



## The Regional Municipality of York

Committee of the Whole  
Community and Health Services

September 5, 2024

**FOR DECISION**

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# Report of the Acting Commissioner of Community and Health Services Update on the Paramedic Services Master Plan 2021 – 2031

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## 1. Recommendations

1. The Regional Chair write a letter to Provincial Minister of Health requesting an update on the Models of Care Innovation Fund and advocating for stable, sustainable provincial funding for the Region's Improving Patient Access to Care in the Community Program.
2. The Regional Clerk circulate this report to the local municipalities, local hospitals, York Region Ontario Health Teams and the Ministry of Health for information.

## 2. Purpose

This report updates Council on progress of the [Paramedic Services Master Plan 2021 – 2031](#) (Master Plan), and highlights external factors impacting its implementation beyond 2026.

### Key Points:

- Since implementation of the Master Plan, Paramedic Services achieved significant milestones including expansion of its fleet (4 ambulances and 21,840 of additional annual ambulance hours) and staffing (68 full-time equivalent staff), and completion of one new station in Markham to provide equitable response times across the Region
- The Master Plan is designed to support an eight-minute response time target for life threatening calls 70% of the time equitably across all municipalities. To achieve this the Master Plan considers several key variables including population growth, demographic trends, call demand, staffing, hospital offload, and paramedic call time
- Population projections for the Master Plan were 8% higher than actual population growth; however, the Master Plan's 10-year outlook accounts for long-term trends. Despite this difference, to meet performance targets Paramedic Services must continue

with the planned resource acquisitions due to increasing call demand and operational challenges including:

- Increasing vehicle costs
  - Longer staff leaves
  - Higher number of Workplace Safety and Insurance Board claims
  - Longer paramedic time on tasks due to system complexities
  - Shortages of qualified staff
  - Lack of stable provincial funding for community paramedicine initiatives
- In 2026, an updated Master Plan for 2026 to 2031 will be presented to Council for approval. It will incorporate changes based on evaluation of the new Medical Priority Dispatch System (Dispatch System) and include data trends related to 911 call demand, population growth, and 911 caller patterns and implications for paramedic resources.
  - In August 2023, the Ministry of Health (Ministry) approved York Region Paramedic Services' Improving Patient Access and Care in the Community Program (Program) for eligible 911 patients; however, to sustain the Program, permanent provincial funding is needed

### **3. Background**

#### **Paramedic Services' Master Plan 2021 – 2031 provides a 10-year framework for addressing emergency care needs equitably across all local municipalities**

Since 2011, Paramedic Services has been working with experts in emergency services to develop and update its Master Plan. Approved by Council in 2022, the Master Plan identified the need for an additional \$62.3 million in gross funding and an estimated \$31.15 million net operating investment from 2023 to 2031 to fund 305 additional frontline paramedics, 39 program support staff, and 53 new vehicles to meet demand and comply with legislated and Council approved response time targets.

The updated Master Plan confirmed locations of existing and planned paramedic stations are well positioned to provide equitable response times across the Region to meet current and future demands and identified the need for an additional station in South Keswick. The Master Plan also identified \$27.2 million in capital expenditures to fund replacement and growth stations and vehicles (ambulances, special response units and a logistics vehicle).

## 4. Analysis

### Progress has been made on implementing the Master Plan with advancements in key operational areas

Since approval of the Master Plan, Paramedic Services has hired 100% of the target number of paramedics and support staff, is 67% on track with implementing net new ambulances through 2023 and is 40% on track with opening stations planned to 2031. There have been some delays due to inflationary costs and other external factors, contributing to the lag in acquiring ambulances and constructing stations, as detailed later in this report.

Table 1 provides a overview of these key achievements by year. Paramedic Services expanded its fleet and staffing, opened one new station, and is on track to complete a replacement station by December 2024. These efforts have been instrumental in improving response times and meeting response times targets as reported to Council in [June 2024](#). By 2031, additional vehicles will be deployed to stations in Aurora, East Gwillimbury, and Vaughan as noted in Table 2 to address the growing demand in these areas as identified in the Master Plan.

**Table 1**  
**Master Plan Milestones by Year**

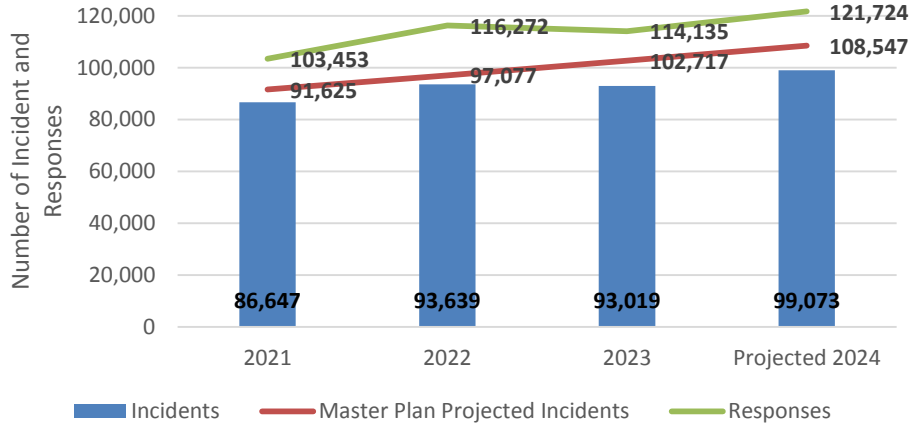
Date	Resource Added
<b>2023</b>	1 new Station (180 Cachet Woods, Markham #27)
	36 full-time equivalent staff
<b>2024</b>	2 Ambulances, equivalent to 13,104 weekly ambulance hours (Markham and Whitchurch-Stouffville)
	1 replacement Station at Jacob Keffer, Maple #32* 32 full-time equivalent staff
	2 Ambulances, equivalent to 8,736 weekly ambulance hours (King and Georgina)

\*Note: Jacob Keffer Station 32 will be completed by December 2024

Figure 1 shows 911 call volumes and Master Plan projections compared to ambulance responses, from 2021 to 2024, demonstrating resources needed to adequately service calls. Most calls require at least 1.25 ambulance responses, and Paramedic Services needs to be resourced for the response needed, not just 911 call volume alone. Moreover, the number of large incident calls requiring multiple resources is increasing. In 2023, there were 1,294 incidents requiring four or more ambulances to respond to a single call, up from 751 incidents in 2021. If Paramedic Services only acquired resources based on call volume, capacity would be strained. The Master Plan projects both call volumes and the resources needed for adequate response.

**Figure 1**

**Call Demand and 911 Responses compared to Projections 2021 - 2024**



Source: Paramedic Services Ambulance Dispatch System  
 Note: 2024 projection for responses (green line) is based on year-to-date actuals as of June 2024 (blue bar).  
 Note: Number of incidents reported for 2023 updated since the last [Paramedic Services Response Time Report](#)

**Paramedic Services continues to plan for the remaining stations and ambulance resources**

The Master Plan identified the need for one new station in South Keswick to meet increasing demand, in addition to five additional stations already included in the capital budget to open between 2023 to 2031 for a total of 30 stations. Table 2 below provides the status of the remaining stations identified in the Master Plan.

**Table 2**  
**Planned Paramedic Services Ambulance Stations**

Station	Replacement or New	Completion Timeline
Ballantrae # 20	Replacement	2026
Aurora Station #18	Replacement	2027
Teston and Jane #33	New	2026
South Keswick #14	New	2027
Vaughan Metro Centre #35	New	2031

Of the 50 new ambulances identified in the Master Plan, 14 (3 enhancements and 11 replacements) were ordered in 2023 with delivery expected to begin in November 2024.

### **Paramedic Services continues to innovate**

As outlined in the Master Plan, Paramedic Services will receive its first electric ambulance by the end of 2024. Anti-idling technologies in ambulances have reduced engine idle time and fuel consumption, saving about \$360,000 and reducing greenhouse gas emissions by 226 tonnes since 2020.

In April 2024, Paramedic Services launched the Improving Patient Access and Care in the Community Program. This initiative is an innovative new model of care that integrates paramedics into the broader healthcare system to perform enhanced diagnostics, provide on-scene treatment, discharge patients at the scene, transport them to appropriate non-hospital destinations and coordinate care with healthcare partners. Early results are promising, with about 57% of eligible patients being discharged at scene (e.g., home) with care plans, positioning York Region as a pioneer in Ontario for interprofessional practice and primary care integration.

This report recommends Regional Council advocate for the Province to provide permanent funding for the Program to build capacity and sustainability. An update on outcomes of this Program will be provided in a future report to Council.

### **Fostering a positive workplace culture is a priority**

In alignment with the Master Plan, paramedics have access to wellbeing, equity, diversity and inclusion programs designed to support positive workplace culture, a crucial step for mitigating the risks of trauma-exposed professions like paramedicine. York Region Paramedic Services is a provincial leader in fostering a positive work environment where paramedics feel safe and supported to remain in the workplace, which is essential given the high rates of mental health conditions in this profession. Paramedics experience higher rates of post-traumatic stress injury (24.5%), major depression (29.6%), and generalized anxiety disorders (20.5%) compared to municipal police forces, with 42.5% of paramedics using the Region's Employee Family Assistance Program for mental health and stress-related issues.

In 2025, Paramedics Services will conduct a workforce analysis in consultation with People, Equity and Culture to evaluate opportunities for continued support of frontline staff. Current initiatives and supports include Peer Support Teams, the Therapy Dog Program, Threat Management Training, Preventing External Violence against Paramedics, Road to Mental Health Readiness Training, and Applied Suicide Intervention Skills Training, improvements in the leadership-to-staff support ratio model, and leader development programs.

Providing a supportive, trauma-informed workplace enhances overall wellbeing, supports paramedics to remain in their roles and return to work after traumatic events, and boosts job satisfaction and retention. Prioritizing these programs supports long-term planning to continue meeting community needs.

## **Continuing the resource allocations outlined in the Master Plan is necessary to maintain momentum in implementing the Master Plan**

York Region's population is growing although 8% lower than the rate used in the original Master Plan analysis. Despite this slower growth, other system variables (such as increased staff leaves, and time on task) mean that the resource requirements outlined in the Master Plan continue to be needed. In developing the Master Plan, a multi-variable approach was used by the consultant, Operational Research in Health Limited, which considered population growth, historical 911 demand and an aging population. Each factor contributes to 911 demand: population growth accounts for 2.5%, aging population 1.9% and call demand 2.3% over a 10-year period. Given that multiple variables influence 911 demand, the current Master Plan is scheduled to be remodeled in 2026 ahead of the 2027-2031 budget cycle to evaluate resource needs.

After relatively stable call demand from 2022 to 2023, January to June 2024 saw a significant monthly increase in call demand of 6.7% compared to the same time in 2023, aligning with initial projections. Given increasing call demand and factors detailed in this report, it is essential to continue with the resource acquisitions outlined in the Master Plan through 2026. This will provide adequate staffing for new stations and meet the Ministry and Council-approved response time targets equitably across all nine local municipalities, enabling appropriate and timely emergency response when residents call 911 for Paramedic Services.

## **Factors impacting Master Plan implementation beyond 2026**

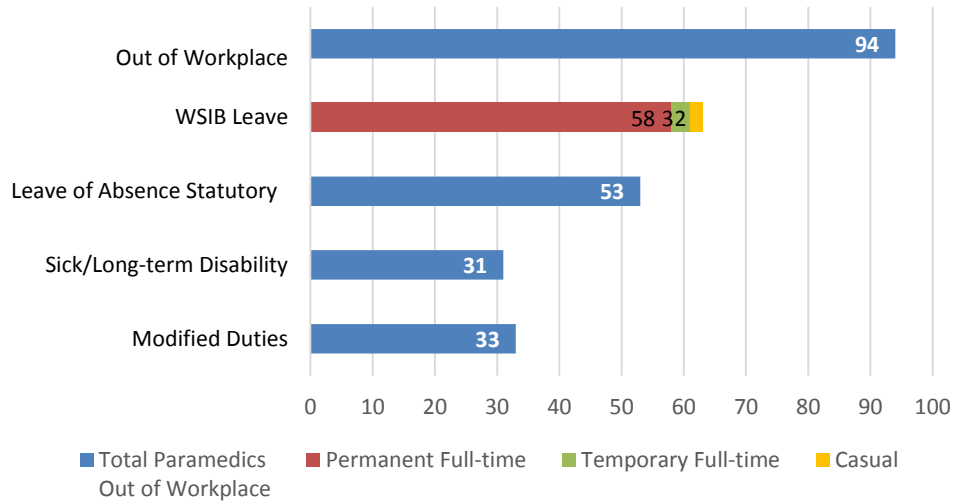
Several critical factors are affecting program delivery, requiring adjustments within the approved budget:

- **Vehicle supply and costs:** Ambulance costs have increased significantly. In 2023, only three ambulance enhancements and 11 replacements were ordered instead of the planned four enhancements and 14 replacements. The cost of ambulances have increased from \$196,907 before tax, in 2022 to \$290,237 before tax in 2024, exceeding the Master Plan's budget of \$214,000 per replacement ambulance. This price increase means Paramedic Services may not be able to order the full 50 ambulances planned. Delivery delays are extending end-of-life for ambulances from five to six years, increasing repair and maintenance costs and vehicle downtime, and impacting spare ratios. Fuel prices have also risen, affecting the operating budget for fuel as prices increased from \$1.07 in 2022 to \$1.36 in 2023 and \$1.38 in 2024.

Additionally, with the first electric ambulance costing approximately \$800,000 (50% funded by the Federation of Canadian Municipalities), Paramedic Services will not be able to purchase additional electric ambulances within the standard budget of \$214,000 per ambulance unless other funding sources become available to cover the cost of the vehicles and necessary infrastructure such as chargers.

- **Workplace Safety and Insurance Board Claims:** Claims increased to 132 in 2023 from 99 in 2021, reflecting ongoing daily challenges paramedics face. These claims underscore the need for continued support for employee health and well-being programs.
- **Lengthy paramedic system time on task:** Time on task from initial patient contact to discharge or transfer of care has increased by about three minutes per call since 2019, resulting in a loss of approximately 5700 ambulance hours annually. COVID-19 exacerbated this with increased personal protective equipment demands and the complexities of medical and psychosocial needs of patients have led to increased time spent with each patient. While there have been improvements in hospital transfer of care times through initiatives like the Dedicated Offload Nurse Program, lengthy paramedic time on task creates a system vulnerability that strains 911 resources.
- **Labour market shortage:** Recruitment is increasingly challenging due to high demand and a shrinking pool of candidates. The Ontario Association of Paramedic Chiefs projects a shortage of 400 to 500 paramedic graduates in Ontario over the next several years, making recruitment and retention key priorities for paramedic services.
- **Lack of stable provincial funding for Community Paramedicine programs:** Community Paramedicine initiatives aim to reduce 911 calls, emergency department visits, and long-term care waitlist pressures. In [2022](#), Regional Council advocated for permanent provincial funding to sustain the success of these programs. While provincial funding for Community Paramedicine for Long-Term Care program has been extended until the end of 2026, stable provincial funding for all community paramedicine programs is needed to maintain delivery of essential services to our community. The new Dispatch System explained below is anticipated to increase opportunities to integrate health services in the community.
- **Increased long-term staff leaves:** Significant increases in legally protected long-term staff leaves (e.g. medical leaves) have necessitated higher relief ratios. Figure 2 shows the number of paramedics on leave in 2024 and the main types of leave taken. There are currently 106 temporary paramedics backfilling these leaves. The Master Plan had anticipated a relief ratio of 47%, but actual needs have risen substantially. In 2024, monthly relief ratios now range from 60% to 75%, reflecting the additional resources required to cover for staff on extended leave. This increase in relief ratios strains existing staffing resources and complicates efforts to maintain consistent and reliable service levels. With the introduction of the new Dispatch System, it is anticipated that there will be fewer calls requiring an immediate response, which will help manage meal breaks and allow paramedics to end their shifts on time more consistently, thereby supporting workplace well-being and improved job satisfaction.

**Figure 2**  
**Paramedics on Leave, January to June 2024**



- Medical Priority Dispatch System:** The Dispatch System at the Provincially run Georgian Central Ambulance Communication Centre is set to be implemented in November 2024. The new Dispatch System better calibrates response with the urgency of the medical situation and will lead to more effective use of paramedic resources. As part of the new Dispatch System evaluation to be conducted in 2025, staff will examine if there are any impacts to caller patterns and any other trends on demand and report back as part of the next Master Plan update in 2026. Further details on implementing the new Dispatch System are reported to Council in a separate report in September 2024.

## 5. Financial Considerations

The Master Plan was developed within the 2021 and 2022 Council approved operating and capital budgets. Additional resources for 2023 and 2024 were approved by Council during their respective budget process. Resources identified in the Master Plan for 2025 will be proposed through the 2025 budget process, subject to Council approval.

Additional capital expenditures identified in the Master Plan were incorporated into the existing 10-year outlook in the 2023 capital budget. In 2023, 30% of the capital budget was spent. As of June 30, 2024, 35% of the year-to-date capital budget has been used. Variances in spending are mainly due to delays in vehicle deliveries caused by supply chain shortages, as well as delays for response stations related to land purchases, tenders, hiring design consultants, obtaining municipal permits, and construction work. Additionally, economic inflation and rising costs may require adjustments to future budget requests. Note that when station construction is based on growth, funding is generally provided in accordance with the Development Charges Bylaw.



Paramedic Services will continue to optimize services and maximize efficiencies where possible. Following evaluation of the new Dispatch System's impact on operations, any identified efficiencies will be included in the 2026 Master Plan Update. Table 3 details the approved and proposed resources related to the Master Plan.

**Table 3**  
**Approved & Proposed Paramedic Staffing Resources Related to the Master Plan**

Resources	2023 (approved)	2024 (approved)	2025 (outlook)	2026 (outlook)
Full-time Front-Line Paramedics*	31	31	34	35
Support Staff	7	1	0	3
<b>Total FTE</b>	<b>38</b>	<b>32</b>	<b>34</b>	<b>38</b>
<b>Estimated Net Operating Impact (Millions)**</b>	<b>\$2.72</b>	<b>\$2.29</b>	<b>\$2.58</b>	<b>\$2.91</b>

\*Front-Line Paramedic Staff includes logistics, paramedic superintendents, fleet and scheduling

\*\*Assumes 50% funding through Land Ambulance Service grant for all incremental costs. Measure only of resources identified in the Master Plan. Does not account for base service (e.g., COLA on existing staff and inflation on existing materials/supplies)

## 6. Local Impact

The Master Plan identifies necessary resources to ensure system capacity keeps pace with growing demand in each municipality and ensures equitable response time performance across all local municipalities. Paramedic Services will collaborate with municipal partners to leverage resources to provide equitable response times Region-wide.

## 7. Conclusion

Implementation of the Master Plan is well underway, with significant progress made to strengthen and enhance capacity of paramedic services to support increasing 911 demand. The most recent analysis of 911 demand and operational pressures confirms that the Master Plan effectively addresses the resource needs to adequately service residents and meet Ministry and Council-approved response time targets.

Maintaining the planned resources until 2026 will enable Paramedic Services to continue to provide appropriate and safe community coverage, and adequately staff stations and vehicles, allowing appropriate time to evaluate the impact of the new Dispatch System on operations. Paramedic Services will continue to seek efficiencies and optimize resources, which will be incorporated into the updated Master Plan for 2026-2031 that will be brought to Council for approval in 2026.

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For more information on this report, please contact Chris Spearen, General Manager (A), Paramedic and Senior Services at 1-877-464-9675 ext. 74709. Accessible formats or communication supports are available upon request.



Recommended by:

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Approved for Submission:

**Erin Mahoney**

Chief Administrative Officer

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