

# Croydon Resilience Forum

PREPARING FOR EMERGENCIES



# CROYDON RESILIENCE FORUM RISK REGISTER

v3.0P January 2022

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Note this copy of the Croydon Resilience Forum Risk Register is classified OFFICIAL.

## Ownership and Version Control

Document Information									
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<b>Title</b>	Croydon Resilience Forum Risk Register								
<b>Description / Purpose</b>	To describe and rate the risks that could impact the populous and/or environment of London Borough of Croydon.								
<b>Author(s)</b>	Abbie Cartmell, Croydon Council								
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<b>Responsible Officer</b>	Kelly Jack, Croydon Council (Chair of CRF)				<b>Contact details</b>	020 8604 7295			
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1.1	New Croydon borough-assessed specific risks added (C1 – C15)					Lauren Ouzman		October 2017	
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1.3	Updates and alignment to London Risk Register v7.0					Lauren Ouzman		October 2018	
2.0	Full review to align with updated London Register v8.3, and review of local risks at CRF			Annual review		Abbie Cartmell		October 2020	
2.1	Pages 9, 10, 11, 12 and 18			Updated London Risk Register		Abbie Cartmell		June 2021	
3.0(P)	Admin update on pages 2, 3, 6, 7, 8, 9, 10, 11, 19, 20. Updated Croydon risks: C4; C8; C9; C13; C18. Removal of C6. Addition security marking.			Annual review (was due Oct 21)		Kelly Jack		January 2022	

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## Acronyms

BRF	Borough Resilience Forum
CRF	Croydon Resilience Forum
LRAG	London Risk Advisory Group
LRF	London Resilience Forum
LRG	London Resilience Group

## Introduction

The Civil Contingencies Act places a duty on all Category 1 responders to carry out risk assessment so that planning is proportionate to risk, facilitating integrated planning and providing a rational basis for prioritisation of resilience activities. The source of assessed risks should include both hazards and threats (non-malicious and malicious events respectively).

Category 1 responders must also cooperate with each other in maintaining a register which is aligned to the annually updated London Risk Register which is available publically on the [London Prepared](#) website, and the interim updates by the London Risk Advisory Group.

Borough Resilience Forums are primarily to facilitate cooperation and information sharing at the operational level between local authorities and the emergency services, and should not duplicate the work of the London Resilience Forum. For this reason, our approach has been to focus greater on the demographics, topography, and infrastructure of the London Borough of Croydon to identify the specific areas of the borough which have the potential to cause harm to the people, environment and security.

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 that we think it will happen nor that the impact would be as serious as the description provided. Each risk is scored for impact and likelihood. Impact is ranked from Limited (1) to Catastrophic (5) and likelihood by how likely a risk is to happen over the next 5 years. These scores are combined to give an overall risk rating.

Please note, discussion at the February 2016 meeting of the London Resilience Forum (on the incidents in Paris and Brussels in November 2015) lead to an agreement to explore the option of a risk register not in the public domain. A number of proposals have been put forward, which may change the way risk is assessed and presented. It is recommended that Croydon Resilience Forum should stay abreast of these changes to inform how risk is assessed and presented locally.

## Review Schedule

This risk register should be reviewed in line with the process in use by the London Risk Advisory Group (LRAG). By maintaining a standing agenda item at the Croydon Resilience Forum meetings every four months, the Category 1, Category 2 and Voluntary Sector members will be more involved in the process and it will take a more prominent role in the Croydon Resilience Forum business.

As Croydon Resilience Forum is taking a more local approach to the risk register, LRAG changes may not directly affect our local register and so more emphasis needs to be placed on information gathering of potential new or developing risks within the borough. These will then be evaluated by the nominated Lead assessor and included as necessary.

## Lead Assessors

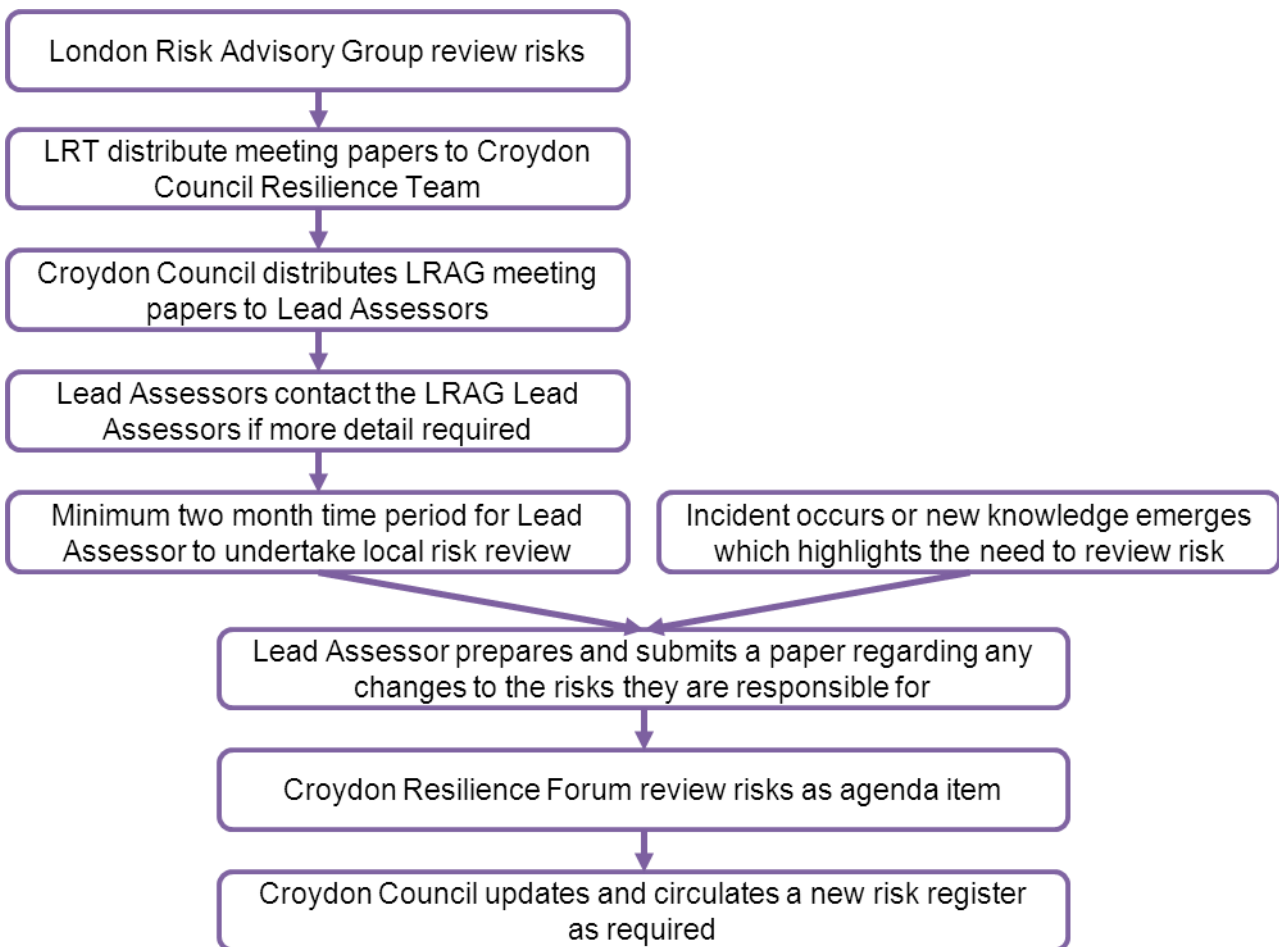
Lead Assessors are representatives of the organisations within the borough (Croydon Metropolitan Police, Croydon Fire, etc.) that have been identified as responsible for the reviewing of locally-identified risks that their organisation is most responsible for. The Lead Assessor will be from the same organisation as that identified in the Lrag ToR (unless not represented at a borough level, whereby the most suitable organisation will undertake the role).

Following Lrag meetings, Croydon Council Resilience Team will circulate the papers to the relevant Lead Assessor/s for review against Croydon's Risk Register. If the Lead Assessor proposes a change to a risk rating within Croydon, they will be asked to submit a short paper to the CRF outlining the change and the reasoning and including any information regarding changes by the Lrag or within the borough.

The above same process should also be used following any incident within, or external to, the borough or new awareness of a potential risk within the borough which highlights a need for a review of an existing risk, or the addition of a new risk to the register.

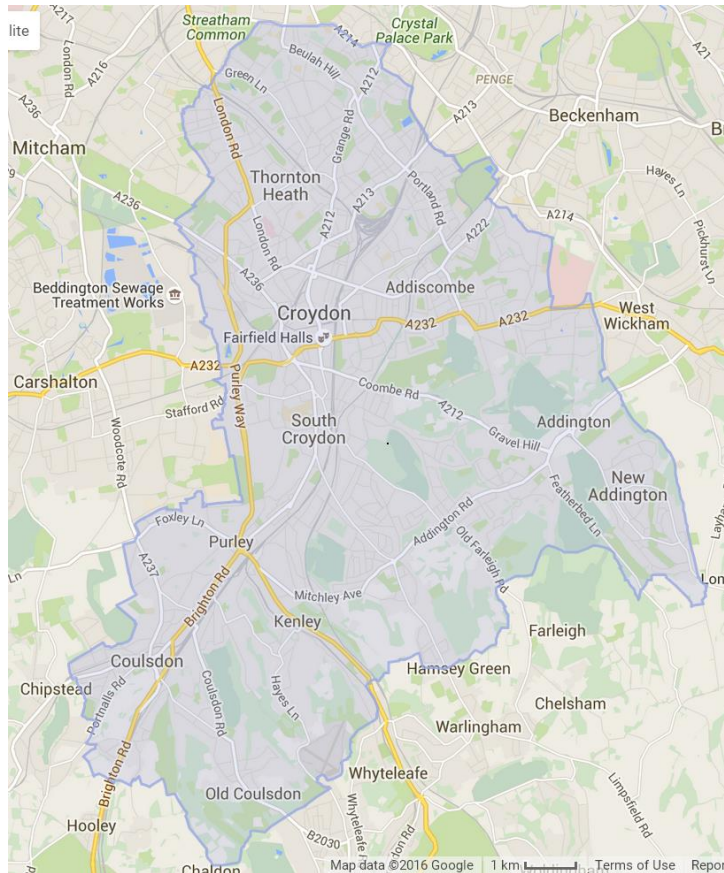
Following any relevant discussions on the subject at the CRF meeting, the risks will be amended as appropriate. Following the meeting, if required, an updated Risk Register will be prepared, with the included amendments and then distributed to all members of the CRF.

## Risk Review Process



## About Croydon

Croydon is an outer London borough bordering Lambeth to the north, Bromley to the east, Surrey to the south, and Sutton and Merton to the West. Croydon is London's southern-most borough and covers an area of 87 square kilometres.



## Borough Profile

As taken from [croydonobservatory.org](http://croydonobservatory.org)

Croydon Council is the second largest of all the London boroughs in terms of population, with approximately 386,700 residents (ONS 2019). Nearly a quarter of this figure (24.5%) is made up of young people aged 17 years or under. Around one in seven (13.8%) of our residents are aged 65 years or over.

Compared to the other London boroughs Croydon has some of the most deprived areas, but also some of the most expensive houses. Population is significantly denser and generally more deprived in wards in the north of the borough, sharing more of the characteristics of inner London boroughs than with southern wards in the borough.

Croydon has one of the largest populations of children and young people in London, with 22% of the population under the age of 16. Conversely, Croydon's over-65 group is the third highest in London at 13% of the population. This extreme creates a populace which could be more vulnerable, and less resilient, to an incident.

Over half of Croydon's population are from Black, Asian and minority ethnic groups; with 30% of Croydon's residents born abroad and 15% whose main language is not English.

## **Environmental Factors**

Croydon is considered one of the greenest boroughs with more than 120 parks and open spaces. The northern wards are heavily urbanised in comparison to the southern wards which feature a landscape dominated by green space.

The River Wandle is a major tributary of the River Thames, from its main source in Waddon. Two seasonal streams, the Coulsdon Bourne and the Caterham Bourne, run in wet winters. Topography in the south of the borough create a basin which increases the tendency for flooding, particularly surface water flooding in the Purley Cross area.

## **Economic Infrastructure**

Croydon is just 10 miles from central London, 15 minutes by train from Victoria or London Bridge, and less than an hour from the South Coast. This makes Croydon an ideal location for those living or working outside of the borough. Many powerful companies based in Europe and worldwide have European or British headquarters in the town making the borough one of London's leading business, financial and cultural centres. The retail centres of Purley Way and Croydon town centre are a major employer of people.

## **Transport Infrastructure**

Croydon the gateway to the South Coast from central London and there are two main interchanges for all public transport modes (national and local rail, tram, and local buses) at West Croydon and East Croydon station. The A23, one of the busiest roads in the borough, and A22 are the major trunk roads both running north-south through Croydon.

The centre of Croydon is very congested, and the urban planning has since become out of date due to the expansion of Croydon's main shopping area and office blocks. Wellesley Road, a dual carriageway that cuts through the centre of the town, makes it hard to interchange between the civic centre's two railway stations. This congestion has led to regeneration works to make the town centre more pedestrian-friendly.

## **Below-Surface Infrastructure**

*The London Borough of Croydon leases tunnel space to National Grid (gas), UK Power Networks (electricity), Thames Water (water) and numerous telecommunications companies.*

## **Hazardous Sites**

There are no upper or lower tier Control of Major Accident Hazards (COMAH) sites located in Croydon. Although not falling in to the category of Hazardous Sites, there are additional sites of interest within Croydon; Centronic is one of the world's leading manufacturers of radiation detectors based in New Addington, and there are a number of waste sites and other locations that hold chemicals and gas cylinders.

## **Surrounding Boroughs**

Croydon is part of the South East Sub Regional Resilience Forum area which also comprises the London Boroughs of Bexley, Bromley, Greenwich, and Lewisham.

It also borders the London boroughs of Sutton and Lambeth as well as the Surrey district of Tandridge.

## Croydon Resilience Forum Risk Register: High-Level Summary

<b>Impact</b>	<b>R64</b> Large toxic chemical release		<b>R76</b> National Electricity Transmission; <b>T7</b> Larger scale CBRN attack	<b>R95</b> Influenza-type pandemic		
	<b>R71</b> Aviation crash; <b>R55</b> Fire or explosion at a fuel distribution site; <b>R74</b> Reservoir/Dam Failure; <b>R66</b> Radiation Release from overseas nuclear accident; <b>C2</b> Fire involving acetylene cylinders	<b>R77</b> Gas Supply Infrastructure; <b>R68</b> Toxic Chemical Release; <b>HL105</b> Complex Built Environments; <b>C5</b> Stadium Incident; <b>C18</b> Concurrent Incidents.	<b>R83</b> Surface Water Flooding; <b>R92</b> Severe Space Weather; <b>L21</b> Fluvial Flooding; <b>R84</b> Severe Drought;			
	<b>HL23</b> Bridge Collapse; <b>HL22</b> Large Building Collapse; <b>R75</b> Water Supply Infrastructure; <b>C4</b> Radiation Incident. <b>C13</b> Loss of Kenley Water Treatment Works (WTWs).	<b>R69</b> Food Supply Contamination; <b>R80</b> Systemic financial crisis; <b>C3</b> Major burst water main; <b>C11</b> Airfield incident; <b>C17</b> Tram Incident.	<b>R91</b> Low temperatures and heavy snow; <b>R54</b> Major Fire; <b>R96</b> The growth and spread of anti-microbial resistance; <b>R97</b> Emerging Infectious Disease; <b>R85</b> Poor Air Quality; <b>L19</b> Groundwater Flooding; leading to a building collapse; <b>C8</b> East Croydon Transport Hub Incident; <b>C9</b> Outdoor events with large crowds.	<b>R90</b> Heatwave; <b>R16</b> Person-borne improvised explosive device; <b>R23</b> Chemical attack – unenclosed urban area; <b>T2</b> Attacks on Infrastructure, <b>T3</b> Attacks on Transport, <b>T6</b> Medium scale CBRN Attacks	<b>R104</b> Public Disorder.	
	<b>R62</b> Accidental release of a biological pathogen; <b>R103</b> Insolvency affecting fuel supply	<b>R78</b> Disruption to or failure of telecommunications systems; <b>HL11</b> Railway Accident; <b>R98</b> Animal disease; <b>R102</b> Industrial action (Fuel supply);	<b>R93</b> Storms and Gales; <b>R101</b> Industrial action (Public transport); <b>HL21</b> Land Movement; <b>HL3</b> Localised industrial accident involving small toxic release;	<b>R105</b> Influx of British Nationals; <b>R63</b> Biological Substance Release; <b>HL10</b> Local Accident on Motorways/ Major Trunk Roads; <b>R72</b> Collapse of major government contractor; <b>R73</b> Major social care provider failure; <b>R79</b> Technology Failure at a retail Bank; <b>R100</b> Industrial action (Prison officers); <b>T5</b> Smaller scale CBRN Attacks.	<b>R99</b> Industrial action (Firefighters); <b>T1</b> Attacks on Publically Accessible Locations	
	<b>R70</b> Radiation exposure from stolen goods; <b>R94</b> Earthquake.		<b>R43</b> Undermining democratic activity.			
<b>Likelihood</b>						



## Borough Risk Register

The following risks have been extracted from the [London Risk Register](#), version 10.0 March 2021. Those that are greyed out are not applicable to Croydon. Each risk is assigned a Risk ID which is nationally consistent and relates to a more detailed and protectively marked, Individual Risk Assessment.

Risk ID	Risk sub-category	Outcome description	Croydon Context / Rationale for Not-Applicable Status
<b>Accidents and System Failures</b>			
H41	Systems Failure	National Electricity Transmission	
HL105	Accident	Complex built environments	There is a large amount of building and regeneration work within Croydon. The environment, particularly in the centre and north of the borough is very built-up and includes a Premier League football stadium with a capacity of 26,000.
R64	HAZMAT	Large toxic chemical release	
R68	HAZMAT	High consequence dangerous goods	
R54	Accident	Major fire	For LFB, anything over six floors is considered high. Exercise <i>Saffron Square</i> (02/04/16) tested arrangements for the highest residential building in Croydon.
R77	Systems Failure	Gas Supply Infrastructure	
R69	HAZMAT	Food Supply Contamination	
R63	HAZMAT	Biological Substance Release	
R55	Accident	Fire or explosion at a fuel distribution site	
R57	Accident	Explosion at a high pressure gas pipeline	Deemed not applicable to Croydon due to no natural gas pipelines
R71	Accident	Aviation crash	
HL3	Accident	Localised industrial accident involving small toxic release	
HL7	Accident	Industrial explosions and major fires	Deemed not applicable to Croydon due to no LPG/LNG storage sites
HL10	Accident	Local accident on motorways and major trunk roads	The A22 & A23 are two key trunk roads through Croydon.
HL11	Accident	Railway Accident	Croydon has two main transport hubs (East Croydon & West Croydon), as well as other stations and modes of transport.
HL22	Accident	Large Building Collapse	There are a number of sites in Croydon which could contribute to this risk, particularly within and around the town centre. A LFB search and rescue team is based at Croydon Fire Station, minimising specialist response time.
HL23	Accident	Bridge Collapse	Croydon has a number of small bridges. The Croydon Flyover is a main trunk road and would sever disruption to the borough if it collapsed.
HL34	Accident	Evacuation of passenger ship	Deemed not applicable to Croydon due to no coasts
R75	Systems Failure	Water Supply Infrastructure	A BRF exercise (11.12.2015) highlighted a number of recommendations to improve the borough's response.
R78	Systems Failure	Disruption to or failure of telecommunications systems	
R79	Systems Failure	Technology Failure at a retail Bank	<i>This is a national risk that Croydon would support the response to.</i>
R74	Systems Failure	Reservoir/Dam Failure	An old reservoir (now preserved as South Norwood Lake) is located at South Norwood Lake and Grounds.
R66	Accident	Radiation Release from overseas nuclear accident	
R62	HAZMAT	Accidental release of a biological pathogen	

Risk ID	Risk sub-category	Outcome description	Croydon Context / Rationale for Not-Applicable Status
R67	HAZMAT	Maritime Pollution	Deemed not applicable to Croydon due to distance from the Thames Estuary
R70	HAZMAT	Radiation exposure from stolen goods	
HL9b	Accident	Small aircraft incident	Deemed not applicable to Croydon due to airports
<b>Human and Animal Diseases</b>			
R95	Disease	Influenza-type pandemic	
R96	Disease	The growth and spread of anti-microbial resistance	This is a national risk that Croydon would support the response to.
R97	Disease	Emerging infectious diseases	
R98	Disease	Outbreak of animal disease	Although there are no known farms in Croydon it has a number of green spaces, and also borders a large county (Surrey) which has a large amount of green space and farmland in close proximity.
<b>Societal</b>			
R104	Humanitarian	Public Disorder	Croydon suffered extensive rioting in August 2011.
R105	Humanitarian	Influx of British Nationals	Lunar House, in central Croydon, is the headquarters of UK Visas and Immigration, and houses the only Asylum Screening Unit in the UK.
R102	Industrial Action	Industrial action (Fuel supply)	
R101	Industrial Action	Industrial action (Public transport)	
R99	Industrial Action	Industrial action (Firefighters)	
R100	Industrial Action	Industrial action (Prison officers)	
R80	Failure of governance	Systemic Financial Crisis	This is a national risk that Croydon would support the response to.
R72	Failure of governance	Collapse of a major government contractor	This is a national risk that Croydon would support the response to.
R73	Failure of governance	Major Social Care Provider Failure	This is a national risk that Croydon would support the response to.
R103	Failure of governance	Insolvency affecting fuel supply	
<b>Natural Hazards</b>			
R83	Natural Hazards	Surface Water Flooding	
L21	Natural Hazards	Fluvial Flooding	
R92	Natural Hazards	Severe Space Weather	
R84	Natural Hazards	Severe Drought	
R87	Natural Hazards	Volcanic Eruption	Deemed not applicable to Croydon due to no airports.
R85	Natural Hazards	Poor Air Quality	
R90	Natural Hazards	Heatwave	
R91	Natural Hazards	Low temperatures and heavy snow	
L19	Natural Hazards	Groundwater Flooding	Croydon has an increased risk of groundwater flooding. Extra control measures include South East Groundwater Report issued by the Environment Agency across the winter/ spring. A separate risk should be considered in the Oct 2022 review.
HL19	Natural Hazards	Coastal / Tidal Flooding	Deemed not applicable to Croydon due to no coasts or neighbouring borough's with coasts

Risk ID	Risk sub-category	Outcome description	Croydon Context / Rationale for Not-Applicable Status
R93	Natural Hazards	Storms and Gales	
HL21	Natural Hazards	Land Movement	
HL33	Natural Hazards	Wildfires	<i>Deemed not applicable to Croydon due to no large forests or moorlands</i>
R94	Natural Hazards	Earthquake	
<b>Hostile State Activity</b>			
R43	Hostile state activity	Undermining democratic activity	<i>This is a national risk that Croydon would support the response to.</i>

<b>Threats</b>		
In this public version of the Risk Register threats and cyber risks are grouped and summarised by target. The full outcome description can be found in the London Risk Register.		
Risk ID	Outcome description	
T1	Attacks on Publically Accessible Locations	<i>These are national risks that Croydon would support the response to.</i>
T2	Attacks on Infrastructure	
T3	Attacks on Transport	
T4	Cyber attacks	
T5	Smaller scale CBRN attacks	
T6	Medium scale CBRN attacks	
T7	Larger scale CBRN attacks	

## Local Borough-Assessed Risk Register

These assessments are not yet currently supported by the London Risk Advisory Group. They are local assessments based on local knowledge, incidents and exercises.

**Ref ID:** C = Croydon Risk. The number assigned to each risk/threat is for reference.

**Rating:** The overall rating based on the likelihood and impact.

**Risk Sub Category:** The group that the risk or threat has been assigned to.

**Outcome Description:** Describes the key consequences or the high level summary of the risk.

**Likelihood Score:** From 1-5, 1 being the lowest likelihood score and 5 being the highest likelihood the risk will occur in the next 5 years.

**Impact Score:** From 1-5, 1 being the lowest impact and 5 being the highest.

**Controls in Place:** Plans and procedures that are in place to mitigate this risk or threat.

**Last Review / Next Review:** When this risk was last reviewed and when it will next be reviewed.

Ref ID RATING	Risk Sub Category (Lead Assessor)	Outcome Description	Likelihood	Impact	Controls in Place	Last Review	Croydon Responders' Commentary
						Next Review	
C2 MED	LFB	<b>Fire involving acetylene cylinders</b>  Fire in industrial/commercial unit, with cylinders involved. Evacuation of 200m perimeter for a period of time. Up to 3 fatalities, 20 casualties.	1	4	<ul style="list-style-type: none"> <li>LFB Standard procedures</li> <li>200m cordon</li> <li>Cylinder Assessment Process now undertaken for Acetylene or unknown cylinders. Normally takes up to 2 hours from commencement of process</li> </ul>	14/12/21	<ul style="list-style-type: none"> <li>This is the risk of a fire involving an acetylene cylinder that either leads to an explosion or affects the business continuity that causes this impact.</li> </ul>
						29/10/22	
C3 MED	Thames Water / SESW	<b>Major burst water main</b>  Burst in trunk main. Flooding to up to 30 properties, and evacuation. Major road closures. Localised loss of water supplies for up to 12 hours.	2	3	<ul style="list-style-type: none"> <li>Operation of network in line with standard procedures aimed at minimising risk of bursts.</li> <li>Incident procedures regularly tested within Water companies, and incorporate response and recovery from burst mains incidents.</li> <li>Regular 'lessons learnt' from mains bursts fed-back into company procedures to constantly improve mitigation and controls.</li> </ul>	29/09/21 (TW) 14/12/21 (SES)	<ul style="list-style-type: none"> <li>Exercise Amanzi (/12/15) tested the multi-agency arrangements for water disruption to 50,000 people.</li> </ul>
						29/10/22	

C4 MED	LFB / Croydon University Hospital	<p><b>Radiation incident</b></p> <p>Accidental release of radioactive materials (medical equipment; Centronic*). Significant news coverage and requirement to coordinate cleaning and public information.</p> <p><i>*Centronic is one of the world's leading manufacturers of radiation detectors based in New Addington.</i></p>	1	3	<ul style="list-style-type: none"> <li>LFB policies and procedures for dealing with incidents involving radiation</li> <li>All personnel carry dosimeters to alert of the presence of radiation</li> <li>Detection, Identification and measuring equipment is available to LFB incident commanders.</li> <li>Centronic is quality approved to ISO 9001 and certified to the most stringent nuclear, military and aerospace standards. Centronic is also approved to ISO14001, and is committed to minimising the environmental impact of our operations and products</li> </ul>	<p>29/09/21 (CUH) 14/12/21 (LFB)</p>	<ul style="list-style-type: none"> <li><i>Non-LFB statement: Centronic is quality approved to ISO 9001 and certified to the most stringent nuclear, military and aerospace standards. Centronic is also approved to ISO14001, and is committed to minimising the environmental impact of our operations and products</i></li> </ul>
		<ul style="list-style-type: none"> <li>Croydon University Hospital has decontamination capabilities should any casualties attend the Emergency Post incident. We would expect that casualties arriving via LAS would already have been decontaminated.</li> <li>CUH have 3 RAMGENEs for radiation detection in the Emergency department and our CBRNe plan contains contact information for radiation advice and staff within the Emergency Department undertake Decontamination training.</li> </ul>			<p>29/10/22</p>	<ul style="list-style-type: none"> <li>Presence of hazard is available to first attending crews through stored risk information.</li> <li>The possibility of an incident effecting the safety of the hazard will be considered as part of the Incident Commander's planning.</li> </ul>	
C5 HIGH	MPS	<p><b>Stadium Incident</b></p> <p>Incident within Selhurst Park Stadium which could encompass over 26,000 people</p>	2	4	<ul style="list-style-type: none"> <li>The stadium has its own Safety Advisory Group (SAG) meets ahead of any contentious match.</li> <li>Meets regularly throughout the year, and an additional SAG for contentious match.</li> <li>Multi-agency medical plan in place signed off by LAS.</li> <li>Match day policing plans (Dependent on who is playing) in the surrounding area.</li> </ul>	<p>11/01/22</p>	<ul style="list-style-type: none"> <li>Regular MPS CT awareness delivered to CPFC via ACT Awareness and Op Trammel.</li> <li>O.R Operational Requirement conducted to review HVM Hostile Vehicle Mitigation which is in progress.</li> <li>Exercise Crystal Palace (Live HVM exercise) took place on 21/03/2018</li> </ul>
					<p>29/10/22</p>		

					<ul style="list-style-type: none"> <li>MPS central football team RAG rate the match risk, which informs the planning.</li> <li>Safety certificate signed off by the Council.</li> <li>The Green Guide.</li> </ul>		
C8 MED	BTP	<b>East Croydon Transport Hub Incident</b>  Incident at East Croydon station (e.g. suspicious device / suicide) that causes shutdown of station (incl. tram stop) and wider transport impacts.	3	3	<ul style="list-style-type: none"> <li>Staff security sweeps</li> <li>Regular police presence/liaison meetings</li> <li>Station evacuation plan</li> <li>Yearly table tops</li> <li>Staff training on suicide prevention.</li> <li>Regular BTP engagement &amp; regular patrols for vulnerable people.</li> </ul>	11/10/21	<ul style="list-style-type: none"> <li>Exercise East Croydon January 2021.</li> <li>Area was evacuated in Feb 2020 due to suspicious vehicle.</li> </ul>
						29/10/22	
C9 HIGH	BTP / MPS	<b>Events with large crowds</b>  Outdoor events which attract large crowds on crowded places (e.g. gang / stabbings, etc)  Outdoor events which span the Borough e.g. Cycle Race. Attracts large crowds and causes pressure on traffic infrastructure	3	3	<ul style="list-style-type: none"> <li>SAG</li> <li>Event organisers event safety plan, requiring consideration to this type of attack incl. Hostile Vehicle Mitigation</li> </ul>	11/10/21 (BTP) 11/01/22 (MPS)	<ul style="list-style-type: none"> <li>BoxPark took part in Multi-Agency table top exercise East Croydon (Jan 2021).</li> <li>MPS CT awareness delivered to BoxPark via ACT Awareness.</li> <li>MPS CT Awareness offered to SAG to offer as open to event companies that host on Croydon borough.</li> </ul>
						29/10/22	
C11 MED	Biggin Hill Airport Fire Service  <i>(Extracted from Bromley Risk Register)</i>	<b>Airfield incident.</b>  E.g. Aviation accident over a semi urban area from a craft taking off or landing from Biggin Hill Airport. Croydon has a close proximity to Biggin Hill Airport despite the airport being located in LB Bromley.	2	3	<u>LB Bromley:</u> <ul style="list-style-type: none"> <li>Generic and specialist Emergency Plans</li> <li>Emergency Services specialist resources</li> <li>On-site and off-site airport response plans</li> </ul> <u>Legislation</u> <ul style="list-style-type: none"> <li>Stringent controls on aircraft entering UK Airspace including the mandatory use of Aircraft Collision Avoidance systems on heavy aircraft</li> <li>UK flight separation rules</li> <li>CAA Maintenance and Flight safety standards</li> </ul>	14/12/21	<ul style="list-style-type: none"> <li>LFB policies and procedures cover a response to an aircraft incident both on and off an airfield. This response is likely to utilise resources from wider than the local Borough. Command of the incident will be at the scene(s) of the incident and normal interoperability considerations.</li> </ul>
						29/10/22	

					<ul style="list-style-type: none"> <li>• Airline maintenance regimes</li> <li>• London Resilience Partnership Plans</li> </ul>		
<b>C13</b> MED	SESW	<b>Loss of Kenley Water Treatment Works (WTWs)</b>	1	3	<ul style="list-style-type: none"> <li>• Detailed risk assessment and mitigation if Caterham Bourne culvert floods.</li> </ul>	14/12/21	<ul style="list-style-type: none"> <li>• As planned SESW have undertaken a significant capital scheme which as</li> </ul>

		<p>Extended loss of Kenley WTWs, which supplies water to 86,000 people.</p>			<ul style="list-style-type: none"> <li>• Kenley site has a flood protection wall, operational buildings have been fitted with flood protection doors, and work has been completed to enhance the drainage culvert on site, improving the ability to drain the site if it does flood.</li> <li>• Back up diesel generators have been commissioned in 2016 and are available to manage a power outage.</li> <li>• Full alternative water contingency plan in place to supply static tanks and bowsers to supply up to 30k customers.</li> </ul>	<p>29/10/22</p>	<p>commissioned in March 2019 forming the latest part of the resilience work at SES Water. The aim of this work is to ultimately ensure that all customers are able to be supplied by two treatment works.</p> <ul style="list-style-type: none"> <li>• Proposals are currently being developed with LB Croydon, TfL and Surrey CC to complete this work in the summer holidays of 2022. A detailed communications plan is being drawn up ahead of additional engagement and consultation with other local key stakeholders early in 2022.</li> </ul>
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C16 TBC	N/A – Taken	Beddington energy recovery facility	TBC	TBC	TBC	TBC TBC	TBC
C17 MED	BTP	<p><b>Tram Incident</b></p> <p>Up to 30 fatalities and up to 100 casualties (fractures, internal injuries – burns less likely). Potential to cause a major disruption to road transport system.</p>	2	3	<ul style="list-style-type: none"> <li>• Railway and Transport Safety Act 2003</li> <li>• Railways (Access and Management) Regulations 2005</li> <li>• Railways (Accident Investigation and Reporting) Regulations 2005</li> <li>• Railways (Licensing of Railway Undertakings) Regulations 2005</li> <li>• Railways Act 2005 and 1993</li> <li>• The Railway Safety Levy Regulations 2006</li> <li>• Transport Act 2000</li> <li>• Health and Safety at Work (etc.) Act 1974</li> <li>• The Railway (Safety Case) Regulations 2000</li> <li>• Inspection regimes to detect track defects</li> <li>• Specialist Emergency Services and other responder resources</li> <li>• Engineering &amp; Maintenance Standards</li> <li>• Light Rail Safety &amp; Standards Board (LRSSB)</li> <li>• Trams Ways (UK Trams) principals &amp; guidance document</li> <li>• London Trams Safety Risk Model</li> </ul>	<p>11/10/21</p> <hr/> <p>29/10/22</p>	<ul style="list-style-type: none"> <li>• To perform exercises to ensure multi-agency awareness and to exercise JESIP principles in conjunction with local boroughs policies and procedures.</li> </ul>
		C18 HIGH			LBC	<p><b>Concurrent incidents</b></p> <p>Two incidents (e.g. COVID-19 and seasonal influenza; severe weather and a major RTC; drought and a heatwave) occurring at the same time, impacting system resilience and the ability of responders to respond to incidents.</p>	2

					<ul style="list-style-type: none"> <li>• Regular inter-service and interagency engagement</li> <li>• Established community partnerships and networks</li> <li>• Internal HR and wellbeing processes to check up on staff and prevent burnout</li> </ul>		COVID-19 (incl. fires and flooding).
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### Local Borough-Assessed Risks No Longer Applicable and Removed

Risk ID	Risk sub-category (Lead Assessor)	Outcome Description	Rationale for Not-Applicable Status
C7	LFB	Factory Lane Gas Holding Station	Updated 05 October 2018 – risk visit by Croydon today indicates site is decommissioned. No further risk.
C10	MPS	Outdoor events spanning the borough	Merged with C9
C12	LAS	Traffic infrastructure congestion	No longer relevant
C1	LFB	Fire in large tower block.	Incorporated into the new London risk “R54 – Major fire”.
C6	LBC	Tuberculosis	No longer uniquely of risk (as opposed to other communicable disease) to Croydon from a public health perspective

## **Appendix A – The 6 Stage Risk Assessment Process**

### **Contextualisation**

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

### **Hazard Identification and allocation for assessment**

London Risk Advisory Group identifies the threats and hazards that, in their view, could give rise to an emergency within London in the next 2 years. Lead risk assessors agreed by the group then undertake to assess the likelihood of each risk occurring, and to make a judgement of how impactful the RWCS of that risk would be. Risks included in the London Risk Register are subject to a scheduled review programme to ensure that each risk is revisited and updated periodically.

### **Risk analysis**

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

### **Risk evaluation**

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

### **Risk treatment**

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

### **Monitoring and Review**

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

## Appendix B - Likelihood and Impact Scoring Scales

### Likelihood Scoring 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%

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

### Categories of Impact

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

Full qualitative measures for each of these impact areas can be found in the Lrag Individual Risk Assessments.

## Appendix C – Risk Rating Definitions

These are the qualitative measures as stated in the London Risk Register.

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