LONDON FIRE BRIGADE

LFC-25-051

# LFB Assessment of Risk for London 2025

| **Report to:** | **Date:** |
|---|---|
| Risk and Assurance Board | 21 May 2025 |
| Audit Committee | 28 May 2025 |
| Commissioner's Board | 11 June 2025 |
| Deputy Mayor's Fire Board | 19 June 2025 |
| London Fire Commissioner | |

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**Report classification:**
For decision

**For publication**

**Values met**

Service
Integrity
Teamwork
Equity
Courage
Learning

I agree the recommended decision below.

**Andy Roe**
London Fire Commissioner

Date **This decision was remotely signed on 26 June 2025**

# PART ONE

# Non-confidential facts and advice to the decision-maker

## Executive Summary

The Assessment of Risk (AoR) for London is the Brigade's current understanding of the risks affecting the capital to which London Fire Brigade could be expected to respond. This assessment is used to inform the London Fire Commissioner's (LFC) plans for reducing risk in London, as set out in the Community Risk Management Plan (CRMP) and in the six associated service strategies: Prevent, Protect, Respond, Prepare, Recover and Engage.

When the CRMP was approved, the LFC committed to an annual review of the AoR and this report presents the Assessment of Risk 2025. No changes to the CRMP are required because of this updated assessment. The changed assessment of existing risks and the new risks identified, will inform the Specials Review, Officer Review, service strategies and the content of relevant programmes and plans.

## Proposed decision – the London Fire Commissioner

That the London Fire Commissioner approves and publishes the Assessment of Risk 2025.

That the London Fire Commissioner approves that the method for assessing risk used in 2025 be adopted for 2026 as described in this report.

That the London Fire Commissioner approves the proposed means of reporting and tracking actions to control identified risks.

# 1 Introduction and background

**1.1** The Brigade's Assessment of Risk (AoR) underpins the Community Risk Management Plan (CRMP), which describes the changes that the Brigade needs to make to achieve its vision and how it will make those changes. The CRMP also identifies improvements to existing services and the new services that are needed to respond to risk. The six service strategies that have their basis in the CRMP are: Prevent, Protect, Respond, Prepare, Recover and Engage.

**1.2** The objective of the AoR is to provide the LFC with a robust and defensible assessment of all foreseeable risks to which LFB may have to respond or which may impact response. It supports a common understanding of operational risk across services and departments. The changes to the risk profile identified in the update for 2025 need to be considered by the owners of service strategies and delivery plans, who may need to adjust those strategies and plans to better manage risk.

**1.3** Where transformative change is needed to address risk, the AoR should be reflected in relevant business cases. The AoR is integrated into the Brigade's approach to prioritisation of activity and new actions needed to adequately respond to red risks on the AoR have the highest priority. This informs decisions on resourcing where choices need to be made.

**1.4** There are risks in the AoR that can also affect the Brigade's ability to operate and officers in Strategic Planning work closely with those in Business Resilience so that intelligence is shared and informs both assessments as relevant. For example, climate change may increase the likelihood and severity of wildfires in London; it may also impact on water supplies for firefighting. Risks to the Brigade's ability to operate are captured on the corporate risk register, whereas the risk of wildfire appears in the AoR.

**1.5** The AoR is intended to be used 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 primarily intended as a public risk communication tool. Community engagement on risk is expected to focus on local risk, using the borough risk management plan as a vehicle.

**1.6** 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.

**1.7** The AoR has been reviewed for 2025 and updated in line with the LFC's commitment to review the AoR annually. It is presented for approval and is attached at Appendix 1.

# 2 Approach and key findings

**2.1** The approach to developing the AoR is detailed in Appendix 2 and the equalities impact assessment that supports it is set out in Appendix 3. Officers recommend that this approach is adopted for the development of the AoR 2026.

**2.2** The AoR takes a layered approach to assessing risks.

- *Layer one* uses the results of engagement workshops and polling to summarise public perception of risk. The details and results of this work can be found in section 2 of the AoR itself. This work is informed by an equalities impact assessment (Appendix 4) which identifies seldom heard groups for inclusion in the engagement work.

  The key findings from layer one show concerns around malicious threats and terrorism, street violence, fires in purpose-built flats and high-rise residential buildings and electrical safety and fires caused by lithium-ion batteries.

- *Layer two* is a data-led risk assessment using the most recent five years of incident data to identify relatively common risks that the Brigade might reasonably expect to deal with on a day to day basis. The details of this work and the results can be found in section 2 of the AoR and a summary of the changes to high, and very high, risk scores from 2024 is at Appendix 5.

  The key findings from layer two are an increase in the severity of high-rise fires and increased frequency of incidents of persons threatening to jump.

- *Layer three* references the London Risk Register and is a risk assessment of rare or "worst-case" scenarios which may not occur with sufficient frequency to appear in LFB five-year incident data or are yet to have occurred. The details of this work and the results can be found in section 2 of the AoR and a summary of the changes to high and very high risk scores in the London Risk Register from 2024 is at Appendix 6.

  The key findings from layer three identify a more complex and varied malicious threat picture; the risk of Marauding Terrorist attack using firearms has increased further on the London Risk Register as has Malicious Cyber-attack on civil nuclear installations. The risk of fires in high-rise buildings is also more highly rated in the latest version of the London Risk Register.

- *Layer four* presents new and emerging operational risks and trends identified and prioritised by subject matter experts, policy owners, key stakeholders and Assistant Commissioners. The outcomes from this work can be found in section 2 of the AoR; Appendix 7 describes the methodology used for the workshops, Appendix 8 provides a full list of the emerging risks identified.

  Research into good practice identified the Royal Academy of Engineering's report: *Building Resilience: Lessons from the Academy's Review of the National Security Risk Assessment Methodology*1. This recognizes that low-likelihood, high-impact events can be disproportionately disruptive when readiness is insufficient. Traditional approaches to risk assessment that focus on likelihood as a key metric can obscure critical gaps in capability and preparedness for risks with a low likelihood.

  As a result, the emerging risks in layer four of the AoR have also been assessed for preparedness against impact. That work has not been included within the AoR itself; it will be used to help prioritise any work needed to better manage the risks identified in the AoR.

  The key findings from layer four build on those identified in 2024. Concerns still exist regarding the changing built environment, including modern methods of construction, and the increasing density of very tall residential buildings and the associated operational challenges. Officers note that the proliferation and wider adoption of new fuels, energy sources and bulk energy storage, in particular lithium-ion energy storage, present ongoing and developing operational challenges. This also remains a concern from 2024.

  Climate change and societal pressures are anticipated to result in an increasing number of large incidents and incidents with high resource utilisation. Malicious or security-related incidents also remain a concern; in particular the potential for multi-site incidents and the

[1] https://raeng.org.uk/media/g31bttwt/raeng-building-resilience.pdf

impact this could have on resources and deployment.

# 3 External Scrutiny and Review

**3.1** The 2025 AoR was reviewed by an external panel of academics and subject matter experts, as in previous years. The purpose of the Panel is to provide independent academic and subject matter expert feedback on the AoR with reference to the robustness and defensibility of the approach. The Head of Risk, Planning Assumptions, Learning and Exercising, London Resilience was invited to chair the panel this year to provide fresh scrutiny. Appendix 9 provides the terms of reference for the Panel and provides the full list of attendees.

**3.2** The inclusion of a panel statement as to the robustness of the AoR provides assurance to the LFC that this assessment of risk is robust and defensible against industry and academic best practice.

**3.3** The 2025 Panel provided the statement below outlining their view of the robustness and defensibility of the AoR approach. Feedback from the Panel regarding links between layers and regarding individual vulnerability has been addressed in the updated AoR attached. The Panel described the Brigade's approach to assessing risk as, "leading practice". The full statement is below:

*"The Panel recognises that through the Assessment of Risk (AoR), London Fire Brigade (LFB) has continued to develop and improve its approach to assessing fire and rescue related risks in London. LFB's approach continues to demonstrate a strong desire to engage with the communities of London in the construction of its community concerns layer, as well as using internal and external expertise in the development of its emerging trends, extraordinary and future risks layers. The Panel welcomes the inclusion of a more detailed method document as recommended by the 2024 Panel. The 2025 Panel has made several specific and general recommendations to the Brigade, including an introduction which outlines the links between layers and clarification of the approach to individual vulnerability. This will make the AoR more robust and defensible. Included in the Panel's recommendations is the development of a foresight function that would enhance the identification of future risks. In conclusion, the Panel endorses the LFB's 2025 AoR and will continue to work with the Brigade in its future evolutions, as it continues to refine and enhance its approach to understanding fire and rescue related risk in London. The Panel recommends sharing this leading practice with other services and agencies."*

# 4 Next steps

*Action planning*

**4.1** The Key Findings section of the AoR (Appendix 1 to this report, pp 11-15) sets out, by layer, the risks where further mitigation should be considered. Some of these risks are new, some are carried forward from 2024 and some have a higher rating than in 2024.

**4.2** The Assistant Director of Strategic Planning has reviewed the Community Risk Management Plan in the light of this new AoR and considers the Plan provides officers with the framework to manage these risks and requires no amendment itself.

**4.3** Publication of the AoR triggers a formal review of service strategies, plans and policies. The tables in the Key Findings section indicate the service strategies or policy owners where changes are most likely to be needed. However, all Heads of Service are expected to review the AoR and to make amendments to their strategies and plans, where relevant and proportionate, to mitigate the risks.

**4.4** Strategic Planning will provide support and guidance to the relevant Heads of Service on how to take a consistent approach to prioritizing this work, using the assessment of preparedness against impact referenced earlier in this report.

*Providing an audit trail*

**4.5** Resource constraints last year prevented officers from tracking and recording the reviews that should have taken place following the publication of the AoR. Several risks identified in the AoR 2024 appear in this year's assessment and there is no audit trail that demonstrates the actions that have been taken to address them. These include the operational and physiological constraints that exist in relation to firefighting and evacuation in high-rise buildings, concerns about operational preparedness in relation to modern construction methods and the proliferation of alternative fuels.

**4.6** To address this reporting gap for 2025, officers propose to introduce a tracking process so that progress against the actions in the Key Findings tables mentioned above can be reported quarterly to the Risk and Assurance Board. This will provide assurance to the LFC that the highlighted risks are adequately controlled or that there are plans to introduce future control measures to mitigate the risks.

*Corporate risks*

**4.7** Risks which are highlighted in the AoR 2025 and which are unable to be brought within the LFC's risk appetite for service delivery after review by lead officers may require escalation to the corporate risk register.

# 5 Planned development of the Assessment of Risk for 2026

**5.1** Further development of the Assessment of Risk in 2026 will focus on increasing sophistication of layer one, Public Concerns and Risk Perception. LFB will seek to extend the reach of workshop-based activity by further leveraging borough level engagement. This layer informs work on local risk management through Borough Risk Management Plans and Station Delivery Plans. A key area of development will be increasing the number of LFB Boroughs able to deliver risk focused workshops.

**5.2** LFB is developing a Strategic Foresight function. It is expected that as this function matures the workshop series that results in layer four of the AoR will focuses on issues that fall into Horizon One and Horizon Two and that Horizon Three issues will be addressed through the wider foresight function. LFB will explore using this approach to align more with the National Security Risk Assessment approach to Acute and Chronic Risks.

**5.3** LFB will continue to develop its demand modelling capability including modelling of impacts of rare and extraordinary risks and defining more clearly the resources required to deal with both, "normal requirements," and extraordinary risk.

**5.4** Finally, the timing of the production of the AoR will continue to be brought forward. The intention is to have a final draft available in February or early March to inform the departmental and borough planning processes.

# 6 Values Comments

**6.1** The LFC notes the Fire Standards Board requirements around adopting and embedding the Core Code of Ethics at an individual and corporate level. Following extensive engagement, the LFC has introduced Brigade values which build on and do not detract from the Code of Ethics.

**6.2** The Brigade values are:

- Service: we put the public first
- Integrity: we act with honesty
- Teamwork: we work together and include everyone
- Equity: we treat everyone fairly according to their needs
- Courage: we step up to the challenge
- Learning: we listen so that we can improve

**6.3** The approach to updating the LFB Assessment of Risk for London (AoR) has been undertaken in line with our values in the following key ways:

- **Service**: The AoR informs the priorities in our service strategies and enables the Brigade to be focused on risk. Our community layer demonstrates our intention to put the public first.

- **Integrity**: Basing the approach to pan-London risk on transparent, evidence-based assessments and by publication of a detailed methodology demonstrates openness and integrity in the LFC's assessment process.

- **Teamwork**: Collaborating across departments and with external partners to identify hazards and to analyise risks embeds team work and creation of a shared understanding of risk in this AoR process.

- **Equity**: The exposure of individual members of the public to risk will differ with their location and activity, this exposure may be correlated or independent to any individual protected characteristic. The layered approach adopted to assessing risk in the AoR ensures that each type of fire service-related risk an individual may be exposed to, is assessed. The inclusion of Layer One: Public Concerns and Risk Perception ensures communities' concerns are highlighted and centered.

- **Courage**: Seeking challenge and review from external experts and academics of the review panel requires courage. Openness to challenge and feedback ultimately improves the Brigade's ability to assess risk effectively.

- **Learning**: Officers have sought to listen to the lived experience and concerns of the communities we serve in developing layer one of the AoR. The approach reflects learning from these communities and from the LFB Community Forum. Feedback from the External Expert and Academic Panel has been actioned, demonstrating an open approach to learning from external best practice.

# 7 Equality Comments

**7.1** The LFC and the Deputy Mayor for Planning, Regeneration and the Fire Service are required to have due regard to the Public Sector Equality Duty (section 149 of the Equality Act 2010) when taking decisions. This in broad terms involves understanding the potential impact of policy and decisions on different people, taking this into account and then evidencing how decisions were reached.

**7.2** It is important to note that consideration of the Public Sector Equality Duty is not a one-off task. The duty must be fulfilled before taking a decision, at the time of taking a decision, and after the decision has been taken.

**7.3** The protected characteristics are: age, disability, gender reassignment, pregnancy and maternity, marriage and civil partnership (but only in respect of the requirements to have due regard to the need to eliminate discrimination), race (ethnic or national origins, colour or nationality), religion or belief (including lack of belief), sex, and sexual orientation.

**7.4** The Public Sector Equality Duty requires decision-takers in the exercise of all their functions, to have due regard to the need to:

- eliminate discrimination, harassment and victimisation and other prohibited conduct.
- advance equality of opportunity between people who share a relevant protected characteristic and persons who do not share it.
- foster good relations between people who share a relevant protected characteristic and persons who do not share it.

**7.5** Having due regard to the need to advance equality of opportunity between persons who share a relevant protected characteristic and persons who do not share it involves having due regard, in particular, to the need to:

- remove or minimise disadvantages suffered by persons who share a relevant protected characteristic where those disadvantages are connected to that characteristic.
- take steps to meet the needs of persons who share a relevant protected characteristic that are different from the needs of persons who do not share it.
- encourage persons who share a relevant protected characteristic to participate in public life or in any other activity in which participation by such persons is disproportionately low.

**7.6** The steps involved in meeting the needs of disabled persons that are different from the needs of persons who are not disabled include, in particular, steps to take account of disabled persons'

disabilities.

**7.7** Having due regard to the need to foster good relations between persons who share a relevant protected characteristic and persons who do not share it involves having due regard, in particular, to the need to:

- tackle prejudice
- promote understanding.

**7.8** An Equalities Impact Assessment (EIA) was created for the public engagement element of the AoR 2024. This EIA was reviewed prior to starting the AoR 2025 process by the Community Engagement Team and found to be current. This guided the creation of workshops for seldom heard and at-risk groups; this can be found in Appendix 4.

**7.9** An EIA was completed for the AoR 2025 process as a whole; this can be found in Appendix 3.

# 8 Other considerations

### Workforce comments

**8.1** The representative bodies were engaged in the development of the assessment of risk process which remains unchanged for 2025. In addition, workshops were carried out with Control Staff, the Operational Sounding Board and with watch-based staff. No changes to the approach to assessing risk were identified during these engagements, however it is notable that the watch-based staff expressed concern about the level of incidental violence within the community to which they are exposed whilst carrying out their day-to-day duties.

### Communications comments

**8.2** This is an internal facing document that is used to inform service strategies, departmental plans and BRMPs (Borough Risk Management Plans). It also informs prioritisation of work in central departments, such as Operational Policy and Assurance. The document is not primarily intended as a tool for communicating risk information to the public, but communication and community engagement teams should use the document to inform their work.

**8.3** All relevant stakeholders have been made aware of the review of the Assessment of Risk and Strategic Planning will continue to work in collaboration with those stakeholders so that its relevance is understood and document owners understand where changes to strategies and plans are required

**8.4** This version of the Assessment of Risk will be published both on the external website and on hotwire. Active promotion of the document to staff is proposed as it is intended to both promote a common understanding of operational risk and serve as a prioritisation tool. The wider promotion of the document across the organization as a whole will be done in collaboration with the internal communications team.

**8.5** Strategic Planning will develop a stakeholder engagement plan to promote the use and understanding of the AoR across departments with particular reference to those prioritising work or communicating with the public, partner agencies and other stakeholders about risk.

# 9 Financial comments

**9.1** The update to the AoR will not directly result in any financial consequences. However, in line with reviewing all of LFB's material risks, if it is identified that the organisation's control measures require change, then there will be cost implications (both potentially in savings and additional investment). The cost implications would be because of placing increased mitigating factors to ensure the risk is managed appropriately.

**9.2** Potential additional budgetary pressures relating to the update of the AoR will be managed within existing departmental budgets.

**9.3** Any changes to the assessment of risk would be assessed to its financial implications and form part of the budget cycle process

## 10 Legal Comments

**10.1** Under section 9 of the Policing and Crime Act 2017, the London Fire Commissioner ("Commissioner") is established as a corporation sole with the Mayor appointing the occupant of that office.

**10.2** Section 1 of the Fire and Rescue Services Act 2004 states that the Commissioner is the fire and rescue authority for Greater London.

**10.3** Under section 327D of the GLA (Greater London Authority) Act 1999, as amended by the Policing and Crime Act 2017, the Mayor may issue to the Commissioner specific or general directions as to the manner in which the holder of that office is to exercise his or her functions.

**10.4** By direction dated 1 April 2018, the Mayor set out those matters, for which the Commissioner would require the prior approval of either the Mayor or the Deputy Mayor for Fire and Resilience (the "Deputy Mayor").

**10.5** Paragraph 3.1 of Part 3 of the said direction requires the Commissioner to consult with the Deputy Mayor as far as practicable in the circumstances before a decision is taken on (inter alia) any "[c] decision that can be reasonably considered to be novel, contentious or repercussive in nature, irrespective of the monetary value of the decision involved (which may be nil)".

**10.6** The decisions recommended in this report are considered to be 'novel, contentious or repercussive' and therefore the Deputy Mayor must be consulted before a final decision is taken.

**10.7** When carrying out his functions, the Commissioner, as the fire and rescue authority for Greater London, is required to "have regard" to the Fire and Rescue National Framework prepared by the Secretary of State ("Framework") (Fire and Rescue Service Act 2004, section 21).

**10.8** The production of an Integrated Risk Management Plan (IRMP) is a requirement of the Framework. In line with guidance from the National Fire Chiefs' Council, the Commissioner is now referring to the IRMP as a Community Risk Management Plan (CRMP).

**10.9** The Framework states that the Commissioner's CRMP "must" meet certain requirements, in considering the AoR 2025 the Commissioner must therefore have regards to the following requirement of the Framework; that the CRMP 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;

**10.10** To assist the Commissioner in coming to a view on this matter it is recommended that the Commissioner should consider whether the CRMP properly reflects the updated AoR. It would not be sufficient to state it is met by reference to additional documents, the CRMP itself must demonstrate this in and of itself. When considering if the risk analysis is properly reflected in the CRMP it is not required that it reproduces the analysis completely but instead that it represents it accurately and in an appropriate way.

**10.11** The recommendation in this report is that the CRMP does not need amending in response to the changes to the AoR 2025. If the Commissioner agrees with this recommendation, then it falls to the Commissioner to decide following consultation with the Deputy Mayor.

# List of appendices

| Appendix | Title | Open or confidential* |
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| 1 | Assessment of Risk 2025 | Open |
| 2 | Assessment of Risk 2025 methodology | Open |
| 3 | Equalities Impact Assessment AoR 2025 | Open |
| 4 | Equalities Impact Assessment: Layer One. Public Concerns and Public Risk Perception | Open |
| 5 | Summary of Changes to High and Very High risk scores relating to incident type in Layer Two | Open |
| 6 | Summary of Changes to High and Very High London Risk Register risk scores in Layer Three | Open |
| 7 | Emerging Trends and Future Risks: Operational Horizon Scanning Workshop Series: Method | Open |
| 8 | Emerging Trends and Future Risks: Workshop 1 detailed results | Open |
| 9 | Academic and Professional Review Panel for the London Fire Brigade (LFB) Assessment of Risk (AoR) 2025<br><br>Terms of Reference | Open |

## Part two confidentiality

Only the facts or advice considered to be exempt from disclosure under the FOI Act should be in the separate Part Two form, together with the legal rationale for non-publication.

**Is there a Part Two form:** **NO**

LONDON FIRE BRIGADE

OFFICIAL

# Assessment of Risk 2025

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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 percent 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% of the United Kingdom population. 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.

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 has been a noted feature of 2024. 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.  The recent electrical infrastructure fire in Hayes, London, which impacted Heathrow airport highlights the major impact to UK and global communications, travel, imports, exports, as well as national and organisational reputations a London-located incident can have.

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. Approach to Assessing Risk and Key Findings

## Introduction

The Fire and Rescue National Framework for England 2018 places a duty on all Fire and Rescue Services to "identify and assess the full range of foreseeable fire and rescue related risks their areas face". The London Fire Commissioner's (LFC) Assessment of Risk for London (AoR) is the Brigade's response to that requirement. It sets out all foreseeable risks to which the LFB might be expected to respond, or which may impact its response, and assesses their risk based on a combination of their likelihood and consequence. This assessment presents information on risk of incidents that may have happened only rarely, or never, as well as risks that are common.

This assessment informs LFB's prioritisation of statutory and discretionary activity detailed in the Community Risk Management Plan (CRMP), known as "Your London Fire Brigade," and in the LFC's six service strategies; Prevent, Protect, Respond, Prepare, Recover and Engage.

The AoR is not the only process LFB uses to determine and provide its services, but it can be used to understand the operating environment and the steps that LFB is taking to make people safe. The AoR is reviewed annually, or sooner if significant new data become available. This enables the Brigade to adapt its operations to London's changing environment.

The CRMP seeks to make the Brigade more community-focussed and service-led. By this we mean that we want to help people both feel safe as well as be safe; consequently, public concerns and public perception of risk are featured prominently in this risk assessment as, "Layer One. Public Concerns and Public Risk Perception."

The UK Government and the London Resilience Forum (a partnership of organisations with responsibility for emergency preparedness in London, including London Fire Brigade) each produce a risk register of reasonable worst-case risks. These are updated periodically and are used by them to prepare their response should these risks occur. The London Risk Register (LRR) is a register of the risks that most impact London and draws these risks largely from the National Security Risk Assessment. This risk assessment uses a broad definition of risk and includes impacts on human welfare, behaviour, economic, infrastructure, environment, and security. The Brigade must plan for how it will continue to operate and respond, in the case that any of these scenarios are realised. The AoR therefore makes extensive reference to the London Risk Register, referred to in this document as, "Layer three: Extraordinary risks and risks from the London Risk Register".

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

The London Risk Register 2025 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 available to partners and other fire rescue services who may wish to use the analysis to inform their own planning; but it is not intended for this purpose.

The AoR is intended to be a tool for understanding risk to London and to Londoners. It is not an assessment of risk to Firefighters. Firefighter risk whilst responding to incidents described in this assessment is not considered within it. This is intentional. LFB has other systems and control measures for measuring and managing firefighter risk.

# Our approach to assessing pan-London risk

To assess all foreseeable risks, both fire and non-fire, for which the LFB may be expected to put in place controls; including risks that may have happened only rarely, or never, and risks that are common, the Brigade takes a layered approach. This approach also allows us to assess and understand how the public experience threat and risk in their lives independent of recorded or reported incidents.

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

This AoR assesses frequently occurring events from recent incident data, and low frequency but high impact events from the London Risk Register independently of each other, providing separate tools for both prioritisation of day-to-day activity and for worst case planning. LFB also uses this AoR to identify emerging trends and future risks which may impact the operating environment, or which may require the planning of additional capacity or capability.

Learning from other fire services, partner agencies and from international incidents of note informs this assessment through the inclusion of layer four, Emerging trends and future risks.

This AoR provides tools for understanding geographic variation of specific risks. The Brigade uses methodology developed by the NFCC to highlight the geographic distribution of indicators for increased risk related to dwelling fires and road traffic collisions (RTC). These maps are on page 36 and 37. The Brigade has also developed Neighbourhood Density Zones, to illustrate where demand for services predominantly occurs and where different types of risk are concentrated. This map is on page 35.

The exposure of individual members of the public to various risks will differ significantly with their location and activity, this exposure may be correlated or independent to any individual protected characteristic. The layered approach adopted to assessing risk ensures that each type of risk an individual may be exposed to, for whatever reason, is assessed allowing mitigation to be planned.

The NFCC have developed a national approach to assessing risk for dwelling fires and road traffic collisions. The AoR adopts this approach as a means of identifying geographic areas across London most likely to be associated with higher risk. Using the NFCC methodology ensures that a robust and nationally agreed approach to risk is adopted. Any risks associated with protected characteristics whilst not directly addressed in the NFCC work is addressed through the inclusion and aggregation of the identified factors that correlate with likelihood and consequence.

Because key factors associated with individual dwelling fire, and with broader Road Traffic Collison (RTC), risk are included in the NFCC definition of risk work and mapped pan-London for the AoR; data sets on individual personal vulnerability are not assessed separately within this document.

# Our approach to individual vulnerability

The United Nations Office for Disaster Risk Reduction, in their 2017 Sendai Framework Terminology on 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 a hazard being realised in London, specific personal vulnerability data sets are not used in this assessment. However, by adopting the NFCC methodology for combined risk in layer two of this document, 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 outcome of this assessment is displayed in the NFCC definition of risk map for London. This risk map can therefore be viewed as including vulnerability to dwelling fire within it.

LFB's Prevention Strategy here; prevention-strategy-2023-2026 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.

It is noted that individuals can be susceptible to the impacts of hazards other than fires through these factors and others. 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 health 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.

# Description of layers

## Layer 1. Public Concerns and Public Risk Perception

This layer identifies the risks that Londoners are most concerned about in relation to fire and rescue service-related emergencies. These concerns will not necessarily reflect the likelihood or severity of actual incidents but reflect the concerns held by members of the public.

The purpose of this layer is to:

- Establish the primary concerns of the public as they relate to the fire service.
- Inform risk communication work and public engagement.
- Allow public concerns to be considered when setting organisational risk priorities.
- Use the lived experience of communities to inform Hazard Identification.

## Layer 2. Risks relating to property, places and incident type

This is a data-led risk assessment using the most recent five years of incident data on casualties and of demand on LFB resources at incidents. This layer highlights risks which are relatively common under normal requirements. Using recent incident data highlights the type of incidents and locations associated with high likelihood of casualties and of a larger draw on resources, e.g., road traffic accidents and domestic fires leading to casualties and fires in rural areas drawing on resources. Where incidents have most recently occurred has been shown to be a reliable predictor of where incidents are most likely to occur in the near future and is used to model our anticipated demand under normal requirements.

The purpose of this layer is to;

- Assess which property types and locations and which incident types are associated with the most casualties under normal requirements.
- To assess which property types and locations and which incident types, have the potential for the greatest wider impacts and resourcing implications for LFB under normal requirements.
- To inform prioritisation work within LFB service strategies.

## Layer 3.1 Extraordinary risks and risks from the London Risk Register

This is a risk assessment of rare or "reasonable worst-case" scenarios which may not occur with sufficient frequency to appear in LFB five-year incident data or are yet to have occurred. Reasonable worst-case risks are assessed against a range of impacts e.g. human welfare, behavioural impact, economic, infrastructure, environmental and security. Risks are taken directly from

the London Risk Register, produced by the London Resilience Forum (LRF). The risks for which LFB is the lead are scored using input from LFB subject matter experts but also include input from partners. Risks on which other partners lead are scored in a similar way. This gives the Brigade and the London Resilience Forum a shared partner-wide perspective on risks. This register includes risks that LFB will not have to respond to but may be affected by and for which it may need continuity plans.

This is a different way of assessing risk from the data-driven assessment of commonly occurring risks in layer two as it looks at the possible severity of infrequent but high impact events and an assessment of what the possible implications are for London. This layer deals with risks that may not appear in incident data as they are infrequent or rare but none the less have been assessed as reasonable expectations in a worst-case scenario.

Presented independently of the LRR are unlikely but possible events which do not yet appear in the LRR or in recent incident data but are highlighted through cross departmental engagement and as such are considered appropriate to highlight as part of the LFB's Assessment of Risk. Risks from this section may progress to the LRR through partner engagement in the London Resilience Forum.

## Layer 3.2 Extraordinary risk scenario modelling

This AoR includes the findings of developing scenario modelling which assesses the impact on service delivery and appliance mobilisation of reasonable worst-case scenarios from the London Risk Register. Modelling in this section is a development of the existing optimisation model and Dynamic Cover Tool (DCT) used by LFB to determine optimal disposition of resources in real time. Outcomes provide an operational stress test for reasonable worst-case scenarios under differing demand conditions.

The purpose of these layers is to allow the Brigade to plan and prepare for:

- Response to low frequency but high impact events.
- Combinations of events leading to a high overall demand on LFB resources.

## Layer 4. Emerging trends and future risks

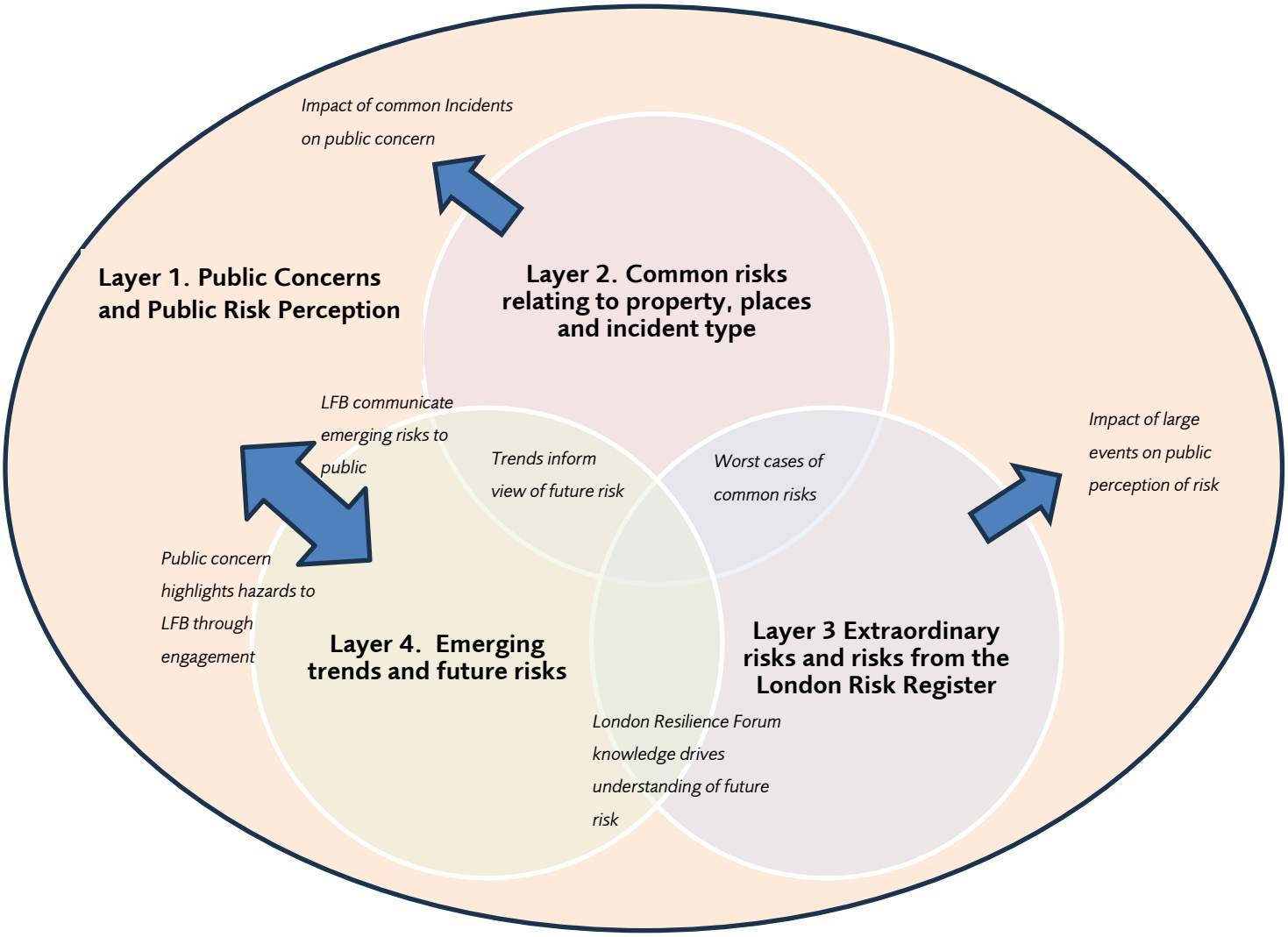
This layer describes trends identified in incident data and the outcomes of workshops. These workshops drew together the Brigade's various sources of expertise, information and horizon scanning functions to identify early warning signs of changes to risk or to the operating environment that may not yet be apparent in incident data or existing risk registers, but which have been identified by Brigade subject matter experts and policy owners. The results of these workshops were moderated at a meeting of Assistant Commissioners. Learning from other fire services, partner agencies and from international incidents of note also inform this assessment layer. This layer allows for longer term planning to be undertaken and controls to be identified in the early stages of a risk's development.

The purpose of this layer is:

- To gather information about emerging trends and developments that could have an impact on the Brigade.
- To explore how trends and developments might combine and what impact they might have.
- To involve a range of people in futures thinking. To increase the knowledge and insight within LFB about new and emerging risks relevant to LFB operations.
- To create and foster a shared understanding of emerging risk across the Brigade's various functions and departments.

## Relationships between risk layers

Although presented independently for ease of use. Similar risks may appear in more than one layer within this assessment. Each layer has a different intended focus and use by different stakeholders, leading to the data being treated and presented differently. This difference in assessment method and focus is the reason that similar risks can appear in both scoring systems but scored slightly differently. For example, the reasonable worst-case scenario for a large residential high-rise fire, presented in layer three is for a single large event to cause many casualties, this is however not typical; the commonly occurring risk, presented in layer two, is for more frequent fires, each producing fewer casualties. The likely future manifestation of risk is dealt with in layer four. The level of public concern which may be reflective of and influenced by day-to-day events, single large events or concerns for the future is presented in layer one but is both input and an output and is influenced by all the risks presented in this report. Concerns raised by the public will influence our hazard identification for future risks particularly in LFB risk layer four.



# What is different in this edition?

Partnership planning identified a more complex and varied malicious threat picture in 2024, this threat level has been sustained through 2025. As a result, there remain many malicious threat types listed on the London Risk Register in 2025 and in this Assessment of Risk. Since 2024 the risk of Marauding Terrorist attack using firearms has increased further on the London Risk Register as has Malicious Cyber-attack on civil nuclear installations.

Our incident data shows there has also been an increase in the severity of High-Rise Fires and the frequency of incidents of persons threatening to jump.

Table 1 sets out key changes where risks to which LFB may respond, or which may impact response, are assessed as both very high and increasing.

Table 1. Risks which are, "Very High", and have increased since last assessment

| Very High Risk -Increased from 2024 | Assessment Type | Detailed report |
|---|---|---|
| Malicious attack on civil nuclear installations – Cyber | London Risk Register | AoR Layer 3/London Risk Register |
| Marauding terrorist attack - firearms | London Risk Register | AoR Layer 3/London Risk Register |
| Low temperatures and snow | London Risk Register | AoR Layer 3/London Risk Register |
| Fires in purpose-built high-rise flats | London Risk Register | AoR Layer 3/London Risk Register |
| A1HR Fire High Rise Buildings | LFB Incident Data | AoR Layer 2 /AoR data report |
| B12 Person threatening to Jump | LFB Incident Data | AoR Layer 2 /AoR data report |

# Key Findings 2025

The following tables set out the key findings from 2025's assessment of risk. These tables are intended to provide a quick reference, but they do not include the full detail on each risk and may be misleading if not read alongside the full report.

Key findings are summarised by layer. Users intending to use the AoR for decision making should use Section 2, page 16 onwards, to access the detailed report for the layer of interest. Where decision making regarding layer three 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.

The physiological demands of high-rise firefighting have been identified as a growing area of concern, particularly in light of their potential to affect operational effectiveness. This issue is highlighted as an emerging risk in layer four of the Assessment of Risk (AoR), reflecting the increasing number and height of high-rise buildings across London and the resulting heightened exposure. More broadly, high-rise fires feature prominently across all layers of the AoR, with the associated risk scores rising in layers two and three compared to the previous year. Feedback from officers and staff points to limitations in current firefighting tactics and personal protective equipment (PPE) as contributing factors to this risk. Given the sustained nature of this challenge, the organisation should assess how this constraint aligns with its overall risk appetite and long-term capability planning.

# Key findings  Layer One: Public Concerns and Public Risk Perception

| Layer One. Public Concerns and Public Risk Perception. | | | | |
|---|---|---|---|---|
| **Risk** | **Key Finding** | **Implication** | **Potential adjustment needed** | **Lead Officer** |
| **Malicious Threats and terrorism** | Malicious threats and terrorism remain the most concerning risk reported by the public in workshops and remain in the top three concerns reported in polling behind purpose built flat and high-rise fires. | The public will seek information on ways to make themselves safe from malicious threats.<br>The public will expect activity from LFB in areas related to malicious threats | **Community Resilience** | |
| | | | Prepare/Recover strategies | AC Goulbourne/AC Sutcliffe |
| | | | **Community Engagement** | |
| | | | Engagement Strategy | Emma Morgan |
| | | | Borough Risk Management Plans | AC Sutcliffe |
| **Street violence** | Respondents to workshops and polling report high levels of concern around street violence and knife crime.<br>Subsequent engagements with fire crews revealed examples of crews intervening in violent incidents when moving around London. Crews reported increasing exposure to violence in day-to-day work. | The level of concern reflects the operating environment for LFB staff who may encounter violence in their duties. | Engagement Strategy | Emma Morgan |
| | | | Borough Risk Management Plans | AC Sutcliffe |
| **Fires in purpose-built flats and fires in high rise residential buildings** | Fires in purpose-built flats and fires in high rise residential buildings remain the most concerning to the public from polling data and are second and third to malicious threats in workshop data. | A persistent high level of concern indicates a risk to which the public feel exposed or feel is poorly controlled. | **Response Strategy** | AC Goulbourne/AC Sutcliffe |
| | | | **Protect Strategy** | AC Oparaocha |
| | | | **Prevent Strategy** | AC Oparaocha |
| **Lithium-ion and Electrical Safety** | Website traffic analysis indicates that safety information is most often sought regarding lithium-ion and electrical safety. This indicates a persistently high level of concern in the community.<br>Qualitative feedback from workshops and polling indicates a high level of concern regarding e-bikes and e scooters in particular | Persistent high level of concern indicates a risk to which the public feel exposed or feel is poorly controlled. | **Response Strategy** | AC Goulbourne/AC Sutcliffe |
| | | | **Protect Strategy** | AC Oparaocha |
| | | | **Prevent Strategy** | AC Oparaocha |
| | | | **Operational Policy and Assurance** | AC McCourt |

# Key findings Layer two: Risks relating to property, place and incident type

| Layer two. Risks relating to property, place and incident type. | | | | |
|---|---|---|---|---|
| **Risk** | **Key Finding** | **Implication** | **Potential adjustment needed** | **Lead Officer** |
| **Fires in high rise buildings**<br>Incident Type A1HR | Based on incident data from the last 5 years, the risk presented by A1HR incidents has increased. This is driven by an increase in the severity score, indicating more casualties | This incident type is a persistently high risk and is associated with a higher-than-average casualty rate. | **Response Strategy** | AC Goulbourne /AC Sutcliffe |
| | | | **Protect Strategy** | AC Oparaocha |
| | | | **Prevent Strategy** | AC Oparaocha |
| **Persons in Crisis**<br>Person Threatening to Jump,<br>Incident Types B12, J12 and Special Service Suicide attempt. | Incident data indicates a trend of increasing likelihood **and** increasing severity for incidents of this type. This is a persistent increase over the data capture period. Incidents coded as Special Service Suicide Attempts (inclusive of some B12/J12) show increase in likelihood. | Crews will more often respond to persons in crisis, particularly at height. | **Response Strategy** | AC Goulbourne/AC Sutcliffe |
| | | | **Operational Policy and Assurance** | AC McCourt |
| **Highest risk incident types** | **The highest risk incident types are;**<br>• *A1 Fire*<br>• *A1HR Fire High Rise Buildings*<br>• *B1 Person trapped excluding RTC*<br>• *B1T Train or Tram incident involving trapped person*<br>• *B2 reduced special service*<br>• *B3 Effecting Entry*<br>• *B10 Person in Precarious Position*<br>• *B11 Person collapsed/injured including behind doors*<br>• *B12 Person Threatening To Jump*<br>• *B19 Assist LAS Ambulance with Bariatric/Difficult removal*<br>• *C1 Hazmat Incident initial call*<br>• *C3 Acid attack on Person*<br>• *J3 Person in waterway / on foreshore accessible from land*<br>• *J0 FBT Running call from MCA*<br>• *Make safe RTC*<br>• *Persons trapped RTC*<br>• *N0 NILO assessment*<br>• *Vehicle fire* | These incidents will happen relatively frequently and/or will have relatively high casualty rates compared to other incident types. These incident types may be good targets for assurance activities and should be reflected in organizational prioritisation. | | |
| | | | **Enterprise Assurance framework workplan** | Professional Head McMonagle |
| | | | **Operational Policy and Assurance** | AC McCourt |

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

| Layer three: Extraordinary risks and risks from the London Risk Register | | | | |
|---|---|---|---|---|
| **Risk** | **Key Finding** | **Implication** | **Potential adjustment needed** | **Lead Officer** |
| **Fires in purpose-built high-rise flats** | Reasonable worst case scenario risk increased by London Resilience Forum (LRF). Reflective of LFB incident data indicating more casualties in day-to-day incidents. | Exposure to this risk is related to the increasing number and height of tall residential buildings in London.  London contains the overwhelming majority of the UKs high rise dwellings including those found to need further mitigation post the Grenfell Tower fire. | **Response Strategy** | AC Goulbourne/AC Sutcliffe |
| | | | **Protect Strategy** | AC Oparaocha |
| | | | **Prevent Strategy** | AC Oparaocha |
| | | | **Operational Policy and Assurance** | AC McCourt |
| **Marauding terrorist attack - firearms** | The LRF has increased the risk score of this attack methodology | Firefighters will continue to be mobilised to incidents of this type as part of a multi-agency response. Frequency and/or severity may increase. | **Response Strategy** | AC Goulbourne/AC Sutcliffe |
| | | | **LFB National Resilience and High Threat Capabilities** | AC Goulbourne |
| **Malicious attack on civil nuclear installations – Cyber** | The LRF has increased the risk score of this attack methodology | Firefighters may be mobilised to support incidents of this type as part of a multi-agency response if the attack leads to a requirement for LFB capabilities. | **Response Strategy** | AC Goulbourne/AC Sutcliffe |
| **Large Aircraft incident in proximity to Airport** | The LRF has increased the risk of this incident type | LFB initial response and National Resilience assets (USAR) will require mobilization to respond to this incident type. Frequency and/or severity may increase. | **Response Strategy** | AC Goulbourne/AC Sutcliffe |
| **Major fire in care homes and hospitals** | The LRF has increased the risk of this incident type | Firefighters will continue to be mobilised to incidents of this type, Frequency and/or severity may increase. | **Response Strategy** | AC Goulbourne/AC Sutcliffe |
| | | | **Protect Strategy** | AC Oparaocha |
| | | | **Operational Policy and Assurance** | AC McCourt |

# Key findings Layer four: New and Emerging Risks

| Layer four: New and Emerging Risks | | | | |
|---|---|---|---|---|
| **Risk** | **Key Finding** | **Implication** | **Potential adjustment needed** | **Lead Officer** |
| **Physiological constraints during high-rise firefighting affecting operational outcomes** | High rise firefighting, and in particular ascending stairs in Breathing Apparatus is associated with physiological strain and core body temperatures increase in Firefighters. Trials have indicated firefighters face constraints when ascending stairs vertically, greater than 100m (or lower if they are required to perform a significant firefighting task before descending or if there are arduous conditions on the ascent). **9B** | In instances where vertical travel in BA is required, i.e. firefighting lift unavailable, crews' ability to sufficiently penetrate a tall building to achieve all search and rescue objectives will be constrained. The exposure to this risk is increased in London due to the increasing number and height of residential buildings. | **Response Strategy** | AC Goulbourne/AC Sutcliffe |
| | | | **Operational Policy and Assurance** | AC McCourt |
| **Extreme and wide area flooding impacting London** | Several flooding specific risks exist for London including rainfall and river flooding. These events may become more common, more widespread and severe. (6A, 7B, 7E, 2A, 6F) | Crews may need to respond to larger and more severe flooding Demand peaks associated with heavy rainfall may become more prolonged and more intense. | **Response Strategy** | AC Goulbourne/AC Sutcliffe |
| | | | **Operational Policy and Assurance** | AC McCourt |
| **Concerns about modern construction methods, building regulations, and compliance with industry standards** | Specific concern regarding development of cross laminated timber structures and modular construction methods and performance of these materials during fire or collapse. 9A | Crews may attend incidents involving these materials and these incidents may develop in a way unfamiliar to crews. | **Protect Strategy** | AC Oparaocha |
| | | | **Operational Policy and Assurance** | AC McCourt |
| | | | **Enhanced monitoring and reporting** | Professional Head Robinson |
| **An increasingly varied and complex malicious threat picture.** | A wide range of public and state targets with an increasing range of state aligned, ideological, criminal and self-initiated actors 8B, 8C, 8D, 8E, 8F, 8G. | Firefighters will continue to be mobilised to incidents of this type, but frequency and severity may increase. | **Response Strategy** | AC Goulbourne/AC Sutcliffe |
| | | | **LFB National Resilience and High Threat Capabilities** | AC Goulbourne |

## Key findings Layer four: New and Emerging Risks contd

| | | | | |
|---|---|---|---|---|
| **Alternative fuels as a multiplier of severity and/or likelihood of fire service incidents. 1C, 2B, 2D, 3A, 3B,3C 9E** | Increasing exposure to this risk is driven by the increased presence of these items and materials in London. | Firefighters will continue to be mobilised to incidents of this type. Frequency and severity may increase. | **Protect Strategy** | AC Oparaocha |
| | | | **Operational Policy and Assurance** | AC McCourt |
| **Economic factors interacting with ageing-built environment and infrastructure** | Potential for structural failures, initiating or worsening fire service incidents. 1D,2D,4C | Frequency and severity of incident type may increase. | **Enhanced monitoring and reporting through NOL to pick up signals of this risk materialising** | AC McCourt |
| **Rescue required from horizonal and vertical deep penetration into structures/earth 4B** | Increasingly complex built environment challenging operating capability | Firefighters may be mobilised to incidents in locations at or beyond the limit of their operating capability | **Response Strategy** | AC Goulbourne/AC Sutcliffe |
| | | | **Operational Policy and Assurance** | AC McCourt |
| **Social and demographic factors, e.g. health, aging and social cohesion and economic pressures leading to upwards pressure on operational demand. 5A, 5B, 5C, 8J, 5G, 5I, 5M** | Upwards pressure on operational demand. | Increase in demand may impact operational planning and capacity. | **Strategic Foresight Function** | AD Ellison-Bunce |

# Composite summary of highest risks from LFB data by location (black text) and London Risk Register (white text)

| Consequence | | | | | | |
|---|---|---|---|---|---|---|
| | 5 | R52 Civil Nuclear Accident R22a Malicious attack on civil nuclear installations – conventional<br>Fire - Other residential property<br>Fire - Warehouses and bulk storage<br>Non-Fire - Camping tent, shelter or marquee | R95 Nuclear attack by a state on the UK mainland or UK overseas interests. R76 Drought. R21b Attack on UK electricity infrastructure – Cyber R12 Non-state nuclear attack – urban area R21b Attack on UK electricity infrastructure – Cyber R89 High-Electromagnetic Pulse (HEMP)<br>Fire - Landfill or wasteland<br>Fire - Manufacturing and processing<br>Fire - Retail<br>Non-Fire - Outdoor water<br>Non-Fire - Trains<br>Non-Fire - Vegetation by road, track or canal | R50a Failure of National Electricity Transmission System R14 Biological attack unenclosed urban area<br>Fire - Private garage, shed or outbuilding<br>Non-Fire - Transport buildings<br>Fire - House or Bungalow | R78 Pandemic<br>Fire - Purpose built flats | Non-Fire - Road Vehicle |
| | 4 | | R48 Loss of Positioning, Navigation and Timing (PNT) Services L71a Large Aircraft incident in proximity to Airport R08 Malicious Aviation Incident R80a Major outbreak of foot and mouth disease R51Failure of Gas Supply Infrastructure<br>Fire - Care and supported living<br>Fire - Offices and call centres<br>Fire - Public administration, utilities and amenities<br>Fire - Short stay accommodation<br>Non-Fire - Boat<br>Non-Fire - Other residential property | R73 High Temperatures and heatwaves R75b Fluvial Flooding R16a Chemical attack – unenclosed urban area R16b Chemical attack – enclosed urban area R21a Attack on UK electricity infrastructure – conventional R22b Malicious attack on civil nuclear installations – Cyber R07 Malicious Rail Network Attack R23a Malicious attack on fuel supply infrastructure – Conventional R23b Malicious attack on fuel supply infrastructure – Cyber<br>R75c Surface Water Flooding<br>Fire - Converted flats and HMOs<br>Non-Fire - Rural land | L54a Fires in purpose-built high-rise flats R64 Food Supply Contamination R79 Outbreak of an Emerging infectious disease R71 Severe Space Weather R74 Low temperatures and snow R17 Chemical, Biological or Radiological attack on water supply infrastructure R19 Conventional attack on chemical infrastructure R40d Marauding terrorist attack - firearms<br>Non-Fire - Urban infrastructure | R02 Conventional attack on government R40b Land based terrorist attack - improvised explosive device.<br>Non-Fire - Converted flats and HMOs<br>Non-Fire - House or Bungalow<br>Non-Fire - Purpose built flats |
| | 3 | | R40 Rail Accident R44 Accident involving high consequence dangerous goods R46 Malicious Drone Incident R49 Simultaneous loss of all fixed and mobile forms of communication R80b Major Outbreak of Animal Disease – Avian Influenza L19 Groundwater Flooding R75a Coastal Flooding R77 Poor Air Quality R20a Attack on UK gas infrastructure – conventional L54e Major fire in care homes and hospitals area R23a Malicious attack on fuel supply infrastructure – Conventional. R23b Malicious attack on fuel supply infrastructure - Cyber<br>Fire - Farming and agriculture<br>Fire - Road Vehicle<br>Fire - Rural land<br>Fire - Urban infrastructure<br>Non-Fire - Car park and transport<br>Non-Fire - Communal living<br>Non-Fire - Entertainment and culture<br>Non-Fire - Manufacturing and processing<br>Non-Fire - Private garage, shed or outbuilding<br>Non-Fire - Sports and leisure<br>Non-Fire - Warehouses and bulk storage<br>Non-Fire - Food and Drink | R67 Volcanic eruption R72 Storms R15 Radiological attack – unenclosed urban area R09 Malicious Maritime Incident R20b Attack on UK gas infrastructure – Cyber R15 Radiological attack – unenclosed urban<br>Non-Fire - Education<br>Non-Fire - Hospitals and medical care<br>Non-Fire - Offices and call centres<br>Non-Fire - Retail<br>Non-Fire - Short stay accommodation | R55bTechnological failure at a UK critical financial market infrastructure R82 Public Disorder R84 Industrial action - firefighters R87 Reception and Integration of British Nationals Arriving from Overseas R24 Cyber-attack - health and social care system R04a Person-borne improvised explosive device R04c Marauding attack (low sophistication R05b Maritime Terrorist Attack – Marauding Terrorist Firearms attack on a passenger ferry<br>Non-Fire - Care and supported living |
| | 2 | | | | | |
| | 1 | | | | | |
| | | 1 | 2 | 3 | 4 | 5 |
| | | Likelihood | | | | |

**Extraordinary risk likelihood rating**

*probability of occurring within London within next 12 months*

1. Less than 0.2% chance of occurring
2. Between 0.2% and 1%
3. Between 1% and 5%
4. Between 5% and 25%
5. More than 25%

**Fire/non-fire incident risk likelihood rating**

*likely frequency of incidents occurring within London*

1. Between one a year and once a week
2. Between one a week and one a day
3. Between one and five a day
4. Between five and twenty a day
5. Twenty or more a day

# Section 2. Detailed Report

## **Layer 1:** Public Concerns and Public Risk Perception

Understanding public concern and risk perception informs effective risk communication and hazard identification. Data on public perception of risk provides both input and output to this assessment.

**Input: Hazard Identification**

Members of the public may experience risks and threats in their lives at a point earlier in the development of that threat than it appears in LFB incident data as a strong signal. This is because incident data is inherently backwards looking as a planning tool. Members of the public can therefore provide intelligence about threats that they are experiencing day to day, enhancing LFBs understanding of the changing operating environment as it is experienced by the people living in it. Layer one is therefore a part of the Hazard Identification mechanism of this assessment.

**Output: Risk Communication**

By understanding the primary concerns of members of the public, and the way in which different risks are perceived, the Brigade can make choices about targeting and prioritisation of risk communication work.

**Output: Prioritisation**

Understanding which risks are perceived as most threatening to the public allows these concerns to be considered and weighed against others when setting organisational priorities, particularly with reference to discretionary or non-statutory work.

By fostering open dialogue and informing professional and public understanding of risk, the Brigade aims to strengthen the relationship between emergency responders and the communities it serves. This report serves as a tool to align the Brigade's six strategies with the needs and concerns of Londoners, ultimately contributing to a safer and more resilient city. LFB assesses public concerns and public risk perception in three ways:

1. Community workshops
2. Analysis of website traffic
3. YouGov polling

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## **Layer 1.1:** Community Workshops

Strategic Planning, as lead department for the AoR, worked in partnership with the Community Engagement Team to plan and facilitate a series of community workshops. The Strategic Planning team provided the overall objectives for the piece of work and technical content. The Engagement team carried out an Equalities Impact Assessment, identifying specific groups for targeted engagement who represented either seldom heard or at-risk groups. The Engagement team facilitated focus groups with the LFB's Community Forum and organisations/representatives who work with communities (in particular on community risk and resilience). Contact and administration was provided by the LFB Engagement Team. In addition to identified groups an open public workshop was held that any member of the public could attend. Groups within the demographics referenced in the EIA were approached via existing relationships, links made through previous LFB engagement, or contacts provided to the team by colleagues, partners and other organisations. A target number of attendees was not set, as this engagement piece was designed to speak to a number of groups to understand how they might perceive risk, rather than to be a fully representative sample of London. The results of the workshops highlight key

underlying concerns that the groups engaged with described. The workshops were also used to judge the level of perceived risk within those groups regarding specified risks identified as of concern by LFB.

Malicious threats and terrorism remained the most concerning risk reported by the public in workshops. Respondents across all groups contacted expressed concern around personal safety and security with 57% of responses falling into this category. Free text responses included a wide range of concerns from the very specific, such as a fear of encountering street violence and knife crime to a general concern regarding community cohesion and intergroup tensions. Terrorism, civil unrest, antisemitism, islamophobia, and racism were all recurring themes in people's reported concerns. These threats were reported as increasing by groups contacted.

Concerns regarding lithium-ion, e-bikes and e-scooters feature prominently in concerns reported by engaged groups. This indicates that the increasing prevalence of these technologies is concerning for the public and they feel exposed to risk in the daily lives as a result.

Taking account of all responses including extremes, fires in purpose-built flats and fires in high rise residential buildings are second and third most concerning to respondents behind malicious threats, indicating that these are risks to which some respondents feel exposed, or feel are insufficiently controlled. The average perceived risk for car and train collisions and entrapments has increased since last year and the average score exceeds flat and high-rise fires. This higher average may indicate that this is a risk to which many people feel exposed, whereas exposure to fires in flats and high rises buildings is more constrained but heightened for people with exposure through their housing type.

When asked to identify concerns related to underlying causes or drivers of threat in their lives, respondents identified a perception of reduced state capacity leading to a worry about constraints on emergency response from blue light agencies.

Box and Whisker chart 1 shows the level of perceived threat reported by groups engaged centrally by the Community Engagement Team and Strategic Planning. Respondents were asked questions regarding specified risks identified as of concern by LFB. Perceived level of threat varied considerably between individuals and between groups both in terms of specific risks and in the overall level of perceived threat. Data Chart 1 shows the average of all concern levels for each specified threat in each year the survey has been completed.

Summary chart 1 shows the grouped and aggregated themes from free text responses to the questions:

1. Are there any underlying causes of fire (e.g., smoking, candles, e-bike batteries, etc.) or non-fire emergencies (e.g., mental health, extreme weather, violence, etc.) that you are particularly concerned about?
2. Is there anything not covered by those categories that you are concerned about / think is a risk in your life? This could be anything concerning you, your community, or London that you want to see reflected? using artificial intelligence sentiment analysis tool.

Free text responses collected during all workshops were collated and analysed using an artificial intelligence sentiment analysis tool.

Some additional engagement was delivered through LFB boroughs, using existing contacts and groups identified by Borough Commanders. This is a trial to establish the utility of using Borough Level engagement to extend the reach of public engagement with the LFB assessment of risk. In addition, delivery riders were included as a group in support of the Brigade's ongoing work concerning e-bike safety.

Results achieved from borough workshops indicate similar findings to centrally-led workshops. Malicious Threats and Terrorism along with High-Rise fires and Fires in Flats and Shared Living remain the highest on average among this group, although significant variation was noted between boroughs and individuals. This broad agreement with centrally-led workshops indicates that further role out of borough lead engagement will not reduce data quality in 2026.

The introduction of borough workshops increased the number of individuals who provided input to this layer by 70 per cent.

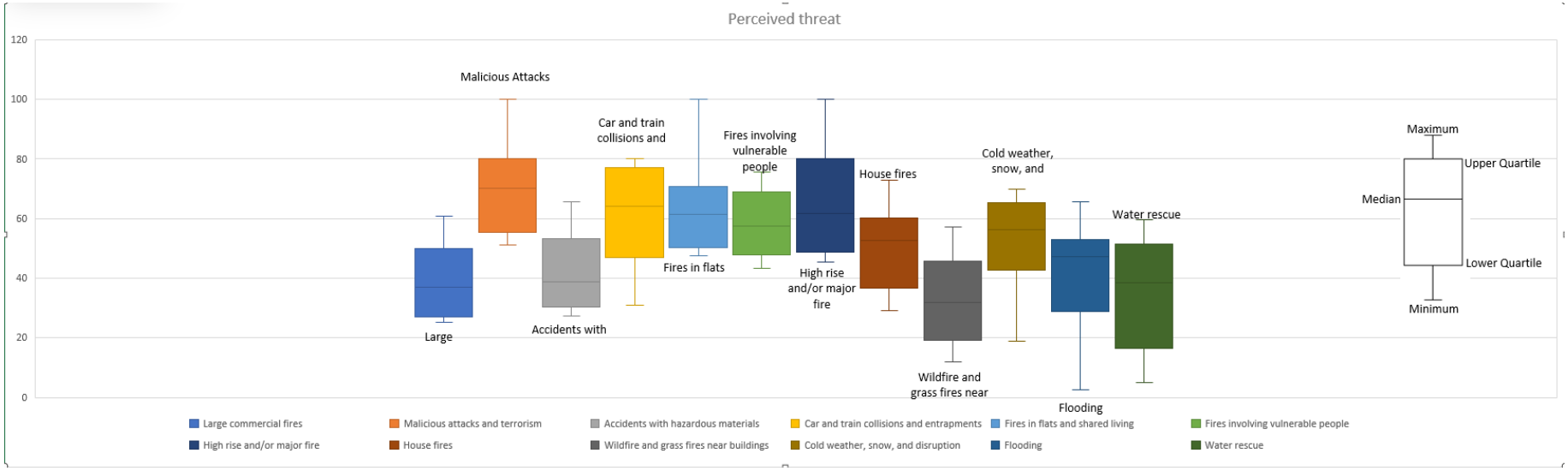
Amongst the specifically targeted group of delivery riders, Malicious Attacks were the most concerning risk. Many expressed fear of knife crime, robbery, and repeated theft of their essential bikes or phones. This is in line with other engaged groups who report perceived increasing crime and violence and fear of attacks against the person.

Bar Chart 1. Shows the relative level of concern and perceived risk across the borough workshops and delivery riders. Summary Chart 2 presents public concerns that were grouped and aggregated from free text responses collected during borough and delivery rider workshops.

## Summary Chart 1. Public Concerns: Grouped and aggregated from free text responses. (Community Engagement Team Workshops)

| Concern | Description | Frequency of concern |
|---|---|---|
| Emergency Services Capacity | Cuts in fire, police, and ambulance services. Slow response times, lack of resources, vulnerability to large-scale emergencies, and delayed maintenance checks. | High |
| E-Bikes, E-Scooters, Lithium Batteries | Concerns about battery fires, improper charging, unsafe storage, use on public transport, and risks of faulty equipment. | High |
| Violence & Anti-Social Behavior | Knife crime, stabbings, gang violence, arson, malicious intent, acid attacks, drug-related violence, and threats from far-right groups. | High |
| Climate Change & Extreme Weather | Concerns about future societal breakdown, storms, heatwaves, flooding, and damage from extreme weather. | Moderate |
| Phone Theft & Personal Safety | Phone thefts, loss of contact with emergency services, personal safety, and vulnerability in public spaces. | Moderate |
| Building Safety & Fire Risks | Cladding concerns (post-Grenfell), overcrowded flats, HMO safety, faulty wiring, poorly fitted electrics, and lack of escape routes. | High |
| Mental Health & Vulnerability | Vulnerable people left in unsafe conditions, arson related to mental health issues, neglect in community settings, and elderly population risks. | High |
| Candles, Smoking & Open Flames | Risks from open flames, smoking, unsafe use of candles (religious or otherwise), and forgotten items like hair straighteners. | Moderate |
| Cyber Threats | Concerns about cyber-attacks, digital exclusion, and the vulnerability of digital systems in emergencies. | Low |
| Lack of Fire Safety Knowledge | Insufficient fire safety education, poor training in shared accommodations, and lack of understanding in vulnerable communities. | Moderate |
| Fireworks & Anti-Social Behavior | Concerns about fireworks, illegal activity, and arson-related risks, often linked to public disorder. | Low |
| Unsafe Housing & Rogue Landlords | Issues with sub-standard private rentals, lack of fire checks, overcrowding, and unsafe living conditions. | Moderate |
| Terrorism & Security Threats | Threats from international unrest, CT-related incidents, bomb threats, marauding terrorist attacks, and vehicle-as-a-weapon threats. | High |
| Arson & Vandalism | Concern about intentional fires, targeted arson, and destruction of property, including insurance fraud. | Moderate |
| NHS & Care System Capacity | Increased pressure on palliative care at home, vulnerability of elderly populations, and lack of emergency support for frail individuals. | Moderate |
| Infrastructure & Public Space Safety | Poor crowd control, overcrowding in public spaces, and inadequate exit routes during emergencies. | Low |
| Road Safety & Transport Risks | Silent e-bikes and scooters, reckless riding on pavements, and dangers of motorbikes parked dangerously. | Low |
| Defense & National Security | Concern about depleted defense resources and inability to respond to large-scale attacks. | Low |

**Box and Whisker Chart 1. Perceived threat by risk type and distribution of responses (Community Engagement Team Workshops).**




**Data Chart 1. Shows the average of all concern levels for specified threat in each year the survey has been completed (C.E Team Workshops).**

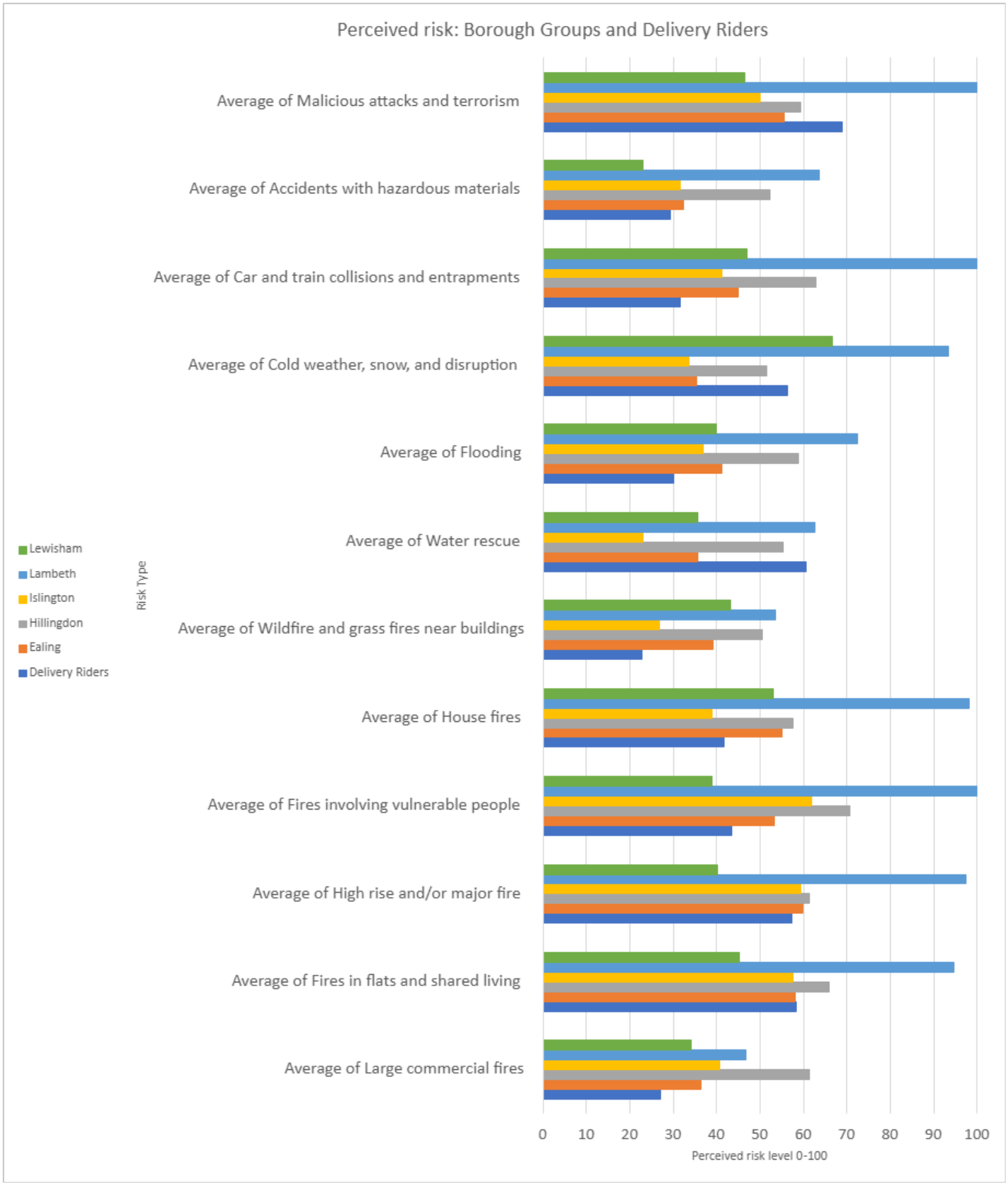
Average level of perceived threat or risk in "your life" across all engaged groups (out of 100)

| | 2024 | 2025 |
|---|---|---|
| **Average of Large commercial fires** | 42.15 | 37.09 |
| **Average of Malicious attacks and terrorism** | 67.99 | 67.84 |
| **Average of Accidents with hazardous materials** | 41.44 | 40.80 |
| **Average of Car and train collisions and entrapments** | 49.40 | 62.70 |
| **Average of Fires in flats and shared living** | 62.18 | 60.18 |
| **Average of Fires involving vulnerable people** | 65.22 | 58.24 |
| **Average of High rise and/or major fire** | 64.55 | 62.01 |
| **Average of House fires** | 55.39 | 53.15 |
| **Average of Wildfire and grass fires near buildings** | 40.76 | 34.71 |
| **Average of Cold weather, snow, and disruption** | 47.34 | 52.88 |
| **Average of Flooding** | 54.47 | 46.83 |
| **Average of Water rescue** | 36.53 | 42.64 |

**Summary Chart 2. Public Concerns: Grouped and aggregated from free text responses. (Borough Workshops and Delivery Riders)**

| Concern Category | Description | Estimated Proportion (%) |
|---|---|---|
| 🚲 E-Bikes, Scooters & Lithium Batteries | Battery fires, unsafe storage, blocking exits, charging risks, increased collisions. | 28% |
| 🧠 Mental Health & Vulnerability | Fire risks from individuals with mental illness, hoarding, alcohol dependence, social isolation. | 20% |
| 🚬 Smoking, Candles & Open Flames | Frequent mentions of open flames (candles, smoking) and their fire risks. | 18% |
| 🧯 Fire Safety Equipment & Negligence | Lack of smoke/carbon monoxide alarms, expired equipment, no fire extinguishers, general neglect. | 8% |
| 🌡️ Climate Change & Extreme Weather | Flooding, heatwaves, wildfires, global warming-related risks. | 6% |
| 🔪 Violence & Anti-Social Behaviour | Knife crime, teen gang violence, acid attacks, arson. | 5% |
| 🔌 Unsafe Heating & Appliances | Portable heaters, cookers, irons, faulty electrics, overheating chargers. | 5% |
| 🏢 Building Safety & Overcrowding | Unsafe high-rises, cladding, blocked exits, overcrowded HMOs. | 4% |
| 🚑 Emergency Services & NHS Capacity | Delays in response, ambulance shortages, lack of coordinated emergency planning. | 3% |
| ⚡ Technology Risks (e.g., Vape Pens, Chargers) | Concerns about small tech (phones, vape pens, chargers) causing fire. | 2% |
| 🏗️ Infrastructure, Planning, Overpopulation | Planning issues, overbuilding, blocked roads, poor local response infrastructure. | 1% |

**Bar Chart 1. Relative level of concern and perceived risk: borough workshops and delivery riders**



# **Layer 1.2:** Website Traffic Analysis

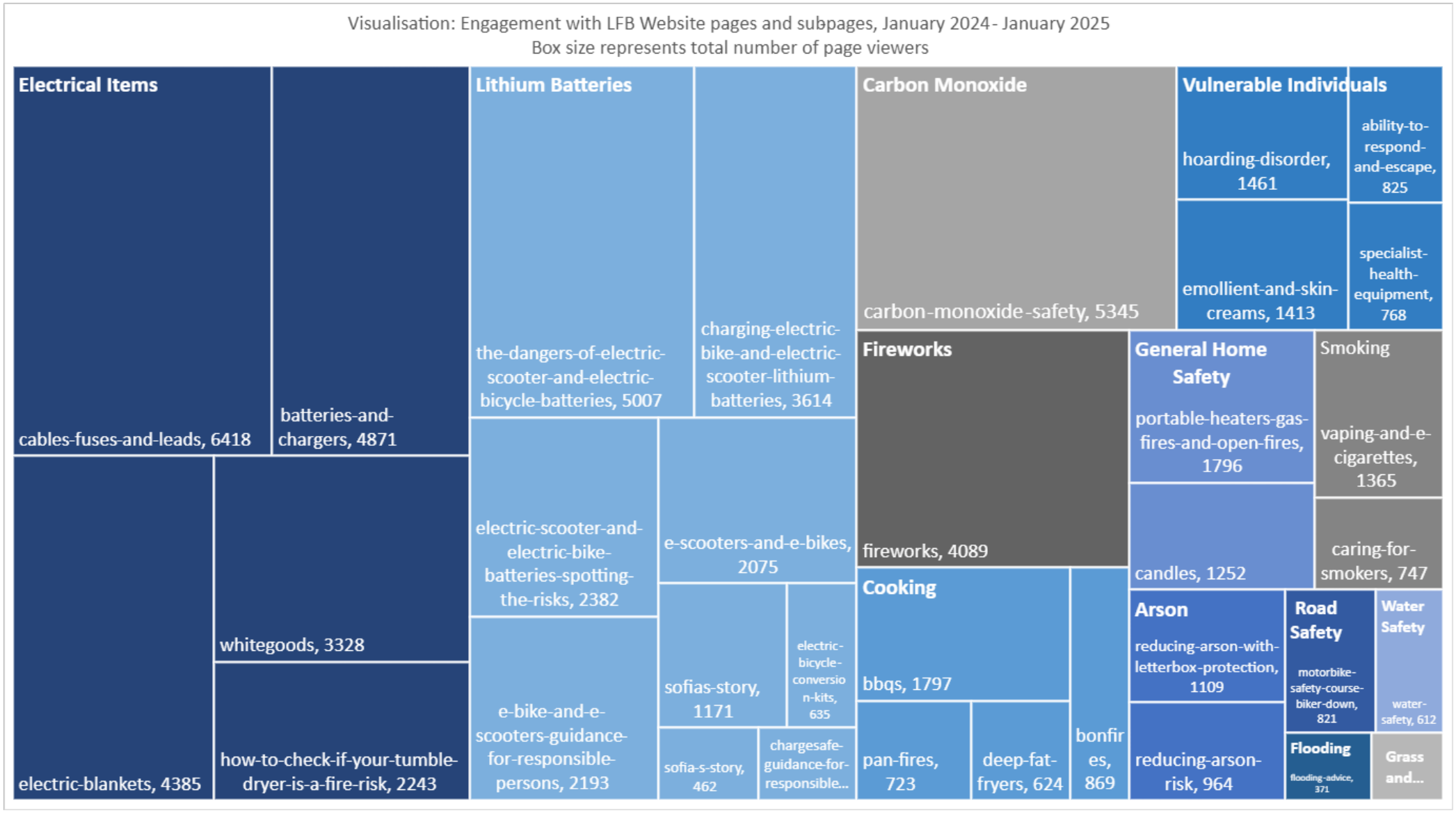
Analysis of 12 months' of LFB website traffic was used to indicate level of public concern regarding specific risk information. Data was collected on individual users and the areas of the website that they interacted with within the safety section. An assumption was made that a higher proportion of users viewing a particular type of risk information indicated a higher level of public concern regarding that topic.

Website traffic indicates a proportionally higher level of public concern regarding electrical safety and fires involving lithium-ion, e-bike, e-scooters and batteries and chargers than around other types of fire or emergency. The proportionally high number of users seeking information regarding fires involving e-bikes and e-scooters indicates that within the community this is a large concern, and that people feel exposed to this risk in the short term. This is reflective of results found in workshop data.

Safety information regarding grass and wildfires and regarding water safety and flooding are accessed proportionally less than other topics. This indicates that those choosing to access safety information through the LFB webpage feel less concerned by, or exposed to, these risks or choose to access desired information from other sources. These risks are associated with an upward trend in likelihood and severity due to projected climate change however public concern regarding these is relatively low compared to more immediate risks.

Tree map 1 shows the proportions of user visits to different risk information on the LFB safety web page

Tree map 1: Proportions of user visits to different risk information on the LFB safety web page



# **Layer 1.3:** Polling data

LFB used polling data from YouGov to broaden the reach of the engagement and to achieve as more representative spread of respondents. Respond asked the following question;

***"Thinking about potential risks within your local community (e.g. fires, adverse weather conditions, natural events etc.) Which ONE, if any, of the following are you MOST concerned about within your local community"***

Results show that, malicious attacks and terrorism, fires in flats and shared living and high rise/and or major fires remain the most concerning risks to respondents. This has remained consistent since 2024's assessment and across the three polls taken over a period of 18 months.

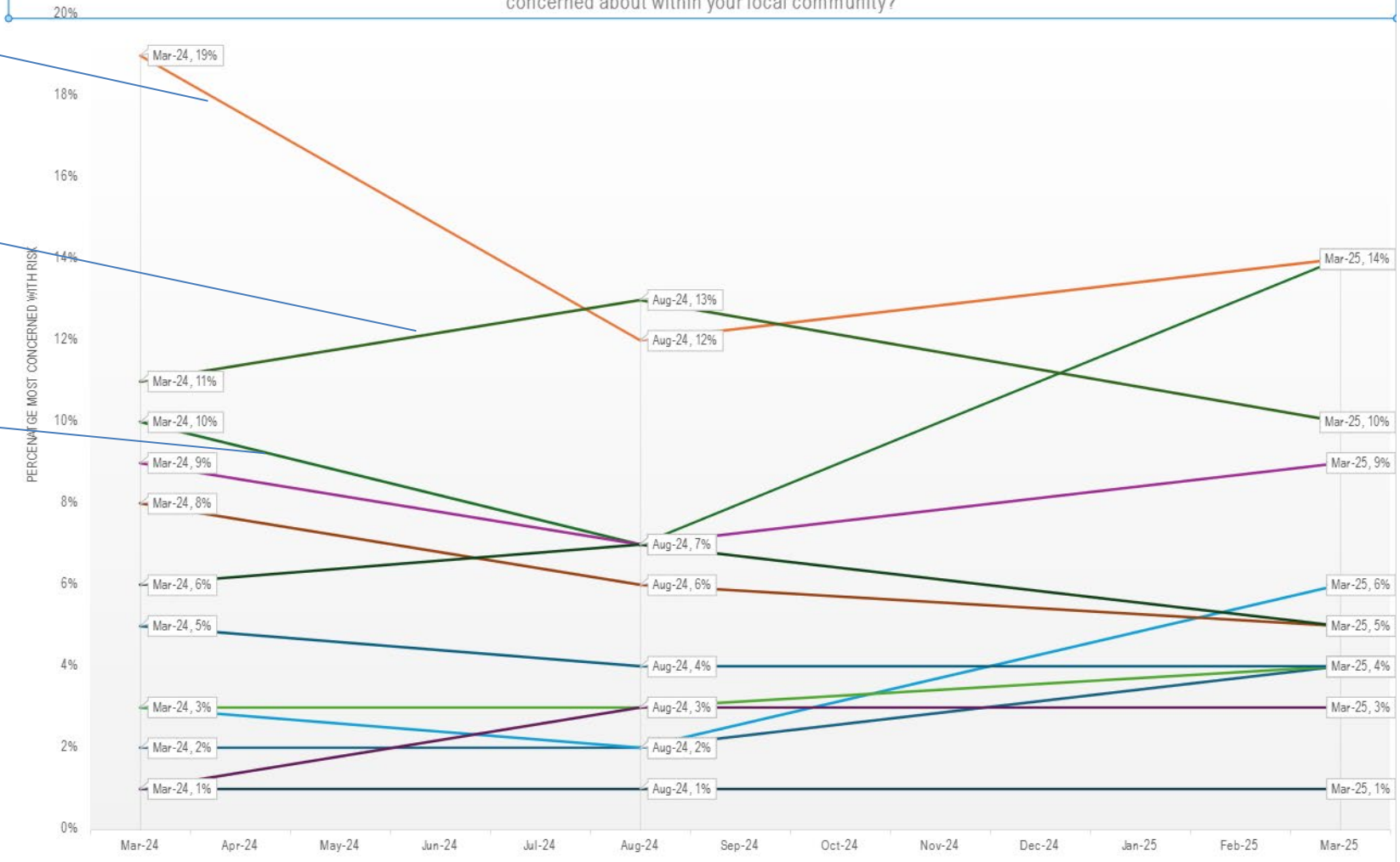
Water rescue remains consistently the least concerning risk to the public. Similarly low levels of concern are reported for flooding risks; the proportion of people primarily concerned with this risk has fallen consistently in each poll.

Similar to workshop data and website traffic analysis, respondents to polls report concerns regarding risks that are primarily of individual exposure such as dwelling fires, electrical fires and malicious acts and violence.

Fires in flats and shared living (e.g. fires in flat shares)

Malicious attacks and terrorism (e.g. the attack at London Bridge or on 7/7)

High rise/and or major fire (e.g. fires like the Grenfell Tower Fire)




| | Mar-24 | Aug-24 | Mar-25 |
|---|---|---|---|
| Large commercial fires (e.g. fires in shops, warehouses, offices, etc.) | 2% | 2% | 4% |
| Fires in flats and shared living (e.g. fires in flat shares) | 19% | 12% | 14% |
| High rise/and or major fire (e.g. fires like the Grenfell Tower Fire) | 10% | 7% | 14% |
| Fires involving vulnerable people (e.g. fires in a care home) | 3% | 2% | 6% |
| House fire (e.g. fires in a standard detached house) | 9% | 7% | 9% |
| Wildfire and grass fires near buildings (e.g. fires in parkland near houses) | 3% | 3% | 4% |
| Water Rescue (e.g. people fallen into water) | 1% | 1% | 1% |
| Flooding (e.g. flooding of streets and property after heavy rain) | 8% | 6% | 5% |
| Cold weather, snow and disruption (e.g. roads blocked by snow) | 6% | 7% | 5% |
| Car and train collisions and entrapments | 5% | 4% | 4% |
| Accidents with hazardous materials (e.g. spills of chemicals from a tanker) | 1% | 3% | 3% |
| Malicious attacks and terrorism (e.g. the attack at London Bridge or on 7/7) | 11% | 13% | 10% |

# **Layer 1.4:** Commentary

Perceived level of threat varied considerably between individuals and between groups both in terms of specific risks and in the overall level of perceived threat. Overall, the highest perceived threat in people's lives related to malicious attacks and terrorism, fires in flats and shared living and fires in high rise buildings. In addition, public concern was identified as increased around lithium-ion fires, particularly those involving e-bikes and e-scooters. It is noted that many respondents reported of threat in their lives from a perception of increasing violence in their communities, particularly related to knife crime. Risk perception, as measured in this engagement activity, reflects a tendency to focus on risks that have proximity to individuals and to which they feel more exposed. The broad themes of risk related to dwelling fires, malicious acts and concerns regarding e-bikes and scooters were consistent across each method of public concern data collection, indicating a level of assurance that LFB are capturing public sentiment around risk.

Although climate change was reported as an underlying driver of risk in people's lives by some respondents, the threat of wildfires and flooding in this assessment were some of the least concerning to the public. This may reflect the fact that wildfires or grass fires and flooding are seasonal and generally localised. This may mean that fewer people feel geographically exposed than to these than other risks, or that the proximity effect of the risk has been reduced by the recent moderate summers where wildfires were fewer and severe flooding was not experienced. Communicating the long-term trends towards warmer wetter winters and hotter dryer summers, and the consequent increasing risk of wildfire and flooding may present a challenge to LFB when individual seasons do not follow the long-term trend, and the public do not feel individually exposed.

Risks related to water rescue were some of the least threatening to the public. This contrasts with the high casualty rate of water incidents and the number of fatalities that occur when people enter the water in London. The discrepancy between the perceived and measured risk posed by open water and particularly the Thames among London's communities indicates a priority for risk communication and engagement work.

These findings support personalised or localised risk communication techniques and suggest that London-wide risk communication tools may be of limited effectiveness at influencing behaviour unless exposure to a given threat is widespread. Strategies for risk communication should be informed by the overall threat environment perceived by communities and the individual challenges faced by different groups, i.e. the treat of street violence is of a high concern to the public and any engagement around perceived risk should be expected to reflect this. The LFB Prepare strategy outlines the Brigade's approach to helping communities prepare themselves for when threats are realised. The strategy also outlines the partnership approach taken by LFB to addressing wider community threats beyond core statutory functions of LFB. This strategy may be the best vehicle for engaging communities with longer term climate driven risks.

Engagement with fire crews undertaken after the public workshops revealed several examples of crews intervening in violent incidents when moving around London. Crews also reported increasing exposure to violence in day-to-day work. This finding supports the increasing perceived threat level reported by the public.

# **Layer 2.1.** Risks relating to property, place and incident type

This layer sets out the risks associated with incidents attended in the last five calendar years by LFB. As such this layer is primarily concerned with risks that occur sufficiently often to be considered "normal requirements". This is a term used in the Fire and Rescue Services Act 2004 to describe the level of "personnel, services and equipment" that should be provided for firefighting and road traffic accidents. Less frequently occurring events which would cause significant harm or damage outside of normal requirements are considered in layer three.

In this layer incidents can score high on the risk matrices due to the number of resources that were deployed to an incident or because of the casualty rate of a given incident type. By having two metrics for consequence the approach captures incidents that have a relatively low resource draw but a high casualty rate, such as persons trapped in road traffic collisions, and incidents such as fires in rural areas that have a relatively low casualty rate but a high draw on resources. Both incident types present risk to the community of London in their own way.

Risk information is displayed on two separate risk matrices below. The different presentations allow the same incident data to be viewed in different ways by different intended users. Risk is presented by location and building type in table 1. This is intended for users where the geography or location of a risk is important, for instance, understanding the distribution of risk between different property types or highlighting risks associated with rural areas. For users where the geography is less important, and it is the specific activity that is relevant, the second table shows incident risk data by the LFB Incident Type Code (ITC). This presentation allows users to focus on incident types that have high casualty rates such as "C3 Acid attack on a person" that are less visible in the location-based data, as they are not constrained by building type or location and may occur anywhere.

The highest risk incident types under normal requirements are;

- A1 Fire
- A1HR Fire High Rise Buildings
- B1 Person trapped excluding RTC
- B1T Train or Tram incident involving trapped person
- B2 reduced special service
- B3 Effecting Entry
- B10 Person in Precarious Position
- B11 Person collapsed / injured including behind doors
- B12 Person Threatening To Jump
- B19 Assist LAS Ambulance with Bariatric/Difficult removal
- C1 Hazmat Incident initial call
- C3 Acid attack on Person
- J3 Person in waterway / on foreshore accessible from land
- J0 FBT Running call from MCA
- Make safe RTC
- Persons trapped RTC
- N0 NILO assessment
- Vehicle fire

Based on incident data from the last 5 years, the risk presented by A1HR incidents has increased, these relate to fires in high rise buildings. This is driven by an increase in the severity score, indicating more casualties. This type of incident is a persistently high risk and is associated with a higher-than-average casualty rate compared to other types of incident .

Incident data indicates a trend of increasing likelihood and increasing severity for incidents related to Persons in Crisis and Person Threatening to Jump. This relates to Incident Types B12, J12 and Special Service Suicide attempts. This is a persistent increase over the data capture period.

The data sources that record cause of fire and items most commonly involved in fire are not presented in this layer. This is intentional. These data are tracked and reported by LFB fire investigation and they are fed into layer four of this assessment where trends of increasing risk and demand are identified. This is why Lithium-ion or e-bike fires do not appear in this layer but are a key finding of layer four.

Although presented independently; there are dependencies and links between layer two and layer four. Trends of increasing likelihood or severity identified in layer two will drive the reporting of concerns regarding trends in horizon one and two of layer four.

Trends in incident likelihood and severity for all incident types and locations can be viewed in summary in Appendix 5 to the Assessment of Risk and in detail using this live report;

1. link: AoR data report
2. QR code

Power BI

## Incident risk - data by type and location

| Consequence | | | | | | |
|---|---|---|---|---|---|---|
| | 5 | Fire - Other residential property<br>Fire - Warehouses and bulk storage<br>Non-Fire - Camping tent, shelter or marquee | Fire - Manufacturing and processing<br>Fire - Retail<br>Non-Fire - Boat<br>Non-Fire - Outdoor water<br>Non-Fire - Trains<br>Non-Fire - Vegetation by road, track or canal | Fire - House or Bungalow<br>Fire - Private garage, shed or outbuilding<br>Non-Fire - Transport buildings | Fire - Purpose built flats | Non-Fire - Road Vehicle |
| | 4 | Non-Fire - Static Caravan, Houseboat, towing caravan | Fire - Care and supported living<br>Fire - Offices and call centres<br>Fire - Public administration, utilities and amenities<br>Fire - Short stay accommodation<br>Non-Fire - Other residential property | Fire - Converted flats and HMOs<br>Non-Fire - Rural land | Non-Fire - Urban infrastructure | Non-Fire - Converted flats and HMOs<br>Non-Fire - House or Bungalow<br>Non-Fire - Purpose built flats |
| | 3 | Fire - Aircraft<br>Fire - Boat<br>Fire - Communal living<br>Fire - Entertainment and culture | Fire - Farming and agriculture<br>Fire - Food and Drink<br>Fire - Hospitals and medical care<br>Fire - Landfill or wasteland<br>Fire - Other non-residential property<br>Non-Fire - Car park and transport<br>Non-Fire - Farming and agriculture<br>Non-Fire - Other non-residential property<br>Non-Fire - Urban furnishings | Fire - Road Vehicle<br>Fire - Rural land<br>Fire - Urban infrastructure<br>Non-Fire - Communal living<br>Non-Fire - Entertainment and culture<br>Non-Fire - Food and Drink<br>Non-Fire - Hospitals and medical care<br>Non-Fire - Manufacturing and processing<br>Non-Fire - Private garage, shed or outbuilding<br>Non-Fire - Sports and leisure<br>Non-Fire - Warehouses and bulk storage | Non-Fire - Education<br>Non-Fire - Offices and call centres<br>Non-Fire - Retail<br>Non-Fire - Short stay accommodation | Non-Fire - Care and supported living |
| | 2 | Fire - Barbeque<br>Fire - Camping tent, shelter or marquee<br>Fire - Religious<br>Fire - Sports and leisure<br>Fire - Static Caravan, Houseboat, towing caravan<br>Fire - Trains | Fire - Education<br>Fire - Transport buildings<br>Fire - Urban furnishings<br>Non-Fire - Aircraft | Non-Fire - Public administration, utilities and amenities | Fire - Refuse, rubbish or recycling | |
| | 1 | Fire - Car park and transport | Fire - Vegetation by road, track or canal<br>Non-Fire - Barbeque<br>Non-Fire - False Alarm - Property not found<br>Non-Fire - Landfill or wasteland<br>Non-Fire - Religious | Non-Fire - Refuse, rubbish or recycling | | |
| | | 1 | 2 | 3 | 4 | 5 |
| | | Likelihood | | | | |

# Incident risk data by Incident Type Code

| Consequence | | | | | | |
|---|---|---|---|---|---|---|
| | 5 | AMB: Ambulance required for not incident related<br>B13: Serious Collision involving Brigade vehicle<br>B14: Minor Collision involving Brigade vehicle<br>B1B: RTC involving vehicle into building<br>B7: Train/Tram Crash<br>B93: Collapse of Building/Structure (Level 3) - Persons involved<br>D3: Sub Surface incident including tunnels under construction, shafts and sewers<br>E3: Aircraft Accident/Aircraft Accident Imminent<br>ES5: Emergency Services Channel<br>FSG: 1 or more FSG calls in any premise type<br>FUEL: Fuel Spill on Motorway<br>G0: Operation PLATO - Nil attendance<br>J1: Midstream Incident on the Thames<br>J8: Vehicle in Waterway accessible from land<br>PERSON: Person on Fire - Out in the open<br>PI: Person Injured | B10: Person in Precarious Position requiring immediate rescue<br>B19: Assist Ambulance with Bariatric/Difficult removal of Patient<br>B1T: Person under Train/Tram or Person Struck by Train/Tram<br>C3: Acid Attack on Person<br>G11: NILO Assessment - Nil attendance<br>J0: FBT Running Call received from MCA<br>J3: Person/Animal in Waterway/on Foreshore<br>RTC: ROAD TRAFFIC COLLISON<br>VEHICLE: Vehicle fires - Small/Large & Incidents involving vehicles | B1: Person Trapped (Not RTC)<br>C1: HazMat - including cylinders/refrigerant leaking/Fuel Spill over 100 litres - inside or outside<br>N0: Nil Attendance | A1HR: Fire in High Rise Flats/Commercial Buildings - 6 flrs & above<br>B11: Person Collapsed or Injured behind locked door when called by LAS or MPS<br>PERSONS: Persons trapped - RTC | A1: Fire - including large vehicle fires |
| | 4 | B92: Collapse of Bldg/Structure (Level 2) – No persons involved<br>ROAD: RTC on Motorway | A4: Fire Involving HazMat - including cylinders and explosions<br>J12: Person Threatening to Jump from Bridge or Structure on the River Thames<br>MULTI: Multi lane make safe - RTC | B12: Person Threatening to Jump or Assisting MPS with Persons at Height | B2: Reduced Special Service - including ceiling plaster/trees/roof tiles/bldg fascia/aerials etc in precarious position & person collapsed or injured in street etc.<br>MAKE: Make safe - RTC | B3: Effecting Entry - Person Locked Out/In & Person Collapsed Behind Locked Door |
| | 3 | C4: Mercury Spill<br>FIRE: Fire on Motorway<br>MA: Mutual Assistance | A0: Tests / Exercises No attendance<br>A12: Siege/Person Threatening to set light to themselves or property<br>A3: Reduced Fire Attendance involving Railway/Tram property<br>B0: No attendance recommended refer to Supervisor | A8: Fire all Out | C2: Fuel Spill up to 100 litres inside/outside (not RTC)<br>C5: Natural Gas Leak - commercial or residential | A10: AFA Commercial Premises<br>A11: AFA Residential Premises - for High Rise use A1HR<br>A2: Reduced Fire Attendance - including electrical junction box<br>B4: Flooding |
| | 2 | | B6: Burst Water Main<br>E1: Aircraft Full Emergency/Ground Incident | | | |
| | 1 | A7: Fire on Vessel - accessible by land<br>AFR: Alleged Fire Risk<br>C11S: HazMat - British Transport Police Support<br>CNAT0: Mass Decontamination National Initial Call<br>D1: Fire in Road/Rail Tunnel<br>D2: Train Crash in Railway Tunnel<br>FFEM: Firefighter Emergency - Load new CCF<br>G6: Op Hasani/Wide Area Search - Nil Attendance<br>J2: Houseboat/Vessel Sinking/Flooded Accessible from land<br>J7: Fire on Vessel on Thames | AFA: ITC as per SECH flowchart<br>B8: Commercial Flooding | | B2E: Person Shut in Lift - Emergency<br>B2NE: Person Shut in Lift - Non Emergency | |
| | | 1 | 2 | 3 | 4 | 5 |
| | | Likelihood | | | | |

# **Layer 2.2.** Geographic disposition of risk

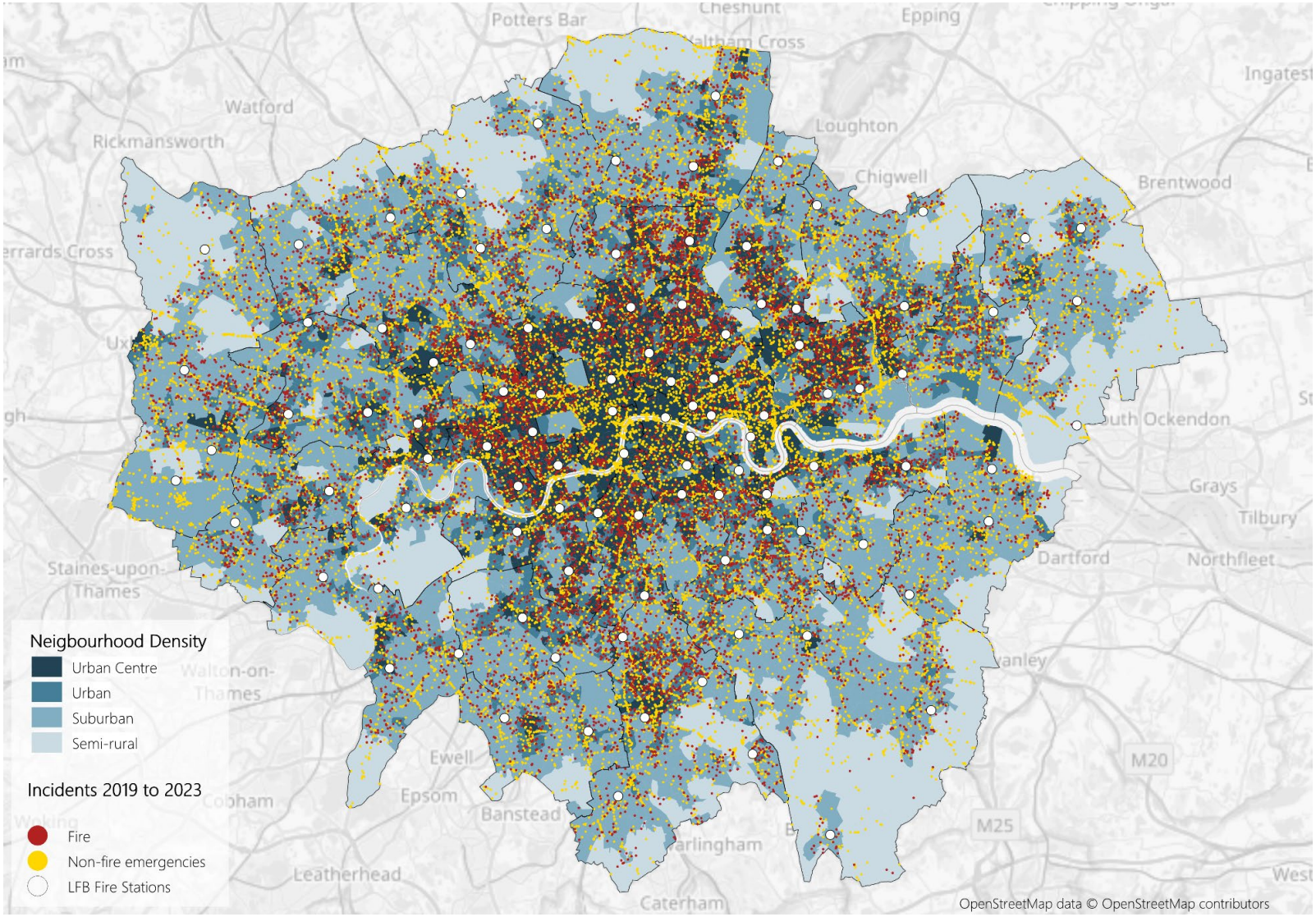
The Brigade uses methodology developed by the NFCC to highlight the geographic distribution of indicators for increased risk related to dwelling fires and road traffic collisions (RTC). Dwelling fire risk is calculated using correlation between demographic factors and fire risk to assign a geographical area with a fire risk rating. The approach uses national incident data and is developed by the NFCC. In this document the NFCC methodology using Lower Super Output Areas, (LSOAs) has been selected. This was chosen by LFB as sufficiently granular for understanding the distribution of dwelling fire risk pan-London.

A similar approach is used to map road traffic collision (RTC) risk but using features of the road network to correlate with risk rather than demographic factors. Using the NFCC methodology to identify road traffic collision risk, indicates higher risk in the road network towards the periphery of London and reflects the main routes into the capital. Road fatalities in London often occur more centrally than would be predicted by the NFCC method of assessing road risk. These central areas are areas of high vehicle and vulnerable road user interaction.

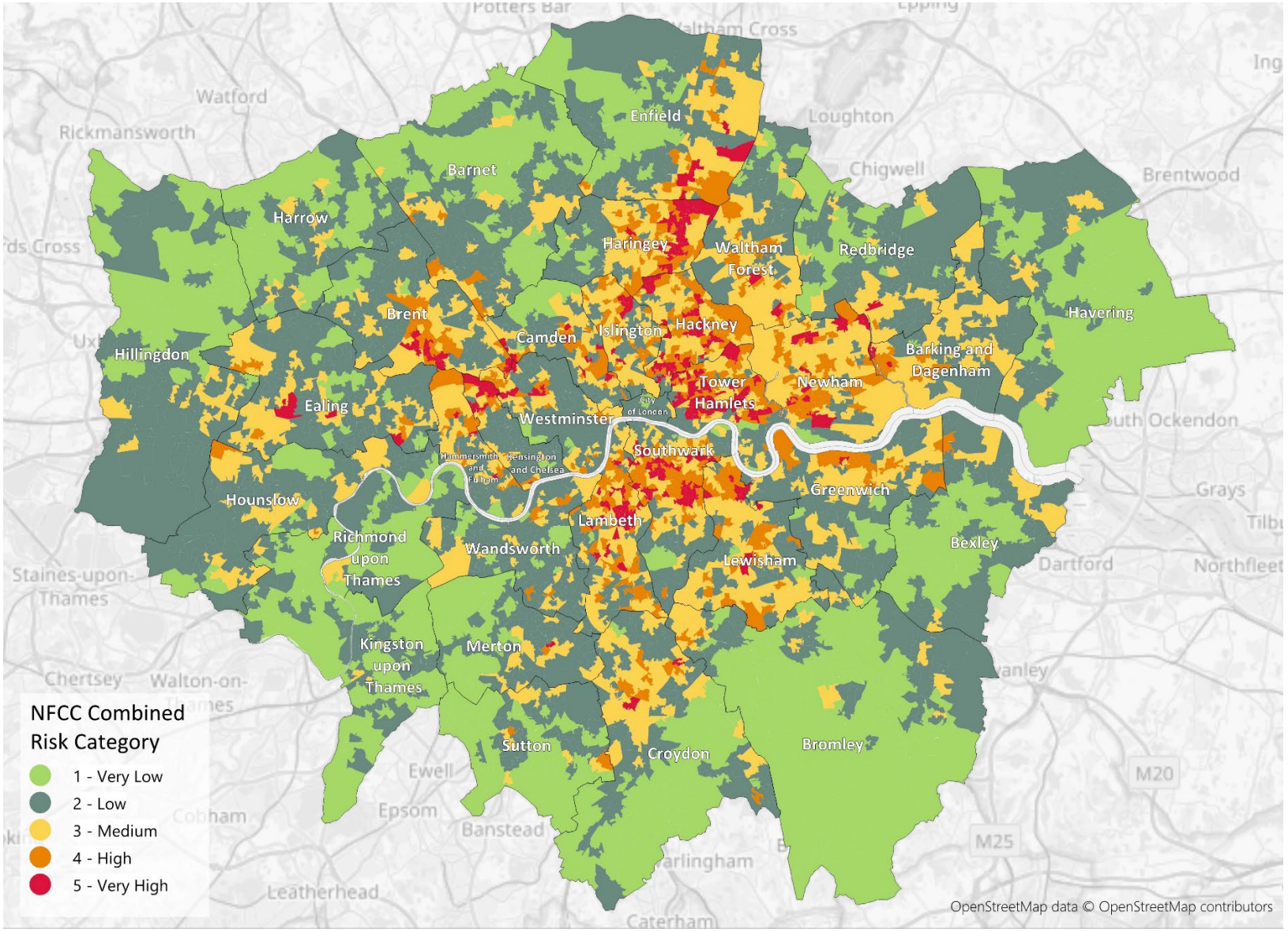
The NFCC has developed a methodology for non-dwelling fire risk. LFB is likely to adopt this for subsequent iterations of this assessment.

To aid understanding of demand across all hazards to which the Brigade might respond. LFB has developed an approach illustrative of where demand for services predominantly occurs and where different types of risk proxy are concentrated. We term this approach, Neighbourhood Density Zones. These are broadly concentric zones of similar population density. In general, there is an increased demand for all our services in areas of higher population and building density and a concentration of public and private infrastructure to be protected. These areas of higher demand are predominantly central. Dwelling fire risk using the NFCC definition of risk methodology indicates a disposition of dwelling fire risk that largely reflects areas of higher density and higher general demand for services. The NFCC dwelling fire risk map, and the map of neighbourhood density zones are therefore similar in appearance. However, each neighbourhood zone has a different risk profile reflective of its level of density. There are some high risks that occur more commonly in less dense zones such as fires involving rural land, particularly at the boundaries of more and less dense areas, (urban rural interface).

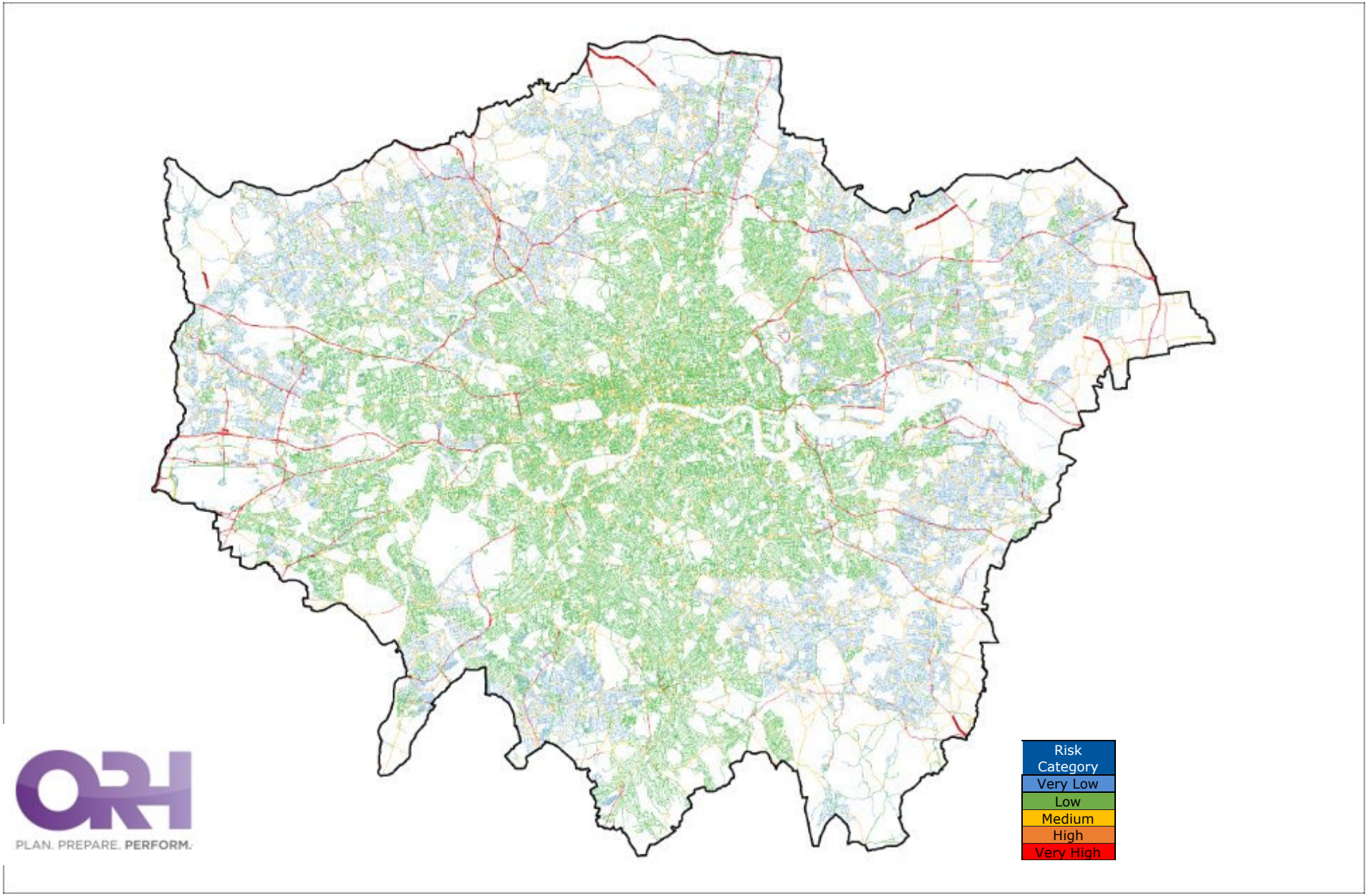
## Map 1. Combined map Showing Neighbourhood Density zones overlayed with incidents (data collection 2019 -2023).



**Map 2. Dwelling fire risk map of London using NFCC definition of risk for dwelling fires methodology.**



**Map 3. Road Traffic Collison Risk Map of London using NFCC Definition of risk method.**



# **Layer 3.1** Extraordinary risks and risks from the London Risk Register

This is a subjective risk assessment for rare or "reasonable worst-case" scenarios. The UK Government and the London Resilience Forum (a partnership of organisations with responsibility for emergency preparedness in London, including London Fire Brigade) each produce a risk register of reasonable worst-case risks. These are updated periodically and are used by them to prepare their response should these risks occur. The London Risk Register (LRR) is a register of the risks that most impact London and draws these risks largely from the National Security Risk Assessment. This risk assessment uses a broad definition of risk and includes impacts on human welfare, behaviour, economic, infrastructure, environment, and security. The Brigade must plan for how it will continue to operate and respond, in the case that any of these scenarios are realised. This layer of the AoR therefore takes risks directly from the London Risk Register.

The risks for which LFB is the lead are scored using input from LFB subject matter experts and with input and scoring from partners. Risks on which other partners lead are scored in a similar way. This gives the Brigade and the London Resilience Forum a wider, partner perspective on risks faced in London and England. This register includes risks that LFB will not directly respond to, however the inclusion of risks on the register indicates that LFB should plan for continued delivery of core functions during an event.

The purpose of this layer is to allow the Brigade to plan and prepare for:

- Response to low frequency but high impact events
- Events that LFB will not respond to directly but during which LFB will need to continue to deliver its core function, i.e. events that have a business continuity implication for LFB.

In producing this risk assessment, we have reviewed the ratings that we have provided to the LRF. Risks on this assessment are reviewed cyclically with higher scoring risks reviewed at greater frequency. Changes in the LRR will also reflect changes in the national threat picture and will reflect partnership planning and information sources available to central government.

The number of malicious act threats recorded on the LRR has increased notably in 2024. A further increase in likelihood and severity of individual malicious threats occurred again in 2025. The preponderance of malicious threats on the LRR 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. Items on this register 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.

Two separate red risks and one amber risk relating to different types flooding are recorded in the LRR. Although LFB does not hold the statutory duty for flooding, these risks, if actualised, are likely to impose a significant operational demand on LFB as a category one responder with a duty for rescue.

Although the risks on this register are reasonable worst case scenarios (RWCS), they are plausible in any given year. This is a distinction from Layer four, where the intent is to look further ahead at risks becoming more concerning in the future. However in 2025 there is significant overlap between these layers as many RWCS are described as becoming increasingly likely or severe in the future.

This AoR also includes items that do not feature on the LRR but are viewed as of concern to LFB , table (n)

# Extraordinary scenario risk matrix - London Risk Register.

| | | | | | | |
|---|---|---|---|---|---|---|
| Impact | 5 | **R52** Civil Nuclear Accident **R22a** Malicious attack on civil nuclear installations – conventional | **R95** Nuclear attack by a state on the UK mainland or UK overseas interests. **R76** Drought. **R21b** Attack on UK electricity infrastructure – Cyber R12 **N**on-state nuclear attack – urban area R21b **Attack** on UK electricity infrastructure – Cyber **R89** High-Electromagnetic Pulse (HEMP) | **R50a** Failure of National Electricity Transmission System **R14** Biological attack unenclosed urban area | **R78** Pandemic | |
| | 4 | **R45**Aviation Crash, **R53** Radiation Release from overseas nuclear site **R56** Accidental Fire or explosion at an onshore major hazard (COMAH) site **R57** Accidental Large Toxic Chemical Release from a COMAH site. **R58** Accidental fire or explosion on an offshore oil or gas installation. **R59** Accidental fire or explosion at an onshore fuel pipeline. **R62** Reservoir/Dam Collapse. **L66** Radioactive incident caused by mishandling of radioactive material | **R48** Loss of Positioning, Navigation and Timing (PNT) Services **L71a** Large Aircraft incident in proximity to Airport **R08** Malicious Aviation Incident **R80a** Major outbreak of foot and mouth disease **R51**Failure of Gas Supply Infrastructure | **R73** High Temperatures and heatwaves **R75**b Fluvial Flooding **R16a** Chemical attack – unenclosed urban area **R16b** Chemical attack – enclosed urban area **R21a** Attack on UK electricity infrastructure – conventional **R22b** Malicious attack on civil nuclear installations – Cyber R07 Malicious Rail Network Attack **R23a** Malicious attack on fuel supply infrastructure – Conventional R**23b** Malicious attack on fuel supply infrastructure – Cyber **R75c** Surface Water Flooding | **L54a** Fires in purpose-built high-rise flats **R64** Food Supply Contamination R**79** Outbreak of an Emerging infectious disease **R71** Severe Space Weather **R74** Low temperatures and snow **R17** Chemical, Biological or Radiological attack on water supply infrastructure R**19** Conventional attack on chemical infrastructure **R40d** Marauding terrorist attack - firearms | **R02** Conventional attack on government **R40b** Land based terrorist attack - improvised explosive device. |
| | 3 | **R63** Water Supply Infrastructure **HL22** Building Collapse **HL23** Bridge Collapse | **R47** Disruption of space-based services **R50b** Regional Failure of the Electricity Network **R60** Accidental fire or explosion at an onshore major accident hazard pipeline **R65** Major Fire **HL105** Complex built environments **R10** Strategic hostage taking. | **R40** Rail Accident **R44** Accident involving high consequence dangerous goods **R46** Malicious Drone Incident **R49** Simultaneous loss of all fixed and mobile forms of communication **R80b** Major Outbreak of Animal Disease – Avian Influenza **L19** Groundwater Flooding **R75a** Coastal Flooding **R77** Poor Air Quality **R20a** Attack on UK gas infrastructure – conventional **L54e** Major fire in care homes and hospitals area **R23a** Malicious attack on fuel supply infrastructure – Conventional. **R23b** Malicious attack on fuel supply infrastructure - Cyber | **R67** Volcanic eruption **R72** Storms **R15** Radiological attack – unenclosed urban area **R09** Malicious Maritime Incident **R20b** Attack on UK gas infrastructure – Cyber **R15** Radiological attack – unenclosed urban | **R55b**Technological failure at a UK critical financial market infrastructure **R82** Public Disorder **R84** Industrial action - firefighters **R87** Reception and Integration of British Nationals Arriving from Overseas **R24** Cyber-attack - health and social care system **R04a** Person-borne improvised explosive device **R04c** Marauding attack (low sophistication **R05b** Maritime Terrorist Attack – Marauding Terrorist Firearms attack on a passenger ferry |
| | 2 | **R61** Accidental work-related (laboratory) release of a hazardous pathogen **R38** Insolvency affecting fuel supply. | **R54b** Fires in major entertainment and/or public building **R10** Strategic hostage taking **R86** Industrial Action – fuel supply. | **HL10** Local accident on motorways and major trunk roads **R37** Insolvency of Supplier of Critical Services to public sector **L71b** Small aircraft incident in proximity to airport **R26** Cyber-attack - telecommunications systems **R83** Industrial Action – Public Transport | **R36** Major Social Care Provider Failure **R39** Failure of a supplier of CNI Chemicals **R55a** Technological Failure at a Systemically Important Retail Bank **R66** Wildfires **R05a** Maritime Terrorist Attack – Vehicle borne improvised explosive device (VBIED **R13** Anthrax letters **R85** Industrial Action – Prison staff | **R11** Assassination of a high-profile public figure **L54c** Fires involving landfill and waste processing sites. |
| | 1 | **R54** Radiation exposure from transported, stolen or lost goods **R80d** Major Outbreak of Animal Disease – African Swine Fever **R80c** Major Outbreak of Animal Disease – African Horse Sickness **R68** Earthquake | **R42** Major Maritime Pollution Incident **R30** Malicious Attack – UK Financial CNI | **R41** Larger Passenger Vessel Accident **R32** Major interference in UK democratic process **HL21** Land Movement **R28** Cyber-attack – government critical systems loss **R29** Cyber-attack– government data breach | **R25** Cyber-attack – transport sector | |
| | | 1 - Low | 2 - Medium/Low | 3 - Medium | 4 - Medium/High | 5 - High |
| | | Likelihood | | | | |

# **Layer 3.2.** Modelling Impacts of high demand and extraordinary risks.

In 2024 LFB used Reasonable Worst-Case Scenarios from the London Risk Register within the existing Brigade optimisation model and dynamic cover tool to examine the resilience of our response capability under high demand and extraordinary risk scenarios. This work was based on the development of exceedance curves for appliance deployment. This work was intended to provide an operational stress test for our response capability. This work has not been repeated for 2025's assessment but the conclusions remain useful.

- LFBs pumping appliance capacity is resilient under high simultaneous demand. Over a 12-month period in 2023 at the 99$^{th}$ percentile of demand LFB could expect an average first appliance attendance time of under 7 minutes.

- LFBs pumping appliance capacity is resilient under combined high demand and extraordinary risk. Modelled scenario 1. (20 pump incident occurring in central London at a period of 99$^{th}$ percentile demand) indicates that LFB can achieve its backstop attendance standards under high demand if proactive steps are taken by control staff to provide dynamic cover and relocate pumping appliances as incidents occur.

- LFBs Specialist Appliance capacity becomes challenged more quickly under high demand. In the scenario modelled of a subsurface train accident or incident; Command Unit, Urban Search and Rescue and EDBA resources approached capacity along with the Fire Rescue Unit appliance fleet which is the current delivery mechanism for several specialist capabilities.

# Extraordinary Risks of note in addition to data-led matrices and LRR

These are foreseeable risks which are not identified in the last five years of LFB data as being very high or high and are not currently featured on the London Risk Register but are highlighted through cross departmental engagement and as such are considered appropriate to highlight as part of the LFB's Assessment of Risk. Risks from this section may progress to the LRR through partner engagement in the London Resilience Forum.

| Risk | Outcome description | Examples of recent significant incidents that have occurred in London or in other countries |
|---|---|---|
| Fire in major heritage buildings | London has approximately 40,000 Historic listed buildings, buildings of special interest and modern buildings that store historic relics and artefacts. This includes four UNESCO World Heritage Sites - Westminster Abbey, Palace of Westminster, Royal Botanic Gardens Kew, Maritime Greenwich and the Tower of London. LFB responded to almost 8000 incidents in 2024 that involved or were within close proximity of Historic Listed Buildings.<br><br>Heritage and historic buildings present unique firefighting challenges due to the various unregulated construction methods and building alterations implemented over many years and the potential for rapid fire spread and building failure. Salvage and damage control operations require careful planning and prioritisation. A significant fire in a heritage building in London is likely to have large direct and indirect costs to the capital and country including impacts on tourism. A large fire could destroy items of international heritage value which will be impossible to replace. There is likely to be significant moral pressure on firefighters to act to save national heritage in a structure not designed to resist fire spread due to its historic nature leading to significant operational risks. | Cutty Sark Fire – 2007 – Large fire occurred on the Cutty Sark, almost destroying the historic ship.<br><br>Glasgow School of Art, Glasgow – 2014 – Large fire at the Glasgow School of Art.<br><br>Morden Mosque fire – 2015 – Large fire damaging 50% of ground floor of Europe's largest mosque<br><br>The National Museum of Brazil was destroyed by a large fire in September 2018. Although some items were saved, it is believed that 92.5% of its archive of 20 million items were destroyed in the fire.<br><br>Notre-Dame de Paris fire – 2019 – Major fire in a historical cathedral in Paris requiring over 400 firefighters to extinguish costing over €1 billion to restore.<br><br>Somerset House fire, London – August 2024 - the fire damaged parts of the third floor and the roof of the west wing. |
| Fires in buildings with simultaneous evacuation strategies. | London Fire Brigade (LFB) collects data for buildings with a temporary suspension of 'stay put' where an interim simultaneous evacuation strategy has been put in place by an independent fire safety professional. These buildings are likely to perform in such a way during a fire that a stay put strategy is untenable. The total numbers of buildings of this type can change daily, when interim measures are required, or a building is remediated and no longer requires the measures. However as of 14th April 2025 1426 buildings required suspension of "stay put" in London. This is a 9.86% increase in prevalence from last year. Fires in these buildings present operational challenges to crews due to the behaviour and spread of fire and due to the numbers of residents evacuating. | New Providence Wharf fire - 2021 - Large fire in a building requiring evacuation.<br><br>Hurlock Heights fire – 2021 - Balcony fire with potential to spread.<br><br>Relay Building fire – 2022- Balcony involved in fire with potential to spread.<br><br>Spectrum Building fire – 2024 – Fire in office to residential conversion building undergoing remediation work to remove cladding due to fire safety concerns. |

# **Layer 4.** Emerging trends and future risk

This layer identifies and prioritises new and emerging operational risks and trends. These risks and trends have been identified by bringing together LFB subject matter experts, policy owners and key stakeholders to a series of workshops where risk information is shared cross departmentally and a joint understanding of future risk developed and then moderated at a later meeting of Assistance Commissioners. Workshop participants used tools from the Government Office for Science, Futures Toolkit to examine trends and risk information regarding the operational environment. The broad operating contexts provided by National Operational Guidance are used to present the resultant information, however many risks and trends cross contexts. Future risks are presented in as a summary aligned to the main or most appropriate context for ease of presentation. An additional context has been added to the seven described in National Operation Guidance to present information relating to demographic, societal and operational trends.

When assessing the immediacy of an emerging trend or future risk, the three horizons concept described in the Futures Tool Kit is used. Horizon one (H1) issues are strategically important now. They can be seen and described, and LFB is currently attending to related incidents. These issues are current but yet to become business as usual. Further control measure may need to be developed. Horizon two (H2) issues are issues that are visible but will develop in a way that may not be apparent yet. Many of the key trends and factors are visible allowing policy development for H2 issues. Horizon three (H3) issues are new challenges that will emerge or more general concerns. It is not clear how these factors will develop but the lead time is greater indicating there is both need and time for further research.

Emerging trends and future risks are presented on page 45. This table shows the main themes prioritised by level of concern and immediacy. Appendix 8 contains further detail by context. Delegates at the workshop series were asked to use a simple Red, Amber, Green system of ranking their concerns with red being the highest and green being the lowest. A metric or indicator table was not provided as respondents were asked to focus on their individual level of concern rather than attempting to apply a metric or indicator. The purpose of this approach was to engage as broad a group of people as possible with different levels of specific information from a range of different departments and to build a consensus with as few barriers to discussion as possible.

Many emerging risks identified in 2024 remain a concern to workshop participants in 2025, key areas of concern remain the changing built environment in London including modern methods of construction, and the increasing density of very tall residential buildings and the associated operational challenges, among others. These include the challenges in conducting emergency evacuation of buildings beyond the historical normal operating environment.

The proliferation and wider adoption of new fuels, energy sources and bulk energy storage, in particular lithium-ion energy storage, present ongoing and developing operational challenges. This remains a concern from 2024 and is an Horizon One concern. This indicates that LFB is already dealing with the outcomes of the developing risk. In layer one the public report significant concern around this risk indicating exposure in the community. There is uncertainty about how this risk manifests in horizon two and tree, and this will be driven by factors such as uptake and use of new technologies in the community and the legislative and pollical environment. New controls and procedures will be needed to address the different ways the technology is adopted and adapted commercially and domestically. The developing legislative environment around new fuels will be crucial in determining the controls required by LFB.

Climate change and societal pressures are viewed to be associated with an increasing number of large incidents and incidents with high resource utilisation. This will lead to increasing challenges with managing operational information flow, challenges in maintaining situational awareness pan-London during peak demand and challenges managing high simultaneous demand at maximum utilisation. Concern from professionals in this area exceeds concerns from the community assessed in layer one an indicate that there is a challenge with risk communication regarding these longer-term trends with lower individual exposure.

Malicious or security related incidents remain a concern; in particular the potential for multisite incidents and the impact this has on resources and deployment.

The table below outlines the highest concerns from the emerging risk workshop series. Groups of similar concerns have been aggregated into larger themes for ease of presentation, where this is the case individual identifiers that link to the original concern reported are listed next to the main theme. Where concerns cross several horizons, they have been presented in the most immediate to show the most concerning element. Consequently, there are no horizon three only items identified in this analysis.

Appendix 8 shows the detailed individual concerns this includes concerns raised by attendees at the workshop that were discussed by the group during consensus sessions and considered to be of minimal concern. These are not included in the main report for brevity.

## Emerging Trends and Future Risks Table. Themes and Horizons

| | Horizon 1 | Horizon 2 | H3 |
|---|---|---|---|
| **Red** | ○ Extreme and wide area flooding impacting London; 6A, 7B, 7E, 2A, 6F<br>○ Alternative fuels as a multiplier of severity and/or likelihood of fire service incidents. 1C, 2B, 2D, 3A, 3B,3C 9E<br>○ Economic factors interacting with ageing built-environment/infrastructure leading to failures initiating or worsening fire service incidents. 1D,2D,4C<br>○ Rescue required from horizonal and vertical deep penetration into structures/earth 4B<br>○ Social and demographic factors, e.g. health, aging and social cohesion and economic pressures leading to upwards pressure on operational demand. 5A, 5B, 5C, 8J, 5G, 5I, 5M<br>○ An increasingly varied and complex malicious threat picture involving a wide range of public and state targets with an increasing range of state aligned, ideological, criminal and self-initiated actors 8B, 8C, 8D, 8E, 8F, 8G.<br>○ Concerns about modern construction methods, building regulations, and compliance with industry standards including the development of cross laminated timber structures and modular construction methods and performance during fire or collapse. 9A<br>○ Physiological constraints during high-rise firefighting affecting operational outcomes 9B | ○ Car Park Incidents. Concerns regarding the weight of vehicles, aging buildings, increased fire loading due to new vehicle designs and concerns regarding designs for autonomous vehicles. 2D 4E | |
| **Amber** | ○ Potential casualties size, shape and weight (body habitus) increasing and potentially exceeding current equipment and training. 4F<br>○ Person in Crisis. Following from JOL action note with reference to noted trend in increasing volume of calls to associated ITCs 4G<br>○ People requiring rescue from areas, including extreme height, below ground and in water, beyond the current scope of operations or SSOW of LFB. This risk is multiplied by the complex operating environment of London. 4A,4D,4E.<br>○ Increasing urban overcrowding reflected in overcrowded shared accommodation. i.e. multiple sleeping risks in small spaces and single rooms used by multiple occupants. 5H<br>○ Increasing frequency and severity of wildfire and outdoor vegetation fires at rural urban interface 6B<br>○ Increasing prevalence of sinkholes and land movement due to higher peak rainfall driven by climate change. 6C<br>○ Increased frequency of high wind related incidents and storms due to climate change leading to structural damage and disruption including through wind-blown trees across wide areas. 6D<br>○ Issues such as drought and heatwave impacting operations through increased demand, water supply disruption and physiological impacts on crews 6E. Multiplier when combined with 6A,6B and 6C<br>○ Increasing risk of requirement for mass evacuation and relocation of residents driven by climate change. 7A<br>○ Increasing number of large incidents, multi-site incidents and incidents with high resource utilisation leading to challenges with managing operational information flow, developing a shared operating understanding pan London, and in managing simultaneous demand of different major or significant incident simultaneously.<br>○ Malicious use of drones leading to fire service response incidents. 8I<br>○ A concern of malicious threats developing directed at emergency responders such as malicious calls used as traps. 8A<br>○ Lack of personal evacuation plans, especially for vulnerable people.9C | ○ Autonomous Vehicles and drones, including drone and autonomous delivery vehicles, initiating fire service incidents through collision or malfunction. 2E<br>○ Increasing size, complexity and automation of commercial buildings leading to increased fire loading, including lithium and BES, with increased fire spread and fewer human sources of information available to responders.1A,1E, 1F, 1B<br>○ Increasing number of Electrical vehicle fires as ownership increases and existing vehicles age. 3D<br>○ Increasing likelihood of outages and blackouts affecting business community including operations and communications and driving demand in the community. 7D | |

# Planned development of the assessment of risk

Further development of the Assessment of Risk in 2026 will focus on increasing sophistication of layer one, Public Concerns and Risk Perception. LFB will seek to extend the reach of workshop-based activity by further leveraging borough level engagement.  This layer informs work on local risk management through Borough Risk Management Plans and Station Delivery Plans. A key area of development will be increasing the number of LFB Boroughs able to deliver risk focused workshops.

LFB is developing a Strategic Foresight function. It is expected that as this function matures the workshop series that results in layer four of the AoR will focuses on issues that fall into Horizon One and Horizon Two and that Horizon Three issues will be addressed through the wider foresight function. LFB will explore using this approach to align more with the National Security Risk Assessment approach to Acute and Chronic Risks.

LFB will continue to develop its demand modelling capability including modelling of impacts of rare and extraordinary risks and defining more clearly the resources required to deal with both, "normal requirements," and extraordinary risk.

LONDON FIRE BRIGADE

# Assessment of Risk Methodology 2025

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# Layer 1. Public Concerns and Public Risk Perception

LFB assess public concerns and public risk perception in three ways;

1. Community workshops

2. Analysis of website traffic

3. YouGov polling

**1 Community Workshops.**

LFB Strategic Planning worked in Partnership with the Brigade Engagement Team. The Strategic Planning team provided the overall objectives for the piece of work and provided risk information and risk content. The Engagement team carried out an Equalities Impact Assessment, identifying specific groups for targeted engagement who represented either seldom heard or at-risk groups. The Engagement team facilitated focus groups with the LFB Community Forum and organisations/representatives who work with communities (in particular on community risk and resilience). Contact and administration was provided by the LFB Engagement Team.

In addition to identified groups an open public workshop was held that any member of the public could attend. Groups within the demographics referenced in the EIA were approached via existing relationships, links made through previous LFB engagement, or contacts provided to the team by colleagues, partners and other organisations.

A target number of attendees was not set, as this engagement piece was designed to speak to a number of groups to understand how they might perceive risk, rather than to be a fully representative sample of London.

Workshop attendees received a presentation on the nature and purpose of the AoR followed by a discussion around what, "Risk," meant to individuals.

Workshop attendees were then asked about the level of threat perceived in their lives currently of various pre identified risks taken from the higher risks identified at the start of the engagement work based on 2023s AoR. These categories of risk have been maintained to allow comparison between assessments and to allow changes to be tracked.

Attendees were able to either use an interactive online tool (via Mentimeter) or fill out a paper form, rating each risk category on a scale from 0-100 to represent how personally concerned they were about each one.

Attendees were then asked open-ended questions, asking them to share any underlying causes of fires and of non-fire incidents, and any other risks that they are concerned about.

This data was recorded in spreadsheet format, to be analysed by the Strategic Planning team for the public perception of risk portion of the Assessment of Risk 2024.

The following workshops were held.

| Group | Date | Delivery Mode | Attendee Numbers |
|---|---|---|---|
| Action Disability Kensington and Chelsea | 11 November 2024 | Online | 3 |
| Public and Community Volunteer Services | 12 May 2024 | Online | 11 |
| Westminster LGBT+ Forum | 12 November 2024 | In-person | 7 |
| Barnet Youth Board | 12 December 2024 | In-person | 18 |

| | | | |
|---|---|---|---|
| Action Disability Kensington and Chelsea | 12 December 2024 | Online | 5 |
| LFB Community Forum | 13 January 2025 | Online | 3 |
| East London Older People's Reference Group (Tower Hamlets) | 16 January 2025 | In-person | 9 |
| London Bridge and Bankside BIDs | 28 January 2025 | Online | 8 |
| The Ivy Club Over 50s Women's Group | 30 January 2025 | In-person | 19 |
| ChargeSafe - riders group | 28 March 2025 | In-person | 8 |
| Open faith session | 27 February 2025 | Online | 9 |
| Second open public session | 07 March 2025 | Online | 4 |
| Total | | | 104 |

Additional focus groups were held in the following Boroughs, led by local Borough Commanders.

| Borough | Date | Delivery Mode | Attendee Numbers |
|---|---|---|---|
| Lewisham | 13 March 2025 | In Person | 9 |
| Islington | 14 March 2025 | In Person | 8 |
| Ealing | 26 March 2025 | In Person | 34 |
| Hillingdon | 17 March 2025 | In Person | 16 |
| Lambeth | 19 March 2025 | In Person | 8 |

The purpose of these sessions was to add geographic breadth to respondents' data and to form a trial group to inform wider role out of borough-based data collection on public risk perception. Borough sessions were not intended to hit any specific demographic other than those that live in the borough.

To make risk information more accessible during focus groups AoR risk identifiers were grouped into more general categories to aid public understanding, and examples were provided for each. The table below shows the AoR item from 2023 and the simplified grouping for public engagement.

| **AoR Risk Descriptor (highest risks)** | **Descriptor for Public Engagement** |
|---|---|
| Fire involving warehouses and bulk storage. | Large commercial fires |
| Fire involving manufacturing and processing plants. | |
| Fire involving landfill or wasteland. | |
| Fires in large public and commercial buildings | |
| Fire involving food and drink outlets | |
| Fire involving offices and call centres | |
| Fire involving retail outlets | |
| Fire involving rural land (urban rural interface) | Wildfire and grass fires near buildings |
| Non-fire incidents involving trains and transport buildings. | Car and train collisions and entrapments |

| | |
|---|---|
| Non-fire incidents involving road vehicles and urban infrastructure. | |
| Non-fire incidents involving outdoor water and boats | Water rescue |
| Fire involving purpose-built flats. | Fires in flats and shared living |
| Fire involving converted flats or HMOs | |
| Fires in purpose built high-rise flats | High rise and/or major fire |
| Major Fire | |
| Fire involving short stay accommodation | Fires involving vulnerable people. |
| Fire involving care homes and specialised living | |
| Fire involving houses and bungalows | House fires |
| Fire involving private garages and sheds | |
| Surface Water Flooding | Flooding |
| Fluvial Flooding | |
| Groundwater Flooding | |
| Coastal/Tidal Flooding | |
| Low temperatures and heavy Snow | Cold weather, snow, and disruption |
| Accidental Release of a Biological Substance | Accidents with hazardous materials |
| High Consequence Dangerous Goods | |
| Attacks on Infrastructure | Malicious attacks and terrorism |
| Attacks on Transport | |
| Medium Scale CBRN Attacks | |
| Larger Scale CBRN Attacks | |

**2. Analysis of website traffic**

LFB Strategic Planning analysed website traffic on the LFB public facing website to gauge public interest in different risk information. This data takes the form of an automated dashboard tracking website traffic. Analysis of 12 months of LFB website traffic was used in the AoR 2025 to indicate level of public concern regarding specific risk information. Data was collected on individual users and the areas of the website that they interacted with within the," safety," section. An assumption was made that a higher proportion of users viewing a particular page holding a specific type of risk information indicated a higher level of public concern regarding that topic. In total 203K users visited the Brigades, "safety," pages out of 779.9K users of the webpage. Data capture period was 01/01/24 – 01/01/2025.

A google tool was used to automate the analysis, data was exported to Microsoft Excel and converted to a proportional Tree Diagram for presentation in the AoR report. Raw data is available here;

https://lookerstudio.google.com/reporting/3573c2fa-b160-47f5-b97c-ad76e8dd5b2d/page/kIV1C

**3. YouGov polling**

Acknowledging the limited reach of public and targeted workshops and the difficulty in providing full representation for a diverse city, LFB commissioned a supporting question on perceived risk using the YouGov platform to broaden representation.

This question presented respondents with all 12 risks on the list used in workshops as well as options of, "none of these", and "don't know". Respondents were asked which of the listed risks was of most concern to them. This question has been repeated at 6-month intervals to track changes in perception. Results were analysed using Microsoft products.

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# Layer 2. Risks relating to property, places, and incident type

## 2.1 Risk Matrices

Risk information is presented both by incident type and location and by incident type code. The calculations for likelihood and severity are the same in each matrix. LFB incident data is linked to Power BI for automated reporting. The most recent five full calender years years of incident incident data are analysed. Information is presented by both type and location and by Incident Type Code to allow disaggregation of specific incident types from the wider location data.

## 2.2 Calculation of likelihood

Likelihood score is based on frequency of incidents occuring. This is calculated by, Number of occurences in data/ data period. The score is then taken from Table 1.

## Table 1. Likelihood score table

| Score | Descriptor |
|---|---|
| **1** | Between once a year and once a week |
| **2** | Between one a week and one a day |
| **3** | Between one and five a day |
| **4** | Between five and twenty a day |
| **5** | Twenty or more a day |

## 2.3 Calculation of severity by casulaty rate

Casualty rate is determined by calculating the number of incident type required on average to generate a casualty. This is calculated by, number of incidents in data period/number of casualties for incident type in data period. Severity score is taken from Table 2.

## Table 2. Consequence by casualty rate score table

| Score | Life consequence |
|---|---|
| **1** | One casualty occurs per 100 or more incidents |
| **2** | One casualty occurs per 25 - 100 incidents |
| **3** | One casualty occurs per 10 - 25 incidents or a fatality occurs in 300 or more incidents |
| **4** | One casualty occurs per 5 – 10 incidents or a fatality occurs per 100 – 300 incidents |
| **5** | One casualty occurs per 5 or fewer incidents or a fatality occurs per 100 or fewer incidents |

## 2.4 Calculation of severity by wider consequence score

The wider consequence of an incident is indicated by the sum of fire appliances used over the full duration of the incident including the operational and post-operational phases, initial attendance, and all required reliefs. This measure serves as a proxy for the wider impacts of an incident on the community as well as the overall scale and the impact on LFB. Where the wider impact score is higher than the life consequence score it has been used to moderate the score upwards. Below is an indicative worked example. The low threshold of

frequency used to capture wider consequence allows for incidents that are occasionally very widespread or resource intensive to be measured alongside those that have more frequency but less widespread impacts.

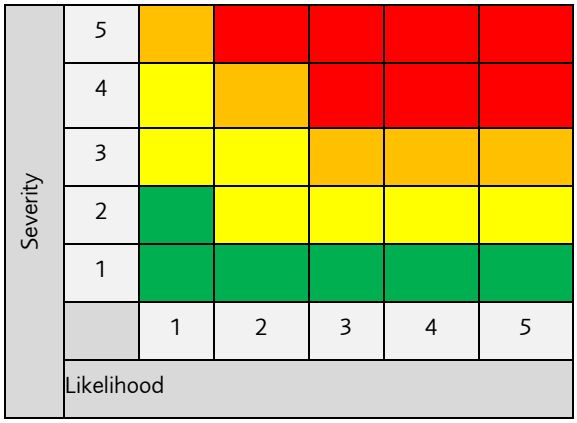
Table 3. Wider consequence score table

| Score | Wider impact consequence |
|---|---|
| **1** | One or more incidents of this type have needed over 4 pumps in the last five years |
| **2** | One or more incidents of this type have needed over 40 pumps in last five years |
| **3** | One or more incidents of this type have needed over 60 pumps in last five years |
| **4** | One or more incidents of this type have needed over 80 pumps in last five years |
| **5** | One or more incidents of this type have needed over 100 pumps in last five years |

## 2.5 Using the Risk Matrices

Once incidents have been scored for likelihood and consequence they are placed on the relevant matrix and displayed either by individual incident type code or by incident type and location. Incidents displayed by type code are placed in matrix 1 and Incidents displayed by type and location are placed in matrix 2. The base data is the same. The different presentation allow the same risk data to be viewed by location and by individual incident type.

Incidents with high severity but low likelihood are prioritised in this matrix over high frequency low severity incidents.




## 2.6 Risk Score: Worked example

An incident of *fire* in the location *purpose built flat*, occurs in London on average 7.26 times per day giving a likelihood score of 4. On average, one casualty occurs every 7 incidents in this location type, giving a consequence score of 4. The combination of likelihood and consequence returns an overall risk score of 16 for the incident type *fire in a purpose built flat*. However, the wider consequence score of fires in purpose built flats is 5 due to the large number of resources required to resolve these incidents, indicating a higher overall impact. The score is therefore moderated up to a 5 for consequence as per the table. The overall risk score is now 20.

# Neighbourhood densities and local risk profiles

Neighbourhood Density Zones highlight the areas of London with different densities of people and buildings.

The map graphic is created by the LFB Information Management Team

Urban Centres are the areas with highest population and building density (more than 15,000 people per sq. km) and are shown in red. Urban areas have above average population and building density (between 9,000 and 15,000 people per sq. km) and are shown in amber. Suburban areas have below average population andbuilding density (between 2,000 and 9,000 people per sq. km) and are shown in grey. Semi-Rural areas have the lowest population and building density (below 2,000 people per km) are shown in green.

# NFCC Definition of Risk Maps

Maps showing dwelling fire and road traffic accident risk are produced by the LFB Business Intelligence Team and ORH respectively. The method published by the NFCC is used to produce maps to identify areas of risk based on demographic, geographic and socio-economic factors associated with incident frequency and outcomes.

# Layer 3.1 Extraordinary risks and risks from the London risk Register.

These risks are taken directly from the London Risk Register. The London Risk Register is produced by the London Resilience Forum (LRF). The London Risk Register reflects risks recorded on the National Risk Register and National Security Risk Assessment as appropriate.

These risk registers deal with low frequency, high impact events and take a subjective approach to assess the reasonable worst-case scenario for each risk identified. Due to the limited data available on rare events subject matter experts and partners use indicator tables, professional judgment and extrapolate from past events to produce risk ratings.

The risks for which LFB is the lead are scored using input from LFB subject matter experts and with input and scoring from partners. Risks on which other partners lead are scored in a similar way. This gives the Brigade and the London Resilience Forum a wider, partner perspective on risks faced in London and England. This register includes risks that LFB will not directly respond to, however the inclusion of risks on the register indicates that LFB should plan for continued delivery of core functions during an event.  scores for any of the risks, we would seek to get the risk rescored by the LRF rather than show a different score on our own risk register for that year.

Both the London Risk Register and the National Risk Register are available publicly and include method statements with the main documents. The national security risk assessment is not published publicly but is reflected in the national risks register.

Risk of note outside of the London risk register are identified through cross departmental engagement and through the workshop series that leads to production of layer four. These represent risks for which there is insufficient data for them to appear in other layers but for which there is sufficient concern from stakeholders to warrant inclusion in the AoR.

# Layer 3.2: Extraordinary risk scenario modelling.

Modelling in this section is a development of the existing optimisation model and dynamic cover tool used by LFB and provided by a contractor ORH

Historic periods of high appliance unavailability were identified by using the saved data in the Dynamic Cover Tool (DCT). By navigating back to periods of 99$^{th}$ percentile appliance unavailability Strategic Planning were able to identify periods of operational stress.

Individual risks on the London Risk Register were then modelled using historically similar incidents, mobilising policies and subject matter expert input to build a mobilising profile for the risk type.

These incident profiles were then added to the DCT at the pre identified 99$^{th}$ percentile periods of demand and impacts on projected attendance time were measured.

In 2024 three incident types were modelled. A subsurface train derailment, a major residential high-rise fire and concurrent wildfires across London.

Historic data on appliance availability was used to calculate the percentage of the time that sufficient applainces of each type were available to respond to the modelled incidents

In the first iteration of this approach data was used for calendar years in 2022 and 2023.

In future iteration this approach will be developed to include a larger data set.

# Layer 4. New and Emerging Risks

The approach taken to new and emerging risks is to draw together the Brigade's various sources of risk information including departmental horizon scanning. Subject matter experts, policy owners and key stake holders were identified by strategic planning and brought together for a series of two workshops, results were then moderated by Assistant Commissioners. Detailed methodology for the workshops is found in Emerging Trends and Future Risks: Operational Horizon Scanning Workshop Series Method.

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# Full Equality Impact Assessment (EIA) Form

When completing this form please use the EIA guidance notes and check our other resources on our dedicated EIA Hotwire pages

## Part one

You will only be required to complete a full EIA assessment if:

a) as a result of completing the initial screening form, potential adverse impacts have been identified in an area of your activity requiring adjustments

**The purpose of an EIA is to meet the legal obligation required under the Public Sector Equality Duty (PSED), namely, the 'DUE REGARD' that documents that your activity will:**

**a) eliminate discrimination, harassment, and victimisation;**
**b) advance equality of opportunity; and,**
**c) foster good relations between people who share a relevant protected characteristic and people who do not share it.**

In your full EIA, you are only required to complete an assessment of any negative impacts that has been identified against any protected characteristics. Any positive impacts should be fully explained in the initial screening form. You must be able to show that your activity meets the three conditions of the due regard by providing relevant information to show how it caters for people with protected characteristics (where applicable), through eliminating potential discrimination and promoting opportunities to build equity between all groups.

| **A. Summary of EIA** |
| --- |
| **Annual Review of Assessment of Risk 2025**<br><br>The Brigade's Assessment of Risk (AoR) underpins the Community Risk Management Plan (CRMP), and the six service strategies that have their basis in the CRMP; Prevent, Protect, Respond, Prepare, Recover and Engage. The AoR is intended to support a common understanding of operational risk across services and departments. Annual review of the AoR is used to inform departmental planning, production of business cases and in local risk management plans and reviews of service strategies and the CRMP.<br><br>This EIA relates to the process used to update the AoR for 2025<br><br>The review of the AoR in 2025 retains the layered structure and method proposed in the paper, "Proposed Process; Assessment of Risk 2024" presented to Commissioners Board in October |

2023. Because of the different types of risk that LFB must prepare for and respond to the AoR presents different types of risks as, "layers". A layered structure allows specific risk types to be highlighted separately and presented in the most appropriate way for the end user of the risk information

Layers are outlined below.

**Layer One. Public Concerns and Public Risk Perception.** This layer identifies the risks that Londoners are most concerned about in relation to fire and rescue service-related emergencies. These concerns will not necessarily reflect the likelihood or severity of actual incidents but reflect the concerns held by members of the public.

The purpose of this layer is to:

- Establish the primary concerns of the public as they relate to the fire service.
- Inform risk communication work and public engagement.
- Allow public concerns to be considered when setting organisational risk priorities.
- Use the lived experience of communities to inform Hazard Identification.

There is a need to produce a simple and repeatable measure of public risk perception that can be used to track changes year on year and to highlight any differences in risk perception or concern between different geographies or demographics. It is proposed to collect this data through planned engagement with the public. The tool for data collection is Mentimeter, along with qualitative data collected from community engagement activities. The expected outcome is the identification and measurement of the public perception of risk across London.

**Layer 2. Risks relating to property, place and incident type.** This is a data-led risk assessment using the most recent five calendar years of incident data on casualties and of demand on LFB resources at incidents. This layer highlights risks which are relatively common under normal requirements. This layer highlights the type of incidents and locations associated with high likelihood of casualties (e.g. road traffic accidents and domestic fires) and of larger draws on resources (e.g. fires in rural areas). The purpose of this layer is to:

- Assess which property types and locations and which incident types are associated with the most casualties under normal requirements.
- To assess which property types and locations and which incident types, have the potential for the greatest wider impacts and resourcing implications for LFB under normal requirements.
- To inform prioritisation work within LFB service strategies.

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# Full Equality Impact Assessment (EIA) Form

**Layer 3.1: Extraordinary risks and risks from the London Risk Register.** This is a risk assessment of rare or "worst-case" scenarios which may not occur with sufficient frequency to appear in LFB incident data or are yet to have occurred. Worst-case risks are assessed against a range of impacts e.g., human welfare, behavioral impact, economic, infrastructure, environmental and security.Risks are taken directly from the London Risk Register (LRR), produced by the London Resilience Forum (LRF).

**Layer 3.2: Extraordinary risk scenario modelling.** Modelling in this section is a development of the existing optimisation model and dynamic cover tool. This layer provides an operational stress test for reasonable worst-case scenarios under differing demand conditions. The purpose layers 3.1 and 3.2 is to allow the Brigade to plan and prepare for:

- Response to low frequency but high impact events.
- Plan for combinations of events leading to a high overall demand on LFB resources.

**Layer 4: New and Emerging Risks.** This layer describes trends identified in incident data and the outcomes of workshops undertaken throughout early 2025. These workshops drew together the Brigade's various sources of expertise, information and horizon scanning functions to identify early warning signs of changes to risk or to the operating environment that may not yet be apparent in incident data or existing risk registers, but which have been identified by Brigade subject matter experts and policy owners. This allows for longer term planning to be undertaken and controls to be identified in the early stages of a risk's development. The purpose of this layer is:

- To gather information about emerging trends and developments that could have an impact on the Brigade.
- To explore how these trends and developments might combine and what impact they might have.
- To involve a range of people in futures thinking. To increase the knowledge and insight within LFB about new and emerging risks relevant to LFB operations.
- To develop a shared understanding of emerging risk across the Brigade's various functions and departments.

The reason for an EIA is to review the EIA, to ensure it remains current, suitable and sufficient. It should be noted that there has be no change to the previous AoR methodology.

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# Full Equality Impact Assessment (EIA) Form

| B. Team responsible for the activity | |
|---|---|
| **EIA Author(s):**<br><br>Name: Thomas Ronan<br>Job title: Station Commander Strategic Planning<br>Department: Transformation | **EIA Owner(s) - individual in charge of the overall activity:**<br><br>Name: Thomas Ronan<br>Job title: Station Commander Strategic Planning<br>Department: Transformation<br><br>Name: Susan Ellison-Bunce<br>Job title: Assistant Director Strategic Planning<br>Department: Transformation |

**C. What supporting policies/documents are relevant to this EIA? (Please hyperlink each document, policy, and guideline referenced below)**

Assessment of Risk 2024 – https://www.london-fire.gov.uk/media/3axbqf1e/lfc-24-082-assessment-of-risk-2024-report-and-appendices-for-publishing.pdf

Community Risk Management Plan; Your London Fire Brigade - https://www.london-fire.gov.uk/about-us/your-london-fire-brigade-our-plan-for-2023-29/

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# Full Equality Impact Assessment (EIA) Form

## D. Equality and diversity considerations

Describe the ways your activity is anticipated to disproportionately affect any groups with a protected characteristic listed under the Equality Act 2010.

**You must make sure to list any sources you have used to complete your analysis.**
Do not provide databases, graphs, or tables in this section. Just key findings and the outcomes of your learning about these different groups.

**The below paragraphs apply to all characteristics listed in this section**

The exposure of individual members of the public to various risks will differ significantly with their location and activity, this exposure may be correlated or independent to any individual protected characteristic. The layered approach adopted to assessing risk ensures that each type of risk an individual may be exposed to, for whatever reason, is assessed allowing mitigation to be planned.

The NFCC have developed a national approach to assessing risk for dwelling fires and road traffic collisions. The AoR adopts this approach as a means of identifying geographic areas across London most likely to be associated with higher risk. The findings of the NFCC work indicate that some of the key factors linked to likelihood of dwelling fires include car or home ownership, (un)employment, deprivation, property type and tenure. Similar factors are associated with consequence; however, these differ for life and property consequences, and neither provide robust predictions as for likelihood. Individually, the correlated factors that have been identified do not necessarily contribute to higher risk, however, when considered collectively, these factors can be used to identify areas that are statistically more likely to contain people who are higher risk. Using the NFCC methodology ensures that a robust approach to dwelling fire risk is adopted. Any risks associated with protected characteristics whilst not directly addressed in the NFCC work is addressed through the including and aggregation of the identified factors that correlate with likelihood and consequence of a fire.

Key factors associated with risk on individual road segments include: Road class and type Urban/rural category (based on ONS data) Speed limit data (from Basemap Ltd) Values for Likelihood Values for Consequence RTC risk score and category (H/M/L). The AoR uses the NFCC methodology to map RTC risk onto London road maps.

Because key factors associated with dwelling fire and RTC risk are included in the NFCC definition of risk work and mapped pan London for the AoR, data sets on individual personal vulnerability are not assessed separately within the AoR document.

Specific individual personal vulnerability data sets are used by the prevention team when planning the allocation of Home Fire Safety Visits and other prevention work. This process is outlined in LFB Policy 1010.

Because individuals may experience or perceive risk uniquely as a function of their lived experience, and because this may differ from assessments made using historical incident data,

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# Full Equality Impact Assessment (EIA) Form

2024s assessment of risk includes as its first layer, Public Concerns and Public Risk Perception. This layer identifies the risks that Londoners are most concerned about in relation to fire and rescue service-related emergencies. These concerns will not necessarily reflect the likelihood or severity of actual incidents but reflect the concerns held by members of the public.

The purpose of this layer is to:

- Establish the primary concerns of the public as they relate to the fire service.
- Inform risk communication work and public engagement.
- Allow public concerns to be considered when setting organisational risk priorities.
- Use the lived experience of communities to inform Hazard Identification.

By including this layer any experience of risk that falls outside the data based assessment can be assessed.

Layer one has a separate EIA in appendix five of the Assessment of Risk 2024.

**Age**
The 2021 census showed that 24% of London residents are aged 19 and under, and 12% are aged 65 and over.

**Sources used:** Census 2021

**Disability**
The 2021 census showed that 16% of London residents identified themselves as disabled, with 5% of households having two or more disabled people/people with disabilities.

**Sources used:** Census 2021

**Gender reassignment**
The 2021 census showed that 1% of London residents identified with a gender different to that which they were assigned at birth.

**Sources used:** Census 2021

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# Full Equality Impact Assessment (EIA) Form

**Marriage or civil partnership**
It is unlikely that persons in a marriage and civil partnership could be disproportionately impacted by risk assessment activity. However, in designing the engagement for layer one it must be ensured that it won't exclude this group in any way.

**Sources used:**

**Pregnancy and maternity**
Persons experiencing pregnancy and maternity may have specific perceptions of risk related to this.

**Sources used:**

**Race**
The 2021 census showed that 37% of London's population identifies as White British, with White groups making up a total of 54% of London's population. Of the remaining 46%, Asian groups made up 21%, Black groups 14%, Mixed groups 6%, and other ethnic groups 6%. In addition, 22% of London residents spoke a main language other than English, and for 4% of London residents they reported not being able to speak English well at all. Further, 41% of London's population was born outside of the UK.

**Sources used:** Census 2021

**Religion or belief**
The 2021 census showed that 40% of London residents are Christian, 15% Muslim, 5% Hindu, 2% Jewish, 2% Sikh, 1% Buddhist, and 1% other religion, with 27% reporting that they do not have a religion. In addition, these numbers were often concentrated in boroughs – for example, 40% of residents in Tower Hamlets are Muslim, 14% of residents in Barnet are Jewish, and 25% of residents in Harrow are Hindu.

**Sources used:** Census 2021

LONDON FIRE BRIGADE

# Full Equality Impact Assessment (EIA) Form

| |
|---|
| **Sexual orientation**<br>The 2021 census showed that 4.8% of London residents identified as LGB+, with a lower proportion of people identifying as heterosexual in London compared with the rest of England.<br><br>**Sources used:** Census 2021 |
| **Socioeconomic backgrounds**<br>The 2021 census showed that just over half of all households in London are deprived on at least one dimension, with 13,000 households showing all aspects of deprivation (across four dimensions) – a higher proportion than any other region in England.<br>.<br><br>**Sources used:** Census 2021 |
| **Caring responsibilities**<br>The 2021 census showed that 8% of London residents provide unpaid care to someone in their lives.<br><br>**Sources used:** Census 2021 |

| **E. Evidencing Impact: please answer the following:** | |
|---|---|
| **E. (a)** List all stakeholders and organisations (internal/external) you have consulted or contacted regarding your activity, making sure to seek feedback from groups that may be the most impacted by the activity. | **External stakeholders**<br><br>1. YouGov polling was undertaken with approximately 1000 members of the community representing a wide cross section of ages, ethnicities, religions.<br><br>2. Expert Review Panel (consisting of academics, members of London Resilience Group, and external members of the fire sector).<br><br>3. Community engagement sessions<br>Between November 2024 to March 2025 London Fire Brigade's Community Engagement team, Strategic Planning team and a number of borough teams, will hold 15 focus groups on the public perception of risk. Groups |

| | |
|---|---|
| | given the opportunity to feedback on the AoR 2024 process, included:<br>• LFB Community Forum<br>• Christian Family Concern<br>• Board of Deputies of British Jews<br>• London Councils Community Engagement Network<br>• London Resilience group<br>• Kensington and Chelsea Over 50s Forum<br>• GLA Deaf and Disabled People's Organisations group<br>• Pollards Hill Youth Centre<br>• Open public session<br><br>**Internal Stakeholders**<br><br>Internal staff focus groups will be held to gather views of staff perception. The groups to be consulted included:<br><br>• Control staff<br>• Operational Sounding Board<br>• Fire Stations<br>• Layer 4 workshops. |
| **(b)** Explain the insights gained, how you have/will evaluate and whether you intend seek post-activity feedback from those stakeholders/organisations? | Feedback was sought from External academics with regards the robustness and defensibility of the methodology. A statement of support was provided for the approach.<br><br>With regards to the Layer 1 process, insights were gained on the language used in the sessions, the explanations and examples given of risk types, any the additional fire safety information that people would appreciate receiving. All participants were given the opportunity to provide post-session feedback, but we only received it from some attendees. |
| | |
| **F.** Clearly record any gaps in evidence which has limited this | We did not identify any gaps limiting the EIA being completed in full. This activity is iterative, so it is |

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# Full Equality Impact Assessment (EIA) Form

| | |
|---|---|
| assessment being completed in full.<br><br>I.e. Was there any information or data you were unable to find/collect?<br><br>Consider whether you can justify continuing the activity without this information, or if a mitigating action plan is required? | completed annually but can develop based on feedback and learnings from the previous year. |
| | |
| **G.** Clearly record the following:<br><br>• List any adjustments you will be putting in place for people with protected characteristics. Use each characteristic as a sub-heading, and<br>• any activity to promote equity of access, opportunity, experience and outcomes? | Although not primally a risk communication tool, when published the AoR will be available as a PDF with alternative text provided for charts and tables. This will make it accessible to users with automated reading software.<br><br>The points below mainly refer to activities associated with Layer 1 of the AoR (a separate EIA exists for the AoR Layer 1):<br>• Age – simple and accessible language, use of both print and digital resources, offer of both online and in-person sessions.<br>• Disability – online and in-person sessions offered, reasonable adjustments available on request (i.e., BSL interpretation)<br>• Race – offer of translation / interpretation on request<br>• Religion – timing and location take into account religious holidays and times<br>• Socioeconomic – engagement at zero cost where possible – online sessions to improve access, and offer to refund expenses |
| | |
| **H.** Clearly record how you will communicate the activity to those involved, especially if their protected characteristic may be a factor. You may need | 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 it's complexity it is not intended to be a public risk communication tool. |

| | |
|---|---|
| to consider diverse formats such as audio, large print, easy read, and other accessibility options in various materials?<br><br>Please ensure you utilise and reference the below documentation:<br><br>Inclusive and Accessible Documents for Neurodivergent Individuals - Tips and Resources 2024.pdf<br><br>The-LFB-key-EDI-terminology2024.pdf | 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.<br><br>When published, the AoR will be in a PDF format with alternative text for images and charts to allow accessibility to those members of the public choosing to engage with the document.<br><br>The Layer 1 activity is primarily communicated directly to groups invited to take part (on the basis of the EIA, and of risks identified by LFB). This can be email, phone, or in-person, dependent on preference. The session is then communicated to members of the group on the basis of how they usually receive communications, with any adjustments already in place.<br><br>For the session itself, we take advice from each group on accessibility needs of the group, and any specific communication needs there may be – such as print copies, interpretation, etc. |
| **I. Mitigating action plan** (where an adverse impact has been identified, please record the steps that are being taken to mitigate or justify it?) | |
| **Protected characteristic** | **Action being taken to mitigate or justify** |
| 1. Age – the activity (Layer 1 specifically) is inaccessible for older persons or young persons | The language used will be simple and accessible, help and assistance will be available where required, and there will be multiple ways to participate in the engagement to avoid exclusion. |
| 2. Disability – the activity (Layer 1 specifically) is inaccessible for people with disabilities | Varying methods of engagement will be considered where necessary, alternative materials for visual/hearing impairments will be available upon request, and the presentation of information will be considered for neurodiverse accessibility. |
| 3. Race (including ethnicity and nationality) – the activity (Layer 1 specifically) is inaccessible/ exclusionary for certain ethnic groups | Information may be provided in different languages if requested, the activity will be advertised in a variety of spaces catering to different groups, and engagement will be offered at varying times/places. |
| 4. Religion – the activity (Layer 1 specifically) is inaccessible/ | The time and day of the engagement will be considered, and if in-person the location of the engagement and the facilities |

| | |
|---|---|
| exclusionary for people of certain religions. | available (such as private spaces, prayer rooms, etc.) will be taken into account. |
| 5. Socioeconomic backgrounds (Layer 1 specifically) | Varying options for engagement will be considered, taking into account time and place. The engagement will be advertised in a range of different places. |
| **To be completed by the Inclusion Team** | |
| **Review date:** | |

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# Full Equality Impact Assessment (EIA) Form

## Part two: Inclusion team to complete - feedback and recommendations

| J. EIA Outcomes |
|---|
| ☐ **Recommendation 2:**<br>Adverse impact(s) identified - activity continues with agreed justification or mitigation in place<br><br>☐ **Recommendation 3:**<br>Adverse impact(s) identified - activity paused until justification or mitigation provided<br><br>☐ **Recommendation 4:**<br>Adverse impact(s) identified - activity paused due to potentially unlawful or adverse effects which cannot be reasonable justified/mitigated. |

| K. Feedback<br>Please specify the actions required to implement the findings of this EIA and how the programme/ activity's equality impact will be monitored in the future. It may be helpful to complete the table. | |
|---|---|
| **Name**: [text here]<br>**Sign-off Date**: [text here] | [text to be completed by the EIA Team] |

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# Full Equality Impact Assessment (EIA) Form

When completing this form please use the EIA guidance notes and check our other resources on our dedicated EIA Hotwire pages

## Part one

You will only be required to complete a full EIA assessment if:

a) as a result of completing the initial screening form, potential adverse impacts have been identified in an area of your activity requiring adjustments

**The purpose of an EIA is to meet the legal obligation required under the Public Sector Equality Duty (PSED), namely, the 'DUE REGARD' that documents that your activity will:**

**a) eliminate discrimination, harassment, and victimisation;**
**b) advance equality of opportunity; and,**
**c) foster good relations between people who share a relevant protected characteristic and people who do not share it.**

In your full EIA, you are only required to complete an assessment of any negative impacts that has been identified against any protected characteristics. Any positive impacts should be fully explained in the initial screening form. You must be able to show that your activity meets the three conditions of the due regard by providing relevant information to show how it caters for people with protected characteristics (where applicable), through eliminating potential discrimination and promoting opportunities to build equity between all groups.

| **A. Summary of EIA** |
| --- |
| Assessment of Risk – Public Engagement<br><br>Layer one of the Assessment of Risk (AoR) is intended to identify the risks and hazards that members of the public are most concerned about in relation to the fire and rescue service. These will not necessarily reflect the likelihood or severity of actual incidents (this is captured elsewhere through analysis of incident data), but reflect the concerns held by members of the public. A new approach to collecting data is proposed. There is a need to produce a simple and repeatable measure of public risk perception that can be used to track changes year on year and to highlight any differences in risk perception or concern between |

different geographies or demographics. It is proposed to collect this data through planned engagement with the public.

The suggested tool for data collection is the Pictorial Representation of Illness and Self-Measure (PRISM) technique, along with qualitative data collected from community engagement activities.

The expected outcome is the identification and measurement of the public perception of risk across London.

| B. Team responsible for the activity | |
|---|---|
| **EIA Author(s):**<br><br>Name: Ruth Walshe<br>Job title: Senior Community Engagement Officer<br>Department: Communications and Engagement | **EIA Owner(s) - individual in charge of the overall activity:**<br><br>Name: Thomas Ronan<br>Job title: Station Commander, Strategic Planning<br>Department: Transformation<br><br>Name: Claiton Murray<br>Job title: Group Commander, Strategic Planning<br>Department: Transformation<br><br>Name: Ruth Walshe<br>Job title: Senior Community Engagement Officer<br>Department: Communications and Engagement |

| C. What supporting policies/documents are relevant to this EIA? (Please hyperlink each document, policy, and guideline referenced below) |
|---|
| LFB Assessment of Risk 2024 |

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# Full Equality Impact Assessment (EIA) Form

**D. Equality and diversity considerations**

Describe the ways your activity is anticipated to disproportionately affect any groups with a protected characteristic listed under the Equality Act 2010.

**You must make sure to list any sources you have used to complete your analysis.**
Do not provide databases, graphs, or tables in this section. Just key findings and the outcomes of your learning about these different groups.

**Sources used throughout:**
Census 2021
LFB Assessment of Risk 2024

**Age**
Both young people and older persons may have different vulnerabilities and perceptions of risk due to their age, and the engagement activity must ensure that these are captured. In the AoR 2024 both older people and younger people were highlighted as a concern around physical vulnerability – that physical characteristics increase an individual's risk.

Age may impact the accessibility of the engagement activity – for example, digital access, ability to attend something in-person, or understanding the tool used to collect data. It must be ensured that the tool is accessible to all audiences, that help and assistance are available

where required, and that there are multiple ways to participate in the engagement to avoid exclusion.

The decision on the tool used to capture public risk perception data will include an assessment on its usability for the public, to ensure it is easy to use and understand, including for young people and older people.

**Disability**

The 2021 census showed that 16% of London residents identified themselves as disabled, with 5% of households having two or more disabled people.

Persons with disabilities may have specific needs and vulnerabilities, impacting their perceptions of risk, so the engagement activity must ensure that these are captured, and that this reflects a range of disabilities and long-term conditions. In the AoR 2024 health & disability and mental health were highlighted as a concern around physical vulnerability – that these characteristics increase an individual's risk. There were also concerns around behavioural vulnerability, including taking prescription drugs, and hoarders.

Disability may impact the accessibility of the engagement activity – for physical disabilities this could include access to in-person/online engagement or the need for alternative materials for visual/hearing impairments, and for developmental disabilities / neurodiversity this could include the need for information to be presented in alternative ways. It must be ensured that the engagement takes this into account and is accessible to those with varying disabilities, including listening to and implementing specific requests from disabled persons.

The decision on the tool used to capture public risk perception data will include an assessment of its accessibility for those with various disabilities, to ensure it is useable for these communities.

**Gender reassignment**

The 2021 census showed that 1% of London residents identified with a gender different to that which they were assigned at birth.

Trans people and/or those of marginalised genders may have specific concerns or vulnerabilities regarding personal risk, which may impact their perceptions of risk. The engagement activity must ensure that these are captured.

Any engagement activity must be inclusive of this community – for example, ensuring that persons' identities are respected, correct names and pronouns are used, and provision of facilities (such as toilets) is adequate.

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**Marriage or civil partnership**
It is unlikely that persons in a marriage and civil partnership could be disproportionately impacted by the activity. However, in designing the engagement it must be ensured that it won't exclude this group in any way.

**Pregnancy and maternity**
Persons experiencing pregnancy and maternity may have specific perceptions of risk related to this, and as such the engagement activity must ensure that these are captured.

This group may also have accessibility needs when it comes to engagement, and the activity must be designed to take this into account. For example, online v's in-person engagement, the time and day of the engagement, and the location and facilities may all impact the ability of this group to engage. As such, it must be ensured that this is taken into account when designing the engagement.

**Race**
The 2021 census showed that 37% of London's population identifies as White British, with White groups making up a total of 54% of London's population. Of the remaining 46%, Asian groups made up 21%, Black groups 14%, Mixed groups 6%, and other ethnic groups 6%. In addition, 22% of London residents spoke a main language other than English, and for 4% of London residents they reported not being able to speak English well at all. Further, 41% of London's population was born outside of the UK.

Persons of different races, ethnicities, and nationalities may have varying perceptions of risk, depending on their communities, ways of life, and specific vulnerabilities that they experience. This must be captured, to ensure they are accurately reflected in the perception of risk data. In the AoR 2024 there were a number of concerns that certain socioeconomic factors increase an individual's risk, including communication and language difficulties, cultural differences, immigration, and low trust levels in uniformed services.

The engagement activity must also be accessible to the many different communities across London. This may include providing information in different languages, advertising the engagement in a variety of spaces, and offering engagement at a number of times and locations. It must also be a safe and inclusive space for people of different races, ethnicities, and nationalities.

The decision on the tool used to capture public risk perception data will include an assessment of its accessibility regarding race, ethnicity, and nationality – for example, looking at the language used.

**Religion or belief**

The 2021 census showed that 40% of London residents are Christian, 15% Muslim, 5% Hindu, 2% Jewish, 2% Sikh, 1% Buddhist, and 1% other religion, with 27% reporting that they do not have a religion. In addition, these numbers were often concentrated in boroughs – for example, 40% of residents in Tower Hamlets are Muslim, 14% of residents in Barnet are Jewish, and 25% of residents in Harrow are Hindu.

Persons of different religions or beliefs may have varying perceptions of risk, depending on their communities, ways of life, and specific vulnerabilities that they experience. This must be captured, to ensure they are accurately reflected in the perception of risk data. In the AoR 2024 there were a number of concerns that certain socioeconomic factors increase an individual's risk, including communication and language difficulties, and cultural differences. There were also concerns around behavioural vulnerability, including use of candles.

The engagement activity must also be accessible to the many different religious communities in London. This may include considering the time and day of the engagement, and if in-person the location of the engagement and the facilities available (such as private spaces, prayer rooms, etc.).

**Sexual orientation**

The 2021 census showed that 4.8% of London residents identified as LGB+, with a lower proportion of people identifying as heterosexual in London compared with the rest of England.

People of varying sexualities may have specific concerns or vulnerabilities regarding personal risk, which may impact their perceptions of risk. The engagement activity must ensure that these are captured.

Any engagement activity must be inclusive of this community, ensuring that their identities are respected.

**Socioeconomic backgrounds**

The 2021 census showed that just over half of all households in London are deprived on at least one dimension, with 13,000 households showing all aspects of deprivation (across four dimensions) – a higher proportion than any other region in England.

People from differing socioeconomic backgrounds may have differing vulnerabilities and perceptions of risk, dependent on their personal situations. The engagement activity must ensure that these are captured. In the AoR 2024 there were a number of concerns that certain socioeconomic factors increase an individual's risk, including employment, deprivation, homelessness, and overcrowding. There were also concerns around buildings

and building management, including private rental properties with negligent landlords, social housing, worries about building materials (such as cladding), and derelict buildings and accumulated rubbish.

The engagement activity must also be accessible to those of different socioeconomic statuses/backgrounds. For example, online and in-person options (recognising access to the internet, cost of travel, etc.), a number of times and days (recognising varying shifts, working patterns, appointments etc.), and varying locations. It should also be advertised in a range of different places, and should be inclusive of those on lower incomes / from working class backgrounds.

**Caring responsibilities**
The 2021 census showed that 8% of London residents provide unpaid care to someone in their lives.

People with caring responsibilities may have specific perceptions of risk related to this, and as such the engagement activity must ensure that these are captured.

This group may also have accessibility needs when it comes to engagement, and the activity must be designed to take this into account. For example, online vs in-person engagement, the time and day of the engagement, and the location and facilities may all impact the ability of this group to engage. As such, it must be ensured that this is taken into account when designing the engagement.

| **E. Evidencing Impact: please answer the following:** | |
|---|---|
| **E. (a)** List all stakeholders and organisations (internal/external) you have consulted or contacted regarding your activity, making sure to seek feedback from groups that may be the most impacted by the activity. | Groups spoken to during the 2024 Assessment of Risk were:<br>• LFB Community Forum<br>• Christian Family Concern<br>• Board of Deputies of British Jews<br>• London Councils Community Engagement Network<br>• London Resilience group<br>• Kensington and Chelsea Over 50s Forum<br>• GLA Deaf and Disabled People's Organisations group<br>• Pollards Hill Youth Centre<br>• Open public session |

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| | |
|---|---|
| | During and following these sessions, attendees had the opportunity to provide feedback on the assessment of risk engagement process. |
| **(b)** Explain the insights gained, how you have/will evaluate and whether you intend seek post-activity feedback from those stakeholders/organisations? | Insights were gained on the language used in the sessions, the explanations and examples given of risk types, any the additional fire safety information that people would appreciate receiving. All participants were given the opportunity to provide post-session feedback, but we only received it from some attendees. |
| | |
| **F.** Clearly record any gaps in evidence which has limited this assessment being completed in full.<br><br>I.e. Was there any information or data you were unable to find/collect?<br><br>Consider whether you can justify continuing the activity without this information, or if a mitigating action plan is required? | We did not identify any gaps limiting the EIA being completed in full. This activity is iterative, so it is completed annually but can develop based on feedback and learnings from the previous year. |
| | |
| **G.** Clearly record the following:<br><br>**a)** List any adjustments you will be putting in place for people with protected characteristics. Use each characteristic as a sub-heading, and<br>**b)** any activity to promote equity of access, opportunity, experience and outcomes? | • Age – simple and accessible language, use of both print and digital resources, offer of both online and in-person sessions.<br>• Disability – online and in-person sessions offered, reasonable adjustments available on request (i.e., BSL interpretation)<br>• Race – offer of translation / interpretation on request<br>• Religion – timing and location take into account religious holidays and times |

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| | |
|---|---|
| | • Socioeconomic – engagement at zero cost where possible – online sessions to improve access, and offer to refund expenses |
| | |
| **H.** Clearly record how you will communicate the activity to those involved, especially if their protected characteristic may be a factor. You may need to consider diverse formats such as audio, large print, easy read, and other accessibility options in various materials?<br><br>Please ensure you utilise and reference the below documentation:<br><br>Inclusive and Accessible Documents for Neurodivergent Individuals - Tips and Resources 2024.pdf<br><br>The-LFB-key-EDI-terminology2024.pdf | The activity is primarily communicated directly to groups invited to take part (on the basis of the EIA, and of risks identified by LFB). This can be email, phone, or in-person, dependent on preference. The session is then communicated to members of the group on the basis of how they usually receive communications, with any adjustments already in place.<br><br>For the session itself, we take advice from each group on accessibility needs of the group, and any specific communication needs there may be – such as print copies, interpretation, etc. |
| **I. Mitigating action plan** (where an adverse impact has been identified, please record the steps that are being taken to mitigate or justify it?) | |
| **Protected characteristic** | **Action being taken to mitigate or justify** |
| 1. Age – the activity is inaccessible for older persons or young persons | The language used will be simple and accessible, help and assistance will be available where required, and there will be multiple ways to participate in the engagement to avoid exclusion. |
| 2. Disability – the activity is inaccessible for people with disabilities | Varying methods of engagement will be considered where necessary, alternative materials for visual/hearing impairments will be available upon request, and the presentation of information will be considered for neurodiverse accessibility. |
| 3. Race (including ethnicity and nationality) – the activity is inaccessible/ exclusionary for certain ethnic groups | Information may be provided in different languages if requested, the activity will be advertised in a variety of spaces catering to different groups, and engagement will be offered at varying times/places. |

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| | |
|---|---|
| 4. Religion – the activity is inaccessible/ exclusionary for people of certain religions. | The time and day of the engagement will be considered, and if in-person the location of the engagement and the facilities available (such as private spaces, prayer rooms, etc.) will be taken into account. |
| 5. Socioeconomic backgrounds | Varying options for engagement will be considered, taking into account time and place. The engagement will be advertised in a range of different places. |
| **To be completed by the Inclusion Team** | |
| **Review date:** | |

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## Part two: Inclusion team to complete - feedback and recommendations

| J. EIA Outcomes |
|---|
| ☐ **Recommendation 2:**<br>Adverse impact(s) identified - activity continues with agreed justification or mitigation in place<br><br>☐ **Recommendation 3:**<br>Adverse impact(s) identified - activity paused until justification or mitigation provided<br><br>☐ **Recommendation 4:**<br>Adverse impact(s) identified - activity paused due to potentially unlawful or adverse effects which cannot be reasonable justified/mitigated. |

| K. Feedback<br>Please specify the actions required to implement the findings of this EIA and how the programme/ activity's equality impact will be monitored in the future. It may be helpful to complete the table. | |
|---|---|
| **Name**: [text here]<br>**Sign-off Date**: [text here] | [text to be completed by the EIA Team] |

# Appendix 5. Summary of High and Very High Incident Type Code Risk Scores and movement.

| Risk Rating | Risk ID | Trend |
|---|---|---|
| Very High | A1 Fire | Static |
| | A1HR Fire High Rise Buildings | UP |
| | B1 Person trapped excluding RTC | Static |
| | B1T Train or Tram incident involving trapped person | Static |
| | B2 reduced special service | Static |
| | B3 Effecting Entry | Static |
| | B10 Person in Precarious Position | Static |
| | B11 Person collapsed / injured including behind doors | Static |
| | B12 Person Threatening To Jump | UP |
| | B19 Assist LAS Ambulance with Bariatric/Difficult removal | Static |
| | C1 Hazmat Incident initial call | Static |
| | C3 Acid attack on Person | Static |
| | J3 Person in waterway / on foreshore accessible from land | Static |
| | J0 FBT Running call from MCA | Static |
| | Make safe RTC | Static |
| | Persons trapped RTC | Static |
| | N0 NILO assessment | Static |
| | Vehicle fire | Static |
| High | A2 Fire Reduced fire attendance | Down |
| | B1B: RTC involving vehicle into building | Static |
| | B7: Train/Tram Crash | Static |
| | B93: Collapse of Building/Structure (Level 3) - Persons involved | Static |
| | D3: Sub Surface incident including tunnels under construction, shafts and sewers | Static |
| | E3: Aircraft Accident/Aircraft Accident Imminent | Static |
| | ES5: Emergency Services Channel | Static |
| | FUEL: Fuel Spill on Motorway | UP |

| | | |
|---|---|---|
| | G0: Operation PLATO - Nil attendance | Static |
| | J1: Midstream Incident on the Thames | Static |
| | J8: Vehicle in Waterway accessible from land<br>PERSON: Person on Fire - Out in the open | Static |
| | PI: Person Injured | Static |
| | A3: Reduced Fire Attendance involving Railway/Tram property | Static |
| | A4: Fire Involving HazMat - including cylinders and explosions | Static |
| | J12: Person Threatening to Jump from Bridge or Structure on the River Thames | UP |
| | MULTI: Multi lane make safe – RTC | Static |
| | A8: Fire all out | Static |
| | C2: Fuel Spill up to 100 litres inside/outside (not RTC) | Static |
| | C5: Natural Gas Leak - commercial or residential | Static |
| | A10: AFA Commercial Premises | Static |
| | A11: AFA Residential Premises - for High Rise use A1HR | Static |
| | B4: Flooding | Static |

| ITC Short Description | 2022 | 2023 | 2024 | 2025 |
|---|---|---|---|---|
| A1HR: Fire in High Rise Flats/Commercial Buildings - 6 flrs & above | | | | |
| LikelihoodScore | 4 | 4 | 4 | 4 |
| SeverityScore | 3 | 3 | 5 | 5 |
| A2: Reduced Fire Attendance - including electrical junction box | | | | |
| LikelihoodScore | 5 | 5 | 5 | 5 |
| SeverityScore | 5 | 5 | 5 | 3 |
| B12: Person Threatening to Jump or Assisting MPS with Persons at Height | | | | |
| LikelihoodScore | 2 | 3 | 3 | 3 |
| SeverityScore | 3 | 3 | 3 | 4 |
| FUEL: Fuel Spill on Motorway | | | | |
| LikelihoodScore | 1 | 1 | 1 | 1 |
| SeverityScore | 3 | 3 | 4 | 5 |
| J12: Person Threatening to Jump from Bridge or Structure on the River Thames | | | | |
| LikelihoodScore | 1 | 1 | 1 | 2 |
| SeverityScore | 1 | 5 | 4 | 4 |

# 2025 Appendix 6. Summary of Changes to High and Very High London Risk Register Risk Scores

| Risk Rating | Risk ID | | Trend |
|---|---|---|---|
| Very High | R95 | Nuclear attack by a state on the UK mainland or UK overseas interests. | Static |
| | R76 | Drought | Static |
| | R12 | Non-state nuclear attack – urban area | Static |
| | R21b | Attack on UK electricity infrastructure – Cyber | Static (R21 - 2024) |
| | R89 | High-Electromagnetic Pulse (HEMP) | Static |
| | R50A | Failure of National Electricity Transmission System | Static |
| | R14 | Biological attack unenclosed urban area | Static |
| | R78 | Pandemic | Static |
| | R73 | High Temperatures and heatwaves | Static |
| | R75b | Fluvial Flooding | Static |
| | R16a | Chemical attack – unenclosed urban area | Static |
| | R16b | Chemical attack – enclosed urban area | Static |
| | R21a | Attack on UK electricity infrastructure – conventional | Static (R21-2024) |
| | R22b | Malicious attack on civil nuclear installations – Cyber | UP (spilt from R22 2024 and increased) |
| | R07 | Malicious Rail Network Attack | Static |
| | R23a | Malicious attack on fuel supply infrastructure – Conventional | Static (R23 –2024) |
| | R23b | Malicious attack on fuel supply infrastructure – Cyber | Static (R23- 2024) |
| | R75c | Surface Water Flooding | Static |
| | L54a | Fires in purpose-built high-rise flats | UP |
| | R64 | Food Supply Contamination | UP |
| | R79 | Outbreak of an Emerging infectious disease | Static |
| | R71 | Severe Space Weather | Static |
| | R74 | Low temperatures and snow | UP |
| | R17 | Chemical, Biological or Radiological attack on water supply infrastructure | Static |
| | R19 | Conventional attack on chemical infrastructure | Static |
| | R40d | Marauding terrorist attack - firearms | UP |
| | R02 | Conventional attack on government | Static |

| | | |
|---|---|---|
| | **R40b** Land based terrorist attack - improvised explosive device | Static |
| High | R52 Civil Nuclear Accident | Static |
| | R22a Malicious attack on civil nuclear installations – conventional | Static (split from R22 2024) |
| | R48 Loss of Positioning, Navigation and Timing (PNT) Services | Static |
| | L71a Large Aircraft incident in proximity to Airport | UP |
| | R08 Malicious Aviation Incident | Static |
| | R80a Major outbreak of foot and mouth disease | UP |
| | R51Failure of Gas Supply Infrastructure | Static |
| | R40 Rail Accident | Static |
| | R44 Accident involving high consequence dangerous goods | Static |
| | R46 Malicious Drone Incident | Static |
| | R49 Simultaneous loss of all fixed and mobile forms of communication | Static |
| | R80b Major Outbreak of Animal Disease – Avian Influenza | UP |
| | L19 Groundwater Flooding | Static |
| | R75a Coastal Flooding | Static |
| | R77 Poor Air Quality | Static |
| | R20a Attack on UK gas infrastructure – conventional | Static |
| | L54e Major fire in care homes and hospitals | UP |
| | R23a Malicious attack on fuel supply infrastructure – Conventional. | Down (split from R23 2024) |
| | R23b Malicious attack on fuel supply infrastructure - Cyber | Down (split from R23 2024) |
| | R72 Storms | Static |

| | | |
|---|---|---|
| | R15 Radiological attack – unenclosed urban area | Static |
| | R09 Malicious Maritime Incident | Static |
| | R20b Attack on UK gas infrastructure – Cyber | Static (R20 2024) |
| | R15 Radiological attack – unenclosed urban | Static |
| | R55bTechnological failure at a UK critical financial market infrastructure | Static |
| | R82 Public Disorder | Static |
| | R84 Industrial action -firefighters | UP |
| | R87 Reception and Integration of British Nationals Arriving from Overseas | UP |
| | R24 Cyberattack - health and social care system | Static |
| | R04a Person-borne improvised explosive device | Static |
| | R04c Marauding attack (low sophistication | Static |
| | R05b Maritime Terrorist Attack – Marauding Terrorist Firearms attack on a passenger ferry | Static |
| | R67 Volcanic eruption | Static |

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# Assessment of Risk 2025

# Emerging Trends and Future Risks: Operational Horizon Scanning Workshop Series

## Method

2025

# Purpose and Approach

## Purpose

The purpose of the workshop series is to identify and prioritise new and emerging operational risks and trends for inclusion in the Assessment of Risk for London (AoR).

## Output:

- A report that summarises analysis of emerging trends and future operational risk, with priority areas identified. This report is to form Layer Four of the AoR
- A report that summarises, in the consensus view of workshop attendees, those emerging trends and future risks that have the widest gap between potential impact and current Brigade preparedness. This assessment should be used to prioritise resource allocation to any work needed to address the gaps.

## Approach

The workshop series is designed to bring to draw together the Brigade's various sources of risk information including departmental horizon scanning to develop a shared understanding of future operational risk and emerging trends. Subject matter experts, policy owners and key stake holders were identified by Strategic Planning and brought together for a series of two workshops. Representatives were sought from the following departments.

- Ops Policy and Assurance
- Ops Resilience and Control
- Prevention
- Protection
- Medical intervention and IEC
- Business Continuity
- Business Intelligence
- Fire Investigation
- Central Operations
- Performance and Business Intelligence

The structure of the workshop series is informed by The Cabinet Office for Science, Futures Toolkit.

**Future Toolkit**

The workshop series in 2025 took place in February to feed the AoR update

## Workshop One detail

Workshop one focusses on identifying emerging trends and future risks in the operational environment.

Prior to workshop 1 delegates are asked to conduct their own analysis of emerging trends and future risk identified in their own departments and areas of expertise

Strategic Planning carry out desk research on trends and risks with support from the business intelligence team for presentation at the beginning of workshop one.
Delegates are placed into multi-disciplinary syndicates of four to six.

Guest speakers present information on risk in areas of concern identified by strategic planning.

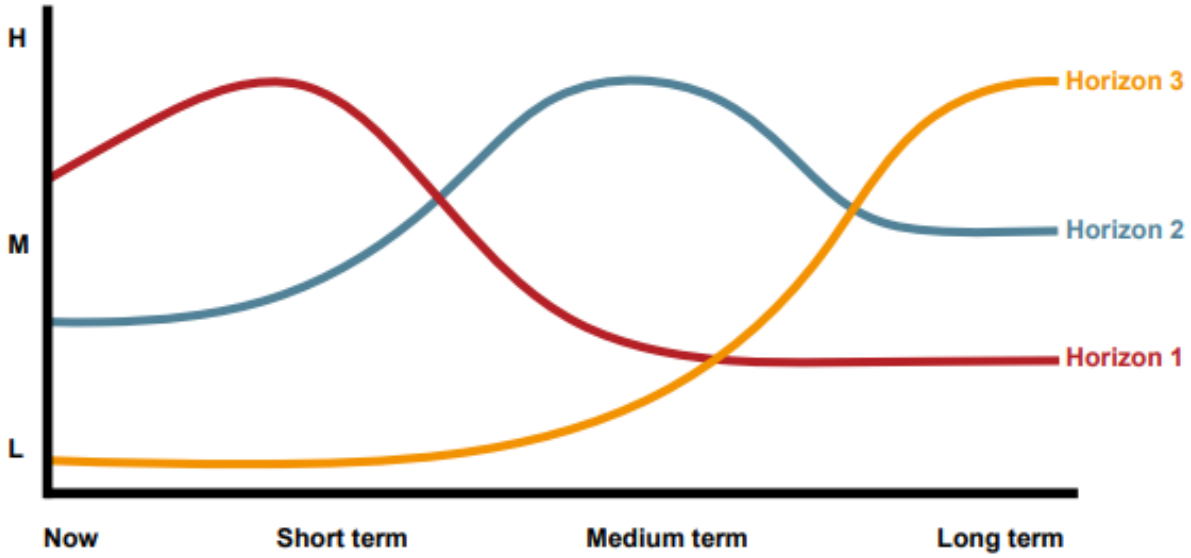
Delegates are presented with the seven NFCC contexts; Industry, Height, structures and confined spaces, Transport, Utilities and fuel, Major incidents, Geophysical hazards, Terrorist attacks with an eighth context of social and demographic change.

Syndicates are asked to discuss and record their identified risks and trends for each context using a grid to position each trend or risk against its level of concern using a Red Amber Green system.

Syndicates are also asked to identify the predominate area of concern; firefighter harm, environmental harm, public harm and operational demand and to sate which horizon the risk as viewed as falling into. This gives a measure of the immediacy of the hazard.

**Three Horizons concept**

**Horizon 1 issues** are strategically important now.
They are visible and are generally the issues that we are responding to now or concerned about right now. Ideally H1 issues will become less important over time as policy and strategy develops.
**Horizon 2 issues** will develop in a way that may not be apparent yet, but many of the key trends and factors – the change drivers – are already in play. The task for policy makers and strategists is to look at these issues closely, to explore the possible outcomes and to adapt policy and strategy in anticipation of future need
**Horizon 3 issues** are new challenges that will emerge, but the change drivers are difficult to see in the present. It is not clear how H3 factors will develop The task here is therefore to identify and track the drivers that will shape H3



The recording grid is prepopulated with concerns raised in previous years with additional space for new concerns.

**Example:**

| Ref | 2024 Finding | RAG | Harm Type | Horizon | No longer a concern? | Comment/Explanation |
|---|---|---|---|---|---|---|
| 1.A | New processes such as automation reducing staff at industrial buildings reducing live information sources to LFB on arrival at incidents. | | | | | |
| 1.B | Increased fires in waste recycling plants as new fuels including lithium-ion age and reach end of life. | | | | | |
| 1.C | Concerns about impact of alternative fuels on operational incidents including the creation of contaminated water run off due to the presence of minerals and metals in the fuels. | | | | | |
| 1.D | Erosion of trust in emergency services and their instructions leading to changed public behaviour exacerbated by cyber-attacks and AI misuse | | | | | |
| 1.E | Geopolitical tensions affecting operations through increased incident demand and malicious threats. | | | | | |
| 1.F | Higher operating and living costs leading to reduced maintenance across private and public property and infrastructure leading to increased demand on emergency services through equipment, plant and system failures. | | | | | |
| 1.G | Terrorism threats and security challenges. | | | | | |
| 1.H | Design of mega warehouses leading to large areas of fire spread and complicated internal structures within buildings hampering firefighting and rescue | | | | | |
| 1.I | New Concern | | | | | |
| 1.J | New Concern | | | | | |
| 1.K | New Concern | | | | | |

Once completed each syndicate rotated through a series of consensus building sessions until broad consensus had been reached amongst the whole group regarding risks, trends and levels of concern.

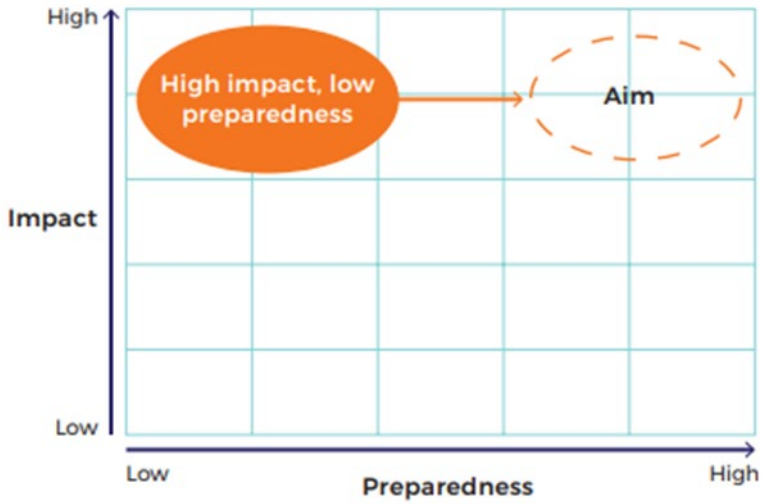
## Workshop Two detail

The methodology employed to identify and assess perceived preparedness gaps within LFB was taken from the framework outlined in the Royal Academy of Engineering's report, Building Resilience: Lessons from the Academy's Review of the National Security Risk Assessment Methodology.

This approach emphasizes evaluating risks based on the potential impact and the current state of preparedness, rather than solely on the likelihood of occurrence. This distinction is crucial, as it shifts the focus toward understanding the consequences of high-impact events and the existing capabilities to manage them, irrespective of their probability.

Workshop two attendees were then presented with findings from workshop one. They engaged in collaborative guided discussions to evaluate LFB's current capabilities—encompassing equipment, training, personnel, and vehicles among other control measures—against these identified risks.

The assessment process specifically utilized a tool from the Building Resilience report to allow participants to indicate their perception of current organisational preparedness against perceived impacts. Each participant worked with a group of 6-9 other participants to position risks on the following matrix taken from the Building Resilience report.



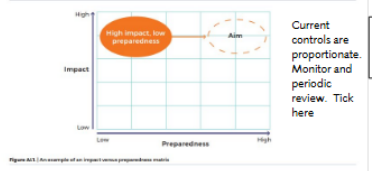

**Royal Academy of Engineering:** building resilience: lessons from the Academy's review of the National Security Risk Assessment methodology. [https://raeng.org.uk/media/g31bttwt/raeng-building-resilience.pdf](https://raeng.org.uk/media/g31bttwt/raeng-building-resilience.pdf)

Sessions were guided by Strategic Planning, but focussed on scenarios, concerns, and discussion generated by participants. A key aspect of this approach was the emphasis on consensus-building among participants to determine the alignment between the anticipated demands posed by future risks and the LFB's preparedness to manage it. This collaborative process ensured that the assessment was grounded in the views of LFB staff and officers currently working in subject matter areas. For each risk a consensus position was reached and recorded on a recording table, example below.

**Risk Theme: Potential casualties' size, shape and weight (body habitus) increasing and potentially exceeding current equipment and training. 4F**

Are current controls appropriate and proportionate?

i.e. The impact may be high, but preparedness is also high, so we have proportionate controls



Current controls are proportionate. Monitor and periodic review. Tick here

Is there a potential preparedness gap?

i.e. The impact high, but preparedness is low

There is a mismatch between our level of concern and preparedness meaning there may be a control measure gap. Cross on the chart to indicate perceived level of organisational preparedness and impact or severity of the risk taken from workshop 1.

If gap identified use table to show area for possible new risk controls

| Suggested areas for additional control measures | Suggested lead department and/or comments |
|---|---|
| Policy changes ✓ | *OPA lead department* |
| Training uplift ✓ | *Consider training on bariatric lifting and moving* |
| Equipment ✓ | *Consider aids to movement similar to NHS ~~Abtech SLIX 1000 Stretcher~~* |
| Vehicles | |
| Lobbying (legislation) | |
| Protection/Enforcement | |
| Prevention/community work | |
| NOG implementation | |
| Additional capacity in an area of work | |
| Changes to a service strategy | |
| Enhanced monitoring through data collection and reporting ✓ | |
| Brigade Infrastructure, support services and IT | |
| Other | |

# Context 1. Industry

| Ref | 2024 Finding | RAG | Harm Type | Horizon | No longer a concern? | Comment/Explanation |
|---|---|---|---|---|---|---|
| 1.A | New processes such as automation reducing staff at industrial buildings reducing live information sources to LFB on arrival at incidents. | A | F | H2 | | |
| 1.B | Increased fires in waste recycling plants as new fuels including lithium-ion age and reach end of life. | A | FP | H1 (grouped in H2) | | Based Environmental harm context |
| 1.C | Concerns about impact of alternative fuels on operational incidents including the creation of contaminated water run off due to the presence of minerals and metals in the fuels. | R | E | H1 | | |
| 1.D | Higher operating and living costs leading to reduced maintenance across private and public property and infrastructure including places of large social gathering. This specific concern relates to resulting failure in plant, equipment and infrastructure that result in larger or more frequent fire service incidents | R | PFED | H1 –H2 | | Aging Buildings and Plant with delayed Impact |
| 1.E | Design of mega warehouses leading to large areas of fire spread and complicated internal structures within buildings hampering firefighting and rescue | A | FED | H1 (grouped in h2) | | Needs legislative support |
| 1.F | New Concern Giga Battery Factories | A | FEO | H2 | | |
| 1.G | New Concern Large Data centres with high energy density demand becoming involved in fire service incidents | G | | H2 | | |

# Context 2. Transport

| Ref | 2024 Finding | RAG | Harm Type | Horizon | No longer a concern? | Comment/Explanation |
|---|---|---|---|---|---|---|
| 2.A | Impact of wide area flooding on transport network including flooding of underground transport, tunnels and infrastructure. | R | PFED | H1 | | |
| 2.B | Alternative fuels becoming involved in fire within the transport network including electric and hydrogen buses and private vehicles in difficult to access locations within the network and within major transport hubs | R | PEF | H1 | | |
| 2.C | Challenges with evacuating vulnerable people within the transport network | G | P | H1 | | |
| 2.D | Car Park Incidents. Concerns regarding the weight of vehicles, aging buildings, increased fire loading due to new vehicle designs and concerns regarding designs for autonomous vehicles. | R | PFED | H2 | | Some H1 aspects |
| 2.E | Autonomous Vehicles and drones, including drone and autonomous delivery vehicles, initiating fire service incidents through collision or malfunction. | A | P | H2 | | |

# Context 3. Utilities and Fuel

| Ref | 2024 Finding | RAG | Harm Type | Horizon | No longer a concern? | Comment/Explanation |
|---|---|---|---|---|---|---|
| 3.A | Proliferation of alternative fuels, including photo voltaic arrays, and changing user profile over time leading to increasing number of alternative fuel fires. | R | PFED | H1 and H2 | | |
| 3.B | Public tampering with lithium-ion batteries leading to battery involved fires | R | PFED | H1 | | |
| 3.C | Lack of safe disposal systems for lithium-ion batteries | A (Grouped with red) | FPE | H1 | | |
| 3.D | Increasing number of Electrical vehicle fires as ownership increases and existing vehicles age. | A | PE | H2 | | |
| 3.E | Degradation of water supply infrastructure causing flooding and interruption to water supply including that used for firefighting. | G | PED | H1 | | |
| 3.F | Cost of living crisis leading to unsafe heating and uses of improvised or substandard heating devices | G | P | H1 | | |
| 3.G | Introduction of Hydrogen as a domestic fuel leading to domestic fires involving hydrogen. | G | PF | H1 | | |
| 3.H | Public protests against fuel price increases leading to incidents to which LFB will respond | G | PF | H1 | No longer a concern. No real process of escalation (last minute protests) | |
| 3.I | Cyber-attacks against critical infrastructure leading to incidents to which LFB might respond | G | | H1 | | |
| ~~3.J~~ | ~~National Blackout N.b. appears in layer 3 of AoR on London Risk Register~~ | ~~A~~ | ~~PF~~ | | | ~~Removed and passed to risk and assurance, appears in AoR layer 3~~ |

# Context 4. Height, Structures and Confined Space

| Ref | 2024 Finding | RAG | Harm Type | Horizon | No longer a concern? | Comment/Explanation |
|---|---|---|---|---|---|---|
| 4.A | Rescue from extreme height/complexity e.g. London eye, cable car etc | A | PF | H1 | | Reputational Risk related to training and equipment |
| 4.B | Rescue from horizonal and vertical deep penetration | R | PF | H1/2/3 | | Concern around training and response time |
| 4.C | Failed fixed installations (tall and deep) e.g. falling main, sprinklers, smoke control, FF lift. | A (grouped with red) | PF | H1+2 | | |
| 4.D | Excavation of land under existing property and, “high risk,” construction leading to complex collapse and entrapment. | A | P | H1+2 | | Concern around training and response time |
| 4.E | Subsurface water rescue including persons trapped by water in car and person trapped underwater. | A | P | | | Reputational Risk related to training and equipment |
| 4.F | Potential casualties size, shape and weight (body habitus) increasing and potentially exceeding current equipment and training. | A | PF | H1 H2 | | Equipment /Training Capability gap from “health” to deal with removal of individuals |
| 4.G | Person in Crisis. Following from JOL action note with reference to noted trend in increasing volume of calls to associated ITCs | A | PFFD | H1 H2 | | Equipment and training implications |

# Context 5. Demographic, Social and Operational Trends

| Ref | 2024 Finding | RAG | Harm Type | Horizon | No longer a concern? | Comment/Explanation |
|---|---|---|---|---|---|---|
| 5.A | Social unrest, protests, and riots leading to increased operational Demand. | R/A no consensus | FPD | 1 | Is this now BAU? | There is a concern now, but will this worsen? Concern also linked to cost of living exacerbating social pressures |
| 5.B | Increasing frequency of incidents associated with mental ill-health due to increasing prevalence and identification in the community. | R/A | D | 1,2,3 | | Noting that identification of mental health is different now, so prevalence and identification are not independent. |
| 5.C | Health inequality and aging population leading to higher demand for services. | R/A | D | 1,2,3 | | |
| 5.D | Impact of mis/disinformation, social media and AI misuse that specifically erodes trust and confidence in LFB, reducing effectiveness of interventions and risk controls. | G | D | H 1, 2,3 | | This factor might drive 5.A and 5.K |
| 5.E | Geopolitical tensions affecting operations through increased incident demand and malicious threats. | G | PD | H1 | | |
| 5.F | Impact of increasing air pollution. | G | P | H3 | | Too early to remove from concerns – monitor only |
| 5.G | Challenges with poverty, leading to adoption of unsafe behaviours | A (grouped with red) | P | 1 | | Clarification from 2024 to state that it is adoption of unsafe behaviours due to poverty that is the risk |
| 5.H | Urban overcrowding reflected in overcrowded shared accommodation. i.e. multiple sleeping risks in small spaces and single rooms used by multiple occupants. | A | P | 1 | | Clarified from 2024 to articulate effect is on specific groups in shared and overcrowded accommodation |
| 5.I | Increase in domiciliary care. Failures within this system leading to incidents of harm | A/R | | | | |
| 5.J | Increase in incidents associated with social media trends and challenges leading to harmful behaviour or fire risks. | G | P | | | Harmful content proliferates |

# Context 5. Demographic, Social and Operational Trends

| Ref | 2024 Finding | RAG | Harm Type | Horizon | No longer a concern? | Comment/Explanation |
|---|---|---|---|---|---|---|
| 5.K | New Kitchen gadgets increasing range of methods possible new risks | G | P | 2,3 | | E.G adoption of air fryers and pizza ovens |
| 5.L | PEEPs and increasing demand due to worried well increasing demand for PE EPs through inappropriate use | G | D | 2 | BAU | A demand management issue rather than a risk |
| 5.M | Rise in Safeguarding issues linked to social changes | A (grouped with red) | P | 2,3 | | |

# Context 6. Geophysical Hazards

| Ref | 2024 Finding | RAG | Harm Type | Horizon | No longer a concern? | Comment/Explanation |
|---|---|---|---|---|---|---|
| 6.A | Increasing likelihood of surface water flooding, urban flash flooding and wide are a flooding due to climate change and urban development . | R | PFED | 1 | | Concern regarding PPE and Training. A perceived poor operational response leading to reputational damage. Linked to operational constraints of training and equpment. |
| 6.B | Increasing frequency and severity of wildfire and outdoor vegetation fires at rural urban interface | A | PFE | H1 and 2 | | Concern regarding PPE/RPE equipment and public expectation linked to worldwide media |
| 6.C | Increasing prevalence of sinkholes and land movement due to higher peak rainf all driven by climate change. | A | | | | |
| 6.D | Increased frequency of high wind related incidents and storms due to climate ch ange leading to structural damage and disruption including through wind-blown t rees across wide areas. | A | DP | 1 | | Protracted attendances by crews. Performance of aging buildings, local boroughs no longer able to respond |
| 6.E | Issues such as drought and heatwave impacting operations through increased demand, water supply disruption and physiological impacts on crews Combined with 6A,6B and 6C | A | PD | H1-3 | | Water Supply disruption as main concern |
| 6.F | Increasing interaction with contaminated water due to high rainfall impacts on water systems and impacts of wide area flooding. | A (combi ned with red) | PF | | | Concern around PPE and training |
| 6.G | Increasing demand for ISAR support internationally due to climate change leading to high demand on small group of staff and impacts on capability availability within London. | G | P | | | |

# Context 7. Major Incidents

| Ref | 2024 Finding | RAG | Harm Type | Horizon | No longer a concern? | Comment/Explanation |
|---|---|---|---|---|---|---|
| 7.A | Increasing risk of requirement for mass evacuation and relocation of residents driven by climate change. | A | EDP | 1 | | Lower probability than 7.b but high impact |
| 7.B | Managing flooding impacts as frequency and severity of flooding increases due to climate change. | R | EDP | 1 | | |
| 7.C | Increasing number of large incidents, multi-site incidents and incidents with high resource utilisation leading to challenges with managing operational information flow, developing a shared operating understanding pan London, and in managing simultaneous demand of different major or significant incident simultaneously. | A | DP | 1 | Should become BAU | |
| 7.D | Increasing likelihood of outages and blackouts affecting business community including operations and communications and driving demand in the community. | A | DP | 2-3 | | Concerns regarding malicious attacks and carbon net zero |
| 7.E | Managing cross-border and national incidents as regional impacts of incidents like flooding. Linked to op Willowbeck | R | DEP | 1 | | Training capability and resource requirements |
| 7.F | Crushing Incidents at mass attendance events | Unscored | | | | |

# Context 8. Terrorism/Attacks

| Ref | 2024 Finding | RAG | Harm Type | Horizon | No longer a concern? | Comment/Explanation |
|---|---|---|---|---|---|---|
| 8.A | A concern of malicious threats developing directed at emergency responders such as malicious calls used as traps. | A/G | FD | H1,2,3 | | Rising attacks on responders perceived but no specific evidence in LFB to date |
| 8.B | Increasing sophistication of threat through state aligned actors. | R/A | PFED | H1,2,3 | | Iran, Russia and North Korea named |
| 8.C | Increasing political extremism driving threat including through low sophistication lone actors. | R/A | PDF | H1,2,3 | | Self-Initiated terrorists – bladed and blunt weapon methodology |
| 8.D | Attacks against critical national infrastructure leading fire service incidents. | R | PFED | H1,2,3 | | Fire as an act of sabotage |
| 8.E | Attacks against places of worship increasing due to community tensions. | R | | H1,2,3 | | |
| 8.F | Threats from foreign states due to geopolitical factors. | R | | H1,2,3 | | |
| 8.G | Blurred lines between state and criminal actors leading to wider range of threats. | R | | H1,2,3 | | Ukrainian Aid and Russian Invasion |
| 8.H | Cybersecurity threats leading to impacts on response capability. | R | | H1,2,3 | | |
| 8.I | Malicious use of drones leading to fire service response incidents. | A | | H1,2,3 | | Concern regarding drone as a weapon |
| 8.J | Resource and societal challenges including local authority resource pressures impacting prevention work, increase in incidents motivated by local tensions, the impact of misinformation on public behaviour | R | | H1,2,3 | | |

# Context 9 Built Environment

| Ref | 2024 Finding | RAG | Harm Type | Horizon | No longer a concern? | Comment/Explanation |
|---|---|---|---|---|---|---|
| 9.A | Concerns about modern construction methods, building regulations, and compliance with industry standards including the development of cross laminated timber structures and modular construction methods and performance during fire or collapse. | R | PFD | H1 | | |
| 9.B | Challenges with evacuation in high-rise buildings during a fire where engineered solutions have failed or do not exist, specifically those above 30 floors. This is due to operational constraints on the ability to penetrate the building sufficiently and in breathing apparatus. This concern is exacerbated by the increasing's number and height of buildings at or above this level. | R | PFF | H1 | | New wording drafted TBC workshop 2 Red risk specifically applies to penetration in BA above24/30 floors |
| 9.C | Lack of personal evacuation plans, especially for vulnerable people. | A | PF | | | |
| 9.D | Electric and traditional fuel vehicle fires in underground car parks | A | PF | | | |

LONDON FIRE BRIGADE

# Academic and Professional Review Panel for the London Fire Brigade (LFB) Assessment of Risk (AoR) 2025

## Terms of Reference

2025

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# 1 Purpose

The purpose of the panel is to provide academic and subject matter expert (SME) feedback on the London Fire Brigade (LFB) Assessment of Risk (AoR), paying particular attention to the robustness and defensibility of the approach to assessing risk in London.
Feedback will be considered by LFB within the constraints of time, capacity and need regarding any actions taken. Feedback from the panel may be addressed or included in subsequent updates to the Assessment of Risk.

# 2 Ultra Vires (Beyond the Powers of)

The panel shall not act as a decision-making body nor impose any mandate for LFB to adopt feedback as policy. Feedback will be fed into existing Brigade decision making structures.

# 3 Responsibilities

The panel's responsibilities include:

i. Evaluate the LFB Assessment of Risk document and methodology against best practice in individual area of expertise.
ii. Provide evaluation of level of robustness and defensibility of methodology and approach to risk assessment resulting in a panel statement of either support for the AoR (which may include areas requiring improvement) or a statement including reasons for disagreement with the AoR.

# 4 Members

i. The Evaluation Panel shall have a maximum of 15 members.
ii. The Evaluation Panel shall be formed of external academic, and practitioner subject matter experts selected by the LFB Strategic Planning team.
iii. Academic Experts will hold a PhD in a related discipline, be research active with published work with relevance to emergency services or emergency planning from the last 3 years.
iv. Practitioner Experts will be currently working at senior level in a risk management related discipline in either the private or public sector with a specific skill set related to emergency planning, risk assessment or management or catastrophe modelling.
v. The Evaluation Panel shall be chaired by a suitable and qualified person appointed by the Strategic Planning team.

# 5 Proposed Panel Composition 2025

| **Chair: Jeremy Reynolds (London Resilience)** |
|---|

| **Academic Experts** | | **Practitioner Experts** | |
|---|---|---|---|
| **Dr Bayes Ahmed** | UCL (Institute for risk & disaster reduction) | **Richard Abbot** | West Sussex FRS |
| **Professor David Alexander** | UCL (Institute for risk & disaster reduction) | **Matthew Addison** | London Resilience |
| **Professor Sara Hadleigh-Dunn** | University of Portsmouth | **Graham Holland** | Operational Modelling |