

The Corporation of the City of Guelph

Optimal resource deployment of emergency services



KEY BENEFITS

- Wide-ranging study encompassing paramedic and fire services
- Understanding the impact of future demand changes
- Enhancement of resources to better meet response time targets
- Opportunities identified for optimized emergency services co-location



Future scenario planning for paramedic and fire services

KEY FACTS

**Population = 132,000 (Guelph)
91,000 (Wellington County)**

**Area Covered = 378 km² (Guelph)
+ 2,573 km² (Wellington County)**

**Annual Incidents = 7,200 (GFD)
+ 37,400 (GWPS)**

Stations = 8 (City) + 7 (County)

ABOUT GWPS AND GFD

The Emergency Services Departments of the City of Guelph includes Guelph-Wellington Paramedic Service (GWPS) and the Guelph Fire Department (GFD). GWPS covers Guelph and the County of Wellington, while GFD covers Guelph and part of the Guelph Eramosa Township.

THE CHALLENGE

Over the last five years incident demand for GWPS and GFD has steadily increased, prompting the ESD to commission a comprehensive review of resource plans. The objective was to

develop a ten-year plan encompassing both emergency services, with the aim of improving the equity of service provision across the City and the County. The population in the area is projected to increase by 17.5% over the next decade.

ORH'S APPROACH

For both services, ORH analyzed the current service profile, including the daily demand by incident type, resource utilization and response performance against appropriate measures. For GWPS, ORH projected overall demand to increase by 43.5% over the next decade; for GFD, separate projections were made for the different incident types.

ORH validated simulation models of both paramedic and fire services before updating these with the expected future demand rates. Following consultation, a series of potential configurations were assessed that included optimizing station locations and vehicle deployments.

RESULTS

A three-stage phasing plan of recommended changes to 2026 was produced for GWPS and GFD, including:

- Moving to an optimized configuration of stations
- Co-location opportunities identified for GWPS and GFD in Guelph
- Additional resources to achieve response performance targets
- Extended use of Emergency Response Vehicles



The current economic and fiscal realities require that Paramedic Services operate as efficiently and effectively as possible. The professional and sophisticated analysis and modelling completed by ORH provided some extremely valuable tools to assist in achieving those goals.

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Paramedic Service



**Emergency
Service Planning
Case Study**

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About ORH

PLAN. PREPARE. PERFORM.

ORH helps emergency services around the world to optimize resource use and respond in the most effective and efficient way.



We have set the benchmark for emergency service planning, with a proven approach combining rigorous scientific analysis with experienced, insightful consultancy. Our expert team uses sophisticated modeling techniques to identify opportunities for improvement and uncover hidden capacity. Simulating future scenarios ensures that solutions are objective, evidence-based and quantified.

Every organization faces a unique set of challenges, so remaining independent and flexible allows us to deliver an appropriate solution every time. The outputs of our work enable clients to make robust, data-driven decisions and explain them clearly to stakeholders.

ORH's approach is always tailored to the needs of the client. Above all, we are committed to getting it right, for the good of our clients and the people who rely on their services.

ORH WORKS WITH PARAMEDIC SERVICES TO:

- Project future demand and the implications for resources
- Optimize response locations
- Assess pre-hospital CTAS standards
- Benchmark services to identify efficiencies
- Determine the potential for new vehicle types or response models
- Evaluate options for standby moves

For dispatch centres, ORH provides its DCT software to support dynamic decision making and enable effective and efficient resource use.



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