



Community Risk Register Bromley Borough

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1. Bromley Borough Emergency Planning Group Membership And distribution list

	Agency
	Category 1 Responders
1	London Borough Bromley (Emergency Planning and Public Health)
2	Metropolitan Police Service and British Transport Police
3	London Fire Brigade
4	London Ambulance Service
5	Public Health England
6	NHS England (London)
	Other Local Representatives
7	London Fire Brigade EP
8	British Red Cross
9	Biggin Hill Airport Fire Service
10	Clinical Commissioning Group
11	Faith Rep
12	Oxleas NHS
13	Environment Agency
14	Bethlem Royal Hospital
15	Princess Royal University Hospital
16	London Resilience Team
17	INTU Shopping Centre
18	British Red Cross
19	Community Links Bromley

2 Introduction and Background

The Civil Contingencies Act 2004 ('The Act') places a legal duty on Category 1 responders to assess the risk of an emergency occurring and publish a Community Risk Register. Section 2, sub-section 1 of the Act requires Category 1 responders '... from time to time assess 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 individual Category 1 responders' processes of adding to (or modifying) their own individual plans.

Further details on the risk assessment duty can be found within Chapter 4 of the *Emergency Preparedness* guidance document which has been published by HM Government.

This document is the first step in the emergency planning and business continuity cycle in order to identify the risks applicable to the Borough and then plan according to the priorities identified. The process used locally to assess the risk of an emergency is based on National and London guidance which is consistent with the major risk management standards. The Bromley Borough Resilience Forum coordinates the process and agrees the assessments contained within this document using local knowledge and experience which is informed by National and London risk advice and guidance.

3 Borough Profile

The London Borough of Bromley is part of the South East London Resilience Forum and comprises the Boroughs of Bexley, Croydon, Greenwich and Lewisham.



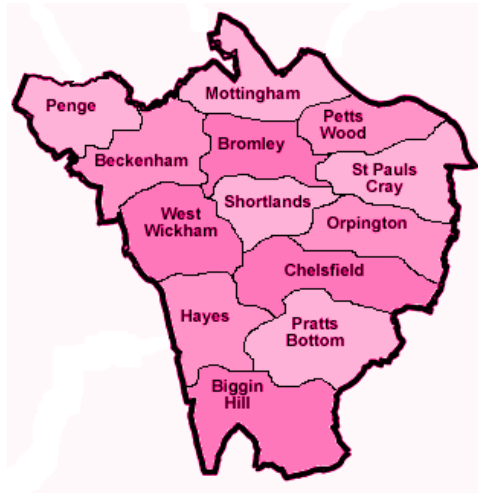
Overall Description of Bromley

The London Borough of Bromley is situated on the borders of South East London and Kent. Geographically it is the largest of the London boroughs with an area of approximately 150 sq. km (58 sq. miles). The borough has a population of approximately 320,000

The borough shares borders with the London Boroughs of Lewisham and Greenwich to the North, Bexley to the North East, Southwark and Lambeth to the North West, as well as Croydon to the West. It also borders the Sevenoaks District of Kent to the East and South, and the Tandridge District of Surrey to the South West.

The central and northern parts of the borough are urban and densely populated with the main residential centres being:

- Penge/Anerley
- Beckenham
- West Wickham
- Bromley
- Chislehurst / Mottingham
- Orpington / Farnborough
- St Mary Cray / St Paul's Cray
- Biggin Hill



There are 22 wards that make up the Borough of Bromley. Most of the population lives in the north and west of the borough. The Southern part of the Borough is predominately rural with Biggin Hill as its main residential and commercial centre.

Westerham Heights, the highest point in London at an altitude of 804 feet (245 m), is located on the southern boundary. About 30% of the land in Bromley is farmland, the highest figure of a London Borough.

There are 77 primary schools, 19 secondary schools, 14 independent schools and 9 special education schools.

The Princess Royal University hospital in Farnborough has A&E services and an Urgent Care Centre. Another Urgent Care Centre is based in Beckenham. There are 45 GP practices, the highest concentration of which are in the north east and west of the borough. Orpington Community Hospital is situated in Orpington. There are two mental health in-patient facilities in the borough, one of which is a secure unit.

There are also a number of 43 residential care homes in the Borough, 26 with nursing provision.

Bromley benefits from a good number of public parks and open spaces as well as sites of natural beauty and nature conservation. It has over 45 conservation areas and a wide range of historic and listed buildings.

Social Factors within Bromley

Although Bromley is a relatively prosperous area, the communities within Bromley differ substantially. The North-East and North-West of the borough contend with similar issues (such as higher levels of deprivation and disease prevalence) to those found in the inner London Boroughs we border (Lambeth, Lewisham, Southwark, Greenwich), while in the South, the borough compares more with rural Kent and its issues.

Bromley also has a far less ethnically diverse population than most other London boroughs, although a distinctive group within the borough is a settled traveller community in St Mary Cray in the east of the borough. With an estimated 2,000 members, this is the largest such community in Britain and one of the largest in Europe.

Transport Infrastructure

Bromley is one of only six London Boroughs not to have at least one London Underground station within its boundaries. It is however well served with train stations having 32 mainline stations 5 of which are Tram link stops. London is only 20 minutes away by mainline train and 35 minutes by road. There are fast and frequent train services to Victoria, Charing Cross, London Bridge and Waterloo, as well as to Ashford, Tunbridge Wells, Maidstone, Canterbury, Dover and Hastings. London's two main airports - Heathrow and Gatwick - are both easily accessible by road.

The A20, A21 arterial roads running through the area provides excellent transport links with Central London as well the main motorway links such as M25, M20, M3 and M2 within easy reach.

London Biggin Hill Airport, within the borough is home to much light and general aviation aircraft for both general and business use. It has around sixty based business jets ranging from small four seat Citations to ultra-long range Gulfstream, Global, and Falcon jets. The airport hosts a number of community events throughout the year, most notably the Festival of Flight (formally the Biggin Hill Air show).

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4. Bromley Borough Risk Matrix

iIMPACT	Catastrophic	5	H4, H44, H9, H16	H41			
	Significant	4		HL12	H22, L21, H45 HL50	H23	
	Moderate	3	HL23, HL25, H7	HL22a, HL28 HL9, H46, H39, HL105, HL42	HL21, H11, H17, H18, H24	HL48, HL4 HL11, H30, H39	
	Minor	2		H14, HL7, H12,HL33, H40	H35 H31 H25 H2	H105, H46, HL22,	
	Limited	1					
			1	2	3	4	5
			Low	Medium-Low	Medium	Medium-High	High
			LIKELIHOOD				
				=	Very High Priority Risk		
				=	High Priority Risk		
				=	Medium Priority Risk		
				=	Low Priority Risk		

Using the Risk Matrix to inform planning

The shading on the risk matrix has been adopted from the UK National Risk Assessment. It provides a prioritisation of risks which could have impacts on the Borough and informs local decisions on preparing for, responding to and recovering from events defined by the Civil Contingencies Act.

The shading represents the risk priority from a local planning perspective and is used as a guide to inform decision making. In general risks assessed as VERY HIGH (red shading) will be considered as priorities and subject to specific local attention and planning. Risks assessed as LOW, MEDIUM and HIGH, subject to unique consequences or local risk appetite, are covered by generic local arrangements.

H=Hazards HL=Local Hazard T=Threats (currently not included)

The Bromley Risk Assessment process has identified 37 risks to the Borough which are most concerning to the Borough are assessed as:

- H41: Technical failure of national electricity network (Black start) resulting in a complete loss of power across the UK lasting up to 5 days.
- H45: Technical failure of the regional electricity network resulting in a complete loss of power across London lasting 24 hours.
- H23: Influenza Type Disease (Pandemic).
- H22: Local / Urban surface water flooding.
- HL21 : Local / Urban fluvial flooding.
- HL50 : Severe drought

5. Understanding the Risk Register

Each risk is assigned a Risk ID which is nationally consistent and relates to a more detailed and protectively marked, Individual Risk Assessment.

H- National Hazards
HL- Local Response/Local Hazards



Describes the Bromley's mitigation measures as well as the National Mitigation measures that are in place



Score based on the Likelihood and Impact



Ref ID	Risk Title and Owner	Outcome Description	Mitigation	Mitigated Scores		Risk Rating
				Likelihood	Impact	

Describes the key consequences of the risk; provides additional detail around local variation from national planning assumptions



Likelihood of the risk occurring in the next 5 years



Impact of the risk consequences



6. The cycle of review and update of The Bromley Risk Register

The Bromley Risk Register is a living document which assesses the risk of hazards occurring within the Borough. It is based upon the London Risk Register, which is in turn based upon the National Risk Register. The Bromley Risk Register identifies an owner for each Risk. These Risk owners, along with other supporting Agencies forming the membership of the Borough Resilience Forum, own this Risk Register.

The Bromley Risk Register is subject to a threefold review process. It is reviewed by the Risk Owners once a year to ensure the risks are still relevant, the outcome descriptions and mitigations are still current and the respective mitigation scores and Risk Rating are correct for risks across the Borough. Any difference to Risk rating, or discounted Risks that are held within the London Risk Register will be documented in the most current version of the Bromley Risk Register.

All the risks recorded on the London Risk Register are subject to regular review, with the London Risk Panel meeting quarterly to review a set number of risks. The outcome of these reviews will be communicated to the Risk owners of The Bromley Risk Register for their information. If a London Risk is altered in outcome description, mitigation, mitigated scores or Risk rating, the Bromley Risk panel will review the rationale for the changes made to the London held Risk and apply those changes locally if relevant. If the changes are not applied locally, the rationale for not doing so will be included within the Risk Title and Owner section of that particular Local Risk within the Register.

As stated earlier, Bromley Risk Register is a living document and as such is reviewed in terms of risk type and relevance following any national or local incidents that impact upon the Risk profile of the Borough. If an identified incident has the potential to affect the Risk profile within the Register, a meeting of Risk owners is called to review the information and its impact upon identified risks. If changes to the Register are required, these will be made and supported by rationale for doing so. Any changes made will be communicated to members of the Borough Resilience Forum.

7. Bromley Risk Register

Ref ID	Risk Title and Owner	Outcome Description	Mitigation	Mitigated Scores		Risk Rating
				Likelihood	Impact	
HL25	<p>Fire and explosion at a flammable gas terminal</p> <p>(London Fire Brigade)</p>	<p>Damage to local properties and infrastructure extending up to 1km around the site resulting from the explosion leading to evacuation of local residents and businesses.</p> <p>Potential for fatalities and casualties on and off site, some of a serious nature including crush / cuts and bruise-type injuries, as well as burns.</p> <p>An event of this type is likely to result in environmental pollution including air quality and land contamination.</p>	<p><u>Bromley</u></p> <p>Generic and Specialist Emergency plans</p> <p>Site Operators on-site contingency plans</p> <p>Emergency Services specialist resources</p> <p>Major Accident Hazard Pipeline (MAHP) Plan</p> <p><u>Legislation</u></p> <p>Health & Safety at Work etc. Act 1974</p> <p>Pipeline Safety Regulations 1996 cover the pipelines feeding the gas holders</p>	Low (1)	Moderate (3)	Medium
HL7	<p>Major industrial fires at various locations within the Borough Company.</p> <p>(London Fire Brigade)</p>	<p>May result in varying degrees of damage to property and infrastructure up to 1km around the site. This will result in the evacuation of local residents and businesses.</p> <p>May result in casualties, some of a serious nature including crush / cuts and bruise-type injuries, as well as burns.</p>	<p><u>Bromley</u></p> <p>Generic and specialist Emergency Plans</p> <p>Building design and fire protection systems to prevent or limit the spread of fire</p> <p>Emergency Services and other responder specialist resources</p>	Medium-Low (2)	Minor (2)	Medium

Ref ID	Risk Title and Owner	Outcome Description	Mitigation	Mitigated Scores		Risk Rating
				Likelihood	Impact	
		<p>Local roads will be closed resulting in transport disruption in the local area surrounding the site.</p> <p>This event is likely to cause localised environmental damage.</p>	<p><u>Legislation</u></p> <p>Health & Safety at Work etc. Act 1974</p> <p>Regulatory Reform (Fire Safety) Order 2005</p>			
HL28	<p>Localised fire or explosion at a fuel distribution site or tank storage of flammable and/or toxic liquids at various locations</p> <p>(London Fire Brigade)</p>	<p>Fire or explosion may result in varying degrees of damage for up to 1km around the site resulting from the blast. This will result in the evacuation of local residents and businesses.</p> <p>Depending on the location and type of chemical(s) stored on site there is a potential for a toxic plume.</p> <p>Potential for fatalities and casualties, some of a serious nature including crush / cuts and bruise-type injuries, as well as burns.</p> <p>Local roads will be closed resulting in transport disruption in the local area surrounding the site.</p> <p>Impact on environment, including widespread impact on air quality to the surrounding area.</p>	<p><u>Bromley</u></p> <p>Generic and specialist Emergency Plans</p> <p>Site Operators on-site contingency plans</p> <p>Emergency Services specialist resources</p> <p><u>Legislation</u></p> <p>Health & Safety at Work etc. Act 1974</p> <p>Control of Major Accident Hazard 1999 (COMAH) Regulations</p> <p>The Dangerous Substances & Explosive Atmosphere Regulations 2002</p> <p>Petroleum Regulations</p> <p>Regulatory Reform (Fire Safety) Order 2005</p>	Medium-Low (2)	Moderate (3)	Medium

Ref ID	Risk Title and Owner	Outcome Description	Mitigation	Mitigated Scores		Risk Rating
				Likelihood	Impact	
H7	Explosion at a high pressure natural gas pipeline or natural gas main, locations of gas pipelines (London Fire Brigade)	Explosion local in a populated area resulting in fatalities and casualties, some of a serious nature including crush / cuts and bruise-type injuries, as well as burns. There would be varying degrees of damage to property and infrastructure around the site. Local roads will be closed resulting in transport disruption in the local area surrounding the site. An event of this type is likely to result in environmental pollution including air quality and land contamination.	<u>Bromley</u> Generic and specialist Emergency Plans Emergency Services and other responder specialist resources <u>Legislation</u> Pipeline Safety Regulations 1996 Regulatory and industry measures including provision of maps for excavation Health & Safety at Work etc. Act 1974	Low (1)	Moderate (3)	Medium
H12	Biological Pathogen Release Risk Owner PHE	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 1500 non hospital cases.	<u>Bromley</u> Generic and Specialist Emergency plans Animal Health Act 1981 Specified Animal Pathogens Order 1998 Health & Safety at Work etc Act 1974 Control of Substances Hazardous to Health Regulations 2000	Medium Low (2)	Minor (2)	Medium

Ref ID	Risk Title and Owner	Outcome Description	Mitigation	Mitigated Scores		Risk Rating
				Likelihood	Impact	
			<p>Management of Health & Safety at Work Regulations 1999</p> <p>Reporting of Injuries Diseases and Dangerous Occurrences Regulations</p> <p>Carriage of Dangerous Goods (Classification, Packaging and Labelling Regulations</p> <p>Genetically Modified Organisms (Contained Use) Regulations 2000</p> <p>Regulation, audit and enforcement of legislation by HSE</p> <p>London Resilience Partnership Plans</p>			
H9	<p>Large toxic chemical release originating from outside the borough most likely from LB Greenwich</p> <p>(London Fire Brigade)</p>	<p>Up to 3km from site of toxic chemical release causing fatalities and large numbers of casualties from a large industrial complex or bulk storage of chemicals near to a populated (i.e. urban) area. There are some sites of this nature within the M25. Depending on the nature and extent of the contamination there could be impacts on air, land water, animal welfare, agriculture and waste management. This might require decontamination. Excessive demands on health care services locally both</p>	<p><u>Bromley</u></p> <p>Generic and specialist Emergency plans</p> <p>Emergency Services and other responder specialist resources</p> <p>London Resilience Partnership Plans</p> <p><u>Legislation</u></p> <p>Health & Safety at Work etc. Act 1974</p> <p>Control of Major Accident Hazards Regulations 2005 (COMAH)</p>	Low (1)	Catastrophic (5)	High

Ref ID	Risk Title and Owner	Outcome Description	Mitigation	Mitigated Scores		Risk Rating
				Likelihood	Impact	
		short and long term. Risk to water supplies and contamination of farm land could lead to avoidance of foodstuffs.	Regulatory Reform (Fire Safety) Order 2005			
H11	Accidental release of radioactive material from incorrectly handled or disposed of sources within the Borough (Environment Agency)	Potential to cause fatalities and many contaminated people requiring medical monitoring. Many worried people may present at hospitals or other health premises. Radiation may be spread over several km but concentrated where the source is opened. Depending on the nature and extent of the contamination there could be impacts on air, land, water, animal welfare, agriculture and waste management. This risk may require decontamination. This risk could result from a number of sources such as hospitals and schools for example. Assume radioactive material is a medical source from radiotherapy machine.	<u>Bromley</u> Generic and specialist Emergency Plans Emergency Services specialist resources London Resilience Group Plans Arrangements for safe handling and disposal of radioactive sources Radiation detectors at high risk sites Environment Agency inspections of all major sources <u>Legislation</u> Radioactive Substances Act 1993 High Activity Sealed Source Regulations 2005	Low (1)	Significant (4)	Medium
H46	Biological substance release during an unrelated work activity/industrial process such as cooling	Resulting in fatalities and serious illness/injuries or off site impacts resulting in high numbers of casualties.	<u>Bromley</u> Generic and Specialist Emergency Plans Emergency Services specialist resources	Medium-High (4)	Minor (2)	Medium

Ref ID	Risk Title and Owner	Outcome Description	Mitigation	Mitigated Scores		Risk Rating
				Likelihood	Impact	
	towers within the Borough (Health)	Specifically related to Legionella disease during an unrelated work activity or industrial process. Local Authority Environmental Health Dept hold the current cooling tower list for the Borough.	HSE and Local Authority inspections of cooling towers London Resilience Partnership Plans <u>Legislation</u> 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 HSE Approved Code of Practice and Guidance 2001			
H14	Major national contamination incident with widespread implications for the food chain (Local Authorities)	There may be direct animal and consumer health effects arising from this incident. Assume a small number of fatalities and casualties, although the public health implications of food incidents vary widely. Additionally, there may be food production / marketing implications, depending on the scale and area affected. Consumer confidence may also be affected leading to lost markets and,	<u>Bromley</u> Generic and specialist Emergency Plans Emergency Services specialist resources Imports monitored Local Authority Environmental Health Sampling	Medium-Low (2)	Minor (2)	Medium

Ref ID	Risk Title and Owner	Outcome Description	Mitigation	Mitigated Scores		Risk Rating
				Likelihood	Impact	
		<p>where staple products (e.g. bread or milk) are affected, potential panic buying.</p> <p>Could arise from:</p> <ol style="list-style-type: none"> 1. Industrial accident (chemical, microbiological, nuclear) affecting food production areas e.g. Chernobyl, Sea Empress oil spill, animal disease. 2. Contamination of animal feed e.g. dioxins, BSE. 3. Incidents arising from production processes, e.g. adulteration of chilli powder with Sudan I dye or melamine contamination of milk. 	<p>Health Protection Agency monitoring and surveillance</p> <p>Food Standards Agency plans</p> <p><u>Legislation</u></p> <p>EC Directives and Regulations:</p> <p>Regulation (EC) 852/2004</p> <p>Regulation (EC) 853/2004</p> <p>Regulation (EC) 854/2004</p> <p>Food Safety Act 1990</p>			
HL4	<p>Major pollution of inland waters including:</p> <ul style="list-style-type: none"> • Cray • Ravensbourne • Kydbrook • Beck • Pool <p>(Environment Agency)</p>	<p>Pollution incident impacting upon inland waters (for example, could be caused by chemical spillage or release of untreated sewage) leading to persistent and/or extensive effect on water quality, major damage to aquatic ecosystems, closure of potable abstraction, major impact on amenity (i.e. tourism) value, serious impact on human health.</p> <p>Major sewage pollution could occur as the result of a failure of electric supply.</p>	<p><u>Bromley</u></p> <p>Generic and specialist Emergency Plans</p> <p>Emergency Services specialist resources</p> <p>Inspections and compliance monitoring undertaken by appropriate regulatory body</p> <p>24 hour incident hotline and response system</p> <p>Pollution control equipment and</p>	Medium-High (4)	Moderate (3)	High

Ref ID	Risk Title and Owner	Outcome Description	Mitigation	Mitigated Scores		Risk Rating
				Likelihood	Impact	
			resources <u>Legislation</u> Environment Act 1995 Water Resources Act 1991 Environmental Protection Act 1990 Pollution Prevention and Control Act 1999 Control of Major Accident Hazards Regulations 1999 The Environmental Permitting Regulations (England and Wales) 2010 Groundwater Regulations 1998 Anti-Pollution Works Regulations 1999			
HL33	Woodland or grassland fire (London Fire Brigade)	Fire across large areas of woodland or grassland in the Borough. Evacuation of residential homes required. Potential for small numbers of fatalities casualties. Local roads will be closed resulting in transport disruption in the local area surrounding the fire.	<u>Bromley</u> Generic and specialist Emergency Plans London Fire Brigade borough specific rural strategies Specialist firefighting equipment and resources	Medium-Low (2)	Minor (2)	Medium

Ref ID	Risk Title and Owner	Outcome Description	Mitigation	Mitigated Scores		Risk Rating
				Likelihood	Impact	
H16	Aviation accident over a semi-urban area within the Borough (London Fire Brigade)	Collision of two commercial airliners - death of all passengers and crew on aircraft (600 fatalities), up to 50 fatalities and 300 casualties on the ground. Significant debris field but no significant damage to key infrastructure but could result in a wide range of secondary impacts such as fires, explosions, building collapses etc. This risk would result in significant transport disruption across the Borough An event of this type is likely to result in environmental pollution including air quality and land contamination.	<u>Bromley</u> Generic and specialist Emergency Plans Emergency Services specialist resources <u>Legislation/Regulations</u> 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 London Resilience Partnership Plans	Low (1)	Significant (4)	Medium
HL9	Aviation accident over a semi urban area from aircraft taking off or landing from Biggin Hill Airport (London Fire Brigade / Biggin Hill Airport Fire Service)	Aviation accident causing up to 50 fatalities and up to 250 casualties – including passengers/crew and on the ground. Accident involving one commercial aircraft, probably on take-off or landing crashing into a populated area within the Borough.	<u>Bromley</u> Generic and specialist Emergency Plans Emergency Services specialist resources On-site and off-site airport response plans	Medium-Low (2)	Moderate (3)	Medium

Ref ID	Risk Title and Owner	Outcome Description	Mitigation	Mitigated Scores		Risk Rating
				Likelihood	Impact	
		<p>There would be significant disruption within the immediate and surrounding area including evacuation of local residents, road closures and environmental pollution.</p> <p>Risk could result in a range of secondary impacts such as fires, explosions, building collapses etc.</p>	<p><u>Legislation/Regulations</u></p> <p>Stringent controls on aircraft entering UK Airspace including the mandatory use of Aircraft Collision Avoidance systems on heavy aircraft</p> <p>UK flight separation rules</p> <p>CAA Maintenance and Flight safety standards</p> <p>Airline maintenance regimes</p> <p>London Resilience Partnership Plans</p>			
HL10	<p>Local accident on motorways and major trunk roads such as A20, A21 or M25</p> <p>(Met Police)</p>	<p>Multiple vehicle incident causing a small number of fatalities casualties during morning or evening rush hour.</p> <p>Closure is likely to last for several days due to damage to the road surface resulting in major disruption and delays across the Borough.</p>	<p><u>Bromley</u></p> <p>Generic and specialist Emergency Plans</p> <p>Emergency Services specialist resources</p> <p>MPS Traffic Management Plans</p> <p>Highways Agency Response Plans</p> <p>Environment Agency specialist support</p> <p><u>Legislation</u></p> <p>Road Traffic Act 1988</p>	Medium-High (4)	Limited (1)	Low

Ref ID	Risk Title and Owner	Outcome Description	Mitigation	Mitigated Scores		Risk Rating
				Likelihood	Impact	
			<p>Road Vehicle (Construction and Use) Regulations 1986</p> <p>Traffic Management Act 2004</p> <p>VOSA patrols to enforce legislation</p>			
HL11	<p>Railway Accident involving a passenger train within the Borough</p> <p>(British Transport Police)</p>	<p>Resulting in up to 30 fatalities and 100 casualties (fractures, internal injuries – burns less likely).</p> <p>Major disruption to rail line including closure of line(s) for significant periods due to damage track and recovery of the wreckage.</p> <p>The location of the accident could also create additional complications for response and recovery for example if a bridge is struck or due to accessibility of the track.</p>	<p><u>Bromley</u></p> <p>Network Rail National Emergency Plan</p> <p>Generic and specialist Emergency Plans</p> <p>Emergency Services specialist resources</p> <p>Improved inspection regimes to detect track defects</p> <p>Train Protection Warning Systems</p> <p>ATOC Guidance and Directives</p> <p><u>Legislation</u></p> <p>Railway and Transport Safety Act 2003</p> <p>Railways (Access and Management) Regulations 2005</p> <p>Railways (Accident Investigation and Reporting) Regulations 2005</p>	Medium (3)	Moderate (3)	High

Ref ID	Risk Title and Owner	Outcome Description	Mitigation	Mitigated Scores		Risk Rating
				Likelihood	Impact	
			Railways (Licensing of Railway Undertakings) Regulations 2005 Railways Act 2005 and 1993 The Railway Safety Levy Regulations 2006 Transport Act 2000 Health and Safety at Work (etc) Act 1974 The Railway (Safety Case) Regulations 2000			
HL12	Local accident involving transport of hazardous materials/dangerous substances and radioactive materials by road or rail near to a populated area of the Borough (London Fire Brigade)	Could result in fatalities and high numbers of casualties – covering those directly affected in the accident and resulting from a release of hazardous chemical or explosion within a 1km radius. There would be significant disruption within the immediate and surrounding area including evacuation of local residents, road closures and environmental pollution.	<u>Bromley</u> Generic and specialist Emergency Plans Emergency Services specialist resources HazMat Response Plans <u>Legislation</u> Carriage of Dangerous Goods by Rail Regulations 1996 Packaging, Labelling and Carriage of Radioactive Material by Rail Regulations	Medium-Low (2)	Significant (4)	High

Ref ID	Risk Title and Owner	Outcome Description	Mitigation	Mitigated Scores		Risk Rating
				Likelihood	Impact	
		<p>The extent of the impact would depend on the substance involved, quantity, nature and location of accident.</p> <p>This risk covers all hazardous / dangerous and radioactive materials and substances transported by road or rail and could include: fuel; explosives; and chlorine for example.</p>	<p>2002</p> <p>Radioactive Material (Road Transport) Regulations 2002</p> <p>Air Navigation (Dangerous Goods) Regulations 1994</p> <p>Merchant Shipping (Dangerous Goods and Marine Pollutants) Regulations 1990</p>			
H17	Severe Storms & Gales. (Local Authorities)	<p>Storm force winds affecting most of the South East England region for at least 6 hours. Most inland, lowland areas experience mean speeds in excess of 55 mph with gusts in excess of 85 mph.</p> <p>Could result in fatalities and casualties with the potential short term disruption (i.e. days not weeks) to infrastructure including power and transport networks (road, rail and air).</p> <p>Buildings and structures could expect to suffer damage due to wind strength and flying debris. Disruption is likely to result in an impact on service deliver for both public and private sector.</p>	<p><u>Bromley</u></p> <p>Generic and specialist Emergency Plans</p> <p>Emergency Services specialist resources</p> <p>Storm Contingency Plan</p> <p>Regular inspections of trees and highways for maintenance.</p> <p>Met Office Hazard Manager service <u>Legislation/Regulation</u></p> <p>None applicable</p>	Medium (3)	Moderate (3)	High

Ref ID	Risk Title and Owner	Outcome Description	Mitigation	Mitigated Scores		Risk Rating
				Likelihood	Impact	
H18	Low temperatures and heavy snow. (Local Authority)	<p>Snow falling and lying over most of the area for at least one week. After an initial fall of snow there is further snow fall on and off for at least 7 days. Most lowland areas experience some falls in excess of 10cm, a depth of snow in excess of 30cm and a period of at least 7 consecutive days with daily mean temperature below -3°C.</p> <p>Bromley would experience an increase in "excess deaths" and injuries such as slips and falls, mainly amongst the elderly and vulnerable populations. There is likely to be some disruption to transport networks, businesses, power supply and water supply, and also school closures. Disruption is likely to result in an impact on service deliver for both public and private sector.</p>	<p><u>Bromley</u></p> <p>Generic and specialist Emergency Plans</p> <p>Emergency Services and Local Authority specialist resources</p> <p>Local Authority Winter Service Plan</p> <p>Specific plans for traffic management</p> <p>Coordination of gritting and salt stocks</p> <p>National Severe Weather Warning Service</p> <p>Responder specialist resources i.e. Snow Friends and Winter Service plan</p> <p><u>Legislation</u></p> <p>Highways Act 1980, Railways and Transport Act 2003</p> <p>Government's 'Snow Code'</p>	Medium (3)	Moderate (3)	High
HL48	Heat Wave. (Health)	Daily maximum temperatures in excess of 32°C and minimum temperatures in excess of 15°C over most of a region for at least 5	<p><u>Bromley</u></p> <p>Generic and specialist Emergency Plans</p>	Medium-High (4)	Moderate (3)	High

Ref ID	Risk Title and Owner	Outcome Description	Mitigation	Mitigated Scores		Risk Rating
				Likelihood	Impact	
		<p>consecutive days. Excess deaths and heat related illnesses would result from this scenario mainly amongst the elderly and vulnerable populations. There could be disruption to power supply and transport infrastructure.</p> <p>The heatwave event definition is based on the pan European heatwave in August 2003 type event, but more severe. There will be subsequent impact on electricity generation and cooling systems. Currently in the London area the summer peak demand is higher than winter due to building air conditioning systems.</p>	<p>Emergency Services, PHE and Local Authority specialist resources</p> <p>Heatwave Plan for England and supporting London Resilience Partnership Plans</p> <p>Climate Change Adaption Strategy for London</p> <p>Heat-Health Watch</p> <p><u>Legislation</u></p> <p>Health & Safety at Work Act 1974</p> <p>Public Health Act</p>			
L21	<p>Local / Urban flooding fluvial , vulnerable areas include:</p> <ul style="list-style-type: none"> • Pickhurst Lane / Station Approach Hayes • Crofton Road / Ormode Ave, Orpington • Westmoreland Rd (low point) • Cockmannings Lane, Orpington 	<p>Localised flash flooding and / or steadily rising river levels across large areas of the Borough. Up to 10,000 properties at risk from fluvial flooding lasting for 2-7 days. Potential for small numbers of fatalities and casualties. Possible requirement for local evacuation, shelter and rescue of vulnerable or at risk populations.</p> <p>Consequences could impact a wide area.</p>	<p><u>Bromley</u></p> <p>Multi Agency Flood Plans</p> <p>Generic and specialist Emergency Plans</p> <p>Emergency Services, EA and Local Authority specialist resources</p> <p>EA and Met Office flood warning services</p> <p>EA inspection of flood defences</p>	Medium (3)	Significant (4)	Very High

Ref ID	Risk Title and Owner	Outcome Description	Mitigation	Mitigated Scores		Risk Rating
				Likelihood	Impact	
	<ul style="list-style-type: none"> Jail Lane, Biggin Hill Pleydell Avenue, Anerley Courtfield Rise West, West Wickham Borkwood Court, Orpington <p>(Environment Agency)</p>	<p>Road and rail links impassable for up to 5 days. Sediment contamination of water supplies. Loss of essential services (gas, electricity & telecoms) to 20,000 homes for up to 14 days. Widespread disruption for 7-14 days. Possible assistance with sheltering for up to 12 months. Sewage treatment works flooded. Small numbers of properties destroyed and many more uninhabitable.</p> <p>Localised severe economic damage with 6 and 18 months recovery before business as usual conditions are restored.</p>	<p>London Resilience Partnership Plans</p> <p><u>Legislation</u></p> <p>Flood and Water Management Act 2010</p> <p>Land Drainage Act 1991</p> <p>Water Resources Act 1991</p>			
H22	<p>Local / Urban flooding surface run-off, vulnerable areas include:</p> <ul style="list-style-type: none"> Pickhurst Lane / Station Approach Hayes Crofton Road / Ormode Ave, Orpington Westmoreland Rd (low point) Cockmannings Lane, Orpington Jail Lane, Biggin Hill 	<p>Localised flash flooding and / or steadily rising river levels across large areas of the Borough. Up to 26,000 properties at risk from surface water flooding for 2-7 days. Potential for small numbers of fatalities and casualties. Possible requirement for local evacuation, shelter and rescue of vulnerable or at risk populations.</p> <p>Consequences could impact a wide area.</p> <p>Road and rail links impassable for up to 5 days. Sediment contamination of water supplies. Loss of essential</p>	<p><u>Bromley</u></p> <p>Multi Agency Flood Plans</p> <p>Generic and specialist Emergency Plans</p> <p>Emergency Services, EA and Local Authority specialist resources</p> <p>EA and Met Office flood warning services</p> <p>EA inspection of flood defences</p> <p>London Resilience Partnership Plans</p>	Medium (3)	Significant (4)	Very High

Ref ID	Risk Title and Owner	Outcome Description	Mitigation	Mitigated Scores		Risk Rating
				Likelihood	Impact	
	<ul style="list-style-type: none"> • Pleydell Avenue, Anerley • Courtfield Rise West, West Wickham • Borkwood Court, Orpington <p>(Environment Agency)</p>	<p>services (gas, electricity & telecoms) to 20,000 homes for up to 14 days. Widespread disruption for 7-14 days.</p> <p>Possible assistance with sheltering for up to 12 months. Sewage treatment works flooded. Small numbers of properties destroyed and many more uninhabitable.</p> <p>Localised severe economic damage with 6 and 18 months recovery before business as usual conditions are restored.</p>	<p><u>Legislation</u></p> <p>Flood and Water Management Act 2010</p> <p>Land Drainage Act 1991</p> <p>Water Resources Act 1991</p>			
HL50	<p>Severe Drought</p> <p>(Environment Agency)</p>	<p>Periodic water supply interruptions affecting 13,500 businesses in Bromley for up to 10 months. Emergency Drought Orders in place authorising rota cuts in supply according to needs of priority users as directed by Secretary of State. The 156,000 households in Bromley would not be subjected to supply interruptions. A drought of this severity is unprecedented and would take at least 3 dry winters to develop.</p>	<p><u>Bromley</u></p> <p>Generic and specialist Emergency Plans</p> <p>Emergency Services, EA, PHE and Local Authority specialist resources</p> <p>London Resilience Partnership Plans</p> <p>Business Continuity Plans</p> <p>Progressive restraints on consumption to preserve supply for critical services</p> <p>Storage reservoirs</p> <p><u>Legislation</u></p>	Medium (3)	Significant (4)	Very High

Ref ID	Risk Title and Owner	Outcome Description	Mitigation	Mitigated Scores		Risk Rating
				Likelihood	Impact	
			Water Resources Act 1991 Floods & Water Management Act 2010			
L 19	Ground water flooding sources (Environment Agency)	A rapid increase in volume of water in a localised area due to either; heavy rainfall, groundwater emergence or a burst water main which overwhelms the local drainage or river system, collects in low lying areas resulting in flooding of property or infrastructure.	<u>Bromley</u> Multi Agency Flood Plans Generic and specialist Emergency Plans Emergency Services, EA and Local Authority specialist resources London Resilience Partnership Plans Environment Agency Flood line and public warnings Met Office, National Severe Weather Warning Service Flood Guidance Statements <u>Legislation</u> Flood and Water Management Act 2010 Land Drainage Act 1991 Water Resources Act 1991	Med/High (4)	Moderate (3)	High

Ref ID	Risk Title and Owner	Outcome Description	Mitigation	Mitigated Scores		Risk Rating
				Likelihood	Impact	
HL21	Land movement or subsidence (London Fire Brigade)	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 including transport disruption. Potential for a number of persons to be trapped or missing either in landslides itself and/or in collapsed structures. Fatalities and / or casualties depending on the size and location of land movement. Such incidents are rare within the UK with some areas being more prone to landslides than others.	<u>Bromley</u> Generic and specialist Emergency Plans Emergency Services specialist resource, i.e. urban search and rescues London Resilience Partnership Plans <u>Legislation/Regulations</u> Land use planning restrictions Building Control regulations enforced by Local Authorities. Construction, renovation, maintenance and demolition standards	Medium (3)	Moderate (3)	High
HL22a	Large Building Collapse – high rise, shopping centre, sport stadia, major retail unit in large industrial site within the Borough, (Local Authorities)	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. Fatalities and casualties possible depending on the size and construction of building, and occupation rates. Could result in fatalities depending on the size and construction of building, and occupation rates, and casualties. Potential for a number of	<u>Bromley</u> Generic and specialist Emergency Plans Emergency Services, including urban search and rescue and other responders specialist resources London Resilience Partnership Plans Business Continuity Plans	High (5)	Minor (2)	Medium

Ref ID	Risk Title and Owner	Outcome Description	Mitigation	Mitigated Scores		Risk Rating
				Likelihood	Impact	
		<p>persons to be trapped or missing.</p> <p>Localised loss of power and other essential services. Local access routes affected due to road closures.</p>	<p><u>Legislation/Regulation</u></p> <p>Building Control regulations enforced by Local Authorities</p> <p>Construction, renovation, maintenance and demolition standards and enforcement</p>			
HL23	<p>Bridge Collapse.</p> <p>(Local Authorities)</p>	<p>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 persons to be trapped or missing.</p> <p>Could impact both road and rail transport infrastructure depending on location.</p>	<p><u>Bromley</u></p> <p>Generic and specialist Emergency Plans</p> <p>Emergency Services and Local Authority specialist resources</p> <p>London Resilience Partnership Plans</p> <p>Business Continuity Plans</p> <p><u>Legislation</u></p> <p>Building Control regulations enforced by Local Authorities</p> <p>Highways Act Regular inspections</p> <p>Height and weight restrictions and signs reduce the likelihood of an incident</p>	Low (1)	Moderate (3)	Medium

Ref ID	Risk Title and Owner	Outcome Description	Mitigation	Mitigated Scores		Risk Rating
				Likelihood	Impact	
HL105	Complex Built Environments (Local Authority)	A consequence of a major incident affecting large buildings / complex built environments. Incidents in these facilities have the potential to trigger a complex chain of events that lead to serious consequences for public	<u>Bromley</u> Generic and specialist Emergency Plans Emergency Services and Local Authority specialist resources Venue contingency plans London Resilience Partnership Plans <u>Legislation/Regulation</u> 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	Medium-Low (2)	Moderate (3)	Medium

Ref ID	Risk Title and Owner	Outcome Description	Mitigation	Mitigated Scores		Risk Rating
				Likelihood	Impact	
H44	<p>Flooding resulting from reservoir dam failure/collapse originating from South Norwood, Croydon</p> <p>(Environment Agency)</p>	<p>Collapse without warning resulting in almost instantaneous flooding. Significant movement of debris and sediment. Complete destruction of some residential and commercial properties and serious damage to others. 2,700 properties could be flooded. Potential for fatalities and casualties, including missing persons and people stranded.</p> <p>Hazardous recovery amongst collapsed infrastructure and debris. Vulnerable people may need temporary accommodation for 2 – 18 months. Potential for significant damage to gas, electricity supplies, telecommunications, road and rail links.</p>	<p><u>Bromley</u></p> <p>Multi Agency Flood Plans</p> <p>Generic and specialist Emergency Plans</p> <p>Emergency Services and Local Authority specialist resources</p> <p>London Resilience Partnership Plans</p> <p>Regular statutory inspections</p> <p>Severe Weather Warning System</p> <p><u>Legislation</u></p> <p>Reservoirs Act, 1975</p> <p>Water Act, 2003</p>	Low (1)	Catastrophic (5)	High
H23	<p>Influenza Type Disease (Pandemic).</p> <p>(Public Health England)</p>	<p>Pandemic is likely to occur in one or more waves, possibly weeks or months apart. Each wave may last between 12-15 weeks. Up to half the population could be affected. All ages may be affected, with some groups at more risk. Clinical attack rate of 25 to 50% spread over one or more waves with case fatality of up to 2.5%. For</p>	<p><u>Bromley</u></p> <p>Pandemic Influenza Plans</p> <p>Generic and specialist Emergency Plans</p> <p>Emergency Services and Local Authority specialist resources</p> <p>London Resilience Partnership Plans</p>	Medium-High (4)	catastrophic (5)	Very High

Ref ID	Risk Title and Owner	Outcome Description	Mitigation	Mitigated Scores		Risk Rating
				Likelihood	Impact	
		Bromley this means, at the upper end of assumptions, some 150,000 cases and up to 3,750 excess deaths across the pandemic. Probable peak in weeks 6 to 8 following first case, with 22% (33,000 cases and 825 deaths) of total cases occurring.	NHS Constitution provides for Vaccination Programmes Capacity planning in NHS trusts. Comprehensive surveillance systems (Public Health England)			
H24	Emerging infectious diseases (Public Health England)	Precise impact will depend upon the effectiveness of antibiotics and antivirals in fighting infection. Based upon the experience of the outbreak of Severe Acute Respiratory Syndrome (SARS) in 2002, the worst case likely impact of such an outbreak originating outside the UK would be cases occurring amongst returning travelers and their families and close contacts, with spread to health care workers within hospital setting. <ul style="list-style-type: none"> • Short term disruption to local hospital intensive care facilities • Possible disruption of several weeks to elective procedures • Public concern about travel, within and beyond the UK and possible international travel restriction advice. 	<u>Bromley</u> Generic and specialist Emergency Plans Emergency Services and Local Authority specialist resources London Resilience Partnership Plans NHS Constitution provides for Vaccination Programmes Capacity planning in NHS trusts. Comprehensive surveillance systems (Public Health England)	Medium (3)	Moderate (3)	High

Ref ID	Risk Title and Owner	Outcome Description	Mitigation	Mitigated Scores		Risk Rating
				Likelihood	Impact	
		Some infections give a longer period in which to put effective control measure in place to prevent spread.				
HL26B	Non-zoonotic Notifiable animal diseases (Local Authorities)	<p>Assessment based on the need to cull and dispose of animals from infected premises across the Borough.</p> <p>For Foot and Mouth Disease large parts of the Borough are likely to be declared a 'controlled area', prohibiting the movement of all susceptible livestock unless licensed. 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.</p> <p>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.</p>	<p><u>Bromley</u></p> <p>Animal Disease Response Plan</p> <p><u>Legislation</u></p> <p>Animal Health Act 1981</p> <p>Animal Health Act 2002</p> <p>Other secondary legislation and EU directives</p> <p>National disease control strategies</p> <p>Local surveillance monitoring and enforcement by animal health inspectors</p>	Medium (3)	Minor (2)	Medium

Ref ID	Risk Title and Owner	Outcome Description	Mitigation	Mitigated Scores		Risk Rating
				Likelihood	Impact	
HL26A	Zoonotic Notifiable animal diseases (Local Authorities)	The most significant disease in this category is Highly Pathogenic Avian Influenza. Potential human health threat. Realistic worst case scenario based on the need to cull and dispose of poultry across the Borough. Loss of disease free status resulting in EU and third country import bans on poultry, captive birds and poultry products. Disruption to communities, local economies, tourism and the environment. Economic impacts for a major outbreak would be significant. The major outbreak scenario is of much greater scale than that experienced in any of the recent outbreaks of avian influenza in the UK, where the disease has been contained and has been limited to one or two infected premises plus associated contact premises.	<u>Bromley</u> Animal Disease Response Plan <u>Legislation</u> Animal Health Act 1981 Animal Health Act 2002 Other secondary legislation and EU directives National disease control strategies Local surveillance monitoring and enforcement by animal health inspectors	Medium (3)	Minor (2)	Medium
HL42	Loss of cover due to industrial action by workers providing a service critical to the preservation of life including emergency services	A series of strikes by fire fighters or other critical service workers (ie ambulance, nurses, doctors) takes place, spread over a period of two months, perhaps lasting up to 48 hours each.	<u>Bromley</u> Generic and specialist Emergency Plans Emergency Services and Local Authority specialist resources	Medium-Low (2)	Moderate (3)	Medium

Ref ID	Risk Title and Owner	Outcome Description	Mitigation	Mitigated Scores		Risk Rating
				Likelihood	Impact	
	(Met Police)	London, and possibly other metropolitan areas, would have only very thin cover. Assumes no military assistance.	<p>London Resilience Partnership Plans</p> <p>Alternative emergency cover protocols for the Fire Brigade</p> <p>Organisational Business Continuity Arrangements</p> <p><u>Legislation/Regulation</u></p> <p>Police Act (1996)</p> <p>RCN Code on Industrial Action</p> <p>Standards of conduct, performance and ethics for nurses and midwives</p>			
H31	<p>Significant or perceived significant constraint on fuel supply at filling stations</p> <p>(Met Police)</p>	<p>Filling stations, depending on their locations, would start to run dry between 24 - 48 hours. Panic buying would exacerbate the situation. Replenishment of sites would take between 3 - 10 days depending on location much would depend on whether drivers from other companies would be prepared to cross picket lines, whether companies judged that they were able to maintain safe operations in the presence of picket lines or protests, and the extent of the</p>	<p><u>Bromley</u></p> <p>Generic and specialist Emergency Plans</p> <p>Emergency Services and other responder specialist resources</p> <p>Bromley Fuel Disruption Plan</p> <p>Business Continuity Plans</p> <p>NEP – F plan</p> <p>London Resilience Fuel Disruption Plan</p>	Medium (3)	Minor (2)	Medium

Ref ID	Risk Title and Owner	Outcome Description	Mitigation	Mitigated Scores		Risk Rating
				Likelihood	Impact	
		supply of fuel from other locations. This risk could result in a significant increase in demand for bus and rail services as alternatives.	<u>Legislation/Regulation</u> Legal requirements re: conduct of industrial disputes. Stocks of contingency fuel to varying degrees			
H35	Industrial action by key rail workers. (British Transport Police)	Strike action resulting in the total shut down of the rail network on a national scale (e.g. action by key rail workers, e.g. infrastructure workers such as signallers) for > 3 days. Greater impact if action occurs in a co-ordinated manner. This risk also includes the Tram service within the Borough. This risk could result in a significant increase in demand for bus travel and those using road as an alternative.	<u>Bromley</u> Generic and specialist Emergency Plans Emergency Services and other responder specialist resources Business Continuity Plans <u>Legislation</u> Health and Safety at Work (etc) 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.	Medium (3)	Minor (2)	Medium

Ref ID	Risk Title and Owner	Outcome Description	Mitigation	Mitigated Scores		Risk Rating
				Likelihood	Impact	
H39	Loss of drinking water supplies due to a major accident affecting infrastructure (Local Authority)	Non-availability of piped water supply to domestic, industrial, commercial and agricultural premises, for a population of up to 350,000 for more than 24 hours and up to 2 weeks. Fire tender cannot be refilled from fire hydrants within the affected area. Severe logistical difficulties in resupply of bottled water/bowsers, even using mutual aid from other water companies. Suspension of hospital and school services. Food industries within the impacted zone may close. Human population given priority over animals and livestock	<u>Bromley</u> Generic and specialist Emergency Plans Emergency Services and other responder specialist resources Business Continuity Plans Water companies mutual aid arrangements in place London Resilience Partnership Plans <u>Legislation</u> Water Industry Act 1991 Security and Emergency Measures Direction 1998	Medium-Low (2)	Moderate (3)	Medium
H40	No notice loss of or significant disruption to telecommunications infrastructure in a localised fire, flood or gas incident (Met Police)	Loss of service to up to 100,000 people for up to 72 hours. Building damage to large urban telecoms facility. Possible impact on emergency services including disruption to proposed Emergency Services Control Centres, due to possible cutting of submarine cables.	<u>Bromley</u> Generic and specialist Emergency Plans Emergency Services and other responder specialist resources Business Continuity Plans Disruption to Telecommunications Plan	Medium-Low (2)	Minor (2)	Medium

Ref ID	Risk Title and Owner	Outcome Description	Mitigation	Mitigated Scores		Risk Rating
				Likelihood	Impact	
			<u>Legislation</u> Civil Contingencies Act 2004 Telephone provider demand and network capacity management strategies National Emergency Alert for Telecoms LR Partnership Plans			
H41	Technical failure of national electricity network – Black Start resulting in a complete loss of power across the entire Borough of Bromley (London Fire Brigade)	Total blackout for up to 14 days due to loss of the National Grid. Possible loss of life support machines, civil unrest, no alarms, street lighting, gas heating, rail transport, water supplies and mobile telecommunications etc. Back-up generators available for a limited time for individual businesses and emergency services in some instances. “Power Islands” created over the first day. Most of the country reconnected within three days, London late on in the process. Peak demand not able to be met after three days.	<u>Bromley</u> Generic and specialist Emergency Plans Emergency Services and other responder specialist resources Utilities Emergency plans Business Continuity Plans Disruption to Telecommunications Plan Testing and maintenance regime National Emergency Plans London Resilience Partnership Plans <u>Legislation</u> Civil Contingencies Act 2004	Medium (3)	Catastrophic (5)	Very High

Ref ID	Risk Title and Owner	Outcome Description	Mitigation	Mitigated Scores		Risk Rating
				Likelihood	Impact	
H45	<p>Technical failure of electricity network due to operational error or bad weather causing damage to the system.</p> <p>(London Fire Brigade)</p>	<p>Total shutdown of the electricity supply in Greater London occurring during working week and lasting for 24hours. Damage to distribution overhead lines meant that many customers remained without a supply for several days before repairs could be completed.</p> <p>An event of this kind occurred in October 1987 when severe storms led to the electricity transmission network in the south east being shut down.</p> <p>Ref to Exercise Hopkinson and London Resilience ANYTOWN project</p>	<p><u>Bromley</u></p> <p>Generic and specialist Emergency Plans</p> <p>Emergency Services and other responder specialist resources</p> <p>Utilities Emergency plans</p> <p>Business Continuity Plans</p> <p>Testing and maintenance regime</p> <p>National Emergency Plans</p> <p>Mutual aid resources available</p> <p>London Resilience Partnership Plans</p> <p><u>Legislation</u></p> <p>Civil Contingencies Act 2004</p>	Medium (3)	Significant (4)	Very High

END

Appendix 1 – Likelihood and Impact Scoring Scales

Impact scoring scale – qualitative measures

Level	Descriptor	Categories of Impact	Description of Impact
1	Limited	Health	<ul style="list-style-type: none"> Limited number of injuries or impact on health.
		Social	<ul style="list-style-type: none"> Limited number of persons displaced and insignificant personal support required. Limited disruption to community services, including transport services and infrastructure.
		Economic	<ul style="list-style-type: none"> Limited impact on local economy.
		Environment	<ul style="list-style-type: none"> Limited impact on environment.
2	Minor	Health	<ul style="list-style-type: none"> Small number of people affected, no fatalities, and a small number of minor injuries with first aid treatment.
		Social	<ul style="list-style-type: none"> Minor damage to properties. Minor displacement of a small number of people for < 24 hours and minor personal support required. Minor localised disruption to community services or infrastructure < 24 hours.
		Economic	<ul style="list-style-type: none"> Negligible impact on local economy and cost easily absorbed.
		Environment	<ul style="list-style-type: none"> Minor impact on environment with no lasting effects.
3	Moderate	Health	<ul style="list-style-type: none"> Sufficient number of fatalities with some casualties requiring hospitalisation and medical treatment and activation of MAJAX, the automated intelligent alert notification system, procedures in one or more hospitals.
		Social	<ul style="list-style-type: none"> Damage that is confined to a specific location, or to a number of locations, but requires additional resources. Localised displacement of > 100 people for 1-3 days.

		Economic	<ul style="list-style-type: none"> Limited impact on local economy with some short-term loss of production, with possible additional clean-up costs.
		Environment	<ul style="list-style-type: none"> Limited impact on environment with short-term or long-term effects.
4	Significant	Health	<ul style="list-style-type: none"> Significant number of people in affected area impacted with multiple fatalities, multiple serious or extensive injuries, significant hospitalisation and activation of MAJAX procedures across a number of hospitals.
		Social	<ul style="list-style-type: none"> Significant damage that requires support for local responders with external resources. 100 to 500 people in danger and displaced for longer than 1 week. Local responders require external resources to deliver personal support. Significant impact on and possible breakdown of some local community services.
		Economic	<ul style="list-style-type: none"> Significant impact on local economy with medium-term loss of production. Significant extra clean-up and recovery costs.
		Environment	<ul style="list-style-type: none"> Significant impact on environment with medium- to long-term effects.
5	Catastrophic	Health	<ul style="list-style-type: none"> Very large numbers of people in affected area(s) impacted with significant numbers of fatalities, large number of people requiring hospitalisation with serious injuries with longer-term effects.
		Social	<ul style="list-style-type: none"> Extensive damage to properties and built environment in affected area requiring major demolition. General and widespread displacement of more than 500 people for prolonged duration and extensive personal support required. Serious damage to infrastructure causing significant disruption to, or loss of, key services for prolonged period. Community unable to function without significant support.
		Economic	<ul style="list-style-type: none"> Serious impact on local and regional economy with some long-term, potentially permanent, loss of production with some structural change. Extensive clean-up and recovery costs.
		Environment	<ul style="list-style-type: none"> Serious long-term impact on environment and/or permanent damage.

Explanation of categories of impact

Category	Explanation
Health	Encompassing direct health impacts (numbers of people affected, fatalities, injuries, human illness or injury, health damage) and indirect health impacts that arise because of strain on the health service.
Social	Encompassing the social consequences of an event, including availability of social welfare provision; disruption of facilities for transport; damage to property; disruption of a supply of money, food, water, energy or fuel; disruption of an electronic or other system of communication; homelessness, evacuation and avoidance behaviour; and public disorder due to anger, fear, and/or lack of trust in the authorities.
Economic	Encompassing the net economic cost, including both direct (<i>eg</i> loss of goods, buildings, infrastructure) and indirect (<i>eg</i> loss of business, increased demand for public services) costs.
Environment	Encompassing 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.

Note: Strictly, levels 1 and 2 of the impact scale are likely to fall below the threshold for an emergency. Consequently, there may be no statutory requirement to plan for events that score 1 or 2 on the impact scale. This scale recognises that, to demonstrate a thorough analysis, Category 1 responders will wish to include in their risk assessment certain risks with impacts at these levels.

Likelihood scoring scale

Level	Descriptor	Likelihood Over 5 Year	Likelihood Over 5 Years
1	Low	> 0.005%	> 1 in 20,000 chance
2	Medium Low	> 0.05%	> 1 in 2,000 chance
3	Medium	> 0.5%	> 1 in 200 chance
4	Medium High	> 5%	> 1 in 20 chance
5	High	> 50%	> 1 in 2 chance

Based on the model likelihood and impact scoring scales published in Annex 4D of “Emergency Preparedness” (HM Government, 2005)

Appendix 2 – Risk Rating Definitions

Definitions of Nationally Approved Risk Ratings	
Very high (VH) risk	These are classed as primary or critical risks requiring immediate attention. They may have a high or low 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) risk	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) risk	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) risk	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.
<i>Based on the model risk rating matrix published in Annex 4F of "Emergency Preparedness" (HM Government, 2005)</i>	