

EXECUTIVE SUMMARY

- i. Operational Research in Health Limited (ORH) has undertaken this analysis and modelling review for Peterborough County/City Paramedics (PCCP). The project aim was to produce a 10-year master plan encompassing the location, staff and vehicle requirements to meet performance targets.
- ii. The review involved data collection, data analysis, demand forecasting and modelling combined with regular consultation with PCCP, City and County representatives through a Steering Committee. The period July 2014 to June 2015 was the main sample for the analysis and was used to populate and validate a model of emergency cover. Simulation and optimization modelling were undertaken to identify efficient development options for the future using projected demand profiles through to 2026.
- iii. PCCP deploys an average of 1,260 ambulance hours per week across five stations: Peterborough HQ, Lakefield, Norwood, Apsley and Buckhorn. This falls to 1,176 hours in winter when Buckhorn is not in use. All stations are at or near capacity. Performance targets were met on a service-wide basis in 2014/15, with better response times in the City than in the County. The average time to deal with an incident is one hour, and the average utilization of crews, including standby moves, is 34%.
- iv. In reviewing and modelling the current service it was evident that a new location was required in the west of the City (a potential site has been identified) and that a single-manned PRU deployment at such a location would give significant response time benefits. The location optimization modelling questioned the need for a base at Apsley.
- v. Historical demand rates per 1000 population were calculated for each age group and then projected forward and combined with the Hemson population projections. This gave a predicted increase in ambulance demand of 58% from 2016 to 2026.
- vi. By 2026 it was found that PCCP had to increase ambulance coverage by 504 hours per week. A new location is needed in the west of the City with a capacity for four vehicles, initially for some shifts currently deployed from HQ. The current Apsley crew should be based at a new one-bay facility at Burleigh Falls from where it can better respond and undertake standby. Improved locations for Lakefield and Norwood have been identified should capacity constraints at either existing site warrant a relocation in the future.
- vii. The recommended phasing for the extra ambulance hours/week required is as follows:
 - 2017 to 2020, +84 at the new City site and +84 at Lakefield;
 - 2020 to 2023, +84 at the new City site and +84 at Norwood;
 - 2023 to 2026, +84 at Lakefield and +84 at the new City site.
- viii. Over the ten years, in addition to the two new bases, an extra 29 paramedic staff will be needed and four more vehicles (\$3,321,155 and \$710,500 at current prices).