TORONTO PARKING AUTHORITY

Enterprise Risk Management Update

Audit & Risk Management Committee| November 2024

Enterprise Risk Management (ERM) Board Update

Legend
⇆ Risk is stable
↑ Risk is trending up negatively
↓ Risk is trending down positively

Enterprise Risk Management Representation / Summary

In this Board Risk Report, Risk Owners have provided an update on (1) how their key risks trended since the last Board report (April 2024) and (2) how their risks will trend in the next 6 and 12 months. As part of this exercise, Management has identified that a key uncertainty related to the financial sustainability of the organization has been reduced through the approval of a new 3-Year Net Income Sharing Agreement. This new agreement will help to ensure that the necessary financial resources will be available to advance the organization's key strategic priorities. Additionally, the improved collaboration between the TPA and various City stakeholder groups (e.g. City Leadership / City Council, City Corporate Real Estate Management Division, CreateTO) will also help to ensure changes impacting the TPA are proactively managed.

Significant efforts to improve the TPA's technology environment from both a cyber resilience and customer-facing standpoint have been made since the last ERM report. This includes the implementation of various cyber security detection, monitoring and patching practices as well as the continued improvement of the Green P app. In the upcoming year, efforts to enhance the TPA's technology environment through the development of a long-term technology roadmap and an enterprise data governance framework have been planned. In the last months, the TPA has also remained focused on enhancing its parking facilities by improving security practices (e.g. upgrading lighting systems, security cameras, evaluating external security vendor practices) as well as completing emergency repairs and advancing major projects. From a workforce standpoint, the TPA has enhanced various human resource practices (e.g. the applicant tracking system, incentive and merit-base compensation structures) which are aimed at ensuring the TPA has the right skillsets to meet its strategic objectives. Additionally, the reinforcement of the TPA's Rules of the Road program through regular roundtables, town halls and surveys will also ensure that the TPA's workforce are aligned on the organization's vision and mission.

Since the last risk report, the Management Team has identified some emerging risks which will be evaluated as part of the ERM Refresh risk process that will occur next year. One of the emerging risks identified included the increasing frequency of significant climate events that have the potential to impact the use of the TPA's facilities/programs as well as the condition of the TPA's facilities. The Management Team has also identified the need to monitor the risk associated with electric vehicle recalls as they are publicized.

In line with the TPA's ERM Policy, an ERM Refresh process that will focus on the following will be completed:

- Reviewing and updating (where necessary) TPA's existing risk universe so that it comprehensively and accurately reflects the risks facing the TPA;
- Prioritizing the key risks for the next 12 months that may prevent the TPA from achieving its strategic priorities; and
- Updating risk mitigation plans for existing and new key risks.

Risk	Risk Owner	Residual Risk Rating As at Dec. 2023	Period Trend (Apr. to Nov. 2024)	Outlook (6 Month – Nov. 2024 to Apr. 2025)	Outlook (12 Month – Nov. 2024 to Nov. 2025)	Commentary
Financial Sustainability	Chief Financial Officer & VP Finance	**20**	↓	↓	↓	The Financial Sustainability risk has trended down positively as a result of the new 3-Year Net Income Sharing Agreement which was approved by City Council in June 2024. This new agreement includes an updated income sharing formula which increases the percent of net income that TPA will retain from its operations from 15 % to 25%. The incremental net income will support the execution of TPA's state of good repair (SOGR) program and continued investments in equipment modernization supporting its growth strategy. Additionally, the new agreement includes $48 million of direct capital funding through the end of 2026 that will be used to expand TPA's Bike Share Toronto and EV Charging programs. In the upcoming months, the TPA will continue to work with City staff in order to address issues that can impact the long-term sustainability of the TPA. This includes (1) ensuring alignment with City initiatives such as the City-Wide Parking and EV strategies, (2) securing capital funding for new acquisitions and SOGR items, (3) enabling parking enforcement through automatic license plate recognition (ALPR) technology and (4) managing real estate transactions and the commercial tenant portfolio. Lastly, to further support internal decision making, the TPA is in the final stages of selecting a vendor to implement a financial budgeting tool that is expected to go-live in early 2025.

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Change in the City's Direction	President	20	↓	⇆	⇆	The Change in the City's Direction risk has trended positively as a result of the collaboration between the TPA and City Leadership / City Council with regards to the net income sharing agreement. Additionally, there has been improved collaboration between the TPA, City Corporate Real Estate Management (CREM) division, and CreateTO with regards to understanding potential changes in the use of the TPA's inventory of off-street parking facilities to support housing initiatives. The TPA will continue to proactively identify, assess and manage City directed initiatives / activities that can impact the organization.
Cyber Security	Chief Information Officer	15	⇆	⇆	⇆	The Cyber Security risk has remained stable. However, cyber security will likely remain a key risk for most organizations, including the TPA, for the foreseeable future due to the increasing sophistication of cyberattacks that are now leveraging artificial intelligence (AI). The TPA continues to focus on reducing the likelihood of both opportunistic/indiscriminate and targeted cyber attacks. TPA has completed various initiatives to enhance the organization's cyber resilience, including: • The implementation of multi-factor authentication (MFA); • The transition to a new Endpoint Detection and Response System (Crowdstrike) as well as the integration of Crowdstrike with the organization's Security Information and Event Management system (SIEM); • Ongoing endpoint detection, vulnerability scanning, darkweb monitoring and patching of servers; and • The onboarding of internal personnel with relevant cyber security skillsets and establishing a Memorandum of Understanding (MoU) with the City of Toronto CISO to secure additional capabilities as needed.
Aging Parking Infrastructure	VP Operations	12	⇆	⇆	↓	The Aging Parking Instructure risk has remained stable as a result of major projects and emergency repairs which have been completed in the past months. Additionally, the TPA has conducted building and infrastructure inspections and assessments in order to proactively identify potential issues. To further reduce this risk going forward, a long-term Parking Infrastructure Investment Plan has been developed which outlines the State of Good Repair (SOGR) priorities to be addressed over the next 10 years. To support the plan, a capital budget has been defined with corresponding financial resources allocated. Additionally, the TPA continues to define an asset management plan with the support of an external consultant. The asset management plan will help to maintain the integrity of the TPA's core assets.
Organizational Culture	President	12	↓	↓	⇆	The Organizational Culture risk has trended down positively. The organization has heard positive feedback from the roundtables, town halls and surveys that have been conducted. Additionally, the TPA has continued to build a performance/merit-based culture across the different organizational levels (Senior Management, Middle Management, Front Line Supervisors, and Front Line Staff). In recent months, the TPA has had a few employee departures which the organization did not experience earlier in the year. Plans to fill vacancies/skill gaps will be developed along with a continued focus on ensuring consistency in the development of leaders across the organization. In the upcoming year, the TPA will also continue to focus on developing robust succession management plans for key personnel in order to ensure the culture of the organization is maintained in the event of departures. There will also be ongoing work to ensure that the TPA's culture is appropriately supportive of the unique vision and growth aspirations that have been developed.

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Security / Vandalism / Theft	VP Operations	12	⇆	⇆	⇆	The Security/Vandalism/Theft risk has remained stable despite the growing societal challenges related to homelessness within the City of Toronto. The TPA has implemented initiatives to improve the security of the organization’s facilities, including upgrading lighting systems, installing networked security camera systems, and reviewing/monitoring the performance of the external security vendor that is used. Through these actions, the TPA has seen a decline in critical security issues, which include thefts and assaults. Additionally, the TPA has continued to look at opportunities to partner with different organizations to develop solutions to support homeless individuals. As the winter season begins, it is expected that this risk may increase given the shelter that the TPA’s off-street facilities offers, however, the TPA will continue to work with its security vendor and the Toronto Police Services to have a security presence in key areas. Additionally, there will be more work done to improve access control at facilities leading up to the winter season.
Parking Equipment / Technology Management	VP Operations	10	↓	↓	↓	The Parking Equipment/Technology Management risk has decreased as a result of the installation of new equipment such as pay by plate parking meters and the continued improvement of the Green P app which now has real-time occupancy information. In order to further reduce this risk, a long-term technology roadmap for parking equipment investments is in the process of being finalized. This long-term technology roadmap along with the 10 year capital budget will ensure that aging equipment is appropriately upgraded and replaced along with introduction of new Green P functionality to support parking identification, payment processing and on/off street parking integration.
Outdated IT Infrastructure & Systems	Chief Information Officer	9	⇆	⇆	↓	The Outdated IT Infrastructure & Systems risk has remained stable as a result of the TPA continuing to invest in upgrading/replacing its legacy applications. This has included the implementation of new SQL servers as well as transitioning to Office 365. Additionally, the TPA has continued to build its IT team by hiring various key roles including an Associate IT Director, Data Architect, SAP Architect, System Administer, and Senior Project Manager. A larger IT team with different skillsets will help to further advance the organization’s IT maturity level. In order to continue improve the TPA’s IT environment in the future, a long-term IT roadmap is being developed as well as ongoing evaluations are being conducted to identify solutions to enhance the TPA’s network. In addition, the TPA continues to upgrade existing applications used within the organization (e.g. SAP, SAM) as well as will be developing/deploying new solutions including a Data Analytics Platform (DAP) and Distributed Antenna Systems(DAS) at more car parks.

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Talent Attraction & Retention	VP Human Resources	9	⇆	⇆	↓	The Talent Attraction & Retention risk has remained stable as a result of the TPA continuing to enhance its human resources practices. This includes refining the organization's online applicant tracking system and onboarding process, benchmarking incentive and merit based compensation programs and benefit programs against peers and employee feedback, and continuing to improve the quality of the performance management system. Additionally, the TPA continues to look to engage employees through regular surveys as well as drive the adoption of the Rules of the Road program. These changes along with the focus on externally communicating the TPA's growth/expansion goals and success stories will help to attract and retain talent. As the TPA evolves, there will be a continued focused on ensuring the workforce has the necessary skillsets and competences to succeed. This will involve the completion of talent reviews, the development of corresponding succession plans (where needed) as well as the development of a focused leadership management curriculum.
Data Ownership	Chief Information Officer	6	⇆	⇆	↓	The Data Ownership risk has remained stable as a result of the TPA continuing to establish clear data ownership clauses within new third-party contracts. A key focus in 2025 will be on issuing an RFP in order to onboard a third-party vendor that will be able to assist the TPA with building a robust enterprise data governance framework. A data governance framework will help to ensure that clear data ownership policies/guidelines are in place, that data is appropriately classified, and that processes to resolve data ownership disputes are in place. As the TPA further matures its data environment, the organization will assess the need to identify data-specific roles such as data owners and data scientists.
Internal Scalability	VP Operations	6	⇆	⇆	⇆	The Internal Scalability risk has remained stable as a result of the continued formalization of new support functions such as a FP&A and Strategic Sourcing teams that will help to improve decision-making and drive efficiency efforts across the organization. Additionally, long-term capital, technology and operational roadmaps have been developed which will help to ensure future systems and processes take into account scalability considerations. A key initiative to drive scalability in the future will be the development of the TPA's Service Operations Centre (SOC) which will help to improve operational performance and customer connection to the TPA. As the TPA looks to execute the large transformation initiatives it has identified, the organization will need to allocate resources to ensure that appropriate change management strategies have been put in place (e.g. end-user training, updating of documented procedures, etc.) in order to minimize the impact to the TPA's people and customers.

Appendix: Key Risk Action Plans

TPA's Key Risk Action Plans

Ref	Risk	Action Plan	Expected Completion Date	Responsible Person(s)	Status
1	Financial Sustainability	**Phase 1:** Secure a sustainable net income sharing agreement. **Phase 2:** Establish a long-term Sustainable Framework with the City that includes addressing issues such as: • City-Wide Parking Strategy (including centralization of commercial parking) • Capital funding for new acquisitions and SOGR • Enforcement through automatic license plate recognition (ALPR) technology (TBD) • Management of real estate transactions and commercial tenant portfolio	March 31, 2024 December 31, 2024	President President	Complete In-progress
2		Brief annual review for City Leadership on the income sharing agreement relative to the TPA's annual operating plan.	June 30, 2024	President	Complete
3		Implement a Budgeting and Reporting tool.	January 31, 2025	Chief Financial Officer & VP Finance	In-progress
4		Renegotiate all underperforming contracts: • Ex Place • TTC • PF&R	December 31, 2024 December 31, 2025 TBD	VP Growth & Innovation	Complete Not Started Not Started
5	Change in the City's Direction	• Share TPA's perspective on the City's emerging parking strategy. • Provide the TPA Board with an update on the City's progress on emerging parking strategy.	June 30, 2024 March 31, 2025	President	Complete Not Started
6		Define and confirm the TPA's role, responsibilities and authority within City-Wide EV charging strategy.	June 30, 2025	President	In-progress
7	Cyber Security	**System Monitoring:** Endpoint detection, vulnerability scanning and darkweb monitoring.	January 15, 2024	Chief Information Officer	Complete
8		**Introduction of Multi-Factor Authentication (MFA)** **Introduction of Biometric login (Password less)**	March 31, 2024 December 31, 2025	Chief Information Officer	Complete In-progress
9		**Endpoint Protection:** Manage endpoint devices.	May 15, 2024	Chief Information Officer	Complete

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10	Cyber Security	**Patching of Critical Infrastructure:** Regular patching of servers to reduce the risk of a cyber incident.	December 15, 2024	Chief Information Officer	Complete
11	Cyber Security	Integrate Security Information and Event Management System (SIEM) and Endpoint Detection and Response System (EDR) in order to identify live/known indicators of compromise (IOCs).	August 31, 2024	Chief Information Officer	Complete
12	Cyber Security	Improve TPA's cyber security posture in order to align with market cyber security insurance recommendations.	August 31, 2024	Chief Information Officer	Complete
13	Cyber Security	Sign Memorandum of Understanding (MOU) with City of Toronto Office of the Chief Information Security Officer (CISO) in order to secure additional cyber security capabilities/intelligence as needed.	September 30, 2024	Chief Information Officer	Complete
14	Cyber Security	Hire additional cyber security personnel.	December 31, 2024	Chief Information Officer	In-progress
15	Aging Parking Infrastructure	• Prototype the Preventative Maintenance Plan at 8 locations (garages) • Development of a Preventative Maintenance Plan.	December 31, 2024 March 31, 2025	VP Operations	Complete In-progress
16	Aging Parking Infrastructure	Development of a Formal Asset Management System: • **Q3 2024:** Develop and publish an Asset Management Policy. • **Q1 2025:** Phase 1 - TPA Asset Management Plan, Level of Service Framework, Asset Management Governance & Training, Asset Condition/Risk Framework, Risk Review/Risk Based Decision Making, Investment Strategy, Life Cycle Action Plan	December 31, 2026	VP Operations	In-progress In-progress

TPA's Key Risk Action Plans

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17	Organizational Culture	Develop and implement employee recognition program across the organization.	November 29, 2024	VP Human Resources	In-progress
18		Conduct full employee engagement survey with robust action plans.	December 31, 2025	VP Human Resources	Not Started
19		Continue to embed TPA's Rules of the Road and Core Values by organizing: • Trimester based Executive Management Team led roundtables with all staff; • Semiannual Town Halls; and • Periodic joint (Management/Union) employee events and initiatives (e.g. United Way campaign, employee potluck/appreciation socials, employee recognition events for work anniversaries or new joiners)	Ongoing	VP Human Resources	In-progress
20	Security / Vandalism / Theft	Build an In-house Security Capability: • **Q1 2024**: Identify opportunities for non-contracted / in-house security assignments. • **Q2 2024:** Create business case for non-contracted security assignments. • **Q1 2025:** Engage Union to discuss opportunities, challenges and future pilot project. • **Q2 2025:** Create job descriptions, training program, and create recruitment plan.	December 31, 2025	VP Operations	Complete Complete In-progress In-progress
21		CCTV and Emergency Call Box Installation at Parking Garages (Phase 1 - First 8 Carparks) • **Q1 2024:** Initiate CCTV (Non-networked) installs at additional sites. • **Q4 2024:** Begin network implementation including connecting fibre to approx. 8 sites (pending scope change approval from both TPA and CoT IT groups) • **Q4 2024:** Install local CCTV monitoring availability for on-site guards and ambassadors. *The ability to complete this work is dependent on the network implementation that is being done by the CoT.* • **Q2 2025:** Complete network connectivity at completed non-networked CCTV sites and initiate remote monitoring.	June 30, 2025	VP Operations	Complete In-progress Not Started Not Started
22		Implementation of Pedestrian Access Control Program – 5 Garages Completed **Note:** Pedestrian Access Control will be implemented in an additional 27 car parks by 2027, focusing on locations that meet specific deployment criteria, such as below-grade parking with limited pedestrian access. This is part of the broader rollout of the new Parking Access Revenue Control Systems (PARCS) software and equipment.	December 31, 2024	VP Operations	In-progress

TPA's Key Risk Action Plans

Ref	Risk	Action Plan	Expected Completion Date	Responsible Person(s)	Status
23	Parking Equipment / Technology Management	On/Off-Street hardware and software service level agreement (SLA) monitoring, enforcement and vendor collaboration: • **Q3 2024:** Integrate all data to TPA Cloud and BI. • **Q4 2024:** All new and renewed contracts to include SLAs.	September 30, 2024	VP Operations	TBD In-progress
24		Systems Operations Centre Modernization: • **Q3 2024:** Consulting Award (July Board Report) • **Q4 2024:** Consulting Award (Completed) • **Q4 2024 - Q1 2025:** Business Transformation (Concept Design & Business Requirements) • **Q3 2025:** Construction Tender and Contract Award • **Q4 2025 - Q3 2026:** Construction, Temp SOC Relocation & Systems Integration	September 30, 2025	VP Operations	Complete Complete In-progress Not Started Not Started
25		Modernize On-Street Parking: Advanced Hardware, Efficient Equipment, Seamless System Integration with Unified PARCS Software. PbP Meters, Sensors, Payment Integration, & more: • **Q1 2024:** Phase 1 – Mobile Only Zones with Scan to Pay QR Code Functionality & Text to Pay in Pilot Locations (10 locations out of 1000) • **Q4 2025:** Phase 2 – Mobile Only Zone Expansion – (300 locations out of 1000) • **Q3 2023:** Phase 1 – 225 PBP Meters deployed into Operation (225 out of 2200) • **Q4 2024:** Phase 2 – 393 PBP Meters to be deployed into Operation (618 out of 2200) • **Q4 2025:** Phase 3 – 600 PBP Meters to be deployed into Operation (1218 out of 2200) • **Q4 2023:** Phase 1 – 30 In-Ground Parking Occupancy Sensors deployed – (36 locations out of 21,500) • **Q4 2024:** Phase 2 – 500 In Ground On-Street Parking Occupancy Sensors and 400 In Ground Off-Street Parking Occupancy Sensors (900 locations out of 21,500)	December 31, 2025	VP Operations	Complete In-progress Complete In-progress Not Started Complete In-progress

TPA’s Key Risk Action Plans

Ref	Risk	Action Plan	Expected Completion Date	Responsible Person(s)	Status
26	**Parking Equipment / Technology Management**	Updating and modernization the hardware and equipment at each parking garage, along with overhauling the Parking Access Revenue Control Systems (PARCS) software, involves a comprehensive approach that that touches an various technological and operational improvement: • **Q2 2024:** Secondary Evaluation Completed. Preferred Vendor Shortlisted Completed • **Q4 2024:** At minimum, four TPA Facilities to showcase newly deployed PARCS equipment including License Plate Recognition (LPR), digital payment options for Gated Facilities and ticketless entry / exit. • **Q1 2025:** One vendor will be selected as the preferred PARCS vendor. The RFP award will occur in January 2025 with the final Board approval occurring in March 2025. • **Q4 2025:** TPA will co-develop a roadmap with selected vendor outlining parking modernization plan of all parking facilities over the next 3-5 years.	June 1, 2026	VP Operations	Complete In-progress Not Started Not Started

TPA’s Key Risk Action Plans

Ref	Risk	Action Plan	Expected Completion Date	Responsible Person(s)	Status
27	Parking Equipment / Technology Management	Mobile CX and Payment Platforms (App 3.0 and Web): **Green P Parking App:** • **Q1 2024:** Digitization of Fast Track on Green P App (B2B, Employees, City Councillors, etc) • **Q2 2024:** Introducing Text to Pay functionality – On Street Mobile Only Zone Pilot Locations • **Q2 2024:** Introducing Customer Feedback through Green P app (User experience, Parking Experience, etc.) **Note:** A larger rollout for all Green P app users to be completed in 2025. • **Q2 2024:** Strategy alignment on Future Green P App Roadmap (Third Party Vendor i.e Passport / Honk / Pay by Phone etc., vs TPA Development of Enterprise Digital Payment Platform) **Note:** TPA has decided to move forward for the next three years (subject to Board approval) with the Green P App with Passport. • **Q2 2024:** Removal of Green P Wallet Requirement Analysis. **Note:** A decision to not remove the Green P Wallet was taken. • **Q4 2024:** Introducing Green P App Payment functionality at Gated Off-Street Lots (Scan in / Scan Out Payment abilities) • **Q3 2024:** Real Time On / Off Street Parking Availability through Green P App – Occupancy Measurement (Clevercity + Eleven X) • **Q4 2024:** Consolidated EV / Parking Experience through Green P App (Find and pay for EV Charging and Parking though Green P App) **CX & Payment Platform:** • **Q2 2024:** Introduce HONK, a new digital payment and parking reseller into Off-Street Surface Lot locations (4 surface Lot Locations as 1 year pilot) • **Q4 2025:** New Digital Parking and Reservations Platform to accelerate sales of Pass and Permits. **Note:** This will be done in coordination with the selected PARCS vendor.	March 31, 2026	VP Operations	Complete Complete Complete Complete Complete In-progress Complete In-progress Complete Not Started

TPA's Key Risk Action Plans

Ref	Risk	Action Plan	Expected Completion Date	Responsible Person(s)	Status
28	Outdated IT Infrastructure & Systems	**Migrating the legacy applications:** Replace with new tool or upgrade to the latest version: • Migration from Google Suite to Office 365 • Upgrade of SAP • Implementation of SAP Asset Management • Data Analytics Platform (DAP) • HUB	June 30, 2025	Chief Information Officer	Complete Not Started Not Started In-progress In-progress
29		Hire adequate IT staff to meet the growing IT needs in 2023-2024.	December 31, 2024	Chief Information Officer	In-progress
30		**Build long-term IT roadmap:** Introduce innovation and speedup go-to-market strategy.	December 31, 2025	Chief Information Officer	In-progress
31		**Build redundant and high availability network:** Identify a vendor to assist with the design and evaluation of potential network and hardware upgrade options in order to keep up with the demand, introduction of cloud technology. **Build redundant and high availability network:** Implement network and hardware vendor recommendations.	March 31, 2025 December 31, 2025	Chief Information Officer	In-progress Not Started
32		Complete a cost-benefit analysis to determine the approach (external vendor-led or City of Toronto CISO resource supported) to migrate from an on-premise environment to the cloud environment. Execute the migration from being on-premise to a cloud environment.	March 31, 2025 December 31, 2025	Chief Information Officer	In-progress Planned
33		Install a distributed antenna system for 4 Car Parks in order to bring cellular services to underground garages and to continue to improve data backup and resilience. Issue additional RFP to secure installation support in 2025 for 4 Car Parks.	December 31, 2024 November 31, 2024	Chief Information Officer	In-progress Not Started

TPA’s Key Risk Action Plans

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34	Talent Attraction & Retention	Strengthen and standardize recruitment and onboarding processes.	October 31, 2024	VP Human Resources	In-progress
35		Compensation structure and benchmarking of exempt (non-union) positions.	March 31, 2025	VP Human Resources	In-progress
36		Talent review for all leadership and exempt roles.	December 31, 2024	VP Human Resources	In-progress
37		Issue an RFP in order to obtain external support to assist the development of a leadership management curriculum.	May 30, 2025	VP Human Resources	Not Started
38		Develop detailed succession plans following the completion of the talent review for leadership and exempt roles (Action Plan #36).	December 31, 2025	VP Human Resources	Not Started
39		Strengthen and standardize recruitment and onboarding processes.	October 31, 2024	VP Human Resources	In-progress

TPA's Key Risk Action Plans

Ref	Risk	Action Plan	Expected Completion Date	Responsible Person(s)	Status
40	Data Ownership	**Legal Agreements and Contracts:** Include clear data ownership clauses in contracts with third-party vendors or partners.	August 31, 2024	Chief Information Officer	Complete; However, this will be an ongoing action as new third party vendors/partners are onboarded.
41		**Data Governance Framework:** Award contract to vendor to support the establishment of an enterprise data governance framework. **Data Governance Framework:** Establish a robust enterprise data governance framework that defines roles, responsibilities, and processes for data ownership and management within the organization. **Note:** Data governance requirements have been included in other projects such as the development of the new Data Analytics Platform (DAP).	October 31, 2024 December 31, 2025	Chief Information Officer	In-progress Not Started
42		**Data Ownership Policies:** Develop and communicate clear data ownership policies and guidelines that specify the rights and responsibilities of 3PV.	November 30, 2025	Chief Information Officer	Not Started
43		**Data Classification:** Implement a data classification system to categorize data based on its sensitivity and importance.	December 31, 2025	Chief Information Officer	Not Started
44		**Hire Data specific resources:** Hire experts in data science, AI, GenAI, modelling.	December 31, 2025	Chief Information Officer	In-progress
45		**Data Encryption:** Encrypt sensitive data, both in transit and at rest, to protect it from unauthorized access, even if physical or digital assets are compromised.	September 30, 2026	Chief Information Officer	In-progress
46		**Conflict Resolution Procedures:** Establish procedures for resolving disputes related to data ownership.	November 30, 2026	Chief Information Officer	Not Started

TPA's Key Risk Action Plans

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47	Internal Scalability	**Develop a Flexible Workforce:** Build a flexible workforce by implementing practices such as cross-training employees, hiring contractors or temporary staff during peak periods, and leveraging remote work capabilities:
		• **Q3 2024 – Q1 2025:** Complete workforce planning analysis on labor intensive operations departments
		  • Analysis to determine productivity metrics to plan human resource allocation.
		• **Q1 2025:** Complete a gap analysis of the workforce and look for the following opportunities:
		  • Cross-train employees
		  • Implement flexible work arrangements
		  • Leverage technology
		  • Use contract and temporary workers
		  • Empower and provide autonomy to employees
			March 31, 2025	VP Operations	In-progress
					
					Not Started

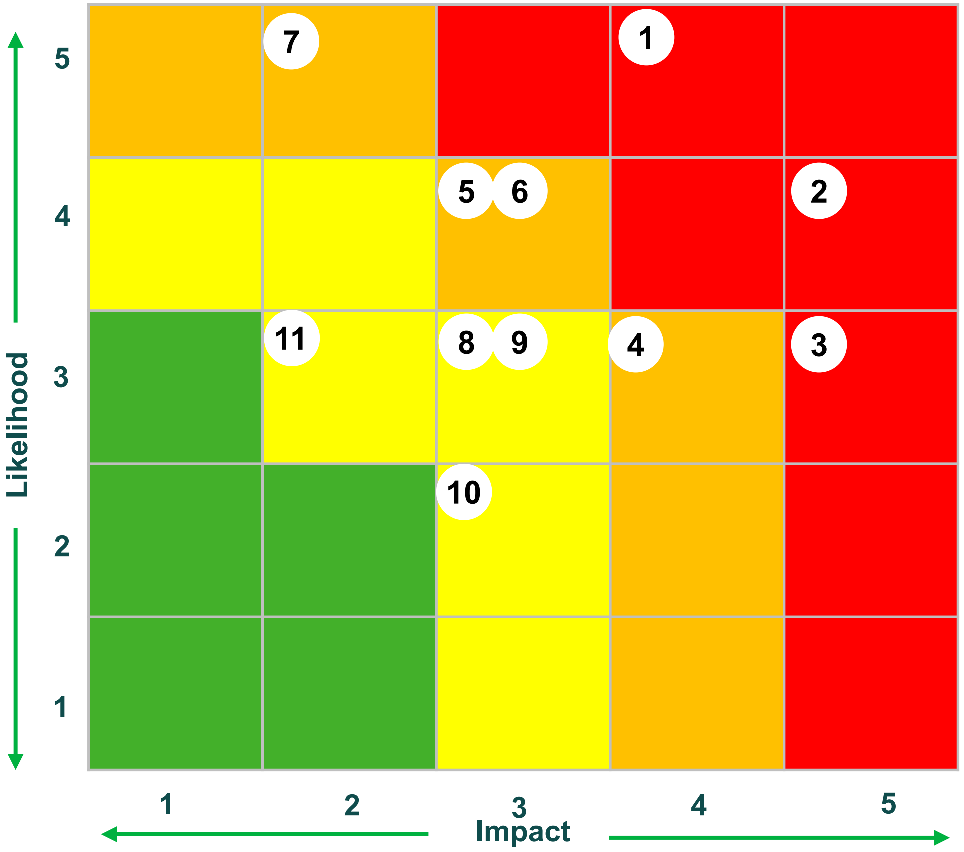
48	Internal Scalability	**Data Driven Decision Making:** Utilize data analytics to monitor key performance indicators (KPIs) and identify potential scalability issues before they become critical.	December 31, 2024	VP Operations	Complete; This will be an ongoing initiative for the TPA as we continuously align our key performance indicators (KPIs) and metrics with our evolving strategy and business objectives.

49	Internal Scalability	**Streamline Processes:** Continuously review and optimize internal processes to ensure they are scalable and efficient. This may involve automation of repetitive tasks, standardization of workflows, and elimination of unnecessary bureaucracy:
		• **Q1 2024:** Review and identify internal processes that are inefficient and not scalable.
		• **Q2 2024:** Identify five processes that can be automated to eliminate repetitive tasks, standardize workflows, and eliminate unnecessary bureaucracy.
		  • Procure to Pay Process
		  • DG4 Metre Rate Change Process
		  • Incident Reporting & OH&S Reporting
		  • Field Work Order Assignment
		  • Customer Service Response – AI Chat Bot
		• **Q1 – Q4 2025:** All identified processes are ongoing as separate projects to either refine existing operating platforms, adopt new platforms and/or change work practices. Work for process change on these items will continue through 2025.
			Ongoing	VP Operations	Complete
					Complete
					
					In-progress

Appendix: TPA Key Risk Heatmap & Assessment Criteria

TPA's Residual Risk Rating Heatmap

The heatmap below summarizes the residual risk ratings that were determined as part of the detailed risk assessments in December 2023.



#	Risk	Residual Likelihood	Residual Impact	Residual Risk (L X I)
1	Financial Sustainability	5	4	20
2	Change in the City's Direction	4	5	20
3	Cyber Security	3	5	15
4	Aging Parking Infrastructure	3	4	12
5	Organizational Culture	4	3	12
6	Security / Vandalism / Theft	4	3	12
7	Parking Equipment / Technology Management	5	2	10
8	Outdated IT Infrastructure & Systems	3	3	9
9	Talent Attraction & Retention	3	3	9
10	Data Ownership	2	3	6
11	Internal Scalability	3	2	6

TPA's Risk Likelihood Scale

Assessment Level	Description	Occurrence Rate	Probability (The probability the risk materializes in the next year)
Rare (1)	The risk event is extremely unlikely to occur, and may only occur in exceptional circumstances.	Once every > 8 years	0 - 10%
Unlikely (2)	The risk event could occur, but is improbable.	Once every 4 – 8 years	10 – 30%
Possibly (3)	The risk event might occur under some circumstances.	Once every 1 – 4 years	30 – 60%
Likely (4)	The risk event will probably occur in most circumstances as it is inherent to the organization.	Once every 12 months	60 – 90%
Almost Certain (5)	The risk event is expected to occur in most circumstances and potentially multiple times a year.	Multiple times per 12 months	90 – 100%

TPA's Risk Impact Scale

Dimension	Very Low (1)	Low (2)	Moderate (3)	High (4)	Very High (5)
Financial Impact to Costs	• Minimal financial loss of less than $100,000	• Minor financial loss of $100,000-$500,000	• Moderate financial loss of $500,000-$1M	• Major financial loss of $1M – $3M	• Immense financial loss of more than $3M
Operation / Process Disruption	• Events resulting in little or no disruption to the organization's technology platforms, customer usage of TPA's parking spots and bike share program, and/or development activities.	• Events resulting in minor disruptions to the organization's technology platforms, customer usage of TPA's parking spots and bike share program, and/or development activities.	• Events resulting in modest disruption to the organization's technology platforms (<3 hours), customer usage of TPA's parking spots and bike share program (decrease of <5%), and/or development activities (<1 week).	• Events resulting in significant disruption to the organization's technology platforms (3 – 5 hours), customer usage of TPA's parking spots and bike share program (decrease of 5% - 15%), and/or development activities (1 - 4 weeks).	• Events resulting in widespread disruption to the organization's technology platforms (>5 hours), customer usage of TPA's parking spots and bike share program (decrease of >15%), and/or development activities (>1 month).
Health & Safety (Including customers, employees, public)	• Events which require no / minimal first aid treatment or intervention.	• Events resulting in injuries which require first aid treatment or minor intervention only.	• Events which require casualty treatment and professional intervention.	• Events resulting in permanent loss of function or disability.	• Events resulting in single or multiple fatalities or numerous cases of permanent loss of function or disability.
Reputation & Stakeholders (Including customers, media, gov't, public, partners)	• Events have no impact on the relationship between TPA and the City of Toronto. • Events which do not attract attention from the media. • No impact on new or current development projects.	• Events lead to minor strains or tensions in the relationship between TPA and the City of Toronto. • Events subject to incidental coverage by local media that highlights some concerns about TPA. • Insignificant impact on new or current development projects. • Stakeholder trust can be regained quickly (<1 month).	• Events lead to moderate friction between TPA and the City of Toronto, leading to some disruption in the relationship. • Events subject to incidental coverage by regional media that is critical of TPA, including highlighting potential shortcomings or failures. • Considerable impact on new or current development projects. • Stakeholder trust is challenging to regain (1- 2 months).	• Events lead to significant deterioration in the relationship between TPA and the City of Toronto, leading to strained communication, reduced trust and some conflicts. • Events subject to coverage by national media that is critical in nature. • Significant impact on new or current development projects. • Events that may be subject to discussion during annual meetings of the Board / Management. • Stakeholder trust and the organization's image has been damaged (3 – 4 months).	• Events lead to severe breakdown in the relationship between TPA and the City of Toronto, leading to public disagreements and complete breakdown in communication and cooperation. • Numerous critical opinions / investigative reports in national media that leads to a plumet in customer usage and widespread public anger. • Events that may initiate actions against organization's Board. • Serious loss in stakeholder trust, a loss of Board and Management credibility (> 4 months / irrecoverable).
Legal & Regulatory	• Events not subject to regulatory scrutiny / intervention. • Events not triggering disputes of any kind.	• Events may trigger administrative action or investigation against TPA. • Disputes and claims may be resolved without litigation.	• Decisions by relevant regulatory agencies which require non-standard actions be made by TPA to ensure compliance. • Disputes and claims which may require resolution by litigation or arbitration.	• Regulatory sanctions having significant impact on TPA's operations or the overall cost to maintain compliance. • Single case of litigation or arbitration.	• Severe regulatory consequences which cause long term disruption to TPA's operations or very high costs to be incurred to adapt to requirements. • Criminal sanctions against the organization's Board and Management. • Multiple cases of litigation or arbitration, including class action litigation.