

Staff Report



To **Joint Social Services and Land Ambulance Committee**

Service Area Public Services

Date Wednesday, November 13, 2024

Subject **Update to the Optimal Resource Deployment of Paramedic Services Study**

Recommendation

1. That the Joint Social Services and Land Ambulance Committee recommend that report "Update to the Optimal Resource Deployment of Paramedic Services Study" be received by City Council as part of the weekly information items.

Executive Summary

Purpose of Report

To provide the Joint Social Services and Land Ambulance Committee with information gained from recent computer modeling and projections of Guelph Wellington Paramedic Service (GWPS), as completed by Operational Research in Health Limited (ORH).

Key Findings

- The number of emergency calls for assistance by GWPS is expected to increase by approximately 52 per cent in the next 10 years.
- Service expansion investments will be required to at least maintain the current level of service, measured as the response time to emergency calls.
- The consultant, ORH, has proposed a response time target for each Lower Tiered Municipality based on a measure of population density referred to as the Total Weighted Geometric Mean.
- Efficiencies in providing paramedic services, and therefore in achieving lower response times, can be achieved by relocating some paramedic stations to identified locations.
- Even if existing paramedic stations are not relocated, most of the current stations in the County of Wellington do not have the capacity to house the required additional resources required by this analysis.

Strategic Plan Alignment

This study and the recommended enhancements to GWPS are consistent with the goal of Supporting Community Wellbeing and improving emergency response times in the People and Economy Pillar of the Strategic Plan.

Future Guelph Theme

Foundations

Future Guelph Objectives

Foundations: Provide excellent service

Financial Implications

The financial impact of recommended staffing changes, service growth, and capital station projects will be brought to City of Guelph Council during future budget processes. The financial model and impact of capital station projects in the County of Wellington will be developed through a coordinated and collaborative approach with County of Wellington staff.

Report

In 2016, the City of Guelph proactively engaged ORH to conduct computer modeling of GWPS in order to plan for future needs and inform the business plans for the 10-year period through 2026. The results of this modeling were impressively accurate, even amidst the challenges posed by the COVID pandemic, predicting a 43 per cent increase in call volume over the following decade. The report recommended staffing increases to meet the demands and station relocations to be most efficient and effective.

As a response, the City gradually increased staffing levels to efficiently meet the growing demands while maintaining the response time performance that it achieved pre-2016. Recognizing the importance of optimal station locations, the City of Guelph initiated discussions with the County of Wellington to strategically relocate paramedic stations for enhanced efficiency. This collaboration was intended to leverage the funding model whereby the province provides grant funding for 50 per cent of operating costs, including lease payments.

In anticipation of continued growth and evolving needs, ORH was once again commissioned in 2024 to update the computer model, evaluate the needs of the service moving forward, and to confirm if the station locations were still appropriate and in the correct locations.

The updated model considered planned development, population growth, and increases in emergency calls in the City of Guelph and County of Wellington and in other similar areas. The model was validated before ORH's sophisticated analysis and predictive tools were used to determine the future needs of the service.

The latest report projects a substantial further 52 per cent increase in call volume from 2024 to 2034. To effectively manage this influx, additional staffing and ambulance deployment will be necessary.

As part of the report, ORH has recommended a response time standard for each of the lower tiers based on a measure of population density. This measure, the *Total Weighted Geographic Mean*, would create a target by which GWPS would reach the highest priority emergency calls of between 11 and 18 minutes at the 90th percentile, depending on the township. ORH has also proposed staffing growth and station relocations that would allow the service to meet those standards.

As seen in the ORH report, the simulations using the updated model show that GWPS will need to add 40 frontline paramedics and associated ambulances and equipment in the coming 10 years. Adding these resources will require additional backfill staffing, support, and supervisory staff. These increases can be phased into a multi-year plan that will be developed by City Staff.

Paramedic Stations

ORH also included in their report the need to expand and relocate most of the paramedic stations in the County of Wellington. In addition to the issues that were raised in a Needs Assessment previously completed by the City of Guelph, ORH identified that the current stations do not have the capacity or amenities to house the additional staffing recommended in the report. The modelling and simulations also show that the need for additional staffing can be offset somewhat by the relocation of stations in some of the identified areas. While the specific pinpoint centre of some of the optimal location areas has changed, the areas are consistent with the zones that were identified in 2016. The report recommends relocating the stations in Erin, Guelph Eramosa, Minto, Wellington North (Mount Forest), and Centre Wellington as well as adding a new response location in Puslinch. While the report finds that the stations in Wellington North (Arthur) and Mapleton are in the approximate right locations, they do not have the capacity required in the future.

As the report notes, the stations would need to be constructed to provide the capacity to increase the staffing in each area. The stations in Erin and Guelph Eramosa would need to be completed by 2028 to accommodate the increased staffing planned for those locations, and the stations in Harriston and Mount Forest need to be completed by 2030. Given that the County of Wellington has identified land that is available in a suitable location for a new station in Arthur, it may be beneficial to proceed sooner with the construction of the Arthur station in advance of the proposed 2034 date. With the land already secured, the Arthur location could be constructed expeditiously and could include the benefit of relocating the Paramedicine program from the aging facility in Drayton to Arthur. Prioritization sequence of new station construction may be dictated by land availability and proximity to the identified optimal locations, among other factors.

The above noted stations are in addition to the paramedic station planned to be constructed on Speedvale Avenue in Guelph.

It is evident from ORH's simulations that failure to implement these necessary changes will lead to a significant decline in response time performance over the next decade. Acting upon these recommendations is crucial to ensuring the continued effectiveness and success of the GWPS in meeting the evolving needs of the community.

Next Steps

GWPS staff, in cooperation with other leaders within the City of Guelph, will develop an implementation plan to enact the recommendations included in the ORH report. The plan will need to consider the necessary additional ambulances and equipment, staffing backfill capacity, support staff, and management oversight needs required to continue to provide an efficient and effective service.

Further discussions with County of Wellington staff will be required to determine next steps and timing in the construction and relocation of paramedic stations in the County area.

Financial Implications

The financial impact of the ORH recommended staffing changes, service expansions and capital station projects will be brought to City of Guelph Council during future budget processes. The financial model and impact of capital station projects in the County of Wellington will be developed through a coordinated and collaborative approach with County of Wellington staff.

Consultations and Engagement

A steering committee with representatives of the County of Wellington, Cambridge Central Ambulance Communications Centre, and other departments of the City of Guelph were involved in the development of the ORH modelling and simulations.

Attachments

Attachment-1 Paramedic Staffing and Deployment Needs Report

Attachment-2 PowerPoint Presentation

Departmental Approval

None

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