LONDON FIRE BRIGADE

OFFICIAL Appendix One

Assessment of Risk 2026
Summary Report

DRAFT

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Foreword

The Mayor of London's City Resilience Strategy 2020 [1]describes London as a global city and the economic engine of the United Kingdom (UK), accounting for 23 per cent of the UK's economic output. London is a city with an unusual density of risk. As well as being the seat of the UK government, London holds the residence of the head of state, is the UK's financial hub and contains approximately 15 per cent of the United Kingdom's population.

London's unusual density of risk is reflected in the range of risks recorded in the London Risk Register. This document is informed by the National Security Risk Assessment; and the public facing National Risk Register. These registers describe low frequency high impact events nationally, however the density of risk in London means that risks on these registers have a higher likelihood of being realised in London than most other areas of the UK. In some cases, the exposure to these risks in London drives the national risk rating because events occurring in London have national impact.

Geopolitical turbulence and conflict have been a noted feature of 2025. As a global city the impacts on London are likely to be complex and varied. The London Risk Register includes cyber-attacks, energy cut-offs, assassinations, terror attacks and direct attacks of various kinds. London Fire Brigade (LFB) is required to maintain service provision during periods of disruption and to respond directly and in partnership to emergencies where its capabilities are needed.

Both the UK Government and London's Mayor's Office have declared a climate emergency. London has experienced both surface water flooding and wildfires in recent years.

The City Resilience Strategy states that sudden impact events can immediately disrupt a city and may have wide ranging and unexpected impacts. Consequently, resourcing to risk for LFB indicates the Brigade must resource and plan to be able to respond both to demand under normal requirements and to the likely occurrence of one or more extraordinary risks which may have national impacts.

The purpose of this assessment is to allow LFB to understand and prioritise the risks in its operating environment and align its resources appropriately.

[1] london_city_resilience_strategy_2020_digital.pdf

Section 1. Introduction and Approach

Introduction

The Fire and Rescue National Framework for England 2018 places a duty on all Fire and Rescue Services to, "identify and assess all foreseeable fire and rescue related risks that could affect their communities, whether they are local, cross-border, multi-authority and/or national in nature from fires to terrorist attacks". Fire services must also, "have regard to Community Risk Registers produced by Local Resilience Forums," for London, this is the London Risk Register. Under the framework, each Fire Service must produce an Integrated Risk Management Plan that must reflect up to date risk analyses including an assessment of all foreseeable fire and rescue related risks that could affect the area of the authority. The London Fire Commissioner's (LFC) Assessment of Risk for London (AoR) is the Brigade's response to meet these requirements.

The AoR meets these requirements by identifying and assessing all foreseeable hazards to which the LFB might be reasonably expected to respond, including reasonable-worst-case risks from the London Risk Register and by assessing their likelihood and consequence.

The National Risk Register is a public facing document based on the National Security Risk Assessment, the 2025 is available here; National Risk Register - 2025 edition

The London Risk Register 2026 is available here; https://www.london.gov.uk/media/108075/download?attachment

In the CRMP the LFC made a commitment to introduce Local Risk Management Plans, co-designed with local residents and business. Borough Risk Management Plans are the vehicle for this local level engagement and can be found here; Community | London Fire Brigade

Who should use the Assessment of Risk (AoR)?

The AoR is intended to be used primarily as a technical document by LFB staff to direct and prioritise work. It is available to the public, but it is acknowledged that due to its complexity it is not intended to be a public risk communication tool. LFB teams involved in direct risk communication work with the public should refer to the AoR when planning and prioritising their communication but use appropriate tools for the specific audience they are communicating with.

The AoR is intended to be a tool for understanding risk to London and to Londoners as these risks manifest in the community. It is not an assessment of risk to firefighters. Potential firefighter risk incurred whilst responding to incidents described in the AoR is not considered within it. This is intentional. LFB has other systems and control measures for assessing and managing firefighter risk.

The AoR is distinct from the corporate risk register (CRR) in that it focuses on 'outward facing' community risks and foreseeable hazards to which the Brigade may be expected to respond to, or which may impact the Brigade's ability to respond to these incidents. In contrast the CRR takes a more 'inward facing' approach, focusing on risks that could prevent the Brigade operating effectively or impact its ability to achieve its organisational objectives. However, risks from the AoR may be escalated to the CRR if assessed to be of sufficient organisational impact or there is an identified capability gap.

The AoR is not intended to identify new control measures for highlighted risks. Control measures for risks are identified in supporting documents which may include service strategies, departmental plans, and policies, and in local risk management plans.

Our approach to risk

To provide a robust assessment of all foreseeable risks, the AoR is structured into four layers. Each layer presents a different type of risk information for a specific purpose and audience. The layers are presented separately as individual reports for clarity. As a result, similar risks may appear with different scores and in different layers.

- Layer one (public concern) reflects the level of concern expressed by the public about different risks. This will not necessarily reflect the measured frequency or severity of incidents but may be an early indicator of change. Public concern will also be influenced by factors such as the recency and visibility of risks, such as notable fires locally or in the news.
- Layer two (commonly occurring risk) considers frequent incidents and incident locations, such as dwelling fires in purpose-built flats. These risks occur relatively regularly and can result in casualties, often affecting individuals or small numbers of people rather than large numbers in a single incident. This layer looks at which risks cause most casualties and also where these risks are most likely to manifest geographically.
- Layer three (reasonable worst-case scenarios) considers low-likelihood but high-impact events, such as a single, large residential high-rise fire causing many casualties.
- Layer four (Horizon Scanning for new and emerging risks) considers how risks may change or present differently in the future. For example, how the changing built environment may influence frequency and severity of fires in flats or how climate change may influence fire service incidents.

Public concerns and perception of risk are intentionally presented as layer one of the assessment, ensuring communities' views are highlighted.

Our approach to individual vulnerability

The United Nations Office for Disaster Risk Reduction define vulnerability as, "The conditions determined by physical, social, economic and environmental factors or processes which increase the susceptibility of an individual, a community, assets or systems to the impacts of hazards."

Because individual susceptibility to the impacts of a hazard is distinct from the likelihood or consequence of that hazard being realised in London, specific personal vulnerability data sets are not used in this assessment. However, by adopting the NFCC methodology for combined dwelling fire risk in layer two of this assessment, any individual factors associated with heightened susceptibility to the consequence of dwelling fires is addressed. This is through the inclusion of the identified personal factors that correlate with consequence of fire. The NFCC definition of risk dwelling fire risk map can therefore be viewed as including vulnerability to dwelling fire within it.

LFB's Prevention Strategy and LFB Policy 1010 identify common characteristics of those who are most at risk of, and vulnerable to the effects of, fire. These data are used in planning the allocation of Home Fire Safety Visits and other preventative work. The six characteristics below are used within LFB as indicators of vulnerability or risk to dwelling fire.

- Smoker.
- Lives alone.
- Over 60 years old.
- In receipt of care (informal, formal or both).
- No working smoke alarms.
- User of mobility aids, or chair/bed bound.

In addition to these, disability and evacuation difficulties have been referenced as identified vulnerabilities in fires from coroners' reports.

Individuals can be susceptible to the impacts of non-fire hazards through these factors and others. The exposure of individual members of the public to various risks will differ significantly with their location and activity, this exposure may be correlated to or independent from protected characteristics. The layered approach adopted to assessing risk ensures that each type of fire service-related risk an individual may be exposed to is assessed for likelihood and severity. The relevant factors indicating heightened vulnerability will differ depending on the context of the incident type and the hazard to which an individual may be exposed. LFB staff who support communities at incidents or during their work are trained to identify vulnerability including but not limited to; socio-economic, mental health, and physical needs. Crews are trained to identify possible safeguarding issues and take immediate actions to support vulnerable members of the community, keep them safe and refer to the appropriate agency for further support if required.

For these reasons, the AoR does not seek to assess all forms of individual vulnerability across all circumstances. Its purpose is to provide a strategic, risk-based assessment to inform service-wide prioritisation and planning.

Section 2. Key Findings 2026

The following tables set out the key findings from 2026's assessment of risk by layer. These tables are intended to provide a quick reference. Further information and context is available in the detailed report for each layer.

Users intending to use the AoR for decision making should access the detailed report for the layer of interest. Where decision making regarding risks from the London Risk Register is required, users should access the detailed scenario descriptions for each risk available to authorised users through Resilience Direct.

Key themes identified are;

- **changing baseload demand;** an increasing proportion of non-fire, physical and mental health related incidents
- **increased volatility and malicious threats;** peaks in demand driven by climate change and geopolitics
- **enduring chronic risk;** Risks inherent in the complex built environment and the development of new technologies

These themes are not separate, they interact, shaping both day-to-day activity and exposure to extreme events. It is plausible for acute risks identified in this report, such as large complex-building fires and high volumes of people in crisis, to occur within the context of more chronic risks such as extreme heat, widespread flooding, or civil disturbances caused by social and political tensions. The concurrent nature of acute and high-impact incidents with chronic environmental or societal stressors, increases demand on response functions. This is the basis of the 2030 Plausible Operating Environment presented in the layer four assessment, "New and Emerging Operational Risks: 2030 Horizon Scan".

Key findings Layer One: Public Concerns and Public Risk Perception

Risk	Key Findings	Implication
Crime – High concern to public	Members of the public expressed high levels of concern about crime, including knife crime, attacks, theft, burglary and drug activity. In polling, crime was rated as being of equal or greater concern fire and rescue risks highlighted by LFB.	Because concern regarding crime may exceed concern regarding threats such as fire, this may impact public engagement with fire and rescue safety messaging.
Fires in flats and shared living – High concern to public	Fires in flats and shared living are perceived by participants to be the most concerning risk of during community workshops and in YouGov polling.	**Fires in purpose-built-flats are the highest risk property fire type in the measured data for 2026.** This indicates public perception of risk reflects measured risk at a pan-London level, although not necessarily individual/personal risk.
Malicious threats and terrorism – high concern to public	**Malicious attacks and terrorism consistently rank as a high-concern risk**, appearing as the second highest perceived threat in community workshops. However, this risk also shows the greatest variation between groups perception, indicating uneven levels of concern across communities	Different communities may require targeted communication and/or engagement regarding malicious threats. The persistence of this threat amongst higher public concerns indicates that the public will expect activity from LFB in this area, but interest will fluctuate.
Water rescue – low concern to public	Water rescue consistently appeared as the lowest perceived threat in both community workshops and YouGov polling. There was lower traffic on LFB's 'Water Safety' webpage than other topics**. This low perception of risk contrasts with the high casualty and fatality rates associated with water incidents in London.**	The consistent gap between perceived and measured water-related risk indicates that, although non-statutory, water safety may be a suitable target for risk communication and engagement.
Flooding and wildfires – low concern to public	Both flooding and wildfires are perceived as low-threat by community workshop participants and YouGov respondents. Flooding information also attracts relatively little engagement on LFB safety information webpages (bottom 25% website traffic). **This contrasts with the assessed risk of these hazards.**	The gap between perceived and assessed risk for flooding and wildfire indicates that where the assessed background threat is rising, driven by climate change, but individual exposure and personal experience remain low, the public perceive the threat to be limited. This finding has implications for risk communication and public preparedness work

Key findings Layer Two: Day-to-day Risks relating to property, place and incident type

Risk	Key Findings
Fire Risks	
Reduced likelihood of fires in houses and Bungalows - Risk remains Very High	Reductions are observed in the likelihood of fires in Houses and Bungalows based on 5 years incident data. The risk remains very high due to consequence score.
Very High Risk - Fires in Purpose Built Flats	Fires in Purpose built flats remain the highest risk fire type by location and have not followed the downward trend in numbers of fires overall or in the reduced severity scores noted in other locations.
Very High Risk - Fires in care and supported living	Increase in severity score; based on casualties and resources used in five calendar years
High Risk - Fires on other non-residential buildings	Increase in severity score; based on casualties and resources used in five calendar years
Special Service (non-fire) risks	
Very High Risk B11 and B3, collapsed behind locked door incidents and effecting entry	Remain the joint highest non-fire risk incidents from 2025 no change in likelihood or consequence score. B11 remains 5/5 for likelihood and consequence
Very High Risk Persons Trapped in Road Traffic Collisions (RTCs)	Remain the second highest non-fire risk incidents from 2025 likelihood 4/5, consequence 5/5.
Very-High Risk B12 Incidents, persons threatening to jump	Maintained the raised risk noted in 2025 indicating a sustained increase in this risk rather than a fluctuation.
Geographic disposition of risk	
Dwelling fire risk	Dwelling fire risk largely aligns with areas of most population density.
Non-dwelling building fire risk	Non-dwelling building fire risk is concentrated in areas of higher development but has a wider distribution than dwelling fire.
Road Traffic Collison Risk	Road traffic collision risk is concentrated towards the periphery, most notably around arterial and ring roads entering and circling London.

High and Very High-risk incident types		**Geographic distribution** >2xStandard deviation from brigade wide average
• A1: Fire - including large vehicle fires	Very High	North Kensington, Tottenham, Plumstead, Paddington Dagenham
• B11: Person Collapsed or Injured behind locked door when called by LAS or MPS	Very High	Tottenham, Paddington, Dagenham
• A1HR: Fire in High Rise Flats/Commercial Buildings - 6 flrs & above	Very High	Paddington, Poplar, Lambeth, Shoreditch
• B3: Effecting Entry - Person Locked Out/In & Person Collapsed Behind Locked Door	Very High	Stoke Newington, North Kensington, Tottenham, Holloway
• PERSONS: Persons trapped - RTC	Very High	Hayes, Orpington, Croydon, Enfield, Heathrow
• B2: Reduced Special Service - including ceiling plaster/trees/roof tiles/bldg fascia/aerials etc in precarious position & person collapsed or injured in street etc.	Very High	Paddington, Hammersmith, Soho
• MAKE: Make safe - RTC	Very High	Croydon, Ilford, Southgate, Stanmore
• B19: Assist Ambulance with Bariatric/Difficult removal of Patient	Very High	Barking, Plumstead, West Norwood, Woodside
• C1: HazMat - including cylinders/refrigerant leaking/Fuel Spill over 100 litres - inside or outside	Very High	Lambeth, Paddington, Lewisham
• B12: Person Threatening to Jump or Assisting MPS with Persons at Height	Very High	Ilford, Poplar, Lambeth, Euston
• A4: Fire Involving HazMat - including cylinders and explosions	Very High	Tottenham, Southall, Plumstead, Old Kent Road, Ilford, Dagenham, Bethnal green
• B1: Person Trapped (Not RTC)	Very High	Soho, Tooting, Stoke Newington, Erith,
• B10: Person in Precarious Position requiring immediate rescue	Very High	Soho, Tooting, Holloway,
• B1T: Person under Train/Tram or Person Struck by Train/Tram	Very High	Soho, Paddington, Lambeth, Holloway, Euston
• C3: Acid Attack on Person	Very High	Orpington, West Hampstead, Willesden, Stratford, Lambeth, Fulham
• J1: Midstream Incident on the Thames	Very High	Lambeth, Dowgate, Twickenham, Soho, Dockhead
• J3: Person/Animal in Waterway/on Foreshore	Very High	Poplar, Lambeth, Dockhead, Stratford, Millwall
• VEHICLE: Vehicle fires - Small/Large & Incidents involving vehicles	Very High	N/A

• MULTI: Multi lane make safe - RTC	High	Hayes, Enfield, Poplar, Hendon, Ilford, Mill Hill, Barking
• B93: Collapse of Building/Structure (Level 3) - Persons involved	High	N/A
• E3: Aircraft Accident/Aircraft Accident Imminent	High	Hillingdon
• FSG: 1 or more FSG calls in any premise type	High	N/A
• J8: Vehicle in Waterway accessible from land	High	Chiswick, Hillingdon
• PERSON: Person on Fire - Out in the open	High	Paddington
• A10: AFA Commercial Premises	High	Soho, Euston, Dowgate
• A11: AFA Residential Premises - for High Rise use A1HR	High	Paddington, Chelsea, Hammersmith, North Kensington, Euston, West Hampstead
• A2: Reduced Fire Attendance - including electrical junction box	High	Dagenham, Soho, Wennington, Orpington, Ilford, Plumstead
• B4: Flooding	High	Bethnal Green, Paddington, North Kensington, Lambeth, Stoke Newington, Tottenham
• C5: Natural Gas Leak - commercial or residential	High	Paddington, Stoke Newington, Tottenham
Highlighted Risks		
Lithium-ion fires including e-bikes and e-scooters	Lithium-ion battery fires, including those involving e-bikes and e-scooters, were identified in the Brigade's 2025 Assessment of Risk as an emerging risk, reflecting public and professional concerns about battery safety and the wider adoption of lithium-ion energy systems. The continued rise in incidents confirms this developing trend, although the overall number remains low relative to total fire activity in London. Where these incidents occur, they may intersect with existing vulnerability factors, particularly in domestic settings. Given the increasing use of lithium-ion powered transport and energy storage, the risk profile is expected to remain dynamic and will continue to be considered within the broader category of risks associated with new fuels and emerging technologies.	

Key findings Layer three: Extraordinary risks and risks from the London Risk Register

Risk	Key Findings
Very High Risk Increasingly complex malicious threat picture	The number of malicious act threats recorded on the London Risk Register increased notably in 2024. A further increase in likelihood and severity of individual malicious threats occurred in 2025. The five risks which have increased from the 2025 assessment to the 2026 assessment all relate to malicious acts. This prevalence of malicious threats on the 2026 London Risk Assessment (LRA), previously London Risk Register, reflects the current partnership assessment of threat level across a spectrum of attack methodologies. LFB will be required to respond directly to incidents involving malicious acts where its capabilities are required or where statutory duties exist.
Very High Risk Critical service disruption concurrent with response demand	Reasonable-worst-case scenarios from the London Risk Assessment, such as R89 High Altitude Electromagnetic Pulse, R50a National Electricity Transmission Failure and R21 Attack on UK electricity infrastructure are likely to pose business continuity challenges for LFB through critical service disruptions as well as potentially triggering concurrent need for response services.
LFB-lead, High-Risks on LRA	• **Fires in purpose-built high-rise flats.** Fires in purpose-built high-rise flats remain a high risk, reduced from very high, with a reasonable-worst-case scenario scale incident assessed as having between 5% and 25% likelihood of occurring in any 12 month period. On 1st March 2026 there were 949 buildings in London known to LFB over 18 meters high, (high-rise buildings) that had a simultaneous evacuation strategy. These buildings are likely to perform in such a way during a fire that a stay put strategy is untenable. • **Major fire in care homes and hospitals.** Fires in care homes and hospitals remain a high risk unchanged from 2025, with a reasonable-worst-case scenario scale incident assessed as having between 1% and 5% likelihood of occurring in any 12-month period. • **Accident involving high consequence dangerous goods.** Accidents involving high consequence dangerous goods remain a high risk, unchanged from 2025 with a reasonable-worst-case scenario scale incident assessed as having between 1% and 5% likelihood of occurring in any 12-month period. • **Civil Nuclear Accident.** This risk remains unlikely with a less than 0.2% chance of occurring each year. However, due to high consequence this remains a high risk on the assessment.

Highlighted Risks	• **Heritage Fires.** Falling within the broader category of, "Fires in large public and commercial buildings." -assessed as a medium risk in the LRA, Heritage fires are highlighted in layer three of the AoR due to the number and prominence of London's approximately 40,000 listed buildings and four UNESCO World Heritage Sites - Westminster Abbey, Palace of Westminster, Royal Botanic Gardens Kew, Maritime Greenwich and the Tower of London.

Key findings Layer four: New and Emerging Operational Risks: 2030 Horizon Scan

Risk	Key Findings
2030 Plausible Operating Environment.	In 2030 LFB is plausibly operating in an environment characterised by three inter-related themes; **changing baseload demand, increased volatility, and enduring chronic risk.** These themes are not separate, they interact, shaping both day-to-day activity and exposure to extreme events. It is plausible for acute risks identified in this report, such as large complex-building fires and high volumes of people in crisis, to occur within the context of more chronic risks such as extreme heat, widespread flooding, or civil disturbances caused by social and political tensions. **The concurrent nature of acute and high-impact incidents with chronic environmental or societal stressors, increases demand on response functions.**
2030 Operating environment contingent on deterioration in international conflicts	Contingent on a deterioration in international conflicts and geopolitical instability; It is plausible that within the planning horizon of 2030 LFB may be required to support wider civil resilience, national resilience arrangements or Home Defense, in line with established frameworks such as the Civil Contingences Act. **Should these demands occur, they will occur alongside and interact with the impacts of climate, demographic and built environment change described in the plausible 2030 operating environment, not in isolation from them.**
Individual Findings	• **LFB has robust pumping appliance capacity.** Projected increases in day-to-day demand to 2030 remain within existing pumping appliance capacity for modelled day-to-day demand, assuming current availability levels. However, short-duration extreme events, particularly large wildfires or concurrent incidents during heatwaves, could temporarily test capacity, particularly where incidents are sustained over multiple days. • **Day to day demand is changing.** Day-to-day demand is shifting from predominantly fire-dominated to an increasing volume of special services, particularly incidents linked to physical and mental ill-health. Scenarios indicate sustained growth and significant projected volumes of these services. Incidents involving people in crisis potentially exceed 8,000 per annum by 2030 and collapse-behind-locked-door incidents potentially exceed

Risk	Key Findings
	16,000. Fires are declining overall, however, fires in high-rise buildings and flats remain a persistent risk, associated with higher potential casualty rates and have not followed the downward trend seen in other fires. • **Demand is seasonal**. Both day-to-day demand and the frequency of high demand days increase between June and September. Peaks most often occur in July driven by fires outdoors and rainstorms. This effect is likely to become increasingly marked by 2030. • **Outlier days.** Since 2022, the number of days above historical average mobilisation levels has increased. Increased volatility and more frequent high demand days are expected to continue. Recent outlier events have been preceded by red extreme-heat and amber wind warnings. This indicates actionable warning periods for wildfire and windstorms. • **Climate Change is an increasing seasonal threat with significant uncertainty about impact scale.** There is a divergence between climate risk identified in PESTLE, from Met Office and Environment Agency analyses, and LFB incident data. Across both surface-water flooding and rural/vegetation fires, recorded incidents show high year-to-year variability with a seasonal peak, but no consistent trend upward or consistent increase in peak severity. However, climate projections indicate increasing frequency and intensity of heat and heavy rainfall hazards. Recorded incidents in this context should be taken as lagging indicators rather than indicative of future severity. • **Periods of extreme heat are forecast to become more extreme and more common**. Risks, such as wildfires, drought, piped water supply failures (referenced on national and local risk registers), large structural fires, and public disorder have a seasonal pattern with more demand in the summer. Combinations of these and similar events are plausibly magnified by extreme heat. Extreme heat also imposes physiological load on LFB staff concurrent with demanding incidents. • **An increasingly complex built environment.** Rapid adoption of new fuels, technologies and construction methods plausibly outpaces regulatory change and assurance. This creates long-term exposure to system failures and to novel fire behaviours in complex premises, tall buildings and the wider built environment. • **There is increasing potential for fire service incidents resulting from, or concurrent with, malicious acts**. Acts linked to, or inspired by, international events and geopolitical tensions may result in demand for fire

Risk	Key Findings
	service capabilities. These threats include terrorism, civil unrest, cyberattacks, and acts by malicious state and non-state actors as reflected in national and London risk registers.