##### Borough Community Risk Register

Merton BRF CRR version 1 Date August 2021

**Merton Community Risk Register**

The LB Merton is part of the South West Sub-Regional Resilience Forum area, which also comprises the Royal Borough of Kingston upon Thames and the London Boroughs of Richmond, Sutton and Wandsworth.

**Social Factors**

Over a quarter of the population of Merton is made up of BME groups where there is a large Asian community and within the borough can be found Europe’s biggest Ahmadiyya mosque which can accommodate over 5,000 worshippers. It has been noted that many amongst this population do not have English as their first language, which could prove problematic in the event of an evacuation emergency.

The census in 2011 estimated the population of Merton to be 199,693 a 6.3% increase from 2001 with an overall 6% increase in population, an increase in under-5’s and a decrease in proportion of over-65’s.

Ethnicity

The census found there had been a 10% fall in overall White population, a 6% increase in overall Asian population, a 3% increase in Black population and a 2% increase in mixed population.

Merton has higher than London and neighbour average Pakistani population – but has seen an overall decrease from 2001

The standard of living in the SW area is above the London average. In the 2004 Index of Multiple Deprivation nowhere in this LRA was identified as being amongst the top 10% most deprived in the country.

**Environmental Factors**

Merton has been described as combining urban features with a suburban aspect. Rivers, which present a risk, are the Beverly Brook, the Wandle, and the Graveney. The boroughs in the SW area are highly susceptible to surface water flooding.

**Economic Infrastructure**

There are about 9000 businesses in Merton the majority of which are SME’s, most of which are lacking business continuity plans, which would help them to cope should they experience a disruption to normal operations. These businesses are more vulnerable should an emergency occur. Merton is very much an important part of London’s economic infrastructure. Business Services is an important sector to the borough’s economy and this accounts for around 27% in Merton. Wholesale and Retail is another important sector and within the LRA there are many shopping districts some of which have covered malls such as Centre Court in Wimbledon, other significant shopping centres include Colliers Wood and Abbey Mills. Major sporting venues include the All England Lawn Tennis and Croquet club, which hosts the annual Wimbledon Tennis Championships. There are a large number of licensed premises in the LRA mainly concentrated in the Wimbledon area.

**Transport Infrastructure**

Merton has a very well developed main line rail infrastructure. There are a total of 11 main line stations along lines such as the South West and Thameslink, which connect the borough to the other South West boroughs and to Central London. A large number of commuter trains bound for Waterloo and Victoria pass through Wimbledon. The underground infrastructure is less comprehensive but there are 5 stations in the area, including two termini.

Important roads, which have been highlighted, include the A3, which connects the M25 to Central London, the A24, and the A217. An extensive public bus network is in place across the borough and parts of the Tram-link service run into Wimbledon calling at 8 stops across the borough. There are a significant number of road and rail bridges in the area.

**Hazardous Sites**

There is one lower tier Control of Major Accident Hazard (COMAH) site within Merton, Reichold in Mitcham, which contains highly flammable chemicals. There are also 2 small BOC sites in Merton and a significant electricity substation at Plough Lane, which was the initial site of a major power failure in London.

Parkside Hospital should be noted as it contains radioactive materials

**South West Sub Regional Resilience Forum Hazardous Sites**

Richmond Park, National Research Laboratories – Teddington. Treatment of Pathogens

Lower Tier COMAH site: Thames Water Utilities, Lower Sunbury Road.

Kingston Hospital should be noted as it contains radioactive materials.

St. Georges – Hospital should be noted as it contains radioactive materials.

**Contents**

[Contents 3](#_Toc60415401)

[1. Introduction and Background 4](#_Toc60415402)

[2. London Risk Register: High-Level Summary Risk Matrix 7](#_Toc60415403)

[3. London Risk Register 8](#_Toc60415404)

[4. Risks removed from the London Risk Register since last publication (v9 2020) 36](#_Toc60415405)

[Appendix 1 - The 6 Stage Risk Assessment Process 37](#_Toc60415406)

[Appendix 2 – Likelihood and Impact Scoring Scales 38](#_Toc60415407)

[Appendix 3 – Overall Risk Rating Definitions 39](#_Toc60415408)

**1.0 Introduction and Background**

Risk assessment underpins the work of the [London Resilience Forum](http://www.londonprepared.gov.uk). Assessments within the London Risk Register drive the development of multi-agency capabilities to prevent, mitigate, respond to and recover from incidents.

Publication of the London Risk Register is designed to assist Local Authorities and businesses develop their own emergency and business continuity arrangements.

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. 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.

Each risk is scored for impact and likelihood. 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 London Risk Register is designed to provide a summary of the main risks affecting Greater London. The UK [National Risk Register](https://www.gov.uk/government/publications/national-risk-register-2020) (2020) provides a similar outline of risk for the UK as a whole. Further risk assessments are conducted within each London Borough, providing additional information on locally specific risks and response arrangements.

**1.1 Change in methodology**

In 2019, the Cabinet Office published an updated version of the National Security Risk Assessment (NSRA, available on Resilience Direct) which assesses threats and non-malicious risks under the same methodology, using the same likelihood and impact scales. To accommodate the new threats and risks in this manner, some changes were made to the risk assessment methodology.

* Likelihood is no longer assessed over five years, but is expressed as the annual likelihood of the RWCS occurring, with the assessment valid for two years.
* The impact assessment has been expanded to bring more detail and less ambiguity into the assessments: additional “impact indicators” were introduced which brings more specificity into the assessments, and the tables used to score each indicator have been updated with numerical examples which will eliminate some subjectivity from assessments.
* The likelihood and impact are now presented on logarithmic scales; previously the scales were linear.

Likelihood and impact are still presented on a five point scale. See Appendix 2 for more detail.

**1.2 New risks**

The 2019 NSRA introduced several new risks which have been included in the 2020 London risk assessment. In addition, some risks previously in the London Risk Register have been amalgamated with others or removed in the assessment process, which has led to some changes to existing risks.

New risks referenced in the NSRA that are now considered in the London Risk Assessment:

**R43 Undermining Democratic Processes** – This risk considers the possibility of interference in the UK’s election processes.

**R54 Major Fire** – There are a number of fire risks on the national and London risk assessments, but none had previously considered the possibility of a large fire in a building in an urban area. R54 fills this gap.

**R66 Radiation Release from Overseas Incidents** – This risk considers the possibility of an incident at a nuclear power station overseas. A separate risk from the NSRA that considers a nuclear incident on UK soil was discounted on the grounds that the outcomes of both risks are similar and so the consequences and impacts will be similar.

**R72 Collapse of a Major Government Contractor** and;

**R73 Major Social Care Provider Failure** – These two risks focus on the sudden failure of a government contractor or the failure of a major social care provider. These risks are rated the same for London as they are nationally because an incident of this type is likely to have the greatest impacts in London.

**R79 Technological Failure at a Retail Bank** – This risk focusses on a scenario where local banking services are suddenly unavailable leading to short term financial issues for large numbers of people.

**R96 Growth and Spread of Antimicrobial Resistance** – The reasonable worst case scenario of this risk describes long term steady increases in anti-microbial resistance and the resulting impacts on the health sector.

**R99 Industrial Action (Firefighters)** – This risk is a more specific version of the previous risk “Industrial action - essential workers” which is now separate.

**R118 Deliberate Disruption of Space Based Services** – This risk considers the outcome of an international war disrupting the UK’s satellite communications services. The risk was excluded from the London Risk Register on the grounds that acts of war are out of scope of this review. (See also excluded risks.)

Further detail on how risks have changed since the last assessment is available in the risk register and in section 4.

**Threats**

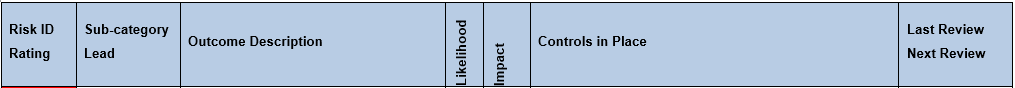
Threats and cyber risks are categorised by target or mode of attack and are presented across seven threats at the end of this document with T reference numbers. In the previous London Risk Register London specific assessments were completed with impacts and likelihoods, which necessitated their removal from the publically available version of this document. The threat assessments included in this version contain only information that is also publically available on the National Risk Register.

Threats to the UK are summarised across seven risks which summarises information by target (e.g. attacks on crowded places) or mode of attack (e.g. “unconventional attack”).

**1.3 Understanding the Risk Register**

Risks are grouped by theme and presented in order of overall rating within that theme, with the 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 and terrorist threats.

The headings used on the London Risk Register are as follows:



**Risk ID:** Unique reference number for each risk. R denotes risk is also a national risk.

**Rating:** Overall risk rating based on likelihood and overall 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 assessment

**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 Risk Review Schedule**

All risks with an overall rating of “Very high” and “High” will be reviewed yearly, other risks will be reviewed every two years; review dates are in the right hand column of the register ([section 3](#_London_Risk_Register)).

All risks that are new to the London Risk Register v10, including threats and cyber risks, will be reviewed in 2021 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 aid 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](https://www.met.police.uk/police-forces/metropolitan-police/areas/about-us/about-the-met/the-london-emergency-services-liaison-panel/) (LESLP)
* [Joint Emergency Services Interoperability Principles](https://www.jesip.org.uk/home) (JESIP)
* Pan-London emergency response plans and frameworks available on [london.gov.uk](https://www.london.gov.uk/what-we-do/fire-and-resilience/london-resilience-partnership/planning-emergencies-capital) covering generic response procedures, consequence based planning for use in various incidents, and incident-specific plans.

# London Risk Register: High-Level Summary Risk Matrix

Ensure risk matrix matches up with risk assessments if you change any!

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Impact** | **5** | **R64** LargeToxic Chemical Release |  | **R76** National Electricity Transmission,  **T7** Larger scale CBRN Attacks | **R95** Influenza-type Pandemic |  |
| **4** | **R71** Aviation Crash, **R55** Fire or Explosion at a fuel distribution site, **R57** Explosion at a high pressure gas pipeline, **R74** Reservoir/Dam Collapse, **R66** Radiation Release from overseas | **R77** Gas Supply Infrastructure, **R68** High Consequence Dangerous Goods, **HL105** Complex Built Environments | **R83** Surface Water Flooding, **R92** SevereSpace Weather, **L21** Fluvial Flooding, **R84** Severe Drought |  |  |
| **3** | **HL23** Bridge Collapse, **HL34** Evacuation of passenger ship, **HL22** Building Collapse, **R75** Water Supply Infrastructure | **R69** Food Supply Contamination, **HL7** Industrial Explosion and Major Fires, **R80** Systemic Financial Crisis, **R11** Malicious maritime incident | **R91** Low temperatures and heavy Snow, **R54** Major Fire, **R96** Growth of Anti-Microbial resistance, **R97** Emerging Infectious Disease, **R85** Poor Air Quality,  **L19** Groundwater Flooding, **HL19** Coastal/Tidal Flooding | **R90** Heatwave, **R87** Volcanic Eruption, **T2** Attacks on Infrastructure, **T3** Attacks on Transport, **T6** Medium scale CBRN Attacks | **R104** Public Disorder |
| **2** | **R67** Maritime Pollution, **R62** Accidental Release of Biological Pathogen, **R103** Insolvency affecting fuel supply | **R78** Disruption to telecoms systems, **HL33** Wildfires, **HL11** Railway Accident, **R98** Animal Disease, **R102** Industrial Action (fuel) | **R93** Storms and Gales, **H35** Industrial Action (public transport), **HL21** Land Movement, **HL3** Localised industrial accident involving small toxic release, **R101** Industrial action public transport | **R105** Influx of British Nationals, **R63** Accidental Release of a Biological Substance, **HL10** Local Accident on Motorways/ Major Trunk Roads, **R72** Collapse of major government contractor, **R73** Major Social care Provider, **R79** Technological failure at a retail bank, **R100** Industrial action (prison officers), **T4** Cyber attacks, **T5** Smaller scale CBRN Attacks | **R99** Industrial Action (firefighters), **T1** Attacks on Publically Accessible Locations |
| **1** | **R70** Radiation exposure from stolen goods, **HL9b** Small Aircraft Incident, **R94** Earthquake |  | **R43** Undermining democratic activity |  |  |
|  | | **1 - Low** | **2 - Medium/Low** | **3 - Medium** | **4 - Medium/High** | **5 - High** |
| **Likelihood** | | | | |

# London Risk Register

When updating the risk register to reflect borough risks please add in any borough specific controls (plans, procedures etc), update the lead agency if different and feed any major changes up to LRAG via your sub-regional LRAG rep.

3.1 Accidents and system failures

| **Risk ID**  **Rating** | **Sub-category**  **Lead** | **Outcome Description** | **Likelihood** | **Impact** | **Controls in Place** | **Last Review**  **Next Review** |
| --- | --- | --- | --- | --- | --- | --- |
| **R76**  **VERY HIGH** | Systems Failure  LFB | **National Electricity Transmission**  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. | 3 | 5 | Testing and maintenance regime.  London Power Supply Disruption Plan  EDF Energy System Emergency Plan.  EDF Energy Emergency Communication Plan.  EDF Energy Black Start Plan.  Business Continuity Plans for Category 1 and 2 Responders, businesses and other key organisations  London Power Supply Disruption Plan  Major Incident/Emergency Plans for Category 1 and 2 Responders. | 2019  Sept 2021 |
| **HL105**  HIGH | Accident  Local Authorities | **Complex built environments**  Consequences of a major incident affecting large buildings or a complex built environments. Incidents in these facilities/areas have the potential to trigger a complex chain of events that lead to serious consequences for public safety. | 2 | 4 | 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 and 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 | Nov 2020  Sept 2021 |
| **R64**  **HIGH** | HAZMAT  LFB | **Large Toxic Chemical Release**  Large toxic chemical release caused by release of chlorine or a number of other chemicals. This incident arises from possible mechanical equipment/process failure or corrosion, and not necessarily involving fire or explosion. | 1 | 5 | Control of Major Accident Hazards Regulations 2005 (COMAH)  Regulatory Reform (Fire Safety) Order 2005  Emergency Services and other responder specialist resources | Nov 2020  Sept 2021 |
| **R68**  **HIGH** | HAZMAT  LFB | **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 200 fatalities and up to 500 people requiring medical treatment. The explosion will cause varying degrees of damage to property and infrastructure depending on their distance from the incident. This risk would result in a toxic plume/gas cloud which would be harmful to the population, resulting in evacuation of the immediate area. | 2 | 4 | Health & Safety at Work etc 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 | Nov 2020  Sept 2021 |
| **R54**  HIGH | Accident  LFB | **Major Fire**  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. | 3 | 4 | Regulatory Reform (Fire Safety) Order 2005  Fire Safety Approved Document B  Fire & Rescue Services Act 2004  LFB Guidance Note 29  LFB Operational tactical and building plans  LFB Urban Search & Rescue Teams (USAR)  Fire Service National Resilience Assets  LAS Hazardous Area Response Team (HART)  Local Authority Dangerous Structures Engineer  Casualty Bureau  London Frameworks including:   * Strategic Coordination Protocol * Mass Fatalities Framework * Mass Casualties Framework * Humanitarian Assistance Framework | Dec 2020  Sept 2021 |
| **R77**  **HIGH** | Systems Failure  LFB | **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 | National Emergency Plan for Fuel | Dec 2020  Sep 2020 |
| **R69**  **MED** | HAZMAT  Local Authorities (W) | **Food Supply Contamination**  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 while the source if contaminate is identified, and an overall response time of months. | 2 | 3 | Food Safety Act 1990  Imports monitored  Local Authority Environmental Health Sampling  Public Health England monitoring and surveillance  Food Standards Agency plans | Nov 2020  Sept 2022 |
| **R63**  **MED** | HAZMAT  PHE | **Accidental Release of a Biological Substance**  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. | 4 | 2 | Health & Safety at Work Act etc 1974  Control of Substances Hazardous to Health Regulations 2002  The Notification of Cooling Towers and Evaporative Condenser Regulations 1992 require the notification of wet cooling towers and evaporative condensers to local authorities  Management of Health & Safety at Work Regulations 1999  Reporting of Injuries Diseases and Dangerous Occurrences Regulations | Nov 2020  Sept 2022 |
| **R55**  MEDIUM | Accident  LFB | **Fire or explosion at a fuel distribution site**  Fire or explosion at a fuel distribution site, or at a site storing flammable and/or toxic liquids. | 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 2020  Sept 2021 |
| **R57**  MED | Accident  LFB | **Explosion at a high pressure gas pipeline**  Fire or explosion at a gas pipeline following ignition of gas under high pressure. This could result in a crater, destruction of buildings and evacuation of homes, as well as a cloud of gas/vapour. | 1 | 4 | Pipeline Safety Regulations 1996  Regulatory and industry measures including provision of maps for excavation  Emergency Services and other responder specialist resources | Nov 2020  Sept 2022 |
| **R71**  MED | Accident  LFB | **Aviation crash**  The worst case scenario involves the collision of two commercial aircrafts. | 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  CAA Maintenance and Flight safety standards exceed ICAO recommendations  Airline maintenance regimes subject to CAA scrutiny and regulation.  Strict controls over London Approach. | Nov 2020  Sept 2022 |
| **HL3**  MED | Accident  LFB | **Localised industrial accident involving small toxic release**  Localised industrial accident involving small toxic release impacting up to 1km from site causing up to 10 fatalities and up to 100 casualties. | 3 | 2 | Control of Major Accident Hazards Regulations 2005 (COMAH)  Regulatory Reform (Fire Safety) Order 2005 | Nov 2020  Sept 2021 |
| **HL7**  MED | Accident  LFB | **Industrial explosions and major fires**  A fire or explosion at a flammable gas terminal (including LPG/LNG storage sites) reaching 1km around site, causing up to 50 fatalities and 150 casualties. | 2 | 3 | Legislation: Control of Major Accident Hazards (COMAH) Regulations 1999  Regulatory Reform (Fire Safety) Order 2005  Building design and fire protection systems to prevent or limit the spread of fire  Emergency Services and other responder specialist resources | Nov 2020  Sept 2021 |
| **HL10**  MED | Accident  TfL | **Local accident on motorways and major trunk roads**  Multiple vehicle incident causing up to 10 fatalities and up to 20 casualties (internal injuries, fractures, possible burns); closure of lanes or carriageway causing major disruption and delay. | 4 | 2 | The Road Traffic Act 1988  The Road Vehicle (Construction and Use) Regulations 1986  The Traffic Management Act 2004 | Nov 2020  Sept 2021 |
| **HL11**  MEDIUM | Accident  TfL | **Railway 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. | 2 | 2 | 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 etc. Act 1974  The Railway (Safety Case) Regulations 2000 | Nov 2020  Sept 2021 |
| **HL22**  **MEDIUM** | Accident  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 a number of persons to be trapped or missing. 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 responders specialist resources | Nov 2020  Sept 2022 |
| **HL23**  MED | Accident  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 a number of persons to be trapped or missing. | 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 | Nov 2020  Sept 2022 |
| **HL34**  MEDIUM | Accident  MCA | **Evacuation of passenger ship**  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. | 1 | 3 | Port of London Act 1968 (as amended)  General Directions for Navigating in the Port of London  Port of London Thames Byelaws 2012  International and national regulation of shipping aimed at preventing accidents by the safe construction, equipment and operation of ships by competent crews and shipping operators. These regulations are enforced by Flag States and subject to rigorous Port State Control checks, co-ordinated in European waters MCA (Class V legislation and High Speed Craft Code)  Port Marine Safety Code  Port of London Authority Emergency Plans | Nov 2020  Sept 2022 |
| **R75**  MEDIUM | Systems Failure  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 1998  Water companies mutual aid arrangements in place | Nov 2020  Sept 2022 |
| **R78**  MEDIUM | Systems Failure  LFB | **Disruption to or failure of telecommunications systems**  Loss of fixed and mobile telecommunications (both voice service and internet access) for up to 100,000 people for up to 72 hours. | 2 | 2 | Civil Contingencies Act 2004  Telephone provider demand and network capacity management strategies  National Emergency Alert for Telecoms | Nov 2020  Sept 2021 |
| **R79**  MEDIUM | Systems Failure | **Technology Failure at a retail Bank**  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. | 4 | 2 | 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. | Sept 2020  Sept 2022 |
| **R74**  **MEDIUM** | Systems Failure  EA | **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 | Nov 2020  Sept 2022 |
| **R66**  **MEDIUM** | Accident  LFB | **Radiation Release from overseas nuclear accident**  A radioactive substance release that affects the UK as a result 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. | 1 | 4 | REPPIR | Nov 2020  Sept 2021 |
| **R62**  **LOW** | HAZMAT  PHE | **Accidental release of a Biological Pathogen**  Biological substance release from a facility where pathogens are handled deliberately (e.g. Hazard Group 3 or 4 pathogen release from containment laboratory). A pathogen is accidentally released from a containment laboratory in an urban area that causes up to 5 fatalities, up to 500 hospital admissions, and a further 1500 non hospital cases. | 1 | 2 | Animal Health Act 1981  Specified Animal Pathogens Order 1998  Health & Safety at Work etc Act 1974  Control of Substances Hazardous to Health Regulations 2000  Management of Health & Safety at Work Regulations 1999  Reporting of Injuries Diseases and Dangerous Occurrences Regulations  Carriage of Dangerous Goods (Classification, Packaging and Labelling Regulations H12  Genetically Modified Organisms (Contained Use) Regulations 2000  Regulation, audit and enforcement of legislation by HSE | Nov 2020  Sept 2022 |
| **R67**  **LOW** | HAZMAT  PLA | **Maritime Pollution**  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. | 1 | 2 | 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 PLA licence  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 | 2019  Sept 2021 |
| **R70**  **LOW** | HAZMAT  LFB | **Radiation exposure from stolen 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'. | 1 | 1 | Radioactive Substances Act 1993  High Activity Sealed Source Regulations 2005  Arrangements for safe handling and disposal of radioactive sources  Radiation detectors at high risk sites  Environment Agency inspections of all major sources  Emergency Services specialist resources | Nov 2020  Sept 2022 |
| **HL9b**  LOW | Accident  LFB | **Small Aircraft Incident**  An aircraft incident within the boundary of the airport, not directly impacting an urban environment. | 1 | 1 | Stringent controls on aircraft entering UK Airspace including the mandatory use of Aircraft Collision Avoidance systems on heavy aircraft  UK flight separation rules  CAA Maintenance and Flight safety standards  Airline maintenance regimes | Nov 2020  Sept 2021 |

3.2 Human and Animal Diseases

| **Risk ID**  **Rating** | **Lead** | **Outcome Description** | **Likelihood** | **Impact** | **Controls in Place** | **Last Review**  **Next Review** |
| --- | --- | --- | --- | --- | --- | --- |
| **R95**  VERY HIGH | PHE | **Influenza-type pandemic**  A worldwide outbreak of influenza occurs when a novel flu virus emerges with sustained human to human transmission. Up to 50% of the population may experience symptoms, which could lead to up to 750,000 fatalities in total in the UK. Absenteeism would be significant and could reach 20% for 2-3 weeks at the height of the pandemic, either because people are personally ill or caring for someone who is ill, causing significant impact on business continuity. | 4 | 5 | NHS Vaccination Programme (Seasonal and provision for pandemic specific)  Specific NHS capacity and response planning  Comprehensive surveillance systems | 2019  Sept 2021 |
| **R96**  HIGH | PHE | **The growth and spread of anti-microbial resistance**  The emergence of a pan-resistance, highly virulent bacterial strain causing a number of different pan-resistant bacterial infections to develop that can spread between people. Existing control measures would be overwhelmed and transmissions would be sustained between health care settings and communities. | 3 | 3 | Health & Safety at Work etc Act 1974  Management of Health & Safety at Work Regulations 1999  Health Sector response plans.  Regulation and audit by HSE  Guidance produced by PHE for acute trusts to control spread of CPE  The Advisory Committee on Dangerous Pathogens (ACDP)  Carriage of Dangerous Goods (Classification, Packaging and Labelling Regulations  Genetically Modified Organisms (Contained Use) Regulations 2014 | Nov 2020  Sept 2021 |
| **R97**  HIGH | PHE | **Emerging infectious diseases**  Based upon the experience of the outbreak of SARS and more recently, MERS and Ebola, the worst case likely impact of such an outbreak originating outside the UK would be cases occurring amongst returning travellers and their families and close contacts, with spread to health care workers within a hospital setting. However, it is unlikely to present a wider threat to the UK through sustained spread. | 3 | 3 | NHS Vaccination Programme  Specialist capability and capacity planning in NHS trusts  Comprehensive surveillance systems and response arrangements | 2019  Sept 2021 |
| **R98**  MEDIUM | Local Authorities (SE) | **Outbreak of animal disease**  Disease introduced into a predominantly sheep area and infected animals sold at market or moved to other premises before disease is detected resulting in widely dispersed multiple outbreaks. Assessment based on the need to cull and dispose up to 4 million animals with up to 900 infected premises across UK. Movement of all susceptible livestock prohibited unless licensed. Economic and reputational losses to the agriculture and food chain industry. Loss of disease free status resulting in EU and third country import bans on livestock and livestock products from susceptible animals. | 2 | 2 | Animal Health Act 1981  Animal Health Act 2002  Other secondary legislation and EU directives  National disease control strategies | Nov 2020  Sept 2021 |

3.3 Societal Risks

| **Risk ID**  **Rating** | **Sub-category**  **Lead** | **Outcome Description** | **Likelihood** | **Impact** | **Controls in place** | **Last Review**  **Next review** |
| --- | --- | --- | --- | --- | --- | --- |
| **R104**  HIGH | Humanitarian  MPS | **Public Disorder**  Large scale public disorder at site(s) in a single city, or in multiple cities, occurring concurrently over several days. | 5 | 3 | Specific riot and public order legislation  Public Order Act 1986  Police community tension monitoring processes  Police community engagement teams  Advice and guidance from police regarding legitimate protest from event planners | Nov 2020  Sept 2021 |
| **R105**  MEDIUM | Humanitarian  Local Authorities | **Influx of British Nationals**  Influx of destitute/vulnerable British Nationals who are not normally resident in the UK and cannot be accommodated by family/friends. Up to 10,000 BNs not normally resident in the UK returning to the UK within a 3-4 week period following conventional war, widespread civil unrest or sustained terrorism campaign against British and other Western nationals. Around 2% of returnees require statutory support including housing, health services and access to welfare. | 4 | 2 | Local authority: Standard social care and emergency housing arrangements. Existing mutual aid agreements in place across London.  Heathrow Travel Care – a team of social workers.  Other organisations: Full time officer located at Heathrow (alongside Heathrow TravelCare) to consider the issue of repatriation at ports. Position funded by the Foreign & Commonwealth Office.  Red Cross and FCO agreement on repatriation; Meet & greet returning passengers at airport, arrange onward transport, supported by the FCO | Nov 2020  Sept 2021 |
| **R102**  MEDIUM | Industrial Action  Local Authorities | **Industrial action (fuel supply)**  Actual or threatened significant disruption to the distribution of fuel by road, including as a result of 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  National Emergency Plan for Fuel | Nov 2020  Sept 2021 |
| **R101**  MEDIUM | Industrial Action  TfL | **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 | Nov 2020  Sept 2021 |
| **R99**  MEDIUM | Industrial Action  LFB | **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 | 2 | Police Act (1996)  RCN Code on Industrial Action  Alternative emergency cover protocols for the Fire Brigade  Organisational Business Continuity Arrangements  Recall to active duty | Nov 2020  Sept 2021 |
| **R100**  MEDIUM | Industrial Action  MoJ | **Industrial action (Prison officers)**  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) | 2019  Sept 2021 |
| **R80**  MEDIUM | Failure of governance  Business Sector Panel | **Systemic Financial Crisis**  A severe economic downturn and/or crisis of confidence precipitates the failure of one or more UK banks. This would have a major negative impact on the GDP (Gross Domestic Product) by reducing bank lending, consumption and broader investment. Such a crisis would likely lead to a recession, and accompanying pressure on living standards. | 2 | 3 | PRA, FCA and FPC regulatory bodies  Financial Services and markets Act 2000 | Nov 2020  Sept 2021 |
| **R72**  MEDIUM | Failure of Governance  Local Authorities | **Collapse of a major government contractor**  The collapse of a major provider of integrated facilities and construction services for a range of private and public organisations. | 4 | 2 | Commercial business continuity and contingency plans  Service continuity plans to maintain critical services | Nov 2020  Sept 2021 |
| **R73**  MEDIUM | Failure of governance  Local Authorities | **Major Social Care Provider Failure**  The failure of a major domiciliary care provider affecting 20,000 nationally 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 2020  Sept 2021 |
| **R103**  LOW | Failure of governance  Local Authorities | **Insolvency affecting fuel supply**  Significant disruption to fuel supplies as a result of an 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 orgs to maintain fuel supplies while market responds.  Central government arrangements for emergency fuel deliveries from downstream oil industry to maintain deliveries to key sites. | Nov 2020  Sept 2021 |

3.4 Natural Hazards

| **Risk ID**  **Rating** | **Lead** | **Outcome Description** | **Likelihood** | **Impact** | **Controls in Place** | **Last Review**  **Next Review** |
| --- | --- | --- | --- | --- | --- | --- |
| **R83**  VERY HIGH | EA | **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  FFC – Flood Guidance Statements  New building developments controlled through planning guidelines  Multi Agency Flood Plans  London Strategic Flood Framework  National Flood Emergency Plan  Environment Agency Floodline | Nov 2020  Sept 2021 |
| **L21**  VERY HIGH | EA | **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. | 3 | 4 | *See R83* | Nov 2020  Sept 2021 |
| **R92**  VERY HIGH | Met Office | **Severe Space Weather**  Disruption to the electricity grid, resulting in two rural/coastal sub-station disconnections each effecting communities of approx. 100,000 people, with loss of power for 1 month or more and rota-disconnections for a further 1 month or more. Voltage instability may also result in local blackouts, most likely in urban areas lasting a few hours. | 3 | 4 | Electricity Industry monitoring and analysis of GIC  Space Weather is assessed as part of the Daily Hazards Assessment  National Grid design standards and response arrangements  Alternative positioning, navigation and timing signal systems  Forecasting through Met Office Space Weather Operations Centre | Nov 2020  Sept 2021 |
| **R84**  VERY HIGH | EA | **Severe 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. | 3 | 4 | Water Resources Act 1991  DEFRA: Planning for Major Water and Wastewater Incidents in England and Wales  Drought Plan direction document | Feb 2018  Feb 2020 |
| **R87**  HIGH | Department for Transport | **Volcanic eruption**  Volcanic ash incursions for up to 25 days (assumed not to be sulphur-rich) resulting in sporadic and temporary closures of significant parts of UK airspace for up to a total of 15 days (possibly non-consecutive) during a three month eruption period | 4 | 3 | Met Office Volcanic Ash Advisory Centre Forecasting  CAA Volcanic Ash Safety Regime  Airline response plans | 2019  Sept 2021 |
| **R85**  HIGH | EA | **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 cardio-vascular 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 | Nov 2020  Sept 2021 |
| **R90**  HIGH | NHS | **Heatwave**  Daily maximum temperatures in excess of 32°C and minimum temperatures in excess of 15°C over most of a region for around 2 weeks at least with 5 consecutive days where maximum temperatures exceed 32°C. Up to 1,000 fatalities and 5,000 casualties, mainly amongst the elderly. There could be disruption to power supply, telecommunications links and transport infrastructure within the 2 weeks. | 4 | 3 | Health & Safety at Work Act 1974  Public Health Act  Heatwave Plan for England  Long term planning for local authorities, CCG’s and NHS  Climate Change Adaption Strategy for London  Heat Health Watch  Department of Health Heatwave Plan for England | Dec 2020  Sept 2021 |
| **R91**  HIGH | Met Office | **Low temperatures and heavy 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 falls in excess of 10cm at a time, with overall snow depth in excess of 30cm. This would coincide with a period of at least 7 consecutive days with a daily mean temperature below -3°C. | 3 | 3 | Met Office Hazard Manager service  Warning & Informing  Category 1 & 2 responders’ emergency response, BCM and severe weather plans.  Highways Agency, TFL and local authorities’ winter road maintenance plans.  Met Office forecasts & National Severe Weather Warning Service  TfL snow desk  Op GRIDLOCK to support motorists stranded on M25. | Nov 2020  Sept 2021 |
| **L19**  HIGH | EA | **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 Floodline  FFC – Flood Guidance Statements  New building developments controlled through planning guidelines  Multi Agency Flood Plans  London Strategic Flood Framework  National flood emergency plan | Nov 2020  Sept 2021 |
| **HL19**  HIGH | EA | **Coastal/Tidal 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 | *See L19* | Nov 2020  Sept 2021 |
| **R93**  MEDIUM | Met Office | **Storms and Gales**  Storm force winds affect multiple regions for at least 6 hours during a working day. Most inland and lowland areas experience mean speeds in excess of 55mph and gusts in excess of 85mph. | 3 | 2 | Met Office Hazard Manager service  Warning & Informing  Category 1 & 2 responders emergency response plans  Highways Agency response plans.  TfL adverse weather plans  LFB USAR and Water Rescue capabilities.  LAS HART | Nov 2020  Sept 2021 |
| **HL21**  MEDIUM | LFB | **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 a number of persons to be trapped or missing either in landslides itself and/or in collapsed structures. | 3 | 2 | Land use planning restrictions  Building Control regulations enforced by Local Authorities.  Construction, renovation, maintenance and demolition standards | Nov 2020  Sept 2022 |
| **HL33**  MEDIUM | LFB | **Wildfires**  A severe wildfire spreading over an area of 1,500 hectares at an urban-rural interface and lasting for 7 to 10 days. At any one time during the incident period, a fire front covering 20 hectares will burn with significant potential to put firefighters at risk, with a further 100 hectares of vegetation smouldering and/or creeping and carrying the risk of a secondary burn-back. | 2 | 2 | London Fire Brigade borough specific rural strategies  Specialist firefighting equipment and resources | Dec 2020  Sept 2021 |
| **R94**  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   * Site clearance * Evacuation & Shelter * Recovery   Mutual aid arrangements  Specialist fire and rescue assets | Nov 2020  Sept 2021 |

3.5 Hostile State Activity

| **Risk ID**  **Rating** | **Lead** | **Outcome Description** | **Likelihood** | **Impact** | **Controls in Place** | **Last Review**  **Next Review** |
| --- | --- | --- | --- | --- | --- | --- |
| **R43**  LOW | Local Authorities | **Undermining Democratic Activity**  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. | 3 | 2 | UK Electoral processes largely not reliant on computer systems vulnerable to this type of attack | Nov 2020  Sept 2021 |

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](https://www.gov.uk/government/publications/national-risk-register-2020).

Threats are assessed nationally so reassessment dates are not included.

| **Risk ID**  **Rating** | **Outcome Description** | **Likelihood** | **Impact** | **Controls in Place** |
| --- | --- | --- | --- | --- |
| **T1**  MEDIUM | **Attacks on Publically Accessible Locations**  There has been an increase in the frequency of terrorist attacks in the UK from 2017. Nearly all attacks have occurred in publically 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. | 5 | 2 | 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 |
| **T2**  HIGH | **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. | 4 | 3 | 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. |
| **T3**  **HIGH** | **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. | 4 | 3 | 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 |
| **T4**  **MEDIUM** | **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. | 4 | 2 | 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 |
| **T5**  MEDIUM | **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. | 4 | 2 | 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. |
| **T6**  HIGH | **Medium Scale CBRN Attacks**  See T5 outcome description | 4 | 3 | See T5 Controls in Place |
| **T7**  **VERY HIGH** | **Larger Scale CBRN Attacks**  See T5 outcome description  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. | 3 | 5 | See T5 Controls in place |

**Merton Borough assessed risks**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **M1**  HIGH | MPS | **Stadium Incident**  Incident within Wimbledoon AFC Stadium which could encompass over 10,000 people | 2 | 4 | * The stadium has its own Safety Advisory Group (SAG) meets ahead of any contentious match. * Meets regularly throughout the year, and an additional SAG for contentious match. * Multi-agency medical plan in place signed off by LAS. * Match day policing plans (Dependent on who is playing) in the surrounding area. * MPS central football team RAG rate the match risk, which informs the planning. * Safety certificate signed off by the Council. * The Green Guide. | 29/10/20 | * Regular MPS CT awareness delivered to Wimbledon AFC via Project Griffin, Project Argus and Op Trammel. * O.R Operational Requirement conducted to review HVM Hostile Vehicle Mitigation which is in progress. |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **M2**  HIGH | BTP / MPS | **Events with large crowds**  Outdoor events which attract large crowds on crowded places (e.g. gang / stabbings, etc)  Outdoor events which span the Borough e.g. Cycle Race. Attracts large crowds and causes pressure on traffic infrastructure | 3 | 3 | * SAG * Event organisers event safety plan, requiring consideration to this type of attack incl. Hostile Vehicle Mitigation | 29/10/20 | * Event specific SAG’s undertaken with all Partners and Event Organiser.. |

# Risks removed from the London Risk Register since last publication (v9 2020)

**HL4 (Major pollution of inland waters)** – Now covered under the assessment for R67 (Maritime Pollution)

**HL14 (Local Road Accident Involving the transport of fuel/explosives** – Now covered under assessment of **R68 (High Consequence Dangerous Goods)** as RWCS and outcomes of risk assessments are similar.

**HL22a (Small Building Collapse)** – removed as the outcomes are covered by HL22 Building Collapse. BRFs encouraged to consider this as a separate risk.

**HL26a (non-zoonotic animal diseases) and HL26b (zoonotic animal diseases)** – these risks now amalgamated into new risk R98 (Outbreak of animal disease)

**HL28 (Fuel distribution at a natural gas main)** – this risk amalgamated into the assessment for R55 (fire or explosion at a fuel distribution site)

**HL30 (Localised explosion at a natural gas main)** – this risk was amalgamated into the assessment for R57 (Explosion at a high pressure gas pipeline), along with R61, on the grounds that the outcomes were similar.

In addition, several risks that appear on the 2019 NSRA do not appear on the London Risk Register for a variety of reasons: Some are out of scope of the London Risk Assessment, the Cabinet Office states that LRFs should not consider certain risks as the response would be wholly owned by central government (this is the case for the majority of national threats).

# Appendix 1 - The 6 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 uses 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 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 scenarios 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 Scoring 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).

**Likelihood scale**

|  |  |  |
| --- | --- | --- |
| **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 as a result of the risk. |
| Economic | An approximate net economic cost, including both direct (*eg* loss of goods, buildings, infrastructure) and indirect (*eg* 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)* | |

Borough information / back page