows.</p>
<p>M365 Phase 1 – OneDrive is made available, no data migrations.</p>	<p>Completed</p>	<p>M365 Phase I - (July 2020 to May 2021) ... As a result of implementing MS Teams it also enabled OneDrive as a required underpinning capability that supports MS Teams sharing and collaboration capabilities.</p>
<p>M365 Phase II – Stand up Exchange Online and migrate mailboxes and implement required security NFRs (ie: Mail Hygiene).</p>	<p>Incomplete</p>	<p>M365 Phase II ... The project enabled Exchange Online (ExO) service and capability. The project also completed technical smoke testing, and mailbox deployments up to the IT Division. The project completed IronPort Mail Hygiene rule ports to ExO MS Defender.</p> <p>A project decision was made to close the project and end AMTRA Solutions engagement on March 31 2022. Remaining scaled deployments && ExO MS Defender validation and cutover from IronPort were transitioned to the operational service owners, PE&I – SysOps / CIS / DWSM. Those teams committed to complete remaining scaled deployments and related security NFRs, past March 31, 2022.</p> <p>This objective was not completed by March 31, 2022, due to: Uncovering several technical debts related remediations, larger IronPort rule scope and technical debts than originally estimated, EAM team ability to prioritize time to address many integration remediations.</p> <p>PE&I – SysOps, operationally completed MPI’s Exchange Online Mailbox migration on April 22, 2022.</p> <p>Next Steps to Complete Project Objectives:</p> <ol style="list-style-type: none"> 1. PE&I - SysOps is operationally progressing ExO clean up and stabilization. This is estimated to be completed by the end of PI 6 July, 2022. 2. Complete NFR security requirements related to Mail Hygiene and cutover from IronPort to



		<p><i>ExO MS Defender. DWSM is coordinating this effort operationally with PE&I, CIS and EAM and estimated to be completed by the end of PI6 July 2022.</i></p>
<p>M365 Phase II – OneDrive configuration and MPI employee personal file drive migrations.</p>	<p>Complete</p>	<p>M365 Phase II ... Project completed OneDrive enablement, technical smoke testing and pilot/efficacy deployments to the PE&I team.</p> <p>A project decision was made to close the project and end AMTRA engagement on March 31 2022. After that time DWSM operational service owning team would complete remaining scaled deployments to MPI completing by the end of April 2022.</p> <p>DWSM completed operational MPI scaled OneDrive data migration and deployments by April 29, 2022.</p> <p>Operational Next Steps: <i>As of April 2022, DWSM is progressing operational OneDrive clean up and stabilization. This is estimated to be completed by the end of PI6, July 2022.</i></p>
<p>M365 Phase II – Upgrade desktop Office 2013 to Enterprise Applications (O365).</p>	<p>Complete</p>	<p>M365 Phase II ... Project team completed Enterprise Applications rollouts up to the IT Division and M365 Champions/early adopters.</p> <p>A project decision was made to close the project and end AMTRA engagement on March 31, 2022. DWSM – PTS. operational service owning team were to complete scaled deployments by the end of April 2022.</p> <p>DWSM – PTS operationally completed MPI rollouts on April 4, 2022.</p> <p>MPI employees are now using the new M365 version of Enterprise Applications on their workstation. This new version works even more seamlessly with O365 cloud versions in MS Teams.</p>
<p>M365 Phase II – Enable MS Power Automate.</p>	<p>Complete</p>	<p>M365 Phase II ... This M365 application and capability is enabled and completed. This was completed with the operational support of DWSM - RPA team with the project team supporting.</p> <p>Operational Next Steps: <i>DWSM-RPA is now operationally managing this new application capability and actively pursuing building resource</i></p>



		<p><i>expertise and capacity in PI6. The intended outcome is to have the capacity to complete up to 3 automation use cases for each PI.</i></p> <p><i>These process automations use cases will help streamline and improve team efficiencies throughout the organization.</i></p> <p><i>Initial identified uses cases to pursue operationally for some Drive Fitness team automations and some IT Service Desk automations.</i></p>
<p>Analysis for future Business Case for the following year</p>	<p>Complete</p>	<p>This objective was related to addressing the need for building progressive clarity and or refinement past the delivery of initial M365 Phase I & II, M365 tenant, E5 licensing enablement, and rolling out M365 foundational capabilities in MPI. One of the main drivers was to ensure or help set the stage for future progression of SharePoint 'Content Management' and migration to SharePoint Online in M365.</p> <p>When Phase I was initiated, M365 was a brand-new application stack and platform that was identified as having large transformative and consolidating potential in MPI.</p> <p>This is evident in the identification of secondary value add items noted in this report including the follow-on Content Management project# 3113 that will address SharePoint on-prem to SharePoint Online Migrations.</p> <p>To add to context through out this project the over all project intake process and management has also been transforming from Waterfall yearly intake to a Lean Business Case and Lean Portfolio Management processes.</p> <p>Though this project didn't produce a specific business case it did identify several secondary value add opportunities and the Content Management project# 3113 was started up as an intentional follow on initiative to this project.</p>
<p>M365 Phase II – Enable Mobile Application Manage Without Enrollment (MAM-WE). (Additional scope from</p>	<p>Complete</p>	<p>M365 Phase II ... Mobile Application Management Without Enrollment capability is enabled and now managed by the service owning team, PE&I Telecomm (mobile). This capability was stood up to</p>



<p>originating business case that was built into the system integrator AMTRA Solutions SOW)</p>		<p>support and manage MPI M365 applications on unmanaged mobile devices.</p> <p>This objective was a value add inserted during M365 Phase II M365 enterprise architectural assessment/roadmap discussions and system integrator RFS drafting process.</p> <p>MAM-WE was recommended to include as part of essential foundational M365 capabilities, to help ensure MPI teams working on Mobile Device Management (MDM) and Mobile Application Management without enrollment (MAM- WE) had capacity and support in MAM (Intune) M365 technologies. This also supported alignment to the already operationally progressing decision to decommission and migrate away from Blackberry Enterprise Server (BES) mobile device management. This project objective successfully supported these areas.</p> <p>Operational Next Steps: <i>There are limited uses cases currently in place at MPI for this capability. However, for the few devices it is in active use. The use of this capability is staged to scale as needed dependent on the mobile device accommodations and needs of MPI.</i></p>
<p>M365 Phase II – Enable Private Application Stores. (Added scope from originating business case as a result of re-negotiated and optimized SOW with AMTRA – PCR2)</p>	<p>Complete</p>	<p>M365 Phase II ... This value-added objective is completed... Private Application Stores is enabled and is actively owned by MPI service owning teams, DWSM – PTS and PE&I – Telecom (mobile).</p> <p>Private Application Stores provide application package management and deployment functions on the desktop and mobile device. This sets the foundation capability aligned to the M365 application stack for the eventual scaling out to replace the Ivanti application management platform. The objective for the project was to only to enable this capability and train PTS and Telecom mobile in its use.</p> <p>The original system integrator fixed fee SOW with AMTRA Solutions had SharePoint Hybrid configuration and MAM-WE as objectives.</p> <p>It was later found SharePoint hybrid was not recommended for MPI M365 enablement journey.</p>



		<p>MAM-WE work was also largely completed by MPI teams and was much reduced scope for AMTRA to complete.</p> <p>Half-way through the project, project team and vendor management re-negotiated the SOW with AMTRA Solutions to optimize and maximize delivered value for both sides.</p> <p>As a result, enabling Private Applications Stores was inserted to replace the removed & reduced scope of SharePoint Hybrid and MAM-WE work by AMTRA.</p> <p>Private Applications Stores capability was enabled by Mar 30, 2022. This stood up this capability and trained the DWSM - PTS and PE&I Telecom (mobile) teams in its use. This is the first step towards eventual migration and management of application package management and decommissioning of current package management tools.</p> <p>Operational Next Steps: DWSM – PTS and PE&I – Telecom (mobile) now own and will plan maturity and scaling progression of this capability including any required business case to pursue.</p>
<p>M365 Phase II - Enable MS Teams Phones. (Added scope from originating business case that was built into the system integrator AMTRA Solutions SOW)</p>	<p>Incomplete</p>	<p>M365 Phase II... This was a value add because of RFP draft leadership decision making aligning to MPI's core M365 foundational capability opportunity needs.</p> <p>The project team completed MS Teams Phones technical work, enabling required virtual session border controllers vSBCs by another support vendor AudioCodes.</p> <p>MS Teams Phone application configuration, testing in development environments was completed.</p> <p>The project was not able to complete this objective by March 31, due to identified non-functional security requirements (NFRs) for cloud security & firewall policies. There was also longer than expected lead time for onboarding and engaging an additional support vendor AudioCodes, to complete vSBC's. Last there was team capacity challenges with multiple workstreams requiring the same team members to</p>



		<p>complete all the project work including this workstream’s efforts.</p> <p>A project decision was made to close the project and end AMTRA engagement on March 31 2022. AMTRA completed knowledge transitions to PE&I – Telecom (VoIP). MPI service owning team PE&I Telecom (VoIP) is now progressing to complete scaled deployments.</p> <p>Next Steps to Complete Project Objectives: <i>Operationally PE&I – Telecom (VoIP) estimates to complete scaled deployments by the end of PI6, July 2022.</i></p>
<p>M365 Phase II – Enable basic cloud security policies for content management.</p>	<p>Incomplete</p>	<p>M365 Phase II ... This was a last-minute value add for AMTRA to help develop and recommend some initial controls to help close a security gap that was identified very late on into the project. It was to address missing security data controls for downloading corporate data non-corporate devices.</p> <p>AMTRA Solutions assisted MPI with rapid configuration, development to help address this gap and need.</p> <p>MPI DWSM also drafted an Exception Request ‘ER-PE-MS365-File Access by Unauthorized Device-001’ to ensure transparency and to track the completion of these security NFR.</p> <p>Next Steps to Complete Project Objective: <i>Operational next step is to run implemented controls in ‘audit’ mode to understand impact before implementing controls impacting end users and the business. This is the recommended approach to before enabling data controls to help ensure scope of impact to mitigate unintended abrupt change.</i></p> <p><i>Operationally this is being handled by DWSM and CIS teams. Estimated to be completed by the end of PI6 mid July, 2022.</i></p>



2.3. Project Changes and Decision

The following table summarizes impacts through Change Requests (CRs) and Decision Requests (DRs).

DATE	CR NUMBER (with hyperlink)	NAME/DESCRIPTION OF CHANGES	STATUS	Scope/Objective	Benefits	Resources	Schedule	Budget	IBM/Vendor	Infor Security	Other
1/14/2021	http://mpiprojects/MS365/Management%20Documents/CR-MS365-01%20Agile%20Delivery%20Lifecycle.dotx	Adopt Agile project methodology approach in order to adapt to a more change driven and compressed delivery timelines.	Approved	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
5/9/2022	http://mpiprojects/MS365/Management%20Documents/CR-M365-05%20Operational%20Funding.docx	This is to help account for post project expenses past March 31, 2022. This does not impact the project's budget but acknowledges that operationally some added expenses will be incurred to support the completion of incomplete	Approved	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



		objectives. The project completed underbudget and operationally there will be some expenses going over budget. This CR tracks that impact.										
4/6/2021	http://mpiprojects/MS365/Management%20Documents/CR-MS365-02%20Exchange%20Hybrid%20Off%20Rollout%20Critical%20Path.dotx	This CR enabled the project to carry on with scaled MS teams deployments in M365 Phase I without resolving some integration calendar sync'ing functions related to Exchange Hybrid functionality.	Approved	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Total Value of CR Changes \$ [Click here to enter text.](#)

Insert link to the CR Log.



DATE	DR NUMBER (with hyperlink)	NAME/DESCRIPTION OF CHANGES	STATUS	Scope/Objective	Benefits	Resources	Schedule	Budget	IBM/Vendor	Infor Security	Other
10/22/2020	http://mpiprojects/MS365/Management%20Documents/DR-001%20-%20MS365%20-%20Exchange%20Hybrid%20Configuration.docx	An Exchange Hybrid configuration approach decision for remediating calendar sync functionality	Rejected	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12/18/2020	http://mpiprojects/MS365/Management%20Documents/DR-001%20-%20MS365%20-%20Exchange%20Hybrid%20Configuration.docx	Bring into scope the coordination/management to migrate M365 tenant... US to Canadian envs	Approved	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
11/30/2021	http://mpiprojects/MS365/Management%20Documents/DR-004%20-%20MS365%20-%20SP%20-%20OneDrive%20Hybrid%20Configuration.docx	Decision for the project not to pursue configuring SharePoint and OneDrive hybrid. This was based on technical recommendation from Amtra Solutions MPI's supporting system integrator vendor. This decision enabled the project to remove	Approved	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



		from scope vs SOW PCR contract change.										
12/18/2020	http://mpiprojects/MS365/Management%20Documents/DR-002%20-%20MS365%20-%20Migrate%20Tenant%20to%20Canada.docx	This was a decision to take on scope to move M365 portions of MPI's tenant from US to Canadian Azure datacenter.	Approved	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Total Value of DR Changes \$ [Click here to enter text.](#)

Insert link to the DR Log.

2.4. Planned Scope of Work – Project Control Log

The following link identifies the actual key project deliverables that were produced throughout the project lifecycle.

This project was an Agile delivered project during a time when Agile practices ART's and LPM was emerging outside of the NOVA program.

The M365 Phase I & II project did not follow MPI's legacy waterfall project methodology. In order to keep to identified timelines a steering decision was made to adopt scaled agile, change driven, project management and delivery approach.

For M365 Phase I & Phase II MPI did not have in house expertise required to plan, configure and implement M365 capabilities. In order to accomplish desired project objectives MPI procured required technical expertise through onboarding system integrator vendors to help lead the stand up and implementation of desired capabilities. Phase I was technically led by INSIGHT and Phase II was technically led by AMTRA SOLUTIONS. MPI let these vendors take the lead for determining technical configuration planning and implementation progressions.

For Phase II the project also onboarded two consultants to the MPI team to help support M365 progression. This included a M365 Sr Business/Technical Architect and a M365 Sr Systems Analyst. Once the project gained support from a dedicated Product Team one of those resources also had M365 system analyst experience as well.

SharePoint On Prem Project Site:

[Project Documents - All Documents](#)

Teams Sites

Microsoft 365 Project Team:

<https://teams.microsoft.com/l/team/19%3a42bd12a52435448c86cd9f94c2bf0804%40thread.tacv2/conversations?groupId=0c8e2815-523e-4ff5-bf4a-2e513f7ff2c0&tenantId=de55ab6b-3913-424b-850c-44833486e50a>

M365 Project – SI:

https://teams.microsoft.com/l/team/19%3aQqRmMN6k8pk7G_FGUiuwYXCrmLGcT8TpQ8v7FVi981%40thread.tacv2/conversations?groupId=2dfdef35-5b83-4459-b104-b9847e45a3aa&tenantId=de55ab6b-3913-424b-850c-44833486e50a

Project Charter and Business Case

Charter

<http://mpiprojects/MS365/ProjectDocuments/MS%20365%20Project%20Charter.docx>

Business Case

<http://mpiprojects/MS365/ProjectDocuments/MS%20365%20Business%20Case.docx>



M365 Phase I - Insight

EA M365 Presentation

<http://mpiprojects/MS365/ProjectDocuments/EA%20Presentation%20MS%20365.PPTX>

EC M365 Presentation

<http://mpiprojects/MS365/ProjectDocuments/EC%20Presentation%20-%20Collaboration%20Capability%20Enhancements%20-%20May%2022%202020.PPTX>

Board M365 Presentation

<http://mpiprojects/MS365/ProjectDocuments/Board%20Presentation%20-%20Microsoft%20Contract%20Approval%20MS%20365.2020.06.18.pptx>

M365 / Teams Design Decision Matrix

<http://mpiprojects/MS365/ProjectDocuments/MPI%20O365%20Decision%20Matrix%20-%20Final.xlsx>

Teams Rollout Progression

<http://mpiprojects/MS365/ProjectDocuments/Teams%20Rollout.xlsx>

Stakeholder Analysis

<http://mpiprojects/MS365/ProjectDocuments/MS365%20-%20Stakeholder%20Analysis.xls>

Readiness Plan

<http://mpiprojects/MS365/ProjectDocuments/MS%20365%20-%20Readiness%20Plan.xlsx>

Champions List

<http://mpiprojects/MS365/ProjectDocuments/Champions%20List.xlsx>

Communications Strategy

http://mpiprojects/MS365/ProjectDocuments/Communications%20Strategy_MS365.pptx

M365 Phase II – AMTRA

AMTRA SOW

<http://mpiprojects/MS365/ProjectDocuments/AMTRA%20Phase%20II%20Deployment%20and%20Migration%20SoW%20-%20SIGNED.pdf>

Enterprise Applications AMTRA Design

<http://mpiprojects/MS365/ProjectDocuments/AMTRA%20Ent%20Apps%20Design%20Office%20365%20Design%20V2.1%20APPROVED.docx>

Exchange Online AMTRA Design

<http://mpiprojects/MS365/ProjectDocuments/AMTRA%20ExO%20Design%20Feb%2002%202022%20APPROVED.docx>

Mobile Applications Management – Without Enrollment AMTRA Design

<http://mpiprojects/MS365/ProjectDocuments/AMTRA%20MAM-WE%20Design%20V3.1%20APPROVED.docx>

Microsoft Teams Phones AMTRA Design

<http://mpiprojects/MS365/ProjectDocuments/AMTRA%20MS%20Phones%20Microsoft%20Teams%20Design%20-%20V5%2023mar2022%20APPROVED.docx>

OneDrive AMTRA Design

<http://mpiprojects/MS365/ProjectDocuments/AMTRA%20OneDrive%20Migration%20Design%20-%20Feb%2002%202022%20APPROVED.docx>

Private Applications Stores AMTRA Design

<http://mpiprojects/MS365/ProjectDocuments/AMTRA%20Private%20Store%20Design%20V2.1%20-%202003-14-2022%20APPROVED.docx>

Security Gov't & Compliance – Defender Configurations AMTRA Design

<http://mpiprojects/MS365/ProjectDocuments/AMTRA MPI DefenderConfigurations Rev1-1%20APPROVED.docx>

Security Gov't & Compliance – DLP Baseline Configuration AMTRA Design

<http://mpiprojects/MS365/ProjectDocuments/AMTRA MPI DLP BaselineConfigurations Rev1-0%20APPROVED.docx>

Security Gov't & Compliance – Compliance Templates Configuration AMTRA Design

<http://mpiprojects/MS365/ProjectDocuments/AMTRA MPI ComplianceTemplates BaselineConfigurations Rev1-0%20APPROVED.docx>

Security Gov't & Compliance Data Classification Configuration AMTRA Design

<http://mpiprojects/MS365/ProjectDocuments/AMTRA MPI DataClassifications BaselineConfigurations Rev1-1%20APPROVED.docx>

AOCM Artifacts

M365 RACI Final

<http://mpiprojects/MS365/ProjectDocuments/M365%20RACI%20v2.0%20Final%20Draft.xlsx>

2.5. Project Summary: Schedule and Effort

M365 Phase I started as a waterfall delivered project. It was quickly determined with the very compressed schedule, rapid delivery and often changing technical requirements, a change drive approach to effectively manage was needed.

A decision was requested and approved by leadership for the project to transition and adopt MPI's Agile SAFe practices. Since that time the project and DWSM has implemented Agile practices and matured overall delivery approach alongside MPI's own Enterprise level adoption of these SAFe Agile Practices.

The project team employed support from MPI's Agile coach Jon Labun and key project leaders completed SAFe Agile training. In M365 Phase II the project gained a formal product team with resources from EAM also experienced in Agile practices. And last the project gained a long term OBC that strengthened project steering and ownership throughout M365 Phase II.

Because the project and MPI as a whole was learning and transitioning to SAFe delivery practices together there was some duplication of work required to maintain proper communication and reporting consistency. This meant that work was tracked in both an M365 PPM MS Project Schedule and DWSM team backlog in Azure DevOps (see below). It also meant there were several reporting channels that also needed to be maintained through-out delivery. Last Agile focuses on delivering features and value outcomes vs completing artifact deliverables.

The resulting outcome from changing delivery approaches required constant and careful prioritization for where to apply project manager's time most effectively to enable the optimal Sr Leadership engagement, steering and delivery transparency to ensure delivery objectives were met. This also meant constant and careful prioritization of related to prioritizing team capacity to complete traditional project artifacts vs working towards value outcomes to contribute to optimal delivery of project objectives to MPI. Please see planned scope and links found earlier in this document.

Work management and reporting channels supported by the Project Manager through-out the project included...

Status and Reporting Channels and Forums:

- *Weekly - APMO - MS Project PPM Reports*
- *Weekly – AMTRA - SI Project Status & RAID Report*
- *Weekly - AMTRA - MPI steering meeting*
- *Weekly – Project - Sr Leader status emails*
- *Weekly - Project - OBC steering meeting*
- *Monthly - APMO - Executive status reports*
- *Monthly – Budgeting - Financial reports*
- *Quarterly - APMO - Board status reports*
- *As needed, Sr Leader status presentations*

DWSM SAFe Agile Ceremonies and Team Management Included:

- *Twice Weekly - Prod Team - Sprint DSU*
- *Bi-weekly - Prod Team - Sprint Planning*

- *Bi-weekly - Prod Team - Retrospectives*
- *Bi-weekly - Prod Team - Review Meetings*
- *Quarterly – APMO ART - Program Increment (PI) Planning*

Schedule and Work Delivery Management

The high-level Phase I and II, timeline went as follows...

- M365 Phase I ran from July 2020 to May 2021, met its original baseline timeline.
- M365 Phase II ran from June 2021 to March 2022, did not meet its original baseline timeline.

For M365 Phase II, schedule and timeline progression it should be noted...

There was a period in between Phase I and Phase II from June 2021 to October 2021 where the project team was required to use project resources to support M365 operationally. This resulted in causing the burning of capital budget with incremental consultant resources in-order to 'keep the lights on' for already rolled out M365 capabilities and rising business interest in using new M365 capabilities.

This time delay was caused by several factors:

- 1. Delays with the organization assigning required operational M365 product team resources to enable the operation support of M365 tenant and MS Teams capabilities rolled out in Phase I.*
- 2. Delays in gaining long term steady state business owner OBC. (now DWSM).*
- 3. Project team had low-capacity challenges and went through leadership, OCM and technical resource changes as well.*
- 4. Delays and longer lead times related to procuring M365 Phase II supporting System Integrator Amtra Solutions. Orienting for and working through the RFP and SOW process took over four months to complete.*

The outcome of these challenges impacted:

- 1. Negatively impacted the projects schedule and capital budget**, by burning incremental resource time to help support and ensure the operational viability of M365 and MS Teams.
- 2. Negatively impacted M365 Phase II timeline**, by causing significant schedule compression, halving the original baseline from original 12 month window to less than 6 months.

Additional challenges the project team encountered impacting delivery performance but largely adapted and navigated successfully were:

- 1.** The project worked through transitioning delivery methodologies while in flight. The project worked through this transition while MPI as an organization was also making this transition as an enterprise. Key project team members gained SAFe Agile training. The project also employed the guidance of MPI's agile coach Jon Labun ,and regularly worked with the APMO team to keep on top of enterprise methodology alignments and changes.



2. The DWSM backlog went through a technology platform upgrade led by the APMO team. This changed the team from using ADS on premises to ADO in Azure cloud. During that transition the project team and DWSM completely rebuilt their backlog based on growing maturity and experience in Agile practices.
3. ADO backlog management and maintenance is a team effort. This meant there was a team training and knowledge building component to successfully use the ADO platform. Participants included the Project Manager, DWSM Product Manager and DWSM Product Owner, DWSM Scrum Master, and DWSM project and team members. The project team adapted by working through incremental and continuous improvements and adopting a learn by doing approach led by key trained SAFe Agile team members.

Through-out delivery and Program Increments, the DWSM and the project team continued to build upon its experience and maturity in Agile practices (processes and technologies). The outcomes of the last Program Increment before project close on March 31, 2022, the team demonstrated close to 80% accuracy for planned objectives to achieve objectives and deliver within a highly changing environment.

As a result of dealing with significant project methodology changes while in flight...

- This required duplication of effort to accommodate parts of the legacy waterfall methodology as well as support the new emerging Agile project delivery methodology. This resulted in less waterfall document artifacts delivered and changed focus to value delivered outcomes. Having a value outcome focus, enabled the team to deliver much more effectively to scope, time and costs. However there was some expense to traditional delivered artifacts in the absence of a project control log. Artifacts that were delivered are noted in this document in a previous section.
- Document management and auditable approvals also suffered in the project as well. For document management the project team was required to maintain legacy on prem SP side while also needing to lead by example and leverage M365 Teams site capabilities that the project team had implemented. This resulted in some content and knowledge management sprawl. However, on project close core gold artifacts were uploaded to the on prem SP site and the team site repositories are also noted in this report as well.

For auditable decision making, the waterfall SP on prem workflow approval process was quickly identified as a critical impediment to meeting the project's very compressed timelines. As a result, the project pivoted to gain approvals through service owner leadership inclusive decision meetings and key SME's in order to discuss, vet and approve critical technical design/requirement documents with Amtra Solutions.

Digital Workplace Team Backlog (M365 Phase I & II Azure Dev Ops Backlog)



[Backlogs - Boards \(azure.com\)](#)

MS Project Schedule in PPM

Task Name	RAG Indicator	% Complete	Duration	Start	Finish	Type	AD #
Microsoft 365		97%	461 days?	Fri 7/24/20	Sat 4/30/22	Fixed Duration	
Phase 1 - Microsoft Teams Delivery	○	100%	221 days?	Fri 7/24/20	Fri 5/28/21	Fixed Duration	
Phase 1 - MS Teams - Project NOVA Rollout - Implementation	✓	100%	110 days	Mon 8/3/20	Fri 1/1/21	Fixed Duration	
System Integrator INSIGHT Onboarding	✓	100%	5 days	Tue 9/1/20	Mon 9/7/20	Fixed Units	
MS365 Discovery - Decision Matrix	✓	100%	5 days	Mon 9/7/20	Fri 9/11/20	Fixed Units	
Project Resource Acquire and Onboarding	✓	100%	30 days	Mon 8/3/20	Fri 9/11/20	Fixed Units	
Build NOVA Teams Governance	✓	100%	15 days	Mon 9/28/20	Fri 10/16/20	Fixed Units	
Build Interim NOVA Operational Support Model	✓	100%	15 days	Mon 9/28/20	Fri 10/16/20	Fixed Units	
Configure MS365 Tenant	✓	100%	15 days	Mon 9/21/20	Fri 10/9/20	Fixed Units	
Build MS Teams Application Deployment Package	✓	100%	10 days	Mon 8/31/20	Fri 9/11/20	Fixed Units	
MS Teams - Wave 1 - Technical Team	✓	100%	5 days	Wed 10/7/20	Tue 10/13/20	Fixed Units	
MS Teams - Wave 2 - Project Team	✓	100%	5 days	Mon 10/12/20	Fri 10/16/20	Fixed Units	
MS Teams Rolled out to Project Team	✓	100%	0 days	Fri 10/16/20	Fri 10/16/20	Fixed Units	
MS Teams - Wave 3 - NOVA Leadership	✓	100%	5 days	Mon 10/19/20	Fri 10/23/20	Fixed Units	
MS Teams - Wave 4 - NOVA Project Team	✓	100%	5 days	Wed 10/21/20	Tue 10/27/20	Fixed Units	
MS Teams - Wave 5 - NOVA Pub Board Leaders	✓	100%	5 days	Mon 10/26/20	Fri 10/30/20	Fixed Units	
MS Teams Rolled out to NOVA Project Team	✓	100%	0 days	Mon 11/2/20	Mon 11/2/20	Fixed Units	
Execute Interim OSM (45 days)	✓	100%	45 days	Mon 11/2/20	Fri 1/1/21	Fixed Units	
Phase 1 - Live Events - Community Engagement - Implementation	✓	100%	20 days	Mon 10/19/20	Mon 11/16/20	Fixed Duration	
Phase 1 - MS Teams - Corporate Rollout - Implementation	●	100%	216 days?	Fri 7/24/20	Fri 5/21/21	Fixed Duration	
Phase 1 - Driver Fitness Interview	✗	100%	15 days?	Mon 2/15/21	Fri 3/5/21	Fixed Duration	
Phase 1 - Drivers Ed WebEx to Teams	✗	100%	45 days	Mon 3/1/21	Fri 4/30/21	Fixed Duration	
Phase 1 - KMS Assessment (TBD)	✗	100%	39 days	Mon 2/1/21	Fri 3/26/21	Fixed Duration	
Phase 2 MPI Baseline Schedule Feb 2022		100%	151 days?	Mon 10/4/21	Sat 4/30/22	Fixed Duration	
SharePoint Online / OneDrive Hybrid Setup (Amtra/MPI)		100%	102 days?	Mon 10/4/21	Tue 2/22/22	Fixed Duration	
Exchange Migration (Amtra/MPI)		100%	150 days?	Mon 10/4/21	Fri 4/29/22	Fixed Duration	
OneDrive Migration (Amtra)		100%	138 days?	Mon 10/4/21	Wed 4/13/22	Fixed Duration	
M365 Enterprise Apps (Amtra/MPI)		100%	140 days?	Mon 10/4/21	Fri 4/15/22	Fixed Duration	
Phone System (Amtra/MPI)		100%	150 days?	Mon 10/4/21	Fri 4/29/22	Fixed Duration	
Intune / MAM-WE (Amtra/MPI)		100%	129 days?	Mon 10/4/21	Thu 3/31/22	Fixed Duration	
MAMWE - Phase 1 - Discovery	✓	100%	20 days?	Mon 10/4/21	Fri 10/29/21	Fixed Duration	
MAMWE - Phase 2 - Design	✓	100%	79 days	Fri 10/29/21	Wed 2/16/22	Fixed Duration	
MAMWE - Phase 3 - Implementation	✓	100%	20 days?	Mon 2/21/22	Fri 3/18/22	Fixed Duration	
AMTRA MAMWE - Phase 4 - Closure	✓	100%	9 days	Mon 3/21/22	Thu 3/31/22	Fixed Duration	
Security (Amtra/MPI)		100%	89 days?	Mon 10/4/21	Thu 2/3/22	Fixed Duration	
Security - Phase 1 - Discovery	✓	100%	40 days?	Mon 10/4/21	Fri 11/26/21	Fixed Duration	
Security - Phase 2 - Design	✓	100%	70 days?	Mon 11/29/21	Fri 3/4/22	Fixed Duration	
Security - Phase 3 - Implementation	✓	100%	30 days?	Mon 3/7/22	Fri 4/15/22	Fixed Duration	
AMTRA Security - Phase 4 - Closure	✓	100%	100 days	Fri 4/8/22	Thu 8/25/22	Fixed Duration	
Adoption Change Management Program (Amtra/MPI)		100%	101 days?	Mon 10/4/21	Mon 2/21/22	Fixed Duration	
AOCM - Phase 1 - Discovery	✓	100%	20 days?	Mon 10/4/21	Fri 10/29/21	Fixed Duration	
AOCM - Phase 2 - Design	✓	100%	40 days?	Mon 11/1/21	Fri 12/24/21	Fixed Duration	
AOCM - Phase 3 - Implementation	✓	100%	69 days?	Mon 12/27/21	Thu 3/31/22	Fixed Duration	
AMTRA AOCM - Phase 4 - Closure	✓	100%	0 days	Fri 4/29/22	Fri 4/29/22	Fixed Duration	
PCR1	✓	100%	5 days	Mon 1/17/22	Fri 1/21/22	Fixed Duration	
PCR2	✓	100%	20 days	Mon 2/14/22	Fri 3/11/22	Fixed Duration	
Project Contingency Completion		0%	0-days	Tue 5/31/22	Tue 5/31/22	Fixed Units	
Project Closes & Amtra Engagement Ends	✓	100%	0 days	Thu 3/31/22	Thu 3/31/22	Fixed Units	



Project Financials

Project Charter

<http://mpiprojects/MS365/ProjectDocuments/MS%20365%20Project%20Charter.docx>

Business Case

<http://mpiprojects/MS365/ProjectDocuments/MS%20365%20Business%20Case.docx>



3. Transition to Operations

3.1. Project to Operations Transition Form

The following link outlines outstanding defects, Remedy tickets, or items have been accepted as work, which have been accepted and will be corrected through Operations.

This project was delivered using an Agile framework methodology vs Waterfall methodology. An integrated release approach was used to transition the project to operational support. This meant leading up to the end of the project the operational teams were directly engaged and included to work alongside Amtra Solutions for delivery. This included participating in hand off knowledge transfers and support and engaging in deployments. The project team consisted of several operational team members who would need to take on the long-term support for these rolled out capabilities. The result of this gradual and integrated approach made the transition much smoother vs a historically more abrupt big-bang hand off approach. Formal transition occurred March 31, 2022 with a supported warranty period with Amtra Solutions.

3.2. Outstanding Issues

The following table outlines outstanding deliverables, issues, or actions from the project that remain to be completed. To ensure clear understanding, information pertaining to the resolution, status, who is assigned the issue, or next steps should be included. Where appropriate, provide recommendations/actions as to how these may be dealt with.

ISSUE	DETAILS	ACTIONS	ASSIGNED TO
ExO mailbox migration clean up	Account for disabled mailboxes that due to leave of absence or medical leaves or mailbox holds. There are also mailboxes missed due to recent organizational changes during migrations.	DWSM and SysOps teams work together to complete these migrations and clean ups.	Transitioned to service owning operational teams (DWSM & PE&I - SysOps) Brent Dixon (DWSM) Tech Arch and SysOps (PE&I Richard Balmer, Carl Butler and Ernie Waldner. Backlog Feature: https://dev.azure.com/MPI-Production/MPI/workitems/edit/172026 Est complete before end of PI6 in mid July 2022.
OneDrive – Data Duplication in Documents and My Documents folder.	There are several end users who have duplicate data in the Documents and My Documents folders.	DWSM is coordinating remediation work with ITSM.	Transitioned to service owning operational teams (DWSM) Brent Dixon, Pat Tanchak, Doug Johnson. Backlog PBI:



			https://dev.azure.com/MPI-Production/MPI/workitems/edit/176688 Est complete before end of PI6 in mid July 2022.
I:\ drives not included in Easer long weekend OneDrive migrations.	There were several I:\ drive migrations missed due to leave of absences, medical leaves.	DWSM Prod team to identify remaining I:\ drives to migrate.	Transitioned to service owning operational team (DWSM) DWSM product team and SAM team is progressing remaining data migration clean up.
OneDrive post migration issue management and stabilizations.	There are several issues and problems to resolve and clean up post project implementations. For example... <ul style="list-style-type: none"> - OneDrive not starting up for some users on boot up - Some end users have not run the cut over scripts - Some users still have access to old I:\ drive need to set to read only mode. 	DWSM to take away and resolve this issue	Transitioned to service owning operational team (DWSM) ITSM Problem Management team now owns and is managing these issues to resolution. Current DWSM Remedy PRB#'s: <ul style="list-style-type: none"> • 21426 • 21425 • 21424 • 21430 • 21431 Est complete before end of PI6 in mid July 2022.

Documents identified in the project are found in the Project Issue Log through the link below.

[Issues are being tracked in Remedy](#)

[OneDrive PRB#s:](#)

- 21426
- 21425
- 21424

Project Closeout Report



- 21430
- 21431



4. Project Outcomes

4.1. Lessons Learned

This section identifies and describes the major successes, issues and challenges encountered during the course of the project. These Lessons Learned will be incorporated into APMO’s consolidated Lessons Learned database and recommendations derived from successes will contribute to continuous improvement best practices.

<http://mpiprojects/MS365/ProjectDocuments/M365%20Phase%20I%20and%20II%20-%20Lessons%20Learned.xlsx>

4.2. Post Implementation - Value Management

This section provides the specific planned/intended business benefits or positive results expected from the operations of the project end-result. These benefits/outcomes were identified in the business case. The below table is used to confirm that specified outcomes were realized.

Outcome	Status	Supporting evidence
<ul style="list-style-type: none"> • Collaboration <ul style="list-style-type: none"> o Microsoft 365 unlocks the modern ways of working. Whether using a laptop or mobile device, staff can easily attend meetings online, share Office files, co-author documents in real time, share ideas and engage in discussions with peers and team members both internally and externally. 	<p>Completed</p>	<p>Some examples include...</p> <p>Document sharing, comment tagging and simultaneous co-authoring.</p> <p>Mobile access to Office suite applications.</p> <p>Cloud access to Office suite applications in MS Teams.</p> <p>Cloud access to OneDrive.</p> <p>Internal to external accessible Teams sites.</p>
<ul style="list-style-type: none"> • Communication <ul style="list-style-type: none"> o Centralized productivity for Email, document sharing, IM, Voice, and 	<p>Completed</p>	<p>M365 is a product stack is designed to be integrated and provide seamless communication, productivity, collaboration and sharing between team members.</p>



<p>Video together, merging with collaboration capabilities given an enriched communication experience.</p> <ul style="list-style-type: none"> o Provide a seamless experience across web and mobile apps for up to 10,000 attendees. Participate anywhere, on any device, in real time and watch events live or on-demand for internal and external live communication 		<p>This is evident by:</p> <ul style="list-style-type: none"> - Ability to tag comments throughout the application stack. (Teams, commenting, email and more) - Corporate Program Increment Planning events leverage several M365 stack capabilities enabling large scale virtual collaboration planning events.
<ul style="list-style-type: none"> • Productivity <ul style="list-style-type: none"> o Collaboration and communication, paired with new task management and automation tools allow for new and innovative ways to improve team productivity which can be monitored and managed with analytic tools provided by the suite 	<p>Completed</p>	<p>M365 is a product stack is designed to be integrated and provide seamless communication, productivity, collaboration and sharing between team members.</p> <p>This is evident by:</p> <ul style="list-style-type: none"> - Ability to tag comments throughout the application stack. (Teams, commenting, email and more) - Corporate Program Increment Planning events leverage several M365 stack capabilities enabling large scale virtual collaboration planning events.
<ul style="list-style-type: none"> • Resiliency <ul style="list-style-type: none"> o Cloud storage, and an access anywhere ability allows for users to be able to pick up and continue 	<p>Completed</p>	<ul style="list-style-type: none"> - By virtue of being a stack of applications in the Microsoft Azure Cloud, these applications also enjoy the benefits of highly available cloud-based storage across multiple devices.



<p>work at any time and at any location</p>		
<ul style="list-style-type: none"> • Cost Avoidance <ul style="list-style-type: none"> ○ Avoid costs associated with traditional Office suite upgrades. The costs avoided here would pertain specifically to licensing costs and associated support contracts. These forecasted avoided costs are as follows: <ul style="list-style-type: none"> i. Software upgrade costs- Office, Exchange, Skype - \$127k in 2020/21 increasing to \$140k by 2024/25 ii. WebEx licensing - \$127k in 2021/22 increasing to \$137k by 2024/25 iii. Bell Conference lines - \$35k in 2021/22 increasing to \$38k by 2024/25 	<p>Completed</p>	<ul style="list-style-type: none"> - Savings of \$80,000 per Office upgrade vs continual M365 upgrades. - Savings of \$50,000 reported from vendor management. - Our last pre-pandemic (March 22, 2020) Bell Conferencing invoice was for \$4,632.62. <ul style="list-style-type: none"> • (Mike Lea noted... This will have *SOME* early pandemic usage on it... I don't have an earlier invoice easily available but could track one down if necessary.) - Our most recent (January 22, 2022) invoice was for \$194.14. Based on those (very small) samples, you could extrapolate to annual savings of \$53,261.76. - The M365 Phase I & II project also opens the door for several tangible opportunities that the organization can plan to take advantage of in the short & medium term. There were not included in the value outcomes of this business case but acknowledged as new opportunities opened to enable progressive cost optimization possibilities. (Estimates provided from Vendor Management) - Past this project's closure. - These are additional possible opportunities to mention for transparency: <ul style="list-style-type: none"> • Remediate and decommission OnPrem



		<p>Exchange & Exchange Hybrid Servers for Full ExO</p> <p>\$261,681/yr potential</p> <ul style="list-style-type: none"> Remediate and decommission IronPort for M365 ExO EOP <p>N/A costs grouped into several services</p> <ul style="list-style-type: none"> Remediate and decommission Symantec for M365's Defender EOP <p>\$125,000/yr potential</p> <ul style="list-style-type: none"> Remediate and decommission OnPrem Kraz Server for M365's OneDrive/SPO <p>\$216,831/yr potential</p> <ul style="list-style-type: none"> Remediate and decommission BES for M365's InTune MDM/MAM-WE <p>\$313,000/yr potential</p> <ul style="list-style-type: none"> Leverage M365's DLP Capabilities for full DLP solution in replace of another 3rd party application (ie Titus) <p>N/A see previous DLP project costs & potentials.</p> <ul style="list-style-type: none"> MS Teams Phones – Mobile device reclamation. \$660/phone/year @ Est 20% reclaim 180 phones...\$118,800/yr Migrate Legacy SharePoint OnPrem (Intranet/Website/KN
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		Services) to M365's SharePoint Online See CRM project# 3113, 2022/23 for potential value/savings
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If the outcomes are not immediately realized, the table below indicates how the metric will be monitored and measured, by whom, and how frequently.

Benefit	Action	Date	Responsible
M365 Phase II – OneDrive configuration and MPI employee personal file drive migrations.	<p>Will be monitored and progressed via DWSM Product Team backlog, Program Increment 6 committed objectives.</p> <p>DWSM completed operational MPI scaled OneDrive data migration and deployments by April 29, 2022.</p> <p>As of April 2022, DWSM is progressing operational OneDrive clean up and stabilization. This is estimated to complete by the end of PI6, July 2022.</p>	Estimated complete by end of PI6 July 2022.	DWSM Team – Nancy Tackie Anderson (Prod Mgr), Tejinder Randhawa (Prod Owner), Pat Tanchak (Supervisor), DWSM Prod Team
M365 Phase II – Stand up Exchange Online and migrate mailboxes. Clean up and stabilize corporate migrations.	<p>PE&I – SysOps, operationally completed MPI's Exchange Online Mailbox migration on April 22, 2022.</p> <p>As of April 2022, PE&I - SysOps is operationally progressing ExO clean up and stabilization. This is estimated to completed by the end of PI 6 July, 2022.</p>	Estimated complete by end of PI6 July 2022.	PE&I SysOps team – Richard Balmer (Manager), Carl Butler, Ernie Waldner and Evert DeJesus (SysOps team)
M365 Phase II – Exchange Online and migrate mailboxes. Completing required supporting security NFR work... ie: IronPort Mail	<p>Will be monitored and progressed via DWSM Product Team backlog, Program Increment 6 committed objectives.</p>	Estimated complete by end of PI6 July 2022.	DWSM team is operationally leading and coordinating



<p>Hygiene and MX Record Cutover security work.</p>	<p>PE&I – SysOps, operationally completed MPI’s Exchange Online Mailbox migration on April 22, 2022.</p> <p>As of April 2022, PE&I – SysOps, DWSM Tech Architect, CIS and EAM teams are operationally progressing and planning ExO IronPort cut over to ExO MS Defender for Mail Hygiene capabilities. This is estimated to completed by the end of PI 6 July, 2022.</p>		<p>this progression.</p> <p>This also includes the PE&I SysOps, CIS team and EAM teams’.</p>
<p>M365 Phase II - Enable MS Teams Phones. (Added scope from originating business case that was built into the system integrator AMTRA Solutions SOW)</p>	<p>The project team completed MS Teams Phones technical work, enabling required virtual session border controllers vSBCs by another support vendor AudioCodes.</p> <p>MS Teams Phone application configuration, testing in development environments was completed.</p> <p>The project was not able to complete this objective by March 31, due to: identified non-functional security requirements (NFRs) for cloud security & firewall policies. There was also longer than expected lead time for onboarding and engaging an additional support vendor AudioCodes, to complete vSBC’s. Last there was team capacity challenges with multiple workstreams requiring the same team members to complete all the project work including this workstream’s efforts.</p> <p>Next Steps: Operationally PE&I – Telecom (VoIP) estimates to complete scaled deployments by the end of PI6, July 2022.</p>	<p>Estimated complete by end of PI6 July 2022.</p>	<p>PE&I – Telecom team is operationally coordinating this effort to completion.</p>
<p>M365 Phase II – Enable basic cloud security policies for content management.</p>	<p>M365 Phase II ... This is related to standing up some required non-functional security requirements (NFR) to enable the secure use of M365. This objective was a last-minute value add and MPI need for AMTRA to help develop and recommend initial controls</p>	<p>Estimated to be completed within PI6 July 2022.</p>	<p>DWSM team is responsible to coordinate to completion.</p>



	<p>to help close a security gap that was identified very late on into the project.</p> <p>This work was to address an important missing security data control for controlling/prohibiting the downloading of corporate data to non-corporate devices (desktops & phones). This is a technical control to further support MPI data policies.</p> <p>AMTRA Solutions assisted MPI with rapid configuration, development to help address this gap and need.</p> <p>MPI DWSM also drafted an Exception Request 'ER-PE-MS365-File Access by Unauthorized Device-001' to ensure transparency and to track the completion of these security NFR.</p> <p>Next Steps to Complete Project Objective: <i>Operational next step is to run implemented controls in 'audit' mode to understand impact before implementing controls impacting end users and the business. This is the recommended approach to before enabling data controls to help ensure scope of impact to mitigate unintended abrupt change.</i></p> <p><i>DWSM and CIS now own this progression. This is transparent in, and relevant work is being held accountable to... tracked via CIS ER process...</i></p> <p>ER-PE-MS365-File Access by Unauthorized Device-001</p>		
<p>It is important to note...</p> <p>The resulting delivery of M365 Phase I and II and implementation of foundational M365 capabilities opens several</p>	<p>To add to the BENEFIT statement and follow-on opportunities dependent on leadership's road map and prioritizations...</p> <p>The outcome of this project opens several easy to realize opportunities</p>	<p>Delivery dates dependent on corporate and</p>	



<p>new opportunities for additional tangible benefits.</p>	<p>that could be realized through a second series of work efforts. These include:</p> <ul style="list-style-type: none"> - <i>Remediate and decommission OnPrem Exchange & Exchange Hybrid Severs for Full ExO</i> \$261,681/yr potential - <i>Remediate and decommission IronPort for M365 ExO EOP</i> N/A costs grouped into several services - <i>Remediate and decommission Symantec for M365's Defender EOP</i> \$125, 000/yr potential - <i>Remediate and decommission OnPrem Kraz Server for M365's OneDrive/SPO</i> \$216,831/yr potential - <i>Remediate and decommission BES for M365's InTune MDM/MAM-WE</i> \$313,000/yr potential - <i>Leverage M365's DLP Capabilities for full DLP solution in replace of another 3rd party application (ie Titus)</i> N/A see previous DLP project costs & potentials. - <i>MS Teams Phones – Mobile device reclamation.</i> 	<p>product roadmaps.</p>	
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	<p>\$660/phone/year @ Est 20% reclaim 180 phones...\$118,800/yr</p> <ul style="list-style-type: none">- <i>Migrate Legacy SharePoint OnPrem (Intranet/Website/KN Services) to M365's SharePoint Online</i><ul style="list-style-type: none">o See Content Management project 2022/23 for potential value/savingso Project Code#: 3113		
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5. REVIEW AND APPROVAL

This section contains the signatures of key stakeholders, signifying they have reviewed and accepted the project close-out document and have agreed to close the project.

PUB (MPI) 1-103

Part and Chapter:	Part IV - Nova, Information Technology, and Value Management - Nova Project VM.1.5	Page No.:	22
PUB Approved Issue No:	19. Current IT Strategic Plan and IT Expenses and Projects, including Project Nova and other initiatives planned for or ongoing in the rating years		
Topic:			
Sub Topic:			

Preamble to IR:

MPI states:

"A pivot decision was made to stall the Enterprise Monitoring project and explore Network Operations Centre as a Service (NOCaaS) as an alternative solution. One significant reason for change is that NOCaaS has its own enterprise monitoring tool so MPI will not have to purchase another Enterprise Monitoring tool thereby eliminating the need for this project investment.

In April 2022, the LPM Committee approved terminating the Enterprise Monitoring Project. The actual funds expended to date will be treated as a cost impairment. The Committee also approved NOCaaS to proceed at an estimated cost of \$670,000."

Question:

- a) Please note whether the NOCaaS will be a solution used with Project Nova.
- b) Please provide a listing of the resources (internal and/or external) and allocation of budget for each of the parties supporting the NOCaaS initiative.

Rationale for Question:

To enhance the understanding of usage of NOCaaS.

RESPONSE:

- a) Yes, NOCaaS (Network Operations Centre as a Service) is an Enterprise solution whereby a Managed Services Company manages, maintains and monitors all of the Infrastructure, Networks, Applications and all underlying services. This will be used for all monitoring across the entire ecosystem including Nova.
- b) Please see Figure 1 below:

Figure 1 Listing of Resources and Allocation of Budget

Line No.	Project Name		Title	Resource	Allocation
1	3144 Network Operation Centre as a Service	Project Manager	Project Manager- external	Paul Ajayi	40%
2	3144 Network Operation Centre as a Service	Vendor Management	Vendor Mgmt. -IT Managed Services	Crystal Friesen	N/A
3	3144 Network Operation Centre as a Service	Project Manager	Project Control Analyst	Wendy Rahnefeld	10%
4	3144 Network Operation Centre as a Service	Business Analyst	Business Analyst	Sriharsha Gadde	25%
5	3144 Network Operation Centre as a Service	Corporate System Architecture	Technical Architect - internal - Primary	Paul Burke	25%
6	3144 Network Operation Centre as a Service	Corporate System Architecture	Technical Architect -internal	Barry Kwiatkowski	10%
7	3144 Network Operation Centre as a Service	Corporate System Architecture	Technical Architect -internal	Sasantha Fernando	Shadow
8	3144 Network Operation Centre as a Service	Corporate System Architecture	Technical Architect -internal	Chad Edwards	N/A
9	3144 Network Operation Centre as a Service	Corporate System Architecture	Technical Architect -internal	Neil Welligan	N/A
10	3144 Network Operation Centre as a Service	CISO	Senior Information Security Analyst	Muhammad Qureshi	5%
11	3144 Network Operation Centre as a Service	CISO	Information Security Architect	Ajay Kapoor	10%
12	3144 Network Operation Centre as a Service	CISO	Information Security Architect	Mohammad Akif	10%
13	3144 Network Operation Centre as a Service	CISO	Information Security Officer	Vinod Joy Abraham	5%
14	3144 Network Operation Centre as a Service	OCM	OCM	Mariam Brian	10%
15	Note: The YTD spend as at July 31, 2022 is \$73,677				
16	Initial Budget prior vendor selection is estimated at \$670,180.				

PUB (MPI) 1-104

Part and Chapter:	Part IV - Nova, Information Technology, and Value Management - Nova Project VM.4	Page No.:	82
PUB Approved Issue No:	19. Current IT Strategic Plan and IT Expenses and Projects, including Project Nova and other initiatives planned for or ongoing in the rating years		
Topic:			
Sub Topic:			

Preamble to IR:

Question:

- a) Please describe how contingency is determined for each project utilizing the LBC (Lean Business Case).
- b) Please file a table including all Capital Projects with budget excluding contingency, contingency percentage, and resulting contingency amount.

Rationale for Question:

To enhance understanding of contingency usage.

RESPONSE:

- a) Contingency is not distinctively identified in the current version of the Lean Business Case (LBC). MPI will include this in the improved LBC template, which it will implement shortly.

In the current process, once an epic is active, access to contingency or additional funding can only be secured by seeking (another) Lean Portfolio Management approval.

- b) See response to part a) above regarding contingency. For list of all Capital Projects, please refer to the *Value Management Chapter Figure VM-23 - Redacted* – 2022/23 Capital Master Summary Epic Budgets (page 75). Note that the information provided as part of the submission was as at April 30, 2022.

PUB (MPI) 1-105

Part and Chapter:	Part IV - Nova, Information Technology, and Value Management - Nova Project VM.4	Page No.:	82
PUB Approved Issue No:	19. Current IT Strategic Plan and IT Expenses and Projects, including Project Nova and other initiatives planned for or ongoing in the rating years		
Topic:			
Sub Topic:			

Preamble to IR:

MPI states:

"With the launching of the Agile Framework for project management, the VMO team assisted the Agile Project Management Office in the creation of the Lean Portfolio Management governance process. VMO's role involves the vetting of all epics submitted for approval to the LPM Committee. VMO is currently working on a process to validate the achievement of Minimum Viable Product (MVPs) deliverables and the realization of benefits from each epic. See IT.5 Project Updates for a description of the Scaled Agile framework and the launching of the Lean Portfolio Management (LPM) process. The new process involves the creation of an Epic Hypothesis Statement (EHS), WSJF rating and a Lean Business Case (LBC)." [2-11]

Question:

- a) Please provide methodology inclusive of inputs/categorizations/classifications/calculations of elements used to compute WSJF.
- b) Please denote who/what teams are involved in determining job size.
- c) Please describe usage of resulting WJSF in determining the priority of each project.

- d) Please file a table including all Capital Projects with budget excluding contingency, contingency percentage, and resulting contingency amount.

Rationale for Question:

To further understanding of the WSJF methodology.

RESPONSE:

- a) Weighted Shortest Job First (WSJF) is a prioritization model used to sequence jobs (e.g., Features, Capabilities, and Epics) to produce maximum economic benefit. WSJF is estimated as the Cost of Delay (CoD) divided by job size, wherein CoD is composed of User-business value, time criticality and Risk reduction – opportunity enablement value.

Reference: <https://www.scaledagileframework.com/wsjf/>

- b) Teams developing the solution are also determining job size.
- c) Please see response to part a) above. This value is one factor the LPM committee reviews. Agile teams use this value as one factor in prioritizing their work.
- d) Please see response to [PUB \(MPI\) 1-104](#).

PUB (MPI) 1-106

Part and Chapter:	Part IV - Nova, Information Technology, and Value Management - Nova Project VM.4	Page No.:	83
PUB Approved Issue No:	19. Current IT Strategic Plan and IT Expenses and Projects, including Project Nova and other initiatives planned for or ongoing in the rating years		
Topic:			
Sub Topic:			

Preamble to IR:

Question:

For each project commenced in 2021/22 and 2022/23 listed in the figure VM-1, please provide the NPV, discount rate (hurdle rate), risk rating, business value, time criticality, OE | RR, COD, Size, and WSJF.

Rationale for Question:

To further understand the WSJF methodology.

RESPONSE:

Please see updated Figure VM-1 in Appendix 1 for the requested information.

Figure App 1-1 Project Names 2021/22 (updated Value Management VM Figure VM-1)

Line No.	Project Name	2021/22 Project Budget (000's)	NPV (000's)	Discount Rate	Risk Rating	Business Value	Time Criticality	RR-OE	COD	Size	WJSF	Comments
1	Project NOVA ¹	\$43,711	\$18,427	7.50%	Medium/High	N/A	N/A	N/A	N/A	N/A	N/A	
2	IT Transformation (Data Analytics/ Process Enhancements ²)	\$3,400	\$ (5,476.00)	9.0%	High	N/A	N/A	N/A	N/A	N/A	N/A	
3												
4	Technology Risk Management (TRM) 2019/20											
5	TRM 2020/21											
6	TRM 2021/22	\$5,206										Please see TRM2021_22 tab for details
7	Information Security Maturity ³											
8	BI3/Fineos Upgrade 2020 ⁴											
9	Human Resources Management System (HRMS)											
10	Optimization - Phase 1											
11	Cityplace Space Plan	\$7,800	\$9,975	7.0%	Medium/High	N/A	N/A	N/A	N/A	N/A	N/A	
12	Microsoft 365	\$2,971	\$3,568	6.0%	Medium	N/A	N/A	N/A	N/A	N/A	N/A	
13	e-Signature	\$576	\$543	6.0%	Medium	4	20	22	46	8	5.75	
14	e-Cash Capability	\$510	\$481	6.0%	Medium	N/A	N/A	N/A	N/A	N/A	N/A	
15	Digital Culture (M365 & Remote Work)											
16	Data & Analytics											
17	Cloud Adoption											
18	Knowledge Platforms and Content Management											
19	Public Website and Partner Website											
20	CoE (Digital, Integration, Testing & Automation)											
21	Innovation Funding											
22	Government Insertions											
23	STRM 2022/23											

24 Note (1) Project NOVA – Re-baselined budget approved February 2022
 25 Note (2) IT Transformation includes one project budgeted in TRM 2021/22 for \$2.0M and two projects budgeted in operations for \$600k - Total budget is \$6.0M
 26 Note (3) Represents a 3-year budget for ISM program
 27 Note (4) BI3/Fineos \$400k funding is no longer required. Funding of \$1.9M is approved as part of the 2022/23 – \$3.0M Cloud Adoption Funding Envelope.

Figure App 1-2 TRM 2021/22 Projects (updated Value Management VM Figure VM-1)

Line No.	Technology Risk Management Area of Focus	2020/21 Budget \$	NPV (000's)	Discount Rate	Risk Rating	Business Value	Time Criticality	RR-OE	COD	Size	WJSF
1	<i>(C\$000s, expect where noted)</i>	(a)									
2	Applications	<u>2,000</u>									
3	Enterprise Monitoring	2,000	*included in IT Transformation Business Case			N/A	N/A	N/A	N/A	N/A	N/A
4	Information Security	<u>1,301</u>									
5	Privileged Access Management	505	(\$1,370.00)	8.5%	High	N/A	N/A	N/A	N/A	N/A	N/A
6	Static Application Security Testing	350	(\$509.00)	6.0%	Medium	N/A	N/A	N/A	N/A	N/A	N/A
7	Cryptographic Key Management	445	(\$569.00)	6.0%	Medium	N/A	N/A	N/A	N/A	N/A	N/A
8	Infrastructure	<u>1,331</u>									
9	IBM Infrastructure Refresh - SQL 2012	306	(\$288.00)	6.0%	Medium	N/A	N/A	N/A	N/A	N/A	N/A
10	Infrastructure Security Capacity Initiative	400	(\$377.00)	6.0%	Medium	N/A	N/A	N/A	N/A	N/A	N/A
11	IBM Infrastructure Refresh - Windows 2012 Server	466	(\$855.00)	6.0%	Medium	N/A	N/A	N/A	N/A	N/A	N/A
12	IBM Infrastructure Refresh iSeries	158	(\$149.00)	6.0%	Medium	N/A	N/A	N/A	N/A	N/A	N/A
13	Cloud Adoption Strategy (insertion)	0	(\$289.00)	6.5%	Medium	N/A	N/A	N/A	N/A	N/A	N/A
14	Risk Registry	<u>575</u>									
15	Data Governance and Protection	575	(\$1,528.00)	8.5%	High	N/A	N/A	N/A	N/A	N/A	N/A
16	Total	5,206									
17	Rounding may affect totals										

Figure App 1-3 Project Names 2022/23 (updated Value Management VM Figure VM-1)

Line No.	Project Name	2022/23 Project Budget (000's)	NPV (000's)	Discount Rate	Risk Rating	Business Value	Time Criticality	RR-OE	COD	SIZE
1	Project NOVA ¹	\$77,323.00	(\$189,934.00)	7.5%	Medium/High	N/A	N/A	N/A	N/A	N/A
2	IT Transformation (Data Analytics/ Process									
3	Enhancements ²)									
4	Technology Risk Management (TRM) 2019/20									
5	TRM 2020/21									
6	TRM 2021/22									
7	Information Security Maturity ³									
8	BI3/Fineos Upgrade 2020 ⁴									
9	Human Resources Management System (HRMS)									
10	Optimization - Phase 1									
11	Cityplace Space Plan	\$7,300.00	\$18,890.00	7%	Medium/High	N/A	N/A	N/A	N/A	N/A
12	Microsoft 365									
13	e-Signature									
14	e-Cash Capability									
15	Digital Culture (M365 & Remote Work)	\$1,000	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
16	Data & Analytics	\$3,100	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
17	Cloud Adoption	\$3,000	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
18	Knowledge Platforms and Content Management	\$2,000	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
19	Public Website and Partner Website	\$2,000	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
20	CoE (Digital, Integration, Testing & Automation)	\$2,000	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
21	Innovation Funding	\$2,500	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
22	Government Insertions	\$300	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
23	STRM 2022/23	\$4,500	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

24 Note (1) Project NOVA – Re-baselined budget approved February 2022

25 Note (2) IT Transformation includes one project budgeted in TRM 2021/22 for \$2.0M and two projects budgeted in operations for \$600k - Total budget is \$6.0M

26 Note (3) Represents a 3-year budget for ISM program

27 Note (4) BI3/Fineos \$400k funding is no longer required. Funding of \$1.9M is approved as part of the 2022/23 – \$3.0M Cloud Adoption Funding Envelope.

**Requests
Appendix 1**

WJSF

N/A

N/A

N/A

N/A

N/A

N/A

N/A

N/A

N/A

N/A

N/A

PUB (MPI) 1-107

Part and Chapter:	Part IV - Nova, Information Technology IT.5.1	Page No.:	7
PUB Approved Issue No:	19. Current IT Strategic Plan and IT Expenses and Projects, including Project Nova and other initiatives planned for or ongoing in the rating years		
Topic:			
Sub Topic:			

Preamble to IR:

“Two Agile Coaches support the following MPI Staff members that form the LPM Committee. This composition enhances the business participation in the decision making process.” (this is then followed by a list of LPM committee members)

Question:

- a) There appear to be 14 LPM members, plus 2 agile coaches, for a total of 16. Please outline in further detail the members’ roles, decision-making scope, chair of the committee, and any other committee roles and how these members support the committee charter.
- b) Please provide the committee charter.
- c) Please include an organization reporting chart of these members for this committee.

Rationale for Question:

To further understand the roles and decision-making of this committee.

RESPONSE:

a) As the time of this response, the composition of the Lean Portfolio Management (LPM) committee is as follows:

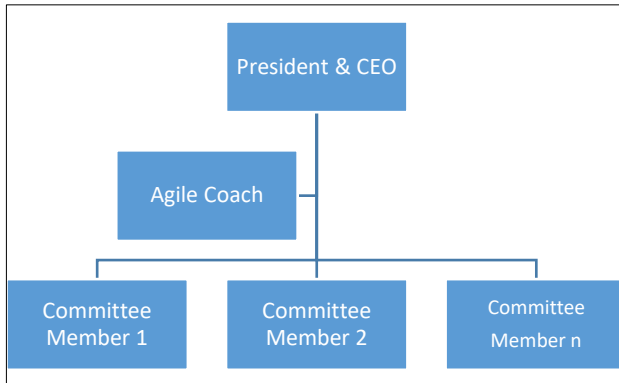
LPM Mgmt Committee	Person in Role
President & CEO	Eric Herbelin
Chief Transformation Officer	Shayon Mitra
Chief Information & Technology Officer	Sid Parti
Chief Risk Officer	Cara Low
Chief Operating Officer	Marnie Kacher
Chief Financial Officer	Mark Giesbrecht
Director, Change & Knowledge Mgmt	Tamara Boblinski
Chief Customer Officer	Satvir Jatana
Enterprise Architect	Shawn Campbell
Corporate Controller	Michael Gandhi
Dir. Nova Program Delivery	Alex Ramirez
Dir. Enterprise Application Management	Peter Garn
Mgr. APMO	Robin Hildawa
Dir. Strategy	Dean Zarrillo
Agile Coach	Jon Labun

Please note that there is now only 1 Agile coach in the LPM committee.

b) The LPM does not have a charter, but does have the following LPM Mandate:

1. Facilitate Scaling of Delivery Capacity
a. Map and maintain ART delivery topology
b. Manage investment funding
c. Facilitate scaling of capacity to deliver strategic initiatives
2. Overseeing Delegated Authority
a. Intake and Triage
3. Coordination
a. LPM doesn't deliver changes, but coordinates and sets priorities
b. Facilitates cross team collaboration, corporate risk management, dependency issue management, sequencing
4. MVP Evaluation

- c) The image below provides the organization chart for the LPM committee, which is headed by the President & CEO. Technically, all committee members have equal decision rights. The Agile coach does not have decision rights, but provides guidance for adherence to best practice and to foster LPM maturity.



PUB (MPI) 1-108

Part and Chapter:	Part IV - Nova, Information Technology	Page No.:	5
PUB Approved Issue No:	19. Current IT Strategic Plan and IT Expenses and Projects, including Project Nova and other initiatives planned for or ongoing in the rating years		
Topic:			
Sub Topic:			

Preamble to IR:

This annual strategy is aligned to the key priorities, mission, vision, and values as laid out by the senior leadership of MPI and builds upon previous versions of the IT strategy.

Question:

- a) Please provide a clear summary of the MPI business objectives (or key priorities) for this GRA and please list the business objectives from the prior three years. Where possible, please highlight the similarities (or differences).
- b) Please provide a clear summary of the MPI IT business objectives (or key priorities) for this GRA and please list the IT business objectives from the prior three years. Where possible, please highlight the similarities (or differences).
- c) If there is a separate CIS (InfoSec) strategy, please provide the strategy. If not, please provide CIS objectives and how they map to the business objectives.
- d) If there is a separate Application Development (AppDev) strategy, please provide the strategy. If not, please provide the AppDev objectives and how they map to the Business objectives.

Rationale for Question:

To further understand the evolution of MPI business objectives over the past three years (since Nova) and related IT objectives over the same period. The corresponding CIS and APPDEV strategies and/or Objectives are also of interest in understanding the larger view of the business strategy.

RESPONSE:

- a) The Annual Business Plans of MPI include its key priorities, which are subject to adjustment based on Ministerial Mandate Letters.

From 2018-19:

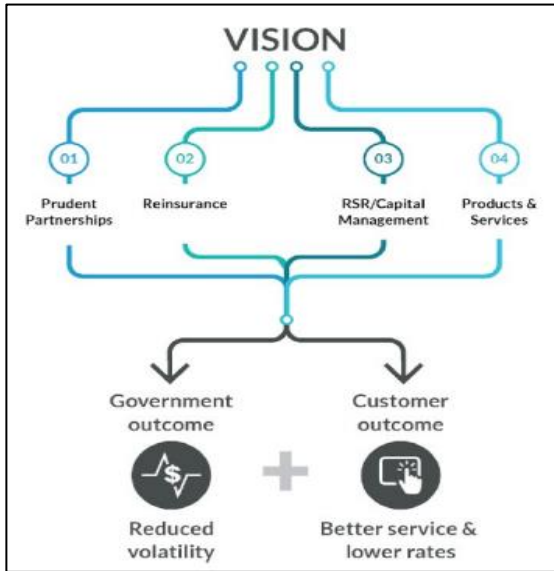
- The Corporation will continue to demonstrate fiscal prudence and sound financial management practices while driving cost-containment, streamlining of operations and elimination of unnecessary operational expenses.
- The Basic compulsory insurance program must be operated on a self-sustaining basis with a sufficient capital reserve to absorb unforeseen variations in revenues, claims costs and investment revenues, and with insurance rates that are actuarially supported and established in accordance with Accepted Actuarial Principles.
- The Basic compulsory insurance rates will be kept as stable, predictable and affordable as possible.
- Capital projects and major technological initiatives will focus on supporting and optimizing core business functions, including ensuring the Corporation's ability to adapt appropriately to changes in the auto insurance and registration environment.

- Suitable operational and financial performance measures will be established and will be benchmarked against best practices in the auto insurance industry to demonstrate operational effectiveness and strong financial and investment management practices.
- Products and services will continue to evolve to address the evolving needs of Manitobans, including services to Manitobans in rural, northern and remote communities.
- The Corporation will continue to be proactive in preparing for structural changes in the automobile industry and collaborating with Manitoba's vehicle collision repair industry to ensure that vehicles damaged in motor vehicle collisions are properly repaired to original manufacturer specifications. The Corporation is also expected to evolve its business model to prepare for the anticipated introduction of both partially-automated and fully-automated vehicles into the Manitoba market.
- The Corporation will continue to invest in Manitoba where prudent, recognizing that doing so provides jobs to Manitobans and results in broader contributions to the provincial economy through the Corporation's relationships with strategic partners.
- The Corporation will continue to hire and train employees predominantly in Manitoba with a commitment to excellent service.
- The financial affairs of the Corporation will be managed in a manner that will not impair the consolidated financial statements of the Province of Manitoba.

From 2019-2020:

The Corporation will continue its renewed focus on primary business lines and employ strategies aimed at strengthening core products and services.

Figure 1 MPI Key Priority Vision 2019-2020



- **Prudent Partnerships** – Approach all partner negotiations from a lens of fiscal prudence and ensure all partnerships align with ‘value for money’ principles, ultimately resulting in win-win outcomes for MPI, partners and customers.
- **Reinsurance** – Utilize reinsurance frameworks to better limit volatility of financial results for both rate payers and government.
- **Capital Management** – Implement appropriate capital target reserve levels in order to provide stable rates to customers and protect customers against adverse rate changes due to investment downturns or severe weather events.
- **Products & Services** – Modernize current deductible levels and other coverage limits as well as evolve MPI’s digital services to a level expected by today’s customers.

From 2021-2022:

2021 will be a transitional year for MPI, firstly in terms of leadership as the Corporation welcomed a new President & CEO in January 2021, and secondly, as the

transformational Project Nova moves from planning and discovery to execution and implementation phases. Focus will be placed on the establishment of a more robust strategic planning framework along with a movement to operationalize lean agile methodologies across the Corporation. Delivering on customer expectations will inform all that MPI does and the groundwork will be laid in 2021 to ensure the Corporation is set up for long-term success.

From 2022-2023:

We will deliver on operational imperatives and transformation plans, align and streamline processes and mature core functions, and advance our people and culture agenda.

The following is a list of our top corporate priorities for the 2022/23 fiscal year:

- **Operational Imperatives** – Deliver on financial goals (including revenues, net income, MCT), customer metrics (including CX Index) and regulatory or market requirements (including GRA, PUB orders, regulatory changes, compliance, road safety, partner agreements, high priority product changes).
- **Nova & IT** – Deliver on Nova milestones (including SRE, IRP, release 3A preparation) and Technology transformation plans (including Cloud Adoption, Data Infrastructure, Cybersecurity, CoEs for Integration, Testing, Digital, Automation, Architecture, and EAM transformation).
- **Customer Centricity & Operational Excellence** – Define our desired CX and EX based on needs and embed these into our transformation plans. Deliver E2E customer journeys, streamline and automate mass processes where relevant. Assign clear business, process, data and risk ownership across MPI. Continue to establish and mature our Business Architecture and SAFe practices (including Lean CoE, BRM CoE, LPM, LACE, VA).
- **Finance, Actuarial, Risk and Investments** – Continue to evolve actuarial practices (valuation, pricing, capital management), financial forecasting

(greater granularity and increased frequency), risk management (ERM maturity, ORM), investment/ALM (ALM study, investment performance and risk reporting), and ensure IFRS readiness.

- **People, Culture, Change Management and Communications** – Evolve People and Culture practices and processes to enable and empower our people to achieve the 5-Year Ambition. Further mature Operational Readiness, Change Management, and Employee and Corporation Communications practices to support our ambitions and goals. Articulate and tell our transformation story.

- b) The Information Technology Strategy of MPI, filed in each General Rate Application, includes the key IT priorities of MPI.

The key IT priorities of MPI have evolved over the past three years, in lockstep with the technology needs of the business, as it proceeds through its Legacy Systems Modernization (LSM) journey, embraces a cloud-based technology approach focused on cyber and data security, and responds to the changing insurance landscape.

When MPI assessed its legacy technology landscape with Deloitte and Avasant to build the business case for systems modernization, it identified **Rate Stability and Predictability**, **Operational Excellence**, and **Product & Service Leadership** as its key priorities.

- **Rate Stability and Predictability** – The Basic compulsory insurance program must be operated on a self-sustaining basis with sufficient capital reserves, while maintaining stability, predictability and affordability. Strategic focus will be on risks, opportunities, and threats which materially impact this goal such as agreement negotiations with Brokers and the Repair Industry, Investment and Capitalization strategies, Claims control programs, and management of enterprise risk and related safeguards such as reinsurance.

- **Operational Excellence** – The Corporation will continue to demonstrate fiscal prudence and sound financial management practices while driving cost-containment, streamlining of operations and elimination of unnecessary operational expenses. This strategy will be supported by Capital projects and major technological initiatives will focus on supporting and optimizing core business functions, including ensuring the Corporation’s ability to adapt appropriately to changes in the auto insurance and registration environment. These enterprise-wide activities include creating an overall roadmap for online products and services, corporate wide efforts to enable a high performing culture, and new reporting and dashboards. This also includes division level optimization of key processes (appeals, financial management, information technology, and facilities).
- **Product and Service Leadership** – The Corporation will continue to evolve to address the changing needs of Manitobans including services to Manitobans in rural, northern, and remote communities. This will be facilitated through analysis of current stakeholders, the review and refinement of the existing product suite, and the implementation of a customer needs and experience framework. Opportunities will be explored to deliver the technical components of these initiatives in a timely fashion using new agile processes.

As the journey progressed to the discovery, design, and vendor selection phase of the LSM initiative and resources were aligned to the Agile delivery model, the IT key priorities shifted to **Finances, Operations, Culture, Users,** and **Stakeholders.**

- **Finances** – Solidify financial outcomes through informed decision making to target lower insurance rates.
- **Operations** – Evolve our continuous improvement program to identify, implement, track, and promote operational efficiencies.

- **Culture** – Sponsor and foster a workplace environment that instills a strong sense of organizational pride in our employees.
- **Users** – Enable future success by championing and aligning leadership responsibilities to meet Project NOVA delivery objectives.
- **Stakeholders** – Drive high performance business partnerships by ensuring clear and measurable service expectations are in place.

Recently, the LSM journey reached its initial operationalization, testing, and delivery phase. In response to the focus on cloud-based technology and the Agile delivery framework becoming more engrained within the business units and processes, MPI adjusted the list of key IT priorities to reflect the broader scope of needs, specifically the need to **Deeply Understand the Business Problem**, employing **Technology as a Catalyst for Business Value & Change**, addressing **Customer Centricity through Digital Experiences**, and being **Cloud-Ready** with a **Cloud-First** strategy that is **Cybersecure by Design**. As well, key priorities include a commitment to become a **Data Driven** organization with **Data Discipline at the Core while being Flexible at the Edge** using **Repeatable Processes leading to Intelligent Automation** and being **Committed to Each Other's Success** while implementing **"Right-Sized" Process and Governance** through **Lean Operations, Transparent Reporting and Financial Prudence**.

c) CIS objectives and guiding principles to support the business are:

Objectives:

To protect the corporate and customer information and enable MPI to provide secure online services for its customers and staff in alignment with the business objectives.

Guiding Principles:

The below guiding principles enable the Cyber & Information Security Office to effectively deliver its objectives in support of MPI's business needs:

- Alignment with business drivers
 - Security by Design
 - Achievement through maturing of people, process and technology
 - Development of Security and IT Risk Subject Matter Experts
 - Collaborative and balanced risk-based approach
- d) Application development is focused on delivering strategic initiatives and prioritized business features which align to key business objectives. To accomplish this, MPI adopted the SAFE Agile framework which focuses on prioritizing business objectives at a portfolio level which then translate down into business features that are delivered by Agile Product teams. MPI has also developed Centres of Excellence (CoEs) within the IT division to mature key functions around innovation, governance, and standards for Quality, Digital Solutions, Automation, and Integrations in support of the Agile Product Teams. Further to this, to ensure key alignment of product teams to value streams MPI is introducing the ART (Agile Release Trains) Topology which will strive to provide continuous delivery of value to meet defined business objectives.

PUB (MPI) 1-109

Part and Chapter:	Part IV - Nova, Information Technology IT Appendix 1, 2	Page No.:	
PUB Approved Issue No:	19. Current IT Strategic Plan and IT Expenses and Projects, including Project Nova and other initiatives planned for or ongoing in the rating years		
Topic:			
Sub Topic:			

Preamble to IR:

From IT Appendix 1:

"MPI will evaluate further conversion opportunities on a case-by-case basis, paying close attention to value of the role during the implementation of project Nova."

From IT Appendix 2:

"Figure IT App 2-1: Consulting forecasts presented 1 2022/23 onward include all MPI initiatives including consultants who will be supplementing the MPI teams to deliver Project NOVA. In 2021/22 approximately 26 consultant FTEs out of the 80 identified will be working on Project NOVA related activities."

Question:

- a) Please outline how MPI can see approaches to reduce the total number of consultants over the next three years to 2024/2025.
- b) By when does MPI believe it can reduce the number of consultants to 2019/2020 levels?
- c) The number of consultants from 2022/23 through to 2024/25 is fixed at 108. Please explain further the straight-line application of this value.

- d) In the narrative above, in 21/22, approximately 26 consultant FTEs of 80 were on Project Nova. The total number of consultants is noted at 93.5 in table IT App 2-1. Please provide details on the 80 vs 93.5 vs 108? (See Figure IT app 2- 12 for further details).
- e) Related to (4) above, please provide the same breakdown for 2022/23, through 2024/25.

Rationale for Question:

To further understand the use of external consultants across MPI projects inclusive of Nova and to understand the forecasting approach.

RESPONSE:

- a) For the duration of NOVA, MPI requires a higher number of consultants to support the existing environment and application activities in operations. MPI will use staff to deliver NOVA and to backfill operational positions with consultants over the next couple years, as it begins to deliver on the largest part of the program with R3 (personal lines) and R4 (claims). MPI anticipates reductions at a significant rate once NOVA goes live, as it can release the contingency resources supporting the existing environment and application activities as staff return to normal operations. MPI is also planning on a reduction of some long-standing consultants that support the legacy systems that will be decommissioned.
- b) MPI tentatively anticipates reducing the number of consultants in early 2025 based on current NOVA timelines. 2025 aligns to 1 year post release of R3 (Personal Lines) and would also align with decommissioning of AOL/DLS which are the heaviest areas of legacy support from a contracting perspective.
- c) MPI estimates the straight-line application of 108 consultants based on the re-baseline of NOVA to flatten delivery of the project over additional years. With releases spread over additional years, MPI anticipates not requiring an increase in resources.

- d) 108 is the number of consultants at the end of March 2022. The average number of consultants over the 2021/22 fiscal year is 93.5. The commentary regarding 26 consultants of the 80 identified was the estimate from the 2022 GRA submission and is incorrect. The average number of resources from April 1, 2021 – March 31, 2022 working directly on NOVA was 38 of the total average of 93.5.

- e) MPI anticipates the number of consultants working directly on NOVA will be approximately 40 in 2022/23 through 2024/25.

PUB (MPI) 1-110

Part and Chapter:	Part IV - Nova, Information Technology IT Appendix 2	Page No.:	2
PUB Approved Issue No:	19. Current IT Strategic Plan and IT Expenses and Projects, including Project Nova and other initiatives planned for or ongoing in the rating years		
Topic:	External Labour Measures and Metrics		
Sub Topic:			

Preamble to IR:

Figure IT App 2-2 represents the estimated internal costs based on budgeted/forecasted FTEs. The chart has been updated to include the forecasts to 2023/24. Total compensation is presented for the Internal FTEs, Basic portion of budget is presented for consultant costs. The consultant numbers have been updated to include the estimated spend related to Project Nova.

Question:

- a) In Figure IT App 2-2, for 2024/25 (F), the consultant costs are noted as 19,008. Please reconfirm that is the correct value, and not 22,072 (see also Figure IT App 2-10; row 11 shows 22,072).
- b) Please explain the note (2) of Figure IT App 2-2 as to changes that may occur of the planned initiatives noted.

Rationale for Question:

To further understand the use of external consultants across MPI projects inclusive of Nova and to understand the forecasting approach.

RESPONSE:

- a) The correct figure for *Information Technology Figure IT App 2-2*, for 2024/25 (F), the consultant costs is 22,072, and not 19,008 as noted.

- b) Within IT, MPI completed Level 1-3 roadmaps and included these roadmap initiatives in the estimated external consultants. Other areas of the enterprise are currently establishing roadmaps and, if additional initiatives for IT are identified, there may be an effect on the number of estimated external resources required.

PUB (MPI) 1-111

Part and Chapter:	Part IV - Nova, Information Technology IT Appendix 2	Page No.:	2
PUB Approved Issue No:	19. Current IT Strategic Plan and IT Expenses and Projects, including Project Nova and other initiatives planned for or ongoing in the rating years		
Topic:	External Labour Measures and Metrics		
Sub Topic:			

Preamble to IR:**Question:**

- a) In Figure IT app 2-1 and Figure App 2-2, it is noted that the number of internal FTEs continued to increase, and then straight-lines at 320.6 FTEs. Please elaborate on MPI's planned approach to the number of internal FTEs.
- b) Please outline the number of internal FTEs that work in Project Nova.
- c) Similarly, in these same figures, the number of internal FTEs are estimated on a straight-line approach. Please explain the rationale of this approach.

Rationale for Question:

To further understand the use of allocation of internal FTEs across MPI projects inclusive of Nova and to understand the forecasting approach.

RESPONSE:

- a) At the time of filing, MPI intended to maintain the current level of Full Time Equivalent (FTEs) based on the complete Information Technology roadmaps and planned initiatives. MPI is currently evaluating its IT FTE requirements to support

NOVA Releases R1 and R2 as it transitions to operations, including any backlog items that will be supported by IT.

- b) There are currently 25 incremental internal FTEs that work in Project NOVA.
- c) At the time of filing, MPI intended to maintain the current level of FTEs based on the complete IT roadmaps and planned initiatives. MPI is currently evaluating the IT FTE requirements to support NOVA Releases R1 and R2 as it transitions to operations, including any backlog items that will be supported by IT.

PUB (MPI) 1-112

Part and Chapter:	Part IV - Nova, Information Technology IT Appendix 3	Page No.:	16
PUB Approved Issue No:	19. Current IT Strategic Plan and IT Expenses and Projects, including Project Nova and other initiatives planned for or ongoing in the rating years		
Topic:			
Sub Topic:			

Preamble to IR:

Question:

- a) With regards to IAM – Infosys vendor stopping work causing delays, please outline the nature of the delays that caused the work stoppage.
- b) Please outline any other projects that may have had work stoppage leading to delays, their impacts and resolutions, and current status.

Rationale for Question:

To further understand schedule delay within MPI programs and Nova, and impact to delivery.

RESPONSE:

- a) MPI will soon complete its ICAM project. The project will formally close the week of August 22, 2022. Despite delays and resource issues from the project vendor (Infosys), MPI managed to complete the project through the use of another external resource.

- b) The Network Segmentation project is on hold pending updates to Kyndryl's Application-centric Infrastructure (ACI) Code. There is a schedule delay of 4-8 weeks.

PUB (MPI) 1-113

Part and Chapter:	Part IV - Nova, Information Technology IT Appendix 3	Page No.:	17
PUB Approved Issue No:	19. Current IT Strategic Plan and IT Expenses and Projects, including Project Nova and other initiatives planned for or ongoing in the rating years		
Topic:			
Sub Topic:			

Preamble to IR:**Question:**

- a) With regards to the IT Transformation – Data Solutions Program - New Data Warehouse project date adjustments, the document indicates extension to Jun 30, 2021, but it is likely June 30 2022. Please confirm.
- b) With regards to the Capability Assessment and Roadmap, MPI partnered with KPMG to do an analysis of Data Analytics. Please provide the KPMG analysis and related documentation (presentations for example to various groups).
- c) With regards to Capability Development (p.18 of 39), work was done in three areas as noted: Predictive Models, Chat bots, and Telematics. Please outline the benefits, outcomes and measurements for success for these three initiatives as set out in the LPM process.

Rationale for Question:

To better understand the approach of the new Data Management approach, value, and outcomes.

RESPONSE:

- a) Confirmed. MPI extended the project to June 30, 2022 and will change the project end date again (to November 30, 2022). MPI will do so for two reasons. First, to complete due diligence on other logical data warehouse cloud providers. Second, as the final Logical Data Warehouse solution will not be ready in time, given timing and NOVA requirements, MPI requires a temporary solution to support the reporting needs of Release 1A.
- b) KPMG produced a Data and Analytics maturity assessment of MPI. Please refer to *Attachment A - Advanced Data Management Maturity Assessment Confidential.*

This document is an input to roadmap planning for the Data Management and Analytics department.

- c) For predictive models, MPI ran project 3085 in fiscal 2021/22. This project explored fraud products related to bodily injury. MPI created an internal model for use as a baseline for comparison against vendor products. In the end, business users felt the internal model was sufficient and that a third-party tool would provide only marginally better results.

With chatbots, MPI engaged with OBS to conduct a survey on the viability of adding chatbots to its phone system.

The Telematics project kicked off in fiscal 2021/22 with a goal of running a pilot program within a subset of Manitoba drivers. The project changed focus and is now working to complete a pilot with Manitoba Taxicabs. This project is currently in the RFP stage. Once MPI selects a vendor, this project will proceed with a pilot implementation.

PUB (MPI) 1-113 Attachment A

- 1 This material is the subject of a confidential motion.

PUB (MPI) 1-114

Part and Chapter:	Part IV - Nova, Information Technology IT Appendix 3	Page No.:	32
PUB Approved Issue No:	19. Current IT Strategic Plan and IT Expenses and Projects, including Project Nova and other initiatives planned for or ongoing in the rating years		
Topic:			
Sub Topic:			

Preamble to IR:

Question:

With respect to the KPMG Customer Experience Maturity Initiative, please file the KPMG work that was completed (documentation and related) and the Playbook that outlines the omni-channel strategy.

Rationale for Question:

To better understand the long-term strategy and vision for customer experience.

RESPONSE:

Please see the following documentation:

Output	Description
<i>Attachment A</i> - MPI Executive Alignment Session Outputs and Roadmap	Proposed customer experience initiatives prioritized based on estimated impact and feasibility along with omni-channel strategy.

August 30, 2022



MPI Stand Up

Executive update

Working Session 7

November 12th, 2021

FACILITATION DECK – DRAFT FOR DISCUSSION

2023 GRA Round 1 Information Requests
PUB (MPI) 1-114 Attachment A

With us today



Eric Herbelin
President & CEO



Satvir Jatana
VP & Chief Customer
Officer



Marnie Kacher
VP & Chief Operations
Officer



Shayon Mitra
VP & Chief
Transformation Officer



Lisa Gendreau
VP & Chief People Officer



Siddhartha Parti
VP & Chief Information
& Technology Officer



Mark Giesbrecht
Vice President & Chief
Financial Officer



Cara Low
Vice President & Chief
Actuary



Peter Hughes
Engagement Partner



Derek Derouin
Engagement Manager



Germana Kazazi
Experience Designer



Murdo Connochie
Experience Designer



Michelle Li
Experience Designer

Today's agenda

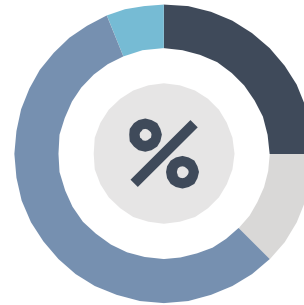
15 mins



Journey to date

Recap the work done to date and the clear direction for the future

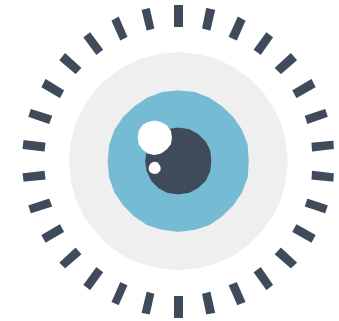
60 mins



Summarize discussions

An overview of the major topics of discussion, key decisions, the direction we've set, and what it will take

45 mins



Next steps

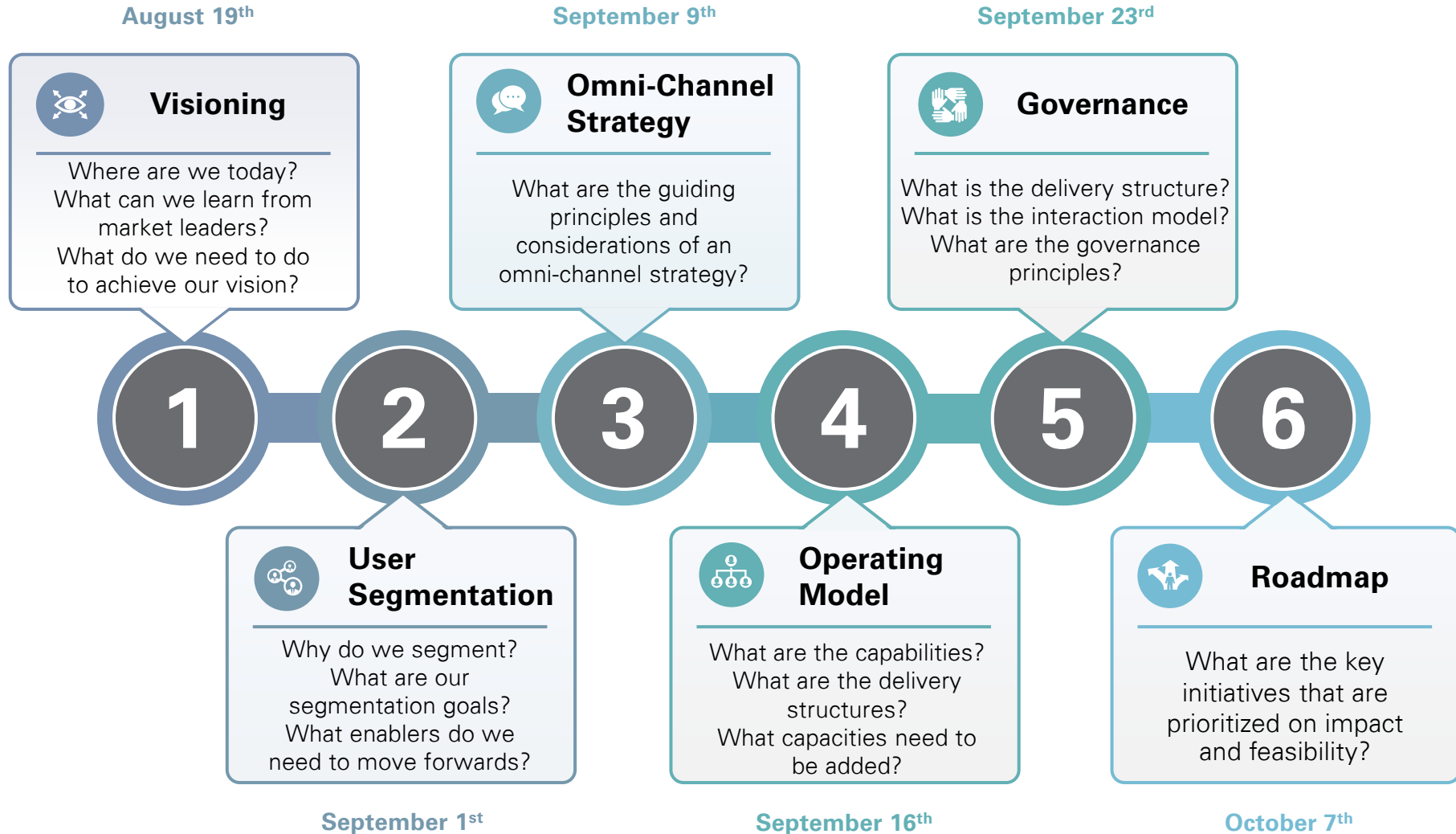
Identified initiatives, the ~3 year roadmap and immediate next steps

Throughout today we're looking for your **comments, thoughts, challenges, and support of the CX team's future direction**



Our journey

The CX team hosted six workshops to collaborate with broader teams



The following stakeholders were engaged throughout the working sessions

Eight functional teams participated in the six working sessions

Executive Team	Customer	Operations	Digital & Transformation
Eric Herbelin Satvir Jatana Marnie Kacher Siddhartha Parti Shayon Mitra Mark Giesbrecht Lisa Gendreau	Paul Vieira Scott Patton Sheryl Weselake Curtis Prystupa Nick Weselowski	Holly Arabsky Christine Gunn Dana Barker Christie Way Dana Frazer	Jeff Sass Stephen Ramchandrar Tamara Boblinski Michael Wasyluk
Insurance & Risk Mgmt.	People and Culture	IT	Legal & Compliance
Rick Swanarchuk	Leah Enright	Lawrence Lazarko Sean Campbell Arun Abraham	Mike Triggs

MPI's CX journey to date has prepared the team for delivery and operationalization

MPI's CX journey to date has prepared the team for delivery by producing tangible outcomes

Phase 1: Conceptualized definition of CX for the NOVA program

Phase 2: Executed Phase 1 recommendations

Phase 3: Strengthened a sustainable CX program and team

MPI should build on the momentum and engagement with the cross-functional teams in three ways



Connect CX to the business



Operationalize CX



Embed new ways of working



Summary analysis

MPI's emerging CX vision brings together the three CX imperatives

CX Vision (to be socialized)

Provide customers a valuable and positive experience, how and when they want it

CX Imperatives

Improve our customer experience across all channels

Align user needs and proposition

Build and promote our digital channels

Rationale

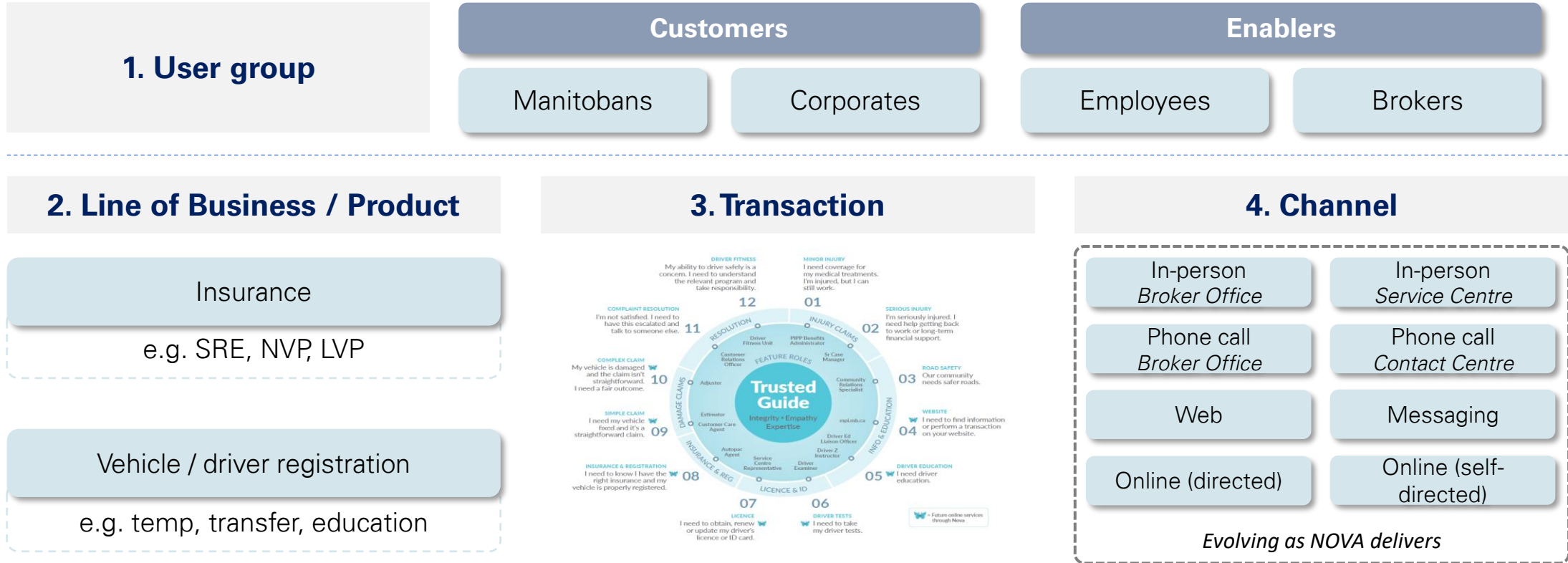
- Rising customer expectations impact offline as well as online channels
- Partners are increasingly associated with our brand; we must enable them to deliver an experience we would be proud of

- It's our duty to ensure that MPI positions propositions effectively to customers
- Jargon and complexity can confuse customers who are early in the lifecycle
- New propositions could address unmet needs or solve significant customer pain points

- Digital will be key to any future products / services in order to remain relevant
- Lower cost to serve can be passed through to customers as lower prices

The vision and imperatives should be **socialized**, with each team receiving a **contextualized overview** that articulates the **impact and expectations for them**

To support our vision, we will segment our users in four ways

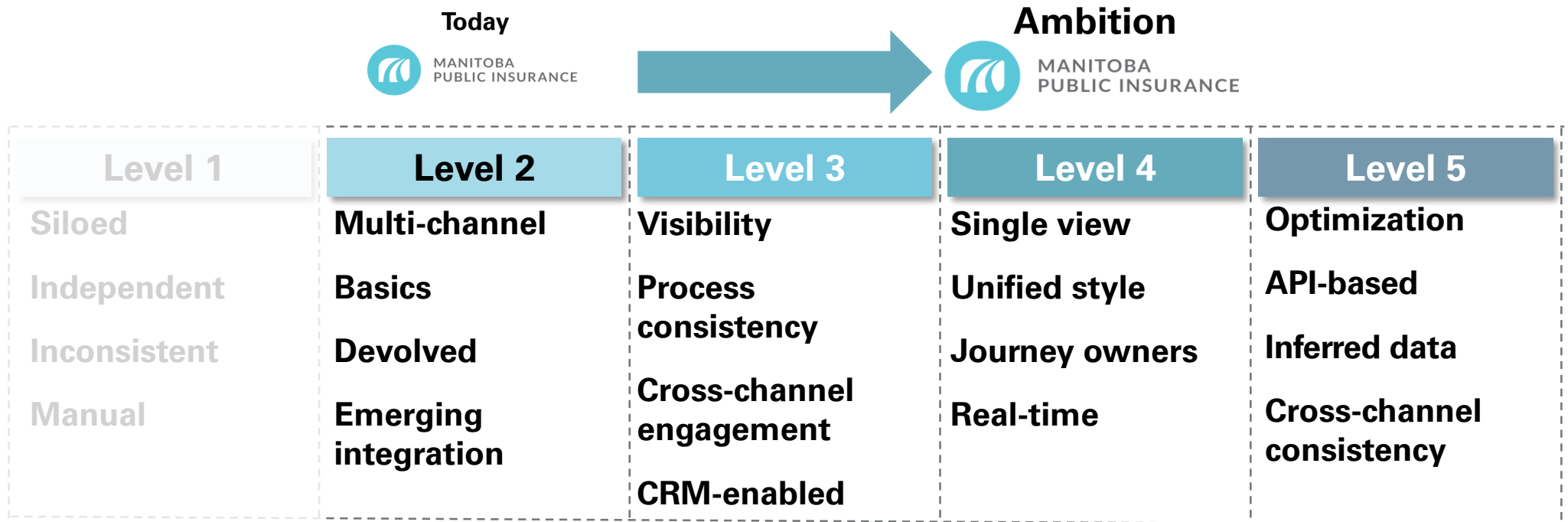


Supported by demographic, geographic, behavioural, and attitudinal insights across all segments

Segments will be used to **create detailed journey maps** and further inform the **MPI business priorities**

We will continue to strengthening our omni-channel delivery, building on NOVA and connecting to our partners

Parameters of the maturity levels themselves might shift over time but MPI should strive to provide a seamless cross-channel experience for all end customers in conjunction with NOVA.



Our **people and processes** can be developed as **NOVA** delivers the **foundational technology**

Discussions with business leads identified several themes to improve the delivery of our CX



Need for front-line support and training to empower employees

- How to invest in their training/management/alignment across the board?
- How can we make our specialized training become more competitive to the market?



Alignment of CX and operational team approaches

- How do we better integrate early stages of moments of truth with operations?
- Can CX help to reduce time and effort required to gain customer insights?
- What should the operational standards be?



Measure CX impact across capabilities

- How do we measure effectiveness?
- Where do measurement fit into the process after design and strategy?



Identify cross-dependencies for prioritization

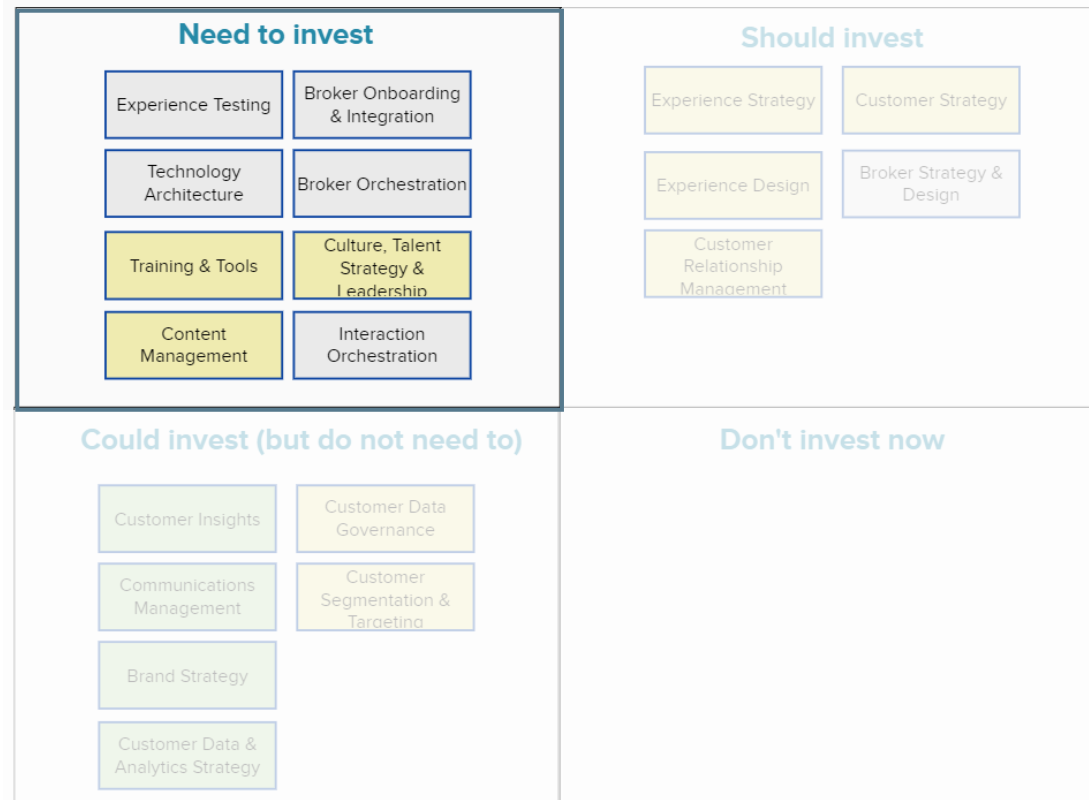
- How does operations work with CX?
- What is the governance structure and how will dependency on resources be managed?

Overall, business leads ask that we support them in **operationalizing the customer experience**

These themes translated into eight capabilities and three roles we must invest in; evolving our CX capability and improving capacity to support the business

Prioritized Capabilities:

Do we need to strengthen this capability further in the next 12-24 months?



Several skillsets were identified to support the development of these capabilities:

- 1 Understanding of technology**
 A role is needed that will actively collaborate with the technology
- 2 Team management**
 Position is needed that can oversee how teams operate, and ensure that they are on track
- 3 Ability to operationalize**
 Someone who can use personas and journeys and operationalize them across the organization

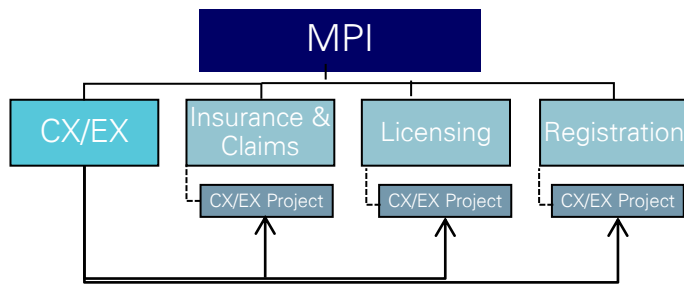
Three additional roles will address these gaps and allow the CX team to more effectively work with the business, alongside development of existing CX team capabilities

A phased approach to the maturing of our CX delivery model addresses the immediate business needs as we build out further for the long term

1 Crawl Shared Service

Given the **current size** of the MPI CX team and capabilities, **shared services** is the **recommended choice** of delivery model in the **short-term**.

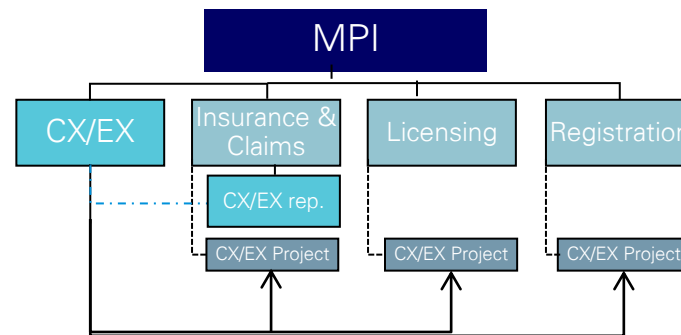
Shared Service Model



2 Walk CoE Pilot

As maturity **increases**, leadership may look to decrease centricity. A **CoE pilot program** can be implemented to assign a permanent CX team member to a **line of business**.

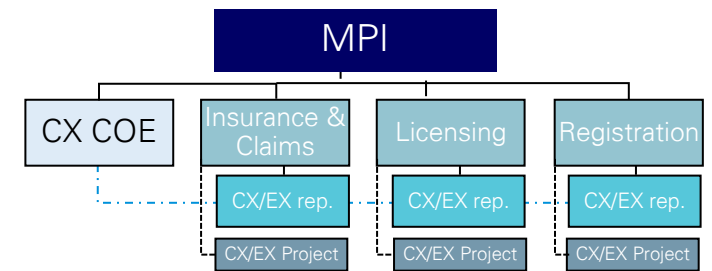
Shared Service and CoE Pilot



3 Run Scaled CoE

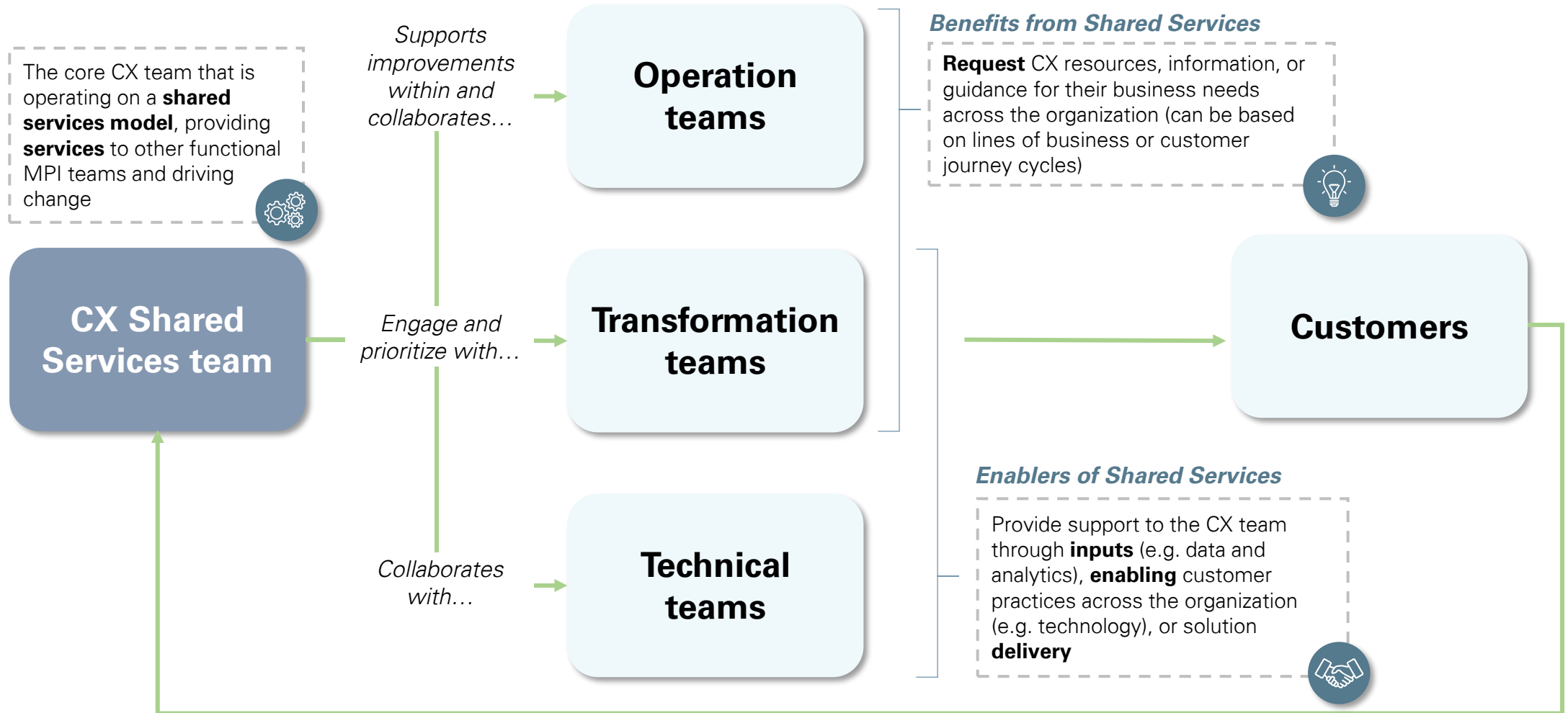
Given a **successful pilot**, a **full-fledged CX team** might choose to operate on the **full CoE model** with CX team members deployed across all of MPI's lines of business.

Scaled CoE



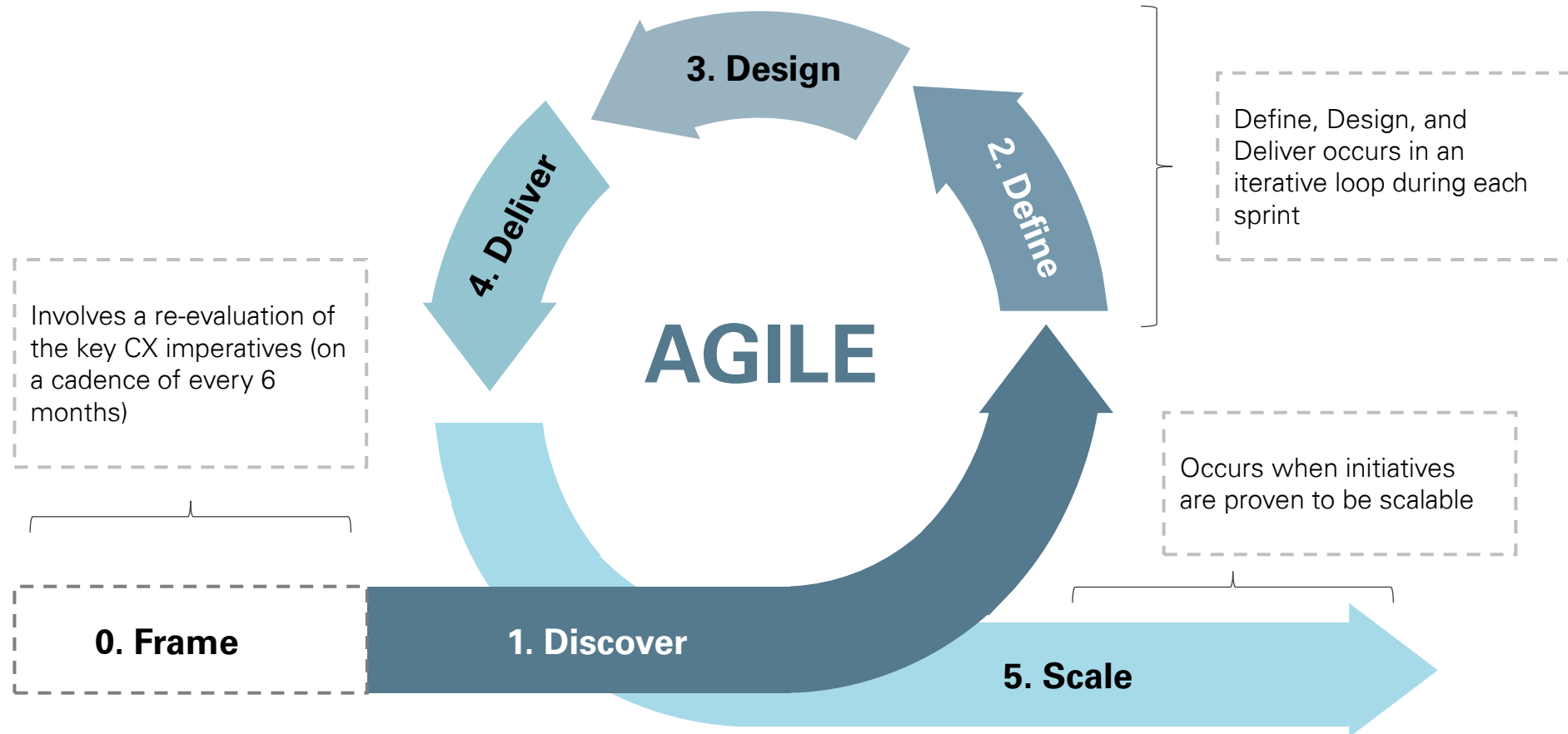
The development of **forums, roles, and processes** is necessary to **embed the shared service model**

The CX team remains the generator of insights that flow to the rest of MPI



Gathers insights

The team will also adopt an agile approach to align with others across MPI; doing so allows us to deliver more timely and actionable insights to front-line teams



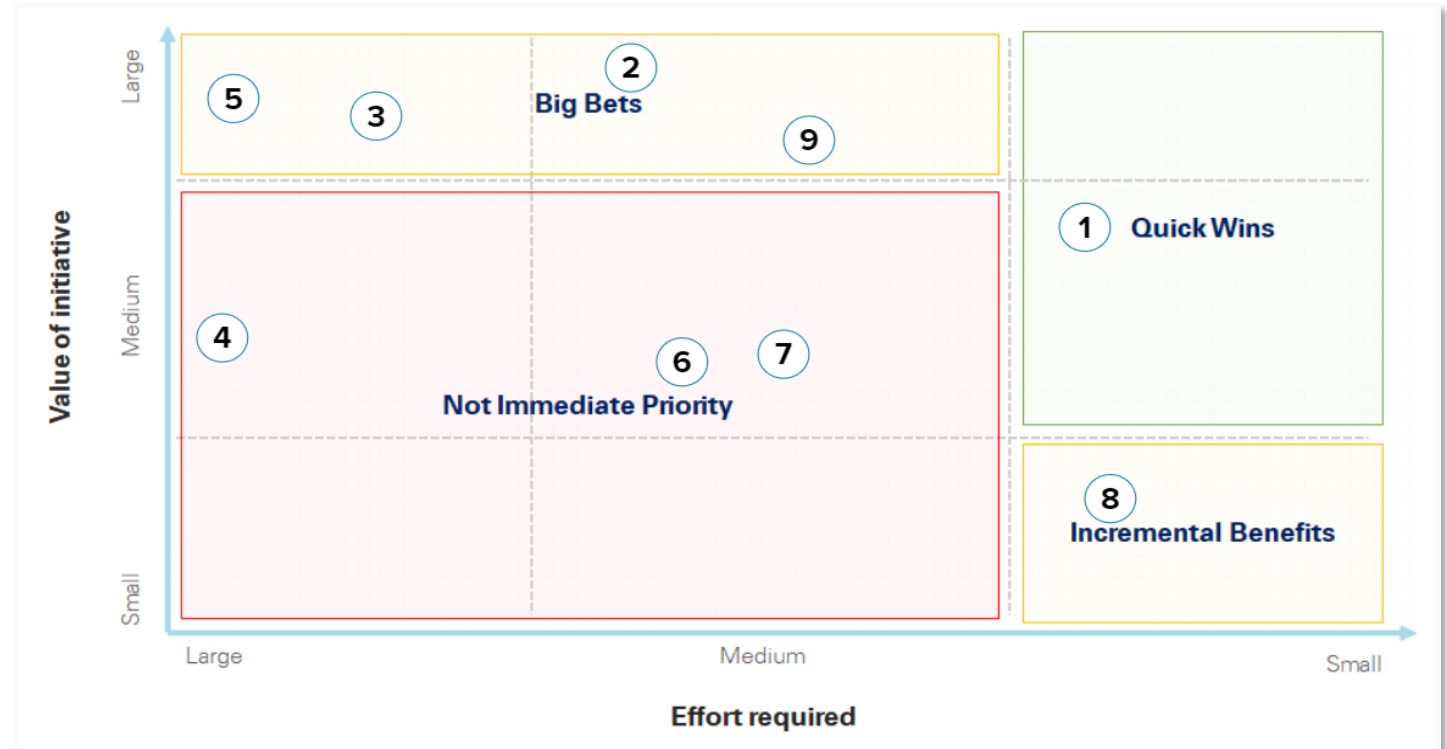
The CX team requires both the **skills and coaching** to fully **leverage agile ways of working**



Planned initiatives

The cross-functional group identified nine initiatives based on the six workshops; each was prioritized based on its relative value and effort

- 1 Communicate the CX vision
- 2 Segment users and expand journeys
- 3 Deliver a consistent omni-channel experience
- 4 Continue focus on the broker experience
- 5 Empower the front-line employee
- 6 Mature the CX toolkit of services provided
- 7 Embed agile ways of working
- 8 Enable a responsive shared service model
- 9 Augment our measurement approach



Value

The number of business process areas/business functions affected. A measurement of how much this initiative will improve customer experience, operational efficiencies, digital channel development, employee engagement.

Effort

The effort required to execute the initiative. This includes the degree of process changes required, number of applications involved, level of data manipulation requirement, and additional tech requirements.

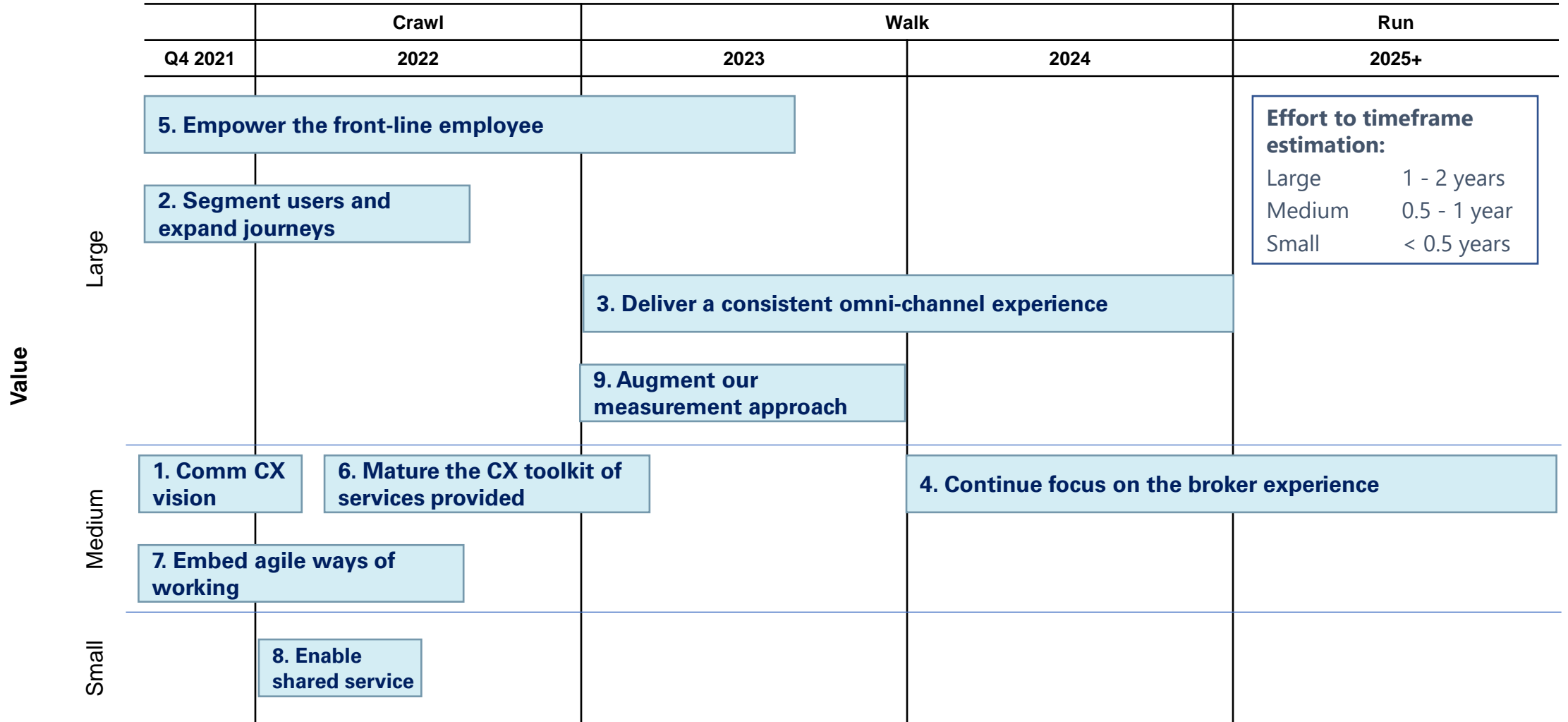
* Numbering of initiatives was used for facilitation purposes and is not indicative of priority

The following principles informed the overall shape and sequence of the roadmap

- 01 | **Acknowledge and allow for the BAU workload**
- 02 | **Provide capacity flexibility for ad-hoc requests**
- 03 | **Tackle one 'big bet' priority at a time**
- 04 | **Progress *small* and *medium* value initiatives alongside 'big bets'**
- 05 | **Leverage business priorities (e.g. SRE) as pilots for the initiative delivery**
- 06 | **Bring forward small elements of initiatives if demand is clear**



The roadmap prioritizes the most impactful initiatives alongside the introduction of enabling infrastructure

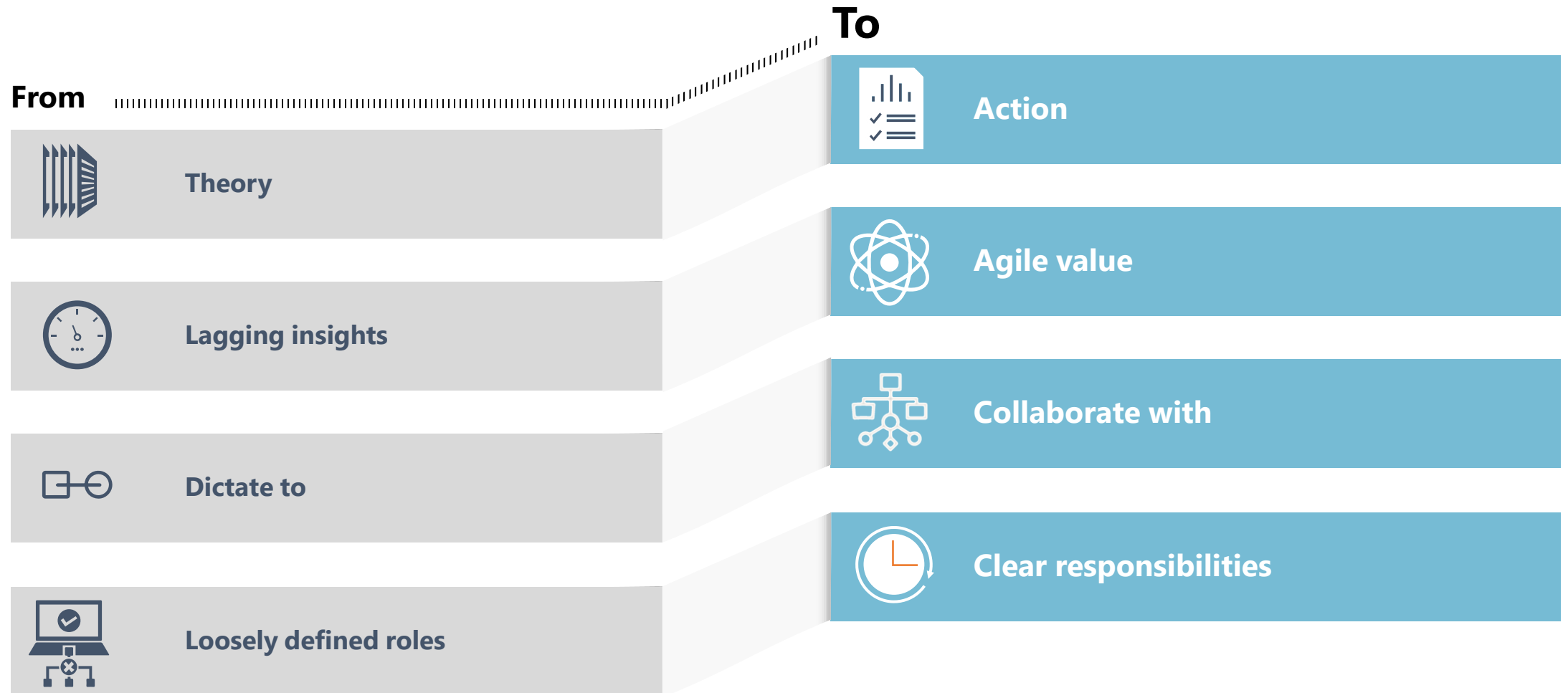


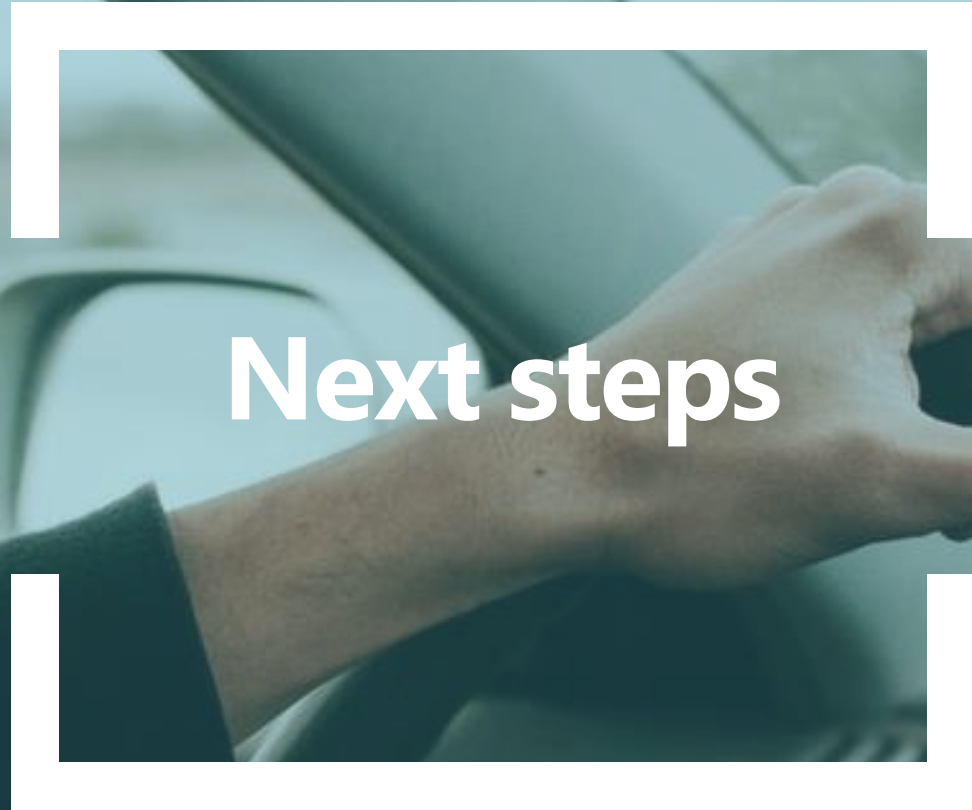
Detailed sprint planning will validate the initial activities across the first three months

All activities are TBD, pending sprint planning

		Crawl			
Month 0	Month 1	Month 2	Month 3		
<p>Sprint planning</p> <p>Conduct the planning for the three 4-week sprints to determine priority business areas (e.g. SRE) and lay the foundations for agile delivery.</p>	<p>1. Communicate the CX vision</p>				
	<p>Socialize vision with executive team Plan engagement approach across functions</p>	<p>Deliver contextualized engagement sessions</p>			
	<p>5. Empower the front-line employee (starting with SRE and following Nova release timelines)</p>				
	<p>Baseline training needs and hold feedback sessions; develop training roll-out plan (14 existing eLessons)</p>	<p>Develop full SRE story package including CX metrics, service actions, role profiles, day-to-day processes, job aids, etc.</p>			
	<p>2. Segment users and expand journeys (starting with SRE and following Nova release timelines)</p>				
	<p>Assess SRE segmentation data accessibility and potential impact on journey maps</p>	<p>Begin SRE CX tracking based on moments of truth identified in the journey maps</p>	<p>Complete baseline journey maps for releases 3A</p>		
	<p>8. Enable a responsive shared service model</p>				
		<p>Establish key roles, forums, and RACI</p>	<p>Hire and embed two new resources into operational processes</p>		
<p>7. Embed agile ways of working</p>					
<p>Initiate problem statement backlog</p>	<p>Pilot agile delivery with coaching support</p>	<p>Review progress and iterate delivery approach</p>	<p>Review progress and fully embed ways of working</p>		

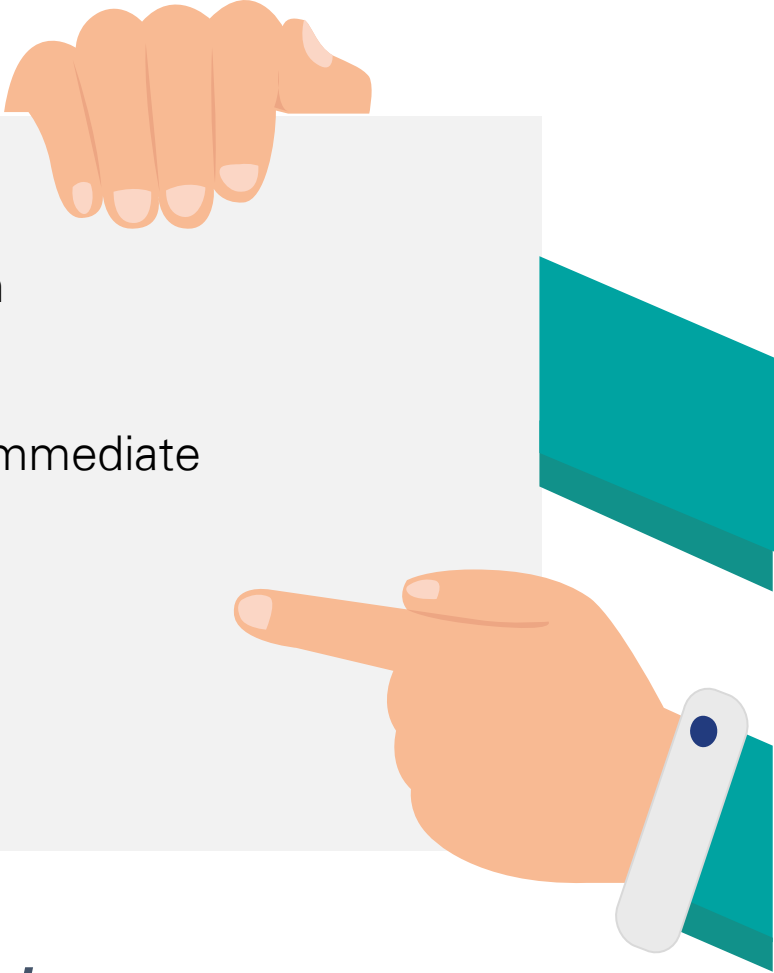
This focus will mature the CX capability and deliver greater collaboration with the operations, technology, and transformation teams





Next steps

Next steps

- 
- An illustration of two hands holding a white document. One hand is at the top edge, and the other is on the right side, pointing towards the list. The hands are orange with white gloves. The document is white and contains a list of three items.
- 1 Follow-up Executive Q&A session with the CX team
 - 2 CX team to stand-up key building blocks to deliver immediate initiatives in an agile way
 - 3 Recruitment of identified new roles

Thank you for your continued support and involvement throughout this engagement



Appendix

Six resource pillars have been identified for each initiative

1. Communicate the CX vision

Requirement Align the organization to the new CX vision and support stakeholder buy-in across the organization. The aim being that the organization has a clear defining anchor to assess future decisions and actions for the CX team.	
Accountability <ul style="list-style-type: none"> CX Communications Community Relations 	Consultation <ul style="list-style-type: none"> Executive team
Effort Small	Value Medium

People <ul style="list-style-type: none"> Circulate survey to broader group of stakeholders and align on CX vision Engage teams where necessary to deliver contextualized workshops that 'make it real' for their role / team / function
Process <ul style="list-style-type: none"> Educate and socialize vision with executives Define "internal" and "external" audience and develop vision communications plans (e.g. what information will be shared when) Determine how to work with operations to enable contact/service centre managers and supervisors to be internal change champions Ensure that guiding principles are in line with vision
Technology <ul style="list-style-type: none"> n/a

Data & Analytics <ul style="list-style-type: none"> n/a
Governance <ul style="list-style-type: none"> Track and monitor CX vision / strategy progress
Dependencies <ul style="list-style-type: none"> n/a

Requirement

Description of the capability, why it's necessary and key outcomes.

People

The roles and skills required for deliver, both internally and externally.

Data & Analytics

Information required for decision making or analysis and the flows / integrations to enable it.

Governance

Decision making / approval processes and forums.

Dependencies

The capability's requirements of or inputs from other capabilities / functions.

Process

Activities undertaken by the capability's people or automated using technology, which may include when or where they take place.

Technology

Critical infrastructure, integrations, or functionality for delivery of the capability.



1. Communicate the CX vision

<p>Requirement</p> <p>Align the organization to the new CX vision and support stakeholder buy-in across the organization.</p> <p>The aim being that the organization has a clear defining anchor to assess future decisions and actions for the CX team.</p>		<p>People</p> <ul style="list-style-type: none"> ▪ Circulate survey to broader group of stakeholders and align on CX vision ▪ Engage teams where necessary to deliver contextualized workshops that 'make it real' for their role / team / function ▪ Support from Executive Committee to communicate change and initiative roll-out 	<p>Data & Analytics</p> <ul style="list-style-type: none"> ▪ n/a
<p>Accountability</p> <ul style="list-style-type: none"> • CX • Communications • Community Relations 		<p>Consultation</p> <ul style="list-style-type: none"> • Executive team (plus support to roll-out) 	<p>Governance</p> <ul style="list-style-type: none"> ▪ Track and monitor CX vision / strategy progress
<p>Effort</p> <p>Small</p>	<p>Value</p> <p>Medium</p>	<p>Process</p> <ul style="list-style-type: none"> ▪ Educate and socialize vision with executives ▪ Define "internal" and "external" audience and develop vision communications plans (e.g. what information will be shared when) ▪ Determine how to work with operations to enable front line managers and supervisors to be internal change champions ▪ Ensure that guiding principles are in line with vision 	<p>Dependencies</p> <ul style="list-style-type: none"> ▪ n/a
		<p>Technology</p> <ul style="list-style-type: none"> ▪ n/a 	



2. Segment users and expand journeys

<p>Requirement</p> <p>To divide MPI’s userbase into clear sets of customers defined by common characteristics or needs, with the purpose of achieving a strategic imperative / hypothesis.</p> <p>This will provide the ability to assess different types of users and design new experiences that satisfy them.</p>	
<p>Accountability</p> <ul style="list-style-type: none"> • CX • Operations • Campaign management team 	<p>Consultation</p> <ul style="list-style-type: none"> • Data & Analytics • NOVA • Broker Network
<p>Effort</p> <p style="text-align: center;">Medium</p>	<p>Value</p> <p style="text-align: center;">Large</p>

<p>People</p> <ul style="list-style-type: none"> ▪ Collaborate with operations teams to embed CX methods, upskill their team, and leverage the additional capacity ▪ Engage brokers as part of initiative 4
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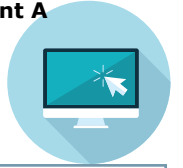
<p>Process</p> <ul style="list-style-type: none"> ▪ Journey mapping and service blueprint development using segmentation to inform the expansion ▪ Designing unique experiences for different segments based on hypothesizing and testing ▪ Assess primary and secondary channels for each channel and segment. Identify areas of channel shift/prioritization ▪ Capture sentiments (particularly from customers and brokers) to better understand changes within channels and adoption. Ideate on ways to collect customer and broker insights in real-time

<p>Technology</p> <ul style="list-style-type: none"> ▪ Set up robust campaign management strategy that is cross-channel and can easily be adapted for the presence of new (digital) channels
--

<p>Data & Analytics</p> <ul style="list-style-type: none"> ▪ Take stock of the available customer data resources and intake methods ▪ Identify what is possible with or without NOVA (periodically ideate on new data collection methods that can occur without NOVA)
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<p>Governance</p> <ul style="list-style-type: none"> ▪ Agree on journey responsibility / ownership and decision making empowerment
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<p>Dependencies</p> <ul style="list-style-type: none"> ▪ Customer and market insights ▪ A culture of test and learn throughout the organisation ▪ Ability to launch and scale quickly, as needed ▪ Recruitment of additional roles (e.g. service designer) to provide capacity and capability uplift



3. Deliver a consistent omni-channel experience

<p>Requirement</p> <p>Allow for new and existing user groups to more easily interact and transact with MPI across all channels.</p> <p>A holistic strategy links existing channels while accounting for NOVA and the introduction of new channels.</p>	
<p>Accountability</p> <ul style="list-style-type: none"> • CX • Communications • Operations 	<p>Consultation</p> <ul style="list-style-type: none"> • NOVA • Operations
<p>Effort</p> <p style="text-align: center;">Large</p>	<p>Value</p> <p style="text-align: center;">Large</p>

<p>People</p> <ul style="list-style-type: none"> ▪ Additional business roles to own the end-to-end journey or proposition, supported by CX shared services
--

<p>Process</p> <ul style="list-style-type: none"> ▪ Create training and assets to brand all customer-facing communications (letters, emails, etc.) in same visual style, voice, tone ▪ Identify high impact pain points for customers when switching between channels and create solutions on how information/experience can be transferred seamlessly

<p>Technology</p> <ul style="list-style-type: none"> ▪ Customer relationship management platform that contains information across multiple products ▪ Assess how to connect channels together and how to switch communication modes seamlessly

<p>Data & Analytics</p> <ul style="list-style-type: none"> ▪ A single view of customer data

<p>Governance</p> <ul style="list-style-type: none"> ▪ Alignment between channel / proposition owners on a regular basis ▪ CX interaction with technology teams to shape and inform roadmap
--

<p>Dependencies</p> <ul style="list-style-type: none"> ▪ Ongoing NOVA delivery and key milestones



4. Continue focus on the broker experience

<p>Requirement</p> <p>To engage with an user segment that has previously been uninvolved in product/service development and feedback.</p> <p>A more well-informed broker network is able to serve our customers more efficiently.</p>	
<p>Accountability</p> <ul style="list-style-type: none"> CX NOVA 	<p>Consultation</p> <ul style="list-style-type: none"> Broker network Operations SRE
<p>Effort</p> <p style="text-align: center;">Large</p>	<p>Value</p> <p style="text-align: center;">Medium</p>

People

- Broker collaboration workshops delivered by the CX team
- Addition of Partnerships Manager role to drive broker engagement

Process

- Broker collaboration and feedback sessions, particularly with rural brokers on a regular cadence
- Broker journey mapping with upcoming broker portal
- Operationalize broker journey insights to address pain points

Technology

- Potential future need to further integrate / extend the MPI technology ecosystem with broker systems to improve the overall CX

Data & Analytics

- n/a

Governance

- n/a

Dependencies

- NOVA broker portal release



5. Empower the front-line employee

<p>Requirement</p> <p>Bridge the gap between head office initiatives and front-line employee experiences when serving customers.</p> <p>This initiative seeks to support front-line employees who exemplify MPI's CX vision and have the appropriate tools to succeed.</p>	
<p>Accountability</p> <ul style="list-style-type: none"> CX Operations 	<p>Consultation</p> <ul style="list-style-type: none"> People & Culture
<p>Effort</p> <p style="text-align: center;">Large</p>	<p>Value</p> <p style="text-align: center;">Large</p>

<p>People</p> <ul style="list-style-type: none"> Standardize and develop training to provide both education on customer experience practices and product/service information Develop roll-out plan for 14 existing eLessons and potential new additions Support from Executive Committee to communicate change and initiative roll-out
--

<p>Process</p> <ul style="list-style-type: none"> Encourage customer-facing touch-points (e.g. service centres, driver fitness) to promote continuous improvement by knowledge sharing on a regular basis Build on current employee reward program to inspire front-line employees to demonstrate the CX vision For employee roles, research and analyze what the key attributes are for the top 10% of performers (e.g. adjustors, front-counter employees). Can leverage information to inform recruiting and hiring practices
--

<p>Technology</p> <ul style="list-style-type: none"> Identify and deploy new tools to support front-line data visibility and interaction Roll-out of content management solution to support CX related materials

<p>Data & Analytics</p> <ul style="list-style-type: none"> n/a
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<p>Governance</p> <ul style="list-style-type: none"> n/a
--

<p>Dependencies</p> <ul style="list-style-type: none"> n/a
--



6. Mature the CX toolkit of services provided

<p>Requirement</p> <hr/> <p>Industrialize the MPI CX team to build capabilities and knowledge areas that can collaborate with other areas of the organization.</p> <p>A collection of CX services that continuously grows to support operations.</p>	
<p>Accountability</p> <ul style="list-style-type: none"> • CX • People & Culture • Communications • IT 	<p>Consultation</p> <ul style="list-style-type: none"> • IT / Technology • Operations • CX • NOVA
<p>Effort</p> <p style="text-align: center;">Medium</p>	<p>Value</p> <p style="text-align: center;">Medium</p>

People

- Hiring process (i.e. job description and interview process) for identified gaps of Proposition Owner, Scrum Master, Service Designer
- Continue the roll-out of stories as a communications tool
- Embed agile ways of working

Process

- Catalogue existing content
- Survey teams to understand potential gaps / improvement areas

Technology

- Identify content management solution (existing or new requirement)
- Experience testing prototyping tools

Data & Analytics

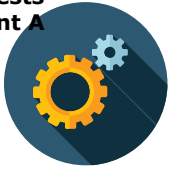
- Continue development of data infrastructure

Governance

- Representation / attendance at IT / technology steering forums

Dependencies

- n/a



7. Embed agile ways of working

<p>Requirement</p> <p>Based on the success of agile in other areas of the organization, bring this iterative style of working to the CX team.</p> <p>Achievement of the agile CX methodology benefits (e.g. customer centricity, cross-functional collaboration).</p>	
<p>Accountability</p> <ul style="list-style-type: none"> • CX • Operations 	<p>Consultation</p> <ul style="list-style-type: none"> • Operations • IT / Technology • Transformation (LPM) & NOVA • Data & Analytics
<p>Effort</p> <p style="text-align: center;">Medium</p>	<p>Value</p> <p style="text-align: center;">Medium</p>

People

- Preliminary rounds of engaging with operations/transformation teams to assess their needs and begin building product backlog
- Support from existing LPM teams (e.g. agile coaching guidance) to educate the CX team

Process

- Assess proposed hypotheses from follow-up session and gather alignment within the functional team
- Pilot agile delivery of a problem statement using the appropriate ceremonies (sprint planning, daily check-ins, sprint retro and review)

Technology

- n/a

Data & Analytics

- n/a

Governance

- Implement agile ceremonies, roles, and approval forums

Dependencies

- Internal approaches to agile, e.g. LPM



8. Enable a responsive shared service

<p>Requirement</p> <p>Provide structure for a growing team by determining how to manage resource requests, priorities, and sourcing.</p> <p>An operating model that is able to cross over multiple lines of business to drive CX benefits.</p>	
<p>Accountability</p> <ul style="list-style-type: none"> • CX • Executive team 	<p>Consultation</p> <ul style="list-style-type: none"> • Operations
<p>Effort</p> <p style="text-align: center;">Small</p>	<p>Value</p> <p style="text-align: center;">Small</p>

<p>People</p> <ul style="list-style-type: none"> ▪ Establish roles and responsibilities and get alignment

<p>Process</p> <ul style="list-style-type: none"> ▪ Moving forwards hold hypothesis generation sessions with front office teams for each segment / imperative (would occur on an ongoing, regular cadence, could be with specific teams instead of broader group) ▪ Schedule monthly (cadence TBC) show and tell sessions to show progress and receive new problems
--

<p>Technology</p> <ul style="list-style-type: none"> ▪ Create shared services operational tools (e.g. usage tracking)

<p>Data & Analytics</p> <ul style="list-style-type: none"> • n/a
--

<p>Governance</p> <ul style="list-style-type: none"> ▪ Establish meetings and forums for governance roles/groups ▪ Create RACI matrix
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<p>Dependencies</p> <ul style="list-style-type: none"> • n/a
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9. Augment our measurement approach

<p>Requirement</p> <p>Demonstrate clear success of the initiatives, and employ the test & learn method of working to iterate at pace, based on data.</p> <p>Set of CX metrics that can be applied as a key input to building larger business cases.</p>	
<p>Accountability</p> <ul style="list-style-type: none"> • CX • Data & Analytics 	<p>Consultation</p> <ul style="list-style-type: none"> • Executive team
<p>Effort</p> <p>Medium</p>	<p>Value</p> <p>Large</p>

<p>People</p> <ul style="list-style-type: none"> ▪ Staff empowered for accelerated decision making ▪ Collaboration with the data team to augment and accelerate design and delivery of measurement tools

<p>Process</p> <ul style="list-style-type: none"> ▪ How the CX team will measure initiatives with the defined KPIs to demonstrate impact and success ▪ Should consider other factors such as timing and effort of measurement to inform actions
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<p>Technology</p> <ul style="list-style-type: none"> ▪ Centralized CX dashboard tracking progress and results of each project/initiative
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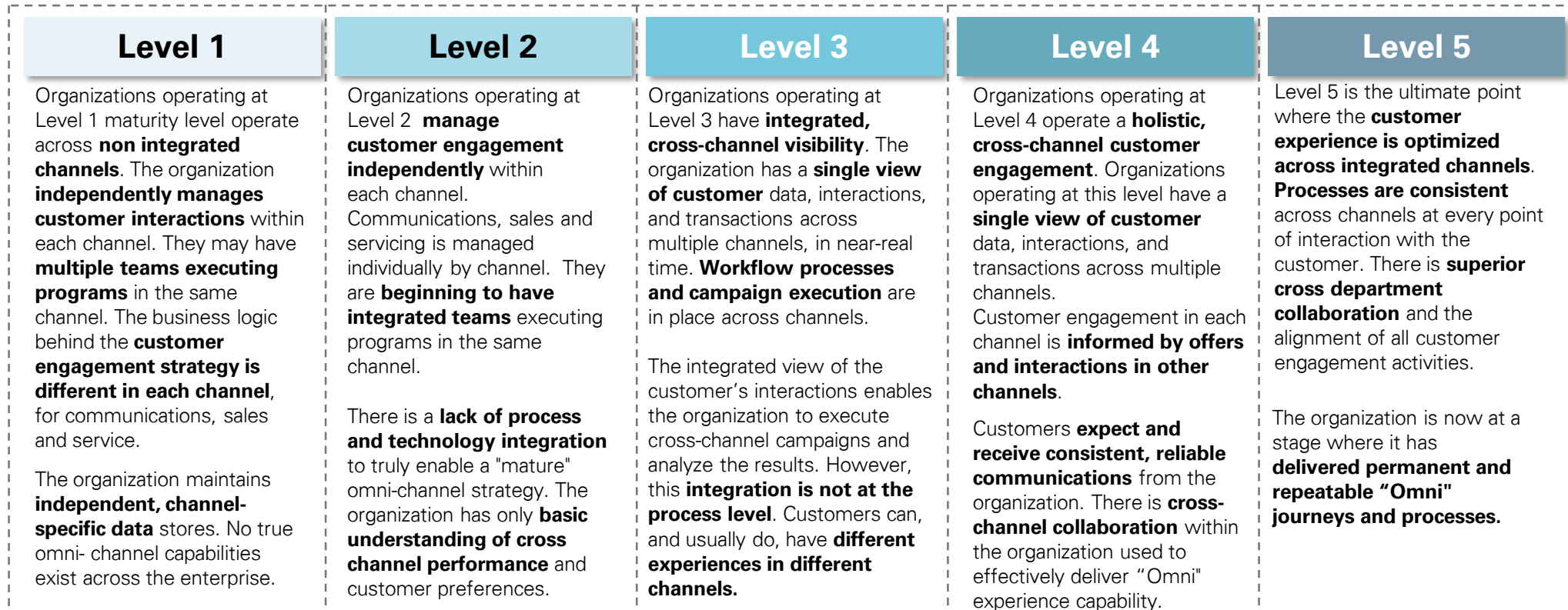
<p>Data & Analytics</p> <ul style="list-style-type: none"> ▪ Access to no / low code tooling to deploy rapid solution prototypes
--

<p>Governance</p> <ul style="list-style-type: none"> ▪ Ensure that each customer proposition leads to tangible outcomes, preferably with numerical benchmarks (either as improvement from current state or matching industry standards) ▪ Regular project, timeline and budget review with internal sponsoring executives
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<p>Dependencies</p> <ul style="list-style-type: none"> • Specialist support from the Data & Analytics team to access and improve data tooling / infrastructure and extract the most effective insights from data-sets

Omni-channel maturity scale

Organizations can move from channels operating completely independently (Level 1) to a highly optimized customer experience through fully integrated channels (Level 5).



Omni-channel maturity scale: Level 2

At this level, companies are delivering a **multi-channel** strategy and meeting the very **basic expectations** of customers.

Summary

Organizations operating at Level 2 **manage customer engagement independently** within each channel.

Communications, sales and servicing is managed individually by channel. They are **beginning to have integrated teams** executing programs in the same channel.

There is a **lack of process and technology integration** to truly enable a "mature" omni-channel strategy. The organization has only **basic understanding of cross-channel performance** and customer preferences.

Enablers



People

- Teams manage channels individually (e.g. contact centres, broker relations, service centres)
- Some integration through CX vision and principles to ensure devolved initiatives are consistent



Process

- Process and campaign management is handled individually by channel or via ad-hoc project teams
- Each individual channel begins to look and feel consistent in a silo (e.g. emails use the same voice, mail features the same branding)



Technology

- Basics such as email / SMS confirmation are used to confirm actions taken on other channels
- Third party platforms are primarily used for marketing and awareness activities (e.g. display ads, SEO)















Data

- Data within channels is well-managed but systems are not connected
- Channel metrics are tracked by operational teams on a day-to-day basis





Omni-channel maturity scale: Level 3

Level 3 signifies an integrated, **cross-channel view** of customer data and **some process standardization**.

Summary	Enablers								
<p>Organizations operating at Level 3 have integrated, cross-channel visibility. The organization has a single view of customer data, interactions, and transactions across multiple channels, in near-real time. Workflow processes and campaign execution are in place across channels.</p> <p>The integrated view of the customer’s interactions enables the organization to execute cross-channel campaigns and analyze the results. However, this integration is not at the process level. Customers can, and usually do, have different experiences in different channels.</p>	<table border="1"> <tr> <td>  <p>People</p> </td> <td> <ul style="list-style-type: none"> • Collaboration between channel teams is necessary to execute workflow processes and campaigns • Journey, service, or transaction owners have been identified to own each channel’s experience </td> </tr> <tr> <td>  <p>Process</p> </td> <td> <ul style="list-style-type: none"> • From a campaign-perspective, information and actions are shared across channels but overall processes may still be inconsistent • Staff are able to support customers through transactions (e.g. a contact center agent can resolve an online issue immediately) </td> </tr> <tr> <td>  <p>Technology</p> </td> <td> <ul style="list-style-type: none"> • A CRM is embedded within each channel to collate a single source of customer data • Automated outbound communications react to key workflow triggers </td> </tr> <tr> <td>  <p>Data</p> </td> <td> <ul style="list-style-type: none"> • Customer data is integrated across systems (e.g. claims, registration, policies) – a unique customer ID is essential to all processes • Near real-time transaction and channel metric dashboards are used to inform decision-making </td> </tr> </table>	 <p>People</p>	<ul style="list-style-type: none"> • Collaboration between channel teams is necessary to execute workflow processes and campaigns • Journey, service, or transaction owners have been identified to own each channel’s experience 	 <p>Process</p>	<ul style="list-style-type: none"> • From a campaign-perspective, information and actions are shared across channels but overall processes may still be inconsistent • Staff are able to support customers through transactions (e.g. a contact center agent can resolve an online issue immediately) 	 <p>Technology</p>	<ul style="list-style-type: none"> • A CRM is embedded within each channel to collate a single source of customer data • Automated outbound communications react to key workflow triggers 	 <p>Data</p>	<ul style="list-style-type: none"> • Customer data is integrated across systems (e.g. claims, registration, policies) – a unique customer ID is essential to all processes • Near real-time transaction and channel metric dashboards are used to inform decision-making
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 <p>Data</p>	<ul style="list-style-type: none"> • Customer data is integrated across systems (e.g. claims, registration, policies) – a unique customer ID is essential to all processes • Near real-time transaction and channel metric dashboards are used to inform decision-making 								

Omni-channel maturity scale: Level 4

Operating at a Level 4 indicates **cross-channel interaction**, where customer engagement in a given channel is **accessible to customer-facing** staff and influences the interactions.

Summary	Enablers
<p>Organizations operating at Level 4 operate a holistic, cross-channel customer engagement. Organizations operating at this level have a single view of customer data, interactions, and transactions across multiple channels.</p> <p>Customer engagement in each channel is informed by offers and interactions in other channels.</p> <p>Customers expect and receive consistent, reliable communications from the organization. There is cross-channel collaboration within the organization used to effectively deliver “Omni” experience capability.</p>	<div>  <p>People</p> </div> <ul style="list-style-type: none"> • Channels have clear owners with regular touch-points to align the experience • A matrix structure typically emerges, with channel owners meeting process / transaction owners regularly to evolve the experience
	<div>  <p>Process</p> </div> <ul style="list-style-type: none"> • Style guidelines and an unified brand voice are deployed across channels • Staff use data to contextualize their customer interactions, showing an awareness of other services the customer has used
	<div>  <p>Technology</p> </div> <ul style="list-style-type: none"> • To gain a Customer 360 view, many companies will employ a CRM platform to track customers across channels and supplement this with a journey orchestration tool • Third party platforms (e.g. Messenger) will be used to ‘meet the customer where they are’
	<div>  <p>Data</p> </div> <ul style="list-style-type: none"> • Customer information is accessible across channels • Accurate transaction-level data allows the company to understand the customer’s journey stage in real-time

Omni-channel maturity scale: Level 5





The highest level of omni-channel maturity focuses on **channel and journey optimization** - the customer experience is not only connected across channels but continuous testing is done to reach optimization.

Summary

Level 5 is the ultimate point where the **customer experience is optimized across integrated channels. Processes are consistent** across channels at every point of interaction with the customer. There is **superior cross department collaboration** and the alignment of all customer engagement activities.

The organization is now at a stage where it has **delivered permanent and repeatable "Omni" journeys and processes.**

Enablers

 <p>People</p>	<ul style="list-style-type: none"> • An omni-channel lead will regularly meet with journey and / or channel leads to gain an overall view of each customer journey • A strong focus on channel optimization is needed; staff understand the need to balance cost to the business and convenience to the customer to deliver the experience
 <p>Process</p>	<ul style="list-style-type: none"> • Process is consistent across channels and continuously re-evaluated • Channel metrics are regularly compared to track performance, bottlenecks, and seek interventions
 <p>Technology</p>	<ul style="list-style-type: none"> • Technology should be flexible in allowing for channel switching (e.g. messaging to voice chat) • API-based services provide consistent data exchange between systems and simplify future additions
 <p>Data</p>	<ul style="list-style-type: none"> • Customer information is accessible across channels based on customer ID and tracks inferred data-points such as sentiment, life-stage, etc. to personalize engagement

PUB (MPI) 1-115

Part and Chapter:	Part IV - Nova, Information Technology IT Appendix 3	Page No.:	36, 37
PUB Approved Issue No:	19. Current IT Strategic Plan and IT Expenses and Projects, including Project Nova and other initiatives planned for or ongoing in the rating years		
Topic:			
Sub Topic:			

Preamble to IR:

Question:

- a) With respect to the Sharepoint migration, please outline the breakdown of the costs associated with this project, and business case or LPM request.
- b) With respect to the ECM project, please outline the breakdown of the costs associated with this project and business case, or LPM request.

Rationale for Question:

To better understand the use of funds for these projects.

RESPONSE:

- a) Refer to Value Management VM Appendix 3 – Enterprise Content Management (ECM) Collaboration Migration – Epic Hypothesis Statement (EHS) and Lean Business Case (LBC) Redacted.
- b) To accurately respond, please clarify in the second round of Information Requests which ECM project is referenced in this question.

PUB (MPI) 1-116

Part and Chapter:	Part IV - Nova, Information Technology IT Appendix 4	Page No.:	10
PUB Approved Issue No:	19. Current IT Strategic Plan and IT Expenses and Projects, including Project Nova and other initiatives planned for or ongoing in the rating years		
Topic:	IT Strategy 2022-2023		
Sub Topic:			

Preamble to IR:

Question:

- a) With respect to the infographic provided in Figure 3 (p.10 of 18), please provide a one-line description of the definition of each item noted, and how it maps to the corporate objectives as set out by MPI. Please also outline which of these are targeted to be completed in MPI 1.5 (Nova) or MPI 2.0 (Super Nova)

- b) For clarity, is MPI focusing on the “red” items (emerging trends) or all the items including the blue ones, which are more prevalent? At what point do the emerging trends become mainstream for MPI, i.e., how does MPI evaluate the trend converting it to a need?

Rationale for Question:

To better understand the use of the trends and MPIs goals and IT needs.

RESPONSE:

a) Disruptive Technologies:

Trend	Artificial Intelligence (AI)
Diagram Colour	Red
Target	MPI 1.5 (Nova)
Corporate Objective	Nova & IT
Detail	Artificial Intelligence (AI) is the use of computers that solve problems using human thought patterns

Trend	Natural Language Processing
Diagram Colour	Red
Target	MPI 2.0 (Supernova)
Corporate Objective	Customer Centricity & Operational Excellence
Detail	Natural Language Processing is the capability of a computer system to ingest data based on human language, comprehend the context of the information, and generate relevant insights

Trend	Big Data
Diagram Colour	Red
Target	MPI 1.5 (Nova)
Corporate Objective	Nova & IT
Detail	Big Data is a term that represents the strategy to capture, analyze, and make decisions based on an ever-increasing amount of information supplied by an ever-increasing number of systems

Trend	Automation
Diagram Colour	Red
Target	MPI 1.5 (Nova)
Corporate Objective	Customer Centricity & Operational Excellence
Detail	Automation is the use of technology to complete repeatable actions

Trend	Telematics
Diagram Colour	Red
Target	MPI 1.5 (Nova)
Corporate Objective	Operational Imperatives
Detail	Telematics is the use of on-board diagnostic systems or GPS to record the movement and actions of a vehicle

Trend	Machine Learning (ML)
Diagram Colour	Red
Target	MPI 1.5 (Nova)
Corporate Objective	Nova & IT
Detail	Machine Learning (ML) is the ability for a computer system to use the data it processes to create, evaluate, then adjust its prediction capabilities without additional programming

Customer Expectations:

Trend	Instant Access
Diagram Colour	Red
Target	MPI 1.5 (Nova)
Corporate Objective	Customer Centricity & Operational Excellence
Detail	Customers expect tools which supply immediate answers to their questions

Trend	Acceleration Due to COVID-19
Diagram Colour	Light Blue
Target	Already In Effect
Corporate Objective	People, Culture, Change Mgmt & Communications
Detail	Operationalized processes, in-progress initiatives, and long-term roadmap items need to be continually re-evaluated and re-prioritized to align with COVID-19 health and safety regulations, building occupancy restrictions, and the expectations of employees and customers

Trend	Omnichannel
Diagram Colour	Light Blue
Target	Already In Effect
Corporate Objective	Customer Centricity & Operational Excellence
Detail	Omnichannel is a communication strategy that supplies the customer with a seamless experience across all ways of interacting with an organization

Trend	Personalization
Diagram Colour	Red
Target	MPI 1.5 (Nova)
Corporate Objective	Customer Centricity & Operational Excellence
Detail	Personalization is a strategy that supplies the customer with a tailored experience based on their specific preferences and needs

Trend	Online Self-Service
Diagram Colour	Red
Target	MPI 1.5 (Nova)
Corporate Objective	Customer Centricity & Operational Excellence
Detail	Online self-service is supplying the customer with the capability to complete certain actions themselves using a website instead of relying on a broker, Contact Centre, or Service Centre

Trend	Easy & Effortless
Diagram Colour	Red
Target	MPI 1.5 (Nova)
Corporate Objective	Customer Centricity & Operational Excellence
Detail	Customers expect to be able to interact with an organization to solve their issue or answer their question in a straightforward and frictionless manner

Industry Meta Trends:

Trend	24/7 Access
Diagram Colour	Light Blue
Target	Already In Effect
Corporate Objective	Customer Centricity & Operational Excellence
Detail	Customers expect online access information and answers to their questions whenever it suits them – daytime, nighttime, weekday, weekend, or holiday

Trend	Mass Process Automation
Diagram Colour	Red
Target	MPI 2.0 (Supernova)
Corporate Objective	Customer Centricity & Operational Excellence
Detail	Mass Process Automation is the use of computers to complete large-scale repeatable tasks previously carried out by staff

Trend	AI-Empowered Estimating
Diagram Colour	Red
Target	MPI 2.0 (Supernova)
Corporate Objective	Nova & IT
Detail	AI-Empowered Estimating is the use of Artificial Intelligence systems to enhance estimation accuracy and reduce estimation time through capabilities such as image recognition supplying insights obtained from analyzing large quantities of claims

Trend	Personalized Coverage
Diagram Colour	Red
Target	MPI 2.0 (Supernova)
Corporate Objective	Finance, Actuarial, Risk & Investments
Detail	Personalized Coverage is the ability to offer the customer products and services to meet their specific needs instead of pre-packaged options

Trend	Telematics-Enabled First Notice of Loss (FNOL)
Diagram Colour	Red
Target	MPI 2.0 (Supernova)
Corporate Objective	Operational Imperatives
Detail	Telematics-Enabled FNOL is the capability to use information from the on-board diagnostic systems of a vehicle as part of the First Notice of Loss intake process after a motor vehicle accident

Trend	AI-Fraud Detection
Diagram Colour	Red
Target	MPI 1.5 (Nova)
Corporate Objective	Finance, Actuarial, Risk & Investments
Detail	AI-Fraud Detection is the use of Artificial Intelligence capabilities to analyze claim data to identify and flag claims that are suspected to involve fraud

The Nature of Work:

Trend	Agile Teams
Diagram Colour	Red
Target	MPI 1.5 (Nova)
Corporate Objective	People, Culture, Change Mgmt & Communications
Detail	Agile teams are small cross-functional groups of resources solving problems using industry-proven frameworks built on short iterations of development, testing, feedback gathering and task reprioritization instead of as one undivided project

Trend	Remote-Office Flexibility
Diagram Colour	Red
Target	MPI 1.5 (Nova)
Corporate Objective	People, Culture, Change Mgmt & Communications
Detail	Remote-Office Flexibility is an initiative taken from the work-from-home requirement during the beginning of the COVID-19 pandemic to supply employees whose roles can be performed outside of the MPI work environment (i.e. at home) the tools, support, and choice to work remotely even when working from the office is permitted

Trend	Shift to Knowledge Work
Diagram Colour	Red
Target	MPI 1.5 (Nova)
Corporate Objective	People, Culture, Change Mgmt & Communications
Detail	Shifting to Knowledge Work is a consequence of mass process automation where staff have the time to analyze and make intelligent decisions instead of focusing on repeatable, manual processes

Trend	Digital Workspace
Diagram Colour	Light Blue
Target	Already In Effect
Corporate Objective	People, Culture, Change Mgmt & Communications
Detail	A Digital Workspace is all of the technologies, governance policies, and controls put in place to enable staff to perform their duties in a modern technological environment while at the same time securing the data, networks, and IT infrastructure

Trend	Human-Machine Collaboration
Diagram Colour	Red
Target	MPI 1.5 (Nova)
Corporate Objective	People, Culture, Change Mgmt & Communications
Detail	Human-Machine Collaboration includes all the ways humans are able to work productively alongside Artificial Intelligence systems to accomplish organizational goals

Trend	Staff Empowerment
Diagram Colour	Red
Target	MPI 1.5 (Nova)
Corporate Objective	People, Culture, Change Mgmt & Communications
Detail	Staff Empowerment is achieved by supplying staff with easy to access (self-service) information, resources, tools, and encouragement to stretch the definition of their roles to accomplish the goals of the organization

Autonomous Vehicles:

Trend	Vehicle to Infrastructure (V2I)
Diagram Colour	Red
Target	MPI 2.0 (Supernova)
Corporate Objective	Operational Imperatives
Detail	Vehicle to Infrastructure models how motor vehicles wirelessly communicate with road infrastructure technology such as cameras, parking meters, and signage

Trend	Vehicle to Vehicle (V2V)
Diagram Colour	Red
Target	Unknown / Future
Corporate Objective	Operational Imperatives
Detail	Vehicle to Vehicle models how motor vehicles wirelessly communicate with each other on the road, whether it be automated messages to a centralized platform, or technology such as Adaptive Cruise Control where a vehicle automatically adjusts its speed as it approaches a slower-moving vehicle

Trend	Vehicle to Everything (V2X)
Diagram Colour	Red
Target	MPI 2.0 (Supernova)
Corporate Objective	Operational Imperatives
Detail	Vehicle to Everything is a catch-all term for all models related to how motor vehicles communicate with any other technology, whether it be infrastructure, other vehicles on the road, or something else

- b) The larger, more prevalent (bold) blue items represent common themes that tie the surrounding items together. The smaller light blue items are trends that are either already in effect or are not expected to be addressed in the 5-year ambition.

Emerging trends become mainstream once MPI implements and operationalizes them within its business units. Any proof-of-concept work or high-level inquiry that is needed to better understand a trend or how it could supply value to the business, partners, or customers would be considered in an investigative state.

It is important for MPI to have awareness of current and emerging trends, but to also proceed with caution. Certain trends never gain a foothold in the industry, and others can take longer than expected to prove their value. When evaluating trends, MPI believes in a cautious approach that reduces risk. This is accomplished by observing and evaluating the outcomes of real-world implementations from similar organizations to determine the value proposition to MPI and its customers. There are too many risks and costs (technology, resource, training, and opportunity) associated with being first-to-market industry-leaders (“trendsetters”).

PUB (MPI) 1-117

Part and Chapter:	Part IV - Nova, Information Technology IT Appendix 4	Page No.:	14
PUB Approved Issue No:	19. Current IT Strategic Plan and IT Expenses and Projects, including Project Nova and other initiatives planned for or ongoing in the rating years		
Topic:	IT Strategy 2022-2023		
Sub Topic:	Data Management & Analytics		

Preamble to IR:**Question:**

For MPI 2.0, (Super Nova), please outline how the data management and analytics key focus will provide the necessary support the future needs of MPI (in order to support insurance products for Manitobans).

Rationale for Question:

To better understand the usage of data management and analytics for the longer term (period post Nova, MPI 1.5).

RESPONSE:

The Data Management & Analytics (DM&A) directorate has a shared vision with MPI 2.0:

- Designing customer-focused product value propositions supported by digitized and automated processes.
- Becoming an intelligent, data-driven provider of driver, vehicle and insurance services.
- Creating business agility with high-performing teams and a culture of continuous improvement and empowerment.

- Delivery of NOVA as a critical milestone on the corporate transformation journey.

The objective of the DM&A is to empower MPI employees with the data and analytics infrastructure needed to enhance overall customer service delivery and experience. DM&A will embrace all MPI data assets and empower the business with a trustworthy, timely, robust and integrated data ecosystem. The five-year roadmap of the DM&A includes coverage for several key focus areas to support the data-driven vision of MPI 2.0. These areas include the enablement of Artificial Intelligence (AI) capabilities, as well as Cloud capabilities for Data Warehousing and Self-Service Business Intelligence. These capabilities directly support the generation of data-driven insights and solutions, which will result in improved decision making at all business levels and provide a 360-degree understanding of MPI customers for better engagement. New data and new technology introduce organizational changes. To address this, the DM&A roadmap also includes coverage for creating a data literate workforce across MPI.

With recent market shifts in the Automotive industry around Usage-based Insurance, V2X technology and Autonomous navigation, MPI is on the verge of seeing unprecedented growth in data. With this proliferation of data in an increasingly complex environment, the DM&A formed a Data Governance arm, which will be critical in the stewardship and management of sensitive data for Manitobans.

The DM&A strategic roadmap comprises five phases:

1. Establish (2021/22);
2. Build (2022/23);
3. Grow (2023/24);
4. Automate (2024/25); and
5. Optimize (2025/26).

Delivery of longer-term outcomes post NOVA/MPI 1.5 and into MPI 2.0 align with the phases for Automate (2024/25) and Optimize (2025/26).

The Establish and Build phases focus on outcomes related to the definition and development of:

- a) The infrastructure for technology (e.g., Analytics tools; Cloud platform and infrastructure for AI, etc.),
- b) Processes (e.g., Data governance policies; Security controls for sensitive data, etc.), and
- c) People (e.g., Building staff skills; Building business literacy on data assets, etc.).

The expected outcome of the Grow phase (2023/24) is for MPI to become data-driven with widespread adoption of self-service tools and processes. Artificial Intelligence (AI) and machine learning (ML) will be embedded into our core business processes and provide efficiencies into areas such as Fraud Detection, Road Safety Analysis and Chatbots for improving Customer Experience. The Automate and Optimize phases are where MPI 2.0 benefits and objectives begin to be realized and value-generation is at its pinnacle. Automation will further streamline controls and processes and DM&A will be actively working with the business on continuous improvement initiatives around exploration of new capabilities for advanced analytics in artificial intelligence (AI) and machine learning (ML).

PUB (MPI) 1-118

Part and Chapter:	Part IV - Nova, Information Technology IT Appendix 4	Page No.:	14
PUB Approved Issue No:	19. Current IT Strategic Plan and IT Expenses and Projects, including Project Nova and other initiatives planned for or ongoing in the rating years		
Topic:	IT Strategy 2022-2023		
Sub Topic:	Automation		

Preamble to IR:**Question:**

- a) Please explain how automation is critical to MPI's transition beyond repetitive low complexity tasks.
- b) Please explain the view of MPI on mass automation capabilities.
- c) Please explain the role of automation in Nova (1.5) and Super Nova (2.0).
- d) Please explain the focus on thought leadership tasks and how this would affect the number of FTE employees and/ or consultants.

Rationale for Question:

To better understand the usage of automation within MPI, Nova, and Super Nova.

RESPONSE:

- a) MPI has many policy and claim level processes. Executing these processes on every policy and claim takes a substantial amount of time. High volume, multi-step, low complexity tasks are ideal candidates for automation. It is critical that

MPI use automation as much as possible for these processes and tasks in order to permit its talented staff to focus on more value-added work.

- b) For MPI, mass automation refers to giving every employee the tools, training, and autonomy to automate the processes they execute on a daily basis, as well as instilling an “automation first” mindset in its leadership. This will allow staff at all levels to spend more time on improving products and the customer experience, and less time on execution.

The “Automation-First” vision focuses on embedding automation as a first consideration for new and existing processes across the enterprise.

MPI will move from applying automation as “only” a band-aid solution to existing manual processes, towards automation as the bedrock design principle for business processes. Processes conceived with automation-first will maximize return-on-investment, while leading to improved and innovative customer experiences.

- c) MPI 1.5 will put the tools and technology in place to enable MPI to shift its corporate mindset toward automation-first.

MPI 1.5 also uses these tools to automate specific existing backend processes to improve efficiency and enable customer self-service capabilities.

MPI 2.0 occurs when MPI fully realizes the “Automation-First” vision described above.

- d) The roles MPI employees fill are expanding due to the evolution of the technology they use for the business. MPI is adopting a Centre of Excellence approach to develop and concentrate expertise on new capabilities initially, then sharing that expertise with the larger MPI community who will adopt and adapt these technologies for use in all lines of business. The Centre of Excellence will move from a primary driver to a supporting role in transforming business processes and using supporting technologies.

Putting thought leaders in place will allow MPI to establish and curate guidance on new capabilities - such as automation - which can then be used to empower all employees and establish a community of practice.

In the short term, MPI may need to hire consultants to support various Centres of Excellence. However, MPI does not anticipate its focus on thought leadership tasks to impact the number of FTE employees or consultants in the long term.

PUB (MPI) 1-119

Part and Chapter:	Part IV Nova, Information Technology Part V Expenses Figure EXP App 19-7	Page No.:	
PUB Approved Issue No:	19. Current IT Strategic Plan and IT Expenses and Projects, including Project Nova and other initiatives planned for or ongoing in the rating years		
Topic:	Expenses		
Sub Topic:	IT Expenses		

Preamble to IR:**Question:**

- a) Please file an update to PUB (MPI) 1-59(b) Appendix 1 (2021 GRA) include all expenditures made to external consultants by consultant and the detail/ nature of the service provided under each individual contract for the years 2017/18 through 2021/22 and the forecast expense for 2022/23.
- b) Please indicate the number of contracts issued for additional consulting services with MPI's external auditor.

Rationale for Question:

To understand consultant expense.

RESPONSE:

- a) Please see *Appendix 1 Consultant Costs - Confidential*.

MPI did not provide details for 2017/18 because the information is not readily available and was not previously included in *PUB (MPI) 1-59(b) Appendix 1 (2021 GRA)*. Further, a detailed breakdown of the forecast by external consultant for 2022/23 is unavailable.

- b) In 2021/22, the dollar value of the contracts issued for additional consulting services with the MPI external auditor totalled \$370,510.

PUB (MPI) 1-119 Appendix 1

1 This material is the subject of a confidential motion.

2

PUB (MPI) 1-120

Part and Chapter:	Part IV -VM Appendix 10 NOV Appendix 1 p.34	Page No.:	5
PUB Approved Issue No:	19. Current IT Strategic Plan and IT Expenses and Projects, including Project Nova and other initiatives planned for or ongoing in the rating years		
Topic:	Capital Expenditures		
Sub Topic:	Cost of Capital		

Preamble to IR:

In explaining its use of a four-year average for the ROE determination in the 2022 GRA, MPI stated in response to PUB (MPI) 1-73 (c) that:

"Four years provides a sufficient historical trend of ROE to determine a discount rate for high-risk initiatives. A time period of 5 years would dilute the average weighting of the ROEs of more recent years. Also, the pool of companies to include in past annual evaluations potentially would have been reduced as one criteria is that the company report annual ROEs on the SCOR report for the time period being assessed."

In this year's application, the Corporation appears to have adopted a five-year average for ROE purposes.

Question:

- a) Please provide a table detailing the cost of capital hurdle rates used in 2019 through 2022. Please also include in the table the hurdle rates used for projects with risk mitigation strategies.
- b) Please file a copy of the 2021 SCOR report.
- c) Please explain the rationale for the change in methodology from last year.

- d) Please confirm the medium-high hurdle rate is 9% based on the May 2022 cost of capital update.

Rationale for Question:

To understand changes to business case cost of capital used for capital expenditure justification

RESPONSE:

- a) Please refer to the response provided in Appendix 1 – (2022 GRA) PUB (MPI) CI 1-24 Appendix 1 Improvement Initiatives – Confidential submission detailing the hurdle rates used for all capital projects in 2019 through 2021.
- b) Please also refer to the response provided in PUB (MPI) 1-106 for the hurdle rates used for projects in 2022. See Appendix 2 for the 2021 SCOR Report.
- c) Please refer to page 4-5 of Value Management VM Appendix 10 - MPI Determination of Cost of Capital for VM Business Cases for the rationale for the change in methodology from last year.
- d) Confirmed. The medium-high hurdle rate is 9% as reflected in the Hurdle Rates table in figure VM App 10-2 of Value Management VM Appendix 10 MPI Determination of Cost of Capital for Value Management Business Cases – May 2022.

PUB (MPI) 1-120 Appendix 1

- 1 This material is the subject of a confidential motion.



Results of Canadian P&C Insurance Companies

Résultats des compagnies canadiennes d'assurances IARD

SCOR Canada Reinsurance Company /

SCOR Canada Compagnie de Réassurance

Year / Année 2021

THE SCOR REPORT / LE RAPPORT SCOR

2021

COMPANY NAME / NOM DE LA SOCIÉTÉ	YEAR / ANNÉE	DIRECT PREMIUM WRITTEN / PRIMES DIRECTES SOUSCRITES (000's)	NET PREMIUM WRITTEN / PRIMES NETTES SOUSCRITES (000's)	NET PREMIUM EARNED / PRIMES NETTES ACQUISES (000's)	LOSS RATIO / RATIO DES SINISTRES	EXPENSE RATIO / RATIO DES FRAIS	COMBINED RATIO / RATIO COMBINÉ	U/W RESULTS / RÉSULTATS TECHNIQUES (000's)	INVESTMENT INCOME / REVENUS DE PLACEMENT (000's)	NET AFTER TAX INCOME / BÉNÉFICE NET APRÈS IMPÔT (000's)	ROE
Affiliated FM Insurance Company	2019	145 724	101 205	92 488	122,48%	24,17%	146,65%	(43 157)	13 562	(42 641)	-11,00%
	2020	184 416	132 440	111 119	55,25%	34,63%	89,88%	11 229	18 130	30 666	6,78%
	2021	208 941	151 397	144 014	34,98%	20,29%	55,27%	64 401	12 243	75 603	19,58%
AIG Insurance Company of Canada	2019	1 269 544	358 295	385 625	76,45%	19,95%	96,40%	14 880	67 372	38 087	4,66%
	2020	1 341 213	361 615	359 528	84,16%	18,45%	102,61%	(8 312)	57 065	29 612	3,82%
	2021	1 318 990	337 094	338 286	63,48%	13,12%	76,60%	80 147	46 967	116 216	15,18%
Alberta Motor Association Insurance Company	2019	223 559	205 015	206 948	59,20%	26,98%	86,18%	36 918	9 434	32 659	16,13%
	2020	235 998	219 177	211 940	124,10%	64,24%	188,34%	(100 550)	20 952	(61 331)	-31,83%
	2021	250 519	231 136	224 735	54,43%	26,82%	81,25%	51 813	4 119	43 427	25,74%
Allied World Specialty Insurance Company	2019	76 532	33 168	22 483	48,16%	22,41%	70,57%	6 616	798	7 075	n/a
	2020	133 431	50 390	35 964	54,20%	5,08%	59,28%	14 642	1 197	17 089	n/a
	2021	197 313	77 617	61 601	52,90%	-0,30%	52,60%	29 200	3 676	24 903	26,91%
Alpha (L'), Compagnie d'Assurances Inc.	2019	26 211	25 644	24 914	55,40%	33,23%	88,63%	3 153	3 699	4 991	8,41%
	2020	31 660	31 048	28 579	42,10%	29,64%	71,74%	8 412	3 432	9 059	13,56%
	2021	37 187	36 458	34 167	45,55%	25,58%	71,13%	10 229	3 467	10 155	13,29%
Antigonish Farmers' Mutual Insurance Company	2019	6 643	5 381	5 247	73,70%	50,83%	124,53%	(1 135)	558	(217)	-1,42%
	2020	7 047	5 789	5 524	53,10%	51,94%	105,04%	(120)	1 408	1 066	6,74%
	2021	7 590	6 260	6 125	43,56%	50,32%	93,88%	455	510	831	4,99%
Arch Insurance Canada Ltd.	2019	118 811	13 727	10 339	66,21%	62,92%	129,13%	(3 011)	2 078	(1 356)	-1,66%
	2020	154 507	17 821	16 257	116,71%	6,85%	123,56%	(3 830)	2 495	(1 409)	-1,72%
	2021	200 744	24 378	20 490	54,46%	8,40%	62,86%	7 610	1 165	8 763	10,19%
Aviva Canada Inc. (Consolidated)	2019	5 440 876	1 970 465	2 495 659	45,11%	54,72%	99,83%	4 193	302 325	146 249	10,38%
	2020	5 620 027	3 994 726	3 922 799	64,84%	34,94%	99,78%	8 552	382 447	209 328	14,82%
	2021	5 936 990	4 201 304	4 060 571	54,39%	34,62%	89,01%	446 258	(7 608)	313 623	21,46%
AXA XL	2019	475 780	268 737	214 222	77,89%	31,08%	108,97%	(19 211)	21 737	(9 992)	n/a
	2020	544 908	287 998	277 087	82,48%	28,80%	111,28%	(31 244)	24 202	(4 480)	n/a
	2021	718 538	326 613	311 097	50,67%	24,70%	75,37%	76 622	17 252	71 721	n/a

THE SCOR REPORT / LE RAPPORT SCOR

2021

COMPANY NAME / NOM DE LA SOCIÉTÉ	YEAR / ANNÉE	DIRECT PREMIUM WRITTEN / PRIMES DIRECTES SOUSCRITES (000's)	NET PREMIUM WRITTEN / PRIMES NETTES SOUSCRITES (000's)	NET PREMIUM EARNED / PRIMES NETTES ACQUISES (000's)	LOSS RATIO / RATIO DES SINISTRES	EXPENSE RATIO / RATIO DES FRAIS	COMBINED RATIO / RATIO COMBINÉ	U/W RESULTS / RÉSULTATS TECHNIQUES (000's)	INVESTMENT INCOME / REVENUS DE PLACEMENT (000's)	NET AFTER TAX INCOME / BÉNÉFICE NET APRÈS IMPÔT (000's)	ROE
Beneva Inc	2019	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	2020	1 733 627	1 687 346	1 570 716	55,12%	31,89%	87,00%	206 034	32 380	191 109	n/a
	2021	1 960 283	1 904 344	1 828 267	52,02%	32,32%	84,34%	287 854	55 462	269 839	n/a
CAA Insurance Company	2019	397 238	381 954	325 944	58,63%	36,46%	95,09%	19 888	18 421	31 015	14,21%
	2020	501 294	477 292	408 128	53,79%	36,81%	90,60%	43 285	26 052	60 636	22,97%
	2021	641 543	608 358	551 398	53,79%	37,42%	91,21%	55 275	12 323	59 036	18,12%
Chubb Insurance Company of Canada	2019	1 143 143	514 332	449 947	49,63%	25,02%	74,65%	114 045	60 769	125 204	13,78%
	2020	1 307 754	562 378	513 153	52,44%	22,39%	74,83%	129 191	58 147	129 635	12,92%
	2021	1 485 340	639 269	569 820	30,88%	18,46%	49,34%	288 664	56 771	253 209	22,94%
Clare Mutual Insurance Company	2019	3 505	2 511	2 382	18,18%	59,40%	77,58%	650	278	804	21,58%
	2020	3 885	2 859	2 646	32,28%	53,85%	86,13%	514	166	653	14,42%
	2021	4 414	3 310	3 057	26,73%	57,90%	84,63%	602	351	920	17,08%
Continental Casualty Company	2019	397 806	368 501	348 460	55,75%	34,41%	90,16%	34 692	36 320	54 836	n/a
	2020	448 389	396 752	369 876	61,34%	33,94%	95,28%	16 892	40 411	44 622	n/a
	2021	508 934	431 642	414 652	53,37%	33,21%	86,58%	55 382	38 992	73 705	n/a
Desjardins Groupe d'Assurances Générales Inc. (1)	2019	5 535 806	5 249 826	4 987 864	73,48%	24,69%	98,17%	107 319	456 376	193 716	8,59%
	2020	5 726 082	5 768 682	5 483 577	67,27%	23,59%	90,86%	433 427	512 715	623 119	25,01%
	2021	6 053 253	5 980 483	5 909 168	47,25%	24,38%	71,63%	1 591 836	464 659	1 198 782	31,99%
Echelon Insurance	2019	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	2020	599 411	387 132	340 645	70,98%	28,64%	99,62%	5 822	35 277	31 245	18,19%
	2021	659 078	441 053	444 017	64,64%	33,32%	97,96%	13 805	21 692	28 779	13,60%
Economical Mutual Insurance Company	2019	2 510 981	2 330 965	2 343 173	74,38%	32,84%	107,22%	(147 235)	175 122	17 374	1,09%
	2020	2 812 400	2 639 729	2 508 671	66,82%	32,59%	99,41%	22 347	180 104	153 936	8,98%
	2021	3 226 962	2 991 317	2 833 597	59,18%	32,68%	91,86%	239 141	76 103	212 368	10,85%
Factory Mutual Insurance Company	2019	354 151	234 141	242 143	28,52%	19,61%	48,13%	125 620	34 399	123 321	14,47%
	2020	408 078	292 541	266 936	64,76%	18,19%	82,95%	45 508	37 053	66 544	8,14%
	2021	435 108	313 650	296 886	6,38%	17,38%	23,76%	226 366	22 905	187 603	23,55%

(1) The amounts of investment income of \$ 464,659 (2021) and \$ 512,715 (2020) are disclosed in accordance with IFRS 9. These investment incomes, adjusted by the amount of the overlay approach, are of \$ 119,056 (2021) and \$ 495,173 (2020), which essentially brings the information in accordance with IAS 39.

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Federal Insurance Company	2019	561	49	7 457	44,24%	18,33%	62,57%	2 791	2 561	3 835	n/a
	2020	141	135	254	-588,98%	281,10%	-307,88%	1 036	2 558	3 023	n/a
	2021	(56)	(56)	(31)	16074,19%	-264,52%	15809,67%	4 870	2 301	5 259	n/a
Fonds d'Assurance Responsabilité Professionnelle du Barreau du Québec	2019	13 661	12 843	12 893	80,71%	16,12%	96,83%	4 089	4 943	8 094	8,19%
	2020	12 784	11 794	15 680	162,55%	15,92%	178,47%	(12 305)	6 425	(3 128)	-5,86%
	2021	TBA	TBA	TBA	TBA	TBA	TBA	TBA	TBA	TBA	TBA
Gore Mutual Insurance Company	2019	475 128	449 679	434 348	64,35%	34,80%	99,15%	7 023	19 433	13 948	4,36%
	2020	505 621	475 956	454 089	61,26%	40,81%	102,07%	(5 159)	19 690	12 223	3,68%
	2021	590 453	561 281	524 595	56,90%	43,00%	99,90%	6 390	20 390	22 540	6,41%
Groupe Estrie-Richelieu (Le), Compagnie d'Assurance	2019	65 451	45 626	43 974	75,53%	43,60%	119,13%	(8 412)	3 866	219	0,20%
	2020	75 125	57 896	52 758	45,57%	34,29%	79,86%	10 626	4 676	11 236	9,80%
	2021	84 453	69 312	64 574	48,55%	34,73%	83,28%	10 796	3 734	10 683	8,50%
Groupe Industrielle Alliance	2019	610 631	458 998	418 086	66,10%	28,83%	94,92%	21 234	15 869	27 552	12,68%
	2020	632 397	484 621	452 960	52,56%	30,59%	83,15%	76 323	16 652	68 439	28,28%
	2021	697 521	505 702	504 690	49,11%	31,50%	80,61%	97 837	15 086	83 840	31,81%
Insurance Company of Prince Edward Island (ICPEI)	2019	36 829	34 789	32 397	72,09%	36,17%	108,26%	(2 291)	1 182	(710)	-4,62%
	2020	43 188	41 066	37 012	54,73%	39,43%	94,16%	2 659	1 519	2 986	17,41%
	2021	66 676	63 965	53 448	45,08%	40,29%	85,37%	8 526	1 802	7 432	32,80%
Intact Financial Corporation (2)	2019	11 019 000	10 576 000	10 275 000	68,02%	29,71%	97,73%	233 000	576 000	754 000	10,00%
	2020	12 143 000	11 616 000	11 241 000	61,23%	31,68%	92,91%	797 000	577 000	1 082 000	12,80%
	2021	17 994 000	16 672 000	16 238 000	55,07%	33,25%	88,32%	1 896 000	706 000	2 088 000	17,00%
Kings Mutual Insurance Company (The)	2019	13 788	12 218	11 601	52,25%	58,11%	110,36%	(1 021)	1 712	651	1,61%
	2020	15 716	14 042	13 059	41,73%	51,29%	93,02%	1 115	1 743	2 260	5,35%
	2021	TBA	TBA	TBA	TBA	TBA	TBA	TBA	TBA	TBA	TBA
Lloyd's Canada Inc.	2019	3 552 026	3 947 503	3 842 182	62,77%	26,77%	89,54%	402 207	329 334	594 133	15,88%
	2020	4 005 721	4 389 888	4 153 757	67,39%	26,47%	93,86%	255 082	415 578	591 352	15,03%
	2021	4 929 347	5 351 126	4 916 036	50,79%	26,02%	76,81%	1 139 990	(48 127)	1 081 297	n/a

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2023 GRA Round 1 Information Requests
PUB (MPI) 1-120(b) Appendix 2

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Millenium Insurance Corporation	2019	201 983	139 701	113 808	53,90%	32,04%	85,94%	16 000	18 945	29 136	13,18%
	2020	255 977	159 958	137 873	55,62%	30,94%	86,56%	18 537	(15 586)	4 764	2,29%
	2021	346 668	192 794	157 391	51,68%	28,51%	80,19%	31 167	20 005	42 864	21,24%
Mitsui Sumitomo Insurance Company, Limited	2019	27 474	24 895	23 916	29,05%	29,47%	58,52%	9 921	2 124	8 845	n/a
	2020	28 884	26 656	25 886	41,55%	31,62%	73,17%	6 945	1 882	6 521	n/a
	2021	30 627	29 142	27 640	50,10%	32,33%	82,43%	4 856	1 688	4 759	n/a
Motors Insurance Corporation (3)	2019	83 345	35 752	47 593	42,50%	21,14%	63,64%	17 187	6 693	17 778	12,07%
	2020	76 493	41 653	47 924	39,87%	22,44%	62,31%	18 135	6 074	18 154	11,14%
	2021	81 533	44 945	48 336	35,52%	23,46%	58,98%	19 891	7 279	20 910	11,85%
Mutual Fire Insurance Company of British Columbia (The)	2019	127 322	56 860	50 693	59,18%	48,94%	108,12%	(3 914)	1 786	(1 979)	-4,36%
	2020	152 664	61 807	61 854	46,75%	40,68%	87,43%	8 066	2 107	7 305	14,55%
	2021	180 691	70 177	65 555	47,81%	31,27%	79,08%	14 063	4 392	11 893	18,98%
Mutuelle des municipalités du Québec (La)	2019	45 143	38 694	37 902	64,17%	37,94%	102,11%	(799)	1 603	804	2,44%
	2020	48 201	40 751	39 394	46,70%	35,56%	82,26%	6 987	1 375	8 362	17,44%
	2021	52 155	43 723	41 274	55,13%	37,83%	92,96%	2 908	1 082	2 990	7,27%
My Mutual Insurance Limited	2019	29 656	23 645	22 445	47,98%	44,80%	92,78%	1 954	624	1 894	10,55%
	2020	32 604	25 662	24 175	58,25%	44,52%	102,77%	(269)	1 064	555	2,90%
	2021	35 156	28 970	27 880	43,95%	43,31%	87,26%	3 971	115	3 001	14,32%
Norhtbridge Financial Corporation	2019	2 008 210	1 791 637	1 645 580	64,97%	33,27%	98,24%	28 942	45 912	29 075	2,03%
	2020	2 314 825	2 064 837	1 908 966	63,78%	33,66%	97,43%	48 968	209 244	199 385	12,94%
	2021	2 657 664	2 403 000	2 256 935	56,12%	32,99%	89,11%	245 836	462 392	545 325	29,62%
Old Republic Insurance Company of Canada	2019	275 202	211 139	204 568	58,67%	36,24%	94,91%	11 821	6 311	13 248	13,56%
	2020	224 257	165 707	178 178	63,48%	37,49%	100,97%	1 523	6 117	5 584	4,99%
	2021	255 532	178 852	167 724	48,92%	37,41%	86,33%	24 924	5 461	22 318	17,76%
Ontario Mutual Insurance Association	2019	937 902	825 712	774 340	65,77%	38,65%	104,42%	(26 226)	118 551	66 967	5,50%
	2020	1 015 899	890 012	853 853	55,70%	40,80%	96,50%	38 728	96 387	92 809	7,13%
	2021	1 070 598	933 123	905 282	57,43%	39,65%	97,08%	35 803	96 091	85 757	6,26%

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Ontario School Boards' Insurance Exchange (OSBIE)	2019	31 079	28 187	28 692	81,99%	12,00%	93,99%	1 953	9 069	11 355	9,40%
	2020	34 397	32 524	32 524	114,14%	11,68%	125,82%	(8 400)	13 977	5 668	4,44%
	2021	37 357	35 482	35 711	67,72%	12,59%	80,31%	7 030	15 065	22 220	16,46%
Optimum Général Inc.	2019	198 033	151 707	146 508	57,94%	37,98%	95,92%	5 988	6 363	12 807	12,50%
	2020	211 734	163 439	157 092	55,10%	38,41%	93,51%	10 210	8 055	13 515	12,11%
	2021	223 237	173 120	168 547	48,61%	38,60%	87,21%	21 535	1 629	17 105	14,09%
Orion Travel Insurance Company	2019	103 498	98 536	93 547	50,62%	49,16%	99,78%	205	898	108	0,32%
	2020	44 267	41 396	63 826	63,70%	52,14%	115,84%	(8 735)	911	(5 882)	-17,18%
	2021	32 033	8 360	7 144	100,06%	89,91%	189,97%	(6 428)	(13)	(4 524)	-14,29%
Pacific Coast Fishermen's Mutual Marine Insurance Company	2019	5 768	5 222	5 073	5,32%	19,50%	24,82%	3 814	475	4 290	60,07%
	2020	5 828	5 389	5 348	22,08%	17,50%	39,58%	3 231	316	3 564	50,12%
	2021	5 839	5 230	5 228	14,71%	18,11%	32,82%	3 511	611	4 106	57,72%
Peace Hills General Insurance Company	2019	246 050	145 047	138 476	60,54%	38,48%	99,02%	4 505	1 593	4 686	7,24%
	2020	287 491	168 749	156 311	54,32%	38,66%	92,98%	14 752	8 522	17 728	21,72%
	2021	327 978	200 172	183 035	48,79%	38,93%	87,72%	27 377	9 918	27 868	26,92%
PEI Mutual Insurance Company	2019	27 890	24 979	23 614	63,60%	31,56%	95,16%	1 143	4 575	4 189	7,57%
	2020	30 392	27 492	25 985	40,48%	30,25%	70,73%	7 604	2 637	4 223	7,09%
	2021	34 084	31 090	29 934	42,19%	29,76%	71,95%	8,396	7,723	11	17,00%
Portage La Prairie Mutual Insurance Company (The)	2019	218 187	194 990	181 779	56,69%	42,17%	98,86%	5 399	18 127	19 181	12,11%
	2020	241 344	211 716	201 581	50,08%	40,42%	90,50%	20 856	8 355	23 142	12,93%
	2021	262 514	229 235	220 230	46,24%	41,66%	87,90%	30 383	28 928	45 586	21,03%
Promutuel Assurance	2019	916 701	883 844	862 357	66,10%	32,77%	98,87%	9 813	19 387	17 507	3,21%
	2020	949 400	918 315	903 519	49,62%	35,09%	84,71%	138 177	36 884	138 966	22,11%
	2021	TBA	TBA	TBA	TBA	TBA	TBA	TBA	TBA	TBA	TBA
Red River Mutual Insurance Company	2019	125 567	108 516	103 723	51,08%	47,95%	99,03%	2 149	3 082	4 937	5,73%
	2020	140 658	123 300	114 155	45,56%	47,64%	93,20%	9 360	4 190	10 521	11,00%
	2021	182 841	157 179	136 847	48,04%	46,78%	94,82%	8 957	8 829	14 289	13,00%

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Royal & Sun Alliance Financial Services Limited (All Companies/RSA Canada Group) (4)	2019	3 131 993	2 496 186	2 506 394	69,01%	27,14%	96,15%	96 423	113 416	133 401	9,46%
	2020	3 126 186	2 444 764	2 473 915	62,45%	31,15%	93,60%	191 288	89 504	185 684	12,37%
	2021	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Saskatchewan Mutual Insurance Company	2019	83 070	76 699	73 381	51,78%	42,22%	94,00%	4 951	2 503	5 487	10,50%
	2020	90 473	83 074	79 310	51,03%	42,78%	93,81%	5 669	3 052	6 631	10,78%
	2021	100 171	91 448	86 674	51,23%	43,89%	95,12%	5 431	4 800	7 630	10,94%
SGI Canada (Consolidated)	2019	984 332	928 284	883 482	60,24%	37,35%	97,59%	21 271	82 738	104 815	25,95%
	2020	1 056 494	996 961	959 482	56,34%	37,92%	94,26%	55 045	87 987	126 171	27,07%
	2021	1 123 286	1 054 999	1 020 293	54,99%	37,05%	92,04%	81 168	80 983	144 180	27,43%
Sompo Japan Nipponkoa Insurance Inc.	2019	7 357	8 157	8 012	69,16%	41,40%	110,56%	(846)	1 459	717	n/a
	2020	8 839	10 041	9 316	40,22%	37,93%	78,15%	2 035	1 470	2 821	n/a
	2021	10 245	10 999	10 331	64,50%	38,95%	103,45%	(357)	1 173	809	n/a
TD Insurance General Insurance (Security National Insurance Co. Consolidated)	2019	3 527 541	2 566 912	2 419 263	74,51%	29,02%	103,53%	(85 197)	220 690	107 426	9,27%
	2020	3 906 971	2 835 183	2 648 923	69,11%	29,14%	98,25%	46 161	194 299	183 207	13,93%
	2021	4 070 993	2 942 638	2 778 920	56,78%	32,69%	89,47%	292 494	41 048	286 190	18,01%
Travelers Canada (5)	2019	1 753 485	1 681 346	1 659 658	68,20%	35,00%	103,20%	(41 665)	99 882	40 051	2,40%
	2020	1 630 683	1 562 016	1 585 637	62,10%	35,50%	97,60%	49 867	91 910	106 433	5,70%
	2021	1 606 076	1 542 659	1 549 817	49,70%	34,80%	84,50%	253 191	100 007	261 392	12,70%
Trisura Guarantee Insurance Company	2019	181 628	127 628	100 231	24,66%	67,25%	91,91%	12 202	7 991	15 780	19,14%
	2020	273 358	197 134	133 381	25,35%	63,70%	89,05%	19 502	6 118	19 950	19,95%
	2021	555 009	310 272	223 158	21,30%	62,77%	84,07%	42 207	9 525	41 168	29,83%
Wawanesa Mutual Insurance Company (The)	2019	3 704 650	3 586 177	3 377 642	76,38%	30,72%	107,10%	(211 585)	331 290	113 335	3,36%
	2020	3 972 568	3 827 440	3 712 007	75,89%	31,42%	107,31%	(234 383)	345 988	95 709	2,69%
	2021	3 933 537	3 794 755	3 823 474	65,96%	32,16%	98,12%	115 703	257 287	285 972	7,37%

(4) Included in Intact Financial Corporation's results. (Acquisition of RSA since the close on June 1, 2021)

(5) Combining The Dominion of Canada General Insurance Company, Travelers Insurance Company of Canada, and St. Paul Fire and Marine Insurance Company

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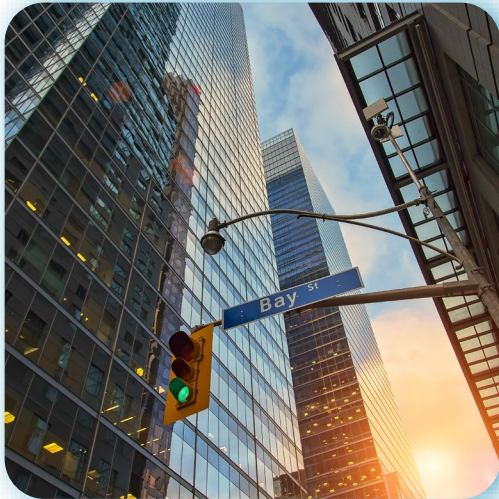
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Western Surety Company	2019	26 815	17 308	17 556	18,59%	76,20%	94,79%	914	1 630	1 940	6,41%
	2020	29 923	18 155	16 974	16,94%	85,77%	102,71%	(460)	2 173	1 356	4,08%
	2021	28 827	19 631	18 880	13,04%	79,20%	92,24%	1 465	2 403	2 940	8,11%
Wynward Insurance Group	2019	155 942	130 242	111 848	56,99%	39,25%	96,24%	4 207	14 552	13 957	19,39%
	2020	177 262	146 540	140 681	56,03%	39,72%	95,75%	5 974	4 072	7 485	9,20%
	2021	192 282	158 744	154 523	45,20%	42,67%	87,87%	18 740	6 587	18 699	19,41%
Zurich Insurance Company Ltd (Canada Branch)	2019	768 837	440 652	381 752	74,15%	26,60%	100,75%	2 662	52 277	36 080	n/a
	2020	1 022 681	557 684	494 816	76,22%	24,89%	101,11%	(315)	69 199	48 799	n/a
	2021	1 316 460	709 529	615 695	46,98%	25,35%	72,33%	188 629	50 865	178 086	n/a

TOTAL FOR ABOVE COMPANIES / TOTAL SOCIÉTÉS CI- DESSUS :	2019	53 848 045	44 450 226	43 279 609	67,02%	31,41%	98,43%	806 037	3 352 694	2 960 648	
	2020	60 655 760	52 291 926	50 080 767	64,23%	31,21%	95,44%	2 413 463	3 771 224	4 650 775	
	2021	66 930 327	57 292 823	55 085 551	53,70%	31,59%	85,29%	8 154 303	2 746 926	8 331 923	
NUMBER OF COMPANIES / NOMBRES DE SOCIÉTÉS :	55										
	55										

Combined Ratio / Ratio Combiné

85,3%

greatly improved from last year by 10,2 pts / soit une amélioration de 10,2 points de pourcentage



Loss Ratio / Ratio des Sinistres

53,7%

improved by 10,6 pts / amélioration de 10,6 points



The volume of direct premium written grew by / Le volume de primes directes souscrites a cru de

10,3%

while the expense ratio remained stable / alors que le ratio de frais est stable



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Thank you /
Merci

PUB (MPI) 1-121

Part and Chapter:	Part VII Investments INV Att. B	Page No.:	23
PUB Approved Issue No:	20. Asset Liability Management Study (in accordance with Directives 11.19 and 11.20 of Order 134/21)		
Topic:			
Sub Topic:	Real Return Bonds and ALM		

Preamble to IR:

Mercer Recommends:

"Including RRBs or levered RRBs in the Basic claims asset allocation would provide some inflation protection particularly for the benefits indexed to Manitoba CPI, but it would also create some challenges in the ALM Policy, as RRBs are very limited in the number of issuances."

Question:

- a) Please elaborate on the challenges of inclusion of RRBs in the ALM strategy and how MPI could address them.
- b) Please provide the timeline MPI has adopted for addressing the portfolio change recommendations made by Mercer.

Rationale for Question:

To understand MPI's investment strategy.

RESPONSE:

- a) Please see *Investments Attachment F - Mercer Report "Discussion Paper on Levered Bonds RRBs and Mortgages"* for an overview of the Canadian Real Return Bond Market. The report covers the scarcity of issuances (i.e., about eight

federal and five provincial issues), the relatively small size of the Canadian RRB market versus the Canadian overall bond market and the lack of liquidity (more so on the provincial issuances). The report goes on to discuss an estimated timeline for the implementation of RRBs, assuming the largest allocation proposed in the Study. Depending on a range of factors (e.g., manager selected and market environment) the estimated implementation time can take 10 months.

Mercer suggests implementation through a separately managed portfolio, which could shrink that upper estimated bound of ten months to five months. The initial implementation will be a greater challenge over the ALM Policy implementation (i.e., the ongoing ALM Policy management will entail trims (but RRBs are easily sold) and additions (but smaller buys are easier than the initial implementation)). Ultimately selecting a well-positioned investment manager and using a separately managed portfolio rather than a pooled fund can help mitigate some of the challenges of implementing the ALM Policy with Real Return Bonds. As mentioned above, illiquidity is an issue for purchases rather than redemptions.

- b) MPI has developed no timeline for the implementation of the changes to the investment portfolios as it is currently focused on studying the issue of leverage and selecting specific asset mixes to recommend to the Investment Committee (IC). However, if the IC approves asset mixes at the November 10, 2022 IC meeting, MPI would expect to start the implementation process shortly thereafter, which would include the following steps (estimated time required to complete each step is included):
- i. Select a consultant to assist with manager searches (3 months)
 - ii. Work with the consultant to complete manager searches (3 months)
 - iii. Recommend preferred managers to the IC for consideration and approval (at IC meeting following completion of step (b))
 - iv. Negotiate and sign contracts with the approved managers (1 month)
 - v. Transition assets/funds to the new managers (1 month)
 - vi. Purchase of securities by the selected managers (3-9 months)

PUB (MPI) 1-122

Part and Chapter:	Part VII Investments INV Att. B	Page No.:	5 of 33
PUB Approved Issue No:	20. Asset Liability Management Study (in accordance with Directives 11.19 and 11.20 of Order 134/21)		
Topic:	ALM Study		
Sub Topic:	Discount Rate Determination		

Preamble to IR:

Mercer states that in using the top-down approach to determine its discount rate, if an 'actual portfolio' approach for deriving the discount rate is adopted, then there may be an advantage to using illiquid assets in order to increase the illiquidity premium in the IFRS liability discount rate.

Question:

- a) Please comment on the benefits of the suggested approach mentioned by Mercer for the determination of the discount rate.
- b) What illiquid asset classes would Mercer suggest be used, and how would it affect the illiquidity premium?
- c) To what extent would incorporation of RRBs impact the illiquidity premium?

Rationale for Question:

To understand Mercer's recommendations.

RESPONSE:

- a) Please note that Mercer is not suggesting or recommending an approach to setting the discount rate. Rather, Mercer illustrates that each approach to setting the

discount rate has advantages and disadvantages. Those advantages and disadvantages can affect choice of asset mix. In this instance, Mercer drew the attention of MPI to the following:

- Generally, illiquid fixed income assets have a higher yield than liquid fixed income assets of equivalent credit risk and maturity.
- Therefore, shifting assets from liquid to illiquid assets (assuming no change in credit risk or maturity) can increase the expected return of a portfolio without increasing risk of loss.
- If MPI shifted capital from liquid to illiquid fixed income then, all else being equal, MPI would expect a greater return on investments over time, improving funding and reducing the cost of insurance provision.
- Under IFRS-17, one can derive your discount rate from a reference portfolio, or the actual portfolio held. Using the reference portfolio approach to deriving the discount rate, a formulaic approach determines how fixed income yields affect the discount rate. The balance between liquid and illiquid assets in the actual portfolio does not feed into the discount rate, except where an illiquid reference portfolio can be identified and used.
- In general, under the reference portfolio approach, there would be no immediate improvement in surplus by shifting assets from liquid to illiquid fixed income. Eventually, MPI would expect funding improvements to emerge because of the illiquid holdings. It could take at least ten years for there to be meaningful results and those results may be hard to identify given the number of other moving pieces over a ten-year time horizon.
- There are practical issues relating to holding a higher proportion of a portfolio in illiquid fixed income assets. These issues include difficulty in acquiring suitable illiquid fixed income assets, higher management fees, less reliable asset values, delays in receiving asset values, greater care being required to forecast liquidity requirements.

- Therefore, under the reference portfolio approach, increasing the allocation to illiquid fixed income assets brings many practical issues and no immediate improvement in funding. The improvement in funding will be expected to emerge over time but will be hard to separate from all the other variables that affect funding.
 - The 'actual portfolio' approach to determining discount rates under IFRS-17 allows consideration of actual portfolio illiquidity premia when determining the discount rate. Therefore, when using an actual portfolio approach to the discount rate, allocating to illiquid assets may allow the improved expected return on illiquid fixed income assets to be recognized immediately and improve reported funding. This may make it easier to accept the practical challenges associated with illiquid fixed income. Note: while this is the understanding of Mercer, reliance on specialist advice from accounting experts is advisable.
 - MPI notes that adopting an 'actual portfolio' approach to determining the discount rate may require additional work. A process of assessing the actual portfolio and determining how each part should impact the discount rate could add significant complexity and time compared to the reference portfolio approach.
- b) Further work would be required before Mercer could suggest specific asset classes for inclusion. Various forms of direct lending and private debt would also be considered.
- c) RRBs are not considered to have an illiquidity premium. Their impact will depend on the assets that are removed to include RRBs. If assets with a material illiquidity premium are removed, overall illiquidity premium will decrease.

PUB (MPI) 1-123

Part and Chapter:	Part VII Investments Inv Att. B	Page No.:	12, 13 of 33
PUB Approved Issue No:	20. Asset Liability Management Study (in accordance with Directives 11.19 and 11.20 of Order 134/21)		
Topic:	ALM Study		
Sub Topic:	New Asset Classes		

Preamble to IR:

Mercer modelled alternative scenarios of adding non-fixed income into the Basic asset portfolio. Mercer concluded

The analysis demonstrates that adding non-fixed income asset classes into MPI's Basic asset portfolio may improve the long-term performance of the assets and increase the probability of meeting the insurer's long-tail liabilities.

Mercer identifies a key consideration being understanding the impact on the MCT and how discount rate would be struck if the portfolio held non-fixed income assets. These considerations could significantly influence the decision on whether to add non-fixed income assets for long-tail Basic claims liabilities.

Question:

- a) Please provide the graph of the surplus projection and probability of deficit after ten years, including a narrative and conclusion on which portfolio provides the lowest downside risk and highest upside risk.
- b) Please explain the expected impact on the MCT under each alternative portfolio with respect to changes in return and minimum capital required.

- c) Please indicate how the discount rate determination would be affected using the top-down approach and whether there would be similar issues using the bottom-up approach.

Rationale for Question:

To understand impact of changes in investment portfolio.

RESPONSE:

- a) It appears that the question stems from a review of the initial analysis on this matter provided in Phase One (c). The conclusions of Phase One (c) supported the exploration of including non-fixed income asset classes for the Long Basic Claims portfolio. In Phase Two, Mercer conducted asset mix optimizations for the Long Basic Claims portfolio; the exhibits in that report show the Probability of Deficit after 10 years for each asset mix reviewed. Please see Appendix 1 for an excerpt from that report.

Downside risk measures are shown under "Risk Metrics" in the table contained in Appendix 1 – Efficient Minimum Constrained Frontiers Basic Long. In particular, "5% Value at Risk" and "Probability of deficit – 10 year". The lowest 5% Value at Risk is shown in Mix (C); however, due to the low expected return it has a higher Probability of deficit – 10 years over the other mixes which all have higher expected returns. Highest upside risk would be provided by Mix (E) which has the highest expected return as well as the highest surplus volatility. Mix (D) provides appeal with the highest Information Ratio and lowest Probability of deficit – 10 year.

- b) It is important to note that the MCT calculation is restricted to the portion of the MCT calculation that involves the asset mix; therefore, the MCT here is a good relative comparison, but not representative of the full MCT. Expected return increases as the allocation to (i) equities and (ii) corporate bonds is increased which in turn increases the MCT. The optimization maximizes the allowable alternatives allocation. Mortgages have a lower MCT than Real Estate.

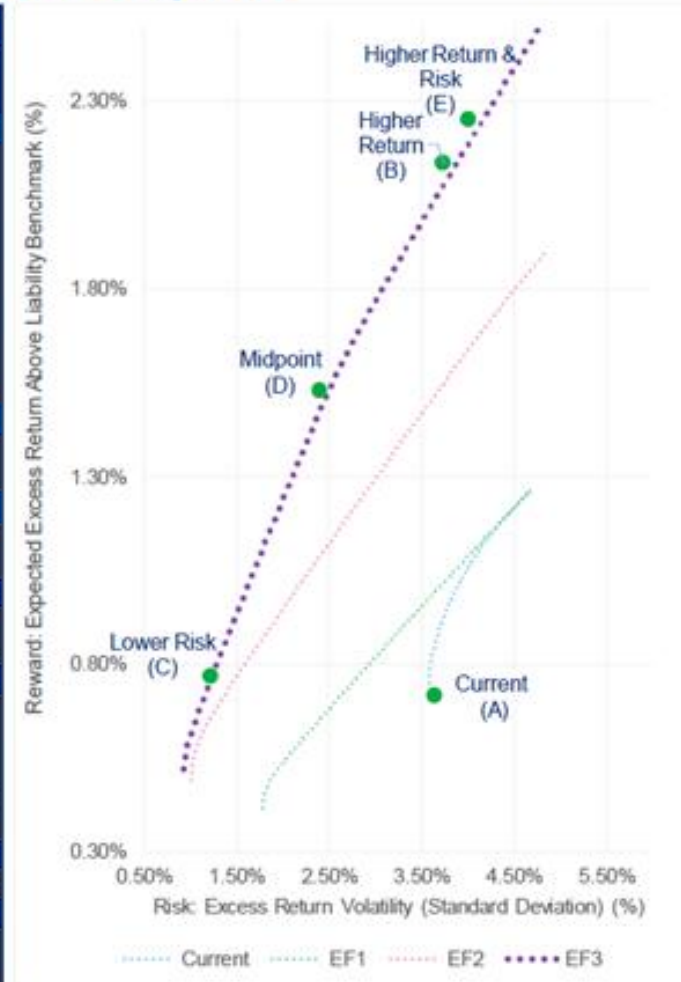
- c) Under IFRS 17, insurers should calculate their discount rate using observable market prices for assets that have similar characteristics to the liabilities while excluding the effect of factors that influence such observable market prices (but do not affect the future cash flows of the insurance contracts). They may therefore reach the discount rate using a top-down approach, where other factors are stripped out of the yields on a portfolio, or a bottom-up approach, where an illiquidity premium is added to a liquid risk-free rate. In principle, the approach used should not impact the discount rate, but there may be calculation issues (e.g., lack of data) that cause differences.

Mercer understood that MPI expected to adopt the top-down approach and hence highlighted that MPI could use a reference portfolio or actual portfolio. Again, the selection is not intended to impact the discount rate, however it can have an impact depending on the quantum and nature of illiquid assets in the portfolio being selected (and the recommended portfolio has not yet been selected). In addition, the actual portfolio approach involves more analysis and as a result, more cost.

Efficient Frontiers (Minimally Constrained) – Basic Long

Adding 3x Long-Term Provincial Bonds, 3x Real Return Bonds and Equities

	Liability Benchmark	Current	Higher Return (A)	Lower Risk (C)	Midpoint (D)	Higher Return & Risk (E)
Fixed Income	100%	100%	69%	81%	75%	68%
3x Real Return Bonds	---	---	9%	2%	12%	8%
Real return bonds	62%	---	---	38%	---	---
3x Long Provincial Bonds	---	---	4%	---	---	5%
Provincial short-term bonds	36%	---	---	---	---	---
Provincial mid-term bonds	2%	33%	33%	21%	43%	31%
Provincial long-term bonds	---	27%	---	---	---	---
Corporate mid-term bonds	---	9%	3%	---	---	4%
Corporate long-term bonds	---	11%	---	---	---	---
MUSH Bonds	---	20%	20%	20%	20%	20%
Public Equities	---	---	16%	4%	10%	17%
Canadian equity (large cap.)	---	---	12%	4%	10%	13%
All Country World Equity	---	---	4%	---	---	4%
Alternatives	---	---	15%	15%	15%	15%
Commercial mortgages	---	---	4%	12%	9%	3%
Core Canadian Real Estate	---	---	11%	3%	6%	12%
Return Metrics						
Median return - 10 year	1.85%	2.48%	3.82%	2.58%	3.24%	3.93%
Probability of positive real return - 10 year		63%	82%	72%	79%	83%
Risk Metrics						
Expected excess return - 10 year		0.72%	2.13%	0.77%	1.53%	2.25%
Surplus volatility		3.65%	3.73%	1.22%	2.41%	4.01%
Information Ratio (Excess Return/Risk)		0.20	0.57	0.63	0.63	0.56
5% Value at Risk		124.0 M	122.4 M	52.9 M	74.7 M	132.1 M
Probability of deficit - 10 year		26%	11%	14%	11%	11%
Other Metrics						
Minimum Capital Required		15.6 M	160.5 M	60.8 M	103.3 M	169.4 M
Interest Rate Metrics						
Duration	10.9	11.1	11.0	10.9	11.1	10.9
Hedge Ratio	100%	101%	100%	100%	101%	100%



PUB (MPI) 1-124

Part and Chapter:	Part VII Investments Inv Attachment B Inv Attachment G	Page No.:	13
PUB Approved Issue No:	20. Asset Liability Management Study (in accordance with Directives 11.19 and 11.20 of Order 134/21)		
Topic:	ALM Study		
Sub Topic:	Basic Claims Portfolio Asset Mix Optimization		

Preamble to IR:**Question:**

- a) Please provide a 10-year and 20-year surplus analysis based on the Basic portfolio alternative mixes evaluated in Attachment G.
- b) Please comment on how the results of the surplus analysis in (a) supports Mercer's recommended portfolio asset class additions set out in Attachment F p. 3.

Rationale for Question:

To understand potential changes to investment portfolio asset mix.

RESPONSE:

- a) Analysing 10-year and 20-year surplus entails a significant amount of work. In *INV Attachment G Mercer Report Asset Mix Optimization Basic Insurance Component Jun 2 22* the probability of deficit was provided only for the final efficient frontier (the one with leverage). MPI has asked Mercer to provide the probability of deficit for all of the efficient frontiers developed for the Basic Claims portfolio. This work will cost an additional \$32,000 and will not be ready in time to file on August 30. Mercer expects that the analysis will be ready in the first week of September.

We can confirm that the surplus analysis on various generic asset mixes in Phase 1 of the project was done as an initial screen to support whether additional efficient frontier analysis would be done on alternative portfolio mixes. No further surplus analysis was undertaken to support the portfolio selection.

- b) Asset class addition is supported or not supported based on the efficient frontier analysis already completed and submitted. The ability to materially increase the risk or reduce the return of the portfolio (i.e., move the efficient frontier up and to the left) is the deciding factor when considering adding new asset classes. Surplus analysis adds no value when considering adding new asset classes.

PUB (MPI) 1-125

Part and Chapter:	Part VII- Investments INV Attachment C	Page No.:	6 of 33
PUB Approved Issue No:	20. Asset Liability Management Study (in accordance with Directives 11.19 and 11.20 of Order 134/21)		
Topic:	Investments		
Sub Topic:	Interest Rate Risk		

Preamble to IR:

Mercer states:

"To assess interest rate risk, we estimate how the investment portfolios and liabilities (where applicable) would respond to an immediate parallel shift (1% decrease and increase) in market yield curve. For this purpose, only the fixed income portion of the investment portfolios is assumed to be impacted."

Question:

- a) Please provide an alternative table based on Mercer's capital market assumptions, including Mercer's standard interest rate forecast and based on the forward curve, and provide the net impact on 2022/23 and 2023/24.
- b) Please provide the same analysis in (a) based on Mercer's recommended optimized changes to the portfolios.
- c) Please provide Mercer's interest rate forecast and implied forward curve used to model the analysis.
- d) Please provide the underlying assumptions and details in support of the Mercer interest rate forecasts based on future yield curve and Mercer's standard interest rate forecast.

Rationale for Question:

To understand the analysis of interest rate risk.

Rationale for Question:

Copy and paste IR rationale for question from Interveners or PUB here.

RESPONSE:

- a) Based upon clarification provided by the PUB's counsel, MPI will refile Figure INV-41 using Mercer's capital market assumptions, including Mercer's standard interest rate forecast and based on forward curve for the current portfolio mix. That updated figure will not be completed by August 30. MPI expects to be able to file that information in the first week of September.
- b) The optimization analysis includes tables with "Hedge Ratio". The Hedge Ratio is equal to the asset duration of a particular asset mix policy divided by the liability duration. The Hedge Ratio represents the magnitude of interest rate risk that is hedged by the asset mix policy.
- c) See a) not relevant to the exercise.
- d) See a) not relevant to the exercise.

PUB (MPI) 1-126

Part and Chapter:	Part VII- Investments; INV Attachment C Attachment H pg.33	Page No.:	8 of 33
PUB Approved Issue No:	20. Asset Liability Management Study (in accordance with Directives 11.19 and 11.20 of Order 134/21)		
Topic:	ALM Study		
Sub Topic:	Inflation Risk		

Preamble to IR:

Mercer evaluated the risk of inflation based on its base case and three stress test economic scenarios:

1. Financial Repression: Strong growth and inflation, supported long term by low central bank rates, designed to reduce debt.
2. Pandemic Stagflation: Pandemic stress re-emerges. Growth slows, but supply chains drive inflation.
3. Overheat: Central banks pre-emptively tighten policy to avoid risk of runaway inflation.

Mercer's base case inflation assumption appears to be 2% per annum (consistent with Bank of Canada target).

Question:

- a) Please provide a table that indicates the Mercer assumptions on inflation base case, financial repression, pandemic stagflation, and overheat used in the analysis.

- b) Please provide a comparative analysis of the impact on the base case and various inflation scenarios on the portfolios, based on the Mercer-recommended optimized portfolio changes to the Basic, Extension, and SRE portfolios.

Rationale for Question:

To understand the analysis of inflation risk.

Rationale for Question:

RESPONSE:

- a) The below table provides a year-by-year forecast of the underlying inflation under the base case and the three inflationary scenarios:

Scenario	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Base Case	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
Financial Repression	3.8%	3.6%	3.6%	3.6%	3.3%	3.0%	2.8%	2.7%	2.7%	2.6%
Pandemic Stagflation	4.1%	5.1%	5.8%	6.3%	5.8%	5.5%	5.3%	4.8%	4.5%	4.3%
Overheat	3.8%	3.6%	2.6%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%

- b) Mercer performed 10-year projections of the surplus under the above scenarios for Basic, Extension and SRE for the current portfolios as well as 3 alternative portfolios that were optimized as part of the efficient frontier analysis. Please refer to *Investments INV Attachment I – Mercer Report Inflation Scenario Analysis*.

PUB (MPI) 1-127

Part and Chapter:	Part VII- Investments; INV Attachment C PUB (MPI) 1-80 (2019 GRA)	Page No.:	13 of 33
PUB Approved Issue No:	20. Asset Liability Management Study (in accordance with Directives 11.19 and 11.20 of Order 134/21)		
Topic:	ALM Study		
Sub Topic:	Inflation Risk		

Preamble to IR:

In 2019 GRA, PUB (MPI) 1-80, preamble, the following was noted from the previous ALM study: Real Return Bonds (RRBs) had been designated by Mercer to have a strong ability to duration match the inflation-linked liabilities. MPI's proposed Basic Portfolio was based on 100% fixed income securities. Previously the portfolio contained real estate investments as a hedge against inflation.

It was also noted that MPI had a long-term inflation forecast of 2.0%, which was based upon historical inflation and the Bank of Canada's inflation target. RRBs were not considered for this reason, as well as because the real yields on RRBs are currently very low. In addition, the Dynamic Capital Adequacy Test (DCAT) report does not include a high inflation scenario as a significant risk.

PUB (MPI) 1-80 requested the following information

- a) Given that the fixed income portfolio is set to back claims liabilities which are impacted by inflation risk, please explain how MPI proposes managing inflation risk with its proposed fixed income portfolio design.
- b) Please explain why MPI believes inflation risk is not a significant risk requiring protection through the investment portfolio,

MPI responded:

- a) *"The portfolio supporting Basic claims liabilities after February 28, 2019 will include only nominal bonds. Nominal interest rate risk is hedged instead of real interest rate risk."*
- b) *"As stated in the Corporation's Rate Application "MPI has a long-term inflation forecast of 2.0%, which is based upon historical inflation and the Bank of Canada's inflation target." Since the Bank of Canada (BoC) adopted its explicit inflation target in March 1991, inflation has averaged at 1.9%. The Corporation therefore believes that the risk of inflation significantly exceeding the BoC's 2% inflation target is low. Further, given the low real yields currently available on Real Return Bonds (RRBs), the cost of obtaining protection from a high inflation scenario is substantial.*
- c) Mercer states at page 7 of the Phase 2 Report, that dollar and duration matching of liabilities is *"challenging with RRBs. The Canadian RRB market consists of 15 issues of which only 7 are liquid and all are government issued. Further, RRBs are traditionally indexed to Canadian Consumer Price Index, while Basic Liabilities are indexed to other drivers."*

Question:

- a) Please confirm that Mercer has chosen to develop its efficient frontier analysis for the Basic Claims portfolio and EFB portfolio using a real liability benchmark while the Basic Short (a subset of Basic Claims), Extension and SRE portfolios are based on a nominal liability benchmark.
- b) Please indicate whether the Corporation has completed its review of how the Financial Condition Test models inflation, and whether a high inflation scenario is going to be provided.

Rationale for Question:

To understand the impact of changes in inflation on MPI's investment portfolio

RESPONSE:

- a) Mercer developed a real liability benchmark where underlying liabilities have an inflation component; therefore, Basic Claims portfolio and EFB portfolio use a real liability benchmark while the Basic Short (a subset of Basic Claims), Extension and SRE portfolios use a nominal liability benchmark.

- b) The 2022 FCT report is currently in process and will be provided later. MPI will review the inflationary scenario and revise the report as needed to reflect the current inflationary environment. MPI will be testing a high inflationary scenario in the report.

PUB (MPI) 1-128

Part and Chapter:	Part VII- Investments; INV Attachment G PUB (MPI) 1-79(2019 GRA)	Page No.:	11-14
PUB Approved Issue No:	20. Asset Liability Management Study (in accordance with Directives 11.19 and 11.20 of Order 134/21)		
Topic:	ALM Study		
Sub Topic:	Basic Claims Portfolio Asset Mix Optimization		

Preamble to IR:

Mercer evaluated risk and return parameters under the current and alternative asset mix optimization with efficient frontier analysis and stochastic modelling.

Mercer indicated:

For portfolios with an underlying liability (all except RSR), we used the following metrics:

1. 10-year median return: based on capital market assumptions, see Phase One report
2. Probability of positive real return: based on 10-year projection
3. 10 year expected excess return: asset mix return in excess of liability benchmark return
4. Surplus volatility: Measured as annual standard deviation
5. Information ratio: 10-year expected excess return/surplus volatility
6. 5% Value at Risk: Impact of a 1-in-20-year downside event measured in dollars
7. Probability of deficit: based on 10-year projection
8. MCT Required

Question:

- a) Please explain why MPI is modelling a Basic short portfolio separate from long assets.
- b) Please re-file the efficient frontier analysis to include the 2019 proposed asset mixes for the Basic Long Portfolio, and provide a narrative description of the results along the efficient frontier of the various portfolios relative to the current asset mix through each step of the step-wise analysis.
- c) Please provide a narrative description of the results of each of the risk metrics with respect to each of the modelled Basic Long portfolio mixes through the step-wise analysis, and discuss any recommended changes to the portfolio given the results of the analysis.
- d) Please provide a graph of the Basic one-year and five-year surplus growth for the above-modelled asset mixes in a similar format as PUB (MPI) 1-79 (2019 GRA) and provide a narrative description of the results.
- e) Please provide the efficient frontier for the Basic combined, provide a narrative description of the results of each of the risk metrics, and include the MCT ratio for 2023/24 for each scenario on p. 23.

Rationale for Question:

To understand the analysis of alternative portfolio mixes.

RESPONSE:

- a) Basic Short has a vastly different profile from Basic Long as is evident in comparing the liability benchmark portfolio (LBP) for each component. Also, Basic Short requires a very liquid portfolio whereas Basic Long can withstand a constrained amount of illiquidity.

- b) Refusing to respond.
- c) MPI continues to assess whether to incorporate levered bonds in the portfolios. Once it makes its decision, Mercer can address the request. Mercer developed four efficient frontiers for the Basic Claims portfolio and each efficient frontier had four potential asset mixes. Discussing the risk metrics for 16 asset mixes would not only be a massive amount of work, but discussion of the asset mixes not ultimately selected would add no value to the analysis. A narrative discussion of the risk metrics of the final selected asset mix will be provided once that mix is selected.
- d) Surplus one-year and five-year growth is not yet available since the intention is to create the analysis for the MPI-selected portfolio (which has yet to occur). Once MPI makes that decision, Mercer can address the request.
- e) Please see *Appendix 1 – Efficient Frontiers (Minimally Constrained)* for the efficient frontier for the Basic combined portfolio as well as the minimum capital required for each asset mix.

“Expected excess return – 10 year” represents the incremental return of a particular asset mix policy over and above the Liability Benchmark return. A larger value is beneficial. (Note that expected return and median return can be different and the difference is based on arithmetic returns rather than geometric returns, which is the proper approach.) Except for Mix (C) which is slightly lower than Current, all mixes improve this metric. The new asset classes allow the improvement. In Mix (C) the objective is to significantly lower risk (i.e., Surplus volatility and “5% Value at Risk”) which is done so while slightly reducing the return.

“Surplus volatility” represents a measure of financial stability (or risk) (i.e., standard deviation) of a 1-year volatility in the surplus (i.e., assets minus liabilities). A smaller value represents greater expected financial stability. All mixes provide a lower surplus volatility except Mix (E) which has the objective of illustrating a mix with a higher return and higher risk than the Current asset mix

policy. Given that the assets support liabilities, it is better to evaluate surplus volatility rather than return volatility which ignores the liabilities.

"Information ratio (Excess return/Risk)" represents a risk-adjusted return which enables the reader to assess how much expected excess return can be achieved per unit of risk. Excess return is "Expected excess return – 10 year" and Risk is "Surplus volatility". A larger information ratio is beneficial. The addition of the new asset classes has significantly improved the Information ratio in every mix relative to the Current Information ratio. The highest information ratio is achieved with Mix (D).

"5% Value at Risk" represents a 1-in-20 year downside event (i.e., a 5% probability) where a deficit emerges. In the case of Current, a 1-in-20 year downside event would mean a loss of at least \$129M. A smaller value is more beneficial. All mixes improve this metric except for Mix (E) which has the objective of producing a higher return and higher risk relative to Current.

"Minimum Capital Required". Regulated insurance companies are required to set aside extra capital if they hold riskier assets. Here we have used the rules for OSFI regulated entities (note that MPI is not regulated by OSFI). The value represents only the capital required as a result of a particular asset mix policy for comparability across asset mixes. Note that it does not include the required capital for items not relating to asset mix policy. A lower value is more beneficial. All values are higher than Current but note that this is the cost of obtaining a significantly higher expected return.

"Duration" is a measure of interest rate sensitivity. To reduce the risk of surplus being impacted by interest rate changes one would look for the duration of assets to be similar to the duration of the liabilities.

"Hedge ratio" is a measure of how closely assets and liabilities move together with a shock to interest rates. A 100% Hedge Ratio indicates that asset and liabilities would move in the same magnitude for a shock in interest rates thereby preserving financial stability, effectively this is when the duration of the assets and

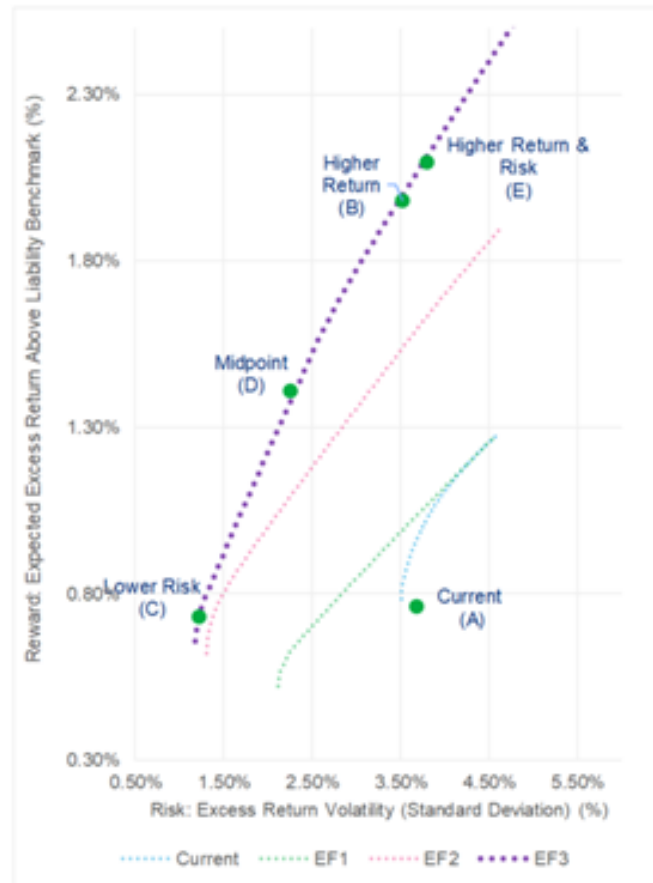
the liabilities are the same. Given the ALM Policy's objectives, the analysis constrained this metric to 100%.

RATIONALE FOR REFUSAL TO FULLY ANSWER THE QUESTION:

- b) The request entails rehashing a previous study which would be expensive and asset mixes from an earlier study that made use of a different liability benchmark are not relevant to developing an asset mix policy on a go forward basis.

Efficient Frontiers (Minimally Constrained)

Basic Combined



- The combined mixes from the previous page are shown in the top left efficient frontier.
- The results show that the combined mixes are “efficient”.
 - Conducting the analysis on a separate basis vs. combined basis did not alter the efficiency of the mixes.

Efficient Frontiers (Minimally Constrained)

Basic Combined

	Liability Benchmark	Current (A)	Higher Return (B)	Lower Risk (C)	Midpoint (D)	Higher Return & Risk (E)
Fixed Income	100%	100%	70%	81%	76%	69%
Treasury Bills	3%	---	6%	6%	6%	6%
3x Real Return Bonds	---	---	8%	2%	11%	7%
Real return bonds	58%	---	---	35%	---	---
3x Long Provincial Bonds	---	---	4%	---	---	5%
Provincial short-term bonds	39%	---	---	---	---	---
Provincial mid-term bonds	---	33%	29%	18%	39%	27%
Provincial long-term bonds	---	27%	---	---	---	---
Corporate mid-term bonds	---	9%	3%	---	---	4%
Corporate long-term bonds	---	11%	---	---	---	---
MUSH Bonds	---	20%	20%	20%	20%	20%
Public Equities	---	---	15%	4%	9%	16%
Canadian equity (large cap.)	---	---	11%	4%	9%	12%
All Country World Equity	---	---	4%	---	---	4%
Alternatives	---	---	15%	15%	15%	15%
Commercial mortgages	---	---	5%	12%	9%	4%
Core Canadian Real Estate	---	---	10%	3%	6%	11%
Return Metrics						
Median return - 10 year	1.82%	2.48%	3.66%	2.52%	3.11%	3.77%
Risk Metrics						
Expected excess return - 10 year		0.76%	1.98%	0.73%	1.41%	2.10%
Surplus volatility		3.69%	3.52%	1.22%	2.26%	3.80%
Information Ratio (Excess Return/Risk)		0.21	0.56	0.60	0.62	0.55
5% Value at Risk		129.0 M	125.5 M	56.3 M	76.9 M	136.0 M
Other Metrics						
Minimum Capital Required		16.8 M	163.9 M	65.4 M	104.6 M	173.4 M
Interest Rate Metrics						
Duration	10.3	11.1	10.3	10.3	10.3	10.2
Hedge Ratio	100%	108%	100%	100%	101%	100%

Basic Short Allocation to T-bills¹

88%

X

Basic Short Proportion of liabilities

7%

=

Basic Combined Allocation to T-Bills

6%

Maintained:
20% MUSH, and
15% Alternatives

Compared to **Current**:

1. Median Returns are all higher
2. Information Ratios are all higher
3. 5% VaR are all lower, except (E)
4. MCTs are all higher

¹Assumed Midpoint (Mix B) from Basic Short analysis on slide 17, given Basic Short has 3 mixes and Basic Long has 4 mixes.

PUB (MPI) 1-129

Part and Chapter:	Part VII- Investments; INV Attachment G	Page No.:	2, 14, 22, 23
PUB Approved Issue No:	20. Asset Liability Management Study (in accordance with Directives 11.19 and 11.20 of Order 134/21)		
Topic:	ALM Study		
Sub Topic:	Investment Portfolio Asset Mix Optimization		

Preamble to IR:

In its June 2, 2022 presentation on the Asset Mix Optimization for Basic Insurance Component, Mercer set key goals from the meeting as follows:

- Generate discussion on the direction of potential asset mix changes
- Confirm range of asset mixes to include in the analysis
- Possibly identify four to five strategic target asset mixes for further analysis

Question:

- a) Please indicate what four to five target asset mixes were decided upon with MPI for further analysis .
- b) Please file the efficient frontier analysis and risk metrics including the surplus one-year and five-year surplus growth analysis based on the stochastic with a narrative description of the results.

Rationale for Question:

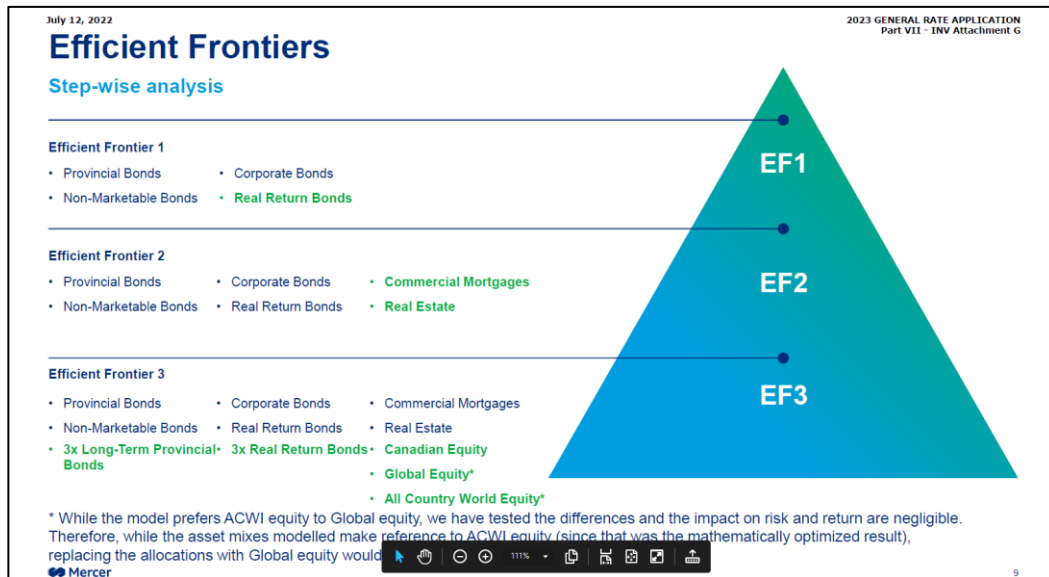
To understand the impact of potential changes in the Basic Claims portfolio mix.

RESPONSE:

- a) MPI has yet to select asset mixes for further analysis as it continues to evaluate the use of leverage.
- b) Pages 11-14 of Investments INV Attachment G - Mercer Report Asset Mix Optimization Basic Insurance Component June 2 22 include the efficient frontiers.

To gauge the improvement (if any) of adding new asset classes to the risk/return profile, the analysis was done in a step-wise fashion as noted below:

Figure 1 Efficient Frontiers Analysis and Risk Metrics



EF1 adds Real Return Bonds (RRBs). EF2 adds Commercial Mortgages as well as Real Estate, and so on.

The analysis begins with developing an efficient frontier using classes currently employed (page 11). The current asset mix policy (A) is like (C) which is on the efficient frontier implying that the current asset mix is close to optimal. Moving to (B) could provide a significant improvement to return while keeping the risk exposure constant as the surplus volatility and 5% Value at Risk are similar between Current and (B), however, the Median return – 10 year improves from

2.48% to 2.63%. The risk-adjusted return (information ratio) also improves significantly from 0.20 to 0.24.

EF1 adds RRBs (page 12). As one would expect, RRBs materially improve lower risk portfolios (i.e., one observes a significant upward shift or improvement in EF1 vs Current). RRBs provide a good hedge to inflation thereby reducing the risk and shifting the EF1 curve left of the Current curve. This suggests that the Current mix can be improved by adding RRBs.

EF2 adds Commercial Mortgages and Real Estate (page 13). Relative to EF1, EF2 shifts upward (i.e., increases reward) and left (i.e., reduces risk). The gap increases between EF1 and EF2 as risk increases. As the portfolios become riskier (moving along the EF curve to the right), the portfolios move from a low risk bond portfolio to portfolios with increasing allocations to real estate pushing the overall reward higher as you add risk. Mix (B) would provide a similar level of risk as Current with a substantial increase in returns. Mix (C) would provide a similar return with a significant reduction in risk from the Current.

EF3 adds levered bonds and equities (page 14). Levered bonds can hedge the interest rate risk in a capital efficient manner thereby freeing up some room for equities. The gap between EF3 and EF2 increases with risk as the portfolios from left to right are increasing allocations to equities thereby increasing expected returns. Mix (C) would provide a marginally higher return than the Current with a significant reduction in risk.

Surplus one-year and five-year surplus growth is not yet available since the intention is to create the analysis for the portfolio selected by MPI, which has yet to occur.

PUB (MPI) 1-130

Part and Chapter:	Part VII- Investments; INV Attachment H 2	Page No.:	15
PUB Approved Issue No:	20. Asset Liability Management Study (in accordance with Directives 11.19 and 11.20 of Order 134/21)		
Topic:	ALM Study		
Sub Topic:	RSR Portfolio - Asset Mix Optimization		

Preamble to IR:

Mercer evaluated risk and return parameters under the current and alternative asset mix optimization with efficient frontier analysis and stochastic modelling.

Mercer indicated:

For portfolios without an underlying liability (RSR), we used the following metrics:

1. 10-year median return: based on capital market assumptions,
2. Probability of positive real return: based on 10-year projection
3. 10-year expected excess return: asset mix return in excess of the treasury bill return
4. Return volatility: measured as annual standard deviation
5. Information ratio: 10 year expected excess return/surplus volatility

Question:

- a) Please provide a narrative description of the results along the efficient frontier of the various RSR portfolio mixes relative to the current asset mix and the impact of adding new asset classes.

- b) Please provide a narrative description of the results of each of the risk metrics with respect to each of the modelled RSR portfolio mixes and discuss any recommended changes to the portfolio given the results of the analysis
- c) Please indicate how Mercer and MPI prioritizes or weights the relative risk metrics in making portfolio optimization decisions.

Rationale for Question:

To understand the changes to RSR portfolio.

RESPONSE:

- a) There is an ability to improve risk/return while maintaining the current asset classes. This is evident from the efficient frontier analysis, where the efficient frontier, using current asset classes, plots above the point corresponding to the current policy mix. For example, "Midpoint" for RSR provides a 0.20% increase in expected return with a 0.58% reduction in return volatility. MPI also evaluated other points varying on the risk/return spectrum, all of which it deemed an improvement, as is evident in the higher information ratios (a measure of risk-adjusted returns). MPI achieved improvements mainly by:
 - i. Reducing allocations to fixed income (eliminating provincial mid-term bonds and overall corporate bonds);
 - ii. Maximizing allowable allocation to illiquid asset classes (private debt, infrastructure, and real estate);
 - iii. Within public equities, allocating to global small cap equities (higher expected return), and balancing the associated risk with higher allocations to global low volatility equities.

MPI considered commercial mortgages as a new asset class. While it observed an improvement in the resulting information ratios, the improvement was insignificant, unless it also considered significantly de-risked asset mixes.

- b) As described in a) above, MPI chose each of the modelled RSR portfolios to provide a spectrum of options depending on the acceptable level of risk or desired expected return. It defined risk as annualized return volatility since there are no associated liabilities for RSR. It provided information ratios for each of the modelled asset mixes to combine expected returns and volatility into one risk-adjusted measure.
- c) All the mixes that were modelled are considered "efficient," meaning they achieve the maximum expected return for any level of risk; or similarly, they minimize the level of risk for any targeted level of expected return. The decision of which asset mix is most appropriate then comes down to risk tolerance. If MPI deems the current level of risk optimal, it can be maintained while also increasing expected returns with the "Midpoint" mix. Otherwise, if it desires higher expected returns, and it can tolerate additional risk, it should consider mixes that plot higher and to the right on the efficient frontier (and vice versa, mixes to the bottom and left of the efficient frontier are appropriate if de-risking is the primary objective).

PUB (MPI) 1-131

Part and Chapter:	Part VII- Investments; INV Attachment H 3	Page No.:	17, 18
PUB Approved Issue No:	20. Asset Liability Management Study (in accordance with Directives 11.19 and 11.20 of Order 134/21)		
Topic:	ALM Study		
Sub Topic:	Extension Portfolio Asset Mix Optimization		

Preamble to IR:

Mercer evaluated risk and return parameters under the current and alternative asset mix optimization with efficient frontier analysis and stochastic modelling.

Mercer indicated:

For portfolios with an underlying liability (all except RSR), we used the following metrics:

1. 10-year median return: based on capital market assumptions, see Phase One report
2. Probability of positive real return: based on 10-year projection
3. 10-year expected excess return: asset mix return in excess of liability benchmark return
4. Surplus volatility: Measured as annual standard deviation
5. Information ratio: 10-year expected excess return/surplus volatility
6. 5% Value at Risk: Impact of a 1-in-20-year downside event measured in dollars
7. Probability of deficit: based on 10-year projection
8. MCT Required

Question:

- a) Please provide a narrative description of the results along the efficient frontier of the various Extension portfolio mixes relative to the current asset mix and adding new asset classes.
- b) Please provide a narrative description of the results of each of the risk metrics with respect to each of the modelled Extension portfolio mixes, and discuss any recommended changes to the portfolio given the results of the analysis.

Rationale for Question:

To understand the changes to RSR and Extension portfolios.

RESPONSE:

- a) and b)

The analysis of the Extension portfolios is contained within pages 17 and 18 of *INV Attachment H - Mercer Report Asset Mix Optimization NonBasic RSR, EXT, SRE, EFB Portfolios Jun 2/22*.

Observations are included on the side of page 17. The efficient frontier is to the left of the current asset mix, highlighting that improvements are possible. For example, Lower Risk (C) provides a similar return to the current asset mix but reduces surplus volatility, 5% Value at Risk and reduces Minimum Capital Required. Higher Return (B) has a meaningful increase in expected return over the current asset mix with similar risk statistics (but higher Minimum Capital Required). The improved efficient frontier is seen through some consistent features: the elimination of corporate bonds, a restructuring of the equity portfolio, a shortening of the provincial bond portfolio and a maximization of the illiquid holdings (in particular, note the meaningful increases in Infrastructure and Core Canadian Real Estate).

When one adds asset classes (page 18) there are improvements over the current asset mix, but the efficient frontier EF1 (with additional asset classes) is only marginally improved over the current efficient frontier and these improvements are primarily at lower risk points. For example, if one looks at the Lower Risk (C) portfolio on EF1, surplus volatility falls from 5.7% on the Lower Risk portfolio on the Current asset class efficient frontier (portfolio (C)) on page 17) to 5.35% on page 18 (5% Value at Risk similarly reduces). The main suggestion in terms of adding additional asset classes is the introduction of Commercial Mortgages at the expense of Private Debt IG (Universe), which also leads to a lengthening of the provincial bond exposures because of the short duration of Commercial Mortgages. It should be noted however that a downside of adding the additional asset classes is that across the board the Minimum Capital Required increases.

PUB (MPI) 1-132

Part and Chapter:	Part VII- Investments; INV Attachment H, H5	Page No.:	10, 23-26
PUB Approved Issue No:	20. Asset Liability Management Study (in accordance with Directives 11.19 and 11.20 of Order 134/21)		
Topic:	ALM Study		
Sub Topic:	EFB Portfolio Asset Mix Optimization Analysis		

Preamble to IR:**Question:**

- a) Please explain what is meant by status quo and pre-funding with respect to the analysis of the EFB liability benchmark.
- b) Please provide a narrative description of the results along the efficient frontier of the various EFB portfolio mixes relative to the current asset mix and adding new asset classes.
- c) Please provide a narrative description of the results of each of the risk metrics with respect to each of the modelled for the EFB portfolio mixes and discuss any recommended changes to the portfolio.
- d) Please explain the impact of pre-funding on the duration for the benchmark used in the analysis and the risk reward metrics.
- e) Please discuss any plans for changing the administration of the EFB portfolio.

Rationale for Question:

To understand the impact of changes to the investment portfolio mix.

RESPONSE:

- a) MPI is considering moving its funding of the defined benefits pension plan (i.e., the employer portion) from a payment funding basis to a Pre-Funding basis. Moving to a Pre-Funding basis would mean that MPI would contribute to the Civil Service Superannuation Fund at prescribed rates to cover both current and future obligations – this would result in the removal of the liability and a significant reduction in the Employee Future Benefits Liability and corresponding investment portfolio. MPI analyzed the EFB liability portfolio under both the Status Quo and this alternate scenario.
- b) MPI is unable to provide a response pending its decision whether to use levered bonds.
- c) MPI is unable to provide a response pending its decision whether to use levered bonds.
- d) Please see *Investments INV Attachment C - Mercer Report Final Pre-Selection of Asset Mixes Phase 2 in 2023 GRA*. Section 2 of the report summarizes the sensitivity of EFB liabilities to interest rate and inflation changes, under both Status Quo and Pre-funding. The resulting liability benchmarks are shown in section 9 of the report and drive the asset mix optimization and risk/return metrics.
- e) Please refer to the response of MPI to Information Request *CAC (MPI) 1-66*.

PUB (MPI) 1-133

Part and Chapter:	Part VII- Investments INV MPI Exhibit 9	Page No.:	7, 14, 15
PUB Approved Issue No:	20. Asset Liability Management Study (in accordance with Directives 11.19 and 11.20 of Order 134/21)		
Topic:	ALM Study		
Sub Topic:	Asset Mix Optimization		

Preamble to IR:

MPI has indicated at its July 29th presentation that it will be presenting its recommended asset mixes to the Investment Committee Working Group on October 13, 2022.

Mercer has not yet completed its final portfolio analysis in INV Appendix C.

Question:

- a) Please provide, when available, the efficient frontier, surplus growth analysis, risk metrics and narrative supporting the Mercer recommended portfolio mixes for Basic, EFB, and RSR, with or without leverage, and comment on the changes proposed from the current asset mix.
- b) Please provide any further analysis that has been prepared to assess whether leverage should be adopted by MPI.
- c) Please elaborate on the minor changes being proposed for the RSR portfolio.

Rationale for Question:

To understand the impact of potential changes in the investment portfolio mix.

RESPONSE:

- a) Mercer developed several efficient frontiers (adding new asset classes in a step-wise fashion) for each portfolio (Basic, SRE, EXT, RSR & EFB) and identified potential asset mixes on each frontier, but they did not recommend any asset mixes as that decision depends upon the risk tolerance of MPI's Board of Directors. MPI has yet to select the asset mixes that will be recommended to its Investment Committee. The efficient frontiers, surplus growth analysis and risk metrics for each asset mix have been provided in Mercer's optimization reports (Attachments G & H to the Investment Chapter). See Attachment G Mercer Report Asset Mix Optimization Basic Insurance Component Jun 2 22.
- b) MPI continues to evaluate the use of leverage. As such, no further analysis is available at this time.
- c) See the response to PUB (MPI) 1-130(a).

PUB (MPI) 1-134

Part and Chapter:	Part IX Road Safety VIII AR Appendix 5	Page No.:	12, 13
PUB Approved Issue No:	21. Road Safety		
Topic:	Driver Education Program		
Sub Topic:			

Preamble to IR:

In MPI’s Annual Business Plan, it is noted that

"Driver Z, the new High School Driver Education program, was launched in 2019. Driver Z uses a blended learning approach that involves interactive online learning, richer classroom engagement, greater parent/guardian involvement and more practice time for students. In 2022/23, MPI will implement changes to improve program efficacy, customer engagement and outcomes, based on the results of a program evaluation."

In the Loss Prevention section:

"MPI has indicated that it will be undertaking a comprehensive evaluation of Driver Z driver training program including collection of data on novice Drivers. The data collection phase was scheduled to conclude July 2022."

Question:

Please provide an update on the evaluation of the driver training program.

Rationale for Question:

To understand development of loss prevention programming.

RESPONSE:

The data collection phase concluding in July 2022 refers to the Ready-Assess™ pilot project. Analysis of the data from this pilot is one element of the comprehensive evaluation.

MPI completed the data collection phase of the Ready-Assess™ pilot project on July 30, 2022. MPI is currently analyzing that data, with a completed report on the findings of the pilot scheduled for release in September 2022. Based on the conclusions of that report, MPI will decide whether to implement Ready-Assess™ as part of its operations.

In addition to the Ready-Assess™ pilot project, MPI is also using existing historical collision data as part of its comprehensive evaluation of driver training. MPI developed an analytical methodology for analyzing the impact of driver training on driving outcomes and is in the early stages of that analysis. This phase of the driver training evaluation is scheduled to conclude in December 2022, with a gap analysis to follow.

PUB (MPI) 1-135

Part and Chapter:	Part V- Expenses Figure EXP-40	Page No.:	55
PUB Approved Issue No:	21. Road Safety		
Topic:	Road Safety		
Sub Topic:			

Preamble to IR:**Question:**

- a) Please provide a comparison schedule between 2021/22 forecast base budget Road Safety and Loss Prevention Program Cost presented in the 2022 GRA with the Actual 2021/22 program cost, and explain all material differences.
- b) Please identify which aspects of the program spending in (a) were affected by COVID-19.
- c) Please provide the detail of Road Safety program administration in (a) and indicate the number of FTEs dedicated to Road Safety administration.

Rationale for Question:

To review road safety spending against forecasts.

RESPONSE:

a)

Figure 1 Comparison Schedule of Road Safety and Loss Prevention Program Costs

Line No.	Program	Actual	2021/22 Forecast (2022 GRA)	Diff
1	(C\$000's)			
2	Driver Education and Improvement	3,091	4,068	(977)
3	Impaired Driving Prevention Strategies	2,390	2,800	(410)
4	Speed Management Strategies	406	663	(257)
5	Occupant Safety Education Strategies	163	264	(101)
6	Auto-Crime Prevention Strategies	2	22	(20)
7	Fraud Prevention	46	190	(143)
8	Motorcycle Safety Education	64	71	(7)
9	Vulnerable Road User Education Strategies	99	401	(302)
10	Safety Programming Other	307	469	(162)
11	Road Safety Production and Advertising	37	52	(15)
12	Program Evaluation	145	530	(385)
13	Cell Phone/Distracted Driving Advertising	693	666	27
14	Other	740	786	(45)
15	Total Program Costs	8,184	10,979	(2,796)
16	Departmental Expenses	2,154	2,270	(116)
17	Total Program Costs/Expenses	10,337	13,249	(2,912)

Below is an explanation of each material difference between the 2021/22 forecast base (2022 GRA) and the 2021/22 actual:

- Driver Education and Improvement.** Driver Z program faced instructor recruitment challenges due to the COVID-19 Pandemic. Although student enrollment returned to near pre-Pandemic levels, the forecast anticipated greater student numbers due to unsatisfied demand during the Pandemic, which never materialized. Future years forecasting also anticipates growing demand for the Driver Z course as students return to the classroom. MPI reduced spending on other driver training programs, such as workshops and training provided by Safety Services Manitoba, due to health restrictions during the Pandemic. Forecasting in future years anticipates education and training programs to return to, or exceed, pre-Pandemic levels.

- **Impaired Driving Prevention Strategies.** Actual spending reduced due to the cancellation of the roadside survey in 2021/22 due to the Pandemic, and due to reduced enhanced enforcement spending, as agencies could not use all of the budget funding available due to officer resource constraints during the Pandemic.
- **Speed Management Strategies.** Actual spending reduced due to unused funding to study the impact of Traffic Calming Curbs (TC Curbs) in high-risk vulnerable road user locations in partnership with City of Winnipeg. Spending on media production for speed awareness reduced slightly, as the Pandemic delayed shooting of new creative.
- **Occupant Safety Education Strategies.** MPI delayed planned spending on an awareness campaign for occupant safety until 2022/23 in order to utilize results from the seatbelt observational study for a more targeted enforcement and awareness campaign.
- **Fraud Prevention.** Spending on an awareness campaign for fraud prevention reduced in 2021/22 due to an-election 'black out' period.
- **Vulnerable Road User Education Strategies.** Actual spending on awareness campaigns and community outreach for vulnerable road users reduced in 2021/22 versus forecast. MPI forecasted community outreach activities at pre-Pandemic levels; however, continued health restrictions did not allow many community events to take place. For example, funding for Bicycle Education and Skills Training (BEST) program school training went unused in Spring 2021 owing to the cancellation of sessions due to the Pandemic.
- **Safety Programming Other.** Actual spending on awareness campaigns for traffic safety culture reduced in 2021/22.
- **Program Evaluation.** Actual spending reduced due to unused funding for a high risk/high collision intersections study with the City of Winnipeg.

- b) The COVID Pandemic impacted the number of participants and sessions offered in training programs, delayed creative production for awareness campaigns, and shifted focus away from conducting some research projects due to changes in driving patterns and traffic volumes. The response to part a) above notes the instances where the Pandemic had a direct impact on program costs.

- c) Road safety program administration costs are in Departmental Expenses, and include expenses for office supplies, printed forms and stationery, travel expenses, allocated occupancy costs, and allocated salaries and benefits for Road Safety Programming, Driver Education, and Community Relations department staff. There are 24 Full Time Employees dedicated to Road Safety administration.

PUB (MPI) 1-136

Part and Chapter:	Part IX – Loss Prevention LP.1	Page No.:	5
PUB Approved Issue No:	21. Road Safety		
Topic:	Road Safety		
Sub Topic:			

Preamble to IR:

MPI states:

"In February 2021, the Road Safety Program Development Team joined a newly created department within MPI – Loss Prevention Planning & Analysis – under the direction of the Registrar of Motor Vehicles."

Question:

- a) Does the mandate and/or reporting structure of the Loss Prevention Planning & Analysis department differ from that of the prior Road Safety Development team, and if so, please provide details.
- b) Please provide an organizational chart for the Loss Prevention Planning & Analysis department.

Rationale for Question:

To better understand MPI's new loss prevention and road safety organizational structure.

RESPONSE:

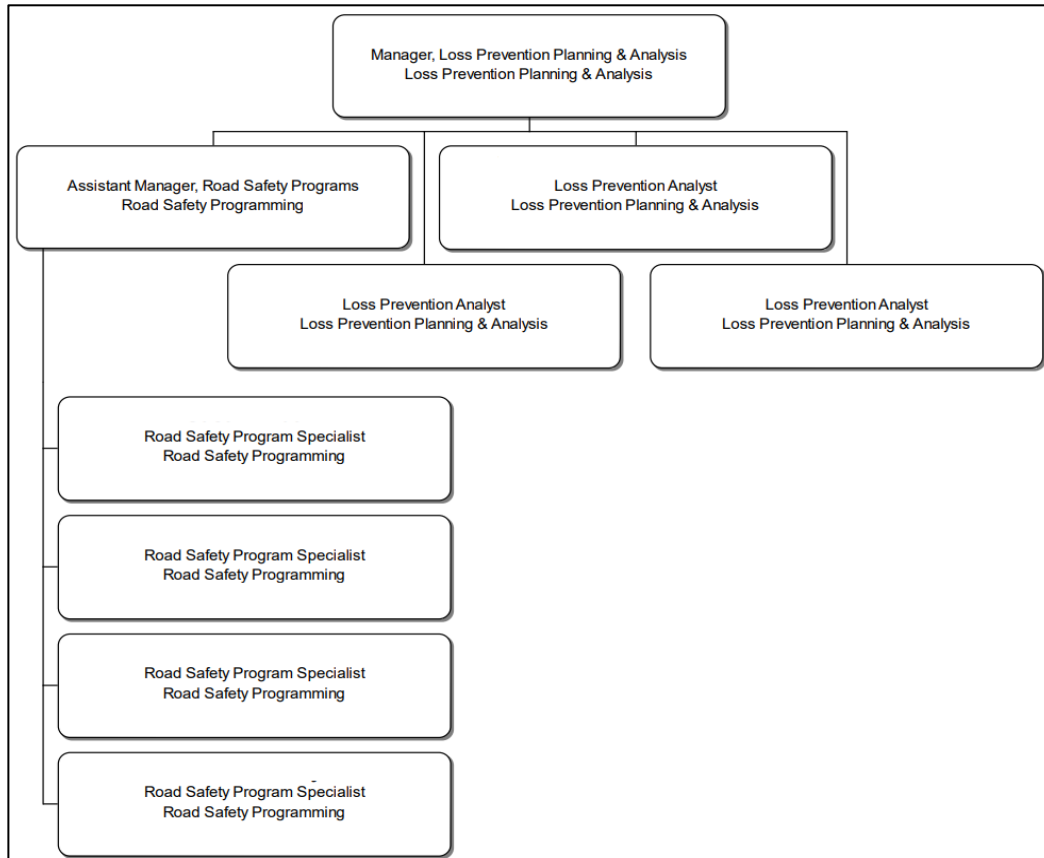
- a) The mandate of the prior Road Safety team is one aspect of the mandate for the new Loss Prevention Planning & Analysis team. The Loss Prevention Planning &

Analysis department also has a broader mandate to provide data-driven policy, planning and analytical support for loss prevention activities across the organization. This includes, but is not limited to, Road Safety Programming.

To support this change, the reporting structure of the Loss Prevention Planning & Analysis department differs from the prior Road Safety team. An Assistant Manager leads the Road Safety Programming team, who reports to the Loss Prevention Planning and Analysis Manager. Three Loss Prevention Analysts report directly to this Manager and provide the additional analytical capacity required to deliver on the mandate of the Department.

- b) The organizational chart for the Loss Prevention Planning & Analysis chart is provided in *Figure 1* below:

Figure 1 Organization Chart for Loss Prevention Planning & Analysis



PUB (MPI) 1-137

Part and Chapter:	Part IX – Loss Prevention LP.1	Page No.:	8
PUB Approved Issue No:	21. Road Safety		
Topic:	Road Safety		
Sub Topic:	Engagement with First Nations		

Preamble to IR:

MPI states:

"In December 2021, MPI and the Assembly of Manitoba Chiefs (AMC) signed a Letter of Intent (LOI) for MPI and AMC to engage in the delivery of road safety engagement activities and programming in First Nations. The LOI outlines funding from MPI for a Road Safety Coordinator position at AMC to lead community consultation through a road safety forum."

Question:

- a) Please provide the full job description for the Road Safety Coordinator position.
- b) Has the position been filled? If not, by when does MPI expect this to occur.

Rationale for Question:

To understand MPI's progress towards engagement with First Nations on road safety issues.

RESPONSE:

- a) As per the Assembly of Manitoba Chiefs (AMC), the Road Safety Coordinator job description is as follows:

Working closely with MPI's Road Safety Programming department, the Assembly of Manitoba Chiefs' (AMC) First Nations Road Safety Coordinator position will utilize available research and traffic collision data to identify road safety concerns and priorities in Manitoba First Nation communities. The Coordinator will identify and recommend road safety programming that mitigates serious injury and death from motor vehicle collisions in Manitoba First Nation communities by researching proven and promising road safety strategies, approaches, and initiatives used in other jurisdictions, as well as, liaising with community leaders to ensure their views and perspectives are considered. With the support of MPI's Loss Prevention Planning & Analysis department, evaluation criteria will be included within program design and development to measure program effectiveness.

- b) AMC filled the position in July 2022.

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Sub Topic:	Large Vehicle Study		

Preamble to IR:

MPI states: *"At a high level, the analysis shows that vehicle size does impact collisions claims costs, with larger vehicles having higher average claims costs."*

Question:

- a) Does MPI have information about the proportion of larger vehicles that are found at fault in collision claims compared to smaller vehicles?
- b) If yes, please provide the information.
- c) Does MPI plan to develop any road safety programming targeted at the specific risks associated with larger vehicles (i.e., higher claims costs)?

Rationale for Question:

To understand the extent to which vehicle size contributes to claims.

RESPONSE:

a) and b)

Please see *Figure 1* below:**Figure 1 Comparison of Large vs Small Vehicle claims**

Line No.	Vehicle Category	Number of Incidents	Number of Vehicles Involved	Number of 'Category Vehicles' Involved	Number of 'Category Vehicles' At-Fault	% of 'Category Vehicles' At-Fault
1	Pickup Truck	69,902	126,799	75,662	37,922	50%
2	Compact Cars	116,630	213,779	132,228	54,380	41%
3	Sub-Compact Cars	18,663	34,929	19,039	7,765	41%
4	Mid/Full Size Cars	69,841	128,114	74,712	32,050	43%
5	Passenger/Cargo Vans	38,870	72,700	40,453	19,712	49%
6	SUVs	120,675	220,030	136,771	58,441	43%
7	Heavy Vehicles	10,003	19,592	10,538	7,633	72%
8	Overall Total	294,439	50,951	n/a	n/a	n/a

c) MPI is not currently planning any road safety programming targeted at owners of pickup trucks, passenger/cargo vans or SUVs.