MANITOBA PUBLIC INSURANCE

2023 GENERAL RATE APPLICATION

Round 1 Information Requests

August 30, 2022

Consumers' Association of Canada (Manitoba) (CAC)

MANITOBA PUBLIC INSURANCE

CAC (MPI) 1-1

Part and Chapter:	Part I – Overview	Page No.:	6 of 13
PUB Approved Issue No:	8. Cost of Operations		
Topic:	MPI 2.0 –guiding principle		
Sub Topic:	Be a fast follower of industry best practices and trends		

Preamble to IR:

The guiding principles for the 5-year ambition identified in MPI 2.0 are:

- Customer experience drives improvements
- Improvements must make financial sense
- Create a culture of continuous improvement through empowerment and automation
- Be a fast follower of industry best practices and trends
- Actively engage stakeholders along the way.

On page 6 of the Overview chapter MPI further states:

> *"MPI requires people with the competency and capacity to conduct its plans. Applying Enterprise Risk Management principles, MPI identified "People Risks" as one of its major risks."*

Question:

a) Please provide a narrative contrasting the major "People Risks" with the principle, "be a fast follower of industry best practices and trends". In the response please discuss the costs impact and necessity for MPI to be a fast follower of industry best practices and trends.

b) Please elaborate and discuss the risk mitigation process in place to ensure people with the right competencies and capacity are available to avoid project failures.

c) Please provide a schedule and explanations detailing project costs impairments, by project, due to "People Risks" as referred to in the Preamble to this question.

d) Please provide a narrative discussion of the consequences of implementing new or leading edge technologies while the corporation is experiencing shortages of operational subject-matter experts.

Rationale for Question:

To better understand the need for MPI to be a fast follower of industry practices and trends in light of its focus on core business and ultimately the costs to rate payers.

RESPONSE:

a) To meet the evolving needs of Manitobans, MPI strives to be a fast follower of industry best practices and trends. A fast follower strategy ensures MPI will not fall far behind from a technology perspective and is more efficient than an approach entailing leading edge innovation. The most significant people risks associated with this strategy include inadequate compensation, inability to attract and retain talent and inadequate capabilities.

   Inadequate Compensation – with global and Canadian competition for talent on the rise, the ability of MPI to attract and retain talent may be impaired by a highly competitive talent market and providing inadequate compensation compared to the market. This could result in an inability by MPI to achieve operational and strategic objectives and transformation plans. From a compensation perspective, to align with industry best practices, MPI will mature and evolve compensation practices and modernize its compensation philosophy. This includes, reviewing market data on a regular basis to ensure it remains competitive, recognizing top performers and providing rewards at various levels of development to support engagement, motivation and continuous salary growth.

   Inability to attract and retain talent – the ability of MPI 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 its transformation journey to MPI 2.0. This could result in MPI's inability to achieve operational and strategic objectives and transformation plans. To align with industry best practices, MPI will be maturing and evolving its talent attraction and retention practices, including maintaining a strong culture and reputation as an employer of choice, and ensuring a compelling employer brand is in place to support the attraction of top talent and continue to enhance corporate programming as it relates to wellness, Diversity, Equity & Inclusion, recognition, career pathing and development.

Inadequate Capability – The skillsets MPI needs to execute MPI 2.0 are evolving. In particular, skills associated withnew technologies or innovation such as digitization, automation, the management of big data, and the adoption of cloud services are necessary now and into the future. The failure of MPI in building the needed people skills may lead to low productivity and limited ability to execute its plans, and/or may impair its ability to accomplish the delivery of MPIoperational imperatives, and/or damage the reputation of MPI. To align with industry best practices, MPI supports leaders in cross training and succession planning efforts to promote knowledge transfer, offers robust education support programs to facilitate continuing education to address gaps, builds partnerships with post-secondary institutions to facilitate talent pipelines and explore joint certifications.

Inadequate Capacity – Commitments by MPI to deliver on operational imperatives and to execute plans for transformation, innovation, streamlining processes, and maturing core functions may impact capacity planning and the adequate recruitment of human resources. Lack of planning for capacity and recruitment will lead to low productivity and limited ability to execute MPI plans, and/or may impair itsability to accomplish the delivery of operational imperatives, and/or damage the reputation of MPI as an employer of choice.

b)
- Workforce Planning: The corporate annual workforce planning program is designed to proactively support operational leadership in identifying gaps impacting their workforce, focusing on capacity and capabilities. Tools such as capacity modelling, critical position analysis, and data dashboards are

components of the program, enabling leaders to make informed decisions on action planning, prioritization, and execution to address gaps. For the 2022/23 fiscal year, MPI focuses its actions on mitigation to address the top People Risks identified for the directorate / division. HR business partners provide guidance and consult throughout the annual cycle and leverage dashboards to track action progress and provide reporting. Currently, MPI conducts workforce planning (at the departmental level) with operational leadership and aligns to the fiscal year cycle.

- Succession Management: Talent mapping and succession planning at Executive and Senior Leadership Team occurs annually via facilitated workshops. Outcomes include identification of emergency successors, internal pipeline candidates, and focused career discussions with top talent. Starting this year, the formal programming will expand to include talent mapping and succession planning at the manager and supervisor levels. Identification and grooming of succession pipelines mitigate the impact and disruption when turnover occurs in critical roles and is a key component of retaining top talent through career conversations, targeted individual development plans, and key contributor recognition from senior leadership.
- Learning and Development: Learning throughout the organization is supported through the Education Assistance Program. Continuous learning opportunities are provided through a formal leadership development program and the MPI partnership with Skillsoft. Targeted learning and development support is provided to departments requiring additional assistance. Performance development is encouraged, ensuring people have regular performance appraisals. An updated and enhanced development planning tool has been provided this year to support individual development planning.
- Recognition, Rewards, and Wellness: A proactive approach to employee engagement is necessary to retain key people. This includes Employee Recognition Programs (monetary and non-monetary) that recognize and reward individual and team contributions and project milestones, service anniversaries, retirements, special events and programming and Employee

Wellness programs such as Personal Wellness Account, Manager-Once-Removed program, and Flexible Work Program.

- Talent Acquisition: Recruitment efforts are prioritized based on established criteria of role criticality and tracked from an enterprise perspective to ensure vacancies are filled in a coordinated, timely, and sequential order. The Talent Acquisition team continues to source talent with a focus on building external candidate pipelines.
- Contingent workforce: When gaps exist in the internal talent pool or to address short-term resourcing needs, the contingent workforce (consultants) may be considered to address immediate gaps to mitigate project delays.

c) Please see *Figure 1* below:

Figure 1 Inclusion for Impairments

Line No.		As at March 31, 2022 Impaired Projects	2021/22 Deferred Costs Transferred to Expense	Expense Alloc Basic %	Basic Expense	Basic % Claims Exp	Basic Claims Expense
1		ISM					
2	**2866**	ISM - Cryptographic Services Enhancements	119,333.15	79.38%	94,726.65	55.83%	66,623.70
3							
4		ISM Total	119,333.15		94,726.65		66,623.70
5							
6	**2868**	CERP	1,376.23	92.53%	1,273.43	55.83%	768.35
7					-		-
8	**3027**	HRMS Optimization Phase 1	143,054.76	79.38%	113,556.87	55.83%	79,867.47
9							
10		**TOTAL 2021/22 IMPAIRMENT**	**263,764.14**		**209,556.95**		**147,259.52**
11			**TOTAL CORPORATE**	**TOTAL BASIC**			
12		TOTAL 2018/19 IMPAIRED PROJECTS	3,025,725.50	2,685,575.58			
13		TOTAL 2019/20 IMPAIRED PROJECTS	1,840,653.40	1,500,868.78			
14		TOTAL 2020/21 IMPAIRED PROJECTS	929,636.86	777,599.14			
15		TOTAL 2021/22 IMPAIRED PROJECTS	263,764.14	209,556.95			
16		**TOTAL IMPAIRED PROJECTS LTD**	**6,059,779.90**	**5,173,600.45**			

Rationale for impairment – no impairments linked to people/capacity issues:

1. **ISM Cryptographic Services Enhancements [2866]**: Pre-development (RFP and requirement gathering) costs not eligible for capitalization were being deferred and now written off.
2. **CERP [2868]** – Project costs didn't reach the $500K minimum required to qualify for deferral under the '***MPI Capitalization of Org Dev Costs'*** policy and are thus expensed.
3. **HRMS Optimization Phase 1 [3027]**: Decision was made to not pursue original scope of the HRMS Optimization due to discovery that a technical enabler (upgrade) of certain suite components was required before proceeding. This pivot caused MPI to re-assess the longer term vision associated with our HR capability and current software suite, thus leading to the pause on the original scope and engaging in longer term visionary exercises. This new project will be captured under a separate project code/budget and we have expensed the original project costs.

d) New or leading-edge technologies may not be industry standard or have had sufficient time in market to prove their efficacy / stability. This may result in technologies that contain functional gaps and/or technical issues that would need to be addressed by employees/subject matter experts in a time where said resources are scarce and focused on other initiatives.

CAC (MPI) 1-2

Part and Chapter:	**PART I – OV PART IV - VM**	**Page No.:**	**7 of 13**
PUB Approved Issue No:	**8. Costs of Operations**		
Topic:	**Flexible Work Plan and reduced Workspace**		
Sub Topic:			

Preamble to IR:

On page 7 of the Overview chapter, MPI states:

> *In June 2022, MPI implemented a Flexible Work Program (FWP), which enables staff and management to determine the best place for people to work (i.e., from the office, home or from a hybrid of the two). In conjunction with its FWP, MPI is also implementing its new Workspace Plan, through which it will reduce the depth of its office footprint at Cityplace, from five floors consisting of 1980's style workspaces, to two floors consisting of modern workspaces.*

Question:

a) Please file a copy of the Flexible Work Program (FWP) document and explain in general how the FWP operates in terms of staff/manager interaction and collaboration; as well as time management and timeliness/quality of task completion.

b) With the reduced workspace per the Workspace Plan (2 floors vs 5 floors); please explain the utilization of the reduced workspace.

c) Please provide a detailed analysis of the expected costs savings as a result of implementing a Flexible Work Program, on an annualized basis, for the 2023/24 and 2024/25 fiscal years by expense category.

Rationale for Question:

To better understand and assess the effect of the Flexible Work Program and reduced workspace on costs and work productivity, if any.

RESPONSE:

a) The Flexible Work program enables employees to choose the best location to perform their work. Employees 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. A flexible work arrangement may be requested by an employee and approved by their manager. Management reviews and approves flexible work arrangements based on suitability of the job, operational requirements, and employee performance. Management has been provided with guidelines to assist with assessing eligibility and ensuring a consistent application of the program amongst team members. The key to a successful flexible work arrangement is open, ongoing communication about performance, objectives, workplace environment, scheduling changes, training and technology.

   In addition, management is responsible for ensuring regular performance touchpoints are scheduled, productivity and performance measures are in place, and reviewing and addressing any changes or decreases in performance and productivity.

   Management may end or modify a flexible work arrangement if information security and privacy requirements can no longer be met, or based on job changes, performance/conduct/productivity concerns and/or operational requirements as determined by MPI.

   Please refer to *PUB (MPI) 1-59* for the Flexible Work Arrangement Directive.

b) At Cityplace, both the Space Plan project business case/strategy and the emergence of work-from-home from the pandemic allowed MPI to drastically

reduced the amount of space it occupies in this facility from 3 full floors (7, 8 and 9) and 3 partial floors (2, 5 and 6), to only 2 full floors (7 and 8).
The makeup of the floor arrangements on floors 8 and 9 are similar, with some differences in office quantities and special purpose spaces to suit the needs of the teams who will use these areas as their home-base.

Workpoints (offices and open-office desks) have been provided at a ratio of 1 for every 2 staff members and each one is configured to suit sharing, including height-adjustable tables and monitor arms. Shareable lockers are available for staff to use for the day when they attend the office and staff who attend daily are provided with personal metal storage. Meeting spaces of varying sizes populate the floors and are equipped with Microsoft Teams Rooms technology, so that staff can collaborate both in person and virtually. Centralized Shared Equipment Rooms (approximately 3 per floor) have helped reduce redundancy in printing equipment, supplies and mail delivery. Some departments require Special Purpose Spaces – rooms that are purpose-built for a particular operational activity – and these are co-located with their neighborhoods on each floor, an example being file storage space. Finally, open collaborative areas anchor the window facing zones so that all staff may enjoy the daylight and phone booths are spaced equally throughout the floor so that staff can easily make private phone calls without disturbing others.

No significant changes are in motion at this time in MPI’s other facilities.

c) The cost savings and projections will be provided for 2023/24 and onwards as the budget processes are being finalized.

CAC (MPI) 1-3

Part and Chapter:	**PART III – Benchmarking**	**Page No.:**	**4 od 30**
PUB Approved Issue No:	**12. Operational benchmarking**		
Topic:	**Cost containment initiatives**		
Sub Topic:			

Preamble to IR:

On page 4 of Part III – Benchmarking MPI describes how it provides value to Manitobans:

> *"Furthermore, MPI continues to balance efforts to contain costs while meeting the evolving needs and expectations of Manitobans. MPI continues to deliver increased value through the following:*
>
> - *Providing guaranteed access to superior products and coverage;*
> - *Implementing service enhancements;*
> - *Implementing loss prevention strategies;*
> - *Promoting safer roads through education, awareness, and enforcement;*
> - *Offering province-wide service accessibility; and*
> - *Active fiscal responsibility through various cost containment initiatives."*

Question:

Please provide a detailed cost containment analysis by initiative detailing the cost savings and/or costs contained for the last 2 fiscal years and projected for 2022/23 and 2023/24.

Rationale for Question:

To understand and examine cost containment initiatives and their impact on rates over a period of time.

RESPONSE:

Cost containment initiatives for 2019/20 and 2020/21 were:

a) Approximately $17M in savings within MPI operations due to Government requests to limit overall operational expenses. MPI attained this target.

Cost containment initiatives for 2022/23 and 2023/24 will be limited as MPI increases its capacity and requirements for Project NOVA. Planned cost containment initiatives include:

b) Merchant and Bank Fees savings projected at ~$1M for 23/24. MPI will reduce fees paid for credit cards. This initiative will be part of NOVA and resulting operational changes to ensure more payments through credit card channels.

c) E-transfer staggered roll out by end of 2022/23 for total loss payments to customers via direct deposit. This will greatly decrease the cheque usage within the company and costs for mail. Additionally, this will ensure that MPI can provide value to its customers with more timely payments.

CAC (MPI) 1-4

Part and Chapter:	Part III – BMK Appendix 4	Page No.:	1 of 5
PUB Approved Issue No:	12. Operational benchmarking		
Topic:	Total Gross Expenses per Adjusted Policy in Force		
Sub Topic:			

Preamble to IR:

On page 1 of Benchmarking Appendix 4, the Total Gross Expenses per Adjusted Policy in Force shows the following for the three crown corporations for 2020-21:

	SGI Auto Fund	MPI Basic Compulsory	ICBC
Total Gross Expenses per Adjusted Policy in Force	183.8	118.5	85.7

Question:

a) Please provide the detailed calculations comprising the values by organization as stated in the preamble.

b) Please provide a detailed analysis and explanation relating to the cause of the significant differences between the metrics.

Rationale for Question:

To better understand the significance of the differences between the policy metrics shown in the preamble.

Response:

a) Calculations for the Total Gross Expenses per Adjusted Policies in force is:

Gross Total Expenses divided by Policies in Force [provided in 000's], extracted from *Benchmarking Appendix 4 Figure BMK App 4-1*

Figure 1 Total Gross Expenses per Adjusted Policies in Force

Line No.	***Provided in [000's]***	**SGI**	**ICBC**	**MPI**
1	Total Expenses	172,365	331,063	141,823
2	Policies in Force	938	3,864	1,196
3	**Ratio**	**183.8**	**85.6**	**118.5**

b) MPI continued to decrease its operational expenses from 2012 to 2021. The major drivers for the decrease were fiscal prudence and a focus on a reduction of overall expenses. Based on discussions with ICBC, who has three times as many policies in force, MPI understands that there is a natural economy of scale that allows a larger operation to better absorb additional costs.

MPI compares favourably to SGI, primarily due to a lower expense base to run the Basic line of business. MPI will continue to review the overall granular costing for future Crown Benchmarking.

CAC (MPI) 1-5

Part and Chapter:	**Part V – Pro Formas**	**Page No.:**	**4 of 29**
PUB Approved Issue No:	**4. Financial Forecast**		
Topic:	**Impact of IFRS 17 and 9**		
Sub Topic:			

Preamble to IR:

On page 4, Part V – Pro Formas MPI states:

> *"Included in this Pro Forma Chapter is a limited view of the expected impacts and new presentation view of the upcoming IFRS 17 and IFRS 9 accounting guideline changes, shown in PF.11 through PF.14. While these changes take effect for the 2023/24 rating year, MPI assumes no impact to AAP rate setting."* (emphasis added)

Question:

Please provide a narrative discussion explaining the reasons MPI expects that there will be no impact on AAP rate setting as a result of IFRS 17 and 9 taking effect for the 2023/24 rating year. In your response please include and discuss specifically the following:

a) Changes to discount rate and financial impact
b) Elimination of Deferred policy acquisition costs and financial impact
c) Risk adjustment vs Provision for Adverse Deviation (PfAD) and financial impact
d) Interconnectedness of IFRS 17 and IFRS 9 and financial impact
e) IFRS 17 and 9 impact on the investment asset mix and classification impacts on net income

Rationale for Question:

To assess and better understand the financial impact of IFRS 17 and 9 on rate making, investments and financial report starting with the 2023/24 fiscal year.

RESPONSE:

IFRS 17 is an accounting standard for financial reporting. Accepted actuarial pricing standards are not impacted by IFRS 17.

a) The discount rate for discounting unpaid claims liabilities for carrying on the balance sheet will change with IFRS 17 as there will no longer be a connection between the company's asset portfolio and the discount rate. However, for AAP there will be no change to the methodology used for the discount rate.

b) Acquisition costs are considered in the AAP rate indication but whether the costs are deferred or not is an accounting adjustment and not relevant within the AAP rate indication. All costs associated with an insurance year are included in the AAP to ensure rate adequacy.

c) Provision for adverse deviation is not included in the AAP rate indication. Risk adjustments under IFRS 17 will not be included in the AAP rate indication.

d) IFRS 17 and IFRS 9 adoption will not impact AAP rate-setting, as rate setting is based on actuarial methodologies.

e) IFRS 17 and 9 investment mix will not impact AAP rate indications because MPI utilizes the new money yield in forming the AAP rate indication which will remain stable and not impacted by IFRS 17/9 adoption.

CAC (MPI) 1-6

Part and Chapter:	Part V – Pro Formas	Page No.:	5 of 29
PUB Approved Issue No:	8. Cost of operations		
Topic:	Operating expenses PF-1		
Sub Topic:			

Preamble to IR:

Per PF-1 (Statement of Operations) the operating expenses increased by 18% from 2022A to 2023FB or $75.9 million to $89.5 million. The $89.5 million appears to form a **re-set** base for future operating expense increases; namely for 2024F the operating expense amount is $96.0 million, a 7% increase over the 2023FB amount.

Question:

Please provide a detailed analysis, by operating account, comparing the 2022A to the 2023FB and the 2024F to the 2023FB operating expenses. In this analysis, please explain in detail the significant increases. In the analysis please highlight any IT impairment expenses and allocation methodology changes.

Rationale for Question:

To better understand the significant increases as well as the new trend in operating expenses.

RESPONSE:

The operating expense increase as described in the preamble is outlined in *Figure 1* below:

Figure 1 Operating Expenses Increase

Line No.		For the Years Ended March 31		
		2022A	**2023FB**	**2024F**
1	***(C$000s, rounding may affect totals)***			
2	**Operating Expenses**	75,945	89,477	95,966

As discussed in the Expense chapter, expense increases are a function of an increase in overall expenses (normal operations plus improvement initiative expenses) and allocation changes. The 18% ($13.5 million) Basic operating expense increase from 2021/22A to 2023FB is due to both factors.

Overall Basic expenses grew from $237.1 million in 2021/22 to $258.3 million in 2022/23 ($21.3 million increase). As operating expenses account for approximately 32% of Basic expenses, this overall expense growth accounts for about $6.8 million or half of the $13.5 million increase.

The remaining $6.7 million ($13.5 million less $6.8 million) increase is due to allocation changes. Most notably the change in the distribution of operating and claims expense per the expense allocation methodology. Please refer to *Expenses EXP 4* on page 12, which illustrates the allocated distribution of operating and claims expenses. *Figure 2* below reproduces this allocation illustration:

Figure 2 FTE Allocator

Line No.	FTE Allocator	2022 GRA	2023 GRA
1	**Claims**	67.95%	64.55%
2	**Operating**	32.05%	35.45%

Overall, the allocation for the distribution of Operating/Claims expenses increased 3.4% (35.45% versus 32.05%) for operating expense from 2021/22 to 2022/23. This accounts for approximately $3.7 million of the Basic operating expense increase with the remaining $3 million increase due to various movements within the departmental accounts.

From 2022/23 to 2023/24 the $6.5 million overall Basic **operating** expense increase is due to the $17.5 million increase in overall Basic expenses.

The combination of increase in overall expenses plus increase in allocation as described above can be summarized in the figure below with details of the significant changes by expense category shown on lines 13 to 18.

Figure 3 Operating Expense Analysis

Line No.	*($000s)*	2021/22	2022/23	2023/24
1	**Normal Operating**	225,316	237,045	252,042
2	**Initiatives**	11,773	21,301	23,836
3	**Total Expenses**	**237,089**	**258,346**	**275,878**
4				
5	**Total Operating Expenses**	**2021/22**	**2022/23**	**2023/24**
6	**% Operating (Normal Operating)**	32%	35%	35%
7	**Normal Operating**	72,114	81,943	87,511
8	**Initiatives**	3,831	7,534	8,455
9	**Total Operating Expenses**	**75,945**	**89,477**	**95,966**
10			**Change**	**Change**
11	**Prior Year Total Operating Expenses**		**75,945**	**89,477**
12	**Special Service Expense - Initiatives**		3,703	921
13	**Normal Operating**			
14	**Compensation Expense**		7,330	3,699
15	**Data Processing Expense**		3,238	676
16	**Building Expense**		-	1,247
17	**Other**		(739)	(54)
18	**Total Operating Expenses**		**89,477**	**95,966**

Please refer to *Expenses EXP Appendix 2* for the source of the details to the preceding figure.

There are no impacts related to IT impairment expenses and no allocation methodology changes, only allocator movements.

CAC (MPI) 1-7

Part and Chapter:	Part V – Pro Formas	Page No.:	9 of 29
PUB Approved Issue No:	4. Financial Forecast		
Topic:	Investment income		
Sub Topic:			

Preamble to IR:

On page 9, Part V—Pro Formas, the Explanation of Significant Variance – 2021/22 Comparative indicates in Note 3 a higher than expected interest rate impact of $(127.3) million and Higher than Expected Write-off of $(22.0) million.

Question:

a) Please provide a discussion and analysis on the interest rate impact of $(127.3) million. Please highlight in the discussion the financial impact, rate setting impact and mitigation strategy on future fiscal years.

b) Please provide a detailed analysis and reasons, by issue, of the investment write offs of $(22.0) million

Rationale for Question:

To better understand the interest rate impact on future rating years and the mitigation strategy to minimize interest rate changes.

RESPONSE:

a) Please see *CAC (MPI) 1-7 Appendix 1* for the breakdown of the $(127.3) million interest rate impact. An unrealized loss of $(120.1) million on government bonds represents the biggest portion of the loss. Higher than expected interest rates resulted in the decline in the value of fixed income holdings.

The rates are based on the discounted value of the policy related cash outflows (e.g., claims, expenses, commissions etc.). A higher investment return would generally translate to a higher discount rate, leading to a lower present value of the cash outflows, thereby resulting in a reduction in rates.

Mercer made recommendations to improve the MPI methodology for forecasting capital markets assumptions, which recommendations include: (i) using forward rates instead of the Government of Canada 10-year bond interest rate, and (ii) incorporating historical provincial and corporate spreads based on convergence to the historical average spread, rather than the actual yields of provincial and corporate bonds at the time of the forecast. MPI will pursue these two recommendations.

b) Please refer to *PUB (MPI) 1-45*.

Figure App 1-1 Breakdown of ($127.3) million interest rate impact

Line No.		2022 GRA Projected	Actual	
1	$'000s	2021/22	2021/22	Variance
2	Government Bonds Unrealized Gains/(Loss)	$ (2,886)	$ (123,025)	$ (120,139)
3	Government Bonds Realized Gains/(Loss)	$ 3,277	$ (3,972)	$ (7,249)
4	Corporate Bonds Unrealized Gains/(Loss)	$ 1,202	$ -	$ (1,202)
5	Corporate Bonds Realized Gains/(Loss)	$ (1,281)	$ -	$ 1,281
6	MUSH	$ -	$ (3)	$ (3)
7	Total			**$ (127,312)**

CAC (MPI) 1-8

Part and Chapter:	**Part V-- Expenses**	**Page No.:**	**N/A**
PUB Approved Issue No:	**8. Cost of operations**		
Topic:	**2021 Compensation report**		
Sub Topic:			

Preamble to IR:

Per The Public Sector Compensation Disclosure Act the corporation prepares a compensation report.

Question:

Please file a copy of the latest public compensation report prepared in accordance with The Public Sector Compensation Disclosure Act together with the Auditor's report.

Rationale for Question:

To assess and understand compensation costs paid, by the corporation, in 2021 to employees.

RESPONSE:

The Public Sector Compensation Disclosure Act report can be found on the Corporation's website mpi.mb.ca - Compensation Disclosure (mpi.mb.ca).

CAC (MPI) 1-9

Part and Chapter:	**Part V – Pro Formas**	**Page No.:**	**22 of 29**
PUB Approved Issue No:	**4. Financial Forecast**		
Topic:	**PF-14 Statement of Changes in Equity: -0.9% Basic Rate Change – with IFRS Changes effective in 2023/24**		
Sub Topic:			

Preamble to IR:

On page 22, Part V – Pro Formas, PF -14 on line 13 (labeled "Transfer (to)/ from Non-Basic Retained Earnings) shows a transfer of $42.3 million in 2023FB but no transfer for future years. On page 7, PF – 3 shows transfers from Extension Retained Earnings for years 2024F through to 2027F.

Question:

Please provide the reasons MPI does not expect to transfer retained earnings from Extension when IFRS 17 and 9 become effective in 2023/24.

Rationale for Question:

To better understand the impact of IFRS 17 and 9 on transfer of extension retained earnings to basic insurance.

RESPONSE:

The sole intent of *PF-14, page 22* of the Pro Forma Chapter is to illustrate the International Financial Reporting Standards (IFRS) view of the Statement of Equity commencing in 2023/24. MPI did not provide the one-time financial impacts of IFRS (affecting both Basic and Extension) because policy decisions remain outstanding.

Hence, the Extension transfer amount is unknown and, therefore, not shown. MPI can confirm capital transfers from Extension to Basic will resume in 2022/23.

CAC (MPI) 1-10

Part and Chapter:	Part V – Pro Formas	Page No.:	N/A
PUB Approved Issue No:	14. Risk Assessment and Management		
Topic:	MPI risk profile changes, if any		
Sub Topic:			

Preamble to IR:

Question:

a) Please identify, list and explain any financial transactions under consideration or in progress that have not been explicitly reported in the 2023 GRA, either by management, the Board of Directors or Government, which could impact the 2023 GRA proposed rates, if any.

b) Please provide a detailed description of any material changes to the Corporation's risk profile since last year's GRA, with respect to financial risk, operational risk, continuation of service risk, unpaid claims risk, information technology risk, people risk and investment risk or with respect to any other risk factors.

c) Please identify and explain any changes the Corporation expects to make to its risk profile going forward through the outlook period.

Rationale for Question:

RESPONSE:

a) There are no known financial transactions under consideration or in progress that have not been explicitly reported in the 2023 GRA, either by management, the Board of Directors or Government, which could impact the 2023 GRA proposed rates. There are market impacts which are unknown at this time; namely, the impact of inflation on discount rates, however, no material transactions that warrant disclosure.

b) The risk profile of Basic is documented in the *Financial Condition Test Chapter* (to be filed). See *Risk Management Framework RMF Appendix 3 – Top Corporate Risks* for a list of the top eight corporate risks. See response to *PUB (MPI) 1-75(c) Appendix 1 – Top 8 Risk Profiles - Confidential* for the risk profiles of the top eight corporate risks.

c) MPI does not expect material changes to its risk profile over the forecasted outlook period.

CAC (MPI) 1-12

Part and Chapter:	**Part V – Expenses**	**Page No.:**	**7 of 70**
PUB Approved Issue No:	**8. Cost of operations**		
Topic:	**Inflation growth**		
Sub Topic:			

Preamble to IR:

On page 7 of the Expenses chapter MPI states the following:

> *"Inflation growth of 2.4% in 2023/24, 2.3% in 2024/25 and 2.0% thereafter 15 has been applied to most expenses."*

Question:

Please provide any documentation supporting the proposed inflation growth assumptions listed in the statement in the Preamble.

Rationale for Question:

To better understand the proposed inflation assumptions.

RESPONSE:

Based on the high inflationary growth the Manitoba economy is currently experiencing, MPI increased applicable expense categories in accordance with inflation expectations for Manitoba. The figure below (Figure INV-40 of the Investment Chapter on page 73) illustrates the expected Manitoba CPI growth used to increase the applicable expense categories. Please note that this does not include categories such as compensation, which grows by mandated economic and merit increases, and depreciation/amortization, which are calculated values.

Figure 1 Manitoba CPI Forecast

Line No.	Source	2022	2023	2024	2025	2026
1	**Global Insight**	2.5%	1.9%	2.2%	2.0%	2.0%
2	**RBC Royal Bank**	4.7%	2.2%			
3	**BMO Capital Market Economics**	5.4%	3.2%	2.4%	2.0%	
4	**Overall Average**	4.2%	2.4%	2.3%	2.0%	2.0%

5 Sources:
6 Global Insight, "Canadian Provincial Forecast and Analysis", January 2022
7 RBC Economics, "Provincial Outlook", March 2022
8 BMO Financial Group, "Provincial Economic Outlook", April 2022

CAC (MPI) 1-13

Part and Chapter:	Part V – Expenses	Page No.:	21 of 70
PUB Approved Issue No:	8. Cost of operations		
Topic:	Staffing Figure EXP - 11		
Sub Topic:			

Preamble to IR:

The budgeted FTEs are increasing significantly from 2021/22A of 1815.3 FTEs to 2037.7 budgeted in 2023/24, an increase of 222.4 FTEs.

Question:

a) Please confirm that the primary reason for the budgeted increase in FTEs is because additional resources are required to implement Project Nova while maintaining the current systems at the same time. If this cannot be confirmed please explain the reasons for the increase.

b) Please provide a narrative discussion on the average age and the average number of years employees have worked at MPI.

Rationale for Question:

To gain a better understanding of the reason for the budgeted increase in FTE's and the talent pool required to successfully implement and maintain Project Nova.

RESPONSE:

a) It is important to clarify that the budgeted number of FTEs for 2021/22 is 1939.0. The 1815.3 FTE number is the actual number of positions filled at the end of the fiscal period. Therefore, the budget increase between 2023/24 and 2021/22 is 98.7 FTEs.

MPI accounted for the additional resources required to implement Project NOVA while maintaining the current systems at the same time in its 2022/23 budget, under the IT division, as an increase in the number of consultants (i.e., approximately 28 FTEs). Although listed as consultants, MPI could potentially fill these extra NOVA resources internally as term staff.

b) **Average age of MPI employees:** 42.07
Average years of service: 10.34

CAC (MPI) 1-14

Part and Chapter:	**Part V – Expenses**	**Page No.:**	**26 0f 70**
PUB Approved Issue No:	**8. Cost of operations**		
Topic:	**Employee future benefits**		
Sub Topic:			

Preamble to IR:

On page 26 of the Expenses chapter MPI states:

> **Forecasting Assumptions**
> 2 MPI forecasts each benefit based on individual behaviors, expected rate
> 3 increases/decreases, and discussions and advice from benefit consultants.

Question:

Please file a copy of the most recent actuarial pension and other benefit plans' valuation reports prepared by the external benefit consultant.

Rationale for Question:

To review the pension and other benefits plans actuarial valuation reports and the financial impact on basic insurance operations.

RESPONSE:

Please see following attachments:

- *Attachment A - Ellement Actuarial Valuation Report Pension Liabilities as at Mar 31 2022*

- *Attachment B - Ellement Actuarial Valuation Report In scope Post Retirement as at Mar 31 2022*

- *Attachment C - Ellement Actuarial Valuation Report Out of Scope Retirement as at Mar 31 2022*

Ellement
Pensions | Benefits | Investments

Actuarial Valuation Report as at March 31, 2022

Pension Liabilities of Manitoba Public Insurance (As a result of participation of its employees in the Civil Service Superannuation Act)

May 2022

NOTICE TO READER – This Report is Privileged and Confidential

The primary purpose of this engagement is to prepare a report that provides an accounting recommendation based on our understanding of the Canadian Institute of Actuaries Standards of Practice, and International Accounting Standard (IAS) 19 Employee Benefits in effect at the date of this report. The list of intended purposes of this report is noted in the Terms of Engagement discussed in Section 1.

Additionally, the intended recipients are noted in the Terms of Engagement and no party other than the parties noted shall rely upon the information presented herein. The recipient shall neither reproduce the report nor parts thereof unless reproduction is necessary for its evaluation and approved by Ellement Consulting Group (Ellement). The recipient agrees to protect the confidentiality of the information contained in this report and shall take all the necessary and reasonable measures to prevent the unauthorized use, disclosure, or distribution of the report or parts thereof. The recipient agrees not to use, amend, adapt, convert, translate, or exploit the contents of this document without written consent from Ellement, nor allow Ellement's competitors or unintended recipients to have access to its contents.

An actuarial valuation report is a snapshot of a pension plan's estimated financial condition and health at a particular point in time; it does not predict the pension plan's future financial condition or its ability to pay benefits indefinitely. The actual financial condition and contribution adequacy will be more favourable, or less favourable, depending on actual experience, when the next formal actuarial valuation report is prepared. Further, the financial condition and health may change due to a change in assumptions, a change in the provisions in the plan text, or a change in governing legislation.

Over time, a pension plan's actual cost will depend on several factors, including but not limited to:

- the level of the benefits the pension plan provides;
- the number of individuals paid benefits, the age at which their benefit is settled, and the length of time benefits are paid in retirement;
- the amount of expenses incurred for operating and investing; and
- the amount earned on any invested assets.

These amounts and other variables are uncertain and impossible to predict with precision at any particular point in time.

Due to the nature of our engagement, the actuarial assumptions, as described in Appendix II (Summary of Actuarial Accounting Assumptions), have been selected to develop results for a single scenario from the range of possibilities for each valuation basis. Actual experience will differ from the results based on the assumptions from the single scenario illustrated herein. In addition, different assumptions or scenarios may also be within the reasonable range and results based on those assumptions would be different. Differences between actual experience and the selected assumptions may prove to be significant or material. As such, frequent monitoring and periodic valuations are recommended. In any case, the actuary will review the selected assumptions at the next actuarial valuation date and may make adjustments for a number of factors including changes in regulatory requirements, plan experience, and changes in expectations about the future.

Given the intended purpose of the engagement and the uncertainty in the financial condition and health of the pension plan into the future described above, decisions about benefit reductions or enhancements, benefit security and sustainability, investment policy, funding policy, and benefit policy should be made only after careful consideration of alternative future financial conditions and scenarios, and not solely based on an actuarial valuation report or reports focused on a particular point in time.

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APPENDICES

1. TERMS OF ENGAGEMENT

We are pleased to present the results of the actuarial valuation as of March 31, 2022 (Plan), for the Manitoba Public Insurance (M.P.I.). Further to the Notice to Reader found at the beginning of the report, we note the following terms of engagement and other important information.

Purpose

Ellement has been engaged by the management of M.P.I. to perform an actuarial valuation of the Plan as of March 31, 2022, in accordance with the applicable Standards of Practice developed by the Canadian Institute of Actuaries (CIA) and IAS 19 Employee Benefits issued by the International Accounting Standards Committee. The previous valuation, as of March 31, 2021, was also performed by Ellement. The purpose of this Actuarial Valuation Report (Report) is to:

- Indicate the liabilities which M.P.I. has as at March 31, 2022 (Valuation Date), as a result of the participation of its employees in the Civil Service Superannuation Act (CSSA); and
- Provide a formula which can be used by the management of M.P.I. to estimate the increase in these liabilities in the following 12 to 18 months after March 31, 2022.

The results of this Report may not be appropriate for any other purpose, other than the purposes listed above.

These liabilities are an estimate of the present value of the future payments which M.P.I. is expected to make to the Civil Service Superannuation Fund (CSSF).

The liabilities have been computed on an accounting basis. This basis contemplates the continued existence of the pension plan and the funding arrangements for the benefits under the pension plan.

The analysis and recommendations presented in this Report is not intended to be a legal opinion and Ellement is not a law firm. If you require a legal opinion on the material reviewed in this Report, we recommend securing the advice of legal counsel.

Intended Recipients and Users

The intended recipients and users of this Report include the following:

- Manitoba Public Insurance.

Subsequent Events

Emerging experience differing from the assumptions after March 31, 2022, will result in gains or losses, which will be revealed in subsequent valuations.

Covid-19 has contributed to the significant volatility and uncertainty in the financial markets. Historically low interest rates, financial volatility, and uncertainty will continue to be monitored. Further, any impacts to the demographics of the Plan's membership, including increased retirement rates, morbidity, and mortality, will also be monitored. As with other experience, the financial impact of this event, as it applies to the Plan, will be reflected in future actuarial valuation reports.

We are not aware of any other matters or subsequent events occurring since the completion of this Report which would materially affect the financial position of the Plan as at March 31, 2022.

2. DATA

It is anticipated no amendments will be made to the CSSA.

Liabilities and membership information are calculated for March 31, 2022 based on December 31, 2021 data plus 0.25 years of age and services. Salary is increased by 0.75% from December 31, 2021 due to the wage growth assumptions for the first six months of 2022.

The data used in the calculations includes the portion of each pension, currently in payment or which is expected to be in payment, that M.P.I. is responsible for.

The data for all the pensions in payment and the accrued pensionable service of all employees participating in the CSSA was provided by the Civil Service Superannuation Board (Superannuation Board).

Information on the pensions and benefits paid by M.P.I. and the employee contributions for 2022 were estimated using the 2021 data obtained from M.P.I., as reported by the Superannuation Board.

Due to time constraints, the data provided by the Superannuation Board was sent without performing their normal annual edit checks. However, the data was checked for missing information, illogical information and reconciled with the prior valuation data. A few minor changes to the data resulted from the checks made.

3. MEMBERSHIP

The data provided indicated that M.P.I. was the employer of record for the following participants:

	31-Mar-2022			31-Mar-2021		
	Males	Females	Total	Males	Females	Total
Contributors	842	1,161	2,003	805	1,132	1,937
Deferred Pensioners	98	126	224	93	118	211
Reciprocal Transfers	1	-	1	1	-	1
Pensioners & Survivors	554	601	1,155	538	566	1,104
Total	1,495	1,888	3,383	1,437	1,816	3,253

A reconciliation of the number of member records used in the calculations is shown in Appendix I.

The numbers shown for pensioners includes 92 beneficiary records as at March 31, 2022 and 85 as at March 31, 2021.

4. ASSUMPTIONS

The assumptions used in this Report and assumptions used in the last actuarial valuation report of the M.P.I. pension liabilities are shown in Appendix II.

The demographic assumptions have been developed from the accumulated experience of the CSSF. This experience is reflected in the demographic assumptions adopted for the actuarial valuations of the CSSF. Changes to these assumptions were made for the actuarial valuation of the CSSF as at December 31, 2020 (CSSF AVR 2020).

The economic assumptions have been chosen by management of M.P.I. The specific choices are made after a review with internal staff and the actuary. The existing economic assumptions were confirmed to us on April 8, 2022 by management after management's review of the assumptions.

The demographic assumptions overall represent a reasonable best estimate basis for these assumptions. The economic assumptions, overall, represent M.P.I.'s best estimate basis for those assumptions.

5. M.P.I. SHARE OF BENEFIT PAYMENTS

The benefits expected to be paid are based on the provisions of the CSSA.

M.P.I. is expected to make payments due to:

- pensions in payment as at March 31, 2022 where M.P.I. is the last employer of record,
- pensions expected to become payable to former employees who retained the right to a deferred paid-up pension, and
- pensions and other benefits expected to become payable to existing employees as a result of service completed up to the Valuation Date.

At present, M.P.I. is contributing to the CSSF based on the pay-as-you-go method of funding. Under this method, no advance funding payments for the employer share of the cost of pensions are made to the CSSF. M.P.I. has, however, established a reserve against general assets which is being increased to match the increase in its pension liabilities.

Each month, M.P.I. makes payments to the CSSF to reimburse it for:

- a portion (currently about 44%) of each pension payment to retired employees,
- a portion (currently about 44%) of each pension payment to a beneficiary of a deceased pensioner or the survivor of an employee who dies in service,
- a portion of any amounts transferred to other pension plans under reciprocal agreements,
- a portion of any commuted values paid out as a result of employees terminating service or as a result of marriage breakdowns, and
- a portion of the administrative costs of operating the CSSF in respect of M.P.I. records.

Pensions in payment are indexed to 2/3 of the increases in the cost of living, provided sufficient funds exist to finance such increases. Former employees who retain a right to a deferred paid-up pension have their pensions indexed during both the deferral period and the payout period.

The employer share of each pension is based on when the pension starts. For pensions which commenced:

(a) prior to March 31, 1961, the employer is responsible for a portion of each increase in that pension and

(b) after March 31, 1961, the employer is responsible for a portion (currently about 44%) of the pension paid.

Pursuant to CSSA subsection 22(11), employer funding for employees who have service with more than one non-matching Agency shall be on a pro rata basis. This proration of the benefits assigned to an employer is based on the proration of service allocated to the employer. This proration assignment was made effective for events on or after January 1, 1998. This may decrease or increase the pension obligations in the absence of CSSA subsection 22(11). However, for enhanced benefits, it is the administrative practice to bill all of the enhanced benefits to the current employer.

6. VALUATION PROCEDURE

The projected unit credit actuarial cost method has been used to determine the accrued liabilities and the current service cost applicable to each year after the Valuation Date.

The liabilities are computed separately for each employee and each potential benefit in the future for that employee. For each benefit, we determine:

- the probability of that benefit becoming payable each year in the future based on the assumptions outlined in Appendix II,
- a discount factor which makes allowance for the interest expected to be earned between the valuation date and the date of payment to finance a portion of the future payment, and
- the amount of the future benefit. Pensions are based on service completed prior to the valuation date and projected salaries immediately prior to the event causing the pension to be paid.

The liability for each benefit for an employee is the sum of the product of these three factors for each year in the future. The sum of these liabilities obtained for all employees is the liability for that benefit in respect of employees.

The liabilities for pensioners and deferred pensioners are determined by a similar process except that the amount of payment is based on the pension in payment or the pension of record in the case of deferred pensioners.

For accounting purposes, the service-to-date pension obligations have been shown.

7. VALUATION RESULTS

The following table shows the liabilities which M.P.I. has as at March 31, 2022 and March 31, 2021 as a result of the participation of its employees and former employees in the CSSA:

Pension Liabilities with Allowance Made for Indexing of Pensions

	After Change in assumptions 31-Mar-2022	Before change in assumptions 31-Mar-2022	31-Mar-2021
Contributors	$ 179,052,000	$ 210,385,000	$ 212,582,300
Deferred Pensioners	12,046,400	14,049,600	11,741,400
Pensioners & Survivors	232,020,300	248,568,900	232,987,300
Total	$ 423,118,700	$ 473,003,500	$ 457,311,000

For this valuation, the liabilities were $2,215,500 more than projected prior to reflecting changes in actuarial accounting assumptions. The detailed breakdown of all experience is shown in Appendix III.

The liabilities were also affected by the change made to anticipated future experience. The increase in the discount rate from 3.34% to 4.01% decreased the liabilities by $52.2 million.

The expected average remaining service life (EARSL) of employees is 15.0 years.

8. PROJECTION FORMULA FOR LIABILITIES

The application of the projection formula is shown in Appendix III.

The following formula can be used to project the estimated increase in liabilities in the 12 to 18 months after the Valuation Date:

- Add interest at the rate of 4.01% per year to the liabilities at the beginning of the period, the contributions for the period, and the benefit payments for the period. The interest addition for the contributions and the benefit payments should be prorated to recognize investment for half the period on average.

- Add employer contributions at the rate of 134.4% of the employee contributions required to be made for the period.

- Deduct the actual employer pension and benefit payments made to the CSSF for the period.

9. MATURITY ANALYSIS

The following table shows the estimated future pensions as at March 31, 2022 and March 31, 2021:

	Less than 1 year	Between 1 - 2 years	Between 2 - 5 years	Over 5 years	Total
31-Mar-2022	$ 13,667,200	$ 14,328,400	$ 46,342,900	$ 841,715,900	$ 916,054,400
31-Mar-2021	13,360,500	14,755,500	52,636,200	719,144,500	799,896,700

10. ACCOUNTING FOR PENSION OBLIGATIONS

A reserve against general assets has been established and is being increased to match the accrued pension liability. This reserve should eventually reflect the existence of assets in the Employer Trust Account held in the CSSF.

The pension expense for a period is equal to:

(a) the change in the reserve, plus

(b) the actual benefit payments, plus

(c) the amounts for the amortization of previous gains and losses.

The above formula takes no credit for interest that may have been earned on assets supporting the liabilities.

11. ACTUARIAL OPINION

In our opinion, for the purposes of this Report:

- The membership data on which the Report is based are sufficient and reliable.
- The assumptions are appropriate for the purpose of determining the requirements of the Plan on an accounting basis.
- The methods employed in the valuation are appropriate for the purpose of determining the requirements of the Plan on an accounting basis.
- There is a risk that the liabilities may be exposed to adverse demographic experience in the future (e.g. retirement, mortality, etc.).
- We are not aware of any other matters or events occurring since the completion of this Report, which will materially affect the financial position of the liabilities as at March 31, 2022.
- This Report has been prepared, and our opinion given, in accordance with accepted actuarial practice in Canada.

Dated at Winnipeg, this 19th day of May, 2022.

ELLEMENT CONSULTING GROUP

Dennis Ellement   Brandon Ellement

Dennis Ellement, FSA, FCIA   Brandon Ellement, FSA, FCIA

APPENDIX I

Summary of Data

- Reconciliation of Membership

TOTAL	ACTIVES	DEFERREDS	RECIPROCAL	PENSIONERS	SURVIVORS
Opening 31-Mar-2021	1,937	211	1	1,019	85
New Entrants	203	-	-	-	-
Retirements	(67)	-	-	67	-
Terminations - Deferred	(42)	42	-	-	-
Terminations - Refunds	(28)	(29)	-	(14)	(2)
Terminations - Deaths	-	-	-	-	-
Death - Survivors	-	-	-	(9)	9
Closing 31-Mar-2022	2,003	224	1	1,063	92

MALES	ACTIVES	DEFERREDS	RECIPROCAL	PENSIONERS	SURVIVORS
Opening 31-Mar-2021	805	93	1	518	20
New Entrants	96	-	-	-	-
Retirements	(30)	-	-	30	-
Terminations - Deferred	(20)	20	-	-	-
Terminations - Refunds	(9)	(15)	-	(7)	-
Terminations - Deaths	-	-	-	-	-
Death - Survivors	-	-	-	(8)	1
Closing 31-Mar-2022	842	98	1	533	21

FEMALES	ACTIVES	DEFERREDS	RECIPROCAL	PENSIONERS	SURVIVORS
Opening 31-Mar-2021	1,132	118	-	501	65
New Entrants	107	-	-	-	-
Retirements	(37)	-	-	37	-
Terminations - Deferred	(22)	22	-	-	-
Terminations - Refunds	(19)	(14)	-	(7)	(2)
Terminations - Deaths	-	-	-	-	-
Death - Survivors	-	-	-	(1)	8
Closing 31-Mar-2022	1,161	126	-	530	71

▪ Contributors

CONTRIBUTORS - MALES 31-Mar-2022

MALES		Average			Number of Members in Each Years of Service Cell								
Age	Count	Age	Service	Salary	00 - 04	05 - 09	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40 - 44
15 - 19	1	19.00	0.58	$ 37,549.00	1	-	-	-	-	-	-	-	-
20 - 24	12	22.50	1.41	47,444.25	12	-	-	-	-	-	-	-	-
25 - 29	61	27.07	2.15	55,784.51	55	5	1	-	-	-	-	-	-
30 - 34	96	32.27	5.07	67,828.79	50	35	11	-	-	-	-	-	-
35 - 39	134	37.13	7.92	71,408.32	44	38	46	6	-	-	-	-	-
40 - 44	154	42.01	9.98	84,314.36	36	40	48	23	7	-	-	-	-
45 - 49	123	46.82	12.56	82,490.52	17	30	31	25	18	2	-	-	-
50 - 54	111	51.79	15.08	86,935.50	17	20	17	15	28	10	4	-	-
55 - 59	99	57.00	18.17	87,106.51	7	24	12	15	14	5	12	10	-
60 - 64	41	61.78	19.18	82,572.78	4	5	8	3	11	1	5	3	1
65 - 69	10	66.40	19.62	88,733.70	2	-	2	1	2	1	1	1	-
70 - 74	-	-	-	-	-	-	-	-	-	-	-	-	-
Mar 2022 Total/Avg	842	43.74	10.97	$ 78,108.03	245	197	176	88	80	19	22	14	1
Mar 2021 Total/Avg	805	44.17	11.50	$ 80,136.94	222	196	163	94	71	12	33	13	1

CONTRIBUTORS - FEMALES 31-Mar-2022

MALES		Average			Number of Members in Each Years of Service Cell								
Age	Count	Age	Service	Salary	00 - 04	05 - 09	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40 - 44
15 - 19	-	-	-	$ -	-	-	-	-	-	-	-	-	-
20 - 24	24	23.13	1.05	46,614.46	24	-	-	-	-	-	-	-	-
25 - 29	88	27.26	2.81	52,380.58	77	11	-	-	-	-	-	-	-
30 - 34	161	32.03	5.14	61,230.23	84	64	13	-	-	-	-	-	-
35 - 39	215	36.90	7.97	68,152.25	62	71	78	4	-	-	-	-	-
40 - 44	183	41.87	10.10	71,757.41	39	47	58	33	6	-	-	-	-
45 - 49	137	46.89	13.18	74,785.12	10	34	37	37	19	-	-	-	-
50 - 54	138	52.07	16.03	74,992.82	16	23	30	19	24	17	9	-	-
55 - 59	142	56.81	20.87	71,493.13	10	12	19	30	19	14	33	5	-
60 - 64	58	61.90	18.92	60,289.17	5	11	8	9	9	4	5	4	3
65 - 69	13	66.62	15.87	57,643.54	2	3	3	1	2	-	1	1	-
70 - 74	2	70.00	18.20	57,038.50	-	-	1	-	1	-	-	-	-
Mar 2022 Total/Avg	1,161	43.05	11.18	$ 67,594.71	329	276	247	133	80	35	48	10	3
Mar 2021 Total/Avg	1,132	43.05	11.62	$ 69,067.76	286	297	230	137	72	39	58	8	5

- Deferred Pensioners

DEFERREDS - MALES 31-Mar-2022

MALES Age	Count	Average Monthly Basic Pension	Count	Average Monthly Cola Pension
15 - 19	-	$ -	-	$ -
20 - 24	-	-	-	-
25 - 29	-	-	-	-
30 - 34	3	428.01	-	-
35 - 39	8	516.48	-	-
40 - 44	18	1,957.02	-	-
45 - 49	20	1,317.48	-	-
50 - 54	22	1,327.79	-	-
55 - 59	13	849.54	-	-
60 - 64	14	509.55	-	-
65 - 69	-	-	-	-
70 - 74	-	-	-	-
Mar 2022 Total/Avg	98	$ 1,167.15	-	$ -
Mar 2021 Total/Avg	93	$ 901.52	-	$ -

DEFERREDS - FEMALES 31-Mar-2022

FEMALES Age	Count	Average Monthly Basic Pension	Count	Average Monthly Cola Pension
15 - 19	-	$ -	-	$ -
20 - 24	-	-	-	-
25 - 29	1	212.67	-	-
30 - 34	5	423.26	-	-
35 - 39	17	661.66	-	-
40 - 44	16	522.78	-	-
45 - 49	28	899.62	-	-
50 - 54	17	796.22	-	-
55 - 59	24	1,094.80	-	-
60 - 64	14	529.91	-	-
65 - 69	4	268.51	-	-
70 - 74	-	-	-	-
Mar 2022 Total/Avg	126	$ 757.42	-	$ -
Mar 2021 Total/Avg	118	$ 770.06	-	$ -

- Pensions in Payment

PENSIONERS & SURVIVORS - MALES 31-Mar-2022

MALES Age	Count	Average Monthly Basic Pension	Count	Average Monthly Cola Pension
40 - 44	-	$ -	-	$ -
45 - 49	-	-	-	-
50 - 54	1	1,030.22	1	20.54
55 - 59	39	3,577.97	29	73.41
60 - 64	102	2,686.61	89	131.84
65 - 69	159	2,084.33	153	178.42
70 - 74	128	2,255.01	124	318.53
75 - 79	76	1,866.32	76	396.14
80 - 84	25	1,483.96	25	469.39
85 - 89	15	1,848.95	15	650.96
90 - 94	9	862.62	9	516.62
95 - 99	-	-	-	-
100 -105	-	-	-	-
Mar 2022 Total/Avg	554	$ 2,254.68	521	$ 262.83
Mar 2021 Total/Avg	538	$ 2,248.16	511	$ 267.64

PENSIONERS & SURVIVORS - FEMALES 31-Mar-2022

FEMALES Age	Count	Average Monthly Basic Pension	Count	Average Monthly Cola Pension
40 - 44	-	$ -	-	$ -
45 - 49	-	-	-	-
50 - 54	1	162.60	1	20.59
55 - 59	60	2,579.78	42	55.79
60 - 64	135	2,208.70	120	105.47
65 - 69	173	1,597.42	165	151.42
70 - 74	109	1,164.22	106	174.07
75 - 79	62	933.31	62	196.80
80 - 84	29	888.87	29	272.59
85 - 89	20	667.35	20	331.11
90 - 94	9	610.53	9	326.70
95 - 99	1	292.09	1	186.93
100 -105	2	285.63	2	156.85
Mar 2022 Total/Avg	601	$ 1,596.88	557	$ 159.11
Mar 2021 Total/Avg	566	$ 1,558.46	533	$ 153.77

Note:

Both the pension amounts and cost-of-living (cola) amounts shown in the above table are the total amounts paid.

APPENDIX II

Summary of Actuarial Accounting Assumptions

		31-Mar-2022	31-Mar-2021
1.	Annual Discount Rate	4.01%	3.34%
	Annual Rate of Inflation Included in Rate of Return	3.00% for 0.75 year, 2.20% for 1.00 year, 2.10% for 1.00 year, 2.00% thereafter	1.20% for 0.75 year, 1.80% for 1.00 year, 2.00% thereafter
2.	General Salary Increases (service and merit is separate and age specific)	0.75% for 0.50 year, 1.00% for 1.00 year, 2.00% thereafter	0.00% for 0.50 year, 0.75% for 1.00 year, 1.00% for 1.00 year, 2.00% thereafter
3.	Annual Salary Merit Increases	see TABLE	Same
4.	Indexing of Pensions (2/3 of the assumed rate of inflation)	2.00% for 0.75 year, 1.47% for 1.00 year, 1.40% for 1.00 year, 1.33% thereafter	0.80% for 0.75 year, 1.20% for 1.00 year, 1.33% thereafter
5.	Annual Increase in Earnings under Canada Pension Plan	same as general salary increases	same
6.	Annual Increase in Maximum Pension under Income Tax Act	2022: $3,420.00 Indexed ≥ 2023: same as 5. above	2021: $3,245.56 Indexed ≥ 2022: same as 5. above
7.	Annual Rate of Interest Credited to Employee Contributions	1.01% for 0.75 year, 1.81% for 1.00 year, 1.91% for 1.00 year, 2.01% thereafter	2.14% for 0.75 year, 1.54% for 1.00 year, 1.34% thereafter
8.	Employer's Portion of Administrative Costs - % of Employee Contributions	0.00%	same
9.	Annual Rates of Death	CPM 2014 Public Mortality Projected using Scale B (see TABLE)	same
10.	Proportion of Employees with a Spouse	see TABLE	same
11.	Annual Rates of Termination of Service	see TABLE	same
12.	Annual Rates of Disability	see TABLE	same
13.	Annual Rates of Retirement	see TABLE	same

	Mortality*		Termination		Disability		Retirement	
Age	Males	Females	Males	Females	Males	Females	Males	Females
20	0.08%	0.02%	10.15%	12.60%	-	-	-	-
25	0.10	0.02	6.60	9.20	-	-	-	-
30	0.11	0.03	4.63	6.88	-	-	-	-
35	0.11	0.04	3.39	5.31	0.01%	0.01%	-	-
40	0.13	0.06	2.58	4.26	0.04	0.06	-	-
45	0.18	0.09	2.06	3.64	0.09	0.13	-	-
50	0.25	0.13	1.71	3.22	0.23	0.30	-	-
55	0.36	0.21	-	-	0.66	0.76	24.86%	24.49%
60	0.53	0.35	-	-	-	-	27.10	21.45
65	0.76	0.56	-	-	-	-	100.00	100.00
70	1.17	0.88	-	-	-	-	-	-
75	2.00	1.46	-	-	-	-	-	-
80	3.74	2.71	-	-	-	-	-	-
85	7.22	5.32	-	-	-	-	-	-
90	13.54	10.23	-	-	-	-	-	-
95	24.27	18.86	-	-	-	-	-	-
100	36.64	31.78	-	-	-	-	-	-

* CPM 2014 Public Mortality Projected using Scale B

	Service and Merit		Married Proportions	
Age	Males	Females	Males	Females
20	3.41%	3.41%	33.00%	35.00%
25	2.90	2.90	69.00	55.00
30	2.40	2.40	90.00	68.40
35	1.89	1.89	92.70	70.50
40	1.37	1.37	93.30	70.00
45	0.94	0.94	93.50	67.80
50	0.70	0.70	90.00	71.00
55	-	-	90.00	71.00
60	-	-	90.00	71.00
65	-	-	90.00	71.00

Plus allowance for use of accrued vacation in calculation of average annual salary at date of retirement: 3.45%.

APPENDIX III

Projection of M.P.I. Pension Liabilities to March 31, 2022

1.	**Actuarial Liabilities as at 31-Mar-2021**	$ 457,311,000
2.	Interest on liabilities and cash flow (3.34%)	15,244,700
3.	Current Service Cost for Active Members	16,384,300
4.	Employer Benefit Payments	(18,152,000)
5.	**Projected Liabilities as at 31-Mar-2022**	$ 470,788,000
6.	ACTUAL LIABILITIES as at 31-Mar-2022 before change in economic assumptions	$ 473,003,500
7.	ACTUAL LIABILITIES as at 31-Mar-2022 after change in economic assumptions	$ 423,118,700
	GAIN/(LOSS) due to actual experience: [5] - [6]	$ (2,215,500)
	GAIN/(LOSS) due to change in accounting assumptions: [6] - [7]	49,884,800
	NET GAIN/(LOSS)	$ 47,669,300

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Ellement Consulting Group is a national provider of integrated Retirement, Benefit, Actuarial, and Investment Consulting, as well as Administration Services for Retirement and Benefit programs, and Retirement and Benefit Software Solutions for internally administered organizations.

Led by a team of experienced professionals from our offices in Vancouver, Edmonton, Winnipeg, and Toronto, who provide valuable insight, stewardship, and customized solutions to our valued client partners.

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Actuarial Valuation Report as at March 31, 2022

Liabilities for Post-Retirement Health Benefits for In-Scope Employees of Manitoba Public Insurance

May 2022

NOTICE TO READER – **This Report is Privileged and Confidential**

The primary purpose of this engagement is to prepare a report that provides an accounting recommendation based on our understanding of the Canadian Institute of Actuaries Standards of Practice, and International Accounting Standard (IAS) 19 Employee Benefits in effect at the date of this report. The list of intended purposes of this report is noted in the Terms of Engagement discussed in Section 1.

Additionally, the intended recipients are noted in the Terms of Engagement and no party other than the parties noted shall rely upon the information presented herein. The recipient shall neither reproduce the report nor parts thereof unless reproduction is necessary for its evaluation and approved by Ellement Consulting Group (Ellement). The recipient agrees to protect the confidentiality of the information contained in this report and shall take all the necessary and reasonable measures to prevent the unauthorized use, disclosure, or distribution of the report or parts thereof. The recipient agrees not to use, amend, adapt, convert, translate, or exploit the contents of this document without written consent from Ellement, nor allow Ellement's competitors or unintended recipients to have access to its contents.

An actuarial valuation report is a snapshot of a plan's estimated financial condition and health at a particular point in time; it does not predict the plan's future financial condition or its ability to pay benefits indefinitely. The actual financial condition and contribution adequacy will be more favourable, or less favourable, depending on actual experience, when the next formal actuarial valuation report is prepared. Further, the financial condition and health may change due to a change in assumptions, a change in the provisions in the plan text, or a change in governing legislation.

Over time, a plan's actual cost will depend on several factors, including but not limited to:

- the level of the benefits the plan provides;
- the number of individuals paid benefits, the age at which their benefit is settled, and the length of time benefits are paid in retirement;
- the amount of expenses incurred for operating and investing; and
- the amount earned on any invested assets.

These amounts and other variables are uncertain and impossible to predict with precision at any particular point in time.

Due to the nature of our engagement, the actuarial assumptions, as described in Appendix II (Summary of Actuarial Accounting Assumptions), have been selected to develop results for a single scenario from the range of possibilities for each valuation basis. Actual experience will differ from the results based on the assumptions from the single scenario illustrated herein. In addition, different assumptions or scenarios may also be within the reasonable range and results based on those assumptions would be different. Differences between actual experience and the selected assumptions may prove to be significant or material. As such, frequent monitoring and periodic valuations are recommended. In any case, the actuary will review the selected assumptions at the next actuarial valuation date and may make adjustments for a number of factors including changes in regulatory requirements, plan experience, and changes in expectations about the future.

Given the intended purpose of the engagement and the uncertainty in the financial condition and health of the plan into the future described above, decisions about benefit reductions or enhancements, benefit security and sustainability, investment policy, funding policy, and benefit policy should be made only after careful consideration of alternative future financial conditions and scenarios, and not solely based on an actuarial valuation report or reports focused on a particular point in time.

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1. TERMS OF ENGAGEMENT

We are pleased to present the results of the actuarial valuation as of March 31, 2022 (Plan), for the Manitoba Public Insurance (M.P.I.). Further to the Notice to Reader found at the beginning of the report, we note the following terms of engagement and other important information.

Purpose

Ellement has been engaged by the management of M.P.I. to perform an actuarial valuation of the Plan as of March 31, 2022, in accordance with the applicable Standards of Practice developed by the Canadian Institute of Actuaries (CIA) and IAS 19 Employee Benefits issued by the International Accounting Standards Committee. The previous valuation, as of March 31, 2021, was also performed by Ellement. The purpose of this Actuarial Valuation Report (Report) is to:

- Indicate the liabilities which M.P.I. has as at March 31, 2022 (Valuation Date), as a result of the provision of Post-Retirement Health Benefits to in-scope employees; and
- Provide a formula which can be used by the management of M.P.I. to estimate the increase in these liabilities in the following 12 to 18 months after March 31, 2022.

The results of this Report may not be appropriate for any other purpose, other than the purposes listed above.

These liabilities are an estimate of the present value of the future payments which M.P.I. is expected to pay to provide Post-Retirement Health Benefits to in-scope employees after their retirement. The Post-Retirement Health Benefits include eligible health benefits.

A summary of the Post Retirement Health Benefits is provided in Appendix I.

The liabilities have been computed on an accounting basis. This basis contemplates the continued existence of the Post-Retirement Health Benefits and the funding arrangements for the benefits.

The analysis and recommendations presented in this Report is not intended to be a legal opinion and Ellement is not a law firm. If you require a legal opinion on the material reviewed in this Report, we recommend securing the advice of legal counsel.

Intended Recipients and Users

The intended recipients and users of this Report include the following:

- Manitoba Public Insurance.

Subsequent Events

Emerging experience differing from the assumptions after March 31, 2022, will result in gains or losses, which will be revealed in subsequent valuations.

Covid-19 has contributed to the significant volatility and uncertainty in the financial markets. Historically low interest rates, financial volatility, and uncertainty will continue to be monitored. Further, any impacts to the demographics of the Plan's membership, including increased retirement rates, morbidity, and mortality, will also be monitored. As with other experience, the financial impact of this event, as it applies to the Plan, will be reflected in future actuarial valuation reports.

We are not aware of any other matters or subsequent events occurring since the completion of this Report which would materially affect the financial position of the Plan as at March 31, 2022.

2. DATA

It is anticipated no amendments will be made to the Post-Retirement Health Benefits, other than those described in Appendix I.

Liabilities and membership information are calculated for March 31, 2022 based on December 31, 2021 data.

The data used in the calculations includes the benefits currently in payment or those that are expected to be in payment.

Information on each in-scope employee covered by the Post-Retirement Health Benefits was obtained from M.P.I. For current in-scope employees, this information included employee number, name, and birth date.

For retired in-scope employees, similar information was provided.

The data was checked for missing information and illogical information. As a result of these checks, the data was found to be sufficient and reliable.

3. POST-RETIREMENT HEALTH BENEFITS PARTICIPATION

The data provided indicated that M.P.I. was the employer of record for the following participants (new entrants, and separately terminations, may include or exclude temporary employees as provided by M.P.I.):

	EMPLOYEES			PENSIONERS & SURVIVORS		
	Males	Females	Total	Males	Females	Total
Participants as at 31-Mar-2021	634	968	1,602	227	325	552
New employees	69	88	157	-	-	-
Retirements	(18)	(22)	(40)	18	22	40
Terminations	(38)	(60)	(98)	-	-	-
Deaths	-	-	-	-	-	-
Adjustments	-	-	-	-	-	-
Participants as at 31-MAR-2022	647	974	1,621	245	347	592

4. ASSUMPTIONS

The actuarial accounting assumptions used in this valuation are shown in Appendix II.

The demographic assumptions are the same as those used for the actuarial valuation report on the pension liabilities that the Manitoba Public Insurance has as at March 31, 2022. In addition, the marital status at the date of retirement was assumed to be the same as the marital status at the Valuation Date.

The economic assumptions have been chosen by management of M.P.I. The specific choices are made after a review with internal staff and the actuary. The existing economic assumptions were confirmed on April 8, 2022 by management after management's review of the assumptions. The assumptions are the same as those adopted for the actuarial valuation report on the pension liabilities as at March 31, 2022.

For purposes of future increases in premium (benefit) rates, it was assumed that the benefits currently in force at the Valuation Date would increase at the assumed rate of inflation. Based on information from various sources on the escalating cost of health benefits, it is anticipated that the current benefits will increase at 2.00% per year.

The demographic assumptions overall represent a reasonable best estimate basis for these assumptions. The economic assumptions, overall, represent M.P.I.'s best estimate basis for those assumptions.

5. M.P.I. SHARE OF PREMIUMS

It has been anticipated that M.P.I. will continue to pay 100% of the premiums (benefits) required to finance the Post-Retirement Health Benefits for in-scope employees.

6. VALUATION PROCEDURE

The projected benefit method prorated on service has been used to determine the accrued liabilities and the current service cost applicable to each year after the Valuation Date.

For each in-scope employee, the present value of the expected post-retirement premiums (benefits) was determined. The proportion of this amount held as the accrued liability is equal to the ratio of the completed service as at the Valuation Date divided by the total service expected to be completed at the date of retirement.

For each retired in-scope employee, the present value of the expected post-retirement premiums (benefits) was determined. This full amount is held as the accrued liability.

7. VALUATION RESULTS

The following table shows the liabilities that M.P.I. has as at March 31, 2022 and March 31, 2021 as a result of the provision of Post-Retirement Health Benefits to in-scope employees:

Category	Amount at 31-Mar-2022	Amount at 31-Mar-2021
Current Employees	$ 2,899,000	$ 3,294,200
Retired Employees	2,589,200	2,631,800
Total	$ 5,488,200	$ 5,926,000

For this valuation, the liabilities were $92,300 less than projected prior to reflecting changes in actuarial accounting assumptions. The detailed breakdown of the experience is shown in Appendix III.

8. PROJECTION FORMULA FOR LIABILITIES

The following formula can be used to project the estimated increase in liabilities in the 12 to 18 months after the Valuation Date:

- Add interest at the rate of 4.01% per year to the liabilities at the beginning of the period, the current service cost for the period, and the premium (benefit) payments for the period. The interest addition for the current service cost and the premium (benefit) payments should be prorated to recognize investment for half the period, on average.
- Add employer current service cost at the rate of $159 per covered current in-scope employee per year for the period.

9. MATURITY ANALYSIS

The following table shows the estimated future benefits as at March 31, 2022 and March 31, 2021:

	Less than 1 year	Between 1 - 2 years	Between 2 - 5 years	Over 5 years	Total
31-Mar-2022	$ 142,300	$ 157,600	$ 564,500	$ 9,972,000	$ 10,836,400
31-Mar-2021	133,000	147,800	532,500	9,886,700	10,700,000

10. ACCOUNTING FOR POST-RETIREMENT OBLIGATIONS

The cost for a period, including the assumed interest, is equal to:

(a) the change in the reserve plus

(b) the premium (benefit) payments plus

(c) the amounts for the amortization of the previous unfunded liability.

The above formula takes no credit for interest that may have been earned on assets supporting the liabilities.

11. ACTUARIAL OPINION

In our opinion, for the purposes of this Report:

- The membership data on which the Report is based are sufficient and reliable.
- The assumptions are appropriate for the purpose of determining the requirements of the Plan on an accounting basis.
- The methods employed in the valuation are appropriate for the purpose of determining the requirements of the Plan on an accounting basis.
- There is a risk that the liabilities may be exposed to adverse demographic experience in the future (e.g. retirement, mortality, etc.).
- We are not aware of any other matters or events occurring since the completion of this Report, which will materially affect the calculation of the liabilities as at March 31, 2022.
- This Report has been prepared, and our opinion given, in accordance with accepted actuarial practice in Canada.

Dated at Winnipeg, this 19th day of May, 2022.

Respectfully submitted,
ELLEMENT CONSULTING GROUP

Dennis Ellement Brandon Ellement

Dennis Ellement, FSA, FCIA Brandon Ellement, FSA, FCIA

APPENDIX I

SUMMARY OF BENEFITS

An annual post-retirement health benefits spending account is available, in the amount of $200, for eligible in-scope employees who retired after September 27, 2008.

Effective January 1, 2015, all eligible in-scope retirees who retired after September 27, 2008 had their post-retirement health benefits spending account increased from $200 to $350.

APPENDIX II

SUMMARY OF ACTUARIAL ACCOUNTING ASSUMPTIONS

	31-Mar-2022	31-Mar-2021
1. Annual Discount Rate:	4.01%	3.34%
2. Post-Retirement Benefit Rates (as at valuation date):		
- increase in post-retirement benefit rates	3.00% for 0.75 year, 2.20% for 1.00 year, 2.10% for 1.00 year, 2.00% thereafter	1.20% for 0.75 year, 1.80% for 1.00 year, 2.00% thereafter
- family rate (benefit) per year	$350	same
- single rate (benefit) per year	$350	same
3. Marital Status at Retirement:	same as at Valuation Date	same
4. Annual Rates of Death:	CPM 2014 Public Mortality Projected using Scale B (see TABLE)	same
5. Annual Rates of Termination of Service:	(see TABLE)	same
6. Annual Rates of Disability:	(see TABLE)	same
7. Annual Rates of Retirement:	(see TABLE)	same
8. Portion of Health Spending Account Expected to be Utilized:	65%	same

The age specific rates for the demographic assumptions are shown in the following table:

	Mortality*		Termination		Disability		Retirement	
Age	Males	Females	Males	Females	Males	Females	Males	Females
20	0.08%	0.02%	10.15%	12.60%	-	-	-	-
25	0.10	0.02	6.60	9.20	-	-	-	-
30	0.11	0.03	4.63	6.88	-	-	-	-
35	0.11	0.04	3.39	5.31	0.01%	0.01%	-	-
40	0.13	0.06	2.58	4.26	0.04	0.06	-	-
45	0.18	0.09	2.06	3.64	0.09	0.13	-	-
50	0.25	0.13	1.71	3.22	0.23	0.30	-	-
55	0.36	0.21	-	-	0.66	0.76	24.86%	24.49%
60	0.53	0.35	-	-	-	-	27.10	21.45
65	0.76	0.56	-	-	-	-	100.00	100.00
70	1.17	0.88	-	-	-	-	-	-
75	2.00	1.46	-	-	-	-	-	-
80	3.74	2.71	-	-	-	-	-	-
85	7.22	5.32	-	-	-	-	-	-
90	13.54	10.23	-	-	-	-	-	-
95	24.27	18.86	-	-	-	-	-	-
100	36.64	31.78	-	-	-	-	-	-

* CPM 2014 Public Mortality Projected using Scale B

APPENDIX III

PROJECTION OF M.P.I. POST-RETIREMENT HEALTH BENEFITS LIABILITIES TO MARCH 31, 2022

1.	**Actuarial Liabilities as at 31-Mar-2021**	5,926,000
2.	Interest on liabilities and cash flow (3.34%)	199,300
3.	Current Service Cost for Active Members	288,500
4.	Premium Payments for Retired Members	(207,200)
5.	Adjustment for new entrants	-
6.	Adjustment for data	-
7.	**Projected Liabilities as at 31-Mar-2022**	6,206,600
8.	ACTUAL LIABILITIES as at 31-Mar-2022 before change in economic assumptions	6,114,300
9.	ACTUAL LIABILITIES as at 31-Mar-2022 after change in economic assumptions	5,488,200
	GAIN/(LOSS) due to actual experience: [7] - [8]	92,300
	GAIN/(LOSS) due to change in accounting assumptions: [8] - [9]	626,100
	NET GAIN/(LOSS)	718,400

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Actuarial Valuation Report as at March 31, 2022

Liabilities for Post-Retirement Health Benefits for Out-of-Scope Employees of Manitoba Public Insurance

May 2022

NOTICE TO READER – This Report is Privileged and Confidential

The primary purpose of this engagement is to prepare a report that provides an accounting recommendation based on our understanding of the Canadian Institute of Actuaries Standards of Practice, and International Accounting Standard (IAS) 19 Employee Benefits in effect at the date of this report. The list of intended purposes of this report is noted in the Terms of Engagement discussed in Section 1.

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Over time, a plan's actual cost will depend on several factors, including but not limited to:

- the level of the benefits the plan provides;
- the number of individuals paid benefits, the age at which their benefit is settled, and the length of time benefits are paid in retirement;
- the amount of expenses incurred for operating and investing; and
- the amount earned on any invested assets.

These amounts and other variables are uncertain and impossible to predict with precision at any particular point in time.

Due to the nature of our engagement, the actuarial assumptions, as described in Appendix II (Summary of Actuarial Accounting Assumptions), have been selected to develop results for a single scenario from the range of possibilities for each valuation basis. Actual experience will differ from the results based on the assumptions from the single scenario illustrated herein. In addition, different assumptions or scenarios may also be within the reasonable range and results based on those assumptions would be different. Differences between actual experience and the selected assumptions may prove to be significant or material. As such, frequent monitoring and periodic valuations are recommended. In any case, the actuary will review the selected assumptions at the next actuarial valuation date and may make adjustments for a number of factors including changes in regulatory requirements, plan experience, and changes in expectations about the future.

Given the intended purpose of the engagement and the uncertainty in the financial condition and health of the plan into the future described above, decisions about benefit reductions or enhancements, benefit security and sustainability, investment policy, funding policy, and benefit policy should be made only after careful consideration of alternative future financial conditions and scenarios, and not solely based on an actuarial valuation report or reports focused on a particular point in time.

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We are pleased to present the results of the actuarial valuation as of March 31, 2022 (Plan), for the Manitoba Public Insurance (M.P.I.). Further to the Notice to Reader found at the beginning of the report, we note the following terms of engagement and other important information.

Purpose

Ellement has been engaged by the management of M.P.I. to perform an actuarial valuation of the Plan as of March 31, 2022, in accordance with the applicable Standards of Practice developed by the Canadian Institute of Actuaries (CIA) and IAS 19 Employee Benefits issued by the International Accounting Standards Committee. The previous valuation, as of March 31, 2021, was also performed by Ellement. The purpose of this Actuarial Valuation Report (Report) is to:

- Indicate the liabilities which M.P.I. has as at March 31, 2022 (Valuation Date), as a result of the provision of Post-Retirement Health Benefits to out-of-scope employees; and
- Provide a formula which can be used by the management of M.P.I. to estimate the increase in these liabilities in the following 12 to 18 months after March 31, 2022.

The results of this Report may not be appropriate for any other purpose, other than the purposes listed above.

These liabilities are an estimate of the present value of the future payments which M.P.I. is expected to pay to provide Post-Retirement Health Benefits to out-of-scope employees after their retirement. The Post-Retirement Health Benefits include Ambulance/Hospital Benefits, Extended Health Benefits, Vision Care Benefits and Dental Benefits. M.P.I. pays premiums to Blue Cross to provide these benefits.

A summary of the Post Retirement Health Benefits is provided in Appendix I.

The liabilities have been computed on an accounting basis. This basis contemplates the continued existence of the Post-Retirement Health Benefits and the funding arrangements for the benefits.

The analysis and recommendations presented in this Report is not intended to be a legal opinion and Ellement is not a law firm. If you require a legal opinion on the material reviewed in this Report, we recommend securing the advice of legal counsel.

Intended Recipients and Users

The intended recipients and users of this Report include the following:

- Manitoba Public Insurance.

Subsequent Events

Emerging experience differing from the assumptions after March 31, 2022, will result in gains or losses, which will be revealed in subsequent valuations.

Covid-19 has contributed to the significant volatility and uncertainty in the financial markets. Historically low interest rates, financial volatility, and uncertainty will continue to be monitored. Further, any impacts to the demographics of the Plan's membership, including increased retirement rates, morbidity, and mortality, will also be monitored. As with other experience, the financial impact of this event, as it applies to the Plan, will be reflected in future actuarial valuation reports.

We are not aware of any other matters or subsequent events occurring since the completion of this Report which would materially affect the financial position of the Plan as at March 31, 2022.

2. DATA

It is anticipated no amendments will be made to the Post-Retirement Health Benefits.

Liabilities and membership information are calculated for March 31, 2022 based on December 31, 2021 data.

The data used in the calculations includes the premiums currently in payment or those that are expected to be in payment.

Information on each out-of-scope employee covered by the Post-Retirement Health Benefits was obtained from M.P.I. For current out-of-scope employees, this information included employee number, name, birth date, and single or family coverage.

For retired out-of-scope employees, similar information was provided and, as well, the amount of monthly premium for the coverage. The premium rates effective April 1, 2022 are $171.72 per month for family coverage and $87.05 per month for single coverage.

The data was checked for missing information and illogical information. As a result of these checks, the data was found to be sufficient and reliable.

3. POST-RETIREMENT HEALTH BENEFITS PARTICIPATION

The data provided indicated that M.P.I. was the employer of record for the following participants:

	EMPLOYEES			PENSIONERS & SURVIVORS		
	Males	Females	Total	Males	Females	Total
Participants as at 31-Mar-2021	159	143	302	184	61	245
New employees	32	38	70	-	-	-
Retirements	(6)	(10)	(16)	6	10	16
Terminations	(10)	(13)	(23)	-	-	-
Deaths	-	-	-	(4)	-	(4)
Adjustments	-	-	-	-	-	-
Participants as at 31-Mar-2022	175	158	333	186	71	257

4. ASSUMPTIONS

The actuarial accounting assumptions used in this valuation are shown in Appendix II.

The demographic assumptions are the same as those used for the actuarial valuation report on the pension liabilities that the Manitoba Public Insurance has as at March 31, 2022. In addition, the marital status at the date of retirement was assumed to be the same as the marital status at the Valuation Date.

The economic assumptions have been chosen by management of M.P.I. The specific choices are made after a review with internal staff and the actuary. The existing economic assumptions were confirmed on April 8, 2022 by management after management's review of the assumptions. The assumptions are the same as those adopted for the actuarial valuation report on the pension liabilities as at March 31, 2022.

For purposes of future increases in premium rates, it was assumed that the premium rates currently in force at the Valuation Date would increase at the assumed rate of inflation. The assumed rate of inflation is 2.00%. However, based on information from various sources on the escalating cost of health benefits, it is anticipated that the current premiums will increase at 4.10% per year. For 2021, the rate of escalation of the cost of health benefits was 4.80%.

The demographic assumptions overall represent a reasonable best estimate basis for these assumptions. The economic assumptions, overall, represent M.P.I.'s best estimate basis for those assumptions.

5. M.P.I. SHARE OF PREMIUMS

It has been anticipated that M.P.I. will continue to pay 100% of the premiums required to finance the Post-Retirement Health Benefits for out-of-scope employees.

6. VALUATION PROCEDURE

The projected benefit method prorated on service has been used to determine the accrued liabilities and the current service cost applicable to each year after the Valuation Date.

For each out-of-scope employee, the present value of the expected post-retirement premiums was determined. The proportion of this amount held as the accrued liability is equal to the ratio of the completed service as at the Valuation Date divided by the total service expected to be completed at the date of retirement.

For each retired out-of-scope employee, the present value of the expected post-retirement premiums was determined. This full amount is held as the accrued liability.

7. VALUATION RESULTS

The following table shows the liabilities that M.P.I. has as at March 31, 2022 and March 31, 2021 as a result of the provision of Post-Retirement Health Benefits to out-of-scope employees:

Category	Amount at 31-Mar-2022	Amount at 31-Mar-2021
Current Employees	$ 9,436,000	$ 12,263,500
Retired Employees	10,305,800	11,707,100
Total	$ 19,741,800	$ 23,970,600

For this valuation, the liabilities were $58,700 higher than projected prior to reflecting changes in actuarial accounting assumptions. The detailed breakdown of the experience is shown in Appendix III.

8. PROJECTION FORMULA FOR LIABILITIES

The following formula can be used to project the estimated increase in liabilities in the 12 to 18 months after the Valuation Date:

- Add interest at the rate of 4.01% per year to the liabilities at the beginning of the period, the current service cost for the period, and the premium payments for the period. The interest addition for the current service cost and the premium payments should be prorated to recognize investment for half the period, on average.
- Add employer current service cost at the rate of $3,156 per covered current out-of-scope employee per year for the period.
- Deduct the actual premiums to Blue Cross for the period.

9. MATURITY ANALYSIS

The following table shows the estimated future benefits as at March 31, 2022 and March 31, 2021:

	Less than 1 year	Between 1 - 2 years	Between 2 - 5 years	Over 5 years	Total
31-Mar-2022	$ 506,100	$ 552,700	$ 1,937,200	$ 36,526,100	$ 39,522,100
31-Mar-2021	477,200	523,500	1,848,100	42,144,800	44,993,600

10. ACCOUNTING FOR POST-RETIREMENT OBLIGATIONS

The cost for a period, including the assumed interest, is equal to:

(a) the change in the reserve plus

(b) the premium payments plus

(c) the amounts for the amortization of the previous unfunded liability.

The above formula takes no credit for interest that may have been earned on assets supporting the liabilities.

11. ACTUARIAL OPINION

In our opinion, for the purposes of this Report:

- The membership data on which the Report is based are sufficient and reliable.
- The assumptions are appropriate for the purpose of determining the requirements of the Plan on an accounting basis.
- The methods employed in the valuation are appropriate for the purpose of determining the requirements of the Plan on an accounting basis.
- There is a risk that the liabilities may be exposed to adverse demographic experience in the future (e.g. retirement, mortality, etc.).
- We are not aware of any other matters or events occurring since the completion of this Report, which will materially affect the calculation of the liabilities as at March 31, 2022.
- This Report has been prepared, and our opinion given, in accordance with accepted actuarial practice in Canada.

Dated at Winnipeg, this 19th day of May, 2022.

Respectfully submitted,

ELLEMENT CONSULTING GROUP

Dennis Ellement   Brandon Ellement

Dennis Ellement, FSA, FCIA   Brandon Ellement, FSA, FCIA

APPENDIX I

SUMMARY OF BENEFITS

AMBULANCE/HOSPITAL BENEFITS

The Plan provides for complete coverage for Ambulance and Hospital Semi-Private charges in Manitoba.

Full payment for reasonable and customary charges for ambulance services provided within the province, and payment of up to $250 per trip, (based on provincial rates) for ambulance services provided elsewhere.

Full payment for the charge of a semi-private room in a Manitoba hospital if the hospital does not normally provide the semi-private room, without charge to any patient.

EXTENDED HEALTH CARE BENEFITS

Prescription drugs are reimbursed at 70%.

Other necessary health expenses are reimbursed at 80%. Various limits and benefit periods apply for these other health expenses.

An annual deductible of $20 per person to a maximum of $40 applies.

Other necessary health expenses include expenses incurred for: travel health care, dental treatment due to accident, athletic therapy, paramedical practitioner, physiotherapy, chiropody, clinical psychology, nutritional counseling, private duty nursing, prosthetic appliances and miscellany, wigs, rental or purchase of medical equipment and cardiac rehabilitation.

VISION CARE BENEFITS

Eligible eye care expenses are reimbursed at 100% up to $150 per person per 24-month benefit period.

Eligible eye care expenses include the cost of eyeglasses, replacement glasses, repairs to existing glasses and contact lenses which are prescribed as a result of an eye examination by a licensed medical doctor, ophthalmologist or optometrist. Various limits and exclusions apply.

DENTAL BENEFITS

Basic Dental Services are reimbursed at 80%.

Major Dental Services are reimbursed at 50%.

Reimbursement for dental services is subject to an annual maximum of $800.

If the cost of the treatment is expected to exceed $500, then pre-treatment authorization is required.

Benefit payments are based on the Dental Fee Guide established by the Manitoba Dental Association.

Various exclusions apply. The exclusions depend on the type of dental treatment or the conditions giving rise to the charges.

SURVIVOR BENEFITS

The surviving spouse of a retired member receives the benefits under the Plan for up to 24 months following the death of the member.

APPENDIX II

SUMMARY OF ACTUARIAL ACCOUNTING ASSUMPTIONS

	31-Mar-2022	31-Mar-2021
1. Annual Discount Rate:	4.01%	3.34%
2. Post-Retirement Premium Rates (at valuation date):		
- increase in post-retirement premium rates	4.10%	4.80%
- family rate per month	$171.72	$167.65
- single rate per month	$87.05	$84.79
3. Marital Status at Retirement:	same as at Valuation Date	same
4. Annual Rates of Death:	CPM 2014 Public Mortality Projected using Scale B (see TABLE)	same
5. Annual Rates of Termination of Service:	(see TABLE)	same
6. Annual Rates of Disability:	(see TABLE)	same
7. Annual Rates of Retirement:	(see TABLE)	same

The age specific rates for the demographic assumptions are shown in the following table:

	Mortality*		Termination		Disability		Retirement	
Age	Males	Females	Males	Females	Males	Females	Males	Females
20	0.08%	0.02%	10.15%	12.60%	-	-	-	-
25	0.10	0.02	6.60	9.20	-	-	-	-
30	0.11	0.03	4.63	6.88	-	-	-	-
35	0.11	0.04	3.39	5.31	0.01%	0.01%	-	-
40	0.13	0.06	2.58	4.26	0.04	0.06	-	-
45	0.18	0.09	2.06	3.64	0.09	0.13	-	-
50	0.25	0.13	1.71	3.22	0.23	0.30	-	-
55	0.36	0.21	-	-	0.66	0.76	24.86%	24.49%
60	0.53	0.35	-	-	-	-	27.10	21.45
65	0.76	0.56	-	-	-	-	100.00	100.00
70	1.17	0.88	-	-	-	-	-	-
75	2.00	1.46	-	-	-	-	-	-
80	3.74	2.71	-	-	-	-	-	-
85	7.22	5.32	-	-	-	-	-	-
90	13.54	10.23	-	-	-	-	-	-
95	24.27	18.86	-	-	-	-	-	-
100	36.64	31.78	-	-	-	-	-	-

* CPM 2014 Public Mortality Projected using Scale B

APPENDIX III

PROJECTION OF M.P.I. POST-RETIREMENT HEALTH BENEFITS LIABILITIES TO MARCH 31, 2022

1.	**Actuarial Liabilities as at 31-Mar-2021**	23,970,600
2.	Interest on liabilities and cash flow (3.34%)	815,600
3.	Current Service Cost for Active Members	1,379,000
4.	Premium Payments for Retired Members	(482,800)
5.	Adjustment for new entrants	-
6.	Adjustment for data	-
7.	**Projected Liabilities as at 31-Mar-2022**	25,682,400
8.	ACTUAL LIABILITIES as at 31-Mar-2022 before change in economic assumptions	25,741,100
9.	ACTUAL LIABILITIES as at 31-Mar-2022 after change in economic assumptions	19,741,800
	GAIN/(LOSS) due to actual experience: [7] - [8]	(58,700)
	GAIN/(LOSS) due to change in accounting assumptions: [8] - [9]	5,999,300
	NET GAIN/(LOSS)	5,940,600

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CAC (MPI) 1-15

Part and Chapter:	Part V – Expenses	Page No.:	21 of 70
PUB Approved Issue No:	8. Cost of operations		
Topic:	Other Salary Adjustments		
Sub Topic:			

Preamble to IR:

On page 21 of Part V, Expenses it states:

> *This category also contains the Health and Well Being Flexible Spending account and an allowance for in-scope staff who work in downtown Winnipeg. For the 2022/23 budget year, a work from home allowance was included in other salary adjustments as well.*

Question:

Please provide an analysis and a narrative discussion on reasons for providing the Health and Well Being Flexible Spending account, the allowance for in-scope staff who work in downtown Winnipeg as well as the work from home allowance.

Rationale for Question:

To better understand the need to pay the allowances mentioned in the preamble.

RESPONSE:

The Personal Wellness Account, Downtown Allowance and Work From Home Payment are items that have been agreed to within collective bargaining.

CAC (MPI) 1-16

Part and Chapter:	**Part V – Expenses**	**Page No.:**	**22 of 70**
PUB Approved Issue No:	**8. Cost of operations**		
Topic:	**Market Salary Impacts**		
Sub Topic:			

Preamble to IR:

According to Figure EXP – 12 on page 22 of the Expenses chapter, MPI is budgeting for a market salary impact of $5 million for 2023/24.

Question:

Please provide a narrative discussion for the need for the market salary adjustment and how it will be distributed to qualifying employees. Please advise whether the MGEU has agreed to the market adjustment.

Rationale for Question:

To better understand the need for the salary market adjustment and assess whether this could cause unrest amongst the staff causing disruptions to Project Nova.

RESPONSE:

As a regular practice, MPI conducts a benchmarking exercise to compare current salaries to market for both in-scope and out-of-scope positions. $5 million is reserved for potential adjustments, however, this exercise has yet to be undertaken.

CAC (MPI) 1-17

Part and Chapter:	Part V – Expenses	Page No.:	29 of 70
PUB Approved Issue No:	8. Cost of operations		
Topic:	Special Services		
Sub Topic:			

Preamble to IR:

On page 29, Part V – Expenses MPI states:

> *"In 2023/24 and onward the greater than expected special services expenses have grown another $5 million due to a placeholder for expected business requirements"*

Question:

Please provide a narrative discussion on the purpose and expected business requirements for the $5 million placeholder.

Rationale for Question:

To review and clarify the $5 million placeholder budgeted in Special Services.

RESPONSE:

As MPI progresses towards its MPI 2.0 vision, a number of its internal Divisions must shift towards employing industry best practice, enhancing their critical capabilities and better supporting organizational objectives. The $5 million special services placeholder is for the anticipated cost of supporting transformational activities within the People & Culture, Finance, Operations, and Insurance & Risk Management Divisions of MPI.

<u>**CAC (MPI) 1-18**</u>

Part and Chapter:	**Part V – Expenses**	**Page No.:**	**36 and 70**
PUB Approved Issue No:	**8. Cost of operations**		
Topic:	**Sponsorships**		
Sub Topic:			

Preamble to IR:

On page 36 of the Expenses chapter the application refers to corporate sponsorships and business partnerships.

Question:

Please provide a schedule indicating the names of the organizations and the annual amount spent for the 2021/22 actuals and 2022/23 forecasted for all corporate sponsorships and business partnerships. Please also identify the business reason for the sponsorships and partnerships.

Rationale for Question:

To better understand the business reasons for the sponsorships and business partnerships and determined its value to basic insurance.

RESPONSE:

Please see <u>*Figure 1*</u> below:

Figure 1 Corporate Sponsorships and Business Partnerships

Line No.	Organization	2021/22A	2022/23FB	Difference
1	*($C 000s, except where noted)*			
2	Corporate Sponsorships - Business Partnership			
3	Skills Canada Manitoba	11		
4	Safety Services Manitoba	3		
5	Riverview Health Centre	5		
6	Winnipeg Crime Stoppers	10		
7	HSC Endowment 21/22	1,000		
8	Total Corporate Sponsorships-Business Partnerships	1,029	35	(994)
9				
10	Corporate Sponsorships - Community Support			
11	MPI United Way Fund	15		
12	United Nations High Commisioner For Refugees	32		
13	Canadian Red Cross	64		
14	Total Corporate Sponsorships-Community Support	111	335	224
15				
16	Total Corporate Sponsorship - SRE	-	7	7
17				
18	**Total Corporate Sponsorship**	**1,140**	**377**	**(763)**

MPI takes pride in supporting and enhancing the quality of life in communities throughout Manitoba. Corporate sponsorships provide an opportunity to address the business interests of MPI and to support key business partnerships. The criteria developed provide accountability for funding decisions that support community organizations and business stakeholders. MPI considers these expenditures and commitments a corporate investment.

The community contributions criteria address opportunities to heighten the customer and industry partner awareness of MPI and its corporate values, including contributions to the community and achievement of business objectives. They ensure that MPI receives a return on investment in terms of recognition, goodwill and/or product and message placement. The criteria also eliminate the duplication of funding requests or conflicting funding actions that may arise in other MPI departments.

This policy governs Community Contributions related to the following three categories:

Corporate Sponsorships – Community Support

Contributions that demonstrate the commitment of MPI to supporting and enhancing the quality of life in communities throughout the province. This funding includes support for organizations that focus on meeting the basic needs of Manitobans, and in this way help to support the long-term sustainability of communities, families and children. The funding also includes support for events directed toward the whole of a community.

Corporate Sponsorships – Business Partnerships

Contributions that promote strong relationships with business stakeholders critical to the core business interests of MPI including claims, loss prevention, medical rehabilitation and other industry partners.

Corporate SRE Sponsorships

Agreements specifically intended to support the Special Risk Extension line of business.

CAC (MPI) 1-19

Part and Chapter:	Part V – Expenses	Page No.:	45 of 70
PUB Approved Issue No:	8. Cost of operations		
Topic:	New departments		
Sub Topic:			

Preamble to IR:

On page 45, Part V, Expenses MPI lists the new departments recently added to the organization:

> *"MPI added 8 new departments during 2021/22 and 2022/23, which it included for the 2022/23 FB year. These include the following:*
>
> *Additions:*
> - *426 – Communications*
> - *427 – PIPP Financial and Operational Support*
> - *428 – Valuation*
> - *429 – Customer Experience*
> - *430 – Strategy Office*
> - *431 – System Operations*
> - *432 – Value Assurance*
> - *433 – Product"*

Question:

Please provide a narrative discussion describing the purpose/mandate of each department, the budget for each department, number of staff per department and the incremental costs to MPI of adding 8 new departments.

Rationale for Question:

To better understand the rationale and cost consequences of adding 8 additional departments to MPI and specifically to basic insurance.

RESPONSE:

Figure 1 New Departments Mission/Purpose

Accounting Unit	Name	Purpose
426	Communications	A reorganization within the Customer Division resulted in the need for the former 066-Corporate Communications to be split into 2 departments: 066-Marketing & Campaigns and 426-Communications. The Communications team is focused on strengthening MPI's brand image through communications and stakeholder engagement, both internally and externally.
427	PIPP Financial and Operational Support	In order to most effectively align the departments within Injury Claims and ensure appropriate oversight, a reorganization occurred based on functions performed within the teams. PIPP Support Services (018) was split into two departments. The reduced department of PIPP Support Services now solely focuses on claims administration; teams include: Benefit Administration, Payments and Records Processing and Clerical Support. PIPP Financial and Operational Support focuses on financial, process, data and quality controls; teams include Income Replacement Unit, Injury Analytics and Data stewardship. This reorganization was FTE and cost neutral.
428	Valuation	The Valuation department consists of actuarial employees who are responsible for determining the adequacy of policy liabilities, injury claim reserving, case reserve monitoring, and Financial Condition Testing (FCT) for the Corporation. This department ensures that Canadian actuarial standards of practice are adhered to for the Corporation and employ best practice methodology. There were two actuarial analysts performing this work prior to the new department being set up and that 3 new positions were added.
429	Customer Experience	Customer Experience (CX) is responsible for delivering a seamless customer experience across all channels and touchpoints in a customer journey and helping the company continually achieve greater customer satisfaction and increased efficiency. CX drives end-to-end customer experience, including strategy development, road mapping, framework development, research, ideation, conception, detailed design, prototypes, and validation in partnership with the business. Working across multiple cross-functional teams, this area creates and influences the creation of the ultimate customer experience to create business impact.
430	Strategy Office	The Strategy Office was created to support the executive team and senior leadership to drive towards MPI's 5-Year Ambition by implementing and maintaining MPI's strategic framework, identifying and tracking strategic initiatives, managing OKRSs, aligning priorities across organization, providing a hub of information, and showcasing best practices.
431	Systems Operations	Systems Operations is a whole new department within the Platform Engineering & Infrastructure Team that has been created to support MPI's Cloud Adoption Strategy as well as to provide daily support of all systems technology. As part of the Cloud Adoption Strategy, MPI is migrating its two data centres to the cloud and taking over full support of these systems. Currently these systems are maintained by IBM at a significant cost. MPI and more specifically the System Operations team, will be taking over the daily operations of maintaining MPI's technology systems as we move away from IBM Managed Services. The Cloud Adoption Strategy aligns with MPI 2.0 by eliminating Legacy Technology debt that impedes MPI from moving forward with Programs such as Nova as well as being able to provide new technology systems and services that MPI otherwise could not do without costly and lengthy upgrades. It is the Systems Operations department that manages the new technology eco system.

New Departments Mission/Purpose *(cont'd)*

Accounting Unit	Name	Purpose
432	Value Assurance	Value Assurance was created with the focus on Nova at the onset, including identifying and navigating risks and dependencies.
433	Product	Product Management was created to provide problem-solving guidance to Agile teams and is responsible for defining and supporting the building of desirables, feasible, viable and technical products and solutions that meet customer needs.

Figure 2 New Departments - Staff and Operations 2022/23 Budget

Line No.	Departments		Staffing Budget	Operational Budget Costs
1	*(C$000s, except where noted)*			
2	**426**	**Communications**	7.0	607
3	**427**	**PIPP Financial and Operational Support**	27.0	2,024
4	**428**	**Valuation**	2.0	301
5	**429**	**Customer Experience**	1.0	114
6	**430**	**Strategy Office**	4.0	478
7	**431**	**Systems Operations**	8.0	779
8	**432**	**Value Assurance**	17.0	2,700
9	**433**	**Product**	-	-
10	**Total**		**66.0**	**7,003**

CAC (MPI) 1-20

Part and Chapter:	**Part V – Expenses**	**Page No.:**	**66 of 70**
PUB Approved Issue No:	**8. Cost of operations**		
Topic:	**Figure EXP – 45 Broker Commissions**		
Sub Topic:			

Preamble to IR:

Lines 9, 10 and 11 of Figure Exp – 45 for 2023/24F show the basic In-Person Transactions percentage of 4.01%, basic Online Transactions percentage of 2.25% and the Basic Effective Rate of 4.30%.

Question:

Please provide an explanation of how these percentages where calculated and why the effective rate would be greater than the in-person rate.

Rationale for Question:

To better understand the basic insurance commission rates paid to brokers.

RESPONSE:

MPI obtained these percentages from its agreement with the Insurance Brokers Association of Manitoba dated November 24, 2020 (see *Nova NOV Appendix 14*). For in-person transactions, the effective rate exceeds the stated rate because MPI does not claw back paid commissions on cancelled or terminated policies.

CAC (MPI) 1-21

Part and Chapter:	**Part V – Expenses Appendix 1**	**Page No.:**	**1 of 2**
PUB Approved Issue No:	**8. Cost of operations**		
Topic:	**Basic internal operations measures--commissions**		
Sub Topic:			

Preamble to IR:

Line 5 of Appendix 1 to the Expenses chapter shows commissions and premium taxes for each fiscal year. For 2021/22 the amount is $73.9 million, for 2022/23 the amount is $81.0 million (9.6% increase) and for 2023/24 the amount rises to $86.7 million (7.0% increase).

Question:

Please provide a narrative explaining the commission calculations for 2021/22 through to 2023/24 by year including the significant increases year over year.

Rationale for Question:

To review the broker commission calculations and better understand the significant increases year over year for basic insurance commissions.

RESPONSE:

Basic commissions consist of 2 components; variable fees and flat fees.

Variable fees for Basic are simply the commissions paid by MPI to brokers on the purchase of a Basic insurance policy. They follow a prescribed percentage rate as defined in the service agreement between MPI and the Insurance Brokers Association of Manitoba and are a function of net premiums written before any rebates.

Flat fees are fees paid to brokers for administering various types of transactions and follow transactional volume growth as well as inflationary changes to transaction costs.

To illustrate its response, MPI provides the following figure, an extract of *Expenses Chapter Figure EXP-2,* showing the composition of Basic commissions and premium taxes from 2021/22 to 2023/24, as referenced in this information request.

Figure 1 Composition of Basic Commissions and Premium Taxes (2021/22 to 2023/24)

Line No.	*($000's, except where noted)*	2021/22A	2022/23FB	2023/24F
1	**Basic Direct Expenses**			
2	**Commissions**	44,925	47,977	51,674
3	**Premium Taxes**	28,966	33,043	35,051
4	**Total Basic Direct Expenses**	**73,891**	**81,020**	**86,725**

Premium taxes are the primary contributor to the 9.6% increase (~$7 million increase) from 2021/22 to 2022/23 in commissions/premium taxes. As MPI issued over $282 million in Basic rebates in 2021/22, the total premium taxes paid were lower than expected. For 2022/23, MPI expects premium taxes to return to normal levels (because it expects no rebates), which explains the approximate $4 million increase. The remaining increase from 2021/22 to 2022/23 results from the approximately $3 million in paid commissions. As the premium base increases year over year, so too do the commissions.

The growth from 2022/23 to 2023/24 is best explained by the growth in premium base for premium taxes (i.e., higher premium = higher premium taxes) as well as the growth in premium base and commission rates for commissions. Please see *Figure EXP-45*, which provides a 10-year summary of commission rates and fees written. Line 11 below shows the annual increases to the variable commission rate from 2022/23 to 2023/24. For the period 2022/23 to 2023/24, the Basic effective commission rate increases (from 3.75% to 4.30% per Basic insurance policy). This rate increase primarily contributes to the $3.7 million increase in commissions from 2022/23 to 2023/24.

Figure EXP-45 10-Year Summary of Commissions/Fees Paid to Brokers - Basic and Extension

Line No.	Products/Transactions	2017/18A	2018/19A	*2019/20A	2020/21A	2021/22A	2022/23FB	2023/24F	2024/25F	2025/26F	2026/27F
1	*($000's, except where noted)*										
2	**Basic**	32,439	34,483	38,881	36,573	39,545	41,647	51,745	54,447	52,431	53,121
3	**Extension**	34,187	34,832	36,022	34,389	31,191	32,774	33,819	33,584	32,210	32,766
4	**Basic Transactions / flat fees**	6,270	6,744	7,479	7,242	7,029	7,364	5,459	5,289	4,548	4,393
5	**Extension Transactions / flat fees**	673	709	796	771	674	719	746	725	623	602
6	**DVA Transactions / flat fees**	1,599	1,765	1,864	1,564	1,918	1,986	4,217	4,091	3,517	3,398
7	**Total Commission Written**	**75,168**	**78,533**	**85,042**	**80,539**	**80,358**	**84,489**	**95,986**	**98,135**	**93,330**	**94,280**
8	**Rate Changes in Year:**										
9	**Basic - In-Person Transactions**	3.00%	3.00%	3.00%	3.00%	3.00%	3.49%	4.01%	4.19%	4.19%	4.19%
10	**Basic - Online Transactions**						3.49%	2.25%	2.25%	2.25%	2.25%
11	**Basic - Effective Rate**						3.75%	4.30%	4.37%	4.06%	3.97%
12	**Extension - In-Person Transactions**	19.75%	19.75%	19.75%	19.75%	19.75%	16.08%	16.08%	15.85%	15.62%	15.62%
13	**Extension - Online Transactions**						16.08%	9.60%	9.60%	9.60%	9.60%
14	**Extension - Effective Rate**						17.50%	17.50%	16.82%	15.61%	15.34%
15	**CPI on Flat Fees**			102.00%	1.02	1.02	1.042	1.024	1.023	1.02	1.02
16	**CPI on Flat Fees - non-resetting**	1.067	1.085								
17	**CPI on Flat Fees - resetting**	1.139	1.152								
18	* 2019/20 is a 13 month period due to fiscal year transition										

CAC (MPI) 1-22

Part and Chapter:	**Part V – Expenses Appendix 7**	**Page No.:**	**18-19 of 24**
PUB Approved Issue No:	**8. Cost of operations**		
Topic:	**Innovation funding and Cloud Adoption**		
Sub Topic:			

Preamble to IR:

Pages 18-19 of Appendix 7 to the Expenses chapter state:

> *"Higher than expected costs of approximately $26.3 million related to Improvement initiative implementation and ongoing expenses. This is comprised of approximately $18.4 million in higher than expected improvement initiative implementation costs related to NOVA and a further $18.3 million in higher costs for all other projects including **Innovation Funding, Cloud Adoption**, Technology Risk Management etc. This is offset by lower than expected improvement initiative ongoing costs of approximately $10.5 million related primarily to timing differences of project NOVA;"* (emphasis added)

Question:

a) Please provide a narrative discussion describing the purpose and mandate of the Innovation Funding account including the amount budgeted for years 2021/22, 2022/23 and 2023/24.

b) Please provide a narrative discussion highlighting the importance of "Cloud Adoption" and how cloud adoption is facilitating (in terms of reducing costs and minimizing project delays) implementation of IT projects including Project Nova.

Rationale for Question:

RESPONSE:

a) The purpose of the innovation fund is to accommodate/fund small business transformation initiatives needed to support short- and long-term business aspirations (e.g., e-Transfer for total loss, lean activities for business process improvements, etc.). This may include initiatives where an assumed benefit needs to be assessed/confirmed.

b) Cloud adoption provides MPI many opportunities. It allows MPI to optimize processes for managing infrastructure, reduce lead time for environment establishment and environment modification, have tighter controls on infrastructure usage and to shut off testing and development environments during non-business hours (for cost savings). Cloud adoption also allows MPI to embrace SaaS and PaaS models, removing the need for MPI to fully manage the software stack (upgrading and patching of the operating systems and working with service providers on hardware refreshes) and focus on other critical initiatives, such as enabling features in a SaaS solution that will address a business problem. Cloud adoption also provides the ability to implement and use new technologies and services that were otherwise not available to MPI because of its legacy technology debt.

CAC (MPI) 1-23

Part and Chapter:	Part IV—NOVA Project	Page No.:	25 of 32
PUB Approved Issue No:	19—Current IT Strategic Plan and IT Expenses and Projects, Including Project Nova		
Topic:	Project Nova—Costs are rising significantly		
Sub Topic:			

Preamble to IR:

Project Nova's capital costs have risen by 112.8 % from the 2021 Re-baseline to the 2022 Re-baseline.

Based on page 25 of Part IV – NOVA Project and Part IV – Appendix 11, slide 11 the capital costs changes can be summarized as follows ($000,000):

Projected Costs	2022 Re-baseline	2021 Re-baseline	2019 Initial Costs
Capital costs	$224.1	$111.7	$85.4
Contingency	49.4	16.8	21.4
Total	**$273.5**	**$128.5**	**$106.8**

Page 4 of Part IV – NOVA Project states:

> *"The NOVA team program review resulted in the creation of a de-risking approach, which included a revised or "flattened" delivery plan that would extend various system release dates by 12 and 20 months. Accordingly, the final release and end date for NOVA is now October 2025 (previously February 18 2024). This change in schedule addresses the identified capacity constraints and risks associated with the contemporaneous completion of work* ***. It should be noted that this revised timeline depends on the outcome of discovery workshops for Releases 3 and 4, each of which have yet to be completed****."* (emphasis added)

Page 14 states:

> *"Preparing pre-discovery and discovery efforts for Releases 3 and 4 to ensure that their scopes match user need, that their deliveries are de-risked, that they provide user value and that they are conducted efficiently, optimizing the use of internal and external resources."*

Question:

a) Please confirm that the capital costs as stated in the preamble are accurate.

b) Please compile a table similar to the table in the preamble showing the full ongoing operating costs and confirm that the operating costs are in addition to the capital costs.

c) Please compile a table similar to the table in the preamble showing the benefits to be realized by the implementation of Project Nova. Please provide the accounting details for the benefits.

d) Please provide the Net Present Values and Payback period for the 2022 Re-baseline, 2021 Re-baseline and 2019 initial costs including the detailed spreadsheets showing the calculation and assumptions. Please explain the significant differences.

e) In general terms, please provide a narrative discussion on MPI's confidence in the 2022 Re-baseline Project Nova budget of $273.5 million to fully modernize MPI's IT systems, skills sets and organizational agility.

f) Discovery workshops for Release 3 and 4 are still outstanding per the preamble. Please provide a narrative explaining MPI's confidence that discovery workshops for Release 3 and 4 will **not** significantly increase costs further and/or delay the project Nova further into the future. If MPI expects additional costs and delays from the discovery workshops, please provide these estimates.

Rationale for Question:

To better understand Project Nova's re-baseline changes, ipact on MPI's cost structure and MPI's confidence in its updated financial project Nova budget--capital costs, ongoing operating costs and benefits realization.

RESPONSE:

a) The capital costs as presented in the preamble are accurate.

b) A comparative view of Ongoing operating costs over the 15-year business case period (2019/20 thru 2033/34) are presented in *Figure 1* below:

Figure 1 Comparison of Nova Ongoing Operating Costs (Initial, 2021 Re-baseline and 2022 Re-baseline)

Line No.		Nova Ongoing Operating Costs		
1		2022 Re-baseline	2021 Re-baseline	2019 Initial Costs
2	Ongoing Costs during 15 year NPV period (2019/20-2033/34)	$ 340,275,084	$ 250,337,287	$ 282,347,353

All Ongoing operating costs presented above are in addition to Capital Costs (confirmed).

c) Please refer to *Figure 2* below for a comparative view of NOVA Benefits over the 15-year business case period. Clarification on the type of "accounting details" being requested is required, perhaps in Round 2 of the Information Requests.

Figure 2 Comparison of Nova Benefits to be Realized (Initial, 2021 Re-baseline and 2022 Re-baseline

Line		Nova Ongoing Operating Costs		
No.		2022 Re-baseline	2021 Re-baseline	2019 Initial Benefits
1	Benefits during 15 year NPV period (2019/20-2033/34)	$ 338,852,039	$ 423,233,204	$ 397,815,567
2	Cost-Avoidance Benefits during 15 year NPV period (2019/20-2033/34)	$ 74,300,330	$ 101,245,353	$ 99,857,342
3	Total Benefits	$ 413,152,369	$ 524,478,557	$ 497,672,909

d) *Figure 3* below provides a summary of Net Present Value and Payback Period for the 2022 Re-baseline, 2021 Re-baseline and the 2019 Original business case:

Figure 3 Comparison of Nova NPV (Initial, 2021 Re-baseline and 2022 Re-baseline)

Line No.		Nova Ongoing Operating Costs		
1		2022 Re-baseline	2021 Re-baseline	2019 Initial Benefits
2	Net Present Value - 15 Year (2019/20-2033/34)	$(188.9)M	$18.4M	$12.7M
3	Project Payback (Years)	N/A	14	14

MPI previously submitted detailed spreadsheets with calculations and assumptions. Please refer to:

- Please see *Appendix 1* - Original Business Case: *PUB (MPI) CI 1-3(a) Appendix 1 - Value Management Appendix 7a Legacy System Modern Financial Analysis - Confidential*

- Please see *Appendix 2* - 2021 Re-baseline: *Nova NOV Appendix 2 – 2022 Re-baseline Financial Analysis – Confidential*

- 2022 Re-baseline: *Nova NOV Appendix 2 - Re-baseline Financial Analysis - Confidential filed in 2023 GRA.*

MPI documented, explained and submitted significant differences in the business case section of its GRA applications and in the IT Summit PowerPoint presentations. Please refer to:

- 2021 Re-baseline vs Original Business Case:
  - *Appendix 3* - 2022 GRA – *Nova Chapter, page 4 onward*
  - *Appendix 4* - 2022 GRA – *Nova NOV Appendix 1 – PUB Re-baseline Business Case update – Redacted*
  - Please see *Appendix 4* 2022 GRA Nova NOV Appendix 1- PUB Re-baseline Business Case update - Confidential

- 2022 Re-baseline vs. 2021 Re-baseline:
  - 2023 GRA - *Nova Chapter, page 25 onward*
  - 2023 GRA – Nova NOV Appendix 1 – IT Summit Project Nova 2022 Business Case Update - Redacted

e) The confidence of MPI in the 2022 Re-baseline varies based on the Release. To address this, MPI increased the contingency by release. Release 1 confidence is higher than future releases because the product costs are fully negotiated (fixed price with no CPI inflation), the System Integrator costs are fixed with no increase in scope to date (with the exception of extension of schedule). MPI is managing its resourcing carefully to ensure the budget is on track and that work is completed to schedule. Currently, forecasts are within budget, with no contingency usage forecasted. Confidence is less for Release 2, as delivery is further out, and there is some risk of slippage based in parallel for Release 1 and 2. Release 3 and 4 pre-discovery and discovery are not complete, contributing to the increase in the contingency amount, with estimates for Releases 3 and 4 at Class 3. The confidence level for these future releases is reflected in the up to 40% contingency, which is intended to capture any unknown items or scope surprises from discovery.

f) If the schedule remains as forecasted, MPI anticipates that the contingency will sufficiently address any increased costs following the completion of discovery.

CAC (MPI) 1-23 Appendix 1

This material is the subject of a confidential motion.

CAC (MPI) 1-23 Appendix 2

This material is the subject of a confidential motion.

CAC (MPI) 1-23 Appendix 3

This material is the subject of a confidential motion.

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Project Nova Re-baseline

2021 GRA Order 1/21, Directive 13

May 26, 2021

This report has been prepared as advice, opinions, proposals, recommendations, analyses or policy options developed by or for the public body or a minister, as per Section 23(1) of the Freedom of Information and Protection of Privacy Act.

1

Agenda

- **Project Nova Re-baseline:**
    - Delivery Roadmap
    - Project Costs
    - Ongoing Costs
    - Benefit Stream
    - NPV Analysis
- **Questions**

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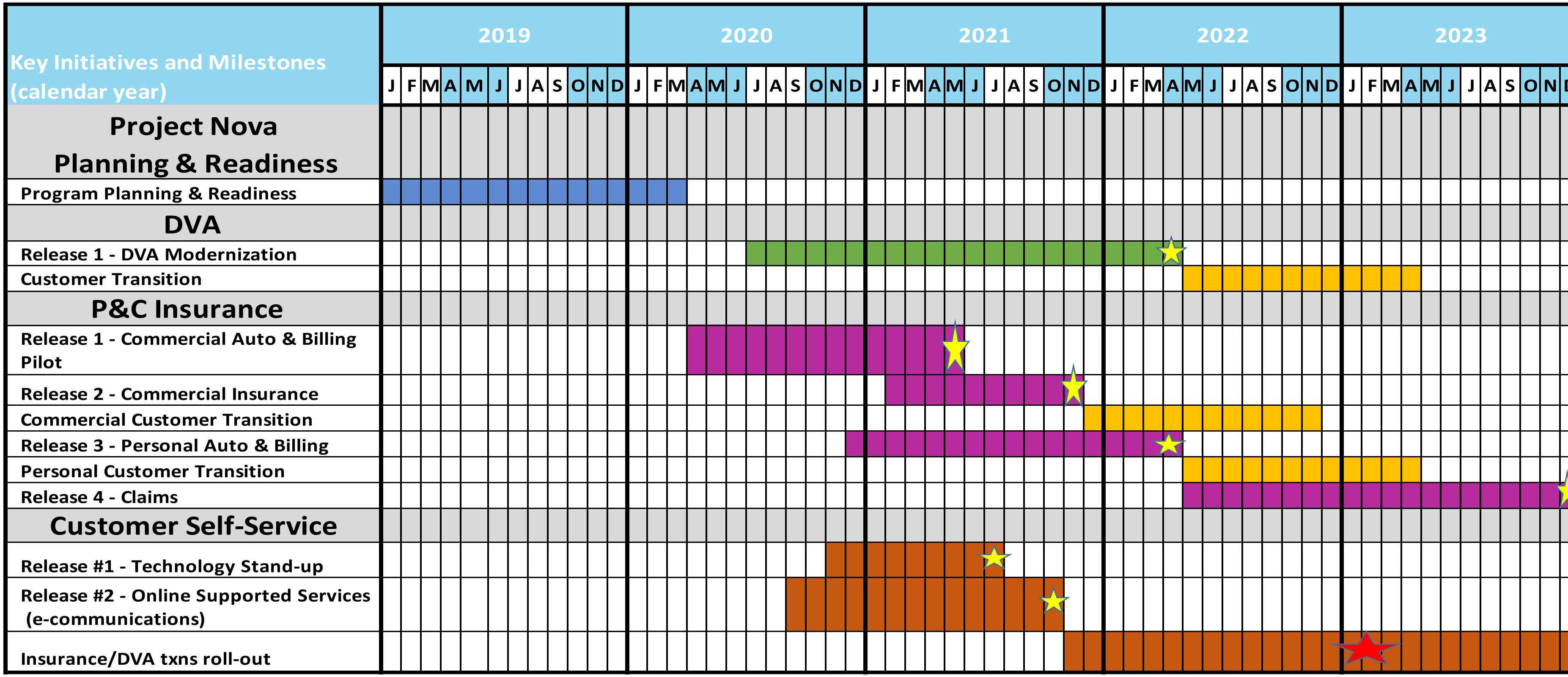
Delivery Roadmap

Project Nova Delivery Roadmap

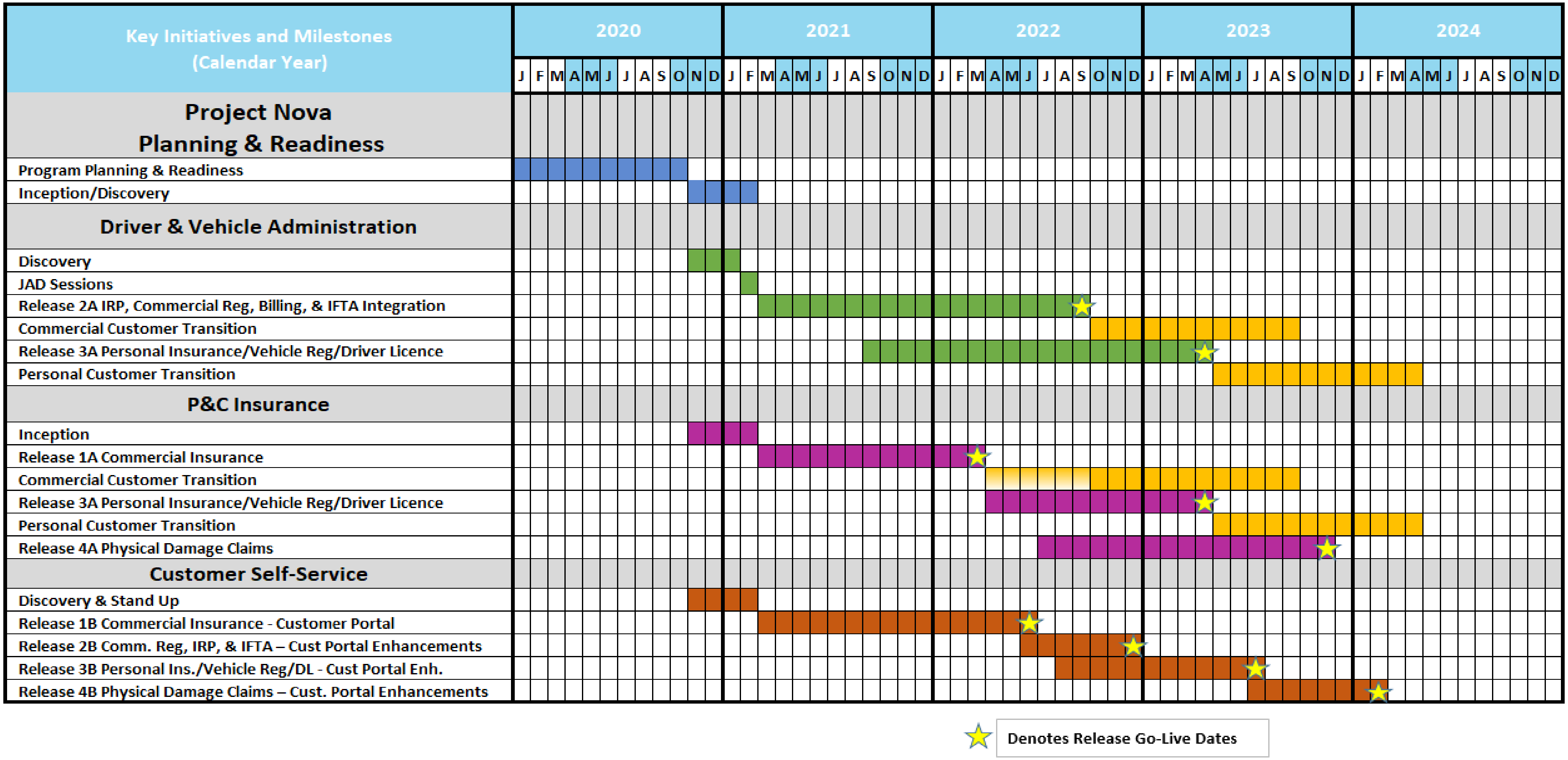
Original LMA Business Case (January 2019)



Denotes Release Go-Live Dates

Insurance/DVA txns Customer Self-Service Service roll-out listing				
Renew Insurance	Obtain Driver Abstract	Obtain Claims Experience Letter	Driver Education Registration	Check status of claim
Class 1-4 knowledge & road test appointments	Driver Instructor related road tests	Replace Driver Licence/Identity Card	Issue replacement vehicle registration/insurance certificate	Driver Licensing Testing Appointments Book/Pay
* Note – no transaction priority/release schedule was produced, only assumption was that broker commission savings would begin in FY23/24				

Project Nova Delivery Roadmap - Jan 2021

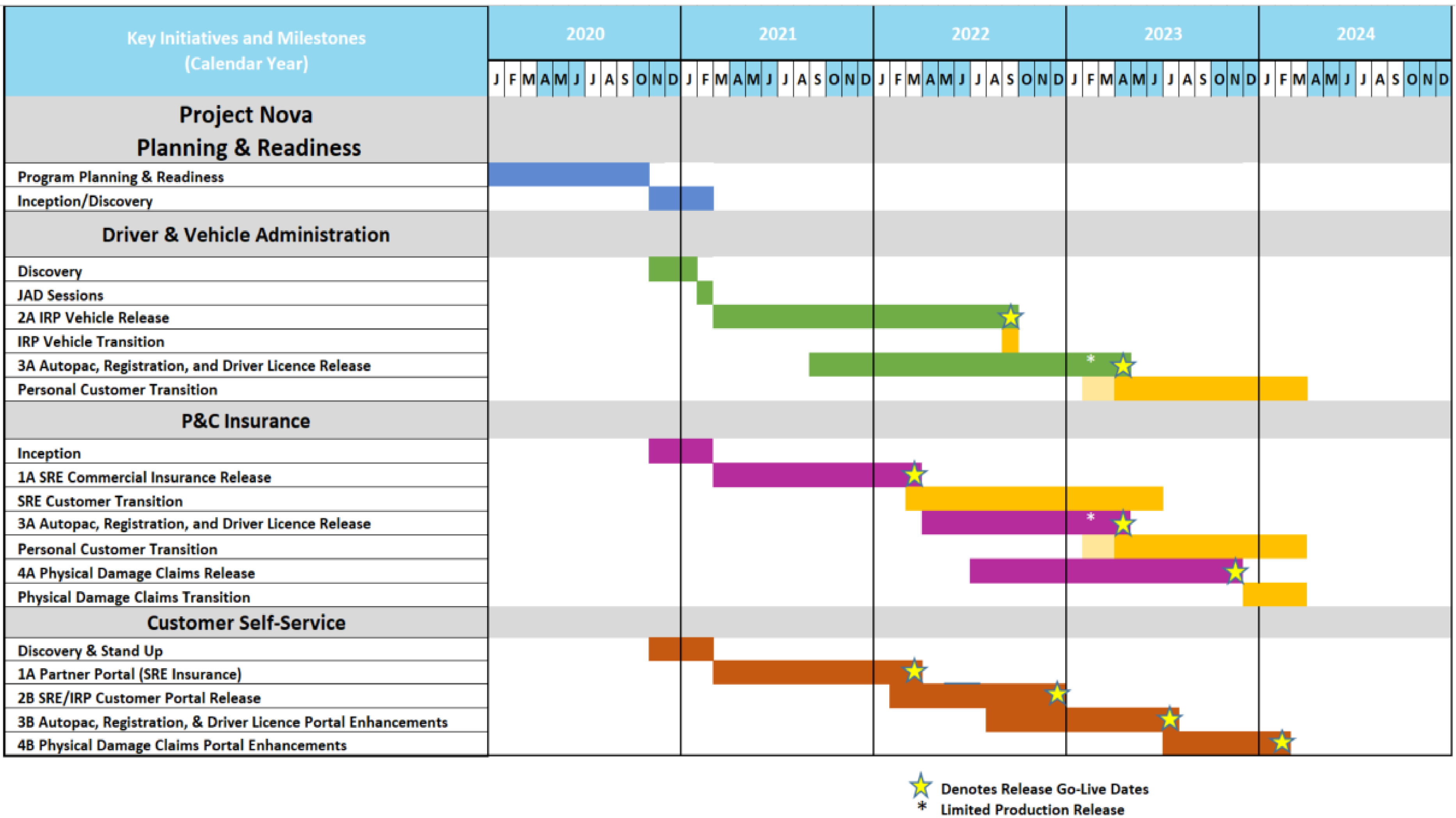


Customer Self-Service Release #3 Insurance, Registration, DVA transactions listing

Renew Driver's Licence	Address Change	Renew Insurance/Registration	Review Letters & Correspondence	Check status of driver's licence/account
Obtain Rental Vehicle Insurance	Obtain Driver's abstract	Replace Driver Licence/Identity Card	Partner Document Submission	Change/Cancel Insurance/Registration

Project Nova Delivery Roadmap

February 2021



Roadmap Change

(As of February 2021)

Stream	Change	Rebaseline Date	Revised Date
DVA	**IRP Vehicle Transition:** Changed to a big-bang transition instead of a one (1) year transition	Oct-22 to Sep-23	Oct-22
DVA	**Personal Customer Transition:** Now starting 3 months earlier	May-23 to Apr-24	Feb-23 to Apr-24
P&C	**SRE Customer Transition:** Changed from an 18 month to a 12 month transition	Apr-22 to Sep-23	Apr-22 to Jun-23
P&C	**Physical Damage Claims Transition:** Added to the roadmap		Dec-23 to Mar-24
Digital	**Release 1B Commercial Insurance – Customer Portal:** Customer Portal has now been combined with Release 2B	Mar-21 to Jun-22	Feb-22 to Dec-22
Digital	**1A Partner Portal (SRE Insurance):** Added to the roadmap o represent Digital work for R1A		Mar-21 to Mar-22
Digital	**2B SRE/IRP Customer Portal Release:** Dates revised with the inclusion of release 1B	Jun-22 to Dec-22	Feb-22 to Dec-22

NOVA transforming customer experience

One-Time Modernization Costs

Nova Program Financial Summary

(as at 31-Mar-21)

Project Costs Stream	YTD Actual (2020/2021)	LTD Actual
Nova - DVA Stream	$ 5,294,694	$ 6,107,703
Nova – P&C Stream	$ 8,022,933	$ 8,724,247
Nova – Digital Stream	$ 2,681,010	$ 3,278,029
Nova – Leadership Stream	$ 2,856,416	$ 4,135,009
Total Program	**$ 18,855,053**	**$ 22,244,989**

Project Nova – Business Case Methodology

Key Sections Covering Financial Analysis of Project Nova to measure financial viability of the initiative.

1. **One-time Costs** – Program One time costs will be assessed and estimated for the multi-year implementation as per Business Vision(s) and Project Delivery Roadmap. One time costs include all capital expenditures MPI shall undertake to implement the new P&C solution, DVA Solution and Application/Integration Platforms which will include System Integrator Costs to implement the product, licensing, one time training, Governance, Leadership, MPI Labour, etc.
2. **Recurring/On-going Costs** – Program ongoing costs which shall be incurred during and after the solution is implemented such as Software Licensing costs, Applications maintenance and support costs, training, etc.
3. **Benefits** – benefits include financial and non-financial benefits of replacing the legacy systems with new application platforms, which will be realized in a short-term and long term period by MPI.
4. **Cost Avoidance** – one-time and recurring costs that are avoided with completion of the proposed solution.

Key Financial Metrics – Base Assumptions

Metric	Assumption Value
Discount Rate	7.5 %
Years for NPV	15 Years
Annual Inflation	1% annually until 2024; thereafter 2% annually 2024 onwards
[Redacted]	[Redacted]

One Time Modernization Costs

(Submitted January 2021)

	January 2019 Original Budget	January 2021 Re-baselined Budget	Increase / (Decrease)
One-Time Modernization Cost	**Estimated Cost ($M)**	**Estimated Cost ($M)**	**($M)**
Driver and Vehicle Administration	$26.0	$36.5	$10.5
P&C Insurance	$36.9	$43.1	$6.2
Severance	$2.3	$4.0	$1.7
Digital Stream	$12.2	$16.0	$3.8
Governance Vendor	$1.2	$2.4	$1.2
Leadership, nPMO & Quality Assurance	$6.8	$12.7	$5.9
Total One Time Costs	$85.4	$114.7	$29.3
Contingency	$21.4	$16.8	$(4.6)
Grand Total One-Time Costs with Re-baseline Contingency	$106.8	$131.5	$24.7

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One Time Modernization Costs - $3M Adjustment (Revised March 2021)

	January 2021 Rebaselined Budget	March 2021 Re-baselined Budget	Variance*
One-Time Modernization Cost	Estimated Cost ($M)	Estimated Cost ($M)	($M)
Driver and Vehicle Administration	$36.5	$35.0	$(1.5)
P&C Insurance	$43.1	$42.6	$(0.5)
Severance	$4.0	$4.0	$0.0
Digital Stream	$16.0	$15.0	$(1.0)
Governance Vendor	$2.4	$2.4	$0.0
Leadership, nPMO & Quality Assurance	$12.7	$12.7	$0.0
Total One Time Costs	$114.7	$111.7	$(3.0)
Contingency	$16.8	$16.8	$0.0
Grand Total One-Time Costs with Re-baseline Contingency	$131.5	$128.5	$(3.0)

** Integration and Operational Shared Services work related to the development of MPI's Data Warehousing environment was originally included in the scope of Project Nova. The IT Transformation project will now be completing these deliverables.

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One Time Modernization Costs

Summary of Rebaseline Adjustments @ March 2021 (128.5M vs 106.8M):

Category/Stream	Change from Jan 2019 Original ($M)	MPI Resourcing Adjustments ($M)	Vendor Adjustments ($M)	Contingency ($M)	Total ($M)
Driver and Vehicle Administration	+9.0 (+10.5-1.5)	+$5.0	+$4.0		+$9.0
P&C Insurance	+$5.7 (+$6.2-$0.5)	-($0.4)	+$6.1		+$5.7
Severance	+$1.7	+$1.7	+$0.0		+$1.7
Digital Stream	+$2.8 (+$3.8-$1.0)	+$2.5	+$0.3		+$2.8
Governance Vendor	+$1.2	+$0.0	+$1.2		+$1.2
Leadership, nPMO & Quality Assurance	+$5.9	+$5.9	+$0.0		+$5.9
Contingency	-($4.6)			-($4.6)	-($4.6)
Total change (includes $3M adjustment)	+$21.7	+$14.7	+$11.6	-(4.6)	+21.7

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Ongoing Costs (OPEX)

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Operational On-Going Costs – Insurance

Expense Category	Original Business Case ($M)	Rebaselined Business Case($M)	Increase / Decrease($M)
	Totals 2019/20 thru 2033/34		
Labour (Technology)	39.9M	36.4M	-3.5M
Software Licensing	82.0M	82.1M	0.1M
Training & Conferences	0.0M	0.5M	0.5M
Premium Surcharge	0.0M	4.5M	4.5M
Totals	121.9M	123.5M	1.6M

NOVA transforming customer experience

Operational On-Going Costs – DVA

Expense Category	Original Business Case($M)	Rebaselined Business Case($M)	Increase / Decrease($M)
	Total 2019/20 thru 2033/34		
Hardware / IBM	8.4M	2.8M	-5.6M
Labour (Technology)	13.9M	13.8M	-0.1M
Software Licensing	57.2M	59.7M	2.5M
Training & Conferences	0.0M	0.07M	0.1M
Totals	79.4M	76.3M	-3.1M

Operational On-Going Costs – Digital Stream Application & Integration Platforms

Expense Category	Original Business Case($M)	Rebaselined Business Case($M)	Increase / Decrease($M)
	Total 2019/20 thru 2033/34		
Labour (Technology)	20.2M	19.3M	-0.9M
Application Platform Hosting, Licensing & Support	40.2M	23.9M	-16.3M
Integration Platform Hosting, Licensing & Support	20.6M	7.3M	-13.2M
Totals	81.0M	50.6M	-30.4M

Ongoing Costs
(Re-baseline Year by Year Breakdown)

Within each stream the Ongoing Costs include estimates for the new technology support teams, software licensing, IBM costs (DVA) and training.

Total All streams:

Period	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	2032/33	2033/34	
Year	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	Total
Ongoing Costs - Pre-Implementation*	0.00M	-0.44M	-12.92M	-15.44M												-28.79M
Ongoing Costs - Post-Implementation**	0.00M	0.00M	0.00M	-1.13M	-18.10M	-20.39M	-20.10M	-19.18M	-19.48M	-19.79M	-20.11M	-20.39M	-20.64M	-20.96M	-21.28M	-221.55M
Ongoing Cost Total	0.00M	-0.44M	-12.92M	-16.57M	-18.10M	-20.39M	-20.10M	-19.18M	-19.48M	-19.79M	-20.11M	-20.39M	-20.64M	-20.96M	-21.28M	-250.34M

DVA:

Ongoing Costs - Pre-Implementation*		0.00M	-12.10M	-9.90M												-22.00M
Ongoing Costs - Post-Implementation**		0.00M	0.00M	-0.14M	-8.77M	-5.96M	-5.15M	-4.03M	-4.11M	-4.21M	-4.30M	-4.34M	-4.35M	-4.44M	-4.51M	-54.31M
Ongoing Cost Total	0.00M	0.00M	-12.10M	-10.04M	-8.77M	-5.96M	-5.15M	-4.03M	-4.11M	-4.21M	-4.30M	-4.34M	-4.35M	-4.44M	-4.51M	-76.31M

Insurance:

Ongoing Costs - Pre-Implementation*				-4.33M												-4.33M
Ongoing Costs - Post-Implementation**			0.00M	-0.58M	-5.99M	-10.60M	-10.99M	-11.07M	-11.16M	-11.24M	-11.33M	-11.42M	-11.51M	-11.59M	-11.67M	-119.15M
Ongoing Cost Total	0.00M	0.00M	0.00M	-4.91M	-5.99M	-10.60M	-10.99M	-11.07M	-11.16M	-11.24M	-11.33M	-11.42M	-11.51M	-11.59M	-11.67M	-123.47M

Digital:

Ongoing Costs - Pre-Implementation*		-0.44M	-0.81M	-1.21M												-2.46M
Ongoing Costs - Post-Implementation**				-0.41M	-3.33M	-3.83M	-3.96M	-4.08M	-4.21M	-4.35M	-4.49M	-4.63M	-4.78M	-4.93M	-5.09M	-48.09M
Ongoing Cost Total	0.00M	-0.44M	-0.81M	-1.62M	-3.33M	-3.83M	-3.96M	-4.08M	-4.21M	-4.35M	-4.49M	-4.63M	-4.78M	-4.93M	-5.09M	-50.55M

Leadership - No ongoing costs:

* Pre-Implementation - All ongoing operating costs incurred prior to solution deployment

** Post-Implementation - All ongoing operating costs incurred after implementation

Benefits

Benefits
(Re-baseline Year by Year breakdown)*

Total All streams:

Period	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	2032/33	2033/34	
Year	3	4	5	6	7	8	9	10	11	12	13	14	15	Total
DVA + Insurance+ Shared Benefits	0.00M	0.15M	5.56M	29.51M	34.58M	38.06M	41.75M	42.80M	43.88M	44.99M	46.13M	47.31M	48.51M	423.23M

DVA:

FTE Savings, Technology Savings, External Labour Savings	0.00M	0.00M	0.77M	5.81M	6.40M	6.53M	6.66M	6.79M	6.93M	7.06M	7.21M	7.35M	7.50M	68.99M

Insurance:

FTE Savings, Technology Savings & External Labour Savings	0.00M	0.10M	3.48M	15.36M	16.45M	16.78M	17.12M	17.46M	17.81M	18.17M	18.53M	18.90M	19.28M	179.44M

Shared Benefits:

Shared - Commissions, Postage, Banking, etc	0.00M	0.05M	1.30M	8.35M	11.73M	14.75M	17.97M	18.55M	19.15M	19.76M	20.40M	21.06M	21.73M	174.80M

Ongoing Cost Avoidance:

(i.e. Deferred Development Savings / Security Savings for Legacy apps)	0.06M	0.84M	4.93M	7.49M	7.64M	7.79M	7.94M	8.10M	8.27M	8.43M	8.60M	8.77M	8.95M	87.80M

One-Time Cost Avoidance:

(SRE modernization, Security Debt modernization, etc.)	0.00M	7.32M	5.22M	0.90M	0.00M	0.00M	0.00M	0.00M	0.00M	0.00M	0.00M	0.00M	0.00M	13.44M

* see section on Business Case Benefit Start Dates (Slides 46,47)

Summary of Nova Benefits With Start Dates

DVA:

Savings Category	Benefit Start Date			
	1-Apr-23	1-Jan-24	1-May-24	1-Jul-24
[Redacted]				
[Redacted]				
[Redacted]				
Technology Savings (IBM, Software)			✓	

Insurance:

Savings Category	Benefit Start Date			
	1-Jan-23	1-Jan-24	1-May-24	1-Jul-24
[Redacted]				
[Redacted]				
[Redacted]				
[Redacted]				
Technology Savings (IBM, Software)			✓	

One Time Savings:

Cost Avoidance (in Legacy Applications)	Benefit Start Date		
	1-Apr-22	1-Apr-23	1-Apr-24
Implementation Savings - Extension Products		✓ 50%	✓ 50%
Security Debt Remediation	✓ 50%	✓ 50%	
Effort to increase Security Maturity	✓ 50%	✓ 50%	
SRE Modernization	✓ 80%	✓ 20%	

Summary of Nova Benefits With Start Dates

Additional Savings:

Savings Category	Benefit Start Date							
	1-Mar-22	1-Mar-23	1-Sep-23	1-Oct-23	1-Jan-24	1-Apr-24	1-May-24	1-Jun-24
Recurring Security Cost Avoidance	✓ 50%	✓ 50%						
Deferred Development Savings			✓					
Merchant and Banking Savings				✓				
Broker Compensation Savings					✓			
New Profit on Extension Products						✓		
New Profit on SRE Products		✓						
Software -Sybase & Biztalk							✓	
External Labour Sybase_Biztalk							✓	
Postage Savings								✓

On-Going Cost Saving Benefits - Insurance

Expense Category	Original Business Case ($M)	Rebaselined Business Case ($M)	Increase / Decrease ($M)
	Total 2019/20 thru 2033/34		
Technology Savings	14.8M	14.9M	0.1M
[Redacted] **[Redacted]** **[Redacted]**			
Totals	**[Redacted]**		

On-Going Cost Saving Benefits - DVA

Expense Category	Original Business Case($M)	Rebaselined Business Case($M)	Increase / Decrease($M)
	Total 2019/20 thru 2033/34		
Technology Savings	14.9M	5.8M	-9.1M
[Redacted] **[Redacted]** **[Redacted]**			
Totals	**[Redacted]**		

On-Going Cost Saving Benefits – Shared (All Streams)

Expense Category	Original Business Case($M)	Rebaselined Business Case($M)	Increase / Decrease($M)
	Total 2019/20 thru 2033/34		
Broker Compensation	114.7M	148.6M	33.9M
Postage	6.3M	5.7M	-0.5M
Merchant and Banking	6.9M	7.0M	0.1M
Sybase & Biztalk Licensing	7.2M	1.8M	-5.5M
Sybase & Biztalk External Labour	0.0M	3.2M	3.2M
Additional Revenue/Profit	11.2M	8.5M	-2.7M
Totals	146.3M	174.8M	28.5M

On-Going and One Time Cost Avoidance Benefits

On-Going Benefits:

Expense Category	Original Business Case($M)	Rebaselined Business Case($M)	Increase / Decrease($M)
	Total 2019/20 thru 2033/34		
Deferred Development	67.4M	67.9M	0.5M
Legacy App Security Savings	18.8M	19.9M	1.1M
Totals	86.2M	87.8M	1.6M

One-Time Benefits:

Expense Category	Original Business Case($M)	Rebaselined Business Case($M)	Increase / Decrease($M)
	One-Time Benefits		
Security Debt Remediation	5.1M	5.1M	0.0M
Attain Security Maturity (4.2)	1.5M	1.5M	0.0M
5 Extension Products	2.0M	1.8M	-0.2M
SRE Modernization	5.0M	5.0M	0.0M
Totals	13.6M	13.4M	-0.2M

NPV Analysis

NPV Scenario

Net present value was calculated for 15 year period start from project initiation, March 1st, 2019.

Our Rebaselined Scenario:

- Discount rate @ 7.5%
- Updated MPI Costs based on Revised Delivery/ Resourcing Plan
- Updated all Vendor Costs based on final negotiations
- **[Redacted]**
- Includes base broker compensation scenario from original LMA business case with updated forecasts and new Broker Commission agreement (Nov 2020)
- Includes cost avoidance for mandatory business capabilities that would be delivered by the target solution.
    - Includes recurring cost avoidance
    - includes one-time cost avoidance

Business Case Program Overview - NPV
(Integrated Project Nova)

Description	January 2019 Original ($M)	March 2021 Current ($M)	Increase / (Decrease) ($M)
Discount Rate	7.5%	7.5%	0%
One Time Modernization (previously "CAPEX")	$85.43	$111.66	$26.23
One Time Modernization – Contingency *	$21.4	$16.8	$(4.6)
Ongoing costs to operate (Total Opex - during 15 year NPV period)**	$282.35	$250.34	$(32.01)
One-time Total Cost Avoidance Benefit	$13.64	$13.44	$(0.20)
Ongoing Cost Avoidance Benefit(Deferred Development, Security for Legacy Apps)	$86.21	$87.80	$1.59
Ongoing Benefits (Total during 15 year NPV period)	$397.82	$423.23	$25.41
[Redacted]	**[Redacted]**	**[Redacted]**	**[Redacted]**
15 Year NPV	$12.7	$18.4	$5.7
Payback Period	14 Years	14 Years	0 Years

NPV estimate assumes that all the Line of Business streams will be implemented as one program.

* *Contingency Approach presented in Appendix 2*

** *On-going - Vendor costs applied at negotiated rates, all other OPEX and Savings applied using annual 1-2% inflation rate. Realistic Broker Commission Savings from new IBAM agreement.*

Recommendation

That the Members support the following:

- [Redacted]
- An increase in Project Nova project costs funding from $85.4M to **$111.7M** **(previously $114.7M)**
- Residual **15.6%** project contingency funding of $**16.8M** for an overall One Time Modernization cost of **$128.5M** **(previously $131.5M)**
- Authorize CEO approval of $16.8M contingency funding utilization with monthly reporting to Technology Committee regarding project performance, financials and contingency allocation
- 15 years NPV of $18.4M and payback period of 14 years based on 7.5% discount rate
- DVA operational costs allocation methodology requires review and adjustments due to Nova transformation and target state operating model
- Recommend to the Board of Directors that the re-baselined business case for Project Nova be approved and become the new baseline for Project financials and performance measurements

QUESTIONS?

NOVA transforming customer experience

Appendices

NOVA
transforming customer experience

Appendix 1

Summary of Changes vs. Presentation Submitted to PUB Feb 24 2021

Slide #(s)	Add	Change	Removed	Comment
6-7	✓			Explanation of Delivery Roadmap change
9		✓		Updated Nova Program Financial Summary as at 31-Mar-21
12	✓			Slide added to Explain $3M reduction in Project costs (IT Transformation).
13	✓			Detailed summary explaining changes from Original to adjusted re-baseline ($106.8M to $128.5M).
15-17		✓		Replaced Ongoing Costs slides (11-13) with slides 16-18 to provide users with a 15 year cost overview vs. 1 year overview.
23-26		✓		Replaced Ongoing Benefits slides (19-21) with slides 24-27 to provide users with a 15 year benefit overview vs. 1 year overview.
			✓	Removed previous extension benefits adjustment slides 22-24 as the updated amount is now captured in rebaseline slide 27.
28		✓		Updated bullets on Base NPV Scenario slide (previously 26) to indicate NPV updates aligned with new delivery plan and updated vendor costs.
29		✓		Adjusted previous NPV Slide (27) to capture the $3M reduction in project costs.
30		✓		Adjusted previous Recommendation slide (28) to reflect $3M reduction.
			✓	Removed “Appendix” and “One-Time Modernization” title slides (30-31) – did not add value. Information in slides 34-36 was removed as now captured in slides 14, 19 and 21
35-36		✓		Added “Appendix 3” in title
39		✓		Adjusted NPV slide 8.5% vs 7.5% discount (previous 41) to capture $3M change.
			✓	Removed slides 42-46 showing P&C and DVA cost portions – Rebaselined business case approved for both streams.

Appendix 2

Re-Baseline Contingency Approach

Project Cost Streams	Expense Category	Original January 2019 Business Case Project Costs	November 2020 Business Case Project Costs (CAPEX)	Variance	Residual Contingency %	Residual Contingency $	Total
P&C Insurance	SI Costs	$23,750,183	$17,200,000	($6,550,183)	15%	$2,580,000	$19,780,000
	MPI Labour (40/60)	$11,902,582	$12,615,816	$713,234	20%	$2,523,163	$15,138,979
	RFP Costs	$625,000	$38,496	($586,504)		$0	$38,496
	Duck Creek Professional	$0	$1,000,000	$1,000,000			$1,000,000
	Duck Creek Training & conformance	$0	$741,529	$741,529			$741,529
	Licensing Costs	$578,598	$11,503,125	$10,924,527	2.5%	$287,578	$11,790,703
	Subtotal	$36,856,363	$43,098,966	$6,242,603		$5,390,741	$48,489,707
DVA	SI Costs	$18,100,000	$21,500,000	$3,400,000	17.5%	$3,762,500	$25,262,500
	MPI Labour (40/60)	$6,683,399	$14,158,504	$7,475,105	20%	$2,831,701	$16,990,205
	RFP Costs	$1,250,000	$229,743	($1,020,257)		$0	$229,743
	Licensing Costs	$0	$0	$0	20%	$0	
	Hardware Costs	$0	$634,033	$634,033		$0	$634,033
	Subtotal	$26,033,399	$36,522,280	$10,488,881		$6,594,201	$43,116,481
Application Platform	SI Costs	$400,000	$430,950	$30,950	10%	$43,095	$474,045
	MPI Labour (40/60)	$11,304,240	$14,502,317	$3,198,077	20%	$2,900,463	$17,402,780
	RFP Costs	$77,993	$318,253	$240,260		$0	$318,253
	Subtotal	$11,782,233	$15,251,520	$3,469,287		$2,943,558	$18,195,078
Integration Platform	SI Costs	$400,000	$194,320	($205,680)	10%	$19,432	$213,752
	MPI Labour (40/60)	$0	$0	$0	20%	$0	$0
	Licensing & Support	$0	$0	$0	2.5%	$0	
	Training	$0	$448,608	$448,608			
	RFP Costs	$77,993	$107,992	$29,999			$107,992
	Subtotal	$477,993	$750,920	$272,927		$19,432	$770,352
Governance Vendor		$ 1,200,000	$ 2,373,584	$1,173,584	0%	$0	$2,373,584
Leadership, nPMO & Quality Assurance		$ 6,789,625	$ 12,662,616	$5,872,991	20%	$2,532,523	$15,195,139
							$0
Severance		$ 2,294,723	$ 4,000,000	$1,705,277	10%	$400,000	$4,400,000
Total		**$85,434,336**	**$114,659,886**	**$29,225,550**		**$17,880,456**	**$132,540,342**
Re-baseline Contingency					**15.6%**	**$ 16,852,409**	**$ 131,512,295**

Appendix 3- [Redacted]

Appendix 3-[Redacted]

Appendix 4 - NPV & Cash Flow Analysis

Appendix 4

Discount Rate

MPI's discount rate methodology calculates rates based on risk levels

- In 2019, High and Medium-High risk projects were assessed at discount rates of 9.0% and 7.5% respectively. The original business case set the project risk at Medium-High and 7.5% discount rate.
- In 2020, High and Medium-High risk projects are assessed at discount rates of 8.5% and 7.5%. For the re-baseline business case revising the project risk to High and a corresponding discount rate of 8.5% is consistent with the PUB GRA 2021 Order

The risk mitigation strategies identified in the original business case are relevant:

- A formal Risk Management & Mitigation Strategy and Governance process
- Engagement of a risk mitigation team led by an independent governance advisor
- Two industry expert vendors performing independent and separate business cases for this project (Deloitte and Avasant)
- Core financial benefits that stem from internal cost savings controllable by MPI
- Signed long term contracts with established vendors including online support service capabilities accepted in the market
- Ongoing project assessment at critical project milestone dates to re-assess execution risk and benefit risk

Appendix 4

Re-Baseline Costs and Benefits Analysis (Impact of Discount Rate change 7.5% to 8.5%)

Description	January 2019 Original ($M)	March 2021 Re-baselined ($M)	March 2021 Re-baselined ($M)
Discount Rate	7.5%	7.5%	8.5%
One Time Modernization Costs*	$85.4	$111.7	$111.7
One Time Modernization Costs – Contingency	$21.4	$16.8	$16.8
Ongoing Operational Costs (- Cash flow)*	$21.3	$18.4	$18.4
One Time Total Cost Avoidance	$13.6	$13.4	$13.4
On-going annual Cost Savings and New Revenue(+ Cash flow)*	$41.6	$43.3	$43.3
[Redacted]	**[Redacted]**	**[Redacted]**	**[Redacted]**
15 Year NPV	$12.7	$18.4	$9.5
Payback Period	14 Years	14 Years	15 Years

NOVA transforming customer experience

CAC (MPI) 1-24

Part and Chapter:	Part IV – NOVA Project	Page No.:	6 of 32
PUB Approved Issue No:	19. Project Nova		
Topic:	Broker Agreement		
Sub Topic:			

Preamble to IR:

Page 6 of Part IV - Nova Project notes the following:

> *"The 2022 Re-Baseline includes customer experience and the negotiated Broker agreement – NOV Appendix 14 – Broker Agreement Between MPI and IBAM, and subsequent impacts to the NOVA budget and business case. As the current Broker agreement expires on March 31, 2026, MPI will negotiate a new agreement with IBAM before then, which may impact the 2022 Re-Baseline."*

Question:

Please explain why the Broker Agreement needs to be renegotiated and provide the details of the impact it may have on the 2022 Re-Baseline.

Rationale for Question:

To better understand the reasons the Broker Agreement needs to be renegotiated in advance of its March 2026 expiry and how the Broker Agreement may impact the 2022 Re-baseline.

RESPONSE:

The parties signed the current broker agreement in November 2020 and then anticipated that online service delivery would go live in the summer of 2023. MPI later moved the current program schedule and the expected delivery of online services to summer 2024.

A revised broker agreement could impact the 2022 re-baseline if adjustments are made to the compensation schedules to reflect the updated delivery timeline.

CAC (MPI) 1-25

Part and Chapter:	**Part IV – NOVA Project**	**Page No.:**	**14, 30 of 32**
PUB Approved Issue No:	**19. Project Nova**		
Topic:	**Governance model**		
Sub Topic:			

Preamble to IR:

Page 14 of Part IV – Nova Project states:

> *"MPI delivers NOVA using the SAFe methodology and manages it through a centralized governance model."*

Page 30 of Part IV – Nova Project states:

> *"Value Management participated in numerous business case/benefit sessions with leadership, the Operational Business Champions (OBCs), and external consultants PwC (Governance) and McKinsey (Program Assessment)."*

Question:

Please file copies of PwC's governance reports relating to Project Nova.

Rationale for Question:

To review the external party's governance report relating to Project Nova.

RESPONSE:

PwC governance services provide findings based on information from multiple sources, such as document reviews, interviews and attending meetings. These findings are validated with the Program (with risk mitigations, solutions and advice provided).

Please see the following Attachments:

- *Attachment A: Project Nova Report 16 Jun 4 2021 - Confidential*
- *Attachment B: Project Nova Report 17 Aug 18 2021 - Confidential*
- *Attachment C: Project Nova Report 18 Oct 6 2021 - Confidential*
- *Attachment D: Project Nova Report 19 Dec 10 20 - Confidential*
- *Attachment E: Project Nova Report 20 Feb 2 2022 - Confidential*
- *Attachment F: Project Nova Report 21 Apr 12 2022 - Confidential*
- *Attachment G: Project Nova Report 22 Jun 1 2022 - Confidential*
- *Attachment H: Project Nova Report 23 Jun 30 2022 - Confidential*

Attachment A to H:
Project Nova Reports

This material is the subject of a confidential motion.

CAC (MPI) 1-26

Part and Chapter:	Part IV – Project Nova	Page No.:	26 of 32
PUB Approved Issue No:	19. Project Nova		
Topic:	Pivot to Cloud Solutions		
Sub Topic:			

Preamble to IR:

On page 26 of Part IV – Project Nova MPI indicates that key business case adjustments include new costs to account for the pivot to Cloud solutions.

Question:

Please provide a narrative discussion explaining the rationale, benefits and risks respecting the pivot to Cloud solutions for Project Nova.

Rationale for Question:

To better understand the rationale for MPI pivoting to Cloud solutions.

RESPONSE:

As Celtic is an on-premises solution, MPI originally decided to install it on Cloud infrastructure (as opposed to on-premise data infrastructure). IBM, the original cloud provider, unsuccessfully attempted to stand up this infrastructure. MPI then sought alternative solutions, which meant pivoting and obtaining these services from MS Azure (resulting in additional costs). MPI based its decision to leverage MS Azure on MPI being an existing Microsoft customer, allowing procurement under the existing agreement and also not requiring a request for proposal (RFP). MPI also made this decision in order to continue with NOVA Release 2 development activities and to minimize any schedule impacts.

CAC (MPI) 1-27

Part and Chapter:	Part IV – Project Nova	Page No.:	29 of 32
PUB Approved Issue No:	19. Project Nova		
Topic:	2022 Re-Baseline business case adjusted NPV equals $(188.9M)		
Sub Topic:			

Preamble to IR:

Page 29 of Part IV – Project Nova notes that MPI is now projecting a **negative** NPV of $188.9 million.

Question:

Please provide a narrative discussion on the rationale for recommending to proceed with Project Nova when the NPV is projected to be negative $188.9 million.

Rationale for Question:

To better understand the rationale for MPI proceeding with Project Nova when the projected benefits result in a negative NPV of $188.9 million.

RESPONSE:

As described in the response provided by MPI in the 2022 GRA to Information Request *CAC (MPI) 1-33(a)*, see *Appendix 1*. the program objectives of Project NOVA are critical and must be completed, irrespective of its net present value. The Executive and Board of Directors of MPI remain committed to achieving the strategic objectives of Project NOVA and to transforming the processes and technology of MPI 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 to this plan. While MPI exercises financial prudence in the management of project costs and focuses its attention on optimizing the net ongoing financial benefits, MPI will measure project success with reference to meeting 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

CAC (MPI) 1-33

Part and Chapter:	**Part I Overview**	**Page No.:**	**6**
PUB Approved Issue No:	**10—Current IT Strategic Plan and IT Expenses and Projects, Including Project Nova**		
Topic:	**Project Nova—business case update**		
Sub Topic:			

Preamble to IR:

MPI has completed a review and update to the Project Nova business case.

Project Nova is now expected to cost $128.5 million (including contingencies) (before $106.8 million) with a NPV forecasted to be a positive $18.4 million over a period of 15 years.

On page 6, Part I (Overview) it states:

"Notwithstanding that its aim is not necessarily to generate a positive rate of return, MPI recently completed a review and update of the Project NOVA business case and now forecasts its Net Present Value to be a positive $18.4 million over a period of 15-years."

QUESTION:

a) Please provide a narrative discussion on the phrase "Notwithstanding that its aim is not necessarily to generate a positive rate of return" and contrast this discussion to the overall objectives of Project Nova.

b) In general terms, please provide a narrative discussion on MPI's confidence in the updated Project Nova budget of $128.5 million to fully modernize MPI's IT systems, skills sets and organizational agility.

RATIONALE FOR QUESTION:

To better understand Project Nova's purpose and MPI's confidence in its updated financial budget.

RESPONSE:

a) The above noted phrase emphasizes that the key business objectives of Project NOVA (as outlined in the original business case) are not driven solely by financial considerations. The stated program deliverables are critical and independent of its net present value. As technology advances and customer needs evolve, MPI requires an overall strategic plan to continue to meet its corporate vision and mission. NOVA is one (important) element of this plan. While MPI is exercising financial prudence in the management of its costs and optimizing the net ongoing financial benefits upon its implementation, it will measure the success of NOVA in light of its ability to meet 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

b) The NOVA re-baseline exercise involved comprehensive due diligence by the Project Team to validate estimated project costs, one-time and ongoing costs and benefits, and the related assumptions supporting these estimates. This work included a rigorous RFP and negotiation process with external vendors, detailed resource planning as well as the development of product milestone and implementation release dates. The re-baseline business case incorporates this work and related updated budget items. MPI created a project management process that will ensure ongoing governance over project cost forecasts, the use of a change request process and a periodic review of assumptions in order to ensure the timely handling of potential budget variances. Based on the work-to-date and the governance process currently in place, MPI is confident that it can meet the $128.5 million budget. Currently, the greatest risk to achieving this target is a slippage in the schedule. Mitigation plans to address this and other risks include risk management, integrations, organization change management, training, and testing.

CAC (MPI) 1-28

Part and Chapter:	Part IV – Project Nova Appendix 5	Page No.:	4
PUB Approved Issue No:	19. Project Nova		
Topic:	Tracking R1A code completion		
Sub Topic:			

Preamble to IR:

Question:

a) Please confirm that Release R1A contains the automation of commercial insurance (i.e. Special Risk Extension—SRE) and related technology features by implementing commercial off the shelf (COTS) Duck Creek software. If not please explain the contents of R1A for greater clarity.

b) Please confirm whether the Duck Creek Software is to be implemented without any customization of the software. If this cannot be confirmed, please provide a narrative explaining the nature and extent of customization that is necessary to meet MPI's SRE requirements.

Rationale for Question:

To better understand the amount and extent of customization that is required of the Duck Creek software to meet MPI's SRE requirements, if any.

RESPONSE:

a) The Nova 1A Release is for the SRE line of business. MPI is implementing three Duck Creek modules as part of this release; Duck Creek Policy, Billing and Insights Reporting. Implementing as well Microsoft Dynamics 365 for Customer

Relationship Management (CRM) and Partner Portal and the Mulesoft Integration Platform for API management.

b) The Duck Creek solution for R1A includes three custom business objects and one reporting customization that MPI leadership and Duck Creek operational support teams have reviewed and approved. None of the customizations are considered significant or will be a factor for any upcoming product releases from Duck Creek.

The four customizations are:

1. Custom business object to create and cache OAuth tokens for API Calls

2. Customization of Insights Data Warehouse to support vehicle count and limits data

3. Custom business object for creating a general ledger file for a financial integration

4. Custom business object to support SRE Agency Billing Statements

MPI retained the Duck Creek Conformance Review Service to ensure alignment of the product to base code. The four customizations identified above were part of the conformance reviews. To date, all conformance review assessments from Duck Creek, which assesses both the System Integrator and MPI development within the product, passed, ensuring alignment to the COTS product.

Below is the Conformance Report prepared by Duck Creek on March 21, 2022. Each release has four conformance review cycles. At the conclusion of the third conformation review cycle for Release R1A, there were no critical or high items identified as having deviated from the base COTS solution supplied by the Product Vendor. At the end of each conformance cycle, the System Integrator and MPI focus on remediation of any items that were identified as critical or high during the conformance reviews.

Executive Summary

The Duck Creek Product Conformance team exists to work with clients during implementation and post go-live to ensure that the customization and installation of the Duck Creek Suite components follows the best practices and recommendations of Duck Creek Technologies as closely as possible. In order to help ensure that Manitoba Public Insurance (MPI) will have the best overall experience with the Duck Creek suite products, the Product Conformance team was engaged to execute a conformance review.

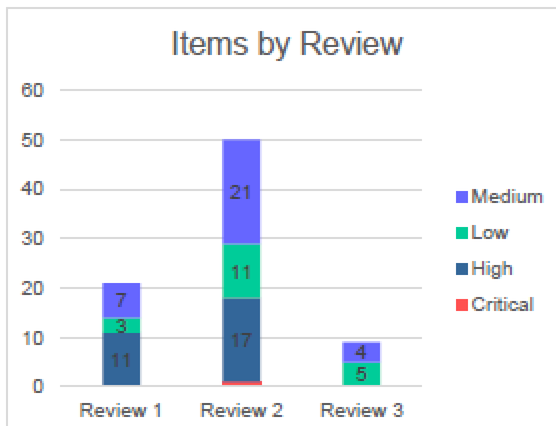
The conformance review consisted of four days of follow-up sessions for previous conformance review findings and additional knowledge gathering of newly developed components for MPI's Commercial Auto project. These sessions were conducted remotely. The MPI Commercial Auto project includes Policy, Billing, and Insights products. After the remote sessions the conformance team took the gathered materials and executed an analysis which included reviews of the following:

- Application Configuration
- Custom Application Extensions
- Database Structure Deviations from base

The results of this analysis were documented and categorized as follows:

Criticality	Description
Critical	Poses an immediate risk to system security, data integrity, or has the potential for significant system performance improvement
High	Has the potential for significant system improvement and should be considered in the very near term
Medium	Moderate benefit to be gained
Low	Not required but may provide some benefit in the future

Criticality as defined by Duck Creek Product Conformance Team



CAC (MPI) 1-30

Part and Chapter:	**Part IV – Project Nova Appendix 9**	**Page No.:**	**3 of 5**
PUB Approved Issue No:	**19. Project Nova**		
Topic:	**Project Nova Allocations among lines of business**		
Sub Topic:			

Preamble to IR:

Page 3 of Appendix 9 to the Project Nova chapter explains that it allocating Project Nova costs in the Property & Casualty stream by claims incurred volumes would be inappropriate and result in a "disparity in cost allocations".

Instead, MPI has "assumed the balance of costs for Basic and Extension to be evenly split…"

Question:

Please provide a narrative, including references to any analysis conducted by MPI, explaining the basis for the assumption that Project Nova costs in the Property & Casualty stream are to be evenly split between Basic and Extension.

Rationale for Question:

RESPONSE:

MPI based its previous Property and Casualty (P&C) allocation methodology on claims incurred volumes, which allocates costs based on the claims volumes. However, claims counts are significantly higher for the Basic line of business, resulting in a disparity in cost allocations that did not align with the capital asset benefit of the correct line of business. Consequently, MPI incorrectly applied amortization to Basic, while the Extension or SRE line of business received the benefit of the asset.

Based on business analysis and project management advice received from the vendor (Accenture) as at January 2022 (during P&C discovery), MPI selected features as a base for allocations to build its projections. With the finalization of discovery, MPI will use the story points as the basis of allocation.

Below are the resulting allocation impacts for P&C in 2022/23:

- Basic and Extension assumed to be an even split for the balance of the costs:
    - 24% Basic
    - 24% Extension

- SRE based on R1 and R3 expected effort at 52% of all P&C costs relating to SRE LOB

- In future years, MPI will base this on a distribution of story points to be implemented (relating to each line of business) once known. MPI will refine allocation based on story points each year to validate and update the percentages noted above. If there are any story points that do not have a line of business assignment, MPI will apply Gross Written Premiums (GWP).

CAC (MPI) 1-31

Part and Chapter:	PART IV – NOVA Project	Page No.:	6 of 32
PUB Approved Issue No:	19. Project Nova		
Topic:	Project costs and external expertise		
Sub Topic:			

Preamble to IR:

Page 6 of the Nova Project chapter at lines 1 to 6 indicates:

> *"MPI brought external expertise into key technology and digital leadership positions, thereby accelerating its maturity (a tactical risk mitigation strategy). The plan is to increase internal capabilities to ensure self-sufficiency for the longer-term organizational objectives for Digital Customer Experience, Technology Management and Enterprise Architecture. MPI must complete these objectives to ensure that NOVA succeeds and meets the 2022 Re-Baseline."*

QUESTION:

a) Please identify the key technology and digital leadership positions for which MPI engaged external expertise.

b) Please provide a narrative explaining how MPI avoids conflict of interest issues when placing external personnel/vendors into leadership positions where they have perceived influence and possible conflicting motives against MPI's interest. These motives may include but are not limited to external vendors' interests in maximizing their billings to MPI.

c) Please provide a narrative identifying the risks that suppliers of external expertise taking beyond a simple "time and materials" approach to providing services. For example, is there any risk/reward structure in place? Is there any mechanism to align the motivation of the external service providers with those of MPI?

d) Please provide a narrative describing the plan, including timelines, established by MPI for replacing the external expertise.

e) Are there any MPI driven, regular reviews of the progress of the plan to replace reliance on external vendors for these key technology and digital leadership positions? If so, please provide any policy or guidance documents governing this review process as well as the results of any reviews which have taken place to date.

f) Is there a formal process in place when considering outsourcing a leadership role to an outside vendor to review authority, delegation, responsibilities, avoidance of conflict of interest, suitability and feasibility of outsourcing? If so, please provide a copy of any documents describing or governing this process.

RATIONALE FOR QUESTION:

The analysis conducted by MPI indicates that one of the reasons for Project Nova's cost, timeline, and benefits changes is related to personnel. While using outside consultants to address skill shortages is a known and proven strategy, these questions will enable CAC Manitoba to understand the costs associated with this approach and the risks associated with how it has been employed.

RESPONSE:

a) Strategic Leadership roles where MPI engaged external expertise include Enterprise Architect, Digital and Customer Experience Lead, Technical Solution Lead, OCM Lead, Architectural IT Lead, and Solution Lead.

b) The approach of MPI is to retain accountability for all deliverables within its leadership. When hiring external resources for leadership roles, MPI does not assign accountability or signing authority for any deliverable. It assigns external resources responsibilities within their respective domains and requires them to report to an accountable MPI leader who oversees the quality and success of the deliverables. Any strategies or plans created by external resources must go through a formal MPI approval process. MPI Internal Leadership retains decision making for hiring of other external consultants or vendors.

c) For increased controls to avoid conflicts of interest and reduce risk, Project NOVA introduced a monthly consultant deliverable and quality review process. This ensures the delivery of services are in alignment with expected performance, roles and responsibilities under the contracts. External consultant's report to Leaders who are accountable to sign off on value for services received from the consultants each month, as part of the deliverable acceptance and invoice process.

d) Please see below table:

External Consultants Reporting Structure

Role	Type	Mitigation	Dates	Mitigation status
Digital and Customer Experience Lead	Strategic	Mitigation tactically via external consultant with internal commitment to establish CX directorate.	Apr/21 to Mar/22	Completed (Internal Directorate and Leader in place and Consultant agreement terminated)
OCM Lead	Strategic	Mitigation tactically via external consultant with internal commitment to enhanced OCM capabilities.	Mar/21 to May/21	Completed (Internal Leader in place and Consultant agreement terminated)
Solution Lead	Strategic	The role is temporary for the duration of the program. Not required post Nova and will transition once internal capability is established.	Mar/22 to TBD	In progress
Enterprise Architect	Tactical	Short term external consultant to address leave of absence.	Apr/21 to Oct/21	Completed
Technical Solution Lead	Tactical	The role is temporary for the duration of the program. Not required post Nova.	May/21 to Oct/25	In progress
Architecture IT Lead	Tactical	Short term external consultant to address leave of absence.	Jun/21 to Oct/21	Completed

e) MPI manages this through its RAID (Risks, Actions, Issues, Decisions) process and tracks it using its Azure DevOps project management tool. These RAID items are logged with owners, actions, mitigation steps and target dates. The NOVA Project

Management Office performs weekly reports and reviews to ensure items remain on track. Any deviations to target dates escalate to the owners and NOVA leadership. Reliance on external consultants for leadership roles overall is mitigated for the program to date as per the table in response #4.

f) MPI also manages this through its RAID process using its Azure DevOps project management tool. Please see as *Appendix 1 – Nova R.A.I.D. Process Placemat*.

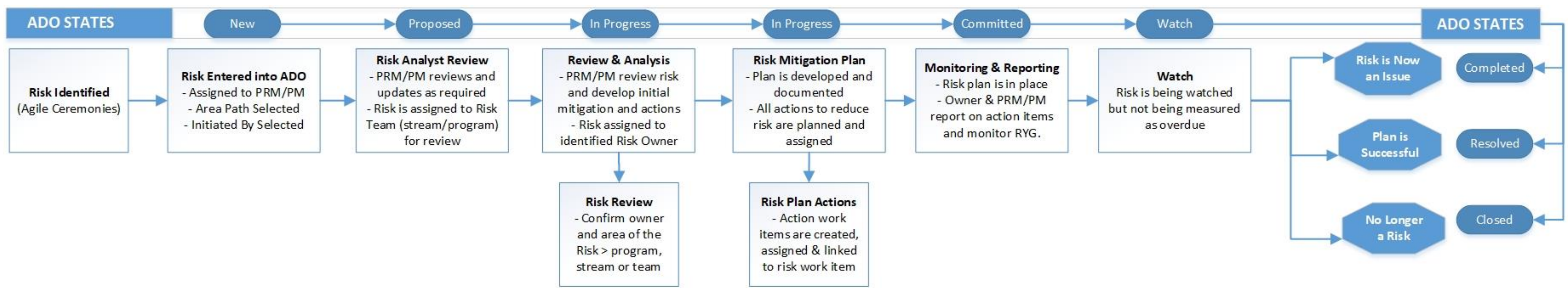
Following the approval of the decision to hire an external consultant, MPI assigns a hiring manager who is fully accountable for the consultant and their deliverables. Decisions that impact strategy, plans, ways of working, key deliverables, schedule and budget, follow a robust decision request and change request process that requires final MPI leadership approval. In addition, external vendors in leadership roles do not have signing and approval authorities (as outlined in Corporate Directive S.3.1), which addresses two fundamental concepts necessary for the operation of the business. The first concept relates to the various steps of acquiring goods or services - tendering, signing a contract, determining if payment should be made, and authorizing payment for goods and services. The second concept is the authority granted to staff to conduct the administration of the functions of MPI. Furthermore, outside vendors in leadership roles do not have direct reports.

NOVA
transforming customer experience

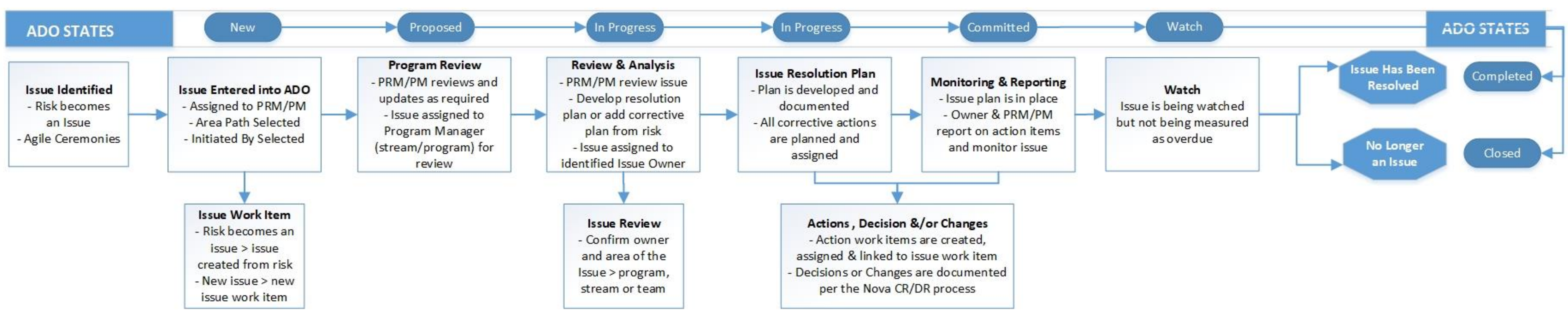
NOVA RAID PROCESS PLACEMAT

MANITOBA PUBLIC INSURANCE

Risk High Level Process Flow



Issue High Level Process Flow



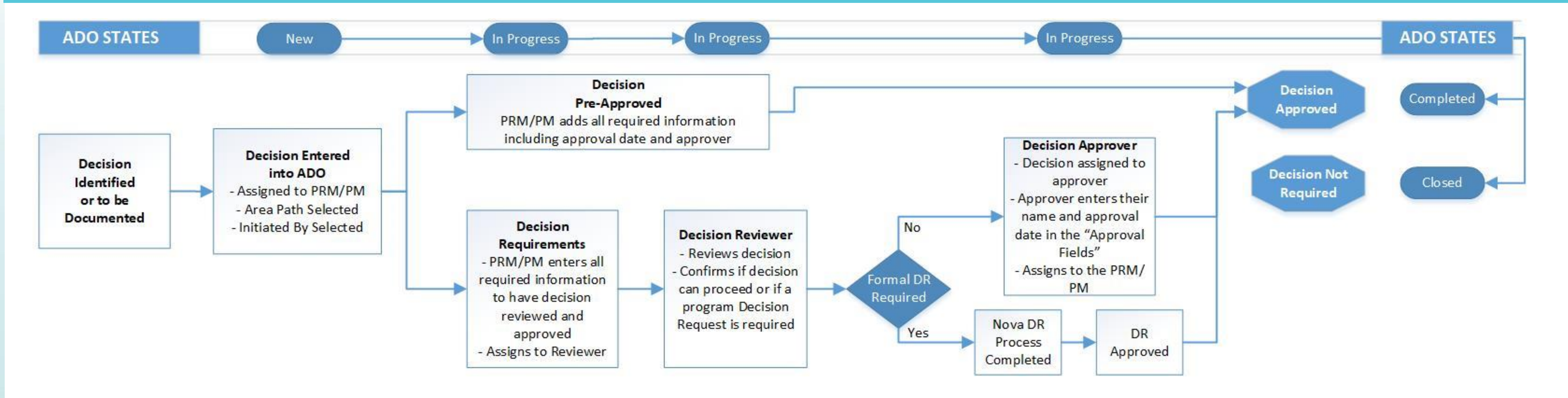
*PRM/PM: Project Release Manager/Project Manager (Coordinator)

NOVA transforming customer experience

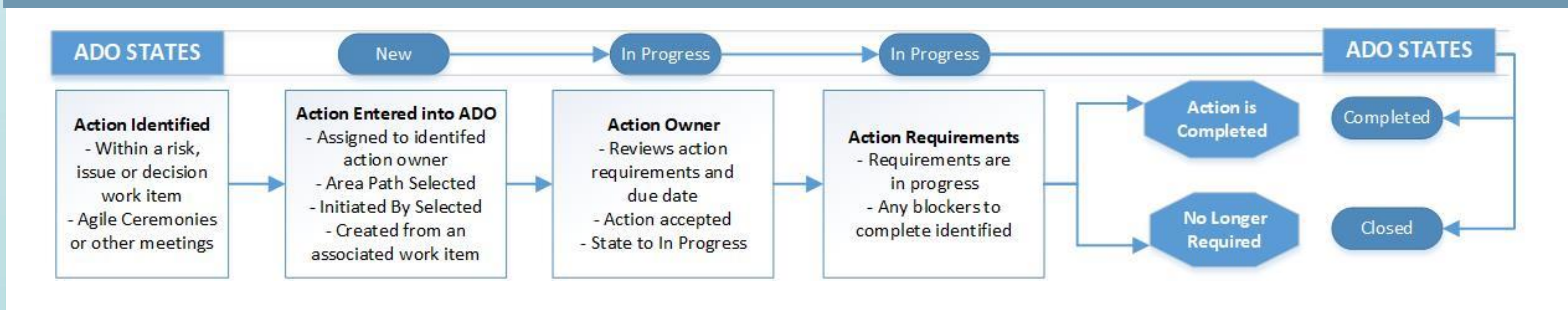
MANITOBA PUBLIC INSURANCE

HIGH LEVEL RAID PROCESS PLACEMAT

Decision High Level Process Flow



Action High Level Process Flow



*PRM/PM: Project Release Manager/Project Manager (Coordinator)

CAC (MPI) 1-32

Part and Chapter:	**PART IV – NOVA Project**	**Page No.:**	**4 of 32**
PUB Approved Issue No:	**19. Project Nova**		
Topic:	**Project Nova Business Case**		
Sub Topic:			

Preamble to IR:

The opening page of the Executive Summary of the Nova Project chapter refers to "the original business case and business vision documents for [the project's] three component streams…"

QUESTION:

Please provide a copy of the original business case and business vision documents referred to in the opening paragraph of the Project Nova chapter's Executive Summary.

RATIONALE FOR QUESTION:

To better understand the historical context for the Project and to provide insight into some of the opportunities, issues and risks that are referred to throughout the GRA2023 documents.

RESPONSE:

Please see *Appendix 1 - Legacy Systems Modernization Business Vision 2018-19 - Confdiential* and *Appendix 2 – (2020 GRA) VM Appendix 7 Legacy Systems Modernization Business Case – Confidential*.

Appendix 1:
Legacy System Modernization Business Case 2018/19

This material is the subject of a confidential motion.

Appendix 2:
2020 GRA Appendix 7 Legacy Systems Modernization Business Case

This material is the subject of a confidential motion.

CAC (MPI) 1-33

Part and Chapter:	**ART IV – NOVA Project**	**Page No.:**	**N/A**
PUB Approved Issue No:	**19. Project Nova**		
Topic:	**Project Nova re-baselines**		
Sub Topic:			

Preamble to IR:

Question:

a) Given the need to re-baseline the Nova project more than once, has Avasant/Deloitte been given an opportunity to explain or advise on the project variances? If so, please provide any documentation prepared by Avasant/Deloitte addressing the variances among and between the Nova original business case, the first re-baseline and the second re-baseline.

b) Please provide an explanation of why McKinsey was engaged, rather than Avasant/Deloitte, to perform the NOVA project external review?

c) Please provide a narrative describing all accountability measures contained in MPI's original agreement with Avasant/Deloitte in reference to the significant variances encountered.

d) Please provide a narrative describing MPI's plans to include some degree of risk-sharing and accountability on strategic initiatives where outside consulting firms are used for their expertise.

RATIONALE FOR QUESTION:

To better understand the Nova Project re-baselines and the risks and costs to Project Nova associated with outside consulting firms.

RESPONSE:

a) MPI completed the original business case in advance of receiving RFP responses, selecting products and negotiating system integrator (SI) contracts. Appreciating this, MPI planned the addition of a business case validation step and began the validation process in the spring of 2020, following the signing of the first product contract (i.e., Duck Creek OnDemand). MPI targeted the completion of this validation step for the end of 2020 (ultimately re-named the 2021 Re-Baseline). With the 2021 Re-Baseline, MPI hoped to obtain a class 2 estimate (AACE international standard) and to focus on making adjustments stemming from the following items:

- RFP process - Final vendor and product selections
- Negotiated contracts – Final product and SI contracts
- New Governance Vendor contract – PwC
- Incremental resources (leadership, nPMO & Quality Assurance)
- Severance

The 2021 Re-Baseline is not a schedule or scope re-baseline, but a validation and adjustment of the budget to address variances from the above items following the completion of the RFP and contract negotiation processes. The second re-baseline, completed in 2022, focused de-risking, addressing organizational capacity and increasing the ability of MPI to successfully deliver each release. This de-risk approach added 50% to the delivery schedule, which is the primary driver of the additional costs for the second re-baseline. As discovery for Releases R3 and R4 remain incomplete, the 2022 Re-Baseline also supported an increased contingency (to a range of 20-40%), to align with AACE International contingency standards. As MPI fully understood the variances, it did not contact Deloitte and Avasant for additional insights.

b) MPI contracted with Avasant and Deloitte to assist in validating a case for change and to assist in drafting the initial business case (with indicative costs). Six months into implementation activities, MPI determined that the 2021 Re-Baseline schedule was overly ambitious and posed a risk to achieving program objectives. At that time, MPI initiated an internal assessment, which recommended the flattened delivery model. MPI also contracted with McKinsey, who provides top tier consulting services focused on supporting at risk projects, to provide diagnostic analysis of Project NOVA, validate its internal assessment and provide delivery recommendations to further de-risk the Project.

c) The original agreement with Deloitte included the following deliverables:

i. Set of recommendations and guidelines to shape MPI;

ii. Application Strategy;

iii. Presentation to Board of Directors summarizing findings and recommendations;

iv. Develop a preliminary business case following MPI business case template that includes set of guidelines and recommendations for the detailed business case; and

v. Indicative pricing for software and Total Cost of Ownership.

The original agreement with Avasant included the following deliverables:

i. Current state assessment;

ii. Technology modernization roadmap;

iii. Application strategy;

iv. Execution roadmap; and

v. Business case and risk analysis.

Both Avasant and Deloitte assisted MPI in validating a case for change.

d) All contracts include terms and conditions addressing acceptance criteria of deliverables, and escalation and dispute procedures. MPI accepts each deliverable as part of project delivery and controls are in place to ensure receipt of services before the release of any milestone payments.

Beyond this, for Project Nova, MPI pays SIs based on acceptance of completed approved deliverables with the following criteria:

- Acceptance of deliverables based on completion of quality assurance confirming that the definition of “done” (i.e., meeting business objectives) for all developed features is met.

- As the solution is complex across multiple products, each of the SI contracts was negotiated with a clause to holdback 20% of the Program Increment payment to be released only once the end-to-end solution consisting of all products passes Quality Assurance standards that were established prior to the start of development.

SI contracts also include liability and indemnity clauses, stabilization and warranty clauses with exit criteria controls to ensure MPI receives all agreed to deliverables, on time and with the expected level of quality to ensure receipt of a fully working software solution.

Project NOVA-related Product vendors have Service Level Agreements (SLAs) that capture availability, incident response and resolution times and Disaster Recovery Time Objective and Recovery Point Objective. Each SLA includes the application of a penalty if the SLA is missed. The penalty consists of a percentage of the monthly spend of the respective vendor. Additionally, Product vendors are contractually responsible for the following risk areas:

- Cloud agreement framework – solely responsible for services provided by the Cloud Infrastructure Vendor(s);

- Reservation of Rights – solely responsible for any and all services by affiliates and third-party subcontractors;

- Enhanced Audit responsibilities, Disaster Recovery, Deletion Requests, Background Check, NDA and Code of Conduct, and Secure Coding Practices;

- Indemnity with obligation to cover costs if MPI must transition to new provider of Services;

- Limitation of Liability covering damages resulting from a breach of contractual obligations;

- Special Limitation of Liability covering damages resulting from a security breach;

- No Sole and Exclusive Remedy for Data Breach - Monetary damages are not the sole remedy for a data breach. Contractual acknowledgement that monetary damages may not be a sufficient remedy for a Customer Data Breach, and that the Customer may, without waiving any other rights or remedies, seek appropriate injunctive or equitable relief from a court of competent jurisdiction (including specific performance); and

- Source Code Escrow - for a defined Release Event, MPI will receive the Source Code and has the right to deploy it with a third-party cloud or hosting partner.

CAC (MPI) 1-34

Part and Chapter:	**PART IV – NOVA Project**	**Page No.:**	**N/A**
PUB Approved Issue No:	**19. Project Nova**		
Topic:	**McKinsey External Review**		
Sub Topic:			

Preamble to IR:

MPI engaged McKinsey to conduct an External Review of Project Nova.

QUESTION:

a) Please provide a copy of the McKinsey Statement of Work.

b) If the below items are not addressed in the Statement of Work, please also provide a narrative describing:

i. The work that McKinsey was tasked to perform in as much detail as possible.

ii. In regard to the high-level topics of "Strategy & Roadmap, Operating Model and Governance, Change Management, Technology and Program Financials" governing the scope of McKinsey's engagement, was the scope of work limited to Project Nova, or did McKinsey look at the entire organization?

iii. What responsibilities did McKinsey hold vs. that of MPI in completing the review??

iv. Were there limitations or exclusions within the scope of the work? If so, what were they?

v. In regard to Project Nova, was McKinsey primarily tasked to review the Nova team's generated documentation in regard to program review, de-risking plans, and revised budgets, timelines and deliverables? Or was McKinsey responsible for their own independent information gathering, analysis, and to develop alternatives and recommendations independent of MPI?

vi. Did their work include independent interviews, access to all documentation around the business case formulation, the work done by the Avasant and Deloitte consultants, project initiation, and project progress documentation?

vii. Excluding the McKinsey Delivery Execution Engagement work, is there any on-going responsibility or accountability on McKinsey's part to MPI as a result of this engagement?

c) Please provide a copy of the report prepared by McKinsey following its review of Project Nova.

RATIONALE FOR QUESTION:

To provide context for the results of the McKinsey review of Project Nova, to assess the credibility of the McKinsey review, and to inform assessment of the 2022 Nova Project re-baseline.

RESPONSE:

a) Please see *Appendix 1 - Mckinsey MPI Consulting Agreement Oct 8 2021 - Confidential* for McKinsey Statement of Work.

b)

i. Detail on the work McKinsey was asked to perform is included in the Services Agreement previously submitted.

ii. In regard to the high-level topics of "Strategy & Roadmap, Operating Model and Governance, Change Management, Technology and Program Financials" governing the scope of McKinsey's engagement, the scope of work was limited to Project Nova.

iii. MPI completed an internal review separate from the engagement with McKinsey. McKinsey was responsible for the assessment, with MPI providing a few core individuals that attended and participated in 1 or 2 weekly core team working sessions to coordinate key activities and facilitate overall process. MPI also had a number of leaders that engaged in interviews and questionnaires.

iv. The scope of the engagement focused on strategy, technology, and governance to assess the program scope and the roadmap's ability to achieve business objectives and maximize value from investments, evaluate the technology foundations required to achieve business goals and evaluate the operating model, talent and skills required to deliver on the objectives, including the prioritization of scope.

v. McKinsey was responsible for their own independent information gathering, analysis, to develop alternatives and recommendations independent of MPI.

vi. McKinsey's work included independent interviews, access to all documentation around the business case formulation, the work done by the Avasant and Deloitte consultants, project initiation, and project progress documentation. Access as well to resources, delivery and financial forecasts and the recommended flattened delivery model that formed the basis for the 2022 re-baseline.

vii. The contract includes the following terms and conditions for the acceptance of the recommendations and deliverables: that the deliverables meet the standard that they provide actionable recommendations (tactical and strategic as applicable) that will enable the Client (MPI) to improve its ability to execute and deliver its Project NOVA transformation initiative.

c) Please see *Nova NOV Appendix 12 Attachment A - Project Nova Program review for PUB 2 2 B1 - Confidential* and *Nova NOV Appendix - 13 2.2.B.1 Attach A Project Nova Program review for PUB 2 2 C1 - Confidential*

Appendix 1:
McKinsey/MPI Consulting Agreement

This material is the subject of a confidential motion.

CAC (MPI) 1-35

Part and Chapter:	PART IV – NOVA Project	Page No.:	4-5, 10-12 of 32
PUB Approved Issue No:	19. Project Nova		
Topic:	McKinsey External Review		
Sub Topic:			

Preamble to IR:

On page 4, line 25 to page 5, line 5, the GRA states the following:

> *"MPI incorporated all recommendations, including those involving potential opportunities, into its 2022 NOVA Re-baseline financial model/business case (2022 Re-Baseline). It further updated NOVA cost estimates (including resource estimates, vendor costs associated with schedule updates, and new costs to cover the program review recommendations), re-assessed the ongoing costs and benefits and quantified them based on the updated assumptions and new delivery plan."*

QUESTION:

a) For clarity please confirm that MPI implemented ALL of McKinsey's recommendations. If not, please provide a narrative identifying which recommendations were excluded or not actioned and any rationale for any exclusions?

b) Please confirm whether Figure NOV-3 presents all of McKinsey's recommendations in the same form as they were presented to MPI. If not, please provide a narrative identifying and explaining any detail not presented in Figure NOV-3, any McKinsey recommendations not presented in Figure NOV-3, and any modifications made by MPI to the McKinsey recommendations in preparing Figure NOV-3.

c) Please provide a narrative interpreting Figures NOV-4 and NOV-5 to identify which elements are MPI's recommendations and which are McKinsey's. Please also include a description of any differences, including exclusions, between McKinsey's recommendations and MPI's recommendations following their respective project reviews.

RATIONALE FOR QUESTION:

To clarify the results of both MPI's and McKinsey's reviews of Project Nova and to better understand the advice received by MPI with respect to management of Project Nova.

RESPONSE:

a) McKinsey reviewed and supported the flattened delivery schedule as identified by MPI. MPI incorporated all of their recommendations and potential opportunities into the 2022 Nova Re-baseline financial model/business case.

The opportunities covered:

- **$4M new technology costs** (de-risk mitigation) for technology costs specifically earmarked for enterprise monitoring. MPI is using this for other technology requirements within the program.

- **$9M to focus on a multiple Minimum Viable Product (MVP) delivery approach for the first major customer self-service Release 3B** and a Claims (R4A) Proof of Concept (PoC) (de-risk opportunity), which the organization is in the process of assessing the feasibility of as part of its planned R3/R4 pre-discovery efforts. MPI will decide on proceeding with these recommendations by fall of 2022.

- **$13M in Value Assurance** (de-risk mitigation), MPI is currently executing this.

- **$8.6M in new resources costs identified by McKinsey and MPI** (de-risk mitigation), MPI is currently executing this, with resources included in planning and forecasts.

b) *Nova Chapter Figure NOV-3* presents all of the recommended findings of McKinsey in a summary form, with no wording changes. It includes the summary but does not have all the details included underneath the summary. MPI filed the full detailed narrative confidentially (figure NOV-3 references pages 3 to 5) under *Nova Appendix 13 - 2.2.B.1 Attach A Project Nova Program Review for PUB 2 2C1 Confidential*.

c) As a result of the two reviews, both assessments (McKinsey external assessment and MPI internal assessment) agreed with the flattened delivery schedule and adding 20 months to the program. MPI reflects this update to the schedule, with changes noted to the Release dates (revised date at the top of the circle, with original date underneath) in Figure NOV-4. Additionally, *Nova Chapter Figure NOV-4*, identifies the McKinsey R3B MVP and Claims Proof of Concept recommended opportunities. The timeframe for assessing and implementing these opportunities is Q4 2022 to Q1 2024. Figure NOV-4 includes all of the recommendations of McKinsey.

d) *Nova Chapter Figure NOV-5* reflects the financial impacts of the extended timelines and incorporates all the McKinsey recommendations. The chart details the initial costs associated with the 2021 Re-baseline and shows the new incremental costs being added to the program due to the flattened delivery adjustments as well as the new opportunities identified by McKinsey. The flattened delivery adjustments as shown in the middle bar in Figure NOV-5 include:

- Schedule change financial impacts as recommended by MPI and supported by McKinsey including resource costs, Licensing and Subscription costs, System Integrator costs, Product Vendor Services

- De-risk mitigations as recommended by MPI including Resources and Services

Assessment adjustments by McKinsey, as shown in the bottom bar in *Nova Chapter Figure NOV-5* include:

- $4M new technology costs recommended by McKinsey,
- Opportunity $9M to assist with major Release 3B recommended by McKinsey,
- $13M in Value Assurance recommended by McKinsey,
- $8.6M in new resources costs identified by McKinsey and MPI.

<u>CAC (MPI) 1-36</u>

Part and Chapter:	**PART IV – NOVA Project**	**Page No.:**	**12 of 32**
PUB Approved Issue No:	**19. Project Nova**		
Topic:	**McKinsey External Review**		
Sub Topic:			

Preamble to IR:

On page 12 of the Nova Project chapter, lines 1-5 state:

> *"The McKinsey external assessment validated the reasonableness of the 2022 Re-baseline budget, given its scope and the size of MPI. McKinsey based its assessment on typical costs for insurance-only IT scope (e.g., web, CRM, core insurance) for insurers with a budget range of 15-20% of premiums (up to $2B). For NOVA, which includes DVA within its scope, that translates to a budget of $225-300M."*

QUESTION:

a) Please confirm that the McKinsey benchmark of 15-20% of premiums includes items that are NOT part of the current scope of work for Project Nova

b) Please identify the peer group used by McKinsey for the benchmark.

c) Please provide a narrative identifying the contingency range recommended by McKinsey for Project Nova And comparing it to the original contingency recommended by Avasant/Deloitte.

RATIONALE FOR QUESTION:

To clarify the results of the McKinsey review of Project Nova.

RESPONSE:

a) The benchmark of 15-20% of premiums includes core insurance technology modernization (including related experience and self-service related improvements), which is comparable to what is in scope for Project NOVA, from the P&C and Digital perspective. However, NOVA also includes Driver & Vehicle Registration (DVA) -related items, which the benchmark does not include. Costs for DVA modernization are in addition to the $225-300M for insurance modernization.

b) Individual companies in the peer group cannot be identified due to client confidentiality. The peer group includes insurers from North America and Europe that are (a) of comparable size of P&C premiums to MPI (~$1.5-2.0B) and (b) have undergone modernization similar in scale/scope to NOVA in recent years. This peer group/benchmark was supplemented and validated by interviews with experts from the insurance practice of McKinsey.

c) The contingency included with 2021 Re-baseline was 15%. Avasant and Deloitte did not make contingency recommendations in their original cases for change. Industry leading practices, which are consistent with the experience of McKinsey as a value assurance partner of large-scale programs, is that the contingency is typically 50% for programs at the ideation stage (i.e., where the high-level scope and timeline are defined but with detailed requirements and enablers still being defined). At the time McKinsey recommended to increase the contingency, the NOVA had begun to deliver R1, but also continued to identify additional technical and business enablers and had yet to perform a detailed discovery for the largest releases (i.e., R3 – Consumer Insurance, and R4 – Claims). As a result, McKinsey recommended increasing the contingency to 30-40% and indicated that such a percentage was aggressive/tight given the stage of the program.

CAC (MPI) 1-37

Part and Chapter:	**PART IV – NOVA Project**	**Page No.:**	**13-14 of 32**
PUB Approved Issue No:	**19. Project Nova**		
Topic:	**McKinsey External Review**		
Sub Topic:			

Preamble to IR:

In regard to the McKinsey Delivery Execution Engagement, chapter NOV.4 reads on line 10, "As a result of the program reviews, MPI engaged McKinsey to collaborate with the NOVA team to support and de-risk the delivery of NOVA releases".

QUESTION:

a) Please confirm whether or not there is any risk/reward sharing agreement as part of this engagement? If so, please provide a narrative explanation of this aspect of MPI's engagement of McKinsey. Please also confirm whether or not McKinsey has been engaged on strictly a time and materials basis, and if not, please describe the nature of their engagement.

b) Please provide a narrative explaining how MPI determined the appropriate value for this type of service for this type of project? Please include, for example, an explanation of whether MPI has benchmarked and learned best practises on how other organizations, such as ICBC, have used similar services.

c) Please provide a narrative explaining the process and requirements for McKinsey's reporting to MPI, including whether McKinsey has direct, unfiltered access to both the Executive and the Board of Directors.

d) Please provide a narrative explaining how McKinsey's delivery engages with MPI's internal audit function

e) Please provide a narrative explaining how MPI is developing its own capabilities in providing these types of services, including whether there is any knowledge transfer occurring to MPI Staff, and whether consideration has been given to "weaning off" McKinsey to a coaching role for Releases 3 and/or 4.

f) Please confirm whether the costs of McKinsey's engagement are being charged strictly to Project Nova, or whether these costs are being allocated to other projects. If costs are being allocated to other projects, please identify which projects, the costs being allocated, and the rationale underlying the allocation.

RATIONALE FOR QUESTION:

To inform an assessment of the value of McKinsey's Delivery Execution Engagement.

RESPONSE:

a) MPI negotiated a clause in the agreement to include risk sharing. The Scope of Work sets out the deliverables, acceptance criteria and milestones developed and agreed to by the parties. MPI will review all deliverables provided by the milestone target date and pay the monthly fees accordingly. If any one or more deliverables detailed in each of the milestone payments (see below) is not accepted by MPI by the milestone target date, MPI will retain 25% of the monthly milestone payment as fees at risk and provide McKinsey with a written explanation of why such services have not met the acceptance criteria. McKinsey is engaged to perform services on a fixed fee basis. The working arrangements, including scope of the services, are set out in detail in the agreement which sets out the specific outcomes, deliverables, and milestones. The services include the work required to complete everything set out in the Scope of Work, the agreement includes a provision for the parties to meet at mutually agreed times to discuss the progress of the services and to exchange feedback.

b) MPI identified significant risk to its ability to deliver Project NOVA. McKinsey provides top tier consulting services focused on supporting at-risk projects. The value MPI identified was the ability of McKinsey to provide diagnostic analysis of

Project NOVA, validate its internal assessment and provide delivery recommendations to further de-risk the Project.

c) McKinsey works with the MPI team at multiple levels to achieve its deliverables.

- McKinsey has direct channel to MPI's executive committee and has continuous interactions both through NOVA's governance cadence (e.g., steering committee meetings) as well as 1-1 problem solving sessions with relevant executives as needed

- McKinsey also joins MPI leadership in the Technology Committee reviews to share progress and insights on Nova; content discussed in these meetings are reviewed with the Executive Committee

- McKinsey also partners with relevant MPI/Nova leaders to prepare for day-to-day governance and decision-making discussions

d) McKinsey does not engage with Internal Audit. Internal Audit is outsourced within MPI and provides specialized services at the request of MPI Management/Board.

e) McKinsey works with MPI in a value assurance capacity and focuses on building MPI's capabilities throughout its support of MPI. For every topic supported by McKinsey, there has been an MPI counterpart co-developing the solution and owning delivery (e.g., McKinsey co-created the data migration plan working with the MPI Data CoE lead, who in turn led execution of that plan). Throughout this engagement, McKinsey has codified and shared the workplans and artifacts that the MPI team is using for current and upcoming releases of Nova, which the Nova team continues to iterate on and lead delivery for. McKinsey also provides 1-1 coaching and knowledge transfer to key Nova and MPI leaders to ensure MPI builds the capabilities required to deliver Nova and other large programs.

f) MPI charges the costs for the current McKinsey engagement to the NOVA budget.

CAC (MPI) 1-38

Part and Chapter:	PART IV – NOVA Project	Page No.:	13-14 of 32
PUB Approved Issue No:	19. Project Nova		
Topic:	McKinsey External Review		
Sub Topic:			

Preamble to IR:

Lines 6-12 on page 14 of the NOVA Project chapter identifies one of the aspects of McKinsey's engagement as:

> *"Identifying progress on each release through the use of dashboards in each stream (e.g., code completion, testing, data migration, release readiness, etc.). While reporting currently focuses on Release 1, it will extend across each release, usher in best practices on Value Assurance, pilot them in existing sessions (i.e., Get to Green, NOVA Executive Steering Committee) and focus the agenda to review status, proactively assess gaps, and develop action plans to address blockers."*

QUESTION:

a) Please confirm whether there any specific accountabilities or performance promises from McKinsey to deliver in this area, and if so, please provide a narrative explanation of these.

b) Please provide a narrative and supporting documentation explaining MPI's assessment that McKinsey would be able to provide demonstrated value and success for providing these types of services for project(s) of similar in size of organization, industry and size of project relative to the work undertaken for MPI.

Rationale for Question:

RESPONSE:

a) To support the deliverable acceptance process, the contract with McKinsey includes a holdback of payment if the deliverables provided are not accepted by MPI. MPI will retain 25% of the monthly milestone payment as fees at risk and provide McKinsey with written explanation of why such services have not met the acceptance criteria.

McKinsey has successfully delivered dashboards and best practices to support Releases 1 and 2. MPI will continue to leverage these for future releases.

b) Due to the overall critical strategic importance of the project and its cost implication to MPI, the President & CEO, CITO and CTO considered top tier strategic business consulting firms with the capacity to manage this assignment on an urgent basis.

Conflicts of interest precluded MPI from considering Deloitte, PWC and KPMG for the required services. MPI informally requested that Ernst & Young and McKinsey & Company propose solutions.

The proposal from McKinsey addressed the critical factors to minimize risk, assure value delivery and a provide a comprehensive approach that displayed experience and expertise to address the complexity of the issues identified. Based on the informal engagements and interviews with the top tier firms, the President & CEO, CITO and CTO unanimously agreed that the corporation should retain McKinsey & Company (Canada).

CAC (MPI) 1-39

Part and Chapter:	**Part IV – Information Technology**	**Page No.:**	**6, 7**
PUB Approved Issue No:	**19. Information Technology**		
Topic:	**Lean Portfolio Management**		
Sub Topic:			

Preamble to IR:

Pages 6-7 of Part IV – (Information Technology) describe the move to Lean Portfolio Management (LPM):

> *"The shift by MPI to LPM and Agile delivery represents a shift in its thinking and approach to new business ideas and modes of delivery. MPI no longer employs a once-a-year business cases submission and approval process. It replaced this process with a continuous intake of new business ideas to flow-in. The shift is also in how MPI manage ideas and resulting initiatives from just being initiated by the business to being led by the business"*

This section also indicates that MPI created a LPM committee which is supported by two Agile Coaches.

Question:

a) Please provide a narrative explaining how the LPM process will control and contain overall operating expenses.

b) Please provide the Agile Coaches' job description and describe the process employed by the Agile Coaches to support/train the LPM Committee in fulfilling their mandate.

Rationale for Question:

To better understand the Lean Portfolio Management concept and how this process will add value and control/contain operating costs to the benefit of rate payers.

RESPONSE:

a) All access to Lean Portfolio Management (LPM) funds will require a Lean Business Case (LBC) and approvals from the LPM committee. The LPM committee will approve LBCs based on, but not limited to, alignment to corporate strategic objectives, timing, cost and benefits. Upon receipt of LPM approval, an initiative goes through the same rigid financial and project management controls that MPI already uses effectively. LPM-approved initiatives go through monthly financial review meetings to understand YTD actual spend and forecasted spend to complete. In addition to weekly status reporting to manage the expectations of stakeholders, quarterly board reports create increased visibility to control and contain overall operating expenses.

b) Agile coaches support/train the LPM committee in fulfilling their mandate by participating in the LPM meetings, conducting retrospectives, and providing guidance to further mature LPM. They also conduct consultations and workshops to provide guidance and directions for continuous LPM maturity and evolution.

The following describes the job description of the Agile Coaches.

1. Work with agile teams to establish best practices, ensuring processes are effective and refined accordingly;
2. Assess current state maturity;
3. Assist in future state vision;
4. Conduct gap assessment between current and future;
5. Develop a roadmap from current state to future vision considering commitments to current projects;

6. Provide agile leadership coaching and training to product owners, functional managers, and executives;

7. Collaborate directly with software and operations teams to coach and guide them on the mechanics of lean and agile methods to achieve optimal team effectiveness;

8. Deliver hands-on coaching of individual teams in all aspects of scrum - daily meetings, planning, self-organization, collaboration, iterative development, managing flow, etc.;

9. Expose MPI technology teams to the latest innovative thinking and ideas from the agile community to increase agility, leveraging lean, scrum, kanban, and other agile philosophies;

10. Embrace servant leadership and display behaviors that come with the key mindset shifts associated with agile methods;

11. Host agile training and lean software development workshops for leaders and team members as needed;

12. Recommend tools to be implemented to support agile processes;

13. Develop and deliver presentations to various levels of leadership and facilitate working sessions to identify resolutions to barriers to scaling use of agile; and

14. Assist with the identification, collection and reporting on agile practice metrics and measurements.

15. Facilitate the implementation and scaling of a new agile release train;

16. Establish governance for the team’s operation in the agile release train as well as product management;

17. Establish an enterprise backlog;

18. Improve lean portfolio orchestration and flow;

19. Improve ownership, accountability, traceability at agile levels;

20. Provide a structured backlog that includes all major initiatives across MPI including:

21. Improved method for prioritizing epics;

    - Improved method for understanding capacity to do work; and
    - structure that allows for understanding how new ideas and epics can be implemented.

22. Improve portfolio Kanban operation including improving flow for how workflows from idea generation to business case, to approval, and then into implementation

23. Build maturity for portfolio team;

24. Coach and improve key roles;

25. Establish key measures for the portfolio;

26. Establish performance measures for agile release trains;

27. Work with MPI on an iterative/sprint fashion to guide and implement improvements to MPI's agile delivery and coordination;

28. Use an outcomes-focused approach with defined deliverables at each stage;

29. Facilitate workshops with stakeholders as required.

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Part and Chapter:	**Part IV – Value Management**	**Page No.:**	**10 of 83**
PUB Approved Issue No:	**19. Information Technology** **8. Cost of operations**		
Topic:	**Platform engineering—understanding service delivery**		
Sub Topic:			

Preamble to IR:

Page 10 of Part IV – (Value Management) states:

> *"Platform Engineering: Enterprise Monitoring ($2M in CMS under the Technology Risk Management (TRM) program). The goal is to use this platform to understand service delivery and KPIs and have levers (which MPI seeks to automate over time) to shape/improve performance quickly based on these insights. Automation is a necessity in a complex operating multi-cloud, multi-provider environment."*

Question:

a) Please provide a narrative discussion on the goal of platform engineering "to understand service delivery and KPIs…"

b) Please provide a narrative explaining what is meant by "...complex operating multi-cloud, multi-provider environment"

Rationale for Question:

To better understand the resulting complexity to MPI's operating environment created by platform engineering. Why is platform engineering not simplifying the operating environment?

RESPONSE:

a) Enterprise monitoring will provide the ability to not only monitor all infrastructure, applications, security and performance for any disruptions to services, but will also provide the opportunities to automate responses to possible disruptive events and fix them before they become an actual outage or disruption to the business. Enterprise monitoring also helps IT to provide automated KPIs on all of the services being monitored as all the data for all events is captured. This currently is a monthly manual process.

b) Currently, almost all of the MPI Infrastructure runs out of its IBM data centres. MPI plans to migrate all of the services and workloads to the cloud. At present, it plans to migrate to the Azure Cloud from its on-premises datacentres, but in the near future MPI could host services in several cloud environments depending on which one better meets the business requirements. As part of its Cloud Adoption Strategy, MPI will always select a SaaS (Software as a Service) solution first, where possible. If there is no SaaS solution, MPI will select a PaaS (Platform as a Service) solution with its own cloud environment and if PaaS is not an option, then IaaS (Infrastructure as a Service) will be selected to host its Cloud services. MPI has a multicloud ecosystem now as it has a few SaaS solutions within different clouds and adding more shortly with Dynamics 365 and Fineos.

   While the cloud environment platforms are similar and standard across different cloud providers, the way the services are delivered and which services they have, can be different and complex. The complexities can also lie within certain applications themselves. Some applications run on a one server environment but may also have a web application front end that runs on a different server or service and then connects to a database on the backend that could be an SQL (Sequel) server or a Managed Instance of a database. This is where some of the complexities are as one application can have multiple environments, servers or services that it connects to. A disruption in any one of those parts can cause the whole system/application to be unavailable.

CAC (MPI) 1-41

Part and Chapter:	**Part V – CI**	**Page No.:**	**10**
PUB Approved Issue No:	**9. Claims Forecasting**		
Topic:	**Forecasting Methodology**		
Sub Topic:			

Preamble to IR:

On page 10 of Part V – Claims Incurred, MPI describes its claims incurred forecasting methodology, in part, as follows:

> *"The primary actuarial technique used in claims forecasting is the loss development technique. The technique assumes that the historical development patterns in accident year paid, and incurred losses can be used to predict the development of paid and incurred losses in future periods. For each coverage grouping, development assumptions are selected starting from the accident year in which the claims occur and extending until all claims from that accident year are assumed to be closed (i.e., ultimate)."*

In years past MPI used an Interdisciplinary Claims Forecasting Committee, comprising subject matter experts from claims operations, insurance operations, pricing, actuarial, investments and finance ensuring robust claims forecasting outcomes. The Claims Forecasting Committee would then present the forecasts to the Executive Committee for review and approval.

Question:

Please confirm that MPI no longer uses an Interdisciplinary Claims Forecasting Committee to prepare and vet claims forecasts presented in the GRAs. If this cannot be confirmed please provide a narrative discussion describing the current claims forecasting processes.

Rationale for Question:

To gain a better understanding of the claims forecasting processes deployed by MPI ensuring a high quality claims forecast to set the basic insurance rates.

RESPONSE:

MPI does not use an Interdisciplinary Claims Forecasting Committee. However, the claims forecasting process is as follows:

- regularly updating and monitoring claims on a monthly basis,
- meeting with experts in physical damage and bodily injury claims,
- determining underlying trends in the data,
- technical review of assumptions and forecasting model,
- presenting to the Executive Committee for review and approval.

CAC (MPI) 1-42

Part and Chapter:	Part V – CI	Page No.:	19-20 of 95
PUB Approved Issue No:	9. Claims Forecasting		
Topic:	Claims incurred impact re Work from Home		
Sub Topic:			

Preamble to IR:

On page 19 of Part V - CI MPI states:

> *"As driving behaviour directly affects Collision, Property Damage, and PIPP claims, MPI applied a 5% reduction to Collision, Property Damage, Weekly Indemnity, and ABO Indexed claim frequency."*

On page 20 of Part V – CI, Figure CI – 10 Forecasted Impacts to Ultimates Related to Working from Home reports the Ultimate Claims Incurred reduction for 2023/24 (rating year) is forecasted to be $37.3 million.

On page 5 of Part V – PF, PF – 1 indicates that the motor vehicle premiums written for 2023/24F are $1,150.3 million.

Question:

a) Please confirm that the work from home (i.e. Covid-19 Impact) claims incurred impact is a reduction in claims incurred of $37.3 million for 2023/24. If not, please provide the correct values.

b) Please also confirm that this reduction approximately lowers basic insurance rates by 3.2% ($37.3 M divided by $1,150.3 M). If not, please provide the correct values.

Rationale for Question:

To better understand the basic insurance rate impact from the work from home driving behavioral change.

RESPONSE:

a) Confirmed, the work from home impact is expected to cause a $37.3 million total reduction in claims incurred for the 2023/2024 year.

b) The work from home reduction lowers Basic insurance rates by approximately 3.2%.

CAC (MPI) 1-43

Part and Chapter:	**PART V – CI**	**Page No.:**	**17 of 95**
PUB Approved Issue No:	**9. Claims Forecasting**		
Topic:	**Claims Incurred**		
Sub Topic:	**Claims Incurred WFH Impacts**		

Preamble to IR:

MPI applies a 5% reduction to frequency for collision, property damage, weekly indemnity, and ABO indexed coverages to account for an expected reduction in post-pandemic driving. This 5% adjustment is based on:

i. A comparison between the actual collision frequency and the forecasted collision frequency excluding COVID-19 impacts for April 2021 through March 2022. The actual collision frequency is generally 10-20% lower than the forecasted amounts.

ii. Survey results that indicate approximately half of Manitobans currently working from home will expect to do so in the future.

QUESTION:

a) Please identify the source of the forecasted frequency shown in Figure CI- 8. Please also explain how the forecasted frequency amounts in Figure CI-8 are adjusted to remove the impact of the pandemic.

b) Please provide a summary of MPI's actual collision frequency, severity and loss cost estimates on a monthly basis between 2015-2022.

c) Per MPI's survey results, "About 7 in 10 respondents report that their driving trips decreased during the pandemic (68% drove less) and about four in 10 expect that their future driving trips will continue to be lower than pre-pandemic levels (43%)." Additionally, the number of individuals that expect to have a hybrid schedule post-pandemic increased compared to the number of individuals with a hybrid schedule during the pandemic. Please provide a narrative explaining whether MPI considered these responses in their WFH adjustment, and if so, how.

Rationale for Question:

RESPONSE:

a) The forecasted frequency by loss month in Figure CI-8 is from the 2022 GRA forecast, excluding the COVID-19 impact. The annual forecasted frequency uses the 2015-2019 trend, which excludes the impact from COVID-19. MPI uses a five-year allocation (excluding 2020) to split the annual claim counts to monthly claim counts, then calculates the frequency by month using these monthly claim counts.

b) See the ultimate figures below for Collision. Ultimates are estimated as of March 31, 2022.

Figure 1 Ultimate Monthly Collision Frequency (as of March 31, 2022)

Line No.	Accident Insurance Year	April	May	June	July	August	September	October	November	December	January	February	March	Total
1	**2015**	0.102	0.102	0.107	0.102	0.101	0.110	0.114	0.140	0.159	0.153	0.140	0.120	0.121
2	**2016**	0.105	0.105	0.113	0.107	0.105	0.109	0.117	0.130	0.181	0.174	0.142	0.121	0.126
3	**2017**	0.101	0.102	0.109	0.103	0.100	0.109	0.122	0.152	0.168	0.158	0.151	0.119	0.124
4	**2018**	0.100	0.100	0.102	0.098	0.100	0.104	0.113	0.137	0.143	0.162	0.189	0.114	0.121
5	**2019**	0.091	0.091	0.099	0.097	0.097	0.103	0.135	0.141	0.146	0.152	0.117	0.087	0.113
6	**2020**	0.055	0.066	0.085	0.087	0.084	0.088	0.101	0.081	0.093	0.091	0.104	0.078	0.084
7	**2021**	0.072	0.065	0.081	0.080	0.084	0.090	0.092	0.114	0.135	0.138	0.170	0.111	0.102

Figure 2 Ultimate Monthly Collision Severity (as of March 31, 2022)

Line No.	Accident Insurance Year	April	May	June	July	August	September	October	November	December	January	February	March	Total
1	**2015**	$3,146	$3,289	$3,370	$3,439	$3,381	$3,432	$3,518	$3,763	$3,734	$3,540	$3,428	$3,385	$3,474
2	**2016**	$3,358	$3,470	$3,521	$3,640	$3,564	$3,597	$3,722	$4,031	$3,615	$3,476	$3,473	$3,444	$3,579
3	**2017**	$3,527	$3,586	$3,735	$3,649	$3,760	$3,789	$3,970	$4,051	$3,894	$3,729	$3,786	$3,559	$3,771
4	**2018**	$3,432	$3,584	$3,709	$3,632	$3,825	$4,031	$3,993	$4,324	$4,026	$3,824	$3,768	$3,635	$3,834
5	**2019**	$3,612	$3,826	$3,918	$3,877	$3,942	$4,052	$4,239	$4,483	$4,325	$4,208	$3,788	$4,022	$4,064
6	**2020**	$3,969	$3,870	$3,928	$4,102	$4,109	$4,184	$4,444	$4,718	$4,671	$4,328	$4,001	$3,994	$4,213
7	**2021**	$4,056	$4,106	$4,273	$4,396	$4,473	$4,714	$4,673	$4,857	$4,664	$4,595	$4,384	$4,204	$4,479

Figure 3 Ultimate Monthly Collision Loss Cost (as of March 31, 2022)

Line No.	Accident Insurance Yea	April	May	June	July	August	September	October	November	December	January	February	March	Total
1	**2015**	$320	$337	$361	$352	$341	$376	$401	$525	$595	$541	$482	$404	$419
2	**2016**	$354	$365	$399	$391	$376	$393	$434	$522	$655	$606	$495	$418	$450
3	**2017**	$355	$365	$406	$377	$375	$413	$485	$616	$654	$589	$572	$422	$468
4	**2018**	$342	$358	$379	$357	$381	$419	$453	$592	$576	$620	$712	$415	$464
5	**2019**	$327	$350	$390	$378	$381	$417	$574	$630	$631	$639	$444	$350	$459
6	**2020**	$220	$254	$333	$356	$347	$370	$448	$384	$432	$393	$416	$312	$356
7	**2021**	$293	$268	$347	$353	$375	$422	$428	$554	$631	$634	$746	$465	$457

c) In estimating the WFH impact, MPI considered the amount of driving an individual estimated they would do in the future. In section 6 of the survey, page 8, respondents were asked to estimate their annual number of kilometers driven. This is shown below in *Figure 4*. The expectation is that in 2022, respondents will drive less than they did in 2019 but more than they did in 2021. This supports the assumption of MPI that the impact of working from home lies somewhere between the results from 2019 and the results from 2021.

Figure 4 Driving Behaviour Survey 2022 - Average annual kilometres driven for household vehicles

Average number of kilometres driven annually with household vehicles (estimated by respondent)			
Combined survey results	2019 *n=2727*	2021 *n=2759*	2022 *n=2757*
less than 5,000	174	413	336
	6%	15%	12%
5,001-10,000	360	530	497
	13%	19%	18%
10,001-15,000	361	389	364
	13%	14%	13%
15,001-15,500	146	148	160
	5%	5%	6%
15,501-20,000	286	259	251
	10%	9%	9%
20,001-25,000	274	200	230
	10%	7%	8%
25,001-30,000	191	121	136
	7%	4%	5%
30,001-35,000	131	94	111
	5%	3%	4%
35,001-40,000	110	68	90
	4%	2%	3%
40,001-45,000	72	40	54
	3%	1%	2%
45,001-50,000	56	41	48
	2%	1%	2%
Over 50,000	193	107	117
	7%	4%	4%
Don't know	373	349	363
	14%	13%	13%

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Part and Chapter:	PART V – CI	Page No.:	N/A
PUB Approved Issue No:	9. Claims Forecasting		
Topic:	Claims Incurred Forecast		
Sub Topic:	Frequency Forecast Methodology		

Preamble to IR:

It appears MPI does not follow consistent methodology when forecasting frequency. For example, MPI models claims count **per HTA unit** for collision, but claim counts directly for accident benefits – weekly indemnity.

QUESTION:

Please provide a narrative explaining why MPI does not define frequency as claims count per exposure for all coverages.

RATIONALE FOR QUESTION:

To inform an assessment of the credibility of the Claims Incurred Forecast.

RESPONSE:

Within the Claims Incurred document, claim frequency refers to claim counts per HTA unit. As indicated at page 23 of *Claims Incurred CI.4.1*, the Weekly Indemnity forecast uses claim frequency in the calculation of the forecast:

> *The 2022/23 forecasted ultimate losses of $92.7 million are based on the forecasted claim counts and severity after the impact of WFH. The 2015-2019 trend was used to forecast claim frequency, this was to align with the Collision frequency assumption.*

The claim frequency is forecasted and then the claim counts are derived from that, based on the forecasted HTA units. Severity is then multiplied by the claim counts to create an ultimate loss of $92.7 million.

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Part and Chapter:	PART V – CI	Page No.:	23 of 95
PUB Approved Issue No:	9. Claims Forecasting		
Topic:	Weekly Indemnity		
Sub Topic:	Frequency and Severity Forecast		

Preamble to IR:

On page 23 of the Claims Incurred chapter, MPI states "The 2015-2019 trend was used to forecast claim frequency, this was to align with the Collision frequency assumption. A 5% reduction was then applied for WFH."

On the same page, MPI also states "The 2022/23 severity (i.e., average incurred per claim) is based on the 5-year (2015- 2019) average of the ultimate severity indexed to current levels, excluding the highest and lowest year, with severity growth plus indexation applied."

QUESTION:

a) With respect to the claim frequency forecast, it is not clear which accident years are included in the 2015-2019 trend noted by MPI. Please confirm that 2015-2019 is in reference to accident years 2015/16 – 2019-20.

b) It is not clear whether MPI is fitting linear or exponential regression models to the data presented in Figure CI-14 as we are unable to replicate the results. Please confirm the model used to project claims frequency. If the model is fit to data that is not presented in Figure CI-14, please provide the data used to project claim counts, or indicate where this data can be found in the filing.

c) Additionally, please explain why the projected 2022/23 through 2026/27 claim counts in Figure CI-14 are all equivalent.

d) With respect to severity, we note the 5-year average severity excluding high and low observations between 2015/16 – 2019/20 is 48,864. When we apply MPI's selected growth rate of 2% and indexation of 4.2%, the projected severity for 2022/23 differs from the amount in Figure CI-14 ($52,247). Please provide the detailed calculation (including cross references) for the amount in Figure CI-14.

RATIONALE FOR QUESTION:

We were unable to replicate MPI's calculation for the 2022/23 forecasted frequency or severity for weekly indemnity using the data provided in Figure CI-14 and subsequent model description.

RESPONSE:

a) Confirmed, the 2015-2019 trend includes the 2015/16 to 2019/20 accident years.

b) MPI used the linear trend of claim frequency (claim counts per HTA unit) to forecast Weekly Indemnity claim frequency. *Figure 1* below shows CI-14 with claim frequency instead of claim counts.

Figure 1 Weekly Indemnity Ultimate Losses *(updated Claims Incurred Figure CI-14)*

Line No.	Accident Year	HTA Earned Units	Claim Count Incurred >$0	Claim Frequency per 1,000 Units	Severity	Ultimate ($000)	Annual % Change	Last Year's Forecast ($000)	Variance to Forecast ($000)
1	**2007/08**	736,791	2,063	2.80	$36,184	$74,648	1.23%	$75,503	($855)
2	**2008/09**	752,983	1,885	2.50	$40,134	$75,653	1.35%	$74,070	$1,583
3	**2009/10**	764,243	1,861	2.44	$38,777	$72,164	-4.61%	$71,808	$356
4	**2010/11**	775,557	1,948	2.51	$47,597	$92,719	28.48%	$93,413	($694)
5	**2011/12**	793,813	1,844	2.32	$47,797	$88,138	-4.94%	$89,351	($1,213)
6	**2012/13**	812,141	2,007	2.47	$41,632	$83,556	-5.20%	$84,961	($1,405)
7	**2013/14**	823,518	1,875	2.28	$39,107	$73,326	-12.24%	$71,468	$1,858
8	**2014/15**	835,178	1,684	2.02	$44,658	$75,204	2.56%	$75,128	$76
9	**2015/16**	848,635	1,785	2.10	$48,599	$86,749	15.35%	$89,124	($2,376)
10	**2016/17**	861,942	1,808	2.10	$52,497	$94,915	9.41%	$94,410	$505
11	**2017/18**	874,357	1,931	2.21	$48,233	$93,137	-1.87%	$94,598	($1,461)
12	**2018/19**	882,537	1,898	2.15	$43,857	$83,227	-10.64%	$91,622	($8,396)
13	**2019/20**	887,453	1,750	1.97	$49,761	$87,090	4.64%	$92,454	($5,364)
14	**2020/21**	891,738	1,273	1.43	$59,527	$75,755	-13.02%	$70,538	$5,217
15	**2021/22**	918,683	1,766	1.92	$48,721	$86,038	13.57%	$90,202	($4,164)
16	**5-year Trend**	920,310	1,437	1.55	$55,013	$78,548	7.09%	$78,920	
17	**10-year Trend**	924,015	1,591	1.70	$54,784	$86,781	3.08%	$89,949	
18	**All year Trend**	931,098	1,633	1.71	$53,708	$87,625	0.35%	$90,483	
19	**2022/23**	932,897	1,774	1.90	$52,247	$92,675	7.71%	$99,974	($7,299)
20	**2023/24**	942,908	1,774	1.88	$55,469	$98,404	6.18%	$104,005	($5,601)
21	**2024/25**	953,029	1,774	1.86	$57,892	$102,705	4.37%	$108,197	($5,491)
22	**2025/26**	963,262	1,774	1.84	$60,363	$107,080	4.26%	$112,554	($5,475)
23	**2026/27**	973,606	1,774	1.82	$62,758	$111,306	3.95%		

c) The projected 2022/23 through 2026/27 claim counts in *Claims Incurred Chapter Figure CI-14* are flat due to a decreasing frequency trend, which is partially offset with the growth in HTA earned units.

d) The amounts in *Claims Incurred Chapter Figure CI-14* are not indexed to current levels. MPI forecasts severity using the ultimate severity indexed to current levels on page 23 of *Claims Incurred Chapter CI.4.1*:

> *The 2022/23 severity (i.e., average incurred per claim) is based on the 5-year (2015-2019) average of the ultimate severity indexed to current levels, excluding the highest and lowest year, with severity growth plus indexation applied.*

Claims Incurred Chapter Figure CI- 15 shows average severity by the loss sizes at current levels and *Figure 2* below shows the overall ultimate severity at current levels, which MPI uses in its calculation of the 2022/23 severity. The formula below shows the calculation of the 2022/23 severity:

$$Severity\ 2022/23 = \frac{49{,}957 + 49{,}008 + 49{,}932}{3} \times (1 + 1.97\% + 3.30\%)$$

Please note that MPI selected 3.30% as the inflation rate (rather than 4.20% as mentioned in the question), as it uses the inflation rate from the previous year for indexing purposes. Please see section *Claims Incurred Chapter CI.2.4* for further information.

Figure 2 Weekly Indemnity Ultimate Severity *(updated Claims Incurred Chapter Figure CI-15)*

Line		Average Severity			
No.	Accident Year	$0-$100,000	$100,000-$250,000	$250,000+	$0+
1	2004/05	$6,645	$166,817	$779,091	$27,520
2	2005/06	$7,495	$164,085	$770,965	$33,338
3	2006/07	$7,596	$165,420	$751,214	$39,346
4	2007/08	$7,519	$156,367	$763,560	$39,997
5	2008/09	$8,938	$154,916	$787,228	$43,900
6	2009/10	$8,788	$150,214	$807,517	$42,097
7	2010/11	$9,767	$144,370	$770,989	$51,146
8	2011/12	$9,731	$153,303	$811,467	$50,821
9	2012/13	$9,456	$153,932	$738,179	$44,062
10	2013/14	$9,106	$155,348	$697,050	$41,024
11	2014/15	$9,828	$159,460	$813,958	$46,219
12	2015/16	$9,776	$147,692	$762,853	$49,957
13	2016/17	$9,640	$150,780	$708,801	$53,593
14	2017/18	$9,585	$149,470	$694,488	$49,008
15	2018/19	$9,724	$146,448	$650,474	$44,306
16	2019/20	$9,531	$179,292	$621,490	$49,932
17	2020/21	$19,332	$155,299	$638,488	$59,557
18	2021/22	$27,606	$148,701	$807,648	$48,721
19	Severity Growth	2.16%	-0.24%	-1.13%	
20	Sum of Counts	28,484	611	1,338	
21	Weighted Average Severity Growth	1.97%			

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Part and Chapter:	PART V – CI	Page No.:	27-28 of 95
PUB Approved Issue No:	9. Claims Forecasting		
Topic:	Accident Benefits Other – Indexed		
Sub Topic:	Frequency and Severity Forecast		

Preamble to IR:

MPI states on page 27 of the Claims Incurred chapter that "The 2010-2019 trend was used to forecast claim frequency. A 5% reduction was then applied for WFH."

On page 28, MPI states: "The 2022/23 severity (i.e., average incurred per claim) is based on the 5-year (2015- 2019) average of the ultimate severity indexed to current levels, excluding the highest and lowest year, with severity growth plus indexation applied."

QUESTION:

a) It is not clear which accident years are included in the 2010-2019 trend noted by MPI. Please confirm that 2010-2019 is in reference to accident years 2010/11 – 2019-20.

b) It is not clear whether MPI is fitting linear or exponential regression models to the data presented in Figure CI-14 as we are unable to replicate the results. Please confirm what kind of model is used to project claims frequency. If the model is fit to data that is not presented in Figure CI-14, please provide the data used to project claim counts, or indicate where this data can be found in the filing.

c) We note the 5-year average severity excluding high and low observations between 2015/16 – 2019/20 is $5,792. When we apply MPI's selected growth rate of 2% and indexation of 4.2%, the projected severity for 2022/23 differs from the amount presented in Figure CI-18 ($6,265). Please provide the detailed calculation (including cross references) for the amount in Figure CI-18.

RATIONALE FOR QUESTION:

We were unable to replicate MPI's calculation for the 2022/23 forecasted frequency or severity for accident benefits-other indexed using the data provided in Figure CI-18 and subsequent model description.

RESPONSE:

a) Confirmed, the 2010-2019 trend includes the 2010/11 to 2019/20 accident years.

b) In regard to *Claims Incurred Chapter Figure CI-14*, MPI has provided its response in *CAC (MPI) 1-45(b)*. For *Claims Incurred Chapter Figure CI-18*, MPI used a linear trend to forecast Accident Benefits Other - Indexed claim frequency (claim counts per HTA unit). *Figure 1* below shows *Figure CI-18* with claim frequency instead of claim counts.

Figure 1 Accident Benefits Other – Indexed Ultimate Losses *(updated Claims Incurred Chapter Figure CI-18)*

Line No.	Accident Year	HTA Earned Units	Claim Count Incurred >$0	Claim Frequency per 1,000 HTA Units	Severity	Ultimate ($000)	Annual % Change	Last Year's Forecast ($000)	Variance to Forecast ($000)
1	**2007/08**	736,791	11,889	16.14	$5,868	$69,759	2.99%	$68,795	$964
2	**2008/09**	752,983	11,458	15.22	$4,599	$52,695	-24.46%	$53,321	($626)
3	**2009/10**	764,243	11,033	14.44	$5,503	$60,716	15.22%	$59,661	$1,054
4	**2010/11**	775,557	12,068	15.56	$4,897	$59,093	-2.67%	$60,668	($1,575)
5	**2011/12**	793,813	11,198	14.11	$5,841	$65,408	10.69%	$64,282	$1,127
6	**2012/13**	812,141	12,210	15.03	$4,823	$58,883	-9.98%	$57,775	$1,108
7	**2013/14**	823,518	12,209	14.83	$4,408	$53,815	-8.61%	$52,978	$837
8	**2014/15**	835,178	10,591	12.68	$4,530	$47,980	-10.84%	$48,177	($196)
9	**2015/16**	848,635	11,663	13.74	$5,289	$61,683	28.56%	$64,284	($2,600)
10	**2016/17**	861,942	11,560	13.41	$6,778	$78,356	27.03%	$77,408	$949
11	**2017/18**	874,357	11,876	13.58	$6,001	$71,266	-9.05%	$69,464	$1,802
12	**2018/19**	882,537	11,220	12.71	$4,792	$53,768	-24.55%	$64,937	($11,170)
13	**2019/20**	887,453	9,892	11.15	$6,085	$60,194	11.95%	$61,864	($1,670)
14	**2020/21**	891,738	6,503	7.29	$8,859	$57,613	-4.29%	$46,746	$10,867
15	**2021/22**	918,683	8,918	9.71	$6,705	$59,795	3.79%	$63,021	($3,226)
16	**5-year Trend**	920,310	6,492	6.94	$8,131	$54,798	9.35%	$51,883	
17	**10-year Trend**	924,015	8,195	8.70	$7,614	$62,503	2.82%	$62,867	
18	**All year Trend**	931,098	9,254	9.70	$6,785	$60,742	2.52%	$61,302	
19	**2022/23**	932,897	9,711	10.41	$6,265	$60,835	1.74%	$69,475	($8,640)
20	**2023/24**	942,908	9,489	10.06	$6,653	$63,134	3.78%	$71,882	($8,747)
21	**2024/25**	953,029	9,263	9.72	$6,946	$64,334	1.90%	$74,360	($10,026)
22	**2025/26**	963,262	9,030	9.37	$7,244	$65,411	1.67%	$76,911	($11,499)
23	**2026/27**	973,606	8,791	9.03	$7,534	$66,226	1.25%		

c) The amounts in *Claims Incurred Chapter Figure CI-18* are not indexed to current levels. MPI forecasts severity using the ultimate severity indexed to current levels on page 28 of *Claims Incurred Chapter* *CI.5.1*:

> *The 2022/23 severity (i.e., average incurred per claim) is based on the 5-year (2015-2019) average of the ultimate severity indexed to current levels, excluding the highest and lowest year, with severity growth plus indexation applied.*

Figure CI-19 shows average severity by the loss sizes at current levels and *Figure 2* below shows the overall ultimate severity at current levels, which MPI uses in the calculation of the 2022/23 severity. The formula below provides the calculation of 2022/23 severity:

$$Severity\ 2022/23 = \frac{5{,}557 + 6{,}167 + 6{,}125}{3} \times (1 + 2.00\% + 3.30\%)$$

Please note that MPI selected 3.30% as the inflation rate (rather than 4.20% as mentioned in the question) as it uses the inflation rate of the previous year for indexing purposes. Please see section CI.2.4 for further information.

Figure 2 Accident Benefits Other – Indexed Ultimate Severity *(updated Claims Incurred Chapter Figure CI-19)*

Line		Average Severity			
No.	Accident Year	$0-$100,000	$100,000-$250,000	$250,000+	$0+
1	**2004/05**	$2,188	$159,048	$1,848,693	$5,808
2	**2005/06**	$2,281	$137,000	$1,325,319	$6,053
3	**2006/07**	$2,254	$153,810	$1,293,976	$6,995
4	**2007/08**	$2,227	$146,921	$1,648,838	$6,493
5	**2008/09**	$2,444	$160,644	$1,060,614	$5,166
6	**2009/10**	$2,546	$141,696	$1,228,272	$6,070
7	**2010/11**	$2,557	$150,192	$1,004,070	$5,403
8	**2011/12**	$2,744	$142,068	$1,083,121	$6,323
9	**2012/13**	$2,802	$157,677	$773,449	$5,228
10	**2013/14**	$2,892	$151,949	$860,297	$4,745
11	**2014/15**	$2,952	$158,560	$1,038,761	$4,819
12	**2015/16**	$3,038	$153,338	$880,857	$5,557
13	**2016/17**	$3,053	$138,603	$1,094,578	$7,000
14	**2017/18**	$2,991	$154,346	$1,009,383	$6,167
15	**2018/19**	$2,717	$154,985	$846,333	$4,886
16	**2019/20**	$2,615	$157,312	$1,111,848	$6,125
17	**2020/21**	$3,684	$152,461	$1,967,883	$8,867
18	**2021/22**	$4,770	$153,856	$864,815	$6,705
19	**Severity Growth**	2.01%	0.20%	-3.30%	
20	**Sum of Counts**	182,229	528	436	
21	**Weighted Average Severity Growth**	2.00%			

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Part and Chapter:	**PART V – CI**	**Page No.:**	**32 of 95**
PUB Approved Issue No:	**9. Claims Forecasting**		
Topic:	**Accident Benefits Other – Non-Indexed**		
Sub Topic:	**Severity Forecast**		

Preamble to IR:

On page 32/3398 of the filing, MPI states: "The 2022/23 severity (i.e., average incurred per claim) is based on the 5-year (2015- 2019) average of the ultimate severity indexed to current levels, excluding the highest and lowest year, with severity growth plus indexation applied."

QUESTION:

We note the 5-year average severity excluding high and low observations between 2015/16 – 2019/20 is $22,970. When we apply MPI's selected growth rate of 1.19% and indexation of 4.2%, the projected severity for 2022/23 differs from the amount presented in Figure CI-22 ($23,343). Please provide the detailed calculation (including cross references) for the amount in Figure CI-22.

RATIONALE FOR QUESTION:

We were unable to replicate MPI's calculation for the 2022/23 forecasted severity for accident benefits-other non-indexed using the data provided in Figure CI-22 and subsequent model description.

RESPONSE:

MPI does not index Accident Benefits Other – Non Indexed claims to inflation. It only uses the selected growth rate of 1.19% to grow the severity of claims. Please refer to the following quote from page 32 of *Claims Incurred Chapter CI.6.1*:

> *The 2022/23 severity (i.e., average incurred per claim) is based on the 5-year (2015-2019) average of the ultimate severity indexed to current levels, excluding the highest and lowest year, with severity growth.*

The formula below provides the calculation of 2022/23 severity, which provides a severity of $23,243, as presented in *Claims Incurred Chapter Figure CI-22*:

$$Severity\ 2022/23 = \frac{24{,}144 + 23{,}784 + 20{,}982}{3} \times (1 + 1.19\%)$$

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Part and Chapter:	PART V – CI	Page No.:	48-49 of 95
PUB Approved Issue No:	9. Claims Forecasting		
Topic:	Collision		
Sub Topic:	Severity Forecast		

Preamble to IR:

Question:

a) There appears to be a labeling issue on Figure CI-39, as there are two 2021/22 accident projections included in the figure. Please confirm that the value in line 14 should read 2022/23, and subsequent lines should increment by one year.

b) We observe the implied severity growth between lines 14 and line 10 of Figure CI-39 equals 3.99% (4,663 / 4,484 - 1), which does not reconcile to the stated growth amount on Figure CI-38 (4.11%). Please provide the detailed calculation (including cross references) for the amount on line 14 in Figure CI-39.

RATIONALE FOR QUESTION:

We were unable to replicate MPI's calculation for the 2022/23 forecasted severity for using the data provided and subsequent model description.

RESPONSE:

a) Confirmed, line 14 should read 2022/23, followed by 2023/24, etc. Please see *Figure 1* below for a revised version of Figure CI-39.

Figure 1 Collision Ultimate Incurred *(revised Claims Incurred Figure CI-39)*

Line No.	Accident Year	Claim Frequency	Severity	Ultimate ($000)	Annual % Change	Last Year's Forecast ($000)	Variance to Forecast ($000)
1	**2012/13**	0.138	$2,809	$315,845	16.36%	$315,840	$6
2	**2013/14**	0.143	$2,982	$350,417	10.95%	$350,405	$12
3	**2014/15**	0.119	$3,168	$313,842	-10.44%	$313,814	$28
4	**2015/16**	0.121	$3,474	$355,332	13.22%	$355,302	$30
5	**2016/17**	0.126	$3,579	$387,483	9.05%	$387,341	$142
6	**2017/18**	0.124	$3,771	$408,978	5.55%	$408,891	$86
7	**2018/19**	0.121	$3,835	$409,487	0.12%	$409,529	($42)
8	**2019/20**	0.113	$4,066	$407,611	-0.46%	$407,821	($210)
9	**2020/21**	0.084	$4,215	$317,472	-22.11%	$319,704	($2,232)
10	**2021/22**	0.102	$4,484	$420,009	32.30%	$427,362	($7,353)
11	**5-year Trend**	0.085	$4,616	$371,725	12.46%	$378,796	
12	**10-year Trend**	0.094	$4,621	$413,970	2.76%	$417,703	
13	**All year Trend**	0.101	$4,572	$432,610	4.31%	$435,492	
14	**2022/23**	0.108	$4,663	$470,713	12.07%	$467,867	$2,846
15	**2023/24**	0.107	$4,933	$497,471	5.68%	$490,136	$7,335
16	**2024/25**	0.106	$5,220	$525,734	5.68%	$513,398	$12,336
17	**2025/26**	0.104	$5,524	$555,586	5.68%	$537,521	$18,065
18	**2026/27**	0.103	$5,846	$587,115	5.67%		

b) In *Figure CI-39*, historical years (line 1 through line 10) ultimates are from the March 2022 Appointed Actuary Report. However, these ultimates do not have a split between repair and total loss. For the purposes of claim forecasting, MPI calculates ultimate frequency, severity and incurred by repair and total loss, as shown in *Figure CI-33*, *Figure CI-34*, *Figure CI-35*, *Figure CI-37*. MPI uses these ultimates to select trends and to forecast. Generally, the two methods will produce similar totals. In this case the differences are minor, the selected severity growth of 4.11% for 2022/23 is the growth over the 2021/22 severity of $4,479 shown in *Figure CI-37*.

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Part and Chapter:	PART V – CI	Page No.:	76 of 95
PUB Approved Issue No:	9. Claims Forecasting		
Topic:	Comprehensive		
Sub Topic:	Frequency and Severity Forecast		

Preamble to IR:

Question:

Please provide the detailed calculation (including cross references) for the projected frequency and severity amounts in Figure CI-66.

RATIONALE FOR QUESTION:

We are unable to replicate MPI's aggregation of claim frequency and severity for comprehensive sub-coverages using the data provided.

RESPONSE:

Calculations are shown below:

Figure 1 Comprehensive Claim Counts

Line No.	Accident Year	Theft Claim Count	Vandalism Claim Count	Rodents Claim Count	Hail Claim Count	Glass Claim Count	Other Claim Count	Total Claim Count
1	**2022/2023**	4,459	7,385	2,017	5,489	32,013	6,577	57,939
2	**2023/2024**	4,507	7,464	2,038	5,489	33,165	6,648	59,311
3	**2024/2025**	4,556	7,544	2,060	5,489	34,359	6,719	60,727
4	**2025/2026**	4,605	7,625	2,082	5,489	35,596	6,791	62,188
5	**2026/2027**	4,654	7,707	2,105	5,489	36,878	6,864	63,696

Figure 2 Comprehensive Frequency

Line No.	Accident Year	Claim Count	Earned Units	Frequency
1	**2022/2023**	57939	932897	0.0621
2	**2023/2024**	59311	942908	0.0629
3	**2024/2025**	60727	953029	0.0637
4	**2025/2026**	62188	963262	0.0646
5	**2026/2027**	63696	973606	0.0654

Figure 3 Comprehensive Ultimate Incurred

Line No.	Accident Year	Theft Incurred	Vandalism Incurred	Rodents Incurred	Hail Incurred	Glass Incurred	Other Incurred	Total Incurred
1	***($000)***							
2	**2022/2023**	$21,310	$13,778	$3,568	$19,157	$11,839	$24,699	$94,351
3	**2023/2024**	$22,056	$14,409	$3,698	$19,838	$13,001	$25,935	$98,937
4	**2024/2025**	$22,827	$15,067	$3,832	$20,543	$14,277	$27,235	$103,781
5	**2025/2026**	$23,625	$15,755	$3,972	$21,271	$15,679	$28,600	$108,902
6	**2026/2027**	$24,451	$16,473	$4,117	$22,023	$17,218	$30,036	$114,318

Figure 4 Comprehensive Severity

Line No.	Accident Year	Incurred	Claim Count	Severity
1	**2022/2023**	$94,351,391	57939	$1,628
2	**2023/2024**	$98,936,995	59311	$1,668
3	**2024/2025**	$103,781,335	60727	$1,709
4	**2025/2026**	$108,901,967	62188	$1,751
5	**2026/2027**	$114,317,839	63696	$1,795

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Part and Chapter:	**PART V – CI**	**Page No.:**	**82 of 95**
PUB Approved Issue No:	**9. Claims Forecasting**		
Topic:	**Property Damage**		
Sub Topic:	**Frequency and Severity Forecast**		

Preamble to IR:

Question:

Please provide the detailed calculation (including cross references) for the projected frequency and severity amounts in Figure CI-71.

RATIONALE FOR QUESTION:

We are unable to replicate MPI's aggregation of claim frequency and severity for the three coverage categories: third party deductible transfer, third party loss of use, and other property damage.

RESPONSE:

Calculations are shown below:

Figure 1 Property Damage Claim Counts

Line No.	Accident Year	3rd Party Deductible Claim Count	3th Party Loss of Use Claim Count	Other Claim Count	Total Claim Count
1	**2022/2023**	31,787	16,600	2,694	51,081
2	**2023/2024**	31,195	16,300	2,701	50,196
3	**2024/2025**	30,586	15,991	2,666	49,244
4	**2025/2026**	29,961	15,674	2,630	48,265
5	**2026/2027**	29,319	15,349	2,593	47,261

Figure 2 Property Damage Frequency

Line No.	Accident Year	Claim Count	Earned Units	Frequency
1	**2022/2023**	51081	932897	0.0548
2	**2023/2024**	50196	942908	0.0532
3	**2024/2025**	49244	953029	0.0517
4	**2025/2026**	48265	963262	0.0501
5	**2026/2027**	47261	973606	0.0485

Figure 3 Property Damage Ultimate Incurred

Line No.	Accident Year	3rd Party Deductible Incurred	3th Party Loss of Use Incurred	Other Incurred	Total Incurred
1	***($000)***				
2	**2022/2023**	$25,447	$7,384	$16,146	$48,977
3	**2023/2024**	$25,035	$7,377	$16,760	$49,172
4	**2024/2025**	$24,608	$7,364	$17,122	$49,094
5	**2025/2026**	$24,165	$7,344	$17,482	$48,992
6	**2026/2027**	$23,707	$7,318	$17,839	$48,863

Figure 4 Property Damage Severity

Line No.	Accident Year	Incurred	Claim Count	Severity
1	**2022/2023**	$48,977,185	51081	$959
2	**2023/2024**	$49,172,024	50196	$980
3	**2024/2025**	$49,094,091	49244	$997
4	**2025/2026**	$48,991,610	48265	$1,015
5	**2026/2027**	$48,862,893	47261	$1,034

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Part and Chapter:	**PART V – CI**	**Page No.:**	**10 of 95**
PUB Approved Issue No:	**9. Claims Forecasting**		
Topic:	**Claims Incurred**		
Sub Topic:	**Dependency on AAR**		

Preamble to IR:

MPI uses the March 2022 appointed actuary report (EAR Attachment B- Actuary Report March 2022) for development, discounting and PfAD assumptions.

QUESTION:

a) As guided by Section 1510.01 of the CIA Standards of Practice, in the context of this rate application, please confirm whether the MPI actuary is taking responsibility for the assumptions of the Appointed Actuary.

b) If so, please provide a narrative explaining whether MPI is concerned that development factors and other assumptions from an analysis of policy liabilities may not be appropriate for ratemaking.

RATIONALE FOR QUESTION:

To confirm MPI's consideration of CIA Standards on "Actuary's use of another person's work."

RESPONSE:

a) The Appointed Actuary report is completed by the MPI Valuation Team. The external Appointed Actuary reviews and discusses all material changes with the Chief Actuary of MPI and with the Director, Valuation and Capital Management.

While the Appointed Actuary is ultimately responsible for the valuation assumptions, the MPI actuarial team agrees with all of the assumptions.

b) MPI is not concerned because development factors and other assumptions in the Appointed Actuary report are appropriate for ratemaking.

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Part and Chapter:	PART VII – EAR	Page No.:	5
PUB Approved Issue No:	9. Claims Forecasting		
Topic:	EAR.2 Favourable runoff for Basic for FY2021/22		
Sub Topic:			

Preamble to IR:

On page 5 of Part VII – External Actuary Review, MPI states:

> *"For the Weekly Indemnity coverage, which is indexed, the prior year development in the FY2021/22 was favourable on an overall basis. The reason for this was because claimants are returning to work faster than in previous years."*

Question:

a) Please provide a narrative discussion highlighting the reasons or causes claimants are returning to work faster than in previous years.

b) If MPI has a "Return to Work" policy or guideline document please file a copy. If MPI does not have such a policy or guideline document please provide a narrative discussion on the process MPI uses to manage the return to work process.

Rationale for Question:

To assess and better understand the impact of return to work processes and the impact on claims incurred.

RESPONSE:

a) The improved return to work outcomes are a result of several strategies implemented by MPI over the last five years focusing on active supportive case management. The intent of this multi-faceted approach is to ensure that case managers have sufficient training, job-aids and formal multi-disciplinary claim reviews to appropriately support claimants in their return to work. These supports ensure that case managers work with claimants in consideration of their individual circumstances, considering their functional and vocational capabilities.

Incremental adjustments over time designed to centralize support functions created capacity, which allowed case managers to focus their attention on active case management. With slightly reduced caseloads, case managers have more time to spend working with claimants to best ensure a successful return to work.

Additionally, the COVID-19 Pandemic allowed some claimants to return to work from home as opposed to from the office. For some, this option ultimately expedited their return to work. However, isolating the impact of changing work environments on the observed reduction in overall disability durations is challenging, as there may often be multiple factors influencing this metric.

b) Please see the following documents, which are key guidelines for managing return to work claims:

- *Attachment A*: Case Management Guidelines
- *Attachment B*: Active Case Management Framework

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Case Management Guideline
Income Replacement Indemnity

Description	Purpose	Recommended Timeline
Step 1: Review Claim Initiate / Update Rehab Plan		
Actions: • Review to establish origin • Review CARS file (notes and pics of auto damage 1st and T/P) • Review side, frontal, rear impact • Review CARS loss details • Prove four elements of PIPP • Review BI3 (FNOL, supplement, intake form) • Review prior claim history **Resources:** • Experienced peer, senior case manager, IMC • Coverage interpretation – Claims Coverage Committee	• Review new/existing claim/transfer return • Determine mechanism of injury • Determine coverage confirmation • Verify consistent injury description • Determine injury life cycle • Collect rehab history	1 to 3 days
Step 2: Contact Claimant Initiate Conversation		

Actions:
• Discuss current injuries
• Explain cases manager role
• Discuss prior injury (what rehab worked in the past)
• Discuss pre-existing conditions
• Determine if injuries impact functional abilities
• Determine specific tasks that can be completed (home, rec, leisure, work)
• Maintain Contact employer
• Clarify work/job demands
• Verify intake information – outstanding forms
• Set expectations:
  ○ Return to work
  ○ Rehab/ treatment
  ○ Vocational
• Explain hurt vs harm
• Explain Section 160
• Explain Section 149
• Explain Section 150
• Explain Section 110
	• Ensure understanding
	• Identify/explain/obligations
	• Understand that certain conditions may add level of complexity
	• Understand that certain conditions may prolong recovery
	• Understand abilities at home in comparison to work
	• Establish baseline pre-existing
	• Establish what they can do and build on that
	• Ensure employer and employee on same page
	• Inform claimant that primary goal is to facilitate function/ RTW
	• Control pain to permit function Improvement/RTW
	• Engage employer to facilitate return to work
	• Gain reassurance and support
	• Outline MPI's compliance requirement
	• Inform claimant of importance of notifying changes in activities
		1 to 3 days

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Case Management Guideline
Income Replacement Indemnity

<table>
<tr><td colspan="3">Contact Employer</td></tr>
<tr><td>Actions:
Determine best point of contact RTW
Determine whether there's a Collective Agreement
Confirm essential duties and demands
Request copy of written job description
Request permission to do job demand analysis (if required)
Determine whether employer is open to work site visit
Determine whether employer is open to team meeting
Review workplace accommodation
Determine if gradual return to work is available
Determine if modified duties are available
Determine if there are potential barriers to RTW
Request employer opinion/overview of employee
Determine if employer talked to the claimant
Determine if employer requires their own medical forms
Determine if employer has a policy regarding return to work</td><td>Speak to union involvement/representation
Verify information shared by claimant
Modify/tailor treatment/rehab program/plan
Facilitate jobs with variety/more physically demanding tasks
Ensure employer understand their requirements
Determine absenteeism, attitude, job performance
Support positive working relationship
Gain appropriate authorizations to exchange info
Determine whether claimant needs medical verification</td><td>FNOL
1 to 7 days

Assignment
1 to 5 days</td></tr>
<tr><td colspan="3">Step 3: Review Medical</td></tr>
<tr><td>Actions:
Confirm compensable injuries
Request ambulance, emergency records (if required)
Request any missing reports or charts from involved care providers
Call treatment provider PT, AT, chiro: explain requirements, explain potential barriers
Discuss capacity, risk, and tolerance
Verify injuries and injuries being treated
Request MHSC history (if required)
Complete HCS compensable injury/TBI review
Determine advance PI consideration
Review pre-screening score for HCS follow-up</td><td>Determine if there is a clear, concise diagnosis
Ensure full understanding of injuries e.g., TBI, PI
Ensure understanding of work requirements - send job description</td><td>CM Framework
RED LINE
Opt - 90 Days
Opt - 180 Days
1 Yr Post DOL
18 Mo Post DOL
Relapse 60 Days
Annual Review</td></tr>
</table>

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Case Management Guideline
Income Replacement Indemnity

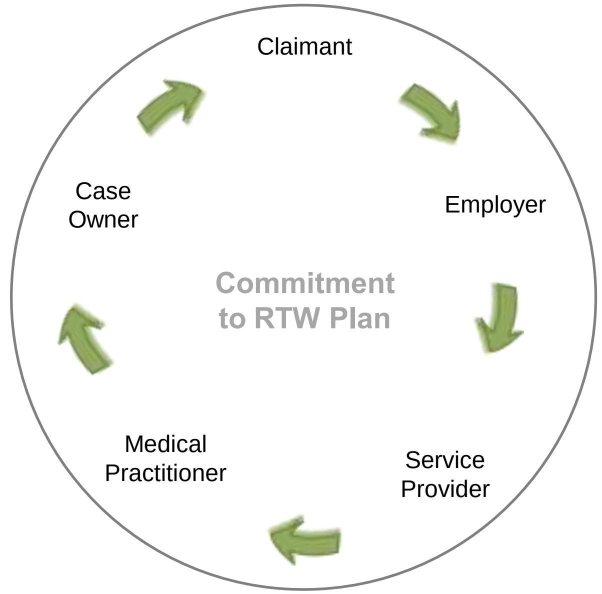
Step 4: Evaluate / Rehab Plan

Actions: • Complete outstanding documentation, including authorization forms • Ensure care provider(s) received job description/demands • Consider red flags and SIU involvement • Compare/contrast injuries to work • Determine work accommodation capacity/willingness • Complete work assessment/job demands analysis • Complete OT assessment • Complete red flag investigation • Send copy of JDA/work description to all care providers • Request any outstanding/updated medicals • Document timelines for next steps aligning with short/long objectives • Update claimant, rehab team and, as needed, the employer	• Consider Section 160 • Determine if level of recovery consistent with level of function • Recognize first consideration for increasing function is RTW • Understand job physical demands • Modify job, equipment recommendations to facilitate return • Support level of function • Understand rehab team job requirements	**Check Points** 1 Yr Post DOL 18 Mo Post DOL 2 Yr Post DOL 3 Yr Post DOL 5 Yr Post DOL **Milestones** 180 Day Det RCD CPPD

Step 5: Follow Up / Evaluate

Actions: • Update medical tab • Attend rap session with SIU • Attend rap session with HCS • Request level of function form • Follow up on short term objectives • Determine if the diagnosis has changed (consider compensable letter update) • Determine if the prognosis changed • Review rehab plan/GRTW/RTW date • Determine work capacity bench mark • Determine if we need to consider a new course of rehab • Complete red flag investigation • Determine rehab program combination • Determine Section 160 compliance • Decision point - whose support is required to modify the existing rehab plan i.e., IMC/AM • Update claimant, rehab team and, as needed, the employer	• Determine RTW capacity, tolerance, risk, SIU, long term case management consideration • Determine if short term steps were achieved • Determine investigation requirement • Determine rehab team consideration • Determine if rehab goal changed i.e. 180 determination/RCD • Determine if function increased • Understand first consideration for increasing function is work accommodation • Support level of function • Consider rehab/employer combination	**Check Points** 1 Yr Post DOL 18 Mo Post DOL 2 Yr Post DOL 3 Yr Post DOL 5 Yr Post DOL **Milestones** 180 Day Det RCD CPPD

Active Case Management Framework – Post Optimum



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Active Case Management Validation Equation

Opt	Opt + 14 Days	If newly assigned	45 Days Post-Opt	180 Days	1 Year	18 Months	2 Years

Opt
- If necessary, assign to case owner

Opt + 14 Days
- Contact with Claimant
- Review Client Goals
- Request Updated Medical Info
- Engage Employer (if required)
- Update Rehab Plan Phase 2

If newly assigned
- Visit with Claimant
- If required, Visit Employer
- May be Combined Meeting
- Share RTW Plan with Care Provider

45 Days Post-Opt
- Red Line – Opt + 45 Days
  Collaboration Meeting

180 Days
- Red Line – Opt + 180 Days
  IMC Review

1 Year
- Red Line – 1 Year Post DOL
  Collaboration Meeting

18 Months
- Red Line – 18 Months post-DOL
  IMC Review

2 Years
- IMC Review for Reduction

CAC (MPI) 1-53

Part and Chapter:	Part VII – RSR	Page No.:	6 of 24
PUB Approved Issue No:	18. Capital Management Plan		
Topic:	RSR target rage and rebating process		
Sub Topic:			

Preamble to IR:

On page 6, Part VII, Rate Stabilization Reserve MPI's Application states:

> *"In this case, MPI submits that the Reserves Regulation requires MPI to set the bottom of the RSR range at 100% MCT. Maintaining the balance of the RSR at an amount that is below 100% MCT is contrary to the Reserves Regulation and does not resolve the volatility issue raised above. On the opposite end, MPI submits the top of the range be at a percentage of the MCT, or similar risk model as established by the Office of the Superintendent of Financial Institutions (OSFI), equal to 120%. The upper level represents the minimum amount for a rebate to make economic and operational sense to customers and MPI respectively, while balancing stability and predictability. The threshold of 120% has also been established to ensure rebate cheques are remitted to customers in denominations of approximately $100 or more. The determination for a rebate would be based on the actual year end audited MCT (2022/23), and subject to the forecast MCT remaining above 100% after the proposed rebate. MPI would apply to the PUB (by application only, no hearing) to rebate to customers an amount that would bring the RSR back to 100% MCT."*

Question:

a) Please provide a copy of OSFI's model/guideline establishing the upper MCT limit equal to 120%.

b) Please provide a narrative discussion on the benefits of not issuing rebates for amounts less than $100. In this discussion please highlight the merits of providing a credit on the customer's account vs. issuing physical cheques.

c) Please elaborate on the process envisioned by MPI of a PUB rebate application without a hearing.

Rationale for Question:

To clarify and better understand the proposed RSR target range and the support for the MCT target range.

RESPONSE:

a) MPI did not purport to possess an OSFI model/guideline which establishes an upper MCT limit equal to 120% but rather, adopt a risk model in line with OSFI recommendations. Joe Cheng, the external Appointed Actuary for MPI, and his team, completed an Internal Capital Target review to assist MPI in establishing an appropriate upper threshold MCT target for its RSR, with the objective of securing a sufficient surplus to ensure, within a one-year testing period, that the RSR would have a less than:

   i. 10% chance of dropping below 50% MCT;
   ii. 5% chance of dropping below 25% MCT;
   iii. 1% chance of dropping below 0% MCT; and
   iv. 0.5% chance of dropping below $1.

   The result of that review was a finding that a reasonable upper threshold for the RSR is 120% MCT. Please see *Attachment A MPI Operating Target Report signed Confidential,* for a copy of the review completed by Joe Cheng, which MPI claims is confidential and will file with the PUB pursuant to the approved confidential process.

b) As demonstrated in prior rate applications, issuing rebate cheques requires significant internal resources and effort across MPI as well as external expenses related to cheque stock and postage. As such, MPI believes that the total rebate to policyholders and average customer rebate should be large enough to justify the required expenditures and to reduce the likelihood of ratepayers receiving more frequent but smaller rebates. MPI estimates that an average per customer rebate of $100 not only satisfies these requirements but would also be viewed by customers as an amount that is meaningful.

The merits and drawbacks of providing a credit on the customer's account vs. issuing physical cheques are listed below:

Merits (of credit vs cheque):

- Reduction of vendor costs due to lower volume. This will result in lower per unit costs for processing and:
    - lower cheque costs due to fewer physical cheques required
    - less stock paper needed for the cover letter from the vendor
    - saves on the price of postage of mailed cheques
- Potential for a modest amount of reduction in turnaround time from the vendor
    - The vendor can print up to 25,000 cheques per day
    - A reduction of 38,000 cheques should translate to about 2 days less time for the vendor to produce the cheques. The actual time savings may be less as they can batch more than 25,000 cheques for induction to Canada Post on a single day so the printing compression may not reduce the induction rate to Canada Post significantly.
- Potential reductions in cheque reconciliation effort
    - Fewer cheques that the Finance/Banking Dept would need to track for cashing
    - Potentially fewer cheques returned (due to incorrect mailing address, rejection by bank, etc.)
- Allows for a focus on higher value cheques

Drawbacks (of credit vs cheque):

- Customers having arrears on their account would not be guaranteed to receive their credit (some or all of it may be applied against arrears) whereas customers receiving a cheque do so regardless of arrears. The premium rebate process cuts a cheque once the minimum cheque amount threshold has been satisfied and does not factor in arrears at that point.
- Customers receiving a credit may have to wait for up to almost a year to apply the credit in a worst-case scenario (i.e., renews policy just before the premium rebate batch run and then has no upcoming business until the next annual renewal).
- Potential for more customer calls to the Contact Centre if they do not receive a cheque (even after receiving the non-cheque letter):
    - may ask about their credit - especially if they have arrears
    - may inquire why they didn't receive a cheque when they were at $101
    - may ask about how the credit can be used
- Customers can request their refund cheque forcing undue pressure on operations
    - Current operation printers are not scaled for this volume as typically daily volume of printed cheques is estimated at 200-250 and would pose a challenge to printing cycles
    - Print reconciliation and operational processes would not scale well to increased volume loads

c) Please see the response of MPI to information request *PUB (MPI) 1-76(a)*.

Attachment A:
Operating MCT Target Report

This material is the subject of a confidential motion.

CAC (MPI) 1-54

Part and Chapter:	Part VII – RSR	Page No.:	10 of 24
PUB Approved Issue No:	18. Capital Management Plan		
Topic:	Own Risk Solvency Assessment (ORSA)		
Sub Topic:			

Preamble to IR:

On page 10, Part VII – Rate Stabilization Reserve MPI states:

- *"Federally regulated P&C insurers are also required to establish an internal target based on their own risk profile and maintain on-going capital above that target.* ***The internal target is determined through Own Risk Solvency Assessment (ORSA).*** *The expectation is that internal target is higher than the supervisory target.*

- ***MPI does not currently have an ORSA process****, so the Financial Condition Test (FCT) was used to support MPI's target ratio of 100%.* ***Using the FCT is not ideal since*** *the purpose of the FCT is about understanding the impact of select adverse scenarios on the company's capital and how management actions can lessen those effects. While the FCT can provide insight into MPI's capital requirements and certain risks,* ***it does not assess the risk associated with the purpose of the RSR. The ORSA is better suited for this purpose."*** (emphasis added)

Question:

Please provide a narrative discussion on the merits of using ORSA to determine MPI's risk profile with respect to establishing the RSR MCT target range specific to MPI basic insurance.

Rationale for Question:

RESPONSE:

The OSFI MCT calibrates risk factors so that a target ratio of 150% MCT generally ensures that insurers at this ratio have a 99% conditional tail expectation (CTE) over a one year time horizon. However, insurers with risk profiles that differ from the industry as a whole may not be at a 99% CTE over a one year time horizon at this MCT ratio. While all insurers face similar risks (i.e., reserving, pricing, market, credit, operational) individual insurers may have higher or lower risk profiles in each of these areas, depending on their unique attributes. MPI differs from many OSFI regulated insurers as MPI does not have the same geographical or product diversification. ORSA permits individual insurers to determine what MCT ratio target is most appropriate for them.

MPI does not have a full ORSA review but recently completed an internal target review through its external Appointed Actuary. Please refer to *CAC (MPI) 1- 53(a)* for further information.

CAC (MPI) 1-55

Part and Chapter:	Part VII – RMF	Page No.:	7 of 10
PUB Approved Issue No:	14. Risk Assessment and Risk Management		
Topic:	Risk Appetite re Policy Liabilities Runoff		
Sub Topic:			

Preamble to IR:

On page 7, Part VII – Risk Management Framework MPI states:

> *"Low appetite for inaccurate estimation of policy liabilities with unfavourable Personal Injury Protection Plan runoff of no more than +/- 1.5%, which represents approximately +/- $27M."*

Question:

Please provide a narrative discussion highlighting the process or procedures MPI has in place mitigating this risk and ensuring the PIPP runoff is managed to +/- 1.5% in an environment with run-away inflation and rising interest rates.

Rationale for Question:

To review processes or procedures MPI has in place containing (mitigating) Personal Injury Protection Plan (PIPP) unfavourable policy liability runoffs and thus maintain stable basic insurance rates.

RESPONSE:

Historically, the unpaid claims liability of MPI included an assumption that future PIPP indexation would be 2% for all future years. However, with the increase in inflation, MPI no longer believes a flat 2% assumption to be reasonable. To reflect the higher inflationary environment, MPI relied on the average forecast of three major banks and incorporated them into its March 31, 2022 valuation. The projected factors used in the unpaid claim liabilities as of March 31, 2022 were: 3.3% for 2023, 4.2% for 2024, 2.4% for 2025, 2.3% for 2025 and 2.0% for 2027 and beyond. MPI monitors these factors every quarter and, going forward, will regularly reflect them in its financials.

CAC (MPI) 1-57

Part and Chapter:	**PART VII – RSR**	**Page No.:**	**12 of 24**
PUB Approved Issue No:	**18. Capital Management Plan**		
Topic:	**Capital Management Plan**		
Sub Topic:	**Capital Rebates**		

Preamble to IR:

Question:

Please provide an explanation of the consideration, if any, MPI has given to the following potential negative consequences of capital rebates:

a) Issuing a capital rebate to all policyholders ignores the subsidization that currently exists between DSR levels. Specifically, the relatively superior experience of insureds at higher DSR levels produced the excess profits resulting the capital release. However, this is not considered in the rebate; and

b) The expected per customer cost associated with administering a capital rebate.

RATIONALE FOR QUESTION:

To inform assessment of MPI's proposal to rebate policyholders if capital exceeds 120% of MCT.

RESPONSE:

a) The capital rebate is calculated as a percentage of the premium after the DSR is applied but before the capital release is applied. There is currently no consideration given to varying the percentage based on the adequacy of individual risk due to the operational complexity. The subsidization of the DSR needs to be addressed within the DSR scale and not through capital rebate or release.

b) The last round of rebate cheques had an associated cost of $900,000. As MPI issued 680,381 cheques, the cost per cheque was approximately $1.43. If MPI employs a similar system to administer future rebates, it expects the per-customer cost to roughly equal this amount, as cheque stock and mailing costs are the primary expenses associated with administering rebates.

In the future, MPI will explore alternate methods, as system technology allows, such as Electronic Fund Transfers (EFTs), to reduce overall administration costs.

CAC (MPI) 1-58

Part and Chapter:	PART VII – RSR	Page No.:	19 of 24
PUB Approved Issue No:	18. Capital Management Plan		
Topic:	Capital Management Plan		
Sub Topic:	Capital Rebates		

Preamble to IR:

MPI's proposed capital management plan requires a capital transfer from the Extension line of business to the Basic line of business if the extension MCT ratio is greater than 200%. The following table, per 19 of 24 of the RSR chapter, presents MPI's projected MCT ratio by line before and after the capital transfer.

Line	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27
Pre-Transfer						
Basic	95.2%	108.1%	99.8%	96.3%	94.8%	91.5%
Extension	201.4%	200.0%	281.4%	364.6%	461.9%	558.0%
Post-Transfer						
Basic	95.2%	108.1%	108.5%	114.6%	**124.2%**	**133.8%**
Extension	201.4%	200.0%	200.0%	200.0%	200.0%	200.0%
Post Rebate						
Basic	95.2%	108.1%	108.5%	114.6%	**100.0%**	**109.9%**

As shown in the table, MPI expects a rebate to occur in the 2025/26 fiscal year. We note this rebate is the result of significant capital transfers from the extension line to the basic line.

Question:

Please provide a narrative explaining why, in MPI's view, the Extension policyholder should subsidize the Basic policyholder as proposed in the Capital Management Plan.

RATIONALE FOR QUESTION:

To inform assessment of the Capital Management Plan.

RESPONSE:

Providing Basic is the primary reason for MPI's existence. MPI has maintained in past GRAs that Basic should be a self-sustaining line of business. Basic should not be dependent upon Extension; however, when Extension generates excess capital, MPI believes that Basic should benefit. MPI is of the view that the transfer of excess capital in its Extension line of business to its Basic line of business is appropriate because profits from Extension exist in large part from the existence of Basic. Customers purchase Extension products to enhance their compulsory Basic product, meaning all Extension customers are Basic customers. Further, approximately 72% of Basic customers purchase an Extension product, meaning the majority of Basic customers are also Extension customers.

In addition, Extension is a competitive line of business and MPI has discretion over the use of any excess capital. The Capital Management Plan (CMP) sets out a plan for the principled and transparent exercise of that discretion. Without the CMP, other than transferring excess Extension capital to Basic, MPI could transfer capital to its DVA or SRE lines of business, or it could simply leave the money in Extension. Under the CMP, MPI retains discretion over the use of excess Extension capital prior to the end of the fiscal year. If DVA or SRE require financial assistance, the CMP continues to allow MPI to assist these lines of business if necessary. Otherwise, MPI will transfer the funds to the Basic RSR – to build any shortfall below 100% MCT or to build it to an amount exceeding 120% MCT, thereby triggering a rebate application.

Excess Extension capital are funds not required by the Extension line of business. If other lines of business require these funds, MPI will use them for those purposes; however, if all lines of business are operating as designed MPI believes these excess funds should be returned to Basic ratepayers via the CMP's rebate provisions.

CAC (MPI) 1-59

Part and Chapter:	PART VII – INV PART VII – INV Appendix 1	Page No.:	82 of 85 21 of 22
PUB Approved Issue No:	7, 20		
Topic:	ALM Study		
Sub Topic:	Risk Tolerance		

Preamble to IR:

The Investment Policy Statement (IPS) states at Section 11.2 that the IPS shall be reviewed at least annually. The same section explains that non-annual reviews (which presumably would be more frequent) could be caused by the following reasons, which include "a significant shift in the financial risk tolerance of the Corporation":

a fundamental change in the business of the Corporation;

significant revisions to the expected long-term trade-off between risk and reward on key asset classes;

a major change in liabilities;

a significant shift in the financial risk tolerance of the Corporation;

shortcomings of the Statement that emerge in its practical application, or substantive modifications that are recommended to the Committee by an investment counsel;

applicable change in legislation.

MPI notes on page 82 of 85 (INV) that the IPS "was last updated in May 2021." MPI explains further that:

No changes have been made to the IPS since May 2021. It is expected that changes to the IPS will be made once the 2022 ALM study is finalized and the final asset allocations for each portfolio are approved by the BoD.

Question:

a) Please provide a timeline regarding the BoD's decisions regarding final asset allocations for each portfolio.

b) Has MPI's risk tolerance changed materially since MPI approved its current allocations to various asset classes, or is it substantially the same?

    i. If MPI's risk tolerance has changed since MPI last approved its asset allocations, please explain how it has changed and why it has changed.

Rationale for Question:

MPI's asset allocation is a key determinate of return/risk tradeoffs, and is informed by MPI's risk tolerance.

RESPONSE:

a) MPI expects to recommend new asset mixes for all five portfolios to its Investment Committee on November 10, 2022. Ideally the recommended mixes will be approved at this meeting, however if there are questions and concerns that require additional work a new recommendation may have to be prepared and presented to the committee at their subsequent meeting in early February.

b) The risk tolerance of MPI remains substantially the same as it was when it approved its current asset allocations.

CAC (MPI) 1-60

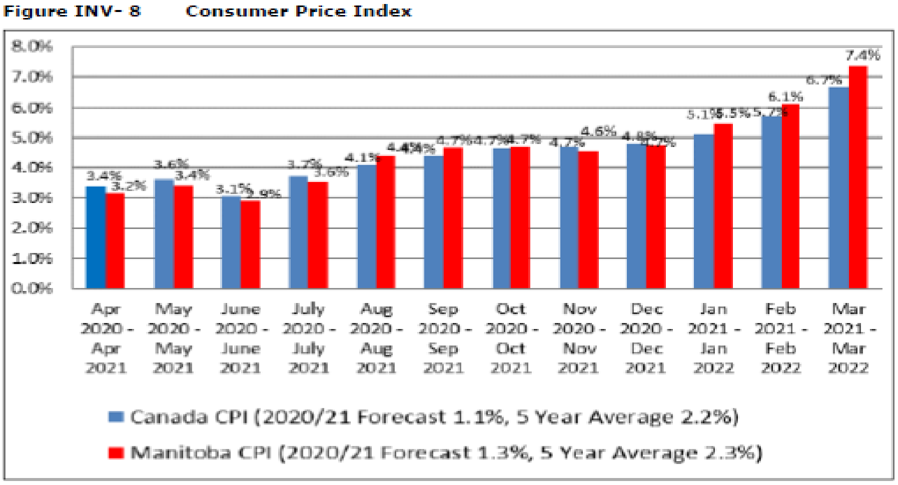
Part and Chapter:	**PART VII – INV** **PART VII – RMF Appendix 3**	**Page No.:**	**17-18 of 85** **1 of 1**
PUB Approved Issue No:	**7, 20**		
Topic:	**ALM Study**		
Sub Topic:	**MPI's Inflation Risk Assessment and Assumptions in ALM Study**		

Preamble to IR:

The inflation volatility assumption in the ALM study ordered by the PUB in Directives 11.19 and 11.20 of Order 134/21 (the "current" ALM Study) has not changed since the previous ALM Study (i.e., 2.6% standard deviation). However, the inflation environment has changed considerably since the last ALM Study was conducted. Also, MPI's residual risk rating related to inflation is high (i.e., high residual likelihood and medium residual impact).

Pages 17 and 18 of the Investments chapter note that "Canadian average annual CPI increased from 2.2% at March 31, 2021 to 6.7% at March 31, 2022" and include Figure INV-8, below.

Figure INV- 8 Consumer Price Index



Appendix 3 to the Risk Management Framework chapter presents MPI's residual risk ratings, with inflation ranked #6:

July 12, 2022 **2023 GENERAL RATE APPLICATION**
Part VII - RMF Appendix 3

Rank #	Risk Name	Risk Description	Residual Likelihood	Residual Impact	Residual Risk Rating
1	Inability to Attract and Retain Talent	Inability to attract and retain the top talent for key roles	5 - Almost Certain	5- Critical	Critical
2	Cyber events	The risk of the organization's systems being compromised by a cyber attack	3 - Possible	5- Critical	High
3	Inadequate Capability	Inadequate skills, leading to low productivity, limited ability to execute	4 - Likely	4- High	High
4	Inadequate Capacity	Inadequate capacity planning and recruitment, leading to low productivity, limited ability to execute	4 - Likely	4- High	High
5	Inadequate Compensation	Compensation schemes failing to incentivize optimal employee behaviour	4 - Likely	5- Critical	Critical
6	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 - Likely	3- Medium	High

Question:

a) Please confirm that the inflation assumptions used in the previous ALM Study (included in 2019 GRA) were: 2.0% average and 2.6% standard deviation.

b) Please confirm that the inflation assumptions used in the current ALM Study are the same as those used in the previous ALM Study: i.e., 2.0% average and 2.6% standard deviation.

c) Who determined the inflation assumptions to be used in the current ALM Study?

   i. Mercer?
   ii. MPI?
   iii. Mercer, with input from MPI? or
   iv. Other?

d) Please provide a narrative explaining the decision to use the 2% average and 2.6% standard deviation inflation assumptions in the current ALM study.

e) In Mercer's recent experience conducting ALM studies in Canada amid the current inflation environment (i.e., since January 2022), **approximately** what proportion of these studies are:

  i. Using the **same assumptions** for inflation that Mercer had commonly used in Canadian ALM Studies prior to 2021;

  ii. Using **more conservative** assumptions (e.g., higher average inflation and/or higher inflation volatility); and

  iii. Using **less conservative** assumptions (e.g., lower average inflation and/or lower inflation volatility).

Rationale for Question:

Inflation is an important consideration in the ALM Study, given the inflation-sensitivity of certain liabilities, so the assumptions related to the inflation level (expected average rate) and volatility (standard deviation) are important inputs in the ALM Study.

RESPONSE:

a) Inflation assumption used in the previous ALM Study (included in the 2019 GRA) was 2.0% average and 2.6% standard deviation.

b) Inflation assumption used in the current ALM Study are the same as those used in the previous ALM Study: 2.0% average and 2.6% standard deviation.

c) Mercer developed the assumption. MPI approved the assumption.

d) While MPI acknowledges that recent realized inflation is well above 2%, the consensus is that these elevated levels of inflation are temporary and should only persist for the next 2-3 years. Furthermore, the Bank of Canada re-affirmed its long-term inflation control target at 2%. Given that Mercer develops its assumptions with a long-term view (i.e., 10-20 years) and that consensus of long-term Canadian inflation expectations remains at 2%, MPI elected to maintain its 2% inflation assumption.

Mercer bases its assumptions for standard deviation on a combination of historical data as well as its professional judgement. This assumption may appear high relative to actual inflation over the last 30 years (since the Bank of Canada introduced its inflation-control target program). However, the Mercer assumptions are forward looking, long-term in nature (i.e., 20+ years) and reflect that there may be periods in the future where the inflation-control program may not be as successful, resulting in higher than expected inflation.

e) Per Mercer:

i. About 90% used the **same assumptions** for inflation that Mercer commonly used in Canadian ALM Studies prior to 2021;

ii. Of the remaining 10%, there is no clear reference point to advice as to whether the changes were typically more or less conservative. In current circumstances, the suspicion is that, of the remaining 10%, more increased their inflation assumption.

CAC (MPI) 1-61

Part and Chapter:	**PART I – OV** **PART VII – INV Attachment C**	**Page No.:**	**3 of 13** **31 of 33**
PUB Approved Issue No:	**7, 20**		
Topic:	**ALM Study**		
Sub Topic:	**Capital Market Assumptions**		

Preamble to IR:

On page 3 of the Overview chapter, MPI writes:

> *"thus far, the early years of this entire decade are proving to be uncertain. And there are no signs that it will return to some degree of certainty in the near future".*

While the median 10 year **return** assumptions, which have been updated since the last ALM Study. However, **standard deviations** ("volatilities") appear to be unchanged – except for real estate. These assumptions have been summarized by CAC below, where the 2023 GRA assumptions are as at Dec 31, 2021 and the 2019 GRA assumptions are from the 2019 GRA.

	Asset Class	2023 GRA		2019 GRA		Increase (Decrease)	
		Median 10 Year Return	Standard Deviation	Median 10 Year Return	Standard Deviation	Median 10 Year Return	Standard Deviation
1	Treasury Bills	0.9%	1.5%	1.4%	1.5%	-0.5%	0.0%
2	Real return bonds	1.7%	7.5%	2.7%	7.5%	-1.0%	0.0%
3	Provincial short-term bonds	1.9%	3.5%	2.3%	3.5%	-0.4%	0.0%
4	Provincial mid-term bonds	2.2%	6.5%	2.8%	6.5%	-0.6%	0.0%
5	Provincial long-term bonds	2.3%	8.5%	3.0%	8.5%	-0.7%	0.0%
6	Corporate short-term bonds	2.5%	3.5%	2.8%	3.5%	-0.3%	0.0%
7	Corporate mid-term bonds	3.0%	6.5%	3.5%	6.5%	-0.5%	0.0%
8	Corporate long-term bonds	3.3%	8.5%	3.8%	8.5%	-0.5%	0.0%
9	Canadian equity (large cap.)	5.7%	19.5%	6.7%	19.5%	-1.0%	0.0%
10	Global equity (large cap.)	5.7%	16.1%	6.7%	16.1%	-1.0%	0.0%
11	Global low vol equity	5.2%	13.0%	6.1%	13.0%	-0.9%	0.0%
12	Canadian equity (small cap.)	6.2%	21.5%	#N/A	#N/A		
13	Global equity (small cap.)	6.2%	17.6%	#N/A	#N/A		
14	Emerging equity	7.3%	25.0%	8.7%	25.0%	-1.4%	0.0%
15	Infrastructure	5.9%	13.0%	6.2%	13.0%	-0.3%	0.0%
16	Core real estate	5.9%	16.1%	5.4%	13.0%	0.5%	3.1%
17	Commercial mortgages	3.3%	3.5%	2.7%	3.5%	0.6%	0.0%
18	Private debt non-investment grade	6.0%	14.5%	#N/A	#N/A		
19	Multi-asset credit	3.3%	7.9%	#N/A	#N/A		

"Direct Infrastructure" was used in 2019 GRA (not "Infrastructure", as used in 2023 GRA).
"Real Estate" was used in 2019 GRA (not "Core Real Estate", as used in 2023 GRA).

Source: Part VII – INV Attachment C page 31 of 33 (2023 GRA) and INV Appendix 13, page 1643 of 8764, of the 2019 GRA.

As noted on page 31 of Attachment C to the Investments chapter, Mercer reviewed December 31, 2021 capital market assumptions against March 31, 2022 in light of the market volatility. Mercer also noted the following:

1) "the results of the Asset Liability Study are sensitive to the Capital Market Assumptions used";

2) "Given the significant volatility from December 31, 2021 to March 31, 2022, we have undertaken a review to consider the impact in the change of assumptions across these two dates";

3) "On a quarterly basis, Mercer updates the expected returns for each asset class"; and

4) "The standard deviation of returns and the correlations across pairs of asset classes are updated on an annual basis".

Below is a summary of the changes, per Mercer, between Dec 31, 2021 and Mar 31, 2022 (INV Attachment C page 31):

		Median 10 Year Return		
	Asset Class	December 31 2021	March 31 2022	Change
1	Treasury Bills	0.9%	1.2%	0.4%
2	Real return bonds	1.7%	3.0%	1.2%
3	Provincial short-term bonds	1.9%	2.8%	0.9%
4	Provincial mid-term bonds	2.2%	3.4%	1.2%
5	Provincial long-term bonds	2.3%	3.5%	1.2%
6	Corporate short-term bonds	2.5%	3.7%	1.2%
7	Corporate mid-term bonds	3.0%	4.5%	1.5%
8	Corporate long-term bonds	3.3%	4.5%	1.2%
9	Canadian equity (large cap.)	5.7%	6.1%	0.4%
10	Global equity (large cap.)	5.7%	6.1%	0.4%
11	Global low vol equity	5.2%	5.6%	0.4%
12	Canadian equity (small cap.)	6.2%	6.5%	0.4%
13	Global equity (small cap.)	6.2%	6.6%	0.4%
14	Emerging equity	7.3%	7.6%	0.3%
15	Infrastructure	5.9%	6.3%	0.4%
16	Core real estate (30% leverage)	5.9%	6.3%	0.4%
17	Commercial mortgages	3.3%	4.1%	0.9%
18	Private debt non-investment grade	6.0%	6.5%	0.4%
19	Multi-asset credit	3.3%	4.2%	1.0%

Source: Mercer's Canadian long-term capital market assumptions (December 31, 2021 and March 31, 2022). Expected return represents expected return over the next 10 years.

Custom asset classes:
3x Long Provincial Bonds = 300% Provincial long-term bonds plus -200% Treasury Bills less leverage cost of 0.5%
3x Real Return Bonds = 300% Real return bonds plus -200% Treasury Bills less leverage cost of 0.5%
Non-Marketable Bonds = 21% Provincial short-term bonds plus 27% Provincial mid-term bonds plus 52% Provincial long-term bonds
Private Debt IG (Universe) = 46% Corporate short-term bonds plus 24% Corporate mid-term bonds plus 30% Corporate long-term bonds plus 0.75% illiquidity premium
Private Debt IG (Long) = 100% Overall long-term bonds plus 0.5% illiquidity premium
All Country World Equity = 85% Global equity (large cap.) plus 15% Emerging equity

Question:

a) Who developed the capital market assumptions used in the 2022 ALM Study i.e., median 10 year returns expected, standard deviations, and correlation)?

   i. Mercer;
   ii. MPI;
   iii. Mercer, with input from MPI; or
   iv. Other?

b) Please confirm that the characteristics of these two asset classes for real estate are comparable between the current ALM Study and the previous ALM Study:

   i. Core Real Estate (defined in current Study); and
   ii. Real Estate (defined in previous Study).

Please also provide a narrative describing the differences, if any, between these two asset classes.

Please confirm that the volatility assumptions that changed, relative to the prior ALM Study, are as follows. (If you disagree, please provide a narrative explanation.)

iii. Except for real estate, the standard deviations remained the same.
iv. Core real estate's standard deviation in the current ALM Study is 16.1%, while in the previous ALM Study, the standard deviation for real estate was 13.0% (i.e., 3.1% lower).

c) Why were the standard deviations of return assumptions not updated in the 2022 ALM study relative to the 2017 ALM Study for the different asset classes (except for real estate), noting that Mercer stated on page 31 of INV Attachment C that it updates standard deviations on an annual basis?

d) Please confirm that only the Median 10 Year Return assumptions were changed between December 31, 2021 and March 31, 2022. (i.e., standard deviation assumptions were not changed).

e) Please explain why the median 10 year return assumptions for commercial mortgages and real estate increased, compared to the 2017 ALM Study, while the return assumptions for all other asset classes decreased.

f) Which assumptions will be used to support MPI's decisions regarding its asset mix?

   i. Dec 31, 2021; or
   ii. Mar 31, 2022?

Rationale for Question:

As noted by Mercer (INV Attachment C page 31), the results of the Asset Liability Study are sensitive to the Capital Market Assumptions used.

RESPONSE:

a) Mercer developed the assumption. MPI approved it.

b)

i. and ii.

At the time of the previous ALM Study, Mercer had one Real Estate asset class assumption. Since then, Mercer developed multiple Real Estate asset classes to align with the different approaches to managing Real Estate more closely (e.g., Core Real Estate, Value Add Real Estate, Opportunistic Real Estate).

While not exact, Core Real Estate is most comparable to the Real Estate assumption used in the prior ALM Study. It contemplates Canadian Real Estate (direct investment rather than REITs) with a modest amount of leverage and uses a core approach meaning a significant majority of assets are incomeproducing properties where the manager has no plans to improve the property (i.e., value add properties) although a small portion of the portfolio can be attributed to value add properties.

iii. Confirmed that, except for real estate, the standard deviation assumptions are the same as the last ALM Study.

iv. Since the prior ALM Study, Mercer developed multiple Real Estate asset classes based on risk profiles of commonly available real estate fund managers (e.g., Core Real Estate, Value Add Real Estate, Opportunistic Real Estate). The sole Real Estate assumption in the prior study did not specifically contemplate any particular style of real estate. The difference in the standard deviation assumption should not be interpreted as a change to the prior assumption, as Real Estate and Core Real Estate are not the exact same asset class, but rather just reflects the expanded assumption set of Mercer within specific Real Estate asset class styles.

c) Standard deviation assumptions are **reviewed** annually, but not necessarily **updated/changed**. Given that Mercer assumptions are long-term in nature, it does not expect to change these assumptions regularly, unless there is a fundamental change in the risk profile of an asset class.

d) Confirmed that only the median 10-year return assumptions were changed from December 31, 2021 to March 31, 2022.

e) As mentioned above, the Real Estate used in the prior study and the Core Real Estate asset classes used in this study are not directly comparable, so the difference in return assumptions should not be interpreted as a direct change. As for the other asset classes, with the exception of commercial mortgages, they have decreased due to:

- Decrease in provincial/corporate bond yields, which is a key driver of future expected returns for fixed income.

- Higher equity valuations, which Mercer deems to be above the “fair value” range in their model and effectively assumes a future correction that will suppress returns so that valuations are more in line with “fair value” range.

- Alternative asset class (real estate, infrastructure) expected returns are based on a risk-factor model, with equity risk premium being a key factor. The lower expected equity returns, described above, flow through to the risk factor model and drag the return assumption down for alternative asset classes.

- As for commercial mortgages, that asset class is derived in reference to short-term federal bonds plus a spread. The yield on short-term federal bonds has actually increased compared to the prior study.

f) Mercer based its analysis entirely on December 31, 2021 assumptions and MPI will use this to support its decisions. However, Mercer did perform some comparative analysis using March 31, 2022, and confirmed that the resulting asset mix recommendations would not be materially different.

CAC (MPI) 1-62

Part and Chapter:	PART VII- INV Attachment C	Page No.:	31 of 33
PUB Approved Issue No:	7, 20		
Topic:	ALM Study		
Sub Topic:	Efficient Frontiers		

Preamble to IR:

On page 31 of INV Attachment C, Mercer said:

> *The results of the Asset Liability Study are sensitive to the Capital Market Assumptions used …*
>
> *In all portfolios, a vertical shift in the efficient frontier was observed between December 31, 2021 and March 31, 2022. The analysed mixes from the December 31, 2021 frontier, also plotted on the efficient frontier using March 31, 2022 assumptions. Therefore the comparison confirms that analysed mixes continue to be optimal based on the March 31, 2022 assumptions, despite the material movement in the market over the first quarter of 2022.*

Question:

a) Please explain how the analysed mixes continue to be optimal "despite the material movement in the market over the first quarter of 2022", as noted by Mercer?

b) To what extent did constraints "anchor" the results of the optimization between these two sets of assumptions? i.e., Did previously optimal portfolios (from the Dec 2021 analyis) remain optimal due to "binding" constraints in the Mar 2022 analysis?

Rationale for Question:

To better understand Mercer's findings, and to determine the potential effect of constraints on the results of ALM Study optimizations.

RESPONSE:

a) The analyzed mixes remain optimal in the sense that they continue to be on (or close) to their efficient frontiers, even when updating the assumption set to March 31, 2022. While the expected return assumptions for the individual asset classes changed materially between December 31, 2021 and March 31, 2022, the increased returns occurred generally across the board and so the **relative** returns of the various asset class did not change significantly.

b) While Mercer only performed the formal cost of constraints analysis using the December 31, 2021 assumption set, there is no expectation that the constraints had any impact on the previously optimized portfolios, as the relative returns of the various asset classes did not significantly change.

CAC (MPI) 1-63

Part and Chapter:	PART VII – INV Attachment C	Page No.:	31 of 33
PUB Approved Issue No:	7, 20		
Topic:	ALM Study		
Sub Topic:	Liability Benchmark Portfolio		

Preamble to IR:

The **2019** GRA shows the following Liability Benchmark Portfolios ("LBP", also called Minimum Risk Portfolios), using a "nominal" and "real" assumption for the Basic and Pension analyses.

The Minimum Risk Portfolios are shown in the figure below:

Figure 1: Minimum Risk Portfolios

Line No.	Asset Classes	Basic (Nominal)	Basic (Real)	Pension (Nominal)	Pension (Real)
1	Treasury Bills		26.0%	-17.0%	-11.0%
2	Short-Term Provincial Bonds	28.0%	8.0%		
3	Mid-Term Provincial Bonds	18.0%			
4	Long-Term Provincial Bonds	54.0%			30.0%
5	Long-Term Corporate Bonds			117.0%	
6	Real Return Bonds		66.0%		81.0%

Source: 2019 GRA, INV Appendix 17 (page 1744 of 8764)

The table below compares the composition of the current (2023 GRA) LBP to the previous LBP (Real). The third column shows the increase (decrease) in the composition of the LBPs.

Asset Class	Basic (Real)			Pension (Real)		
	2023 GRA	2019 GRA	Inc (Dec)	2023 GRA	2019 GRA	Inc (Dec)
Treasury Bills	6.0%	26.0%	-20.1%	0.0%	-11.0%	11.0%
Provincial short-term bonds	34.5%	8.0%	26.5%	0.0%	0.0%	0.0%
Provincial mid-term bonds	1.9%	0.0%	1.9%	0.0%	0.0%	0.0%
Long Bonds	0.0%	0.0%	0.0%	42.0%	0.0%	42.0%
Provincial long-term bonds	0.0%	0.0%	0.0%	0.0%	30.0%	-30.0%
Strip 20+ Bonds	0.0%	0.0%	0.0%	12.0%	0.0%	12.0%
Real return bonds	57.7%	66.0%	-8.3%	46.0%	81.0%	-35.0%
	100.0%	100.0%	0.0%	100.0%	100.0%	0.0%

2023 GRA uses the EFB Status Quo for the Pension (Real)

For example, it appears that the current LBP (2023 GRA) for Basic has:

- ~ 27% more Provincial Short-term Bonds;
- ~ 20% less Treasury Bills; and
- ~ 8% less Real Return Bonds (RRBs).

It also appears that the Pension Plan has:

- ~ 24% more Nominal Bonds (Long Bonds, Provincial Long-term Bonds, and Strip 20+ Bonds);
- ~ 11% more Treasury Bills; and
- ~ 35% less RRBs.

Question:

a) Please explain how, and why, the **composition** of the LBP changed since the last ALM Study, where the "real" (not "nominal") definition for the LBP is used in the previous Study?

b) How did the **volatility (standard deviation)** of the LBP change since the last ALM Study? In particular:

i. What is the volatility of the **current** LBP for:

a. Basic (Total, including short and long-term)?; and
b. Pensions (Status Quo, not Prefunded)?

ii. What was the volatility* of the **previous** LBP (Real) for:

a. Basic (Total, including short and long-term)?; and
b. Pensions (Status Quo, not Prefunded)?

c) How did the duration of the LBP change since the last ALM Study? In particular:

i. What is the duration of the **current** LBP for:

a. Basic (Total, including short and long-term)?
b. Pensions (Status Quo, not Prefunded)?

ii. What was the duration* of the **previous** LBP (Real) for:

a. Basic (Total, including short and long-term)?
b. Pensions (Status Quo, not Prefunded)?

* Note for calculating volatilities and durations for the previous LBP:
Mercer's asset class volatility assumptions appear to be the same in the current and previous ALM Study (e.g., 7.5% standard deviation for RRBs); however, the correlation matrix appears to have been updated. In calculating the volatility of the **previous** LBP, the volatility and correlation assumptions used in the **current** ALM Study should be applied.

Rationale for Question:

The optimal portfolios (along the efficient frontier) are very sensitive to the selection of the LBP. Understanding how the LBP’s composition changed, from one ALM Study to the next Study, is important. Any material changes in the LBP composition should be transparent and reasonable, given the purpose of the ALM Study.

RESPONSE:

a) Mercer constructed the liability benchmark portfolios (LBPs) based on liability durations provided by MPI. Furthermore, durations of market indices (e.g., FTSE Provincial Short-Term Index, etc.) form the basis for the LBPs. The change in the liability durations and changes to the durations of the market indices fully explain any changes to the LBPs between the prior Asset and Liability Management (ALM) Study and this study.

b) One of the objectives of the ALM Study is to develop an optimal asset mix policy in light of the liability characteristics, if applicable. The goal is not to create an asset mix with the lowest absolute volatility (in isolation, volatility is not a key consideration). LBP represents the investment portfolio that will match as close as possible the movement of the liabilities. The volatility of the LBP itself is not relevant.

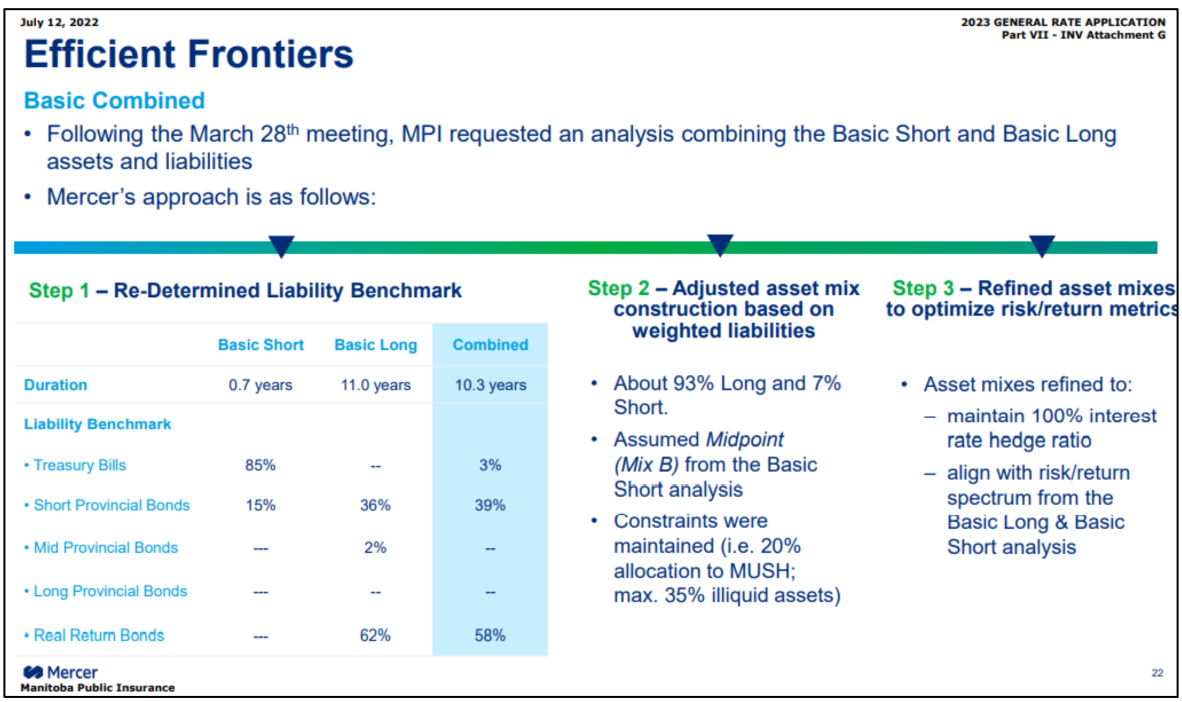
c) MPI did not focus on this issue. The key change from the last ALM Study is that, in this study, MPI looked to manage both real and nominal liabilities, whereas the previous ALM study did not focus on real liabilities. The current LBP, which aims to match changes in both real and nominal liabilities, is the only driver of the selection of the asset mix policy, which was not the case last time.

CAC (MPI) 1-64

Part and Chapter:	**PART VII – INV Attachment D**	**Page No.:**	**22**
PUB Approved Issue No:	**20**		
Topic:	**ALM Study**		
Sub Topic:	**Basic "Combined" Return/Risk Graph**		

Preamble to IR:

Page 22 of Attachment D to the Investments chapter of the GRA states that MPI requested that Mercer provide an analysis combining the Basic Short and Basic Long assets and liabilities (below).



Mercer provided a table of "Basic Combined", but Mercer did not provide the graph showing return/risk tradeoffs.

Question:

Please provide the graph showing return/risk tradeoffs for "Basic Combined".

Rationale for Question:

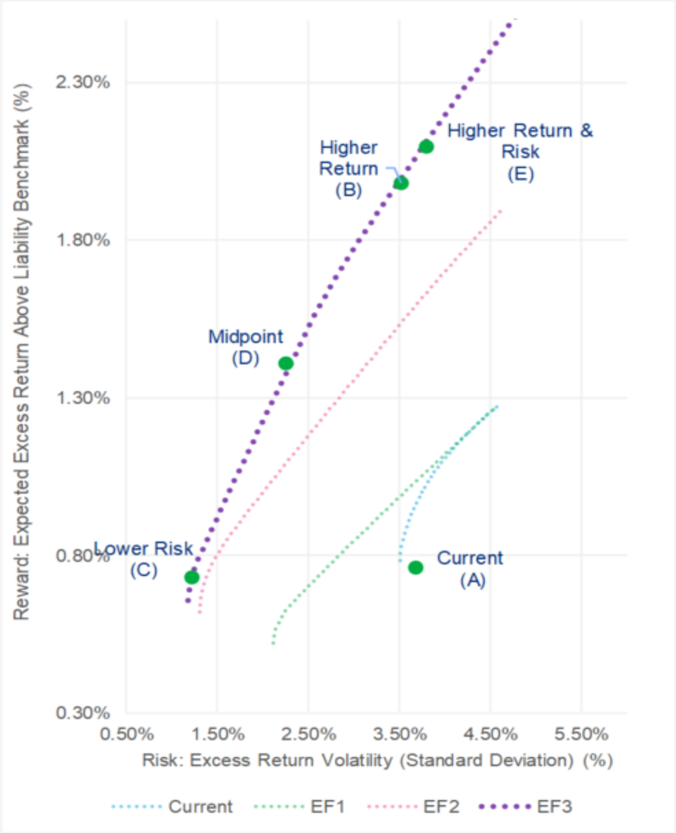
A visual representation of return/risk tradeoffs will facilitate comparisons across different assumptions and constraints.

RESPONSE:

Please see *Appendix 1 – Efficient Frontiers Minimally Constrained* for return/risk tradeoffs for "Basic Combined" efficient frontiers.

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.

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Part and Chapter:	PART VII – INV Attachment A PART VII – INV Attachment C	Page No.:	16 of 34 16 of 33
PUB Approved Issue No:	20		
Topic:	ALM Study		
Sub Topic:	Interest Rate Risk Management and Duration Constraint		

Preamble to IR:

One of the requirements for the ALM Study, as stated on page 16 of Attachment A to the Investments chapter, is to quantify the cost of all constraints placed upon the Study. Page 16 of Attachment C to the Investments chapter says that one of the constraints imposed in the ALM Study is that a 100% interest rate hedge ratio be applied for Basic.

Question:

Please show the impact of imposing the 100% interest rate hedge ratio for Basic at different levels of risk. i.e., Please show the table and graphs (efficient frontiers and other return/risk points) “with” and “without” the constraint.

Rationale for Question:

As noted by CAC in previous years, certain constraints may have a material cost (e.g., lower return at a given level of risk), so understanding the rationale for any potentially costly constraints is important.

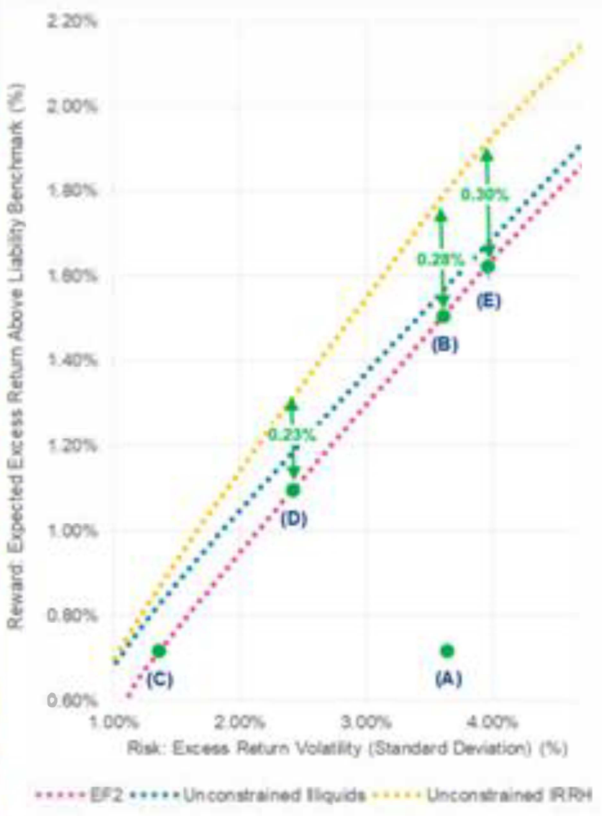
RESPONSE:

Please see *Appendix 1 – Efficient Frontiers Basic Long* for cost of constraints analysis vs. illiquid and Interest Rate Risk Hedge (IRRH) Constraints.

Efficient Frontiers – Basic Long

Cost of Constraint Analysis vs. EF2: Illiquid and IRRH Constraints

	Liability Benchmark	Current (A)	Higher Return (B)	Lower Risk (C)	Midpoint (D)	Higher Return & Risk (E)
Fixed Income	100%	100%	85%	85%	85%	85%
3x Real Return Bonds	---	---	---	---	---	---
Real return bonds	62%	---	20%	46%	34%	16%
3x Long Provincial Bonds	---	---	---	---	---	---
Provincial short-term bonds	36%	---	---	---	---	---
Provincial mid-term bonds	2%	33%	1%	5%	3%	---
Provincial long-term bonds	---	27%	---	---	---	---
Corporate mid-term bonds	---	9%	8%	14%	11%	7%
Corporate long-term bonds	---	11%	36%	---	17%	42%
MUSH Bonds	---	20%	20%	20%	20%	20%
Public Equities	--	--	--	--	--	--
Canadian equity (large cap.)	---	---	---	---	---	---
All Country World Equity	---	---	---	---	---	---
Alternatives	--	--	15%	15%	15%	15%
Commercial mortgages	---	---	1%	9%	5%	---
Core Canadian Real Estate	---	---	14%	6%	10%	15%
Return Metrics						
Median return - 10 year	1.85%	2.48%	3.31%	2.55%	2.92%	3.42%
Risk Metrics						
Expected excess return - 10 year		0.72%	1.50%	0.72%	1.09%	1.62%
Surplus volatility		3.65%	3.62%	1.36%	2.43%	3.97%
Information Ratio (Excess Return/Risk)		0.20	0.42	0.52	0.45	0.41
5% Value at Risk		124.0 M	133.5 M	62.8 M	95.8 M	144.4 M
Other Metrics						
Minimum Capital Required		15.6 M	92.5 M	53.9 M	72.4 M	98.2 M
Interest Rate Metrics						
Duration	10.9	11.1	10.9	10.9	10.9	11.0
Hedge Ratio	100%	101%	100%	100%	100%	100%



Cost of constraint analysis:

- Building on the removal of illiquidity constraints, removing the 100% interest rate hedge ratio constraint further shifts the efficient frontier ("Unconstrained IRRH") upwards
- The impact is minimal at lower risk mixes, such as Mix C
- For higher risk mixes, such as Mix E, the impact is an increase in expected return of approximately 30bps for the same level of risk (compared to the minimally constrained EF2)

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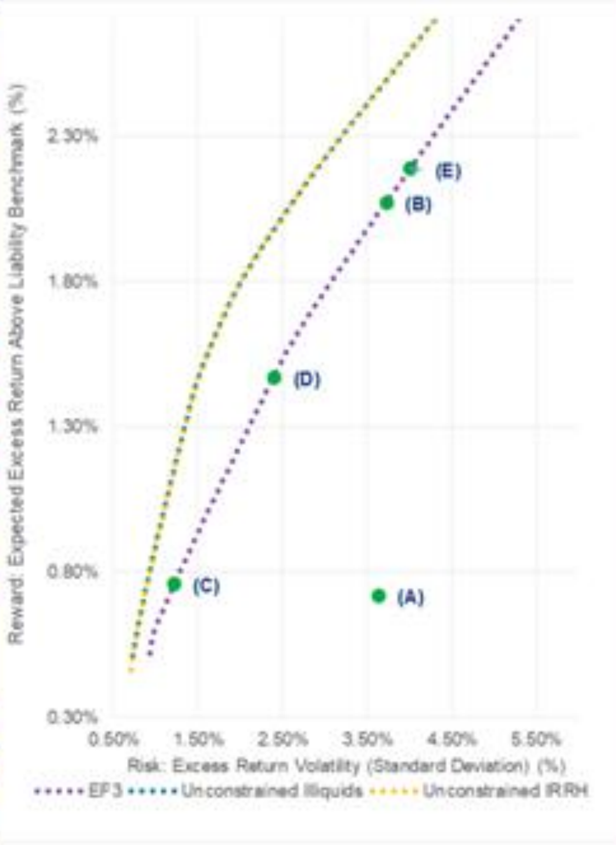
Efficient Frontiers – Basic Long

Cost of Constraint Analysis vs. EF3: Illiquid and IRRH Constraints

	Liability Benchmark	Current (A)	Higher Return (B)	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%
Risk Metrics						
Expected excess return - 10 year		0.72%	2.07%	0.76%	1.47%	2.19%
Surplus volatility		3.65%	3.73%	1.22%	2.41%	4.01%
Information Ratio (Excess Return/Risk)		0.20	0.55	0.62	0.61	0.54
5% Value at Risk		124.0 M	122.4 M	52.9 M	74.7 M	132.1 M
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%



Cost of constraint analysis:

- Building on the removal of illiquidity constraints, removing the 100% interest rate hedge ratio constraint ("Unconstrained IRRH") has virtually no additional improvement in expected return at the level of risk that is being considered.
  - Levered bonds are favoured by the analysis at lower risk mixes even if the constraint is removed, demonstrating their capital-efficient approach to hedging risk

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Part and Chapter:	**PART VII – INV** **PART VII – INV Attachment H** **PART I - OV**	**Page No.:**	**55-56 of 85** **10** **5-6 of 13**
PUB Approved Issue No:	**7, 20**		
Topic:	**ALM Study**		
Sub Topic:	**Defined Benefit Pension Plan Funding**		

Preamble to IR:

Pages 55-56 of the Investments chapter says:

> *The BoD approved Management to engage Government to seek a change of the funding status from payment funding to pre-funding under the Civil Service Superannuation Act (CSSA). MPI is currently working with the relevant stakeholders within Government to seek the appropriate authorizations and if approved, the change would be expected to take place in fiscal 2023/24.*
>
> *The primary motivation for seeking this change is the reduction of financial statement volatility.*
>
> *… depending on market rates and conditions at time of a potential transition, there may be an accounting gain (or loss) that will impact the total equity position of MPI (and Basic). Because the going concern yield assumption is currently higher than the accounting discount rate, a gain would be anticipated upon implementation of this change. Based upon 2021/22 year-end values this gain is estimated to be approximately $150 million. This amount is subject to change based upon interest rate movements leading up to the settlement transaction and the final actuarial determination of the amount required to settle and transfer to the CSSF.*

Page 10 of Attachment H to the Investments chapter shows the impact of the change on the Liability Benchmark Portfolio ("EFB") as follows:

- Duration would fall by almost 4 years, from 17.4 to 13.6; and
- RRB component would fall 28%, from 46% to 18%.

July 12, 2022 2023 GENERAL RATE APPLICATION
Part VII - INV Attachment H

Interest Rate Risk

Liability Benchmark

- In order to model liabilities, we develop a fixed income portfolio that reproduces the fluctuations of the liabilities (called the Liability Benchmark)
- Based on information provided by Manitoba Public Insurance, the duration and the liability benchmark portfolios are summarized below:

	EXT	SRE	EFB Status Quo	EFB Pre-Funded
Duration	1.3 years	2.5 years	17.4 years	13.6 years
Liability Benchmark				
• Treasury Bills	62%	16%	---	---
• Short Provincial Bonds	38%	84%	---	---
• Overall Universe Bonds	---	---	---	34%
• Overall Long Bonds	---	---	42%	48%
• Strip 20+ Bonds	---	---	12%	---
• Real Return Bonds	---	---	46%	18%

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Manitoba Public Insurance 10

Pages 5-6 of Part I – OV.2 ("The Transformation") lists MPI's three pillars of prudent fiscal management (below):

1. appropriate premiums based upon Accepted Actuarial Practice (AAP);
2. effective and efficient operations; and
3. adequate capital reserves.

MPI also states here that:

- "MPI must maintain financial strength and stability to achieve its Mission Statement. It achieves this by applying industry best practices to the three pillars of prudent fiscal management."

- "The principles guiding the five-year ambition … are:
  - Customer experience drives improvements
  - Improvements must make financial sense
  - Create a culture of continuous improvement through empowerment and automation
  - Be a fast follower of industry best practices and trends
  - Actively engage stakeholders along the way."

Question:

a) Please provide a narrative describing the nature and implications of the change that MPI is seeking with regards to the pension plan (i.e., "from payment funding" to "pre-funding").

b) What would the consequences of the change be, from payment funding to pre-funding, in terms of key financial metrics. These metrics would include, but not necessarily be limited to:

i. Pension payments (e.g., timing, amount, and nature – such as inflation-sensitivity);
ii. Contributions from MPI (e.g., timing and amount);
iii. Assets under management; and
iv. Liability Benchmark Portfolio composition.

c) Please show how the $150 million accounting gain was calculated (e.g., by disclosing the interest rates (base(s)) and levels used in the calculation, along with parameters for other variable(s) in the calculation).

d) MPI indicated that its primary motivation for seeking this change is the reduction of financial statement volatility.

i. Are there any secondary or additional motivations, from MPI's perspective?
ii. How are other stakeholders (e.g., employees) likely to react if the change is made?

iii. What impact or consequence might arise from any reaction(s) noted above?

e) Is this change considered to be consistent with an industry trend?

f) Is this change considered to be consistent with an industry best practice?

g) Please explain how the change makes financial sense and why it would be prudent for MPI to implement.

h) Have employees been engaged as MPI has developed this proposed change from "payment funding" to "pre-funding" the pension plan? If so, please provide the results of all employee engagement.

i) Is there any update on the status of discussions with Government stakeholders about the proposed change to the funding of the pension plan?

RESPONSE:

a) MPI offers staff a defined benefit pension plan, participating under the Civil Service Superannuation Act (CSSA). At present, MPI contributes to the Civil Service Superannuation Fund (CSSF) using the "pay-as-you-go" method of funding (payment funding). Under this method, MPI makes no advance funding payments (for the employer share of the cost of pensions) to the CSSF. Each month, MPI makes payments to the CSSF to reimburse the CSSF for its (employer) portion of each pension payment issued to retired employees. Because MPI makes no advance payment for its future obligation, it carries a pension liability on its balance sheet and therefore established a specific investment portfolio for the purposes of funding this future obligation. There are two funding methods available to participating employers in the plan; 1) payment funding and 2) pre-funding. Payment funding requires the employer to pay only its monthly share of payments made to pensioners drawing their pension, whereas pre-funding requires the employer to pay for their current *and* future obligations. As a result, payment funding employers must place a liability for future pension obligations on their balance sheets, while pre-funding employers do not.

b) The CSSA requires employees to contribute 8.0% of pensionable earnings up to the Canada Pension Plan (CPP) maximum pensionable earnings and 9.0% of pensionable earnings above that maximum. The pre-funding employer contribution rate is 0.9% less than the employee contribution rate on pensionable earnings up to the CPP maximum pensionable earnings and is the same as the employee contribution rate on Pensionable Earnings above that maximum. Under the CSSA, payment funding employers defer contributing their share of employee pension benefits until they are billed for 50% of the benefit payments processed.

As indicated, because payment funding employers defer contributing their share of employee pension benefits, they must carry a pension liability on their balance sheet while pre-funding employers carry no future obligation beyond making their contributions and therefore have no need to carry a financial liability on their balance sheet.

If MPI were to switch its funding status (i.e., from payment funding to pre-funding), the result would be a material reduction of its Employee Future Benefits (EFB) liability, in terms of amount and duration. As the EFB liability also contains amounts related to severance benefits and post-retirement benefits, the liability would continue, however at approximately one-fifth of its current amount.

For the Liability Benchmark Portfolio composition please see *Investments INV Attachment C – Mercer Report Final Pre-Selection of Asset Mixes Phase 2*. Section 9 of the report shows the liability benchmarks.

c) The following provides a rough calculation of the estimated $150 million accounting gain, which extrapolates on a previous calculation:

- Carrying Value Liability (June 2021) $475.9M
- Estimated Retained Carrying Value (June 2021).......................... $28.0M

  (for high earners considered off-side for CRA purposes and not eligible for transfer into the CSSF)
- Liability removed from the books $447.9M
- Required transfer to the CSSF $233.2M
- Gain on Transition $214.6M

  (difference between CSSF transfer and reduction in carrying amount of liability)
- Update carrying value at March 2022 compared to June 2021 .... -$52.8M

  (i.e, $423.1 - $475.9)
- Estimated Gain (using March 2022 values) $161.8M
- **Round down to nearest 50 million $150.0M***

* *Note: this estimate continuously changes based on prevailing market interest rates in effect on any given date.*

d) While reduction of financial volatility is the primary benefit, other factors considered by MPI in considering a change to the pre-funding method are:

   i. Rates of return between CSSF and MPI
   ii. Administrative Burden
   iii. MPI demographic experience vs that of the larger pool
   iv. Capital implications
   v. Simplicity
   vi. Transitional impacts
   vii. Control

With the exception of “control,” all other considerations noted above are either neutral or support changing to the pre-funding method.

For pensioners there would be no change in what or how they receive their benefits. In either case, the employer satisfies its obligation to pay their portion of the defined pension benefit.

e) Generally speaking, defined benefit plans are less common in the industry, with many plans closing to new members over the past years and decades. MPI is not aware of any specific trend relating to government entities, but notes that, in 2014, Manitoba Liquor merged with Lotteries and changed the funding method of the new combined pension plan to pre-funding.

f) Either method is available to participating employers under the CSSA. The correct or best method may be different for each employer and will depend on their individual circumstances and risk appetite.

g) Having approximately $500 million of pension related liabilities and assets carries with it volatility as these are marked to market and fluctuate with changes to prevailing interest rates. For every 100bps movement in interest rates, the pension liability changes by $90 million to $100 million. These movements can materially affect the capital position of MPI and the MCT ratio of its RSR. Additionally, upon adoption of IFRS 17 & 9, assets backing EFB will be classified as Fair Value Through Profit & Loss (FVTPL). As a result, mark-to-market movements of the assets will no longer flow through Other Comprehensive Income (OCI) but rather through the Profit & Loss. This will introduce more net income volatility for MPI and its shareholder, the Province of Manitoba.

h) MPI did not consult with its employees as the chosen payment method has no bearing on the pension benefits they receive.

i) The Government of Manitoba recently informed MPI that, while it is considering this proposal, it does not expect to issue a direction or authorization for fiscal year 2023/24. Therefore, the earliest MPI expects to be in a position to make this change is in fiscal year 2024/25.

1. <u>**CAC (MPI) 1-67**</u>

Part and Chapter:	**N/A**	**Page No.:**	**N/A**
PUB Approved Issue No:	**7, 20**		
Topic:	**ALM Study**		
Sub Topic:			

Preamble to IR:

In the 2017 GRA, CAC Manitoba called Mr. Valter Viola as an expert witness on the issues of investment portfolio management, the risk/reward framework, and MPI's investment portfolio design (Order 162/16 at p 44).

Following a review of the AON ALM Study filed by MPI in that proceeding, Mr. Viola presented the Board with 18 recommendations responding to his perceived shortcomings in the AON ALM Study.

Following the 2017 GRA, the Board issued Directive 10.13 of Order 162/16, which read as follows:

> *"IT IS THEREFORE ORDERED THAT:*
>
> *[…]*
>
> *10.13 MPI obtain an updated ALM study to be filed in the 2018 GRA, which study shall address each of the 18 recommendations made by Mr. Viola, as set out in Appendix E hereto."*

Question:

Please provide a narrative identifying MPI's position on each of Mr. Viola's 18 recommendations found at Appendix E to Order 162/16 both at the time of the 2017 ALM Study and at present. Please also provide reasons for any change in MPI's position on any of Mr. Viola's 18 recommendations between the time of the 2017 ALM Study and the present.

Rationale for Question:

To better understand the trajectory of MPI's investment risk management for the purpose of assessing improvement and the merits of its current approach to investment risk management.

RESPONSE:

MPI presented the following in the 2019 GRA:

CAC Recommendation #1, #2 and #3

1. Clarity of Accounting Choices
2. Adoption of More Comparable Accounting Principles
3. Available For Sale (AFS) and Held to Maturity (HTM) Accounting

Mercer's Response: "From Mercer's perspective, each of these items are accounting specific decisions which should be decided in consultation with its auditors."

MPI's Prior Response: Key consideration compliance with International Financial Reporting Standards (IFRS) accounting principles. Policies should be chosen that align with the nature of the assets and liabilities.

MPI's 2022 Response: When it adopts IFRS 9 on April 1, 2023, MPI will reclassify all asset classes as fair value through profit & loss (FVTPL).

CAC Recommendation #4: Re-measurement of Employee Benefits

Mercer's Response: Re-measurement of employee benefits continue to be recognized in Other Comprehensive Income (OCI) and not reclassified to income.

MPI's Prior Response: This recommendation is a contravention of current IFRS standards and would result in a qualified opinion by our external auditors.

MPI's 2022 Response: This recommendation continues to be in contravention of current IFRS standards and would result in a qualified opinion by our external auditors.

CAC Recommendation #5: Return/Risk based on market values

Mercer's Response: 2017 ALM Study is based on market values.

MPI's 2022 Response: The 2022 ALM study is also based on market values.

CAC Recommendation #6: De-linking discount rates for the purpose of long-term asset allocation decision making.

Mercer's Response: Current economic assumptions for each asset class were determined independently of MPI's current asset holdings.

MPI's 2022 Response: When it adopts IFRS 17 on April 1, 2023, MPI will sever the direct link between liability valuations and the yield on its assets.

CAC Recommendation #7- Min/Max Constraints to be relaxed

Mercer's Response: The ALM study had minimally constrained and practical implementation constraints.

MPI's 2022 Response: The 2022 ALM study had minimally constrained portfolios and practical implementation constraints.

CAC Recommendation #8: Evolved Risk Framework, and
CAC Recommendation #9: Explicit Risk Management Goals

Mercer's Response: Beyond the scope of the study, framework takes significant time to develop.

MPI's Response: MPI segmented assets and developed unique investment strategies that better matched the underlying liabilities. Once mapped, MPI will understand its appetite, per asset class, to ensure pragmatic coverage of liabilities.

CAC Recommendation #10: A Minimum Risk Portfolio should be clearly defined.

Mercer's Response: Minimum risk portfolio for MPI's Basic Liabilities assuming 2% inflation on a go-forward basis consists of: Federal Short-Term Bonds 28%, Federal Mid-Term Bonds 18%, Federal Long-Term Bonds 54%.

MPI's 2022 Response: A real MRP for each portfolio was developed in the 2022 ALM Study. See: Section 3 of Part_07_01_INV_03_Attachment_C_Mercer_Report_Final_Pre-selection_of_Asset_Mixes_Phase_02.

CAC Recommendation #11: Canadian Equities 10% Minimum Allocation be reconsidered; and
CAC Recommendation #12: Exposure to International Equities to be reconsidered

Mercer's Prior Response: Proposed consolidated portfolio has 3% exposure to Canadian equities, and 7% total to Global and Global Low Vol Equities.

MPI's 2022 Response: MPI reduced its allocation to Canadian equities and added global equities after the last ALM study. This will continue.

CAC Recommendation #13: No Over-Reliance on Quantitative Modeling

Mercer's Response: Mercer agrees that investors should not rely solely on quantitative modeling. The ALM process began with projections of the risk, return, and correlation of a variety of asset classes. The ALM process concluded with a thorough discussion of practical considerations and observations regarding the current market environment.

MPI's 2022 Response: MPI agrees with Mercer's assessment.

CAC Recommendation #14: The use of Real Return Bonds (RRBs) in effectively managing risks

Mercer and MPI's Prior Response: Given low current inflation expectations Mercer and MPI agreed to hedge nominal, not real interest rate risk. Prior discussions with intervenors identified high inflation scenarios as relatively low risk.

MPI's 2022 Response: MPI is actively considering making an allocation to RRBs within the Basic Claims & EFB portfolios.

CAC Recommendation #15:

> *"The effectiveness of the duration policy should be reviewed, given the inherent risks of changing real interest rates and unexpected inflation arising from MPI's liabilities, and exposure to changes in nominal interest rates in the MPI portfolio (i.e., nominal bonds without inflation protection). More specifically, MPI should re-assess the effectiveness of its duration-matching strategy since inflation (actual and/or expected) may differ from current expectations."*

MPI's Prior Response: The Hybrid/Bucket approach combines the merits of duration matching (low cost-effective matching of interest rate risk) and cash flow matching. A hybrid/bucket approach is more costly to implement and administer than duration matching. A hybrid/bucket approach matches convexity risk more closely than duration matching. Convexity risk is the risk of non-parallel shifts in the yield curve.

Mercer states that a hybrid/bucket approach is appropriate for investors with very limited risk tolerance over the short term, and who have the capability to implement a sophisticated matching program. For investors who can tolerate modest levels of risk over the short term, and target excess returns from active management, Mercer recommended a duration matching approach. A duration matching approach allows for more efficient implementation and a broader opportunity set.

A hybrid/bucket strategy is more expensive than duration matching, but does reduce convexity risk, which is the risk of non-parallel shifts in the yield curve. However, convexity risk is generally equally likely to result in a gain or loss and therefore, over time, this risk is expected to even out.

Cash flow matching and a hybrid of duration and cash flow matching (a "hybrid/bucket approach") were considered but rejected. Duration matching provides the greatest flexibility to the fixed income manager as there are an infinite number of portfolios that can be constructed that will provide a duration that matches the duration of the Basic claims liabilities.

Cash flow matching is costly and difficult to implement, particularly when future liability cash flows far in the future are uncertain. Cash flow matching is more common for short-term liabilities where the timing and amount of the liability cash flows are known with absolute certainty. This is not the case for MPI's claims liabilities.

MPI will continue to monitor its assets and liabilities in appropriate time buckets and stress test alternate non-parallel interest rate scenarios to ensure sensitivities to various market movements are understood and within management's risk tolerance.

MPI's 2022 Response: Mercer reviewed the current interest rate risk mitigation strategy of MPI, which is a hybrid of cash flow matching and moment matching, as part of Phase One of the 2022 ALM study and supports the continued use of this strategy.

CAC Recommendation 16: Use of Leverage for Real Estate and Infrastructure

Mercer's Response: ALM study considered use of leverage, but it is not material or worth hedging.

MPI's 2022 Response: MPI agrees with Mercer's opinion that the leverage contained within the real estate and infrastructure portfolios is not material.

CAC Recommendation 17: Removal of 105% Rule in Investment Policy Statement

Mercer's Response: Support its removal.

MPI's Prior Response: MPI has already removed this rule from the Investment Policy Statement (IPS).

CAC Recommendation 18: Pension Fund

Mercer's Response: The objectives, risk tolerances, and characteristics of each liability, including pension liabilities, were assessed separately in the study. Mercer's study recommended individual target asset mixes for the pension liabilities and other lines of business. Once implemented, the assets backing the pension obligations will no longer be commingled with the assets backing MPI's other obligations.

MPI's 2022 Response: EFB assets are no longer commingled with other assets.

CAC (MPI) 1-68

Part and Chapter:	**N/A**	**Page No.:**	**N/A**
PUB Approved Issue No:	**7, 20**		
Topic:	**Inflation Risk**		
Sub Topic:			

Preamble to IR:

MPI's position with respect to risk posed by inflation and interest rate volatility is on the record of past proceedings before this Board.

For example, in the 2016 GRA, MPI explained that with respect to inflation, it had "pretty much assumed that that's not a risk factor anymore" (October 15, 2015 Transcript p 1316, Mr. Luke Johnston).

The following year, MPI explained that its assumption of low inflation volatility was a product of its selection of post-1992 inflation trends for the purposes of forecasting (October 19, 2016 Transcript at pp 827-829). Following that proceeding, the Board "[remained] concerned with the Corporation's continued exposure to interest rate risk" (Order 162/16 at p 51).

In the 2020 GRA, MPI acknowledged that the nominal liability benchmark, on which its past investment portfolio management and the 2017 ALM study had relied, does not take into account the volatility of inflation (October 16, 2019 Transcript p 1370, lines 7-11):

> *MR. ROBERT WATCHMAN: Would it be*
> *7 overly simplistic of me to suggest that the nominal*
> *8 liability benchmark is not taking into account*
> *9 inflation volatility?*
> *10 MR. DAVID MAKARCHUK: That would not*
> *11 be overly simplistic. That would be fair.*

In the same proceeding, MPI explained that it had "no reason to believe inflation will rise above 2% for any prolonged period of time and, therefore, the nominal liability benchmark is the best benchmark." (Order 176/19 at p 112)

In the 2021 GRA, MPI acknowledged that it had not fully hedged its interest rate exposure (October 20, 2020 Transcript p 465 lines 15-21):

> *15 MS. KATHLEEN MCCANDLESS: But you*
> *16 would agree that MPI was not able to fully hedge this*
> *17 interest rate exposure, and hence, MPI does have some*
> *18 interest rate risk due to the employee future*
> *19 benefits.*
> *20 MR. LUKE JOHNSTON: Correct. It's*
> *21 intentionally not hedged.*

Finally, in the present Application, Fig INV-8 describes Manitoba and Canada CPI as having increased significantly over a relatively short time period.

Question:

Please provide a narrative describing MPI's current perception of inflation and interest rate risk and differentiating its current position from the positions put forward in past proceedings as described in the above preamble. Please include a description of what, if anything, prompted changes to MPI's views on inflation and interest rate risk.

Rationale for Question:

To better understand MPI's perception of inflation risk in order to assess its preparedness for inflation volatility.

RESPONSE:

Since the adoption by the Bank of Canada (BoC) of its inflation control target framework in 1991, inflation generally remained well within the BoC target range of 1.00% - 3.00% until 2022 (i.e., for more than 30 years). MPI had no reason to ignore this data and believe that inflation would rise much, if at all, above 2.00%, for a prolonged period.

The COVID-19 Pandemic, declared in March 2020, impacted the global economy in many unforeseen ways, including widespread lockdowns, travel restrictions, business closures, dramatic shifts in unemployment and unprecedented disruptions in supply chains. Most G10 nations responded to this crisis with record fiscal and monetary stimulus.

At the beginning of and through much of the Pandemic, inflation was moderate (i.e., negative in April 2020 & May 2020 and below 1.0% until January 2021) as economists debated the net impact of the above factors. However, February 2022 saw another dramatic turn of events with the invasion of Ukraine and subsequent war, which negatively impacted global commodity, food, and energy markets. When combined with ongoing supply chain problems, the easing of travel and business restrictions, low unemployment and fiscal and monetary stimulus, inflation ultimately began to surge. MPI, along with the majority of experts, did not predict the occurrence or timing of many of these events as well as their combined effect on the economy.

According to a consensus forecast of economists of the Canadian chartered banks, while inflation should remain elevated for the remainder of 2022, it should also fall back in line with the BoC target range in 2023 (and thereafter).

MPI is concerned about inflation as it pertains to the cost of repairing vehicles and the indexation of PIPP benefits. MPI continues to monitor inflation and is investigating ways of hedging inflation risk while ensuring that unpaid claims liabilities reflect expected future inflation. The AAP pricing analysis assumes higher inflation.

A key goal of the asset-liability management strategy of MPI was always and continues to be the appropriate management interest rate risk.

CAC (MPI) 1-69

Part and Chapter:	PART VII – INV	Page No.:	9
PUB Approved Issue No:	7		
Topic:	Interest rate forecasting		
Sub Topic:			

Preamble to IR:

On page 9 of Part VII – Investments MPI states:

> *"The naïve forecast holds the GoC 10-year bond yield as of March 31, 2022 constant for the entire five-year forecast. The actual yield on the GoC 10-year bond on March 31, 2022 was 2.41%; this rate forms the basis for all interest rate forecasts in this application. All fixed income asset types are also assumed to maintain a constant "spread" above the yield of the GoC 10-year bond."*

Question:

a) Please provide a narrative discussion explaining the rationale for the naïve forecast holding the GoC 10-year yield 'constant'.

b) Please provide a narrative discussion explaining the assumption that all fixed income asset types 'maintain a constant spread' in forecasting the naïve interest rate forecast in the current environment of rising inflation and rising interest rates.

Rationale for Question:

To better understand MPI's rationale in holding GoC 10-year bond yields constant in this current inflationary and rising interest rate economic environment and especially for shorter 5 year forecasts.

RESPONSE:

a) The definition of a "naïve forecast" is to use the current rate as the best estimate of future rates. This is consistent with the forecasting methodology used by MPI for the past 5+ years, which has served MPI and its customers well when compared against the use of other forecasting methodologies. Please see the response to *PUB (MPI) 1-16(a)* for statistical analysis regarding the naïve forecast.

b) This issue was addressed by Mercer in *Investments Attachment B - Mercer Report Asset Liability Study Phase 1 Section 7*; MPI will update the forecasting methodology based on Mercer's advice in advance of the next GRA.

CAC (MPI) 1-70

Part and Chapter:	**Part VII - INV**	**Page No.:**	**11 of 85**
PUB Approved Issue No:	**7**		
Topic:	**Figure INV - 1**		
Sub Topic:			

Preamble to IR:

In Figure INV – 1, Part VII Investments page 11 MPI indicates that MUSH bonds did not earn interest income for years 2019/20 through to 2021/22. Canadian equities realized a gain of $25.8 million in 2022/23 (budget) when they seem to be forecast in the $3 to $6 million range.

Question:

a) Please provide the reasons for MUSH bonds not earning/reporting interest income for the years 2019/20 through to 2021/22.

b) Please explain and provide a detailed analysis of the significant Canadian equity realized gain (budgeted) of $25.8 million in 2022/23.

Rationale for Question:

To better understand the reasons for MUSH bonds to not report interest income for some years and the significant equity gain in 2022/23 especially since Basic insurance only invests in fixed income instruments.

RESPONSE:

a) MUSH bonds do earn interest income, but that income was inadvertently included with Provincial Bond interest income for the years 2019/20 through to 2021/22(along with interest income on corporate bonds).

b) The significant Canadian equity realized gain (budgeted) of $25.8 million was the result of:

i) an actual transfer from the RSR portfolio to the Basic portfolio, resulting in a realized gain of $12.0 million in the first fiscal quarter;

ii) a projected rebalancing in the RSR portfolio with an expected realized gain of $8.6 million in the last fiscal quarter, and

iii) a projected gain from turnover of $5.2 million during the fiscal year.

MPI split the $25.8 million Canadian equity realized gain within the Basic line of business between the RSR portfolio ($22.9 million) and the EFB portfolio ($2.9 million), as a result of the Basic allocation process.

CAC (MPI) 1-71

Part and Chapter:	**Part VII - INV**	**Page No.:**	**11, 84 of 85**
PUB Approved Issue No:	**7**		
Topic:	**Figure INV – 1 and Figure INV --44**		
Sub Topic:			

Preamble to IR:

In the Investments chapter, Figure INV – 1 and Figure INV – 44 report different figures for total investment income for basic insurance.

Question:

Please reconcile basic investment income reported in Figures INV – 1 and INV – 44 and provide explanations for the difference.

Rationale for Question:

To clarify the differences between Figures INV 1 and 44.

RESPONSE:

Figure INV 1 shows the Investment Income for the Basic line of business, which is composed of three portfolios: Basic, RSR and Basic pro-rata portion of the EFB portfolio. On the other hand, *Investment Chapter Figure INV-44* shows the Investment Income for only the Basic portfolio. Please refer *to PUB (MPI) 1-31(b) Appendix 2 – Investment Portfolio Pension Income Summary* for the Investment Income details of the Basic line of business, complete with details of its three portfolios.

CAC (MPI) 1-72

Part and Chapter:	Part VII – INV Attachment B	Page No.:	4 of 33
PUB Approved Issue No:	7, 20		
Topic:	IFRS 9 and 17 – Impact on investment strategy (Mercer)		
Sub Topic:			

Preamble to IR:

On page 4 of Part VII – INV Attachment B Mercer states:

> *"In addition to recognizing assets FVTPL, we understand that MPI intends to adopt FVTPL for changes in the value of liabilities, under IFRS 17. Taking an FVTPL approach to liabilities means that changes in MPI's liability discount rate, caused by movements in market interest rates, will result in changes in the fair value of liabilities and in turn an impact on P&L."*

Question:

Please provide a narrative discussion on the differences between the current process of discounting liabilities (reporting the changes in present value based on a discount factor) and the proposed adoption of FVTPL for changes in the value of liabilities under IFRS 17.

Rationale for Question:

To better understand the differences between the current reporting of liabilities (unpaid claims) and proposed reporting under IFRS 17.

RESPONSE:

If an entity elects the other comprehensive income (OCI) option for discounting liabilities, the accumulated other comprehensive income (AOCI) includes the difference between the present value calculated using the current yield curve and the present value calculated at the locked in yield curve.

If an entity elects the fair value through profit or loss (FVTPL) option for discounting liabilities, all impacts from discounting unpaid liabilities go through the profit and loss. MPI selected this option, which is consistent with the current methodology.

CAC (MPI) 1-73

Part and Chapter:	**Part VII – INV Attachment B**	**Page No.:**	**5 of 33**
PUB Approved Issue No:	**7, 20**		
Topic:	**IFRS 9 and 17 – Impact on investment strategy (Mercer)**		
Sub Topic:			

Preamble to IR:

Page 4 of Attachment B to Part VII – INV states:

> *"We note that MPI intends to use the top-down approach to construct its IFRS discount rate. Under the top-down approach, the discount rate is derived from either a reference portfolio or the actual asset portfolio. With both methods, only a portion of the credit spread (the amount attributed to illiquidity) is incorporated into the liability discount rate. Therefore holding assets specifically to match credit spread exposure in the liability discount rate is unlikely to be a major consideration.* ***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."*** **(emphasis added)**

Question:

Please elaborate in a narrative discussion on Mercer's comment that **"there may be an advantage to using illiquid assets in order to increase the illiquidity premium in the IFRS liability discount rate."**

Rationale for Question:

To gain a better understanding on the advantage of using illiquid assets in order to increase the illiquidity premium in the IFRS liability discount rate.

RESPONSE:

Please refer to *PUB (MPI) 1-122(a)*.

CAC (MPI) 1-74

Part and Chapter:	Part II—Vehicle for Hire	Page No.:	4, 20, 22 and 30
PUB Approved Issue No:	10		
Topic:	Proposed VFH framework		
Sub Topic:			

Preamble to IR:

In March 2018, MPI introduced a new Vehicle for Hire (VFH) insurance model for all categories of VFH. At that time MPI selected a Time Band model for the VFH insurance framework. Development since 2018 indicates that the Time Band model may not be most efficient.

On page 4 of Part II – Vehicle for Hire it states:

> *MPI completed a review of its existing VFH insurance framework to assess the overall efficacy of the Time Band model and guide the development of a new model that better aligns with the needs of its stakeholders and with industry standards.*

On page 20 of Part II – Vehicle for Hire MPI describes the proposed VFH Framework:

> *Based on the results of the review, MPI proposes a revised VFH framework that would replace the current Time Band model with a model comprised of two VFH products that aim to streamline and improve customer experience while remaining consistent with industry standard. The two products that MPI proposes to incorporate into its revised VFH framework are:*
>
> 1. *A Basic Blanket Policy that would be purchased by dispatchers and provide VFH insurance coverage in defined periods, such as when a vehicle is driven in a ridesharing capacity. While MPI would initially market the product to the Passenger VFH group and TNCs, all VFH*

groups would be eligible, provided they meet its minimum requirements.

2. *Full-Time VFH Insurance for the Taxi VFH, Limousine VFH and Accessible VFH groups, which would be purchased by the registered owner and provide continuous coverage. MPI is currently reviewing the request of the TC for a part-time option that would provide Taxis with increased flexibility.*

On page 22 of Part II – VFH.5.2 MPI describes the ratemaking framework and also indicates that the proposed updated VFH rating structure would be presented to PUB for consideration in the 2024 GRA. MPI also indicates that to assist with the actuarial rates it will require a significant amount of data from the Transportation Network Companies (TNC) such as kilometers, etc.

Question:

a) Please describe the steps MPI is taking to obtain accurate data from the TNC's to be able to set actuarially sound proposed VFH rates for the 2024 GRA.

b) Please describe and provide the forecasted costs associated with the proposed VFH framework compared to the current costs.

c) Please contrast the current VFH framework with the proposed framework in terms of equity and fairness.

Rationale for Question:

To obtain a better understanding of the costs, accuracy of data and fairness of the proposed VFH rate setting framework compared to the current framework.

RESPONSE:

a) MPI requested aggregate kilometers travelled during ridesharing periods, across all active vehicles, from operating TNCs to aid in building the starting rate for the blanket policy.

b) Overall, MPI does not anticipate a material difference in costs between the current VFH framework and the proposed one. MPI will integrate the revised framework into Duck Creek (which has the functionality for the Blanket policy) and has therefore integrated the system costs into the Nova 3A release. Concerning policy administration and full-time equivalents (FTEs), 1-2 existing FTEs will oversee the blanket policy processes and requirements. For the VFH insurance uses (i.e., Taxi, Limo and Accessible), MPI will streamline the process by offering 3 full time insurance uses as opposed to the Time Band model. MPI does not anticipate material changes related to costs associated with administration and FTEs. MPI also does not anticipate any material change in costs associated with the claims process in the transition to the new framework.

c) MPI developed both the current and proposed VFH framework to be fair and equitable. As outlined in VFH.2.1, by virtue of the VFH framework review, MPI changed its criteria for fairness and equity from one insurance model for all groups, to one where there can be varying models based on stakeholder needs and consultation.

- **Consultation Efforts for Model Development:** The proposed framework is fair and equitable in that MPI developed it based on the results of the VFH framework review, which involved significant research and stakeholder consultation through surveys and ongoing focused discussions. MPI developed the current VFH framework without extensive consultation with VFH stakeholders.

- **Products that are aligned with customer needs:** The proposed VFH framework is fair and equitable as it will offer Taxi, Limo, and Accessible full time insurance uses for complete coverage, which, since the inception of the Time Band model, represents what the majority of operators select. Additionally, the revised framework introduces a blanket policy for TNC dispatchers (where VFH coverage occurs during defined ridesharing periods), aligning commercial coverage to the TNC business model, industry best practices and stakeholder consultation. It is important to note that all VFH dispatchers are eligible to receive a blanket policy if they meet the minimum requirements (and it satisfies their business needs).

- The current VFH model is also fair and equitable in that it offers all VFH operators the flexibility of part-time and full-time coverage in one model. Although fair as defined by the 2018 criteria, through the framework review MPI now understands that none of the VFH groups find the Time Band model to be effective.

- **Actuarily Accepted Practice:** Both the proposed and current VFH framework have insurance models that are priced for risks based on current claims experience and data of the group, making them fair and equitable.

- **Offers Basic Coverage:** Both the proposed and current VFH framework offer the same Basic insurance to all VFH operators.

CAC (MPI) 1-75

Part and Chapter:	**Part IX – Loss Prevention**	**Page No.:**	**15**
PUB Approved Issue No:	**21. Road Safety**		
Topic:	**Road Safety Strategy**		
Sub Topic:			

Preamble to IR:

On page 15, Part IX, Loss Prevention it states:

> *"The Corporation has also developed a new road safety strategy, in keeping with a commitment to data-driven decision making, that uses data as foundation for identifying and targeting solutions road safety issues."*

Question:

Please file a copy of the new road safety strategy.

Rationale for Question:

To review MPI's new road safety strategy.

RESPONSE:

Please see *Appendix 1 – Road Safety Strategy 2022-2025* for a copy of the MPI Road Safety Strategy 2022-2025.

MANITOBA PUBLIC INSURANCE SOCIÉTÉ D'ASSURANCE PUBLIQUE DU MANITOBA

MPI 2022-2025 Road Safety Strategy

MANITOBA PUBLIC INSURANCE SOCIÉTÉ D'ASSURANCE PUBLIQUE DU MANITOBA

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MANITOBA PUBLIC INSURANCE SOCIÉTÉ D'ASSURANCE PUBLIQUE DU MANITOBA

Contents

MANITOBA PUBLIC INSURANCE SOCIÉTÉ D'ASSURANCE PUBLIQUE DU MANITOBA

Introduction

Vision

Understanding that motor vehicle fatalities, injuries, and collisions are preventable, we envision a future where Manitoba's traffic fatalities and serious injuries are reduced to zero.

Mission

To reduce fatalities, injuries, and collisions, and resulting costs to Manitoban ratepayers through a data-driven road safety strategy that prioritizes evidence-based initiatives.

Guiding Principles

In alignment with MPI's 5-year ambition, the *2022-2025 Road Safety Strategy* adheres to the following guiding principles:

1. Decisions on road safety initiatives must make sense based on a data-driven understanding of the root causes of traffic fatalities and serious injuries in Manitoba, and the effectiveness of specific initiatives in addressing those root causes.
2. Acknowledge that First Nations in Manitoba face unique road safety challenges, and commit to engaging with First Nations to understand and address those challenges.
3. Continuously improve the road safety data ecosystem to support the initiatives of internal and external road safety stakeholders.

Strategic Goal

Downward trends for the rates of fatalities and serious injuries in Manitoba from 2022 to 2025, so that Manitoba's reductions exceed the rates of the national average.

Background

Motor vehicle-related fatalities and serious injuries on public roadways have declined significantly in Manitoba over the last two decades. These road safety improvements have been achieved despite increases in the overall population count, number of registered vehicles, and licensed drivers on Manitoba roadways over the same period.

Despite clear declines in motor vehicle-related casualties, the personal and societal costs of collisions, injuries and fatalities continue to be significant. The societal costs of collisions in Manitoba are estimated at $8.1 million per fatality, $1.0 million per major injury, $37K per minor injury and $10K per minimal injury. When these costs are applied to the number of fatalities and injuries, the societal costs of traffic fatalities and injuries were approximately $2 billion in 2017 ($1.87B), approximately three percent of Manitoba's gross domestic product and $1,400 per capita.

With fewer vehicles on the road in 2020 during the COVID-19 pandemic, collisions and related injuries were significantly down in 2020, yet there was a slight increase in fatalities. Like other North American jurisdictions, Manitoba also saw significant increases in the number of Serious Offence Notices (up 43% vs. 2019 and an additional 21% in 2021),

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indicating that dangerous driving was becoming more prevalent during the pandemic, even as traffic volumes dropped.

In 2017, the *Road to Zero: Manitoba Road Safety Plan 2017-2020* was implemented by the Provincial Road Safety Committee (PRSC), which is co-chaired by MPI and Manitoba Infrastructure. The *Road to Zero* plan sought to accelerate previous downward trends in the number of fatalities and serious injuries in Manitoba, with a long-term vision of zero traffic fatalities or serious injuries. In spite of several successful initiatives, the overall *Road to Zero* plan was not able to achieve its goal, with the trend in traffic fatalities plateauing over the years from 2017 to 2020.

MPI's *2022-2025 Road Safety Strategy* establishes a new path forward for reducing traffic fatalities and serious injuries in Manitoba by adopting a data-driven approach to identifying and remedying the root causes of Killed or Seriously Injured (KSI) collisions. This strategy sets a clear direction for planning and coordinating MPI's road safety activities for the period from 2022 to 2025.

Following a Safe Systems Approach (SSA)

The Safe Systems Approach (SSA) will be used to achieve the goals set out in this strategy. It is an internationally recognized best practice and the basis of Canada's Road Safety Strategy 2025. SSA is a shared responsibility between road safety stakeholders. It aspires to a more forgiving road system that takes human imperfection and vulnerability into account. The SSA focuses on four facets of the road system: safe road users, safe vehicles, safe roads, and safe speeds.

MPI's *2022-2025 Road Safety Strategy* concentrates on safe road users and safe vehicles, as these are the areas of the road system over which it exerts the most influence. MPI will support the initiatives of external road safety partners in creating safer roads and safer speeds by providing subject matter expertise, data, and analysis through the PRSC.

Overview of Strategy

This strategy is divided into two phases, with each phase's objectives organized by three main areas of focus:

- Core road safety programming activities
- Engagement with First Nations on road safety issues
- Improving the road safety data ecosystem

Within each area of focus are objectives that support the goal of the *2022-2025 Road Safety Strategy*, along with the key actions required to achieve each objective.

The first phase of the *2022-2025 Road Safety Strategy* will take place during 2022. This phase of the strategy is centered on developing an improved understanding of the current road safety situation in Manitoba. This will be achieved through research and analysis to identify the most common root causes of KSI incidents, engagement with the Assembly of Manitoba Chiefs (AMC) on road safety challenges facing First Nations, and redefining the data used to plan, develop, and evaluate road safety activities.

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Objectives and Key Results (OKRs) will be developed to set goals and measure progress in addressing the root causes of KSI incidents. As Phase 1 progresses and new opportunities to reduce KSI incidents are identified, this information will be used to continuously improve the existing portfolio of road safety initiatives.

The second phase of the strategy covers the timeframe from 2023 through the end of 2025. This phase of the strategy is centered on taking what was learned in Phase 1 and putting it into action to remedy the root causes of KSI collisions in Manitoba. This will be achieved by directing resources to the existing initiatives found to be most effective in preventing KSI incidents and adopting best practices from other jurisdictions, implementing the specific actions for First Nations road safety identified in partnership with the AMC, and by supporting external road safety partners with improved road safety data.

Phase 1 (2022)

Core Road Safety Programming

Objective 1: Conduct research and analysis to develop a baseline understanding of drivers who engage in the high-risk behaviours that cause fatalities and serious injuries on Manitoban roads.

Below are the key actions for completing Objective 1:

- Conduct research studies on the prevalence of distracted driving, seatbelt use, and speeding. The research will be used to identify common characteristics of drivers who engage in these behaviours, patterns in where they take place, and the reasons why road users engage in them.
- Identify the most common root causes of fatalities through detailed analysis of all fatal incidents from 2019 to 2021. This analysis will seek to find patterns with respect to the types of drivers, vehicles, locations, and collision characteristics involved in fatal collisions.
- Combine the findings from research studies and data analysis to clearly define the groups, locations, and road user behaviours that provide the greatest opportunity for reducing fatalities and serious injuries.

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Objective 2: Critically evaluate the success of existing road safety initiatives in reducing high-risk driving behaviour, collisions, and fatalities and serious injuries.

Below are the key actions for completing Objective 2:

- Analyze the effectiveness of existing road safety programs and their costs, and assess the merit of continuing, modifying, or discontinuing each program based on the results of that analysis.
- Identify any gaps where existing road safety initiatives are not addressing the most important root causes of fatalities and serious injuries.
- Review the current overtime funding model for the Enhanced Enforcement Program (EEP) and evaluate alternative models for funding traffic enforcement.

Objective 3: Use a combination of education, public awareness, and enforcement to reduce the prevalence of high-risk driving behaviour in Manitoba.

Below are the key actions for completing Objective 3:

- Engage in continuous improvement of existing road safety initiatives as opportunities are identified through Objectives 1 and 2.
- While Objectives 1 and 2 are in progress, continue existing education, awareness, and enforcement campaigns, with a focus on:
  - Increasing seatbelt use in the rural communities with the lowest rates of seatbelt use through the EEP and public awareness. These efforts will target the locations and times of year when seatbelt-related fatalities are most common, as informed by observational research and analysis of MPI collision data.
  - Speeding and intersection safety through the EEP, funding support for the installation of speed reader boards, and funding for wildlife awareness signs.
  - Reducing impaired (alcohol and drug) driving through the EEP, and future initiatives to be determined based on the results of upcoming research.
  - Reducing distracted driving through the EEP and future initiatives to be determined based on the results of an observational study.
- Continue a grant funding program to equip police vehicles with Automated License Plate Reader (ALPR) technology that identifies unregistered vehicles and vehicles associated with unlicensed and/or suspended drivers.
- Continually improve the traffic safety culture in Manitoba through education and training for all road users, with a particular focus on vulnerable road users.
- Review and revise policies for customers who are unprepared for road tests and require an excessive number of attempts to pass.

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Objective 4: Review and amend internal policies and processes so that Manitobans are sharing the road with safer vehicles.

Below are the key actions for completing Objective 4:

- Redesign policies and processes for handling situations where customers have made unsafe modifications to a vehicle, including an escalation process for repeat offences.
- Conduct research to understand the reasons for Manitobans' low rate of winter tire use relative to the rest of Canada, and identify options for increasing adoption of this proven safety technology.
- Align policies on the classification of salvaged trailers with other vehicle types by introducing salvage designations and inspection requirements, preventing unsafe trailers from being used on Manitoba's roads after being written-off elsewhere.
- Explore possibilities for implementing electronic safety inspection reports, and for better data sharing between MPI and enforcement agencies to ensure vehicle safety standards are maintained.

Objective 5: Provide external road safety partners with the supporting data, analysis, and subject matter expertise they need to develop a safer road network and safer speeds for Manitobans.

Below are the key actions for completing Objective 5:

- Draft new Terms of Reference for the PRSC to facilitate improved alignment of priorities and coordination of specific efforts to reduce KSI incidents.
- Enable external road safety stakeholders to analyze Manitoba collision data by creating a publicly available dataset.
- Share the results of research and analysis into high-risk driving behaviour (distraction, seatbelt use, impairment, and speeding) with the PRSC and external stakeholders.
- Conduct and share additional location-based analysis of high-severity collisions with the PRSC and external stakeholders.
- Support municipalities that are interested in implementing speed management strategies (reduced speed limits, traffic calming measures, etc.) by partnering on pilot projects, and by providing data and analysis.
- Facilitate targeted speed enforcement in locations and times with the greatest potential for preventing speed-related collisions by analyzing collision data.

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First Nations Road Safety

Objective 1: In conjunction with First Nations partners, develop an understanding of the unique road safety challenges faced by First Nations throughout the province.

Below are the key actions for completing Objective 1:

- Establish a framework for engaging First Nations on road safety issues in collaboration with the Assembly of Manitoba Chiefs (AMC).
- Host a First Nations Road Safety Forum with the AMC that includes road safety experts, First Nations leadership, and First Nations technicians to identify, plan, and prioritize actions to address local First Nations road safety issues.
- Support the AMC in drafting a First Nations Road Safety Strategy that identifies short, medium, and long-term objectives, targeted road safety activities, and related timelines.
- Understand the root causes of low driver license uptake in First Nations communities and collaborate with community leaders to increase uptake.

Objective 2: In conjunction with First Nations partners, implement community-based road safety programs that address local First Nations road safety issues.

Below are the key actions for completing Objective 2:

- Fund a First Nations Road Safety Coordinator position within the AMC and work in partnership to implement the short-term actions identified in the First Nations Road Safety Strategy.
- Develop new road safety pilot programs to improve pedestrian safety and off-road vehicle helmet use in First Nations based on community-based suggestions that have already been brought forward.

Road Safety Data Ecosystem

Objective 1: Adopt data-driven processes for selecting, developing, and evaluating road safety programs.

Below are the key actions for completing Objective 1:

- Develop a decision matrix to be used for determining which new road safety initiatives to pursue based on a data-driven understanding of the issues they address, their likelihood of success, and the resource requirements.
- Create Objectives and Key Results (OKRs) to set goals and track progress for addressing the root causes of KSI incidents identified through Phase 1 research and analysis.

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- Analyze the current allocation of funding across key road safety variables (urban vs. rural, vulnerable road users vs. vehicle occupants, etc.) and assess whether it reflects the root causes of KSI incidents in Manitoba.

Objective 2: Update road safety data sources to provide internal and external stakeholders with data that facilitates the planning, prioritization, and evaluation of road safety initiatives.

Below are the key actions for completing Objective 2:

- Change the scope and definitions of road safety data from being defined by national reporting standards, to a definition that reflects the needs of the Core Road Safety Programming and First Nations Road Safety strategic objectives.
- Replace the static Traffic Collision Statistics Report (TCSR) with a publicly available dashboard that enables users to explore and analyze MPI's collision data on their own.
- Pilot a dashboard of MPI collision data with a location-based view of a smaller community in Manitoba using minimum viable product development, with enhancements and a wider geographic scope delivered in Phase 2.

Objective 3: Lay the groundwork for more advanced data collection and analysis into drivers during Phase 2.

Below are the key actions for completing Objective 3:

- Analyze the full driver history of drivers involved in fatal collisions, and develop driver profiles, as part of a review of all fatal incidents between 2019 and 2021.
- Define the elements of a driver's history that are important for understanding their involvement in a KSI incident.
- Identify opportunities for improved road safety data as a result of changes related to Project Nova.

Phase 2 (2023 through 2025)

Core Road Safety Programming

Objective 1: Based on the research, analysis, and program evaluation conducted in Phase 1, make changes to the existing portfolio of road safety programs in order to address the root causes of KSI incidents in Manitoba.

Below are the key actions for completing Objective 1:

- Redirect resources to the initiatives found to be most effective in preventing the root causes of KSI incidents in Manitoba.
- Create an annual road safety programming plan to improve coordination of road safety programs, enforcement, and public messaging. These efforts will target the specific groups, locations, and times of year when high-risk driving behaviour most frequently leads to KSI incidents.
- Make any necessary changes to the EEP to ensure that funding dollars for police agencies are having the maximum possible impact on reducing high-risk driving behaviour in Manitoba.
- If found to be effective, expand the scope of pilot-phase (as of 2021/22) initiatives, including the funding of speed reader boards and a grant funding program for ALPR technology.
- Leverage Phase 1 data improvements to rapidly create, modify, or discontinue road safety programming in anticipation of, and in response to, changes in the road safety environment in Manitoba.

Objective 2: Based on the research, analysis, and program evaluation conducted in Phase 1, develop new programming to address the root causes of KSI incidents in Manitoba.

Below are the key actions for completing Objective 2:

- Adapt best practices from other jurisdictions to address any gaps in the road safety programming portfolio identified in Phase 1.
- Based on a pilot project scheduled to begin in 2022, study how telematics may be used to incentivize safe driving behavior, and how telematics data may be used to develop targeted road safety programming.
- Develop and implement new initiatives to reduce the number of fatalities in rural areas as a result of non-seatbelt use.
- Study and identify options for a proactive approach to identifying high-risk drivers and preventing KSI incidents.

Objective 3: Increase the adoption of vehicle technologies with proven road safety benefits.

Below are the key actions for completing Objective 3:

- Develop and implement new initiatives to accelerate the adoption of advanced driver assistance systems (ADAS) features with proven road safety benefits.
- Implement new initiatives to bring Manitoban's use of winter tires in line with the national average.
- Explore opportunities to improve commercial vehicle fleet safety in Manitoba.

Objective 4: Provide external road safety partners with the supporting data, analysis, and subject matter expertise they need to develop a safer road network and safer speeds for Manitobans.

Below are the key actions for completing Objective 4:

- Study the merits of a grant funding program to support community investment in road safety infrastructure with measurable road safety benefits.
- Continue to support municipalities that are interested in implementing speed management strategies by partnering on pilot projects, and by providing data and analysis.
- Enable external road safety stakeholders to better identify high-risk locations in the province through enhancements to the publicly available collision dataset provided in Phase 1.

First Nations Road Safety

Objective 1: In conjunction with First Nations partners, continue to build an understanding of the unique road safety challenges faced by First Nations throughout the province.

Below are the key actions for completing Objective 1:

- Continue to work in partnership with the AMC to understand the underlying causes of high-risk driving behaviour in First Nations communities.
- Assess whether to expand the scope of engagement with First Nations to include formal partnerships with tribal councils and independent First Nations.
- Study the grant funding model in place in Saskatchewan and determine whether to implement a similar model for supporting community road safety initiatives.

Objective 2: In conjunction with First Nations partners, implement community-based road safety programs that address local First Nations road safety issues.

Below are the key actions for completing Objective 2:

- Continue to work in partnership with the AMC to implement the medium and long-term actions identified in the First Nations Road Safety Strategy.
- Identify and address gaps in service delivery of driver training, education, and licensing services in First Nations.
- Evaluate the effectiveness of the road safety programs implemented in Phase 1.

Road Safety Data Ecosystem

Objective 1: Build on the data-driven approach for selecting, developing, and evaluating road safety programs implemented in Phase 1.

Below are the key actions for completing Objective 1:

- Leverage Phase 1 data improvements to engage in ongoing evaluation of the effectiveness of individual road safety programs.
- Continuously evaluate and update OKRs for addressing the leading indicators of KSI incidents.
- Explore opportunities for expanding the use of data intelligence to anticipate KSI incidents and act proactively to prevent them, with a focus on drivers with a history of high-risk behaviour.

Objective 2: Continuously improve the data being shared with external stakeholders.

Below are the key actions for completing Objective 1:

- Gather feedback from external road safety partners on the publicly available dataset provided in Phase 1, and adapt it accordingly.
- Automate the extraction and cleaning of publicly available road safety data.
- Investigate the value and feasibility of layering in data from external road safety stakeholders to the publicly available dataset.
- Evaluate the location-based pilot dashboard and expand to a wider geographic location, if feasible.
- Implement an electronic inspection certificate program, analyze inspection data, and develop shared procedures with enforcement agencies to ensure vehicle safety standards are enforced and maintained, if feasible.

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Evaluation

Measuring the effectiveness of road safety initiatives is central to the *2022-2025 Road Safety Strategy*. This extends to the evaluation of the strategy itself, which will be done on an ongoing basis. Progress will be tracked on individual objectives, and on the strategy's overall success in reducing fatalities and serious injuries caused by motor vehicle collisions.

Measuring Progress for Road Safety Initiatives

One of the primary objectives during Phase 1 will be to complete evaluations of the effectiveness of all current road safety programs. After this initial review is completed, the program evaluation model will move to one of continuous monitoring. Proposals for new programs will include defined methodology and timelines for measuring the impact of the program.

Wherever possible, evaluation activities will seek to measure the impact of an initiative on reducing fatalities, serious injuries, and/or collisions. In situations where such an analysis is not feasible, evaluations will seek to measure the impact of an initiative on factors that are proven to have a causal relationship with fatalities, serious injuries, and/or collisions (e.g. rates of seatbelt use).

Where neither of those types of evaluation are feasible, the impact of road safety initiatives will be measured by changes to customer attitudes or perceptions of road safety based on survey data (e.g. social acceptability of distracted driving).

In situations where it's not feasible to measure the impact of a road safety initiative on collisions, behaviours, or attitudes, evaluations will focus on output and other qualitative factors.

Evaluating the *2022-2025 Road Safety Strategy*

In addition to measuring the progress of specific initiatives, the strategy as a whole will also be evaluated using the road safety OKRs developed in Phases 1 and 2, as well as with an interim and final report.

While the overarching goal of the strategy is to reduce fatalities and serious injuries, more granular success measures of the leading indicators of fatalities and serious injuries will also be developed. These measures are dependent upon the research and analysis of the Manitoba road safety environment being conducted in Phase 1. Upon completion of that work, specific goals for addressing the root causes of KSI incidents will be established using an OKR framework.

The interim report will assess the progress made from 2022 through the end of 2023. Acknowledging that it may take several years to fully realize the reductions in fatalities and serious injuries, this evaluation will focus on the progress made towards completing Phase 1 and Phase 2 objectives. The interim report will also include any recommended changes to the strategy for 2024 and 2025.

A final report will be developed after the conclusion of Phase 2. This report will evaluate the overall performance of the strategy in achieving the goal of downward trends for the rates of fatalities and serious injuries in Manitoba that exceed the national average.

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CAC (MPI) 1-76

This material is the subject of a confidential motion.

CAC (MPI) 1-77

Part and Chapter:	**Part IX – Loss Prevention**	**Page No.:**	**N/A**
PUB Approved Issue No:	**21. Road Safety**		
Topic:	**Road Safety Benchmarking**		
Sub Topic:			

Preamble to IR:

CAC Manitoba understands that MPI's peer Crown Corporations, including SGI and ICBC, also conduct Road Safety programming.

Question:

a) Please confirm whether or not MPI gathers results and/or other data from the road safety programming of peer insurers for the purposes of comparing both the types of programming offered and the efficacy of comparable programs.

b) If MPI does gather the information referred to above, please provide it along with a narrative describing MPI's assessment of its own Road Safety programming based on comparisons made to this information.

Rationale for Question:

RESPONSE:

a) Yes, MPI gathers results and data from the road safety programming of peer insurers. MPI maintains a regular dialogue related to road safety programming ideas with counterparts such as Saskatchewan Government Insurance (SGI), and the Insurance Corporation of British Columbia (ICBC). MPI uses this information for comparison, programing planning/development and efficacy and evaluation purposes.

b) Some examples of road safety information MPI regularly discusses with its peers include community programming such as the community grant funding program used by SGI, the ICBC public information dashboard related to road safety data driver training, education and awareness initiatives, approaches to enhanced enforcement of traffic laws, school learning resources and First Nations engagement.

The information gathered from peer insurers that MPI uses comes from the most recent Road Safety Technical Conference in June 2022. MPI used data from Transport Canada, SGI, ICBC and Alberta Transportation to provide an update on the progress made by Manitoba in meeting the targets laid out in its Towards Zero Road Safety Plan pertaining to fatality and serious injury trends per 100,000 population, as well as the societal and financial costs of traffic crashes. Please see *Attachment A - Peer Insurer Information* for more details.

Serious Injury Counts in Saskatchewan by Year: Provided by Saskatchewan Government Insurance (SGI)

Year	Serious Injured in Saskatchewan
2009	511
2010	488
2011	433
2012	450
2013	438
2014	331
2015	394
2016	338
2017	353
2018	390
2019	446
2020	489
2021	433

Alberta

Injury Severity of Casualties in Motor Vehicle Collisions

2009 - 2020

Year	Fatal Injury	Major Injury	Minor Injury
2020	244	2,086	9,767
2019	233	2,267	13,097
2018	289	2,587	14,468
2017	290	2,744	14,442
2016	299	2,758	13,864
2015	330	3,056	14,851
2014	369	3,016	15,729
2013	358	2,943	15,707
2012	345	2,913	15,307
2011	313	2,818	15,766
2010	344	2,972	15,281
2009	351	2,966	16,201

Definitions:

Minor Injuries: Persons with injuries or complaint of pain that went to the hospital, were treated in emergency (or refused treatment) and SENT HOME without ever being admitted to the hospital. (Prior to 1991, does not include persons who indicated they intended to seek medical treatment.)

Major Injuries: Persons with injuries or complaint of pain that went to the hospital and were subsequently admitted even if for observation only.

NOTE: Numbers in 2020 are preliminary and subject to change.

Alberta Transportation
Safety and Policy Division
June 2022

Alberta

Insurance Corporation of British Columbia
Information Management - Corporate & Driver Licensing
151 West Esplanade
North Vancouver, BC
V7M 3H9

Report #: RDAR-20554
Report Title: Seriously Injured Victims in crashes by year (2009-2020)

Approvals: The data in this report ("Data") has been approved for release to < **Adam Cheadle, Manitoba Public Insurance** > by the Public Affairs Division at ICBC.

Terms and Conditions: The Data is subject to ICBC's Open Data Licence and any other terms or conditions advised by ICBC in writing.
The Open Data Licence can be found at: https://www.icbc.com/policies/Pages/open-data-licence.aspx

Requested By: Mark Milner, RS Manager
Requested On: 1-Jun-22

Prepared By: Dana Smatanova, Data Visualization Analyst - Intermediate
Completion Date: 20-Jun-22

Data Source: Enterprise Data Warehouse
Data As Of: 30-Jun-21

Synopsis of Request: Seriously injured victims in crashes by year
Location: British Columbia
Date Period: 2009-2020
Reported by: Police
Rounding has been applied to these data

Disclaimer: This report is intended to provide general information only and should not be viewed as an audited, or otherwise formally validated report. The provision of this report does not indicate or in any way imply ICBC's support, authorization or endorsement of any use that the user may make of it or any information contained in it. See Open Data Licence for other terms and conditions.

Caveats: Data Settling:
Numbers will continue to change, especially for the most recent time periods, because of reporting, and corrections and adjustments.

Locations:
Accurate and verifiable information is not always available, therefore precise mapping of incidents to locations is not always possible. Counts by location should not be considered comprehensive.

Rounding Guidelines:

Example	Number range	Rounding rule	Final format
0	Zero	Unchanged	0
4	> 0 and < 5	Set to "< 5"	< 5
67	>= 5 and < 100	Not rounded	67
548	>= 100 and < 1,000	Round to the nearest ten	550
4,679	>= 1,000 and < 10,000	Round to the nearest hundred	4,700
15,345	>= 10,000 and < 100,000	Round to the nearest thousand	15,000
334,345	>= 100,000	Round to the nearest five thousand	335,000

Report #: RDAR-20554

Title:	Seriously Injured Victims in crashes by year
Location:	British Columbia
Period:	2009-2020
Reported By:	Police

Notes:

- Seriously Injured Victim is defined as a victim taken to hospital for an overnight stay.
- Data exclude crashes on roads where the Motor Vehicle Act does not apply (such as forest-service roads, industrial roads and private driveways); off-road snow mobile accidents; and homicides or suicides.
- Since 2008, there have been several legislative changes regarding the reporting of motor vehicle crashes to/by a police officer. Therefore, we caution that variation, and particularly decreases, in crash counts that include police-reported data may be misleading.
- Crash data and trends from 2020 may be impacted by the COVID-19 pandemic.

Year	Seriously Injured Victim Count
2009	1,900
2010	1,900
2011	1,600
2012	1,700
2013	1,600
2014	1,800
2015	1,800
2016	1,900
2017	1,800
2018	1,700
2019	1,500
2020	1,400

Prepared by: Dana Smatanova
Information Management, Corporate and Driver Licensing

Transport Canada Transports Canada

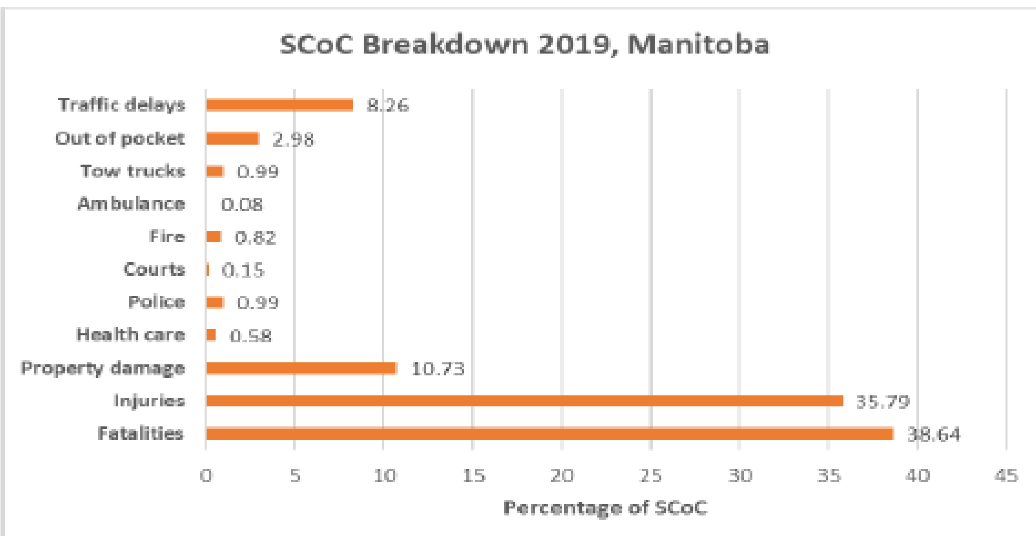
Manitoba

Social Cost of Collisions (SCoC) – Jurisdictional Factsheet

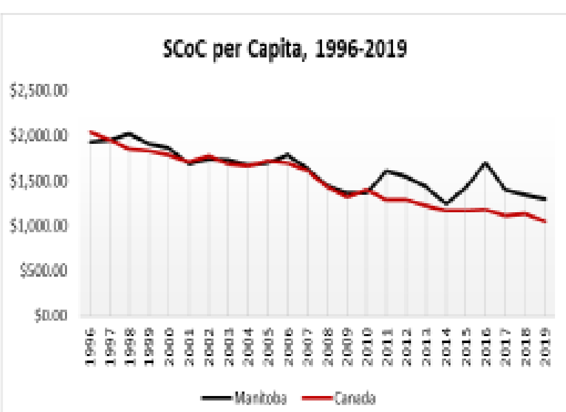
2019 Statistics

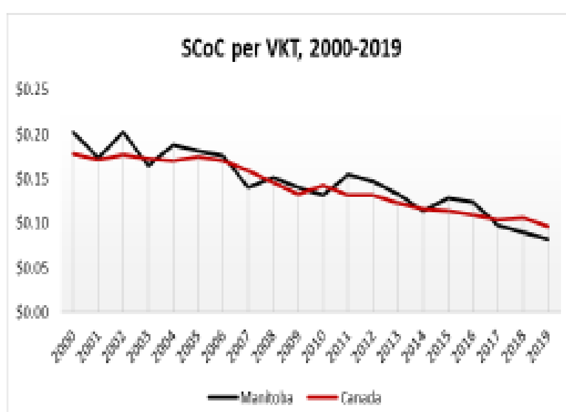
	Manitoba	Canada	MB as a % of CAN
Gross Domestic Product ($2010 millions)	$63,304.04	$1,979,895.23	3.20%
Population	1,369,954	37,601,230	3.64%
Licensed Drivers	933,128	26,746,350	3.49%
Vehicle Kilometers Travelled (millions)	21,730	407,997	5.33%
Road Collision Fatalities	76	1,756	4.33%
2019 Social Cost of Collisions ($2010 millions)	$1,783.80	$39,456.30	4.52%

	SCoC ($2010 millions)	SCoC per licensed driver	SCoC per capita	SCoC as % of GDP	SCoC per VKT
MB	$1,783.80	$1,911.63	$1,302.08	2.82%	$0.08
CAN	$39,456.30	$1,475.20	$1,049.34	1.99%	$0.10



Long-Term View





*Fatality numbers provided may differ from raw data. The adjustment was made in accordance with a study focussing on under-reporting and misreporting (Vodden et al. 2007)

*Some collision data carried forward from 2018 and used in conjunction with all currently available data in order to estimate SCoC for 2019

Model information

The model used is based on the Vodden et al. (2007) medium willingness-to-pay scenario, with modifications. The most important modifications are the value of statistical life (VSL), as per Transport Canada (2014a) and the values of injuries as per Miller and Lawrence (2015). Values used are as follows, where injuries are defined as in the NCDB dictionary (Transport Canada, 2014c):

Fatality	Major injury	Minor injury	Minimal injury
$8,149,775.78	$1,012,202.15	$37,488.97	$9,779.73
VSL fraction	0.1242	0.0046	0.0012

Data Sources

All collision statistics come from the National Collisions Database (NCDB), with minor redistributions to account for unknowns (this is different from Vodden et al's original model).

Gross Domestic Product - GDP, income-based, provincial and territorial; Canada; Gross domestic product at market prices (x 1,000,000), annual 1996-2018. Statistics Canada, CANSIM Table 384-0037, v62783219. The All-Items CPI (CANSIM v41693271) was used to obtain the 2018$ real GDP.

Estimates of population, by age group and sex for July 1, Canada, provinces and territories, annual (persons), 1996-2018. Statistics Canada, CANSIM Table 051-0001, v466668.

Licensed Drivers - 1996 to 1998: Statistics Canada, Catalogue No. 53-219, "Road Motor Vehicles - Registrations" and from 1999 on, the licensed driver data were provided by each jurisdiction.

VKTs are sourced from Statistics Canada's Canadian Vehicle Survey tables (for years 2000 to 2009) and 2010-2012 estimates based on the forecast model produced by Westbay Research Inc. (2012) and re-estimated with updated Statistics Canada data (Transport Canada, 2014b). 2013+ estimates completed by Transport Canada.

References

Miller, T.R. and B.A. Lawrence. 2015. *Fractions of Value of Statistical Life Lost to Injury by Severity, Final Report,* Contract T8080-1 40190, Motor Vehicle Safety Directorate, Transport Canada.

Statistics Canada. *Canadian Vehicle Survey: Annual (2000-2009),* Catalogue no. 53-223-X

Transport Canada. 2014a. *The Value of a Statistical Life: Estimates used in Transport Canada's Social*

Transport Canada. 2014b. *VKT estimates for 2012,* based on the Westbay Research Inc. model.

Transport Canada. 2014c. *NCDB1 Data Dictionary,* NCDB Working Group & CCMTA.

Vodden, K. *et al*. 2007. *Analysis and Estimation of the Social Cost of Motor Vehicle Collisions in Ontario (Final Report).* N0779, TNS Global.

Westbay Research Inc. 2012. *Canadian Vehicle Exposure Study, Summary Report.* Prepared for the Canadian Council of Motor Transport Administrators.

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Part and Chapter:	**Part IX – Loss Prevention Appendix 3**	**Page No.:**	**33 of 202**
PUB Approved Issue No:	**21. Road Safety**		
Topic:	**Road Safety Budget**		
Sub Topic:			

Preamble to IR:

Slide 33 of 202 in Appendix 3 to the Loss Prevention chapter provides historical benchmarks comparing Manitoba's fatality and serious injury rates to the national average.

Question:

a) Please provide updated graphs with 2021 data for Manitoba, if available, and 2020 and 2021 data for Canada, if available.

b) Please provide a narrative identifying MPI's views on why Manitoba's fatality and serious injury rates may be above or below the national average as the case may be.

Rationale for Question:

To inform assessment of the efficacy of MPI's road safety programming.

RESPONSE:

a) Please see updated graphs below with 2021 data for Manitoba and 2020 data for Canada. Data for the year 2021 in Canada is not available at this time.

Figure 1 Fatalities per 10,000 Registered Vehicles

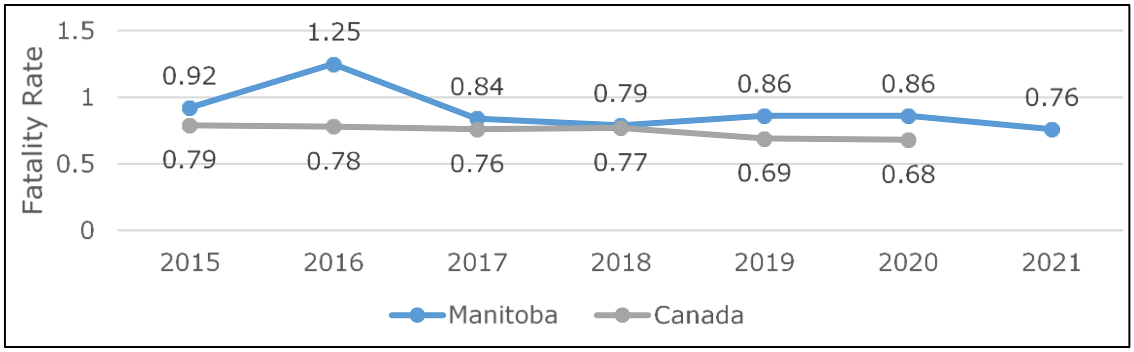
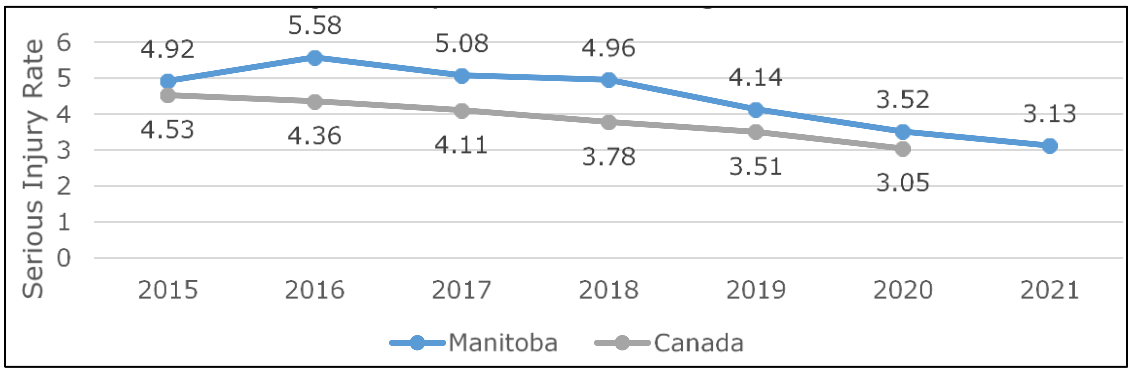


Figure 2 Serious Injuries per 10,000 Registered Vehicles



b) While Manitoba's fatality and serious injury rates are slightly above national levels, they are trending in similar ways to national levels. Reasons for the difference are difficult to ascertain given the complexities and different variables that exist between diverse jurisdictions. One of the most significant factors is differences in the urban/rural split between provinces. In general, there are more deaths and serious injuries in rural areas compared to urban ones. This is due to factors such as higher speeds in rural areas, which pose higher risks for serious collision outcomes. Canadian Motor Vehicle Traffic Collision Statistics[1] data summarized in the below tables show that provinces with higher rural populations (including Manitoba)[2] also generally had comparatively higher fatality and serious injury rates per 100,000 population compared to the national average. Manitoba's rates compare favourably with those of other rural jurisdictions.

[1] https://tc.canada.ca/en/road-transportation/statistics-data
[2] https://www150.statcan.gc.ca/n1/pub/11-630-x/11-630-x2015004-eng.htm

Fatalities per 100,000 Population[3]

Region	2016	2017	2018	2019
Canada	**5.2**	**5**	**5.2**	**4.7**
NL*	**8.3**	**6.1**	**7.4**	**7.6**
PE*	**7.4**	**9.2**	**9.8**	**9.5**
NS*	**5.1**	**4.9**	**7.8**	**7.4**
NB*	**6.6**	**6.6**	**6.5**	**6.4**
QC	4.2	4.3	4.3	3.9
ON	4	4.1	4.2	3.9
MB*	**8.1**	**5.5**	**5.2**	**5.5**
SK*	**10.9**	**8.6**	**11**	**6.1**
AB	7.1	7.1	6.8	5.5
BC	6.1	5.7	5.6	5.3
YT*	**10.5**	**18.2**	**15.7**	**24.1**
NT*	**9**	**6.7**	**4.5**	**13.3**
NU*	**5.4**	**0**	**5.2**	**5.2**

*Area identified as having a higher rural population compared to the national average[4]

Serious Injuries per 100,000 Population

Region	2016	2017	2018	2019
Canada	**41.3**	**38.9**	**35.9**	**33.3**
NL*	**33.8**	**34.8**	**33.8**	**34.1**
PE*	**47.7**	**45.4**	**35.3**	**43.5**
NS	**29.6**	**29.5**	**34.5**	**35.3**
NB*	**38.8**	**38.8**	**38.8**	**38.8**
QC	26.5	26.9	25.4	23.4
ON	24.8	21.1	16.1	14.6
MB*	**54.1**	**49.9**	**48.8**	**39.5**
SK*	**41.2**	**42.6**	**48.1**	**54.3**
AB	87.7	86.1	80.2	79.3
BC	71.5	65.1	63.3	54.1
YT*	**37.9**	**26.8**	**57.4**	**52.5**
NT*	**83.7**	**71.9**	**103.2**	**103.2**
NU*	**150.2**	**71.6**	**185.6**	**37.1**

[3] https://tc.canada.ca/en/road-transportation/statistics-data
[4] https://www150.statcan.gc.ca/n1/pub/11-630-x/11-630-x2015004-eng.htm

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Part and Chapter:	**Part III – BMK Appendix 3**	**Page No.:**	**7**
PUB Approved Issue No:	**12. Operational benchmarking**		
Topic:	**Gartner report – Business Composability**		
Sub Topic:			

Preamble to IR:

Business composability is presented by Gartner as a relatively new concept. With respect to the insurance industry Gartner describes it as follows on page 7, Part III – BMK Appendix 3:

- *"Current and future projected industry disruption make it imperative that P&C and life insurers adopt business composability in order to respond to volatile conditions and win in the future. On average, companies with high business composability report higher overall business performance.*
- *Business composability is a relatively new concept in insurance, with only 8% of CIOs reporting having in place enterprise strategies for the three elements: composable thinking, composable business architecture and composable technologies. On average, the industry is moderate across all three, especially technologies and thinking.*
- *Insurers are not investing in the technical underpinning needed for business composability, with their IT budget lagging in many regards. While they are increasing their investments in many technologies, some — such as AI and distributed cloud — are lagging."*

Question:

a) Please provide a narrative discussion, for greater clarity, of the concept of Business Composability.

b) Please describe the extent to which MPI has adopted the concept of business composability in the implementation of Project Nova. In the event MPI has not or not fully adopted business composability, please describe the steps MPI would need to take in order to take advantage of the concept of business composability.

c) Please describe the impact the adoption of business composability would have on Project Nova in terms of additional time, additional costs and/or benefits, additional skill sets, if any.

Rationale for Question:

To gain a better understanding, clarity and impact the adoption of business composability would have on MPI's Project Nova, if any.

RESPONSE:

a) Gartner introduced the concept of composability as part of a high-level context for the results of the benchmark relative to broader insurance industry trends. The Gartner benchmark did not allow for a detailed explanation of Business Composability because it was focused on an analysis of the Information Technology (IT) Budget. Gartner research describes how composability refers to interchangeable blocks. This modular aspect of businesses proved to be a key factor in their ability to be resilient to disruption during the COVID-19 pandemic in 2020. Four principles are identified for composable business:

    1. More speed through discovery
    2. Greater agility through modularity
    3. Better leadership through orchestration
    4. Resilience through autonomy

Composable thinking enables businesses to survive and potentially flourish when faced with disruption. An analog for the notion of modularity in business composition can be found in IT, where application programming interfaces (APIs) and containers allow reuse of application assets in response to changing requirements.

b) The Gartner Benchmark did not allow for a detailed assessment of the level of adoption of business composability in the design of Project NOVA.

c) The Gartner Benchmark did not allow for a detailed assessment of the time, additional costs, benefits or skills required to support composability in conjunction with the implementation of Project NOVA.

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Part and Chapter:	Part III – BMK Appendix 3	Page No.:	13
PUB Approved Issue No:	12. –Operational benchmarking		
Topic:	MPI IT spending and IT staffing higher then peers		
Sub Topic:			

Preamble to IR:

On page 13 of Part III, BMK Appendix 3 Gartner observes the following:

> *"MPI's IT Spending as a percentage of OPEX is higher than the peer average" (MPI 7.4% including Project Nova and Peers 4.3%)*

> *"IT Staffing as a percentage of enterprise employees is higher than the peer average" (MPI 22.8% including Project Nova and Peers 16.5%)*

Question:

Currently MPI's IT spending and IT staffing is higher than its peers. Please describe Gartner's experience, observations and analysis of when anticipated changes to IT spending and staffing when a company implements a major project (such as Project Nova). In this discussion, please address whether IT spending and IT staffing are generally expected to normalize to the pre-project levels once the project is operationalized, or whether the higher IT spending and IT staffing levels become the 'new base' or 'new normal'.

Rationale for Question:

To better understand the future financial impact of the currently higher operating expenses and staffing levels due to Project Nova on basic insurance rates in the future, if any.

RESPONSE:

Similar to MPI, most other insurance organizations (57%) are increasing their investments in legacy modernization and the scale of these projects are significant. Insurance organizations should anticipate a period of time where legacy applications will need to be maintained in parallel with new platforms as business services are transitioned to new platforms. Insurance organizations often find that legacy applications need to be maintained in some reduced form to provide access to historical data. Capital investments can be reduced once implementation and transitioning is complete, which does in turn affect IT spending and staffing going forward.

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Part and Chapter:	**Part III – BMK Appendix 3**	**Page No.:**	**14**
PUB Approved Issue No:	**12. Operational benchmarking**		
Topic:	**Cloud technology and strategy**		
Sub Topic:			

Preamble to IR:

On page 14 Part III – BMK Appendix 3 Gartner observes:

> *"Efforts have been made to enable better use of cloud service providers through cloud strategy, cloud standards, vendor agreements and training"*

Question:

Please provide a narrative discussion highlighting the reasons a cloud strategy is important for the successful implementation of Project Nova as opposed to an on premises server strategy. In your discussion please review the pros and cons of a cloud strategy including security, reliability, costs and recovery.

Rationale for Question:

To assess and better understand the benefits and importance of a cloud strategy recently adopted by MPI for the implementation of Project Nova.

RESPONSE:

MPI's current technology eco-system is completely managed by IBM/Kyndryl and is running legacy technology. To request a new server, which is very basic, goes through a Request for Service (RFS) process with IBM/Kyndryl and takes 6 to 8 weeks before it is available. MPI is also required to pay IBM/Kyndryl to do the work because it is in their datacentres. Because it is legacy technology, meaning it is very old technology, it is not able to provide Project Nova with the new technology services required without very costly updates, upgrades and issues integrating new services with old technology. The turnaround time for this as described above, would take more than 8 months to over a year just to complete the upgrades by the time it went through the RFS process. There would also be additional costs to address Nova requirements. Moving to a Cloud Strategy provides the Project Nova eco-system service in days rather than several months at a significantly lower cost because we have the skills in house to provide these services quickly and cost effectively.

Pros:

- Expected business and technical benefits
- Scaling to meet market demands
- Improve customer experiences and engagements
- Increase in business agility
- Improved IT operating model leveraging a combination of cloud services and internal staffing.
- Ability to enable and support new business initiatives that would be virtually impossible outside of the cloud model (such as AI/ML, IoT and data analytics).
- Ability to achieve cost savings on all Infrastructure Technology needs
- Increased transparency on the costs of IT, projects and business applications and the ability to relate those to the generated business value.
- Reduce risk, costs and resources associated with managing aging infrastructure and redundant technologies
- Deliver new technologies, products and services that will enable MPI to successfully execute on the 5-year business plan to deliver MPI 2.0
- Modernize MPI's Digital Estate to enable the organization to extract maximum value from current data and information assets
- Enhance and develop the organizations capabilities, skills, and culture to enable MPI to become a Cloud-first organization
- Redundancy of hardware is built into single points of failure. All hardware can handle a failure and still not have a disruption to service

- Become more agile and responsive to business demands by lowering the time to deliver for new projects and technology prototypes
- Enhance our ability to react to scalability requirements, with emphasis on future data processing needs
- Establish a secure technology environment better able to adapt to a changing threat landscape – use of new security services
- Achieve financial cost benefits

Cons (with mitigation action):

- Requires increased in house skills – completed
- Can be costly if not managed –implemented cost management processes that shuts down services when not in use, such as after hours and on weekend especially for non-production environments.
- Outage at the geographical site (which is rare due to the redundancies built in) would cause a disruption to access all business technology. MPI is designing automatic failover of all identified critical applications to another geographical location within Canada.

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Part and Chapter:	**Part III – BMK Appendix 3**	**Page No.:**	**15**
PUB Approved Issue No:	**12. Operational benchmarking**		
Topic:	**Skills assessment and third party risks**		
Sub Topic:			

Preamble to IR:

On page 15 of Part III, BMK Appendix 3 Gartner observes:

Recommendation:

> *"Efforts have been made to enable better use of cloud service providers through cloud strategy, cloud standards, vendor agreements and training"*

Status:

- *"Training plans for each directorate created and submitted to HR*
- *Cloud skills determine to be an imperative"*

Recommendation:

> *"Integrate third-party risk management into the IT Security Governance, Risk and Compliance (GRC) processes"*

Status:

- *"Risk policies established*
- *Established recognition of the need to manage third party risk"*

Question:

a) MPI commenced Project Nova in 2019, over 2 years ago. In the context of Project Nova, please describe Gartner's experience, observations and analysis respecting how long a company in MPI's position and circumstances should expect it to take its staff to acquire required skills sets following the implementation of significant IT changes.

b) Please provide a narrative discussion describing the third party risks and their mitigation processes and strategies as referenced in the preamble.

Rationale for Question:

To gain a better understand of time and potential costs relating to on boarding IT skill sets (for successful implementation of Project Nova) and learn more about financial impacts of third party risks if not diligently mitigated.

RESPONSE:

a) The Gartner Benchmark did not allow for a detailed assessment of the skills requirement to support Project NOVA. Its research indicates that upskilling to support major projects requires a combination of utilizing existing personnel and recruiting external hires. The time to acquire skills varies by industry, types of skills required, size of the gap between existing skill levels and required skill levels, as well as the local market for skills that can be recruited to augment the organization. It also varies considerably based on whether formal training is employed or whether dynamic approaches are adopted. Organizations facing digital transformation similar to MPI must develop new skills quickly. While research shows that employees spend more time in formal training, this reactive approach often does not deliver skills at time of need and there is a lag between skill requirements and skill needs. Skill accelerators are therefore required to meet fast evolving skill needs. Skill accelerators include personalized learning in performance-driving moments, using current employee skills as stepping-stones to in-demand skills and using skill disseminators to build critical skills in local contexts at moments of need.

b) Gartner based its recommendation regarding third-party risk management on an identified gap in the MPI vendor management processes and a need to manage third-party risk. It did not allow for an audit of any potential third-party risks or determine corresponding mitigation plans.

CAC (MPI) 1-83

Part and Chapter:	**Part III BMK Appendix 3**	**Page No.:**	**17**
PUB Approved Issue No:	**12. Operational benchmarking**		
Topic:	**Investments in IT**		
Sub Topic:			

Preamble to IR:

On page 17 Part III BMK Appendix 3 Gartner observes:

Investment in IT:

> *"MPI's IT spending levels are higher than peers, but are within a typical range of spending excluding investments in digital modernization"*

Value Delivered"

- *"MPI has entered the build stage for modernization of legacy applications*
- *MPI has adapted services to changing business requirements, has adopted agile application development processes and implemented product management*
- *IT service management processes are more mature than peer organizations in every domain*
- *MPI has reduced IT security and privacy risks"*

> *"Previous investments in IT have yielded high levels of maturity in IT service delivery and recent investments have positioned MPI well to deliver on its modernization strategy. Gartner considers this to be a good level of progress for the year, especially when considering COVID-19 impacts* ***and has no general concerns****. MPI's IT management team continues to execute on continuous improvement initiatives and will*

> *consider recommendations provided by Gartner for inclusion in its roadmap."* **Emphasis added.**

Project Nova's capital costs have risen by 112.8 % from the 2021 Re-baseline to the 2022 Re-baseline.

Per page 25 of Part IV – NOVA Project and Part IV – Appendix 11, slide 11 the capital costs (excluding implementation and ongoing costs which are significant) changes can be summarized as follows ($000,000):

Projected Costs	**2022 Re-baseline**	**2021 Re-baseline**	**2019 Initial Costs**
Capital costs	$224.1	$111.7	$85.4
Contingency	49.4	16.8	21.4
Total	**$273.5**	**$128.5**	**$106.8**

Pages 29 of Part IV – (Project Nova) MPI is now projecting a negative NPV of $188.9 million.

Question:

a) In Gartner's view are the Project Nova capital cost escalations normal for a project the size such as MPI's Project Nova? Please provide a narrative discussion.

b) Please also provide a narrative discussion highlighting best practices in terms of proceeding with a project that projects a negative NPV of the magnitude of Project Nova.

Rationale for Question:

To assess Gartner's findings and advice in terms of proceeding with a project that projects a material negative NPV which MPI rate payers will ultimately pay.

RESPONSE:

a) The additional 112.8% in re-baselining costs from 2021 to 2022 were not captured in the benchmark since the analysis period for the benchmark is FY2020/21. Escalating costs are a common concern for insurance organizations engaged in legacy modernization. A Gartner survey conducted in 2014 determined that only 42% of projects meet the original budget and 82% incur schedule delays. This trend continues for peers who embarked on legacy modernization. Funding modernization programs has a direct measurable impact on IT budgets for public sector CIOs, with 49% of government respondents leading such programs showing a 2% to 7% annual increase in funding (compared to 27% for MPI for FY2020/21.) Note that this is the average increase above the total annual IT budget for an organization embarking upon a modernization initiative (not the year-over-year increase in project funding for a project subject to escalating costs.)

b) In addition to the projected increase in revenues associated with new business lines and growth in policy holders, NPV calculations must also include projected increases in hardware and software maintenance costs required to support the legacy infrastructure and application environment in its obsolete state. Nonetheless, it is common for legacy modernization initiatives to show a negative return on investment - as they are conducted out of a necessity to ensure continuity in the operation of the application services in support of core business functions where those applications have incurred technical debt. This occurs following a period where functional requirements driven by legislative mandates and business imperatives were prioritized over maintenance activities required to maintain the health of the infrastructure and application environment. Stagnation of the application portfolio inhibits the ability of the business to deliver new products and services, impacts application performance, results in an impact on organization efficiency and a risk of security and privacy exposures. Benefits are usually in the form of risk avoidance, rather than increased cashflow.

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Part and Chapter:	**Part III – Benchmarking Figure -7 MPI Exhibit 10**	**Page No.:**	**22**
PUB Approved Issue No:	**12. Operational benchmarking**		
Topic:	**Premium Metrics:**		
Sub Topic:			

Preamble to IR:

On page 22 Part III Benchmarking, Figure 7 (MPI Exhibit 10) shows the following:

	SGI Auto Fund	MPI Basic	ICBC
Gross Premiums Written per FTE	1,209	838,371	1,093,424

Question:

Please explain the significant difference between SGI and MPI/ICBC's metrics as shown in the preamble. Please provide the underlying calculations.

Rationale for Question:

To assess and better understand the significant premium metric differences between the benchmarked organizations as reported in Figure 7, MPI Exhibit 10.

RESPONSE:

Line 10, Gross Premiums Written per full time employee (FTE) for SGI Auto Fund, should read 1,029,000, not 1,029 as per revised figures (BMK Figure BMK 7 and BMK App 4-1).

Please see *Figure 1* below for a revised version of Figure BMK -7:

Figure 1 **2020-21 Comparative Benchmark Report *(revised Benchmarking Chapter Figure BMK-7 and Benchmarking Appendix 4 Figure BMK App 4-1)***

Line No.	Performance Measurement	SGI Auto Fund	MPI Basic Compulsory	ICBC
1	**Headcount Analysis**			
2	**1. FTEs per $100 Million of Gross Premiums Written**	97.2	119.3	91.5
3	**2. Mgmt FTEs per $100 Million of Gross Premiums Written**	14.8	8.9	10.4
4	**3. Staff FTEs per $100 Million of Gross Premiums Written**	82.4	110.4	81.0
5	**Span of Control Analysis**			
6	**4. Ratio of Staff to Management**	5.6	12.4	7.8
7	**Premium Metrics**			
8	**5. Total Gross Expenses as a % of Gross Premiums Written**	17.4%	12.2%	10.2%
9	**6. Average Gross Premiums Written (000's)**	988,696	1,158,693	3,257,925
10	**7. Gross Premiums Written per FTE**	1,029,000	838,371	1,093,424
11	**8. Gross Premiums Written Growth**	2.7%	1.3%	-9.0%
12	**9. Net Premiums Written as a % of Gross Premiums Written**	99.0%	98.8%	100.0%
13	**10. Total Net Expenses as a % of Net Premiums Written**	17.6%	**12.4%**	10.2%
14	**Policy Metrics**			
15	**11. Adjusted Policies In Force per FTE**	976.8	866.0	1297.0
16	**12. Total Gross Expenses per Adjusted Policy In Force**	183.8	**118.5**	85.7
17	**Traffic Safety Measurements**			
18	**13. Total Traffic Safety Expenses (000's)**	39,808	**7,708**	$ 29,822
19	**14. Total Traffic Safety Expenses as a % of Gross Premiums Written**	4.0%	0.7%	0.9%
20	**Other Performance Measurements**			
21	**15. Pure Loss Ratio**	63.3%	58.4%	59.0%
22	**16. Loss Adjustment Expense Ratio**	18.4%	12.6%	16.5%
23	**17. Total Gross Expenses per FTE**	**179,000**	**102,617**	**111,111**