

LONDON RISK REGISTER

London Resilience Partnership Risk Register

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The London Resilience Unit is part of the Greater London Authority.
We deliver and coordinate resilience services on behalf of the London Resilience Partnership and London Local Authorities.

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1 Introduction

1.1 Purpose of the London Risk Register

The London Risk Register is designed to provide a summary of the main risks affecting Greater London. This document is for use by the London Resilience Partnership and members of the public and is intended to inform organisational business continuity and emergency response planning. The partnership's collective assessment of risk (as represented by this Register) also drives the development of multi-agency response capabilities to respond to and recover from incidents.

This document is compiled and published yearly by the London Risk Advisory Group and is approved for publication by the London Resilience Forum.

The UK [National Risk Register](#) provides a similar outline of risk for the UK as a whole. Further risk assessments are conducted within each Borough Resilience Fora, providing additional information on locally specific risks and response arrangements.

1.2 Risk assessment methodology

This version of the London Risk Register is aligned to the 2022 National Security Risk Assessment (NSRA, available on Resilience Direct to LRF partners only), with changes made to the methodology where necessary to contextualise for London. For more detail on the risk assessment methodology see [Appendix 1](#).

Planning is based on 'reasonable worst-case scenarios' informed by historical and scientific data, modelling, and professional expert judgement of both the likelihood and impact of a risk. Likelihood is expressed as the "annual likelihood of each RWCS occurring, with the assessment valid for two years". Impacts are rated between "Limited" (1) and "Catastrophic" (5). The likelihood and impact scores are combined to give an overall risk rating. The inclusion of a risk does not mean it is expected to happen, nor that the impact would be as serious as the description provided.

1.3 Understanding the Risk Register

Risks are grouped by theme and presented in order of overall rating within that theme, with highest risks first. Themes are based on common features and consequences, which makes it easier to understand the risk in context and to consider which risks might influence, or be influenced by, others. Risk themes are;

- accidents and system failures;
- human and animal disease;
- societal risks;
- natural hazards;
- cyber-attacks;
- terrorist threats.

Eleven maritime-related risks are also contained with the Thames Risk Register, coordinated by the Port of London Authority in conjunction with relevant partners. A number of these risks are similar to those contained within this document but have emphasised the maritime aspect of those risks as opposed to 'land-side'. Readers should be aware of the distinction between these two risk registers and should not consider one at the expense of the other.

The headings (and their definitions) used on the London Risk Register are as follows;

Risk ID Rating	Sub-Category Lead	Outcome Description	Likelihood	Impact	Controls in Place	Last Review Next Review
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Risk ID: Unique reference number for each risk. R denotes risk also appears on the National Security Risk Assessment.

Rating: Overall risk rating based on likelihood and impact.

Sub-category: In some cases, risks are sub-categorised for ease of comparison with similar risks.

Lead: The organisation responsible for the assessment of the risk in London.

Outcome Description: A summary of the reasonable worst-case scenario used to inform the risk.

Likelihood: Assessed from 1-5 where 1 is the least likely and 5 more likely. (A table with probabilities associated with each score is available at the end of this document.)

Impact: Assessed from 1-5 where 1 is the lowest impact and 5 more impactful.

Controls in place: Plans and procedures in place to mitigate this risk.

Last review / next review: Dates of the last review of that risk, and planned date for the next review.

1.4 Frequency of risk review

All risks with an overall rating of “Very high” and “High” are reviewed yearly, with other risks reviewed every two years. Review dates are provided in the right hand column of the register.

New risks will be reviewed the year after they are introduced to capture any new learning and will thereafter be reviewed yearly or every two years, as appropriate.

1.5 Controls

Controls specific to the type of incident referred to are listed in the register below. In addition, there are many generic plans, procedures and principles that support multi-agency working in incident response and national initiatives that are used to aid responders in complex situations. These include:

- [London Emergency Services Liaison Panel](#) (LESLP)
- [London Strategic Protocol](#) (SCP)
- [Joint Emergency Services Interoperability Principles](#) (JESIP)
- Pan-London emergency response plans and frameworks available on london.gov.uk covering generic response procedures, consequence based planning for use in various incidents, and incident-specific plans.

Unlike many other risk registers, the controls listed here are not intended to lessen risk scores (ie. by reducing likelihood or ameliorating impact) as the controls in this case refer to consequence management.

1.6 Chronic Risks

Chronic risks are distinct from acute risks contained in the main section of this register, in that they pose continuous challenges that erode our economy, community, way of life, and/or national security. Generally, but not always, these manifest over a longer timeframe. While chronic risks also require robust government-led responses, these tend to be developed through strategic, operational or policy changes to address the challenges rather than emergency civil contingency responses. Acute risks on the other hand are risks that may require an emergency response from government, such as wildfires or biological attacks.

The National Security Risk Assessment (2023) separated acute and chronic risks, placing 26 chronic risks across six themes in an appendix. The London Risk Register aligns itself with that approach; the national list of chronic risks can be found in Appendix 4.

2 London Risk Matrix

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 Non-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 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 R75c Surface Water Flooding	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	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 R62 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					

3 London Risk Register

3.1 Accidents and System Failures

Risk ID rating	Lead	Outcome Description	Likelihood	Impact	Controls in place	Last Review Next Review
R50a VERY HIGH	UK Power Network	<p>Failure of National Electricity Transmission System</p> <p>A total national blackout due to the loss of the GB National Electricity Transmission System caused by damage to or technical failure of the transmission network. The technical recovery process (Black Start) could take up to 5 days; however, there is the potential for wide area power disruptions for up to 14 days, potentially affecting millions of consumers.</p>	3	5	<p>Utilities' testing and maintenance regimes.</p> <p>UK Power Network Energy System Emergency Plan.</p> <p>UK Power Network PN Energy Emergency Communication Plan.</p> <p>UK Power Network Energy Black Start Plan.</p> <p>Business Continuity Plans.</p> <p>London Resilience Partnership Power Supply Disruption Framework</p>	<p>Oct 2024</p> <p>Oct 2025</p>
R64 VERY HIGH	Local Authority	<p>Food Supply Contamination</p> <p>A major contamination incident involving a microbiological pathogen in the food chain. This would cause illness, hospitalisation and possible fatalities over a period of time and an overall response time of months.</p>	4	4	<p>Food Safety Act 1990.</p> <p>Food Safety and Hygiene (England) Regulations 2013.</p> <p>Monitoring of imports.</p> <p>Local Authority Environmental Health Sampling</p> <p>Public Health England monitoring and surveillance.</p> <p>Food Standards Agency plans.</p>	<p>Dec 2024</p> <p>Dec 2025</p>

Risk ID rating	Lead	Outcome Description	Likelihood	Impact	Controls in place	Last Review Next Review
L54a VERY HIGH	London Fire Brigade	<p>Fires in purpose built high-rise flats</p> <p>Major fire in block of flats containing 80 compartments. Potential for up to 150 fatalities and 200 casualties.</p>	4	4	<p>Regulatory Reform (Fire Safety) Order 2005. Fire Safety Approved Document B. Fire & Rescue Services Act 2004. London Fire Brigade Guidance Note 29. London Fire Brigade Operational tactical and building plans. London Fire Brigade Urban Search & Rescue Teams (USAR). Fire Service National Resilience Assets. London Ambulance Service Hazardous Area Response Team (HART). Local Authority Dangerous Structures Engineer. Casualty Bureau. London Resilience Partnership Frameworks including:</p> <ul style="list-style-type: none"> • Mass Fatalities Framework, • Mass Casualties Framework, • Humanitarian Assistance Framework 	Oct 2024 Oct 2025
R46 HIGH	Metropolitan Police Service	<p>Malicious Drone Incident</p> <p>Malicious use of a drone at one major airport in the UK. The drone would enter the Flight Restriction Zone of the airport and provide a sufficient safety and/or security risk such that the airport takes the decision to close their airspace.</p>	3	3	<p>Civil Contingencies Act (2004) Civil Aviation Act (2012) Security sector and aviation industry reminders. Security systems to monitor and control access to restricted airspace. Police contingency plans and Service level agreements at London Heathrow and London City.</p>	Oct 2024 Oct 2025

Risk ID rating	Lead	Outcome Description	Likelihood	Impact	Controls in place	Last Review Next Review
R52 HIGH	London Fire Brigade	<p>Civil Nuclear Accident An accident at a UK civil nuclear site resulting in a large release of radiological material. A small number of onsite fatalities with additional off-site casualties from acute radiation sickness.</p>	1	5	<p>London Fire Brigade policies:</p> <ul style="list-style-type: none"> • policy number 0602 - incidents involving ionising radiation. • policy number 0891 - CBRN(E) initial operational response • policy number 797 Detection identification and monitoring <p>London Resilience Partnership Frameworks including:</p> <ul style="list-style-type: none"> • CBRN(e) Framework • Mass Fatalities Framework, • Mass Casualties Framework, • Humanitarian Assistance Framework 	Dec 2024 Dec 2025
R55b HIGH	Business Sector panel	<p>Technological failure at a UK critical financial market infrastructure Technological systems failure that causes an outage of a systemically important UK financial market infrastructure lasting at least five days. This would significantly impact the processing of financial transactions, which might include interbank transactions, central securities depositories, payment systems and central counterparties.</p>	5	3	<p>Financial Authorities Response Framework Conduct Authority Financial services Sector legislation and regulation. Business Continuity Management. The Sector Response Framework.</p>	Dec 2024 Dec 2025

Risk ID rating	Lead	Outcome Description	Likelihood	Impact	Controls in place	Last Review Next Review
R40 HIGH	Transport for London	Rail Accident Up to 30 fatalities and up to 100 casualties, (fractures, internal injuries - burns less likely). Possible loss of freight. Major disruption to rail line including possible closure of rail tunnel.	3	3	Railway and Transport Safety Act 2003. Railways (Access and Management) Regulations 2005. Railways (Accident Investigation and Reporting) Regulations 2005. Railways (Licensing of Railway Undertakings) Regulations 2005. Railways Act 2005. The Health and Safety (Enforcing Authority for Railways and Other Guided Transport Systems) Regulations 2006. The Railway Safety Levy Regulations 2006. The Railways Act 1993. Transport Act 2000. Health and Safety at Work Act 1974. The Railway (Safety Case) Regulations 2000.	Oct 2024 Oct 2025
R44 HIGH	London Fire Brigade	Accident involving high consequence dangerous goods A road or rail tanker containing dangerous goods and/or "high consequence" dangerous goods is involved in an accident leading to fire and an explosion. Up to 5 fatalities and up to 150 casualties. The explosion will cause varying degrees of damage to property and infrastructure depending on their distance from the incident. This risk could result in a toxic plume/gas cloud which would be harmful to the population, resulting in evacuation of the immediate area.	3	3	Health & Safety at Work Act 1974. Control of Substances Hazardous to Health Regulations 2002. Management of Health & Safety at Work Regulations 1999. Reporting of Injuries Diseases and Dangerous Occurrences Regulations.	Dec 2024 Dec 2025

Risk ID rating	Lead	Outcome Description	Likelihood	Impact	Controls in place	Last Review Next Review
R48 HIGH	Port of London Authority	Loss of Positioning, Navigation and Timing (PNT) Services A severe technical failure, due to either hardware failure or human error (e.g., software error, operator error), in the US Global Positioning System (GPS) satellite constellation leads to data corruption of the GPS service. The outage last for at least 30 days and restoration of full capability takes several more weeks.	2	4	Contingency planning for a large-scale incident of this type would remain with central government.	Nov 2023 Nov 2025
R49 HIGH	London Fire Brigade	Simultaneous loss of all fixed and mobile forms of communication Loss of fixed and mobile telecommunications (both voice service and internet access) The incident affects a region, impacting approximately 1,000,000 customers for 7 days.	3	3	Civil Contingencies Act 2004. Telephone provider demand and network capacity management strategies. Individual organisation Business Continuity arrangements. London Resilience Partnership Frameworks including: <ul style="list-style-type: none"> Responding to Telecommunications Disruption. 	Sept 2023 Sept 2024
R51 HIGH	Utilities Sector Panel	Failure of Gas Supply Infrastructure A technical failure or accident in an upstream oil/gas facility, gas import pipeline terminal, or Liquefied Natural Gas (LNG) import reception facility leading to disruption in UK gas supplies.	2	4	Department for Energy & Climate Change Upstream Crisis Management plan. HM Government Downstream Oil Emergency Response Plan (DOERP). Local Downstream Oil Emergency Response Plan (DOERP). UK Power Networks System Emergency Plan. London Resilience Partnership Frameworks including: <ul style="list-style-type: none"> Fuel Disruption Framework 	Nov 2023 Sept 2025

Risk ID rating	Lead	Outcome Description	Likelihood	Impact	Controls in place	Last Review Next Review
HL10 MEDIUM	Transport for London	Local accident on motorways and major trunk roads Major incident that may include a single vehicle or multiple vehicle collision resulting in causing up to 10 fatalities and up to 20 serious injuries. Closure of lanes or carriageway causing major disruption, and road diversion and delays	3	2	Traffic management cameras (CCTV and ANPR). Road Traffic Enforcement Officers. National Highways 'Static Vehicle Detection'. The Road Traffic Act 1988. The Road Vehicle (Construction and Use) Regulations 1986. The Traffic Management Act 2004.	Oct 2024 Oct 2026
HL22 MEDIUM	Local Authorities	Building Collapse Collapse of a large building (high-rise block, shopping mall etc). Up to 100 fatalities depending on the size and construction of building, and occupation rates, and 350 casualties. Potential for trapped or missing people. Localised loss of power and other essential services. Local access routes affected due to road closures.	1	3	Building control regulations enforced by Local Authorities. Construction, renovation, maintenance and demolition standards and enforcement. Emergency Services and other responder's specialist resources. Dangerous Structures Engineer. London Resilience Partnership Frameworks including: <ul style="list-style-type: none"> • Structural Collapse Framework • Mass Fatalities Framework, • Mass Casualties Framework, • Humanitarian Assistance Framework 	Nov 2024 Nov 2026

Risk ID rating	Lead	Outcome Description	Likelihood	Impact	Controls in place	Last Review Next Review
HL23 MEDIUM	Local Authorities	Bridge Collapse Roads, access routes and transport infrastructure impassable for considerable length of time. Severe congestion over wide geographical area. Emergency access into/out of large, populated areas severely restricted. Potential for trapped or missing people.	1	3	Building Control regulations enforced by Local Authorities. Regular inspections under the Highways Act 1980. Height and weight restrictions and signs reduce the likelihood of an incident. Local Authority Dangerous Structures Engineer. London Resilience Partnership Frameworks including: <ul style="list-style-type: none"> • Structural Collapse Framework • Mass Fatalities Framework, • Mass Casualties Framework, • Humanitarian Assistance Framework 	Dec 2024 Dec 2026
R36 MEDIUM	Local Authorities	Major Social Care Provider Failure The failure of a major domiciliary care provider affecting 20,000 vulnerable people and their families.	4	2	Contingency planning for a large-scale incident of this type would remain with central government. Local authority service continuity plans.	Nov 2023 Sept 2025
R37 MEDIUM	Local Authority	Insolvency of Supplier of Critical Services to public sector Insolvency of a supplier of critical IT services supporting operational systems or back-office processes integral to critical national services.	3	2	National government guidance. Financial Report Council and other regulators of financial services.	Sept 2023 Sept 2025
R39 MEDIUM	Utilities Sector Panel	Failure of a supplier of Critical National Infrastructure (CNI) Chemicals A supplier of chemicals essential for the operations of one or more UK Critical National Infrastructure (CNI) sectors suffers from operational failure within days or weeks.	4	2	Water sector running cross-Industry Chemicals Group. Cross-government emergency response coordinated within Cabinet Office.	Nov 2023 Sept 2025

Risk ID rating	Lead	Outcome Description	Likelihood	Impact	Controls in place	Last Review Next Review
R45 MEDIUM	London Fire Brigade	Aviation Crash An airborne collision between a large airliner over a major urban area killing all passengers and crew on board both aircraft (up to 200). It is likely that a small number of people or the ground are killed (up to ten) and injured (around 50) by falling debris. Debris would also cause damage to buildings and road and/or rail transport in the affected area.	1	4	Stringent controls on aircraft entering UK. Airspace including the mandatory use of Aircraft Collision Avoidance systems on heavy aircraft. Access to UK airspace is heavily regulated. Civil Aviation Authority Maintenance Flight safety standards exceed International Civil Aviation Organisation recommendations. Airline maintenance regimes subject to Civil Aviation Authority scrutiny and regulation. Strict controls over London Approach.	Dec 2024 Dec 2026
R47 MEDIUM	London Ambulance Service	Disruption of space-based services Collision of debris with a satellite in Low Earth Orbit (LEO) leads to a debris field that collides with and disrupts other satellites. This causes a cascade of debris impacting other satellites and creating further debris.	2	3	Monitoring by the International Space Station National Space Operations Centre - tracking data	Sept 2023 Sept 2025

Risk ID rating	Lead	Outcome Description	Likelihood	Impact	Controls in place	Last Review Next Review
R50b MEDIUM	UK Power Network	<p>Regional Failure of the Electricity Network</p> <p>A significant failure of the electricity network across several regions of Great Britain leading to the loss of electricity power of up to 3.5 million customers for up to 24 hours; up to 350,000 customers still off supply for up to 48 hours; up to 20,000 customers off supply for a week; and 1000 customers off electricity supply for up to 2 weeks.</p>	2	3	<p>Testing and maintenance regime.</p> <p>UK Power Networks System Emergency Plan.</p> <p>UK Power Networks Emergency Communication Plan.</p> <p>London Resilience Partnership Frameworks including:</p> <ul style="list-style-type: none"> • Power Supply Disruption Framework 	Nov 2023 Sept 2025
R53 MEDIUM	London Fire Brigade	<p>Radiation Release from overseas nuclear site</p> <p>A radioactive substance release that affects the UK because of a nuclear accident overseas e.g. at a waste storage facility. UK outcome could include initial food restrictions, potential transport disruptions and impacts to the health system including the presentation of worried well.</p>	1	4	<p>Emergency Preparedness and Public Information Regulations (REPPPIR) Radiation 2019.</p> <p>Control of Substances Hazardous to Health Regulations 2002.</p> <p>Control of Major Accident Hazard 1999 (COMAH) Regulations.</p> <p>The Dangerous Substances and Explosive Atmosphere Regulations 2002.</p> <p>Regulatory Reform (Fire Safety) Order 2005.</p> <p>Site Operators on-site contingency plans.</p> <p>Emergency Services specialist resources</p>	Nov 2022 Nov 2025

Risk ID rating	Lead	Outcome Description	Likelihood	Impact	Controls in place	Last Review Next Review
L54b MEDIUM	London Fire Brigade	<p>Fires in major entertainment and/or public building</p> <p>Major fire in a large public or commercial building such as a sports stadium, hotel, night club, tourist attraction, transport building, infrastructure, shopping centre or office block resulting in up to 50 fatalities and 250 casualties</p>	2	2	<p>Regulatory Reform (Fire Safety) Order 2005. Fire Safety Approved Document B. Fire & Rescue Services Act 2004. London Fire Brigade Guidance Note 29. London Fire Brigade Operational tactical and building plans. London Fire Brigade Urban Search & Rescue Teams (USAR). Fire Service National Resilience Assets. London Ambulance Service Hazardous Area Response Team (HART). Local Authority Dangerous Structures Engineer. Casualty Bureau. London Resilience Partnership Frameworks including:</p> <ul style="list-style-type: none"> • Structural Collapse Framework • Mass Fatalities Framework, • Mass Casualties Framework, • Humanitarian Assistance Framework 	Dec 2024 Dec 2026
R55a MEDIUM	Business Sector Panel	<p>Technological Failure at a Systemically Important Retail Bank</p> <p>A technological failure which renders a significant portion of a retail bank's IT inoperable. Immediate effects last for 48-72 hours, with some customers experiencing disruption for several weeks as backlogs are cleared and potentially also some permanent data loss or data corruption.</p>	4	2	<p>Financial services sector plans to deal with a surge in demand for consumer facing financial services. Communication plans to encourage consumer awareness which can be coordinated between HM Treasury, the Bank of England, and the Financial Conduct Authority. Collective incident response capability under the authorities response framework. Business continuity management plans for financial service sector firms and their regulators.</p>	Sept 2023 Sept 2025

Risk ID rating	Lead	Outcome Description	Likelihood	Impact	Controls in place	Last Review Next Review
R56 MEDIUM	London Fire Brigade	Accidental Fire or explosion at an onshore major hazard (COMAH) site A major fire and/or explosion occurs at a Control of Major Accidents Hazards (COMAH) site that produces, stores or uses significant amounts of flammable or explosive substance such as refineries or petrochemical manufacturing sites.	1	4	Control of Major Accident Hazard 1999 (COMAH) Regulations. The Dangerous Substances and Explosive Atmosphere Regulations 2002. Petroleum Regulations. Regulatory Reform (Fire Safety) Order 2005. Site Operators on-site contingency plans. Emergency Services specialist resources.	Nov 2023 Sept 2025
R57 MEDIUM	London Fire Brigade	Accidental Large Toxic Chemical Release from a COMAH site A large release of toxic chemical gas occurs from an onshore major hazard site manufacturing, using or storing dangerous substances.	1	4	Control of Major Accident Hazards Regulations 2005 (COMAH) Regulatory Reform (Fire Safety) Order 2005 Emergency Services and other responder specialist resources.	Nov 2023 Sept 2025
R58 MEDIUM	London Fire Brigade	Accidental fire or explosion on an offshore oil or gas installation Ignition of an accidental hydrocarbon release causes a fire and explosion on an offshore oil or gas installation. The incident would be local to the site, causing up to 30 fatalities and 30 casualties that would require hospitalisation.	1	4	Pipeline Safety Regulations 1996. Regulatory and industry measures including provision of maps for excavation. Emergency Services and other responder specialist resources	Dec 2024 Dec 2026

Risk ID rating	Lead	Outcome Description	Likelihood	Impact	Controls in place	Last Review Next Review
R59 MEDIUM	London Fire Brigade	Accidental fire or explosion at an onshore fuel pipeline An accidental fire or explosion occurs at an onshore fuel pipeline situated close to a populated (e.g. urban) area. The fire or explosion would affect up to 1km around site, causing between 10-100 fatalities and between 50-500 casualties.	1	4	The Pipeline Safety Regulations (PSR) 1996. Fuel pipelines are operated under a mature regulatory regime (Pipeline Safety Regulations). Regulatory and industry measures including provision of maps for excavation. Emergency Services and other responder specialist resources.	Dec 2024 Dec 2026
R60 MEDIUM	London Fire Brigade	Accidental fire or explosion at an onshore major accident hazard pipeline Localised industrial accident involving a chemical release caused by release of chlorine or a number of other chemicals e.g., anhydrous hydrofluoric acid, refrigerated ammonia, sulphur di-oxide (or trioxide) gas. This incident arises from possible mechanical equipment/process failure or corrosion, and not necessarily involving fire or explosion, leading to up to 10 fatalities and up to 100 casualties up to 1km around site.	2	3	Control of Major Accident Hazards Regulations 2005 (COMAH). Regulatory Reform (Fire Safety) Order 2005 Site operators on-site plan. Fire and Rescue Service: bulk foam plans, Environment Agency 'grab-packs' Environmental Protection Unit for pollution control, Environment Agency-Fire and Rescue Service Memoranda of Understanding on environmental protection, mutual aid reinforcement schemes. Liaison with on call scientific advisers. Mass public decontamination facilities. Fire Service site specific Standard Operating Procedures Operational procedures. Urban Search and Rescue arrangements. Ambulance Services decontamination teams for contaminated casualties. HART (Hazardous Area Response Team). Health Service: response and contingency plans. London Resilience Partnership Frameworks including Mass Casualties Framework,	Dec 2024 Dec 2026

Risk ID rating	Lead	Outcome Description	Likelihood	Impact	Controls in place	Last Review Next Review
R62 MEDIUM	Environment Agency	Reservoir/Dam Collapse A reservoir or dam collapses without warning resulting in almost instantaneous flooding. Significant movement of debris (including vehicles) and sediment. Complete destruction of some residential and commercial properties and serious damage of up to 500 properties. Several thousand other properties could be flooded.	1	4	Reservoirs Act, 1975. Water Act, 2003. Regular statutory inspections. Met Office National Severe Weather Warning Service. London Resilience Partnership Frameworks including Humanitarian Assistance Framework	Sept 2023 Sept 2025
R63 MEDIUM	Thames Water	Water Supply Infrastructure Failure of water infrastructure or loss of drinking water caused by the complete and relatively sudden loss of piped water supply or the degradation of the piped supply such that it is unfit for human consumption even after boiling. The RWCS assumes up to 350,000 people affected for between 24 hours and two weeks.	1	3	Water Industry Act 1991. Security and Emergency Measures Direction 2022. Water companies mutual aid arrangements in place. London Resilience Partnership Frameworks including: <ul style="list-style-type: none"> • Humanitarian Assistance Framework • London Water Supply Disruption Framework 	Oct 2024 Oct 2026

Risk ID rating	Lead	Outcome Description	Likelihood	Impact	Controls in place	Last Review Next Review
R65 MEDIUM	London Fire Brigade	<p>Major Fire</p> <p>A major fire in a building resulting in up to 140 fatalities and 200 casualties, significant damage to the building affected and disruption to local transport services for up to a week.</p>	2	3	<p>Regulatory Reform (Fire Safety) Order 2005. Fire Safety Approved Document B. Fire & Rescue Services Act 2004. London Fire Brigade Guidance Note 29. London Fire Brigade Operational tactical and building plans. London Fire Brigade Urban Search & Rescue Teams (USAR). Fire Service National Resilience Assets London Ambulance Service Hazardous Area Response Team (HART). Local Authority Dangerous Structures Engineer. Casualty Bureau. London Resilience Partnership Frameworks including:</p> <ul style="list-style-type: none"> • Mass Fatalities Framework, • Mass Casualties Framework, • Humanitarian Assistance Framework 	Nov 2023 Sept 2025
L66 MEDIUM	London Fire Brigade	<p>Radioactive incident caused by mishandling of radioactive material</p> <p>A radioactive substance released in London as a result of an accident at a site handling (or during transportation) radioactive material. The quantities of material will be small, well protected and highly regulated.</p>	1	4	<p>Radiation Monitoring Equipment deployed in affected areas. London Fire Brigade Mass Decontamination Procedures. Scientific Technical Advice Cell (STAC). Scientific Advice to Government in Emergencies (SAGE). Radiation Protection Advisors. London Resilience Partnership Frameworks including CBRN(e) Framework</p>	Dec 2024 Dec 2026

Risk ID rating	Lead	Outcome Description	Likelihood	Impact	Controls in place	Last Review Next Review
L71a MEDIUM	London Fire Brigade	<p>Large Aircraft Incident in proximity to airport</p> <p>Aircraft incident in close proximity of the airport boundary with fatalities or serious injuries resulting. Possibility local structural collapse. Hazmat material contamination.</p>	2	4	<p>UK flight separation rules exceed International Civil Aviation Organisation (ICAO) recommendations by 100%.</p> <p>Civil Aviation Authority (CAA) Maintenance and Flight safety standards exceed International Civil Aviation Organisation recommendations.</p> <p>Airline maintenance regimes subject to Civil Aviation Authority (CAA) scrutiny and regulation.</p> <p>Strict controls over London approach.</p> <p>Strict controls over London airspace for drone use.</p> <p>London Fire Brigade generic operational notes to deal with aircraft crashes, predetermined attendance levels for this type of incident.</p> <p>Specialist Fire Rescue Units to deal Hazardous Material and collapsed structures.</p> <p>Airline plans.</p> <p>London Resilience Partnership Frameworks including:</p> <ul style="list-style-type: none"> • Mass Fatalities Framework, • Mass Casualties Framework, • Humanitarian Assistance Framework 	<p>Dec 2024</p> <p>Dec 2026</p>

Risk ID rating	Lead	Outcome Description	Likelihood	Impact	Controls in place	Last Review Next Review
L71b MEDIUM	London Fire Brigade	Small aircraft incident in proximity to airport Small aircraft incident variation of L71a. Under 20 people directly involved in incident.	3	2	Civil Aviation Authority (CAA) Maintenance and flight safety standards. Airline maintenance regimes subject to Civil Aviation Authority (CAA) scrutiny and regulation. Strict controls over London approach. Strict controls over London airspace for drone use. London Fire Brigade generic operational plans to deal with aircraft crashes. Predetermined attendance levels for this type of incident. Specialist Fire Rescue Units to deal Hazardous Material including Hazardous Material Response Capability (HMEPO), Urban Search and Rescue Capability. Airline plans Category 1 responder major incident plans London Resilience Partnership Frameworks including: <ul style="list-style-type: none"> • Mass Fatalities Framework, • Mass Casualties Framework, • Humanitarian Assistance Framework 	Dec 2024 Dec 2026
HL105 MEDIUM	Local Authorities	Complex built environments Consequences of a major incident affecting large buildings or a complex-built environment. Incidents in these facilities/areas have the potential to trigger a complex chain of events that lead to serious consequences for public safety.	2	3	Health and Safety at Work Act 1974. Management of Health & Safety at Work Regulations 1999. Fire and Rescue Services Act 2004 & guidance pursuant to the Regulatory Reform (Fire Safety) Order 2005. Safety at Sports Grounds Act 1975. Fire Safety and Safety of Places of Sport Act 1987. Local building safety systems and practices. Safety Advisory Groups in place at major sports grounds.	Sept 2023 Sept 2025

Risk ID rating	Lead	Outcome Description	Likelihood	Impact	Controls in place	Last Review Next Review
R38 LOW	Local Authorities	Insolvency affecting fuel supply Significant disruption to fuel supplies because of insolvency at a key refinery or terminals. Primary impacts are disruption to the production and/or supply of refined fuel products. Shortages can cause elevated short-term demand.	1	2	Reserve fleet of road tankers. Temporary financial assistance to some organisations to maintain fuel supplies while market responds. Central government arrangements for emergency fuel deliveries from downstream oil industry to maintain deliveries to key sites. London Resilience Partnership Frameworks including Fuel Disruption Framework	Sept 2021 Sept 2025
R41 LOW	Maritime Coastguard Agency	Larger Passenger Vessel Accident Incident involving a passenger vessel in or close to UK waters leading to the ship's evacuation (or partial evacuation). A major incident involving a passenger vessel operating on the tidal Thames within the London Resilience area may result in a major loss of life by drowning.	3	1	Port of London Act 1968 General Directions for Navigating in the Port of London. Port of London Thames bylaws 2012. International and national regulation of shipping aimed at preventing accidents by the safe construction and operation of ships by competent crews and shipping operators. Regulations are enforced by Flag States and subject to rigorous Port State Control checks, co-ordinated in European waters. Maritime Coastguard Agency (MCA) (Class V legislation and High-Speed Craft Code). Port Marine Safety Code. Port of London Authority Emergency Plans.	Dec 2024 Dec 2026

Risk ID rating	Lead	Outcome Description	Likelihood	Impact	Controls in place	Last Review Next Review
R42 LOW	Port of London Authority	<p>Major Maritime Pollution Incident A large fully laden oil super tanker sinks in the approach to a port leading to the spillage of 100,000 tonnes of crude oil into the sea polluting up to 200km of coastline. The scenario assumes no loss of access to Liquefied Natural Gas (LNG) terminals or other major port infrastructure.</p>	1	2	<p>Dangerous Substances in Harbour Areas Regulations 1987. Merchant Shipping (Oil Pollution Preparedness, Response and Cooperation Convention) Regulations 1998. Port State Control checks coordinated in European waters. All vessels navigating on the tidal Thames required Port of London Authority (PLA) licence. Port of London Authority (PLA) Vessel Traffic Service. National Contingency Plan for Marine Pollution from Shipping and Offshore Installations (2000). Oil Spill Contingency Plan Guidelines for Ports, Harbours & Oil Handling Facilities.</p>	Sept 2020 Sept 2025
R54 LOW	London Fire Brigade	<p>Radiation exposure from transported, stolen or lost goods. Incorrect handling of a stolen radioactive source leads to accidental exposure to radioactive material. Three deaths after a month and eight people requiring long term medical supervision. Up to 500 'worried well'.</p>	1	1	<p>Environmental Permitting Regulations 2016. Emergency Preparedness (REPPIR) and Public Information Radiation Regulations 2019. Radiations Regulations 2017. Radiation detectors at high-risk sites. Environment Agency inspections of all major sources. National Arrangements for Incidents involving Radioactivity (NAIR). RADSAFE transport emergency arrangement for radioactive material. London Resilience Partnership Frameworks including CBRN(e) Framework</p>	Oct 2024 Oct 2026

Risk ID rating	Lead	Outcome Description	Likelihood	Impact	Controls in place	Last Review Next Review
R61 LOW	UK Health Security Agency	<p>Accidental work-related (laboratory) release of a hazardous pathogen</p> <p>Inadvertent release of a biological agent caused by an unrelated work activity (e.g. Legionella release due to improperly maintained building environmental control systems) that causes up to 7 fatalities and up to 500 people requiring hospital admissions.</p>	1	2	<p>Health & Safety at Work Act 1974.</p> <p>Control of Substances Hazardous to Health Regulations 2002.</p> <p>The Notification of Cooling Towers and Evaporative Condenser Regulations 1992.</p> <p>Management of Health & Safety at Work Regulations 1999.</p> <p>Reporting of Injuries Diseases and Dangerous Occurrences Regulations.</p>	<p>Nov 2023</p> <p>Sept 2026</p>

3.2 Hostile State activity

Risk ID rating	Sub-Category Lead	Outcome Description	Likelihood	Impact	Controls in place	Last Review Next Review
R89 VERY HIGH	London Ambulance Service	<p>High-Altitude Electromagnetic Pulse (HEMP) Detonation of a nuclear device in the atmosphere, triggering a high-altitude electromagnetic pulse near the UK. Electrical and communications infrastructure nationwide would be degraded. Public services would be degraded for an extended period and economic cost to the nation would be significant.</p>	2	5	Contingency planning for a large-scale incident of this type would remain with central government.	Dec 2024 Dec 2025
R95 VERY HIGH	Metropolitan Police Service	<p>Nuclear attack by a state on the UK mainland or UK overseas interests A nuclear attack by a hostile state actor generating a high number of casualties and extensive, long-lasting damage to the area surrounding the strike location. The UK's ability to deliver basic services and governance is degraded for months or years, depending on the severity of the attack.</p>	2	5	<p>Continuous review of intelligence. London Resilience Partnership Frameworks including:</p> <ul style="list-style-type: none"> • Chemical, Biological, Radiation, Nuclear (explosive) ((CBRN(e)) Framework • London Emergency Services Liaison Panel (LESLP) • Mass Fatalities Framework, • Mass Casualties Framework, • Humanitarian Assistance Framework 	Oct 2024 Oct 2025

Risk ID rating	Sub-Category Lead	Outcome Description	Likelihood	Impact	Controls in place	Last Review Next Review
R32 LOW	Local Authorities	<p>Major interference in UK democratic process</p> <p>A cyber-attack conducted by a hostile state actor on a UK Electoral system during an election period. The attack could cause disruption to the electoral processes, resulting in data loss or manipulation and impact the result, or public confidence in the result.</p>	3	1	<p>Election Cell to respond to emerging issues and ensure integrity in the process.</p> <p>DSIT-led National Security & Online Information Team (NSOIT).</p> <p>Joint Election Security and Preparedness Unit</p> <p>Defending Democracy Taskforce.</p>	<p>Nov 2023</p> <p>Nov 2025</p>

3.3 Human and Animal Diseases

Risk ID rating	Sub- Category Lead	Outcome Description	Likelihood	Impact	Controls in place	Last Review Next Review
R78 VERY HIGH	UK Health Security Agency	<p>Pandemic An unmitigated respiratory pandemic with an unassumed transmission route and a high attack rate, with 4% of symptomatic infections requiring hospital care and a case fatality ratio of 2.5%. From start to finish the emergency stage of the pandemic in the UK will last at least 9 months and potentially significantly longer. Approximately 1.34 million people requiring hospital treatment, possibly resulting in up to 840,000 deaths.</p>	4	5	<p>Public Health (Infectious Disease) Regulations. UK Health Security Agency (UKHSA) Communicable Disease Outbreak Management Guidance (2023). Health and Social Care Act (2012). Health and Care Act (2022). Specific National Health Service (NHS) capacity and response planning. Comprehensive surveillance systems. Procedures related to disease surveillance and early detection. Rapid scientific and clinical advice (e.g., Health Protection Teams (Scientific Advisory Group for Emergencies (SAGE), Scientific & Technical Advice Cell (STAC). International Health Regulations. Public Health (Infectious Disease) Regulations. World Health Organisation (WHO), Department for Health and Social Care (DHSC) and UK Health Security Agency (UKHSA) international and national plans.</p> <p>London Resilience Partnership Frameworks including:</p> <ul style="list-style-type: none"> • London Pandemic Response Framework • Tactical Coordinating Protocol • London Resilience Communications Framework • Excess Deaths Framework 	Dec 2024 Dec 2025

Risk ID rating	Sub-Category Lead	Outcome Description	Likelihood	Impact	Controls in place	Last Review Next Review
R79 VERY HIGH	UK Health Security Agency	<p>Outbreak of an Emerging infectious disease</p> <p>Based on a contained outbreak of an emerging infectious disease in the UK. The scenario is based on a novel respiratory transmitted virus that emerges zoonotically in another country and causes a regional epidemic in that country. It implicitly assumes an effective public health response is undertaken and the outbreak is ultimately contained.</p> <p>Failure to contain the outbreak would result in a large epidemic in the UK or a pandemic, which is covered under a separate risk (R78). The crucial difference between the two risks is scale. The emerging infectious disease risk presented here assumes at the most 2000 cases because containment measures successfully limit transmission; whereas the pandemic risk assumes the outbreak is not successfully contained, with up to 33.55 million cases and a likely shift in the focus of response measures from containment to management.</p>	4	4	<p>Multi agency High Consequence Infectious Diseases (HCID) networks.</p> <p>Imported Fever Service.</p> <p>Rare and Imported Pathogens Laboratory.</p> <p>Multi-agency pathways for case and contact management and interventions.</p> <p>Health Protection Teams.</p> <p>National Health Service (NHS) and Local Authority Public Health teams.</p> <p>Communicable Disease Outbreak Control management guidance (2023).</p> <p>Multi-agency and organisational command, control and coordination arrangements</p> <p>Incident Management Team.</p> <p>Effective surveillance (international, national and Local) systems and reporting.</p> <p>Organisational learning from Covid-19 and previous outbreaks of High Consequence Infectious Disease, all contributes to the continued preparedness for all future outbreaks.</p>	Dec 2024 Dec 2025

Risk ID rating	Sub-Category Lead	Outcome Description	Likelihood	Impact	Controls in place	Last Review Next Review
R80b HIGH	Local Authority	<p>Major Outbreak of Animal Disease – Avian Influenza</p> <p>Highly pathogenic avian influenza (HPAI) is a severe, highly infectious influenza causing significant morbidity and mortality in susceptible avian species. Avian influenza is primarily a disease of birds but can be transmissible to humans.</p> <p>Viral spread leading to an outbreak with a 6–8-month duration, resulting in up to 8 million poultry and captive birds either killed by the virus or culled for disease control and export restrictions on trade.</p>	3	3	<p>Notifiable under Public Health legislation.</p> <p>Surveillance Zones.</p> <p>Temporary control zones.</p> <p>Restriction zones.</p> <p>Captive bird (monitoring controlled zone</p> <p>Biosecurity regulations.</p>	Oct 2024 Oct 2025
R80a HIGH	Local Authority	<p>Major outbreak of foot and mouth disease</p> <p>A severe, highly infectious viral disease with significant economic impact, affecting several types of animals including cattle, pigs, sheep, deer and goats. The culling and disposal of approximately 1.9 million animals on over 2,900 premises</p>	2	4	<p>Notifiable under Public Health legislation.</p> <p>Zoonoses Order (1989).</p> <p>European Union (EU) Legislation. Council Directive 2003/85/EC.</p> <p>Movement Controls.</p>	Oct 2024 Oct 2025

Risk ID rating	Sub-Category Lead	Outcome Description	Likelihood	Impact	Controls in place	Last Review Next Review
R80d LOW	Local Authority	<p>Major Outbreak of Animal Disease – African Swine Fever</p> <p>The disease will be spread by wild boar or feral pigs before transferring to nearby pig farms. Approximately 60 large commercial pig farms would be infected.</p>	1	1	<p>Disease control strategy for African and Classical Swine Fever (2020).</p> <p>DEFRA Contingency Plan for Exotic Animal Disease. Animal Health Act (1981).</p> <p>Current control strategies in place include implementing practices to prevent the illnesses entry in the UK and detection measures.</p>	Oct 2024 Oct 2026
R80c LOW	Local Authority	<p>Major Outbreak of Animal Disease – African Horse Sickness</p> <p>The maximum period of viraemia in horses is 18 days. The maximum period in donkeys and mules is 28 days. There is some evidence that the viraemic period in zebras is 40-48 days. a 150km zone of movement ban will be triggered. There is a 99% animal fatality rate. Fatality would occur within a couple of days.</p>	1	1	<p>African Horse Sickness (England) Regulations (2012). African Horse Sickness Control Strategy for Great Britain (2012).</p> <p>Movement of Animals (Restrictions) (England) Order (2002).</p> <p>Implement protection zones (150km radius) and surveillance zones (50km) radius of countries/ with known AHS cases.</p>	Oct 2024 Oct 2026

3.4 Societal Risks

Risk ID rating	Sub-Category Lead	Outcome Description	Likelihood	Impact	Controls in place	Last Review Next Review
R82 HIGH	Metropolitan Police Service	Public Disorder Disorder on a large scale significantly affecting the emergency services and Government causing criminal damage to public and private property, increased acquisitive crime, arson, rioting, looting and reduced community cohesion	5	3	Intelligence led policing plans. Riot and public order legislation. National protocols for mutual aid from other UK police forces.	Oct 2024 Oct 2025
R84 HIGH	London Fire Brigade	Industrial action - firefighters A national fire strike in England for a continuous eight-day period with loss of life directly attributable to a weakened response by individual fire and rescue services, and reputational impact on government.	5	3	Police Act 1996. RCN Code on Industrial Action. Alternative emergency cover protocols for the Fire Brigade. Organisational business continuity arrangements. Recall to active duty.	Dec 2024 Dec 2025
R87 HIGH	Local Authority	Reception and Integration of British Nationals Arriving from Overseas Reception and integration of up to 10,000 destitute/vulnerable British Nationals (BNs) arriving for 3-4 weeks from overseas. who are not normally resident in the United Kingdom (UK) and are unable to be accommodated.	5	3	Local Authority Social care and emergency housing arrangements. Existing mutual aid agreements in place across London. Heathrow Travel Care (social workers). Full time officer located at Heathrow (alongside Heathrow TravelCare) to consider the issue of repatriation at ports. Position funded by the Foreign & Commonwealth Development Office (FCDO). Red Cross and FCDO agreement on repatriation.	Dec 2024 Dec 2025

Risk ID rating	Sub-Category Lead	Outcome Description	Likelihood	Impact	Controls in place	Last Review Next Review
R83 MEDIUM	Transport for London	Industrial action - public transport Strike action by key rail or London Underground staff (e.g. signallers) resulting in the total shutdown of very significant amounts of the national rail network or about ¾ of the London Underground network. In both cases severe disruption could last for a week as part of a three-month campaign.	3	2	Health and Safety at Work Act (1974). Employment Act 1980. Employment Act 1988. Public Order Act 1986. Trade Union and Labour Relations Consolidation Act 1992. Anti-Social Behaviour Act 2003. Organisational business continuity arrangements.	Sept 2023 Sept 2025
R85 MEDIUM	Ministry of Justice	Industrial action - Prison staff Industrial action by operational prison staff, leading to a shortfall of staff available for duty for more than 24 hours.	4	2	Criminal Justice and Public Order Act (1994).	Nov 2020 Nov 2025
R86 MEDIUM	Local Authorities	Industrial action - fuel supply Actual or threatened significant disruption to the distribution of fuel by road due to any cause, including industrial action by fuel tanker drivers. Retail filling stations, depending on the extent of the disruption and their locations and assuming no panic-buying, would likely run out of fuel within 4-5 days.	2	2	Legal requirements re: conduct of industrial disputes. Stocks of contingency fuel to varying degrees London Resilience Partnership Frameworks including Fuel Disruption Framework	Sept 2021 Sept 2024

3.5 Natural Hazards

Risk ID rating	Sub- Category Lead	Outcome Description	Likelihood	Impact	Controls in place	Last Review Next Review
R71 VERY HIGH	Met Office	<p>Severe Space Weather</p> <p>Different solar phenomena which drive a sequence of physically realistic events, including coronal mass ejections, solar flares, solar radiation storms and solar radio bursts. Each phenomenon would likely occur several times over a two-week period, with each varying in magnitude, temporal and spatial extent.</p> <p>Estimate of overall cost to the UK is ~£9bn</p>	4	4	<p>Electricity Industry monitoring and analysis of Geomagnetic Induced Current (GIC).</p> <p>Space Weather is assessed as part of the Daily Hazard Assessment.</p> <p>National Grid design standards and response arrangements.</p> <p>Alternative positioning, navigation, and timing signal systems.</p> <p>Forecasting through Met Office Space Weather Operations Centre</p>	<p>Oct 2024</p> <p>Oct 2025</p>
	UK Health Security Agency	<p>High Temperatures and heatwaves</p> <p>Daily maximum temperatures greater than 32C over most of a region for around 2 weeks including at least 5 consecutive days. Up to 1,000 fatalities and 5,000 casualties, mainly amongst the elderly. There could be disruption to power supply, telecommunications, and transport infrastructure within the 2 weeks.</p>	3	4	<p>Health & Safety at Work Act 1974</p> <p>Public Health Act.</p> <p>Climate Change Adaption Strategy for London (Heat Risk).</p> <p>UK Health Security Agency (UKHSA) Adverse Weather and Health Plan (AWHP).</p> <p>UK Health Security Agency (UKHSA) Hot Weather Comms Toolkit.</p> <p>Heat-Health Alerts via the Weather-Health Alert System.</p> <p>Extreme Heat Warnings via the Met Office. National Severe Weather Warning Service (NSWWS).</p> <p>(Heat –Severe Weather Emergency Protocol (H-SWEP) Guidance.</p> <p>London Local Cool Spaces.</p> <p>London Resilience Partnership Frameworks including Severe Weather and Natural Hazards Framework.</p>	<p>Dec 2024</p> <p>Dec 2025</p>

Risk ID rating	Sub-Category Lead	Outcome Description	Likelihood	Impact	Controls in place	Last Review Next Review
R74 VERY HIGH	UK Health Security Agency	<p>Low temperatures and snow Low temperatures and snow (falling and lying) over substantial areas of low-lying land, (below 300m) for at least one week. After an initial fall of snow, there is further snowfall on and off for at least 7 days. Most lowland areas experience some snow fall greater than 10cm at a time, with overall snow depth greater than 30cm. This would coincide with a period of at least 7 consecutive days with a daily mean temperature below -3C. Overnight temperatures would fall below -10C in many areas affected by snow</p>	4	4	<p>Health & Safety at Work Act 1974. Public Health Act. UKHSA Adverse Weather and Health Plan (AWHP). Snow and Ice Warnings via the Met Office National Severe Weather Warning Service (NSWWS). Met Office WeatherReady winter preparedness campaign. Severe Weather Emergency Protocol (SWEP) Guidance. London Local Warm Spaces. London Resilience Partnership Frameworks including Severe Weather and Natural Hazards Framework</p>	Dec 2024 Dec 2025
	Environment Agency	<p>Fluvial Flooding Successive bands of frontal rainfall saturate river catchments (soil moisture deficit is at zero) and fill river channels to full capacity. High intensity heavy rainfall causes fluvial rivers in London (tributaries to the Thames) to exceed channel capacity. Flooding happens very quickly with little warning and time for evacuations.</p>	3	4	<p>Flood and Water Management Act 2010. The Flood Risk Regulations 2009. Land Drainage Act 1991. Water Resources Act 1991. Flood Guidance Statements. New building developments controlled through planning guidelines. Multi Agency Flood Plans. National Flood Emergency Plan. Environment Agency Flood line. Met Office Forecasts and National Severe Weather Warning Service. London Resilience Partnership Frameworks including:</p> <ul style="list-style-type: none"> Severe Weather and Natural Hazards Framework Flood Response Framework 	Oct 2024 Oct 2025

Risk ID rating	Sub-Category Lead	Outcome Description	Likelihood	Impact	Controls in place	Last Review Next Review
R75c VERY HIGH	Local Authority South West Sub Region	Surface Water Flooding Surface water flooding in a large metropolitan area caused by a warm unstable atmosphere, most likely to occur in summer due to the warmer atmosphere having a greater water holding capacity, causes a pattern of convective rainfall events.	3	4	Flood and Water Management Act 2010. The Flood Risk Regulations 2009. Land Drainage Act 1991. Water Resources Act 1991. Flood Forecasting Centre – Flood Guidance Statements. New building developments controlled through planning guidelines. Multi Agency Flood Plans. National Flood Emergency Plan. Environment Agency Flood line. Met Office Forecasts and National Severe Weather Warning Service. London Resilience Partnership Frameworks including: <ul style="list-style-type: none"> Severe Weather and Natural Hazards Framework Flood Response Framework 	Sept 2023 Sept 2025

Risk ID rating	Sub-Category Lead	Outcome Description	Likelihood	Impact	Controls in place	Last Review Next Review
R76 VERY HIGH	Environment Agency	Drought Following three consecutive and unprecedented dry winters London is in a severe drought (level 4) situation. Emergency drought orders are in place with millions of properties with severe water supply restrictions and low water pressure (impacting supply to properties at high levels and tower blocks). Increase of illnesses due to reduced use of water impacting on hygiene levels, increased casualties and potentially fatalities. Mental wellbeing impacts communities and public outrage leads to some disorder issues.	2	5	Water Resources Act 1991 Department for Environment, Food & Rural Affairs (DEFRA) Planning for Major Water and Wastewater Incidents in England and Wales. Drought Plan direction document. Individual water company Drought Plans. Code of Practice and Guidance on Water Restrictions 2011. Floods & Water Management Act 2010. London Resilience Partnership Frameworks including Drought Framework	Oct 2024 Oct 2025
L19 HIGH	Environment Agency	Groundwater Flooding Following unprecedented amounts of extended above average rainfall throughout 3 winter months groundwater levels are exceptionally high throughout London. The main areas of concern are in the South East of London where the geology is predominately chalk.	3	3	Flood and Water Management Act 2010. The Flood Risk Regulations 2009. Land Drainage Act 1991. Water Resources Act 1991. Environment Agency Flood line. Flood Forecasting Centre – Flood Guidance Statements. New building developments controlled through planning guidelines. Multi Agency Flood Plans. National flood emergency plan. London Resilience Partnership Frameworks including: <ul style="list-style-type: none"> Severe Weather and Natural Hazards Framework Flood Response Framework 	Oct 2024 Oct 2025

Risk ID rating	Sub- Category Lead	Outcome Description	Likelihood	Impact	Controls in place	Last Review Next Review
R67 HIGH	Local Authority	Volcanic eruption Volcanic ash incursions for up to 25 days (assumed not to be sulphur-rich) resulting in sporadic and temporary closures of significant	4	3	Met Office Volcanic Ash Advisory Centre Forecasting. Civil Aviation Authority (CAA) Volcanic Ash Safety Regime. Airline response plan.	Oct 2024 Oct 2025
R72 HIGH	Met Office	Storms Storm force winds affect multiple regions for at least 6 hours during a working day. Most inland and lowland areas experience mean speeds greater than 55mph and gusts faster than 85mph.	4	3	Met Office Hazard Manager service. Warning & Informing. Category 1 & 2 responders' emergency response. Business Continuity Management (BCM) and severe weather plans. Highways Agency, Transport for London (TfL) and local authorities' winter road maintenance plans. Met Office forecasts & National Severe Weather Warning Service. London Resilience Partnership Frameworks including: <ul style="list-style-type: none"> Severe Weather and Natural Hazards Framework 	Oct 2024 Oct 2025

Risk ID rating	Sub-Category Lead	Outcome Description	Likelihood	Impact	Controls in place	Last Review Next Review
R75a HIGH	Environment Agency	Coastal Flooding Localised tidal flooding resulting from sudden breach of a section of the Thames tidal wall or embankment caused by a vehicle collision or construction incident or a failure of a tidal flood gate coinciding with high tides on the river Thames.	3	3	Thames Barrier and Flood Prevention Act 1972. Flood and Water Management Act 2010. Metropolis Management (Thames River Prevention of Floods) Amendment Act 1879. The Flood Risk Regulations 2009. Land Drainage Act 1991. Water Resources Act 1991. Civil Contingencies Act 2004. Met Office/Environment Agency/ Flood Forecasting Centre forecasts, weather warnings and flood guidance statements. Flood warning service to public and professional partners for flood warning areas. Thames Estuary 2100 (TE2100) Plan. Multi-agency flood plans London Climate Resilience Review 2024 London Resilience Partnership Frameworks including: <ul style="list-style-type: none"> Severe Weather and Natural Hazards Framework Flood Framework 	Oct 2024 Oct 2025

Risk ID rating	Sub-Category Lead	Outcome Description	Likelihood	Impact	Controls in place	Last Review Next Review
R77 HIGH	Environment Agency	Poor Air Quality A 30-day period of elevated levels of either ozone or PM2.5 causing increases in death rates among vulnerable populations due to poor air exacerbating respiratory and cardiovascular conditions.	3	3	Air Quality Standards Regulations 2010. European directive on ambient air quality and cleaner air for Europe (2008/50/EC). The UK Air Quality Strategy. Environmental Permitting Regulations 2010. Clean Air Act & Environmental Protection Act. Local Authority air quality management areas and action plans. London Mayor's Air Quality Strategy which encompasses Ultra Low Emissions Zones and Low Emission Neighbourhoods. AirTEXT warning system. Local Air Quality Action Plans. Local Air Quality Monitoring Network. GLA Air Quality Action Plan.	Oct 2024 Oct 2025
L54e HIGH	London Fire Brigade	Major fire in care homes and hospitals Fire causing up to 20 fatalities of vulnerable people in residence causing the closure of an entire hospital or care home.	3	3	Regulatory Reform (Fire Safety) Order 2005. Fire Safety Approved Document B. Fire & Rescue Services Act 2004. London Fire Brigade Guidance Note 29. London Fire Brigade Operational tactical and building plans. London Fire Brigade Urban Search & Rescue Teams (USAR) Fire Service National Resilience Assets. London Ambulance Service Hazardous Area Response Team (HART). Local Authority Dangerous Structures Engineer. Casualty Bureau. London Resilience Partnership Frameworks including: <ul style="list-style-type: none"> • Mass Fatalities Framework • Mass Casualties Framework • Humanitarian Assistance Framework 	Dec 2024 Dec 2025

Risk ID rating	Sub-Category Lead	Outcome Description	Likelihood	Impact	Controls in place	Last Review Next Review
L54c MEDIUM	London Fire Brigade	Fires involving landfill and waste processing sites Major fire lasting several days/weeks with significant environmental and local impacts.	5	2	Regulatory Reform (Fire Safety) Order 2005. Fire Safety Approved Document B. Fire & Rescue Services Act 2004. London Fire Brigade Guidance Note 29. London Fire Brigade Operational tactical and building plans. London Fire Brigade Urban Search & Rescue Teams (USAR). Fire Service National Resilience Assets. London Ambulance Service Hazardous Area Response Team (HART). Local Authority Dangerous Structures Engineer. Casualty Bureau. London Resilience Partnership Frameworks including: <ul style="list-style-type: none"> • Mass Fatalities Framework • Mass Casualties Framework • Humanitarian Assistance Framework 	Dec 2024 Dec 2025
R66 MEDIUM	London Fire Brigade	Wildfire A major wildfire spreading over an area of over 100 hectares at the urban-rural interface. Significant environmental impacts and risks to residential property and essential services.	4	2	Regulatory Reform (Fire Safety) Order 2005. Fire Safety Approved Document B. Fire & Rescue Services Act 2004. Fire Service National Resilience Assets. London Fire Brigade borough specific rural strategies. Specialist firefighting equipment and resources. London Resilience Partnership Frameworks including: <ul style="list-style-type: none"> • Mass Fatalities Framework • Mass Casualties Framework • Humanitarian Assistance Framework 	Nov 2023 Sept 2025

Risk ID rating	Sub-Category Lead	Outcome Description	Likelihood	Impact	Controls in place	Last Review Next Review
HL21 LOW	London Fire Brigade	Land Movement Roads and access routes impassable for a time. Emergency access into/out of large, populated areas difficult or impossible; severe congestion over wide geographical area. Loss of power and other essential services over wide geographical area. Potential for trapped or missing people either in landslides itself and/or in collapsed structures.	3	1	Land use planning restrictions. Building Control regulations enforced by Local Authorities. Construction, renovation, maintenance, and demolition standards.	Nov 2023 Sept 2026
R68 LOW	Local Authorities	Earthquake An earthquake that results in the ground shaking with an intensity of six on the European Macroseismic Scale (EMS), this is classed as 'strong'. Many houses and buildings suffer slight non-structural damage like hair-line cracks and falling of small pieces of plaster.	1	1	London and national generic response plans Mutual aid arrangements. Specialist fire and rescue assets. London Resilience Partnership Frameworks including: <ul style="list-style-type: none"> • Structural Collapse • Humanitarian Assistance Framework 	Sept 2023 Sept 2025

3.6 Threats

In this public version of the London Risk Register, threats and cyber risks are grouped and summarised by target. Further detail on the types of threats is available in the [National Risk Register](#).

Threats are assessed nationally so reassessment dates are not included.

Risk ID rating	Outcome Description	Likelihood	Impact	Controls in place
<p style="text-align: center;">T1 VERY HIGH</p>	<p>Larger Scale CBRN Attacks Malicious actors remain interested in chemical, biological, radiological, and nuclear (CBRN) attack methods. In the UK, it is assessed that terrorists are more likely to use knives, vehicles or improvised explosive devices, but the threats of CBRN attacks cannot be ruled out. CBRN attacks have the potential to kill, injure and cause wide-ranging harm. Depending on the method used there is potential for catastrophic blast damage, widespread infection, or contamination of people, the environment, buildings, water supplies and food.</p> <p>A larger-scale CBRN attack has never happened in the UK but would be more challenging to respond to than other malicious attacks, due to the potential health impacts and widespread environmental contamination. CBRN events can also present responders and those affected with significant levels of uncertainty about what has happened, and the scientific evidence may evolve as the incident unfolds. This leads to widespread psychological impacts including anxiety.</p>	<p style="text-align: center;">3</p>	<p style="text-align: center;">5</p>	<p>Improving methods to detect and monitor CBRN materials, including through the border. Regulating access to hazardous materials and their precursors. Improving and maintaining capabilities to enable emergency responders to respond effectively, rapidly, and safely. Provision of guidance in incidents and increasing public access to information on what to do during general and hazardous materials emergencies. Local and organisational CBRN response plans. Well-developed specialist response capabilities. Access to medical countermeasures and adaptability of other consequence-based plans to respond to unconventional attacks. Decontamination process of people and place regularly trained and tested. Continuity plans to ensure effective civil government can continue throughout and after an incident.</p>

Risk ID rating	Outcome Description	Likelihood	Impact	Controls in place
<p>T2 HIGH</p>	<p>Attacks on Infrastructure Critical National Infrastructure are the facilities, systems, sites, information, people, networks, and processes that keep the UK running and provide the essential services we all rely on. This includes electricity and water services and telecommunications. Attacks could be carried out with a variety of methods, including explosives or cyber attacks. Consequences of attacks of this nature could include disruption to essential services, possible evacuation of residents or employees, economic impacts.</p>	4	3	<p>UK Government's counter-terrorism Strategy (CONTEST) (summarised above) Business continuity plans for loss of essential services helps to minimise disruption to users. Well established programme of work to protect infrastructure from terrorism including protective security advice from Centre for the Protection of National Infrastructure and local Police services National Cyber Security Centre advises government and industry on how to secure cyber infrastructure and to respond to incidents. Consequence based planning by the authorities ensuring that responses to a variety of emergencies are already planned for.</p>
<p>T3 HIGH</p>	<p>Attacks on Transport In the UK, conventional terrorist attacks on land and air-based transport are more likely than against maritime transport. Physical attacks could take a variety of forms including explosives, noxious substances or attackers wielding blades. Consequences of an attack on a transport system could include fatalities and physical and/or psychological casualties, disruption to the transport system and negative impacts to the national economy.</p>	4	3	<p>Regulation and monitoring of services by DfT requiring certain organisations to deliver a range of security measures. DfT also provides advice and best practise to other sectors. "See it. Say it. Sorted." campaign. BTP work with industry and DfT on security and provide tailored policing of the railway network. Contingency plans developed by operators in conjunction with responders. Op Servator hostile reconnaissance disruption operations run by PSO & BTP</p>

Risk ID rating	Outcome Description	Likelihood	Impact	Controls in place
<p>T5 HIGH</p>	<p>Medium Scale CBRN Attacks Malicious actors remain interested in chemical, biological, radiological, and nuclear (CBRN) attack methods. In the UK, it is assessed that terrorists are more likely to use knives, vehicles or improvised explosive devices, but the threats of CBRN attacks cannot be ruled out. CBRN attacks have the potential to kill, injure and cause wide-ranging harm. Depending on the method used there is potential for catastrophic blast damage, widespread infection, or contamination of people, the environment, buildings, water supplies and food. Attacks could range from a small target incident, to large catastrophic events at the highest end of the spectrum, such as the widespread dispersal of a biological agent or the detonation of an improvised nuclear device.</p>	4	3	<p>Improving methods to detect and monitor CBRN materials, including through the border. Regulating access to hazardous materials and their precursors. Improving and maintaining capabilities to enable emergency responders to respond effectively, rapidly, and safely. Provision of guidance in incidents and increasing public access to information on what to do during general and hazardous materials emergencies. Local and organisational CBRN response plans. Well-developed specialist response capabilities. Access to medical countermeasures and adaptability of other consequence-based plans to respond to unconventional attacks. Decontamination process of people and place regularly trained and tested. Continuity plans to ensure effective civil government can continue throughout and after an incident.</p>
<p>T4 MEDIUM</p>	<p>Attacks on Publicly Accessible Locations There has been an increase in the frequency of terrorist attacks in the UK from 2017. Nearly all attacks have occurred in publicly accessible locations. A defining feature of such attacks is the targeting of people. This may be random or aimed at a specific group. Impacts may include fatalities and physical and/or psychological casualties, significant damage to infrastructure and other property, increased demands on and disruption to essential services.</p>	5	2	<p>Continued warning and informing of crowded places through heightened security alerts and Physical security measures where appropriate. Emergency services response plans & specialist resources Work of Counter Terrorism Security Advisors to raise awareness and provide training. Op Servator hostile reconnaissance disruption operations Targeted comms from counter terrorism police to stakeholders Public awareness campaigns providing advice to the public including digital tools and e-learning</p>

Risk ID rating	Outcome Description	Likelihood	Impact	Controls in place
<p>T6 MEDIUM</p>	<p>Cyber attacks Cyber criminals engage in criminal activity to exploit weaknesses in online systems, usually for financial gain. As well as using technology to commit a crime (such as hacking to steal data), offenders can also increase the scale and reach of a crime (such as cyber-enabled non-fiscal fraud). States and state-sponsored threats tend to be politically motivated and may attempt to access and cause disruption to strategic systems across government and other key sectors.</p>	3	2	<p>National Cyber Security Strategy sets out the government response to ensuring that government, CNI, business and citizens are as resilient as possible to cyber threats. The National Cyber Security Centre, part of GCHQ, supports the most critical organisations in the UK to improve their cyber resilience. The NCSC also responds to cyber incidents to minimise harm to the UK, help with recovery and learn lessons for the future. Additional outreach to businesses and public regarding cyber threats and security Centre for Protection of National Infrastructure providing security and cyber security advice</p>
<p>T7 MEDIUM</p>	<p>Smaller Scale CBRN Attacks Malicious actors remain interested in chemical, biological, radiological, and nuclear (CBRN) attack methods. In the UK, it is assessed that terrorists are more likely to use knives, vehicles or improvised explosive devices, but the threats of CBRN attacks cannot be ruled out. CBRN attacks have the potential to kill, injure and cause wide-ranging harm. Depending on the method used there is potential for catastrophic blast damage, widespread infection, or contamination of people, the environment, buildings, water supplies and food. Attacks could range from a small target incident, to large catastrophic events at the highest end of the spectrum, such as the widespread dispersal of a biological agent or the detonation of an improvised nuclear device.</p>	4	2	<p>Improving methods to detect and monitor CBRN materials, including through the border. Regulating access to hazardous materials and their precursors. Improving and maintaining capabilities to enable emergency responders to respond effectively, rapidly, and safely. Provision of guidance in incidents and increasing public access to information on what to do during general and hazardous materials emergencies. Local and organisational CBRN response plans. Well-developed specialist response capabilities. Access to medical countermeasures and adaptability of other consequence-based plans to respond to unconventional attacks. Decontamination process of people and place regularly trained and tested. Continuity plans to ensure effective civil government can continue throughout and after an incident.</p>

Appendix 1: Six-stage risk assessment process

Contextualisation

A range of factors influence the assessment of both likelihood and impact of risks. Demographics, transportation, and environmental factors all exert an influence on how a risk would manifest in a particular area. Each of the 33 Borough Resilience Forums in London use this local context to develop their own risk assessments.

Hazard Identification and allocation for assessment

London Risk Advisory Group identifies the threats and hazards that, in their view, could give rise to an emergency within London in the next 2 years.

Lead risk assessors agreed by the group then undertake to assess the likelihood of each risk occurring, and to make a judgement of how impactful the Reasonable Worst Case Scenario (RWCS) of that risk would be. Risks included in the London Risk Register are subject to a scheduled review programme to ensure that each risk is revisited and updated periodically.

Risk analysis

Drawing on guidance from Government, other research and local knowledge, lead assessors consider the likelihood of the risk over the next five-year period. Individual Risk Assessments are then provided to the London Risk Advisory Group for discussion and approval.

Risk evaluation

Individual Risk Assessments are confirmed, and summary information collated into the London Risk Register.

Risk treatment

Gaps in capability against the reasonable worst-case scenario is assessed periodically by the London Resilience Forum, where additional risk management options are agreed as necessary.

Monitoring and Review

Risk assessment is not a static process and is subject to constant review. At a minimum, each Individual Risk Assessment is formally reviewed on a 2-year cycle. An annual update of the London Risk Register is published in the spring.

Appendix 2: Likelihood and Impact score scales

Further detail on the scoring measures is provided in Annex 4D of “Emergency Preparedness” (HM Government, 2005) or Local Risk Management Guidance (available via Resilience Direct).

Score	Likelihood Descriptor	Probability of the Reasonable Worst-Case Scenario occurring within a 12-month period
1	Low	Less than 0.2% chance of occurring per year
2	Medium Low	Between 0.2% and 1%
3	Medium	Between 1% and 5%
4	Medium High	Between 5% and 25%
5	High	More than 25%

Impacts Categories

Each impact category is split into several “indicators” which are scored out of five. Indicator scores are amalgamated to reach a score for that category, and the category scores are amalgamated to reach an overall impact score.

Impact Category	Explanation
Human Welfare	Includes numbers of fatalities and casualties resulting from the RWCS, needs for mass evacuation, and short- and long-term accommodation.
Behavioural Impacts	Psychological impacts of the risk, including how people’s perception and behaviour might change because of the risk.
Economic	An approximate net economic cost, including both direct (e.g. loss of goods, buildings, infrastructure) and indirect (e.g. loss of business, increased demand for public services) costs.
Essential Services	How the RWCS might impact the emergency services, critical infrastructure, transport, education and other service and infrastructure providers
Environment	Encompassing long-term impact of contamination or pollution of land, water or air with harmful biological / chemical / radioactive matter or oil, flooding, or disruption or destruction of plant or animal life.
Security	Includes impacts to law enforcement and intelligence services, and disruptions to criminal justice and border security.

Appendix 3 Overall risk rating definitions

Definitions of Nationally Approved Risk Ratings	
Very High (VH)	These are classed as primary or critical risks requiring immediate attention. They may have a high or medium likelihood of occurrence, but their potential consequences are such that they must be treated as a high priority. This may mean that strategies should be developed to reduce or eliminate the risks, but also that mitigation in the form of (multi-agency) planning, exercising and training for these hazards should be put in place and the risk monitored on a regular frequency. Consideration should be given to planning being specific to the risk rather than generic.
High (H)	These risks are classed as significant. They may have a high or low likelihood of occurrence, but their potential consequences are sufficiently serious to warrant appropriate consideration after those risks classed as 'very high'. Consideration should be given to the development of strategies to reduce or eliminate the risks, but also that mitigation in the form of at least (multi-agency) generic planning, exercising and training should be put in place and monitored on a regular frequency.
Medium (M)	These risks are less significant but may cause upset and inconvenience in the short term. These risks should be monitored to ensure that they are being appropriately managed, and consideration given to their being managed under generic emergency planning arrangements.
Low (L)	These risks are both unlikely to occur and not significant in their impact. They should be managed using normal or generic planning arrangements and require minimal monitoring and control unless subsequent risk assessments show a substantial change, prompting a move to another risk category.
Based on the model risk rating matrix published in Annex 4F of "Emergency Preparedness" (HM Government, 2005)	

Appendix 4: Chronic risks from the NSRA (2023)

Theme	Drivers of Chronic risk	Description
Security	Changes in the nature of terrorism	Worldwide instability shifts the sources, drivers, tactics and targets of terrorism, both global and international. The UK's counter-terrorism strategy needs to adapt to international events to remain resilient to both isolated and converging threats.
	Changes in the nature of serious and organised crime	The threat to the UK from serious and organised crime continues to grow. Criminals exploit the rapid evolution of technology to engage in illicit activity, making response increasingly complex.
	Fraud and illicit finance	The threat from fraud and illicit finance posed to individuals, organisations and the government continues to grow. Criminals exploit technology to their advantage to stay ahead of responses.
Technology and cybersecurity	Changes in the nature of cybersecurity threats	Cyber-attacks (e.g. ransomware) remain a persistent threat. The continued growth in the intensity, complexity and severity of attacks, and an expanding range of actors, many of whom are located in difficult-to-reach jurisdictions, compound the risk landscape, with potential for serious harm to individuals and business as well as critical national infrastructure.
	Impacts from use of end-to-end encryption	Increased availability of, and demand for, products and services that obfuscate, encrypt or hide online activity and communications limit the ability of companies and service providers to moderate content, in particular to detect, remove or report harmful and illegal content, including child sexual abuse material.
	Impacts from Reliance on digital platforms and digital service providers for services and interactions	Continued rapid expansion of data and digital connectivity to almost every aspect of people's lives (including financial transactions and social interactions) provides more opportunities for malicious activity and significant harms.
	Concentration of risk through dominance of global tech	Dominance from a small number of global technology firms, expanding into a wider range of economic and societal services, complicates effective regulation. The growing size and influence of a small number of tech companies leads to a dependency on a small group of service providers.

Theme	Drivers of Chronic risk	Description
	Impacts from use and capability of artificial intelligence (AI)	As Artificial intelligence systems and capabilities become increasingly powerful and widespread, it becomes increasingly difficult to anticipate exactly how it will be used or ensure that it will be used safely. As it is adopted in a broader range of contexts, the potential for harm magnifies substantially.
Geopolitical	Challenges to international institutions	Rising powers (including autocratic states) challenge international structures and systems based on liberal democratic values.
	State threats	State threats are persistent and take many forms, including espionage, foreign interference in our political system, sabotage, disinformation, cyber operations, and assassinations. State actors with malign intent present an increasing threat to the UK.
Environmental	Climate change	Rising global temperatures and sea levels increase the frequency of extreme weather events and drive pressures on infrastructure and services, which pose risks to life, human health and wellbeing, the natural environment, vector and pathogen distribution, and drive pressures on infrastructure and services as well as additional pressures of food supply and migration.
	Biodiversity loss	Biodiversity loss reduces variability within and between species, which impacts on the economy and human wellbeing.
	Increasing competition for critical minerals	Increased global demand for materials (such as cobalt and rare earth metals) undermines the UK's economic and policy aims.
	Pollution and environmental degradation	Increased pollution reduces environmental quality and drives biodiversity loss, disproportionately affecting vulnerable groups.
Societal	Impacts from Demographic change	A growing and ageing population in the UK puts pressure on communities, the economy and services, including health and social care.
	Disproportionate impacts on vulnerable persons	Income and wealth disparities persist and increase, making certain groups disproportionately vulnerable to crises and their lasting impacts.

Theme	Drivers of Chronic risk	Description
	Disinformation and misinformation	The emergence of an online environment that is fragmented, unverified, and open to information manipulation allows mis- and disinformation to be created and disseminated by a range of different malign.
Biosecurity	Antimicrobial resistance (AMR)	AMR (including resistance to antibiotics, antifungals, antivirals, and antiparasitic drugs) remains a persistent threat to public health, food security, environmental wellbeing, and the economy. It exacerbates the risk of infectious diseases.
	Animal disease	New patterns of trade, including from areas where dangerous animal diseases are more prevalent, makes the incursion of an exotic notifiable animal disease into the UK more likely.
	Foodborne disease	Increasing imports of high-risk products of animal origin (POAOs) and high-risk foods of non-animal origin (HRFNAO) increase the likelihood of a microbiological foodborne disease (FBD) outbreak in the UK.
	Plant pests and pathogens	Changing consumer patterns, increased global trade into the UK, and changing weather patterns within the UK and around the world, increases the likelihood of a new plant pest or pathogen in the UK.
	Impacts from expansion of engineering biology	Techniques which modify genetic material have developed rapidly, with the potential for a huge range of applications. This raises concerns about both malicious and unintended (chronic and acute) outcomes if accessible to a wider audience.
	Impacts from collection and use of biological data	Increasing access to biological data (for example DNA) increases risk of deliberate misuse for strategic advantage, including by hostile states.
Economic	Impacts from reliance on global supply chains	Changes in the global economy, geopolitical environment, and climate increase the frequency and magnitude of both demand and supply shocks to supply chains, on which the UK relies for many critical goods needed for our critical national infrastructure.

Theme	Drivers of Chronic risk	Description
	Impacts from emerging financial systems	Use of distributed ledger technology in finance (for example cryptocurrencies) makes it harder to track financial activity and manage stability. The complexity and interconnectedness of global financial systems and products increases the impacts of bank failures, insolvencies etc, potentially causing industry or economy-wide instability or collapse, with long-lasting effects.
	Skills shortages and mis-matches	Key sectors and public services lack skilled people in the numbers required, with demographic trends and migration patterns feeding into this. At the same time, rapid changes in the make-up and direction of the economy, driven by trends including digitisation, AI, and the shift to net zero, mean that the skills of some workers become redundant with retraining needed to enable them to participate in the labour market.

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The London Resilience Unit is part of the Greater London Authority.
We deliver and coordinate resilience services on behalf of the London
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