Emergency Planning Team

Borough Risk Register

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Version 1.6

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Version	Purpose / Change	Author	Date
1	Confirmation of Borough Resilience Forum members	Andrew Strodder	5th September 2023
2	Redraft of the Borough Risk Register	Andrew Strodder	13th September 2023
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5	Further revisions to the BRF/LB Brent contextualisation	Andrew Strodder	30th November 2023
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Document Circulation – Category One Responders	
Metropolitan Police Service	London Fire Brigade
British Transport Police	London Ambulance Service
UK Health Security Agency	NHS England (London)
London Northwest Hospitals NHS Trust	NHS (Integrated Care Board)
Central Northwest London NHS Trust	Central London Community Healthcare Trust
Environment Agency	Ministry of Defence
London Resilience Group	Met Office
Category Two Responders	
UK Power Networks	National Grid
British Red Cross	Health & Safety Executive
Transport for London	Thames Water
St Johns Ambulance	Telecommunications Providers
Voluntary, Faith Sector and Other Contributors	
Wembley National Stadium	OVO Arena Wembley
Community and Voluntary Organisations - Brent	FaithsForum4London

Contents

1. Introduction

The Civil Contingencies Act 2004 places a legal duty on Category 1 responders to produce a Community Risk Register. Section 2 subsection 1 of the Act requires Category 1 responders 'from time to time access the risk of an emergency occurring' and 'from time to time assess the risk of an emergency making it necessary or expedient for the person or body to perform any of its functions.

This should be linked to the individual Category 1 responders' processes of adding to (or modifying) their plans. Part 1 of the Civil Contingencies Act 2004 (c.36), "emergency" is defined by s.1 (1) of the Act and means:

a) An event or situation which threatens serious damage to human welfare in a place in the United Kingdom or;

b) An event or situation which threatens serious damage to the environment of a place in the United Kingdom or;

c) War or terrorism, which threatens serious damage to the security of the United Kingdom.

It must also meet either of the following criteria:

(a) Where the emergency would be likely to seriously obstruct its ability to perform its functions and/or;

(b) Where the Category 1 responder considers it necessary or desirable to act to prevent, reduce, control, or mitigate the emergencies effects, or otherwise act and would be unable to act without changing the deployment of its resources or acquiring additional resources.

This implies that only serious emergencies need to form part of the risk assessment process. The risk assessment process required need not cover large pre-planned events, as a risk assessment should form part of the event planning stage.

2. Risk Assessment

Risk assessment underpins the work of the Brent Resilience Forum. Assessments within the Borough Risk Register drive the development of capabilities to prevent, mitigate, respond to, and recover from incidents.

Publication of the Brent Borough Risk Register is designed to assist residents and businesses develop their emergency arrangements and to inform about the risks in the local area. 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. The likelihood is expressed as the "annual likelihood of each reasonable worst-case scenarios 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 Borough Risk Register also provides information on specific local risks and response arrangements in addition to the overviews provided on a pan London and national level by the National and London Risk Registers.

2.1. 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 and Borough Risk Registers are as follows, this is done to enable easy comparison between the two documents:

Risk ID Rating	Sub-category Lead	Outcome description	Likelihood	Impact	Controls In Place	Last Review Next Review
Risk ID: A unique reference number for each risk. 'R' denotes the risk is also a national risk. **Rating:** Overall risk rating based upon the 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 worse-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 the greater the impact. **Controls in place:** Plans and procedures in place to mitigate the specific risk. **Last review/next review:** Dates of the last review of the specific risk, and planned date for the next review.						

2.2. 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.

3. Risk Registers

3.1. The National Risk Register

The National Risk Register sets out the assessment of the likelihood and potential impact of a range of risks that may directly affect the UK'. The publication of information on these risks is intended to encourage public debate on security and help organisations, individuals, families, and communities to prepare for emergencies.

The Register provides an assessment of the most significant emergencies which the United Kingdom and its citizens could face. These risks are summarised into three categories: accidents, natural events (collectively known as hazards) and malicious attacks (known as threats).

The different risks are compared on a like for like basis, which helps in making decisions about which to plan for and what their consequences are likely to be. The National Risk Register is intended to capture the range of emergencies that might have a major impact on all or significant parts of the UK. It provides a national picture of the risks we face, and is designed to complement Community Risk Registers, already produced, and published locally by emergency planners.

The driver for this work is the Civil Contingencies Act 2004, which also defines what we mean by emergencies and what responsibilities are placed on emergency responders to prepare for them.

3.2. Community Risk Registers

Community Risk Registers consider the likelihood and potential impact on a range of hazards occurring in specific areas of England and Wales. The London specific risk register is approved and published by London Resilience Forum, which has been established under the Civil Contingencies Act. They include representatives from the local emergency services and public, private, and voluntary organisations. To produce the Community

Risk Registers, Local Borough Resilience Forums use a combination of their judgement about each risk, as well as guidance provided by Central Government.

The Borough of Brent is part of the London Resilience Forum as with all other London Boroughs. All boroughs across London feed into the London Risk Register through their respective subregional resilience forums.

3.3. Borough Risk Registers

Borough Risk Registers consider the main risks specific to the Borough. These are taken from the London Risk Register and adapted for local use. The Brent Borough Risk Register is designed to be a living document that will be revised and updated as and when required.

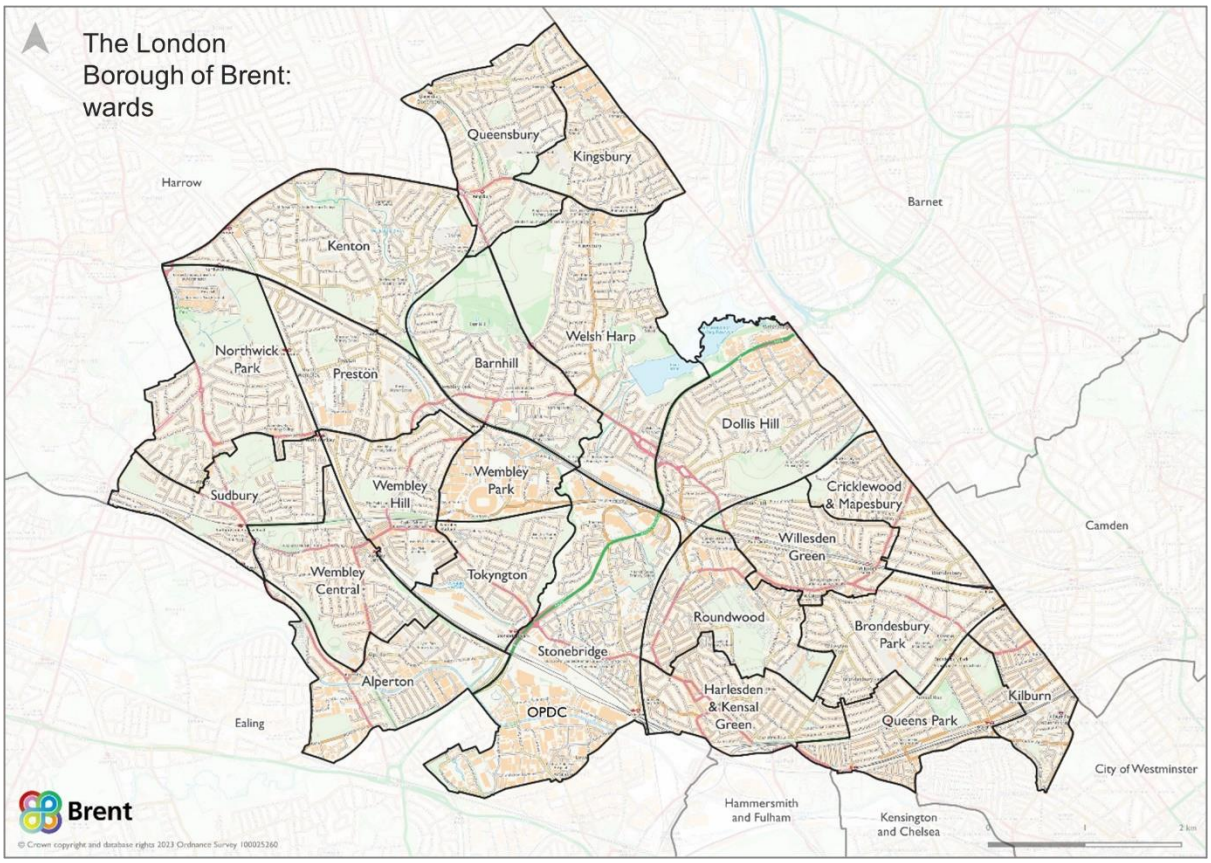
The Borough Risk Register will also include other site-specific risks when relevant.

4. The London Borough of Brent – Contextualisation:

4.1 The area

Brent is situated in Northwest London, between inner and outer London. Brent covers an area of 17 square miles, making it London's fifteenth largest borough by area.

The borough extends from Burnt Oak, Kenton, and Kingsbury in the north, to Harlesden, Queen's Park and Kilburn in the south. Brent borders Barnet to the east, Harrow to the north and Ealing to the west. It also shares small boundaries with the Inner London boroughs of Hammersmith and Fulham, Royal Borough of Kensington and Chelsea, Westminster, and Camden in the south. It also has a boundary with the Old Oak and Park Royal Development Corporation.



The borough is famous for being the home of the National Stadium at Wembley; an internationally renowned venue, principally associated with football, but also other sporting events and concerts. On a typical event day, 40,000 people come through Wembley Park station to visit the stadium[1]. It is also home to the BAPS Shri Swarminayaran Mandir temple in Neasden.

4.2 Population and Characteristics

The census counted 339,800 people resident in Brent in 2021 – making Brent the capital's fifth most populous borough. Brent has seen strong population growth over the decade, rising by 9% between 2011

[1] Wembley in Numbers (Wembley stadium)

and 2021 (+28,600 in number). The latest projections suggest the borough's population is now around 352,000 (as at 2023) [2], and is projected to reach 388,831 by 2041.

Brent is a densely populated borough, with an average of 7,859 people per square kilometre – the 14th highest population density in England & Wales, and the highest in Outer London[3].

In common with other London boroughs, Brent has a younger age profile compared with England & Wales, characterised by more adults aged 20-44 and fewer older residents. Around 12% of Brent residents were aged 65 and over compared with 19% nationally[4].

However, in line with wider trends, the Brent population is ageing. The latest projections suggest the number of older residents, aged 65 and over, will rise by 76% over the period 2021-2041. This equates to an additional 30,000 older residents aged 65 and over by 2041[5].

Brent is one of the most diverse areas in the country and has long attracted a wide range of residents from across the globe. Around 56% of the local population were born abroad, the largest percentage across England & Wales. The top five countries of birth in Brent (after the UK), were: India, Romania, Poland, Somalia and Pakistan[6].

Around two thirds (65%) of residents were from Black, Asian and other minority ethnic groups – the 2nd highest rate in England & Wales. The largest single ethnic group is the Indian population who comprise almost one in five residents (19%) – the 5th highest rate nationally. Brent also has a large white minority population, which includes those from Europe: over one in five Brent residents have EU nationality (22%) - the highest rate nationally[7].

Brent has a large Hindu population comprising 16% of the population – the 3rd highest rate nationally. The borough also has a relatively large Muslim population: 21% of residents were Muslim – the 15th highest rate nationally[8].

Around one third of residents (34%) use a language other than English as their main language – the second highest rate in England & Wales. At least 150 different languages are spoken in the borough. The five most common languages in Brent, after English, were: Gujarati, Romanian, Arabic, Portuguese and Polish[9].

4.3 Growth and Development

The borough in terms of its character can essentially be split into two, north and south of the North Circular Road. The south was substantially developed between 1890 and 1910, and is characterised by terraced housing, with some larger detached and semi-detached properties . Densities are reasonably high with residential and non-residential uses co-existing. Open space is focused in formal spaces such as parks, including Gladstone Park – which has Metropolitan Open Land status. The south of the borough also has the Council's estate regeneration programme at South Kilburn.

The north of the borough was predominantly built out in the 1920s and 1930s as 'metroland' accompanying the growth of rail and underground services. This was essentially of a lower density residential suburban nature. It has greater segregation of land uses; planned more around movement by car with more generous incidental open space, tree planting and parks and open spaces, including Fryent Country Park, Brent reservoir and Northwick Park.

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[2] © Greater London Authority, 2021-based demographic projections (Brent projections - analysis).
[3] Density figures relate to 2021 (Office for National Statistics, 2021 Census)
[4] Office for National Statistics, 2021 Census, First release
[5] © Greater London Authority, 2021-based demographic projections (Brent projections - analysis).
[6] Office for National Statistics, 2021 Census, Country of Birth topic report
[7] Office for National Statistics, 2021 Census, Ethnicity topic report
[8] Office for National Statistics, 2021 Census, Religion in Brent
[9] Office for National Statistics, 2021 Census, Language in Brent

The Council has ambitious plans for 'good growth' set out in the Local Plan 2019-2041. Commercial, residential and infrastructure growth has been, and will continue to be, focussed in the older growth areas of Alperton, Burnt Oak/ Colindale, Church End, South Kilburn, Wembley, and the newer growth areas of Neasden, Northwick Park and Staples Corner.

4.4 Economy

Brent's economy is home to approximately 14,500 businesses. The vast majority of these are micro-businesses employing fewer than 10 people. Unemployment levels are higher, and average salaries are lower, than the London average. The largest employment sectors are public administration, education and health, retail, hospitality, leisure and recreation, and business support.

Economic activity is spread across the borough in industrial locations and the town centres.

4.5 Transport

Brent is well connected with good transport links including more mainly radial rail and underground ions than any other borough in London, with many bus routes which serve town centres within and outside the borough. Whilst to the south access to public transport is high, for some areas to the north accessibility is very low. This combined with good access to radial and orbital roads especially the Strategic Road Network means that northern parts of the borough have a greater reliance on the car.

The main strategic roads however can be severely congested and have challenges of poor public realm, severance, pollution and noise.

Access to the HS2 station in Old Oak and the proposed West London Orbital will both improve orbital connectivity within and outside of the Borough.

4.6 Green and Blue Infrastructure

There is 637ha of green space and approximately 42 ha of water space within the borough. This takes a range of forms – public parks, allotments, local nature reserves and cemeteries, and a Country Park, a canal, a brook, a river and a reservoir. The borough's tree stock contains a wide variety of tree species. There are approximately 18,000 street trees.

5. Navigating the Brent Borough Risk Register:

The Brent Borough Risk Register follows the same format as that of the London Risk Register. It is therefore organised into the following categories:

Accidents and System Failures

Major Fires	Aviation crash
Fires in high-rise flats	Railway accident
Gas supply infrastructure	Building collapse
Biological substance release	Bridge collapse

Human and Animal Diseases

Pandemic Influenza	Anti-microbial resistance
Emerging Infectious disease	Animal disease outbreak

Societal Risks

Public Disorder

Influx of British Nationals

Industrial action – fuel

Industrial action – firefighters

Collapse of major government contractor

Natural Hazards

Surface water flooding

Fluvial flooding

Drought

Poor air quality

Heatwave

Low temperatures/snow

Threats

Attacks on publicly accessible locations

Attacks on infrastructure

Attacks on transport

Cyber attacks

CBRN incidents

Hostile State Activity

Undermining Democratic activity

5.1. London Borough of Brent, Risk Register: High Level Summary Risk Matrix

Impact						
	5	**R64** Large Toxic Chemical release	**R84** Severe drought: **R68** Dangerous goods - high consequence:	**R76** National blackout: **R95** Pandemic influenza:		
	4	**L66** Mishandled radioactive material: **R66** Dangerous goods accident: **R55** Fuel depot fire: **R71** Aviation crash: **R74** Reservoir Dam failure: **R66** Overseas radiation accident	**R105** Large building incident[10]: **R77** Gas supply failure: **L71a** Aircraft collision HL105 Complex Built Environments	**R92** Severe space weather: **R83** Surface water flood: **L21** Fluvial flooding:	**R54** Major Fire: **R54a** High rise fire:	
	3	**R57** Gas explosion: **HL22** Building collapse **HL23** Bridge collapse: **R75** Loss of water supply: **R62** Accidental biological release:	**L64** Local industrial accident: **R69** Food supply contamination: **LB4** Unexploded ordnance[11]:	**R93** Storms/gales: **R96** Growth of anti-microbial resistance: **R97** Emerging infectious disease: **R85** Poor air quality: **R91** Low temp. heavy snow: **L19** Groundwater flooding: **L54d** Wildfire: **L54e** Major Fire Care Home/Hosp:	**R63** Biological release: **R87** Volcanic eruption: **R90** Heatwave:	**R104** Public disorder:
	2	**R103** Insolvency – fuel supply:	**L54b** Public building fire: **HL10** Multiple vehicle incident: **R78** Telecoms failure: **R98** Animal disease outbreak: **R102** Ind. Action - fuel:	**L71b** Small aircraft incident: **HL11** Railway incident: **R101** Ind. Action – public transport: **HL21** Land movements:	**R79** Bank tech failure: **R80** Financial crisis: **R72** Gov. supplier collapse: **R73** Social care provider collapse: **R105** Influx of British Nationals: **R100** Ind. Action – prison officers:	**R99** Ind. Action Firefighters: **L54c** Landfill fire:
	1	**R70** Radiation exposure – stolen goods: **R94** Earthquake:		**R43** Undermining democratic activity:		
		1- Low	**2 – Medium/Low**	**3 - Medium**	**4 – Medium/High**	**5 - High**
		Likelihood				

[10] Large Building Incident – Examples, Wembley National Stadium, Wembley Arena etc.
[11] Shown on the Brent Borough Risk Register but not on the London Risk Register

5.1.1. Local Brent Strategic Risks:

Risk	Controls in place
Climate Change	Information sharing through Met Office - Met Office Hazard Manager - Met Office Website Weather warning alerts received from London Resilience Met Office Advisor (Civil Contingencies) – Alerting cascade
High Rise Tower Blocks	Local building and safety systems and practices LFB operational, tactical, and building plans
Wembley Stadium	Wembley Park Estate, Business Group Wembley Park Estate, Counter Terrorist Group Safety Advisory Groups in place at major sporting grounds
Neasden Temple	Local building and safety systems and practices LFB operational, tactical, and building plans
Floods	Weather warning alerts received from London Resilience (as climate change controls above) Multi-Agency Flood Plan London Strategic Flood Plan Brent Flood Plan
Coronavirus (new and emerging threats)	NHS Vaccination Programme Specialist capability and capacity planning in NHS Trusts UKHSA - Surveillance systems and response arrangements London Strategic Coordination Protocol

5.2. London Borough of Brent Risk Register

5.2.1. Accidents and system failures

Risk ID Rating	Sub-Category Lead	Description	Likelihood	Impact	Controls in Place	Last/ Next Review
R76	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 Emergency Communication Plan EDF Black Start Plan Business Continuity Plans for Category 1 & 2 Responders, businesses, and other key organisations. London Power Supply Disruption Plan Major Incident/Emergency Plans for Category 1 & 2 Responders.	Sept 2022/
R54	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.	4	4	Regulatory Reform (Fire Safety) Order 2005 Fire Safety Approved Document B Fire and 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 • Local Authority Emergency Centre Plan	Sept 2022/
L54a	Fire LFB	**Fires in purpose-built high-rise flats.** Major fire in block of flats containing 80 compartments. Potential for 150-200 fatalities and 200 casualties.	4	4	Refer to risk ID – R54 (above)	Sept 2022/

L54b	**Fire** **LFB**	**Fires in large public and commercial casualties.** Fire in block of flats containing 80 compartments. Potential for 150-200 fatalities and 200 casualties.	2	2	Refer to risk ID – R54 (above)	Sept 2022/
R55	**Accident** **LFB**	Fire or explosion at a fuel distribution site or 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	Sept 2022/
HL105	Accident Local Authorities	**Complex Built Environments** A consequence of a major incident affecting large buildings / complex-built environments such as the Wembley Stadium, Civic Centre, London Design Outlet, Arena etc. 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 & Safety at Work Act 1999 Management of Health & Safety at Work Regulations 1999 Fire and Rescue Services Act 2004 & guidance under the Regulatory Reform (Fire Safety) Order 2005. Safety at Sports Grounds Act 1975 and Fire and Safety Places of Sport Act 1987. Local building and safety systems and practices Safety Advisory Groups in place at major sporting grounds Fire Safety Act 2021	Sept 2022/
R68	HAZMAT LFB	**High Consequence, dangerous goods** A road or oil 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	5	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 Business Continuity Plans for Category 1 & 2 Responders, businesses and other key organisations. Major Incident/Emergency Plans for Category 1 & 2 Responders London Strategic Coordination Protocol	Sept 2022/
R77	Systems Failure LFB	**Gas Supply Infrastructure** A technical failure or accident in an upstream oil/gas facility, gas import pipeline terminal, or Liquefield Natural Gas (LNG) import reception facility leading to disruption in UK gas supplies.	2	4	National Emergency Plan – Fuel	Sept 2022/

Risk ID Rating	Sub-Category Lead	Description	Likelihood	Impact	Controls in Place	Last/ Next Review
R63	HAZMAT UKHSA	**Biological Substance Release** 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	3	Health & Safety at Work Act 1974 Control of Substances Hazardous to Health Regulations 2002 Management of Health & Safety at Work Regulations 1999 The Notification of Cooling Towers and Evaporative Condenser Regulations 1992 Reporting of injuries, Diseases and Dangerous Occurrences Regulations	Sept 2022/
R64	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 Substances Hazardous to Health Regulations 2002 Regulatory Reform (Fire Safety) Order 2005 Emergency Services and other responder specialist resources	Sept 2023/
L66	HAZMAT LFB	**Radioactive incident caused by mishandling of radioactive material.** A radioactive substance released in London because of an accident at a site or during transportation of radioactive material.	1	4	Radiation Monitoring Equipment deployed in affected areas. LFB Mass Decontamination Science and Technical Advisory Cell (STAC) Scientific Advice to Government in Emergencies (SAGE) Radiation Protection Advisers	Sept 2022/
R69	HAZMAT Local Authorities	**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 Local Authority Environmental Health Sampling UKHSA monitoring & Surveillance. Food Standard Agency Plans	Sept 2022/
R57	Accident LFB	**Gas Supply Infrastructure (High Pressure Pipelines)** 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	3	Pipeline Safety Regulations 1996 Regulatory and industry measures, including provision of maps for excavation Emergency Services and other responder specialist resources	Sept 2022/

Risk ID Rating	Sub-Category Lead	Description	Likelihood	Impact	Controls in Place	Last/ Next Review
HL10	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 carriageways causing major disruption and delays.	2	2	The Road Traffic Act 1988 The Road Vehicle (Construction and Use) Regulations 1986 The Traffic Management Act 2004	Sept 2023/
HL11	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.	3	2	Railway & Transport Safety Act 2003 Railways (Access & Management) Regulations 2005 Railways (Accident Investigation & Reporting) Regulations 2005 Railways licensing of Railway Undertakings) Regulations 2005 Railways Act 2005 The Railways Act 2006 Health & Safety at Work Act 1974 The Health & Safety (Enforcing Authority for Railways and other Guided Transport Systems) Regulations 2006 Transport Act 2000 The Railway (Safety Case) Regulations 2000	Sept 2022/
HL22	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 & enforcement Emergency Services and other responder specialist resources.	Sept 2022/
HL23	Accident Local Authorities	**Bridge Collapse** Roads, access roads 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 people to be trapped or missing.	1	3	Building Control regulations enforced by Local Authorities Regular inspections under the Highways Act 1980 Height & Weight restrictions and signs reduce the likelihood of an incident. London structural collapse site management and recovery framework.	Sept 2022/

Risk ID Rating	Sub-Category Lead	Description	Likelihood	Impact	Controls in Place	Last/ Next Review
R75	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.	Sept 2022/
R78	Systems Failure LFB	**Telecommunications** 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	Sept 2021/
R79	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	FS Sector plans to deal with a surge in demand for consumer-facing financial services. Communications 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 2022/
R74	Systems Failure EA	**Reservoir Dam failure** 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	Sept 2022/
R66	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	Sept 2022/

Risk ID Rating	Sub-Category Lead	Description	Likelihood	Impact	Controls in Place	Last/ Next Review
R62	HAZMAT UKHSA	**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 inadvertently released from a containment laboratory in an urban area that causes up to 5 fatalities, up to 500 hospital admissions and a further 1,500 non-hospital cases.	1	3	Animal Health Act 1981 Specified Animal Pathogens Order 1998 Health & Safety at Work Act 1998 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	Sept 2022/
R70	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	Sept 2022/

5.2.2. Human and Animal Diseases

R95	UKHSA	**Pandemic Influenza** 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.	3	5	Health & Safety at Work Act 1974 Management of Health & Safety at Work Regulations 1999 Specific NHS capacity and response planning Surveillance systems London Framework Plans: • Pandemic Influenza framework • Excess Deaths Framework • STAC arrangements	Sept 2022/
R96	UKHSA	**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 Act 1974 Management of Health & Safety at Work Regulations 1999 Health Sector Response Plans Regulation and audit by HSE Guidance produced by UKHSA for acute trusts to control the spread of CPE The Advisory Committee on Dangerous Pathogens (ACDP) Carriage of Dangerous Goods (Classification and Labelling) Regulations Genetically Modified Organisms (Contained Use) Regulations 2014	Sept 2022/
R97	UKHSA	**Emerging infectious disease** 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 Surveillance systems and response arrangements London Pandemic Influenza Framework London Strategic Coordination Protocol	
R98	Local Authorities	**Outbreak of animal disease** Disease introduces 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.	2	2	Animal Health Act 1981 Animal Health Act 2002 Other secondary legislation *and EU directives??* National disease control strategies London Strategic Coordination Protocol Local authority notifiable animal disease planning	

		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.				

5.2.3. Societal Risks

Risk ID Rating	Sub-Category Lead	Description	Likelihood	Impact	Controls in Place	Last/ Next Review
R104	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	2	Specific riot and public order legislation Riot compensation Act 2016 Public Order Act 1986 Police community tension monitoring processes Police community engagement teams Advice and guidance from police regarding legitimate protest from event partners	
R105	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 British nationals not normally resident in the UK, returning to 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 are in place across London. Heathrow Travel Care. Red Cross & FCDO agreement on repatriation	
R102	Industrial Action / Local Authorities	**Industrial Action (fuel supply)** Actual or threatened significant disruption to the distribution of fuel by road, including because 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.	4	2	Legal requirements re: conduct of industrial disputes. Stocks of contingency fuel to varying degrees National Emergency Plan - Fuel	Sept 2023

R101	Industrial Action / TfL	**Industrial Action (public transport)** Strike action by key rail or London Underground staff (e.g., signallers) resulting in the shutdown of very significant amounts of the national rail network or about 3/4 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 & 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/
R99	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	Sept 2022/
R100	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 & Public Order Act (1994)	Sept 2022/
R72	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.	Sept 2023/
R73	Failure of governance 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	Sept 2023/
R80	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.	4	2	Prudential Regulation Authority, Financial Conduct Authority and Financial Policy Committee regulatory bodies Financial Services and markets Act 2000	Sept 2023/

5.2.4. Natural Hazards

Risk ID Rating	Sub-Category Lead	Description	Likelihood	Impact	Controls in Place	Last/ Next Review
R83	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 & Water Management Act 2010 The Flood Risk Regulations 2009 Multi-Agency Flood Plan London Strategic Flood Plan EA Floodline Multi-Agency communication	
L21	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	Flood & Water Management Act 2010 The Flood Risk Regulations 2009 Multi-Agency Flood Plan London Strategic Flood Plan EA Floodline Multi-Agency communication	
R92	Met Office	**Severe Space weather** Disruption to the electricity grid, resulting in two rural/coastal sub-station disconnections each affecting 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 Weather Operations Centre	Sept 2022/
R84	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.	2	5	Water Resources Act 1991 DEFRA: Planning for Major Water and Wastewater Incidents in England & Wales Drought Plan direction document	

R87	Local Authorities	**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 3-month eruption period.	4	3	Met Office Volcanic Ash Advisory Centre Forecasting CAA Volcanic Ash Safety Regime Airline Response Plans	
R85	**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 Regulations 2010 European directive on ambient air quality and cleaner air for Europe (2008/EC) The UK Air Quality Strategy Environmental Permitting Regulations 2010 Clean Air Act & Environmental Protection Act 2010 Local Authority air quality management areas and action plans London Mayor's Air Quality Strategy, which encompasses ULEZ & Low Emissions Neighbourhoods AirTEXT warning system. Local Air Quality Action Plans Local Air Monitoring Network GLA Air Quality Action Plan	
R90	**UKHSA**	**Heatwave** Daily maximum temperatures in excess of 32°C and minimum temperatures in excess of 15°Cover 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 & NHS Climate Change Adaption Strategy for London Heat Health Watch Department of Health Heatwave Plan for England	Sept 2022
R91	**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 Cat 1&2 responders emergency response, business continuity and service 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 the M25	Sept 2022

Risk ID Rating	Sub-Category Lead	Description	Likelihood	Impact	Controls in Place	Last/ Next Review
L19	**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 Southeast of London where the geology is predominately chalk.	3	3	Flood & Water Management Act 2010 The Flood Risk Regulations 2009 Land drainage Act 1991 EA Floodline FFC Flood Guidance Statements National flood emergency plan Multi-Agency Flood Plan London Strategic Flood Plan EA Floodline Multi-Agency communication	
R93	**Met Office**	**Storms & Gales** Storm force winds affecting Brent 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 Cat 1 & 2 responder emergency plans Highways Agency response plans TfL adverse weather plans LFB USAR & Water Rescue capabilities LAS HART	
HL21	**LFB**	**Land Movements** 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 landslide itself and/or in collapsed structures.	3	2	Land use planning permission Building Control regulations enforced by local authorities Construction, renovation, maintenance, and demolition standards	
L54c	**LFB**	**Fires involving landfill and waste processing sites.** Major fire lasting several days with significant environmental and local impacts.	5	3		
L54d	**LFB**	**Wildfires in proximity to large urban areas** 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.	3	3		

Risk ID Rating	Sub-Category Lead	Description	Likelihood	Impact	Controls in Place	Last/ Next Review
L54e	LFB	**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		
R94	Local Authorities	**Earthquake** An earthquake that results in the ground shaking with an intensity of six on the European Microseismical 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		

5.2.5. Threats

Risk ID Rating	Outcome Description	Likelihood	Impact	Controls In Place
T1	**Attacks on Publicly Accessible Locations** There has been an increase in the frequency of terrorist attacks in the UK since 2017. Nearly all attacks have occurred in public ally 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 provide advice to the public, including digital tools and e-learning.
T2	**Attacks on Infrastructure** Critical National Infrastructure is 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 the Centre for the Protection of National Infrastructure and local Police services. National Cyber Security Centre advises the government and industry on how to secure cyberinfrastructure and respond to incidents. Consequence based planning by the authorities ensures that responses to a variety of emergencies are already planned for.

T3	**Attacks on Transport** In the UK, conventional terrorist attacks on land and airbased 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 the Department for Transport require certain organisations to deliver a range of security measures. Department for Transport also provides advice and best practise to other sectors. “See it. Say it. Sorted.” campaign. British Transport Police work with industry and Department for Transport 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 Metropolitan Police Service Protective Security Operations and British Transport Police.

Risk ID Rating	Outcome Description	Likelihood	Impact	Controls In Place
T4	**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-increase the 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, Critical National Infrastructure, 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 National Cyber Security Centre 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 the public regarding cyber threats and security. Centre for Protection of National Infrastructure providing security and cyber security advice.
T5	**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**	**3**	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	**Medium Scale CBRN Attacks** See T5 outcome description	**4**	**3**	See T5 Controls in Place
T7	**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

5.2.6. Hostile State Activity

Risk ID Rating	Sub-Category Lead	Description	Likelihood	Impact	Controls in Place	Last/ Next Review
R43	**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	1		
LB4		**Unexploded Ordnance** Discovery of any unexploded ordnance resulting in the evacuation of up to 400m cordon for up to 24 hours and up to 100 people.	2	3		

6. Risks Removed from the Brent Borough Risk Register.

Risk removed as deemed non-applicable to the London Borough of Brent.

Risk ID	Risk Subcategory	Rationale
HL34	**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.	The London Borough of Brent is land locked.
R67	**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.	The London Borough of Brent is land locked.
R61	**Fire or explosion at an onshore fuel pipeline** Accidental fire or explosion occurs at an onshore fuel pipeline close to a populated area affecting an area around the explosion of up to 1km.	The London Borough of Brent is a non-costal Borough well outside the potential 1km 'hot (explosion) zone'.

Appendix 1 – The Six Stage Risk Assessment Process

Contextualisation

A range of factors influences 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 its 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 two 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 scenarios 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 is collated into the Borough Risk Register.

Risk treatment

Gaps in capability against the reasonable worst-case scenarios are assessed periodically by the London Resilience Forum, where additional risk management options are agreed upon 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 usually 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 reasonable worst-case scenarios, needs for mass evacuation, and short-and long-term accommodation.
Behavioural Impacts	Psychological impacts of the risk, including how people's perceptions 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 reasonable worst-case scenarios 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 are 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 is 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)	